

## Tips to replace the roller on a sector sector with roller.



### 1) Removing the used (worn) or old roller.

For this there are 2 possible methods:

a) Using an oxyacetylene flame torch, heat one end of the roller pin so that the end is heated to a malleable point, immediately after hit this end of the pin with a punch and a suitable holder in order to remove the pin. Attention !!! Do not heat the pitman shaft or rocker.

b) With a bank boring machine and an integral HSS drill (approx dia 11 mm), mill a cone or center in one of the ends of the pin of the roller, in such a way that the riveted end thereof is weakened. After this hit this end of the roller pin with a punch and an suitable holder to remove the roller pin.

NOTE: all these procedures must be carried out with the appropriate personal protection elements, such as safety glasses, gloves, etc.



### 2) Installing the new roller.

Now with the pitman shaft or rocker without the roller, proceed to clean it and evaluate if it is necessary to grind or polish its cylindrical parts where the bushings work.

Also the internal flat faces of the head of the pitman shaft must be inspecting in order to see if it is necessary to grind or polish and keeping its paralelism.

With the sector shaft in good condition and clean, measure the width between plain surfaces of sector shaft head in order to adjust the thickness of the thrust washers (side spacers) in such a way that the total width "washer + roller + washer" can be placed on it sliding and without axial clearance. Both thrust washers must be the same thickness.

NOTE: All our roller kits include 2 thrust washers (side spacers) approximately 0.15 mm thicker than the original ones. This allows adjustment according to the wear of the internal faces of the sector head.

Once the roller assembly, washers and pin have been placed, the riveting or fixing of the pin must be carried out on the pitman shaft or rocker.

If you do not have the specific riveting machine (Press Type Spot Welding Machine), there are 2 possibilities:

a) Fix it with a little welding point on each end of the roller pin or

b) Heat and rivet one end at a time of the roller pin, with the same torch and punch that you used to remove it. Attention: avoid excessive overheating and the Heat-Affected-Zone (HAZ) extends too much on the bolt and head of the sector.

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