1966-73 TRIUMPH-LOCKHEED

2000 Sedan (1966-67)
Stag (1971-73)

DESCRIPTION

Model 2000 – Lockheed hydraulic brakes are used. A power servo (booster) is used to assist brake pedal application and to operate the single piston master cylinder. Vehicle is equipped with front discs and rear drum brakes.

Stag V-8 – Lockheed hydraulic brakes are used. A power servo (booster) is used to assist brake pedal application to operate the tandem piston master cylinder. Vehicle is equipped with front discs and rear drum brakes which are self-adjusting. Front and rear brake circuits are separate hydraulic systems. If failure occurs in either system, a brake warning light glows in instrument panel. To detect brake failures, a pressure differential valve is used between each system with an electrical switch which completes a circuit to warning light during brake failure.

ADJUSTMENT

DISC BRAKES

No adjustment required.

DRUM BRAKES

Rear brakes are self-adjusting and maintain a constant shoe-to-drum operating clearance.

PARKING BRAKE

Parking brake cable adjustment is normally taken care of by self-adjusting action of rear brakes. Should adjustment be required, release parking brake and disconnect cable at rear brake back plate. Adjust cable ends so the clevis pins connecting cable to brake operating levers on back plate can be inserted without difficulty while slack in cable is lightly drawn by hand.

BLEEDING SYSTEM

Without Pressure Bleeder (Model 2000) – 1) Check master cylinder fluid level and keep full while bleeding. Clean bleeder valves and connect a hose to valve nearest master cylinder. Place free end of hose in a glass jar partially filled with clean brake fluid.

2) Have an assistant slowly depress brake pedal, open bleed valve, then tighten valve when pedal is fully down and release pedal. Repeat procedure until expelled fluid is free of air bubbles. Continue to next brake working progressively away from master cylinder.

3) Adjust rear brakes and check system for leaks with high pedal pressure applied to system.

With Pressure Bleeder (Model 2000) – 1) Connect pressure bleeder to fluid reservoir. Connect a hose to any wheel cylinder bleed valve and place free end in jar with brake fluid.

2) Open bleed valve allowing fluid to flow until expelled fluid is free of bubbles. Repeat procedure for each brake.

3) Adjust rear brakes and check system for leaks with high pedal pressure applied to system.

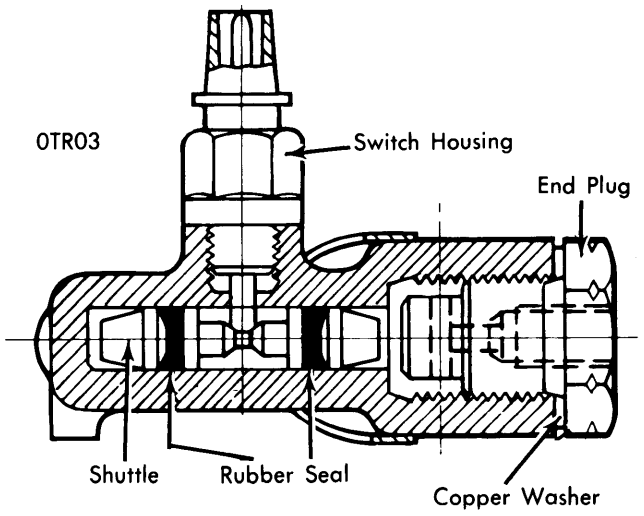
Stag – 1) Keep reservoir full while bleeding system. Connect a hose to bleed valve farthest from master cylinder and place free end in a jar with brake fluid.

2) Loosen bleed valve and have an assistant depress brake pedal using light pedal pressure. *NOTE – Do not use full pedal stroke, or pressure differential valve shuttle will move off center.* Retract pedal slowly and repeat procedure until expelled fluid is free of air bubbles. On last pedal stroke, tighten valve, then release pedal.

