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14-A
Hydraulic Hand Tools

12 Ton Hydraulic Swage Tool - 1" Jaw Opening – Huskie

Model WR-410

The WR-410, hand operated, compression tool features a two stage rapid advance pumping system. The tool bypasses automatically when full output force is achieved. The tool can be used for making wire rope slings, securing equipment, putting eyes on tow ropes, or making up barrier cables. It accepts all U-type dies currently manufactured for 12 ton tools for use on aluminum or copper wire rope sleeves.

Features:
- Two-stage pumping piston for rapid advance
- Replaceable, drop-out bypass cartridge for easy shop repairs
- 180° swivel crimping head permits installations in confined areas
- Accepts all U-type dies used in 12 ton tools on today’s market
- Magnetic oil reservoir plug to trap stray metal fragments
- Twist handle release

Wire Rope Crimping Dies (Set of 7)

<table>
<thead>
<tr>
<th>Wire Rope Size</th>
<th>Sleeve No.</th>
<th>Wire Rope Crimping Die No.</th>
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<td>A3</td>
<td>7/32&quot;</td>
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<tr>
<td>1/8&quot;</td>
<td>A4</td>
<td>1/8&quot;</td>
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<td>A5</td>
<td>5/32&quot;</td>
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<td>A7</td>
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<tr>
<td>1/2&quot;</td>
<td>A8</td>
<td>1/2&quot;</td>
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Hydraulic Operated Steel Cutting Heads – Huskie

Models JSH-24CC, JSH-32CC, and JSHP-24CC hydraulic cutters were specially engineered to cut the toughest chain and rebar.

Bolt and Bar Cutters with Center Cut Style Blades – Huskie

Models JSH-24CC, JSH-32CC, and JSHP-24CC.
Hydraulics

Building a Hydraulic System

Selecting the Components You Need

1. What type of RAM do you need?
   - Force required
   - Stroke required
   - Collapsed ht. required
   - Portability
   - Aluminum
   - Steel
   - Single acting, spring return
   - Double-acting
   - Center-hole
   - Mounting required
   - No. of rams in circuit

   Useful Formulas:
   - Force required
   - Stroke required
   - Collapsed ht. required
   - Portability
   - Aluminum
   - Steel
   - Single acting, spring return
   - Double-acting
   - Center-hole
   - Mounting required
   - No. of rams in circuit

2. What type of PUMP do you need?
   - Single stage
   - Two stage
   - Oil delivery req’d (1st stage/2nd stage)

   Useful Formulas:
   - Performance (time/handle strokes req’d. to fully extend ram)
   - Time = Oil Cap of ram(s) / Pump output (cu. in./min. or strokes)
   - To determine no. of rams that can be used with a pump:
     - No. of = Usable oil cap. of + Oil cap. of cyl. Rans (cu. in.)

   Note: Allowance must be made for oil in the lines.

3. What type of CONTROLS do you need?
   - Manually operated valve
   - Pump mounted
   - Remote
   - For single-acting rams
   - For double-acting rams
   - Solenoid operated valve
   - Pump mounted
   - Remote
   - For single-acting rams
   - For double-acting rams
   - Shut-off
   - Check valve in-line
   - Pressure regulator valve
   - Pilot operated check valve
   - Pressure switch
   - Sequence valve

Typical Valve Functions:

4. What ACCESSORIES do you need?
   - Hose and couplings
   - Pressure gauge
   - Hand or foot switch for remote motor or valve control
   - Manifold blocks
   - Hydraulic oil
   - Standard
   - "Flame-Out" fire resistant
   - Pump cart

Typical Hydraulic Circuits

Basic single-acting system with a hand pump, gauge, hose and single-acting cylinder.

Basic single-acting system with a hand pump, gauge, hose, multiple shut-off valves, load-lowering valves and multiple cylinders.

Basic double-acting system with an electric/hydraulic pump, shut-off valves, load-lowering valves and multiple double-acting cylinders.

Typical Hydraulic System

Legend

2. Pump - a device for converting mechanical energy to fluid energy.
3. Directional Valve - controls the direction of hydraulic fluid in the system.
4. Gauge - measures psi pressure (lbs/in²) and/or force.
5. Hose - transports hydraulic fluid.
6. Manifold - allows distribution of hydraulic fluid from one source to several cylinders. (No. 9617, 9642, 9644)
7. Swivel Connector - allows proper alignment of valves and/or gauges. Used when units being connected cannot be rotated. (No. 9675)
8. Quick Coupling - "hose half" and "cylinder half" couplings are used for quick connection and fluid flow check when separated. (No. 9796 & 9798)
9. Load-Lowering Valve - allows metered lowering of cylinder and provides safety when prolonged load lifting is required. (No. 9596)
10. Tee, Gauge Adapter - allows for installation of pressure/tonnage gauge anywhere in the hydraulic system. (No. 9670)
11. Pipe Plug - for blocking unused ports within the system. (No. 9687)
12. Fitting, 45° - used to mount gauge at an angle. (No. 9678)
**Cylinders**

"C" Series, Single-Acting, Spring Return Cylinders

- Capacities up to 100 tons, strokes up to 16”.
- 100 ton (3 models) 2" - 10-1/4" stroke
- 75 ton (2 models) 6-1/8" - 13-1/8" stroke
- 55 ton (5 models) 6-1/4" - 13-1/8" stroke
- 25 ton (8 models) 1" - 14-1/4" stroke
- 15 ton (9 models) 1" - 16" stroke
- 10 ton (8 models) 1" - 14-1/8" stroke
- 5 ton (5 models) 1" - 9-1/4" stroke

*Note: 55, 75 & 100 ton models have removable lifting handle.*

- Heavy duty return spring with max. number of coils.
- All cylinders are in full compliance with ANSI B30.1. For reliable cylinders for every task the choice is Power Team's "C" series cylinders. With capacities from 5 to 100 tons and strokes from 1" to 16" you’ll find the one to suit your needs. These spring return cylinders all have a solid bronze bearing to reduce scoring caused by off center loads. The return spring has more for faster return and longer life. Each cylinder features a chrome plated piston rod to resist wear and corrosion. An interchangeable cylinder cap lets you choose from four heads to fit your application. To make your "C" series cylinder even more versatile there is a wide range of accessories available. These accessories thread onto the piston rod end or collar, or into the cylinder base, making the cylinder a real workhorse. Each cylinder is equipped with a 9796 quick coupler. All are designed for use at working pressures up to 15,000 psi.

- Cylinder bodies are available with Power Tech surface treatment (a special corrosion and abrasion resistant finish). Corrosion resistance is equivalent to ASTM B177-85 one-hundred hour salt spray.

- Cylinders with special stroke lengths.
- Base mounting holes for 75 and 100 ton cylinders.

### Viton seal kit

You can now replace the seals in "C" series cylinders with Viton seals. Viton seals must be used when the application calls for fire resistant hydraulic fluid.

Cylinder Caps (Furnished with cylinder)

<table>
<thead>
<tr>
<th>Cylinder Tonnage</th>
<th>No. of Cylinders</th>
<th>Cylinder Stroke</th>
<th>Cylinder Diameter</th>
<th>Cylinder Weight</th>
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<td>25 ton........No. 201375</td>
<td>55 ton........No. 36161</td>
<td>10 ton........No. 201362</td>
<td>15 ton........No. 201361</td>
<td>25 ton........No. 201412</td>
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### Table: Cylinder Dimensions

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<td>2-1/4 - 20 3/8</td>
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<td>2-3/4 - 16 1/4</td>
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<td>1-1/16 - 1/8</td>
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<td>1-1/32 - 1/72</td>
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* Consult factory (45° from coupler) † 90° from coupler

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**Base Mounting Holes**

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<th>No. of Cylinders</th>
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<tr>
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<td>10 ton........No. 201362</td>
<td>15 ton........No. 201361</td>
<td>25 ton........No. 201412</td>
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### Hydraulic Codes:

- **Internal Piston Rod Thread**
- **Steel or Aluminum Bronze Base Pistons**
- **Collar Threads**
- **Protective Slip-on Collar**
- **Aluminum Bronze Bearing**
- **Tough Urethane Seal**
- **Easy Repair Access**

Conforms to ANSI B30.1

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**14-3**
**Cylinders**

**Cylinder Mounting Accessories “C” Series Cylinders**

- The accessories permit additional flexibility in the application of Power Team hydraulic cylinders to perform a wide variety of tasks.
- Rated for full capacity (10,000 psi) of cylinders, making them more versatile than they are already.
- Accessories attach directly onto cylinder top or bottom.

**Cylinder base or body attachment**

- Cap screws attach this accessory to base of cylinder. Allows you to thread many male adapters into this attachment.

- Cap screws attach the body clevis accessory to base of cylinder for clevis attaching applications.

**Lifting applications**

Illustration shows lifting application using cylinder flat base, cylinder base attachment and threaded tube coupling.

Support base helps hold cylinder in an upright position by increasing the flat base area. Swivel cap tilts 5° to help reduce the effect that off-center loading will have on a hydraulic cylinder.

**CAUTION:** Lifting loads where the base of the cylinder is not parallel with the surface of the load engaged by the cylinder lifting cap is NOT recommended. If you must lift such a load, be aware that even with the use of a swivel cap, the cylinder can “kick out” from beneath the load and cause serious personal injury and/or property damage.

**Spreading applications**

Spreading application with two cylinder flat bases, threaded adapter, cylinder base attachment and threaded connector/extension rod.

**Fixed applications**

Cylinder mounting plate threads to the cylinder body, for fixed application.

---

**Item No.** | **Cyl. Tonnage** | **Order** | **A** (in) | **B** (in) | **C** (in) | **D** (in) | **E** (in) | **F** (in)
--- | --- | --- | --- | --- | --- | --- | --- | ---
1 | 5 | 350895 | 5 | 7/8 Dia. | 3/4 – 14 NPT | 21/64 Dia. | 2 | –
1 | 5 | 350908 | 10 | 7/8 Dia. | 3/4 – 14 NPT | 21/64 Dia. | 2 | –
1 | 5 | 350896 | 18 | 7/8 Dia. | 3/4 – 14 NPT | 21/64 Dia. | 2 | –
1 | 10 | 350897 | 5 | 1-7/16 Dia. | 1-1/4 – 11-1/2 NPT | 21/64 Dia. | 2 | –
1 | 10 | 350899 | 10 | 1-7/16 Dia. | 1-1/4 – 11-1/2 NPT | 21/64 Dia. | 2 | –
1 | 10 | 350908 | 18 | 1-7/16 Dia. | 1-1/4 – 11-1/2 NPT | 21/64 Dia. | 2 | –
* | 5 | 206380 | 1-5/8 | 1-3/4 Dia. | 3/4 – 14 NPSM | 9/32 Dia. | – | –
* | 10 | 206381 | 1-7/8 | 2-1/2 Dia. | 1-1/4 – 11-1/2 NPSM | 13/32 Dia. | – | –
* | 25 | 206382 | 2-3/8 | 3-7/8 Dia. | 2 – 11-1/2 NPSM | 17/32 Dia. | – | –
3 | 10 or 15 | 350144 | 7/8 | 1-3/8 | – | – | – | –
3 | 25 | 350145 | 1-1/8 | 2 | – | – | – | –
3 | 55 or 75 | 350376 | 1-1/4 | 2-13/16 | – | – | – | –
4 | 5 | 25388* | 1-3/8 | 1-7/16 | 3/4 – 14 NPSM | – | – | –
4 | 10 | 25389* | 2-1/8 | 2-1/8 | 1-1/4 – 11-1/2 NPSM | – | – | –
5 | 5 | 25750 | 4-1/2 | 2-1/8 | 3/4 – 14 NPSM | 1-1/32 | – | –
5 | 10 | 33235 | 6-9/16 | 3-1/2 | 1-1/4 – 11-1/2 NPSM | 1 1/16 | – | –
6 | 25 | 25652 | 6 | 1-1/4 | 2 – 11-1/2 NPSM | – | – | –
7a | 5 | 207178 | 1-5/8 | 1-1/8 | 1-1/16 Dia. | 3/4 – 14 NPT | 21/64 Dia. | 2 – 11-1/2 NPT | 2-5/8 | 1/4
7a | 10 or 15 | 207179 | 1-3/4 | 1-1/16 | 1-5/8 Dia. | 2-5/8 Dia. | – | – | – | –
7a | 25 | 207180 | 2-3/4 | 1-7/8 | – | – | – | – | – | –
7b | 10 or 15 | 350724 | 2 | 1-1/4 | 3-1/4 Dia. | – | – | – | – | – | –
7b | 25 | 350725 | 2-1/2 | 1-1/4 | 2-1/4 Dia. | – | – | – | – | – | –
8 | 5 | 25748* | 1-1/8 | 1-5/16 Dia. | 3/4 – 14 NPSM | – | – | – | – | – | –
8 | 10 or 15 | 31773* | 1-1/2 | 2 Dia. | 1-1/4 – 11-1/2 NPSM | – | – | – | – | – | –
8 | 25 | 31778* | 5/8 Dia. | 3-1/2 | 2-11/2 NPT | – | – | – | – | – | –
9 | 5 | 25743 | 1-3/4 | 7/8 Dia. | 3/4 – 14 NPSM | 3/16 Dia. | 1/8 | – | – | – | –
9 | 10 | 25664 | 1-5/8 | 1-7/16 Dia. | 1-1/4 – 11-1/2 NPSM | 5/16 Dia. | 9/16 | – | – | – | –
9 | 25 | 25654 | 2-1/4 | 2-1/8 Dia. | 2 – 11-1/2 NPSM | 3/8 Dia. | 9/16 | – | – | – | –
10 | 5 | 420962 | 7 | 5 | – | 7/16 | – | – | – | –
10 | 25 | 420963 | 7 | 5 | – | 7/16 | – | – | – | –
11 | 5 | 350385 | 1-3/4 | 1-1/8 | 5/8 | 1-7/16 | 5/8 | 9/16 | 1
11 | 10 or 15 | 350394 | 2-9/16 | 1-1/16 | 7/8 | 2-9/16 | 1 | 1
11 | 25 | 420959 | 2-13/16 | 2-1/4 | 1-1/4 | 2-11/16 | 1-1/4 | 1-1/2 | 1
12 | 5 | 350396 | 2-1/6 | 1-1/8 | 5/8 | 5/8 | 9/16 | 1/4 | 1
12 | 10 | 350397 | 3 | 1-1/16 | 7/8 | 1 | 1 | 1/4 | 1
12 | 15 | 350398 | 3-1/16 | 1-1/16 | 7/8 | 1 | 1 | 1/4 | 1
12 | 25 | 420961 | 3-9/16 | 2-1/4 | 1-1/4 | 1-1/4 | 1-1/2 | 1/4 | 1
13 | 5 | 350399 | 3 | 1 | 2-1/8 | 1-1/2 – 16 UNF-2B | 11/32 | – | – | – | –
13 | 10 | 350400 | 3-1/2 | 1 | 2-5/8 | 2-1/8 – 14 UNF-2B | 11/32 | – | – | – | –
13 | 15 | 350401 | 3-1/2 | 1 | 2-5/8 | 2-1/8 – 18 UNF-2B | 13/32 | – | – | – | –
13 | 25 | 420964 | 5 | 2 | 3-21/32 | 5-5/16 – 12 UNF-2B | 21/32 | – | – | – | –

* Items must be used with thread adapter (item no.7a). † Mounting screws are included.
Cylinders

Low Profile, Single Action RLS - Spring Return Cylinders

The RLS series gives you plenty of choice for a low profile, spring return cylinder. With capacities from 5 to 150 tons and strokes from 7/16" to 5/8", these cylinders give you brute force in a compact unit. These single acting cylinders are ideal for use where clearance is limited. On all cylinders but the RLS50 the coupler is angled upward for extra coupling clearance. The cylinders are designed for maximum working pressures up to 10,000 psi.

