

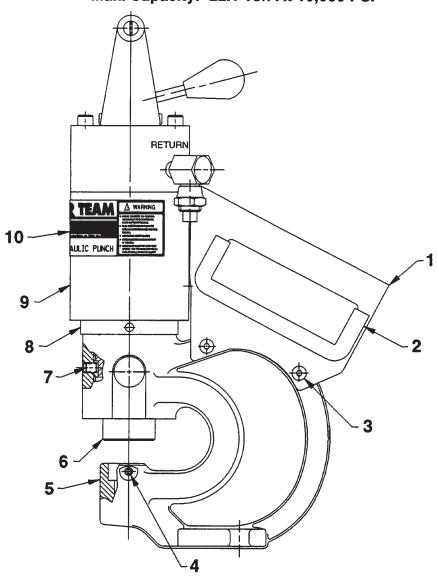
Hydraulic Technologies 5885 11th Street Rockford, IL 61109-3699 USA Tech. Services: (800) 477-8326 Fax: (800) 765-8326 Order Entry: (800) 541-1418 Fax: (800) 288-7031 **Parts List for:**

HP20

Internet Address: http://www.powerteam.com

HYDRAULIC PUNCH ASSEMBLY

Max. Capacity: 22.1 Ton At 10,000 PSI

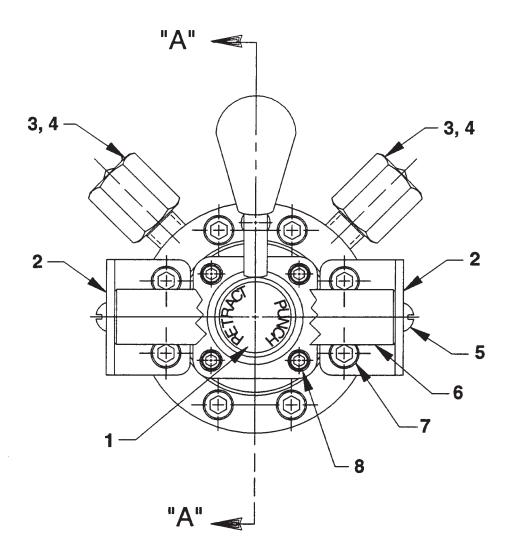


| Item No. | Part No. | No. Req'd | Description |
|-------------|-------------|--------------|----------------------------------|
| 1 | 421226BK2 | 1 | Handle Assembly |
| 2 | 252166 | 1.22 ft. | Channel Guard |
| 3 | 251910 | 2 | Cap Screw (1/4-20 UNC x 3/8 Lg.) |
| 4 | 15179 | 1 | Hex Soc. Screw |
| 5 | 252007 | 1 | C-Frame |

| Item No. | | lo. eq'd | Description |
|-------------|--------|-------------|--|
| 6 | 252146 | 1 | Stripper |
| 7 | 10861 | 1 | Set Screw |
| 8 | 252147 | 1 | Locking Ring |
| 9 | 58607 | 1 | Cylinder Assembly (See back sheet 1 of 2 & sheet 2 of 2) |
| 10 | 351212 | 1 | Decal |

| Sheet No. | 1 of 2 | |
|-----------|-------------------|--|
| Rev. | Date: 1 Aug. 1996 | |

CYLINDER ASSEMBLY - TOP VIEW



| Item No. | Part No. | No. Reg'd | Description |
|-------------|-------------|--------------|---|
| 1 | 251935 | 1 | Valve Control Decal |
| 2 | 351061 | 2 | Bracket |
| 3 | 11127 | 2 | Pressure Plug (3/8 NPTF) |
| 4 | 252143 | 2 | 90° Elbow Fitting (Rotate 5° toward valve handle) |
| 5 | 10174 | 2 | Machine Screw (1/4-20 UNC X 1/2 Lg.) |
| 6 | 28158 | 1 | Handle |
| 7 | 251968 | 8 | Cap Screw (5/16-24 UNF x 2-1/2 Lg.; Torque to 400 in. lbs.) |
| 8 | 11434 | 4 | Cap Screw (10-24 UNC X 1/2 Lg.; Torque to 60/80 in. lbs.) |

Parts List Form No. 101671

CYLINDER ASSEMBLY - SIDE VIEW To Parts List 3 27 26 25 24 23 **Double-acting** Cylinder 22 -9 **Relief Valve** 10 11 See important 20 DANGER statement 21 on back of sheet 2 of 2 20 19--13 18 -14 15 -16 17

Sheet No. 2 of 2

Rev. Date: 1 Aug. 1996

ADANGER: To help avoid possible serious personal injury or death,

● In the event that the cylinder retract port is ever restricted or plugged, a double-acting cylinder relief valve will help prevent excessive pressure from building in the cylinder. DO NOT attempt to adjust or service this relief valve! If oil leakage is detected from this relief valve, discontinue use of the cylinder immediately and contact Power Team Technical Services. Only Power Team Authorized Hydraulic Service Centers should service this relief valve.

| Item | Part | No. | |
|------|---------|-------|---|
| No. | No. | Req'd | Description |
| 1 | *10266 | 4 | O-ring (3/8 X 1/4 X 1/16) |
| 2 | 251932 | 1 | Stud |
| 3 | 10375 | 1 | Steel Ball (1/4 Dia.) |
| 4 | 12821 | 1 | Plastic Oval Knob |
| 5 | 12195 | 1 | Compression Spring (1/4 O.D. X 1/2 Lg.) |
| 6 | *10930 | 1 | O-ring (1-1/2 X 1-5/16 X 3/32) |
| 7 | 12189 | 1 | Thrust Washer |
| 8 | 12188 | | Needle Bearing |
| 9 | 24570 | | Shear Seal |
| 10 | *12187 | | Washer |
| 11 | *251767 | | O-ring (13/32 x 7/32 x 3/32) |
| 12 | 251222 | | Plug (1/16 NPTF) |
| 13 | 64818 | 1 | Valve Body |
| 14 | 58606 | | Cylinder Body |
| 15 | 251770 | | Cap Screw (#8-32 UNF-2B x 1/4 Lg.) |
| 16 | 251766 | 1 | Key |
| 17 | 421009 | | Piston Rod |
| 18 | *14482 | 1 | V-cup |
| 19 | *251768 | | Piston T-seal w/ Backup Ring |
| 20 | *251769 | | Backup Washer (2-3/8 x 2-3/16 x .048) |
| 21 | *11229 | | O-ring (2-3/8 X 2-3/16 X 3/32) |
| 22 | *12184 | 3 | Backup Washer (3/8 X 1/4 X .048) |
| 23 | 32071 | 1 | Rotor |
| 24 | 10716 | 1 | Roll Pin |
| 25 | 25821 | 1 | Drowing |
| 26 | 11587 | 1 | TION I III |
| 27 | 32070 | 1 | Stem |

Part numbers marked with an asterisk (*) are contained in Repair Kit No. 300879.

Refer to any operating instructions included with this product for detailed information about operation, testing, disassembly, reassembly, and preventive maintenance.

Items found in this parts list have been carefully tested and selected. Therefore: Use only genuine Power Team replacement parts!

Additional questions can be directed to our Technical Services Department.