

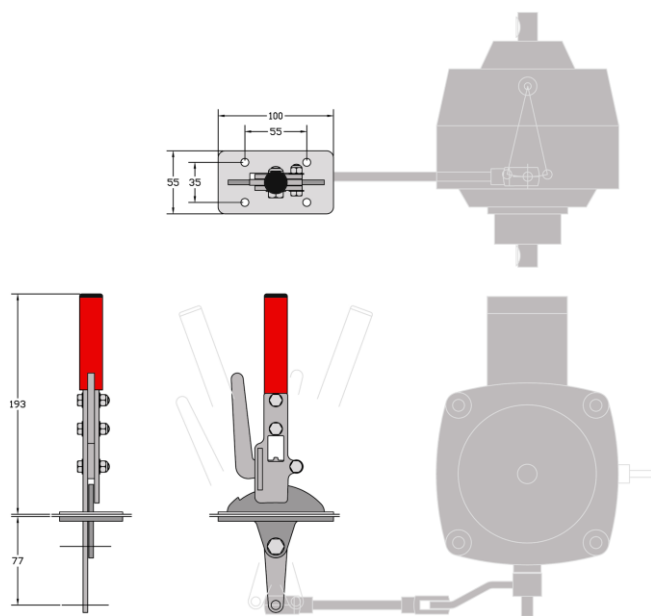
Instructions for panel mount hydrostat lever

Colin Edmondson July 2025

Before painting the laser cut parts need all the cut edges cleaning up on to remove any black residue, a simple wire brushing is sufficient. Most parts will have a tiny tab where the cutting begins and ends, this isn't normally a problem but occasionally it occurs where two parts will mate together or a bearing is fitted and needs to be filed flush.

This lever gives a 35mm stroke and is specifically designed to work with the Eaton 7 hydrostat control arm sold by CMD Engineering in Chatham, Kent. This comes complete with a woodruff key and locking nut.

The hydrostat lever should be fitted to the panel with four M6 button headscrews and nyloc nuts.



Welding.





If you have an unwelded lever base then slot the main upright into the slot in the base using the photo above for correct orientation. Slide the locating jig into place, then weld through the slots either side of the upright and clean up with an a flap wheel in an angle grinder.

Assembly

If not supplied with your kit cut a 100mm length of 20mm by 2mm wall mild steel tubing and clean up the ends, then drive it onto the end of the handle with a rubber mallet or a hammer and a block of wood, then tap in the end cap. If the tube is a loose fit on the lever then first squeeze the tube slightly in the vice and try it again.



Round off the sharp edges on the latch lever and loosely assemble the parts of the lever top as shown with M6 x 25 screws. Check that the lever matches the position of the slot in the baseplate, if not reassemble it as a mirror image of the photos. Making sure the the two slots are parallel and the latch will slide freely in the slots you can tighten up the screws, the one used as a pivot only wants to be tightened enough to stop it rattling. Add the return spring.



Fit the lever with an M8 x 20 screw as a pivot, with washers both sides and between the lever and the quadrant, and a nyloc nut. The tightness of the nut controls the stiffness of the lever, so don't over tighten it. Leave the oiling of the moving parts until after painting.

The connection link to the hydrostat control arm needs to be made to suit from a length of M6 studding with an M6 clevis fitted to each end, each clevis being locked in place with a lock nut. Adjustment to find the centre is by trial and error, removing one clevis, rotating it to lengthen or shorten the link, reconnecting it and locking it in place. With care a very positive 'neutral' position can be found. It is up to you whether you want the operating lever facing towards you or away from you, the latter makes it harder to inadvertently start the loco by accidentally knocking the lever.

After painting I finish my levers by sliding a length of heatshrink tubing over the lever and use a heat gun to shrink it in place. The colour is up to you, I use green for go and red for stop!

Shopping list

Heatshrink tubing for lever, 25mm red or green? 100mm

M6 clevis with spring locking pin

M6 studding, length to suit

