Series RDH
Heavy Duty Hydraulic Roundline Cylinder

Basic Presentation

ENGINEERING YOUR SUCCESS.
Series RDH – Quick List

**General Specifications:**
- 1½” to 8” bore diameters
- ⅝” to 5½” rod diameters
- Standard strokes to 120”
- Threaded head, welded cap
  - Repairable
- 9 standard mounts (most are NFPA)
  - Many standard cylinder accessories
- 3,000 psi hydraulic service
- All popular seal compounds
  - Standard temperature -10°F to +165°F
- Many model code options and common modifications
- Manufactured in the U.S.A.
New Value from a Standard Platform

- **Superior Performance** – Resulting from Advanced Sealing Technology, Composite Wear Rings and Proven Exterior Toughness
- **Easy Installation** – Standard mounts and rod ends accommodate commercially-available NFPA accessories
- **Switch-Ready (magnetic piston)** is a standard option. The Parker ALS Switch is the lowest-cost point feedback solution for carbon steel cylinders
- **Safe Products** – True industrial-grade design factors
- **Environmentally Friendly** – RoHS Directive compliant materials
- **2-D and 3-D CAD Files** – Available upon qualified request
Advanced Sealing Technology

- **Tri-lip rod seal** (3 sealing edges!) and bi-directional piston seal feature proven leak-free performance
- **Durable polyurethane** material is used to maximize seal life
- **Nitrile end seals** and backup rings on a smooth bore of the cylinder body for optimal sealing and elimination of extrusion problems
- **Composite rod and piston wear rings** are internally lubricated for reduced friction and formulated for heavy-duty, load-bearing applications
- **Standard rod material is case-hardened, hard chrome plated** and polished to an optimum finish
- And since we make our own seals, **all seals have immediate availability** in other popular compounds
Proven Exterior Toughness

- **Steel cap, cylinder body and ports** for high strength in rough environments
- **Case hardened, hard chrome plated** and polished carbon steel piston rod for damage resistance, long seal life and low friction
- **Outboard urethane wiper seal** to remove external debris and adherents from the piston rod
- **High quality paint coating** for interior or exterior applications
  - **Standard enamel paint has an ASTM B117 Salt Spray Rating of 100 hours minimum**
Easy Installation with Standard Mounts

- **9 Standard Mounts** cover all common industrial roundline applications
  - T – Basic, No Mount
  - 6 Pivot Mounts
    - B – Cap Fixed Eye
    - BB – Cap Fixed Clevis
    - SB – Spherical Bearing Cap End (Inch)
    - SBM – Spherical Bearing Cap End (Metric)
    - TT – Crosstube Cap End
    - DD – Intermediate Fixed Trunnion
  - 2 Flange Mounts – Rated to 3,000 psi
    - J – Round Head Flange
    - H – Round Cap Flange
- B, BB and SB mounts and standard rod ends **accommodate commercially-available NFPA accessories**
  - Rod clevis, knuckle, spherical rod eye, clevis bracket, eye bracket, etc.
Easy Installation with Standard Mounts

<table>
<thead>
<tr>
<th>Available Mounting Styles</th>
<th>Image</th>
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</thead>
<tbody>
<tr>
<td>Basic, No Mount</td>
<td><img src="BAS_N.png" alt="Image" /></td>
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<tr>
<td>Style T</td>
<td><img src="BAS_N.png" alt="Image" /></td>
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<tr>
<td>Cap Fixed Eye</td>
<td><img src="BAS_N.png" alt="Image" /></td>
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<tr>
<td>Style B</td>
<td><img src="BAS_N.png" alt="Image" /></td>
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<tr>
<td>Cap Fixed Clevis</td>
<td><img src="BAS_N.png" alt="Image" /></td>
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<tr>
<td>Style BB</td>
<td><img src="BAS_N.png" alt="Image" /></td>
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<tr>
<td>Spherical Bearing Cap End</td>
<td><img src="SB_SB.png" alt="Image" /></td>
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<tr>
<td>Style SB/ SBM</td>
<td><img src="SB_SB.png" alt="Image" /></td>
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<tr>
<td>Crosstube Cap End</td>
<td><img src="SB_SB.png" alt="Image" /></td>
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<tr>
<td>Style TT</td>
<td><img src="SB_SB.png" alt="Image" /></td>
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<tr>
<td>Intermediate Fixed Trunnion</td>
<td><img src="SB_SB.png" alt="Image" /></td>
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<tr>
<td>Style DD</td>
<td><img src="SB_SB.png" alt="Image" /></td>
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<tr>
<td>Round Head Flange</td>
<td><img src="SB_SB.png" alt="Image" /></td>
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<tr>
<td>Style J</td>
<td><img src="SB_SB.png" alt="Image" /></td>
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<tr>
<td>Round Cap Flange</td>
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<tr>
<td>Style H</td>
<td><img src="SB_SB.png" alt="Image" /></td>
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<tr>
<td>Double Rod Cylinders</td>
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<tr>
<td>Style KT Shown</td>
<td><img src="SB_SB.png" alt="Image" /></td>
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</tbody>
</table>

