

## Fitting Instructions for SBCH and SBCHC

1/ Remove the two inside rear cylinder cover screws using a long reach screw driver as shown in pics 1 and 2.

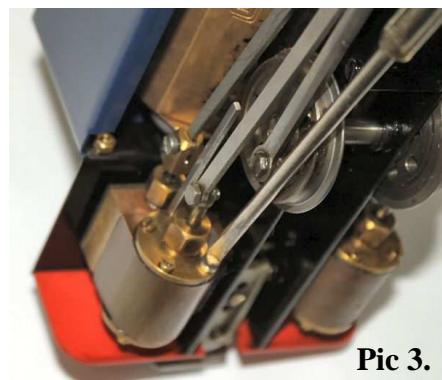


Pic 1.



Pic 2.

2/ Fit the slide bar by passing the two screws you have just removed, through the holes in the curved part of the slide bar and into the cylinder block as shown in Pic 3. Nip up but do not tighten at this stage.

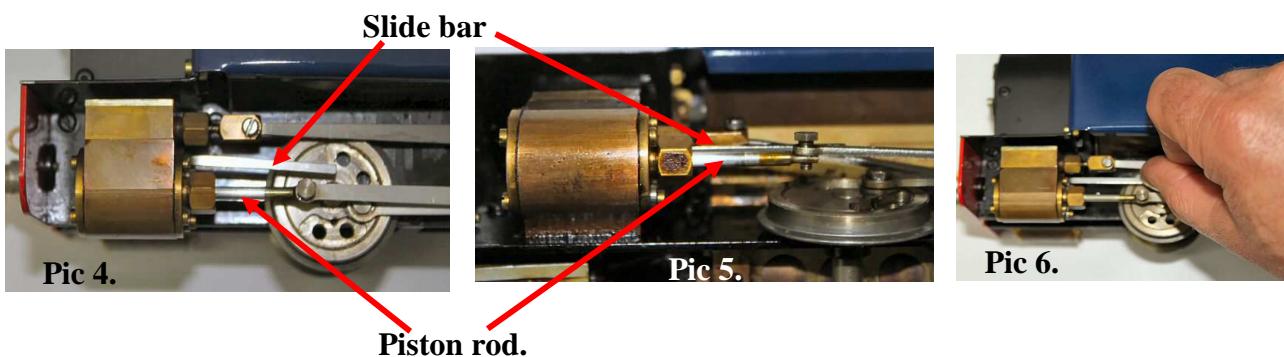


Pic 3.

3/ Check that the slide bar is parallel to the piston rod when viewed from the side and from below see pics 4 and 5.

If the two are not parallel, as illustrated in pic 4, the slide bar can be gently bent with thumb or finger pressure until correct alignment is achieved. See pic 6.

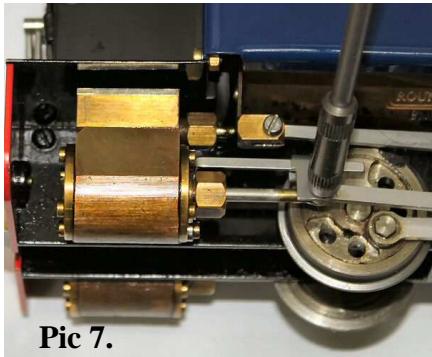
Once you are happy that the two are aligned correctly, slacken the two cylinder cover screws that hold the slide bar. This will allow a small amount of up and down movement due to the clearance in the screw holes. Move it down towards the piston rod so that the two are as close as the movement will allow and then tighten the cylinder cover screws.



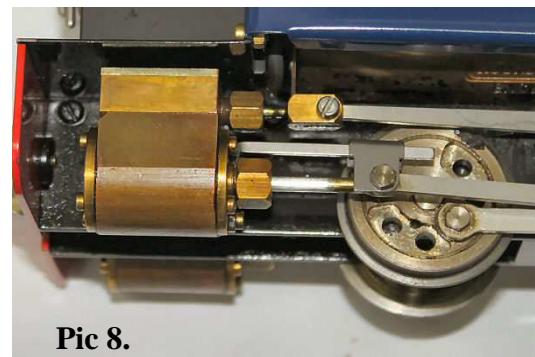
4/ The crosshead can now be fitted.

Remove the hexagon headed crosshead screw that attaches the connecting rod to the piston rod

If fitting the SBCH set, a pressed steel crosshead is used. This is formed to sit over the slide bar and in front of the connecting rod and is held in place with the crosshead screw—see pics 7 and 8.



Pic 7.



Pic 8.

If fitting the SBCHC set, a cast crosshead is used, see pic 9.

Check the crosshead for fit and ensure that it sits over the piston rod and slide bar as shown in pic 10. It may be necessary to clean out the two slots on the back of the crosshead casting. Use a round needle file on the piston rod slot and a flat or square one on the slide bar slot—see pic 11.

For either type, ensure that the plain shoulder on the crosshead screw passes through the clearance hole in the crosshead and that the crosshead has a little free play when the screw is tightened.

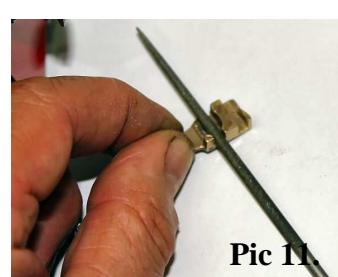
Rotate the wheels and ensure that the motion moves freely with no tight spots.