3) For front brakes, bleed caliper farthest from master cylinder first. When bleeding is complete, check system for leads and pressure differential valve for centering. With ignition switch on, engine off, brake warning light will glow if valve shuttle is off center. *See Centering Pressure Differential Valve.*

CENTERING PRESSURE DIFFERENTIAL VALVE (SHUTTLE)

Stag – Connect a rubber hose to bleeder valve on brake circuit (front or rear) opposite to circuit bled last. With hose in partially filled jar, open bleed valve, turn on ignition switch, but do not start engine. Brake warning light will glow. Apply steady pressure on pedal until brake light dims. A click should be felt on pedal as shuttle returns to its mid-position. Tighten bleed screw and check brake system operation. *NOTE – If pedal is applied too hard during centering adjustment, shuttle will move to opposite side of valve and procedure must be repeated.*



PRESSURE DIFFERENTIAL VALVE

REMOVAL & INSTALLATION

LINING REPLACEMENT (DISC BRAKES)

Removal – Raise vehicle and remove front wheels. Remove cotter pins, pad retaining springs and lift out pads with shims from caliper.

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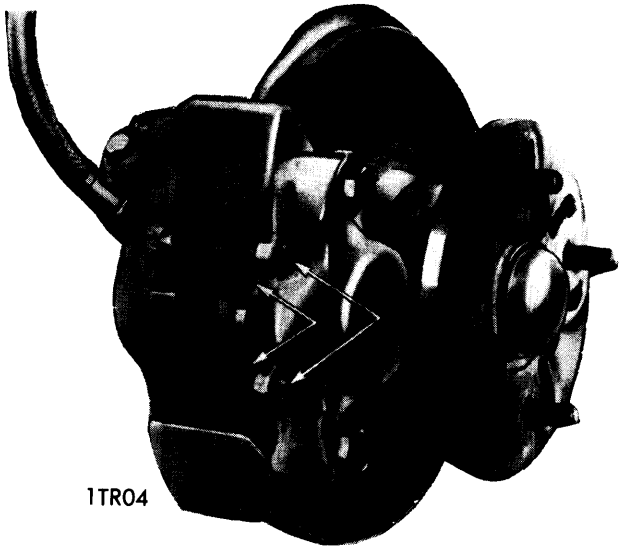
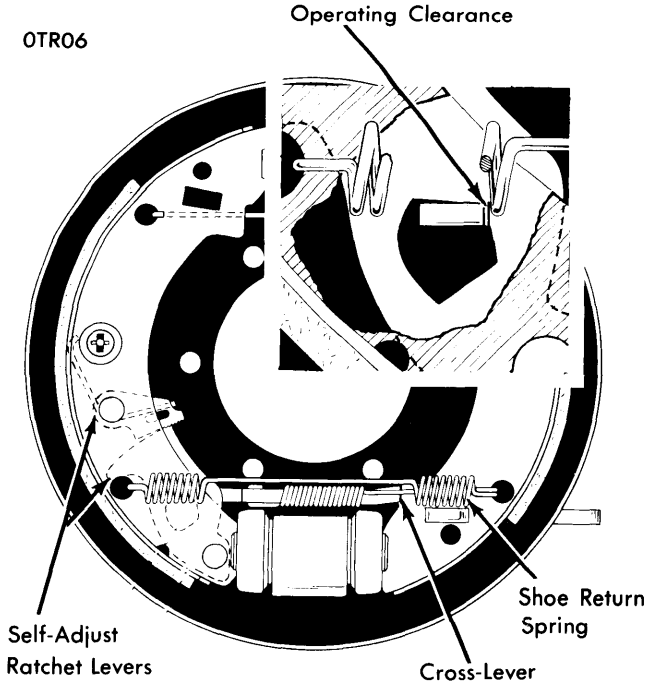
Installation – Carefully lever pistons back into caliper cylinders. *NOTE – To prevent overflowing reservoir fluid, syphon off excess fluid before pushing back pistons.* Replace all front pads as a set. Install new pads, place spring retainers with long tabs to center and install new cotter pins.



