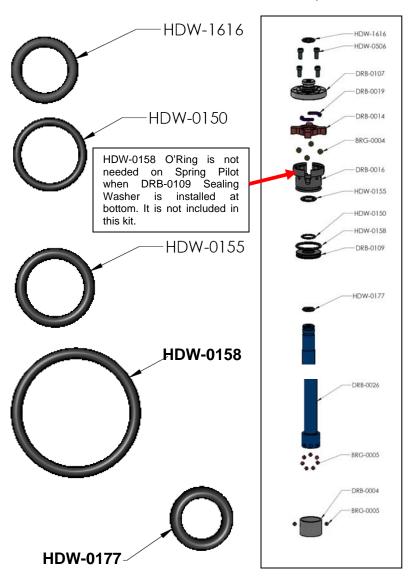




DRAWBAR and PILOT KITS - Rev B

May 1, 2009

DRB-0090 DRAWBAR/PILOT KIT, COOLANT-THRU-SPINDLE SYSTEMS



Machines fitted with Locking Drawbar mechanisms and Fadal Coolant-Thru-Spindle systems use this kit. The HDW-0195 Belleville Spring kit [ordered separately] is installed with DRB-0109 Sealing Washer at the bottom of the pocket.

Any DRB-0074 spacers that were previously installed underneath the Orientation Bridge legs *must be removed*.

The new DRB-0092 Knock-Out Cap is improved to allow the black tungsten carbide seal face to pivot better.

HDW-0195 BELLEVILLES:

Short Pocket: 4.325 inch [109.86 mm] is 38 Springs

Long Pocket: 4.627 Inch [117.5 mm] is 42 Springs



INSTALLATION OF DRB-0109 SEALING WASHER IN COOLANT-THRU SPINDLES

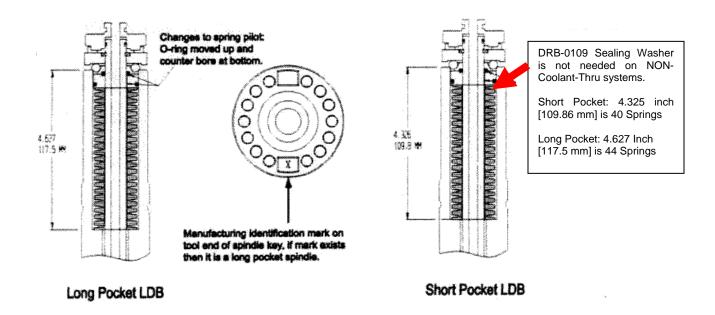
- 1. Remove original Drawbar, and Belleville stack.
- 2. **Clean** sidewall in pocket so washer can seal against sidewall at bottom of pocket. A Brake Cylinder Hone could be helpful to do this.
- 3. Install HDW-0158 and HDW-0150 O'Rings onto DRB-0109 Sealing Washer with DOW 111 grease.
- 4. Insert Sealing Washer SIDEWAYS into opening [see photo].
- Insert Drawbar up from bottom, and through hole in washer. Guide Drawbar through center O'Ring, and press Washer down to bottom of pocket.
- 6. This design washer allows Coolant-Thru fluid pressure to lift Sealing Washer without damaging O'Ring on bottom of the original design washer.





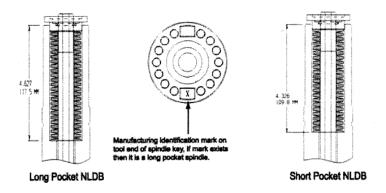
DRB-0091 DRAWBAR/PILOT KIT, NON-COOLANT-THRU-SPINDLE SYSTEMS

Machines fitted with Locking Drawbar mechanisms and have no coolant-thru system use this kit. The HDW-0195 Belleville Spring kit [ordered separately] are installed with DRB-0068 Knock-Out Cap. The included DRB-0074 spacers are installed underneath the Orientation Bridge legs to raise the Bridge .070 inch.



DRB-0030 DRAWBAR/PILOT KIT NON-LOCKING

Machines fitted with Non-Locking Drawbars in either 6500, 7500, 8000, 10000 or 15000 RPM configurations use this kit to replace Drawbar, with HDW-0195 [ordered separately] Belleville Springs. Use 47 springs if the manufacturing mark exists on the bottom of the long spindle key, and 44 if not marked.



Short Pocket: 4.325 [109.86mm] 44 Springs

Long Pocket: 4.627 [117.53mm] 47 Springs

Non-Locking Drawbars will not have the DRB-0109 Sealing Washer installed as the Coolant-Thru-Spindle systems are not installed on Non-Locking Drawbar Spindles.