

MILITARY Miniatures

★ ★ ★ ★ ★ IN REVIEW ★ ★ ★ ★ ★

Volume 2, Number 3 • 1995

\$5.25

Nothin' But Attitude

DML's jazzy
new Jagdtiger

DML's Jagdpanther

Italeri's Tiger I

Tamiya's Middy Tiger

The Tank Workshop's
magnificent M26A1
with M15 trailer

Ordinance Model's
Type 94 Tankette

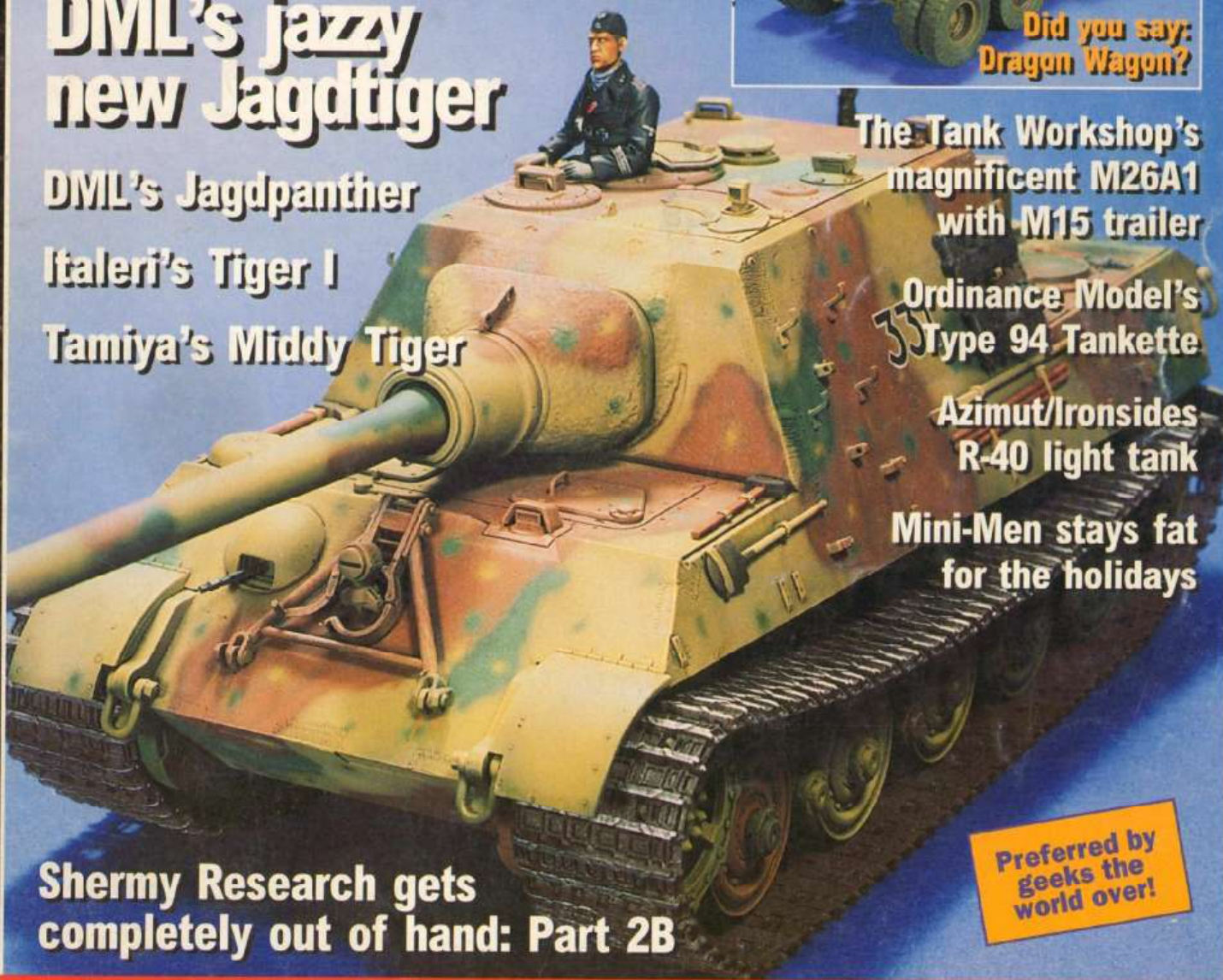
Azimut/Ironsides
R-40 light tank

Mini-Men stays fat
for the holidays

Shermy Research gets
completely out of hand: Part 2B

Preferred by
geeks the
world over!

SPECIAL REPORT: CHICAGO, THE YEAR IN PREVIEW



Good Stuff from JAGUAR!

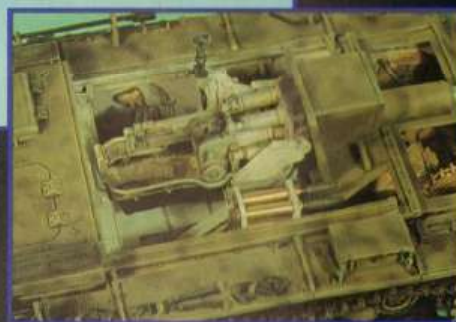


63507 STURMGESCHÜTZ III F INTERIOR DETAIL SET

1/35 Scale



63004 GERMAN OFFICERS 1/35 Scale

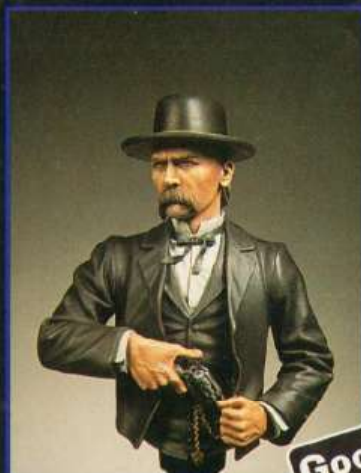


MORE NEW STUFF FROM JAGUAR

- 1/16 SdKfz 222 Armored Car
- 1/16 U. S. Stretcher Bearer, Ardennes
- 1/16 Outhouse
- 1/16 German Party Leader, WWII
- 1/16 German Paratrooper, 1943
- 1/35 MG34 Team on the March
- 1/35 "Halt!" German MP
- 1/35 Jagdtiger Interior Detail Set
- 1/35 Road Sentry with Gate

GOOD STUFF

- 1/48 WWII Italian Pilots
- 1/48 WWI German Pilot & Crewman



12001 WYATT EARP BUST
1/12 Scale

**Good
Stuff!**



63007 SURRENDERING GERMANS 1/35 Scale



63508 STUG III AMMO

1/35 Scale



MARCO POLO
IMPORT

MILITARY™ Miniatures

★ ★ ★ ★ ★ IN REVIEW ★ ★ ★ ★ ★

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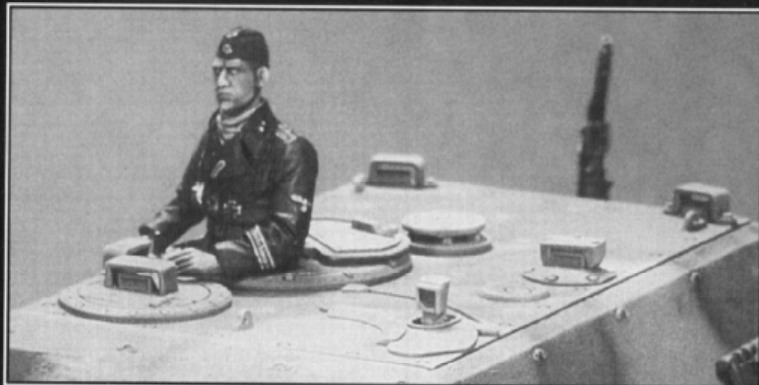
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ON THE COVER:

The awesome looking DML Jagdtiger by Tom Jett. DML has a winner here, the kit includes link-to-link tracks, photo-etched brass and a partial interior. Not bad for forty bucks!

The kit is the Henschel version of number 331, now on display at the U.S. Army Ordnance Museum at Aberdeen, Maryland, USA.

The JT review is on page 36.

The figure is from the Warriors SS tank crew set with a Hornet head and a little nip and tuck here and there.

From Your Editor



Judging.

We've all been there. Sooner or later in your modeling career you're going to submit to the hoary task of being judged by your peers.

Blissful Dream Scenario: You've been squirreled away in your hacienda for months creating your masterpiece. How hard could this be, right? You haven't been around many other modelers, because you're really not a joiner. But you've read all the books and mastered the fine art of tube glue. You're heard of this new thing called "a modeling contest." Just wait until these guys get a load of what you've been doing.

You can hardly wait. Once they set their eyes on your model there will be no argument, no fuss. They'll simply hoist you on their collective shoulders and proclaim you to be the all time best modeler in the world. Church bells will ring, children will laugh and cast flowers. Right? I mean

you just gotta be the guy—how many other people could there be doing this? Two? Three?

Reality Scenario: Although you had high hopes for your 1/76th scale Kettenkrad, it was ever so slightly overshadowed by the 1/16th scale diorama of the Battle of Normandy (all five beaches) sitting next to it. On top of that, you find, much to your dismay, that the Wehrmacht was not quite as fond of that shade of lavender as you had originally thought. You wonder why you ever took up this stupid hobby and you seriously consider taking every bit of modeling paraphernalia you own and chucking it into the nearest public landfill.

The Come-Back Scenario: Armed with every reference book printed since the ice-age you return to your project. Months pass. You study every intimate detail of your project. No one knows more about this vehicle than you. It passes the scrutiny of all your fellow club members (you are now a joiner). The fateful day comes. You await the awarding of "The Trophy." You want that hunk of wood, man. You want it bad. And the winner is... not you. WHAT? How could this be? Images of that landfill begin filling your mind again.



There's Got To Be A Better Way

Such is the competitive scene. Sometimes you win, sometimes you don't. And honestly, judging can be a very tough task. Some clubs have criteria for selecting judges while others do not. I've been "drafted" a number of times for this task and I always tried to do my best. But here's the question: Who judges the Judges? Of the hundreds (or thousands) of clubs, there are probably just as many philosophies regarding the selection of judges. One of my favorites is the "masters" system. A long time ago (in a club far, far away) there was a guy that was so good, every time he competed, he cleaned house—won everything. His fellow club members got together and decided they would bestow upon him the honor of Grand Master (or something like that). This served two purposes. First, it recognized his outstanding efforts and second, it kept him and his models at home. This way others could share in the glory. Now the really good thing about this, is that eventually others will reach the Masters status and also be removed from competing. If you get enough of them, they can compete with each other. They could also form the basis of a qualified judging committee.



Here Come de Judge

This is really the meat of the matter. If someone is going to judge, they should be qualified. What are those qualifications? Well, for starters he should have a few awards under his belt and at least a decade or two of modeling experience (give or take a few years). If you think about it, who knows your model better than you do? Someone with a helluva a lot of knowledge, that's who.

There is a group of dudes here in South Florida who are making a rather bold attempt to structure all this. It's called The Judges Guild and the idea is rather simple. Get all potential judges to fill out a form that outlines all their modeling exploits. This includes past judging experience, modeling preferences, areas of expertise, etc. This data is kept on file and the individual also receives a card that outlines all his recent judging experience. All the data is updated on a yearly basis. The core of the idea is that all this information will eventually form a qualified pool of people to judge any type of contest. Although it's affect is primarily local, it has tremendous regional and even national potential. Judges could be put right on the ground, who know the subjects, who know the models. No more airplane modelers judging Rumanian self propelled guns.

Our hobby is one of the few that I can think of that does not have a unified judging system. Friends of mine are active in a national Orchid society (and you thought we were geeks) and their judges are culled from the membership in a similar fashion. The Westminster Kennel Club, a huge club of dog and cat enthusiasts, also has "professional" judges.

Although MMiR is not affiliated with the Judges Guild, I'm sold on it. I think it's a great idea for unifying this rather prickly area of our hobby. If anyone would like more info, I would be happy to pass it on. Just send it to MMiR, in care of the editor.

And Now For Our Show...

Welcome to Volume 2, Number 3. Our most jam-packed issue yet. We held on to it long enough to include the Chicago feature, so hopefully we actually got a scoop or two! We'll hold here at sixty-four pages, while we scope out some rather interesting improvements for 1996. Don't go away...

—Pat Stansell

Check your labels! Expiring subs contain the magic code: (V4)

CONFUSED? JUST GIVE US A JINGLE OR SEE PAGE 64

MILITARY™ Miniatures

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**Ampersand
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The Mail Sack

Small Unmarked Bills Please...

Just have to say "Thanks" for a great magazine. I just read my very first issue last month (Vol. 2 No. 2) and have got to say: fantastic! Along with a great deal of models and

supplies, my local hobby store carries many publications. However, it was only recently that I spotted MMiR on the rack. My faith is strengthened in my local hobby store who has once again shown the ability to spot a great publication. If I owned MMiR, I would give you all a BIG raise.

In particular, I appreciate MMiR presenting a balanced review of new products, especially 1/35 scale figures. You, more than most, are aware of the number of companies, both large and small, getting into the military model business. For the average modeler to buy the various products out there for the purpose of judging the quality for themselves would undoubtedly cause a budget deficit in the family. Though the credit card companies would be ecstatic!

I have a Xerox box of modeling magazines that were okay for their time, but now only serve as an ottoman in my modeling 'bunker' as their quality doesn't compare to MMiR. Your magazine is what I've been search of for some time, especially since my main interest is with 1/35 scale WWII AFV's and figures.

Bottom line: you give credit where credit is due and you continue to challenge the manufacturers out there to consider expanding their product line.

Have any previous articles appearing in MMiR included a step-by-step plan for applying zimmerit? I've tried several products, tools and techniques, but none appear to work for me, yet. I am well stocked with AFV reference and modeling books, but I'm still in search of the right technique for me. So as my search for a great modeling magazine ended, my search for various techniques for applying zimmerit paste continues.

Thanks for your time, and please keep up the great work!

—Chuck Willis

We're posting your letter right where the boss can see it! Thanks for all that nice praise. We are looking into a series of aftermarket articles for 1996, so keep your trowel at the ready!

✉

Forty-Six Faux Paux

I purchased my first copy of your publication (Vol 2, No 2) last week. I really enjoyed what I read, and hope you'll keep up the quality. However, what made me write was an error in the article about DML's new M46 Patton model.

It was stated that the AV-1790 engine was mounted in the hull sideways and that gave it its name "crossdrive." This is incorrect. First, the AV-1790 (1790 cubic inches of displacement) is too big to mount sideways and it is mounted forth and aft. The CD-850 Cross Drive Transmission gives the drivetrain the "crossdrive" name. When the driver places the transmission in neutral, and turns the T-bar, wobble stick, etc., (depending on which vehicle is involved), the tank will do a "neutral steer," that is, one track will run forward, the

other will run in reverse. The tank can then turn 360 degrees in little over its length. Second, a sideways mounted engine is called a "transverse" mount as in the Soviet T-54/55/625.

As one further note, the AV-1790 (gasoline powered) engine block, and CD-850 crossdrive transmission from the M-46 are the basis for the AVDS-1790 (diesel) engine and CD-850 transmission mounted in the M60A3, only greatly improved. Hey, if it works, don't change it, just make it better!

YOU still have a great magazine, my subscription will follow after the next payday.

—Jeffrey L. Leiby

We're hip baby. You got it. We just applied a little too much transverse logic, that's all.

✉

The Kit Thing

I am writing to you in response to your recent editorial in the latest issue of MMiR, "Let me know your thoughts on the matter." I have to admit you are on target with your assessment of the "new release philosophy" that appears to be at work in the industry. I can remember those glorious days, circa 1973-1980, when Tamiya, Italeri, and ESCI, churned out new kits at the prodigious rate of at least 2-3 kits a month! More importantly, they were exactly as you described in your editorial.

My crude theory runs like this. Tamiya, a business concern, saw an opportunity in the '70s to create, in a standard scale, a modeling niche where none existed before. All that activity was the creation and domination of a whole new subject of modeling (to our great delight). To dominate the market requires a tremendous turnout of the good stuff to get us "hooked" (I work for the Little Tikes toy company so I know the game). Most of the 1980s were pretty dry. Remember how long for we waited for a T-34/85?

In comes DML in 1988/89 with modern Soviet armor and blows everyone away. They follow up with the '39-'45 series and the rest is history. Now we have re-tooled everything! Don't get me wrong, I love the new German "Cats" by Tamiya and all the Panzer IV variants hitting the shelves, but if I see one more Tiger/Panther/Sherman model I'll get some serious indigestion! DML's surprise special kit 6050 (Jagdtiger) is a case in point and I bet Tamiya cranks one out soon.

NOW we bear witness to another 1970's style market battle, but this time Tamiya is trying to avoid losing its preeminence through its technical prowess. Technically, DML's latest stuff is every bit as good as Tamiya and often only 75% of the cost of a new Tamiya kit. More importantly, DML wins hands down in the creativity and innovation side. All this "combat" is great for guys like us!

In addition to the vehicles you mentioned, how about some real artillery production. As relatively "covered" as the American stuff is (Italeri/AFV Club primarily), very little of the other artillery pieces are out there—and affordable. Let's not forget other goodies like an Sdkfz. II 3-ton half-track, a Wespe, a SIG33, Valentine, Cromwell, etc! Let's face it, if Tamiya can sell a \$50 Sturmtyger here (and Europe), then a \$20 Bussing Nag (maybe Italeri's got the guts) will be snapped up off the shelves.

Thanks for letting me pontificate about this. I love your magazine and would gladly pay for more than 4 issues a year. If any of this registers with you or other guys, I'd appreciate hearing about it.

—John Sekas

Thanks for your comments John, anyone else care to elaborate on the subject?

✉

How About... Three Weeks?

I have just completed your V2, 2 issue and you seemed to keep apologizing for a late printing. I cannot speak for everyone, but two weeks between printings (one to read your fine magazine and the other to use the knowledge obtained from be endeavor), would still be too long a time for me. This is the best "mind candy" I have had in a long time.

Don't stop!

—Mark A. Loppicola

✉

Elvis and the Flatdeck Patton

Recently (after a 30+ year absence), I decided to reenter my old childhood hobby of armor modeling. In that break in time, I served as a tank company and armored cavalry troop commander during Vietnam. Prior to that I grew up the son of a tanker, spending many a childhood day riding in M26s, M48s, etc. I must say the positive improvements in the hobby (during my absence) have been almost overwhelming. When I look at the attention to detail in kits like the DML M26, I almost feel I'm holding my childhood in my hands.

I must admit that I cracked up reading in MMiR 2/2, where you equated the M48A1 with being "the Elvis tank." My dad was an M48A1 company commander in the 3rd Armored Division in 1957-58, and it was a daily occurrence to see Elvis the Tanker, being followed by swarms of teeny boppers. In all fairness to the King, my Dad even today swears Elvis was a great tanker and soldier.

I just discovered your magazine, and was totally revolted (hence the check for a \$19.95 subscription). Your irreverence is OUTSTANDING—you would have made excellent cav troopers in the Nam. You guys even talk and think like tankers. Scary - huh? Keep up the good work. As George S. Patton III used to say... "Don't let the bastards wear you down!"

"If you ain't Cav... you ain't SHIT!"

—Hank Johnson

Hey, hey! This is a family magazine, we can't print stuff like that...

High praise indeed sir! And thanks for picking up on our Elvis reference. We're all pining away here for the flatdeck M48. Both DML and Tamiya are within grasp. Tamiya could back-date their M48 and DML is just daring enough to do one from scratch.

Several of our contributors are vets with a wide variety of service backgrounds—including the 1st Cav in Vietnam. We also like to think of ourselves as true armor freaks (read: geeks) and most of us have a taste for anything out of the ordinary, in any era—as long as its got tracks (a big gun helps too). Hence the Elvis tank. Now if someone would just release one—and the King to go with!

✉

Got a problem with any of this?

We'll write to us, already! Send those comments to: Mail Sack, Military Miniatures in Review, 21045 Commercial Trail, Boca Raton, Florida 33486-1006, or discuss complaints, problems, wisecracks, etc. via the Internet. Find us at the handle: MMiR35701@aol.com

Letters are sometimes edited for brevity, grammar, spelling, national security and other stuff.

Encore from USA

1/35 Scale Armor



NEW
wz.34 Polish Armored Car 1930s \$9.95
A9-EC3501

MRC from USA

1/35 Scale Aircraft



Sale



Sale

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A9-MH0104 Sale \$23.99 \$29.95
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A9-MH0107 Sale \$23.99 \$29.95

Zvezda from Russia

1/35 Scale

From Russia



NEW

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A9-ZV3501 \$16.00



German Machine Gun Team WWII
A9-ZV3511 \$6.00

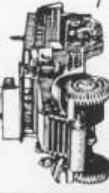


British 6 pdr Anti-Tank Gun
A9-ZV3518 \$9.50

M3 Scout Car
A9-ZV3519 \$20.00

Tamiya from Japan

1/35 Scale



Sale

Sale

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Duckbill track w/2 fgs.
A9-TM35122 Sale \$15.99 \$24.50



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A9-TM35123 Sale \$2.99 \$4.50
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A9-TM35175 Sale \$16.99 \$23.95

Cooperativa from Czech Republic

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Sale

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Mini Art from Hong Kong

1/35 Scale Resin



Sale

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1/35 Scale



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A9-DR6027 Sale \$21.99 \$36.95
M28A1 Perahing WWII/Korean War 90mm Gun
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The Year in Preview



Jaguar's big scale 222



Tamiya's StuG III G early



Custom Dior "Checkpoint Charlie"



The Azimut Opel Blitz Bus



DML's M4A3 Paa-CWS-HS

Jaguar's 1/48 German WWI pilot and crewman



It is that time of year already? Now is the time for all good men to come to... Chicago! Once again, everyone who's anyone (well almost) has gathered in Chicago to show off all their cool wares. Our team of Ampersand geeks (or is it dorks?) fanned out into the thousands of square feet that encompass this show and brought back this whopper of a story.

Note on prices and availability: All the prices and release dates were accurate at press time, but it's inevitable that some of this information will change. Release dates too, are approximations. Sometimes circumstances are beyond the representing company's control. We'll update much of this info in the next issue, but double check with your sources before ordering to avoid frustration.

ADV/Azimut

ADV Azimut is a small but active French company that has a very extensive line of resin and multi-media armor kits. Unfortunately, they don't get a whole heck of a lot of publicity here in North America. Well, we're hoping to have an effect on that, by trying to keep you up-to-date on all their activity throughout the year.

Aside from the "majors" Azimut may have had some of the most exciting armor stuff on display at the show. They will be the first of the world's resin companies to make the jump into injection molded plastic. The

kits are limited run and are created using low temperature molds. This keeps the costs down, but keeps the speed in which they can be released, up.

All of these kits will be in their Ironsides range. The first is the **Omnibus Opel Blitz Kommanderwagen Bus**. This is the common Wehrmacht bus configured as a communications station and as such comes with the various gear unique to this application. A typewriter, Enigma Machine and comm phone all complete the package. This is item number IR20 and the retail is TBA.

IR21 is the **28cm sWurGerät 40 Auf G.W. H35/39**. This was the rocket launcher adaptation of the French H35 used by the Germans. Inside the box is the Heller kit with injection molded rocket launchers, resin accessories and ModelKasten tracks. Stock number IR021, price TBA.

Getting to the exciting stuff, we have IR012, the **Ssyms Heavy Flat Car**. This is the heavy rolling stock that carried the Tiger I, II, Jagdtiger, Elephant and Ferdinand. The kit is almost entirely injection molded in white styrene and it includes railroad tracks and two sets of dry transfer markings. Hubba-hubba. The retail is TBA.

Stay excited for the **Schwerewehrmaschlepper**. Yes indeed, Azimut will begin the entire series of late war German heavy half-tracks with the 3.7cm Flak 43 version. This will be a plastic/resin/metal hybrid and

it carries the stock number IR022.

The **German Light Cart w/ Mortar** is another in a series of "Infanterie Karren" by Ironsides. These are the little trailers used by the Germans and they were either towed behind a Kettenkrad or Kubelwagen, or sometimes even pulled by the soldiers themselves. The current set contains two trailers in plastic with two detailed mortars and ammo boxes in resin. This is number IR019 and the set retails for \$33.98.

Number IR003 will be the **Panzer II D/E**. This is the rare early war version with the torsion bar suspension. Azimut had this out earlier as the Flammpanzer, but has only now announced the gun version. Like the flame-thrower version, this kit features plastic link-to-link tracks and roadwheels by ModelKasten along



The Ironside's SWS Flak 3.7

with a resin hull and white metal parts. Retail TBA.

Azimut is going to run with this plastic hybrid concept. Future releases will include the rest of the SWS series: IR023, SWS armored cab, IR024, SWS cargo

Ironsides Tiger Rail Car



and IR025, Panzerwerfer SWS. Also look for another version of the Opel Bus, the Type 3.6-47. This looks like a VIP version. Another rail car too! IR027 will be the Panther Ssyms flatcar. Still riding those rails, Azimut plans an ALVF 340mm Saint Chamond railroad gun. This was mammoth rail gun used by the French in WWI and WWII. It looks nearly as big as the K-5. It's got some weird looking spoke wheels on it too. Very unique looking.

Also look for IR015, 7.62 Pak (r) Auf Marder II. This was the Russian AT gun mounted on the Panzer II D chassis and a natural follow-up to the D. IR014 will be the 7.5 cm Pak 40 Auf GW H39. This is the Pak 40 mounted on the French H39 chassis. This was almost the exact configuration as the "105 Geschutzwagen" done by Gunze several years ago. The vehicles saw service in Normandy.

Azimut's impressive 1/15th scale FT-17



The real paté on the cracker from Azimut (i.e. we liked it), was the gorgeous 1/15 scale FT-17. The is the famous WWI tank beautifully rendered in resin, white metal and photo-etched brass. It's the MG version and it comes with driver's compartment and other interior bits. The track links are solid white metal and each just snaps together. A really special, special kit. Production will be limited to 500 kits. No word on the cost, but think in the \$350.00 range. Item number 15000.

There are two figures available to go along with the FT-17. One from the 1916-1918 period (a snooty looking guy in a beret) and the other from the 1918-1919 period. The latter sports a helmet and a pistol. The item numbers are 15001 and 15002 respectively. No word on the retail price.

And if all that's not enough, future releases in 35th scale may also include more early war French armor. The enormous Char 2C was mentioned. They may even branch out into 35th scale helicopter kits. There are plans to continue the railroad items too, with a light rail car (for trucks and soft skins), an armored train and perhaps even an engine. Stay tuned, you won't want to miss anything these guys do.

Getting at the line is a bit tricky. It's imported by Marco Polo Imports, but they do no retail sales. Some of the distributors do carry it and one we know of is The Right Stuff in California. Your local hobby shop can contact them directly (Right Stuff also does no retail sales). Squadron Mail Order does a few of the pieces, namely the K-5. Red Lancers also has a good selection.

For up to date new product info you may contact Azimut direct. Their address is: Azimut Productions, 8 rue Baulant, 75012 Paris, France. Phone: 33 (1) 43-07-06-16. Fax: 33 (1) 43-47-11-93. Dial 011 from the states.

AFV Club

It's a beautiful day in the neighborhood. Children, can you say M-18 Tank Destroyer? That is correct ladies and germs, yet another missing link finally bites the dust in plastic. Yippee!

We've been hearing rumors that this kit has been happening from Tamiya, DML and AFV Club. We'd even heard it had been planned, then canceled by AFV Club. Well, it appears to be on again. Box art was on display at the booth of AFV Club's U.S. importer, Marco Polo.

That's the good news. Although the kit has been planned for March of '96, Marco Polo is erring on the side of caution and saying that the kit will pop up in September. That's probably the smart thing to do. We'll keep you up to date as the situation develops. Stock number and retail price is a big TBA.

Also present at Marco Polo in the form of box art and wearing the AFV Club logo was the British Scimitar light tank. Again, we may see the kit as early as January, but MP says March. Stock number and price TBA here too.

We've heard rumors out of Europe that the Scimitar will bear more than a passing resemblance to Revell of Germany's Scorpion release. This has not been confirmed, but it is true that the Scorpion has been delayed in Europe. No word if the Revell kit will be available in Nord America.

Calculated Industries

One of the great things about the Chicago show is that occasionally you discover something entirely new. In that vein we present: Calculated Industries. C.I. makes an entire line of specialized calculators; construction, real estate, electrical—and now a modeling scale. The ModelCalc has a number of specialized features for modelers including proportional scaling, right angle solutions and circular solutions. The ModelCalc



has 22 common modeling scales built right in. You can determine scale sizes or transfer dimensions back and forth. It allows conversions between all the common dimensional formats too: feet-inches; decimal feet, decimal inches; inches-fractions, meters, centimeters and millimeters, including square and cubic formats of each. It features "smart" fractions that enter denominators automatically too—AND it allows for 4 user determined scales. Just how cool is this? Huh? We'll take several please...

Do y'all realize just how great this is? Now you can instantly know whether a model or a set of plans is accurate. Or, you could instantly know a 1:35th scale dimension when confronted with the real thing (don't go to a tank museum without your ModelCalc). We're practically giddy over this thing around here. This will also be an indispensable tool for scratch builders, master pattern makers and nit pickers alike. The ModelCalc has a retail price of \$59.95.

Check your local haunt for this device or to find a haunt that does have it, contact Calculated Industries, Inc., 4840 Hytech Drive, Carson City, NV 89706. Or call toll free at (800) 854-8075.

Cromwell Models

Cromwell is represented in the U.S. by Marco Polo Imports and there were several Cromwell pieces on display at their booth. Much, if not all of it was super new, so we have sketchy details on dates, prices and even stock numbers. Why cover it at all, you ask? Well the lions' share of it is pretty exciting, so we bring it to you in a somewhat "uncooked" form.

There were two new full kits on hand.



The first was the British Achilles Tank Destroyer. This is basically the M10 with a 17 pounder gun. This kit has been out in the UK for



some time. The other full kit on display was the LVT (A)-1. The display model was only partially complete, but it looked pretty tasty. This is the Marine Corp amphibious tank with the M5A1 turret (minus its radio bustle). We can hardly wait for this one.



There were many 1/35th figures on display—dozens in fact. We photographed some of these, but most of the G2 on these is TBA. We'll bring you up-to-date as the info becomes available.

Custom Dioramics

Two new structures were on display at the CD booth in Chi-town. They are: CD-139, Checkpoint Charlie Outpost. This consists of a built-in sand bagged bunker-type position and it is suitable for all types of modern settings, from Korea to Beirut. The kit will include a full set of road signs and a resin roof section for the bunker/check point, while the rest of the model is finely cast in plaster. The bunker includes the surrounding area so it really makes for an "instant diorama." Lots of possibilities here. This item retails for \$16.95.



The second item is CD-140, Monte Cassino Ruins Part 2. This is the companion piece to CD's earlier structure. Get your Fallschirmjägers ready. More good value at \$16.95.

Dragon

Another full year for Dragon. Many new items were on display—many that had already been announced, but it was quite a thrill to see them "in person."

Keeping a promise from last year, DML gives us an all new Sherman Easy-Eight kit. It is configured as flame-thrower, official designation: M4A3 Poa-CWS-HS. This will be a Korean War vehicle with all new hull parts along with that nicely done suspension and tracks from last year's kits. Since it's of Korean War vintage, it carries the stock number 6807. Retail \$32.98. Looks hot. December availability.

The Sturmpanzer IV was on hand. This is the boxy 150 sig 33 on the Panzer III chassis. We're



"Sturminfantrigeschutz"

not sure if this is based on the DML or the Gunze chassis, but either way it will be worthwhile. Looks like it includes a basic interior too. Stock number 6042, retail price TBA. Available in November.

Not on display, but present in the form of box art or descriptions were three more kits. The **JSU-122S** will be number 6047. This is the TD on the JS chassis with the 122 gun rather than the 152. This vehicle used a ball type mount reminiscent of the SU-100. It also sported the JS-II muzzle brake. Some interesting possibilities here regarding that Jaguar JS interior... December release, price TBA.

As we expected, the **Jagdtiger** will make it out as the **Porsche Production type** (a 911 it ain't). This should be out by December and it will include an all new suspension and side skirts (which were absent from the Henschel kit). The price will be \$39.98. Look for stock number 6051.

More versions of the Sturmgeschütze on the way, two within the Imperial Series. The first is the **StuG IV**, based on the Panzer IV chassis. This has been announced for some time, but we were given definite G2 at the show. The kit will be number 6043 and will retail for \$32.98. Available in December. Next is a **III G** model, another improvement on the old Gunze series.



StuG III G

Stock number 9014, \$37.98 retail. This is available now.

Rolling up behind is a new version of the **StuG F/8**. This kit will include a full set of "Ostketten" extended tracks (extended to the outside that is). Outstanding. The model was on display and it was very unusual look-



StuG f/8 with ostketten

ing with all those extensions poking out. Stock number 9013, retail \$37.98. In case you were wondering, this kit had been released in Japan exclusively under the Hasegawa label, but without the Ostketten. Also look for the Ostketten tracks to be available in the Quartermaster Series as number 3817, retail TBA.

Staying with the Panzer III theme, DML had the new N/M on display. This is listed as **Panzer III Ausf M/N SdKfz. 141/2**. The kit will contain a complete set of templates to construct the side skirts. We couldn't tell the exact composition of all the materials in the kit,

but the display model's skirts could be lifted off like the real thing. Spiffy. This is number 9015. Look for November availability and a retail of \$37.98.

We have some release dates on previously announced figure sets. **8th SS Cavalry "Florian Geyer"** is on for December for \$8.98. Two mounted figures. We're looking forward to finally having good Wehrmacht horse furniture available. Giddy Up! Stock number 6046. In a more modern vein, look for **Marine Recon** (from the Vietnam series), 3313 and **U.S. Army Special Forces**, 3024. These both should be in the shops now for \$7.98 retail.

Joining the 1/16 scale roster is a **Red Devil Arnhem 1944**. This is number 1606, \$14.98 retail. Like the previous releases, this has been inspired by earlier 35th scale sets. Is it just us, or would anyone else out there love to see these things released as four figure sets? Thirty-five or forty bucks does not seem outrageous for four big figs. You never know... Look for the Para in November.

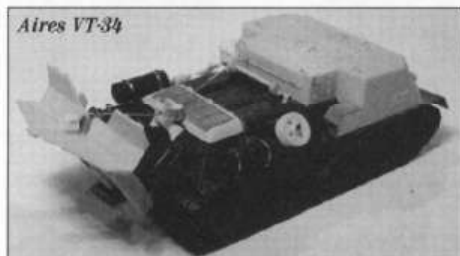
1996 may, perhaps, be a somewhat slower year from Dragon. However, they are saying we can expect at least eight new kits during the course of the year. This would include variants as well as totally new kits. We're psyched.



1/16th Red Devil

Eduard

This Canadian company continues to grow with the addition two more product lines. The first is Aires, a series of conversion kits which are the brainchildren of two former Eduard associates. There are two new items in the line. The first is a **VT-34 Recovery Vehicle** (3001). This the "berge" version of the Soviet T-34 with a central mounted winch and a large rear-mounted spade. All the major parts are cleanly cast in resin and the set includes an extensive set of photo-etched brass. The set includes many parts just to update the basic kit as well as the additional VT-34 parts. Price and availability TBA.



Aires VT-34

The next Aires item is a **Panther Ausf. D** conversion for the Italeri Panther A kit. Again the kit is composed of resin and a big-ass hunk of photo-etched brass. The turret is pre-coated with zimmerit. Like the VT-34 the brass sheet is quite extensive and contains hundred of parts. This is item number 3002.

Eduard is also representing a line of figures called "Tridens." These are a line of injection molded resin figures of varying subjects. By injection molding, we mean that the resin is injected into the molds under pressure thereby eliminating those nasty resin plugs. Just build



Aires Panther D

and paint.

The line currently consists of the following: **TS001, Kreigsmarine Sailor**; **TS002, Australian Infantry, Pacific**; **TS005 Legionnaire (Chad)**; **TS006, Legionnaire (Algeria)** and **TP001, British Para, Belfast**.

The detailing and poses are very impressive and the subjects are not your run of the mill stuff. Look for these items now for a retail of \$34.00 each.

Back to the main business of kickin' photo-etched brass, Eduard has on line: **35-097, PAK 40/L-46 AT Gun**; **35-098, M-88A1**; **35-099, Matilda** and **35-100, M-26 Pershing**. The PAK 40 is due out by year's end. Precise release dates on the balance, and prices on all, are TBA.

For more information on any of these products contact Eduard Model Accessories, 49 Fair Oaks Circle, Nepean, Ontario, Canada K2G 4W3. Telephone: 613-224-9071. Fax: 613-727-5288.

Evergreen

Evergreen is the big maker of all shapes and sizes of plastic stock for scratchbuilding and other uses. What's so exciting about plastic stock? Well, we'll tell you.

These guys introduced a new shape this year which, we think, we be of particular interest to our readers. This is the **half round shape**. Imagine all the different types of stamped and raised detail that could be rendered. Think: fenders.

Five sizes are available: .040", .060", .080", .100 and 1/8" (.125). The stock comes in the standard lengths and each package will retail for \$1.69. Look for this product in Evergreen displays after November.

Evergreen Scale Models, Inc. (206) 823-0458, fax (206) 820-9091.

Giraffe Lighting Systems

Another new name to us, Giraffe makes a complete system of **flexible "gooseneck" style lamps**, simply called "Giraffes." There are a variety of mounting options within this system. Lamps are configured with and without a magnifier (also on a flexible shaft), in pairs and on several different types of bases. Giraffes can be purchased as floor lamps, table lamps or ceiling lamps. And there are optional mounts for benches, work stations, partitions and walls.

The system is based around a standard lamp which has many unique features. The first is its nearly bullet



proof shaft. It's made of a 3/4 inch polyvinyl dual coil steel that won't split or deteriorate over time. The lamp can be rotated 15 revolutions without damaging the internal wiring. The shafts really hold their

shape too. We were twisting the crap of the display model and it stayed put. Impressive.

Perhaps the lamp's most unique feature is that it will remain cool to the touch with up to a 100 watt bulb mounted. This is due to a heat sink/dual shade system that was patented by Giraffe. It even works with those wicked flamin' Halogens. How many times have you reached up and touched a hot lamp? The lamps accept either halogen, full spectrum or regular bulbs.

The lamps themselves are interchangeable within the system. There is a snap lock coupler at the base of each lamp and they can be used on any of the bases offered by Giraffe. The magnifiers are the large rimless type and their shafts are outfitted with the same coupling mechanisms as the lamps.

Power sources include 120V, 240V and as of January 1996, 12V. International plug-ins are available too.

High quality equipment like this is never cheap. A basic set-up is priced from \$135.00 to over \$200.00. Giraffe products come with a five-year warranty against defects and we're guessing that these products will last for years on your bench.

For more information, contact Goodwin

Manufacturing Co., P.O. Box 378, 241 Main Street, Luck, WI 54853. Telephone: (715) 472-2800. Fax: (715) 472-2810. E-mail: gdmf@aol.com

Grandt Line

Not exactly a regular to these pages, Grandt Line has perked up our interest nonetheless. New this fall is a set of **wing nuts**. These are listed as 1:48th scale, but they'll find use with all of us! There are six sprues in a package, with four different sizes on each. One of these sizes looks appropriate for 35th scale (a total of four nuts). The other sizes could still come in handy though. This is item number 162 and is priced under two bucks. Check with the local railroad geek (you'll need the number) at your favorite hobby shop.

Jaguar

Lots of new, new goodies. Jaguar's **222 armored car** was on display and it's a stunner. They had it done-up as a Afrika Korps vehicle and all those large surfaces allow for some very dramatic painting effects. This is product number 61501 and it carries a \$259.98 price tag.

Not neglecting the 35th scale line, they add: 63004, **Marching Germans** (2 figs.); 63005, **Marching MG34 Team** (3 figs.) and 63006, **Surrendering Germans** (2 figs.). The first two sets will make up a setting similar to Tamiya's earlier plastic MG team, but with a bit more detail and panache. 63004 is based on a famous photo from the Ardennes battles. The third set is two guys advancing with their arms raised. The two look really beat-up, with torn clothing and dressed wounds.

63008, a two figure set of **German officers** is also based on a famous piece of cine film from the "Battle of the Bulge."

63004, 63006 and 63008 are \$17.98, while 63005 carries a \$24.98 price tag. All these will be available by

year's end.