- Low profile for tight-spot lifting.
- Unique heavy duty spring gives fast cylinder return.
- Couplers angled upward for extra clearance.
- New design reduces problems with off-center loading.
- All cylinders are in full compliance with ANSI B30.1. All RLS series cylinder bodies and gland nuts are manufactured with Power Tech surface treatment (a special corrosion and abrasion resistant finish). Corrosion resistance is equal to ASTM B 117-85 100 hour salt spray.

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“Shorty” Spring Return Cylinders - RSS

ASTM B117-85 100 hour salt spray. All other RSS cylinder bodies are available with the same corrosion and abrasion resistance through special order. Please call for additional information.

- Optional swivel caps available for all cylinders.
- Forcing a gravity return cylinder to retract wastes time and money. The Power Team RSS series of single acting spring return cylinders eliminates that waste. We've incorporated the return spring and kept the low collapsed height and strokes you need. You get capacities from 10 to 250 tons. They include bronze plated piston rods to resist scoring and corrosion. They can be dead-ended at full capacity. Each RSS (except RSS1002, RSS1002D & RSS2503) has an angled coupler port (5°) for easy hook-up. Strokes range from 1-1/2" to 3".
- If you're tired of waiting for your cylinders to retract, look into the RSS series today.
- Cribbing block sets and swivel caps for use with the “Shorty” cylinders.
- Oil Port angled 5° on all but RSS1002, RSS1002D and RSS2503

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<td>4-7/8</td>
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Piston Cap Mounting Holes

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<th>Size (in)</th>
<th>Depth (in)</th>
<th>Dia. (in)</th>
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<td>1/4</td>
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<td>1/4</td>
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<td>5/8</td>
<td>3/8</td>
<td>1/4</td>
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<td>RSS5002</td>
<td>5/8</td>
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WWW.HANESSUPPLY.COM

14-5 Hydraulics
Cribbing Block Sets

- Convert hydraulic cylinders into stable mechanical cribbing devices.
- Sets give stable load support and increase cylinder stroke.
- For use with Power Team Shorty® cylinders.

These cribbing block sets are just what you need to support large and heavy loads. The process is repeated until all rings and pads are used. The insertion handle is used for inserting the rings and pads. These sets are faster and easier to use than any makeshift method.

Three sets are available in 30, 50 and 100 ton capacities. They are for use with Power Team Shorty® cylinders, No. RSS302, RSS502 and RSS1002.

Swivel caps for RSS Series Power Team hydraulic cylinders

- Reduce effects of off-center loads.
- The use of these caps, which are designed to tilt a maximum of 5 degrees, will help reduce the effect that off-center loading will have on RSS cylinders.

Radial grooves machined into the top of the swivel cap lessen the tendency of an off-center load to slip. A notch across the face of each cap helps keep a load having a protruding or round shape centered.

NOTE: Swivel caps cannot be used with cribbing blocks.

CAUTION: Lifting loads where the base of the cylinder is not parallel with the surface of the load engaged by the cylinder lifting cap is NOT recommended. If you must lift such a load, be aware that even with the use of a swivel cap, the cylinder can “kick out” from beneath the load and cause serious personal injury and/or property damage.

Each set includes one Insertion Handle No. 45889 - 1/2" Hex. X 18" Long, 4" Bend

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<th>A (in.)</th>
<th>B (in.)</th>
<th>C (in.)</th>
<th>D (lbs)</th>
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Single-Acting “Center-Hole” Cylinders - RH

From top to bottom these RH series cylinders have features you want. Like interchangeable piston head inserts for versatility and tapped base mounting holes for easy installation. All RH series cylinders have plated piston rods which resist wear, and superior packings and seals for high cycle life without leakage. Power Tech corrod resistance floating standpipe standard on all single and double-acting center-hole cylinders (corro- resistance equal to ASTM B117-85 100 hour salt spray). All (except RH120) are furnished with a 9795 quality piston head inserts are standard on all RH cylinders.

NEW RHA306 cylinder has an aluminum cylinder body and piston rod. This makes it almost half the weight of a comparable steel cylinder.

No. 4213120R* - Optional lifting handle for RH302 and RH306 cylinders.

No. 252215 - Lifting handle for RHA306 cylinders.
### Cylinders

**Double-Acting “Center-Hole” Cylinders - “RH” Series**

- For working pressures to 10,000 psi. Capacities of 9 to 200 tons, stroke lengths of 1.50” to 10.13”.
- “Center-Hole” design allows you to run cables, screws, etc., through the center of the cylinder, enabling cylinder to push or pull, if a pull rod is used.
- Built-in safety feature prevents over-pressurization of the retract circuit. Cylinders withstand full "dead-end" loads, comply with ASME B30.1 standard.
- Interchangeable piston head inserts provide versatility of application, tapped base mounting holes simplify installation. Plain head inserts are standard.
- Plated piston rod resists wear, superior packings provide high cycle life without leakage.
- Corrosion-resistant standpipe has Power Tech surface treatment.
- New aluminum cylinder (No. RHA604D) is light in weight for portability.
- Each cylinder has two 9796 3/8” NPTF female half couplers. The 60 thru 200 ton models are equipped with removable carrying handles 421312OR9 - Optional lifting handle for RH303 and RH306D cylinder.

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* These cylinders supplied w/ carrying handles  † Measured w/ 0.75" high serrated insert installed

### Double-Acting Cylinders - "R" Series

- Built-in safety relief valve prevents accidental over-pressurization of the retract circuit.
- All cylinders are in full compliance with ANSI B30.1.
- Withstands full dead-end load.
- Swivel caps are standard on all "R" series double-acting cylinders.
- Hard chrome plated piston rods standard on all "R" series double-acting cylinders.
- Plated piston rod resists wear, superior packings provide high cycle life without leakage.
- Corrosion-resistant standpipe has Power Tech surface treatment.
- New aluminum cylinder (No. RHA604D) is light in weight for portability.
- Each cylinder has two 9796 3/8” NPTF female half couplers. The 60 thru 200 ton models are equipped with removable carrying handles 421312OR9 - Optional lifting handle for RH303 and RH306D cylinder.

**150 Ton Capacity**

Stroke lengths up to 13” are available for all tonnages.

Each "R" series double-acting cylinder includes a swivel cap, two No. 9796 quick couplers and two lifting eyes. The swivel cap can reduce the effect of off-center loading. Standard swivel caps can tilt 5° maximum. Radial grooves machined into the top of the swivel cap can reduce load slippage.
Cylinders

Double-Acting Cylinders - "RD" Series

- For working pressures up to 10,000 psi.
- Ideally suited to severe applications, high cycle double-acting Cylinders - "Rd" Series

Rd Series 300, 400 & 500

- Eye hooks for moving cylinder from one site to the next

- For working pressures up to 10,000 psi.
- Capacities of 10 to 500 tons, stroke lengths of 6.0" to 20.13".
- Ideally suited to severe applications, high cycle usage, various mountings, production finishing, tubing, cables, etc.
- "RD" series cylinders are perfect for bridge lifting, building reconstruction, shipyard, utility & mining equipment maintenance, and high cycle production applications. The 55 ton and larger cylinders have adjustable lifting straps.
- Aluminum bronze overlay bearings provide long life, chrome plated piston rods resist corrosion. In full compliance with ASME B30.1 standard.

<table>
<thead>
<tr>
<th>Pump</th>
<th>Cylinder</th>
<th>Time to Extend Cyl.</th>
<th>100 psi (sec.)</th>
<th>10,000 psi (sec.)</th>
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<th>Pump</th>
<th>Cylinder</th>
<th>Time to Extend Cyl.</th>
<th>100 psi (sec.)</th>
<th>10,000 psi (sec.)</th>
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<td>4.9</td>
<td>14.1</td>
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</table>

Performance

The table gives you an idea of what to expect when coupling RD series cylinders to a Power Team pump. Actual performance will vary according to job conditions.

Base Mounting Holes

NOTE: Base mounting holes are standard on all RD cylinders. (See chart for specifications).

Orientation of base mounting holes to cylinder. Orientation on RD300, RD400 & RD500 series is random.

Features of RD300, RD400, RD500 Series Cylinders:

- Anti-skid load cap
- Urethane rod wiper & seal w/back-up
- Built-in safety relief valve
- Aluminum bronze overlay bearings for extra-heavy wear
- Chrome plated heat treated piston rod
- "T" Seal w/back-ups
- "O" Ring w/back-ups
- Easy positioning removable strap/eye hooks

Features of RD100 – RD200 Series Cylinders:

- Heavy duty load cap
- Urethane rod wiper & seal w/back-up
- Built-in safety relief valve
- Aluminum bronze overlay bearings for extra-heavy wear
- Chrome plated heat treated piston rod
- "O" Ring w/back-ups
- Turned & magnetic particle inspected

All dimensions are in inches

Cylinders

Hydraulics

Complete Contractor and Industrial Supplier • Sling and Rigging Specialist Since 1930
Visit us online at www.hanessupply.com
Cylinders

Single Acting - Aluminum 20 thru 100 ton Cylinders - “RA” Series

At half the weight of comparable steel cylinders, it makes them easier to position. Ideal for jack- ing applications in mines, shipyards, steel mills, utility plants and in construction. All feature a hard coated aluminum piston rod and cylinder bore to resist wear and corrosion. Leak resistant and designed for working pressures up to 10,000 psi.

Swivel caps for RA series
Reduce effects of off-center loads. The use of these caps, which are designed to tilt a maximum of 5°, will help reduce the effect of off-center loading. Radial grooves machined into the top of the swivel cap lessen the tendency of a load to slip. A notch across the face of each cap helps keep a load having a protruding or round shape centered.

Pumps

Hydraulic Intensifier

- Turns low-pressure portable hydraulic pumps or on-board hydraulic systems into high-pres- sure power sources. Pressure ratio of 5:1
- Operates either single-acting or double-acting cylinders and tools such as crimpers, spread- ers, cutters, etc.
- May be used to operate two separate, single- acting tools (with integral valves) independently.

No need for additional manifold.
- Compact, rugged and portable for use inside a utility vehicle aerial bucket or stowing in a vehicle.
- Various standard Power Team valve options available. Unit comes complete with valve.
- No oil reservoir to tend - unit uses oil from low pressure pump source.

Applications

By boosting low-pressure oil (2,000 psi) to high pressure (10,000 psi), the Power Team Hydraulic Intensifier powers cylinders, jacks, crimpers, cable cutters, nut splitters, lipo tools and similar hydraulic actuated devices.

<table>
<thead>
<tr>
<th>For Use With:</th>
<th>Order No.</th>
<th>Type</th>
<th>Valve No.</th>
<th>Function</th>
<th>Input Flow Range</th>
<th>Operating Pressure</th>
<th>Max. Output Pressure</th>
<th>Output Flow Range</th>
<th>Output Flow @ 10,000 psi</th>
<th>Prod. Wt. (lbs)</th>
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<tbody>
<tr>
<td>Single-Acting Cylinders</td>
<td>HB443</td>
<td>3-way</td>
<td>9520</td>
<td>Advance Hold Return</td>
<td>0 - 10 gpm</td>
<td>300 - 2,000 psi</td>
<td>10,000 psi</td>
<td>0 - 2.5 gpm</td>
<td>44 in³/min.</td>
<td>16</td>
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<tr>
<td>Single-or-Double-Acting Cylinders</td>
<td>HB444</td>
<td>4-way</td>
<td>650B</td>
<td>Advance Hold Return</td>
<td>0 - 10 gpm</td>
<td>300 - 2,000 psi</td>
<td>10,000 psi</td>
<td>0 - 2.5 gpm</td>
<td>44 in³/min.</td>
<td>16</td>
</tr>
</tbody>
</table>

† For max. efficiency, recommended input flow is 5 gpm at a max. pressure of 2000 psi. Higher flows and/or pres- sures must be compensated for at the system pump (e.g., relief valve, variable flow devices, etc.).

* "Posi-Check" valve design, "Posi-Check" guards against pressure loss when the valve is shifted from "Advance" position to "Hold" position.
Hydraulic Hand Pumps

• 10,000 psi capacity.
• Single or two-speed versions available for use with single or double acting cylinders.

Up to 2-1/2 gallon reservoir capacity.
All develop up to 10,000 psi (except P23) and can operate horizontally or vertically with the pump in the down position (except 460 series).
All pumps have an internal safety relief valve.

P12 Single-Speed Pump
For use with single-acting cylinders. Features a finger-tip control valve for instant release or pumping action. Non-vented reservoir, max. handle effort is 80 lbs.

P19 Two-Speed Pump
For use with single-acting cylinders. All metal construction, max. handle effort is 90 lbs.

P23 Single-Speed Pump
For use with single-acting cylinders. Compact pump similar to P55 with a relief valve setting of 3000 psi. Non-vented reservoir, max. handle effort is 70 lbs.

P59 Two-Speed Pump
For use with single-acting cylinders, features a finger-tip control valve for instant release or pumping action. All metal construction, carrying handle and large oil fill port. Non-vented reservoir, max. handle effort is 140 lbs.

P59F 2-Speed Foot Pump
For use with single-acting cylinders, features foot or hand operated press-to-release valve. Aluminum body and lever, steel reservoir, carrying handle and large oil fill port. Non-vented reservoir, maximum lever effort is 120 lbs.

P300 Two-Speed Pump
For use with single-acting cylinders. Same as P159 except it has a large 1-1/2 gal. reservoir with sight gauge.

P300d Two-Speed Pump
For use with double-acting cylinders. Same as P159D except it has a large 1-1/2 gal. reservoir with sight gauge.

P460 Series Two-Speed Pumps
For use with single-acting cylinders. All metal construction, carrying handle and large 2-1/2 gal. reservoir. Max. handle effort is 90 lbs.

P460D, same as P460 except for use with double-acting cylinders. Uses 4-way valve No. 9500.

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### Pumps

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<td>29-1/4</td>
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</table>

* To ensure consistent performance, always allow at least a 10% margin of safety for usable oil (i.e., if your system calls for 100 cu. in. usable oil, choose a pump with at least 110 cu. in. of usable oil.

---
Air/Hydraulic Pumps

- New PA9 series single-speed pumps are ideal for powering single acting cylinders and portable hydraulic tools for lifting, crimping/coupling, fastening, positioning and culling/bending.
- Easier to operate than a hand pump, giving you the speed you need at an affordable price.
- A time-tested design constructed totally of metal (not plastic!) for years of dependable on the job service. Easy and economical to service; not a "throwaway" unit.
- Unique bladder design offers maximum application versatility, operating either vertically or horizontally.
- Operates an 40-120 psi shop air, at 20 cfm.

PA9 Features
1) Heavy-duty, hard-coat anodized aluminum housing, distinctive styling – Extremely rugged and durable, yet light weight.
2) Extra large fill port – Easy, no-mess filling of reservoir. Easy access to relief valve for adjustment by service technician.
3) Oil filler with integral safety relief.
4) Sealed reservoir for all-position operation and storage – Pump operates in any position. No vent on reservoir - so no leaks, no contamination of oil from ambient air. 33.5 cu. in. usable oil.
5) Swivel outlet poll – Hydraulic pressure port swivels 360°.

For Use With Cyl. Type Order No. Air Supply Req’d (psi) Reservoir (cu. in.) Max. Pressure Output (psi) Oil Port Wt. (lbs)
Single-Acting PA9 PASH 40-120 35 33.5 3/8” NPTF 10,000 15

Air/Hydraulic Pumps

- These single-speed air/hydraulic pumps are compact, lightweight and portable.
- Operate on shop air to drive single or double-acting cylinders.
- All pumps come with internal relief valves to protect circuit components.
- Air inlet filter protects motor.
- All metal air motor and ductile iron pump.
- Permanently vented reservoir cap.

