

# 845 DHP

**MOTOR GRADER  
TIER III CERTIFIED**

## ENGINE

Model	Cummins QSB 6.7, Tier III certified electronic controlled
Type	4-stroke, turbocharged and air to air after cooled
Cylinders	6, in-line
Bore/Stroke	4.09 in x 5.20 in (104 x 132 mm)
Displacement	411 in <sup>3</sup> (6.7 L)
Fuel injection	Common rail
Fuel	Diesel
Cooling	Liquid
Horsepower per SAE J1995	
Gross	150/173 hp (112/129 kW) @ 2200 rpm
Net	140/160 hp (104/119 kW) @ 2200 rpm
Maximum torque @ 1500 rpm	
Net	485/550 ft.-lbs (658/746 N·m)

## POWERTRAIN

Rear axle	Planetary
Differential	Hydraulic lock, operator controlled
Outboard brakes	Wet disc
Number of discs/brake	5
Brake surface area	1,560 in <sup>2</sup> (10 089 cm <sup>2</sup> )
Tandems –	
Type	Welded plate
Oscillation	20° each way
Front axle	High strength, welded steel
Oscillation	19° each direction
Wheel lean	17.5° left/right
Tires	14.0 x 24 12PR TL G2 Firestone
Rims	1-piece 9 in x 24 in (227 x 610 mm)

## HYDRAULICS

Type	Closed center, load sensing
Hydraulic pump	
Gear pump, fixed displacement , unloading valve, load sense, variable discharge	
Rated flow @ 2200 rpm	50.5 gpm (191.5 L/min)
Control valve	9 section
Side shift and pitch	Hydraulic
Saddle	5 positions
Diagnostic quick couplers	8

## TRANSMISSION

Type	Direct drive countershaft powershift w/ elec- tronic shift control and inching pedal
Pump flow @ 2200 rpm	24 gpm (91 L/min)
Sump	Integral
Speeds	8 forward/4 reverse
Shifting	Single lever, bump style automatic electronic control
Diagnostics	Onboard
Speeds– mph (km/h) –	
Forward	
1st	2.2 (3.6)
2nd	3.2 (5.1)
3rd	4.4 (7.2)
4th	6.2 (10.0)
5th	8.9 (14.3)
6th	12.4 (20.0)
7th	17.7 (28.5)
8th	26.6 (42.9)
Reverse	
1st	2.2 (3.6)
2nd	4.4 (7.2)
3rd	8.9 (14.3)
4th	17.7 (28.5)

## ELECTRICAL

Voltage	24 volts, negative ground
Alternator	80 amp
Batteries (2)	Low-maintenance 750 CCA – 100 Ah (20 hr rate)
Lighting –	
Headlights (2); Turn signals, front/rear; Stop/tail (2); Rear mounted floods (2); Front mounted floods (2); moldboard worklights (2)	
Backup alarm	Standard

## STEERING

Type	Hydrostatic power steering
Turns (lock-to-lock)	4.75
Pump capacity @ 2200 engine rpm	9.8 gpm (37.3 L/min)
Relief pressure	2,200 psi (151 bar) integral with priority valve
Cylinder (2) –	
2.5 in bore x 10.5 in stroke x 1.5 in rod dia. (63.5 mm x 266.7 mm x 38.1 mm)	
Supplemental steering	Integral

## ARTICULATION

Type	Hydraulic actuated (with lock valve)
Range	25° left/right
Controls	Hydraulic

## SERVICE CAPACITIES

Engine	3.75 gal (14.2 L) w/filter change 4.3 gal (16.4 L)
Fuel	90 gal (341 L)
Transmission	6.6 gal (25 L) w/filter change 7.2 gal (27 L)
Radiator	10.5 gal (40 L)
Hydraulic reservoir	25 gal (94.6 L)
Hydraulic system	47.5 gal (180 L)
Circle gearbox	3 qt (2.8 L)
Rear axle center	3.2 gal (12 L)
Total axle	4.9 gal (18.5 L)
Tandem case, each	7.6 gal (28.7 L)