1 – Cotter Pin 2 – Pad Retaining Springs

DISC BRAKE ASSEMBLY (TYPICAL)



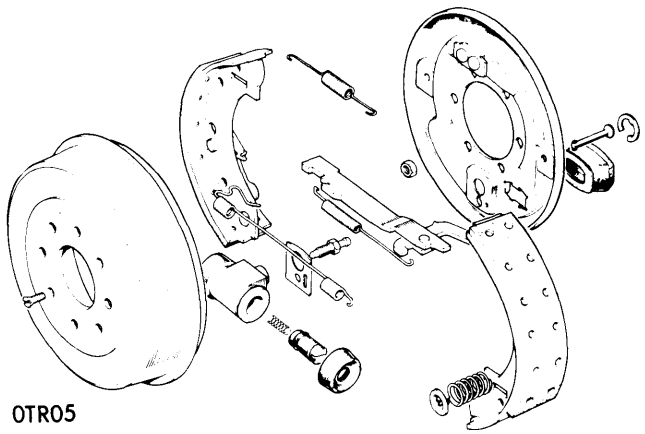
BRAKE SHOE SELF-ADJUST LEVERS

LINING REPLACEMENT (DRUM BRAKES)

Removal & Installation – 1) Release hand brake, raise vehicle and remove wheels. Remove countersunk screw securing brake drum and remove drum. It may be necessary to release shoe adjusters before removing drums, if a ridge is worn inside drum.

2) Remove shoe pins, cups and springs. Pull toe of leading shoe and heel of trailing shoe clear of wheel cylinder and unhook return springs and shoes.

3) To install, reverse removal procedure and note following: Do not lubricate teeth on shoe adjuster plates. Install upper return spring from inside of shoes. Check self-adjusting system if equipped.



DRUM BRAKE COMPONENTS (STAG)

BRAKE CALIPER

Removal & Installation – Raise vehicle and remove front wheels. Disconnect flex hose from brake line, remove pads and two bolts securing caliper. Install in reverse order and bleed brakes.

BRAKE ROTOR (DISC)

Removal & Installation – Remove front wheel and caliper as previously outlined, except brake line may remain connected if caliper is supported after removing from mount. Pry off hub cap, remove cotter pin, slotted nut and washer. Remove hub with rotor and separate each unit. Remove hub grease seal and discard, install a new seal. To install rotor, reverse removal procedure and torque bolts securing rotor to hub to specification.

DRUM BRAKE (WHEEL CYLINDER)

Removal & Installation – Remove brake shoes as previously outlined. Disconnect fluid line from wheel cylinder and remove bleed valve. Disconnect spring clip at rear of backing plate from wheel cylinder and remove cylinder and gasket. To install, reverse removal procedures.

MASTER CYLINDER

Removal & Installation – Release vacuum from servo unit. Open any wheel cylinder bleed valve and pump fluid from system. Disconnect brake lines from master cylinder, remove bolts and master cylinder from servo unit. To install, reverse removal procedure.

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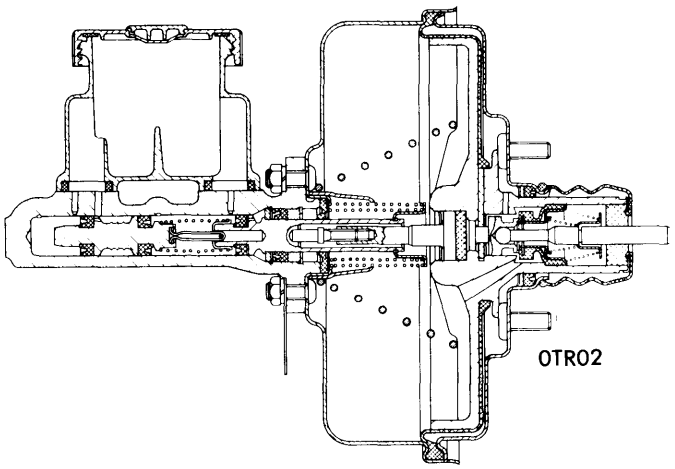
SERVO UNIT

Removal & Installation – Drain master cylinder fluid, remove fluid lines, and vacuum hose. Remove clevis pin from brake pedal and nuts securing servo to bracket. To install, reverse removal procedure and bleed brakes.



