



Atlas 7B shaper - S7-25D Pendant Gear Housing



kaje

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Summary

Mar. 17, 2020 - UPDATE - see note below. This is for a replacement part for an Atlas 7B shaper.



13.52 hrs



2 pcs



0.20 mm



0.40 mm



PET



169 g



Prusa
MK3/S/S+

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Tags: [shaper](#) [atlas](#)

Mar. 17, 2020 - UPDATE - see note below.

This is for a replacement part for an Atlas 7B shaper. The part is the S7-25D Pendant Gear Housing (original part made with zamak). This replacement part is made with thicker walls for additional strength, as well as additional support around the boss.

Update Mar. 17, 2020 Note: The holes for the threaded inserts were not deep enough on the original print. I made a V2 version with deeper holes, and also adjusted contact Z distance on the supports to 0.2 to make support removal easier. Be advised that I have not tried printing the

revised files. The original files will work, but the insert holes have to be drilled a bit deeper.

The part is designed to use two heat set #10-24 inserts. There are two holes for mating pins; these holes should be drilled out with a #30 drill. The boss on the original part is reamed 0.375". This plastic part is designed to use a metal insert sleeve 0.375" ID, 0.500" OD (should press-fit into boss hole), and length 0.572" +/- 0.001". Recommended material for the sleeve is bearing bronze.

OnShape 3D CAD files available here:

<https://cad.onshape.com/documents/ea65929c36e04416bb17de6c/w/19f5201ad4214235524b5c38/e/f9d33780127c6cd6874f64e2>

Print instructions

This can be printed in PLA or PETG, but I decided to go with PETG since it is a bit stronger.

Printed in .2mm layer height on textured build plate. I increased the filament temperature to 250. Other relevant settings:

- 20% rectilinear infill
- top/bottom fill pattern = concentric
- "Don't support bridges" = off
- supports everywhere (except block 4 small holes)
- perimeters = 4

I found the supports very difficult to remove, so some adjustments are probably needed there.

Model files



s7-25d-pgh-3d-print-petg.3mf



s7-25d-pgh-3d-print.stl



s7-25d-pgh-3d-print-v2.3mf



s7-25d-pgh-3d-print-v2.stl

Print files



s7-25d-pgh-3d-print-petg_02mm_petg_mk3s_6h38m.gcode

🌀 PET 📏 0.40 mm 📏 0.20 mm ⌚ 6.63 hrs ⚖️ 83 g 🖨️ Prusa MK3/S/S+



s7-25d-pgh-3d-print-v2_02mm_petg_mk3s_6h54m.gcode

🌀 PET 📏 0.40 mm 📏 0.20 mm ⌚ 6.89 hrs ⚖️ 86 g 🖨️ Prusa MK3/S/S+

[Find source .stl files on Thingiverse.com](#)

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