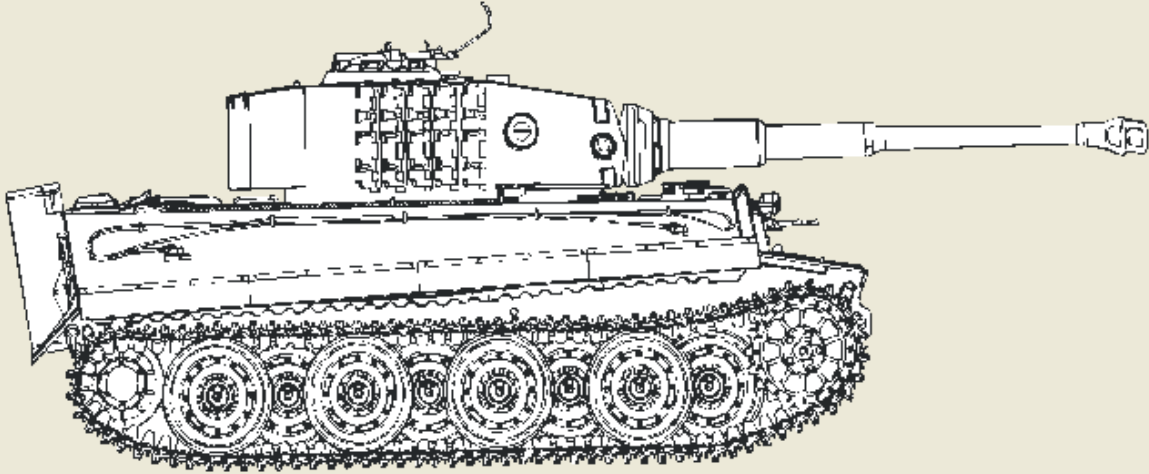


# Field of Armor

## 1/6th SCALE TIGER 1 MODEL TANK INSTRUCTIONS



### Items needed for construction:

- Well ventilated, clean 4' x 4' working space
- 1 can black or clear ABS Glue (available in plumbing section of hardware stores in a blue can)
- 1 roll of 1 masking tape (Duct tape or clear packing tape may leave glue residue on the kit plastic)
- Sharp utility knife cutting blade
- Electric drill with 1/16" & 1/4" drill bits
- Measuring tape
- Pencil
- Modelers Cement
- 2 oz. Super Glue gap filling (available at your local hobby store)
- Accelerator or Glue Kicker (available at your local hobby store)
- Wire cutters or linesman type cutters
- Heat gun or hair dryer
- Metal file
- Hacksaw
- Needle nose pliers
- 3/16 inch socket or nut driver
- Sandpaper (80 & 100 grit)

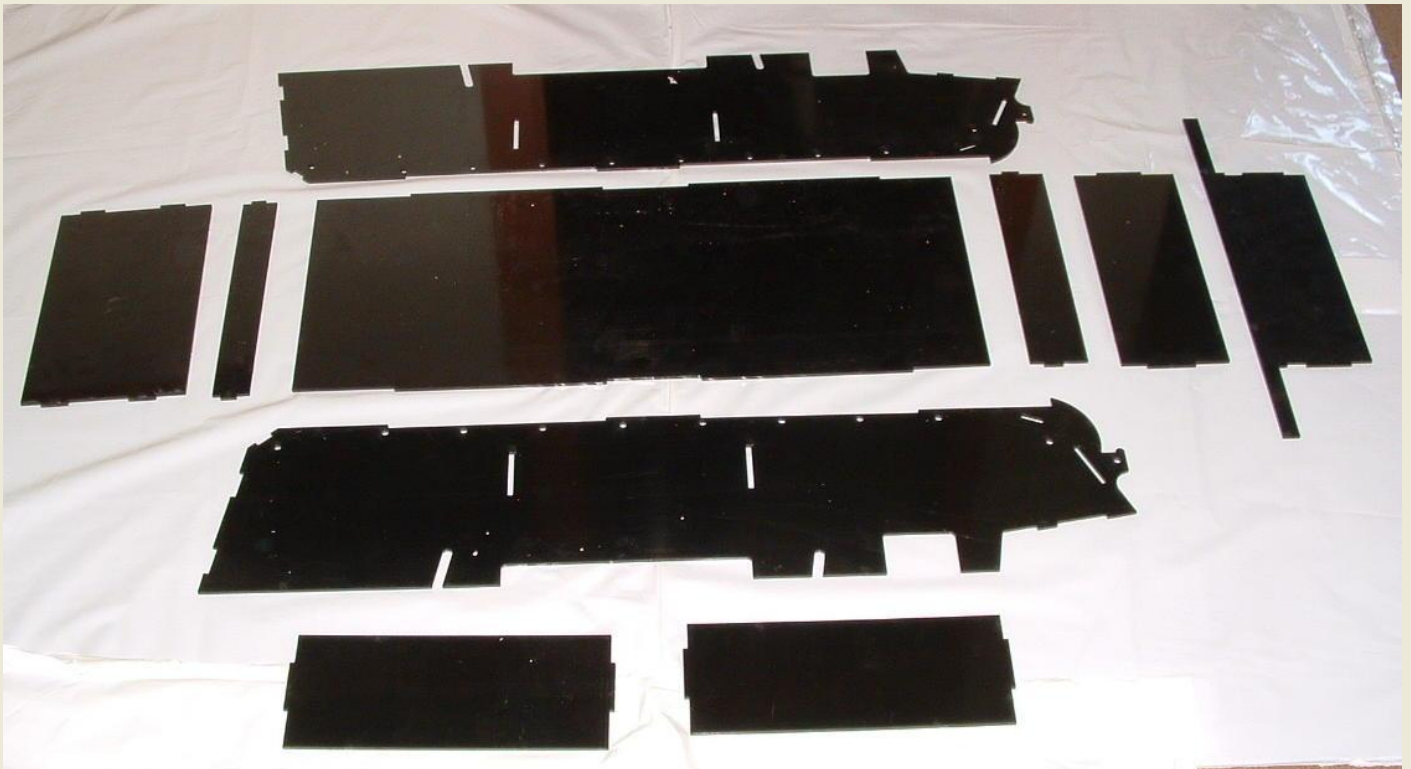
(\*\*\*NOTE - The flat black plastic pieces have a smooth side and a rough side. The smooth side is meant to be the exterior surface. When in doubt - SMOOTH SIDE OUT!!! If you want the rough look, turn the parts around.)

There are no jigs needed to build your Tiger tank. Instead, masking tape will be used to secure all joints. Make sure that you pull the joints together tightly when you secure with masking tape to ensure a strong joint.

Super Glue, Modelers Cement and ABS Glue can be sanded easily when cured. If your glue joints aren't as clean as you would like them, let the glue fully cure then sand and fill as necessary.

### **LOWER HULL ASSEMBLY**

When completed, the lower and upper hull assemblies are meant to remain separate so that an upgrade to a Radio Controlled tank can be added at a later time. Shown below are the parts required to build the lower hull assembly.



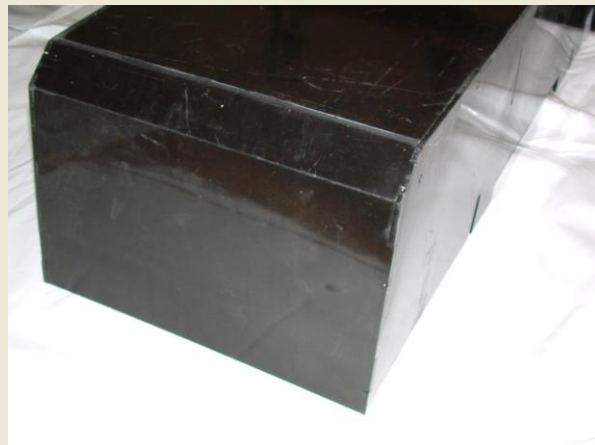
Parts shown:

- Side Panel
- Rear Panels  
Upper and Lower
- Base Plate
- Side Panel
- Two Vertical Supports
- Front Panels  
Lower and Upper  
Top Front Plate

Locate the base plate, the two side panels and the two vertical supports. These are shown in the overall photo. Glue one of the side panels to the base. Next glue the two vertical supports to the base and to the side panel. Glue the other side panel to the base and two vertical supports. Use clamps or tape to hold parts until the glue has dried. Check that the structure is square.



Locate the base plate, the two rear panels. Glue the lower panel to the two side panels and to the base plate. Glue the upper rear panel in place. Use masking tape to hold the panels in place while drying. Check that the structure is square.



Locate the top front plate, which has two extended arms, and glue to the two side panels.



Locate and glue into place the two front panels.



