



**Bulletin HY14-2719-M1/US
Service and Parts Bulletin**

**Models
LO, LOA and
DX, DXV**

Effective: August 1, 2002
Supersedes: Cat. No. GSA-03 dated 3/97



**Lock Valve - LO, LOA
Cushion Valve - DX, DXV**

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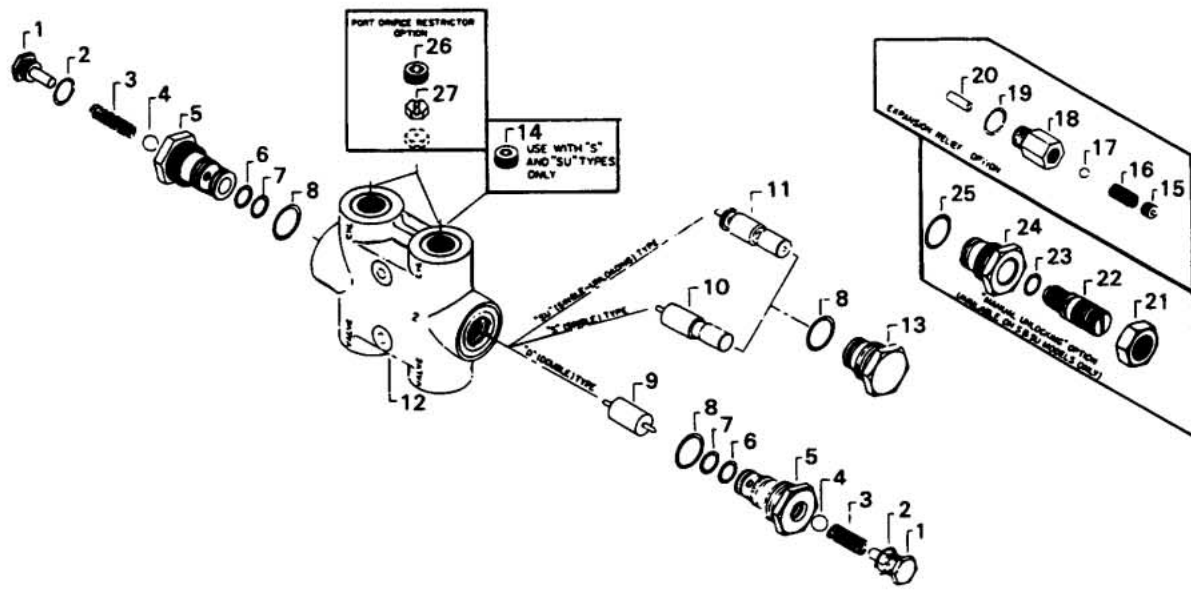
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“LO” Lock Valve

