Detected and processed as English text.

**Detroit Axles**

Detroit Axles are the result of an international, cross-functional engineering and product development effort. Our product line is a proven platform, found in millions of commercial vehicles worldwide.

**Steer Axles**

Offering steer axle weight ratings from 6,000 to 23,000 pounds and rear axle weight ratings from 13,000 to 46,000 pounds, Detroit axles cover every trucking segment, from on-highway and regional delivery to construction and municipal applications. A wide range of configuration options and precise compatibility with all braking systems offered by Freightliner® Trucks and Western Star® Trucks enable you to spec the axle that is perfect for your exact application.

Engineered, Built and Tested for the Bottom Line

Every Detroit axle provides these money-saving benefits:

- Reduced axle weight for higher payload, increased fuel economy and enhanced freight efficiency
- Lower maintenance costs throughout unit life cycle for an improved Real Cost of Ownership™

**Detroit Steer Axles Aren’t Just Tough, They’re Innovative.**

By using needle bearings, we’ve reduced wear and tightened tolerances. The result is less deflection and better performance for the life of the axle. And, with wheel cuts up to 55 degrees, you’ll feel the difference at every turn. With a variety of weight ratings, you can choose the axle that fits best in your application, depending on your truck weight and load requirements.

**Maximum Maneuverability**

The unique I-beam design coupled with an advanced steering layout enables an optimized geometry for a sharper wheel cut of up to 55 degrees, giving you the tightest turning radius available. Now you can be more confident and more productive in close quarters.

**Steer Axle Specifications**

<table>
<thead>
<tr>
<th>MODEL CODE</th>
<th>MODEL 1</th>
<th>MODEL 2</th>
<th>MODEL 3</th>
<th>MODEL 4</th>
<th>MODEL 5</th>
</tr>
</thead>
<tbody>
<tr>
<td>460-1C9 DA-F-6.0-0 6,000 / 2,721</td>
<td>18.00 / 6.00</td>
<td>5.00 / 127.0</td>
<td>3.74 / 96.8</td>
<td>19,000 / 8,618</td>
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</tr>
<tr>
<td>460-1C9 DA-F-8.0-0 8,000 / 3,628</td>
<td>69.0 / 1,752.6</td>
<td>3.74 / 96.8</td>
<td>19,500 / 8,845</td>
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<tr>
<td>460-1C9 DA-F-8.0-3 8,000 / 3,628</td>
<td>71.5 / 1,816.1</td>
<td>3.74 / 96.8</td>
<td>19,500 / 8,845</td>
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<td></td>
</tr>
<tr>
<td>460-1C9 DA-F-10.0-3 10,000 / 4,535</td>
<td>69.0 / 1,752.6</td>
<td>3.74 / 96.8</td>
<td>19,500 / 8,845</td>
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<tr>
<td>460-1C9 DA-F-12.0-3 12,000 / 5,442</td>
<td>69.0 / 1,752.6</td>
<td>3.74 / 96.8</td>
<td>29,000 / 13,154</td>
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<tr>
<td>460-1C9 DA-F-12.5-3 12,500 / 5,670</td>
<td>71.5 / 1,816.1</td>
<td>3.74 / 96.8</td>
<td>29,000 / 13,154</td>
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<td></td>
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<tr>
<td>460-1C9 DA-F-13.3-3 13,300 / 6,033</td>
<td>71.5 / 1,816.1</td>
<td>3.74 / 96.8</td>
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<tr>
<td>460-1C9 DA-F-14.7-3 14,700 / 6,667</td>
<td>71.5 / 1,816.1</td>
<td>3.74 / 96.8</td>
<td>29,000 / 13,154</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**Understanding a Model Code**

- **DATA CODE**
  - GAWR1 (LB / KG)
  - KINGPIN INTERSECTION (IN / MM)
  - AXLE BEAM DROP (IN / MM)
  - MAX. CREEP RATING (LB / KG)
  - MAX. WHEEL-CUT ANGLE
  - KINGPIN DIAMETER (IN / MM)

**Application Guidelines**

- **Application Approval Required**
  - 1 Gross Axle Weight Rating
  - 2 Standard application—may vary with different configurations

**Max. Wheel-Cut Angle**

45˚ 2.13 / 54.0

**Spec Detroit Axles.**

Your Business Is Riding On It.
The New Detroit Model 6 Axle: Efficiency, Reliability, Durability

- Modular differential with laser-welded ring gear
- Gear set and carrier optimization for improved powertrain efficiency
- Low-viscosity and friction-optimized oil
- Faster rear axle ratios to support downspeeding

Axle Lubrication Management (ALM) System Reduces Fuel Consumption.

