BRAKE CALIPER OVERHAUL INSTRUCTIONS

FI14

Removal:

1) Discharge the brake fluid via the caliper bleed screw by pumping the brake pedal.
2) Disconnect the brake hose from the caliper housing. Plug the exposed end of the hose to prevent ingress of dirt.
3) Detach the caliper from the mounting yoke by removing the two M12 set screws.
4) Remove the pads.
5) Separate the housing from the anchor plate.
6) Pack a clean piece of cloth between the outer end of the piston and housing outboard legs and apply air pressure at the brake hose inlet port to eject the piston.

Caution:

7) Apply light air pressure initially and progressively increase until piston is forced out of the bore. This precaution is advisable to avoid physical injury, as the piston may develop considerable force die to the air pressure.
8) Remove the rubber boot from the bore.
9) The seal can now be removed from the bore but take care not to damage the bore or seal locating groove.
10) Remove the bleeder screw.

Cleaning:

11) Clean all the metal parts thoroughly with methylated spirits. Use clean dry compressed air to dry off the parts.
12) Examine the bore and piston carefully for signs of damage, abrasion, scouring or corrosion.
13) Renew the piston if any of these factors exist or, if there is any doubt on its condition refer to notice overleaf if phenolic pistons are to be used.
14) If the bore is unserviceable new housing must be fitted.

Attention:

If your caliper is fitted with the mechanical park brake lever the two push rod seals should be replaced by first removing the push rod through the caliper bore. Remove both the old "O" Rings and fit new ones lubricated with rubber grease, re-fit the push rod and then proceed as detailed.

Assembly:

15) Lubricate cylinder bore with Castrol / Girlock brake fluid and fit new seal into the groove in the bore, ensuring the seal is not twisted and is fully seated in the groove.
16) Fit the new boot into the outer groove of the bore, ensuring the flange of boot is squarely and firmly seated in the groove.
17) Lubricate the outside diameter of the piston with Castrol / Girlock brake fluid and install into the bore. Spread the boot over the piston as the piston is installed, taking care not to disturb the boot in the groove. Apply steady pressure by hand to the piston and press until the piston is fully seated in the bore. Ensure the outer lip of the boot is in the groove of the piston. Replace bleed screw.
18) Fit new guide pins if required. Lubricate both guide pins with silicone grease, this must be non-mineral oil-based lubricant.
19) Fit new rubber dust covers over guide pins.
20) Assemble caliper body onto anchor plate ensuring boots are correctly located in guide pin grooves and mounting bracket.
21) If necessary, fit new pads then position caliper assembly over axle yoke. Refit set screws and spring washers and torque to 45 ft/lb. using Loctite or similar bonding agent.
22) Reconnect the brake hose with a new copper washer ensuring the hose is not twisted during fitting and tightening.
23) Bleed the system in the recommended manner with Castrol / Girlock brake fluid.
24) After the system has been bled, depress the brake pedal several times to bring the pads into position against the disc. Recheck the fluid in the master cylinder supply tank- top up if necessary.
25) Refit road wheels and road test.

Guide Pin Bush Removal:

In November 1999 brass guide pin bushes were introduced into the MK5 TROJAN hydraulic brake caliper, and of late the MK7 caliper, the method of removal is as detailed:

1) With the caliper removed from the vehicle separate the two sections of the caliper by simply pulling apart by hand.
2) Fill the old brass bush to be removed from the anchor plate with grease.
3) Remove one of the old guide pins from the caliper housing.
4) With the anchor held securely in a suitable vice enter the plain end of the guide pin into the grease and strike the end of the pin with a hammer, this will eject the old bush
5) Ensure the bore of the hole is clear of any obstructions before inserting the new bush.
6) After the new bush has been fitted, this can be easily carried out by driving the bush in using a suitable drift or the old pin, it may become necessary to lightly ream the bore of the bush as it may contract a little during the insertion process.

IMPORTANT NOTICE

FITTING PHENOLIC PISTONS

Phenolic Pistons are a direct replacement for steel pistons fitted to Trojan Hydraulic Calipers. It is advisable to check the bore size of the caliper cylinder to ensure it falls to the required diameters, especially the minimum diameter. If undersized, honing will be required. Under no circumstance is the piston to be sanded or machined down in diameter. When assembling, smear all bore surfaces with rubber grease. Handle Phenolic Pistons with great care as they can easily be damaged. REQUIRED BORE DIAMETER: Minimum 54.15 mm Maximum 54.18 mm

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