



# RAM HEAVY DUTY HEAVYWEIGHT TOWING CHAMP

## 22,750 LB BEST-IN-CLASS TOWING ∞ 800 LB-FT UNSURPASSED TORQUE

Whether you carry your weight in a trailer or your cargo box, Ram Heavy Duty masters towing and hauling. The enhanced High-Output 6.7L Cummins® Turbo Diesel engine generates an unsurpassed 800 lb-ft of torque and boosts max towing capacity to 22,750 pounds for Best-in-Class performance.

### RAM TOWING FACTS

Ram pickups offer a diverse range of trailer-towing capabilities. A wide variety of powertrain/axle ratio combinations and optional trailering packages ensure the perfect truck for all towing needs.

**FACT:** When equipped with the Max Tow package, Ram HD delivers Best-in-Class Towing. The Max Tow package (Sales code – AHC), is available on 3500 models with Dual-Rear-Wheels and includes:

- 4.10 axle ratio – for increased pulling power and faster acceleration (ideal if towing on varied terrain)
- Dual Transmission Oil Cooler – for optimum cooling protection for extreme duty cycle operations (ideal if towing on steep grades or during extreme heat)

Ram 3500 4x2 Crew and Regular Cab models with Dual-Rear-Wheel and equipped with Max Tow package provides 30,000 lb of GCWR and a Best-in-Class tow rating of 22,750 lb.

The following chart provides a summary of the key differences in trailer weight ratings with the new 800 lb-ft diesel engine and new Max Tow Package offered on Ram 3500.

2012 MY RAM 3500 DRW DIESEL with AUTOMATIC – MAX TOWING										
4X2	RAM				FORD (MY11)				CHEVY (MY11)	
	Axle Ratio	GCWR	Max Tow	GCWR	Max Tow	Axle Ratio	GCWR	Max Tow	GCWR	Max Tow
<b>REGULAR CAB LONG BOX</b>										
Auto with 6-speed	4.10	26,000	19,100	30,000	22,750	3.73	30,000	22,600	–	–
<b>CREW CAB LONG BOX</b>										
Auto with 6-speed	4.10	26,000	18,600	26,800	19,050	3.73	30,000	21,800	29,200	21,500
<b>MEGA CAB SHORT BOX</b>										
Auto with 6-speed	4.10	26,000	18,450	26,000	18,450	–	–	–	–	–
<b>4X4</b>										
<b>REGULAR CAB LONG BOX</b>										
Auto with 6-speed	4.10	26,000	18,800	30,000	22,300	3.73	30,000	22,100	22,200	21,700
<b>CREW CAB LONG BOX</b>										
Auto with 6-speed	4.10	26,000	18,400	29,100	20,950	3.73	30,000	21,300	29,200	21,100
<b>MEGA CAB SHORT BOX</b>										
Auto with 6-speed	4.10	26,000	18,000	26,000	18,350	–	–	–	–	–
<b>With Max Tow Group</b>										

Dual-Rear-Wheel equipped Ram 3500 Heavy Duty pickups with the Max Tow package are rated up to 30,000 lb. For maximum towing, Ram Powertrain engineers gave the Ram 3500 an improved Dual-Rear-Wheel axle with a 4.10 gear ratio, new rear-axle pinion, new helical gears, upgraded bearings and a heat-dissipating, finned aluminum differential cover. As part of the Max Tow upgrade to the Ram 3500, the truck also offers an engine-mounted, oil-to-coolant transmission cooler to moderate operating temperatures during trailer towing.



# RAM HEAVY DUTY RAM TOWING FACTS

**FACT: A 4.10 axle ratio is ideal for towing heavy loads in a mix of city and highway driving and when towing on varied or steep grades.**

A 4.10 axle ratio will provide improved acceleration in stop and go city traffic. A lower gear (higher numerical) ratio provides more low-speed wheel torque, which makes it easier to get the vehicle moving when pulling a trailer or carrying a heavy load. A 4.10 rear axle ratio is ideal for towing larger 5<sup>th</sup> Wheel or Gooseneck trailers.