For Use/Order Valve No. Air Supply Req’d (psi) Reservoir (cu. in.) Useable Oil Port Prod. Wt. (lbs)
Single-Acting PA6, PA6M, PA6M-1, PA6-2, PA6M-2, PA6A and PA6AM 40-120 psi 90 cu.in. 3/8” NPTF 23.7 18

PA6 - For use with single-acting cylinders operating at 10,000 PSI. Highly efficient air/hydraulic power has release detent for cylinder return. High density polyethylene reservoir has 90 cu.in. of usable oil and pump requires 20 cfm at 100 psi shop air pressure at the pump.

PA6M - Same as PA6 except it has a metal reservoir.
PA6M-1 - Same as PA6 except it has a 1 gallon metal reservoir.
PA6-2 - Same as PA6 except it has a 2 gallon high density polyethylene reservoir.
PA6M-2 - Same as PA6 except it has a 2-1/2 gallon metal reservoir.
PA6A - Same as PA6 except it has a metal reservoir.
PA6D, PA6DM, PA6DM-1, PA6DM-2, PA6D2 Single-Speed Pumps
PA6D - For use with single or double-acting cylinders operating at 10,000 psi. Equipped with No. 9504-3-way/4-way valve and high density polyethylene reservoir. Requires 20 cfm at 100 psi air pressure at the pump.
PA6DM - Same as PA6D except it has a metal reservoir.

PA6DM-1 - Same as PA6D except it has a 1 gallon metal reservoir.
PA6D2 - Same as PA6D with a 2 gallon high density polyethylene reservoir.
PA6DM-2 - Same as PA6D except it has a 2-1/2 gallon metal reservoir.

Metal Reservoir Conversion Kits
Metal reservoirs are available to convert these pumps from high density polyethylene to metal reservoirs.

No. 213986 - Metal reservoir, (for PA6, PA6A, PA6DM) 105 cu.in. capacity. Includes gasket and fasteners. Wt. 3 lbs.
No. 213985 - Metal reservoir, (for PA6-2 and PA6D2) 2-1/2 gallon capacity. Includes gasket and fasteners. Wt. 9 lbs.

9530 filter/regulator/lubricator, air
Recommended for use with single-speed air/hydraulic pumps.
Electric/Hydraulic Pumps - PE17 Series

- Two speed high performance at a low price.
- For use with single-acting and double-acting cylinders.
- All start under load.

PE17 Series Pumps

The PE17 series pumps are all equipped with a 1/2 hp, 3450 rpm single phase, 110/115 volt thermal protected electric motor. These motors are designed for continuous duty and will start under full load. All units are equipped with 10 ft. remote control. All models have a 2 gallon thermoplastic alloy reservoir, except PE172M, PE172AM, PE172SM and PE174M which have metal reservoirs.

PE172 - Use with single-acting cylinders has a No. 9517 2-way/2-pos. valve which holds pressure in the closed position, builds pressure to 10,000 psi in the release position with the motor running and automatically releases pressure when the motor is shut off.

PE172A - Similar to PE172 except it is an automatic dump for use with single acting cylinders. It’s No. 45554 manifold is equipped with a return port which can be used with a remote mounted valve to operate either single- or double-acting cylinders.

PE172AM - Same as PE172A except it has a metal reservoir.

PE172S - Similar to PE172 except it has a 9579 3-way, 2-position solenoid valve. For use with single-acting cylinders. Has a 10 ft. remote motor and valve control.

PE172SM - Same as PE172SM except it has a metal reservoir.

PE17 Series

<table>
<thead>
<tr>
<th>Pump No.</th>
<th>Max. Press Output</th>
<th>Amp Draw 115v</th>
<th>Oil Del. cu.in.</th>
<th>Dimensions (in)</th>
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<tbody>
<tr>
<td>PE17</td>
<td>10,000 psi</td>
<td>1/2 hp</td>
<td>1/2 hp</td>
<td>10,000 psi</td>
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<tr>
<td>PE17M</td>
<td>10,000 psi</td>
<td>1/2 hp</td>
<td>1/2 hp</td>
<td>10,000 psi</td>
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<td>PE84</td>
<td>10,000 psi</td>
<td>1/2 hp</td>
<td>1/2 hp</td>
<td>10,000 psi</td>
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</table>

For Use With

- Single-Acting Cylinder
- Double or Multiple Single-Acting Cylinders

- Remote Motor Control Switch
- Remote Motor/Valve Control

** Usable oil is calculated with the oil fill at the recommended level of 1/2" below reservoir cover plate.

Electric/Hydraulic Pumps - PE46 Series

- Two speed high performance in a lightweight, compact package.
- For use with single- or double-acting cylinders.
- All start under full load.

PE46 Series Two-Speed Pumps

The PE46 series pumps are all equipped with a 1 1/2 hp, 3450 rpm, single phase, 115/230 volt, 60 Hz thermal protected electric motor. These motors will start under full load. All units are equipped with a 10 ft. remote control (except PE462S has 25 ft.) and a 2-1/2 gallon metal reservoir.

PE462 - For use with single acting cylinders has a No. 9584 3-Way/2-pos. valve to control "advance" and "return" functions.

PE462S - Similar to PE462 except it has a solenoid operated No. 9579 3-way/2-pos. valve that controls "advance" and "return" functions. It is also equipped with a 24 volt, 2.5 ft. remote motor and valve control. For use with single-acting cylinders.

PE462A - Equipped with a No. 9610 3-way/2-pos., pilot-operated "dump" valve. When pump is started, pilot valve automatically closes valve and oil is directed to a single-acting cylinder. When pump is stopped valve automatically opens and oil returns to reservoir.

PE464 - Has a No. 9500 4-way/3-pos. valve which controls the "advance", "hold" and "return" on double-acting or multiple single-acting cylinders.

PE464S - Has a solenoid operated No. 9592 3-way/2-pos. valve which controls the "advance" and "return" functions. For use with single- or double-acting cylinders.

For Use With

- Single-Acting Cylinder
- Double or Multiple Single-Acting Cylinders

- Remote Motor Control Switch
- Remote Motor/Valve Control

** Usable oil is calculated with the oil fill at the recommended level of 1/2" below reservoir cover plate.

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Complete Contractor and Industrial Supplier • Sling and Rigging Specialist Since 1930
Visit us online at www.hanessupply.com
Electric/Hydraulic Pumps - PE18 Series

- Two speed high performance in a lightweight, compact package.
- For use with single- or double-acting cylinders.
- All start under full load.

PE18 Series Pumps

All PE18 series pumps are two-speed with a roller vane type pump providing low pressure, high volume and an axial piston pump providing high pressure. All units are equipped with a 1/2 hp, 110/115 volt, 60/50 Hz single phase motors. Pumps will start easily under load, even at reduced voltage. All units have a gauge port on the pump for monitoring system pressure and all have metal reservoirs.

All pumps have a 10 ft. remote control except PE183C which has a 25 ft. remote control.

PE182 - For use with single-acting cylinders, has 20 ray valve for “advance” and “return” (turn motor off for “hold” with the valve in the advance position). 1/2 gallon reservoir.

PE183 - Same as PE182 except it has a 3-way valve for “advance”, “hold” and “return".

PE183A - Similar to PE183 except it has an automatic dump valve with “advance” & “return".

PE184 - For use with double-acting cylinders. Has a 4-way valve for “advance”, “hold” and “return”. 1/2 gallon reservoir.

PE184-2 - Same as PE184 except it has a 2-1/2 gallon reservoir.

PE183C pump

This special application pump is for crimping or pressing. The PE183C features two-stage flexibility and special electric circuitry to jog/advance, hold at full pressure, build to a predetermined pressure, release, and reset the circuit. It is equipped with a 24 volt control and comes with a 25 ft. remote cord and a dual switch housing containing a pump control switch and a separate emergency return switch.

Electric/Hydraulic Pumps - Vanguard® 30 Series

- Designed for use with single or double-acting cylinders, they deliver a powerful punch! Up to 20,000 psi.

In keeping with the VANGUARD pump tradition, our 30 series pumps feature a high performance to weight ratio, and the ability to start and run at reduced voltage. These all metal pumps offer a wide selection of valve and remote control options, large capacity reservoirs and whisper quiet operation.

The two-speed PE30 features a true unloading valve to achieve high pump efficiency.

PE184C pump

This pump allows you to alternately operate a spring-return cutting and/or crimping tool with out disconnecting either tool. Its operation is simple: Select the port connection with the manual 4-way valve, start the pump with the remote control hand switch and extend the connected tool. When the hand switch is switched off, the pump stops and the automatic valve opens to allow the tool to return. In the center (neutral) position, the manual control valve holds the selected tool in the position it is in at the time the valve is shifted. The pump comes with a 10 foot heavy duty remote switch.

DC conversion kit*

Order kit No. 205601 to convert PE18 series pumps from 115/230 volt AC to 115/230 volt DC. Kit includes a heavy-duty ON/OFF switch for both AC and DC voltage hook-ups.

* For use only with PE182, PE183, PE184 and PE184-2 when no remote control is used.

<table>
<thead>
<tr>
<th>PE182, PE183, PE183A, PE184</th>
<th>PE183C, PE184-2</th>
</tr>
</thead>
<tbody>
<tr>
<td>10,000 psi 12,000 85/90° 10.2 Amps 230 190 25 18</td>
<td>10,000 psi 12,000 85/90° 10.3 Amps 230 190 25 18</td>
</tr>
<tr>
<td>2-1/2 gallon reservoir.</td>
<td>2-1/2 gallon reservoir.</td>
</tr>
<tr>
<td>PE183C</td>
<td>PE184-2</td>
</tr>
<tr>
<td>10,000 psi 12,000 85/90° 10.2 Amps 230 190 25 18</td>
<td>10,000 psi 12,000 85/90° 10.3 Amps 230 190 25 18</td>
</tr>
<tr>
<td>2-1/2 gallon reservoir.</td>
<td>2-1/2 gallon reservoir.</td>
</tr>
</tbody>
</table>

Electric/Hydraulic Pumps - Vanguard® 30 Series

- For use with single- or double-acting cylinders.
- All start under full load.

PE30 Series

- For use with single- or double-acting cylinders, they deliver a powerful punch! Up to 20,000 psi.

In keeping with the VANGUARD pump tradition, our 30 series pumps feature a high performance to weight ratio, and the ability to start and run at reduced voltage. These all metal pumps offer a wide selection of valve and remote control options, large capacity reservoirs and whisper quiet operation.

The two-speed PE30 features a true unloading valve to achieve high pump efficiency.

PE30 Series

- For use with single- or double-acting cylinders.
- All start under full load.

In keeping with the VANGUARD pump tradition, our 30 series pumps feature a high performance to weight ratio, and the ability to start and run at reduced voltage. These all metal pumps offer a wide selection of valve and remote control options, large capacity reservoirs and whisper quiet operation.

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PE30 Series

- For use with single- or double-acting cylinders.
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PE30 Series

- For use with single- or double-acting cylinders.
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In keeping with the VANGUARD pump tradition, our 30 series pumps feature a high performance to weight ratio, and the ability to start and run at reduced voltage. These all metal pumps offer a wide selection of valve and remote control options, large capacity reservoirs and whisper quiet operation.

The two-speed PE30 features a true unloading valve to achieve high pump efficiency.

PE30 Series

- For use with single- or double-acting cylinders.
- All start under full load.
Electric/Hydraulic Pumps - Vanguard® 30 Series (continued)

For Use With Order Valve No. Type No. Function Control Switch Motor (4000 rpm)†† Reservoir Cap. Usable

PE302 3-way, 2 pos. 9584 Adv. Return On/Off/Jog Switch
PE303 3-way, 2 pos. 9584 Adv. Hold Return On/Off/Jog Switch
PE302R 3-way, 2 pos. 9584 Adv. Return Remote Motor Control (10 ft)
PE303R 3-way, 3 pos. 9584 Adv. Hold Return Remote Motor Control (10 ft)
PE302-2 3-way, 2 pos. 9584 Adv. Return On/Off/Jog Switch
PE302-2A 3-way, 2 pos. 9584 Adv. Return Remote Motor (10 ft)
PE302-2R 3-way, 2 pos. 9584 Adv. Return Remote Motor Control (10 ft)
PE303R-2 3-way, 3 pos. 9584 Adv. Hold Return Remote Motor Control (10 ft)

For Use With Order Valve No. Type No. Function Control Switch Motor (4000 rpm)†† Reservoir Cap. Usable

Double-Acting Cyl.

PE304-3A 4-way, 3 pos. Tandem Cyl. 9584 Adv. Hold Return Remote Motor Control (10 ft) 1-1/4 gal.** 280 cu.in.

PE55 Series Pumps

All units are equipped with a 1-1/8 hp, 12,000 rpm, 110/115 volt, 50/60 Hz motor. These pumps are for use with single-acting cylinders and can be used for low pressure, high volume applications. The PE55 series pumps are designed to meet the needs of the industrial market for high pressure, high volume applications. These pumps are specifically designed to provide a consistent flow of hydraulic fluid and are ideal for applications such as heavy equipment, construction, and manufacturing. The PE55 series pumps are available in a variety of sizes and configurations to meet the specific needs of different industries. Whether you are looking for a pump for a small job or a large project, the PE55 series pumps are the perfect solution. They are designed to be reliable, efficient, and durable, ensuring that you get the job done right the first time. With a wide range of applications and industries, the PE55 series pumps are the ideal choice for your hydraulic needs.
Hydraulics

Manifold Blocks

**9617 Manifold Block**
When a multiple-cylinder installation is required, this manifold is invaluable. Has six 3/8” NPTF ports to handle multiple-cylinder systems. Wt., 3 lbs.

**9626 Manifold Block**
It converts Power Team pumps with pump mounted valves for use with remote mounted valves. This manifold block is subplate mounted on the pump cover plate and provides 3/8” NPTF pressure and return ports. Maximum operating pressure is 10,000 psi and maximum recommended flow rate is 5 gpm.

**9626 converts pump for use w/ remote mounted valve. When attaching a gauge you must order fitting No. 9678.**

**NOTE:** If used on PE30 or PG30 series pump, 1/2” longer mounting screws are required. Order four (4) No. 11956 screws separately.

**9627 Manifold Block**
This 16” long manifold block allows you to mount the 9755 or 9596 valves without interference. Has seven 3/8” NPTF ports and two 1/4” mounting holes. Wt., 6 lbs.

**9634 Manifold Block**
This manifold is for multiple-cylinder installation, has four 3/8” NPTF ports and two 1/4” mounting holes. Wt., 1.5 lbs.

**9635 Manifold Block**
This hex-shaped manifold offers extra versatility. It has six 3/8” NPTF ports and two 1/4” mounting holes. Wt., 2 lbs.

**9642 and 9644 Manifold Blocks with Needle Valves**

**9691 “Y” Manifold**
Extremely useful when connecting two hydraulic cylinders to a single line. Has three 3/8” NPTF ports. Wt., 1 lb.

Hose

**Hose**

1/4” I.D. Polyurethane
3/8” I.D. Polyurethane
1/4” & 3/8” I.D. Rubber
1/4” I.D. Non-Conductive

**Hydraulic hose**
There are five styles in lengths from 2 to 100 ft. All have plastic hose guards except for the 1/4” I.D. polyurethane hoses which have spring guards. All have 3/8” NPTF fittings on both ends. Operating pressure is 10,000 psi. Minimum burst pressure is 20,000 psi (except for the non-conductive hoses and 3/8” high flow polyurethane hoses), and all comply with MHI standard J1901.

**Polyurethane hose** - This hose style is offered in two sizes: 1/4” or 3/8” I.D. It is made up of nylon core tube with polyester fiber reinforcement which will withstand the minimum SAE bend radius without shortening service life. These hoses last up to seven times longer than rubber hose, and are suitable for continuous service at temperatures from -40° to 150° F.

