



# G140 SPECIFICATIONS



ENGINE	6x4	6x6
MANUFACTURER AND MODEL	Cummins QSB6.7	
EMISSIONS LEVEL	Stage 3A	
NUMBER OF CYLINDERS	6	
DISPLACEMENT	6,7 L (409 cu. in.)	
ENGINE OUTPUT - Nett	179 kW (240 hp)	
PEAK ENGINE TORQUE	990 Nm (730 lb.ft) @ 1 500 rpm	
TORQUE RISE	22%	
NET ENGINE POWER		
Gear 1	135 kW (181 hp)	
Gear 2	141 kW (189 hp)	
Gear 3	142 kW (190 hp)	
Gear 4	148 kW (198 hp)	
Gear 5	152 kW (204 hp)	
Gear 6	179 kW (240 hp)	
Reverse Gear 1	179 kW (240 hp)	
Reverse Gear 2	179 kW (240 hp)	
Reverse Gear 3	179 kW (240 hp)	

DRIVETRAIN	6x4	6x6
MANUFACTURER & MODEL	ZF 6WG210	
TRANSMISSION TYPE	Automatic Powershift	
NUMBER OF SPEEDS: Forward	6	
NUMBER OF SPEEDS: Reverse	3	
FRONT AXLE	Heavy duty welded fabrication with integrated lean bar lock	
FINAL DRIVES	Inboard-mounted planetary reduction, sealed in cooled, filtered oil.	
BRAKES	Foot-controlled, hydraulically operated, multiple wet-disc brakes sealed in pressurized, cooled & filtered oil. Both independent systems effective on all 4 tandem wheels.	
PRIMARY AND SECONDARY BRAKES	Hydraulically actuated, inboard of tandem pivot, self-adjusting, sealed in cooled and filtered oil, multi-disc (ISO 3450 compliant).	
PARK BRAKE	Automatically spring applied, hydraulically released disc brake (ISO 3450).	
FRONT AXLE OSCILLATION (Total)	32 deg.	
FRONT WHEEL LEAN	20 deg.	
DIFFERENTIAL	Spiral bevel gear system, hydraulically actuated with a clutch-type mechanism, allowing differential lock engagement while the machine is in motion. It can be applied in both manual and automatic differential lock modes.	
TANDEM AXLE OSCILLATION (Total)	30 deg.	
STEERING	The motor grader features hydraulic frame articulation for enhanced maneuverability and productivity, while crab steering minimizes side drift, positions tandems on stable ground, and improves side-slope stability	
TYRE SIZE - Standard	17.5R25	
SERVICE BRAKE TYPE	Multiple Wet Discs	
SERVICE BRAKE ACTUATION	Hydraulic	
GROUND CLEARANCE FRONT AXLE	546 mm (21.5 in.)	

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PERFORMANCE	6x4	6x6
SPEED		
Forward Gear 1	5,1 kph (3 mph)	
Forward Gear 2	7,9 kph (5 mph)	
Forward Gear 3	13,1 kph (8 mph)	
Forward Gear 4	20,1 kph (12 mph)	
Forward Gear 5	30,9 kph (19 mph)	
Forward Gear 6	45 kph (28 mph)	
Reverse Gear 1	5,5 kph (3 mph)	
Reverse Gear 2	13,8 kph (9 mph)	
Reverse Gear 3	32,6 kph (20 mph)	
Top Speed Forward	45 kph (28 mph)	
Top Speed Reverse	32,6 kph (20 mph)	

6-WHEEL DRIVE	6x4	6x6
FRONT WHEEL DRIVE		Yes
DESCRIPTION		A hydrostatic drive to improve vehicle traction and benefit control of the front wheels. The system can be activated electronically in realtime whilst operating. It consists of independent left/right circuits, utilising variable displacement pumps coupled to auto-shifting two speed motors. When not active the circuits use an efficient freewheeling mode. The system enables inching mode as well as precision mode (a front wheel only drive mode).
PUMPS		Danfoss
PUMP DISPLACEMENT		53 cm3 (3.2 cu. in.)
FRONT WHEEL MOTORS		Poclain
MOTOR DISPLACEMENT		2 238 cm3 (137 cu. in.)
REDUCTION		None
6WD Max Speed		30 kph (19 mph)
PRECISION MODE MAX SPEED		10 kph (6 mph)