The most spectacular items Jaguar had on display were their resin interior sets. Both are brand new. The first is a **complete interior set for the DML StuG III F** (63507). The kit is made up of transmission, radios, gun mount, seats and other details. First rate stuff. It strikes us that it wouldn't be too difficult to adapt the kit to any of the variants now offered. This should be out now for \$45.98.

There's an ammo set to go along with it too. Number 63508 contains **rounds, crates and empties** for \$9.98.

The new **Jagdtiger interior** was debuted at Chicago. It's super nice and it includes tons of details for the interior of the new DML kit. The entire gun and breech assembly is present as are the tranny parts, ammo racks and a new highly detailed replacement roof. Those big back doors on the JT will afford plenty of peeks at all these goodies. Item number 63509, \$45.98 retail. Available now or nearly now.

Although it's not specifically our area, Jaguar had on display some of the nicest **1/48 scale figures**

we've ever laid eyes on. They are 48001, **WWII Italian Pilots** and 48002 **WWI German Pilot & Crewman**. Both sets were a true pleasure to look at. The sculpting, poses and "animation" of the figures really needs to be seen to be believed. The sculptor is Mike Good, and although he's developed quite a rep for the bigger stuff, he may just have found his true medium in this scale. His distinctive style is just what these small figures need to come to life. We hope to see many more. The price is again, TBA.

Jaguar is going to stay busy this year. There are a series of Fallschirmjägers planned. Probably two sets of two figures depicted in relaxed poses complete with equipment. A four man Panzer IV crew is also imminent. They all will be shown sharing a meal. Another upcoming release will be a four figure set of German tank riders for decorating the outside of your favorite Panzer.

Jaguar also plans to flesh out its "Bail Out" theme with both Russian and U.S. sets. If they're similar to the earlier German pieces, they each could run into multiple sets.

A full 35th scale kit is in the works. This will be the Panzer IV B/C. Jaguar plans to depict the B/C that was seen in photos of pre-Normandy garrison troops (you know—the green and sand one). We look forward to this, as the variant is not currently available anywhere.

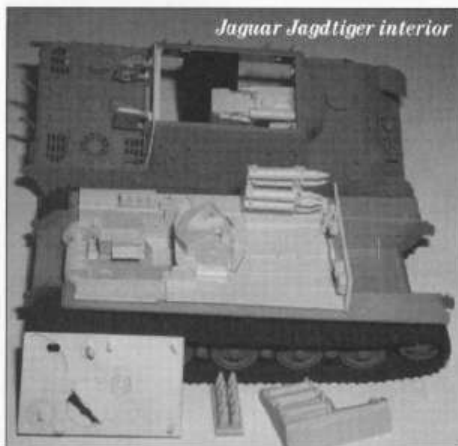
There are no specific release dates on any of these future items, but we'll report them as they roll in.

Kirin

Kirin forges ahead with a platoon of new items. It's all pretty interesting too. In 35th scale there is a charming little vignette called **"Easy Rider."** It depicts a captured German soldier pushing his wounded U.S. Airborne captor in a requisitioned wheelbarrow. Item number 25024.

There's a two figure set: **Royal Marines, Falklands 1982**. Two bad ass Brits prowling the tundra. A nice change of pace. Item number 25052.

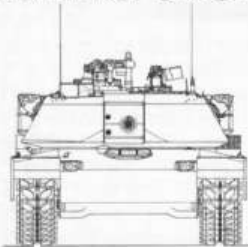
25026 is a real beauty. This is the **Quad gun trailer**. This kit is four big fifty cals mounted on a portable trailer. The kit is stated to be the Vietnam version of the



Jaguar Jagdtiger interior

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NEW RELEASES

- 35013 Berlin Sewer - 3 Man Tank Killer team (Vignette)
- 35018 Partisan (Underground Resistance)
- 35023 U.S.M.C. Tanker - Pacific Theater
- 35045 Waffen SS Grenadier - Overcoat

COMING SOON!

- 35017 German Sturmgeschütz Crew Member
- 35019 U.S. Tanker 42-45 Summer Dress
- 35022 Waffen SS Sniper Team (Pair)
- 35029 Village Brick Wall
- 35032 Panzergrenadier GD Div. (logo figure)
- 35040 Polish Mountain Trooper
- 35042 U.S. Headset #1
- 35043 Afrika Korps Tankers
- 35044 Waffen SS Berlin Street Fighter
- 16014 Waffen SS Tanker with Jack
- 16016 Waffen SS Officer Walking
- 16020 U.S.M.C. BAR Gunner Korea
- 9008 Fallschirmjäger Eastern Front
- 9009 Oberjäger Hermann Göring Division
- 9010 Hans-Ulrich Rudel Bust



35013



35018



35023



35045

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M55 Gun Carriage



M55 mobile gun carriage, but it's not too different from the version used in the Korean war. Lots of possibilities.

New and on

display in big scale were the following 21532, is a very entertaining **Marine D.I. with Recruit**, set in 1969. This is a unfortunate recruit getting an "ass chewing" from a very angry looking Drill Instructor. An amusing (and very familiar to some) subject.

21533, is a **Panzer Grenadier, Germany 1945**. A big tank hunter hunkered down in the rubble with his Panzerfaust.



Kirin 7.5 Light Infantry Gun

More big toys for your 1/16 scale boys. 21535 is a **German 7.5 Light Infantry Gun**. This is the early-war weapon with the spoke wheels and the scalloped gun shield. 25536 is a **German WWII radio set**. Receiver, transmitter and other bits.

Prices and releasedates on all the Kirin items are TBA.

Minicraft

Minicraft answered the big question on the Warrior by showing up with a bright and shiny new test shot. The kit will be a **Warrior Mark V** and it will hit the shelves right around the first of the year. Look for kit number 1365. \$30.00 retail.

Other new items out right now are: 1362, the **M998 cargo carrier** (think: HUMVEE pickup truck), \$21.00 retail; 1360, a **M163A1 Vulcan**, retail \$30.00; 1370, a four figure **German "Tank Hunter" set**, \$6.50 and 1371, a four figure **German Tank Crew set** for \$5.00.

The Show Modelling

This well-known Japanese photo-etch company has released a **Jagdtiger set** for the DML kit. This is number SM083. They have also continued their figure line with SM077, **German Tanker 1943-45** and SM079 **German Panzer Division Officer 1944 D-Day**. Both figures are quite striking and would look great next to your next German armor model.

Squadron Signal

Squadron Signal is fast becoming "the" place for the wacky eastern European stuff (not to mention all that wacky west European stuff). They have literally hundreds of new items from various Russian, Polish, Moldavian and Czech companies. We're just skimming the top here and those wishing a complete list should contact Squadron directly (heck, their catalog and newsletter are practically legendary). Here's the latest "from the mysterious east."

From AER in Moldavia comes a **T-20 Komsomolets artillery tractor**. This the small Soviet tractor from WWII. Number ZV0002, \$13.98. ZV003 is the **ASU-57**. This is the modern (well, post-war anyway) Soviet Airborne tank. \$13.98.

Alan from Russia has a **ZIS-5 truck** listed. This 1/35th scale kit will be number ZV5003 and will retail for \$24.98.

Czech Master (from guess where) has a **35t** listed as a future item. This is the brother to the 38t produced by the Skoda Works and used by the Germans. This has never been done in plastic before and should be a hit.

Watch for item number CZ35006.

Under the heading of "not new, but new to us" was a spiffy little line of 1/87th scale (HO) T-35 and T-28 tanks from a Russian firm called "Premo." In the line are: PZ0001, **T-35/33**; PZ0002, **T-35/35 command version**; PZ0003, **T-35/38**; PZ0004, **T-28/35**; PZ0005, **T-28/35 command version** and PZ0006, **T-28/38**. All retail for \$10.98.

Squadron has been importing the Mini-Art line for a while now and M-A plans some exciting stuff this year. Coming soon or pretty soon are a **Landwasserschlepper**, a weird tracked amphibious vehicle used by the Wehrmacht; a **M274 Mule w/recoilless rifle** and a **Trippel Schwimkraftwagen**. This last piece was the little amphibious car used by the SS.

One item that is available now is a conversion set for the Tamiya 251D. This is the **MG 151/20 Drilling**. It comes with gun mounts and ammo, all in resin. Number MRC3501, \$49.98.

Mini-Art's to-do list is long, so be prepared to be surprised.

SquadSig continues its support of the Scale Model Accessories line and they have listed some new treats for the coming year. SC2108 is a **AEC Matador Armored Car**, price TBA. SC2126 will be a **WASP Mark II Flame-thrower** conversion for the Tamiya Bren carrier. Price \$37.95. SC2127 is a **Pz41 Antitank gun and trailer** for \$63.95. SMA also plans a **Trippel ampib car**. This is item number SC2128 and it will retail for \$58.95. Release dates on all the new products are TBA.

Squadron/Signal Publications has a smattering of armor titles brewing for '96. If you didn't know it, **SS Armor** has been reissued. This was a title from a few years back and if your copy was as raggy as ours, you can now straighten up your bookshelf with a fresh one. Number 6014, \$11.95. Ditto on **T-34 in Action**. This will be re-released in February for \$9.95. This was always one of the better titles in the series. Item number 2020. Going waay back in the memory vault is **Afrika Korps in Action**. This dates back to the late seventies and it contains vintage Volstad artwork. Look for this in June for \$9.95.

A brand new title is **Gun Trucks**. This will be out in May and it will be a study of the heavy escort trucks used on convoy duty in Vietnam. Number 6071, \$11.95.

Many publishers think nothing of charging a hundred bucks for a book these days, so the Squadron/Signal line continues to represent superb value.

For additional information on any book or product contact Squadron/Signal at 1115 Crowley Drive, Carrollton, TX 75011-5010. Telephone: (214) 242-1485. Fax: (214) 242-3775. E-mail: sqsig@squadron.com

Tamiya America

Every year Tamiya brings a little surprise to Chitown and this year was no exception. The big armor headliner was the **Sturmgeschütz III G, early version**. This wasn't the complete surprise of previous shows, as word had trickled out of Japan prior to the Tokyo Hobby Show last month. But we'll take it!

The kit is every bit the model you'd hope for from Tamiya. The level of detail is stunning and includes all the now famous weld bead and cast metal detail. The kit comes with a choice of either the 75mm or 10.5 cm barrels and a full set of Schurzen side skirts. One of our favorite features is the two crew figures. They both are depicted playing with a terrier puppy, while one holds the little poochie in his arms. This could be construed as neat, keen, cool, spiffy and totally marvey. The StuG is item number 35197 and it has a retail of \$46.00. Look for it in early January.

Could this mean a Panzer III series? Tamiya's not saying, but we're keeping our fingers (toes, legs, eyes) crossed.

Most of the new armor releases as of late have been accompanied by some very nice little accessories. For the StuG are 35198, **StuG III 7.5cm/10.5cm projectiles**. In keeping with the optional nature of the kit's gun, you get the two types of ammo here as well.

There are three armor piercing, three HE rounds and three spent cases for the 75. The 10.5 rounds are configured the same way, but since the gun used a two-piece round, all the parts are separate. These are real beauties, all expertly turned out of solid brass. These will be out at the same time as the StuG. \$14.50 retail.

A **StuG III photo-etched sheet** completes the ensemble (très chic). This is item 35199 and it is made up of the two side air vent screens and the large screen beneath the rear overhang. There are also two MG sights and two "fender mesh" pieces. We're still trying to figure out what these are for, but we'll know soon enough!



Tamiya will be releasing another version of its **251 D half-track**. This time it will be the plain old "slash one" troop carrier version. No stukas or fusses this time. You do get four lovely little figures though. A driver (finally!), a commander, a guy going over the side and a dude taking off past the APC. All the mini-meanies are decked out as SS types with camo smocks and helmet covers.

The kit also comes with a 70-piece accessory sprue that contains helmets, tools and other gear. There is also a basket full of ordinance, with an MG42, bazooka (notice we didn't say Raketenpanzerbüchse—who wants to type that?), ammo cases and more. If you don't have one in your garage or carport, this is the time to snag one (or two). The 251/1D is item number 35195 and it should be in the stores now for \$36.00.



German Front-Line Dudes

Item 35196 is sort of tie-in with the 251. This is the **German Front-Line Infantrymen**. It a five figure set similar to the earlier GI set, in that all the figures are in "action-man" type poses. The uniforms and equipment are the same as those in the 251 kit, so there lies the tie-in. They could easily be used running up past the half-track. This set will retail for \$13.00 when it's released in mid December.

Not previously announced, but now available are three embossed paving sheets. These are **Stone Paving A** (66592), **Stone Paving B** (66593) and **Brickwork** (66594). All measure 8 x 11.5 inches and the first two represent different cobblestone patterns; one a "fan" pattern and the other a straight course type. The third sheet is a brick face pattern, probably more suitable for a wall or a building. Each of the sheets is thick embossed paper and they all are pre-colored.

The cobblestone sheets were quite attractive. The idea is to trim them out with a sharp knife and mount them right to a base. Some craft shops sell pre-finished plaques and the sheets would top them off perfectly. Tamiya had bases like this on display and the effect was quite pleasing. Although they are pre-colored, it looked like they would tolerate some weathering if you so desired. Look for these in the shops now for \$7.25 each.

Don't forget—if you have questions about any Tamiya product the answers are just a toll-free call away. Call 1-800-TAMIYA-A between 9 and 6 pm PST.

Testor/Italeri

Another relatively active year for T/I. Here's the list, all 1996 dates.

April: 0304, **Afrika Korps**, figure set for \$6.00; 0354, **Allied Support Troops**, a combination of two older Italeri figure sets for \$9.50; 0403, **Roadsigns** for \$6.00; 0415, **Checkpoint** for \$6.00 and 0291, **M110 A2 (203mm)**, retail \$24.00.

July: 0290, **Panther D (early)**, the long awaited sequel, \$24.00; 0294, **234/1 (2cm KwK) Armored Car**, the Puma with the 2cm turret, \$18.00 and 0295, **T-34/85**, more on the T-34 from Zvesda, \$21.00.

November: 0296, **ISU-152**, another Zvesda deal, \$24.00; 0297, **ZIS-5 Soviet WWII Truck**, possibly Zvesda, \$18.00; 0293, **Tiger I E (late)**, part two of the Tiger story, \$24.00. And the BIG news: 0292, the **M977 Oshkosh Truck**, a.k.a. the **Hemmit**, \$32.00.

Some of these items are long-term developments and the release dates are only preliminary. The Oshkosh, for example, is only in the opening stages of its development. Italeri doesn't seem to be concerned about nailing those release dates. Probably because no one can do it as cheaply. We don't think any of our Asian friends will be offering full kits for under \$25.00 anytime soon. The Oshkosh opens up some very interesting possibilities, like the Patriot system.

If you've been looking for such items as the Bergepanther, Calliope and the SU-100, they should be popping up in the stores over the next couple of months. We'll keep you up to date on any developments as information becomes available.

Testor has been busy with new stuff in its huge line of paints and related gear.

They have overhauled portions of their Model Master paint line with several revised colors in the enamel line. The **Panzer Gray** and **Afrika Mustard** are worth checking out.

New to the accessory line is a **compressor with a water trap and pressure gauge** built right in. This is item number 50203 and will be available by year's end. Price TBA. A new **metal spray booth** is also offered. This is large metal structure about two feet long and about eighteen inches high. The unit comes with a fan installed. This should be available by early 1996. Price also TBA.

A new **spray tip** will be added for the Model Master Airbrush (both types). This will be specially suited for blowing acrylic paint and it will lack the outside lugs seen on other tips. Price and availability TBA.

If you need more information about any Testor product, write them at The Testor Corporation, 620 Buckbee Street, Rockford, IL 61104.

VLS/Verlinden

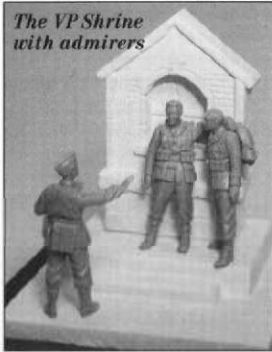
These guys come to Chicago prepared to rumble. Big time goodies in store for you (yeah, you), plus some pretty big news.

The big news is that a portion of the VP production facilities will be moving west, from Belgium to Missouri. What this means to you and me is that the VP boys will now be producing and developing products right here in the good ol' U.S. of A. Given the poor performance of the dollar versus the Belgian franc, this has got to be a good thing. VP will remain in Belgium, but their presence here will continue to grow. Although they are saying nothing definite, we suspect that the value of all their products will gradually creep up as the new facilities come on line. What they are saying is that many new items are in development for the coming year. This includes both hard product and publications. We were given an ever so brief peek at a few of these in Chicago.

New for January in 1:35th scale are: 1090: **German Tankers at Work WWII**. Three dudes workin' away. One yanks on a cable. Perhaps he's pulling on a Tiger track feed cable? 1081: **Koelian Anti-Aircraft Turret**. This is a re-release of the older item, now even more versatile due to the proliferation of Panther kits.

1082 is a **Farmer's Cart (c. 1800)**. An interesting diorama accessory. It says 1800, but hey—a cart's a cart!

The VP Shrine with admirers



case does not necessarily mean huge, this finished kit is about the size of a 35th scale King Tiger.

1085 is a **German MG Gunner, WWII**. He's decked out in winter duds, slinging an MG 42. Great facial expression. He comes with a bunch of extra stuff like ammo cans and a barrel tube.

For February in 1:35th: 1101, **88mm Shells & Cartridges** and 1102 **88mm ammo cases**. Both these items are a totally new product concept called *Super Value*. What you get is a whole lotta cool crap in one box. 1101 will contain 100 pieces, while 1102 will contain 80 pieces. Both sets will last for many kits, or give you the ability to show a realistic re-supply. A truly great idea—and they'll be more in the line throughout the year.

More February figgys: 1098, **German Infantry Eastern Front WWII**. Two cats in snow suits. 1100, **"This Way,"** another two-figure package with a GI rather dramatically giving directions to a tank commander.

1095 is the **M4 Sherman radial engine** to power up that new Tamiya kit. Along the same lines, but different nationality, is the **Hetzer Engine and compartment**. Looks like the whole deal; engine, batteries, fuel cells and radiator. This is stock number 1097.

The **Verlinden Showcase** also makes a reappearance in February after an absence of many years.

February's 1:15th is as follows: 1091, **German Schütze Ardennes - 1944**. Based on the famous photo of the Ardennes Grenadier with the pistol and the pack of Lucky Strikes. 1093, **German WWII 15cm Heavy Gun Fhl8**. A complete kit, this thing is freaking HUGE!

Prices on all the January and February items are TBA.

For the rest of 1996, keep an eye peeled for the following items. These will all pop up at various times. All prices and stock numbers are TBA—you'll just have to dream for now.

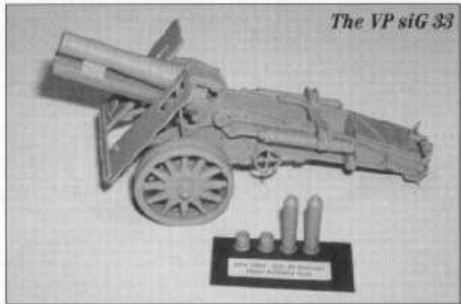
1:35th scale figures: **U.S. Tankers Warming Up; U.S. MP & Tanker WWII** and **German Tankers with Jerry cans**.

More on the big scale front: 1:15th scale **German**

1089, is a **Country-side Shrine**, typical of the type seen in southeastern Europe in the thirties and forties. New to the 1:15th line in January is 1084, **SiG 33 German 15cm gun**. A cool little kit all in resin of the German infantry support gun. Big in this



VP German Schütze



The VP siG 33

Oberst Panzerabteilung WWII and **Wehrmacht Officer WWII**.

And more of that Super Value stuff is on the way. All in 1:35th scale: **Oil & Fuel Barrels** (24 pieces) and **Sherman Ammo & Crates** (140 pieces). We hope this is a trend!

VP loves to interior decorate. Witness the **Panzer III Engine and Transmission** and the **M4 Sherman Radial Engine and Compartment**.

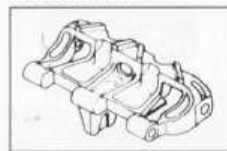
We'll bring you more scoop as it becomes available.

Here's a new one: Videos! Look for Videos of **Mastercon IV** (RT 1002) and **Miniature World** (RT 1003). Informative full color videos in VHS format. \$29.95 each. These were both playing at the show and were quite captivating.

Speaking of Miniature World... One final note on the changing VP facilities in Missouri: Miniature World as now permanently closed at the O'Fallon location to make way for the expansion. It will reopen in February at a new historical location in nearby St. Charles, MO—and it will nearly triple in size. Check with "The VLS Corp" (as it will now be known) after the first of the year for specific reopening details.

Find these ultimate modeling mavens at: The VLS Corp, Lone Star Industrial Park, 811 Lone Star Drive, O'Fallon, MO 63366. Telephone: 314-281-5700. Fax: 314-281-5750.

—Additional reporting by Kip Rudge and Nick Vanston

Other New Stuff**Modelkasten**

MK has announced two new items to its ever growing line of specialized kits and accessories. In the workable line of track sets is the **Panzer III/IV Type B track**.

This is the type with the angled cleats on the track face. It also has a solid guide tooth with a small divot. This is item number SK-22 and the retail is TBA.



They have also announced a complete white metal kit of the **Pak 41**. Stock number and price are TBA.

MK products are widely available now, so check with your favorite hobby shop or mail order outlet.

R&J Enterprises

R&J is offering the following new items in its in-house line of resin yummys: RJ35200, **Super detailed early Tiger I early breech & gun assembly** (\$10.00); RJ35201, **Super detailed late Tiger I late breech & gun assembly** (\$10.00); RJ35210, **Panzer IV Drive & Radio Op. compartment** (\$15.00); RJ35220, **Panzer III/StuG III Brake Drums & Drive Linkages** (\$3.50); RJ35221, **Panzer III/StuG III Transmission, Brake & Linkages** (\$10.00) and RJ35222, **StuG III E/F/G Inspection Hatches & Latches** (\$6.00). The Tiger breeches may each be purchased with a Rubio turned barrel and muzzle brake for \$15.00.

R&J is now the exclusive distributor of the **Cri-el Models** line of resin products from Italy. The line consists of many unique and unusual WWII German and Italian figures, vehicles and artillery pieces.

For more information on R&J and their extensive line of products see their advertisement on page 11.

SCAHMS

The **Southern California Area Historical Miniatures Society (SCAHMS)** has announced the time and location for its 1996 "California Show." The exhibition will take place on March 24th at the Hyatt Regency Alicante in Anaheim near Disneyland (nice digs!).

This event has become one of the most significant shows for miniature figures in all of North America. The armor turnout ain't shabby either.

For more information about attending contact Ben Harper at; SCAHMS, 13400 Victory Blvd. #23, Van Nuys, CA 91401. Telephone: (818) 988-4886, evenings, (818) 887-0550 daytime.

Vac-u-Cast

Vac-u-cast offers an extensive range of 1/76th scale armor accessories and conversion kits. The line is currently composed of over seventy items.

The newest additions to the line are VS-101, **MP Armored Jeep w/30 cal.** and VS-104, **GAZ 67B Russian Field Car** (pictured). Both are priced at \$3.95.

We have received both these kits at our offices and they are beautifully cast in green/gray resin. The MP Jeep is molded on a "wafer" sheet that contains all the parts, including the shields. A very petite white metal MG tops off this little gem.

The GAZ kit is molded in several pieces; body, chassis, wheels and two wafer sheets containing the dash board and steering wheel. The GAZ rather uniquely has styrene axles molded right into the chassis casting. The steering column is also rendered this way on both the Jeep and the GAZ. A very interesting clear resin windscreen and headlights finish off the GAZ.

For more information and complete product list, contact Vac-Cast Plastics, Inc., P.O. Box 6310, Colorado Springs, CO 80934-6310. Telephone/Fax (719) 471-8931. Also toll free in the U.S. 800-281-3289



Book Reviews

Wehrmacht Camouflage Uniforms & Post-War Derivatives

Europa Militaria Number 17

Daniel Peterson

Windrow & Greene Publishing

Soft cover, 64 pages, full color throughout.



THIS MUCH WE KNOW: THE GERMANS IN WWII had the knarliest camouflage of all the combatants (including those thimply thmashing bedsheets worn by the Moroccan Goumiers). What isn't readily apparent is how widely the Wehrmacht and Waffen-SS designs influenced future armies, especially in Eastern Europe.

Peterson does an interesting and thorough job of tracing the evolution of cammy's from the German zeltbahn of the 1930's through Swiss gear of the late '70s.

But the best aspect of this book is them thar photo's. Lots and lots of gorgeous color photos of actual preserved specimens being worn by fellows in the field. Unfortunately some of these dudes look like they got hit with the ugly stick. But, that's another story for another time...

The uniforms, smocks and other paraphernalia are very nice examples and the modeler will pull this guide out again and again. There is some real interesting stuff here and the reader will often find himself going "whoa baby! that's what that looked like."

All the major pieces are covered here. Luftwaffe, Wehrmacht and at least a half dozen other post-war Euro-entities.

This book will be a great help to collectors as well. Peterson writes with authority but doesn't pretend to be the final word (certainly a boon to his credibility in our opinion).

Now if he could only tell us how to paint the "rain-drops" in 1/35th scale...

Crusader, Cruiser Tank 1939-1945

Osprey New Vanguard Number 14

By David Fletcher & Peter Sarson

Soft cover, 48 pages, B&W with color illustrations.



BRITISH ARMOR HAS ALWAYS BEEN somewhat of an enigma on this side of the pond. It seems like Limey armored vehicles just never attained the coolness factor of their German enemies or Russian and American allies. That is not to say they couldn't eventually reach that exalted status.

Fletcher weaves the development history of the Crusader and its red-headed step brother the Covenanter together. The Crusader went on to a checkered career in the deserts of North Africa, but the Covenanter rolled into obscurity. The Covenanters that were produced in tandem with the Crusaders were basically used for training purposes in jolly old England.

Fletcher approaches the two vehicles matter of factly, but at times plants his tongue firmly in cheek. You can't help but chuckle as he dryly describes the fate of the only Covenanter to be destroyed by enemy action.

Fletcher does a really nifty job of keeping the story of a notoriously unreliable design interesting through anecdotal evidence. Front line stories abound and that always makes for a better read than endless statistics.

The photos are interesting and show just about as many variants as one could imagine, given British tank engineers propensity to mutate their designs every which way.

But the real visual stars in this book are Peter

Sarson's magnificent full color paintings. They are simply the best being done today. Why oh why can't someone release Sarson's cutaways as full color prints for framing?

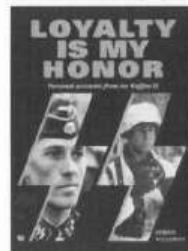
The bottom line is that Osprey has again given the modeler a good bit of bang for his buck. Even if you aren't a British armor fan, this book is fun to read and actually whets your appetite for more British goodies. But don't mistake readability for lacking information. This fellow is packed plum full of facts and figures enough to make any geek shudder in pleasure. Sick 'em boys.

Loyalty Is My Honor, Personal Accounts From the Waffen-SS

Gordon Williamson

Motorbooks International

Hardcover, 192 pages, B&W



FOR THOSE INTERESTED IN THE individual exploits of German soldiers in WWII, Gordon Williamson has been a real budaroo. Responsible for *Aces of the Reich*, as well as *Infantry Aces of the Reich*, Williamson has recently weighed in with *Loyalty Is My Honor*, a book of nothing but personal anecdotes from former Waffen-SS soldiers.

Williamson wisely only interjects himself into the book in order to clarify certain historical points. Otherwise it's all Waffen-SS talking about Waffen-SS actions.

The last several years have seen a real spate of historic revisionism about the role of the Waffen-SS in WWII. Williamson avoids getting embroiled in that quagmire by letting these guys speak for themselves. But always keep in mind who's doing the talking and why. Once you get into the meat of this book you won't be disappointed.

Training, the Russian Front, Normandy, Caen, Kursk and dozens of other actions get the once over. No grand historical overview, just a bunch of front line swine telling what they saw and how they perceived it.

One particularly interesting part of the book is when some of the SSers rate their opponents. Invariably, the Americans rank at the bottom of the list. That seems a bit odd, because the SS men got their butts kicked every time they took on the Americans, with or without our vaunted air power. Let's see... Elsenborn Ridge, Mortain, Anzio... nope doggone it, looks like Americans 3, Waffen-SS zip. If we're not mistaken, the Allies did win the war (it was in all the papers). Maybe they only say nice things about those they can whip up on.

Regardless of that, this is a really interesting book. There are lots of photos for those who chase the visual thrill.

LIMH is a good read. It is chock full of incidents that just beg for dioramas or vignettes. Some of the remembrances are positively chilling.

Pick this one up. You won't be sorry. ☹

Jim Shirley Productions

120 MM SDKFZ 251 / D HANOMAG

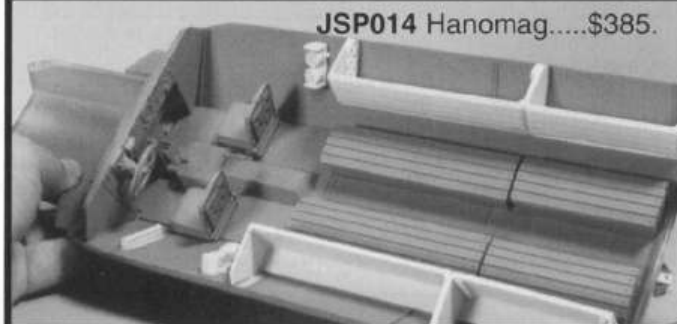
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Designed to be used with 1/35 scale, 54mm, etc. figures, this three dimensional wire is the most realistic on the market. It comes assembled and painted, ready to use. Looks great with scales as large as 120mm.

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Prod.# DIO 9507

Tow Chain

15 inches of small chain with towing hooks attached. The chains come treated to resemble rusty tow chains. They are ready to use right out of the bag with no painting required.

\$4.95



Prod.# DIO 9503

Tall Grass

A natural product which makes modeling tall grass easy. It can be cut from the backing material or used as is. It produces a very realistic looking grass.

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Prod.# DIO 9519

Fall Grass

Same as Tall Grass but in Fall color to simulate dried tall grass.

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Prod.# DIO 9506

Hay

A natural hair fiber which closely resembles real hay. To be used in miniature wheel barrows, hay-lofts, mangers, or anywhere else on 1/35th scale dioramas.

\$4.95



Prod.# DIO 9508

Tow Cables

This is actual woven cable (not picture hanging wire) which is treated to have a rusty look right out of the bag so that no painting is required. Included are three sets of cast cable ends so that accurate tow cables can be made for U.S., British, German, or Russian by simply gluing on the desired set of cable ends.

\$8.95

1/35 Scale Bricks

Red or Tan

These are the correct size and color for modeling buildings and/or rubble. They are light, durable and like nothing on the market. They are great for building detail on the inner flat surfaces of the plaster buildings on the market which do not give you detail on both sides.

\$8.95

Prod.# DIO 9517 Red
Prod.# DIO 9518 Tan

DECALS:

1/35th Scale U.S. Equipment Markings and U.S.M.C. Equipment Markings

Prod.# DEC 9509 and Prod.# DEC 9510

There are lots of beautiful figure kits on the market, but none provide the tiny "U.S." markings and other stenciled markings which appear on most U.S. web gear. These go on the canteen covers, entrenching tool covers, ammo belts, and just about every other piece of U.S. web gear from the 1880's to the present and use the U.S.M.C. markings to make Marines!

1/35th Scale Tattoos

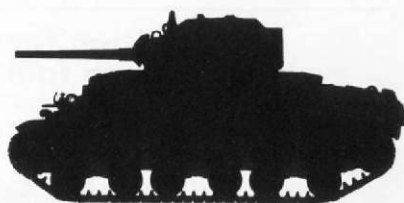
Prod.# DEC 9511

Every soldier needs one of these! Reduced from real tattoo art, these are three color miniatures of some of the most popular tattoos worn by service men around the world through several wars. These are really fun!

We have just purchased the 1/35th scale line of products formerly sold by "Pre-Size Model Specialties." We will be re-releasing these 38 new products as we make changes.

P.O. Box 82341, Rochester, MI. 48307-1571 • (810) 651-2002 • Fax (810) 651-0600

The Sherman Tank: A Fragmented Look



PART 2b: M4 GLACIS ARMOR

by Pete Harlem

When I embarked on this part of the series, I figured I would end up with perhaps 20 drawings of the Sherman tank hull front. Before I was done finding different versions, I ended up with 45 recognizable glacis plate combinations. Not only was my guess wrong, but I had to ignore the tank destroyers, self propelled howitzers, personnel carriers and all the Sherman specials or else this article would have taken up most of this issue of MMiR.

So presented below is my best shot at describing the front ends of all the gun and howitzer tank hulls. I have tried to break them down into an evolutionary chain running (roughly) from the earliest examples to the late war ones. The only post WWII vehicles covered are the Korean War M4A3 hulls since tracing the changes to the tank by the many foreign users after that time would be another tome. Again, there are two basic caveats to keep in mind. Yes, there are other hull combinations out there to be found by some persevering modeler. I will not be surprised if you readers can add another 10 variations to the 45 drawn here. Second, the Type designations used here are mine and are not official terms. The many factories making the Sherman during the war were too busy producing for the war effort to take the time to "officially" classify all the things they did to improve the tank.

Basic Description

The primary intent of the Sherman's designers was to make the most of the better components of the M3 Lee tanks while producing a much better medium tank. Improved turret designs allowed them to remove the hull 75mm gun and put it into the turret. That produced a lot of freedom for the hull designers to fix the many problems inherent in the Lee. Few of its glacis features (see MMiR Vol. 2, No. 2) carry over to the Sherman hull, so let's first look at the parts that make up a typical Sherman front end. **Figure 1** shows a M4A4 hull that will serve for this purpose.

The Sherman had two drivers (one was called the assistant driver or bow gunner and sat on the right side) who accessed the interior through two hatches. The hatches on most early tanks were mounted onto two driver's hoods that gave room for the crew's heads when buttoned up. On late production tanks with improved hulls, the hatches were larger and their pivots were designed to provide clearance around the larger 76mm gun turret. All hatches had a periscope mounted in the center which could be rotated. Late

tanks had a foot guard to protect the fragile periscopes and all had a grab handle, a padlock clip, and an outboard pivot. In front of the driver's hatch on late tanks, and in front of both hatches on the last tanks made, were a pair of clamps or clips that held the canvas and metal weather hood. This had a windshield in a metal frame with a canvas bag type cover to keep the weather off the driver's head. The hood was rarely seen on WWII tanks but was commonly used in Korea. It was stowed internally when not in use.

The early oval hatches had a grab handle toward the rear, but this was moved to the inboard side when lift assist springs were added to the hatches in the middle of the war. Hatches on early tanks without the springs could open all the way and lay flat on the hull. Hatches with springs opened part way and provided slight armor protection to the drivers when they were protruding from the tank.

The driver's hoods were originally built with direct vision ports covered by a pivoting armored shield in the front facing. Mid production tanks were

assembly with the blackout light mounted on top of each head lamp. A few early tanks came without them, but most lights were protected by a thin metal brush guard to keep the lights from being ripped off the tank while "jungle busting." The lights were easily removed by unplugging them from inside the tank and unscrewing the mounts. The resulting hole was plugged with a small rubber stopper plug. This plug was normally stowed in a small tubular holder welded to the hull or to the brush guard. A small chain kept the plug from being lost, but close examination of many tanks show them to be missing.

To keep from running people over, the Sherman had either a siren device or an electrical horn mounted on the left front, usually on the fender. Because this could be ripped off when the fender was damaged, some intermediate and late hulls had it attached to the hull plates and many re-manufactured tanks had it moved inboard to the center of the hull. Late in the war the siren or horn received a metal brush guard as additional protection, there

being two types of guard seen. Only one type of siren has been found, but there were at least two types of horn installed on different tanks. Unlike the lights, the siren or horn had an external wire that provided the electrical connection through a fitting in the hull plate.

Most Shermans had an extra antenna mount on the front right that was intended to hold the SCR 506 series radio antenna. Some mounts were castings welded to the sponson plate on that side, while late tanks had it on the roof to the right of the assistant driver's hatch.

Curiously, almost none of these mounts ever had an antenna installed in it since most Sherman radio antennas were mounted on the turret, a position that improved radio reception range. There were at least four versions of the cast antenna mount used that can be easily identified.

Late in the war, Shermans came equipped with a travel lock for the main gun tube and it was used when the tank was being transported to prevent damage to the gun mount. Some early tanks were upgraded with travel locks and two types were produced. They were interchangeable, so either will be encountered on all tank versions. The only deviation was the position of the lock mounts, being lower on 105mm howitzer tanks. Also Jumbo tanks had raised mount pillars due to the extra armor plate.

One feature that remains a bit of a mystery is the so called "L bracket" which appears at mid-war in the center of the glacis. Nobody seems to know what it was for, the common theories being that it was a bullet splash protector (too weak for that in my opinion)

Typical parts of the Sherman tank hull

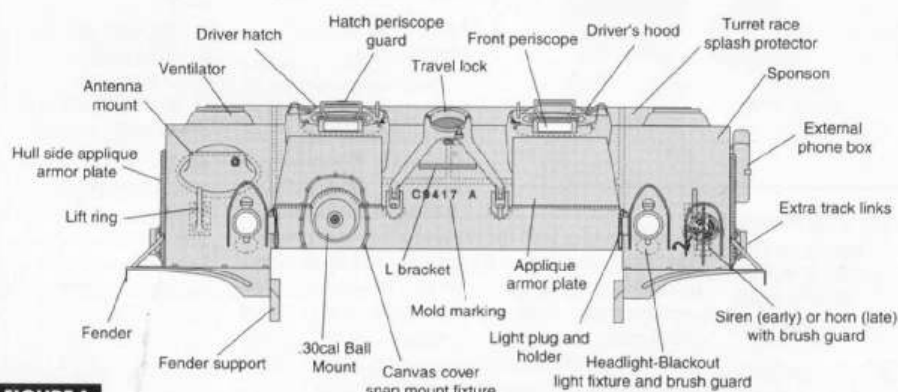


FIGURE 1

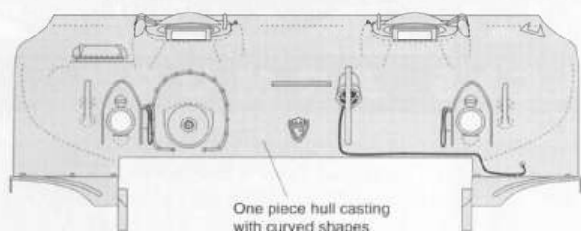
ALL DRAWINGS 1/35TH SCALE

designed without the ports (they were a weak point) and instead had a second periscope installed at the front of the new hoods. The hoods were also prone to penetrations so they were redesigned several times and eventually eliminated from the late war 47 degree hulls. Many early tanks were re-manufactured beginning in December of 1943 and had applique armor plates added to the front of the hoods and on the hull sides to protect the dry ammo stowage bins mounted internally.

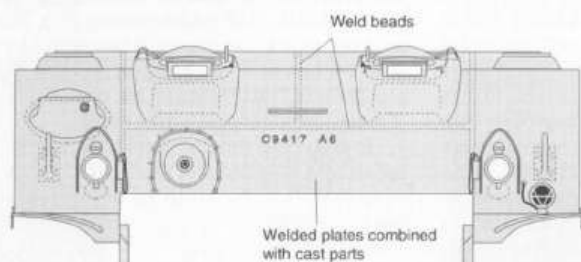
All Shermans have two lifting rings welded onto the front plate which allow the tank to be picked up by a suitable crane—Shermans didn't fight anywhere before they took a long boat ride. There were several types and sizes of these rings and all were steel castings even though the attachment method varied slightly. There were standard positions for them, but I have seen some minor differences in their exact location on each hull. Without further research on this I have drawn them in more or less standard locations. The headlight fixtures have a main light

Recognition features of Sherman tank hulls

Type 4- Cast Glacis



Type 5- Welded Glacis



Type 6- 47 Degree Single Plate Glacis

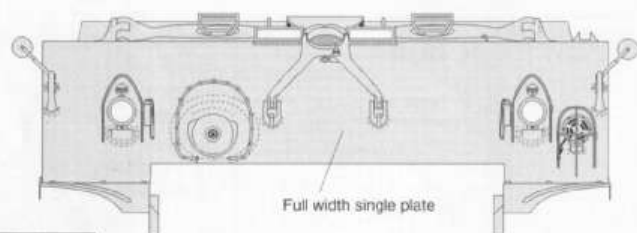


FIGURE 2

or that it was used as a step to help with climbing rapidly into the tank. The truth will wait for another day, but for now we need only know that it was not always welded in the same place, some brackets being fairly high on the hull front and others being welded on lower.