Available exclusively on the Cascadia, this innovation regulates the oil level at the ring gear through the use of a valve integrated into the ring gear cover. This helps reduce the “churning” associated with the ring gear moving through the new lower-viscosity oil. This reduction in parasitic power loss when combined with the other efficiency improvements adds up to better fuel economy. ALM was put through the same rigorous testing as all other Detroit products and has successfully met or exceeded all of our design standards. It provides an innovative and durable way of improving efficiency in even the most extreme conditions.

Improving Efficiency and Performance

Our ring and pinion gears are machined using highly advanced power-dry cutting and grinding that result in exacting tooth profiles and ideal gear mesh. They’re so precise that the ring and pinion gears do not require pairing. These sophisticated processes render perfectly matched gearing to ensure more efficient power transmission, longer durability, quiet axle operation and enhanced driver comfort.

Other features of the Detroit Single Rear Axle are:

- Larger differential components, adding stability and increasing durability
- Compatibility with all brake systems offered by Freightliner, Western Star, Thomas Built Buses and FCCC
- The Model 2 has increased ground clearance due to its smaller bowl, helping to avoid obstacles

Single Rear Axle Specifications

<table>
<thead>
<tr>
<th>DATA CODE</th>
<th>MODEL CODE</th>
<th>GROSS AXLE WEIGHT RATING (LB / KG)</th>
<th>RING GEAR SIZE (IN / MM)</th>
<th>OIL CAPACITY (QT / LITERS)</th>
<th>MAXIMUM TORQUE (LB-FT / Nm)</th>
<th>AVAILABLE RATIOS</th>
<th>ALM</th>
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<tbody>
<tr>
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<td>DA-BS-13.0-3</td>
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<td>2.85, 3.08, 3.31, 3.58, 3.91, 4.30, 4.78, 5.22, 5.88, 6.38</td>
<td>Y</td>
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<tr>
<td>420-1C4</td>
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<td>2.85, 3.08, 3.31, 3.58, 3.91, 4.30, 4.78, 5.22, 5.88, 6.38</td>
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<td>2.85, 3.08, 3.31, 3.58, 3.91, 4.30, 4.78, 5.22, 5.88, 6.38</td>
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<td>420-1C8</td>
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<td>23,000 / 10,431</td>
<td>11.0 / 2.71</td>
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<td>2.85, 3.08, 3.31, 3.58, 3.91, 4.30, 4.78, 5.22, 5.88, 6.38</td>
<td>Y</td>
</tr>
</tbody>
</table>

*Model 2 and Model 4 are classic axles.

Gross Axle Weight Rating

Standard application—may vary with optional equipment
Goal Combination Weight Rating — dependent on application and selected ratios — may require application approval
Note: ring and pinion gear ratios—dependent on application and selected ratios — may require application approval
January 2021 ratios are available in classic axles until that date.

Understanding a Model Code

Single Rear Axle
TANDEM REAR AXLES

Axle Lubrication Management (ALM) System Reduces Fuel Consumption.

Available exclusively on the Cascadia®, this innovation regulates the oil level at the ring gear. This design inherently improves durability associated with the ring gear moving through the new lower-viscosity oil. This reduction in parasitic power loss when combined with the other efficiency improvements can add up to a 1.5% improvement in fuel economy over the classic Detroit 6x2 axle configuration.

Built for the Bottom Line

The lower engine speeds found on our Detroit engines, coupled with our latest DT12™ automated manual transmission (AMT), enable the use of today’s fast axle ratios. Our new Detroit axles leverage these benefits by being even more efficient while being able to accommodate tomorrow’s even faster axle ratios. Additionally, heavy-duty yokes and flanges are available to provide optimal drivetrain performance in downspeeding applications. In select DTNA products the innovative ALM system builds even more efficiency gains into the equation.