Use a piano hinge to attach a mud flap to each of the front arms, which protrude from the side panels. The hinge is to be mounted on the top side of the plastic parts, using four of the self tapping screws.



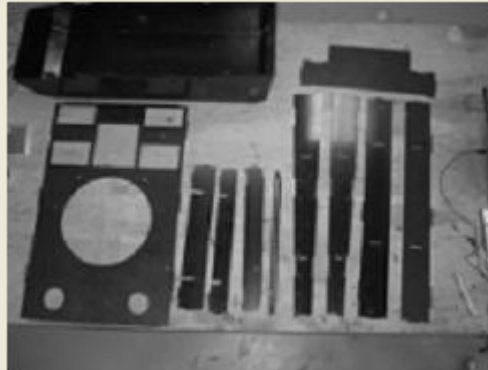
(\*\*\*NOTE - The flat black plastic pieces have a smooth side and a rough side. The smooth side is meant to be the exterior surface. When in doubt - SMOOTH SIDE OUT!!! If you want the rough look, turn the parts around.)

There are no jigs needed to build your Tiger tank. Instead, masking tape will be used to secure all joints. Make sure that you pull the joints together tightly when you secure with masking tape to ensure a strong joint.

Super Glue, Modelers Cement and ABS Glue can be sanded easily when cured. If your glue joints aren't as clean as you would like them, let the glue fully cure then sand and fill as necessary.

### ***UPPER HULL ASSEMBLY***

When completed, the upper hull assembly is meant to remain separate from the lower main hull so that eventually you can upgrade to a Radio Controlled tank with firing capabilities.



Slide front and rear cross braces into the slots at the front and rear of the lower main hull. **DO NOT GLUE CROSS BRACES TO THE MAIN HULL.**

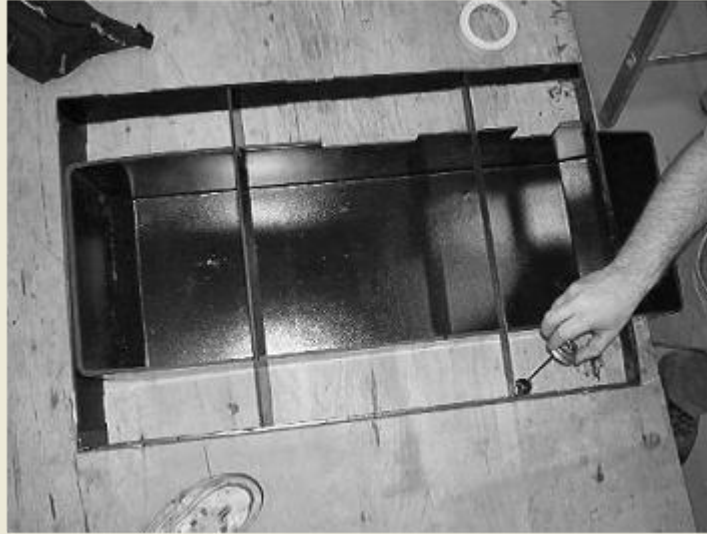
Take the side panels and dry fit them to front and rear internal cross braces. Make sure that the side panels are oriented so that the smooth side is out and the 16 small holes are on the bottom.

After you have dry fitted the panels, remove them, apply ABS Glue and assemble back together. (The sides should stay in place on the inner braces. If they don't, secure them with masking tape.)

(NOTE: When applying ABS Glue to a joint, place glue around hole and on lower parts of tab.)

Locate the back panel. Take 2 pieces of masking tape and secure the back panel to the lower hull as shown.





Dry fit back panel to the rear side of the side panels to check the fit. Apply ABS Glue to the joint between the back panel and side panels. **DO NOT GLUE BACK PANEL TO LOWER HULL.**

When applying masking tape to secure flat laser pieces, apply first to the overlapping side of the tab and then pull to close any gaps.

Secure the glue joint by using 3 strips of masking tape on each joint.

### **Front Glacis Plate Assembly**

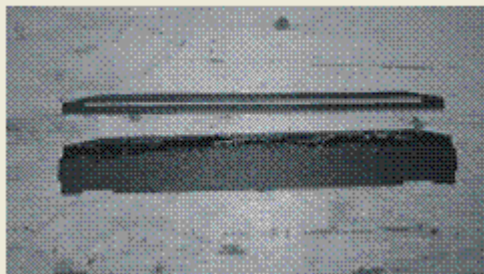
Locate the front glacis plate and the upper deck support rail.

Apply ABS Glue to the top of the rough side of the glacis plate and the entire rough surface of the upper deck support rail.

Align the upper deck support rail and glacis plate so that the 2 pieces are flush at the top and sides. Press the 2 pieces together and tape if necessary.

Make sure that the slot in the upper deck rail is free of excess ABS Glue. Clean out if necessary.

Let dry for 5 minutes.



Once the front glacis plate assembly has dried, dry fit and then glue onto the front of the side plates of the upper hull assembly only. **DO NOT GLUE TO THE LOWER HULL SECTION.**

Locate the upper deck.

Remove all attached pieces from their tabs so that the holes in the upper deck are clear.

Dry fit the upper deck, smooth side up, onto the upper hull assembly. Fit upper deck into the slot of the glacis plate support rail.

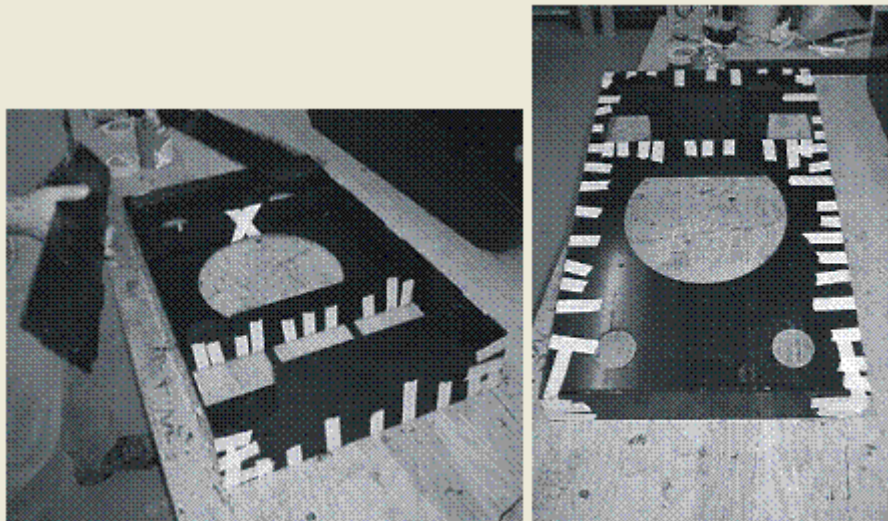


Remove the upper deck and apply glue to all of the joints where the upper deck fits onto the upper hull assembly. Since there are a lot of joints that need glue, do this as quickly as possible.

Remember, any excess ABS Glue can be sanded smooth after it has fully cured (overnight).

Slide the deck back into place. Starting at the back, secure deck with masking tape alternating sides every 1 1/2 inches as you work toward the front. Work your way around the deck uniformly on both sides until the entire deck has been taped down.

After the upper deck is fully secured with tape, place the upper hull assembly upside down so you have access to each joint from the back.



From the back, apply liberal amounts of ABS Glue to all the connecting joints.

The final pieces that need to be applied to the upper hull assembly are the underside plates.

Dry fit and glue the underside plates to the bottom of the side plates, the front glacis plate and the back plate. Secure joints every 1 1/2" with masking tape.

(NOTE: You may find that one of the underside panels, even when placed on correctly, has the rough side out. This should not affect the look of your Tiger 1 because it cannot be seen when the upper hull assembly is placed onto the lower hull.)

Still working from the back, apply a second coat of ABS Glue onto all joints

At this point, the upper hull assembly is complete. However, as an added measure, you may want to secure the front

inner brace more securely to the upper deck by taking a section of masking tape and taping it at an angle through the front hatch holes. Also, you may want to tape the rear inner brace starting from the upper deck over the edge to secure the inner rear brace. We recommend you apply a third (and even a fourth) liberal coat of ABS Glue to all joints. Let the upper hull assembly dry overnight.

## ***UNDER-CARRIAGE ASSEMBLY***

### **16 Wheel Assembly**

**(Note the instructions below cover the basic 16 wheel set your axles that are provided are cut for the 48 wheel upgrade you may need to alter the lengths of those axles accordingly if you choose to assemble with only 16 wheels, other wise skip to 48 Wheel Upgrade)**

Place the axles and wheels onto the lower hull.

Locate the axle pack. You should have 3 sizes of axles: 1 Drive Gear axel (21 ¼"), 5 medium (20 ½"), and 4 short (18").