TANDEM MASTER CYLINDER & SERVO (STAG)

PRESSURE DIFFERENTIAL VALVE

Removal & Installation – Disconnect electrical connection on valve. Disconnect two outlet and inlet lines on valve and remove bolt with valve. To install, reverse removal procedure, bleed brakes and check brake system operation.

OVERHAUL

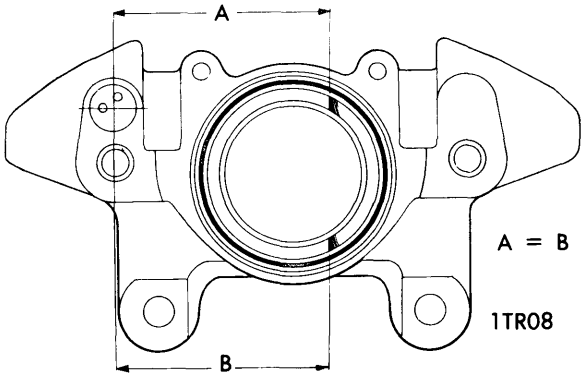
BRAKE CALIPER

NOTE – Do not separate caliper halves unless seal is leaking fluid.

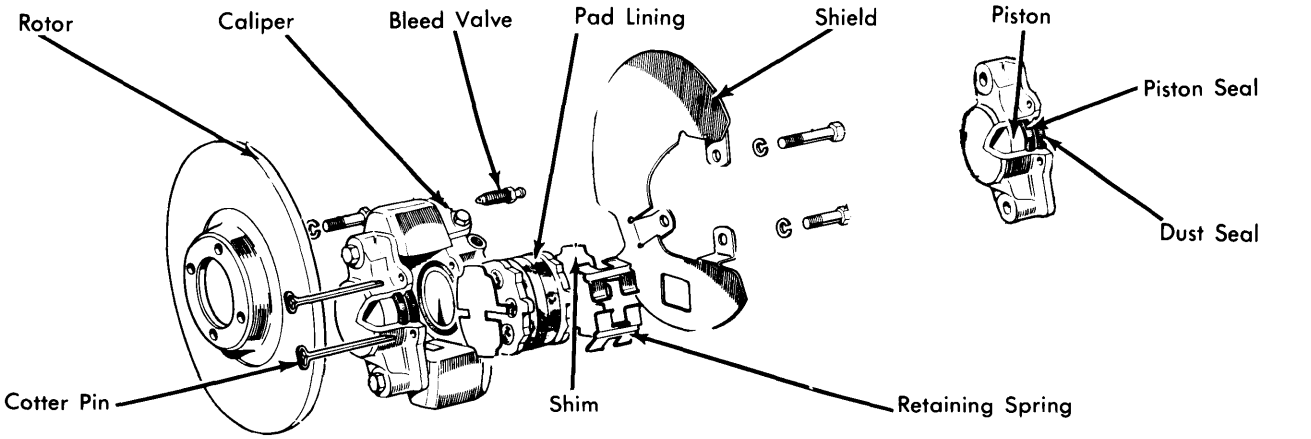
Disassembly – Remove caliper as previously outlined, but do not disconnect brake line, tie up caliper or support to prevent stress on line. Remove pad lining and do not interchange pads if reinstalling same pads. Secure one piston with a suitable "C" clamp and lightly press brake pedal to remove unclamped piston. Pry out seal retainer and piston to cylinder seal.

