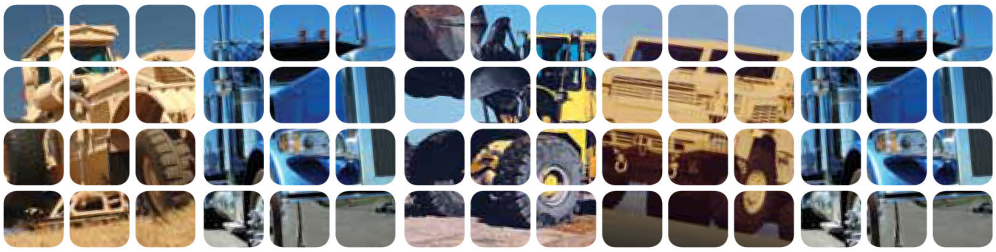

AxleTech International
A GENERAL DYNAMICS COMPANY

## Planetary Rigid Axles

# PRA352 (33K lbs / 15.0 t)

## OVERVIEW

AxleTech International planetary rigid axles are tough and versatile for good reasons-your rough workload. These heavy-duty axles feature a wide selection of gear ratios, load capacities, brakes and vehicle mountings to best serve your demanding, routine tasks. The PRA352 series rigid drive axles support vocations that require 11,000-33,000 lbs.(5,000-15,000 Kgs.) load capacities. Typical applications include lift trucks, loaders, reach trucks, compactors, backhoe loaders, and excavators.

A central steel housing contains all mechanical components (spiral bevel design main carrier gearing differential, planetary reduction gears, and wet disc brakes) which in turn allow greater clearance at the wheel ends and more choice of axle lengths. The oil immersed 9" (229mm) diameter wet disc brakes are insulated from external contaminants and yield longer life and less downtime and maintenance. The brakes are available in hydraulic apply/spring release or spring apply/hydraulic release configurations. Optional wet disc brake forced cooling ports are available for the most severe duty vocations. Multiple wet disc brake plate configurations are available that will allow the brake to be "customized" to the your specific OEM vehicle vocational requirements.

PRA352 options include: cast integral pad or 4-Bolt "D" hydraulic-motor input, limited slip differential and yoke/ flangeoptions. The limited slip differential has a theoretical 2.0:1.0 bias ratio. Planetary gear pinion options (3 or 4 piston) are vocation dependent. AxleTech planetary rigid axles are tough, dependable and thoroughly proven under the most severe conditions.

AxleTech International is the former Rockwell® Off Highway and European Specialty Products Group.

## SPECIFICATIONS

| AXLE CAPACITY(1) Pounds (kg) | AVAILABLE DIFFERENTIALS | DIFFERENTIAL RING GEAR DIAMETER AND FACE WIDTH Inches (mm) | AVAILABLE OVERALL RATIOS |
|---|---|---|---|
| Lift Truck<br>33,000 (15,000)<br>Loader/Backhoe<br>11,000 (5,000)<br>Loader<br>15,000 (6,800)<br>Vibratory Roller<br>11,000 (5,000) | Standard Limited Slip, or No Spin (2) | PRA352 Carrier Fast Ratios<br>9.5" (241.3)<br>1.7" (43.2)<br>Slow Ratios<br>11.0” (279.4)<br>1.7” (43.2) | 13.86 -32.57:1.0 |

| A AXLE MOUNTING CENTERS Inches (mm) | B HUB FLANGE TO FLANGE Inches (mm) | TIRE SIZE Inches (mm) | BRAKES Inches (mm) | PLANETARY RATIO |
|---|---|---|---|---|
| 36.2" (920.3)<br><br>39.0" (990.7) | 61.1" (1,552.6)<br><br>63.9" (1,622.6) | 8.25"x15"<br>(210x381)<br>20" Rail<br>(508)<br>13.00"x24"<br>(330x610)<br>28"x12"x22"<br>(711x305x559)<br>28"x14"x22"<br>(711x356x559) | 9.0" x W2M<br>(229)<br>9.0" x W2H<br>(229) | 6.0:1.0 |

*Other Dimensions Available
(1) Approval required on all applications.
NoSpin® is a registered trademark of Tractech, Inc.

**TYPICAL AXLE WEIGHT:**
Range=793-1,040 Lbs. (360-472Kgs.)
PRA352 with 61.1" (1,552.6 mm) Hub Flange to Flange and 2 plate hydraulic apply/spring release brake=870lbs. (395Kgs)
**Example:**
Oil capacity Range for axle assembly=30 42.6 pints (14.3-20.3 Liters)
PRA352 with 61.1" (1,552.6mm) Hub Flange to Flange=30 pints (14.3 Liters)
PRA352 with 81.0" (2,057.0mm) Hub Flange to Flange=42.6 pints (20.3 Liters**)**

A) Axle Mounting Centers
B) Hub Flange to Flange
C) Carrier Standout:
Axle with 6C input yoke =12.62" (320.6mm)
Axle with adapter-motor mounting =15.16" (385.1mm), optional 14.41" (366.0mm)

## FEATURES & BENEFITS

| FEATURES | BENEFITS |
|---|---|
| Spiral bevel gearing standard. | Provides greater OEM flexibility in ration options and torque requirements. |
| Outboard mounted face seals. | Provide greater protection in adverse environment. |
| 9” (229mm) axle shaft speed wet disc brakes. (2, 3, or 4 brake options available) | Maximum life, minimum maintenance. Sealed environment protects against contaminants for optimal brake performance in severe conditions. |
| Wet brake piston return springs standard. | Retracts piston from friction discs reducing drag. |
| High capacity taper roller bearings. | Used throughout for heavy load carrying capacity. |
| Modular cast housing arms. | Flexible configurations to meet OEM requirements. |
| Available differentials include: Standard, No Spin, and Limited Slip. | Provides flexibility to meet OEM differential requirements. |
| Planetary gearing (supported on a double row of needle bearings). | Deep gear reduction with optional 3 or 4 planetary pinion configurations to tailor to specific applications. |
| Optional integral park brake in axle housing with mechanical release. | Compact installation on vehicle. |
| Optional Axle Housing Mountings available. | Permits greater OEM flexibility in design. Housing pad |
| Optional 4-bolt S.A.E. “D” Hydraulic Motor Mount. | Provides flexibility in OEM vehicle installation. |
| Optional Metric or S.A.E. thread wheel studs. | Provides OEM wheel rim mounting flexibility. |
| Wet disc brake options include service, Hydraulic Apply/Spring Release or Spring Apply/Hydraulic Release. | Permits OEM to select brake options for vocation required. |

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