Select the longest axle (Drive Gear Axle) and insert it into the farthest front hole of the lower hull. Push the axle all the way through to the other side. The fit should be snug. (If the fit is too tight, carefully run the drill through the hole a second time.)

Place a medium axle into the next hole. Alternate medium and short axles. (The last axle should be medium which will hold the idler wheel.)

Align all axles so that they stick out evenly on both sides. Remove the wheels from their bag and drill the center holes for the axles.

The Tubing is to be cut and used for spacers. Make (2) 15/16"; (2) 1-1/4"; (8) 3-1/4"; (8) 1-7/8"; (2) 2-7/8";

Place a 15/16" spacer on either side of the front axle.

Place a 1 ¼" spacer on either side of the back axle for the idle wheel.

On all the long axles (between the Drive Gear Axles and the Idler Wheel Axle) place a 3 ¼" spacer. Place a 1-7/8" spacer on all the short axles.

Insert one of the front gear wheels onto the Drive Gear Axle followed by the 2 7/8" spacer. (If you purchased the R/C upgrade kit, then assemble drive gear as directed.)

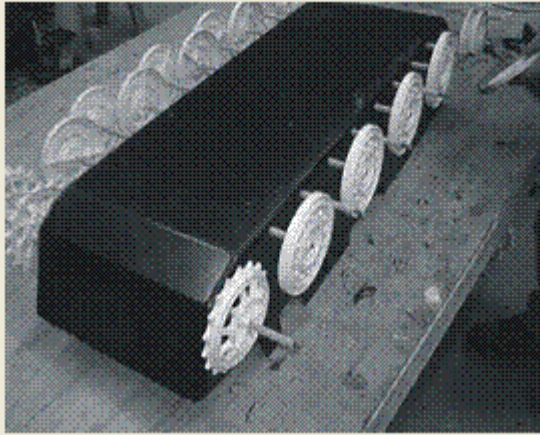
Place an Idler Wheel on the rear axle, 2 grouped together back to back on each side.

Place a Road Wheel on each axle with a 1-7/8" or 3-1/4" spacer.

Once the Road Wheels are aligned, secure each one with a push-nut.

(TIP: To help you place the push-nuts on, you can use the cap of a 2 oz. Super Glue bottle as a tool or anything that has a hole in it just big enough to fit over the axle.) Finally, put the outer drive gear onto the front axle and secure with a push-nut. Be sure to push the drive gear securely onto the 2-7/8" spacer.





**CAUTION:** Hold one side of the axle and apply the push-nut on the opposite end of the axle. Do not apply push-nuts further than 1/8 inch onto axle. If there seems to be a lot of axle left over, stop and realign axle for an even fit.

## 48 ROAD WHEEL SET

- Step 1:** If you are upgrading a FOA Tiger 1, start by removing the turret and upper hull so that you are left with just the lower hull that contains the wheels and tracks.
- Step 2:** Remove a track link pin and take the tracks off of both sides of your Tiger 1
- Step 3:** Because of the design of the Tiger, you will need to remove the outside drive gear on both sides. (To get the wheels off of the axles, you need to remove the push nuts that hold the wheels onto the axles. Take a flathead screwdriver and work the push nut slowly off of the axle.)
- Step 4:** Remove all of the outer road wheels.
- Step 5:** Remove the rear idler wheel. **DO NOT REMOVE THE SPACER AND AXLE.** (You will use the original idler axle and spacer in the upgrade.)
- Step 6:** Remove all of the inner road wheels along with the white plastic spacers and metal axles. (Discard spacers and axles. New ones are provided in the upgrade kit.)
- Step 7:** Starting with the first hole behind the Drive Gear, place a medium axle then a long axle alternating until all remaining axles are used. Center each axle. Provided you should have the following:  
**Driver Gear/Medium Axel 21 1/2" (5)**  
**Long Axle 22 5/5" (4)**  
**Short Axle 18" (1)**



- Step 8:** Use the supplied tubing, cut spacers as follows: (8) 15/16"; (8) 1-3/4"; (8) 1-7/8", (8) 1-3/8".
- Step 9:** Place a (1-7/8") spacer on the long axles and a (15/16") spacer on the Medium axles.
- Step 10:** On each Medium Axle, after each 15/16" spacer, place 1 road wheel, then a (1-3/4") spacer.
- Step 11:** On each Long After each 1-7/8" spacer, place 2 road wheels back-to-back, followed by a push nut.
- Step 12:** Replace the Idler Wheel, followed by a push nut.
- Step 13:** On each Medium axle, place 2 road wheels back-to-back, followed by a push nut. (See photo)

**Step 14:** On each Long axle, place a 1-3/8" spacer and then 1 road wheel, followed by a push nut. (See photo)



Step 9



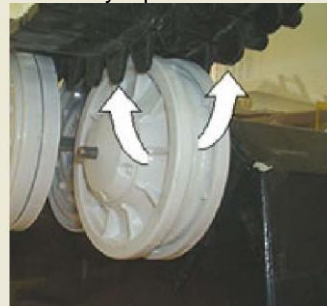
Step 10



Step 11

### Guide Horns

**Step 15:** Replace the outer Drive Geer on both sides of the tank, followed by a push nut.



**Step 16:** Replace the track. Verify the Guide Horns are on each side of the Idler Wheel and double wheels.



**Step 17:** Place Guide Horns over double road wheel set and Idler wheel.

### ***TRACK LINK INSTALLATION***

With the lower hull turned over, slide it to the edge of your table so that one set of wheels sticks out.

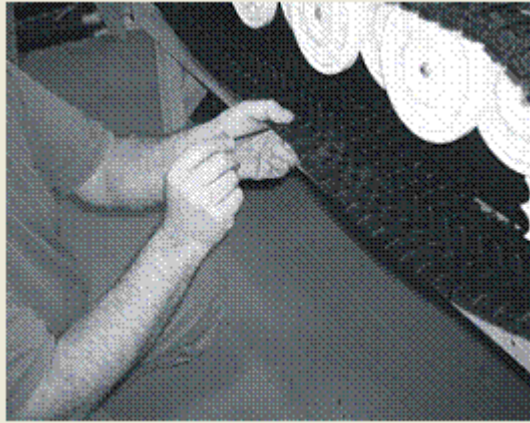
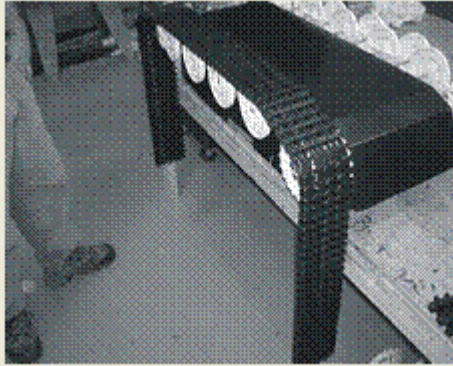
Take a track set and notice that on one side there are slots or tabs that stick out somewhat beyond the track itself. The tracks should be oriented so that the tabs face the inside of the tank.

Place the tracks onto the road wheels, over the idler wheel and around the drive gear. Check to make sure that the teeth on the drive gear are aligned into their holes and slots on the track. Balance the tracks so that you have a somewhat even amount of track on either side hanging down. (The back idle wheel sits in the middle of the guide horns.)

Connect the tracks together with the pin and repeat for other side. Turn lower hull over and push the track back and

forth, checking for alignment.

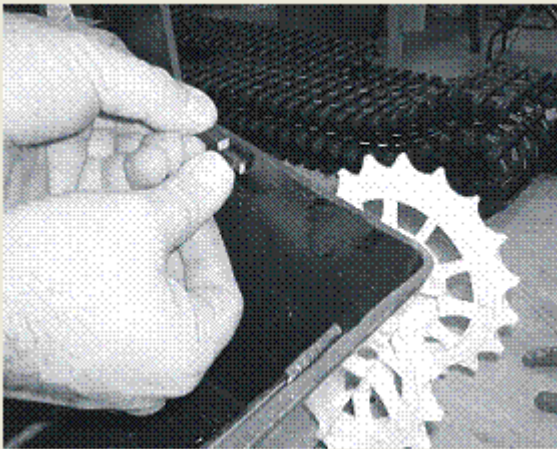
Once you are satisfied with the alignment, take the tracks off the tank.



### ***FRONT HULL PLATE***

Locate the long thin ABS piece and front hull plate.

Cut 5 pieces that are each  $\frac{1}{2}$ " long. Use one of the pieces as a spacer to glue the other 4 pieces to inner front lower hull. Let the 4 pieces dry for about 5 minutes. These will become the support for the front main hull plate.



Dry fit the front hull plate. (You may need to round the corners of the front hull plate for a better fit to the lower hull body.)

