

# DETROIT™ TANDEM AXLES

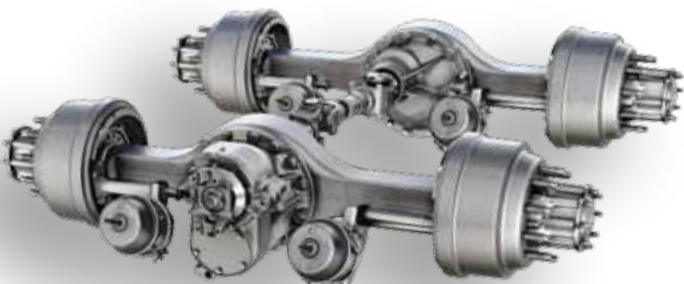
## TECHNICAL SPECIFICATIONS

WEIGHT RATINGS **34,000-46,000 lbs.**

INNOVATIVE, STATE-OF-THE-ART ENGINEERING GIVES THESE DETROIT™ AXLES MARKET-LEADING PERFORMANCE AND VALUE. HERE ARE SOME OF THE BENEFITS:

### High-Performance for Heavy-Duty Applications

- Our Topoid design with above-center rear axle pinion position results in an improved driveline angle and a significant reduction of driveline vibration
- A larger power divider delivers improved stability and reliability
- Precision-cut gear sets provide quieter and smoother operation, along with improved torque transfer
- Elimination of the pinion head bearing allows for a larger differential, for added stability and durability
- Robust design and ease of maintenance reduce lifecycle costs
- Compatible with all brakes offered by Freightliner Trucks and Western Star Trucks
- Warranty is based on truck application up to five years, 750,000 miles\*



BY ELIMINATING THE PINION HEAD BEARING, DETROIT'S TANDEM AXLES ALLOW MORE SPACE FOR A LARGER AND STRONGER DIFFERENTIAL. THE INNOVATIVE OIL DEFLECTOR FULLY LUBRICATES THE POWER DIVIDER, EVEN AT LOW SPEEDS. AND WITH A TOPOID OFFSET, OUR TANDEM AXLES REDUCE DRIVELINE VIBRATIONS AND INCREASE LONGEVITY.

## Built for the Bottom Line

Demand Detroit tandem axles and get all the benefits: reduced cost of ownership, increased revenue, higher longevity and a better, more comfortable driving experience. Also, with the intermediate track 40,000 lb tandem axle, you can switch between wide based single and dual tires.

Detroit's weight-optimized 46,000 lb tandem axle for on-highway applications offers reduced axle weight and lower acquisition cost than other brands in this weight class.

Our tandem axles are available with a 2.53 ratio for all on-highway applications. Together with our DD15® engine and a direct drive transmission, you will get the most fuel-efficient powertrain in its class and application. This is just one more example of our leadership in axle innovation.

## Optional Equipment

- More grip when you need it: Our tandem rear axle can be spec'd with a driver-controlled differential lock (DCDL)
- An alternative to the DCDL is an automatic locking differential (NoSpin)



The oil deflector ensures full lubrication of the power divider at very low vehicle speeds. Therefore, a costly oil pump is not necessary.



The differential case is half integrated in the ground wheel. Elimination of a pinion head bearing allows the use of a larger differential.

### UNDERSTANDING A MODEL CODE

**EXAMPLE:**  
**DA-RT-40.0-4**

- Model Number
- Weight Rating (x 1,000 lb.)
- Tandem
- Rear
- Detroit Axles

## Detroit Tandem Axle Specifications

DATA CODE	MODEL CODE	GAWR <sup>1</sup> (LBS / KG)	MAX. GCWR <sup>2</sup> (LBS / KG)	Housing Wall Thickness (mm / inch)	MAX. CREEP RATING (LBS / KG) <sup>3</sup>	RING GEAR SIZE (IN / MM)	OIL CAPACITY (QTS / LITERS)	MAXIMUM TORQUE <sup>4</sup> (LB.FT / NM)	AVAILABLE RATIOS	
420-1GP	DA-RT-34.0-4	34,000 / 15,420	125,000 / 56,699 (on-highway) 80,000 / 36,287 (vocational)	9.5 / 0.37	48,000 / 21,772	15.35 / 390	16.0 / 15.0 (forward axle) 12.0 / 11.0 (second axle)	1,850 / 2,508	2.417 <sup>5</sup>	3.417
420-1GR	DA-RT-40.0-4	40,000 / 18,141		11.0 / 0.43	51,600 / 23,405				2.533	3.583
420-1JH	DA-RT-40.0-4 (intermediate track)	40,000 / 18,141		12.7 / 0.5	55,200 / 25,038				2.615	3.727
420-1GT	DA-RT-44.0-4	44,000 / 19,955		11.0 / 0.43	51,600 / 23,405				2.846	3.909
				12.7 / 0.5	55,200 / 25,038				3.077	4.300
									3.231	4.778
									3.308	
420-1G2	DA-RT-46.0-4	46,000 / 20,865	135,000 / 61,235 (on-highway) 95,000 / 43,091 (vocational)	12.7 / 0.5	55,200 / 25,038	15.35 / 390	16.0 / 15.0 (forward axle) 12.0 / 11.0 (second axle)	2,050 / 2,779	2.846	4.100 <sup>5</sup>
									3.077	4.300
									3.308	4.556 <sup>5</sup>
									3.583	4.778
									3.909	

### Application Guidelines:

- Please contact your component sales representative for details on application guidelines and application approval. Application review and approval is always required if application does not meet criteria listed in table, including the following conditions:
- Tire SLR larger than 19.96" (11R22.5)
  - Off-road more than 10%
  - Vehicles equipped with more than 1 retarder
  - Vehicles using pusher/tag axles

### Application Limitations:

- Available with Spring or Airliner suspensions only
- Available for all vocational codes (A85-XXX), except for military applications (A85-039)
- 5 miles per hour maximum speed with liftable axles raised. This condition should not exceed 5% of the total operating miles of the vehicle.

- 1- Gross Axle Weight Rating
- 2- Gross Combination Weight Rating – dependent on application and selected ratio – may require application approval
- 3- Requires application approval
- 4- Max engine torque – dependent on application and selected ratio – may require application approval
- 5- Release pending

Note: Consult your local dealer representative for complete listing of available tandem axle configurations.

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