The need for a forward firing machine gun to keep the enemy infantry honest was originally addressed with three 30cal machine guns. The earliest tanks had both the common bow "ball mount" fired by the assistant driver and a twin set of guns mounted low in the center glacis plate. The latter guns were deleted soon after the Sherman was introduced, leaving the ball mount as the only close-in machine gun for self defense. The ball mount was a compound curve shape so it was cast and welded into the hull in several different ways as we shall see. Not long after the tanks went into unit use, the need for a dust cover was found and resolved with a canvas cover attached by snaps to a cover fixture welded around the ball mount.

The last major change made to the Sherman series was the addition of improved and much wider track systems called the HVSS (Horizontal Volute Suspension System) and is commonly referred to as the "Easy 8." The additional width of the new track gave rise to wider fenders to go with them, but required no other change in the glacis of any Sherman variant so modified.

The Three Main Types

There were three basic types of Sherman tank hull produced (Figure 2). The first were the fully cast hulls of the M4A1 and called here the Type 4 hull (note that hull types 1-3 are M3 Lee, Grant and Ram hulls as described in part 2A). These became the basis for the late war "composite" hull M4 tanks as well. Type 5 hulls are the ones generally referred to as "welded hulls." This is a bit of a misnomer because almost all Sherman versions had welded features, but Type 5 featured many glacis parts, some made by casting and some made from rolled steel plate that were assembled by welding. Hence the name. Type 6 hulls had a thicker single front plate that provided superior armor protection and much simplified construction. The plate was sloped at 47 degrees and these are often referred to as 47 degree hulls. What follows is a more detailed breakdown of the three types.

Type 4: Cast Glacis Hulls

Both the prototype T6 and the first M4A1 Shermans built had a cast steel hull. Essentially a one-piece homogeneous casting, it incorporated

hood bulges for both drivers and a forward mounted ventilator inlet. It had 2 inches of steel in the front with many curves and compound shapes, and slope angles ranging from 37 to 55 degrees. This provided what many thought was the most ballistically sound hull in the early Sherman series. Side armor was 1.5 inches thick and top armor was only 1 inch.

The first and second M4A1's had hulls with the proposed and rejected side exit doors of the T6 prototype welded over, but all subsequent tanks had one of the production hulls shown in the illustration. The first M4A1 hull was begun in February 1942 and was born the following month. By April 1942 US Army units had the early production tanks as shown here. The following sub-types were produced and are shown in Figure 3:

4A: Initial production M4A1 hull with direct vision ports for the crew's "Protectoscope" vision devices. This was the common version that fought in North Africa with both the US and Commonwealth forces. These were 75mm gun tanks with dry ammo stowage and production ran from March to December of 1942.

4B: This intermediate M4A1 casting was an improvement that eliminated the direct vision ports in favor of elongated driver's hood bulges with additional periscope mounts at the front. All were 75mm dry stowage tanks also and they were in production by September 1942, some being built at Montreal Locomotive Works as Canadian Grizzly I's.

4C: On this casting the side of the hull had been thickened to eliminate the need to weld appliqué armor plates next to the internal ammo stowage. It was a mid-war improvement and seems to be rare in photos of the period. While not common because better tank versions were becoming available when it was produced, it was used on some tanks beginning in 1944 including some Duplex Drive tanks and the "Aunt Jemima" mine roller vehicles tested in England. An improved ballistic shape change was made to the steel above the ball mount but this is hard to spot. The 4C glacis was also a 75mm dry stowage hull.

4D: This revised hull introduced the most significant change to the M4A1 casting. It included new larger driver's hatches and 47 degree hull slope for the area in front of the driver's hoods. Other surfaces varied from 37 to 55 degrees of slope and armor thickness was increased to 2.5 inches in front. The ventilator had been moved aft and to the right of the assistant driver's hatch and a blower intake groove was molded into the casting between the hatches to feed the blower that had been added to improve ventilation in late war tanks. The larger driver's hatches were angled giving more clearance around the gun mantlet on 76mm turret on tanks which were first fielded in the summer of 1944. Having said that, be advised that some 75mm turrets were also installed on this hull. The shape of the sponson corners had been changed and appears blunted compared to the early M4A1 hulls when viewed from above.

4E: This casting was similar to the 4B hulls, however only the front end was cast. The rest of the hull was made from flat welded plates and these hulls are peculiar to the so called "Composite Hull" M4s ("Hybrid" in British lingo). The principal difference between a Type 4E hull and the M4A1 castings was the flat sides and top profile needed to mate the casting properly with the flat hull plates to the rear of it. It can be easily recognized by the 90 degree shoulder it has when viewed from the front and the presence of two ventilators on the hull roof. All hulls of this type are dry stowage tanks with 75mm turrets.

4F: The 4E castings were revised during late production to incorporate the bigger hatches common to late war tanks. Appliqué side armor was standard on this hull because of the dry ammo stowage and it shares late features found on the Type 4D hulls with the exception of the relocated ventilator which was blocked off on 76mm turreted versions of this hull. Another shape revision to the sponson corners resulted from the high shoulders on this design. This hull was 2 inches thick in front with a nominal slope of 51 degrees giving it good ballistic properties. Side armor was 1.5 inches with appliqué of 1 inch rolled steel plate welded on the sides over the ammo storage areas.

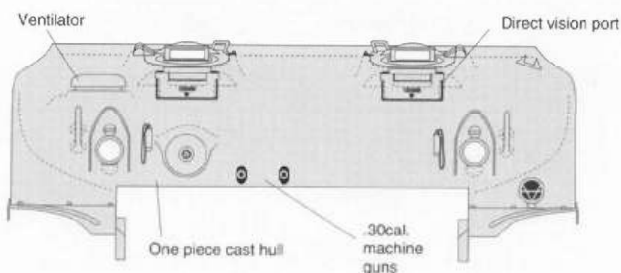
Type 5: Welded Glacis Hulls

Type 5 Shermans were produced because welded hulls are cheaper and faster to make. The many companies making one or more of this type of hull lead to many different glacis arrangements. The principal differences are in the size and shape of the assorted cast parts incorporated into the design and the shape, cut, and welding methods used to attach the flat rolled steel plates into a cohesive front end. I have tried to cover all the known versions, but there are probably a few more out there yet to be found. Armor thickness was the same as other early Shermans with 2 inches at the front and 1.5 inches on the hull sides. When remanufactured starting in August 1944, the appliqué plates added one more inch of steel in the areas it was applied. The following two sub-types are recognized (Figure 4):

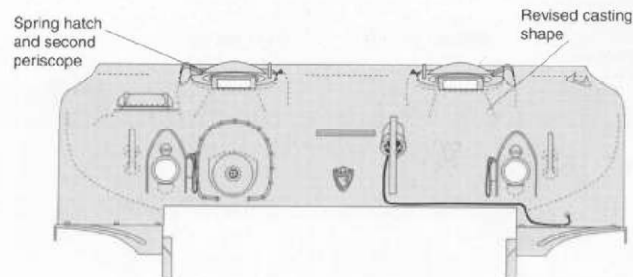
5A: The first welded hull tanks were the M4 and M4A2. The wide number of manufacturers using

Summary of identification features Type 4 cast glacis hulls

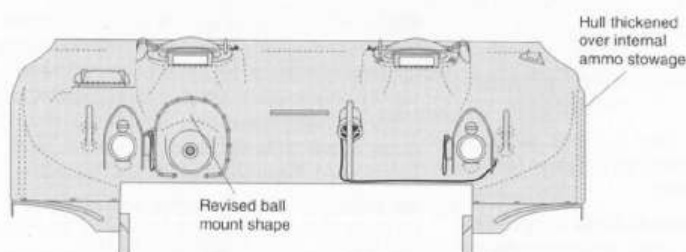
4A- M4A1 Early



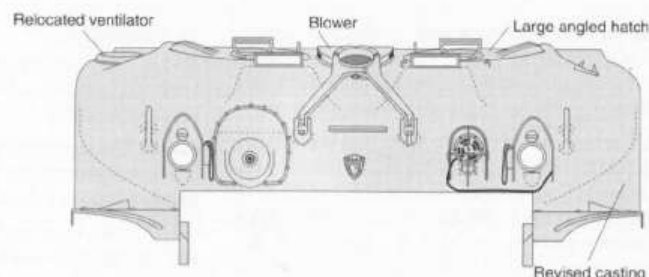
4B- M4A1 Intermediate



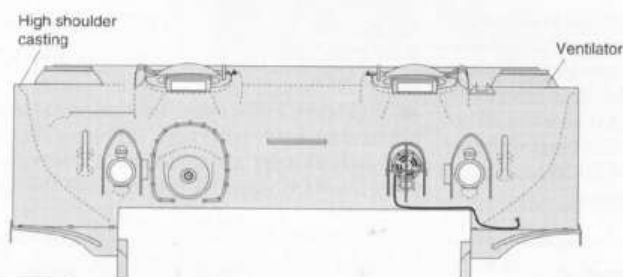
4C- M4A1 Intermediate Improved



4D- M4A1 47 Degree Wet Stowage



4E- M4 Composite Early



4F- M4 Composite Late, M4A6

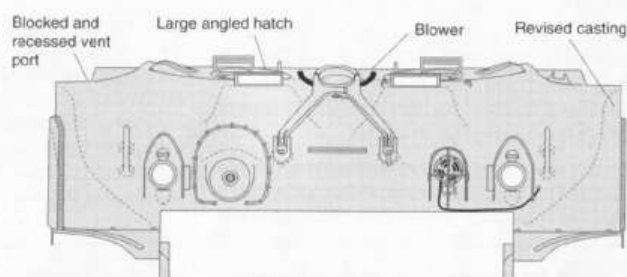


FIGURE 3

different welding ideas lead to a diverse set of possible glacis configurations. All 5A hulls have narrow width driver's hood castings that are welded to an intervening rolled steel plate.

5B: The tanks produced at Detroit Arsenal (possibly some others built them) used another assembly approach. The principal difference was that the driver's hood castings were wide enough to be welded in the middle with a single weld bead. This eliminated one weld and the need for an intermediate plate between the hoods. M4, M4A3, and M4A4 tanks with this hull were common with the majority being the latter two models.

Type 6: 47 Degree Single Plate Glacis Hulls

The final glacis arrangement both simplified the Sherman hull considerably and improved the armor protection again. It was a single plate with a hole cut in it for the cast machine-gun mount insert. Light mounts are welded on as are the lift rings and other details, and there were two types of plate used and a third hull type created from one of these. The Jumbo M4A3E2 was derived from them also.

The early 47 degree plate was made with a bevel cut at the top edge that made an even joint with the top of the side plates and hull roof plate. From the side the glacis plate and the side are the same height and the bevel cut of the top edge is obvious. The latter

plate was cut instead at 90 degrees from the face which meant that the cut corner at the top was higher than the hull side and the roof casting. The right angle cut corner therefore provided a slight lip at the top of the hull that gave about 1 inch more protection for the hull roof components and the base of the turret (Figure 5).

The second type can be recognized from the side also, and they are the only 47 degree plates that have the small bullet splash cutouts in front of the driver's periscopes. Except for the Jumbo hull, the others in Type 6 have 2.5 inches of armor thickness on the front and 1.5 inches on the sides. I have classified the types as follows: Type 6A: Initial production plate with beveled top edge, wide splash guards for the driver's periscopes, and inboard welded lifting rings.

6B: Intermediate production plate with non-beveled top edge, narrow splash guards, and inboard lift rings. The narrow splash guards only protect the inboard periscopes on this plate.

6C: Late production 6B plate but now with outboard mounted lift rings. All plates with outboard rings have the narrow splash guards and taller glacis plate. Almost all Shermans used in the Korean War had this plate and it was associated with 75mm, 76mm, and 105mm turrets.

6D: Modified from the Type 6A plate, the Sherman M4A3E2 Jumbo assault tanks had an additional 2

inch glacis plate welded over the normal 47 degree plate. Side hull armor was also thickened by 1.5 inches of appliqué yielding 3 inches total on the side and 4 inches on the front. Also, the gun travel lock was mounted on small steel pillars to raise it. All tanks of this type were armed with the 75mm gun in a special turret but field modification caused some to be up-gunned with the 76mm. All had wet stowage.

Versions Identified

Almost all the sub-types described above evolved into one or more additional versions. Each had a distinctive layout making them draftable. So I did. Figures 6 through 10 show these minor differences and are described below in the order presented.

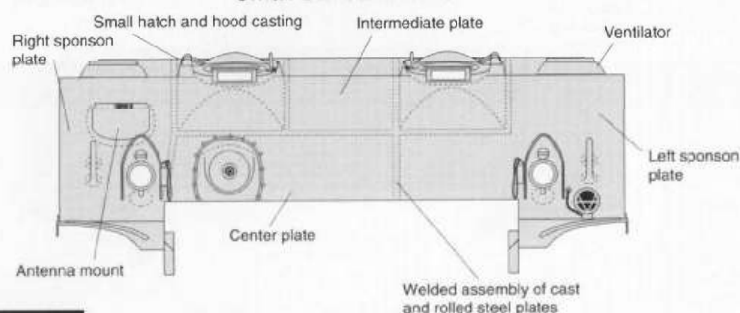
Type 4 Versions

Figures 6 and 7 show the versions of the cast hull tanks. Figure 6 covers all the forms of the M4A1 and figure 7 covers the composite hull M4s and M4A6s.

4A-1a: The initial production hull had two additional forward firing .30cal machine guns mounted at the front of the casting inherited from the M3. Other early features are shown and note the lack of light guards most likely due to shortages at the time. The first tanks with this hull date from April 1942 and production continued into the summer. During this time they were produced by Lima Locomotive Works and Pressed Steel Car Company.

Summary of identification features Type 5 welded glacis hulls

5A- M4A2 and M4 Early and Intermediate
Small Drivers' Hoods



5B- M4, M4A3 Early, M4A4
Wide Drivers' Hoods

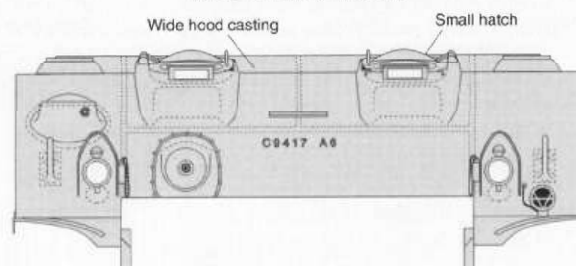


FIGURE 4

4A-1b: This was the same hull casting with several small changes for the lights. There are brush guards around them now and provision was made for a plug holder to keep the headlight plugs when not in use.

4A-2: The most common early M4A1 hull was this one which had the revised plate without the holes for the now deleted .30cal bow guns. The first tank of this type was produced at the Pacific Car and Foundry Company and debuted early in May 1942. The first hull of this type had a rectangular plate welded into a cutout made to remove the twin gun ports, but production hulls looked as drawn here. The KK Castings M4A1 resin conversion hull is this type.

4B-1a: The intermediate production hull that eliminated the vision ports for the Protectoscopes shown in its initial form. These appeared late in 1942. The old Nichimo 75mm Sherman had this hull but the slope of the driver's hoods is too flat on this kit.

4B-1b: This casting was similar to the one above but it had a mold mark on the bow, probably indicating a different manufacturer. I also show the position of

the relocated siren.

4B-2a: This casting was upgraded with appliqué armor on the sides to add protection to the dry ammo stowage bins inside.

4B-2b: The same hull as above but with additional late war features. The driver's hood clamps held the weather hood in foul weather.

4C: This hull was fairly rare but it was an attempt to add the appliqué over the ammo storage on the hull sides at the time of casting. They are hard to identify unless you can see the sides where the overhang of the bulge makes a shadow on the fender skirt rail.

4D-1: This was a less common hull that retained the thickening over the side ammo stowage bins and was used on 75mm (dry) M4A1 tanks only. It is thought to be the first hull produced with the improved driver's hatches and relocated ventilator. A blower was added to improve fume removal and the first tanks with this hull front date from January 1944; initial production occurred at Pressed Steel Car Company.

4D-2a: With the addition of the 76mm gun turret and wet ammo stowage the late production castings did not have side bulges. By this time the siren had given way to the horn and a new guard was installed around it. The casting mark seen on these hulls is reported to mean it was manufactured at General Steel. The Italeri M4A1 76mm Sherman kit has this hull.

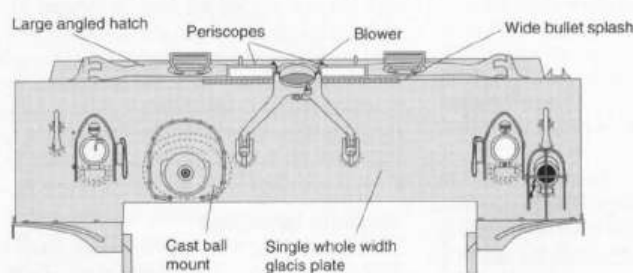
4D-2b: Same hull as above but with all the late war features including mirrors. Almost all late production Shermans had mirror mounts but the mirrors are rarely seen. Whether they were ripped off the hull while traversing brush, or were routinely stored inside is not known.

4D-2c: The advent of the HVSS suspension and wide track gave rise to the final M4A1 hull layout shown here.

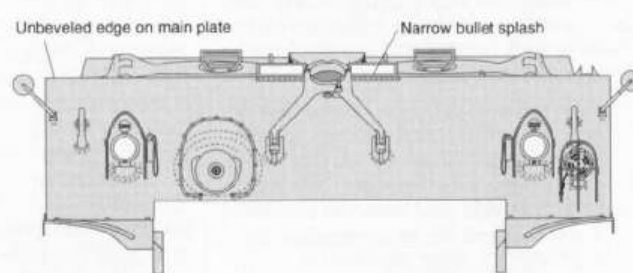
4E-1: (Figure 7) The initial M4 "Composite" hull did not have appliqué on the sides. This was a 75mm gun tank hull with dry ammo stowage and was derived from the M4A1 (type 4B) casting. Note the square

Summary of identification features Type 6 47° single plate glacis hulls

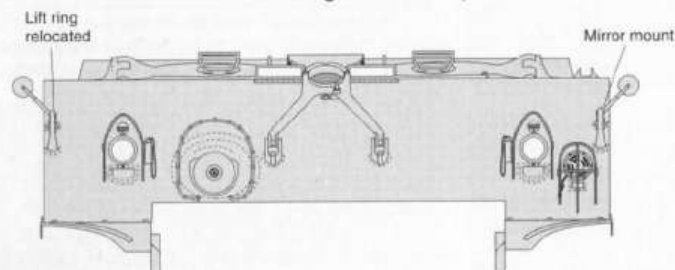
6A- M4 (105mm), M4A3, M4A2 Wide Splash



6B- M4A3 Narrow Splash



6C- M4 (105mm), M4A3 and M4A2 Late
Outboard Lift Rings, Narrow Splash



6D- M4A3E2 Jumbo

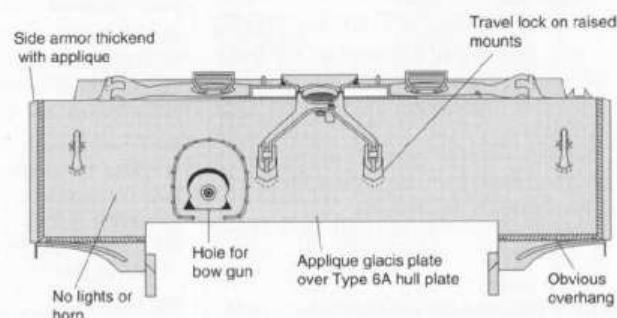
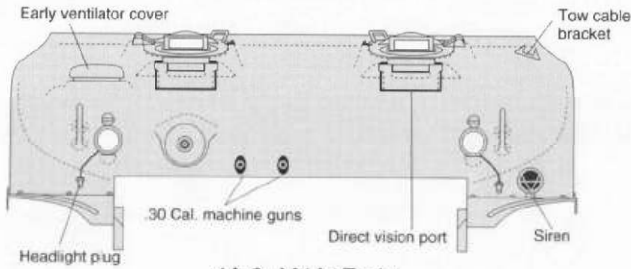


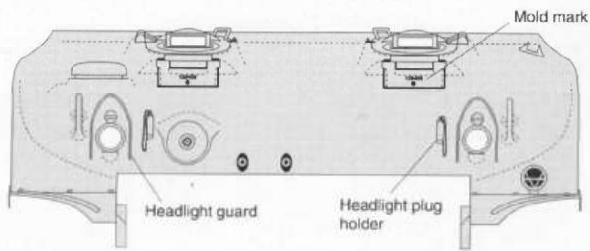
FIGURE 5

Type 4A cast glasis hulls

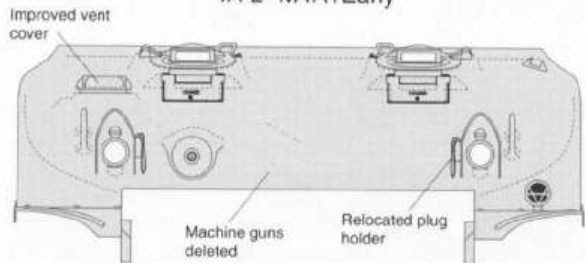
4A-1a- M4A1Initial



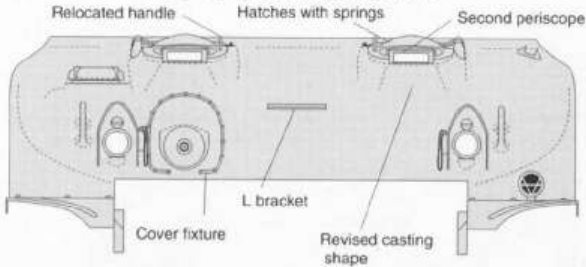
4A-1b- M4A1Early



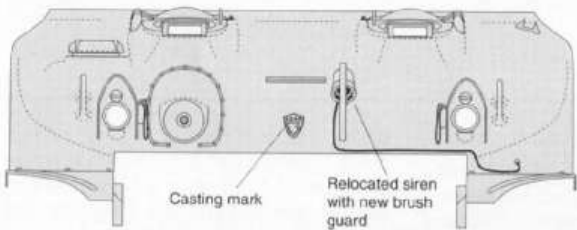
4A-2- M4A1Early



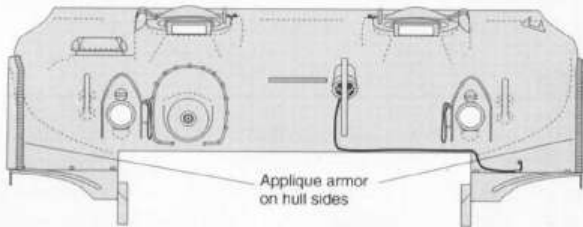
4B-1a- M4A1Intermediate



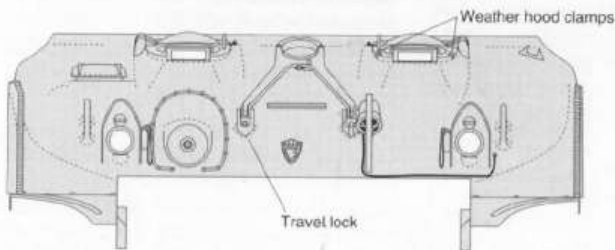
4B-1b- M4A1 Intermediate



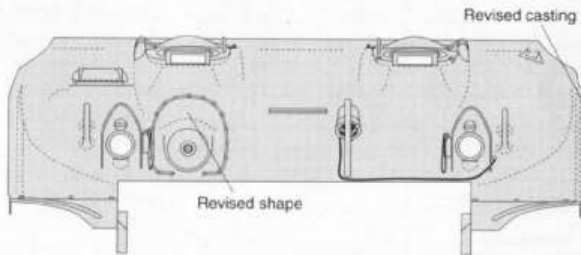
4B-2a- M4A1 Intermediate w/applique



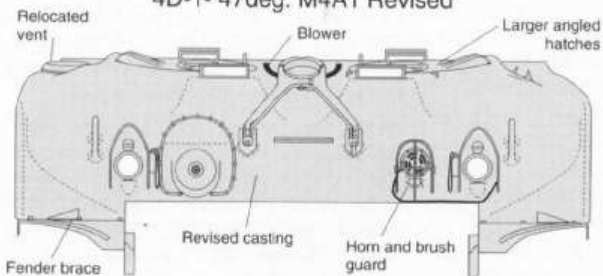
4B-2b- M4A1 w/applique Late



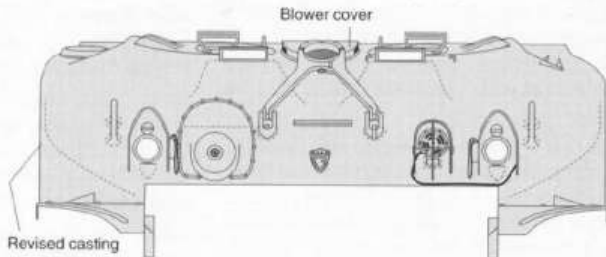
4C- M4A1 Intermediate Improved



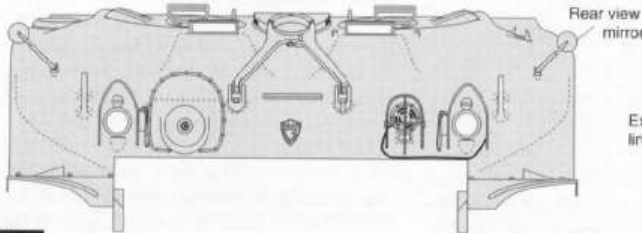
4D-1- 47deg. M4A1 Revised



4D-2a- M4A1 Revised (Wet)



4D-2b- M4A1 Late



4D-2c- M4A1 Late HVSS

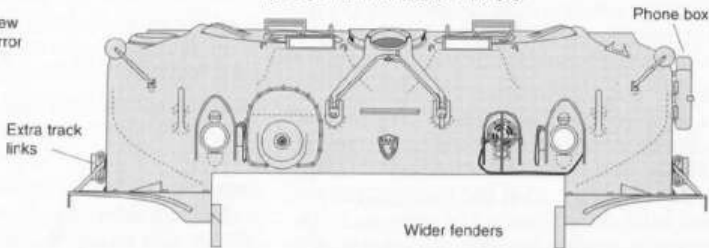


FIGURE 6

Type 4E & 4F cast glacis hulls

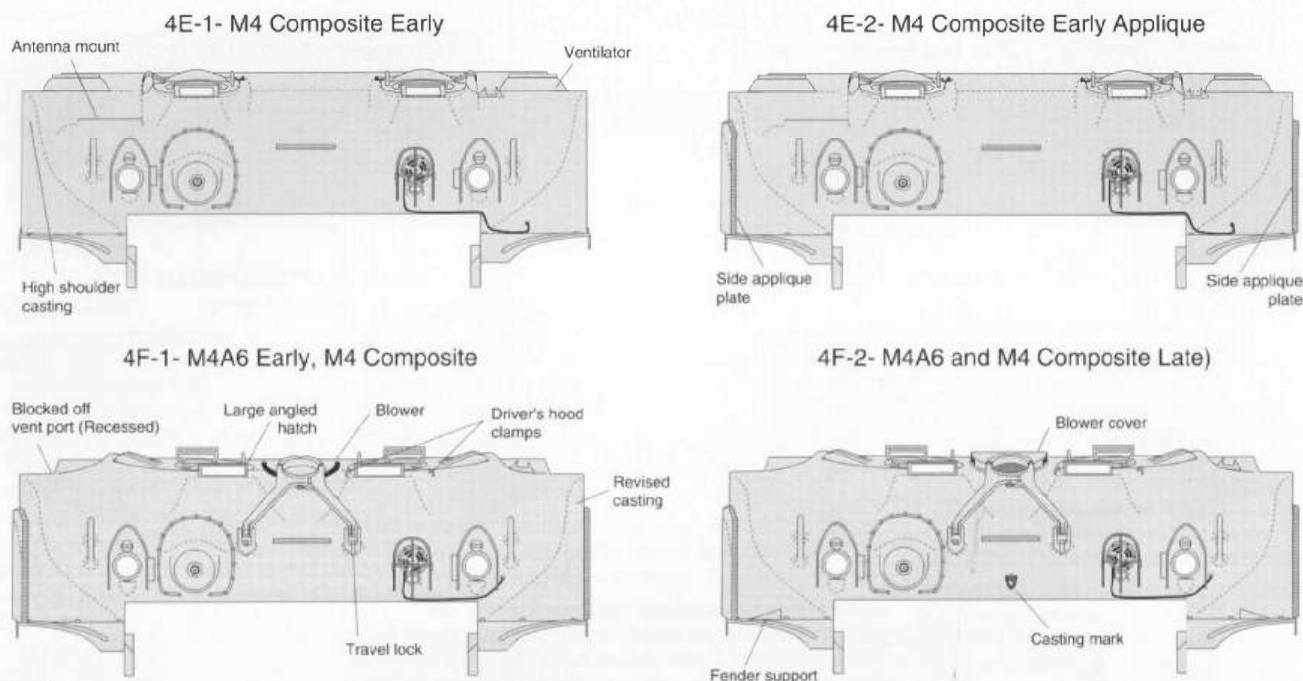


FIGURE 7

shoulders that identify it as a composite hull when seen at this angle.

4E-2: The composite hull was revised with appliqué applied at the factory producing this view.

4F-1: This was the hull used on intermediate M4 Composite and early M4A6 tanks. It had the bigger hatches and all had appliqué on the hull sides. It first appeared on the M4E6 prototype (without appliqué) in the summer of 1943. The Verlinden composite hull conversion is an approximation of this hull.

4F-2: The final M4 Composite tanks had this configuration. Note the smaller mold marking on the bow which differs from the large General Steel one seen on some M4A1 castings.

Type 5 Versions

Figures 8 and 9 show the versions of the welded hull Sherman tank. **Figure 8** shows versions that have narrow driver's hood castings and **Figure 9** shows the ones with wide hoods that join at the centerline. In both figures I have shaded the cast parts darker so you can easily see which type of part was used where.

5A-1: The first welded hull Sherman was the M4A2 and this shows the initial plate pattern. The hoods have direct vision ports in front. The intermediate plate, center left plate, and sponson plates are rolled steel. The right center plate was a casting which had provision for the two bow .30cal machine guns and the ball mount gun. The antenna mount casting was the first type seen and looks like the letter D when viewed from above. It had a small casting number on the front lip that further identifies it.

5A-2: The next type of M4A2 hull eliminated the extra .30cal bow guns by means of another small rolled steel plate welded into the hole made when cutting off the twin mount end of the previous center casting. That left the .30cal ball mount as the only weapon in the glacis. Note the four snaps around the ball mount for a canvas dust cover which was an early attempt to protect the ball mount from sand and dirt

and was commonly seen on tanks used in the desert.

5A-3: This improved M4A2 glacis arrangement used a large rolled steel plate on the left that also served to protect the center. This configuration eliminated three previous weld beads and simplified construction. The bow mount plate was still a casting.

5A-4: Still other M4A2's had this layout in which the bow gun casting was wider and covered the center below the intermediate plate. A large left sponson plate covered the area below the driver's hood eliminating one weld bead compared to the 5A-1 or -2 plates.

5A-5: With the advent of the M4 tanks this pattern appeared and was also found on some early M4A2s. It retained the intermediate plate between the hoods but had a wide center plate of rolled steel with a cutout hole for a cast bow gun mount. The ball mount was welded flush with the center plate, and many other Sherman hulls would follow this technique. Also shown is the second generation antenna mount casting which was bigger and shaped differently.

5A-6: This M4 and M4A2 glacis had a single large plate that covered the entire front. The cast hoods and the ball mount casting fit into cutouts in the hull plate. The only welding in the center now was around these castings making for a much stronger glacis.

5A-7: An early attempt to change from direct vision ports to two additional periscopes for the drivers led to this pattern. The new hood castings are easy to recognize because of the well rounded corners at the front. The intermediate plate was still used as was the 2/3rd width cast bow mount plate seen first on type 5A-4. Both M4A2 and M4s were built with this glacis.

5A-8: This one combines the 5A-6 plates with the new cast hoods with rounded corners. It is believed exclusive to the M4.

5A-9: Use of the large whole front plate with ball mount cutout and another type of hood casting produced this pattern used on the M4. The new hoods had flat trapezoidal faces with slight rounding at the corners.

5A-10: The most common mid-war pattern for the M4A2 was this simplified design which used welded hoods made of flat plate, a welded antenna mount, and the whole-width front plate with ball mount cutout. These hoods are believed exclusive to the intermediate M4A2 only and note that the hood roof with hatch cutout was still a casting. The shape of the flat plates on the hood sides and front make this the easiest type 5 hull to identify. It dates from the fall of 1943 and was invented when there was a shortage of cast components to make hulls with.

5A-11: I picked a representative of the above hulls (5A-9, but it could be one of the others) and drew the parts found on tanks that had been re-manufactured in 1943-44. Appliqué on the sides to protect the dry stowage was supplemented with plates welded in front of the driver's hoods. Most tanks with this upgrade have the full ball mount cover fixture as shown and some had a weld bead added across one or both front appliqué plates to provide bullet splash protection for the front periscopes. I did not show the latter feature since it was not standard.

5A-12: The all welded front M4A2s were also re-manufactured by Fisher Tank Arsenal and Federal Machine and Welder Company beginning in April 1944 giving rise to this pattern. The principle difference from other re-manufactured Sherman types was the shape of the appliqué plates in front of the hoods.

5B-1: (Figure 9) The initial form used on early M4A3 and M4A4, and some M4 also, were this configuration. It had the direct vision ports in front of the hood castings and the lower center plate was cast and had a prominent mold stamp at center. The antenna mount was the largest casting used and can be recognized by how close it comes to the outboard edge of the glacis plate. It was welded on proud of the side plate on M4A4 and usually flush with it on the M4A3. Most tanks examined from above show mold markings on top of the hood castings which do not show in front view. The first hulls of this type came off the assembly line in May 1942 when the pilot model M4A4 was

Type 5A narrow hoods, welded glacis



FIGURE 8

delivered as was the first M4A3 to use it.

5B-2: This plate assembly took the previous glacis and improved it by the elimination of the driver's direct vision ports in favor of new design hoods. The hoods are easy to differentiate from the 5A-9 hoods because they were center welded and had small trapezoidal flat spots at the bottom weld joint in front of the hood bulge. This spot was usually in shadow in most photos and looked like a notch from some angles. The extinct MP kit of the M4A4 and their M4/M4A3

early conversion set featured this hull type.

5B-3: This glacis was similar to the above, but had the lower center plate made of rolled steel with a cutout hole for a the cast ball mount insert. This hull is known to be on some intermediate production M4A3s but may have been used on the M4 also. The new Tamiya M4 kit has this hull but is missing the springs for the roof hatches and it does not portray the trapezoidal flat spot on the front of the hood castings.

5B-4: Any 5B hull could be re-manufactured and the factory improvements made during that process are shown here. M4 and M4A3 tanks began to be re-manufactured by Chrysler (at Evansville, IL) and International Harvester beginning in August of 1944. Additional M4s were redone at Lima Tank Depot and Chester Tank Depot with the last one converted by April 1945. M4A3s were converted at Montreal Locomotive Works, Chester Tank Depot, Lima Tank Depot, and Richmond Tank Depot with the last one delivered in April 1945.

5B-5: The final changes occur when the tanks are upgraded with Easy 8 (HVSS) track systems. This view shows the full installation on a re-manufactured hull.

Type 6 Versions

Figure 10 shows the versions of late war Sherman hull with the 47 degree single plate glacis. The roof plate was a casting (no shading this time) as was the ball mount insert. The light mounts, travel lock mounts, and lift rings are also cast fixtures welded to the main plate. First tanks with this glacis appeared in February 1944.

6A-1: The M4A2 75mm tanks with dry stowage for the ammo used this plate. All 6A plates have the bevel cut at the top and fit cleanly with the side plates. Wide bullet splashes are welded into the center top notch and protected the periscopes and the gun mantlet.

6A-2: Initial 75mm wet stowage M4A3s used this glacis arrangement. A blower cover

not shown here was found on later production tanks with this hull. This is the hull provided in the Tamiya M4A3 (75mm) kit although it does not show the wide bullet splashes correctly.

6A-3: This was a modified 6A-2 glacis and was the initial type for 105mm armed M4 and M4A3 tanks with dry stowage (105mm howitzer tanks had special armored ammo boxes stowed inside and did not have wet stowage as their hull configuration might suggest). The drawing shows the blower cover and mirror mounts found on many tanks of this type. Note the lowered position for the gun travel lock which was a feature common to all 105mm armed tanks. This position moved the lock forward so that the same standard lock assembly could be used on the 105mm's thicker gun tube. All 105mm armed Shermans (either M4 or M4A3) were built at Chrysler's Detroit Tank Arsenal with first ones rolling out the door in February 1944.

6A-4: 76mm gun versions of the M4A2 and M4A3 with wet stowage used this configuration. Note mirror mounts, driver's weather hood clips, and ventilator blower cover, all late features.

6B-1: This was the gun tank version for intermediate production M4A3s. Either type of turret can be found on this hull, and so far I have not found this layout on any other model of the Sherman. It was the first version to have the narrow splash protectors in the top notch and because it was not bevel cut at the top it was about 1 inch taller than the 6A plates.

6B-2: The intermediate production 105mm M4A3 howitzer tanks used this pattern of the 6B-1 but with the lowered position of the travel lock.

6C-1: This was the final configuration for the 76mm M4A2 with wet stowage and the final layout for M4A3 gun tanks with the VVS suspension. It had the taller plate from 6B but had the lift rings moved outboard to the edges of the plate. All outboard lift ring glacis hulls have the narrow bullet splashes and tall front plate used here. This is the hull used in the Italeri kit of the M36B2 tank destroyer and therefore the hull given in the new DML HVSS kits. The top of the kit plate is not high enough and the splash guards are not molded properly. **6C-2:** This was the final configuration for the M4 105mm howitzer tanks and the final VVS suspension version of the M4A3 105mm Sherman. This was the 6C-1 layout but with the travel lock lowered.

6C-3: The advent of wider tracks (HVSS or "Easy 8") brought about this hull pattern. It was found on the 76mm M4A3 only and was the common pattern on Korean War Shermans. Note the wider fenders, side mounted track links and phone box on left hull side. A few Shermans made it into WWII in this configuration, but in general this was the Korean War Sherman. This is what the DML HVSS Shermans are supposed to represent.

6C-4: This was the final form for the 105mm howitzer tank. Most were known to be M4A3s but a few may have been built with M4 running gear. It too was common in Korea.

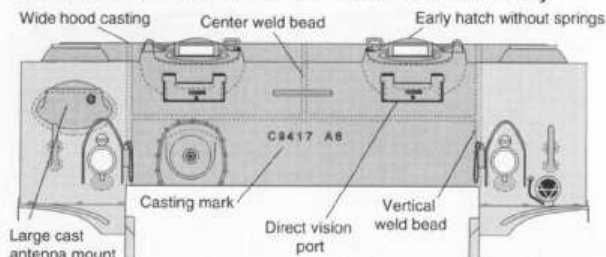
6D-1: Initial form of the Jumbo produced. All Jumbos were made at the Fisher Tank Arsenal from May 1944 to July the same year. They arrived in Europe in time for Operation Cobra.

6D-2: Modified from above with the addition of the blower cover and machine gun cover fixture. Weather hood clips are optional too, but not shown here.

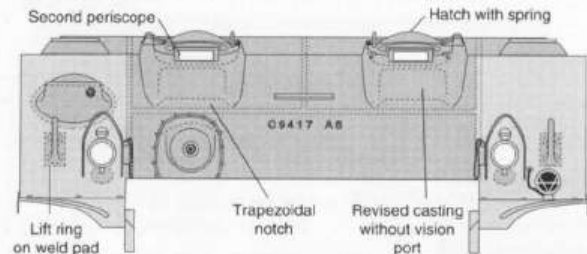
That about wraps up the front hull story for the gun and howitzer tanks. Next time I will take a break by showing you the Sherman's tracks. Until then, your comments are most welcome.