**Rubber hose** - This hose style is also offered in two sizes: 1/4” or 3/8” I.D. It is 2-ply rated hose reinforced with two braids of high tensile steel wire. The rubber covering is oil and weather resistant. These hoses are MSHA approved.

**Non-conductive hose** - For applications requiring electrical isolation by the hose, “non-conductive” hose has a leakage factor of less than 50 microamperes, considered a safe level on entering the hose and affecting its overall conductivity. All non-conductive hoses have a minimum burst pressure of 40,000 psi.

**Hydraulic hose assembly**

**No. 9764** - Hose ass’y consisting of 9767 (6’ hose), 1/4” I.D. polyurethane with 9798 hose half coupler & 9800 dust cap assembled.

**No. 9754** - Hose ass’y consisting of 9756 (6’ hose), 1/4” I.D. rubber with 9798 hose half coupler & 9800 dust cap assembled.

**Cylinder return time**
The figures below show the relative effect two styles of hose can have on return time. Actual times may vary.

**Needle Valves**
For independent multiple-cylinder operation, feature needle valves for precise manual control. Designed for remote-mounted applications, they can be used with all Power Team gas, air or electrically driven hydraulic pumps.

**No. 9642 - Manifold with two needle valves for control of two cylinders. Has four 3/8” NPTF ports. Wt., 8.2 lbs.**

**No. 9644 - Manifold with four needle valves for control of four cylinders. Has six 3/8” NPTF ports. Wt., 16.2 lbs.**

**9691 “Y” Manifold**
Extremely useful when connecting two hydraulic cylinders to a single line. Has three 3/8” NPTF ports. Wt., 1 lb.
Hydraulics

Hydraulic Accessories

Heavy-Duty Hydraulic Pressure Gauges

A complete new line of accurate and reliable heavy-duty pressure gauges. These gauges feature an easily readable and highly visible adjustable, red day-glo needle. A high strength steel bourdon tube ensures high cycle life. With stainless steel cases and lens locking rings, all 4" and 6" dry gauges can be filled with silicone (Kit #9046). All gauges have 1/4" NPT bottom connections. Designed to meet ANSI B40.1 grade B standards.

**NOTE:** Gauges 9040-9085 are available in Europe with readings in bar. To order add the letter “E” to the part number (example 9075E) or contact us for more details.

<table>
<thead>
<tr>
<th>Gauge No.</th>
<th>Face Dia. (in)</th>
<th>psi</th>
<th>Bar</th>
<th>Tons</th>
<th>Major Graduations</th>
<th>Minor Graduations</th>
<th>Silicone Filled</th>
<th>Tonnage</th>
<th>Use With PT Cyl. Series</th>
</tr>
</thead>
<tbody>
<tr>
<td>9041</td>
<td>2-1/2</td>
<td>0 - 10,000</td>
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<td>No 2500 psi, 100 Bar</td>
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<td>All</td>
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<td>0 - 600</td>
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<td>All</td>
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<td>All</td>
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<td>0 - 600</td>
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<td>No</td>
<td>All</td>
<td></td>
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<tr>
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<td>4</td>
<td>0 - 10,000</td>
<td>-</td>
<td>17.5, 30, 50</td>
<td>200 psi, 5 Ton on 30, 50 Tons Scale: 2 Ton on 17.5 Ton Scale</td>
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<td>17.5, 30, 50</td>
<td>R1172, R1173, R11703, R11705</td>
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<td>-</td>
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<td>C &amp; RLS</td>
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<td>C, R, RD, RLS &amp; RSS</td>
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<td>100</td>
<td>C, R, RA, RD, RH, RLS†, RSS† &amp; RT1004H</td>
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<tr>
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<td>200 psi, 2 Ton</td>
<td>150</td>
<td>C, R, RD &amp; RSS</td>
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<td>0 - 200</td>
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<td>200 psi, 2 Ton</td>
<td>200</td>
<td>R, RD &amp; RHT</td>
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<td>RD</td>
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<td>No</td>
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<td></td>
<td></td>
</tr>
</tbody>
</table>

* Shipped "dry." User can convert to "wet" using liquid silicone No. 9406.
† The tonnage scale on the gauge is based on a different effective area. A slight error in tonnage reading will occur relative to the different effective area.

Hydraulic Coupler Dust Cap

Dust cap fits either male or female half couplers.

No. 9080 - Dust cap. For 4" or 6" dry gauges.

Universal Pump Cart

Mobilize your hydraulic pumps with the PC200. The rugged tubular frame can easily handle pumps weighing up to 200 lbs. With 12 in. wheels, the cart rolls easily. Just load the pump onto the cart and wheel it right to the job. It saves time and hard work. The universal mounting hole Pattern lets you handle a wide variety of Power Team pumps.

Cylinder & Hose Couplers

Designed for use up to 10,000 psi with hydraulic jacks, cylinders, etc. They are the threaded union type for interchanging cylinders in seconds. Each half is valved with a precision ball for a tight shutoff when disconnected. These couplers also permit the separation of cylinders or hose from pump when at 0 psi with minimal oil loss.

No. 9795 - Complete quick coupler, 3/8" NPTF. (includes two 9800 dust caps.)
No. 9796 - Male (hose) half coupler (less hose half dust cap), 3/8" NPTF.
No. 9797 - Female (cylinder) half coupler with dust cap, 3/8" NPTF.
No. 9798 - Optional metal dust cap (Hose half.)
No. 9799 - Optional metal dust cap (Cylinder half.)

No-Spill, Push-to-Connect Hydraulic Hose Couplers

High flow, no-spill, push-to-connect couplers with locking collar and flush face designed for high pressure applications. The flush-face concept makes it easy to clean both coupler ends before connecting. Our unique push-to-connect, "dry-break" design eliminates oil spillage. The locking collar makes accidental disconnects a thing of the past. For 10,000 psi operation. Designed to permit high oil flow.

No. 9792 - Female (cylinder) half quick coupler only. Wt., 3 lb.
No. 9793 - Male (hose) half quick coupler only. Wt., 3 lb.
No. 9790 - Metal dust cap for 9792 female half coupler. Wt., 1 lb.
No. 9791 - Metal dust cap for 9793 male half coupler. Wt., 1 lb
No. 9794 - Complete quick coupler (male and female). Dust caps not included. Wt., .5 lb.

Hydraulic Coupler Dust Cap

Dust cap fits either male or female half couplers.

No. 9800 - Dust cap. For male or female 3/8" NPTF half couplers. Wt., .3 lb.

Universal Pump Cart

Mobilize your hydraulic pumps with the PC200. The rugged tubular frame can easily handle pumps weighing up to 200 lbs. With 12 in. wheels, the cart rolls easily. Just load the pump onto the cart and wheel it right to the job. It saves time and hard work. The universal mounting hole Pattern lets you handle a wide variety of Power Team pumps.

No. PC200 - Universal pump cart with 12 in. wheels. Cart can be used with the following pumps: PA60, PA64 and PA554 air/hydraulic pumps; PE55 series, PE183-2 and PE 184-2 electric/hydraulic pumps; PE21, PQ60 and PQ120 series "Quiet" pumps; PG55 series gas engine/hydraulic pumps; and pumps with optional 5- and 10-gallon reservoirs Nos. RP50, RP51, RP101 and RP103. Wt., 27 lbs.

No. PC200RC - Roll cage for use with PC200. (Cannot be used on pumps with 10 gallon reservoirs.) Wt., 36 lbs.

Protective Pump Roll Cage

This unit safeguards the pump, gas engine and valves on the job site. Horizontal bars provide convenient hand holds for carrying the pump, and a pick-up point permits lifting the unit with an overhead crane or other device. Furnished as standard equipment on PG1203 and PG1204 Power Package units. Can be ordered as an option with any other gas, air or electrically driven hydraulic pump equipped with a 5-gallon reservoir.

Note: Refer to PG 1 203/PG 1204 specification chart for dimensions of roll cage.

No. RC5 - Roll cage. Wt., 19.5 lbs.
Hydraulic Accessories

Power Team's fittings include a wide range of types and sizes. Ideal for many hydraulic applications.

- No. 9670 - Tee adapter. For installing gauge between pump and hose coupling. Has 1/4" or 3/8" NPTF female and 3/8" NPT male ports. Wt., .5 lb.
- No. 9671 - Double tee adapter. Permits use of more than one cylinder in series with one pump. Three 3/8" NPTF female ports. Wt., 1 lb.
- No. 9672 - Service tee. Two 3/8" NPTF female internal, one 3/8" NPT male external. Wt., .6 lb.
- No. 9673* - Swivel connector, 3/8" NPTF male, 1/4" NPS female. Wt., .2 lb.
- No. 9674 - Male reducer adapter, 1-11/16" long, 1/4" x 3/8" NPT. Wt., .2 lb.
- No. 9675 - Swivel connector, 3/8" NPTF male, 3/16" NPS female. Wt., .2 lb.
- No. 9676* - Swivel connector, 3/8" NPTF male, 3/8" NPSF, female. Wt., .3 lb.
- No. 9677 - 45° fitting. Used when mounting gauge at an angle on connection such as 9670. Male and female 1/4" NPTF ends. Wt., .3 lb.

NOTE: The 9502 is suitable for use with the following pumps: P460, PA17, PA46, PA55, PA60, PE17, PE21, PE30, PE46, PE55, PE64, PE90, PE120, PQ60, PQ120, PQ200, PE400, PG30, PG55, PG120 and PG400 series pumps.

9502 3-Way, 3-Position (Closed Center), Non-interflow Manual Valve with “Posi-Check”

This is a detent 3-way, 3-position closed center valve. It can be either pump mounted or remote mounted with the 9510 subplate. The 9502 is of low torque design for use with single-acting cylinders. A pressure switch and/or gauge may be attached. Port size is 3/8" NPTF. Maximum operating pressure 10,000 psi and the recommended flow rate is 5 gpm.

9520 3-Way, 3-Position (Tandem Center) Manual Valve with “Posi-Check”

This 3-way, 3-position (tandem center) manual valve, to be used with single acting cylinders. When shifted to the retract position the pump and cylinder return through their own separate return lines, allowing faster return time on single-acting cylinders. The “posi-check” feature guards against pressure loss when shifting from the ‘advance’ to ‘hold’ position. A pressure switch and/or gauge may be attached. Port size is 3/8" NPTF. Max. operating pressure 10,000 psi; max. flow rate is 5 gpm.
Valves for Single-Acting Cylinders

9582, 9584 3-Way, 2-Position Manual Valves
The 9582 is a pump mounted, 3-way manual valve for use with single-acting cylinders. It is lever operated with “advance” and “return” positions. If required, a pressure switch and/or gauge may be attached. Port size is 3/8” NPTF. Maximum operating pressure is 10,000 psi; max. flow rate is 5 gpm.

NOTE: The 9582 and 9584 are suitable for use with the P460, PE17, PE21, PE30, PE46, PE55 PE84, PE90, PE120, PQ-60 and PQ120 series pumps.

No. 9582 - 3-way, 2-pos, pump mounted manual valve. Wt., 2.5 lbs.
No. 9584 - Same as 9582 except has “flipper” control. Wt., 1.8 lbs.

9610 3-Way, 2-Position Pilot Operated Automatic Valve
This is an automatic, pilot operated, 3-way valve for use with single-acting cylinders. When the pump is started, pilot oil automatically closes the valve and oil is directed to a single-acting cylinder. When the pump is stopped, the valve automatically opens and oil returns to the reservoir. A pressure switch and/or gauge may be attached. Port size is 3/8” NPTF. Maximum operating pressure is 10,000 psi; max. flow rate is 5 gpm.

NOTE: The 9610 is furnished with pilot lines and adapters for the PA55, PA90, PE30, PE55, PE90 and PE120 series pumps. Call for more information on these & other pump models.

No. 9610 - 3-way, 2-position pilot operated automatic valve, pump mounted. Wt., 4.2 lbs.

9517 2-Way, 2-Position Manual Valve
This is a 2-position valve for use with single-acting cylinders. It is flipper lever operated with “advance” and “return” positions. A pressure switch and/or gauge may be attached. Port size 3/8” NPTF. Maximum operating pressure is 10,000 psi; max. flow rate is 5 gpm.

NOTE: The 9517 is suitable for use with the PA30, PA46, PA55, PA60, PE17, PE21, PE30, PE46, PE55, PE84, PE90, PE120, PE200, PE400, PQ60 and PQ120 series pumps.

No. 9517 - 2-way, 2-position manual valve, pump mounted. Wt., 4.2 lbs.
No. 9517 - 3-way, 2-position automatic valve. Wt., 4.4 lbs.

Valves for Double-Acting Cylinders, Manually Operated

9506 4-Way, 3-Position (Tandem Center) with “Posi-Check”
This pump-mounted, manually operated valve is designed for use with double-acting cylinders. It is a detented 4-way, 3-position tandem center valve with “advance,” “hold” and “return” positions. A subplate is provided for pump mounting or it can be remote mounted with the 9510 subplate. A pressure switch and/or gauge may be added. Port size is 3/8” NPTF. Maximum operating pressure is 10,000 psi and max. flow rate is 5 gpm.

NOTE: The 9506 is suitable for use with the P460, PA60, PA17, PA46, PA55, PE17, PE21, PE30, PE46, PE55, PE84, PE90, PE120, PE200, PE400, PED, PG30, PG55, PG120, PG400, PQ60 and PQ120 series pumps.

No. 9506 - 4-way, 3-position pump-mounted, tandem center valve, manually operated. Contact us for pressure switch application. Wt., 5.1 lbs.

9500 4-Way, 3-Position (Tandem Center)

9511 4-Way, 3-Position (Open Center)
These detented 4-way, 3-position valves are designed for use with single- or double-acting cylinders. Valves can be pump mounted, or can be remote mounted with the 9510 subplate. A pressure switch and/or gauge may be added. Port size is 3/8” NPTF. Maximum operating pressure is 10,000 psi; maximum flow rate is 5 gpm.

NOTE: These valves are suitable for use with the following pumps: P460, PA17, PA46, PA55, PE17, PE21, PE30, PE46, PE55, PE84, PE90, PE120, PE200, PE400, PQ60 and PQ120 series pumps.

No. 9511 - 4-way, 3-position (open center) valve. Wt., 4.2 lbs.
No. 9511 - 4-way, 3-position (closed center) valve. Wt., 5.0 lbs.

This low torque design valve can be used with single- or double-acting cylinders. It is a pump mounted, detented 3/4-way or 4-position manual valve. When acting as a 3-way valve for single-acting cylinders, plug port “A” or “B.” The 9504 can be remote mounted with the 9510 subplate. A pressure switch and/or gauge may be attached. Port size is 3/8” NPTF. Maximum operating pressure is 10,000 psi; max. flow rate is 5 gpm.

NOTE: The 9504 is suitable for use with the P460, PA6-D, PA17, PA46, PA55, PA60, PE17, PE21, PE30, PE46, PE55, PE84, PE90, PE120, PE200, PE400, PQ60 and PQ120 series pumps.

No. 9504 - 3/4-way, 2-position manual valve, pump mounted. Wt., 4.2 lbs.

Visit us online at www.hannessupply.com
Valves for Double- or Single-Acting Cylinders, Solenoid Operated

9513 4-Way, 3-Position (Tandem Center) Pilot Operated Solenoid Valve, 115 Volt, 50 and 60 Hz

This 4-way, 3-position (tandem center) solenoid valve features “posi-check” which holds the load when shifting from the “advance” to “hold” position. This pump-mounted valve is designed for use with double-acting cylinders. A gauge may be attached if needed. Port size is 3/8” NPTF. Maximum operating pressure is 10,000 psi and maximum flow rate is 5 gpm.