## MAINFRAME

Type	All welded box
Front section —	
Size	10.0 in x 11.73 in (254 x 298 mm)
Weight	103.1 lbs-ft (153.3 kg/m)
Rear section —	
Size	4.75 in x 11.75 in (121 x 299 mm)
Weight (each side)	52.7 lbs-ft (78.3 kg/m)

## DRAWBAR

Type	"A" frame welded construction with center mounted circle turn motor
Ball and circle	Shim adjustable

## MOLDBOARD

Type	High-carbon steel
Shape	Involute curve
Length	12 ft 0 in (3658 mm)
Height	22 in (559 mm)
Thickness	0.875 in (22.2 mm)
End bits	2, interchangeable
Blade pitch positions —	
Normal pitch	47°
Minimum pitch	42°
Maximum pitch	87°
Blade shift —	
Right	27.0 in (686 mm)
Left	21.0 in (533 mm)
Max. bank cutting angle (right and left):	90°
Ground penetration (max.)	28 in (711.2 mm)
Lift above ground (max.)	17.5 in (444.5 mm)

## CIRCLE

Type	Welded construction
Diameter —	
Max. outside	69.0 in (1752.6 mm)
Vertical member	63.0 in (1600.2 mm)
Rotation	360°
Speed	1.1 rpm (6.8°/second)
Drive	Hydraulic motor
Type	Roller Geroter
Displacement	14.5 in <sup>3</sup> /Rev. (0.24 L/Rev)
Rated hydraulic flow	25 gpm (94.6 L/min)

## OPERATING WEIGHT

With 12 ft (3.65 m) moldboard, 175 lb (79 kg) operator, full fuel and standard equipment	29,777 lb (13 535 kg)
Weight, front axle	8155 lb (3707 kg)
Weight, rear axle	21,621 lb (9828 kg)
Blade pressure	14,597 lb (6635 kg)

## ATTACHMENTS

### SCARIFIER

Type	Front mounted
Width of cut	46 in (1168 mm)
Teeth	5 (11 optional)
Tooth spacing	9.0 in (229 mm) (4.5 in optional)
Lift above ground	20.75 in (527 mm)
Max. penetration	12.5 in (318 mm)
Weight	1,256 lb (570 kg) (includes front attachment group)

### PUSH BLOCK

Type	Front mounted
Weight	1,084 lb (492 kg)