Type 5B wide hoods, welded glacis hulls

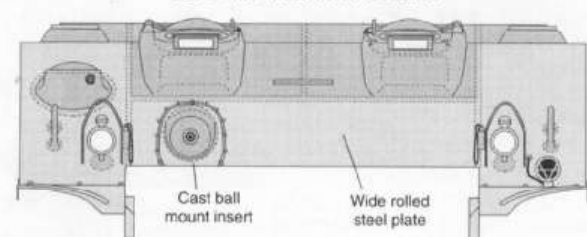
5B-1- M4 Intermediate, M4A3 and M4A4 Early



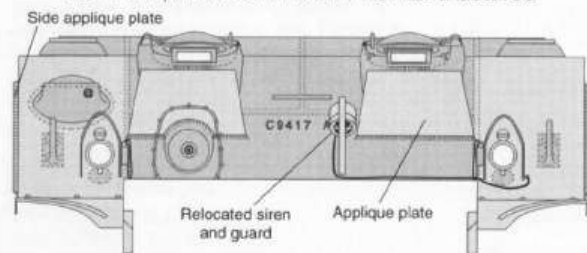
5B-2- M4, M4A3 Intermediate, M4A4



5B-3- M4A3 Intermediate



5B-4- M4, M4A3 and M4A4 Remanufactured



5B-5- M4, M4A3 and M4A4 Remanufactured HVSS

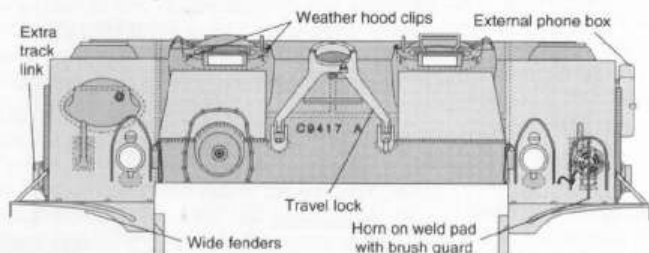


FIGURE 9

Type 6 47° single plate glaciis hulls

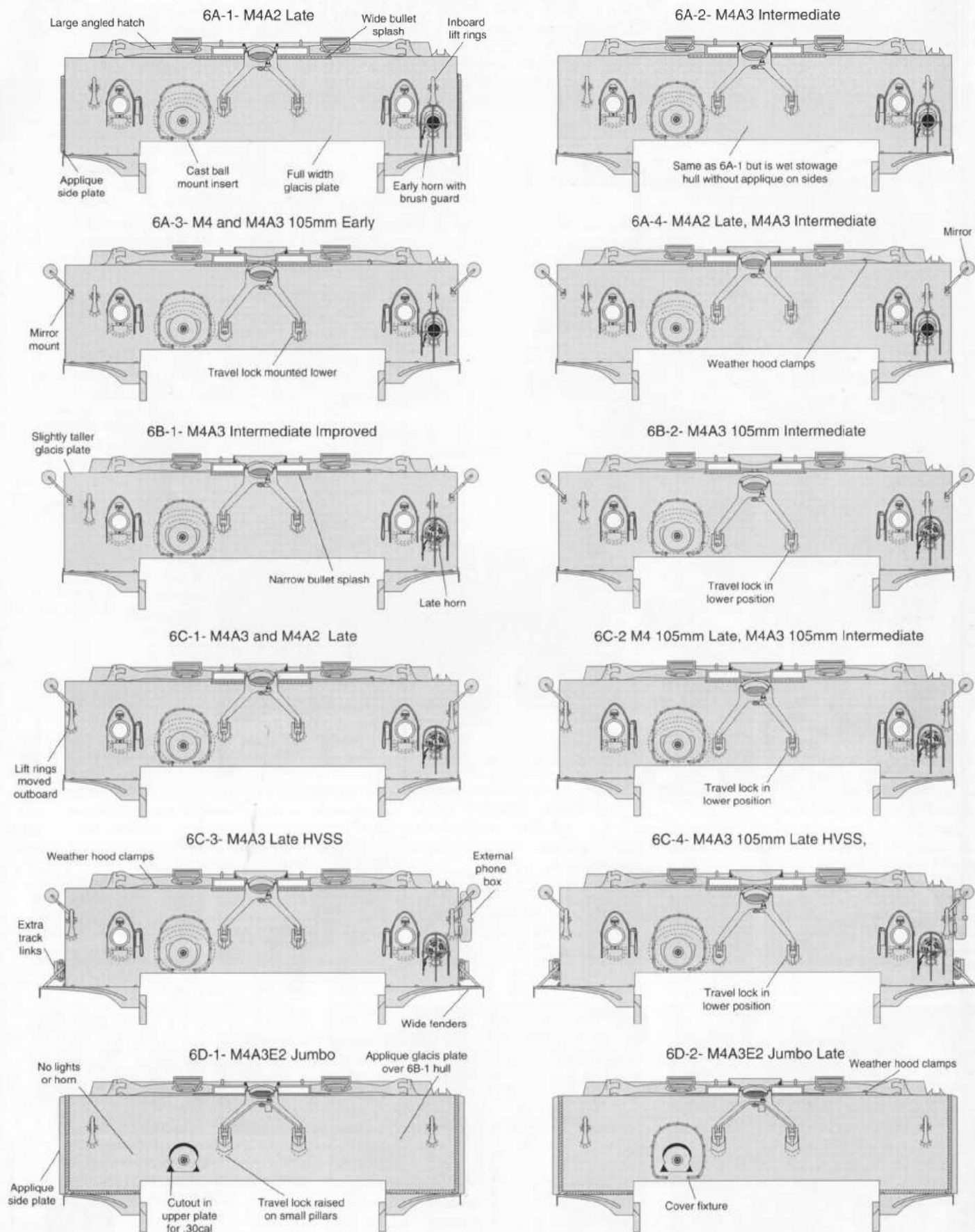


FIGURE 10

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A Renault of a Different Color

Constructing the diminutive Ironsides R-40 Tank



The R-40 is one of those odd birds from early World War II. It was a further development in the R-35 series and saw limited service in closing days of the battle for France. After the surrender, some vehicles saw service in the Wehrmacht, although photo reference is ultra rare. It's also conceivable that the French underground used some during the liberation (I suppose anything's possible—the underground actually built tanks at a tank factory right under the German's noses—but that's another story).

Ever since seeing the Renault R-40 in Osprey Publishing's *Polish Armour*, I knew I had to have one. But being a lazy S.O.B. there was no way I was going to take a Heller R-35 and convert it. Even if I had been inclined to, the R-40 is one of those exceedingly rare vehicles that plans and information are very tough to find (anybody got any good Nimrod or Zrinyi plans?).

Fortunately, the old modelers rule came to my assistance. "It'll eventually come out if you wait long enough." Azimut/Ironside, a French company (go figure) went right ahead and released a mixed media R-40 kit/conversion. The model comes with a new resin lower hull, track, suspension and trench skid as well as the entire Heller R-35 kit.

Le Construction

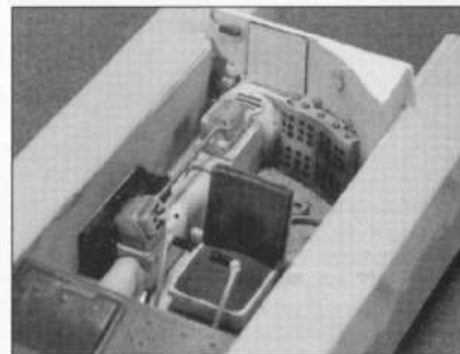
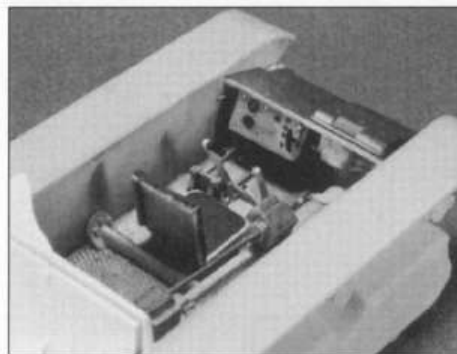
One of the nicest surprises in this model is that it comes with a fully detailed interior. The floor,

transmission and drive train are molded into the interior of the hull piece. I thought the interior looked familiar and after raiding my closet and comparing, I realized the interior is an exact casting of the interior included in the MB Model's Panzerjäger R-35 w/47mm gun. It's nice to see an interior in this hull, but really, messieurs, if you're talented enough to do a nice exterior and suspension, why not do your own innards as well.

I installed the rear firewall, seat back, throttles and gearshift lever and sprayed the interior off white. The batteries (stuffed behind the gearshift) were painted black, the shifter box was painted interior green and the perforated boxes at the firewall got daubed with steel. Next, everything got a

wash of thinned black. When dry, I dry brushed everything with Silver Rub 'n' Buff. I picked up a tube at a craft store while trying to evade large women looking for foam balls to stick weeds in. Rub 'n' Buff gives a great worn silver look when dry brushed. It retains a good bit more of its gleam than does a dry brushed paint. The seat cushions got a coat of Model Master leather dry brushed with tan.

The instrument panel is represented by a photo-etched piece, but no dials are included. In contrast, the MB panel comes with instrument faces on a mylar sheet, ala the Eduard series of etched products. I Xeroxed the MB dials to back the Azimut panel, but they didn't fit. I ended up backing the panel with acetate and cutting out each dial face to



Front and rear views of the interior. Unfortunately, nothing similar is included for the turret.

fit behind its appropriate hole. When complete, the panel was attached to the hull front/transmission cover. Azimut also provides a small junction box and the lever which went beside it.

I slid the front hull over the transmission and adjusted it into place. Here is where things began to get tricky. The front piece fits perfectly at first glance, but upon further inspection it rode noticeably high on the lower hull. The deceptively good fit of the front gave way to a minor battle getting it to fit correctly. Tensioning and flexing finally got the part to fit as intended. The second I got it in the right position, I ran thin superglue along the edges and froze it with accelerator. Care must be taken, along with careful planning as the part is under tension and will fight to be glued in the proper place.

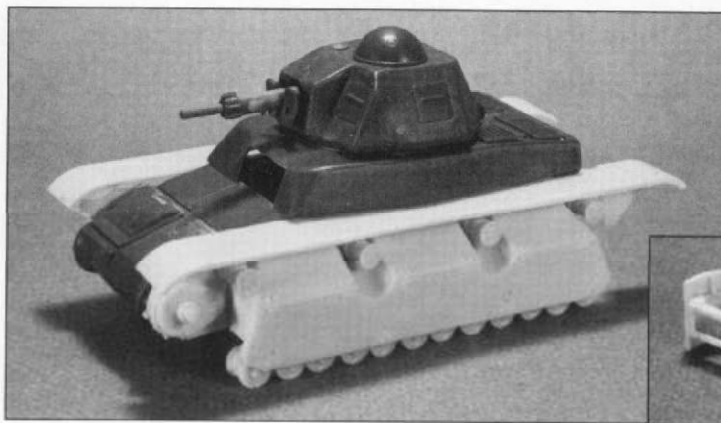
Next came the fenders. These units were thin and had some huge air bubbles in them. The bubbles were filled with putty and the fenders affixed to the hull sides. I would have preferred to leave them off until final assembly, but they play the 'meat' in the upper-lower hull sandwich.

The upper and rear hull pieces came next. The upper hull, which included the area forward of the driver, slipped into place without much difficulty. The front is keyed to slide up under the front hull panel. After all my adjusting, I feared there would be a new fit problem, but surprisingly, everything lined up. I glued the upper hull only at the front with Tenax so it could be adjusted to align with the rear piece. Good thing, because that's where the trouble started. The rear piece had to be slid in between the fender until it met the bottom piece. When in the right position, the rear was forced to the left. Apparently, one of the fenders is wider than the other, because it would not permit the rear to be centered. Again, the fit is deceptively good. The rear can be glued in place and even lined up perfectly with the top, but the result is an upper hull that angles (arrrrgh!). The fenders were pared down as was the back piece until everything fit. The rear was then super glued in place.

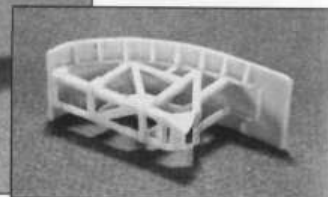
After the glue bonded, the upper hull was aligned and glued in place. Next came the hull detail parts. I began with the driver's hatches and quickly became disappointed. The lower hatch just plain stunk. The sparse detail and mold marks gave me the option of either closing it or making a new one. Laziness prevailed, and it got clogged. Unfortunately, this limited visibility of the interior. Fortunately, the upper visor fared better and was left open. This just provides me with a chance to use my official contest judge's penlight...

There are myriad of small detail parts on the hull. All but two come from the Heller kit. I guess my big gripe about this model is that it relies on too many Heller parts. The R-35 dates back 20 years and much of the model lacks the sharpness and fidelity of detail that the Azimut resin parts have. I would have liked to have seen some better fittings and tools in resin (not to mention those darn hatches), but I suppose it would have added to the R-40's price.

The turret is all standard Heller plastic except



Left: just before all the fun began... the lower hull mated with the Heller kit. Below: the little resin trench skid. Bottom: unpainted and paint view of the turret showing off my added texture.



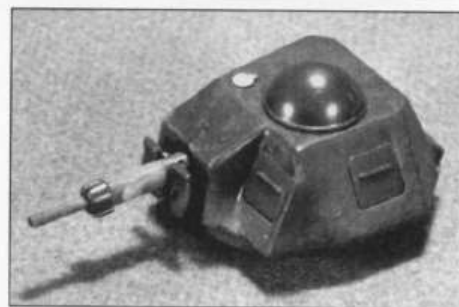
for a tiny brass pistol/flare port on the roof. Again, the age of the kit presented itself. The turret is butt smooth and lacking texture. I assembled the halves and stippled the entire thing with Squadron Green putty diluted in Testor's Liquid Cement. This provided a cast look, rather than a cue-ball smooth finish.

The gun has a basic breech and optional barrels. I went with the one seen in *Polish Armour*. The gun had big knockout pin marks on the barrel and didn't fit well at all into its mounts. The instructions also show additional parts added to the barrel that are not evident in the reference photo. Those got left off. The rear turret hatch is movable, but again, the detail in the turret and the hatch interior just don't match up with the fidelity of the hull interior. Those so inclined can scratch build or stick a mini dude in the hatch.

I really dreaded doing the resin trench skid. It looked so complex and fragile that I feared it would be impossible to build. However, this fear proved unwarranted. After cleanup, the parts went right together. There was a bit of difficulty getting it to fit onto the hull. First, I positioned it too high, then too low. After finally getting it right, I noticed the skid leaned to the right. The skid turned out to be slightly warped at the base. I simply dunked the rear of the model in hot water and trued its angle. Next, a rear support beam was added between the skid and hull. Azimut supplies this part in one piece, to be built with the rest of the skid. I left it off until everything else was aligned, then I cut the part in half to ease fitting through the frames. It all fit well.

Le Miserable—Suspension

Now we come to the suspension. I would have normally done this first but 'normally' the Wehrmacht was supposed to face the Maginot Line



to get into France. This is without question the trickiest part of the kit. At first, I attached all the bogies and return rollers and went to add the idlers. Before I did, something told me to test fit the tracks. When I did, it turned out that there was no way to run them up under the fenders and over the return rollers. The tracks come in units of one or five. They are very thick and highly resistant to heating and bending. Had I glued the idlers and sprockets on at this time, it would have been impossible to get the tracks on without ripping everything apart.

This is the part where it would have been nice to have added the fenders later. I ended up snapping off the return rollers and painting the model below the fenders. After assembling and painting the tracks; top run, bottom run and front and back sections, I put them on the model. I started with the top run. This was positioned and then pinned into place by replacing the return rollers. They fit tightly and kept the tracks in place. Next the front went on, as did the drive sprocket, followed by the lower run. I ended the lower run on the last roadwheel. This allowed greater freedom to adjust for length when positioning the idler wheel. The idler with the rear track run went on last.

The idler is on a pivot so it can be moved to tension the track. This is critical, since the tracks are so rigid—there's no play or sag in them. The track links were trimmed to fit the idler and drive sprockets.

Paint? Oui!

The model got painted with colors mixed from Floquil lacquers. The photo in *Polish Armour* shows a two-tone scheme with black demarcation



The front end of the story. That lower front hatch was badly marred on its inside face. On the good side, the design provides a clear view of the interior.

lines. Also evident in the picture is a significantly darker painted gun and drive sprocket.

I (as always) sprayed the model black and cloud-patterned it with hand-mixed yellow ochre. This was allowed to dry 24 hours after which camouflage bands were hand painted with Humbrol brown. The gun and drive sprocket were oversprayed in green. This is a bit irregular for French schemes, which are normally just ochre and green, but pictures don't (usually) lie. When the paint had thoroughly dried, I used a technical pen to draft the demarcation lines.

I wanted to try adding dirt to a tank's suspension and this gave the perfect opportunity. I mixed brown acrylic paint, white glue and Diosand (1/35 scale sand) into a paste and slopped it into the troughs and crevices. Diosand is much finer than cellucel and looks gritty and dirt-like when dry. I was pleased with the effect as it made the tank look muddy without being overdone. Mud and detail can both be seen. When dry, decal I.D. numbers went on the front and rear plates. The whole model was then dry brushed and dull-coted.

We Could Wait in Paris...

After writing all this down, I feel like this review has been nothing but a big gripe session. It was a hard row to hoe, but the finished model looks pretty good and I'm happy with it. The greatest pitfalls include tricky alignment, tough suspension and a base kit that's long in the tooth. However, with patience and a watchful eye, a very nice model can be had. If you don't feel up to the challenge, remember the modeler's rule and wait!

—Eric Knight



The trench skid and back deck.

MMIR RECCE

Ironside Renault R-40. Kit number IR015. Suggested retail \$79.98.

References

A bit on the sparse side...

Krzysztof, Barbarski, *Polish Armour 1939-45*, Osprey Vanguard, London, 1982. Contains one of the few photos I've ever seen of this little guy. Also contains a brief discussion of the tank's deployment with the Polish 1st Tank Regiment in June of 1940.

Zaloga, Steven and Grandsen, James, *Blitzkrieg*, Squadron Signal Publications, Carrollton, TX, 1983. This book has no shots of the R-40, but it does contain a complete description of French camo and markings from the period—including schemes used on R-40s.

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Just Your Type

We look at the
weentsy little Type
94 tankette
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Models of Japan



The Japanese were avid participants in the armor evolutionary deadend called "tankettes." These vehicles were crewed by two people, a driver and a gunner/commander, and were typically armed with one rifle-caliber machine gun. With their light armor and lighter armament, AFVs such as the French AMR, the Polish TK, the Italian CV, and the Russian T38 had largely disappeared from use by 1941 (many of them destroyed by shots from that feared tank-killer, the 37mm). The Japanese, however, continued to use theirs, probably because they had little else.

The Type 94 (apparently misidentified during the war as the "Type 92") was developed in the early 1930's. It used the same type of suspension as most Japanese tanks, with one large horizontal spring per side, linked to two bogies. The turret was traversed by the gunner. The engine was an air cooled four cylinder gasoline of 32 hp, hauling the three-ton vehicle at 25mph. This model is of the early type; a later model had a somewhat different suspension, with a trailing idler.

The Kit

This kit is multi-media, if you count three kinds of metal. This kit is **all metal**, and has parts of white metal, stainless steel, and brass wire. This medium is common to all armor modelers, but it's a

rarity in this scale to find a complete vehicle in metal. The only other all metal kit I've ever built was a 1/76 Kfz 13 (and it gave me bad eyestrain). This is small, but not that small, and consists of one photo-etched sheet with eleven parts on it, one length of brass wire for handles, 18 sections of track of two lengths, and 46 other parts. The casting is pretty good, considering the constraints of white metal.

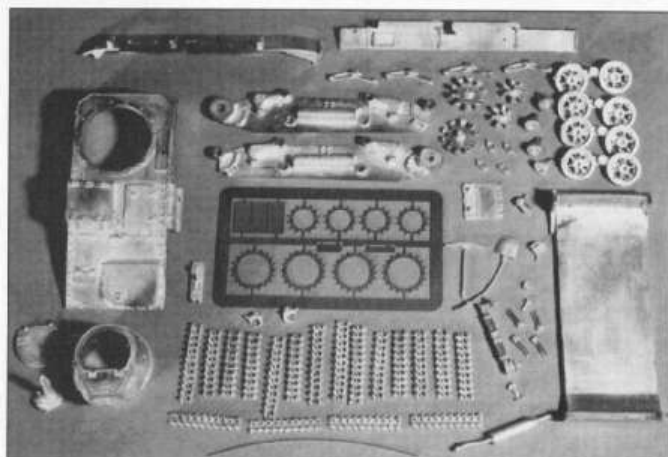
The instructions consist of one page with five drawings of the exploded view type. It is all printed in Japanese, and those of you who read my Ha-Go article know that I can't read Japanese—still. One paragraph is concerned with the tracks, and I wish I knew what that said; most of the rest you can figure out with the drawings and dry fitting. This is not a cheap kit; I think we deserve a translation.

Construction

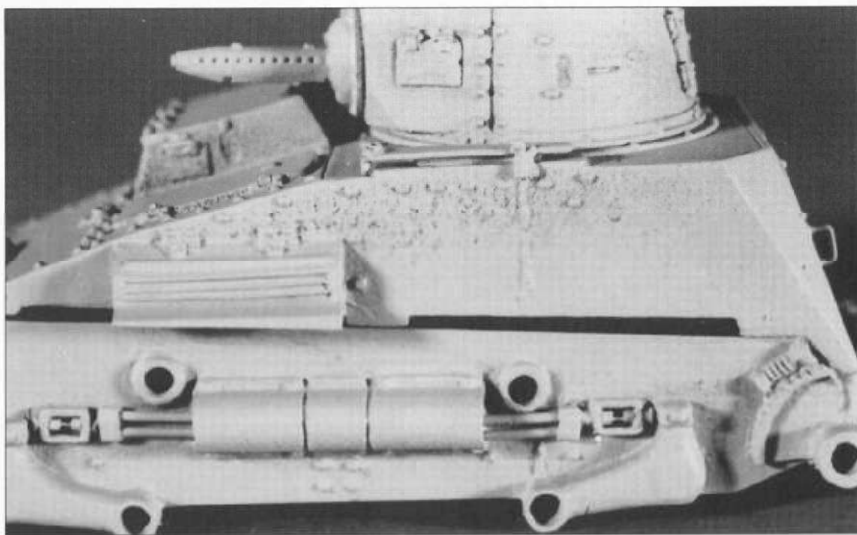
First, here's a personal question. Do you have a good relationship with your collection of files? You're going to

need it, 'cause there is a good bit of cleanup to be done. None of it is very heavy, but every part has to be worked with file and emery paper.

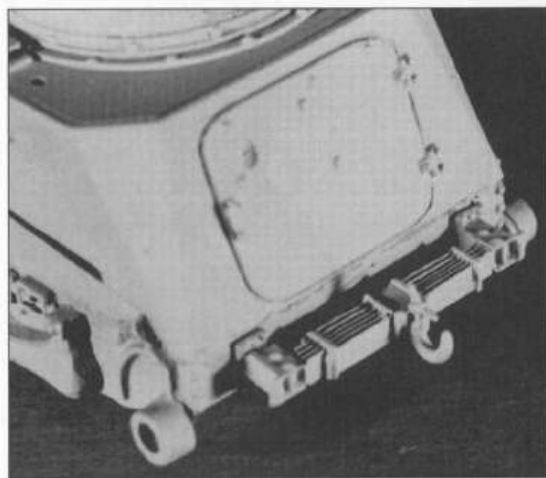
I started by putting the hull top and bottom together. Then I put on the lower hull sides. Hold the fenders in place while you do this to make sure they'll fit later. I didn't want the fenders glued on yet so I could work on the tracks without interfer-



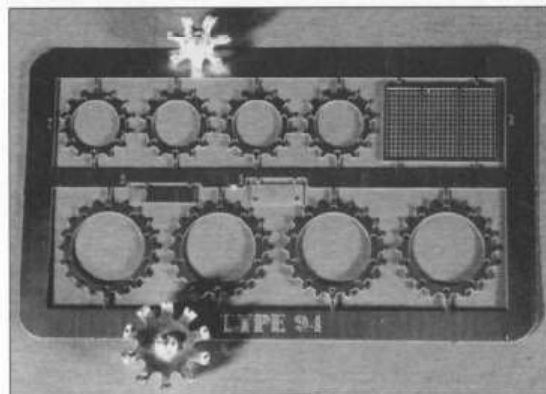
The parts laid out for inspection. Molding quality is quite good, considering the constraints of white metal.



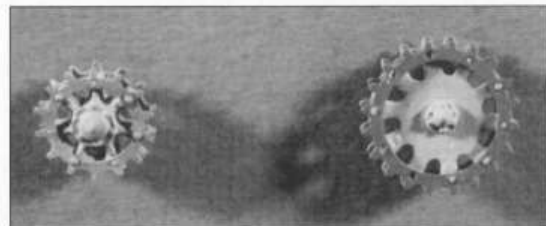
Upper and lower hull joined with hull sides. The fenders have to be held in place while putting on the sides to make sure that the slots for mounting them stay the right size! This is the hull and turret with its coat of Floquil figure primer. This stuff worked great.



Here's the bizarre and ornate rear tow hook, mounted to its own spring (!).



The drive sprocket and idlers are made from white metal spokes and hubs with photoetched outer rings with teeth.



A drive sprocket and idler (also toothed) assembled. While the idler was a perfect fit, the driver needed work.

ence. Next I put on the links and pushrods that tie the bogies to the springs.

Then I went ahead and put on the most of the hull parts (except the little tiny bits). This included the engine service hatch on the hull top just left of the turret, all the brass handles, and the tow hooks. By the way, this tank has a conventional hook on the front, but the rear has the most ornate and bizarre towing arrangement I've ever seen. For some reason, the designer saw fit to mount the hook on a leaf spring mounted horizontally. Was it to damp out oscillations when towing? Was it to act as a bumper? Who knows.

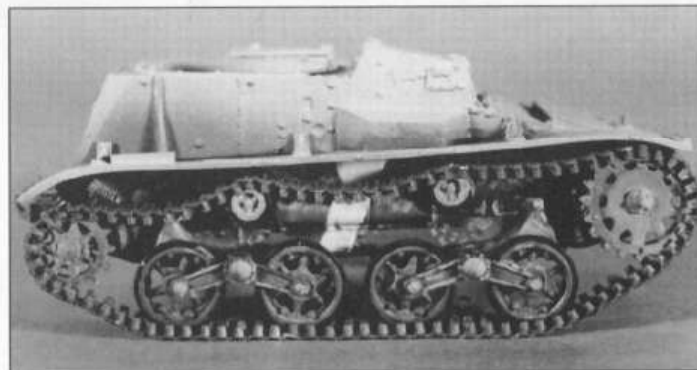
There's another small paragraph concerned with a driver's hatch. I assumed

excellent bond to metal... a surface easy to cover with water based paints." This was just the ticket, and it came in a spray can so I didn't have to contaminate my airbrush with solvents and stuff. So at this point, I sprayed all the parts with the primer. It says to let it dry for 24 hours before painting on top of it; just to make sure, I gave it a week.

While I was waiting for the primer to dry, I built the drive and idler sprockets; yes, the idler is toothed as well as the front one. (Maybe this was needed just to keep the tracks on; like most Japanese vehicles, photos show the tracks were **very** loose. Big droops on the top run!) This assembly was different, to say the least. The spokes and center hub of each sprocket is cast in one piece in white metal. The outer and inner circumference with teeth was in photo-etched stainless. Pins on the ends of the spokes were supposed to match up with holes in the stainless parts. They mated up perfectly on the idlers, but weren't even close on the drivers. Five of the ten would match, but the rest were hopeless. No big deal, really; just file off the other five so you have a flat surface. Make sure you mate and file the same ones on the back and front, or else your teeth won't line up correctly. For the real geeks, you could drill the parts to accept Grandt Line bolts.

My primer had dried by now, so I sprayed the lower hull and suspension parts with the same green color I'd mixed up for the Ha-Go. The box art showed a camouflage scheme of hard edged stripes of yellow and brown. I painted a stripe of each on the lower hull. While I was spraying I did the track sections in rust. The bogies had their tires painted black; by the way, there's no detail on the backside of the bogies.

Now I was ready for the suspension and tracks. I glued on the bogies, and set the vehicle aside to dry while I cleaned and assembled the tracks. The assembly turned out to be largely wasted effort. Remember at the beginning I said that two lengths of track are provided? Actually there are five long



The tracks installed on one side. They were an excellent fit, and much easier to put on than I thought they would be. The suspension parts joining the bogies to the horizontal spring are seen here too.

that this was an alternative, because to mount it all the hinges on top of the driver's position would have to be filed off. I didn't use it. Again, a translation of this would be very helpful, since I still don't read... you know.

When I built the other metal kit, I had a good bit of trouble getting my acrylics to stick. Seemed that the slightest touch would remove the paint, even when dry. I was determined to avoid a repeat of the problem, and an inquiry at the local hobby shop turned up Floquil figure primer, which states right on the can "...perfect primer for all metal figures... provides an

sections, and thirteen short. (Turns out that one of each is extra.) Dry fitting showed where each go; this is probably explained in that track paragraph.

Put one long section on each drive sprocket, and a short one on each idler. This white metal is not brittle, and readily accepts bending. Just start the track on one set of teeth, and work your way around, making sure the teeth are fitting into the holes in the tracks. There's no need for glue; the tracks are firmly locked on. You'll have a 'tail' on the bottom of the driver; this will mate up with the bottom run. Glue the sprocket on to meet a short section of track, suitably 'drooped,' going to the first return roller. Now use one of the long sections to go from the first to the second return roller. A short section goes from the second to the idler; position the idler to mate up with this.

The bottom run is made up of three short sections, and fit almost perfectly. I glued three sections together, but that didn't hold through the handling;

it was easy to put the short sections on singly, anyway. I thought this was going to be a real chore, but it turned out to be quite easy, and looked really good. Next the tracks were drybrushed with gun-metal, and then the fenders were added. You can get to the inside of the hull through the turret ring to super glue on the fenders.

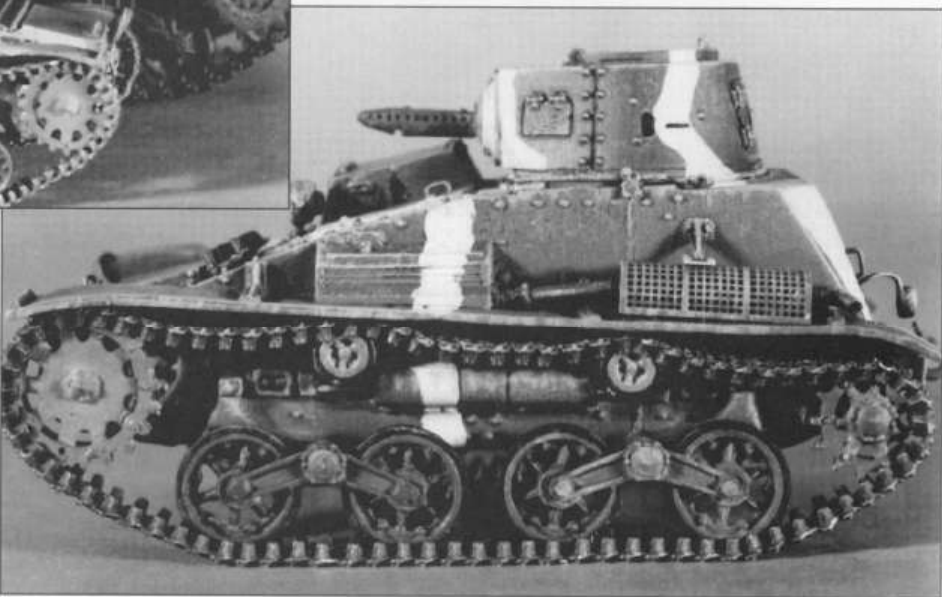
During one of the drying periods, I built the turret. Didn't take much time; it only has three parts. File the front of the turret and the back of the machine gun mount to get a good seat and glue that baby on. Now put on the hatch. Done. Well, almost. Looked to me like it needed a hatch handle, so I made one out of the wire, and drilled the hatch and added it. Took all of a half hour.

Now I put on the small bits; the three cornered handle on the hull top next to the turret, the horn, the light, and the tail light. The tail light is mounted to a photo-etched strip. All the mounting holes



Above and below: Overall shots of the completed vehicle. Note the stowage detail on the completed vehicle. The pick fits through a slot in the fender; its point is visible below the fender, above the track. On the shot below notice the exhaust system detail; the small spacer is barely visible where the exhaust pipe goes into the hull. The photoetched guard was bent into shape, then set in place. The white metal brace from the hull side effectively locked the guard in place. The camouflage is three color, although the brown is hard to discern from the green in black and white.

Inset at left: Just how small were they? On Roi-Namur they had to fight Marine M4A2s; they were a lot smaller after that...



except the horn had to be drilled out. After this, I sprayed with the base coat.

While waiting for this to dry, I painted the tools, a shovel and pick. The pick took some work with a file to make it look like it would work; it was extremely blunt on both ends. I painted the business end of each in gun metal, the hold downs in the base color, and the handles in dark brown to simulate wood.

The paint was dry by now, so I put on the exhaust system and its photo-etched guard. I didn't even have to glue the guard on; there's a brace that goes from the hull side to the top of the guard, and it holds it on just like the real thing. The exhaust pipe didn't quite reach the housing on the hull side. This was the only real fit problem on the kit, and it was rectified by the addition of a round fitting from my spares. It looked like it belonged!

Next I applied the stripes, and then drybrushed with Pactra Africa yellow. The tools were added, and the taillight painted gloss red. I put the left over short section of track across the glacis so the little guy wouldn't be totally bare. It was done!

Conclusion

According to Crow and Icks' Encyclopedia of Tanks, the finished model measures extremely close to the dimensions given, certainly close enough for me. Fit was quite acceptable, and it was unusual to work in a completely different medium. All in all, a nice kit of a rare World War II vehicle... I liked it! 

—Joe Morgan

MMiR RECCE

Ordinance Models Japanese Type 94 light tank. Sold by The Tank Workshop in the U.S., kit number TTWM 4001. Kit graciously provided by Tank Workshop. Suggested retail is \$70.00.

References

Like I said, the pickins are slim. There is the brief dimensional description in the Encyclopedia of Tanks, but not much more. The following contain a photo or two:

The Great Patriotic War, by Peter G. Tsouras. Presido Press. This is a pretty good book if you're interested in this theater of the war. Contains the famous shot of two Soviet officers laughing at the sight of a captured type 95 (talk about embarrassing). This book is available from Squadron Mail Order.

Armour of the Pacific War by Steve Zaloga. Osprey Vanguard, London 1983. Contains the most famous photo of the Type 94; the one with it strapped to the back of a Sherman! Diorama anyone? *Tank Magazine*, Number 5, 1985. This issue contains several photos of the Japanese light tanks deployed in China. There is also a TM Special on Japanese armor in China. It's not sold in the states, but writing directly to the publisher might be worth a try.

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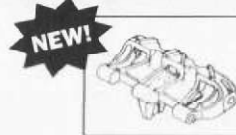
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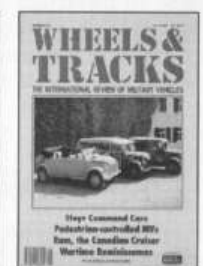
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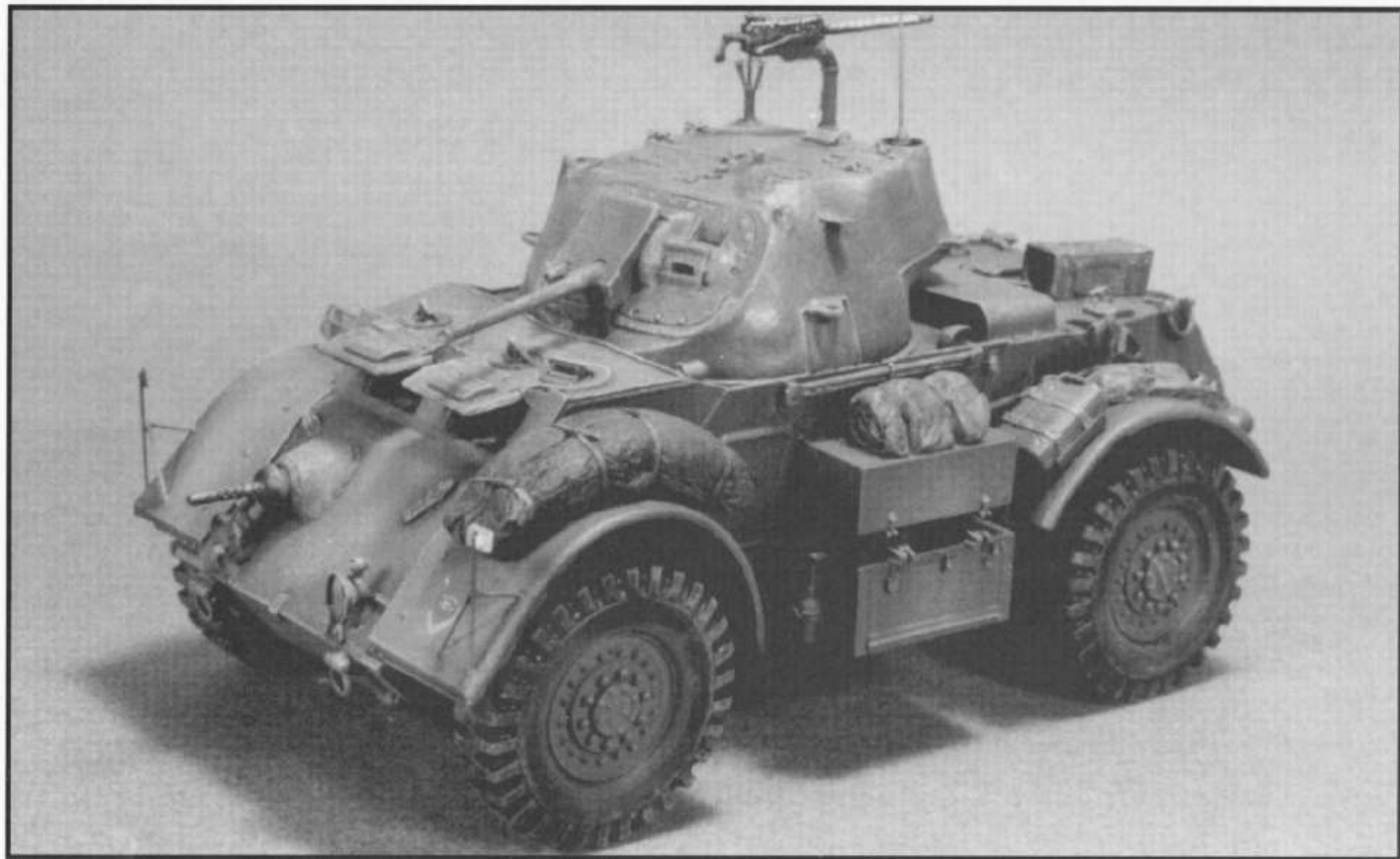
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The Hounds of War

ACCURATE ARMOUR'S STAGHOUND ARMORED CAR



One of the most prolific resin kit manufacturers today, Accurate Armour has released the mighty Staghound. It comes in a new light green resin, with the usual etched fret, white metal axles and transfer cases, and detailed instruction booklet. I have to say that I was compelled to write this review for several reasons. One is that this is a good kit and people should know about it. The other, more personal reason is that I AM SICK TO DEATH OF ARTICLES ABOUT PANTHERS, TIGERS, STURMWHEATERS, AND BORSCH BLENDERS!!! Feed the fish soup to the cats and let the dogs be done with them. *[After a few hours rest and fresh air, John was fine—Ed]*

The Staghound was developed through the urging of both U.S. observers assigned to the British in North Africa, as well as by the British themselves. The observers witnessed effective use of armored wheeled fighting vehicles, and the British desperately needed assistance through the Lend-Lease Program for more of the same. In July 1941, the U.S. Army Ordnance Committee issued requirements and by September both Ford and Chevrolet had been authorized to build prototypes.