NOTE: The 9513 is suitable for use with the PE17, PE21, PE30*, PE46, PE55, PE64, PE90 PE120, PE200, PE400, PE60 and PG120 series pumps.

No. 9513 - 4-way, 3-position (tandem center) pressure control to two or more clamping systems when operated by a single power source. The 9608 can be used to provide different pressures in various stages of a single system. Virtually zero leakage across the valve means each system can be operated by a single continuous pressure source.

No. 9608 Pressure Reducing Valve

This valve gives you complete, independent pressure control to two or more clamping systems when operated by a single power source. The 9608 can be used to provide different pressures in various stages of a single system. Virtually zero leakage across the valve means each system can be operated by a single continuous pressure source.

No. 9608 - Pressure reducing valve. 1/4" NPTF ports. Adjustable from 1,000 to 5,000 psi at outlet port B (secondary). Maximum operating pressure is 10,000 psi at inlet; 5 gpm maximum flow rate. Wt., 5.8 lbs.

9720 Counter Balance Valve

This counterbalance valve provides positive holding and controlled, “Chatter” free lowering of a load. The load is raised at the flow rate of the pump. The load is held when pump is shut off. When the pump valve is shifted to retract, the 9720 counter balance valve will continue to hold the load until the system pressure exceeds the pressure caused by the load. The counter balance valve will then allow the load to be lowered smoothly to the flow rate of the pump. Includes two male and two female half couplers, two hydraulic hoses, fittings and dust caps.

No. 9720 - Counter balance valve.

No. 9721 - Counter balance valve. Same as No. 9720 less couplers, hoses, fittings and dust caps.
Valves – In-Line (continued)

9623 “In-Line” Pressure Relief Valve
The 9623 is designed for remote locations in a hydraulic circuit when the maximum pressure requirements are less than the setting of the basic over load valve setting in the pump. This spring-loaded, direct-acting valve can be used with single- or double-acting cylinders. It is adjustable from 1,000 to 10,000 psi. Maximum recommended flow rate is 5 gpm.

No. 9623 - Pressure relief valve with 3/8” NPTF ports. Wt., 2 lbs.

9631 Metering Valve
It’s perfect for systems that use large cylinders or extended lengths of hose. The No. 9631 controls surges by restricting the flow if it exceeds 7 gpm. When the flow subsides, the valve reopens automatically. Has 3/8” NPTF Male end to thread into the return port of the system control valve, and it has a 3/8” NPTF female end so the return hose can be directly connected.

No. 9631 - Metering valve. Wt., .2 lb.

9633 “In-Line” Pressure Regulator Valve
Whether you use it with single- or double-acting cylinders, the No. 9633 allows you to adjust the operating pressures at various values below the relief valve setting of the pump. You can easily adjust the regulator to maintain pressures between 300 and 10,000 psi. The No. 9633 maintains a given pressure setting within 3% over repeated cycles. Flow range is 17 cu. in. per minute to 6 gpm.

No. 9633 - In-line pressure regulator with two 3/8” NPTF inlet ports and one 1/8” NPTF tank port. Includes 3’ drain line kit. Wt., 1.9 lbs.

RV21278 Series Relief Valves
Provides economical means of protecting a hydraulic circuit against over pressurization. This factory preset valve is designed for max. flow rate of 5 gpm. Furnished with 1/8” NPT Male port. Wt., .2 lb.

NOTE: Care should be exercised to protect workers from hot, pressurized hydraulic fluid. Install only in an enclosed or shielded area.

Lifting & Jacking

Cylinder and Pump Combination Sets

• Precision matched pumps and cylinders will handle hundreds of applications.

We’ve taken the guesswork out of cylinders and pump selection with these 15 matched sets. They include four styles of cylinders for positive, single-speed or two-speed hand pump for easy operation. Whatever requirements you have, the right combination is here: High, medium or low tonnage with long, medium or short stroke. Each includes the necessary fittings, coupler and 6 ft hydraulic hose.

No. 251220 Storage Box - Rugged industrial strength material, strong as steel, never needs painting, won’t rust, dent or chip. Weatherproof lid is self sealing and locking. Molded in handles and removable heavy duty utility tray.

Water-tight, one piece bottom and side construction. Strong enough to stand on. (35”L x 13-1/2”H x 12-3/4”W)

Maintenance Sets

Complete sets of pumps, rams and accessories that assemble quickly for pushing, lifting, pressing, straightening, spreading, or clamping. All pieces are contained in a rugged carrying case for taking to the job site. Rams are 10-ton capacity and operate at 10,000 PSI maximum.

No. IM10H - Basic Maintenance Set. Includes Hand Pump, 10-ton Ram, 10,000 PSI Gauge, Hydraulic Spreader, 6 foot Hose and Accessories. Wt. 73.8 lbs.

No. IM10E - Deluxe Maintenance Set. Includes 1/4hp Electric Pump, 6” and 10” stroke 10-ton Ram, 10,000 PSI Gauge, Hydraulic Spreader, 6 foot Hose, and Accessories. Wt., 90.8 lbs.
Hydraulic Bottle Jacks

Portable hydraulic power in a rugged, reliable unit.

Choose from this complete line of premium-quality, standard bottle jacks. Ideal for use in any number of industrial lifting and pushing applications.

The 9110B, 9015B, 9022B and 9030B feature a beveled base which allows the jack to “follow” the load, reducing the chance of dangerous side-loading.

Hydraulic Bottle Jacks

(9015a, 9033B, 9050a)

Low Profile Bottle Jacks

(9012a, 9020a, 9130a)

Power Team Telescoping Bottle Jacks

These jacks offer all of the quality features and capabilities of the standard bottle jack line with a bonus. The super long stroke of these jacks saves time and effort by eliminating the need to lift, crib, lift, etc. In most applications, the user can place the jack once and complete the lift.

The 9015X offers very low clearance capability, making it the ideal choice for forklift maintenance or machine lifting.

Power Team Telescoping Bottle Jacks

(9006X, 9011X, 9013X)
Hydraulics

Heavy Duty Industrial Hydraulic Jacks - JHJ Series

- Tested to 150% of rated capacities
- Not affected by temperature extremes
- Extensively tested to ANSI and JIS standards
- Electrically welded base and cylinders to assure strength and eliminate leaks
- Common release valve assemblies and other interchangeable parts for quick repair are standard
- All Models work in upright, angle or horizontal position
- Pump handle included with all models
- Carrying handle on 12-1/2 - 100 ton models

NOTE: When used at an angle or in the horizontal position, pump must be in upright position and piston movement is reduced.

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Economy Hydraulic Toe Jacks

Just the power you need at a price you can afford.

These bottle jack-style toe jacks are loaded with many of the same features as our standard bottle jacks. But the toe-lift feature and swiveling pump handle assembly make them ideal for machinery lifting and positioning. An internal pressure relief capability to the capacity of the toe. Spring return capability to the capacity of the toe. Spring return is added as an option on the larger jacks.

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</table>

Sidewinder Mini Jack

5, 10 & 20 Ton Capacity

The Sidewinder Mini Jacks may be small (fits in the palm of your hand) but don’t let their compact size fool you. They pack a powerful punch, and are an important member of the Power Team’s heavy-duty lifting team.

Extremely Low Profile

Retracted height of just 2.56” for the smallest jack and 5.13” for the 20 ton, allows you to slip this jack into the narrowest of crevices.

Vertical or Horizontal Applications

Jacks operate either horizontally or vertically. Handles function in line with base for easier use in confined spaces.

Power in the Palm of Your Hand

The perfect addition to any toolbox, this remarkable little jack has multiple uses that are limited only by your imagination. Use it as a jack or a spreader. Use it to turn your mechanical gear puller (puller capacity must match jack capacity) into a hydraulic puller. Use it vertically or horizontally in limited clearance applications.
Service Jacks
- Strong steel side plates
- Swivel saddle
- Heat-treated parts at maximum stress points
- For heavy-duty applications
- 3, 5 and 10 ton models have a locking T bar handle and foot pump
- Hydraulic cylinder parts are high pressure tested at the factory
- Upper lifting limit safety bypass
- 2 & 2-1/4 ton models have two-piece handles

Short Service Jacks
- Features safety overload
- Steel side plates
- Full swivel casters
- Two-piece, full length handle has knurled grip for safe, easy turning
- Full swivel, ball bearing rear casters are positioned for best load distribution, and optimal maneuvering

Air/Hydraulic Service Jacks
- Equipped with a labor-saving air pump and a high-speed cylinder piston that increases lifting speeds and efficiency
- Smooth, safe, jerk-free operation
- Hand pump can be locked into any position
- For use in tight spots or for vehicles with long overhangs
- Suitable for use on large trucks
- 4-1/8” extension screw height
- 85 - 100 PSI, 3 HP compressor power
- Lifting time with rated load 120 seconds; 35 seconds with no load

Adapters for JASJ-20

<table>
<thead>
<tr>
<th>Model</th>
<th>Stock No</th>
<th>Description (HxW/in)</th>
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<td>20-A</td>
<td>454228</td>
<td>3/4 x 2-3/4</td>
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<td>20-B</td>
<td>454229</td>
<td>3/4 x 2</td>
</tr>
<tr>
<td>20-C</td>
<td>454210</td>
<td>2-3/8 x 2</td>
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<td>20-D</td>
<td>454211</td>
<td>3-7/8 x 2</td>
</tr>
<tr>
<td>20-H</td>
<td>454212</td>
<td>Adapter Holder Assembly</td>
</tr>
</tbody>
</table>

Transmission Jacks

**TJ-1760**
- Designed for easy, one-man operation
- Two-way carrier tilt (fore and aft) two-way carrier movement (left and right)
- Swivel casters for quick maneuvering
- Handwheels to control all movements of table
- Safety chain
- Tow bar

**TJ-2000**
- Full 360° rotating pump handle can be operated in any position with either hand
- Easy, one-man operation
- Swivel casters for quick maneuvering
- Handwheels to control all lifts
- Two-way carrier tilt (fore and aft) two-way carrier movement (left and right)
- By-pass system prevents over extension ram stroke
- Safety chain.

**TTJ-1000C**
- Two-stage hydraulic cylinder: 1st stage with 1 ton (2,000 lb) capacity; 2nd stage with 1/2 ton (1,000 lb) capacity
- Foot actuated pump
- Four legs with casters
- Tilting saddle
- Designed to use with raised rack or overhead garage hoist
- Two safety chains

<table>
<thead>
<tr>
<th>Model</th>
<th>Stock No</th>
<th>Capacities (lbs)</th>
<th>Min. (H/W) (in)</th>
<th>Max. (H/W) (in)</th>
<th>Saddle (Dia/in)</th>
<th>Overall Length (in)</th>
<th>Overall Width (in)</th>
<th>Handle Length (in)</th>
<th>Net Wt. (lbs)</th>
</tr>
</thead>
</table>

Engine Stand

**JES-750C**
- Holds any engine up to 750 lbs
- Engine can be rotated a full 360°
- Positive-action lock secures engine in any position
- Slant-back post centers load over casters for extra strength and rigidity
- Engine-mounting plate included with 4 adjustable support arms, and two sets of beat-treated attaching bolts
- Engine-mounting plate may be slid off stand and bolted to engine, then entire unit lifted and remounted on stand

<table>
<thead>
<tr>
<th>Model</th>
<th>Stock No</th>
<th>Capacities (lbs)</th>
<th>Base Size (L x W x H) (in)</th>
<th>Net Wt. (lbs)</th>
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<td>JES-750C</td>
<td>442076</td>
<td>750</td>
<td>32-1/2 x 12-3/4 x 39</td>
<td>46</td>
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</table>

Safety Ratchet Shop Stands

**JES Series**
- Heavy duty, all steel, welded construction
- The weight of the load prevents the ratchet pawl from disengaging while under load
- Rated capacities of 3, 6 and 12 tons
- Sold in pairs only
Hydraulics

Jacks

High Tonnage Portable Jack (Railroad Edition)

60–100 Ton Capacity

Portable & compact, ideal for locomotive and railcar maintenance.
- Patented Load Lowering Valve – Lowers load smoothly and safely. Eliminates dangerous chatter and bounce.
- Full range of rod extensions – Jack comes fully equipped with extensions to match lifting pad heights on most rolling stock. Max. lifting height to 70”
- Low collapsed height, long stroke – 24”(61 cm) collapsed height for low-clearance lift pads 14”(36 cm) stroke for maximum lift.
- Adjustable, ergonomic handle – Handle tilts to start the job and is easily locked/unlocked without moving from operating position.
- NEMA 4 electrical box and rain hood – Pump motor and controls protected from water. Quiet operation.
- Cribbing block set with handles and convenient storage rack – Provides solid mechanical load holding.
- High-profile, low rolling resistance, foam filled tires – Jack can be moved and positioned with minimal effort. No chance of downtime due to punctured tires.
- Electric and Air Motor options – Quiet, powerful air and electric motor powered units available.

Order Information

<table>
<thead>
<tr>
<th>Capacity (tons)</th>
<th>Stroke (in)</th>
<th>Order No.</th>
<th>Retracted Height (in)</th>
<th>Extended Height w/Extensions (in)</th>
<th>Product Weight (lbs)</th>
<th>Less Cribbing &amp; Ext.</th>
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<tbody>
<tr>
<td>60</td>
<td>14</td>
<td>*PLE6014K</td>
<td>24</td>
<td>70</td>
<td>522</td>
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<td>*PLE6014K-220</td>
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<td>Consult Factory</td>
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<td>59</td>
<td>522</td>
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</table>

* Includes cribbing block set stored on jack handle rack, and 7 extensions (1, 2, 3, 4, 5, 10, 20 inch)

Order Information

Order Information

Extensions (PL60 Ext) (Included)

<table>
<thead>
<tr>
<th>Extension Length (in)</th>
<th>Order No.</th>
<th>Extension Wt. (lbs)</th>
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<td>351931</td>
<td>4.9</td>
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<td>351927</td>
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<td>351928</td>
<td>14.1</td>
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<td>4</td>
<td>351929</td>
<td>19.1</td>
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<td>5</td>
<td>66053</td>
<td>20.9</td>
</tr>
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<td>10</td>
<td>66054</td>
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<tr>
<td>20</td>
<td>66055</td>
<td>48.8</td>
</tr>
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</table>

Lifting Range

Lifting range (in 1” increments): 24” – 70”.
Only 3 extensions are needed to provide this range.
Do NOT exceed 70” lifting range on 60 ton unit or 59” on 100 ton unit.