### REAR RIPPER

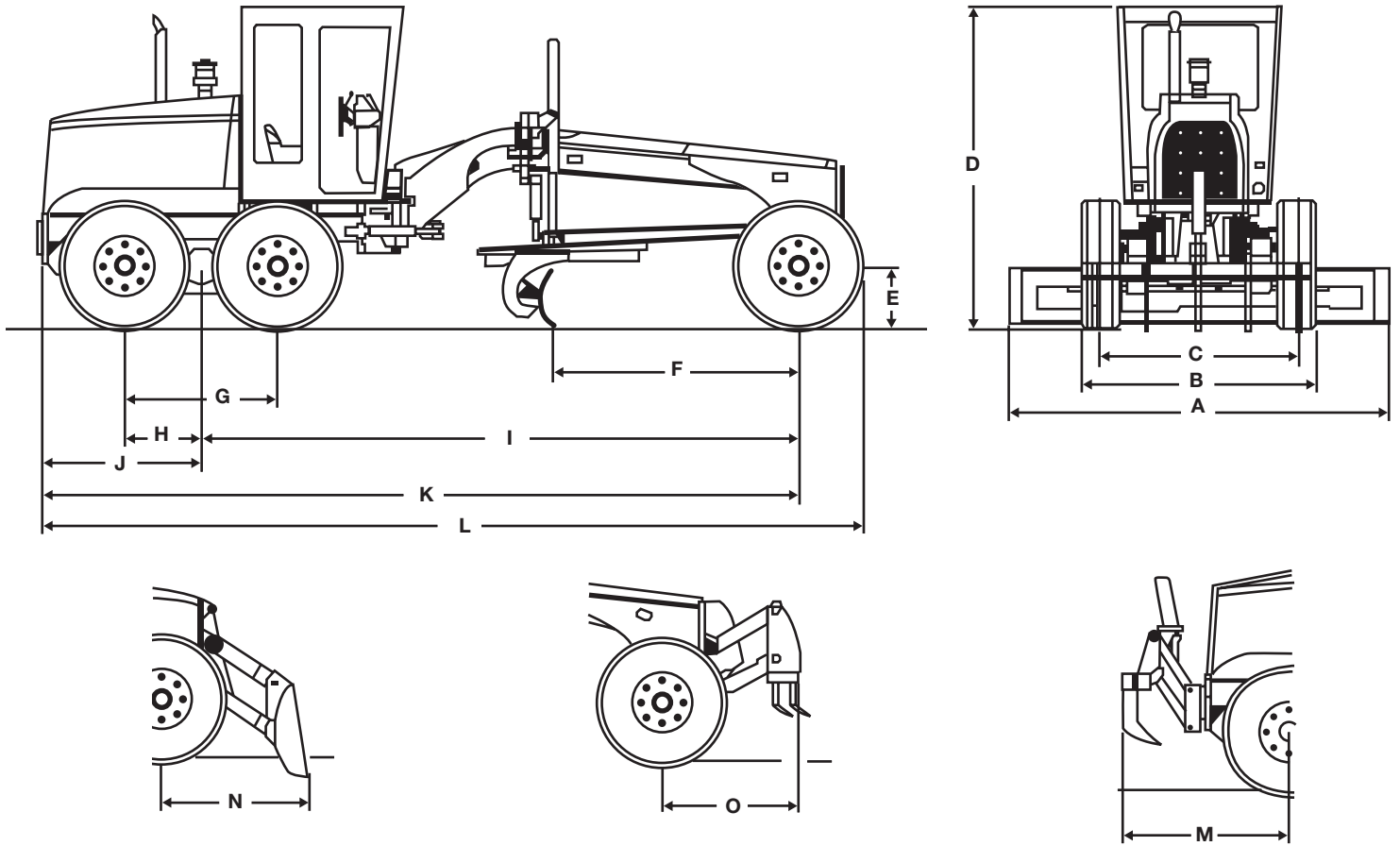
Type	Parallel
Ripper teeth	3 (5 optional)
Width of cut	86.0 in (2185 mm)
Lift above ground —	
Ripper teeth	20.38 in (518 mm)
Max. penetration —	
Ripper teeth	13.78 in (437 mm)
Weight	1,375 lb (625 kg)

### DOZER BLADE

Type	Front mounted
Width	109 in (2762 mm)
Height	37.5 in (953 mm)
Lift above ground	24.5 in (622 mm)
Penetration	6.5 in (165 mm)
Weight	2,568 lb (1165 kg) (includes front attachment group)

### COUNTERWEIGHT

Type	Front mounted
Weight	1,084 lb (492 kg)



Line drawings are for illustrative purpose only and may not be exact representation of unit.

## DIMENSIONS

		845
<b>A.</b>	Blade width	12 ft 0 in (3658 mm)
<b>B.</b>	Distance between outside edges of tires	8 ft 3 in (2510 mm)
<b>C.</b>	Wheel tread	7 ft 0 in (2134 mm)
<b>D.</b>	Height to top of cab — high profile	10 ft 11 in (3340 mm)
<b>D.</b>	Height to top of cab — low profile	10 ft 4 in (3140 mm)
<b>E.</b>	Tire radius — when static	2 ft 0 in (610 mm)
<b>F.</b>	Blade base	8 ft 5 in (2562 mm)
<b>G.</b>	Distance between tandem axles	5 ft 2 in (1594 mm)
<b>H.</b>	Distance between tandem center and wheel	2 ft 7 in (797 mm)
<b>I.</b>	Wheelbase	20 ft 5 in (6219 mm)
<b>J.</b>	Distance between tandem center and rear end of machine	5 ft 5 in (1650 mm)
<b>K.</b>	Distance between front axle and rear end of machine	25 ft 10 in (7869 mm)
<b>L.</b>	Overall length	28 ft 0 in (8534 mm)
<b>M.</b>	Distance between rear tires & rear ripper	6 ft 8 in (2028 mm)
<b>N.</b>	Distance between front tires & front scarifier	5 ft 0 in (1520 mm)
<b>O.</b>	Distance between front tires & front dozer blade	5 ft 4 in (1626 mm)
	Outside tire turning radius	23 ft 9 in (7250 mm)
	Ground clearance (rear axle)	14.9 in (380 mm)
	Ground clearance (front axle)	24.5 in (622 mm)