Both vehicles weighed in (combat loaded) at about 30,000 pounds—4,000 pounds more than a combat loaded M3A1 Stuart Tank! The armament was the same too, the 37mm gun. Both the U.S. and

British armies rejected the Ford T17 version, and Chevrolet was given the production go-ahead for their T17E1 version with first deliveries commencing in early 1943.

The British loved the power turret traverse and power elevation stabilizer for the 37mm gun. They did, however, have reservations about its overall design—namely that it lacked the rear facing driver's station so customary on other British AC's and the dual 30 gallon external fuel tanks which they felt were a fire hazard. All in all though, the British were grateful to have a new vehicle.

The British Army learned to love the Staghound—it was like a palace, with loads of internal room, a crew of five, and boy was it rugged! In addition to the British and Canadians, New Zealanders, Aussies and other Commonwealth Armies also used the beast. First action with the hound was in Italy, where its ruggedness was a blessing. Many Staghounds were retained for years after the war.

Here Boy!

The Staghound from Accurate is a big kit of a big vehicle. While not the only one manufactured (ADV/Azimut did one five or so years ago, which I built), it is the best, as it scales out accurately both in length and width. Unlike some of their other kits, there is no interior on this kit. Let's face it, it's not a boxy tracked vehicle that would easily invite an interior!

First, and I know you've all heard this before, read the instruction booklet a couple of times! Look over all the parts, check for missing and broken ones and compare them to the list on the back of the instruction booklet. It's rare, but sometimes a part or two can be missing or broken. I had a bit of this and called David Farrell at AA. He was genuinely eager to help. In under 10 days I had all the replacements in my hot little hands!

The kit is a solid resin hull and turret, with recesses for two half figures here if you choose. There are no provisions for an open hull and the windscreens for the driver and MG Gunner are molded with wipers in place—more on this later. The rest of the kit is resin and white metal (WM) with a big photo etched (PE) sheet considering the vehicle. The detail, as usual for these folks, is outstanding.

It would help to get a hold of some of the reference material (I know the Wheels & Tracks issue is available—they always are!), but it's not imperative. I began by dry fitting the drive train and suspension parts—if you don't it won't sit level. I use, and highly recommend, two-part epoxy. My experience has shown that being a little heavy on the hardener helps it set up pretty quickly but still leaves you time to make sure it all sits level. It is imperative that the transfer cases (AA calls them the front and rear axles) are seated snugly into the

recesses on the bottom of the hull and are level—if they aren't the wheels won't all touch the ground. I completed the lower hull by finishing off the suspension units and steering linkage, etc. There are a lot of parts here and while the drawing-enhanced photos are great, a couple are just a tad too dark to be sure about placement.

Once the lower hull is complete (leave the wheels off for a while, but you should have cleaned them up and test-fitted to be sure the thing sits level when you do the suspension), move to the upper hull. Here you have to choose how you want the front visors to look—opened or closed. I proceeded by adding the periscope tops (note on the instructions that the PE guards were hardly ever used on the real vehicle), tools, exhaust system and stowage boxes. I opted to leave off the fuel tanks, as most photo reference I have show the hound sans cans.

On top of the right box I added a scratch built rod and mesh basket and filled it with tarps, sleeping bags, spare fuel can, etc... I added jerry cans on two of the fenders, the fire extinguishers, and any other relatively solid pieces that I thought were safe from my extreme clumsiness (notice I didn't add all the fiddly PE bits yet).

I installed the WM 37mm gun with coaxial MG and white-glued the hatches in place. I used white glue because I want to use the vehicle in a diorama some day and open it up! There is room for a figure in the openings, if you're so inclined. Watch out for the particularly tiny PE hasp on the loader's hatch. I went on to build the antenna mount from PE and used guitar string for the antennas, cut to match the length of the case that mounts on the right hull side. I used the kit's WM air defense machine gun, then added all the other etched bits to the turret, setting it safely aside.

As I said, I strongly recommend leaving the fiddly photo etched parts off the hull until you are through with the rest. Specifically, parts N4, N18 (with resin #37 — wing nuts!), N16, N15 (and the rods for the mirrors). I completely omitted the PE periscope guards. There is a really good PE engine intake cover that comes with a resin former. This is neat! In fact, the former makes it easy to bend the cover to the correct shape and the resulting piece has scale thickness to boot. The underside supports mount nicely, and the whole affair is pretty sturdy. This is one part I didn't leave until last and it held up nicely.

Right. With the majority of the kit built, it's time to add the fiddly bits. Using the instructions as a guide, I measured off the brass rod for the mirror posts. I attached the upright post (follow the instructions and drill out all the necessary holes before you even think of starting to build!) and laid each successive post against it. I used quick setting superglue, adding the mirror last.

I added the handles on the rear deck next, wing nuts and all. I followed that with the tow cable braces (N10), light guards (N16), and towing lugs (N4). My kit was missing the clevises molded on the front, so I used Collector's Brass ones (front and rear). I also had a great time mounting the PE hasps and padlocks on the lower stowage lockers.

At this point I hadn't done the visors yet... You can do them any time, really. I did them open, so I mounted the PE supports to the visors, then mounted the sub-assemblies to the hull. This does create minor masking problems at the painting stage. Note that the glass windscreen was an added, driver-removable accessory that came with an attached wiper and motor. At this point, with PE and WM all attached, and tires, hull and turret done, I painted.

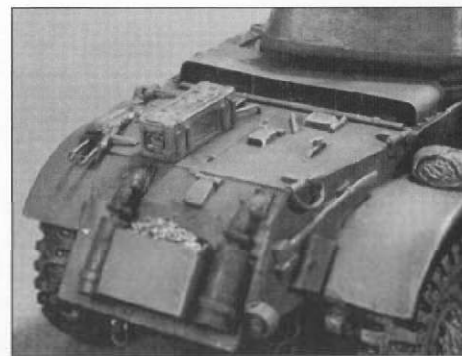
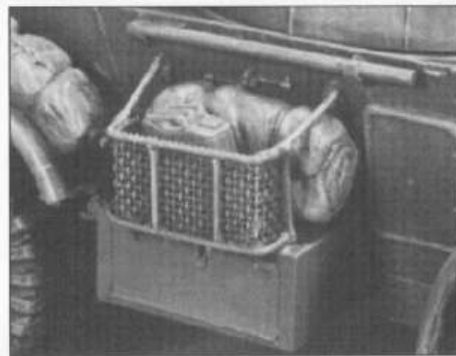


Photo finish! At top left is the front end of the poochie, showing off the neat looking side view mirrors. AA's instructions came in handy here. The shot at top right shows the back engine deck and that very nice engine intake cover. Below left and right: my scratch built basket and other add-on stowage.



Paint That Poochie

I finished the Staghound overall Green Drab and Khaki Drab mixed 50-50. I airbrushed it using the Testor Model Master (Aztec?) system and applied about five light coats. I painted the wheels a mix of Windsor & Newton's Paynes Gray Oil and Testor Rubber, dry brushed with gray and successively lighter shades of Humbrol Pale Stone. Once dry, I mounted the wheels, and turret, and washed it with a Windsor & Newton Burnt Sienna oil wash, then a very thin flat enamel black wash. I proceeded by drybrushing it the base color, followed by gradually lighter shades to a final light touch of Humbrol's Pale Stone. For markings (there were none in my kit), I followed the boxed guide and put a Guard's Division "eye" on the left fender. I intend to finish it with correct tac signs, but hadn't when the photos were taken. For weathering, I

lightly muddled it up, as they were heavy, and likely threw up grunge into the fender area — photo references helped here once again.

Good Dog!

The Staghound from Accurate Armour builds up into a very nice armored car. Its great too see a WWII subject that is neither tracked, nor German. It has such an accurate heavy look to it in kit form. Being biased (a raging anglophile), I can't recommend the kit enough. It's unusual, relatively straight forward to build, and would pose no great problems for an intermediate builder or a beginner with some experience in resin. The kit is available straight from Accurate Armour, but domestically can be had at Squadron Mail Order or Red Lancers. 

—John Rauscher

MMIR RECCE

Accurate Armour Staghound. Kit K64, graciously provided by Accurate Armour. Suggested retail... well that depends! AA lists the kit at £53.00. In dollars that equals \$84.27, but deduct VAT, so it's \$71.71 (VAT is 14.9%), but add £16.00 for postage (airmail!!) that's \$25.44, for a grand total of \$97.15... Phew! That brings it pretty close to Squadron Mail Order's \$119.00, but it takes longer to get it direct. You decide. Accurate Armour is at Unit 15-16 Kingston Industrial Estate, Port Glasgow, PA14 5DG, Scotland, UK or phone at 001-44-1475-743955.

References

DataFiles by Malcolm A. Bellis, 10 White Hart Lane, Wistaston, Crewe, Cheshire CW2 8EX, UK. Invaluable reference on markings, orders of battle etc... (and there are some German titles too!)

The Chevrolet T17 Series Armored Cars, by Konrad F. Schreier, Jr., Army Motors, Journal of the Military Vehicle Preservation Association, Number 70, Winter 1995. Most recent article on the beast, with loads of photos and great history (some from other sources). One of the best sources of info, the other being...

Staghound Armoured Cars, Wheels & Tracks Number 32, 1990. A good article with a lot of photos, internal drawings, action photos, the other great source! Check with RZM on this one.

D-Day To Berlin, by Terence Wise. Arms & Armour Press, 1979. Not much, but a color drawing and photos of the AA version. Currently available.

Illustrated Encyclopedia of Military Vehicles, by Ian Hogg & John Weeks. New Burlington Books, 1980. Sadly, this "bible" is out of print, but this is a gem—grab one if you see it! Small article and photos of the "hound".



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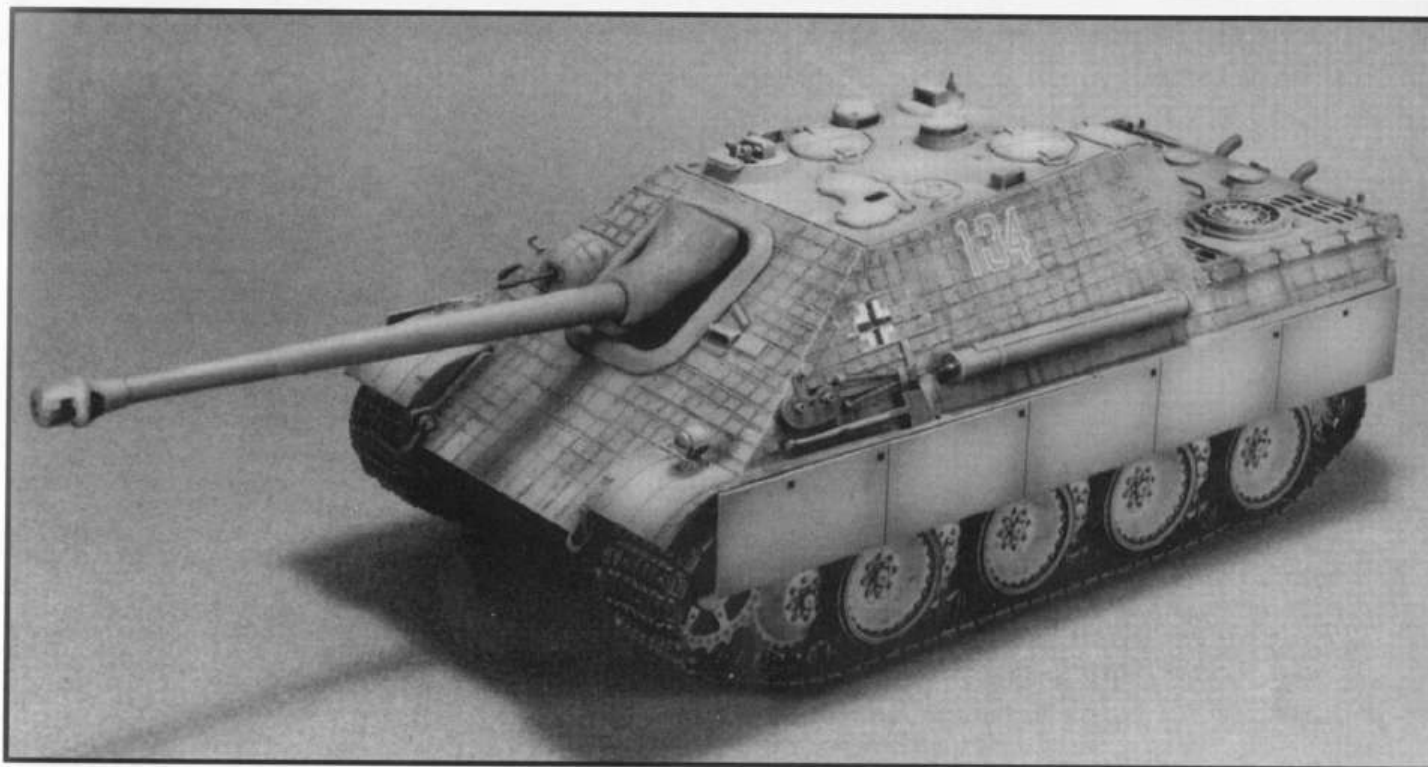


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PART ONE: THE DML JAGDPANTHER



The Jagdpanther was one of, if not the most, formidable tank destroyers of World War II. Constructed on the tough, resilient Panther frame with good ballistic protection, the Jagdpanther also mounted the lethal 88mm Pak 43 high velocity gun. This combination, as well as simplified production, due to the lack of a turret, made the Jagdpanther a major asset to the Panzer armies and a respected foe of Allied tankers. So why has it taken so freaking long to get a decent kit of it?

Back in the dark days of modeling, we had to get by on Tamiya's offering. Most of us were impressed at the time, because who could have envisioned any of this technological stuff back then (and who could resist that ultra-cool box art?). As a kid, I went through many sets of Duracells assaulting the dreaded Allies with my Jagdpanther in the backyard. But enough nostalgia.

Tamiya's kit hasn't been quite up to spec in a decade. Then came the Gunze Sangyo high tech kits. They looked great but cost a fortune. They also were a pain to build due to pin holes, overblown photo-etch and cheap, lead-enriched metals that—surprise—degraded or oxidized over time (not a pretty sight). Suffice it to say, I was never terribly impressed. Especially considering the \$130.00 price tag.

Last year, Italeri came out with their attempt at a good Jagdpanther. It fell a good bit short of the mark for a new kit and was not too much of an improvement over the older Tamiya model. Another personal gripe is that it represented yet another late, late production model. Only the second of the two Gunze Jagdpanthers represented an early vehicle. There is a popular series of photos showing the early type deployed in France in response to the D-Day landings. These vehicles were from sPzJagAbt 654 (or should I say schwere Panzerjäger Abteilung 654?). Only 15 or so made it into the fray. Virtually all Jagdpanthers with zimmerit are early or mid-production vehicles.

Recently, all my Jagdpanther dreams started to come true. Dragon Models (a.k.a. DML in the states) obtained the Gunze molds and did its own all plastic Jagdpanther. In my opinion, Dragon has finally found a way to put its Imperial Series to good use. In case you're not up to speed, the Imperial Series products (distinguished by stock numbers beginning with a 9) contain another manufacturer's kits embellished with original DML parts. The first releases used mediocre kits to base new models on, witness the Easy Eight Shermans, and got marginal results. Now, they're taking good kits (like Gunze) and making them *better*. They replaced the tedious and often

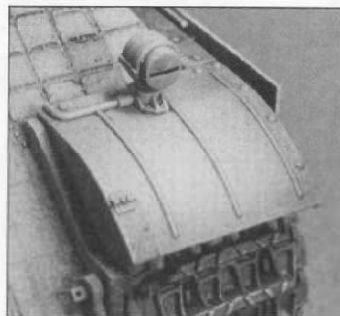
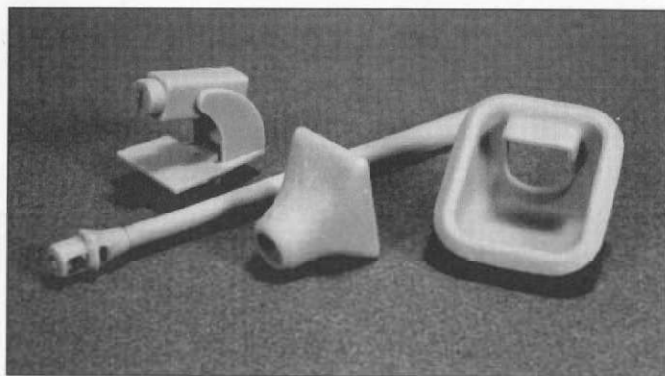
poor quality metal parts with well-detailed plastic ones. And they dropped the price by about a hundred bucks to boot. The photo-etched parts are gone, as are the Modelkasten tracks, but Dragon supplies its own tracks, which are every bit as good.

Jagdstruction

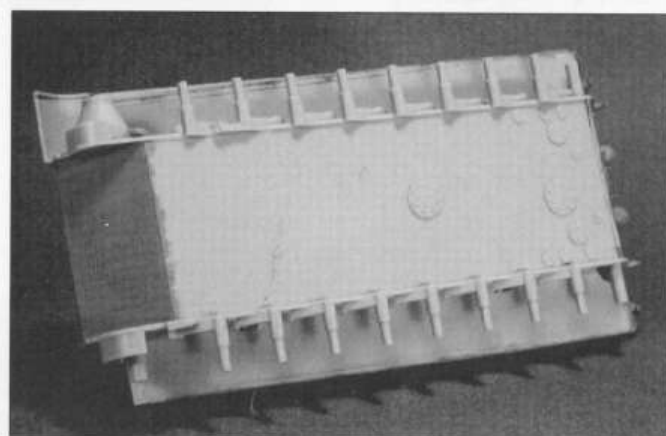
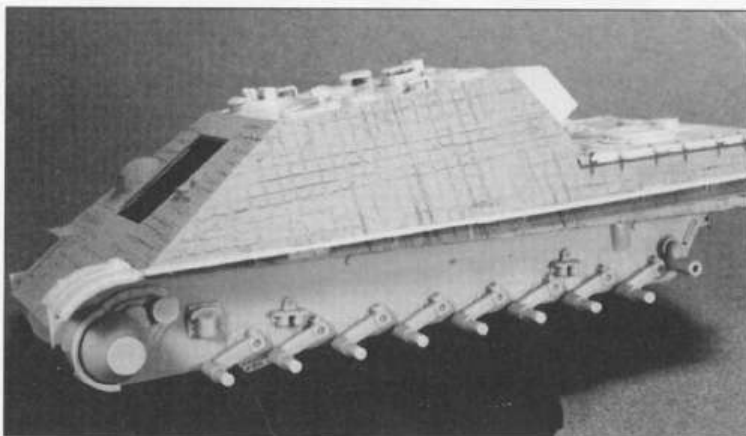
Turret: Sucker!!! It doesn't have one (so don't write the manufacturer).

The kit comes with the 88mm Pak 43 early type gun. This weapon utilized a one-piece barrel unit, as seen on early Porsche King Tigers. The one-piece barrel can be seen on Jagdpanthers of all types, but it's rare. It is most commonly seen on the prototypes. Spielberger's *Schwere Jagdpanzers* (say: SCHVERE) even shows one of the final production vehicles mounting the one-piece. No doubt any Pak 43s recovered from derelict vehicles got recycled, due to their hitting power and relatively short supply.

The gun base is mounted to the inside of the early-style welded mantlet (later JPs had a larger, bolted mantlet). The mount provides for both gun elevation and traverse. I kept the traverse feature and glued the gun in at a fixed elevation. The mount is too weak and loose to support that long heavy barrel without glue. Tamiya solves this problem with a nut and bolt. Dragon might want to look into this too (?). No big deal.



Far left: all the gun components. The ringed collar denoted the early version Jagdpanther. Left: the finished left fender. DML did a great job reproducing this area—note the flip-up panel for the tow shackle. The right fender also has this feature. I'm highly tempted to steal these for other Panther kits... Also noticeable is the square bolt head for the tow shackle, another unique detail. That Bosch light is pretty sharp too. Below left and right: the suspension and the lower hull. The torsion arms are very accurate except that they can't be articulated—but you'll never have to worry about the kit sitting flat!



Above: the wheels, drive sprocket and idler wheel. The old Gunze kit was the first Panther model ever to include all the correct parts. Below left and right: views of the hull sides showing off the tool stowage. These tools are all new DML plastic items and are a marked improvement over the old Gunze metal stuff.

Oddly, the later style mantlet is also included. It's good for comparison purposes, but that's about it. It's all but useless on this kit as the model lacks all the later JP features such as the sighting equipment, engine deck, suppressed exhausts, etc. Your parts box will be glad to see it though.

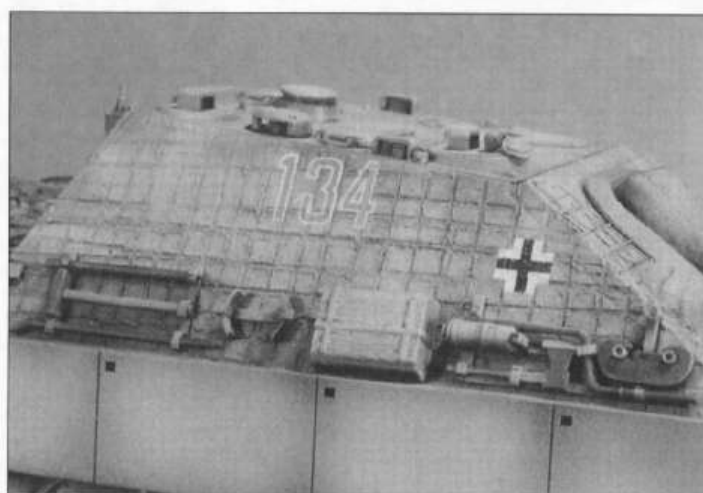
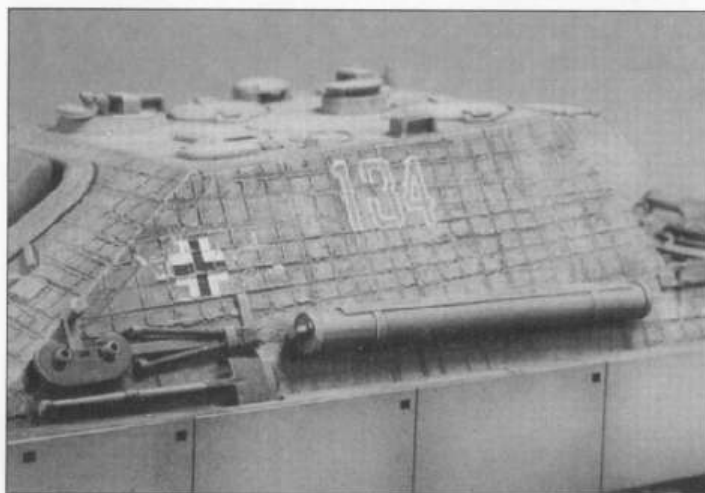
The lower hull and suspension are great. The Gunze Panther wheels were always superior. Incidentally, these wheels fit right on to the axle of an Italeri Panther (hmmm...). The torsion arms come molded to the hull, so you can't articulate the suspension. Dragon's tracks are good and require little cleanup. They have finally started hiding those pesky ejector pin marks in the deep grooves on the links' outer surface. When painted, they are nearly invisible. This innovation saved hours of clean-up time, not to mention annoyance. Life's too short to waste time cleaning pin marks off track links!

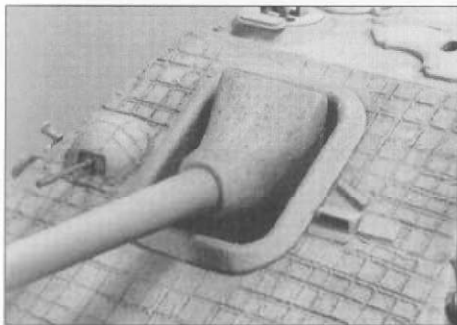
Almost all Wehrmacht AFVs between fall 1943 and November 1944 had zimmerit anti-magnetic paste, Jagdpanthers being no exception to this rule.

The patterns seem to range from simple grid patterns of varying size to complex checkerboard designs. I tried a wide grid.

I dissolved Squadron white putty in Testor liquid cement and mixed it into a thick pasty consistency. The white putty seems to dry more slowly than the green and is therefore more suitable to this task. The mixture was then spread on one whole vehicle side (it's also great on a cracker). I allowed 10-15 minutes of setting up time. This allows the putty to melt into the plastic and creates a better shaped and sturdier bond. I scribed grid lines into the paste using the back of an X-acto blade and a straightedge. One side of a vehicle is about all that is practical. Any defects were pressed out and re-scribed. There is room for inaccuracy, as too neat a pattern makes the model look toy-like (that's my story and I'm sticking to it).

After the zimmerit dried, I went to work on the upper hull. I encountered some annoying omissions from the instruction sheet while completing the engine deck. The instructions say to remove one or two raised part location marks. There are actually four or





five to remove. After assembling almost the entire deck, I noticed there were locators but no parts to fill them. Having all the parts on the deck made filling and sanding the locators nearly impossible without damaging detail—so watch out.

The tools and fenders come from the Panther II kit. One entire sprue is included from that kit and it also contains the 8-toothed drive sprocket and Tiger II style idler wheel. More good stuff for the parts box. The tools are all good and were used as is. Dragon's fenders are generic and lack fine detail. I didn't like their naked look, so I robbed a set from a Tamiya Panther G. Early Jags had skirts on in most of the photos I've seen. The skirts were painted separately and added after the tracks. Coincidentally, the fit is near perfect. Sounds like a conspiracy to me.

One other nice detail included in the kit is the third stowage bin behind the fighting compartment. Together with the one-piece gun, small mantlet and side skirts, it really adds to the unique look of the early vehicle.

I Just Jagd To Paint It

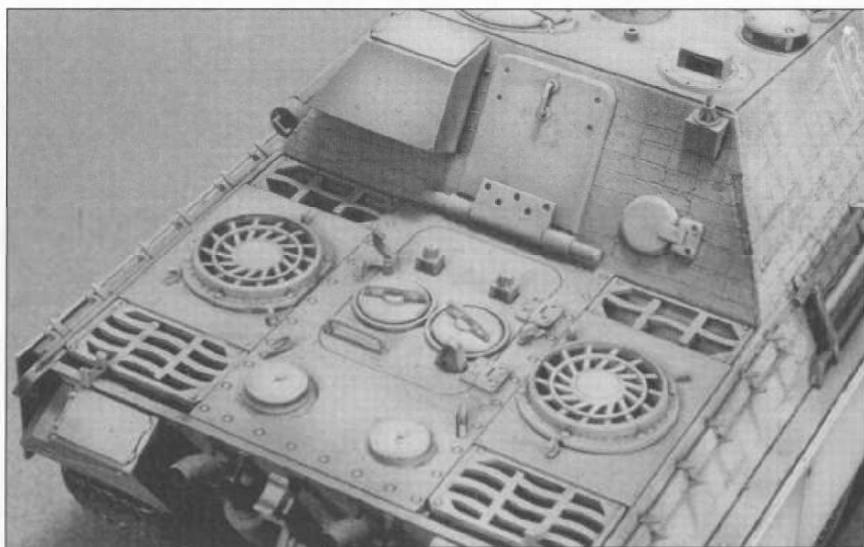
The model was sprayed overall black, the cloud patterned using Floquil dark yellow. This, in turn, was mixed with white and re-sprayed more lightly. The tires were painted black and the tracks were then added. Next, the skirts went on, followed by a wash of Burnt Sienna and Black gouache (rhymes with awash) mixed with Future Floor Wax. This was applied more heavily than usual to deepen and define the zimmerit pattern. Decals went on next with a heavy dose of Solvaset. Dragon's decals are usually good, but any decal gets put to the test on a rough surface like zimmerit. With a little coaxing, the Solvaset made them conform perfectly.

When the model was dry, I dry brushed it with hand mixed tan, white and yellow enamels. The yellow/tan looked too bright on the brush, but brought the gouache darkened paint job back to life. As a final step, the model was sealed with Testor Dullcote for a nice flat finish.

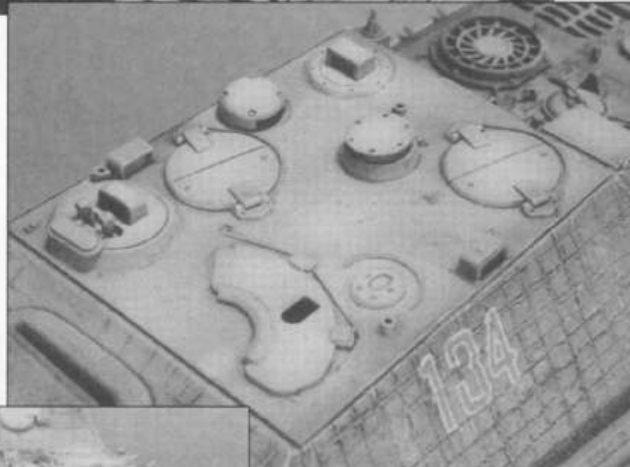
I Am A Jagdman

Dragon's early Jagdpanther is a welcome addition to the growing stable of German kitties. Taking the old Gunze kit, improving it and then dropping the price by 75% is a pretty good trick. I must say that I wish they had included some photo etched engine deck screens. Gunze designed the model for them and their absence is rather noticeable on the rear grates. However, if this wasn't a review sample, I'd have sprung for the Show Model or Eduard photo etched sets (oh yeah—if you get p.e. for this kit, remember it has the Panther A style engine deck). Both sheets have lots of good details and the screens are an added bonus. Come to think of it, this kit plus an after market p.e. set still costs less than a comparable Tamiya kit. Cheap is good. ☺

—Eric Knight



Above left: the finished gun mount area. Above: the finished back deck. No screens are included, but if you go to buy, look for the "A" type. Below: the muzzle brake of the wicked Pak 43 gun.



Above: the roof of the turret? hull? Very precisely and accurately rendered. The tactical number is one of the kit's waterslide decals, snuggled down with liberal amounts of Solvaset. Left: the back end of the JP, showing off all the correct Panther "A" attributes. Dare I say that this kit may be the place to go to filch items for that Italeri kit? The deck and back end certainly are much nicer on this kit...



MMiR RECCE

Jagdpanther SdKfz.173 early version. Kit number 9012. Kit graciously provided by Dragon Models, Ltd.

References

Spielberger, Walter J., *Schwere Jagdpanzer*, Motorbuch Verlag, Stuttgart.

This is one of the latest titles in the legendary Motorbuch series. It printed in German but it's full of fascinating shots of all types of "heavy" Jagdpanzers. Check out it's companion volume too; *Leichte Jagdpanzer*.

Spielberger, Walter J., *Panther and Its Variants*, Schiffer Publishing, Ltd, Atglen, PA.

You have to ask? This version, published in the U.S., has been translated to English and is partially devoted to the Jagdpanther. Good technical specs and drawings.

Panzer at Saumur No. 2, Dai Nippon Kaiga, Japan.

Achtung Panzer No. 4, Panther, Jagdpanther & Brummbär, Dai Nippon Kaiga, Japan.

Highly recommended for the Jagdpanther freak in your family. Both of these titles contain interesting photos and drawings of the Panther series, including the Jagdpanther. Pzr.A.S #2 contains photos of the Jagdpanther currently preserved at the Musée des Blindés in Saumur, France. This baby has the most complex zimmerit I've ever seen. It's a pattern of squares, each containing six or so grooves. The grooves in each square are alternatively horizontal and vertical, creating a checker-board pattern. If you pull this one off on your model, give yourself a medal. Pzr.A.S also has some very useful interior shots. Achtung Panzer 4 is more heavily weighted with those marvelous little detail drawings. These are especially welcome on the JP because close-up photos are few. Both books are available at better stocked hobby shops and each are in the \$35.00 range.

It's a Jagd, Jagd, Jagd, Jagd World

PART TWO: ONE KOOL KAT, THE DML JAGDTIGER



I may have been only one of a few folks truly excited about DML's announcement of a Jagdtiger as their WWII, 50th anniversary commemorative release. While a other subjects came to mind, I remained excited about the prospect. For years I've thought this to be one of the neatest AFVs to come out of the war. The sheer size alone makes it an impressive modeling project. So when I got the nod to build the kit for this issue I was psyched.

Anyway... around 1943, policy dictated (get it?) that self propelled, anti-tank weapons be produced based on the chassis of each new AFV developed. From this policy came the 'Jagers' or 'hunters,' among the most popular being the Jagdpanzer, Jagdpanther, Ferdinand/Elefant and of course, our subject today the JAGDTIGER!

Now we all know this behemoth was based on a slightly stretched King Tiger and it was produced with both a Porsche (in small numbers) and Henschel suspension (look for the Porsche version to follow early in the year), but I bet you didn't know the real intent of the vehicle was to scare the living bejesus out of allied tankers! Now while that's not really true, I bet it achieved that impact. I mean can you imagine looking through your periscope and down the busi-

ness end of one of these monster tanks? We're talking serious pucker factor here!

While the concept was sound and the killing power of this tank is without question, it remains true that it came too late in the war to make a difference. Allied air power had no problem picking these beasts out of a clump of trees and hammering them, hence all the pictures of brewed up Jagdtigers. Mechanical reliability was not its biggest attribute either. The tank was grossly under-powered even in its turreted incarnation. That big square superstructure and 128 cm gun didn't make the situation any better.

Not too Jagd...

The model went together well. The fit was all very good and there was no significant flash to speak of. It did look like the fighting compartment was a little off-square but the leaning was corrected when the front and back walls were installed. All the parts were well cast and required only minimal clean up.

I started with the torsion arms and road wheels then the upper hull and gun assembly and lastly the tools and tracks. DML has in my humble opinion landed another hit! I really enjoyed this kit and I plan to tell you why. There were a few pesky things (as there always are), let's dispense with those now.

First, I was a bit let down to find the kit did not

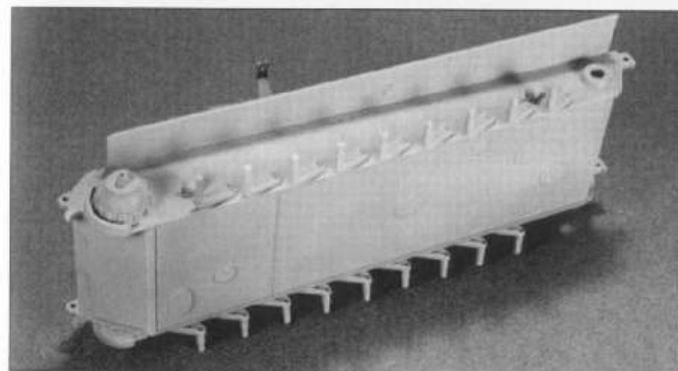
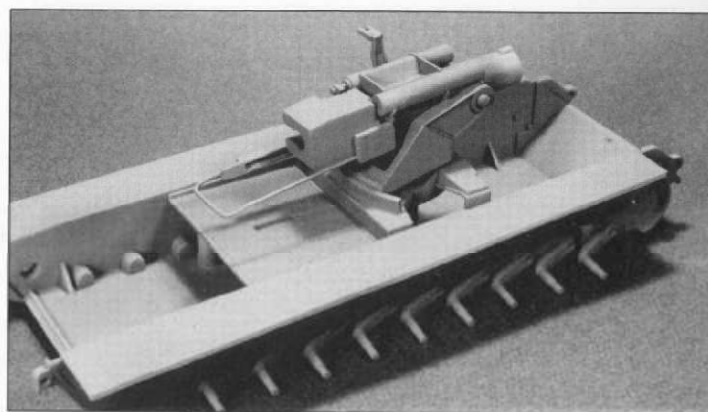
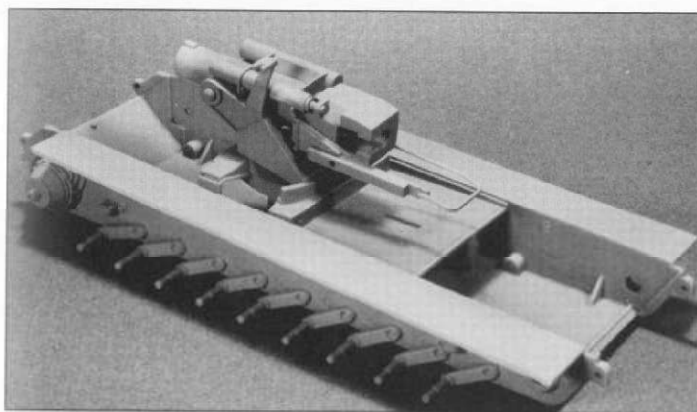
include Schurzen. What no Schurzen you say! That's right! Maybe DML left them out because you're pretty hard pressed to find a picture of one of these things with the Schurzen intact (to say nothing of the vehicle itself). No biggie in this case, as the vehicle I chose to model had none, at least none on the right side. Anyway I guess that's what the spares box is for. (*The DML Jagdtiger; Porsche Suspension will include Schurzen when it's released—Ed*)

One other minor glitch, the individual track links on my example while very nice, were a super tight fit. Actually too tight to put together without hours and hours of filing. So for the article I decided to take a chance and spice the kit up with Modelkasten's brand new pinned and functional Jagdtiger track set (SK-21). More on that later. Aside from these minor problems the kit was great.

Among the pluses were a superb rolled metal texture to the upper hull and mantlet, a modest but still present interior, a good sized sheet of photo-etch, individual torsion arms, and a really unique approach to casting the upper hull/fighting compartment parts. With that let's get to the good stuff.

The Good Stuff

Like I said earlier, I started by building all the road wheels and attaching the individual torsion



Jagdtiger—unplugged. Fairly substantial hunks of the interior are right there in the kit, giving you the opportunity to scratch-build the rest. Less motivated individuals can add the new Jaguar resin interior. Below left is the fully detailed lower hull. Remember when we used to worry about motorization holes? Also below left is the beautifully textured "saukopf" mantlet. DML has really got this technique down. Bottom: all the suspension components.

rior and although it's very basic, it's a great place to start if you want to really super detail it. After all, with those large doors in back flung open you can get a pretty good look inside. Me, I wimped out and saved the super detailed interior for my next J-Tiger already in my closet.

One thing I did do was make the gun elevation and traverse work, it's supposed to only elevate. I drilled pilot holes and then installed small screws into the ends of the pivot arm, part #E7. To make the gun traverse, I did the same thing to the

small pin at the bottom of the trunion. This allows you to position the gun in a more realistic way. The only traversing limitation is the periscope sticking out of the roof, which is connected to the side of the trunion much like on the real vehicle.

With that complete, it was time to join the upper and lower hulls. This is a bit tricky, since you have to sort of thread the breech/trunion assembly (which is mounted to the floor) through the hole for the mantlet. With the top and bottom joined together, I attached the gun barrel and the beautifully textured mantlet. I shimmed the male end of the barrel by wrapping a piece of .030 x .060 evergreen plastic strip around the male end twice and tacking it down with a drop of Tenax-7. Without this, the gun sat too far back inside the armored sleeve of the mantlet. I also fattened up the male end with some aluminum speed tape to give it a snug fit.

Paintin'

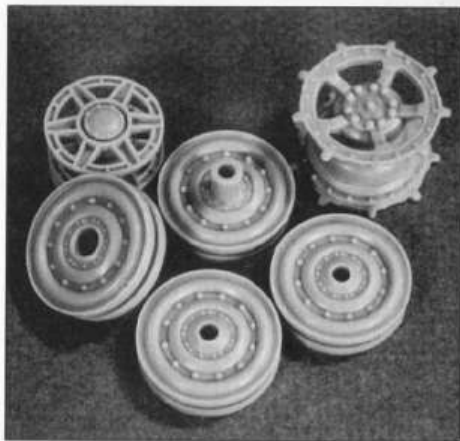
I was now finally ready to paint my beast. I got busy and donned my respirator, (very important kids) and got to spraying. I used the new Floquil Military Colors to paint the model. I really like these colors a lot. They are enamels (I gave up on acrylics), so watch the fumes.