Cribbing Blocks (CBS60) (Included)

<table>
<thead>
<tr>
<th>Qty</th>
<th>Height (in)</th>
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<td>1-1/2</td>
<td>351954</td>
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<td>3</td>
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Power Unit Specifications

<table>
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<tr>
<th>Order No.</th>
<th>Motor Volts</th>
<th>Motor Power</th>
<th>Motor Control</th>
<th>Valve Function</th>
<th>Power Cord</th>
<th>dBa @ 10,000 psi</th>
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<tr>
<td>PLE6014</td>
<td>1-1/8 HP</td>
<td>25 amps</td>
<td>Remote</td>
<td>Lift Pigtail</td>
<td>60/95</td>
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<tr>
<td>PLE6014-220</td>
<td>110/115 VAC***</td>
<td>25 amps</td>
<td>Remote</td>
<td>Lift Pigtail</td>
<td>60/95</td>
<td></td>
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<tr>
<td>PL6014</td>
<td>50/60 HZ</td>
<td>20’ Remote</td>
<td>Lift</td>
<td>NA</td>
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<tr>
<td>PL6014-220</td>
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<td>50 CFM@80 PSI</td>
<td>Remote</td>
<td>Lift Pigtail</td>
<td>60/95</td>
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</tbody>
</table>

***For 220V order PLE6014-220  *** For 50 CFM@80 PSI order PLE6014-30-220
PowerLift® – High Tonnage Portable Jack

- Modular design—pump and cart separates from cylinder and base.
- Three tonnage capacity options—55 tons, 100 tons and 150 tons.
- Three retracted height options—26", 33" & 45".
- Two standard power options—air (PA55) and electric (PE55).
- Two control options - remote motor control and remote motor/valve control.
- Accessory options - jack module extensions.
- Standard Power Team hydraulic components proven reliable yet easy to service. Modular design allows you to change jack modules to suit your tonnage and/or height requirements. Select the tonnage and retracted height to fit your most frequent application—then choose additional jack modules to suit other lifting needs. Jack modules have swivel load caps which provide more secure load-holding.
- Pump and cart modules have remote operation for maximum operator safety and control. Adjustable, heavy duty handle makes this jack easy to move and position. Handle can be used to transport jack on site for a forklift. Exclusive load-control system provides positive, chatter-free control when lowering the load. Shielded and sheltered hydraulic lines—far safer, longer trouble-free service. Use the pump module as a portable power station for your other double-acting cylinders (10,000 psi).
- Cribbing blocks (optional)—these rings provide full rated mechanical load-holding capability. Must be used with jack module shown (included in cribbing block sets).
- Jack module extension (optional)—adds more versatility by extending your jack's reach. Can be ordered and used separately, but is included in cribbing block sets.
- Low-temperature oil (optional) provides smooth, reliable operation in the coldest climate conditions.

PowerLift High Tonnage Portable Jacks

Select a Jack Module, then a Pump & Cart Module. Use the Order Number where the two module #'s cross. Complete jack assemblies can be purchased separately.

<table>
<thead>
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<td>Ton</td>
<td>(in)</td>
<td>(in)</td>
<td>55 CBSS5</td>
<td>100 CBS100</td>
<td>150 CBS150</td>
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<tr>
<td>55 13-1/8</td>
<td>33 JM33</td>
<td>45 JM45</td>
<td>JM5526</td>
<td>JM5533</td>
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<tr>
<td>100 13-1/8</td>
<td>33 JM310</td>
<td>45 JM410</td>
<td>JM10026</td>
<td>JM10033</td>
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<tr>
<td>150 13-1/8</td>
<td>26 JM215</td>
<td>33 JM315</td>
<td>JM15026</td>
<td>JM15033</td>
<td>JM15045</td>
<td></td>
</tr>
</tbody>
</table>

Cribbing Block Set - Includes One Jack Module Extension

- Convert jack into stable mechanical cribbing device.
- Increases retracted height up to 20-1/2 inches.
- Increases jack’s reach.
- Swivel cap (5" max.) provides more secure load holding.
- Extra modules provide versatility by extending your jack’s reach. Can be ordered and used separately, but is included in cribbing block sets.

Jack Modules

- Air Pump & Cart Modules contain hydraulic pump, cart, remote control & all hoses & fittings required to connect to a jack module. Jack modules easily separate from the pump & cart module. Extra modules may be purchased for a wide variety of lifting applications.

Dimensions (in)

|--------------|-------|-------|-------|-------|-------|-------|-------|-------|

* For other electric power options, consult Hanes Supply

Visit us online at www.HANESSupply.com
Inflatable Jacks

- Space age reinforced, multi-layer aramid construction, widely overlapping on all sides. Tested at 175 psi
- Non-conducting material resists oil, ozone & most chemicals. Cold resistant down to -40°F, heat resistant up to 240°F (short term) or 200°F (long term)
- Field-replaceable nipples are made of tough, non-conducting material resists oil, ozone & most chemicals. Cold resistant down to -40°F, heat resistant up to 240°F (short term) or 200°F (long term)
- Surface of jack has a non-skid pattern, assuring that the jack won’t “walk away” from the job. Jacks can be used to lift a load from an uneven surface, are tolerant of side-loaded applications.
- Heavy attachment straps are provided for attachment of a rope or hook to position the jack from a safe distance.

Jacks

20 & 30 Ton Post Tension/Stressing Jacks

Power Team Monostrand Stressing Jacks are the most durable in the industry. Ideally suited for work on slab-on-grade where dirt, heat and high volume use take their toll. Available in single- or double-acting models. A full line, of Grippers and Nose Pieces, is available to adapt strand jacks to .375", .437", .500" and .600" dia. strand that may be used with various types of anchors, wedges and pocket styles.

Post Tension/Stressing Jack, Single-Acting, Spring Seater or Power Wedge Seater:
- Available for up to 0.60" dia. strand in power seater and spring seater models.
- Standard 10.00" stroke; other stroke lengths available on special order.
- A full line of nose pieces.
- Dead-end seaters for production and field work available on special order.
- Service repair is simple; components are long lasting and easily replaced.

- 3.00" detachable seater nose assembly easily replaced with optional 6.00" nose assembly.

Post Tension/Stressing Jack, Double-Acting, Power Seater:
- The jack of choice for high-rise and elevated work, thanks to fast return time and light weight.
- Built of a single piece of hardened steel, machined to an exacting standard.
- 3.00" detachable power seat nose assembly easily replaced with optional 6.00" nose assembly.
- All hydraulic fluid controls are interior designed; more efficient and safer operation during tensioning, retraction, power lock circuits.
- Standard 8.50" stroke; others available on special order.
- Available for up to 0.60" dia. strand applications.
- Service repair is simple; components are long lasting and easily replaced.

20 & 30 Ton Post Tension/Stressing Jacks

<table>
<thead>
<tr>
<th>Cyl. Cap. (tons)</th>
<th>Stroke (in)</th>
<th>No.</th>
<th>Recommended Pump for this Straining Jack</th>
<th>Oil Cap. (cu.in.)</th>
<th>Oil Effective Area (sq.in.)</th>
<th>Internal Pressure at Cap. (psi)</th>
<th>Tons at 10,000 psi (tons)</th>
<th>A (in)</th>
<th>B (in)</th>
<th>C (in)</th>
<th>Wt. (lbs)</th>
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<td>20</td>
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<td>SJ2010</td>
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<td>42.0</td>
</tr>
</tbody>
</table>
Spreadsers & “C” Clamps

Hydraulic Spreaders

**HS2000 1 ton capacity hydraulic spreader**
- Full 2000 lb. capacity at 10,000 psi.
- Can be dead-ended at 4” spread under full load.
- High strength alloy steel forged upper and lower jaws.
- Jaws are spring-return, and retract automatically when the pressure is released.

It's a hydraulic pry bar! Don’t let its compact size fool you. This hydraulic spreader is rated at a full 1 ton capacity, and that’s enough for a wide variety of jobs. Working in tight spots is no problem, either it needs only a 9/16” clearance to engage the jaws. And with a big 4” spread, it can do what a standard pry bar or wedge can do... only better! Lift or move a machine, use it as a clamp, spread concrete forms or do straightening work. Conforms to ANSI B30.1 standards.

No. HS2000 - 1 ton capacity hydraulic spreader. 4” max. spread. Wt., 4.8 lbs.

**HS3000 1-1/2 Ton Capacity Hydraulic Spreader**
- Full 3000 lb. capacity at 10,000 psi. Exceeds the capacity of similar competitive units!
- Spread range: 1-1/4” to 11-1/2”
- Can be dead-ended at 1-1/2” spread under full pressure; rated at 1-1/2 ton capacity with jaws fully open. Capacity is greater with jaws partially open.
- Jaws are spring-return, and retract automatically when the pressure is released.

A larger hydraulic pry bar! Ideal for lifting or pry jobs where space is extremely limited... closed jaw spread is only 1-1/4”. Constructed of high strength alloy material, and tested to conform to the demanding ANSI B30.1 standard. Ideal for lifting machinery, clamping, positioning concrete forms, spreading rebar or performing straightening tasks.

No. HS3000 - 1-1/2 ton capacity hydraulic spreader. Wt., 22 lbs.

**SPECIFICATIONS**
- Max. rated capacity ............ 1 ton @ 10,000 psi
- Max. spread .......................... 11-1/2”
- Min. clearance required .......... 9/16”
- Jaw material....................... forged alloy steel
- Cu.in. oil required ................. 0.63

**SPECIFICATIONS**
- Max. rated capacity ............ 1/2 ton @ 10,000 psi
- Max. spread .......................... 1-1/2”
- Min. clearance required .......... 1-3/16”
- Jaw material....................... high strength alloy material
- Cu.in. oil required ................. 3.50

Hydraulic Flange Spreaders

No more will you need to resort to the “hammer and chisel” method of separating pipe flanges! The HSF3A, 5 ton capacity and HSF6A, 10 ton capacity Flange Spreaders will do the job in a fraction of the time and with a lot less effort. Both spreaders are furnished with a standard 60° wedge (an optional 30° “Thin” and/or 60° “Blunt” wedge is available as an accessory) suitable for use with most flanges. The HSF3A is designed for use in applications where the total thickness of the flanges and the maximum spread gap is 3” or less and the flange bolts are a minimum of 11/16” diameter. The HSF6A is designed for use in applications where the total thickness of the flanges and the maximum spread gap is 6” or less and the flange bolts are a minimum of 13/16” diameter.

We recommend using flange spreaders in pairs to provide even spreading force. A P55, P991 P157, P949 or PE(PR) 102 is suggested as a suitable pump for powering the HSF3A or HSF6A Hydraulic Flange Spreaders.

**SPECIFICATIONS**
- Jaw material ....................... forged alloy material
- Pressure; rated at 1-1/2 ton capacity with jaw spread gap of 1-1/2”.
- Jaw material ....................... forged alloy material
- Pressure; rated at 2 ton capacity with jaw spread gap of 4”.

Hydraulic “C” Clamps

**CC5, CC10, CC25 Hydraulic “C” Clamps**
- Offered in 5, 10 and 25 ton capacity. Used in welding and metal fabrication industries to aid in fit-up of sheet or plate.
- Especially useful in welding and metal fabrication industries to aid in fit-up of sheet or plate.
- In the end of the cylinder piston rod, or both locations, if desired. On the CC5, the swivel caps can be mounted in the base of the “C” clamp, in the end of the cylinder piston rod, or both locations, if desired. On the CC5, the base is designed to accept the 350144 10-ton capacity swivel cap. No swivel cap is available to fit the rod end of the 5-ton “C” series cylinder itself.

**No. CC5 - “C” clamp, 5-ton cap., less hydraulic cylinder. Wt., 25 lbs.**

**No. CC10 - “C” clamp, 10-ton cap., less hydraulic cylinder. Wt., 50 lbs.**

**No. CC25 - “C” clamp, 25-ton cap., less hydraulic cylinder. Wt., 65 lbs.**

Typical applications of these new units include clamping, pressing, and bending operations. Especially useful in welding and metal fabrication industries to aid in fit-up of sheet or plate.

Order

<table>
<thead>
<tr>
<th>No.</th>
<th>A</th>
<th>B</th>
<th>C</th>
<th>D</th>
<th>E</th>
<th>F</th>
<th>G</th>
<th>H</th>
<th>I</th>
<th>Wt.</th>
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<tbody>
<tr>
<td>CC5</td>
<td>12-3/8</td>
<td>3-3/4</td>
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<td>2-1/2</td>
<td>7-3/4</td>
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<td>CC10</td>
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<td>6</td>
<td>9-13/16</td>
<td>2</td>
<td>2</td>
<td>10-3/4</td>
<td>2-1/4-14</td>
<td>7/8</td>
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<td>3-1/2</td>
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<td>CC25</td>
<td>21</td>
<td>6</td>
<td>13</td>
<td>4</td>
<td>12-5/16</td>
<td>3-5/16-12</td>
<td>1-7/16</td>
<td>1-7/16</td>
<td>4-5/8</td>
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Dimensions (in)

- **60° (std.)** (Blunt-End Wedge Optional) 30° (Optional)
- **60° (std.)** (Blunt-End Wedge Optional) 30° (Optional)

<table>
<thead>
<tr>
<th>Wedge Angle</th>
<th>Min. Flange Opening</th>
<th>Max. Flange Opening</th>
<th>Min. Total Combined Flange Thickness</th>
<th>Pin Dia.</th>
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<td></td>
<td>1/16/60° blunt:1</td>
<td>1/16</td>
<td>1/16/60° blunt:1-1/2</td>
<td>1/16</td>
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<tr>
<td></td>
<td>1.55&quot;</td>
<td>.72&quot;</td>
<td>2.08&quot;</td>
<td>.970&quot;</td>
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<td>3-1/2 - 3-1/2</td>
<td>6-6/16&quot;</td>
<td>6-6/16&quot;</td>
<td>11/16&quot;</td>
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</table>

**HFS43A**

**HFS6A**

**350549**

**350550**

**350823**

**350822**

**CC5, CC10, CC25**
Hydraulics

Splitters/Punches/Shop Presses

Hydraulic Nut Splitter - HNS Series

Hydraulic nut splitter, 15 ton capacity.

Now you can simply “dial-in” the size of the nut you want to split, without the worry of damaging the bolt. Just align the mark on the cutter blade with the scale on the frame of the splitter. The specially designed “tool” steel cutter blade penetrates the nut to the precise point where it cracks. And because the cutter blade is preset, it mechanically stops short of the bolt threads. The nut splitter features a dramatically improved cutter blade with an 800% greater resistance to chipping and breaking over previous models.

180°” within the frame. This allows you to use both sides of the cutter blade, and in fact, doubles the life of the cutter blade. The HNS 50 features a rugged one-piece cutting frame coupled to a heavy-duty swiveling hydraulic cylinder. With its compact size, you can use it in confined areas where it will deliver up to 15 tons of force, enough to split the toughest “fused” or rusted-on grade 2H nuts used on up to 3/4” dia. bolts (1-1/8” hex size). The softer SAE grade 2 nuts up to 1” bolt size (1-1/2” hex size) are easily cut.

No. HNS150 - 15 ton hydraulic nut splitter. Comes with a No. 9796 half coupler. Wt., 8.1 lbs.

Specifications

<table>
<thead>
<tr>
<th>Nut Grade</th>
<th>Nut Splitter Cap.</th>
<th>2 or A</th>
<th>B</th>
<th>C</th>
<th>D</th>
<th>E</th>
<th>F</th>
<th>G</th>
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<tr>
<td>HNS150</td>
<td>15 ton</td>
<td>1-1/2</td>
<td>1-1/2</td>
<td>1-1/2</td>
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<tr>
<td>HNS225</td>
<td>25 ton</td>
<td>1-1/2</td>
<td>1-1/2</td>
<td>1-1/2</td>
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<td>1-1/2</td>
<td>1-1/2</td>
<td>1-1/2</td>
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</tbody>
</table>

Hydraulic Nut, 15 ton and HNS225, 25 ton at 10,000 psi (max.)

10 Ton Bench, Floor Press

• Ideal size for hundreds of maintenance applications.
• Bench press is portable, floor press can be used horizontally.

These 10 ton presses are ideal for hundreds of small pressing jobs; for repairing small motors and armatures the bench press can't be beat. The floor presses are perfect for removing or installing gears, bearings or other press-fit parts.

10”x18” uprights. The bench press gives a 15-3/8" X 18" work area. The floor press bed height is adjustable from 5" to 41/2" with horizontal daylight of 21”. Hydraulics included with the presses include a P55 single speed hand pump or a PE102 or PE104 'Quarter Horse' electric/hydraulic pump. Gauges and fittings are included with the press. The C1010C single-acting ram delivers a big 10-1/8” stroke. The RD1010 double-acting ram delivers a 10” stroke.

