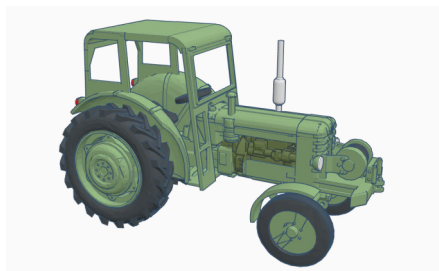


Hjultraktor 317 V - BM Volvo T350

Unpainted resin kit

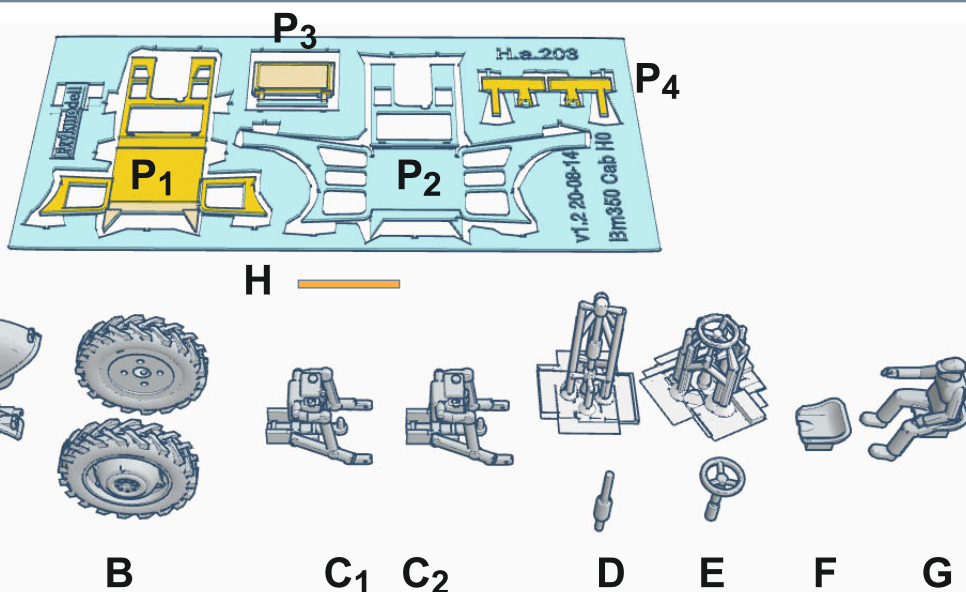
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Försvarsmaktens Hjultraktor 317 V

The Swedish Armed Forces' Wheel Tractor 317 V

The tractor was manufactured by AB Bolinder Munktell in Eskilstuna. The model is basically a BM Volvo T350 which was manufactured between the years 1959 and 1967 and which was adapted to the needs of the military.



The kit contains:

- | | | | |
|------------------|---|-----------------|--------------------------------|
| A: 1 pc | Tractor frame | D : 1 pc | Exhaust pipe |
| B: 1 pair | Rear wheels | E : 1 pc | Steering wheel |
| C1: 1 pc | Three-point-linkage with
prototype look-alike hook | F: 1pc | Seat |
| C2: 1pct | Three-point-linkage with
model hook | G: 1 pc | Seated driver |
| | | H: 1 pc | 0,5mm metal wire, length 11 mm |

* Some details can be supplied with the supports remaining to protect the thin parts and facilitate painting.

P: Etched sheet with details to cab - 0,25 mm nickel/silver

- P1: 1 pc cab without doors
- P2: 1 pc cab with doors - not used for the Hjultraktor
- P3: 1 pc frame to front window
- P4: 2 pc mudguards for the front wheels

After 3D-printing, the parts have been washed and a number of the many supports from the print have been removed. A fine grinding has also been made on the tractor frame and the cab reduce residues and traces of these supports. On other parts, there are still some finishing work for the model builder to do, before the parts are ready to be painted and assembled. The contact points of the supports leave small peaks, which can be carefully worked with sharp knife (scalpel) and fingertip needle file.

1) Preparations:

Suitable tools:

- Sharp knife, scalpel or cutter blade
- Small drills or breakers, 0.4-1mm
- Fine needle file
- Fine-grained sandpaper
- Adhesive, liquid fast adhesive fits well

For painting:

- Water-based (acrylic) primer for resin parts
- Solvent-based primer for etched details
- Water based paint for colored layers
- Water-based lacquer, glossy / high gloss / matt
- Small brushes
- Airbrush if available.