I started by painting everything flat black. Then I added dark yellow to about a drop or two of black still left in the color cup of my air brush and sprayed that on everything too, following all the angles and corners. Next I added a lot more dark yellow and retraced my earlier path. This is where the effect of depth really starts popping out. Last I filled in the darker areas with a lightened mixture

of dark yellow. This adds still more depth. Now I started laying on the green and red-brown areas of my ambush scheme. I studied my research photos, one of which was in color and lightly traced out the camouflage scheme on the tank, putting a small 'r' for red and 'g' for green so I wouldn't mess up and put a color in the wrong place. I repeated the earlier methods with both the green and red-brown colors to give it a field applied, and slightly weathered look. I finished the painting with liberal dry brushing of light yellow over yellow, light green over green and... well you get the picture. Last I applied a wash of Future Floor Wax and black artist's gauche. I make a mixture that is more liquid than color, but it's really a matter of personal preference. This is a good home spun method. The liquid wax is cheap and can be conveniently stolen from under the sink. The wax helps propel the black wash and keep it from getting "grainy." Its hard shiny surface is also the ideal preparation for waterslide decals. Once I had applied said decals (the kit's—no problems encountered), I flat coated with Floquil Matt. Now came the coup de gras, the tracks!

This was my first try at the pinned and functional type of track and I must say I'm hooked. I mean these things really work, how much more cool can you get? While a bit pricey, about \$40, I think they'll become the standard for all my future projects. If anyone tells my wife—they're dead! Seriously, the price is a lot but on the positive side they're about 40% cheaper than they used to be and that was if you could find them at all.

Actually the tracks are easy to build, although time consuming. A jig is provided in the set that allows you to put together seven links at a time. This



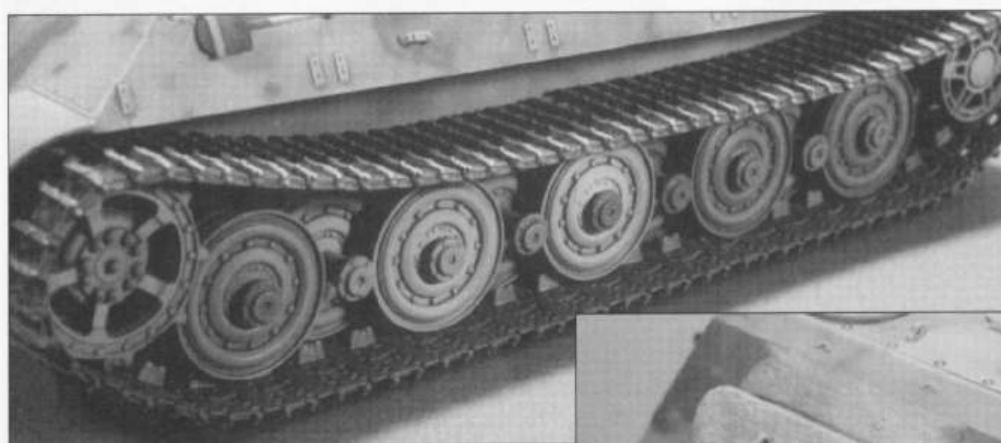
arms. I set the wheels aside until I was ready to paint them and moved on to the upper hull. The upper hull is cast in three pieces, the first being the upper hull, fighting compartment walls and roof. The others were the front and rear of the fighting compartment. What I liked about this approach to casting the parts was that the seams of the pieces were the same as on the actual vehicle. All seams met at an interlocking weld joint.

I continued on and finished all the detailing to the upper hull; rear fighting compartment door hinges, track hangers, PE engine screens and other cool stuff. I painted all the tools and spare tracks separately and attached them after the model was painted. I did replace all the hatch grab handles with brass wire (the kit handles are almost impossible to cut off the sprue without messing them up).

The most tedious part of building the upper hull was attaching all the microscopic photo etched tie down cleats. There are 26 of these hummers and they are really (really) small. Beware the dreaded tweezer launch here! DML does give you extras... and you'll need 'em! Although tedious they are nifty little additions. However you will have to look close...

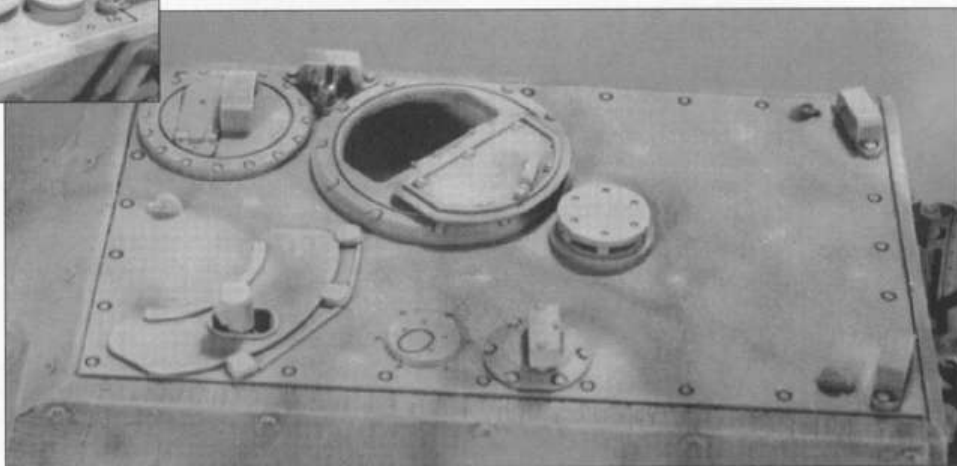
At this point I built the gun travel lock which was a little kit all in itself, composed of seven plastic and PE parts. DML gives you parts for two different versions of this travel lock. Check your references to be sure you've got the right one for your project. I also left the travel lock off to be painted separately.

Next I built the interior. Yep, this kit has an inte-



A feast for the eyes. Even though the subject of this kit doesn't quite have the impact of the DML Pershing or JS, I still thought it was one of their best efforts to date. The attention to detail and overall texturing are first rate. On this page, check out the detailing on the gun travel lock and the gun mantlet. The shot above right shows all of the fittings that are molded on the hull sides. I especially liked the

fact that the fender mounting points are present. The small tie-downs along the outside of the roof are photo-etched items provided in the kit. Also on this sheet are the mesh grates for the engine deck. I splurged and added the ModelKasten tracks. These are basically the same as the earlier set for the Tiger II. The only difference being the extra links to complete the longer runs. The final effect and drape is very convincingly. They are somewhat delicate when finished. No playing on the carpet!



helps hold the links together while you're placing the four tiny pins used on every other link to make them work. The trick is to be careful and use a liquid glue like Tenax-7 or Testors. Just load up the jig, stick the pins in the hole, dab on some Tenax and wait about 5 minutes, then cut off the sprue (that doubles as a handle) from the pin. There are two pin and single pin sprues so the work goes pretty fast and you don't have to worry about dropping one of those tiny things. That's it! 98 workable links later you're done—at least with the first side! I would recommend painting the tracks while they're on their sprue trees. I painted mine a dark reddish brown/black and dry brushed them with Model Master Steel.

If I had one gripe to make about the set, it would be that wished I had been able to do more than seven links at a time. The set-up is quick, but waiting for the seven to dry takes a while. It'd be nice if the jig held double the number of links.

I left off the drive sprockets and idlers but attached the rest of the road wheels before I attached the track. Now I put a drop of super glue on the shaft of the drive sprocket, wrapped the track around the teeth and pushed the drive sprocket onto the final drive. Next I put a drop of super glue inside the hole on the lower hull for the idler wheel, place the idler inside the track, got it slipped the teeth in place and pushed the idler into its hole, then twisted the whole wheel until it was in the right position to produce the right track tension. And, Wallah, one very Kool Kat!

My Favorite Game: JagdMitten

To sum it all up, I'd say that it is a very worth-

while kit and well worth its forty-dollar price tag. Think about it: forty dollars gets you a partial interior, photo-etched brass and link-to-link tracks. An excellent deal anyway you look at it. Scale wise, my model was dead-on to plans from the Spielberger book and the texture and other details really bring it home. I was glad to have the kit—who knows how long we would have had to wait for some else to do it.

I guess my only significant beef was the fit of the tracks. I have noticed that DML kits tend to vary in this respect, some being tight while others fit OK (my Pershings were like this). Bottom line is, I just had to geek out on those ModelKasten tracks. But you'll still end up with a honey of a model, even if your don't go that route. 

—Tom Jett

MMiR RECCE

DML Jagdtiger. Kit number 6050. Kit graciously provided by Dragon Models Ltd. Suggested retail \$39.95.

ModelKasten Jagdtiger tracks. Kit number SK-21. Kit graciously provided by ModelKasten. Suggested retail \$39.95.

References:

Schwere Jagdpanzer. Entwicklung-fertigung-Einsatz. By Walter Spielberger. Motor Buch Verlag. A relatively new addition to the famous Spielberger line of armor books. The book chronicles all the heavy Jagdpanzers including the Jagdtiger. Tons of photos and line drawings. It's hard to find, I got mine in Germany about a year ago. Articles of War in Illinois is known to stock the Motorbuch titles. Drop them a line at: Articles of War, 8806 Bronx Ave., Skokie, IL 60077-1823. Telephone: 708-647-7445.

Panzer in Saumur, No. 1. The original in the series from Model Graphix. Has some information on the Jagdtiger, but covers mostly the King Tiger. There are a few helpful drawings of the Jagdtiger—including a valuable one of the interior. About \$29, available from hobby shops and mail order companies.

WWII Military Vehicle Photo-File, No. 1. Tank Magazine Special, 1993. Extensive photos of the Jagdtiger in action (and more commonly, out of action). Interesting vehicle numbers and close-up photos as well. Color photos of the vehicle modeled for this article. About \$35.

Tiger In Action. Squadron Signal Publications. About \$10.00, available at most hobby shops or directly through Squadron mail order. Cool picture of #331 and its sister in a courtyard shortly after their capture. Interesting use of pine branches...

Personal Photos of the actual vehicle #331, now at the Aberdeen Proving Ground, Maryland.



- TTWA 0001 M26 truck
- 0002 M15 trailer (for M26 truck)
- 0003 discontinued
- 0004 M4A1 early hull
- 0005 replaced by set #0024
- 0006 discontinued
- 0007 M4 composite hull
- 0008 replaced by set #0024
- 0009 M4 105 howitzer kit
- 0010 M4 Howitzer turret set
- 0011 M4 early turret w/loaders hatch
- 0012 discontinued
- 0013 discontinued
- 0014 T-23 turret, oval hatch
- 0015 T-23 turret, round hatch
- 0016 M4 concrete applique
- 0017 M4 2 pcs. wood applique
- 0018 M4 3 pcs. steel applique
- 0019 M4 3 pcs. bolt nose
- 0020 M4 early cast nose
- 0021 M4A3E2 uparmored nose
- 0022 M4 early fighting compartment, interior
- 0023 M4 late, wet storage fighting compartment interior
- 0024 M4A2 conversion set
- 0025 M4A3E2 Jumbo turret set
- 0026 M4 late dish wheel
- 0027 M4 pressed wheels
- 0028 Firefly turret

- 0029 Cullin Hedgerow cutter, angle iron teeth
- 0030 Cullin Hedgerow cutter, T-bar teeth
- 0031 Cullin Hedgerow cutter, I-beam teeth
- 0032 76 MM turned aluminum gun barrel
- TTWA 0033 M26A1 Truck
- 0034 M15A1 trailer
- 0035 M4 Radial engine & engine compartment
- 0036 M4 early interior w/radial engine & engine compartment
- 0037 Combination #'s 0001 & 0002
- 0038 Combination #'s 0033 & 0034
- TTWD 1001 European outhouse
- 1002 wood foot bridge
- 1003 Railroad track
- 1004 Photo Etch Stuart
- 1005 Photo Etch M4
- 1006 Decals for railcar
- TTWG 2001 Tiger I transport railcar
- 2002 Tiger I interior, less engine *
- 2003 Sturm Tiger detail set
- 2004 Panther transport railcar
- 2005 Railcar ramp
- 2006 Panzer IV interior
- complete with engine
- 2007 Panzer IV engine
- separate head & valve cover

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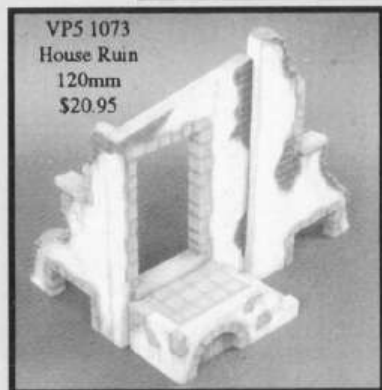
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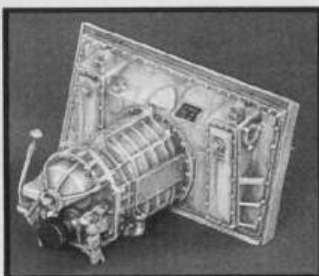
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The Dragon's Tale

The M26 "Dragon Wagon" tractor and M15 trailer by Tank Workshop



Dragon Wagon. Even the name sounds mean. It lives up to its name, this rig is big, bad and ugly. The official moniker for this beastly tractor is M26. Absolutely freakin' huge, the M26 sported not one, not two—but three big-ass winches. The two rear ones being rated at 60,000 lbs. each!

The M26 was the U.S. Army's answer to the sticky problem of recovering tanks under fire. It was originally configured as an armored vehicle, with large angular sides. This version was particularly menacing looking.

Overloading of the front axle led to the introduction of a soft cab version in late 1944. By that time, most recovery operations were taking place far behind the swiftly advancing allied lines, so the need for an armored vehicle was diminished. This version was known as the M26A1.

Combined with the M15 or M15A1 trailer, the whole kit and caboodle became known as tractor/trailer M25. The M15A1 trailer, by the way, was a souped-up version designed for the Easy Eight Sherman and the Pershing, with ramps covering the rear wheels.

It was very common to see the armored tractor used alone, but the soft cab is rarely seen without a trailer attached. The role of both Wagons shifted from recovery to transport as its duties were gradually taken over by the M32 and the M74. A very modern looking replacement, the M123, began taking over the transport duties in the mid fifties. M123 trucks were also used in conjunction with the M15A1 and later the M15A2 trailer, and saw service right through the Vietnam war.

Many modelers say that they are no new subjects left in armor (HA!). It's always been my position in these pages that it's the resin companies that are always pushing our little medium out ahead. Case in point: The Tank Workshop. They offer two versions of the Dragon Wagon, the M26 and the M26A1. When I first laid eyes on this kit, I knew I had to build it. It's incredibly involved and wonderfully complex. There's over 300 parts! The kit was originally released under the Panzer Concepts label about three years ago. When the partners of that company split up, the new half became Tank Workshop and both companies continued to produce the kit. The PC kit remained the same over its

life (Panzer Concepts is now out of business), but the TWS kit was incrementally refined. The most notable improvements were the simplification and replacement of many of the smaller resin parts with white metal subassemblies (the original kit was about 98% percent resin).

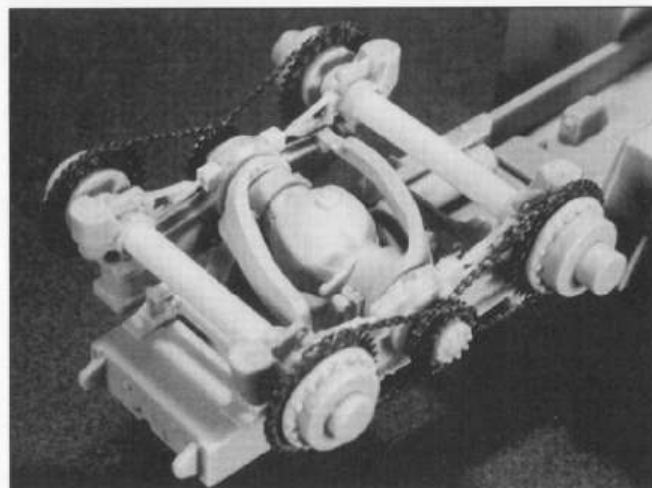
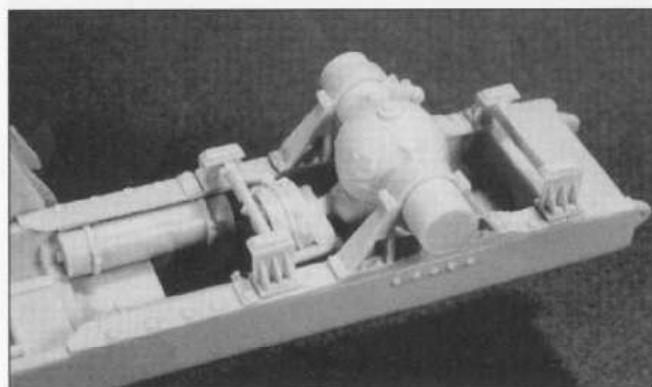
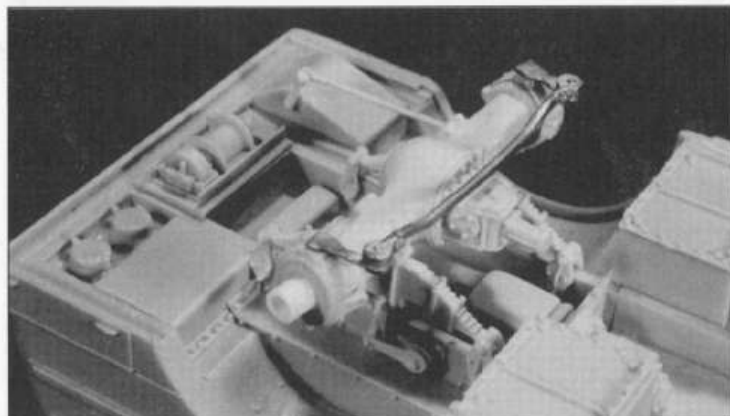
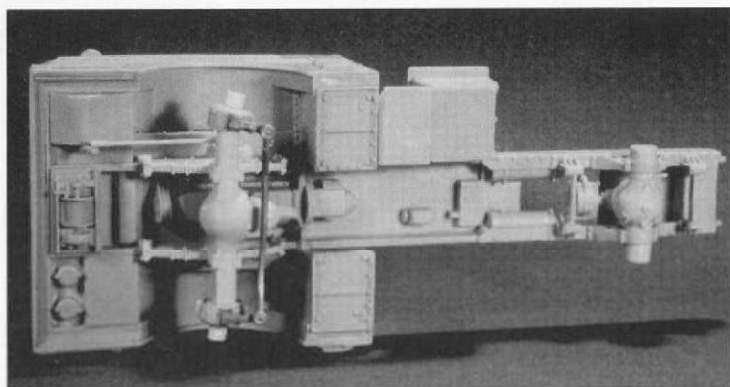
Part of the improvement program was the introduction of the soft cab version, which is a somewhat simpler kit to build.

They also went ahead and did the M15 trailer and this article will discuss the trailer too (however briefly).

THAAAAA KIIIIIIIT

This project is just massive. There's no way sugar-coat it, this is a major undertaking. I could hardly wait! I've been wanting to build this model for some time and I needed all that enthusiasm to motivate me.

Resin kits equal overpours. Well, this was over-pour city man, and I was the mayor. I set up a special site on an unused porch, and outfitted an old table with my shop vac, Dremel tool, a small bucket (think: wet sanding), sanding blocks and sand paper. I taped a large sheet on to the table to



The frame at various stages during construction. The detail under the cab is superb. It seems like every nut and bolt is present. Note the complexity of the steering components. In the two photos above you can see a before and after view of the final drive mechanism. The shot directly above shows the photo-etch chains for the drives.

aid in flat sanding too. My gear also included a heavy apron, lightweight rubber gloves, safety glasses and a respirator.

I proceed to clean-up both kits all at once. I figured I'd get it over with! I used just about every technique imaginable to remove the overpours. I used steel cutting bits for the large areas, grinding away the big shapes, then finishing them off with files and sanding. Many of the pours came off with just a scribe and a snap. I got rid of a ton of extra resin. Way more, in fact, than was left over to build the kit. Most of the parts were bubble free, and I believe this was due to these big honkin' overpours. This gives the air bubbles someplace to go.

As you'd guess, all the clean-up made a horrendous mess. This was the main reason I did all the work out of the house. Resin dust and its associated gook is a terrible health hazard and as such it should be taken very seriously. The glasses and respirator took care of all the flying dust and chunks (a hat doesn't hurt either). A dust mask is probably sufficient for less involved projects, but I felt the full rig was justified for this marathon. The gloves are an extra precaution because of all the wet sanding. Lots of dunking in and out. I use the lightweight disposable kind used when applying stains and paints. Wet rather than dry sanding also keeps the flying dust down.

I taped the nozzle of my shop vac to a paint can and this kept the tip up so I could grind with the Dremel tool in front of it. This sucked up much of the dust before it became a problem.

The biggest overpours were on the back of the cab and on the floor of the trailer. I ground these away and then finished them with a combination of wet and dry sanding.

Most of the tractor's parts are easily identified by sight. Most of the trailer's parts have molded ID numbers on their overpours so you'll lose these as you clean them up. I wrote the various numbers right on the parts in pencil as I went along.

Occasionally, I went a little nuts with the

Dremel bit and the sand paper. I few nicks and gaffs were the result. I lost the odd corner or lug. It's better than a finger I suppose...

Once everything was done, I washed it all to remove the extra dust and separated the two kits back into their original boxes.

Tractor Man

I think the secret to a really complex model like this is to very thoroughly study the instructions. I studied mine for a good three weeks, on and off. They are fairly complete and include dozens of drawings which clearly illustrate all the assembly sequences. Unfortunately, mine were Xeroxed, rather than printed and the accompanying photos were poor in quality as a result. The drawings are so good they are about all you'll need, so it's not so bad. A few areas remained sketchy, but hopefully we'll clear all that up here.

The sheets in my kit pertained only to the armored cab but there was a supplemental sheet supplied regarding the soft cab's details. There's not much difference really. The cab is molded as one piece, so once the overpour is removed, it's just a matter of detailing the interior (adding the seats, etc.). The cab casting itself is a fairly awesome piece of molding. It's loaded with detail before you even touch it. Be careful of the under-bumper winch, it's delicate.

Assembly starts off pretty quickly (I used superglue everywhere). The frame slid into the back of the cab and it starts looking Dragon Wagonish right away. Care must be taken when adding the left side tool box/foot stand. You have to wedge the tray for the welding bottles between it and the back of the cab. Too tight of a fit can result in the cab and frame going out of square. This is critical and would screw up the entire "sit" of the model later on, so beware.

I far as I'm concerned, this model boils down to two things: the suspension; and the winches. Everything else is easy in comparison.

The suspension comes first. No problems were encountered on the front, but the instructions were slightly vague regarding the smaller components. For that ever so rakish look, I turned the front hubs slightly to the left. I had to replace the wheel shafts on the front hubs as I lopped them off during the clean-up process (OOPS!). I used Evergreen tube.

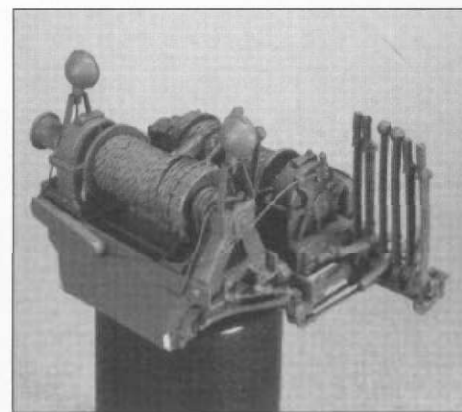
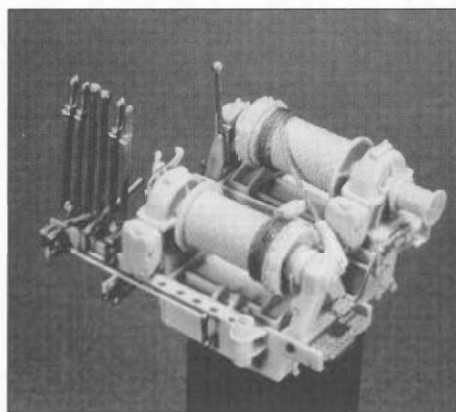
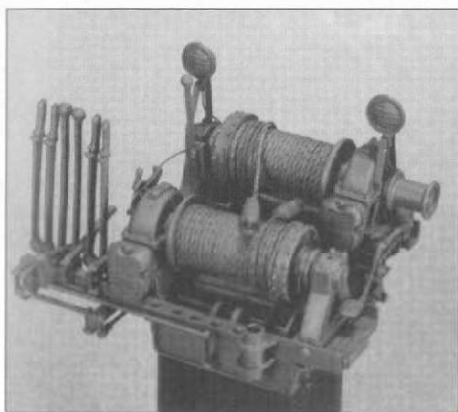
Aside from the winches (just you wait), the rear suspension was the most challenging aspect of the model. It's very complex and more than a little intimidating. This is where all that studying comes in handy. The M26 was a chain drive truck, designed long before today's giant trans-axled rigs. There were four drives, two for each side and these were powered off a central sub-axle.

You build this area in layers, adding the sub-axle and its supports first then the axle shafts, then the hubs and the chains last. Each side is identical, but they are installed in opposite directions.

This is really where you get your money's worth. It may be tough to build, but it's super looking when complete. That it went together at all is a major miracle. I'm nominating the designer for a Nobel prize. I'm glad he figured it out and not me!

The chain drives are made from photo-etched brass and each piece forms one side of the drive for a total of eight. The parts are designed in such a way that when put together, they actually form links like those of a bicycle chain. The drive sprockets are part of the etched piece so there's no need to thread them. Very cool.

They are a trick to put together though! The gluing surfaces are small so you have to be careful not to clog the spaces between the links.



The finished winch. The middle shot shows it unpainted and the different materials are evident. In the shot on the far right you can see the added cables and lighting fixtures. It sure is somethin' huh?

The make-up of the finished assembly is a bit hard to explain. Hopefully the photos will do some of that for me. The chains emanate from the sub-axle and then they, in turn (pun intended), spin the two rear axles. Aluminum tube is supplied for these axles and once the assembly sequence dawned on me, it went together quickly.

Four air cans mount on each corner of the drive assembly. These are part of the braking system and were linked to compressor tubes in the frame. Make sure all these cans face out when installed on their respective shafts. Also note that the bottoms of the cans can be trimmed to affect the sit of the drive mechanism. This helps level the vehicle. I left the sub-axle unglued (the outer drives and axles trap it in place) and this lets the whole assembly swivel up and down—a great help later when the rear wheels are installed.

I added the air lines using Verlinden flexible rubber tubing. Don't make the same mistake I did. I started out using copper wire, but every time the axles swiveled, the lines broke off. The flexible tubing was the solution. I also added lines for the trailer, which attach to two fittings at the back of the frame and feed under the fifth wheel.

I added the drive shafts next. Shafts? Yes, there are four of them. The older kit provided sections of telescoping tubing and bag full of u-joints to make up these shafts, but mercifully, these are now provided as single white metal pieces. Two need to be shimmed for a snug fit. I used small styrene disks.

At this point, I test fit all the wheels (after flattening each slightly) and shimmed them as necessary for a tight fit.

Bewinched

Part two (as it were) of the Big Build, was the winches. The DW mounts two, directly to the rear of the cab. They are identical, but are mounted in opposite directions.

These assemblies also benefit from the addition of new white metal subs. The instructions still show the old method of using sections of rod and more mini coupling joints for all of the various control linkages and levers.

Even with the new parts, getting all these installed and lined up is still the most difficult part. The instructions are pretty clear on how all the major parts go on, but you must study them very carefully. Construction difficulties were compounded for me by the fact that I damaged the winch beds while cleaning them up. The bottoms contain (actually *contained*) important connection points for the linkages.

Fortunately, some years ago, I took several photos of the M26A1 that was rusting away on the "Mile of Tanks" at Aberdeen Proving Grounds. I

have some great shots of the winches and these are reproduced here. These shots were a great help and moved the process along much more quickly. That vehicle, by the way, is no longer on the Mile. Hopefully it has found a better home.

Using the photos and the instructions, I managed to get the whole thing to go together—and I even added some extra stuff. I added the winch retaining bolts, cable ends and the rear facing lights. These lights were mounted on the rear of the cab on the armored version, but the soft cab lacked a mounting surface. They were attached to brackets which were in turn mounted on the rear winch housings. I made mine from brass stock and used the kit's lights.

I also added some On-The-Mark Models tread plate to the right side foot stand and also to the top of the large foot stand. I thought the kit's pattern was a tad too big.

There are some basic things to watch out for here. First is that the instructions tend to bounce around the sequence, some on page 6 and the rest on pages 11 and 12. I suggest building the entire area as a separate little project ('cause that's what it is).

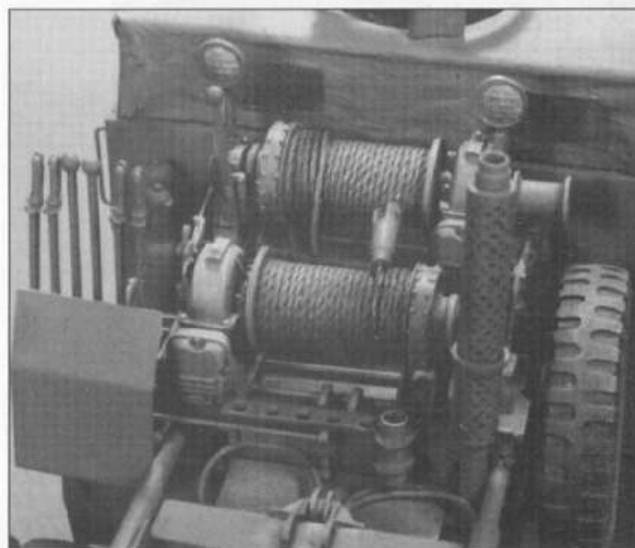
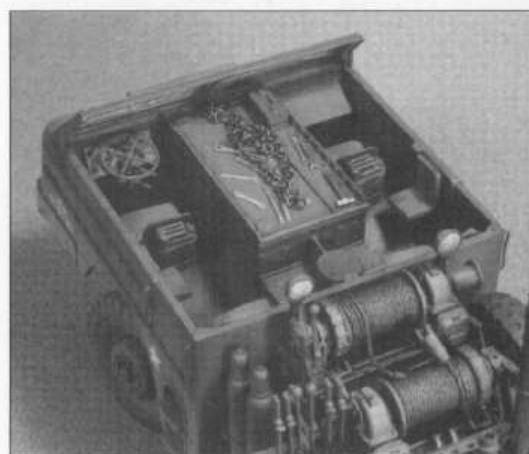
The two frames receive the winches and then they get placed on the winch bed. This then installs behind the cab. The larger of the two frames sticks out beyond the left side 25mm. This is where the control levers go and this area will end up right over the large toolbox/foot stand.

Most of the brackets I had to add were in this area. They align all the linkage points which all stem from the control levers. I'm not sure if these were provided in the kit, or if I just wacked them right off. Not a problem, really. I made them easily from scrap styrene, using mostly the instructions as a reference. The photos of the real McCoy helped here too.

Once I was done, I just sorta stared at it for a while. It almost seemed a shame to install it on the model. Needless to say, it should be painted before being installed. I used Polly-Scale that I mixed using Olive Drab and Dark Green. I mixed enough to do the trailer too.

You may even want to paint earlier. I had a tough time getting under the cable spools and around the motors.

One last note on the winches: when I went to



Top: the cab just prior to the addition of the canvas top. It was necessary to detail the interior before adding the top. The tools and chain were lightly glued to the engine deck. Above: the finished winch mounted on the frame. Spiffio!

add the subassembly to the frame (after all the painting), I found that the two large brackets used to secure the winch bed to the frame wouldn't fit flush. The right side is mostly hidden by the spare wheels, so I shifted the bed over ever so slightly to the left and fit that bracket flush. Even with this adjustment the finished winch looks per-fect-a-mun-do.

I completed the frame by adding the fifth wheel (the thing the trailer goes on), the spare tire, the exhaust system, the welding bottles and the rear



On this page, clockwise from top left: the left side of the winch foot-stand/toolbox combo. Next is the back end of the beast, showing the fifth wheel and the collapsed whiffle tree. Moving on, OOF! the wagon takes a header—the finished belly. Quite a profusion of wires, cables, drive shafts and hoses. Continuing on, above is the spare tire crane. I left this unglued for display purposes. It wasn't always mounted, but probably came in handy for lifting medium sized stuff. I wouldn't want to change one of those tires without it... Lastly, another photo of the finished whiffle tree. I added the rubber air lines. I wasn't sure how they were stowed, so each is curled just under the whiffle tree frame. They are long enough to reach the trailer.

lifting frame. This last deal was called a "whiffle tree." (don't ask me...) The whiffle tree was a frame that could be raised or lowered to provide leverage for the winches. The instructions show it installed in the upright position and this appears to have been pretty common with armored M26's. You cannot, however, use this in conjunction with the trailer.

The whole thing folds down onto the frame when not in use. I had to cut mine down to show it collapsed. Apparently, whoever designed it figured it would always be assembled "up." This was the only significant fit problem I encountered in the kit's three hundred or so parts. I removed about an eighth of an inch of the total length of the white metal part. As a reference, I used the plans from Shep Paine's book: *Modeling Tanks and Military Vehicles* (Kalmbach Publishing, 1979). He includes 1/70th scale plans for his semi-scratch built version and all I had to do was enlarge them 200% on a Xerox machine to confirm to correct length of the part.

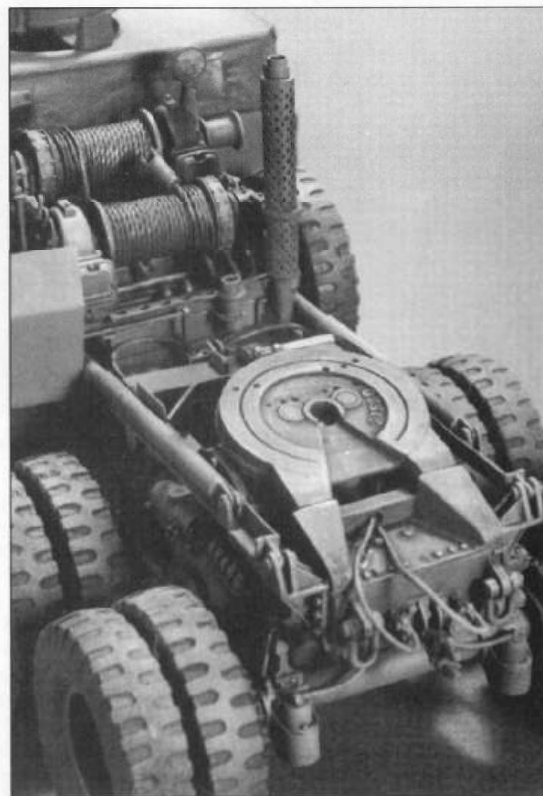
I Take a Cab

As I mentioned at the top, the cab is a one-piece affair. There are several resin seats for the crew (7) and your basic dash board set-up. The front gets white meal light guards and radiator cover which are both intricate and nice. The windshield is a rather unique solid metal piece. Also in white metal and a stunning piece of casting in its own right, is the frame for the canvas top. The whole thing is designed to be topped off with a resin 50 cal and ring.

The instructions just show the frame installed over the cab, with no covering. All my references showed the frame covered by an elaborate canvas top with two windows in the rear of the cab covered with clear flexible plastic. Winter photos show it with side curtains installed along the sides too.

So I was presented with some unique challenges. How do I do these canvas parts? How do I do the clear flexible windows? Why is the strike zone so small now? Who invented liquid soap and why?

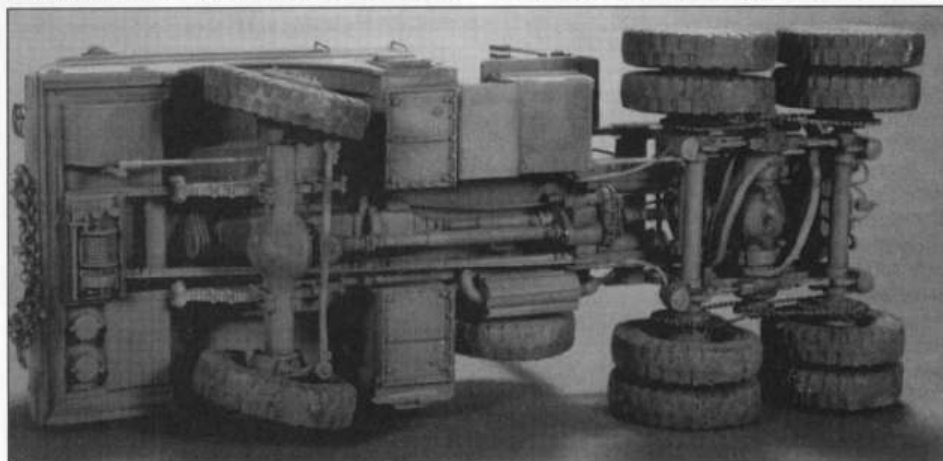
My first thought on the top was to use an epoxy putty rolled out super thin and applied to the frame. This wasn't a bad idea, except that I wasn't sure I could get it thin enough. I finally settled on tissue



paper soaked with white glue. Now when I say tissue I don't mean the facial kind found in the bathroom. I mean the kind used for wrapping packages—it's much stronger. To stiffen it, I used yellow carpenter's glue, rather than the ordinary white glue. This gave me a much stiffer and stronger "shell."

I modified the frame slightly before applying the tissue. First I drilled out the ends of the frame and their installation points on the cab. Then I inserted short lengths of brass rod. The frame is metal and remains a little "bendy," so this helps keep it aligned during the test fitting process. The front bars of the frame were too long and caused the windshield to tilt forward a little. I clipped these off and replaced them with thinner and shorter pieces, test fitting back and forth. I also added square stock along the sides so that the top would look squared off like the reference photos. I think there was either a wood or metal bracket under there.

I cut my tissue to fit the entire top from the back edge to the windshield. I left it long in the front to trim back later. I also taped the windshield along the top edge so the roof could be lifted off when dry. I thinned the glue with water and





Smile!—the face end.

shades of brown and tan to represent canvas. The instrument panel was painted black, dry brushed with white to pick out the gauges, then the panel was repainted with OD. A few drops of clear gloss finished it off. The inside of the cab was weathered with a light black wash and some dry brushing.

I then added the wheels and prepared the kit to receive decals. These were a bit scary, being the all film kind. Markings are supplied for a variety of vehicles, both soft and armored cab versions. There's a neat set of yellow bumper markings for a post war tractor (this is pictured on page 117 of *U.S. Army vehicles of World War Two*, see Recce). I sprayed the areas to receive markings with Polly-Scale gloss. I don't mean to harp on the paint thing too much, but Polly-Scale takes decals better than any paint I used. I've always detested waterslide decals and avoided them whenever I could. But using the Polly-Scale made these come out fine. I used a setting solution and once they were flat coated (again with Polly-Scale), I couldn't find the film anywhere! I looked hard too.

I must say that one of the reasons I hated waterslide decals, is that no matter how carefully they are applied, you can still see that film. Airplane modelers are notorious for this. They think it's gone, but it's not. This is often made worse on armor models because drybrushing will enhance the film's edges. Well, I consider this problem now permanently solved. It almost makes me want to build an airplane (snap out of it man!).

I weathered the M26 with light over sprays of tan and gray, creating a dusty look, especially around the lower edge of the cab and the tires. I used a similar technique on the canvas top.

Before adding the top, I junked up the top of the engine compartment with a chain and toolbox along with some 1/24th scale auto tools (tank tools are big!). Several box wrenches and a hammer were carefully glued on. The finishing touch was several small Waldron data plates placed at various points.

The top was then attached and the

whole tractor received a dark brown oil paint and thinner wash. Mostly thinner with a touch of color. Black washes were applied to the tires and dark oily stains were applied around the chain and chain oilers. These small cans were designed to leech oil out on to the chains. The story goes that you could always find the Dragon Wagon by following the trail of oil it left!

More drybrushing completed the model. Gray and light tan overall and Polly-Scale pewter on all the tread plate surfaces.

At long last I was done! Alleluia!!!

The Trailer

I was going to leave this off the article because I was sure there wouldn't be much room left to

applied some to the top of the frame, then placed the tissue on and aligned it. I wrapped the back and the sides under the frame and added more of the thinned mixture over all the tissue. I cut out a second, smaller piece to lay across the top to represent the two seamed edges seen in the photos, laid it on and applied more glue. The model was allowed to dry overnight.

During the drying process the tissue contracts, resulting in a drum tight surface. The finished top is also quite hard and can be cut with a sharp X-acto. I proceeded to cut away the circle for the MG opening and the rear window openings. I made small templates for these so I could position them correctly. I just traced around them with my knife.