Glue the hull plate and secure with masking tape. Be careful not to push down on front plate and break loose the tabs. The front plate should stay flush with the undercarriage.

Apply a generous second coat of ABS Glue from the inside to all the joints.

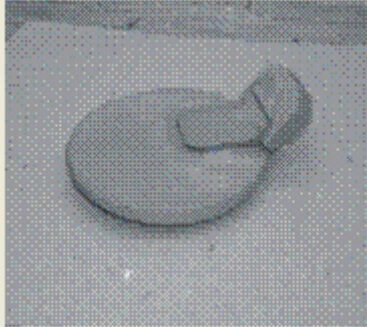
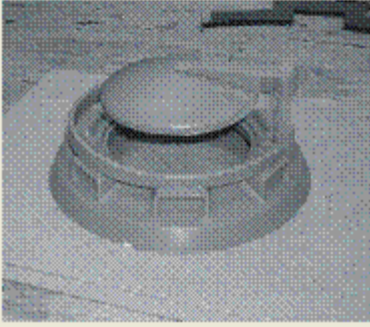
This is a good time to spray primer on the outside of the main hull wheels and under-carriage if you have not already done so. Let cure overnight.

### ***TURRET ASSEMBLY***

#### **Cupola**

Take the cupola hatch pin and make sure that it fits easily into the cupola hatch pinhole. Drill out hole as necessary. Clean and sand if necessary. Glue the hatch to hatch pin. Dry fit and glue machine gun rail to cupola.





### **Turret ammunition hatch.**

Locate ammunition hatch hinge, receiver and hatch. Orient the door so that the bevels are on the left and right. Make a mark at the bottom of the door. You can also place the hinge on the door and trace the hinge. Remove door and using Super Glue, attach the hinge with receiver to ammunition hatch.

### **Mantlet and Barrel**

Pre-sand all PVC barrel pieces with 80-100 grit sandpaper before assembly.

Dry fit, sand and trim off all of the flash so that the parts fit flush together. Hold the 2 back mantlet pieces together and dry fit to the mantlet front. Detach mantlet front. Using Modelers Cement or ABS Glue, attach the 2 back halves together. Secure with masking tape or rubber bands. Make sure to maintain alignment between the parts. Let dry.



Take the front mantlet and cut out the center hole where the barrel runs through. Check fit with barrel.

Affix the muzzle brake using Super Glue. From the end of the muzzle break, measure 14 1/2" down the barrel.



Take the cone shaped barrel ring and carefully sand it internally until the cone fits over the barrel. Be patient and sand and dry fit the cone until you can slide it down to the 14 1/2 inch line. Make sure that the tapered end of the cone faces the muzzle break. Attach to barrel with Super Glue.

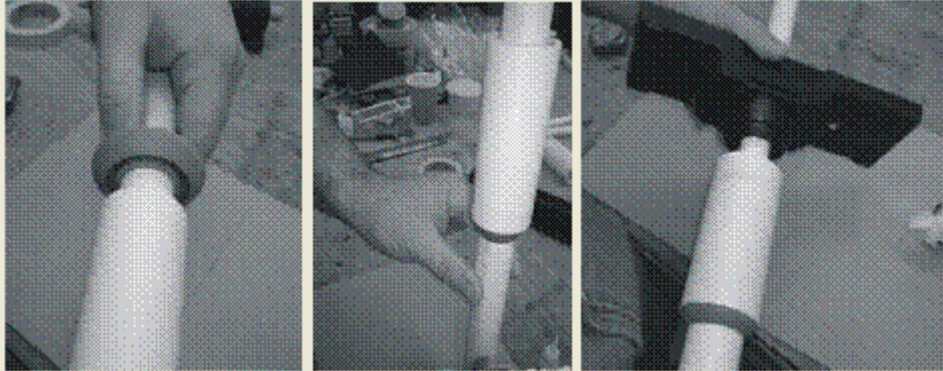
Take the second stage barrel and fit flush around all sides of the cone. Attach with Super Glue.

Take the third stage barrel attachment ring and slide onto barrel. Make sure that the groove ring faces the muzzle break and slides into the second stage barrel.

Glue to second stage barrel and long barrel.

Take the third stage barrel and dry fit, then glue to attachment ring.

Slide on front mantlet and dry fit but DO NOT glue just yet.



Dry fit back mantlet onto barrel assembly. Press back and front mantlet together.

Dry fit entire barrel and mantlet assembly into turret body.

Remove barrel. Make a ball of masking tape that fits snugly into the barrel and push plug down into barrel about 13 inches. Add a heavy material such as concrete or white metal to fill the barrel. Do not pack too tightly or you will continue to push the masking tape plug too deep.

Take one of the barrel counterweights and fill with a heavy material. (TIP: a roll of pennies fits perfectly) With the other counterweight, fill and slide counterweights in and out until a proper balance is achieved. When balanced, mark a line across all three barrels but DO NOT GLUE into the back mantlet.



### **TURRET ROOF**

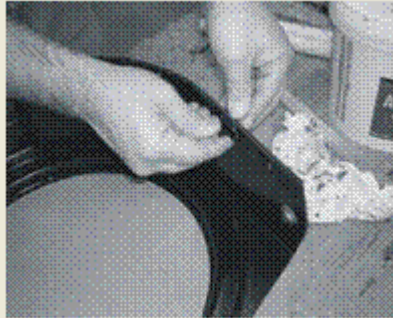
Take the rear turret roof, upper loaders hatch and 2 hinges. Sand hinges, if needed, to bring hinges and hatch flush. Placing the hinge tab on the raised sections of the loaders hatch, glue hinge onto loaders hatch. Do not glue to turret roof yet.

Take the small ABS strip and cut 16 pieces of 1/2" long strips. (Depress with a cutting knife and then snap off.)

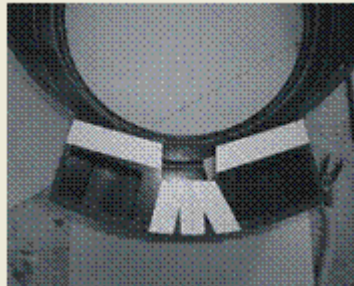


Put ABS Glue on  $\frac{1}{2}$  of the inner turret wall at the top. Place 8 of the  $\frac{1}{2}$ " tabs  $\frac{3}{16}$ " down from the top of the turret. Use a separate  $\frac{1}{2}$ " piece to be your  $\frac{3}{16}$ " guide.

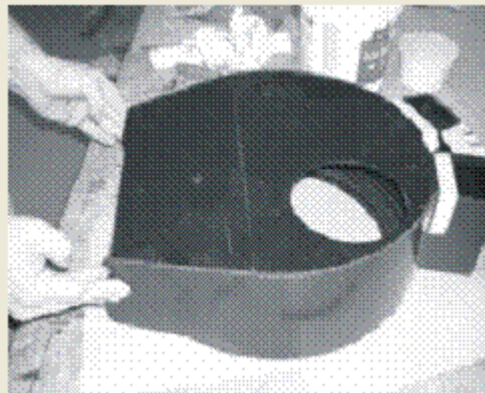
Repeat for the other half.



Take the rear storage bin top and glue it into place. Tighten all joints with masking tape. Using the center of the storage bin as an anchor point to work from, tighten from the back first and move to the sides checking that all joints are flush and closed.

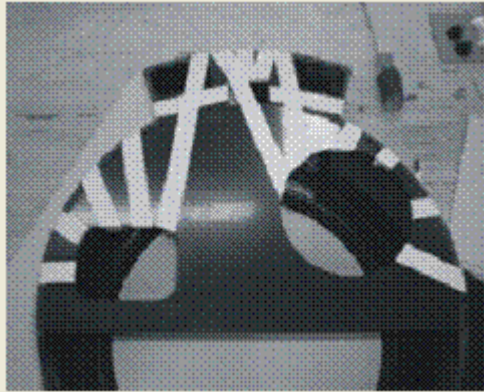


Dry fit rear turret roof and front turret roof. Flush the front turret roof with the front of the turret. Put in the mantlet back.

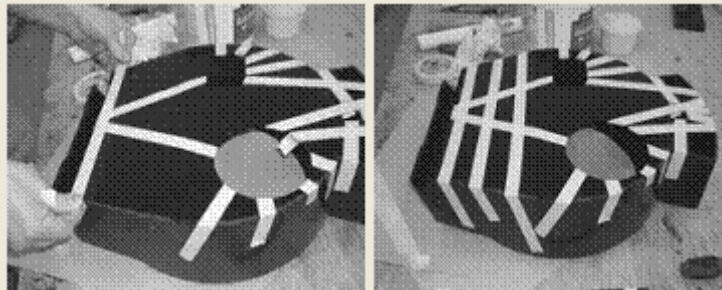


Mark on the turret where the front and rear turret roof plates meet. This will allow you to remove the roof and replace it with glue while maintaining the alignment.