Cleaning & Inspection – Clean parts in ethyl alcohol or clean brake fluid. Inspect for damaged seal grooves, pitted or scored piston or bore. If parts are worn, replace caliper as an assembly.

Installation – Coat seals, pistons and cylinders with brake fluid when assembling. Install piston to bore seal and piston. *NOTE – See illustration for correct piston relief alignment.* Press piston into cylinder until 5/8" (8 mm) projects. Coat outer seal with Lockheed lubricant and install in seal retainer, then carefully slide seal and retainer over piston into position in caliper. Remove clamp from caliper and insert a suitable seal driver over seal. Reinstall "C" clamp over seal driver and press in seal. Remove seal driver and reinstall "C" clamp on same piston. Repeat procedure for opposite piston. To reinstall caliper, reverse removal procedure and bleed brakes.



PISTON RELIEF ALIGNMENT



DISC BRAKE COMPONENTS (TYPICAL)

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DRUM BRAKE (WHEEL CYLINDER)

Disassembly – Remove brake shoes and wheel cylinder as previously outlined. Remove rubber boot from cylinder body, pistons and seals.

Cleaning & Inspection – Clean parts in alcohol and examine for damage or wear. Install a new cylinder assembly if pistons or cylinder show excessive wear or deterioration.

Reassembly – Install piston seal with lip facing away from piston end slot. Install new rubber boot on piston. Apply clean brake fluid to piston and insert in cylinder. Secure boot over cylinder groove. To reinstall cylinder, reverse removal procedures.

MASTER CYLINDER (MODEL 2000)

Disassembly – Remove master cylinder as previously outlined. Depress master cylinder piston to relieve spring pressure on snap ring and remove snap ring. Remove piston stop, piston, main cup, spring, retaininer and check valve assembly. Remove secondary cup by stretching it over end of piston.

Cleaning & Inspection – Wash parts in alcohol or brake fluid and examine for deterioration. Replace all worn components.

Reassembly – Reverse disassembly procedure and carefully install cups without buckling or turning back seal lips. To reinstall, reverse removal proecedure.

PRESSURE DIFFERENTIAL VALVE

Disassembly – Remove valve as previously outlined. Remove switch unit and end plug from valve body. Tap out valve shuttle or use compressed air.

Cleaning & Inspection – Do not immerse switch in cleaning fluid. Clean parts in suitable cleaner and inspect for deterioration. Replace entire valve assembly if bore or shuttle shows signs of deterioration.

Reassembly – Lubricate bore, shuttle and new seals with brake fluid. Install seals on shuttle with seal lips facing away from shuttle center. Insert shuttle into cylinder and install a new copper washer on end plug. Install switch housing, torque end plug and switch housing to specifications. To reinstall, reverse removal procedures.

BRAKE SPECIFICATIONS

Application	Specification
Rotor	
Diameter	
2000	9.75" (247.7 mm)
Stag	10.625" (270 mm)
Min. Thickness	
2000	.314" (7.98 mm)
Runout	
Installed	①.006" (.152 mm)
Removed	.002" (.05 mm)
Min. Pad Lining Thickness	.125" (3 mm)
Drum Size	
2000	9x1.75" (228.6x44.5 mm)
Stag	9x2.25" (228x57 mm)
Wheel Cylinder Piston Dia.	
Stag	.6875" (17.46 mm)
Brake Fluid Type	②

① – Measured .5" (12.7 mm) from outside periphery.

② – Lockheed Super Heavy Duty or fluids which meet S.A.E. J.1703 specifications.

TIGHTENING SPECIFICATIONS

Application	Ft. Lbs. (mkg)
Rotor-to-Hub	28 (3.8)
Caliper-to-Vehicle Mount	57 (7.8)
Caliper Halves (Securing Bolts)	28 (3.8)
Pressure Differential Valve	
End Plug	17 (2.3)
Switch Housing	2 (0.2)
Master Cylinder-to-Servo	
2000	11 (1.5)
Drum Brake Adjuster Securing Bolt	6 (0.8)