Specs:

<table>
<thead>
<tr>
<th>Cap (tons)</th>
<th>Type</th>
<th>Ram Used</th>
<th>Stroke</th>
<th>Ram Model</th>
<th>Order No.</th>
<th>Speed (in/min.)</th>
<th>Type</th>
<th>Pump Model</th>
<th>Wt. (lbs)</th>
</tr>
</thead>
<tbody>
<tr>
<td>10 Bench</td>
<td>Single-Acting</td>
<td>10-1/8</td>
<td>C1010C</td>
<td>SPM1010</td>
<td>.06 in./Stroke</td>
<td>Hand</td>
<td>P55</td>
<td>91</td>
<td></td>
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<tr>
<td>10 Floor</td>
<td>Single-Acting</td>
<td>10-1/8</td>
<td>C1010C</td>
<td>SPM1010</td>
<td>.06 in./Stroke</td>
<td>Hand</td>
<td>P55</td>
<td>171</td>
<td></td>
</tr>
<tr>
<td>10 Floor</td>
<td>Double-Acting</td>
<td>10”</td>
<td>RD1010</td>
<td>SPE1010</td>
<td>107</td>
<td>7.5</td>
<td>Elc.</td>
<td>PE102</td>
<td>175</td>
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</table>

Pump Electrical Specifications

PE 10 Series - 1/4 hp, 115 volt, 60 cycle, single phase. Also available in 230 volt, 50 cycle, add suffix “-220” to order no.

NOTE: Accessories are available

Visit us online at www.hanessupply.com
25 Ton “C” Frame Press
• Can be bench mounted or mounted on optional pedestal base.
• Ram head is adjustable to three positions. For those everyday maintenance jobs, make the SPM256C your choice. It delivers a full 25 tons of pressing force in a small area. When bench mounted, the press requires less than 1.5 sq. ft. of space. If used on the optional pedestal, approximately 4 sq. ft. of floor space is required. The open throat design makes loading and unloading work fast and easy. The ram head adjusts to three convenient working positions, giving you up to 20 1/4” daylight. The ram delivers a 6 1/4” stroke. The SP256C is equipped with an efficient P59 hydraulic hand pump.

Pedestal base No. 60846
This optional pedestal provides a stable base for your SPM256C. It takes up only about 4 sq. ft. of space and includes a bracket for mounting the pump on the side of the press. It must be ordered separately. Wt., 76 lbs. NOTE: Please call for info. on Accessories.

**Typical performance based on pump specifications. Actual speeds may vary with operating conditions.

25 Ton “Economy” Shop Press
• Rugged, yet reasonably priced press for those frequently performed pressing jobs.
• Lower bed adjusts to desired height. This rugged press does the work of some of the big presses at a not-so-big price. It’s ideal for many of the “in-between” jobs you see almost daily. The large working area under the ram makes positioning of even bulky work fast and easy. Your choice of hand pump or remote control electric pump plus a spring return ram with 6-1/4” stroke are a perfect combination for frequently performed pressing jobs. Rapid ram advance and return also saves time on those repetitive jobs. A handy winch and cable mechanism quickly and easily raises or lowers the press bed to desired working height, locking securely into place.

**Typical performance based on pump specifications. Actual speeds may vary with operating conditions.

25 Ton Heavy-Duty “Open Throat®” Presses
• Features Open-Throat design and movable ram head for full off-center load capacity.
• Can be used in horizontal position. Here’s a selection of 25 ton capacity presses that tackle stubborn pressing jobs. They combine power with convenience to give you dependable performance. For rapid ram advance you have a choice of the P159 two-speed hand pump, PE172 ‘Ram Runner’ with remote control or the PE21 series pumps with 24 volt remote control. The control cord allows the operator to view the work from all sides and have fingertip control of the ram. The press is also available with the PAG air/hydraulic pump. The press bed height is easily adjustable with the winch mechanism; the bed will not drop when the handle is released. The big work area, 43-3/8” x 32”, means you can position bulky jobs easily. The 25 ton ram is adjustable from side to side for off-center loads. Open Throat feature enables ram to be mounted on outside of press frame for fast bearing removal and more.

Pump Electrical Specifications
PE 17 Series - 1/2 hp, 115 volt, 60 cycle, single phase. Both pumps available in 230 volt, 50 cycle, add suffix “-220” to order no. NOTE: Accessories are available

25 Ton Heavy-Duty “Open Throat®” Presses

<table>
<thead>
<tr>
<th>Cap. (tons)</th>
<th>Type Used</th>
<th>Stroke (in)</th>
<th>Ram Model</th>
<th>Order No.</th>
<th>Stroke (in.) (min.)† † †</th>
<th>Pressing (in.) (min.) † † †</th>
<th>Type Pump</th>
<th>Valve Type</th>
<th>Type Pump</th>
<th>Pump Model</th>
<th>Wt. (lbs)</th>
</tr>
</thead>
<tbody>
<tr>
<td>25</td>
<td>Single-Acting</td>
<td>6”</td>
<td>C256C</td>
<td>SPM256C</td>
<td>9.8</td>
<td>0.8</td>
<td>Air</td>
<td>Hand</td>
<td>P59</td>
<td>435</td>
<td>452</td>
</tr>
<tr>
<td>25</td>
<td>Single-Acting</td>
<td>14-1/2</td>
<td>C2514C</td>
<td>SPM2514C</td>
<td>9.8</td>
<td>0.8</td>
<td>Air</td>
<td>Hand</td>
<td>P59</td>
<td>683</td>
<td>693</td>
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<tr>
<td>25</td>
<td>Double-Acting</td>
<td>14-1/2</td>
<td>R25254</td>
<td>SPE2514DS</td>
<td>52</td>
<td>3.3</td>
<td>Air</td>
<td>Hand</td>
<td>Elect.</td>
<td>4-Way</td>
<td>579</td>
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</tbody>
</table>

† Holds pressure with motor shut off. Also has an automatic dump setting. Furnished with a 10’ remote motor control.
†† Typical performance based on 100 psi and 10,000 psi pump specifications. Actual speeds may vary with operating conditions.
Hydraulics

55 Ton Heavy-Duty Shop Press

- Movable ram head and full off-center load capacity.
- These presses can be used in the horizontal position.

Fifty-five tons of hydraulic force can be brought to bear on very stubborn gears and bearings to make removal or installation an easy operation. Choose from models with a P460 two-speed hand pump, the PE172 "Ram Runner" or one of the Power Team PE21 series pumps. Whichever you choose, these pumps deliver the ram advance speed you need. The 55-tonrams feature chrome-plated piston rods and wiper seals to resist corrosion and keep contamination out. The ram is movable across the upper frame and the press can be used at its full rated capacity across the entire width. Maximum day light is 42" x 36" so positioning those bulky jobs is easy. With a friction brake winch you can easily adjust the height of the work bed. Just turn the crank to the right position and insert the bolster pins, no spinning handles to worry about, and the bed will not drop when the handle is released.

**Pump Electrical Specifications**

| PE 17 Series | 1/2 hp, 115 volt, 60 cycle, single phase. Also available in 230 volt, 50 cycle. | PE21 Series | 1 hp, 115 volt, 60 cycle, single phase. Also available in 230 volt, 50 cycle. | PQ60 Series | 2 hp, 230 volt, 60 cycle, single phase. Available in 115 volt, 60 cycle and 230 volt, 50 cycle. To order 230 volt, 50 cycle, add suffix "-220" to order no. For 115 volt consult Hanes Supply. | PQ120 Series | 3 hp, 460 volt, 60 cycle, three phase. Available in 220/380 volt, 50 cycle. To order 380 volt, 50 cycle, add suffix "-380" to order no. |

### 100 Ton Heavy-Duty Shop Press

- Presses available with hand or electric pumps.
- Can be used horizontally.
- Movable workhead for full on-center load capacity across width of upper frame.

These presses combine 100 tons of force with the features and benefits you look for. You get plenty of daylight, 42" x 50", and the uprights are spaced for easy side loading of bars or shafts. The ram glides across the upper frame and the press can be used at its full rated capacity across the entire width. Maximum day light is 42" x 36" so positioning those bulky jobs is easy. With a friction brake winch you can easily adjust the height of the work bed. Just turn the crank to the right position and insert the bolster pins, no spinning handles to worry about, and the bed will not drop when the handle is released.

**Pump Electrical Specifications**

| PE 17 Series | 1/2 hp, 115 volt, 60 cycle, single phase. Also available in 230 volt, 50 cycle. | PE21 Series | 1 hp, 115 volt, 60 cycle, single phase. Also available in 230 volt, 50 cycle. | PQ60 Series | 2 hp, 230 volt, 60 cycle, single phase. Available in 115 volt, 60 cycle and 230 volt, 50 cycle. To order 230 volt, 50 cycle, add suffix "-220" to order no. For 115 volt consult Hanes Supply. | PQ120 Series | 3 hp, 460 volt, 60 cycle, three phase. Available in 220/380 volt, 50 cycle. To order 380 volt, 50 cycle, add suffix "-380" to order no. |

### 150 & 200 Ton Heavy-Duty Presses

- For those big, big jobs: Large capacity presses with PQ "Quiet" pump for fast ram approach.
- Can be used in the horizontal position.
- Full off-center load capacity.

These are the largest capacity shop presses in the Power Team line. Standing 7-1/2 ft. tall, they deliver 150 or 200 tons of pressing power for big jobs. The workhead is movable, yet the press retains its full rated capacity across the entire width of the upper frame. For fast ram approach there is the famous Power Team PQ1204S "Quiet" pump equipped with a 4-way or 5-way remote control hand switch. Raising or lowering the workbed is a simple one-man operation: Remove four pins and turn the winch handle to adjust the bolster height, then reinsert the pins. Also, the upper bolster can be lowered 11 in. for convenient positioning for repetitive jobs. The open sides permit easy loading and unloading of large material.

**Pump Electrical Specifications**

| PQ120 Series | 3 hp, 460 volt, 60 cycle, three phase. Also available in 220/380 volt, 50 cycle, add suffix "-380" to order no. |

### Hydraulic Gauge and Hydraulic Fittings

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Visit us online at www.HanesSupply.com
**Shop Presses**

**Roll-Bed® Presses - 80, 100, 150 & 200 Ton**

- Available in capacities up to a giant 200 ton model.
- Full off-center load capacity.

These presses have all the benefits of other Power Team presses plus the patented Roll-Bed feature. The lower bed rolls out so a crane can be used to load and unload bulky work. Max. daylight is 50-1/2" x 60" for 80 and 100 ton models and 51-1/4" x 64" on 150 and 200 ton models. Each is equipped with a PQ120 series “Quiet” pump with 4-way valve and 24 volt remote control so the operator can view the work from all sides and have fingertip control over the ram. They also feature double-acting rams with 13-1/8" stroke. The rams, with 2 to 1 safety factor, have built-in relief valve to prevent accidental over-pressurization during ram retraction. The ram collar threads make it easy to remove from the mounting plate. The heavy-duty mounting plate assembly is easy to roll from side to side for off-center pressing jobs.

**Press Features**

- **Roll-Bed design** - Lower two levers and push or pull. The bed glides in and out on bearings from under the ram. That makes loading and unloading bulky work fast and simple.
- **Adjustable lower bed width** - For more secure balancing and centering of large, bulky jobs, the lower bed width is adjustable. Just loosen the locking bolts and you can adjust the bed from 4” to more than 27”.
- **Movable workhead** - For off-center pressing jobs the workhead can move. It moves on bearings across the upper bolster.
- **Full off-center load capacity** - Regardless of where the workhead is placed, these presses can still be used at their full rated capacity.
- **Lifting mechanism** - To raise or lower the upper bolster, simply turn a crank handle. A screw mechanism raises or lowers both sides evenly, in one continuous movement. (A heavy-duty 1/2” drill motor can replace the handle for automated adjustment.) Four locking pins hold the bolster in place for pressuring.

**Pump Electrical Specifications**

**PQ120 Series** - 3 hp, 460 volt, 60 cycle, three phase Available in 220/380 volt, 50 cycle, add suffix “-380” to order no.

NOTE: Different voltage and valve options can be obtained by substituting certain PA, PE or PQ series pumps. Consult Hanes Supply.

NOTE: To order press with a 230 volt, 60 cycle, single phase pump, order press less PQ1204S. Order pump No. PQ604S separately.

**Pullers**

**Hydra Grip-O-Matic® Gear & Bearing Pullers, & Straightening Tool**

These pullers are ideal for pulling a wide variety of press-fit parts including bushings, wheels, bearings, gears and pulleys. Applications for the pullers will be found in motor repair shops, steel mills, mines, quarries, ship yards, utilities, maintenance shops, agricultural machinery repair, and the list goes on.

- **Power Team**, the leader in pulling tools for over 70 years, now adds three patented, self-contained, pulling systems to the world’s most complete line of innovative pulling equipment.
- **These self contained portable pulling systems include a 2-way/3-way puller, hydraulic cylinder, and multi-directional hand pump all in one compact, lightweight unit complete with carrying case.**
- **Among the many features, pullers offer the often copied power, Team Grip-O-Matic® design.** The harder the pulling force, the tighter the jaws grip for improved holding force.
- **Power Team pullers have been rigorously tested for top performance and reliability at maximum capacity and jaw spread.**

---

**No. PH83C 6 Tons**

**No. PH83C 8 Tons**

**No. PH113C 11 Tons**

**No. HST11** Used w/ No.PH113C

Shaft adapter included.

**Heavy-duty straightening fixtures** - Make straightening jobs easy and accurate to within ,004”. Rollers are ball bearing mounted and handle lowers or lifters for easy turning of the work.

**No. SF150** - Fixture for use with 80, 100, 150 and 200-ton Roll-Bed presses and 100 ton shop presses only (1 pr.) Wt. 196 lbs.

**NOTE:** Accessories are available.
### Hydraulics

**Enforcer 55/Universal Puller**

- Super Grip-O-Matic pulling jaws (adjustable on 100 ton) the harder you pull, the tighter the grip.
- Puller cart equipped with a hydraulic lift system.*
- A unique dual pump arrangement.*
- Hydraulically-actuated jaws.*
- 55-ton puller can be assembled in either 2/3-jaw configuration.
- 55- or 100-ton ram provides pulling force.
- Self-centering: center ram on work and the puller jaws will automatically grip work evenly.*
- Guards at pinch-points protect operator on 55-ton.
- Swivel casters and large wheels on cart for greater mobility.
- Lifting brackets for overhead crane to lift entire assembly.
- Pushing adapters and ram extension included.
- 55-ton- enforcer only.

#### Specifications

<table>
<thead>
<tr>
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<tbody>
<tr>
<td>PH533C</td>
<td>55</td>
<td>P E55</td>
<td>115V 30 amp</td>
<td>C556C</td>
<td>6-1/4&quot; stroke single-acting, spring return</td>
<td>48'/14&quot;</td>
<td>42'/12&quot;</td>
<td>12-36&quot;</td>
<td>32'x80&quot;</td>
<td>2/3 jaw</td>
<td>748</td>
</tr>
<tr>
<td>PH533C-220</td>
<td>55</td>
<td>P E55</td>
<td>230V 15 amp</td>
<td>C556C</td>
<td>6-1/4&quot; stroke single-acting, spring return</td>
<td>48'/1'5&quot;</td>
<td>42'/12&quot;</td>
<td>12-36&quot;</td>
<td>32'x80&quot;</td>
<td>2/3 jaw</td>
<td>778</td>
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<td>PH55313</td>
<td>55</td>
<td>P E55</td>
<td>115V 30 amp</td>
<td>C5513</td>
<td>13-1/4&quot; stroke single-acting, spring return</td>
<td>48'/7&quot;</td>
<td>42'/12&quot;</td>
<td>12-36&quot;</td>
<td>32'x8&quot;</td>
<td>3/4 jaw</td>
<td>880</td>
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<tr>
<td>PH553C13-220</td>
<td>55</td>
<td>P E55</td>
<td>230V 15 amp</td>
<td>C5513</td>
<td>13-1/4&quot; stroke single-acting, spring return</td>
<td>48'/7&quot;</td>
<td>42'/12&quot;</td>
<td>12-36&quot;</td>
<td>32'x8&quot;</td>
<td>3/4 jaw</td>
<td>825</td>
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<tr>
<td>PH1002</td>
<td>100</td>
<td>PE552S</td>
<td>2-speed</td>
<td>C10010C</td>
<td>10-1/4&quot; stroke single-acting, spring return</td>
<td>48'/34&quot;</td>
<td>15'/12&quot;</td>
<td>12-36&quot;</td>
<td>36-1/2&quot;x94&quot;</td>
<td>2 jaw</td>
<td>890</td>
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<td>N/A</td>
<td>–</td>
<td>C10010C</td>
<td>10-1/4&quot; stroke single-acting, spring return</td>
<td>48'/34&quot;</td>
<td>15'/12&quot;</td>
<td>12-36&quot;</td>
<td>36-1/2&quot;x94&quot;</td>
<td>2 jaw</td>
<td>825</td>
</tr>
</tbody>
</table>

For 220V, 50 Hz applications, order puller No. PH1002J and hydraulic pump No. PE552S-50-220.