Apply ABS Glue and put in the rear turret roof. Starting at the loaders hatch area, affix with masking tape making sure to close all gaps. Work your way around until you have secured the entire rear turret roof.



Make sure your mantlet is facing forward. Dry fit and glue the front turret roof. Do not apply glue to the narrow front edge. Starting in the middle, tape the front turret hatch to the rear roof. Take a couple of long pieces of tape and pull the turret sides together firmly to remove all gaps.



Turn turret over and generously coat all seams with ABS Glue.

Turn back over and check to make sure that all joints are still flush to the top. Adjust and secure with more tape as necessary.

Dry fit and glue lifting lugs to turret sides. Rotate to make parallel (narrow side to the rear). Glue from the outside with Super Glue. Rotate the mantlet while glue is curing to ensure the mantlet moves freely. Use Accelerator to set Super Glue so it doesn't drip into mantlet. Repeat on the other side. Because these were welded on to the turret in real life excess glue around the edge is okay. Close all gaps with Super Glue and Accelerator.



Dry fit horizontal bars to the underside and top of mantlet.

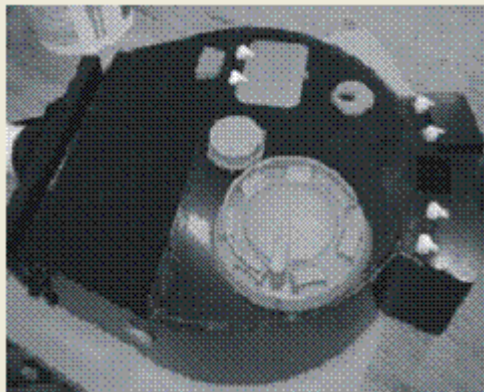


Let dry overnight.

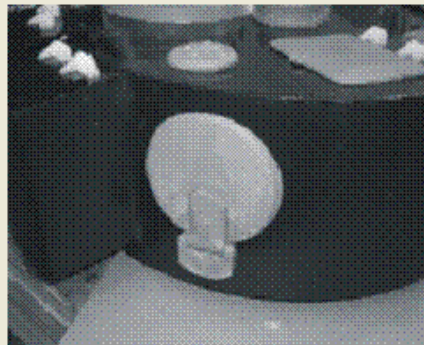
Attach the upper loaders hatch. First, draw a centerline going both ways on the loaders hatch hole on the upper rear turret roof. Find the center on the loaders hatch in both directions as well and mark. Line up centerlines and trace loaders hatch. Place Super Glue within the traced outline. Test door to see that it opens.

Place the loaders vision port right on the ridge line centered between the 2 hinges of the loaders hatch. Trace and use Super Glue to attach. Repeat on left side except move side vision port back approximately 1".

Place the close defense weapon port with the inside edge of the loaders hatch and 1 1/2" back from the hatch. Make sure that the oval hole in the close defense weapon port is facing forward.



Place the ammunition hatch on and dry fit, then glue with Super Glue. Make sure the hinge sits at the bottom. Secure with masking tape while you work.

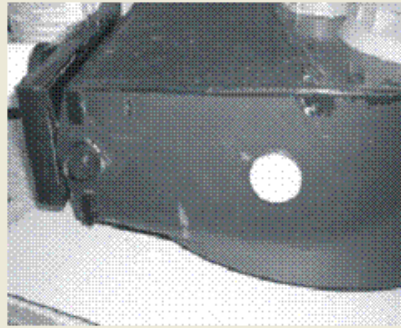


Attach hinges to storage bin hatches. Make sure hatches have the smooth side up and fit flush around the storage bin. Place hinges 1/2" in from the sides of the hatches and glue with ABS Glue or Modelers Cement. Trace and glue to roof. Place cupola to the joint of the turret roof and turret side. Cupola pinhole needs to be parallel to an imaginary line with the roof joint. Trace and mark a line where the hatch pin is. Place Super Glue on the turret roof and replace cupola.

Place the upper ventilator 1/2" back from the roof joint and 1/2" in from the cupola.

Take the 4 small ABS tabs and align them above and below the lifting hooks, pointing down at the lifting hooks and 1/8" back from the corner. The second one fits on the bottom below the lifting hook. Place on an imaginary line from the upper piece 1/4" from the bottom front corner of the turret. Secure with ABS Glue or Modelers Cement.

Repeat on the other side.

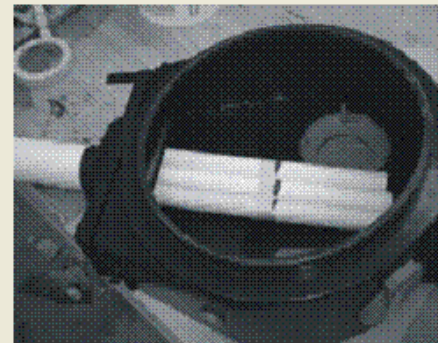


Secure all hatches with masking tape and turn the turret over.

Place front mantlet onto back mantlet making sure that the raised horizontal ridge on the front mantlet is on the right side of the turret as you look at it from the front. Use ABS Glue to attach.

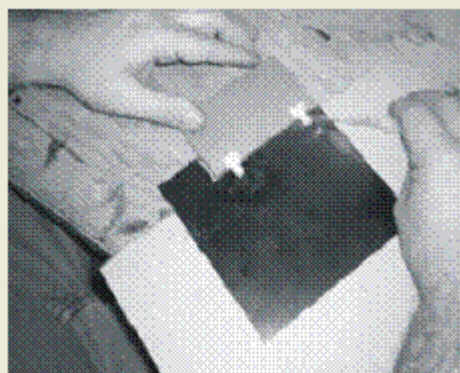
Slide barrel into place. Rotate barrel so that the openings in the muzzle-break face outward. Apply Super Glue where the stage three barrel and front mantlet meet. Also, make sure the mark you made for the counterweights inside the turret is visible.

Insert the counterweights on either side and tape them into place.



### ***UPPER HULL DETAIL ASSEMBLY***

Take the front mud flap brackets and insert the hinges into the slots. Flush the hinges with the bottom of the bracket. Place a spacer under the mud flap so that it is the same height as the mud flap bracket. Flush the mud flap and the bracket along the straight side. Use Modelers Cement and glue the hinge tabs to the mud flap. Let sit overnight.



Assemble the front deck hatches.



Take the U-shaped piece of the hinge and clean the flash or excess plastic. Be careful not to trim off the nipples located inside the U shaped piece.

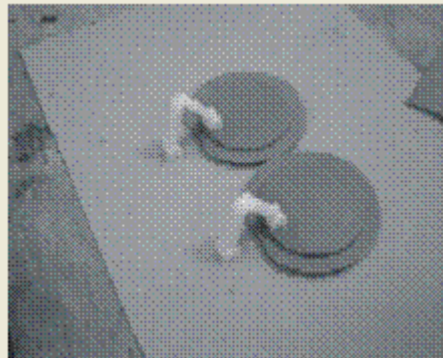
Take the V-shaped arm and with a metal file put a slight angle on both sides of the inside of the swivel arms at the insertion point. This should take about 6 to 7 strokes with the file. Be careful not to file deep enough to interfere with the holes.

The taper will allow the U-shaped piece to snap onto the V arm and remain snug.

Push the U-shaped piece onto the V-arm from the tapered end using the taper to assist in snapping the two pieces together.

Glue the V-hinge as close to the rim on the inner ring as possible and center it along the flat edge side of the hatch.

Take the teardrop shaped piece and hold it with the flat side facing up. Take the file and with 6 to 7 strokes, taper both sides in the same manner as the V-arm. Take the U-shaped bracket and, from the tapered side, snap the 2 pieces together.



Find the hook hinge that you will use for the rear engine grills.

Take the hook hinge and U-receiver and simply snap it together. There is no need to put a taper onto the hook arm.

The engine back plate needs to have 2 hinges inserted into it so that the engine hatch cover can open and close.

### **Hinge Prep**

Sand hinge top and the area near the pins until it is round.

### **Engine Hatch Cover**

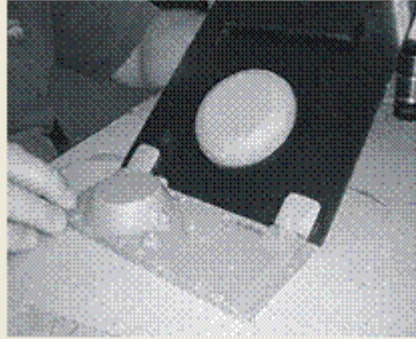
(NOTE: Measure the engine hatch and find the narrower dimension. Draw a line from side to side  $\frac{1}{2}$ " from the edge. On the opposite end, mark a line 1" from the edge. Following that, make a line down the center of the hatch. Then make a line on the side of the carburetor air intake. Place the line on the intake at the intersection of the 1" line and mid line. Make sure that the intake is spaced evenly on both sides at approximately 2".