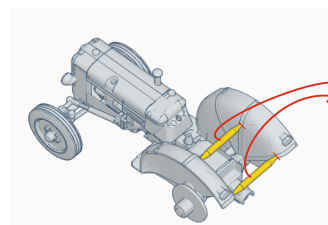
- Search the web for pictures of the model to find suitable color variations and conditions

1) Preparations, continued.....

Tractors are normally heavily dimensioned, but in model some parts become a little brittle. Be careful when handling the front wheels, the exhaust pipe and other thin details such as the three-point lift and the manifold intake on the bonnet

Tractor frame

- Should be polished from delivery, but still check out if there is something that needs improvement.
- Then cut away the yellow-marked braces between the rear fenders they have only braced the screens so that the distance stays during curing.



Details where the supports remain:

- Feel free to keep the details that have the supports left until they are painted. The details are thin and delicate and some can disappear easily on the workbench.
- Remove some of the supports to reveal the detail for easier access during painting.

Other details where the supports already have been removed

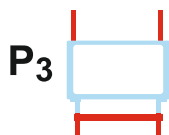
- Cut and trim away peaks and protruding residues that remain after the removed supports, in any case, on visible surfaces and surfaces that should be in contact with other details.

Etched details:

Cut off the etched parts

- Use a fine wire strippers or snap-off knife
- Cut as far away from the detail as possible.

- When the entire part is cut you cut away the remnants of attachment beak



Note!

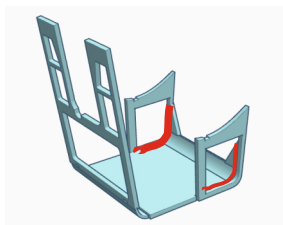
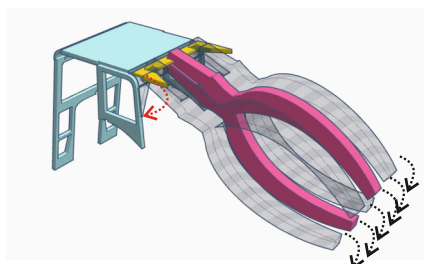
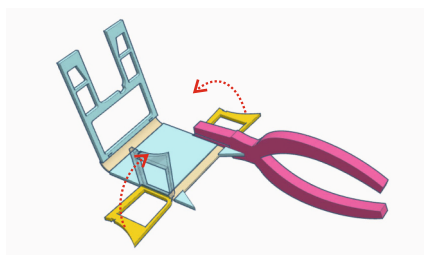
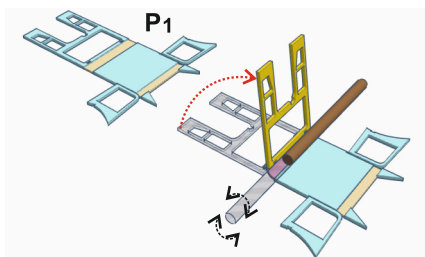
- On window frame, part P3, the red-marked parts should be cut off
- Save the two small blue pins, they are used during assembly

Assembly instruction

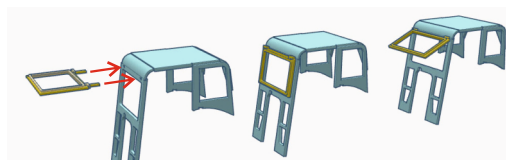
Hjultraktor 317 V - BM Volvo T350

2) Drivers cab

For Hjultraktor 317, the open cab, part P1, is normally used



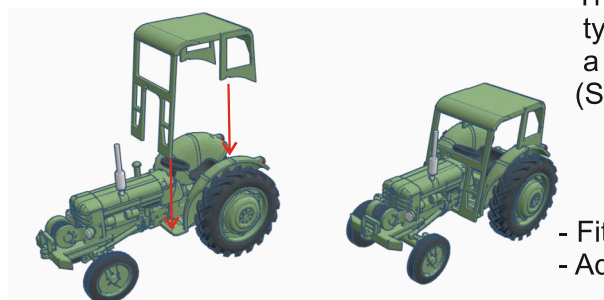
- The kit is delivered without "window glass"
- Windows can be made with liquid window, see below
- When the remains of the mounting hubs are filed, the sides of the cab should be folded with a soft bend at the front and rear edge of the roof.
- Shape the curved front edge by bending it towards a small thin tool with about 3.5 mm diameters. (eg a 3.5 mm drill)
- The angle of the front should be about 80 degrees to the roof. (use the cab sides of the cab with door (part p2) as a
- Fold down the cab walls at a 90 degree angle to the roof
- Squeeze with a pair of pliers over the thin window frame and fold the cab wall inwards at the folding gutter
- Bend down the trailing edge
- When the cab sides are folded down, you cannot access to form the soft bend, but you must carefully shape the bend by moving the pliers back and forth along the edge.
- Reinforce with liquid CA glue in the joint against the back piece and in the fold between the roof and cab sides
- You can of course solder instead of gluing..



