



A-10 WARTHOG

A-10 ENGINE UPDATE SET

Masters by
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Made in the
USA

FITTED TO: 1:48TH HOBBYBOSS A-10 KIT 80323

PHR48113 A-10 ENGINE / INTAKE UPDATE

- Always Wash parts before gluing and painting
- CA Cyanoacrylate (super) glue is required to glue parts
- Do not inhale Resin dust or particles
- Wear Eye and dust protection when cutting, scraping or sanding parts

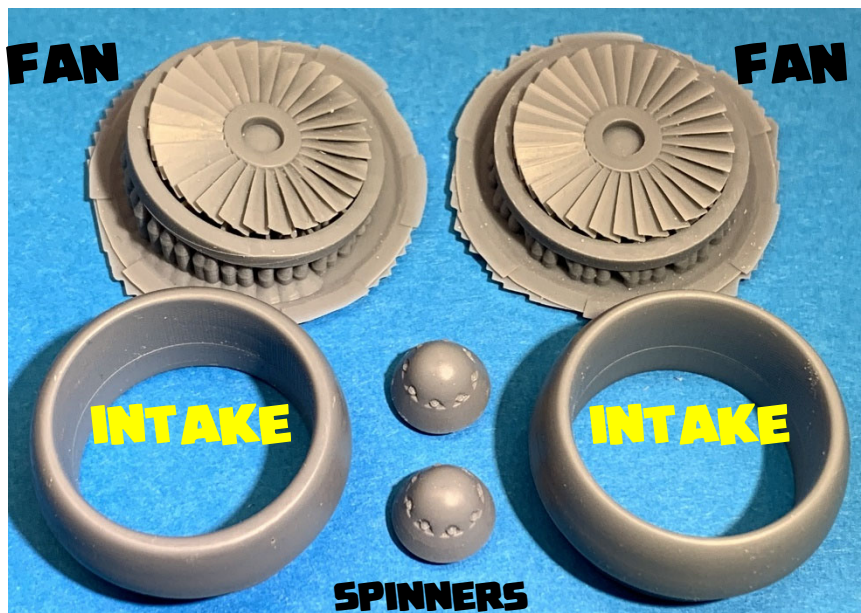
Unassembled Model Kit, Glue & Paint
Not Included, NOT a TOY, Adult
Collectors - Ages 14+, Small Parts, Resin,
Resin Kit Experience Required

Kit Contents RESIN & 3D Printed RESIN

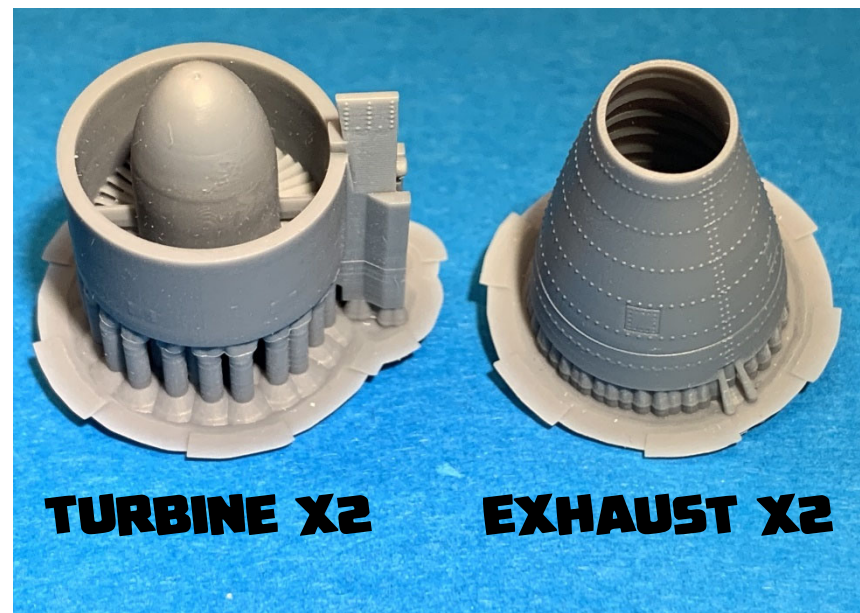
- FAN (x 2) 3D printed
- SPINNER (x 2) 3D printed
- INTAKE (x 2) CAST