HYDRAULICS	6x4	6x6
TYPE	Variable displacement axial piston pump	
PUMP DISPLACEMENT	100 cc / rev	
PUMP FLOW, L / min (US-Gallons / min)	220 L / min (58 gal / min)	
RELIEF PRESSURE	18 961 kPa (2 750 Psi)	

KINEMATICS	6x4	6x6
CIRCLE SIDE SHIFT	789 mm (31 in.)	
FRAME CIRCLE DIAMETER	1 500 mm (59 in.)	
CIRCLE DRIVE	Hydraulic geroller motor driving a reduction worm box with overload wetplate clutch.	
CIRCLE TYPE	Precision Circle: Sealed and lubricated slewing bearing, requiring no adjustment. Mounted between the drawbar and circleframe, which are welded and machined structures.	
CIRCLE ROTATION	360 deg.	
STEERING ANGLE, DEG	48 deg.	
TURNING RADIUS - MINIMUM	7,22 m (23 ft. 8 in.)	
FRAME ARTICULATION (EACH WAY)	22 deg.	

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CAPACITIES	6x4	6x6
FUEL TANK (Refilling capacity)	400 L (106 US gal.)	
HYDRAULIC TANK (Refilling Capacity)	68,75 L (18 US gal.)	
COOLING SYSTEM	35 L (9 US gal.)	
ENGINE OIL WITH FILTER	15 L (4 US gal.)	
TRANSMISSION FLUID	33 L (9 US gal.)	
DIFF HOUSING	32 L (8 US gal.)	
TANDEM HOUSINGS	158 L (42 US gal.)	
CIRCLE GEARBOX	5 L (1 US gal.)	

MOLDBOARD / BLADE	6x4	6x6
DESCRIPTION	High strength welded construction, using wear resistant high carbon steel materials. Underlays/overlays & cutting edges can exchanged left to right. Moldboard bronze guides are easily replaceable and adjustable for precision.	
WIDTH - Moldboard	4 270 mm (14 ft. 0 in.)	
MOLDBOARD HEIGHT	610 mm (24 in.)	
THICKNESS - Moldboard	20/25 mm combination	
MOLDBOARD SIDESHIFT - Right	685,5 mm (27 in.)	
MOLDBOARD SIDESHIFT - Left	685,5 mm (27 in.)	
SHOULDER REACH	2 287 mm (7 ft. 6 in.)	
HYDRAULIC BLADE TIP - Forward	42 deg.	
HYDRAULIC BLADE TIP - Rearward	5 deg.	
MOLDBOARD - Lift Above Ground	490 mm (19.3 in.)	
MOLDBOARD ARC RADIUS	426 mm (16.8 in.)	
THROAT CLEARANCE	111 mm (4.4 in.)	
BANK ANGLE	90 deg.	
DRAWBAR (DRAFT FRAME) Description	Welded box construction machined for flatness with variable height double ball-and-socket pivot connection	
BLADE DOWN FORCE AT MAX WEIGHT	12 011 kg (26 480 lbs)	11 790 kg (25 992 lbs)
BLADE DOWN FORCE AT NORMAL WEIGHT	10 249 kg (22 595 lbs)	10 774 kg (23 753 lbs)
BLADE DOWN FORCE AT BASE WEIGHT	8 343 kg (18 393 lbs)	8 868 kg (19 551 lbs)
BLADE PULL AT MAX WEIGHT	14 637 kg (32 270 lbs)	20 520 kg (45 239 lbs)
BLADE PULL AT NORMAL WEIGHT	13 667 kg (30 131 lbs)	19 781 kg (43 610 lbs)
BLADE PULL AT BASE WEIGHT	11 947 kg (26 338 lbs)	17 191 kg (37 899 lbs)

CUTTING EDGE	6x4	6x6
DESCRIPTION	Through hardened Boron steel edge	
THICKNESS	19 mm (0.7 in.)	
WIDTH	203 mm (8 in.)	