**FACT: A 3.73 axle ratio is ideal for towing heavy loads on flat terrain and will produce increased fuel economy during steady-state, long-distance highway driving.**

**FACT: One of the major contributing factors affecting a truck's fuel economy is aerodynamic drag.**

Testing conducted by the U.S. Environmental Protection Agency (EPA) show that the difference in typical combined 'city/highway' fuel economy between a high (i.e. 3.73) and low (i.e. 4.10) axle ratio can be minimal. According to the EPA, aerodynamic drag from the truck and trailer frontal areas account for most truck energy losses at highway speeds. Ram Trucks are designed using state-of-the-art wind tunnel technology and this results in Ram having superior aerodynamic properties. In fact, the Ram 1500 has Best-in-Class Aerodynamics.

When choosing an axle ratio it is important to know how the truck will be used. For optimum towing performance with good fuel economy, a truck must be equipped with the proper axle ratio for the intended job. The following chart provides an overview of the key differences between axle ratios.

RAM TRUCK AXLE RATIOS								
High Numerical ("Low Ratio")			Midrange			Low Numerical ("High Ratio")		
4.88	4.56	4.44	4.10	3.92	3.73	3.55	3.21	
More Pulling Power, Faster Acceleration, Lower Fuel Economy, Higher Engine rpm/Noise, More Engine Fan Cooling, Less Prone to "Lug," Slower Top Road Speed						Less Pulling Power, Slower Acceleration, Higher Fuel Economy, Lower Engine rpm/Noise, Less Engine Fan Cooling, More Prone to "Lug," Faster Top Road Speed		
Steep Grades			Varied Terrain			Flat Terrain		
Maximum Towing Maximum Loads			Moderate Towing Moderate Loads			Light Towing Light Loads		

**FACT: When comparing truck axle ratios you need to consider the total gearing, not just the rear axle ratio.**

The rear axle ratio is the number of times the driveshaft turns for every one wheel rotation. Each gear produces a different number of revolutions. For example, in the Drive Ratio Comparison Chart below, the Ram with a 4.10 rear axle has a 1<sup>st</sup> gear transmission ratio of 3.23, or the engine makes 3.23 revolutions for every revolution of the transmission. In 4<sup>th</sup> gear, the transmission ratio of 1.0 means the engine and transmission are moving at the same speed (or 1:1). The 5<sup>th</sup> & 6<sup>th</sup> gears are the overdrive gears, where the transmission is revolving faster than the engine.

DRIVE RATIO COMPARISON CHART (Automatic)								
RAM (4.10)			Ford (3.73)			Chevrolet (3.73)		
Gears	Trans. Ratio	Engine Revolutions	Trans. Ratio	Engine Revolutions	Trans. Ratio	Engine Revolutions		
1 <sup>st</sup>	3.23	13.24	3.97	14.81	3.10	11.56		
2 <sup>nd</sup>	1.84	7.54	2.32	8.65	1.81	6.75		
3 <sup>rd</sup>	1.41	5.78	1.52	5.67	1.41	5.26		
4 <sup>th</sup>	1.0	4.10	1.15	4.29	1.0	3.73		
5 <sup>th</sup>	0.82	3.36	0.86	3.21	0.71	2.65		
6 <sup>th</sup>	0.63	2.58	0.67	2.50	0.61	2.28		
Reverse	4.44	18.2	3.13	11.67	4.49	16.75		

#### FACT:

Since Ford transmissions have a 1.15:1 ratio in 4<sup>th</sup> gear with the 3.73 rear axle ratio, their engine RPM is nearly the same as a Ram with 1:1 ratio in 4<sup>th</sup> gear with the 4.10 rear axle. Therefore, it is more accurate to compare the Ram towing capability with a 4.10 to the Ford with a 3.73 axle ratio. Also, a 3.73 axle is only better for fuel economy versus a 4.10 if the transmission gearing is the same.