- TURBINE (x 2) CAST
- EXHAUST (x 2) 3D printed

Intake Parts 48111 & 48113



Exhaust Parts 48112 & 48113



SET DESCRIPTION

This update set is available in 3 versions – Combo (48113), Intake (48111) or Exhaust (48112). The set contains parts to easily upgrade the 1/48th HOBBYBOSS A-10 kit (80323) to a more accurate A-10 engine configuration. The kit includes accurate GE-TF34 intake cones and their corrected Intake fans- with separate spinners and/or the correct raised-rivet exhaust cones with separate turbine sections.

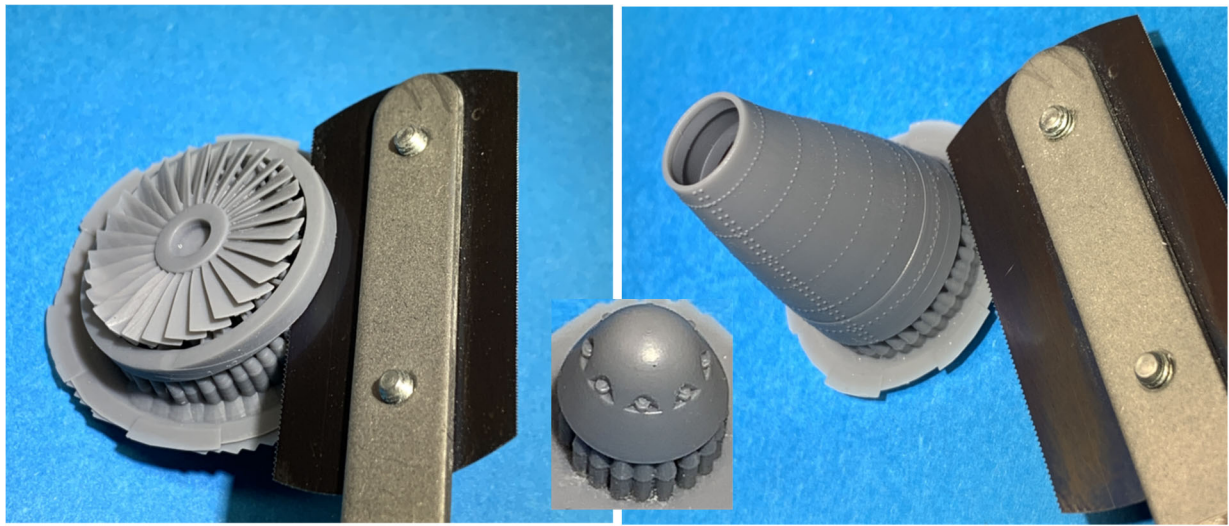
For reference, we recommend REID PUBLICATIONS's fabulous book – The Modern Hog Guide, 2nd Edition by Jake Melampy. (Available from REIDAIRPUBLISHING.COM - Current A-10C Decals are also available from REID AIR PUBLICATIONS. Photos from the book are Copyright Jake Melampy.



Prepare 3D PRINTED RESIN Parts

Remove all 3D printed parts from their Supports and clean-up support connection locations. *NOTE: PHR 3d Printed parts may come with or without 3D printed supports -this is because printing technologies are constantly evolving and PHR will always use the best process to deliver the best product to the modeller.*

The Intake fan can be just removed from the main supports, as shown. There are many tiny, non-visible, supports under each fan that can also be removed if desired, but due to the scale thickness of the fan blades, there is a risk of snapping the blades – remove these supports at your own risk.



3D printed resin parts are super detailed and accurate however the resin can be brittle and snapping the parts from their printing supports will nearly always leave a 'divot' in the part. This divot may or may-not require filling depending on its location on the finished part. CA or filler can be used to repair. Check out our videos showing the best techniques to remove the printed supports.

