

Motor Graders

SERIES IV

Engine Update



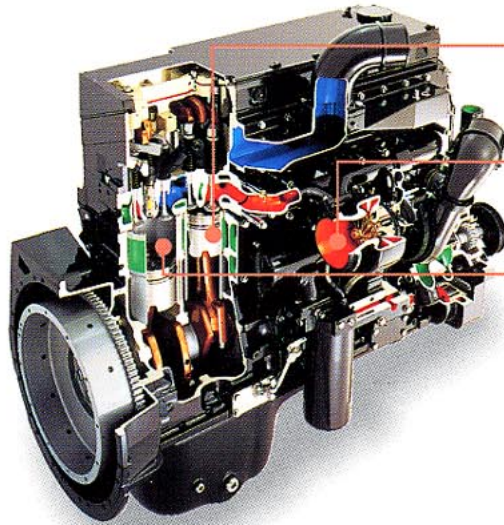
---

More Torque Rise  
More Drawbar Pull  
More Performance

## More Torque Rise

Up to 43%

Horsepower is one thing. Torque Rise – an engine's ability to recover power under suddenly increased load – is another. Champion introduces its "more powerful than ever" Series IV motor graders, featuring the Cummins B Series, new C Series, and new M11 engines. Cummins technological innovations give these powerplants exceptional pulling power combined with high fuel efficiency.



Cummins M11 Engine

## More Drawbar Pull

Greater Lugging Power in Every Gear

Drawbar pull is the measure of a grader's ability to transfer power directly to the drawbar, and in particular to provide constant pull through heavy loads. Not only has drawbar pull on the Champion Series IV been dramatically increased throughout the entire gear range, but transitional pull from gear to gear has been made smoother. The result is generous lugging power when it really counts – moving earth.

- 1 Articulated steel pistons improve combustion and increase durability.
- 2 High-efficiency turbocharger delivers strong low-end torque and excellent response.
- 3 Longer stroke and increased displacement.