Hold down the carburetor air intake and draw a line around it. Lift up the air intake and apply Super Glue to the underside. Replace the air intake back on the hatch inside the circle that you drew.

Take the small frame of the air cleaner intake and place a mark in the center. Dry fit it on the  $\frac{1}{2}$ " line and the centerline on the engine plate. Place ABS Glue to the rough side of the 2 parts and replace onto the engine plate.

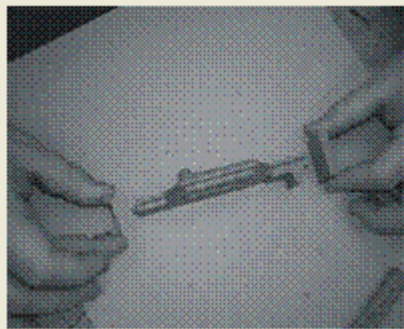
Super Glue the back engine plate hinge tabs onto engine plate. Be sure to leave enough space between the back plate and the engine plate to allow the hinge to work. However, the hinges are not meant to be used for rugged use.





### Jack

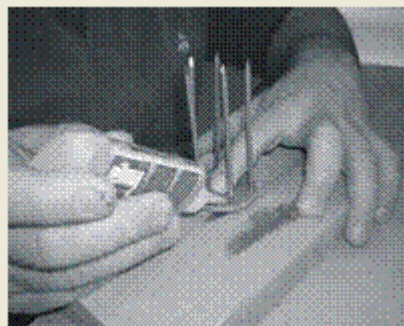
Lay the jack body down on the flat sanded end. It is important that you glue the pieces flush with the flat side of the jack body so that the jack can glue to the back of the tank. Take the waffle looking bottom plate and center it to the jack body and glue them together with Super Glue.



### Mufflers and Caps

Take the 2 muffler cap disks and drill out 5 of the 6 holes with a 1/8" drill bit. Flip the muffler cap over and insert a nail into each of the drilled holes. Place the cap on the table and glue the nails to the cap, from behind, with Super Glue.

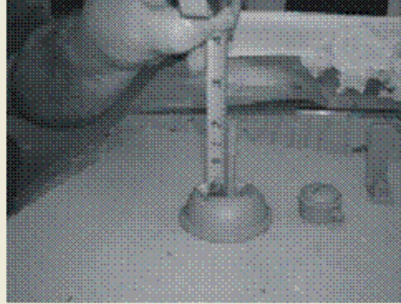
Dry fit the cap with the nails into the muffler pipes. The cap should be approximately 1 1/2" from the top of the muffler tube. The un-drilled hole should be oriented towards the rear. Compare the 2 mufflers making sure that they are both even. (There should be enough tension on the nails to hold the assembly in place while you are gluing. Use Super Glue to glue the nails into muffler.)



### Machine Gun Barrel with Ball Mount

Dry fit the machine gun barrel into the ball mount. The barrel should measure 2" from the ball mount to the front of the barrel. If you have more than 2", cut off the excess.

Orient the ball mount so that the small hole sits on the right. Super Glue the barrel into place making sure that the seam is facing downward.



### **Muffler Shields**

Cut the 2 shields apart. Leave an even space between the 2 shields.

Trim as close to the edge of the raised bolt line as possible leaving about 1/8" to 1/4" of plastic. Trace around entire shield. There is no need to cut out the other end of the shield. Using either scissors or a knife, clean up the open end of the shield.

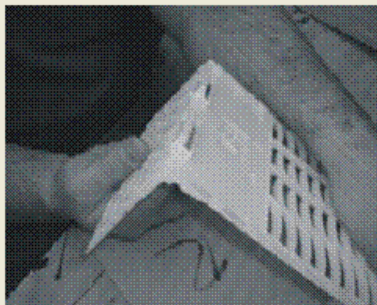
Pick one for the left and one for the right and mark them with a pencil. Do not use pen or marker, as it will tend to bleed even through heavy paint. Take the left one and make a mark 1 1/4" from the flat surface and 1/2" down from the bottom of the rib. Connect the lines to form a box. Cut out the box with scissors or by scoring and cutting with a utility knife.

**NOTE: Newer kits have changed over to metal Muffler Shields.**



### **Grill**

Trim and dry fit the grill front and back pieces. If the hinge feels stiff, trim the hinge area a little more and work hinge back and forth to loosen it up. Locate the long hinges and hook. With the long hinge facing forward, glue hook to grill using Modelers Cement.



### **ATTACHING PARTS TO THE UPPER HULL**

Resin parts: Hinges and tow shackles, fire extinguisher, tension covers, engine starter cover, starter holder, rear tow eyes, upper deck ventilator, ball mount, ball mount machine gun, wooden block, headlight, driver's vision block, front hatches, periscopes, mufflers, muffler covers, jack, back mud flap, grill, side mud flaps, and small screws

## Front Hatches

Take the front hatches, put them in the hatch holes and rotate them so that the flat of the hatches are facing outwards and are parallel to the sides. Tape in place to the upper deck assembly.

Turn the upper deck assembly over. Using ABS Glue or Super Glue, attach the other side of the V-hinge to the upper deck assembly. (If you use ABS Glue you should let the hinge dry for 10 minutes after which you should reinforce the joint with another coat of ABS Glue.)

Repeat for the other side



Take the turret bullet splash guard and dry fit the tabs in the holes bending it around as you go. Remove and glue with ABS Glue.



Turn the upper deck assembly over and using Super Glue, attach periscope to hatch as shown. Measure  $2\frac{3}{4}$ " from the center mark from the flat area to the outer rim and put a mark. Place the periscope so that the end of it is parallel with the outer rim. Refer to outer rim.

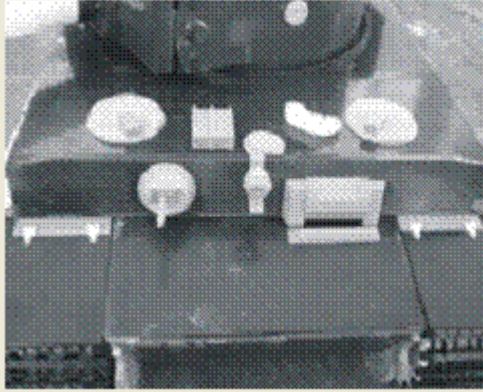
Using a measuring tape and pencil, mark 3 lines from the right of the tank when facing the tank. One at  $7\frac{1}{4}$ ", one at  $10\frac{1}{2}$ ", and one at  $14$ ".

Dry fit the driver's vision block. Find the middle of the vision block and mark it. (Sand the back of the vision flush if needed. Also, make sure that any excess ABS is sanded off of the front glaciis plate as well). Flush the bottom of the vision block with the bottom of the glaciis plate and align the center mark on the vision block with the  $7\frac{1}{4}$ " line.

(NOTE: If you don't intend on ever removing the upper deck assembly, you may want to wait on this part and glue it together with the lower hull.)

Dry fit the headlight bracket at the  $10\frac{1}{2}$ " mark on the front glaciis plate. Fit headlight onto headlight bracket, position and glue.

Holding the ball mount facing you (the small hole is to your right) find the center of the outer ring and align this mark on the  $14\frac{1}{2}$ " line. Attach with Super Glue.



Dry fit the wooden block to the upper deck assembly. Make sure that you locate the narrow side of the wooden block  $\frac{3}{4}$ " from the back of the glaciis plate and  $11 \frac{5}{8}$ " from the right edge of the upper deck assembly when looking at it from the front.

Glue the ventilator onto the upper deck assembly approximately  $\frac{1}{4}$ " from the back of the glaciis plate and  $9 \frac{3}{8}$ " from the right edge of the upper deck assembly to the side of the ventilator.

Place a tow shackle at an angle approximately  $1 \frac{3}{4}$ " from the back of the glaciis plate and  $6 \frac{3}{4}$ " from the right side of the upper deck assembly. You can choose to glue the shackle on or drill holes for wire brackets that allow you to remove the shackle. Apply ABS Glue or Modelers Cement to the flat bottom of the shackle and attach to upper deck assembly, if not using the removable option.

### **Making the Shackle Removable**

Take the copper wire that holds the wheels together during shipping and cut off two  $1 \frac{1}{4}$ " sections. Make a 90-degree bend  $\frac{1}{4}$ " from each end (It will now serve as a staple). Slide the staple over the shackle at one end and mark the spot where the staples land on the upper deck assembly. Remove the shackle and drill.