TIP: Using a razor saw is the only way to remove the 3D printed supports without damaging the parts- cutting with nippers will usually cause a divot. It is recommended to cut with a little extra material remaining and then flat sand the parts to fit exactly.

NOTE – it is likely that UV Resin, used in 3D printing is toxic if ingested, so please use a mask when sanding and beware of the resin dust. Wet sanding is recommended.

Prepare CAST RESIN Parts

Remove all parts from casting blocks and clean-up castings.

TIP: Using a razor saw is the easiest way to remove the casting blocks. Cut with a little extra material remaining and then flat sand the parts to fit exactly.

Prepare KIT Parts

The new parts are designed to replace the kit parts without any cutting when using the combo set. Some trimming and sanding of kit parts maybe required to achieve an exact fit. The front intake parts – C1, C6, C7 and their doors C13 & C14 are not truly circular and may need some sanding or shimming to ensure the intake fronts fit perfectly.



If Using Kit Exhausts

If using only the intake set, you will need to use the kit exhausts – Parts C8 & C9. Use a razor saw, or your preferred method, to remove 1mm from the front of the exhausts so that they fit against the new fan section.

TIP: Use a thin piece of masking tape along the edge of the exhaust parts to guide your cut and protect the remaining kit part.

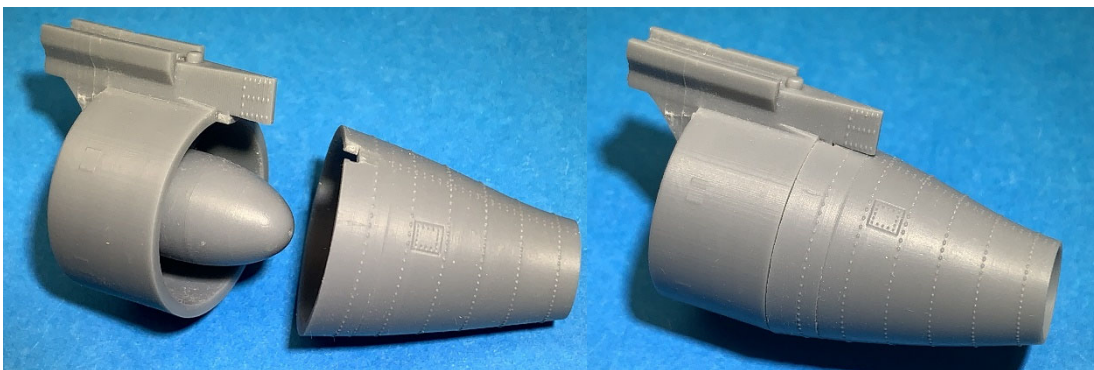


Parts are now ready for assembly – Consider the **Additional Modifications** at the end of the instructions before gluing anything together.

Assemble Parts

Carefully dry fit all parts and ensure alignment. Make any needed adjustments by minor sanding or edge clean-up.

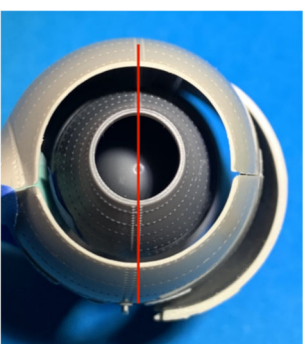
Glue the exhaust to the turbine section after painting the interior



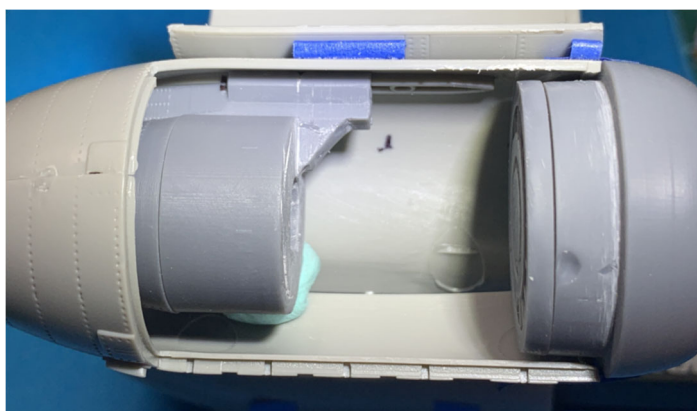
Glue the Spinner to the centre of the Fan and then carefully push the fan into the intake from the rear. This fit is snug and care should be taken as the fins are fragile. Fit the new intake and fan assembly to the front of the engine housings.