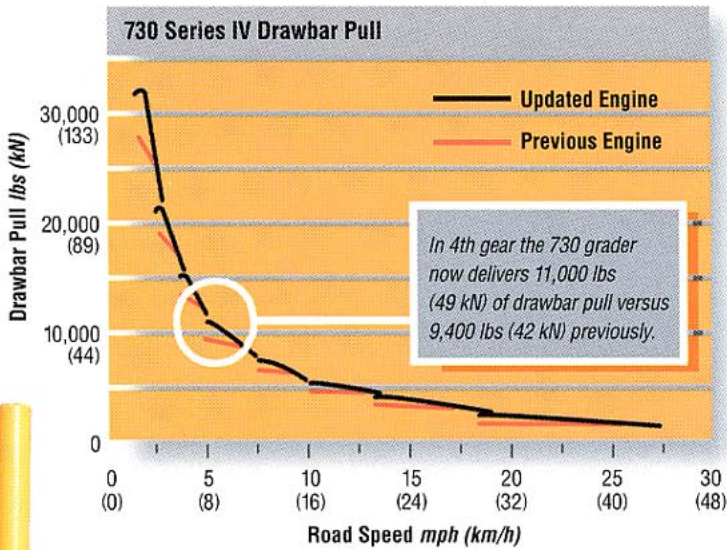


# More Performance

## For Even the Toughest Uphill Challenges

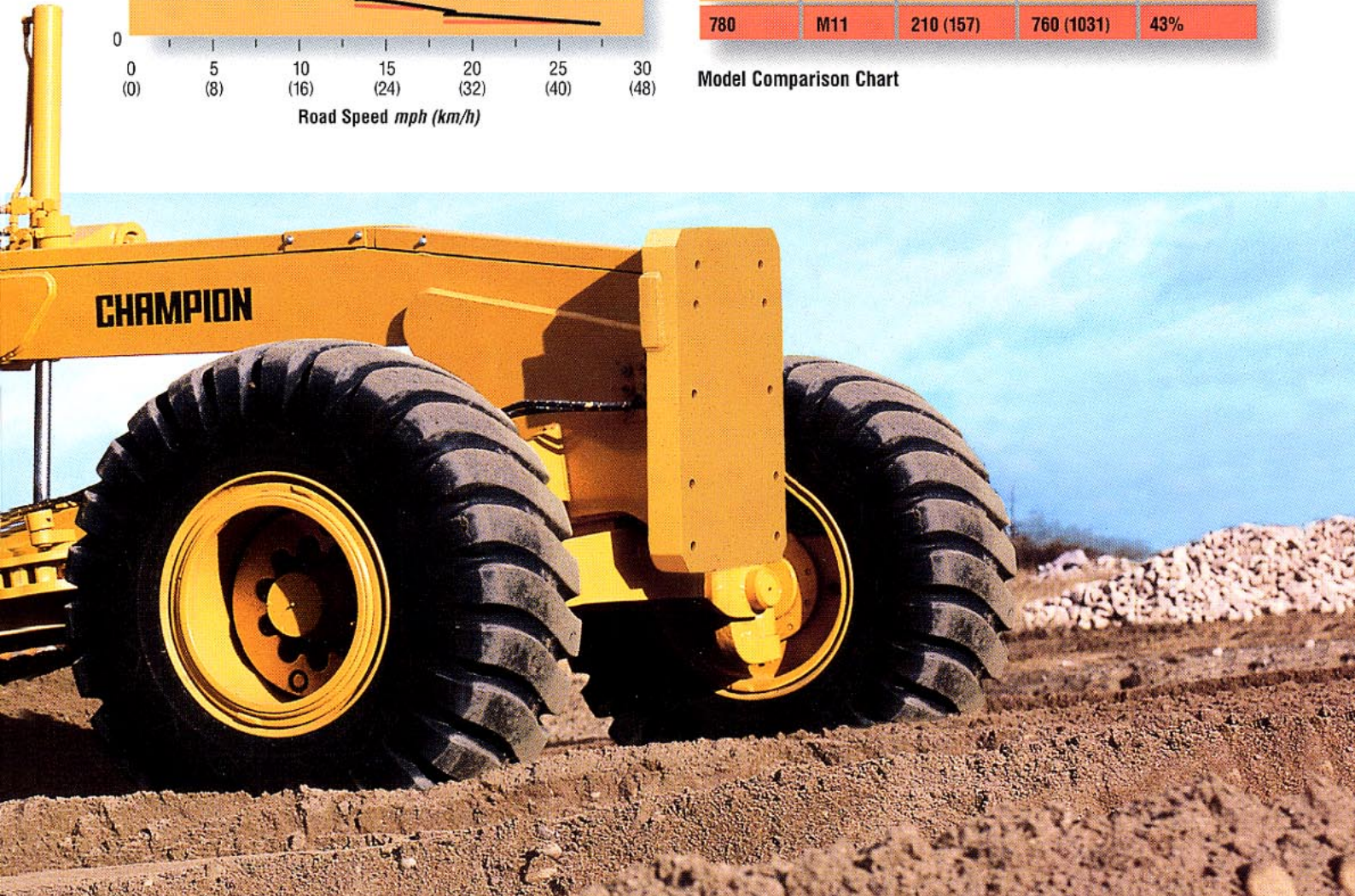
Champion's Cummins equipped Series IV graders deliver genuine performance – up to 760 lb-ft (1031 N·m) of peak torque at 1300 rpm. Unique Step Timing Control (STC) injectors combine with higher injection pressures, and a newly designed swirl-port head, to deliver faster more complete fuel burning. So you get better fuel efficiency and more power on every stroke. Among the most advanced diesels of their kind, these engines provide this power while meeting all the latest mobile off-highway emissions standards worldwide.

Cummins engines are selected and matched across the entire Series IV line to optimize the power to weight ratio of every grader we build. The new Cummins powered Champion Series IV motor graders give you more torque rise, more drawbar pull, and more performance for high productivity on even the toughest job.