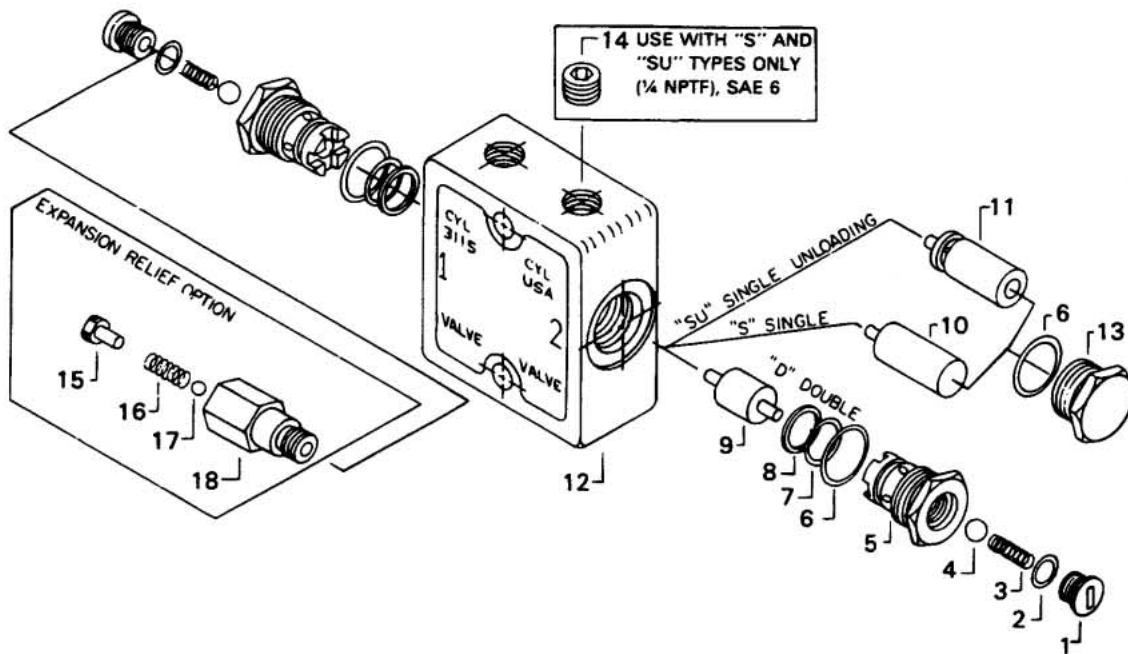


“LO” Lock Valve Parts Listing

Item	Part No.	Description	Quantity Required	Item	Part No.	Description	Quantity Required
1	216-001	Cap. Check Plug	2	“MANUAL UNLOCKING” OPTION (AVAILABLE ON “S” AND “SU” MODELS ONLY)			
2	406072	O-Ring Seal	2	21	973-001	Jam Nut	1
3	1571-001	Check Spring	2	22	925-001	Unlocking Screw	1
4	401068	Check Spring	2	23	401270	O-Ring Seal	1
5	11466-001	Check Body	2	24	220-001	Unloading Body	1
6	1818-001	O-Ring Seal	2	25	2707-001	O-Ring Seal	1
7	01820001	Backup Washer	2	PORT ORIFICE RESTRICTOR OPTION			
8	2707-001	O-Ring Seal	2	26	2900-001	Orifice Plate Stop Screw* (1/2" NPT)	1
9	211-002	Piston – Double (D)	1	27	3738 3739	Orifice Plate (SAE 10)* Orifice Plate (1/2" NPT)*	1 1
10	212-002	Piston – Single	1	SERVICE KITS			
11	213-002	Piston – Single Unloading (SU)	1	K-27001-A	Rebuilding Kit “S” Contains Items 1,2,3,4,6,7,8,10,13,14		
12	210-xxx	Body	1	K-27002-A	Rebuilding Kit “D” Contains Items 1,2,3,4,6,7,8,9,13,14		
13	214-001	Plug, Solid (Used with “S” & “SU” Only)	1	K-27003-A	Rebuilding Kit “SU” Contains Items 1,2,3,4,6,7,8,11,13,14		
14	947-001	Plug, Cylinder Port 1/2" NPT	1	K-27004	Seal Kit Contains items 2,6,7,8		
	1458-001	Plug, Cylinder Port SAE 10	1				
OPTIONS AVAILABLE EXPANSION RELIEF OPTION REPLACES 216-001 CAP							
15	10879001	Relief Adjusting Screw	1				
16	527-001	Relief Spring	1				
17	502068	Relief Ball	1				
18	11486001	Relief Body	1				
19	406072	O-Ring Seal	1				
20	219-001	Ball Stop	1				

*Customer must specify hole size for orifice plate.