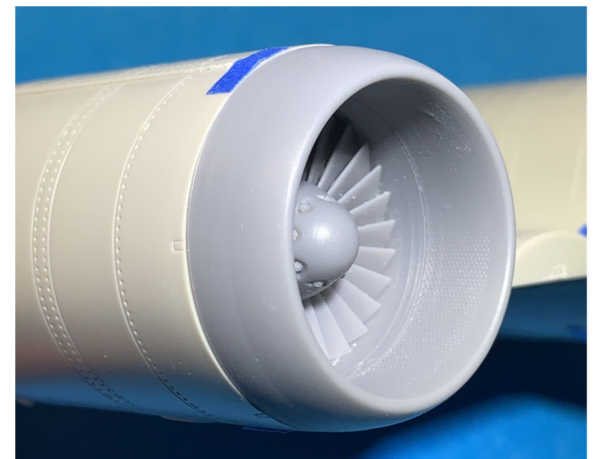
Glue the Completed exhaust assembly to the rear of the mounting rail in the top of the engine housing.

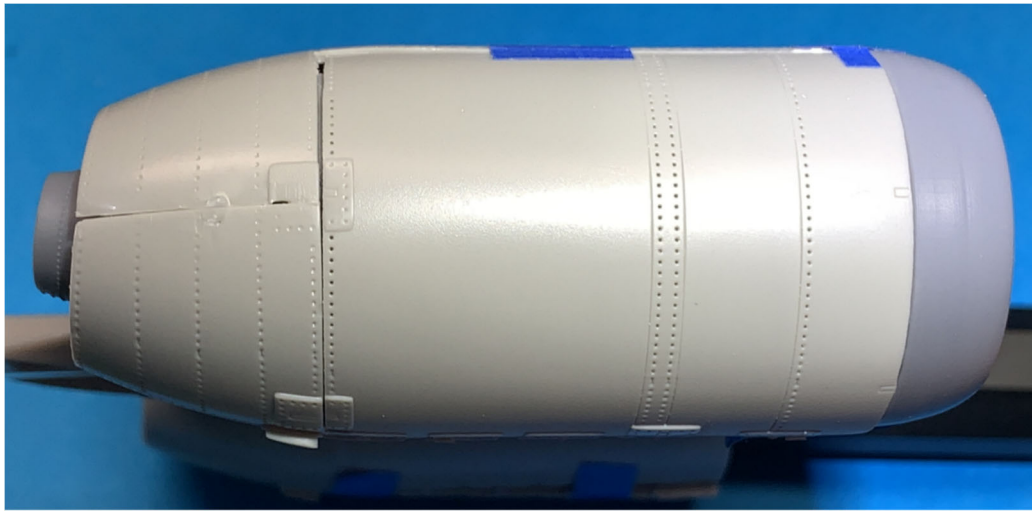


Align the vertical rivets of the Exhausts with the top and bottom rivet lines on the housings.



Fit remaining kit Housing doors (C13 & C14) and finish as per normal building practices