Model	Engine	Net Power hp (kW)	Peak Torque lb·ft (N·m)	Torque Rise (Net)	
710	6BT5.9	135 (101)	400 (542)	25%	
720	C8.3	155 (116)	507 (687)	32%	
720 VHP	C8.3	Low	160 (119)	500 (678)	20%
		High	192 (143)	636 (862)	36%
730	C8.3	192 (143)	636 (862)	35%	
740	M11	210 (157)	760 (1031)	43%	
750	M11	210 (157)	760 (1031)	43%	
780	M11	210 (157)	760 (1031)	43%	

Model Comparison Chart



## Machine Specifications

	710	720	720VHP	
<b>Make/Model</b>	Cummins 6BT5.9	Cummins C8.3	Cummins C8.3	
<b>Type</b>	4 Cycle, Turbocharged	4 Cycle, Turbocharged	4 Cycle, Turbocharged	
<b>No. of Cylinders</b>	In Line 6	In Line 6	In Line 6	
<b>Bore &amp; Stroke</b>	4.02 x 4.72 in (102 x 120 mm)	4.49 x 5.32 in (114 x 135 mm)	4.49 x 5.32 in (114 x 135 mm)	
<b>Displacement</b>	359 cu in (5.88 L)	504.5 cu in (8.27 L)	504.5 cu in (8.27 L)	
<b>Gross Power</b>	148 hp (110 kW) @ 2300 rpm	170 hp (127 kW) @ 2200 rpm	183 hp (136 kW) @ 2200 rpm	<i>Forward, 1, 2 and Reverse 1</i>
<b>Net Power</b>	135 hp (101 kW) @ 2300 rpm	155 hp (116 kW) @ 2200 rpm	205 hp (153 kW) @ 2200 rpm	<i>Forward, 3-8 and Reverse 2-4</i>
<b>Peak Torque</b>	400 lb-ft (542 N-m) @ 1600 rpm	507 lb-ft (687 N-m) @ 1500 rpm	160 hp (119 kW) @ 2200 rpm	<i>Forward, 1, 2 and Reverse 1</i>
<b>Torque Rise (Net)</b>	25%	32%	192 hp (143 kW) @ 2200 rpm	<i>Forward, 3-8 and Reverse 2-4</i>
			500 lb-ft (678 N-m) @ 1500 rpm	<i>Forward, 1, 2 and Reverse 1</i>
			636 lb-ft (862 N-m) @ 1500 rpm	<i>Forward, 3-8 and Reverse 2-4</i>
			20%	<i>Forward, 1, 2 and Reverse 1</i>
			36%	<i>Forward, 3-8 and Reverse 2-4</i>

	730	740	750	780
<b>Make/Model</b>	Cummins C8.3	Cummins M11	Cummins M11	Cummins M11
<b>Type</b>	4 Cycle, Turbocharged	4 Cycle, Turbocharged, Aftercooled	4 Cycle, Turbocharged, Aftercooled	4 Cycle, Turbocharged, Aftercooled
<b>No. of Cylinders</b>	In Line 6	In Line 6	In Line 6	In Line 6
<b>Bore &amp; Stroke</b>	4.49 x 5.32 in (114 x 135 mm)	4.921 x 5.787 in (125 x 147 mm)	4.921 x 5.787 in (125 x 147 mm)	4.921 x 5.787 in (125 x 147 mm)
<b>Displacement</b>	504.5 cu in (8.27 L)	660 cu in (10.8 L)	660 cu in (10.8 L)	660 cu in (10.8 L)
<b>Gross Power</b>	205 hp (153 kW) @ 2200 rpm	225 hp (168 kW) @ 2100 rpm	225 hp (168 kW) @ 2100 rpm	225 hp (168 kW) @ 2100 rpm
<b>Net Power</b>	192 hp (143 kW) @ 2200 rpm	210 hp (157 kW) @ 2100 rpm	210 hp (157 kW) @ 2100 rpm	210 hp (157 kW) @ 2100 rpm
<b>Peak Torque</b>	636 lb-ft (862 N-m) @ 1500 rpm	760 lb-ft (1031 N-m) @ 1300 rpm	760 lb-ft (1031 N-m) @ 1300 rpm	760 lb-ft (1031 N-m) @ 1300 rpm
<b>Torque Rise (Net)</b>	35%	43%	43%	43%

Performance: Rated net brake horsepower SAE standard J1349/ISO 3046-2 conditions with water pump, lubricating oil pump, fuel system, air cleaner, alternator, and cooling fan.



CANADA  
Goderich, Ontario

© 1995 Champion Road Machinery Limited

Specifications subject to change without notice. Some items included in this brochure are optional.