### Enforcer 100 / Universal Puller 100 Ton Capacity

The Enforcer 100... a puller that's big enough and powerful enough to tackle the really tough pulling jobs. It's designed to be used in areas where the maintenance of large equipment and machines is an everyday occurrence, like steel mills and oil fields, mining operations, utility projects, construction sites and shipyards. Also railroad yards, paper mills, airline shops and electric motor repair. A unit that is capable of taking on and completing pulling jobs other pullers wouldn't tackle. Here are 9 more reasons why the Enforcer 100 should be your first choice:

1. Adjustable jaws mean they always pull on a flat surface. Retaining chain holds jaw in place during positioning.
2. Grip-O-Matic feature means puller jaws grip even tighter as more pressure is applied.
3. 100 ton hydraulic cylinder, single-acting, spring return with a maximum working pressure of 10,000 psi.
4. Lifting bracket allows puller to be lifted if the workpiece center line is more than 36" off the floor.
5. Adjusting screw allows operator to move vertical position of the puller.
6. Spring loaded feature means the Enforcer 100 will align itself on uneven pulls.
7. Hydraulic pump is a 2-stage, high pressure unit controlled by remote control hand switch with 25' cord.
8. Tow bar provides puller with plenty of mobility.
9. Pushing adapters have a diameter of 4-1/8" and 2-1/2'.

Pump Electrical Specifications PE552S... 1-1/8 hp, 115 volt, 60/50 Hz, single phase, draws 25 amps at full load. Also available in 220 volt, 50 Hz.

**No. PH 100** - 100-ton two-jaw universal hydraulic puller. Includes two jaw Grip-O-Matic puller PE552S 2-speed hydraulic power unit.

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### Super Grip-O-Matic Jaw Type Pullers

- Fast, safe and easy one man operation. Knurled adjusting nut allows precise closing and opening of jaws.
- Super Grip-O-Matic, the harder you pull, the tighter the grip.
- Jaw spread control is fast and easy with this handy adjustment nut.
- Combination 2-jaw/3-jaw puller design gives you two pullers for the price of one.
- Manual or Hydraulic powered pullers available

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<thead>
<tr>
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<tbody>
<tr>
<td>9</td>
<td>SGU2</td>
<td>7</td>
<td>0 - 7</td>
<td>3/4&quot; - 16U NF x 12 lg.</td>
<td>5/8</td>
<td>–</td>
<td>2 jaw</td>
<td>6.7</td>
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<tr>
<td>11</td>
<td>SGG112</td>
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<td>0 - 15</td>
<td>13/16&quot; - 16U N x 16 lg.</td>
<td>5/8</td>
<td>–</td>
<td>2 jaw</td>
<td>17.0</td>
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<td>3/4</td>
<td>–</td>
<td>Mech.</td>
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<td>7</td>
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<td>3/4&quot; - 16U NF x 12 lg.</td>
<td>5/8</td>
<td>–</td>
<td>2 3/4 jaw</td>
<td>12.0</td>
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<tr>
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<td>SGS20C</td>
<td>10</td>
<td>0 - 15</td>
<td>13/16 - 16U N x 16 lg.</td>
<td>5/8</td>
<td>–</td>
<td>Jaw</td>
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<td>SGCH37C</td>
<td>16</td>
<td>0 - 18</td>
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<td>–</td>
<td>Mech.</td>
<td>48.0</td>
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<tr>
<td>15</td>
<td>SGH153C</td>
<td>10 - 1/2</td>
<td>0 - 15</td>
<td>–</td>
<td>–</td>
<td>8 - 1/8</td>
<td>2 3/4 Jaw</td>
<td>69.0</td>
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<tr>
<td>25</td>
<td>SGH252CR</td>
<td>14</td>
<td>0 - 18</td>
<td>–</td>
<td>–</td>
<td>14 - 1/8</td>
<td>Hyd.</td>
<td>134.0</td>
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Pushing Adapters for Hydraulic Pullers

- No. 350673 (1/16" dia.) for 15 ton puller
- No. 350674 (1/8" dia.) for 25 ton puller
- No. 350675 (3/16" dia.) for 50 ton puller
- No. 350676 (3/8" dia.) for 75 ton puller

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*Note: For 220 volt, 50 Hz applications, order puller No. PH1002-220.
### Mechanical Grip-O-Matic Pullers (Fed. Spec.: GGG-P-00781-D)

<table>
<thead>
<tr>
<th></th>
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<tr>
<td>1</td>
<td>1020</td>
<td>2</td>
<td>Standard</td>
<td>2-1/8</td>
<td>3-1/4</td>
<td>5/16&quot;-24 x 3-7/8&quot; ig</td>
<td>6 oz.</td>
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<td>1021</td>
<td>3</td>
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<td>Standard</td>
<td>2-1/8</td>
<td>3-1/4</td>
<td>5/16&quot;-24 x 3-7/8&quot; ig</td>
<td>6 oz.</td>
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<tr>
<td>2</td>
<td>1022</td>
<td>2</td>
<td>Double-End Reversible</td>
<td>3-3/8</td>
<td>4-3/4</td>
<td>3/8&quot;-24 x 4-7/8&quot; ig</td>
<td>1-1/4</td>
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<tr>
<td></td>
<td>1023</td>
<td>2/3</td>
<td>Double-End Reversible</td>
<td>3-3/8</td>
<td>4-3/4</td>
<td>3/8&quot;-24 x 4-7/8&quot; ig</td>
<td>1-1/4</td>
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<tr>
<td>5</td>
<td>1024</td>
<td>2</td>
<td>Double-End Reversible</td>
<td>3-1/4</td>
<td>6</td>
<td>9/16&quot;-20 x 6-15/16&quot; ig</td>
<td>1-3/4</td>
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<td>1025</td>
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<td></td>
<td>Double-End Reversible</td>
<td>3-1/4</td>
<td>6</td>
<td>9/16&quot;-20 x 6-15/16&quot; ig</td>
<td>1-3/4</td>
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<tr>
<td>5</td>
<td>1026</td>
<td>2/3</td>
<td>Double-End Reversible</td>
<td>3-1/4</td>
<td>7</td>
<td>9/16&quot;-20 x 6-15/16&quot; ig</td>
<td>2-3/4</td>
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<td>7</td>
<td>9/16&quot;-20 x 6-15/16&quot; ig</td>
<td>2-3/4</td>
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### Hydraulic Grip-O-Matic Pullers (Fed. Spec.: GGG-P-00781-D)

<table>
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<tr>
<td>5</td>
<td>P53C 2/3</td>
<td>C53C</td>
<td>P12</td>
<td>8-3/4</td>
<td>11-1/2</td>
<td>309874 Pushing Adapter</td>
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<td>P53C 2/3</td>
<td>C53C</td>
<td>P12</td>
<td>8-3/4</td>
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<td>350673 Pushing Adapter</td>
<td>52</td>
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### Mechanical Push Pullers® (FED. SPEC.: GGG-P-00781-D)

- For maintenance operation involving the removal and installation of gears, bearings, pulleys, couplings, sprockets, shafts and other press-fit parts.
- Attachments are available for greater versatility. The versatility of a Power Team Push-Puller seems almost limitless since you can use it to apply either a pulling or a pushing force, depending upon how you set it up. With optional leg kits, your Push-Puller can obtain most any desired, extra-long or short reach. A wide variety of threaded adapters, bearing pulling attachments and internal pulling attachments may be used with your Power Team Push-Puller to handle just about any pulling/installing job imaginable.

<table>
<thead>
<tr>
<th>Cap. (tons)</th>
<th>Puller No.</th>
<th>Max. Reach (in)</th>
<th>Spread (in)</th>
<th>Pulley Bearing Internal</th>
<th>Internal Pulley Bearing Attachments</th>
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<tbody>
<tr>
<td>10</td>
<td>897</td>
<td>9-3/4</td>
<td>2-1/8 to 7-1/4</td>
<td>6/9 1123 1153 1150 1151 1127</td>
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<tr>
<td>17-1/2</td>
<td>898</td>
<td>11-5/8</td>
<td>3-1/8 to 11-3/4</td>
<td>680 1124 1153 1150 1151 1127</td>
<td></td>
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<tr>
<td>30</td>
<td>899</td>
<td>10-1/2</td>
<td>7 to 16-1/4</td>
<td>680** 1126 1165 1151 1151</td>
<td></td>
</tr>
</tbody>
</table>

** Use 2 #8012 adapters to attach legs to attachment.
Hydraulics

Hydraulic Push Pullers® (FED. SPEC.: GGG-P-00781-D)

- Power Team's hydraulically powered Push-Pullers are designed to remove and install tight-fitting parts quickly and easily.
- Each unit includes perfectly matched components that can be detached and used with other hydraulic applications.

Once purchased, you'll find your Power Team Push-Puller can be the most versatile tool in your possession. When you order one of these Push-Pullers you get one set of legs, a center-hole twin ram, a P55 hand pump, hose and hose half coupler, adjusting screw, and crank. The result is a pulling tool that makes the "impossible" jobs routine. Maintenance operations involving the removal and installation of gears, bearings, pulleys, couplings, sprockets, shafts and other press-fit parts are performed quickly, without costly damage. And your Push-Puller can be used for pushing or pulling.

Each of these Push-Pullers is powered by a center-hole twin cylinder ram. Center-hole means you can insert the puller screw straight through the unit. Ram also features a basic head which allows operator to change from a tapped hole to a plain hole merely by changing the head insert, adding even more versatility.

### Pullers/Boxes & Sets

#### 10 Ton Capacity Strong Box Puller Set

Here's a set of pullers that gives you almost unheard of versatility. This rugged lockable metal storage cabinet contains pullers, attachments and extra puller jaws good for a variety of application. Cabinet may be mounted on a wall, stand or workbench.

**DESCRIPTION**
- No. IPS17 - Cabinet (25-3/4" x 29-1/2" x 14") with tool board, adapter board, and tool set. Wt., 98 lbs.
- No. 212867 - Cabinet, tool board, and adapter board only. Wt., 48 lbs.

#### 17-1/2 Ton Master Puller Set

Having this Power Team puller set at your fingertips will not only reduce your downtime but also increase your profits.

**HYDRAULICS**
- Single-stage hyd. pump ass'y. .............. P55
- 17-1/2-ton cap with threaded insert .......... RT1172
- Hose half coupler ......................... 978
- Hydraulic hose - 6' ....................... 9767
- Tee adapter ................................ 9670
- Pressure gauge ........................... 9059

**ACCESSORIES**
- Male-female threaded adapters: 5/8" - 18 F. x 3/8" - 18 M. (2) ............... 8005
- 5/8" - 18 F. x 3/8" - 18 M. (3) ............... 8006
- 5/8" - 18 F. x 1/2" - 20 M. (2) ............... 8007
- 5/8" - 18 F. x 1/2" - 20 M. (3) ............... 8008
- 5/8" - 18 F. x 3/4" - 16 M. (2) ............... 8010
- 5/8" - 18 F. x 3/4" - 16 M. (3) ............... 8011
- 5/8" - 18 F. x 1" - 24 M. (2) ............... 8012
- 5/8" - 18 F. x 1" - 24 M. (3) ............... 8013
- 5/8" - 18 F. x 3/4" - 14 M. (2) ............... 8014
- 5/8" - 18 F. x 3/4" - 14 M. (3) ............... 8015
- 5/8" - 18 F. x 7/8" - 12 M. (2) ............... 8016
- 5/8" - 18 F. x 7/8" - 12 M. (3) ............... 8017
- 5/8" - 18 F. x 1" - 9 M. (2) ............... 8018
- 5/8" - 18 F. x 1" - 9 M. (3) ............... 8019
- 1" - 8 F. x 3/4" - 18 M. (2) ............... 8020
- 1" - 8 F. x 3/4" - 18 M. (3) ............... 8021
- Shaft protector set .......................... 8022
- Step plate adapter set ..................... 8025
- Pulley pulling attachment ................. 8026
- Female threaded adapter ................. 8043
- Female threaded adapter ................. 8044
- Bearing cup pulling attachment ........... 8045
- Bearing cup pulling attachment ........... 8046
- Bearing cup pulling attachment ........... 8047
- Bearing cup pulling attachment ........... 8048

**No. IPS10B** - Cabinet (25-3/4" x 29-1/2" x 10") with tool board, adapter, and tool set. Wt., 99 lbs.

**No. 215315** - Cabinet and tool board only. Wt., 44 lbs.
**Pullers**

**Bearing Splitters**
Fed. Spec.: GGG-P-00781-D
Commonly call bearing "splitters," these versatile puller accessories feature Knifefile-like edges easily placed behind parts with limited clearance. Nine sizes are available for a variety of applications. For use with Power Team Grip-O-Matic® pullers or Push-Pullers.

**V-Belt Pulley Pulling Attachment**
Fed. Spec.: GGG-P-00781-D
Two sizes of pulley pullers available, too. For use with Power Team Grip-O-Matic® pullers or Push-Pullers.

**Internal Pulling Attachment**
Fed. Spec.: GGG-P-00781-D
With a Power Team internal pulling attachment you can remove beading cups, oil seals, bushings and other parts from blind holes quickly, without damage to cost parts. Approved by leading beading manufacturers, these attachments accomplish difficult removal jobs the fast, professional way. Attachments are adaptable, through adjusting screw and choice of jaw positions, to fit various diameters.

**Puller Adapters**
For use on Power Team Grip-O-Matic® pullers & Push-Pullers®, these special adapters make the difference when that "extra something" is required in various pulling jobs. Many sizes of each are available & some come in sets.

- **Female Thread Adapters** - Aid in removal & installation of shafts, etc.
- **Shaft Protectors** - Protects shaft centers from distorting under pressure.
- **Male-Female Threaded Adapters** - Used when pulling bearing cups, shafts, pinions, etc.
- **Step Plate Adapters** - Needed for installing & pulling parts found on hollow shafts or housings.

**Floor Cranes**

No. FC2200 - 2,200 Lb. Capacity - Versatile crane features a collapsible boom and folding legs for compact storage. Adjustable leg spread, telescoping boom, lifting chain and 2-speed hand pump.

No. FC4400 - 4,400 Lb. Capacity - Same features as the FC2200 but built for heavier applications.

No. FC6000 - 6,000 Lb. Capacity - Crane with hand pump.

**Load Positioning Slings**

2,000 lbs. to 6,000 lbs. capacity
For lifting and positioning loads. Feature self-locking worm and gear set for rapid angle adjustments.

No. LR2000 - 2,000 lb. capacity sling.
No. LR4000 - 4,000 lb. capacity sling.