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7mm Horn blocks

Thank you for purchasing these Horn blocks.

Please Read at least this Part

This is a precision item that requires care and attention to get the best from it.

- Do Not Over Tighten Screws
- Do Not Use Hammers or metallic objects to move stiff parts
- Keep Lightly Lubricated
- Axles will be a precision fit, any burrs will make it difficult to get onto the axles

Parts and specification

The Horn blocks are made up of the following parts:-

1. The CNC machined horn cheeks
2. A Ball Race, 3/16" internal, 5/16" External
3. Etched Nickel silver bearing shroud
4. 10BA Brass Nut & Screw
5. Spring.

Notes on Using the Horn blocks

The Ball races are made to very precise limits and intended to be an interference fit on the shaft/axle, therefore you may have difficulty getting them onto the axles. Make sure there is absolutely no possibility of any burrs on the end of the axles. Axles are made from a drawn bar rather than ground bar, drawn bar has a wide tolerance and sometimes they slide on quite easily other times you will need to polish the axles in an electric drill with 600 wet&dry or similar. (first one end then the other). For anything greater than an 0-4-0 you will need the bearings to slide on the axles for side play.

If for any reason you have to press the bearings onto the axle try to push the inner race (3/16") as excessive force on the outer (5/16") will damage the bearing.

Fold up the shroud as shown in the picture then do each set of folds as numbered (all folds are with the 1/2 etched line on the inside). Push the nut into the small cage created by the folds and solder in place being careful not to either solder the screw in or fill the threads with solder, I keep a 10BA screw oiled and dirty just for the job.

The bearings have a dust shield and are greased for life but a drop of oil will not harm them as lubrication will help with the other surfaces after soldering or gluing to the chassis sides.

The screw can be shortened to suit your loco, or the amount of travel you like. A suggestion is to put either a very small drop of low strength retainer, or dab of varnish on the screw, once ride height and travel have been sorted, to stop the screw from dropping out at a later date.

For owners of a Master Chassis you **will need** to polish the axles as above.

Further Notes for First Timers in Hornblocks

Some Kit manufactures put some half etched slots either side of each axle hole to indicate where to cut out for your hornblocks. These should be checked for dimension first as you will need either:-

A)- If using a '**Master Chassis**' something around 10.5mm (as the jig will position them. So a little lea way is needed and hence you don't have to be so accurate in the cutting)

B)- If using any other method you will need to cut the slots 10mm wide where you should be exactly 5.0mm either side of the centre of the Axle hole (This 5.0mm is important as it positions the hornblock prior to soldering).

Before cutting, if the kit manufacture has not already done it, scribe a horizontal line thru the centre of the axle holes to show you the ride height (or axles box position) when fitting the hornblocks.

Cut out the slots with a jewelers saw and file sq & straight.

When soldering the Hornblocks in place remove the springs so the axleboxes(bearing & shroud) are at the top of there travel and line up with scribed line (see above), also make sure the top of the hornblock is horizontal, tack solder the top surface, check and then add a little more solder on the top surface. Remove the axleboxes and solder down the sides for a firm anchor and refit with springs. Sometimes the screwthread grates on the hole sides this is acceptable providing the spring is doing its work.