Repeat on the opposite side of the shackle.

Rotate the upper deck assembly 180 degrees so that you are now looking at the rear of the assembly. (Let the longer back plate hang over the table.)

Take the grill and make sure to orient it so that the hook on the grill faces outwards. This should put the smaller of the 2 grill plates facing the rear.

Dry fit the grill on the upper deck assembly along the seams of the deck side and back plates ( $\frac{3}{16}$ " from the back and side edges).

Remove the small rear grill plate and place it on the upper deck assembly and trace it as an outline for applying ABS Glue. Remove the small rear grill plate and apply ABS Glue within the outline and position the grill assembly and let dry. Or, if you're using Modelers Cement, simply place the grill on the upper deck assembly and apply the glue to the edges of the small rear grill plate. After a couple of minutes, raise the front grill plate and finish applying Modelers Cement to the rest of the small rear grill plate.

### **Rear End Detail**

Dry fit the engine hatch cover and engine back plate to the upper deck assembly. Line up engine back plate with the rear of the grills and position evenly between the 2 grills. Using Super Glue, attach the back engine plate to upper deck assembly. Glue engine back plate ONLY if you want to open and close the engine cover.

Facing the rear of the upper deck assembly, raise the grill and, using the grill hook, lock the grill in the upward position. Dry fit the fire extinguisher at an angle so as to not interfere with the hook. The top of the fire extinguisher should align with the rib at the end of the first row of arched cutouts. Attach the fire extinguisher using Super Glue.



Lift the upper deck assembly up and place the back plate onto the table.

Dry fit the jack in place on the right side of the back plate above the right rear mud flap 2 ¼" down from the top. Flush the jack to the right side and glue with Super Glue.

Measure and put a mark at 8" from each side. Position the mufflers with the opening in the nails towards the tank. Dry fit the mufflers to the back plate of the upper deck assembly so that the top of the plate with the nails is 1" from the top of the engine back plate. Mark the back plate and apply Super Glue to the muffler and replace on the tank. Repeat for right side.

Place the muffler covers onto the mufflers. Push the covers up until they hit the bottom of the mufflers. Make sure that the side openings face outward. With a pencil, mark where the covers extend above the deck. Trim off side lip down to the pencil mark. Apply ABS Glue and let dry for 25 seconds. Center the muffler cover back over the muffler. Repeat for right side.

With the holes facing downward and to the left, place the starter attachment to the rear flush with the top seam (approximately 3/16") and 10 ½" from either side. This will place the starter attachment in the center of the rear plate. Use Super Glue to attach.

Make a line at 6 3/8" across the bottom of the back plate. Make another line at ¾" high. Place starter cover so that it sits on the center line and the bottom sits on the ¾" line. Use Super Glue.

To attach the track tension covers, make a line ½" from the bottom and ½" in from the side. Position the cover vertically and place it between your 2 lines. Attach with Super Glue. Repeat on opposite side.

Position the rear tow hooks with the tow eyelet facing up. Position the tow hook on the edge of the lower back plate flush with the bottom. Attach with Super Glue.

Draw a line 1" from the top of the back plate and 4 ¼" in from the left side. Glue or attach with staples as with the tow shackle attached to the upper deck.

Dry fit rear mud flaps. Place the left side mud flap on the edge of the back plate and 3 ½" from the top (flush with the bottom of the side portion of the back plate as shown).



Rotate the upper deck assembly 90 degrees on the table. Locate the side mud flaps and small bolt pack. Take the 3/16-inch nut driver and starting at the front, apply sufficient inward pressure and screw the side mud flaps on. Snug screws up but be careful not to over tighten. Some of the holes may have ABS Glue in them from prior assembly. Clean out hole with 1/16 inch copper wire if necessary.

If you desire, from inside the tank, apply a coat of ABS Glue to the screw tips to lock them in place. After the ABS Glue is fully dried, bend the side mud flaps up or down to match each other.

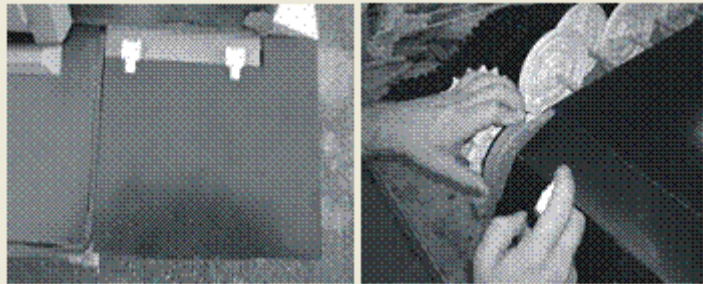


## LOWER HULL FINAL ASSEMBLY

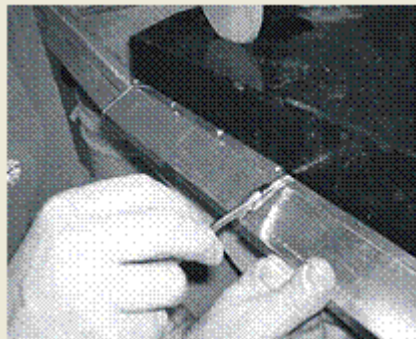
Set aside the upper deck assembly and retrieve the lower hull section. Remove the masking tape from the front of the hull section.

Take the upper deck assembly and, starting with the back, set it onto the lower hull section.

Take the front mud flap sub-assembly and place it under the edge of the front glacis plate. Adjust the mud flap bracket so that the ridge along the top lines up with the bottom of the front glacis plate. Adjust the mud flap to match the angle of the lower hull. Since the hinges are not glued to the mud flap bracket, they will move to align the mud flap. When properly adjusted, carefully turn the mud flap assembly over and Super Glue the back of the hinges to secure. Allow to dry and then turn over and reinforce by gluing the hinges from the top. Be careful not to glue the hinge together. Apply Super Glue generously to the area behind the ridge line and replace the mud flap bracket back onto the tank. Make sure that the mud flap is flush with the front of the tank before applying accelerator. Repeat on the opposite side. Allow to dry.



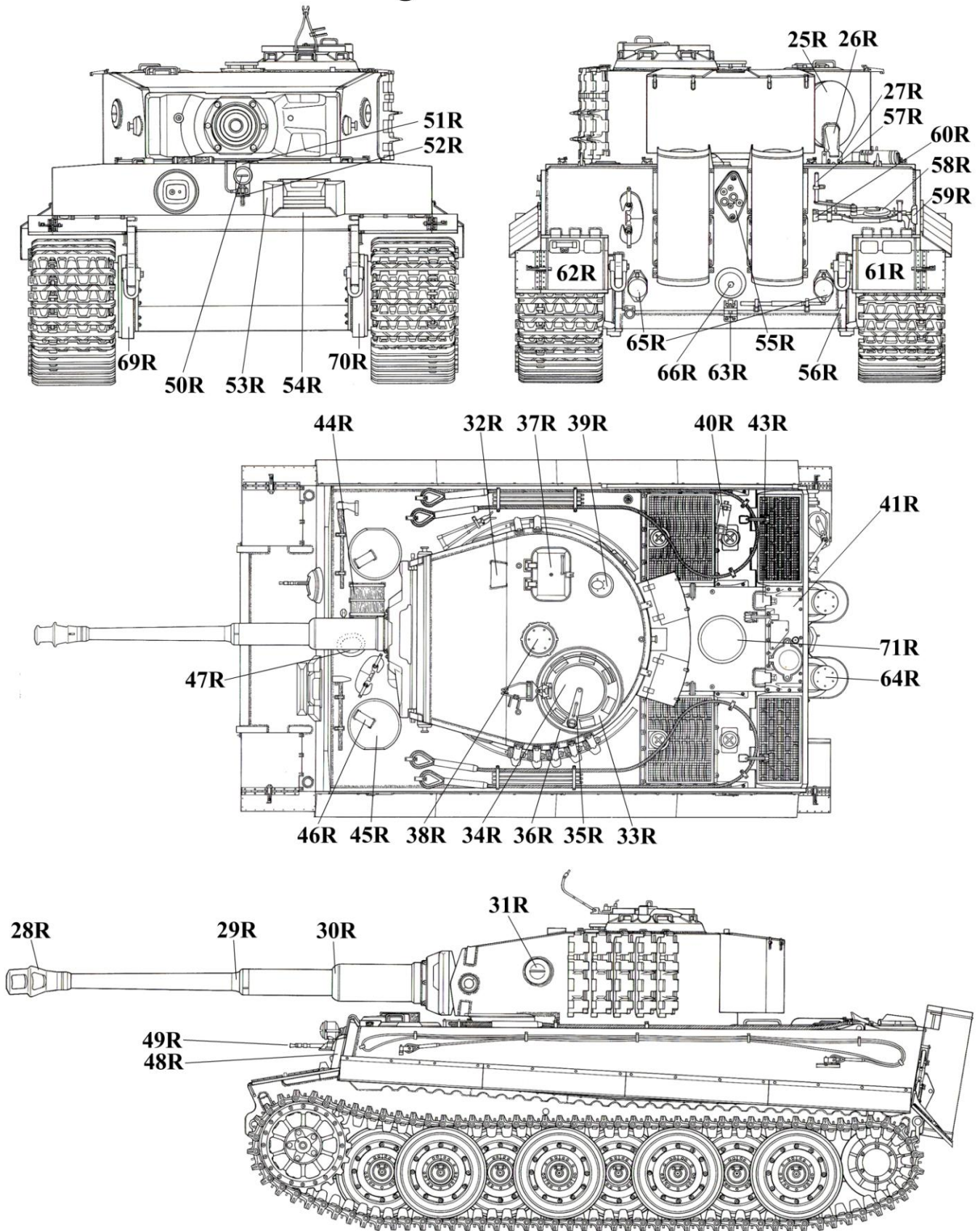
Place side mud flaps on the upper deck assembly and secure with small screws.