- Installation of the windscreen window frame
- Insert the two pins on the upper part of the frame into the two narrow holes in the lower edge of the roof
 - The window can be mounted closed or open aja
 - Glue the window to the cab.

In full scale, the windshield was glazed and the lower windows on the front were also covered with glass or plastic.

- The windows can be made with a film of floating windows, type Mikro Kristal Clear, which is pulled out from the edges with a toothpick so that the liquid "stretches" over the openings. (See manufacturer's instructions)

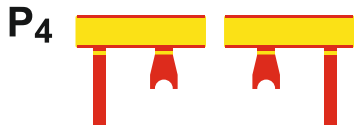


- Fit the cab to the rear fenders of the tractor
- Adjust the front wall angle if necessary

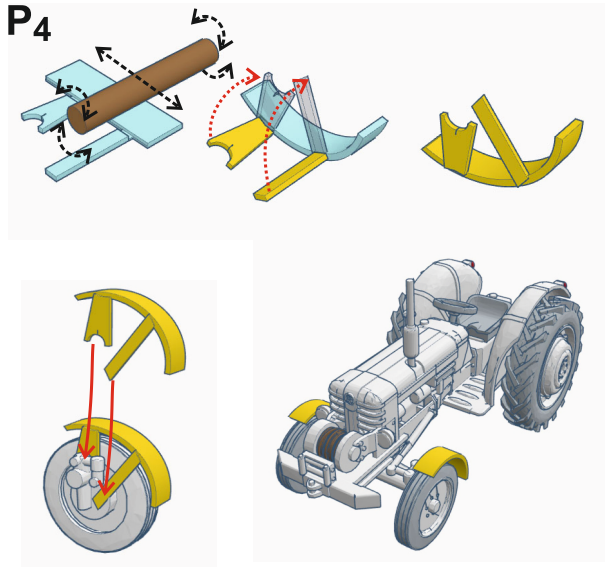
Assembly instruction

Hjultraktor 317 V - BM Volvo T350

3) Front mudguards



- Remove and polish the two front fenders (P4) from the etching sheet
- Place the parts with the folding gutter facing up



- Roll back and forth with a round, smooth tool (drill, brush shaft or similar)
- Then the detail will bend
- Try it out and adjust it to fit along the wheels
- Fold up the two rods
- Fit the rod with the recess towards the top of the shaft
- Fit the longer rod towards the disc in the center
- Attach with glue



4) Painting:

I do recommend painting the parts before assembling the parts so that you get color on all surfaces that later could be difficult to access.

You will get the best result for painting with airbrush, if available.

Brush painting will of course work well if you make sure to keep the paint layers thin

A) The resin printed parts are painted with a water-based primer for model building.
The details with supports can remain on these during the painting work.

B) The etched cab should be painted with a metal primer

C) Then all details can be painted with water based acrylic paint

B) The main color of the Hjultraktor was of course some kind of army-green paint

- All parts, except exhaust pipes, steering wheel, seat and driver can be painted first with the main color with an airbrush (or by hand with an ordinary brush)
- When the paint has dried, parts that should have different colors can be hand painted with a fine brush

4) Painting, continued.....

