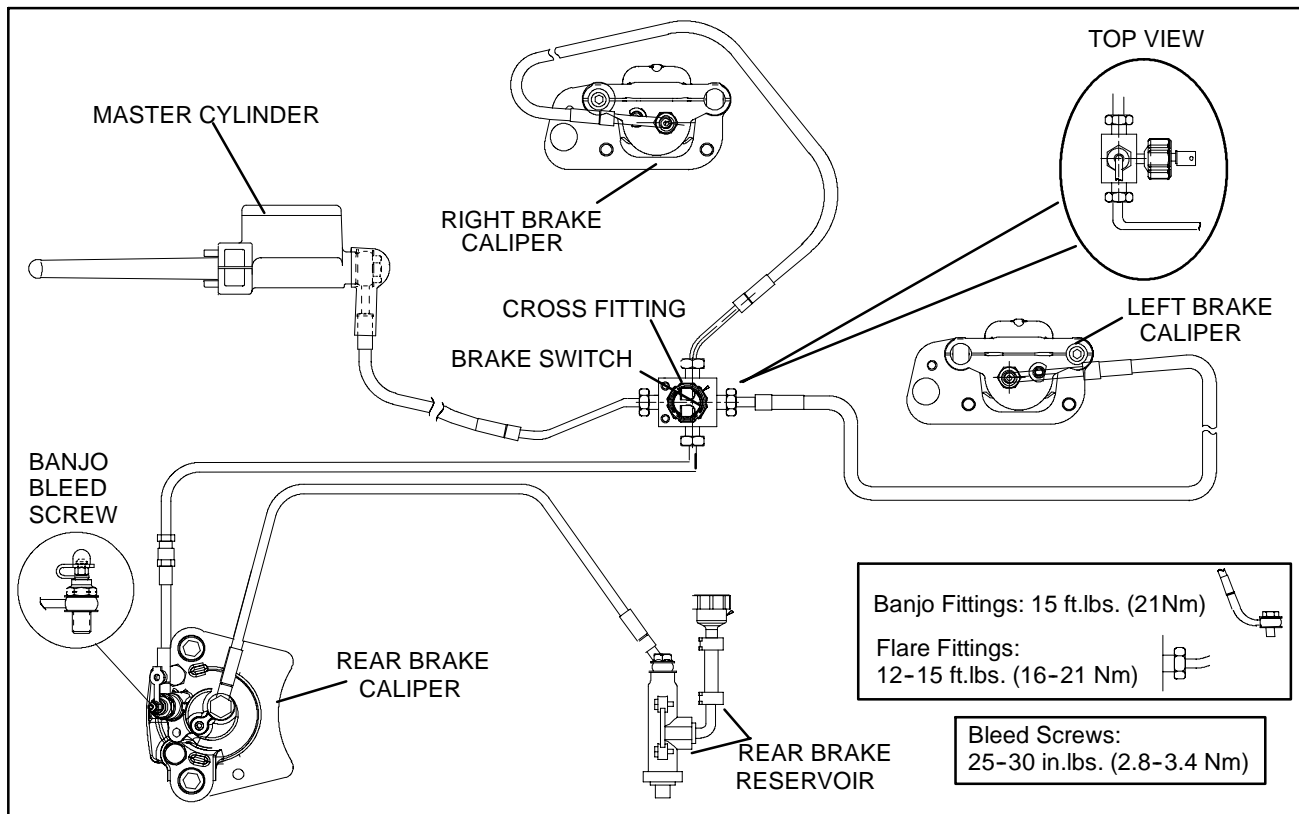




BRAKE SYSTEM MAIN COMPONENTS



BRAKE SYSTEM SERVICE NOTES

Polaris disc brake systems are light weight, low maintenance and perform well in the conditions ATVs routinely encounter. However, there are a few things to remember when replacing disc brake pads or performing brake system service to ensure proper system function and maximum pad service life.

- G Perform a brake burnishing procedure after installing new pads to maximize service life.
- G Optional pads are available to suit conditions in your area. Select a pad to fit riding style and environment.
- G Do not over-fill the master cylinder fluid reservoir.
- G Make sure the brake lever and pedal returns freely and completely.
- G Adjust stop pin on front caliper after pad service.
- G Check and adjust master cylinder reservoir fluid level after pad service.
- G Make sure atmospheric vent on reservoir is unobstructed.

- G Test for brake drag after any brake system service and investigate cause if brake drag is evident.
- G Make sure caliper moves freely on guide pins (where applicable).
- G Inspect caliper piston seals for foreign material that could prevent caliper pistons from returning freely.