Additional Modifications

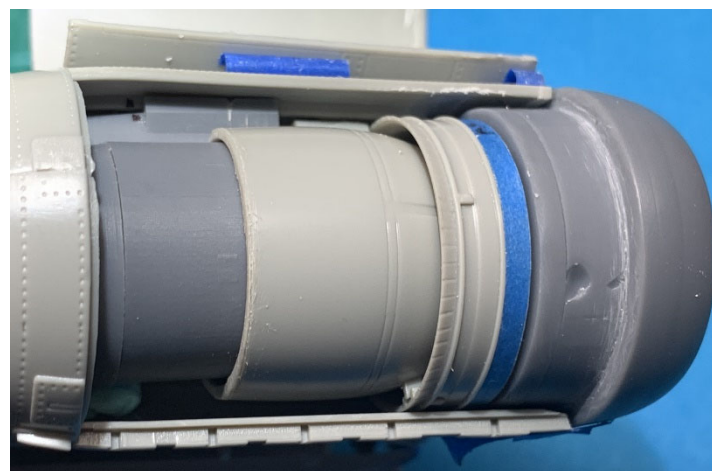
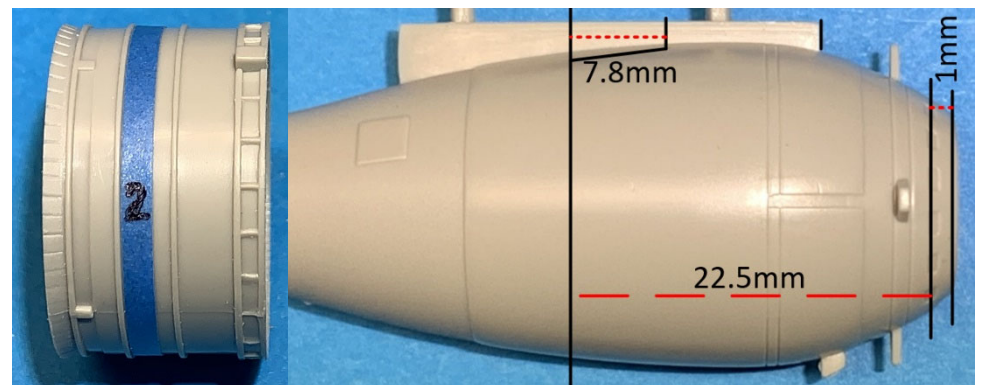
You may wish to smooth out the interior of the housings as there are a few large ejector pin marks present – this is not essential but is visible if really looking in from the rear.

You may also want to fill the fuselage opening that is created by the fairing between the Fuselage and engine housing. We have included a template (ABCD.pdf) to cut an insert of plasticard from. Simply line up the insert edge and line as shown.



If using the Combo set, you may also want to reuse some of the kit parts to fill out the interior of the engine housings: while this option is not a completely accurate representation of the TF34 core module, when viewed from the rear, this mod gives a convincing visual enhancement.

1. Cut the front engine shroud (kit part C24) 7.5mm from the rear. This is best done by using 2mm tape placed 2mm from the second rib from the rear
2. Assemble the kit exhaust cones (Kit Parts C8+C9)
3. Remove 1mm from the front of the exhaust Cones
4. Remove the rear of the exhaust by cutting 22.5mm from the front of the parts
5. Remove part of the top mounting pylon by:
 - a. Cut down at 7.8mm from the rear of the remaining part
 - b. Cut vertically along the two sides of the pylon -from the rear to the vertical cut and remove the part of the kit pylon
6. Chamfer the side cut-outs so that the new turbine resin part slides into the altered part.
7. Slide the new resin turbine part into this slot so that a section of the resin part is inside the altered kit part
 - a. You may want to thin the insides of the altered kit parts to enhance the look from the rear
8. Ensure the Resin mounding pylon aligns with the modified kit part and that the 2 locating LUGs fit the kit engine housing mounting rails.
9. Fit the front engine shrouds to the modified kit exhausts – use the mounting lugs and ensure the front of the shroud is flat to the front of the modified exhaust part
10. Fit the new assembly into the housing
11. Fit the new assembled intakes and fans to the housings and finalise alignments – shroud should be centred to the fan blade part.
12. Finally glue all parts in-place
13. Fit remaining Housing doors (C13 & C14) and finish as per normal building practices



Detailed Instructions & references @ <https://phasehangerresin.com/collections/48001-1-48/products/48092-f-15-eagle-standard-drop-tanks-set-of-2>

PHR-____8005 -Layout.pdf contains all the exact positioning locations and measurements to ensure you position the components in their correct location.

A video run-thru of the build is coming soon on the PHASEHANGER You Tube channel. You might find it helpful to watch this.