Details:

- The engine block was also painted in military green
- But it should be given a darker tone with a wash of oily black or brown
- The exhaust pipes were light gray with a little rust and dirt
- The steering wheel, seat and battery that can be seen under the left side of the hood can be painted black
- The tires are painted black with a muddy color of dirt if desired
- The radiator grille in the front is painted black or dirt brown in the gaps
 - Try to paint in the gaps with a fine brush and with just a small drop of diluted paint that can soak in and flow out and fill the gap
- The wire on the winch roll in the front is painted oily brown / black

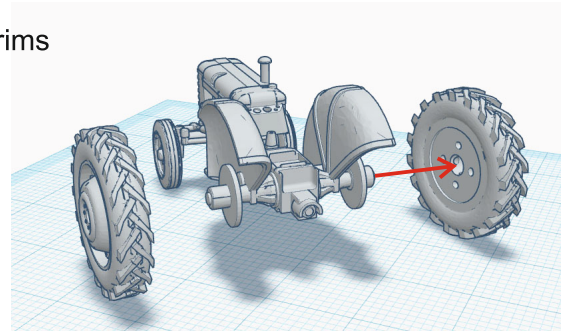


5) Rear wheels

- Check that the shafts fit in the holes on the inside of the rims
- The mounting plate on the axle must rest against the rim
- Note that the direction of the tire pattern should be as in the pictures

- Usually there is a, of the 3D printer, slightly deformed part on the tires. Leave that part down

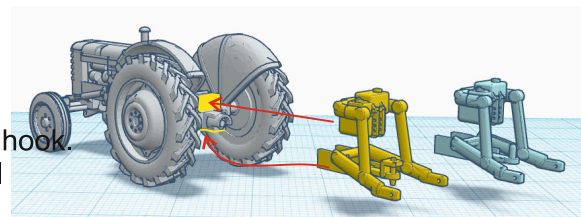
- Glue and adjust the angle of the wheels
- Let the model rest until the glue has dried.



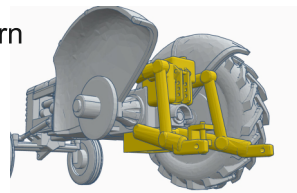
6) Three-point-towbar

The kit comes with two variants of the three-point linkage

- The blue one, to the right, with a simple connecting pin can be used if you want to attach a model wagon in the hook.
- The yellow one, on the left, should look more alike a real variant of the towbar.

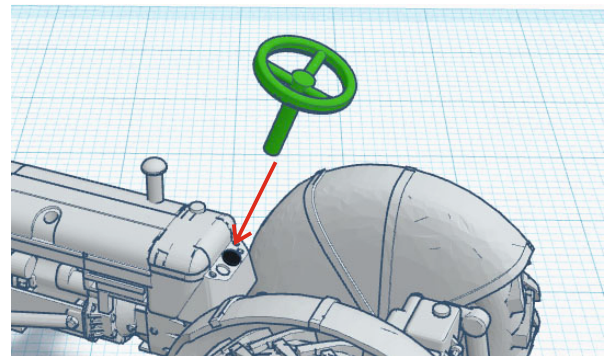


- The detail should be pushed into the recesses in the stern and glued to the yellow-marked surfaces.
- Adjust the position so that it is mounted straight
- The placement should be as in the lower picture.



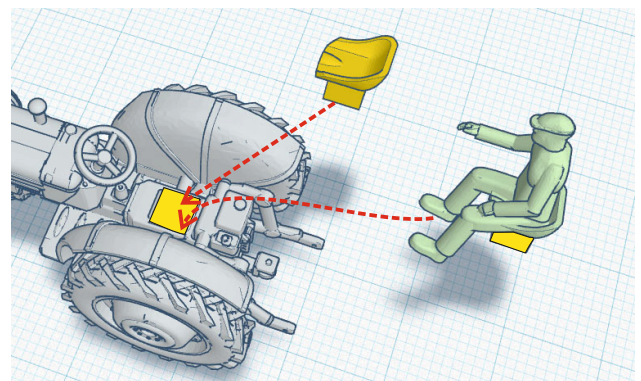
7) Steering wheel

- Make sure the mounting hole on the dashboard is open.
- Carefully cut the steering wheel from the last supports at the taper just above the lower "lump" on the steering column.
- The steering column must be brought down to the small distance bar reaches the dashboard.
- The steering column is glued with a drop of glue in the hole before the rod is brought down.



8 Seat or seated driver?

- Choose whether the model should be built with an empty seat or with a seated driver
- The seat is glued in the marked recess above the drive shaft.



9) Color enhancement and clearcoat

If some details need color enhancement after assembly, make it now.
To protect the model, it should also be clearcoated.

10) Exhaust pipe

- Carefully cut away the painted pipe from the supports
- Glue the pipe into the hole on the left side of the bonnet.
- Put a color cloth on the unpainted cut at the top of the pipe.

