



BOGIES

**RA23R**  
23,000 LBS [10 400 kg]

**DETAIL SPECIFICATIONS**

**REAR AXLES**

**MAKE: MACK**

Axle Model . . . . . **RA23R**  
Capacity, Pounds . . . . . 23,000 [10 400 kg]  
Gross Combination Weight Rating, pounds:

	<u>Turnpike</u>	<u>Paved</u>
w/Std. CRD203 Up to:	100,000	85,000
	[45 300 kg]	[38 500 kg]

*See MackTraQ for specific GVW/GCW ratings per Carrier Application Guidelines. Failure to follow these guidelines may void Mack's Carrier Warranty.*

**Carriers**

Type  
Standard . . . . . Dual Reduction Top Mounted with 4 Pinion Closed Differential  
Optional (CRD2031) . . . . . Interwheel Power Divider  
Standard . . . . . Iron - CRD203  
Available Ratios:  
3.63; 3.94; 4.35; 4.73; 5.02; 5.46; 5.95; 6.41; 7.08; 8.37

*Due to application variations (engine power/torque, transmission, tire size and duty cycle) some ratios may not be acceptable for GCW/GVW ratings listed.*

Oil Capacity, Pints . . . . . Carrier Bowl 26 [12.3L]  
Bevel Gear Compartment (203-2031) . . . . . 8.5 [4.0L]  
Drain Plugs . . . . . Magnetic

Axle Housing, Type . . . . . Fabricated Steel with Forged Spindle Ends Welded to Housing Shell  
Spindle Diameter . . . . . Inner Bearing 3.75" [95 mm]  
Outer Bearing 3.25" [83 mm]  
Spindle Bore 2.52" [64 mm]

Axle Shafts, Type . . . . . Integral Flange  
Material . . . . . Induction-Hardened Chromium Molybdenum Steel  
Body Diameter . . . . . 1.890" [48 mm]  
Diameter over Splines . . . . . 2.200" [56 mm]  
Splines, Number & Type . . . . . 43-Involute

**Brakes** Service Brake  
Type . . . . . "S" Cam  
Manufacturer . . . . . Meritor  
Actuation . . . . . Air  
Lining Size, Diameter . . . . . 16.5" [419 mm]  
Width . . . . . 7" [178 mm]  
Lining Thickness . . . . . 0.75" [18 mm]  
Lining Area, Total . . . . . 440 in<sup>2</sup> [2 839 cm<sup>2</sup>]  
Chamber Size—Sq. In. Per Wheel . . . . . 1 @ 30 [194 cm<sup>2</sup>]  
Slack Adjuster Length . . . . . 6.5" [165 mm]  
Dust Shields . . . . . Furnished  
Brake Adjustment . . . . . Manual Adjusting  
Parking Emergency Brake . . . . . Spring Loaded Chamber



**SUSPENSIONS**

without Helper Spring

<b>SPRING TYPE</b> .....				<b>Multileaf</b>
<b>SPRING CENTER (Width)</b> .....				40.25" [1 022 mm]
<b>MAIN SPRINGS</b>	<b>STD.</b>	<b>OPT. LT. DUTY</b>	<b>OPT. ANTI-SWAY</b>	
Ground Load Rating (lbs.) .....	23,000 [10 400 kg]	19,000 [8 600 kg]	23,000 [10 400 kg]	
Length .....	53.75" [1 365 mm]	53.75" [1 365 mm]	53.75" [1 365 mm]	
Width .....	3.0" [76 mm]	3.0" [76 mm]	3.0" [76 mm]	
Number of Leaves and Thickness .....	9 @ 0.558" [14 mm]	6 @ 0.558" [14 mm]	11 @ 0.558" [14 mm]	
		2 @ 0.499" [13 mm]		

with Helper Spring

**HELPER SPRINGS (Optional)**

Length .....	36.0" [914 mm]
Width .....	3.0" [76 mm]
Number. of Leaves and thickness .....	8 @ 0.291" [7 mm]

**IMPORTANT NOTE:**

When helper springs are used with light duty main springs, the overall spring rating increases from 19,000 lbs. [8 600 kg] to 23,000 lbs. [10 400 kg]. This provides the partially loaded or unloaded vehicle with a 19,000 lb. [8 600 kg] suspension for improved ride, and when loaded, the helper springs become effective to provide a 23,000 [10 400 kg] rating. When used with 23,000 [10 400 kg] standard springs to improve stability, the rating will remain at 23,000 [10 400 kg].

Available with:

- Air Leaf 40.0" [1 016 mm] SPRING CENTERS
- AL231

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