

Smokebox Assembly

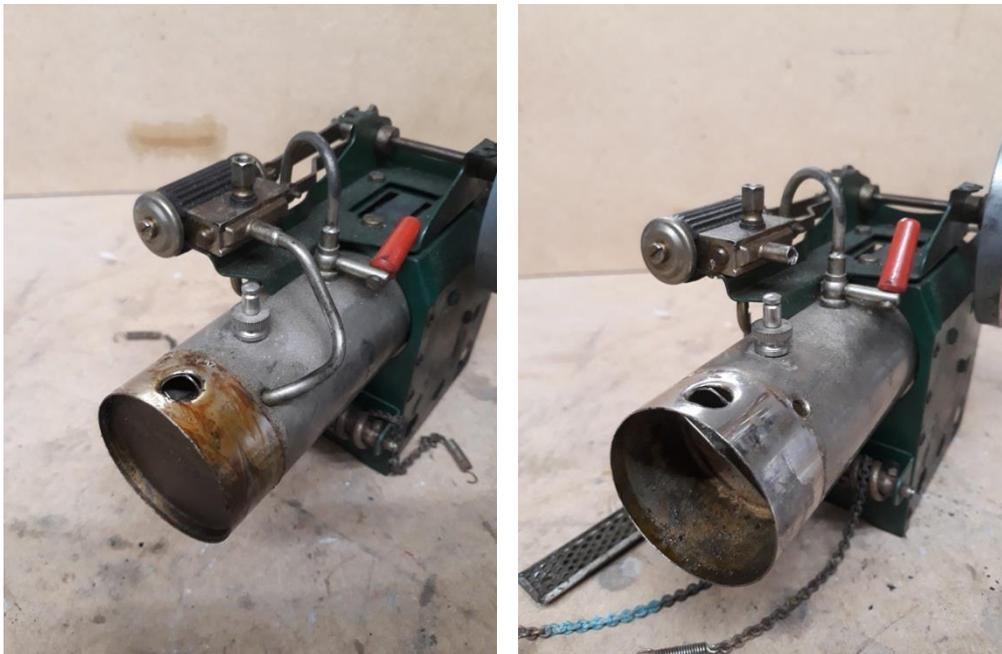
This comes as a part prepared smoke box replacement and will require finishing;

Whilst these pictures show a Wilesco Roller the same principle applies to the Traction Engine as well.

To dismantle the Wilesco engine's front end – remove the chimney as this is a push fit into the chimney saddle then, unscrew the saddle from the boiler, you will find that the footboard bracket on the firebox side will unclip and the smokebox will now come apart with a twisting motion...



... drill out the rivet holding the checker plated footboard to the smokebox bracket. It's a good idea to refit the footboard as this acts as a drip tray for the cylinder.



Note - If your replacement smokebox has the manifold fitted on the side then cut off and carefully unsolder the exhaust pipe from the steam chest. Be careful that you keep the heat down as the steam chest is soft soldered too much heat and they will come apart, use a small flame on a blowtorch and keep a container of water handy with a brush to dump water onto this once the solder has melted - this helps dissipate the heat. With a pair of pliers the pipework will wriggle out once the solder has softened enough.

Next remove the end cover on the Wilescos boiler by inserting a screwdriver or bent nosed set of pliers in through the hole where the original chimney saddle was removed from and prise the end cap off; this is the condensation chamber and will invariably be full of oily deposits from the cylinder.

The smokebox is secured to the boiler by 4 x 10BA hex head bolts. To fit this you will need to offer up the smokebox and check that it is sitting plumb then drill one hole carefully through with a 10BA tapping size drill bit (No 54 drill) remove the smokebox and then open up with a 10BA clearance drill (No 50 drill) otherwise you will strip the threads in the smokebox

Once the first hole is completed, bolt the smokebox to the boiler and repeat for the other three holes with the tapping size No 54 drill, remove the smokebox and open up with the clearance drill No 50, this will allow the four bolts to effectively clamp the smokebox to the boiler.



Before final assembly line up the holes on the chimney base plate with the chimney itself and secure with the 6 x 12BA bolts as supplied

Fabricate a length of 1/8th copper pipework to go from the cylinder exhaust port to the smokebox manifold – the copper pipe will be more malleable if it is heated up cherry red and allowed to cool

before bending, this can be done with either a KS metals bending spring or inserting a length of plastic rod inside the pipework to stop it kinking and once satisfied with the shape burn out the plastic with a blowtorch – remember to clean the pipework afterwards



One neat dodge is to fabricate the pipework you need with an offcut of 2.5mm mains cable as a guide and form your pipework to this as a template.

At this point you will need to fit a modified Mamod front axle set to the perch bracket under the smokebox, finally bolt the smokebox to the boiler and set up the steering chains.

Further enhancements can be added from our range.

TE9 Steering wheel



TE11 Cylinder detail set



TE13 Regulator set