Hypoid Design Ensures Durability

Our Detroit axles are configured with a hypoid design at the rear axle of the tandem set, where the pinion centerline is below the centerline of the ring gear. This design inherently improves durability resulting from the dynamics of the tooth contact. In addition to this, the hypoid offset design on our tandem axles also contributes to increased efficiency.

6x2 Single-Drive Tandem Rear Axle

Detroit offers a Model 6 single rear axle as part of a 6x2 configuration that features all of the enhancements available in the Detroit tandem rear axles but, when used in combination with a non-driven tag axle, is nearly 430 lbs. lighter. This Detroit 6x2 configuration is available with optional Axle Lubrication Management (ALM), which can provide up to a 0.75% fuel economy improvement versus the classic Detroit 6x2 axle configuration.

New Detroit Tandem Rear Axle Specifications

<table>
<thead>
<tr>
<th>Model Code</th>
<th>Housing Wall Thickness</th>
<th>Max. Torque</th>
<th>Oil Capacity</th>
<th>Max. Cope</th>
<th>Max. GCWR</th>
<th>Code</th>
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</thead>
<tbody>
<tr>
<td>420-1U2 DA-RT-40.0-4S HH</td>
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</tr>
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<td>2.166,7, 2.28</td>
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<tr>
<td>443-1T2</td>
<td>11.0 / 0.43</td>
<td>2.28, 2.41, 2.53, 2.61, 2.73, 2.85</td>
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<td>420-1U3 DA-RT-40.0-4T HH</td>
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<td>6, 2.41, 2.64, 2.85, 3.08, 3.23</td>
<td>Y</td>
<td>40,000 / 18,141</td>
<td>1</td>
</tr>
<tr>
<td>420-1U0 DA-RT-40.0-4T HH</td>
<td>9.5 / 0.37</td>
<td>2.166,7, 2.28</td>
<td>6, 2.41, 2.64, 2.85, 3.08, 3.23</td>
<td>Y</td>
<td>40,000 / 18,141</td>
<td>1</td>
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<tr>
<td>420-1T8 DA-RT-40.0-4T HH</td>
<td>9.5 / 0.37</td>
<td>2.166,7, 2.28</td>
<td>6, 2.41, 2.64, 2.85, 3.08, 3.23</td>
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<td>6, 2.41, 2.64, 2.85, 3.08, 3.23</td>
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<td>420-1U0 DA-RT-40.0-4S HH</td>
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<td>6, 2.41, 2.64, 2.85, 3.08, 3.23</td>
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<td>6, 2.41, 2.64, 2.85, 3.08, 3.23</td>
<td>Y</td>
<td>40,000 / 18,141</td>
<td>1</td>
</tr>
</tbody>
</table>
GET THE SUPPORT YOU EXPECT.

Detroit Axle Warranty Coverage

Detroit is known for designing and manufacturing products that set industry standards. We are proud of that and believe that quality is the surest way to maintain long-lasting relationships with our customers. It also allows Detroit to offer excellent warranty coverage.

Carrier Exchange Program

The Detroit Carrier Exchange Program (CEP) enables dealers to exchange carriers or upgrade axles on trucks postbuild. This program provides great flexibility for dealers to sell trucks from stock, or for customers who would like to exchange for a ratio improved vehicle performance. For more information about the Carrier Exchange Program, call or visit your preferred Freightliner or Western Star dealer.

Terms and Conditions

Detroit is known for designing and manufacturing products that set industry standards. We are proud of that and believe that quality is the surest way to maintain long-lasting relationships with our customers. It also allows Detroit to offer excellent warranty coverage.

Vocation Code Description

Detroit offers outstanding parts availability, and axle owners also enjoy comprehensive warranty coverage — including fast, hassle-free processes — and expedited parts and service for critical downtime situations.

Warranty Coverage — Time and Mileage

Detroit aisles are spec’d, sold and serviced by an unmatched network of knowledgeable sales people and expert factory-trained technicians at hundreds of Freightliner and Western Star dealers throughout the United States and Canada.