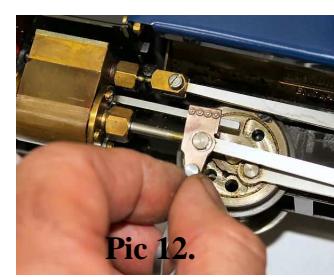
Pic 9.



Pic 10



Pic 11.



Pic 12.

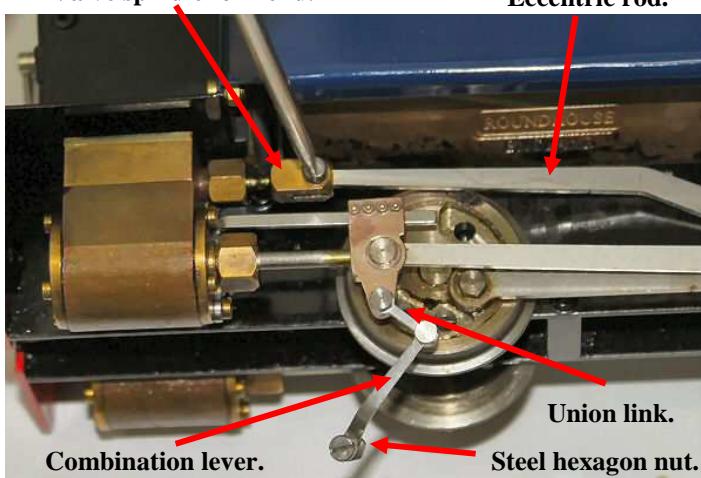
##### 5/ If fitting the SBCHC kit, the dummy combination lever can now be connected.

Remove the steel screw from the valve spindle fork end but leave the eccentric rod in position within the valve spindle fork end—see pic 13..

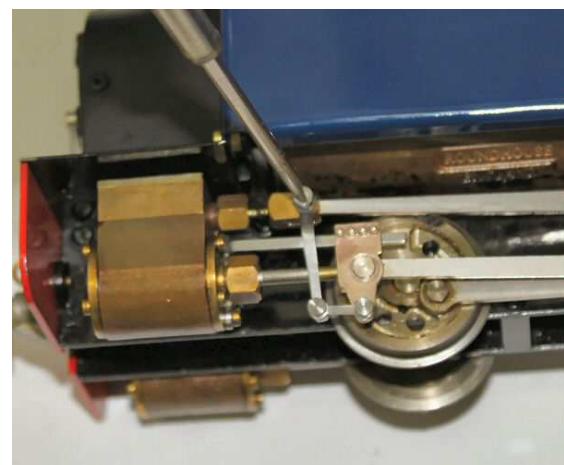
Swing the dummy combination lever up into position with the union link pointing forwards and screw the long steel screw into the fork end as shown in pic 14.. Note that there is a steel hexagon nut on this screw at the back of the combination lever.

Valve spindle fork end.

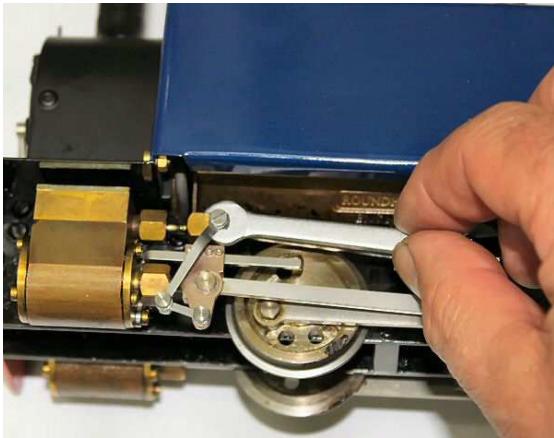
Eccentric rod.



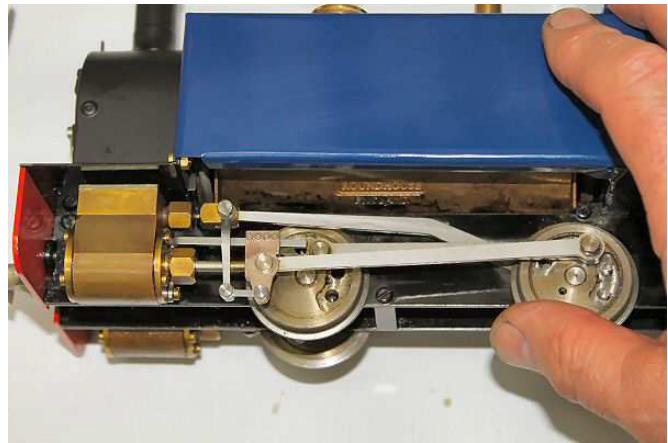
Pic 13.



Pic 14.



**Pic 15.**



**Pic 16.**

**The new valve spindle screw should be screwed right in with the hexagon nut flush against the valve spindle fork end, just leaving a small clearance so that the combination lever is free to move.**

**Finally, tighten the hexagon nut against the fork end using a thin 6BA spanner as in pic 15.**

**Check for smooth operation by rotating the wheels manually - pic 16.**