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ELECTRICAL	6x4	6x6
SYSTEM VOLTAGE	24 V	
NUMBER OF BATTERIES	2	
BATTERY CAPACITY	1 350 CCA	
RESERVE CAPACITY	400 min.	
AMP HOUR RATING	230 amp-hour	
ALTERNATOR RATING	120 amp	
NUMBER OF LED WORKLIGHTS		
Grading Option	4	
Delux Option	8	
Engine Bay - Standard	3	

WEIGHTS	6x4	6x6
GROSS VEHICLE WEIGHT - BASE - Front Axle	5 137 kg (11 325 lbs)	5 385 kg (11 872 lbs)
GROSS VEHICLE WEIGHT - BASE - Rear Axle	13 274 kg (29 264 lbs)	13 716 kg (30 239 lbs)
OPERATING WEIGHT	18 411 kg (40 589 lbs)	19 101 kg (42 110 lbs)
GROSS VEHICLE WEIGHT - TYPICAL - Front Axle	6 103 kg (13 455 lbs)	6 351 kg (14 002 lbs)
GROSS VEHICLE WEIGHT - TYPICAL - Rear Axle	15 186 kg (33 479 lbs)	15 628 kg (34 454 lbs)
WEIGHT WITH PUSH BLOCK & RIPPER	21 289 kg (46 934 lbs)	21 979 kg (48 455 lbs)
GROSS VEHICLE WEIGHT - Maximum - Front Axle	6 536 kg (14 410 lbs)	6 588 kg (14 525 lbs)
GROSS VEHICLE WEIGHT - Maximum - Rear Axle	16 264 kg (35 856 lbs)	16 212 kg (35 741 lbs)
OPERATING WEIGHT - MAX	22 800 kg (50 265 lbs)	

MID SCARIFIER	6x4	6x6
TYPE	Radial arm linkage with maintenance free bearings and underslung lift cylinder and hydraulic float. V-type scarifier beam with 3 pitch angle positions.	
WIDTH OF CUT	1 188 mm (46.8 in.)	
NUMBER OF SHANKS/TEETH	11	
LIFT ABOVE GROUND	300 mm ( 11,8 in.)	
MAX DEPTH	241 mm ( 9,5 in.)	
SHANK SPACING	114 mm ( 4,5 in.)	
SHANK SIZE	27.5 x 78 mm (1 x 3 in.)	