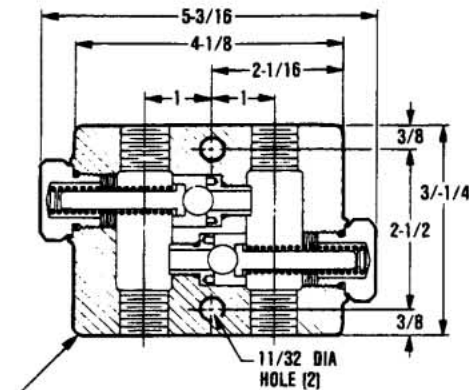
“LOA” Lock Valve



“LOA” Lock Valve Parts Listing

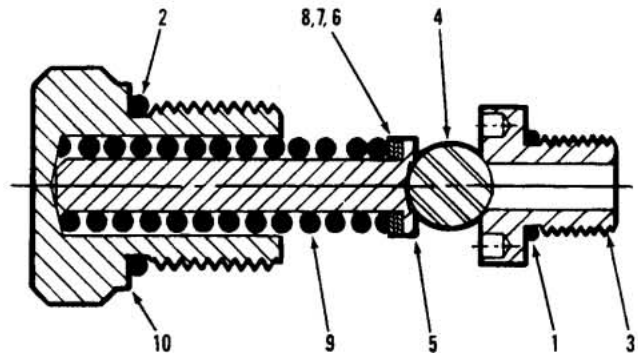
Item	Part No.	Description	Quantity Required	Item	Part No.	Description	Quantity Required
1	3112-001	Check Body Cap	2	OPTIONS AVAILABLE			
2	3119-001	O-Ring Seal	2	EXPANSION RELIEF OPTION REPLACES 216-001 CAP			
3	3068-001	Check Spring	2	15	0218-001	Relief Adjusting Screw	1
4	401066	Check Ball	2	16	0527-001	Spring	1
5	11492-001	Check Body	2	17	1723-001	3/16" Steel Ball	1
6	2706-001	O-Ring Seal	2	18	3219-001	Relief Body	1
7	1091-001	O-Ring Seal	2	SERVICE KITS			
8	407480	Backup Washer	2	K-26001-A	Rebuilding Kit "S"		
9	3116-001	Piston, Double ("D")	1		Contains Items 1,2,3,4,5,6,7,8,10,13		
10	3118-001	Piston, Single ("S")	1	K-26002	Rebuilding Kit "D"		
11	3117-001	Piston, Single Unloading	1		Contains Items 1,2,3,4,5,6,7,8,9		
12	3115-xxx	Body	1	K-27004	Seal Kit		
13	3684-001	Plug (Used with "S" & "SU" Only)	1		Contains items 2,6,7,8		
14	400928	Plug 1/4 NPT	1	} with "S" & "SU" models only			
	361928	Plug SAE 6 w/O-Ring	1				

“DXF” Cushion Valve



VALVE HOUSING
Part No. 7594
Available with these port sizes.

NO.	PORT SIZES [ALL 4 PORTS]
DXV-8	SAE 8(3/4"–16UNF)
DXV-10	SAE 10(7/8"–14UNF)
DXV-12	SAE 12(1-1/16"–12UNF)
DXV-38	3/8"–18NPT
DXV-50	1/2"–14NPT
DXV-75	3/4"–14 NPT



“DXV” Cushion Valve

Item	Part No.	Description	Quantity Required	Item	Part No.	Description	Quantity Required
	K20008	SEAL KIT (Contains items 1 and 2)		9	0454001	SPRING (50-400 PSI, with 0452-001 Seat)	2
1	0449001	SEAL, O-Ring	} Not Sold Separately Order K-20008		3443001	SPRING (401-750 PSI, with 0452-001 Seat)	2
2	0455001	SEAL, O-Ring		2		3458001	SPRING (751-900 PSI, with 0452-001 Seat)
3	0452001	SEAT, Ball (50-1300 PSI Crack)	2		3459001	SPRING (901-1300 PSI, with 0452-001 Seat)	2
	0461001	SEAT, Ball (1301-2000 PSI Crack)	2		3460001	SPRING (1301-1450 PSI, with 0452-001 Seat)	2
	0463001	SEAT, Ball (2001-3500 PSI Crack)	2		3459001	SPRING (1451-1800 PSI Crack, with 0461-001 Seat)	2
4	401068	BALL, Steel (50-2000 PSI Crack)	2		3460001	SPRING (1801-2000 PSI Crack, with 0461-001 Seat)	2
	0155001	BALL, Steel (2001-3500 PSI Crack)	2		3459001	SPRING (2001-3000 PSI Crack, with 0463-001 Seat)	2
5	0453001	GUIDE, Spring (50-2000 PSI Crack)	2		346001	SPRING (3001-3500 PSI Crack, with 0463-001 Seat)	2
	0464001	GUIDE, Spring (2001-3500 PSI Crack)	2	10	0451001	CAP, Relief	2
6	0458001	SHIM (.040 nominal)	A/R				
7	0459001	SHIM (.020 nominal)	A/R				
8	0462001	SHIM (.010 nominal)	A/R				

