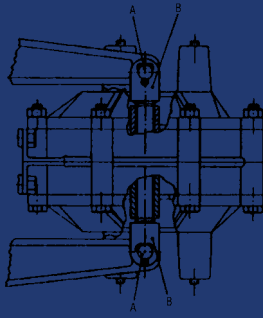


Basic Principle of Operation for Kobelt Disc Brake

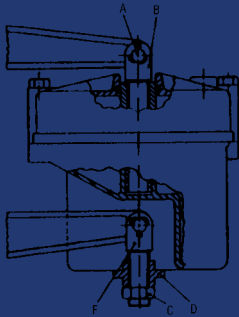
Clearance Adjustment

Before making any adjustment, ensure that the brake is released.



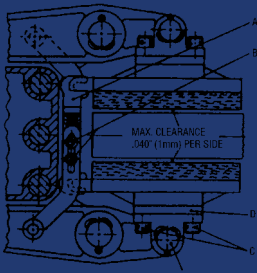
Fluid Applied Actuator

Remove both pin A and turn both clevis an equal amount. Turn counter clockwise to decrease clearance and clockwise to increase clearance.



Spring Applied Actuator

The clearance can be adjusted by removing pin A and by turning clevis B. It can be further adjusted by loosening jam nut C. Then, by removing bolt in bracket D and rotating same.



Balancing Link Adjustment

All calipers are equipped with balancing link to ensure even lining wear. To adjust, loosen screw B and adjust link A to align the shoe parallel with the disc.

SHIM KITS

In order to adapt a caliper for a thinner disc, shim kits are available. The shim D fits between the brake shoe and the bearing.

LINING REPLACEMENT

It is important to replace the lining before the rivet makes contact with the disc. By removing screw C or pin E, the shoe can be taken off the caliper assembly. Drill out rivet and install new lining with the proper rivet. When re-installing shoe into the caliper assembly, be sure to re-engage the balancing link A.

Actuator Maintenance

Kobelco actuators require very little maintenance. However, should it be necessary to replace seal, proceed as follows:

Fluid Applied Actuator

The actuators are in most cases diaphragm operated. There are two diaphragms per actuator and one O-ring between the center housing. To replace seal, remove the actuator and disassemble same. Clean all parts and install new seal (diaphragm).

Operating Temperature, fluid applied: -40C (-40F) to 80C (176F)

Spring Applied Actuator

In order to remove the actuator, pressure must be applied to the actuator to release the brake (or use manual release screw). After removal, place actuator into a press to retain the two housing before removing assembly bolt. Once dismantled, clean and replace parts as needed. When re-assembling, lubricate all moving parts.

Operating Temperature, spring applied: -25C (-13F) to 120C (248F)

Spring Applied Actuator with Manual Release Screw

All Kobelco spring applied actuators can be supplied with manual release screw. This manual release screw serves to release the brake upon failure of the fluid pressure. It is very important that the fluid supply line is open to tank or atmosphere when winding the manual release screw inward, since the piston cavity requires a fluid supply source when doing this. This holds especially true in hydraulic systems, where a vacuum plus the spring tension is generated. The manual release screw mechanism will fail if no source of fluid supply is available.

Brake Shoe Clearance Adjustment for Spring Applied Actuator

On the spring applied caliper, it is very important that the proper clearance is maintained between shoe and disc. On the manual adjust actuator, the clevis pin can be removed and the clevis can be manually rotated to maintain a minimum clearance between disc and shoe. When the new lining is installed it will be necessary to turn the clevis inward to allow for the extra thickness of the new lining. Our automatic adjusting spring applied brake actuator will take up the excess clearance between brake lining and disc during normal use automatically. When new lining is installed, again the clevis pin must be removed from the actuator rod and turned 90°. This will allow the actuator rod to be pushed in completely to allow for the extra lining thickness. Re-install clevis pin after adjustment.

NOTE: Disc brake caliper equipped with spring applied actuator operated with air pressure must have a lubricator in the system and the lubricant must be filled with a light hydraulic oil. This is to prevent premature seal wear and sticking. Over pressure could cause damage to the brake.

MAXIMUM PRESSURE: 100 psi fluid applied
250 psi spring applied