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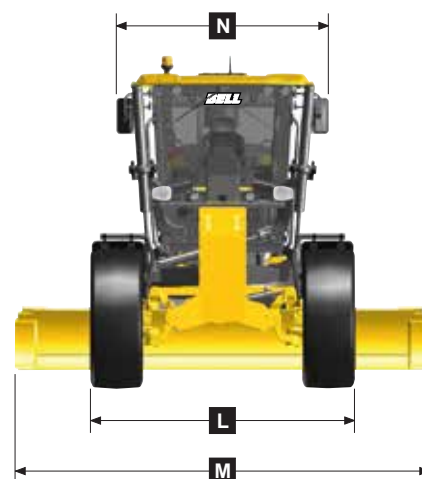
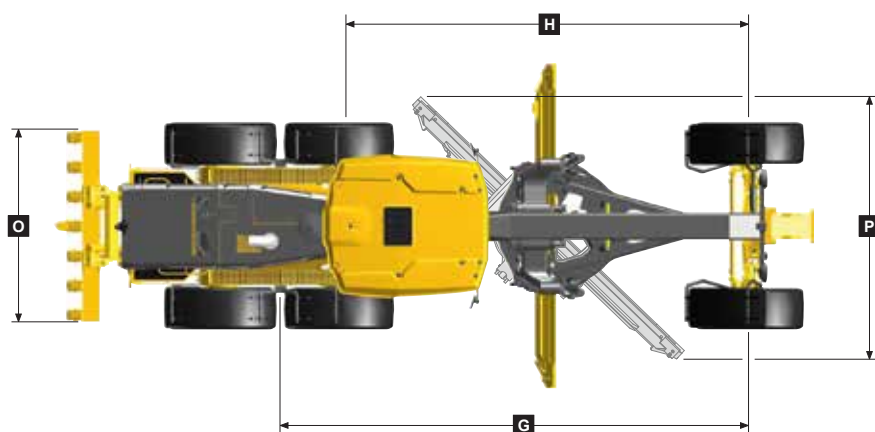
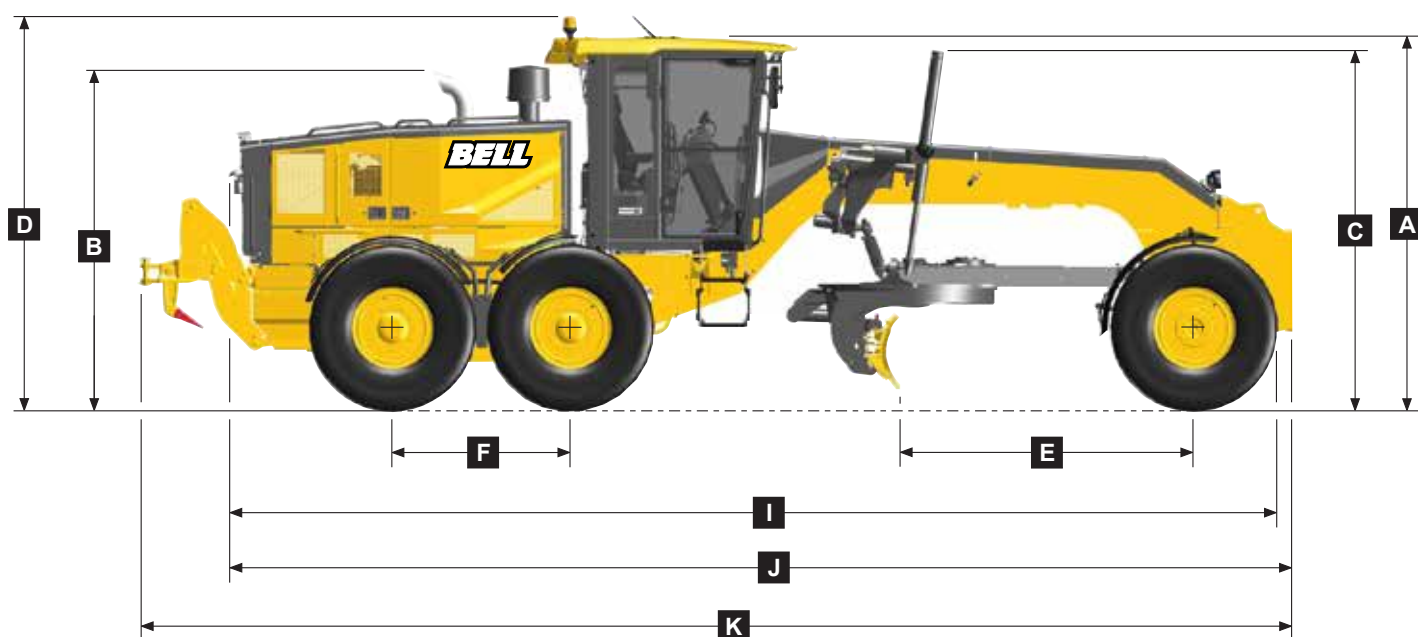
REAR RIPPER & SCARIFIER	6x4	6x6
DESCRIPTION	Parallel linkage, with maintenance free bearings, hydraulic float, and integrated tow hitch	
WIDTH OF CUT		
Ripper	2 300 mm (7 ft. 6 in.)	
Scarifier	2 300 mm (7 ft. 6 in.)	
MAX NUMBER OF SHANKS/TEETH		
Ripper	5	
Scarifier	9	
LIFT ABOVE GROUND		
Ripper	645 mm (25,4 in.)	
Scarifier	815 mm (32,1 in.)	
MAXIMUM DEPTH		
Ripper	370 mm (14,6 in.)	
Scarifier	240 mm (9,4 in.)	
RIPPER PRY-OUT FORCE (HYDRAULIC LIMIT)	25 500 kg (56 218 lbs)	
RIPPER PENETRATION FORCE (HYDRAULIC LIMIT)	9 268 kg (20 432 lbs)	
SHANK SIZE		
Ripper	58 x 137 mm (2.3 x 5.3 in.)	
Scarifier	27,5 x 78 mm (1.1 x 3.1 in.)	

CAB	6x4	6x6
DESCRIPTION	Steel cab frame with GRP roof	
ROPS/FOPS	Yes (ROPS ISO 3471:2008 / FOPS ISO 3449:2005)	