Mounting styles T, DD, and J are available as double rod cylinders.
Switch-Ready

- The Parker ALS Switch is the lowest-cost point feedback solution for carbon steel cylinders
- Switches can be installed anywhere along the stroke and in any orientation
- Unique round body brackets minimize installation time
- Switch-Ready (magnetic piston) is used for the Parker ALS Switch and available as a standard option in the model code
Safe and Environmentally-Friendly Products

The Series RDH is designed with goals beyond performance. Driving these efforts are requirements, regulations and other activities that attempt to make the world a better, safer place in which to live and work. Here are some of the results:

- **Industrial-Grade Design Factors** for rod buckling, burst pressure and calm nerves
- **Recycle** – all solid material content is 100% recyclable
- **RoHS Directive compliant**
- **CLS-2 End-Of-Stroke Limit Switch** - UL Listed (CSA Approved available)
- **ALS Mid-Stroke Switch** - CE Approved (ATEX version available)
Made in U.S.A.

• **Location** – Series RDH cylinders are **made in the U.S.A.**

• **Quick Delivery** – standard lead time is 2-3 weeks, with the capability of shipping some cylinder configurations within 24 hours. We deliver to your request.

• **Non-Standard Designs** – since 50% of applications require cylinders that are not catalog-standard, we organized our entire culture for flexibility.

• **Risk Management** – the absence of international risks from dealing with non-domestic cylinder suppliers will allow you to relax. Our goal is to offer you the best product, on time, with your financial concerns in mind.
Reduced Weight Design

- Compared to an equivalent tie rod cylinder, welded construction has **reduced** the average weight by 36%.
Reduced Space Design

- Compared to an equivalent tie rod cylinder, welded construction has **reduced the average required space by 21%**.
  - Some OAL savings as well (varies per bore)
Series RDH Catalog HY08-1320-1/NA

Comprehensive catalog includes:
• Product line introduction with discussions on:
  • New Value from a Common Platform
  • Made in the U.S.A.
  • Lean and Advanced Manufacturing
• All cylinder and accessory information
• Common modifications, switches, application engineering & service kits
• 64 pages total
• PDF at Series RDH website (click here)
• Hard copies in stock at TMR (click to order) (The Mail Room – at Parker)
Common Options

- Double rod end
- Hi Load, Magnetic and Mixed Media pistons
- Low friction seals
- NPTF, BSPT and BSPP (ISO 228) ports
- Seal classes for all temperatures and fluid compatibilities
- Fluorocarbon rod seal and wiper only
- Metallic rod wiper
- Oversize piston rods
- Special rod ends
- Stainless steel piston rod (17-4 PH H1150)
- Special heads, caps, pistons and mounts
- Cartridge valves/counterbalance valves
- Flow tubing to either end
- Linear position feedback
- Water-submersible design
- Rod coatings/nanoplating
- Application-specific paint, etc.

The catalog includes a comprehensive list of common and custom modification options.
Thank You!

- For more information, please contact Parker Hannifin’s Industrial Cylinder Division at (847) 298-2400 or cylproductinfo@parker.com