For the clear windows I used material cut from an ordinary zip-lock type baggy—the kind used for model accessories. These represented the flexible windows well. I used regular white glue to install these, cutting a piece slightly larger than the opening (these were installed after painting).

This turned out well and I wouldn't have minded taking a crack at those side curtains. But then you wouldn't be able to see inside. Maybe next time...

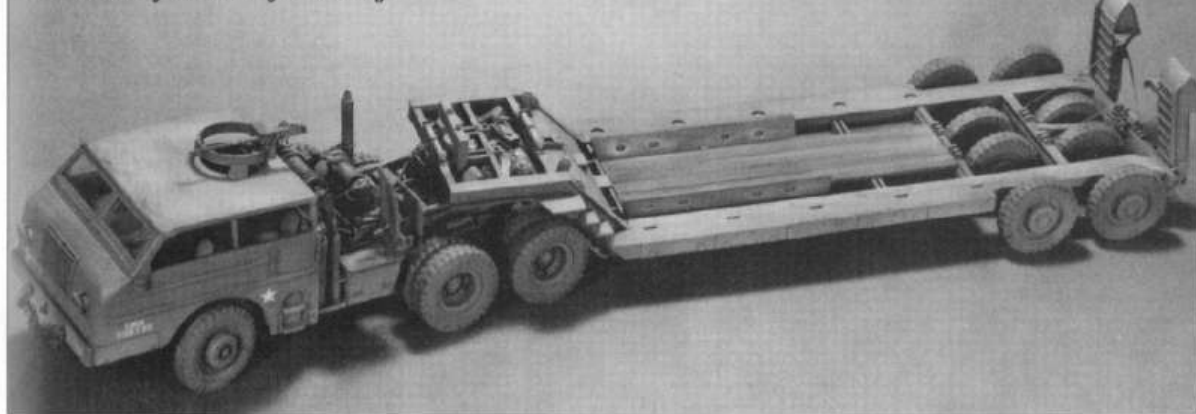
After the top was completed, I set it aside and proceeded to finish detailing and painting the interior. I also used templates to create and fit clear plastic sheet to the inside of the windshield, but left the parts off until after painting.

Paint Your Wagon

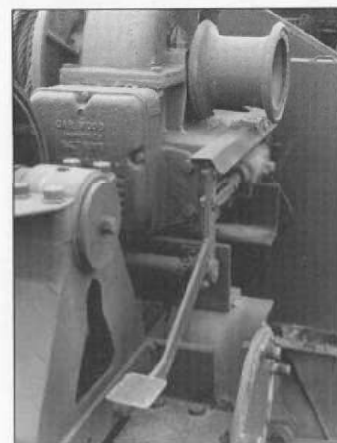
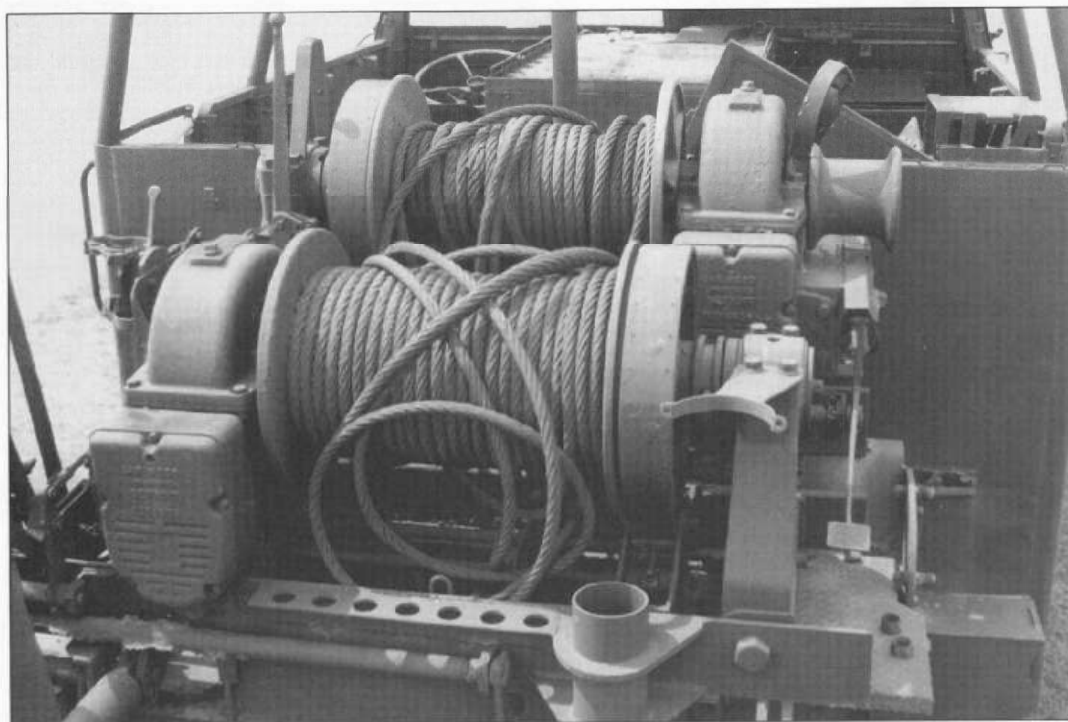
I painted the entire vehicle at this point, inside and out, top to bottom (my dad, who drove one of these back and forth while on garrison duty right after the war said, "they came in three colors: olive drab, olive drab and a smashing shade of olive drab.") I left off the wheels to be painted separately. I sprayed everything OD and then hand painted the tires dark gray. I painted the seats various



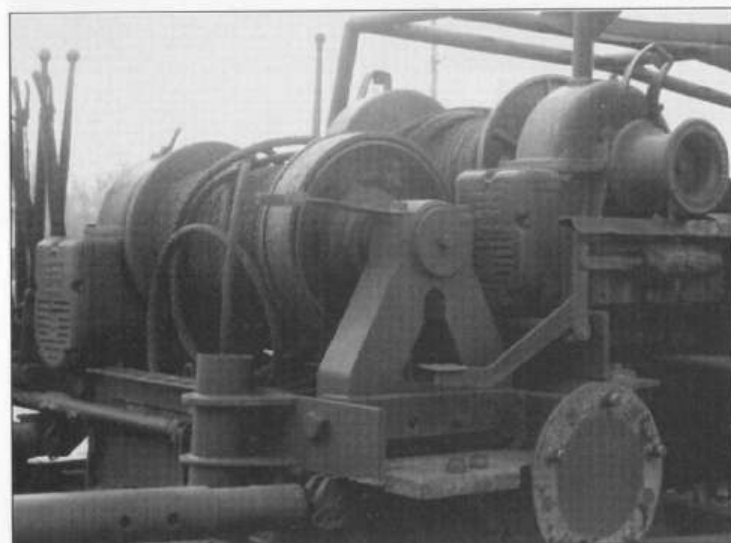
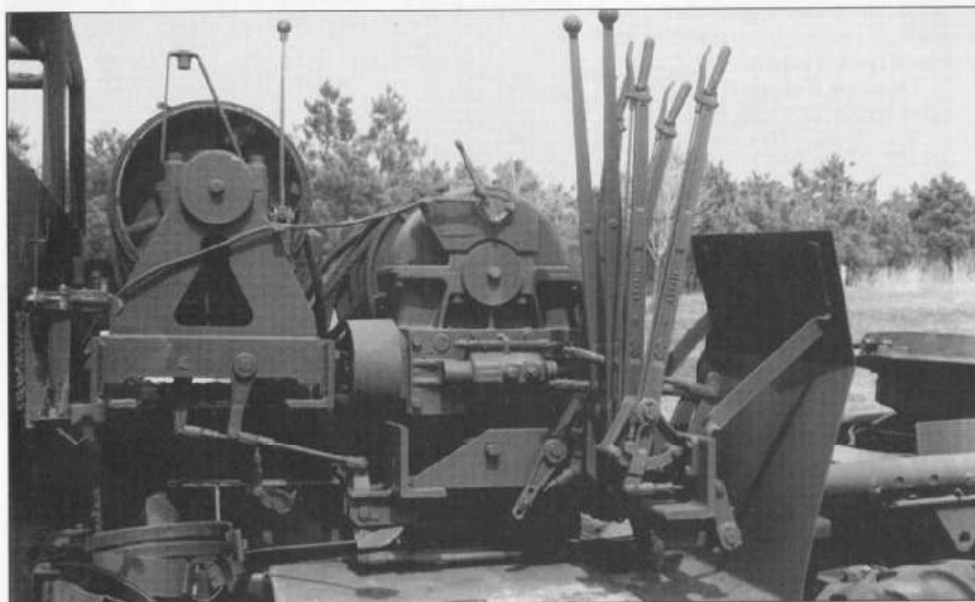
O.K.—so what if the MG ring is on wrong?



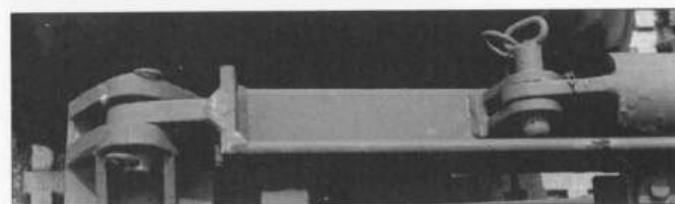
Left: the whole rig! Sure its big—it's a Dragon Wagon. It sorta looks like a dragon from this angle doesn't it? The long object on the bed are meant to help guide the tank onto the trailer. "Roll over" covers for the wheels are also included in the kit. Above: the front and back of the trailer. You can position those ramps up or down. All the gear added to the tray except the chain, came with either the tractor or the trailer kit.



The real thing. Lots and lots to look at. Of special interest is the embossed lettering on the winch motors. Gar Wood was a real guy and his company manufactured marine winches for many years in Detroit, Michigan. Now if someone could figure out how to get this on the model...



The photo at left shows the tubular frame for the canvas top. Note how it's constructed. Also note in the shot at far left how the whiffle tree frame is attached to the winch bed—very helpful when building the kit. Below: cotter pin detail on the back end of the collapsed whiffle tree frame.



discuss it. Fortunately there's not much to discuss. The trailer is blissfully simple in comparison to the tractor. The kit is the M15 version, which lacks the over-the-wheel ramps. It can also be distinguished by its side tool boxes.

The trailer is basically composed of three large square pieces and the only trick here is getting them all straight and true. The back end is a simple frame that the wheel trucks attach to. There are two sets and they both mount under the frame.

From there on in, it's just a matter of detailing it out with the ramps and other small bits. The most complex parts are the front leg stands, which are used to support the trailer when it was not attached to the tractor.

I painted and weathered the trailer using all the same methods described above. It used up a lot of paint!

I filled the forward trays with all manner of wheel chocks, chains and tools. Everything but the chain was supplied either in the tractor or the trailer kit.

I've shown the spare tire crane mounted on the trailer. This comes with the tractor and fits just behind the winches. I'm not sure if it was used in this fashion but it does fit into the large lugs on the top tray of the trailer. This crane was provided to assist in changing the mammoth tires of the tractor, but the photos suggest that it was handy for a variety of tasks (like lifting the odd house). Most of the photos show it installed on the armored cab version. I left it unglued so I could move it around.

I Rumble off into the Sunset

Well it's done! WOW what a modeling workout. This was probably the hardest kit I've ever built, and I'm no stranger to resin. The reward is a veritable orgy for the eye. The detail is just terrific—everywhere you look. You can stare at it for hours. I can't recall when I've enjoyed a project like this one. I felt it was worth every hour I spent. I would actually do it again.

My hat is off to the designer or designer's of this kit. Everything went together well and I can hardly believe only the whiffle tree didn't fit. Almost all of the vehicle is rendered too. Very little has been simplified for the sake of engineering. This usually results in an unbuildable kit—but not here.

Although I've shown the M15 trailer with the M26A1, this combo appears to be rare. Most of the published photos show the M15A1 mated with the M26A1. The M15A1 is even seen attached to the M26 armored version in many photos. Tank Workshop plans to release the M15A1 sometime next summer.

What do you put on a thing like this? Well, the Sherman obviously fits, as do all the smaller tanks like the Stuarts and M24. I've seen pics of Stuarts put on in pairs too. Although the practice of running vehicles over the rear tires was officially discouraged, it was apparently done. There's a great photo in the Concord D-Day book showing the M15 carrying a Panther! There are photos showing it carrying other weird stuff too, like LVTs, gas cans (about four hundred or so) and even a landing craft for the Rhine crossing.

The only downside to the kit is its cost. It's not cheap. But I felt you really get your money's worth. The design and execution are state of the art. The fit and finish of the parts are befitting of an expensive kit. Nearly trouble free, right straight down the line. How many expensive kits have you bought, only to find they fought back when built?

I give this kit my highest recommendation. If you can work it into the budget: GET IT. I promise not to tell the missus. ☺

—Pat Stansell

Below: Sarge scopes out the armored cab version of the DW. This was built by Larry Lawler and he reports that the kit didn't go together significantly different than the soft cab version. "It was pretty straightforward, but the getting the cab roof to mate correctly to the bottom was tricky," Larry said. I had to use putty on all the posts to cover the gaps." Larry had a bit more work cut out for himself on detailing too. The front end of the armored cab version was the stowage point for all the towing tackle. There is also a lot more interior gear to mount, as well as all the various lights and the large horn. The engine vent doors can also be positioned opened and they require braces to be built. The front of the radiator and it hose can be seen through the doors.

The delicate looking light guards are among the many parts in the kit newly cast in white metal. Can you imagine trying to sand those out of a block of resin? Larry's kit was an older Panzer Concepts kit and did not come with decals. "I scrounged what I could from my dry transfer stash and was still looking for a few odds and ends when the photos were taken," he said.

Larry managed to build his MG ring correctly (not like some people we know...), but also added the VP .50 cal for that extra touch of realism.



MMiR RECCE

Tank Workshop M26A1 Tractor. Kit number 0033. Suggested retail price \$220.00

Tank Workshop M15 Trailer. Kit number 0002. Suggested retail price \$150.00

Both the armored tractor and trailer are available packaged together for \$330.00. The armored cab is number 0001 and retails for \$200.00 by itself. Kits graciously provided by the manufacturer.

Tank Workshop has asked us to refer retail mail order inquiries to Hobby Depot, 847 West University Drive, Tempe, AZ 85281. (602) 968-1880. Hobby Depot provides complete credit card services. The kits can also be found at local hobby shops stocking specialized products.

References

There's not much out there. The following books have at least one photo of the beastly boy. Each contains a fair amount of information and all are clear and large.

Forty, George, *United States Tanks of World War II*, Sterling Press, New York, 1983. Contains an interesting shot of two armored cab tractors in a workshop in France (page 29). Neat as well as cool.

Zaloga, Steve and Balin, George, *D-Day Tank Warfare*, Concord Publishing, Hong Kong, 1994. The full rig is illustrated on page 68—both the armored cab and the M15 trailer. Its load? Just a little ol' Panther that's all! So much for that weight limit...

Boniface, J.M. and Jeudy, J.G., *US Army Vehicles of World War Two*, Haynes Publishing Group, Sparkford, England. Good stuff. The fullest explanation and discussion of the M26 I could find. I wished for more pictures though. Photos of both the armored and soft cabs. Originally published in French as *Les Vehicules de L'US Army 1939-45* and may still be found under that title. Photo of the striped decal vehicle with an Autocar trailer (post war no less).

Mesko, Jim, *Armor in Korea A Pictorial History*, Squadron Signal Publications, Carrollton, Texas. Two good shots of the tractor/trailer combo, both versions. Good examples of postwar equipment and markings.

Wise, Terrance, *D-Day To Berlin*, Arms and Armor Press, London. Nice big photo of an armored tractor. Good example of field grunge.

Paine, Sheperd, *Modeling Tanks and Military Vehicles*, Kalmbach Publishing, Waukesha, WI. Great article on Shep's odyssey with the old Peerless Max kit. He scratch builds most of it, but his explanations and photos help clear up some of the mystery. Good basic set of plans too.

A Tale of Two

We look at two new feline friends from Italeri and Tamiya

The Italeri Tiger I

One night many years ago, after ingesting some refried beans and pistachio/pineapple frozen yogurt, I had a very strange dream. I was standing in a mist-shrouded field in my high school football uniform (I said it was very strange) surrounded by Tigers.

Not normal Tigers such as Tony, LSU or even Denny McClain, but odd foreign big cats, such as *berge... jagd... sturm... and koenigs*.

Being a devout treadhead, I was not frightened by the image (except for my football uniform), just sad that none of these bad boys had been injection molded yet.

Now the dream is a reality (except for my football uniform - can you say "Freudian"). Since 1988, seven Tiger kits have been released, with more coming fast. Now Italeri has given us a very early Tiger I, kind of.

The box refers to this vehicle as a Tiger I Ausf. E/HI. If all the parts are used, the kit actually represents (in a way) those early vehicles used by *schwere heeres Panzer Abteilung 501* in North Africa.

The parts are molded in dark gray, including the link-and-run tracks. One of the trees is from the earlier VK4501 Porsche Tiger, the others are new.

Before diving into this project, especially if you are new to Italeri armor, a few words to the wise. Italeri puts a very slight bevel to the edge of all their parts to assist in mold release. Consequently, almost none of the angles are true 90 degrees. They also leave tooling marks on unexposed parts, which is fine until the pieces don't fit.

So, take your time, clean up all the parts and test fit, then test fit again and then one more time for good measure. (The great and powerful Oz has spoken)

Upstairs, Downstairs

This is the most straightforward part, so enjoy it.

Parts 2A, 4A, 7A and 8A are hull sections which include the drive sprocket and rear idler mounts. Not only do the parts have large ejector pin marks, but also a very poor fit both fore and aft (sorry my brother was in the navy).

The problem stems from a mold seam on the inside vertical edge of the lower hull. Do not sand the seam away, or the upper hull may not align correctly. Use a strong glue, such as Tenax 7R and press fit as tightly as possible. This will leave seams to be filled, but they'll be practically unseen once the tracks are mounted.

The torsion arms go on nicely using Testors Plastic Cement (the watery kind). Be sure, though, to keep both sides aligned and level. The road wheels, all 48 of them, are fairly well done. The lip for containing the outer tire does look a little on the thick side.

There is some flash between the spokes of the outer drive sprocket halves. It's easy to miss so "stay alert men." Oh, one of the outside sprockets (A18) is



missing two bolt heads, but the other is complete. Go figger!

sPzAbt. 501 carried very little spare track on its early vehicles, but did weld steel strips to the lower rear hull for this purpose.

And now to quote the Fig Newton man, "here's the tricky part!" This kit's upper hull is blessed with excellent detail and crisp weld marks. Even the pin holes for tools and equipment are flashed over. But, and it's a big but (forgive me Field Marshall Goring), be prepared to do some extra work on this one.

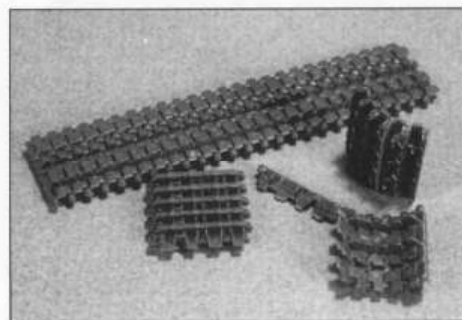
These are all basically butt joints and because of the previously mentioned edge problem, they all were a bit tough. The instructions present the best assembly sequence.

One small step that will enhance your beastie is the hull MG. The ball (48A) is a separate piece with a hole for the MG and one for the sight. If the locator pin is cut off and the ball canted to the right within its retainer (50A) you have a more accurate look. The MG and the sight should be to either side of the center line.

Turret

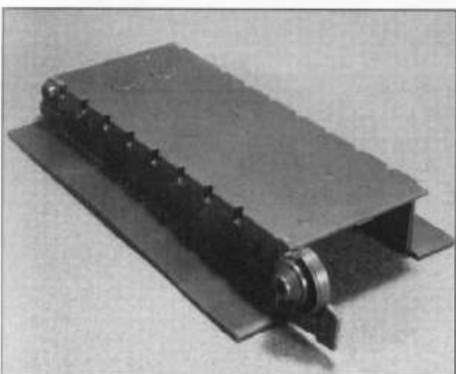
Italeri does supply some detail for the turret interior. Water bottles, ammo boxes and other protruberances are rendered—along with the commander's and loader's seats. The turret halves and mantlet for this kit are from the VK4501 Porsche Tiger. The roof is a new part which leads to a problem.

Once assembled, a large and obvious seam runs the entire circumference of the turret. Use great patience and a healthy application of filler putty. The good news: as with the upper hull, the turret is nicely detailed, especially the weld marks.



Details of the Italeri kit. At the top are the strip and link tracks. Unfortunately, they're the later type. Above are the primary road wheel components. The wheels are pretty good, but the wheel rims look a little on the thick side. The correct number of wheels are represented.

Two Tiggers



The upper and lower hulls. The model is pretty good overall. Like the previous Panther kit, the engine deck is wide open to reveal a molded engine module (see next page). Also like the Panther, the front hull is curiously broken down into multiple panels which can be difficult to align.

The gun and mantlet will (big shock) need test fitting. Plenty of daylight shows around the mantlet once constructed. It won't be hard to remedy, just break out those references and some sheet plastic. Be especially wary of the gun and collar. They don't line up quite right and need some sanding and scraping. The gun is also from the VK4501 kit and is a might (somewhat more than a smidgen) long. Remove about 1/8 inch from its base.

I found only one error in the directions in regards to the turret. The pistol ports are shown in the wrong positions, several times. Mount them where instructed, but be sure the port aperture is always to the left. The result being—on the turret left, the aperture is toward the front and toward the rear on the right, get it?

There are also ejector pin marks smack in the middle of each pistol port face. Now remember to watch your language around the kids.

The commander's hatch support arm (77C) is too short, about 1/16 inch when closed. I added a bit of plastic strip and a new hinge rod. Tracks

I said earlier that this was an accurate kit, almost. Well here is the "almost."

The box art represents an accurate early Tiger IE of sPzAbt. 501 and the tracks (three bar, as in three grooves in the face of the track bar) shown are correct. But sadly, it's the later style with ice cleats that's offered. It probably wouldn't be too difficult to remove the ice cleats and file the grooves into each link, but gee whiz guys, I don't wanna!

And as if that weren't enough, they're designed to go together nicely as one long flat run. But we need to wrap and sag the tracks because we're doing a TIGER III!

ModelKasten sells an early Tiger I track set (SK-2) for about \$45 if you find you can't live with this tragedy. If you choose to use the kit's tracks you'll find they require almost no clean up. Two different track parts are provided. The long runs and links have solid outer guide teeth slots. Parts 22B have actual openings and separate guards.

Disregard the instructions for mounting the tracks. Try this instead. Glue runs 34B and 33B together for the ground contact segment. Use all the open links (22B + 23B) around the sprockets (12 per side). There are 20 extra single links (32B) so don't use 30B if you want a natural sag. I used Testors liquid cement (the squeeze bottle kind) but I fear it shrinks as it dries resulting in your sags becoming straights. The more liquid type is the answer.

Finish up

Early Tigers with tread plate front mud guards (61/62D for those of one keeping score at home) were used in Africa. Some early Tigers had neither Feifel nor exhaust shields.

The exhaust shields provided were field mods used only by sPzAbt. 501. That's O.K. because photos show Eastern Front Tigers without exhaust shields or the small exhaust cover plates (72A). The kit head lights are designed to mount on the hull face, but aren't correct. sPzAbt. 501 placed them on steel strip frame or put them in their original hull top position. I recommend picking up On The Mark Model's Tiger I photo etch sets (TMP-3526) and TMP-35 26 for sPzAbt. 501 vehicles. These contain many of the unique parts such as the shields and fenders. Good Stuff!

Paint 'n Decals

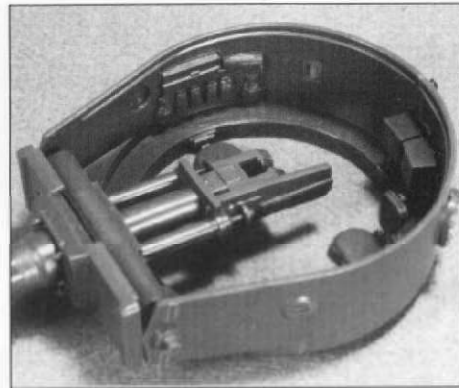
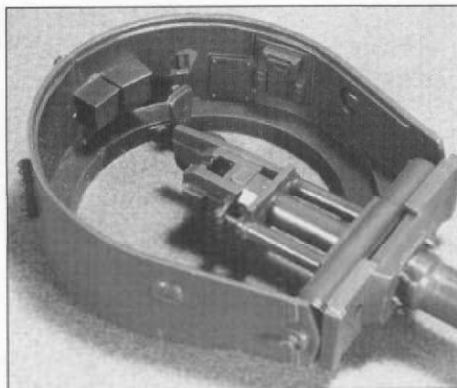
I wanted (like I had a choice) a 501 tank. Some were painted an olive green color, described as almost pea green. The instructions recommend Testors Model Master (MM-712) Field Green (FS 34097). But I chose a base coat of MM Dark Green (FS 34079) with some black added. This was oversprayed with MM Medium Field Green (FS 34095) and then dry-brushed with SAC Bomber Green (FS 34159).

The tracks were painted flat black, then heavily brushed with gunship gray, followed by dry-brushing with neutral gray. The high wear areas were set off with a silver colored pencil.

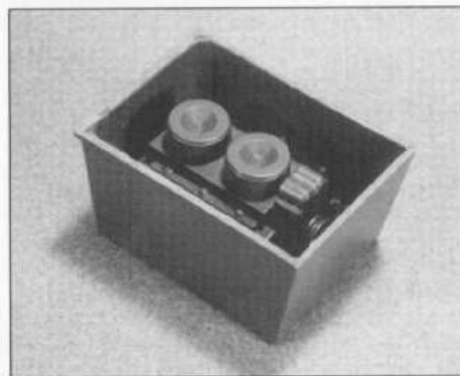
The decals were weird, but usable. The sheet provides markings for four tanks. Two from 501, another for 501 while attached to 10 Panzer Division, which is what I did. Also there are markings for a sPzAbt 504 vehicle in Sicily.

These decals don't look very promising at first glance. When you soak them, the adhesive turns white! Take a deep breath... let it out. Luckily the decal film is strong so just wipe the white stuff off the decal backing. Prep the model with Glosscote, apply Micro-Sol, and finish with Dullcote. Simple!

The markings look better on the model than on the sheet, that's a switch.



More Italeri details. At far left are the Feifel cans and hose. Below that are all the hatches. At the bottom is the engine module—nearly the same set-up as the Panther. Above and left are three views of the turret. Note the interior fittings and other gear provided in the kit.



The Tamiya Middy Tiger

This is not going to be your run of the mill review. First of all, we just about Tigered you all to death in the last issue (and now this) with the tale of detailing and back dating a Tamiya Tiger. This here is much the same story. You see, I had been working on a late model Tiger for some time and I had much of the super detailing work already in the can when the middy Tiger came along. It seemed only natural to just throw all this right on to the new kit. So I did. As a result, I'll be skipping over most of these detailing details (On the Mark brass, tow cables, MG, etc.) to describe what is specifically different about the new kit and then we'll briefly compare it with the Italeri offering. O.K.? O.K.

This is the Story... Of a Man Named Geeky...

Not surprisingly, there's not a lot to be told here. As you would expect, what you get in the box is essentially the same kit as the 1988 Tiger I—albeit about seven years late. It's a bit perplexing why this didn't immediately follow the first kit. I somehow survived its absence...

The Big Picture

This is definitely a case of the whole being greater than the sum of its parts. Once complete, this "kit" becomes a respectable "cat." Italeri could have included standard exhaust shields and "S" mine tubes for the upper hull. But I would settle for correct tracks. Because the decal sheet gives nine of the large red on white turret numbers used by sPzAbt 501 we could piece together dozens of different vehicle markings.

I recommend this kit, but only to those with some experience and a few handy references.

—Jay Cesafsky

Although the kit is basically the same, there are some small, but significant differences. The lower hull is that of the Sturmtyger kit and as such it represents the early style tow shackles up front. Straight in this case, instead of diveted like the later style. You can tell it's the ST hull by the locating points for the interior ammo racks. A good way for Tamiya to get extra mileage out of this hull. Other than these minor points the hull is identical to the older kit, with all its gorgeous detailing.

The upper hull plate is a teeny bit different too. It lacks the raised bullet splash ring around the turret opening like it should. A molded-on tag proclaims that it's the mid-production version.

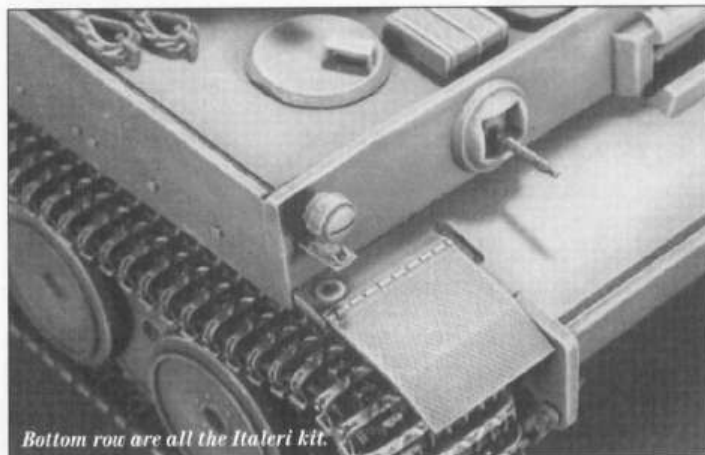
As to totally new parts, the turret roof is an all new piece. It lacks the three pilzen attachment points and it contains the earlier loader's hatch opening with the raised lip all around. The appropriate hatch is also provided with its distinctive long rectangular hinges.

The correct earlier side escape hatch (but not the really early pistol ports) is also provided. Watch out for this. The old one is still in the kit and it and the new one are easily confused. I goofed and installed the later one.

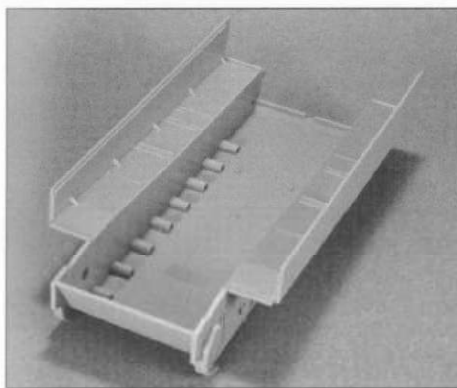
Most of the older parts are still in the box (except the big ones), so your parts box will reap the harvest.

Other newbies are the correct style circular engine access door vent (the old one was wrong), a very keen travel lock and the jumbo spade often seen mounted on top of the front glacis plate.

Although it was in the older kit, you now get the opportunity to use the earlier style gun barrel.



Bottom row are all the Italeri kit.



Tamiya details. Above is the lower hull. Above left are the road wheels, note the part number on the back. The inset shows one of the two empty hubs provided. At right are some of the new items: spade; loader's hatch, vent and travel lock. At far right are the two escape hatches. You want the one on the left.

The real treat of the kit is the all new road wheels. They're on a huge new sprue and are the rubber rimmed type. The detailing is superb. They equal or surpass the ModelKasten ones, although you don't get the option of leaving the outer wheels off—except for the front two wheels. These get a special little empty hub. It was common to see these wheels removed on many Tigers because this wheel combo was especially prone to jamming with mud or stones. A great little detail, but I wish they'd done the full set.

The detailing on all the wheels is quite complete—right down to the fine weld beads around the rims of the tires and inner hubs. You were expecting anything less??

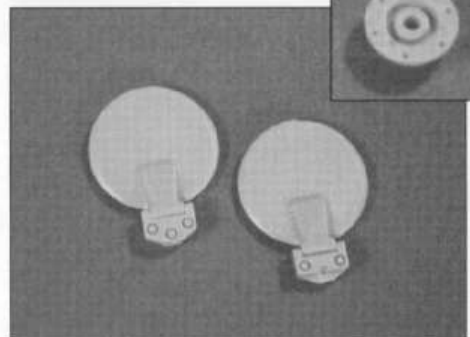
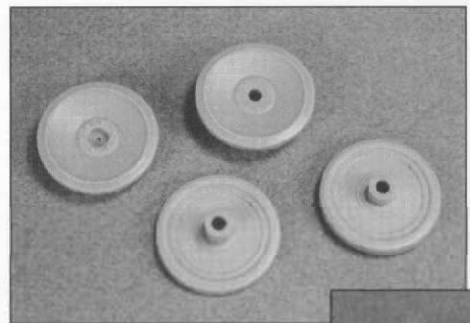
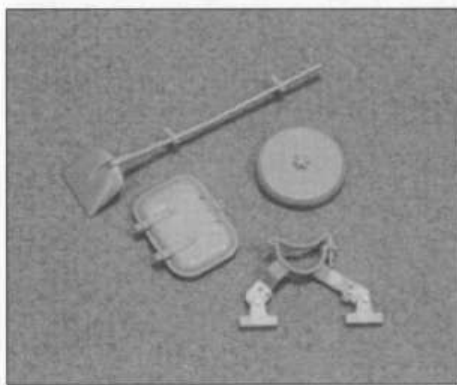
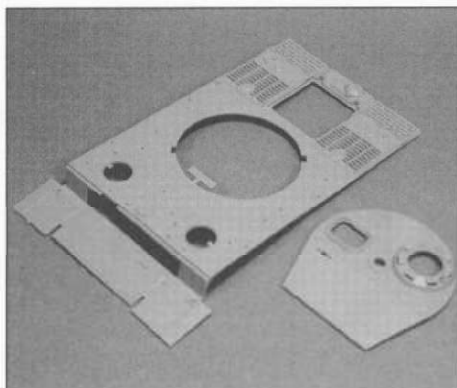
Assembly of all these boogers is tricky. Tamiya has cleverly numbered the backs of certain wheels to ensure their correct positioning and the instructions are quite complete.

There's no way you're going to get away with painting these off the model. I shot mine overall dark gray and then used a drafting template to mask off the tires, shooting dark yellow over the gray. If you back off the yellow a little bit, you can achieve some interesting depth effects.

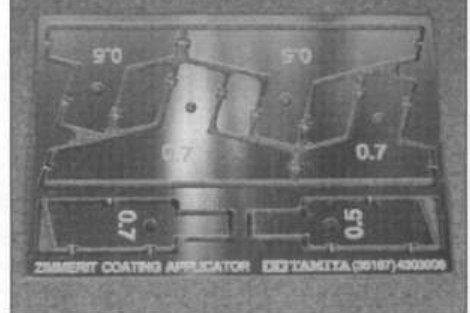
You get the later style tracks in the kit, the same ones as in the earlier offering. The triple notched cleat tracks would have been nice and a bit more appropriate. On the good side, they go together quite well.

Details, Details

As I mentioned, I did a lot of extra detailing. The biggest mod was the addition of Zimmerit paste. My method is described in the Volume 1, Number 4 issue



Tamiya's photo-etched Zimmerit applicators.



of MMIR and suffice it to say (here) that it involves spreading out thin sheets of A+B putty then texturing them using a T-square made from plastic strip as a guide. A custom made tool was used and I did each indentation one at a time (whew!). The putty is rolled out onto the surfaces using a plastic tube moistened in water to roll it flat. I just move down the T-square using the top edge of the hull as a guide.

I was greatly aided this time around by Tamiya's photo-etched Zimmerit applicator set (35187). This set provides three different tools in two sets of patterns. The serrated teeth are 0.5mm apart on one set, 0.7mm on the other. The three tools are made up of one long tool, a shorter tool and a small tool which has a very small serrated edge on its opposite side.

I'm really sold on these. The different sizes allow for use on all types of surfaces, and that really small edge is perfect for areas along the Tiger's mantlet and around the hull MG. The long tool makes quick work of the sides too. I spent only about one third the time I did using my previous method.

The only thing you have to be careful of is applying too much pressure to the longer tool. This will build up putty on the back side of the tool and

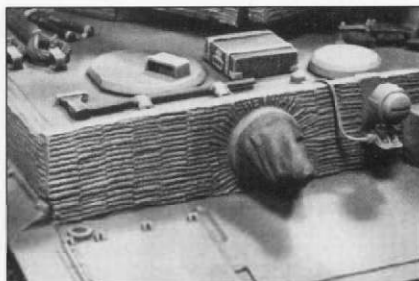
you'll end up with a clump at the end.

The tools are all designed to fit into some type of handle, but I'm still trying to find it. The larger tool won't quite squeeze into a number 11 knife handle, but the smaller tools will.

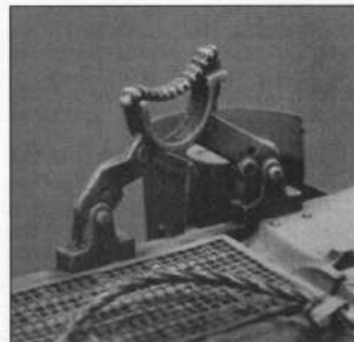
I used the larger of the two patterns on all areas except the back plate—just to be different.

The final detailing was done with all that OTM junk and I couldn't help adding some of the new ModelKasten wing and latch nuts. I also threw on a Cal Scale MG 34 in an Azimut mount. One last bit of insanity was the addition of travel covers for the main gun and the hull MG. Both were sculpted from





Middy montage. Various views of the finished kit. Of special interest is the final Zimmerit job. I used both patterns on the kit and you can see the smaller of the two in the photo above. The smallest tool allowed for some of the very fine detail work around the hull MG too. I also added lots of little details like OTM brass and ModelKasten wing and latch nuts. The shot below shows the finely molded travel lock provided in the kit. There's actually two in the box.



A+B putty.

I painted using Polly Scale paints, but my cammy job is pastels. These were applied over the base of dark yellow and then set with a couple of coats of flat finish.

I used the kit's decals, choice number one of three. They were snuggled down over the Zimmerit with hefty coats of Micro-Sol.

The Two Kits Compared

These two products are really two different animals. The approach to detail on both is just not at all similar. Where Tamiya always goes for state-of-the-art, Italeri seems to just cover the basics. Which is O.K. They have sort of turned this into their very own genre. You do get more interior stuff with the Italeri kit and an engine module like the Panther kit. They're planning a late Tiger for '96 too.

The most significant difference of the two is price. The Italeri kit retails for only \$23.00 while the Tamiya kit retails for over twice that: \$49.00. In spite of Tamiya's vast superiority in detail, this will be the deciding point for many.

The Italeri kit is also the only very early Tiger on the market—another big plus. Tamiya is apparently waiting to spring this version on us later. Admittedly, it would have been nice to see the current Tamiya kit have all the options needed to completely backdate it to the very early version. The early tracks would have suited both the early and the mid vehicles and the Feifel system and other minor bits wouldn't have taken much more than a 3 by 3 inch sprue.

If you're looking for that ultimate machine, you'll still have to get there via the ModelKasten or Kirin backdate sets. Combining the two plastic kits is also an option.

All in all though, it's still good to have the choice. You've got all the bases covered. Something for the novice or the budget minded individual and something for the more serious modeler and devotee. Not bad, not bad at all.



—Pat Stansell



MMiR RECCE

Italeri Tiger I. Kit number 0286. Sample graciously provided by the manufacturer. Suggested retail price \$23.00

Tamiya Mid-Production Tiger I. Kit number 35194. Sample graciously provided by the manufacturer. Suggested retail price \$49.00.

References

Didn't we just do this? Yes, yes, but here's a few anyway...

Tigers In Combat by Wolfgang Schneider J.J. Fedorowicz Publishing Inc. 1995. Big, expensive and worth every penny, it'll set you back a c-note.

Tiger and Sturm Tiger in Detail by Uwe Feist and Bruce Culver. Ryton Publications. 1994. One of the few books to portray the Tunisian vehicles well. About \$50.00 wherever Ryton books are sold.

Tiger in Action, Squadron/Signal Armor Number 8. Squadron/Signal Publications. 1974.

Tiger in Action, Squadron/Signal Armor Number 27. Squadron/Signal Publications. 1989. The less expensive alternatives.