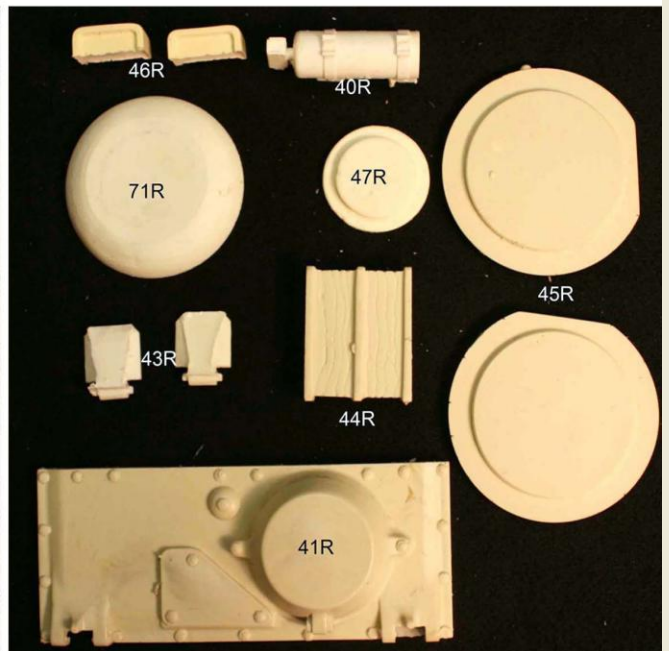
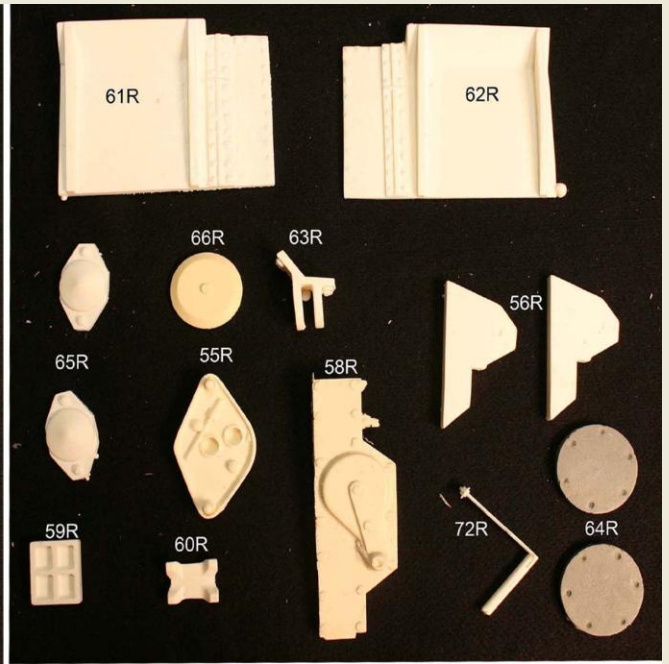
Dry fit the tow hitch to the back plate or the upper deck assembly. Place the hitch in the middle and at the bottom of the back plate.



# Tiger I Ausf E







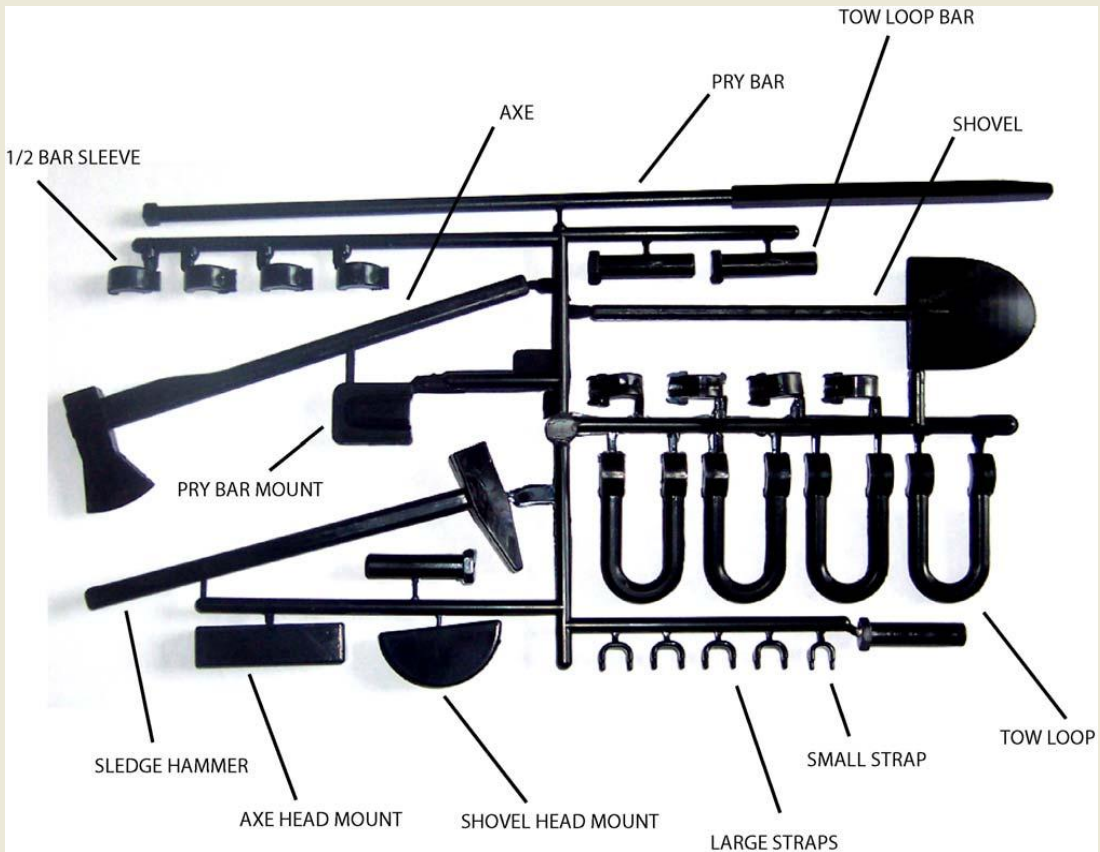
***Field of Armor***  
**UTILITY TOOLS KIT INSTRUCTION**  
**1/6 Scale**

**Items needed:**

- ABS Glue or Modeler Super Glue
- Trimmers (Plastic Clippers, knife)
- 3/8" Drill Bit (only if installing Utility Tool Set on FOA Tiger 1 Tank)

**IMPORTANT:**

Do not trim the nipples located under the utility tool mounts - they are used for mounting to the Tiger 1. Also, do not clip off the nipples on the 1/2 Bar Sleeve or Tow Loop.



**Tow Loops:**

Remove the 1/2 Bar Sleeves and the Tow Loops



Apply ABS or Modelers Super Glue on each Tow Loop. Press 1/2 Bar Sleeve and Tow Loop together.

**Tow Loop Application for FOA Tiger 1 Tanks:**

Drill mounting holes on all Tow Eye Brackets to 3/8" to fit the Tow Loop Bar.  
Mount Tow Loops in all Tow Eye Brackets. Glue Tow Loop Bar to Tow Loop.

**Utility Tool Set Illustrations:**

**Tow Loop Mount**



**Shovel with Mount and Small Strap**

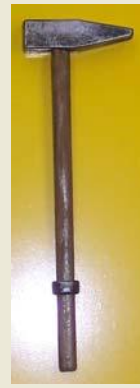




**Axe with Mount and Large Strap**



**Sledge Hammer with Large Strap**



**Pry bar with Mount and Large Strap**

