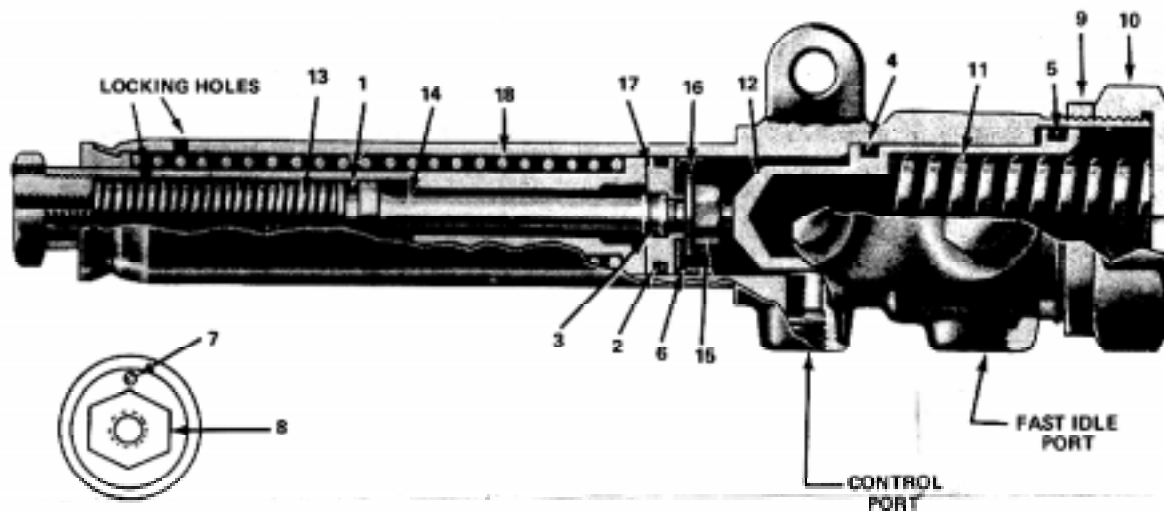




Installation Instructions

KIT
PC. No. 101806

FIELD MAINTENANCE KIT FOR CC-2 AIR THROTTLE CYLINDER



Key No.	Quan.	Description
1	1	Felt Oil Seal (33/64" O.D.)
2	1	Felt Oil Seal (1" O.D.)
3	1	O-Ring (.379" O.D.)
4	1	O-Ring (1.250" O.D.)
5	1	O-Ring (1.593" O.D.)
6	1	Cup Seal
1	1	Lubricant

Figure 1 This kit consists of the parts listed above.

IMPORTANT! PLEASE READ AND FOLLOW THESE INSTRUCTIONS TO AVOID PERSONAL INJURY OR DEATH:

When working on or around a vehicle, the following general precautions should be observed at all times.

1. Park the vehicle on a level surface, apply the parking brakes, and always block the wheels.
2. Stop the engine when working around the vehicle.
3. If the vehicle is equipped with air brakes, make certain to drain the air pressure from all reservoirs before beginning ANY work on the vehicle.
4. Following the vehicle manufacturer's recommended procedures, deactivate the electrical system in manner that removes all electrical power from the vehicle.
5. When working in the engine compartment the engine should be shut off. Where circumstances require that the engine be in operation, **EXTREME CAUTION** should be used to prevent personal injury resulting from contact with moving, rotating, leaking, heated, or electrically charged components.

6. Never connect or disconnect a hose or line containing pressure; it may whip. Never remove a component or plug unless you are certain all system pressure has been depleted.
7. Never exceed recommended pressures and always wear safety glasses.
8. Do not attempt to install, remove, disassemble or assemble a component until you have read and thoroughly understand the recommended procedures. Use only the proper tools and observe all precautions pertaining to use of those tools.
9. Use only genuine Bendix replacement parts, components, and kits. Replacement hardware, tubing, hose, fittings, etc. should be of equivalent size, type, and strength as original equipment and be designed specifically for such applications and systems.
10. Components with stripped threads or damaged parts should be replaced rather than repaired. Repairs requiring machining or welding should not be attempted unless specifically approved and stated by the vehicle or component manufacturer.
11. Prior to returning the vehicle to service, make certain all components and systems are restored to their proper operating condition.

DISASSEMBLY

1. Loosen lock nut (9) and remove cap nut (10).
2. Remove the fast idle spring (11) and fast idle piston (12). Remove O-rings (4) and (5) from fast idle piston.
3. The push tube assembly should now be completely retracted. Rotate the push tube assembly until the locking holes line up and insert a drift punch through the locking holes. Remove the set screw (7) and remove the push tube adapter (8).
4. Remove the take-up spring (13).
5. Remove the push tube assembly and graduating spring (18) through the rear of the throttle cylinder.
6. Disassemble the push tube assembly by restraining the piston rod (14) with a screwdriver and remove the hex nut (15), washer (16), cup seal (6) and piston (17). Remove O-ring (3) and felt oiler (1) from piston rod and felt oiler (2) from piston.

CLEANING AND INSPECTION

Wash all metal parts with mineral spirits. Inspect all parts and replace any parts not included in the kit showing signs of wear or damage.

ASSEMBLY

Lubricate all O-rings, felts, bores or sliding parts with the silicone lubricant BW-650-M, included in the kit.

1. Assemble the small felt oiler (1) and O-ring (3) on the piston rod (14).
2. Assemble the O-ring (2) on the piston (17).
3. Slide the piston rods into the push tube, assemble the piston (17), cup seal (6), washer (16) and nut (15) and torque the hex nut to 30-40 inch pounds.
4. Assemble the graduating spring (18) and push tube assembly into the throttle cylinder from the rear, insert the take-up spring (13) and thread the push tube adapter (8) into the push tube.
5. Restrain the push tube with a drift punch by means of the locking holes, torque the push tube adapter to 100-200 inch pounds and tighten the set screw (7).
6. Assemble the O-rings (4) and (5) on the fast idle piston (12) and insert the fast idle piston into the throttle cylinder.
7. Insert the fast idle spring (11), assemble the cylinder cap nut (10) to the body, torque to 150-400 inch pounds and tighten the lock nut (9).

TESTING FOR SERVICEABILITY

OPERATING TEST

With throttle valve in fully released position, and starting with no air pressure in the reservoir as registered by the dash gauge, slowly build up air pressure and note that push tube is partially extended (9/32") until air pressure is about 30 psi. At about that pressure note that push tube retracts so that push tube adapter shoulders on cylinder bushing. With normal air pressure in the system apply the throttle valve to various positions to see that the throttle cylinder responds quickly and proportionately. (Nominal working stroke of throttle cylinder is 1-7/8").

LEAKAGE TEST

With 100 psi air pressure at fast idle port and with throttle valve in released position, leakage at the vent hole in the cylinder cap and at the control port should not exceed a 1" bubble in one second. This procedure tests the sealing ability of the two O-rings on the fast idle piston.

With 100 psi air pressure at the control port, leakage past the throttle piston should not exceed a one inch soap bubble in one second. This procedure tests the seal of the throttle piston packing cup and the O-ring on the piston rod.