

PARKER HANNIFIN CORPORATION
AIRCRAFT WHEEL & BRAKE
AVON, OHIO

PARTS LIST

199-526 SEAL REPAIR KIT FOR
60-3A, 60-3C PARKING VALVES

<u>PART NO.</u>	<u>DESCRIPTION</u>	<u>QUANTITY</u>
101-00100	O-Ring	2
101-00300	O-Ring, MS28775-008	1
101-00500	O-Ring, MS28775-010	1
101-00600	O-Ring, MS28775-011	1
CM60-3A	Overhaul Instructions for 60-3A, 60-3C Parking Valves	1

NOTES:

1. Elastomeric cure date required per ESP3620

199-526
Rev. NC 03-02-84
Rev. A 05-15-00 (0339-45)
Rev. B 12-09-2003 (0358-40)

OVERHAUL INSTRUCTIONS FOR PARKING VALVES

PARKING VALVE APPLICABILITY:

P/N's: 60-3A, 60-3C

INTRODUCTION:

Refer to IPL, Figure 1 for component identification. A prepackaged kit (199-526) contains the O-rings required for unit overhaul of the above noted parking valves. For units that have unserviceable wear on the camshaft assembly (3), or valve (10), replacement of the complete assembly is recommended in lieu of overhaul.

SPECIAL TOOLS: Lists tools not normally in a Mechanics / Technician's toolbox.

- O-Ring extracting tool – 199-18 Extraction Tool Set, Parker Hannifin Corp., Aircraft Wheel & Brake

DISASSEMBLY:

Remove unit from aircraft. Firmly clamp the parking valve assembly between soft, smooth vise jaws. Rotate camshaft assembly (3) to the open position. Remove the two [2] fittings (12) from the end of the housing (1). Turn the valve body (1) on end to let the spring (11) and valve (10) slide out. Remove and discard valve O-Ring (9).

CAUTION: Spring (7) is under installed load.

Slowly loosen and remove nut (8), washers (5), spring (7), and bushing (6).

CAUTION: Take care to prevent damage to valve body camshaft bore during removal of camshaft assembly (3). Gently rotate and pull the camshaft assembly (3) out of the valve body (1). Remove and discard O-rings (4), (4A), and (4B).

CLEANING:

Clean all metal parts with Mineral Spirits or equivalent commercially available solvents. Blow low pressure, clean shop air thru all internal passages and ports to ensure they are free of foreign material.

INSPECTION:

Visually inspect all components for wear, scoring, cracks, chips, nicks, burrs, pitting, corrosion, flaws, stripped or scored threads and other obvious signs of damage. Check camshaft assembly (3) for wear due to the cam pushing against the valve and spring. If the depth of either wear indent exceeds 0.002", replace the camshaft assembly. Measure spring (7) for a minimum free length of .490". Measure spring (11) for a minimum free length of .240".

REPAIR: Repair is limited to those components listed in INSPECTION.

Replace or repair all parts that do not meet requirements. Replace all O-rings. Small scratches may be burnished out with #600 grit or finer, wet or dry aluminum oxide paper. Treat repaired areas of the aluminum valve body with alodine 1200 or equivalent per MIL-C-5541, Class 1A.

REASSEMBLY:

Prior to assembly, coat all O-rings (4), (4A), (4B), and (9) with Dow Corning 55-O-ring Compound to facilitate installation and sealing (not furnished in kit). Apply a coating of hydraulic brake fluid (MIL-H-5606) to bore of cylinder housing. Reassemble in the reverse of disassembly.

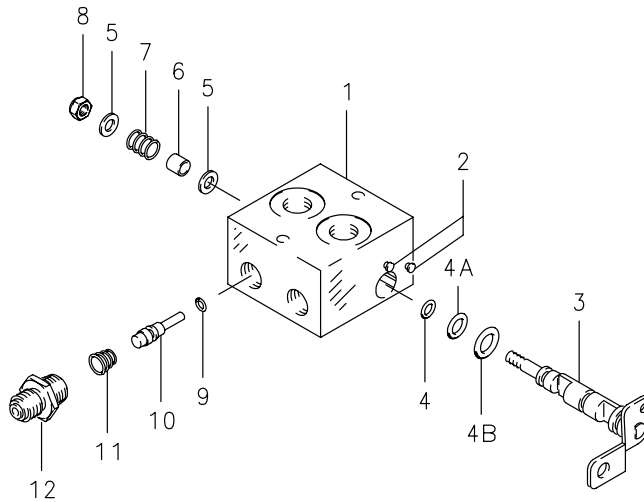
TEST PROCEDURE: Failure of the unit to perform any one of the following tests is cause for rejection.