Kits For “DXV” Cushion Valve

Spring Range	Spring Part #	Qty.	Ball Part #	Qty.	Seat Part #	Qty.	Guide Part #	Qty.	Kit Number
50-400	0454001	2	0401068	2	0452001	2	0453001	2	00711963
401-750	3443001	2	0401068	2	0452001	2	0453001	2	00711964
751-900	3458001	2	0401068	2	0452001	2	0453001	2	00711965
901-1300	3459001	2	0401068	2	0452001	2	0453001	2	00711966
1301-1450	3460001	2	0401068	2	0452001	2	0453001	2	00711967
1451-1800	3459001	2	0401068	2	0461001	2	0453001	2	00711968
1801-2000	3460001	2	0401068	2	0461001	2	0453001	2	00711969
2001-3000	3459001	2	0155001	2	0461001	2	0464001	2	00711970
3001-3500	3460001	2	0155001	2	0461001	2	0464001	2	00711971

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2. Payment: Payment shall be made by Buyer net 30 days from the date of delivery of the items purchased hereunder. Amounts not timely paid shall bear interest at the maximum rate permitted by law for each month or portion thereof that the Buyer is late in making payment. Any claims by Buyer for omissions or shortages in a shipment shall be waived unless Seller receives notice thereof within 30 days after Buyer's receipt of the shipment.

3. Delivery: Unless otherwise provided on the face hereof, delivery shall be made F.O.B. Seller's plant. Regardless of the method of delivery, however, risk of loss shall pass to Buyer upon Seller's delivery to a carrier. Any delivery dates shown are approximate only and Seller shall have no liability for any delays in delivery.

4. Warranty: Seller warrants that the items sold hereunder shall be free from defects in material or workmanship for a period of 18 months from date of shipment from Parker Hannifin Corporation. **THIS WARRANTY COMPRISES THE SOLE AND ENTIRE WARRANTY PERTAINING TO ITEMS PROVIDED HEREUNDER. SELLER MAKES NO OTHER WARRANTY, GUARANTEE, OR REPRESENTATION OF ANY KIND WHATSOEVER. ALL OTHER WARRANTIES, INCLUDING BUT NOT LIMITED TO, MERCHANTABILITY AND FITNESS FOR PURPOSE, WHETHER EXPRESS, IMPLIED, OR ARISING BY OPERATION OF LAW, TRADE USAGE, OR COURSE OF DEALING ARE HEREBY DISCLAIMED. NOTWITHSTANDING THE FOREGOING, THERE ARE NO WARRANTIES WHATSOEVER ON ITEMS BUILT OR ACQUIRED WHOLLY OR PARTIALLY, TO BUYER'S DESIGNS OR SPECIFICATIONS.**

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6. Changes, Reschedules and Cancellations: Buyer may request to modify the designs or specifications for the items sold hereunder as well as the quantities and delivery dates thereof, or may request to cancel all or part of this order, however, no such requested modification or cancellation shall become part of the contract between Buyer and Seller unless accepted by Seller in a written amendment to this Agreement. Acceptance of any such requested modification or cancellation shall be at Seller's discretion, and shall be upon such terms and conditions as Seller may require.

7. Special Tooling: A tooling charge may be imposed for any special tooling, including without limitation, dies, fixtures, molds and patterns, acquired to manufacture items sold pursuant to this contract. Such special tooling shall be and remain Seller's property notwithstanding payment of any charges by Buyer. In no event will Buyer acquire any interest in apparatus belonging to Seller which is utilized in the manufacture of the items sold hereunder, even if such apparatus has been specially converted or adapted for such manufacture and notwithstanding any charges

paid by Buyer. Unless otherwise agreed, Seller shall have the right to alter, discard or otherwise dispose of any special tooling or other property in its sole discretion at any time.