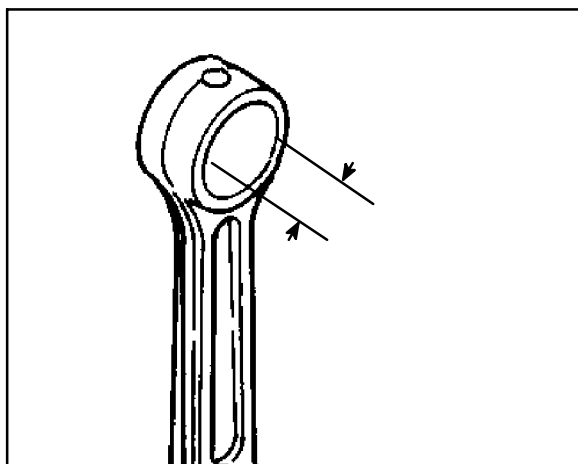
CAUTION:

Use only DOT 4 brake fluid as an assembly aid for all procedures described in this chapter to prevent brake system contamination. DO NOT USE LUBRICANTS OF ANY KIND FOR ASSEMBLY.





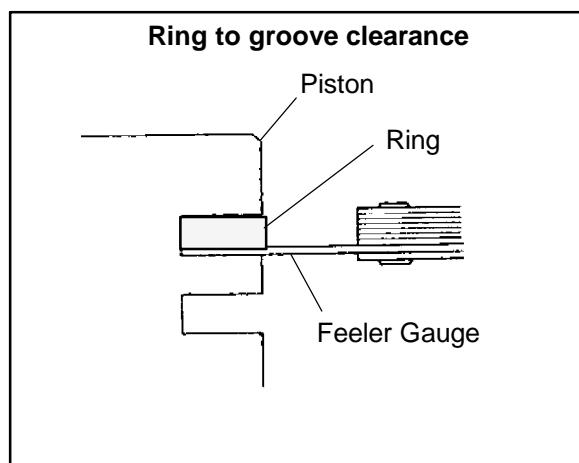
5. Measure connecting rod small end I.D.



Connecting Rod Small End I.D.

.7095-.7101 (18.007-18.023 mm)

6. Measure piston ring to groove clearance by placing the ring in the ring land and measuring with a thickness gauge. Replace piston and rings if ring-to-groove clearance exceeds service limits.

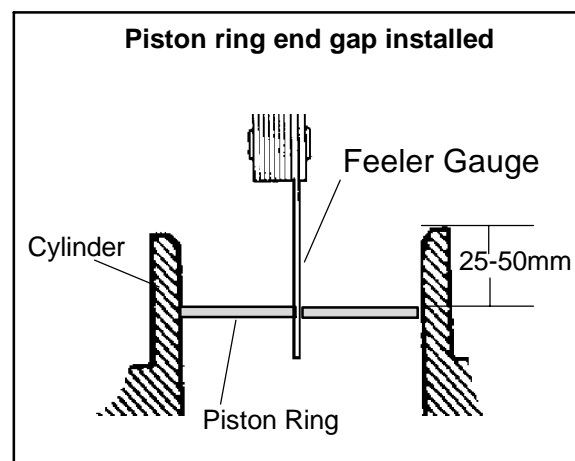


Piston Ring-to-Groove Clearance

**Top Ring Std: .0014-.0030 (.035-.075 mm)
Limit: .0059 (.15 mm)
Second Ring Std: .0010-.0026 (.025-.065 mm)
Limit: .0059 (.15 mm)**

PISTON RING INSTALLED GAP

1. Place each piston ring inside cylinder using piston to push ring squarely into place as shown.



2. Measure installed gap with a feeler gauge at both the top and bottom of the cylinder.
NOTE: A difference in end gap indicates cylinder taper. The cylinder should be measured for excessive taper and out of round.
3. If the *bottom* installed gap measurement exceeds the service limit, replace the rings.

NOTE: Always check piston ring installed gap after re-boring a cylinder or when installing new rings. A re-bored cylinder should always be scrubbed thoroughly with hot soapy water, rinsed, and dried completely. Wipe cylinder bore with an oil rag immediately to remove residue and prevent rust.

Piston Ring Installed Gap

**Top Ring
Std: .0079-.0118 (.20-.36 mm)
Limit: .039 (1.0 mm)
Second Ring
Std: .0138-.0197 (.35-.50 mm)
Limit: .039 (1.0 mm)
Oil Ring
Std: .0079-.0236 (.20-.70 mm)
Limit: .059 (1.5 mm)**

CRANKCASE DISASSEMBLY

NOTE: The recoil starter, starter motor, starter drive, flywheel, stator, cam chain and sprockets can be serviced with the engine in the frame.