After assembly, support the unit in an appropriate test fixture. Attach appropriate plumbing, fittings and a pressure gage to the outlet port of the assembly. Service with hydraulic fluid and bleed all air from the assembly.

See Figure 2. Move cam lever to closed position. Apply 40 ±10 psi. After 30 seconds applied pressure – there shall be no leakage from inlet port or at gauge. Apply proof pressure of 800 psi for 30 seconds – there shall be no leakage from inlet port or at gauge. Apply 40 ±10 psi and activate cam lever to open valve and release pressure. – Pressure should release within the 42° limit of lever travel. Cap inlet port and cycle cam lever to open position. Apply 40 ±10 psi and hold for 30 seconds – there shall be no leakage from opposite inlet port or at the shaft.

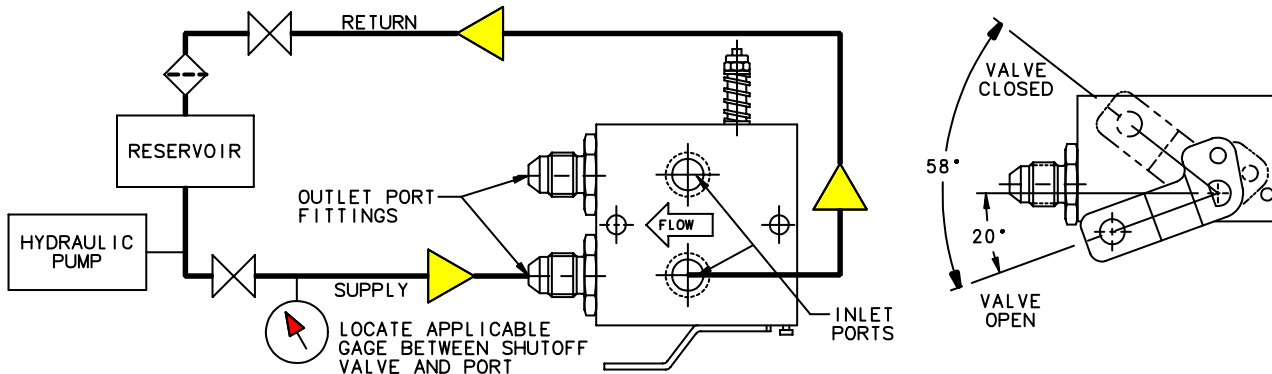
Remove pressure line and gauge and install to other outlet port and repeat test procedure.

If the parking valve fails to hold pressure or leakage is seen, disassemble and check o-rings for cuts ,scratches, abrasions, dirt or contamination around the o-rings.



Parking Valve Assembly
IPL Figure 1

Item #	Part Number	Description	Qty. Per Assembly	Qty. For 199-526
1	195-00400	Body, Valve	1	--
2	177-00200	Pin	2	--
3	181-00301	Camshaft Assembly	1	--
4	101-00300	O-Ring, Camshaft (MS28775-008)	1	1
4A	101-00500	O-Ring, Camshaft (MS28775-010)	1	1
4B	101-00600	O-Ring, Camshaft (MS28775-011)	1	1
5	095-10300	Washer (AN960-10)	2	--
6	145-00700	Bushing	1	--
7	082-01000	Spring	1	--
8	094-10200	Nut (AN364-1032)	1	--
9	101-00100	O-Ring, Valve	2	2
10	146-00200	Valve	2	--
11	082-04400	Spring	2	--
12	104-00800	Fitting, Tube (AN816-3D) (60-3C)	2	--
	104-00300	Fitting, Tube (AN816-4D) (60-3A)	2	--
	CM60-3A	O/H Instructions for P/N's: 60-3A, 60-3C	--	1



Test Setup
Figure 2