All units equipped with 14.0 x 24-10 PR tires, ROPS cab with heater & A/C, std. battery, full fuel, 175 lb (79 kg) operator. Specifications per JISO 7134.

## STANDARD EQUIPMENT

### OPERATOR'S COMPARTMENT

ROPS cab  
Adjustable operator's console  
Adjustable cloth suspension seat with 3 in. (76 mm) retractable seat belt  
Front/rear wipers w/washer  
Safety glass  
Dome light  
Inside rear view mirror  
Outside rear view mirrors  
Sunshade – front & rear  
Cup holder  
Storage tray  
12-volt outlet  
Ashtray  
Radio ready (12 volt)  
Master switch  
Heater/defroster/pressurizer  
Air conditioner  
Sound suppression - 75 dBA in cab  
Cab doors - left/right  
Steps – left/right  
Steering wheel knob

### OPTIONAL EQUIPMENT

#### MOLDBOARDS

14 ft x .875 in (4267 x 22 mm)  
Extensions – 2 ft (610 mm)  
Front Float Control  
Moldboard Float Control  
Lift cylinder/side shift accumulator  
Lift cylinder accumulator

### POWERTRAIN

Hydraulic differential lock

### ENGINE

Cummins QSB 6.7 turbocharged diesel  
Tier III certified  
Charge air cooler

### HYDRAULICS

Closed center, load sensing hydraulic system  
Controls for all functions  
9 section control valve  
Front attachment piping  
Hydraulic moldboard side shift and pitch  
5-position saddle  
12 ft x .875 in (3658 x 22 mm) moldboard  
Rear pull hook  
8 hydraulic diagnostic quick couplers  
Hydraulic driven cooling fan

### TIRES

14.0 x 24-12 PR

### TIRES

13.0 x 24-12 PR  
14.0 x 24-10 PR  
14.0 x 24 XGLA  
16.0 x 24-12 PR  
17.5 x 25-12 PR  
17.5 x 25-16 PR

### ELECTRICAL

Heavy duty batteries 1010 CCA

### POWERTRAIN

Limited slip

### INSTRUMENTS

Analog LED Instruments:

Speedometer; Tachometer; Gear shift display; Hourmeter; Engine oil pressure; Engine coolant temperature

Monitor Functions:

Engine oil pressure; Engine coolant temperature; Transmission oil pressure; Transmission oil temperature; Transmission filter restriction; Brake oil pressure; Battery voltage; Hourmeter; Tachometer; Parking brake applied; Air and hydraulic oil filter restriction; Hydraulic oil temperature; Emergency flashers; High beams; Supplemental steering

### ELECTRICAL

Batteries (2)  
Electronic Systems Monitor  
Horn  
Alternator, 80 amp  
Backup alarm

### OTHER

Reversible cooling fan  
Temperature controlled cooling fan  
Fire Extinguisher  
Front lower windshield washer and wiper  
Strobe Light  
Tool Box (w/o tools)  
Deluxe Tool Box (w/tools)  
Cab recirculation fans

NOTE: All specifications are stated in accordance with SAE Standards or Recommended Practices, where applicable.

NOTE: All engines meet current EPA emissions requirements.

IMPORTANT: CNH America LLC reserves the right to change these specifications without notice and without incurring any obligation relating to such change. CNH America LLC does not warrant the safety or reliability of attachments from other manufacturers.

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