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## MACHINE DIMENSIONS

<b>A</b>	Height-Cab	3 161 mm (10 ft. 4 in.)
<b>B</b>	Height-Exhaust-T3A	2 861 mm (9 ft. 5 in.)
<b>C</b>	Height-Blade Lift Cylinders	2 974 mm (9 ft. 9 in.)
<b>D</b>	Height-Beacon Light	3 333 mm (10 ft. 11 in.)
<b>E</b>	Front Axle Centre to Blade	2 580 mm (8 ft. 6 in.)
<b>F</b>	Tandem Axle Wheel Centres	1 567 mm (5 ft. 2 in.)
<b>G</b>	Front Axle Centre to Tandem Axle Pivot	6 272 mm (20 ft. 7 in.)
<b>H</b>	Front Axle Centre to Artic Centre	5 392 mm (17 ft. 8 in.)
<b>I</b>	Length-Overall w/o Pushblock/Ripper	9 165 mm (30 ft. 1 in.)
<b>J</b>	Length-Overall with Pushblock	9 353 mm (30 ft. 8 in.)
<b>K</b>	Length-Overall with Pushblock and Ripper	10 138 mm (33 ft. 3 in.)
<b>L</b>	Width over Tyre 17,5 R25 (Std G140/G160)	2 634 mm (8 ft. 8 in.)
<b>M</b>	Width over Blade-14 ft. (Std G140/G160)	4 273 mm (14 ft. 0 in.)
<b>N</b>	Width over Mirrors-Operating Position	2 212 mm (7 ft. 3 in.)
<b>O</b>	Width over Ripper	2 300 mm (7 ft. 7 in.)
<b>P</b>	Width Transport Position - 14 ft. Blade	2 970 mm (9 ft. 9 in.)





## Advanced technological solutions for monitoring, accuracy and safety

Bell Motor Graders combine cutting-edge technology with seamless system integration to maximize productivity, grading precision, and on-site safety.

### Grading System Integration

Bell Motor Graders are agnostic and can seamlessly integrate with a variety of third-party technologies, including 2D and 3D grading systems of the customer's choice. This versatility allows customers to connect the grader to their preferred precision grading solutions, enabling high levels of grading accuracy and operational efficiency.

### Fleetm@tic® Monitoring & Efficiency Management

Bell Fleetm@tic® monitors and manages both the machine and the operator's performance. Machine

operational data is collected, processed, and compiled into valuable production and performance statistics, which are accessible via automated reports or the Fleetm@tic® website.

### Enhanced Safety Through System Connectivity

Bell Motor Graders support connectivity with third-party L9 pedestrian detection systems and collision avoidance systems through the ISO 21815-2 Interface. This advanced safety integration helps enhance job site awareness and reduce incidents, making the Bell grader a safer, smarter machine.



# Features & Options

Key: ● Standard ▲ Optional

G140	G160	G200	
			CAB
●	●	●	ROPS/FOPS certified
●	●	▲	Standard cab
▲	▲	●	Deluxe cab
▲	▲	●	Powered cab air precleaner
▲	▲	▲	Radio
●	●	●	HVAC Climate control
▲	▲	▲	EOH Joystick controls
			ELECTRICAL
▲	▲	▲	PDS ready
▲	▲	▲	Rear camera
▲	▲	▲	Front camera
●	●	●	Reverse alarm
▲	▲	▲	White noise reverse alarm
●	●	●	LED grading worklights
▲	▲	●	LED Deluxe worklights
●	●	●	Engine bay lights
●	●	●	Rotating beacon lights
●	●	●	Wiper/washer with intermittent control
●	●	●	Rear wipers
●	●	●	Headlights: Halogen
▲	▲	▲	Headlights: LED
●	●	●	Reversing fan motor
●	●	●	Battery 1 350 CCA
			GROUND ENGAGING TOOLS (GET)
▲	▲		9 extra Scarifier shanks with tips
▲	▲		2 extra Ripper shanks with tips
▲	▲		All extra Ripper and scarifier shanks
▲	▲	▲	Reverse overlay end bids

G140	G160	G200	
			MOLDBOARD
▲			12 ft x 24 in
●	▲		14 ft x 24 in
▲	●	▲	14 ft x 27 in
		●	16 ft x 27 in
			WHEELSET
●	●	▲	17.5R25
		●	20.5R25
▲	▲	▲	550/65R25
			MUDGUARDS
▲	▲	▲	Front
▲	▲	▲	Front and rear
			OTHERS
▲	▲	●	Blade impact
▲	▲	▲	Quick service group
▲	▲	▲	Quick-fill fuel
●	●	●	Slip clutch
●	●	●	Sealed slew bearing
▲	▲	▲	Protection kit
			ATTACHMENTS
●	●		Rear ripper
▲	▲	▲	Rear hitch
		●	Wider ripper
▲	▲	▲	Mid scarifier