8. Buyer's Property: Any designs, tools, patterns, materials, drawings, confidential information or equipment furnished by Buyer or any other items which become Buyer's property, may be considered obsolete and may be destroyed by Seller after two (2) consecutive years have elapsed without Buyer placing an order for the items which are manufactured using such property, Seller shall not be responsible for any loss or damage to such property while it is in Seller's possession or control.

9. Taxes: Unless otherwise indicated on the face hereof, all prices and charges are exclusive of excise, sales, use, property, occupational or like taxes which may be imposed by any taxing authority upon the manufacture, sale or delivery of the items sold hereunder. If any such taxes must be paid by Seller or if Seller is liable for the collection of such tax, the amount thereof shall be in addition to the amounts for the items sold. Buyer agrees to pay all such taxes or to reimburse Seller therefore upon receipt of its invoice. If Buyer claims exemption from any sales, use or other tax imposed by any taxing authority, Buyer shall save Seller harmless from and against any such tax, together with any interest or penalties thereon which may be assessed if the items are held to be taxable.

10. Indemnity For Infringement of Intellectual Property Rights: Seller shall have no liability for infringement of any patents, trademarks, copyrights, trade dress, trade secrets or similar rights except as provided in this Part 10. Seller will defend and indemnify Buyer against allegations of infringement of U.S. Patents, U.S. Trademarks, copyrights, trade dress and trade secrets (hereinafter 'Intellectual Property Rights'). Seller will defend at its expense and will pay the cost of any settlement or damages awarded in an action brought against Buyer based on an allegation that an item sold pursuant to this contract infringes the Intellectual Property Rights of a third party. Seller's obligation to defend and indemnify Buyer is contingent on Buyer notifying Seller within ten (10) days after Buyer becomes aware of such allegations of infringement, and Seller having sole control over the defense of any allegations or actions including all negotiations for settlement or compromise. If an item sold hereunder is subject to a claim that it infringes the Intellectual Property Rights of a third party, Seller may, at its sole expense and option, procure for Buyer the right to continue using said item, replace or modify said item so as to make it noninfringing, or offer to accept return of said item and return the purchase price less a reasonable allowance for depreciation. Notwithstanding the foregoing, Seller shall have no liability for claims of infringement based on information provided by Buyer, or directed to items delivered hereunder for which the designs are specified in whole or part by Buyer, or infringements resulting from the modification, combination or use in a system of any item sold hereunder. The foregoing provisions of this Part 10 shall constitute Seller's sole and exclusive liability and Buyer's sole and exclusive remedy for infringement of Intellectual Property Rights. If a claim is based on information provided by Buyer or if the design for an item delivered hereunder is specified in whole or in part by Buyer, Buyer shall defend and indemnify Seller for all costs, expenses or judgments resulting from any claim that such item infringes any patent, trademark, copyright, trade dress, trade secret or any similar right.

11. Force Majeure: Seller does not assume the risk of and shall not be liable for delay or failure to perform any of Seller's obligations by reason of circumstances beyond the reasonable control of Seller (hereinafter 'Events of Force Majeure'). Events of Force Majeure shall include without limitation, accidents, acts of God, strikes or labor disputes, acts, laws, rules or regulations of any government or government agency, fires, floods, delays or failures in delivery of carriers or suppliers, shortages of materials and any other cause beyond Seller's control.

12. Entire Agreement/Governing Law: The terms and conditions set forth herein, together with any amendments, modifications and any different terms or conditions expressly accepted by Seller in writing, shall constitute the entire Agreement concerning the items sold, and there are no oral or other representations or agreements which pertain thereto. This Agreement shall be governed in all respects by the law of the State of Ohio. No actions arising out of the sale of the items sold hereunder or this Agreement may be brought by either party more than two (2) years after the cause of action accrues.

9/91-P



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Bulletin HY14-2719-M1/US,
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