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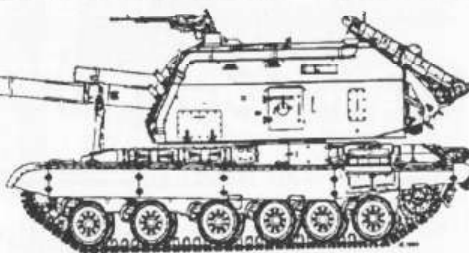


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Mini-Men

A Look at What's New on the Figure Front

Actramac

ACTRAMAC IS A LARGE FRENCH DISTRIBUTOR WITH IT'S OWN product line. They've sent along for review, what is without a doubt, one of the nicest set pieces for figures of the Vietnam conflict we've seen to date.

It's a two-figure vignette with the reference "Vietnamese couple" and the amount of detail is exquisite. There is a papa-san, with a nice Ho-Chi-Min-ish looking goatee, and what looks to be his daughter (or very young wife?). They're trotting



along fast and furious and they make you think of those reels of footage depicting the fleeing refugees of the period. The castings are in resin and the review sample had some hefty mold lines and minimal pitting. This was easily corrected and the end product is quite simply—superb. This could either serve as a stand alone vignette or be integrated into a diorama (maybe with the new AFV Club M88?). The piece comes with an separate cast resin base and a roadside sign.

Our outlook; Lo Dia Lo Dai, (come out) don't be left out! Available via Actramac, 31 Rue Esquirol, 75013 Paris, France. Telephone: (33) 1 45 86 52 62. Fax: (33) 1 45 82 28 82. Price 150ff, add the equivalent of 20ff for postage.

DML

THE FIFTH KIT TO BE RELEASED IN DML'S 1/16 SCALE "Warriors Series" is a **Screaming Eagle, Normandy 1944**, kit #1605. This U.S. 101st Airborne Division Paratrooper is ready to rumble in the hedgerows.

This figure follows the format of the others in this series. The main body (torso and legs) come in two halves, front and back. This reminds us of some of the old Aurora figure kits we built as a kid.

The rest of the parts are all molded solid. The kit went together easily, with only a little putty and some sanding necessary.

The boots are nicely done, but seem too small for the figure. The pouch pockets on the trousers are separate pieces, as are the ten cartridge pouches, first aid pouch, canteen, shovel, bayonet, bayonet scabbard, M-1 rifle and rucksack. The individual ammo pouches are a great touch and look very realistic on the completed figure.

The M-1 rifle might be the nicest piece in the

whole kit. The bayonet blade is nice and thin, so thin in fact that we broke ours trying to sand down the spot where it is cut from the sprue. We cut the rest of the blade off at the hilt and glued the handle to the top of the scabbard before gluing it to the figure, so all was not lost.

The left arm has a raised 101st Airborne Division Patch molded on it while the right arm has an American flag molded on.

The facial features and expression are great! Our paratrooper seems to be having a rough day after a long, hard night. He's sporting the mohawk haircut many U.S. Paratroopers acquired just prior to the drop into Normandy. However, the kit comes with no helmet and any paratrooper worth his wings, is not going to be far from his (or a dead buddies) brain bucket for long in a combat zone! Without the helmet, it looks more like the figure is posing for a photo to send to the folks back home, showing off his mohawk before the jump. It would have been nice if DML had provided a choice by supplying both a helmet and the mohawk.

The kit retails for around \$16.00 and is a good bargain for the money. References include *U.S. Army Uniforms 1939-1945*, by Ron Dille, 1972,



Almark Publishing Co. Ltd. and *US Army Airborne 1940-90*, by Gordon Rottman, in the Osprey series.

We hope to see more figures from DML in this series although it would be nice to have see some brand new poses, rather than blown up copies of figures already released by DML in their 1/35 scale figure series.

Leave it to DML to be the first to bring us models from the Korean War. **Chinese Volunteers** (kit 6806), consists of four Chinese infantrymen in



assault poses. All are wearing the pre-1951 quilted winter uniforms with fur-lined caps. The mold seams were easy to clean up and very well placed on the ridges of the quilted uniforms. As usual, DML has provided a nice assortment of weapons and equipment. These figures would look great sweeping past a disabled Pershing or Sherman.

The first figure is kneeling, firing a PPSH M1941 7.62mm sub-machine gun. This figure would work well firing around the corner of a building or around the front or rear of a vehicle.

The next figure represents a soldier throwing a "Chicom" wooden handled hand grenade. This is an interesting figure, but his right arm should be cocked back a little more in order to make it seem as though he's throwing the grenade. As it is, he looks more like he's side-arming it. He's carrying a Soviet M1891/30 7.62mm Moisin Nagant rifle, but more realistically should be carrying an M1944 7.62mm Moisin Nagant carbine. The 24 individual ammo pouches for the bandoleers are an excellent touch. This figure alone consists of 34 pieces. That's more parts than in some aircraft kits!

Next, is a soldier advancing with a Czech made ZB 26/30 7.92mm Machine gun. This one our favorite out of the four. The pose is realistic and he went together without any problems. He really looks great when finished. He also comes with individual ammo pouches. DML should be congratulated on the separate ammo pouches they have been providing with their figure sets lately. This not only allows the modeler to drape them on or around the figure in a realistic manner, it also makes it easier to switch around the weapons carried by the figures with little conversion work needed.

The last figure in this set is also very interesting. He is advancing with a PPS 43 7.62mm sub-machine gun raised to his shoulder in the firing position. He also went together with little effort although care must be taken when gluing the arms and weapon in place to insure proper fit. We could almost see this guy advancing on some wounded GIs, about to take them prisoner. He looks both angry and a little scared, ready to shoot at any sign of trouble.

Despite some minor fit problems, this is another outstanding set of figures from DML. An excellent reference for this set is Osprey's #174, *The Korean*

War, 1950-1953 by Nigel Thomas and Peter Abbot. Another superb reference—if you can locate it—is the Department of the Army Pamphlet #30-51, "Handbook of the Chinese Communist Army," published in September, 1952.

Hornet

IT'S BEEN A WHILE SINCE WE'VE HAD ACTUAL FIGURES TO REVIEW from our old friends at Hornet. But the talented fingers of Roger Saunders are starting to fly again!

The first item is a **German**—a COLD German. This is number **GH23** and he's wearing the standard German great coat, and has added to it's warmth and protection with an old sheet draped over the top. His hands are way down deep in his pockets and his collar is up snug around his neck. He's topped off with the basic field cap, but has a scarf or balaclava wrapped around his noggin.

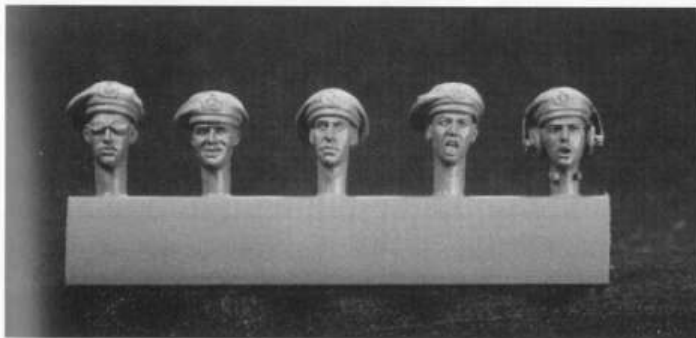


The coat is very bulky looking, indicating something worn underneath. It was common for troops to add whatever layers possible underneath—up to and including newspapers, straw, blankets, sofa cushions, etc.

His shoulder drape could be anything. A blanket or a section of white cloth—even a Nazi flag. You've got some interesting painting options.

The sling for his K98 is beautifully molded on the back of the casting and the rifle fits on perfectly. No need for a "foil job" here.

The second figure is another Russian, number **RH11**. This is the second in a series of **Soviet tank riders** from Hornet (and number eight in the WWII Soviet series). The riders are specifically intended for the side of a T-34 and will eventually number four. We're already planning a diorama for these guys!



Our comrade is wearing the pilotka side cap and the standard gynastiorka uniform and calf length boots. This rig became common in the latter half of the war. The armament consists of a PPSH 41 with the drum magazine. There is a pouch for this attached to the belt. A superb effort, bring on the others!



The third is a **Commonwealth motorcycle dispatch rider**, number **BH14**. This figure can be easily modified to an MP and can span a period stretching from 1944 to post war. He's wearing riding breeches with the accompanying lace up boots. There are a pair of woolen socks folded over the tops of the boots. Over the top of the standard battle dress he's wearing the popular sleeveless,

leather jerkin. The rimless helmet was the same type used by para's, with the exception of an appropriate liner having been added. An absolutely stunning job of sculpting here, the scarf and the slight tilt of the helmet really bring the pose home. A winner all 'round. Now all we need is a 35th scale British bike...

Always a welcome sight from Hornet are two new replacement head sets. The first, **HGH7**, is a set of five German WWII heads wearing the black panzer beret. No sleepy, dopey, grumpy or doc in this lot! The rendering of the early war beret is most precise, with the distinctive rim of the helmet underneath and the cap badge perfectly executed. Good show! These heads will be very handy for your next early war Panzer or StuG.

The second set, **HRH2**, is a series of five Soviet heads wearing pilotka side caps. These are highly useful as the heads can be used for post war figures too. Like the set above they all represent a variety of expressions (depending on your mood) and two have the distinctive red star on the cap front, while three do not.

This latest group does not disappoint. They are of the highest caliber and set the standards for others to follow. Thumbs up, get your wallets out!

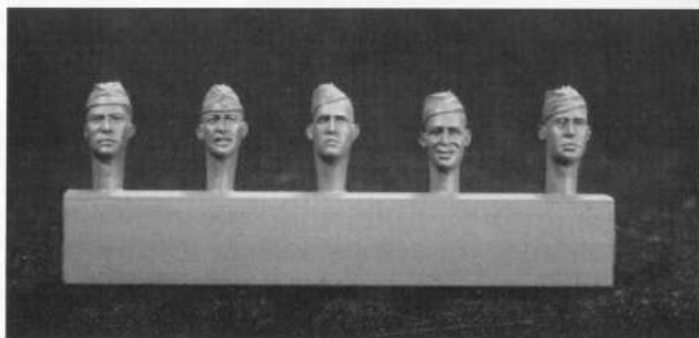
Available in Europe directly from Hornet or in the U.S. from specialty shops and mail order outlets.

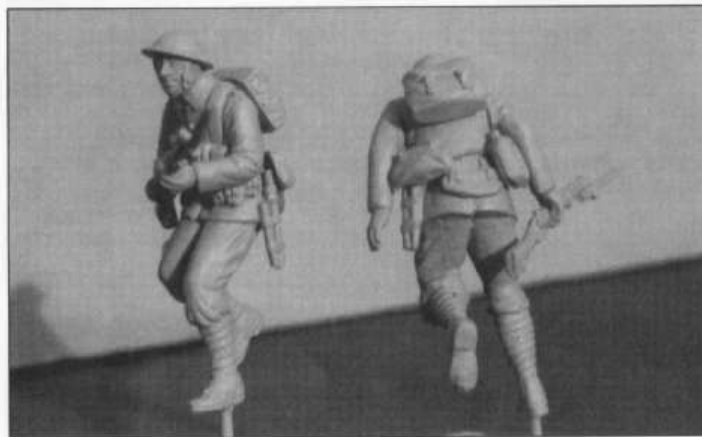
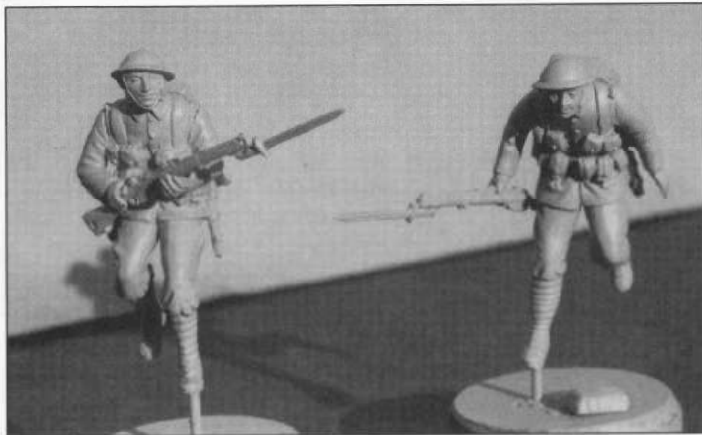
Model Cellar

MODEL CELLAR IS A U.S. COMPANY THAT HAS BEGUN TO SPECIALIZE in items from the first World War. This is a period that is often over-looked by the modeling community. They have released a pair of **British WWI troopers** running full out. These guys are very well cast in resin and come supplied with a slew of equipment. These figures have the advantage of being able to interchange body parts, thus giving greater scope for usage. They are wearing the standard kit seen during the offensive of the Somme in 1916. Both are topped with the Mk I steel helmet, known as a Brodie after the inventor. Over a million were distributed (to the late arriving GIs too) and it was made of manganese steel weighing in at a hefty 2lb! Various unit insignia were often painted onto the sides.

The M1902 tunic was to remain basically the same up until 1937 and was made of Khaki serge cloth. The M1902 service dress trousers were cut from the same cloth and had two vertical slash pockets, twelve buttons around the waist and were held up with suspenders (or should we say braces?).

The equipment is the M1908 pattern. This system was a very practical one the was copied by many different armies for years after. The equipment could be removed as a single item and arranged in several different ways. Some of the equipment included in the Model Cellar kit includes the 2 liter, steel, cloth covered canteen; E-tool head (in it's carrier), the Valise or pack and the ten ammo





pouches—five per side, three down two up. Completing the uniforms are M1902 cloth puttees (leggings), over the top of the “ammunition boots.”

The soldiers are armed with two, short magazine Lee-Enfields (No. 1 Mk III), caliber .303 This was a super reliable rifle and was much esteemed by the various troops of the BEF. No straps are molded onto the figures in order to give realistic “hang and float”. A generous amount of thin foil is provided for this purpose. Time consuming but extremely effective and accurate. Finally two types of gas mask containers are provided. The PH (Phenate-Hexamine) worn over the side, was brought out in 1915 and would have been in use during the British offensive of the Somme. The second type, the box respirator of 1917, was worn hung on the chest by a strap around the back of the neck. These will look extra spiffy running alongside the Enhar Whippet

or Mark IV and are highly commended with the good ol’ boy award of achievement for excellence. Seriously recommended! Available direct from the manufacturer: Model Cellar productions, P.O. Box 388 Horsham P.A. 19044. Telephone (215) 672 1432.

Tamiya

THE POOR MAN’S HOWITZER, MORTARS PLAYED A MAJOR ROLE in the make-up of heavy infantry units in all of WWII’s major armies. Often when the ground pounders had nothing else, they could crank up a mortar or two to lob a little high explosive into the other guy’s peanut gallery.

A favorite Willy & Joe cartoon shows the boys squatting beside a single, still smoking mortar on the side of a god forsaken hill. Willy, on a field phone, is king for a moment. “K Comp’ny artillery commander speaking.”

Tamiya’s new **German Infantry Mortar Team** (kit number 35193) fills a void not many of us knew even existed. By any stretch of the imagination, the mortar is an unglamorous, ungainly piece of equipment. It’s low tech (even before WWII) and doesn’t have the sleek lines of a PAK or dignity of a field gun. So not many modeling concerns have bothered with cranking out a worthwhile kit. Until now.

Despite its stovepipe looks, the German 8cm Type 34 mortar depicted in this set, can deliver a

pretty wicked punch. Just ask any poor sod who worked his way through the hedgerows. Mortars, with the looping, high trajectory just sort of dropped in out of thin air. The German team manning this mortar are all dressed in early war field uniforms with pleated pockets and jackboots. Included is a squad leader (standing), a loader, an ammo carrier and a gunner all holding the mortar in place.

These are actually some pretty animated poses when you consider what they’re doing. The squad leader has a finger in his ear, as he gets ready to order another round. The concussion has the other guys skittish as well, cause they are all convincingly posed leaning away from the tube.

The molding is consistent with other recent Tamiya efforts—and that is to say very good. The expressions are all very convincing.

Again, as has been Tamiya’s wont recently, this set is packed with accessories. Two types of mortar ammo boxes, wooden and metal, and six individual rounds. In addition, there are nice renditions of small arms, haversacks and other paraphernalia associated with men at war.

This isn’t one of your “Gee Whiz” sets. It’s very good for what it does and will make a wonderful sub-plot in many a diorama.

For reference, we recommend the superb *German Combat Equipments 1939-45*, by Gordon Rottman. Osprey Series, number 234.

Verlinden

IT JUST WOULDN’T BE MINI MEN WITHOUT SOME ENTRIES FROM Verlinden Productions.

Ever the busy ones, Verlinden has just delivered three new sets that continue their creditable string of German soldiers “taking five.”



The first set (VP6 1064) is **German Generals WWII** and it depicts a couple of the “old men” relaxing and scoping out the situation.

One general has his arm outstretched to his side and is obviously leaning against whatever you want to put there (the box top shows a “Panta”). He is wearing jackboots and a kradmantel or water proof motorcyclist’s coat. These were very popular amongst senior officers—they don’t like to get wet, apparently. It wasn’t standard issue to those types, but what Herr General wants—he gets. Peeking out from the jauntily flipped up collar (great sculpting here) are the stiff collar boards of a general officer. He’s topped with service dress cap, or Schirmmütze, with a pair of goggles jauntily perched above the brim.

The second general is just chock full of interesting decoutage. His head is buried in the fairly rare rabbit fur cap that was produced after 1942, and found mostly with SS and elite Army units. This was a much sought after item inspired by the magnificent fur caps worn by the Soviets. German troops were forbidden to wear captured items, but a well-known German hat maker produced its own version for distribution to the troops. It would be fairly typical to see an SS eagle and Totenkopf insignia attached to the front. Our man also has on the coveted fur-lined great coat that only the high muckity-mucks seemed to end up with. Not private issue, but also not available at every Wehrmacht WalMart, it was issued mostly for sentry duty and was cut the same as a the standard great coat, but somewhat longer. He’s holding a cup of java and steadying himself with his arm.

Both figs have nice detail and the fur-hat dude would make a smashing stand alone miniature. Just a little cutting would allow the extended arm to hang naturally at his side. The sculpting on the face and other small details such as the gloves and hat is outstanding. We think this the work of Jesus Aras, and if it is, it represents some of his best.

The next set, (VP6 1066) **German Soldiers at Break**, centers around two tankers, or assault gunners, taking a coffee (or tea) break.

One fellow, wearing the standard short assault gun or panzer tunic and M43 cap, is sitting down and dangling his leg on the edge of a tank, truck, building or whatever you can imagine.

His buddy is pouring himself a cupper and is complete with liquid filled cup and the appropriate pot of steaming brew. Nice pose. His clothing is interesting because it depicts the tight, sheep skin fur-lined waist jacket. A rare beast indeed, it's mostly known from photos of Sturmbannführer Josef Dienfenthal, the commander of III Btl., SS-Pz Gren.Rgt.2. This was the infantry unit that was attached to the infamous Kampfgruppe Peiper



from the Ardennes battles. The figure could pass for a portrait, although the facial resemblance is superficial, the clothing details like the jacket winter camo britches and field cap are dead on. References on this garment are tough to pin down. Dienfenthal is one of the few individuals we've ever seen wearing it. They were a number of sheepskin garments issued, usually longer in cut and containing a collar. It may be a civilian item, or it may have been cut down and modified by the regimental tailor.

Both these poses have infinite uses. They are sharply molded and just beg to be added to any winter diorama.

Lastly, but not leastly, (VP6 169) **Tiger Crew Engine Repair**, presents two grease monkeys



peering down into a Tiger's guts. Both guys are nattily attired in standard short tunic panzer gear with feldmützes.

One fellow is stretched alongside the engine compartment looking for something... you know much like your local mechanic does.

The other guy is nicely posed sitting in the compartment and reaching through his legs to some little bittie wing nut. His arms and hands are beautifully done. Of course, these two don't have to be Tiger jocks, they can be used on just about any of the late war vehicles with a big hole in the back. You won't have any trouble finding work for them.

For references check out these titles: Osprey Elite Series, #11: *Ardennes 1994: Peiper and Skorzeny* and *German Soldiers of World War Two* from Historie & Collections.

Warriors

THE ONSLAUGHT CONTINUES FROM THIS WEST COAST TEAM.

Hey! Wait a minnit! I KNOW these guys! Warriors, in keeping with their secret mission to model each soldier who fought in the Battle of the Bulge, has released two more German poster boys, **Waffen SS Ardennes Pair #2** (35026).



Taken from a well known film sequence shot near the Malmedy-St. Vith road intersection, both these figures are just exquisite. Leafing through a copy of *Battle of the Bulge Then and Now* unearthed a whole plethora (that's four plethors) of photos of these two meanies. A couple of non coms in the Liebstandarte, they have been identified as SS-Oberscharführer Persin and SS-Unterscharführer Ochsner in those pages.

If you'll recall the photo of the SS guys in the schwimwagen posed in front of the Malmedy-St. Vith sign, Ochsner is often mis-identified as SS-Obersturmbannführer Peiper by people who write bad Bulge books. However, this pose has the pair on foot walking through the road junction. Further shots show them sauntering by a foliage covered 250 half track (dio city!).

The molding, facial expressions, uniforms are all just perfect. It may be redundant, but Warriors just keeps on turning out the best figures on the market right now. The resin carries every little nuance of the original photos. This set is SPAACIAL!!!

The next figure, **Waffen SS Tanker with Map** (35038), is on the utilitarian side. This fellow is very reminiscent of several photos, but we were unable to find the exact pic with him in it. But he is



your basic panzer officer, dressed in standard garb with your standard soft officers' cap on. The way he's whipping around, you'd get the idea somebody just sneezed in Russian...

But once again the molding is way, way above standard. Even the sleeves are hollow! EGAD! There is absolutely no limit to the diorama possibilities with this honcho and he'd go well with either of the two earlier Panzer Crew sets.

For the SS figs, check out *After The Battle's* aforementioned *Battle of the Bulge Then and Now*, or its smaller (and less expensive) outline version by Osprey mentioned above.

"Make them stop...oh please just make them stooooopppp!!!!" Before you mumble something about "It's deja vu, man." We must say it goes beyond that. First there were all those Ardennes SS troop figures, then Hitler near the end and now they've gone and molded yet another uniquely kewel mini-man.



This guy is a Ukrainian peasant one might be tempted to call a partisan (that's how he's listed: **Partisan** #35018). However, the minute we saw this guy we knew we had crossed paths before.

It didn't take long but we dug a photo in a somewhat obscure photo book called *The Onslaught - the German Drive to Stalingrad*. Let us quickly plug this book. It is compilation of color (that's right color) photographs shot by three German soldiers

during the spring/summer/fall of 1942. It was published in 1984 by W.W. Norton and may be scarce. However, it's a real worthwhile addition to your library. So once we see this piece we're thinkin' we've met. And sure enough, he's right inside, in glorious color!

It's heartening to see a company so confident in its abilities that it will reproduce figures verbatim. Well, it ain't braggin' if you can back it up. Our man apes the photo almost perfectly, even down to his bare feet. The posture, cocked head, relaxed look all ring true in this mini-man.

The photo caption says this guy worked for the Germans as an anti partisan-partisan (huh?). But he will fit nicely into just about any scene, partisan or not. There's not a lot of action, but it's just a very nicely designed and molded piece.

Stick a pair of boots on him and you've got just about any resistance fighter on any of the fronts (and even a few after).

For a keen insight into the workings of the French resistance, check out the recently re-released *Is Paris Burning?* This is the bitter sweet story of the liberation of Paris told through the stories of resistance fighters, civilians and soldiers of both sides. No photos, but you won't come away unmoved.

No World War II flick about the Pacific Theater is complete with out the obligatory GI, Gyrene or Gob walking around half dressed (from the waist up of course). And it doesn't take a lot of research to find out that lots and lots of our guys didn't dress by the book.

Warriors, in their singled-minded advance to coolness, has offered us a very nice figure of one of those type of fellows, **USMC Tanker, Pacific Theater** (35023).

This guy is decked out from the very opening phases of the Pacific war, such as Wake Island, the Philippines or Corregidor. He's wearing the old WWI style "Tin Hat," carrying an M1 .45 cal Thompson sub-machine gun and has a chest many of our wives



just dream about.

Actually he's a pretty somber dude who appears up to his neck in his work. The piece is, once again, exceptionally molded, with astounding detail. We loved the way one of his pant legs was untucked while the other is tucked up into the standard gaiter. One pant leg has a tear in too (those Warrior guys!)

Figures of U.S. soldiers wearing the early style helmet are scarce. This one is complete with Marine Corps logo. The Thompson is quite a piece of work in itself. It's depicted with the rare drum magazine (serious business) and the forward pistol grip.

You'll have to do a little careful filling of the arm and head joints. No natural seams there (at least on most folks).

Pose this jar-head next

to your next Stuart model or maybe next to a knocked out Japanese tank.

A good reference for our Marine buddy would be the Osprey Elite Series #59, *US Marine Corps 1941-45*.

Well most of us here have been modeling since the Checkers Speech and we thought we had seen just about everything. Wrong-o!

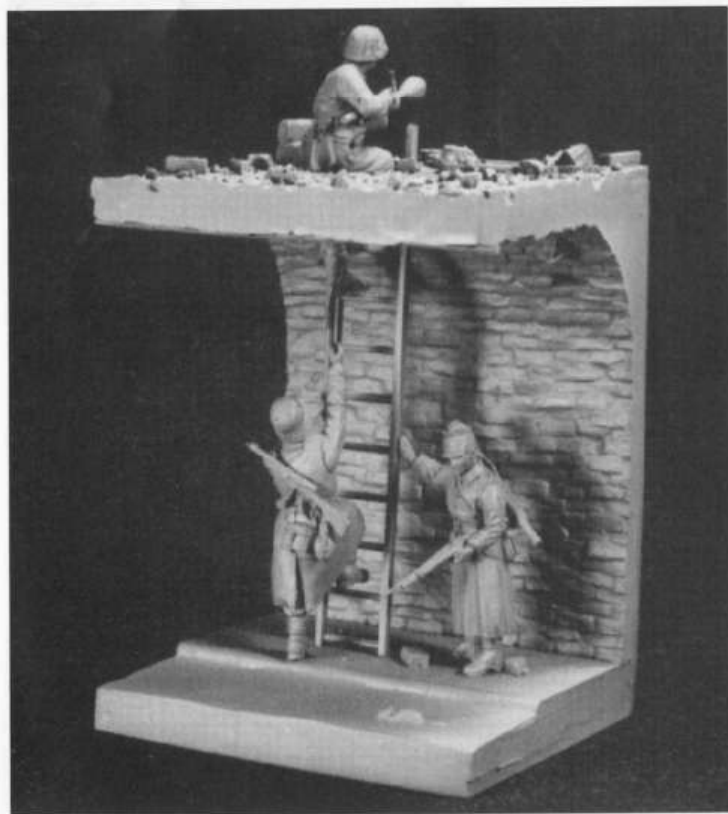
Warriors has pulled off a really boss attempt with their **Berlin Sewer** (35013) set. This thing is just plain neat! The concept is neat! The implementation is neat! The detail is neat! Excuse us—this thing just reeks of neat! The scene is obviously in the midst of *Gottterdammerung*, when German soldiers are trying fruitlessly to stem the onrush of Soviet armor.

In a nutshell, a grenadier with a panzerfaust is poking up out of a manhole getting ready to evaporate some unsuspecting AFVski. In the sewer beneath him are two other denizens waiting to climb out of the Ed Norton Memorial Septictarium. One fellow is heading up the ladder while the other is casting nervous glances around the sewer and spies a Nazi ratzi paddling upstream. The whole effect is very, very nice.

The detail of the pieces involved continues to meet the incredible standards for which Warriors is becoming known.

The interior of sewerville is convincingly done, including the electrical conduits and lights. Up top there is a nice cobblestone street, complete with touches of rubble.

As usual, the figures are just impeccable. Detail is razor sharp and the uniforms appear absolutely on target. A wide variety is represented by the three figures. The guy on top wears the late war short jacket with a sweater underneath, helmet



with cover and boots with pants tucked into gaiters. He has (rather appropriately) acquired three tank destruction badges.

The schutze on the ladder is your basic Volkssturm type. He wears an overcoat and he sports the ever popular square mustache. His helmet is the goofy looking type issued to Selbstschutz—basically German air raid wardens. This type of helmet was also worn by the Feuerwehr, the Fire Service and a version of it continued to be used after the war. Just remember to paint it dark bluish-gray.

The weapons are a standard lot. Our man in the street uses an MP40, while our rat fearing friend totes the standard Kar 98. Our Selbstschutz pal carries the interesting Volkssturmgewehr 1-5. This was a 7.92mm weapon that used the same cartridge and magazine as the standard Sturmgewehr. In many ways this weapon was the dime-store version of its cousin. It was manufactured rather hastily in the closing months of the war and issued to anyone who could pull a trigger.

As a stand alone, or as part of an elaborate diorama, this piece will spark conversation for a long, long time.

For reference check out: Osprey's *Men at Arms* Series #213, *German Military Police Units 1939-45* Plate H contains a figure that closely resembles the dude on the ladder. Also see Mollo's *German Uniforms of World War II*, Hippocrene Books, 1976.

There has long been a dearth (Dearth Vader?) of good U.S. Tanker figures. Warriors has taken it upon themselves to remedy this situation and boy is the remedy nice.



The latest is entitled **Coffee Break** (35037) and he's just your average dog face about to enjoy a cup o' Joe. He's dressed in the tanker's winter combat trousers which are worn up over his jacket. He sports a shoulder holstered .45 and is capped off with the standard football helmet. We really liked this figure's generally relaxed attitude. We are also keen on his winter over-boots. These were quite a common (and much sought after) item in the final winter of the war.

With the spate of new Sherman kits, he would look at home in a number of situations posed with the earlier Warriors tanker releases. Actually, as nice a job as Warriors does on all it figs, you could probably hang them out of your nose and draw



admiring glances.

Among some of the more unconventional releases from Warriors is a new 1/9 scale resin bust of **Pappy Boyington** (officially kit #9005, US Marine Corps Pilot). This two-piece kit (the chin strap is a separate casting) depicts the pilot in flight suit with helmet and goggles, a "Mae West" inflatable vest, but without a parachute harness. Maybe Boyington was ballsy and flew without a parachute!

The kit has some excellent features such as the undercutting of the molding around the collar area and between the shoulders and the Mae West. The overall sculpting is good, particularly nice are the goggles and the facial features. We passed this among some of our aircraft buddies (they're not so bad—just don't let them in the house) and the consensus was that the bust indeed looks like Boyington, although one modeler stated he thought the nose was too big. It goes to show you once again that on any given day, you can't please everyone!

Since the chin strap is the only separate piece, there should be no trouble with assembly. Unfortunately, the chin strap on our kit came broken in two pieces. It was a little tricky getting it glued, puttied and sanded so that it lay properly over the collar, but once completed it fit well and hangs very naturally from the right side of the flight helmet.

From photos of Second World War USN/USMC pilots that we compared the bust to, the accuracy of the uniform and equipment is good. The only discrepancies we found were the "Mae West" neck line seems a touch too small, it should be a scale inch or two lower across the chest and it's also lacking the inflation tube on the right front. Most pilots wore their collars open and over the vest while the collar on the kit is closed and under the vest. These are minor nitpicks though and overall, this is a nicely sculpted, well cast bust.

For reference, see Mollo's *The Armed Forces of World War II* Page 298 has a great illustration of a Marine Corps pilot of this era.

We would be remiss if we didn't mention just briefly one other part of the Warriors line. This is their 1/9th scale *full figure* series. This means big. So far this consists of only one full figure, with a few more on the way.

The figure represents an officer of the **Waffen SS in Italy** (WA 9002). The figure shows a mixture of the temperate and tropical dress which was com-

mon amongst troops fighting in Italy. The tropical clothing was always popular among German troops and it wasn't at all unusual to see tropical tunic, for instance, being worn in during the summer of the Normandy battles.

This figure is sculpted by John Rosengrant, an immensely talented guy who spends much of his time working for a special effects team in Hollywood. Very fortunately for us, he is also part of the Warriors team. The figure is simply a marvel of detail. Things are possible at this scale that you could never imagine at even 120mm. There are veins in the figure's hands and his fingernails are clearly noticeable! The MP 40 even looks a little threatening. You could look and look the casting all day and still find things to ooh and aah about. It is truly a treat for the eyes.

We are going to forego any additional adjectives and let the picture speak for itself. Little Erwin gives you some idea of the size difference.

Building it is very similar to building a resin tank kit. There are big overpours to remove but the work moves along pretty quickly. We built it all in one sitting. As you begin to see the figure come together it really makes you want to jump to the next step.

The price is high (\$59.95), but we can't think of a better way to initiate your self to big scale figures. There are nearly an infinite amount of possibilities for painting and finishing too. 

—Compiled by Ken Dugan, Steve Roberts, Kip Rudge, Pat Stansell and James Welch



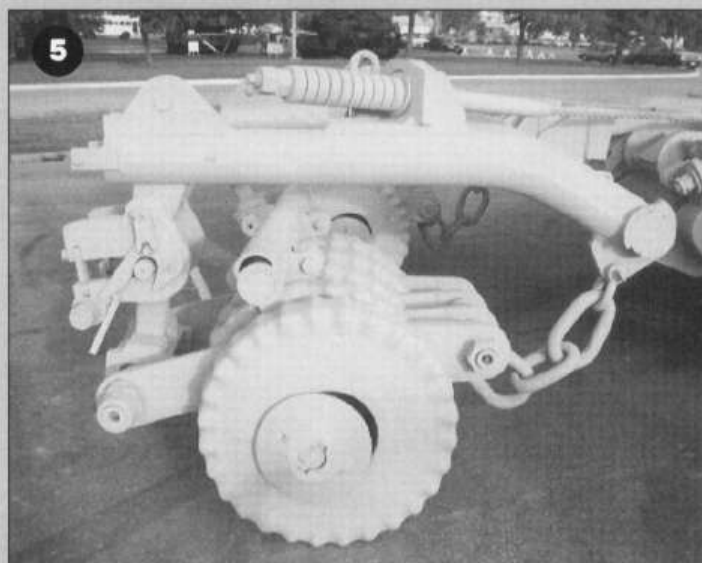
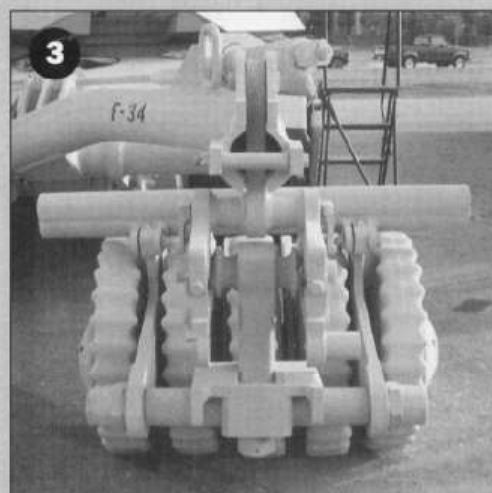
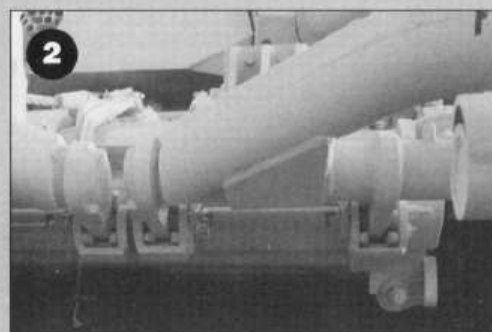
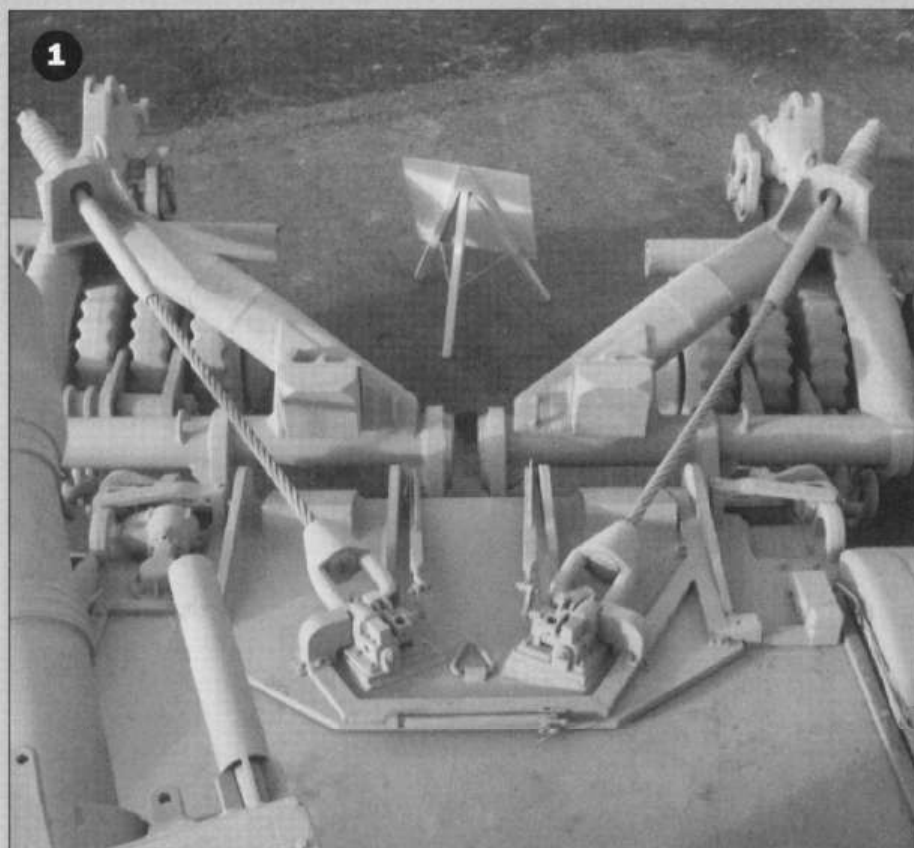
M1 Mine Roller Set

This mine-clearing roller is part of the M1 Battalion Countermine Set. The set consists of four mine clearing rollers, six mounting kits, four cleared-lane marking systems (CLAMS), four CLAMS mounting kits, and 12 mine-clearing blades. Each roller can absorb the detonation of two anti-tank mines while clearing a lane. The CLAMS mounts on the back of the tank and marks the lane with chemical lights.

The battalion countermine set completed testing and entered service in 1989. The mine plow is favored over the roller system for use in soft ground where the rollers might bog down. The rollers are most likely to be used on hard-packed earth or solid surface roads.

All the photos below show the roller set during its debut at Fort Knox immediately following the finish of the Gulf War.

The photos, 1) The set as seen from the turret roof. There is a large structure that wraps around the front hull, this contains the mounting points and other gear. 2) The mounting points on the front lower hull. These attach to the lower base structure. The arms are connected at two points each of the front hull. 3) The left hand "blade" assembly. Notice the alignment of the rollers and the large steel plates between them. 4,5) left and then right hand blade assemblies. This is the business end of the set and one can notice the very heavy duty appearance of all of the components. Each roller can absorb two detonations before being replaced.



All photos this page courtesy C.J. Parker



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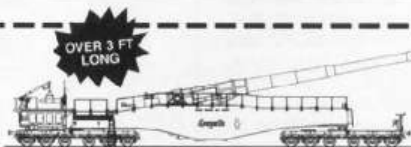
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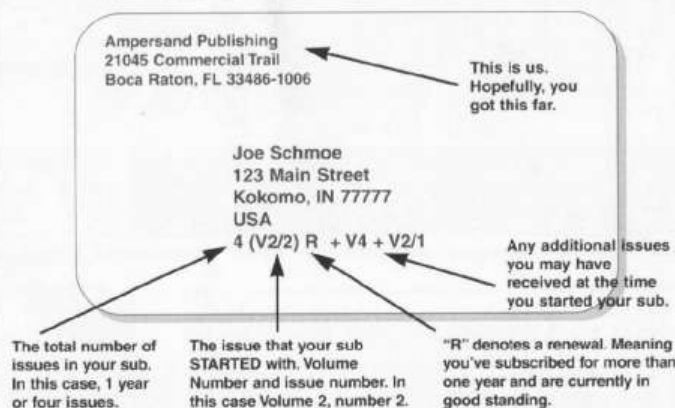
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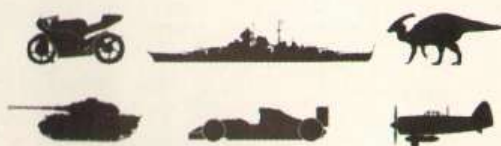
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