



850

Articulated Motor Grader

- DRESSER Turbocharged Engine... Gross hp 177 (132kW)
- Operating Weight 30100 lbs. (13682 kg)
- 6-Speed Full Powershift Transmission
- Up To 6-Optional Controls In Front of Operator
- Available with All Wheel Drive



DRESSER 850

Articulated Motor Grader

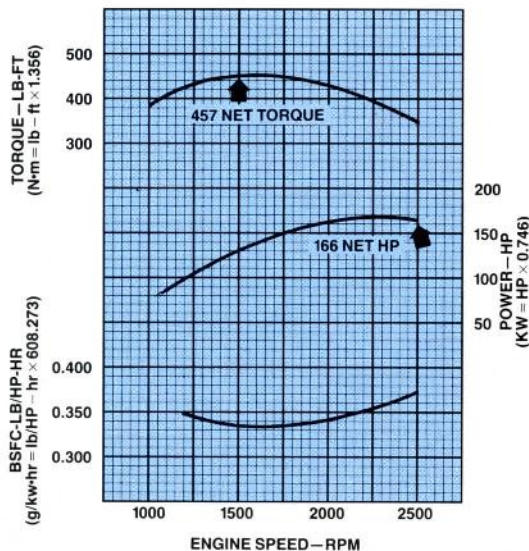
- Efficient performance package: DRESSER diesel engine; integral torque converter; single range full power shift transmission; NoSpin differential
- Moldboard suspension system provides precise positioning of moldboard in all working positions
- Machine design provides excellent visibility, ease of operation and operator comfort
- Anti-drift check valves on hydraulic cylinders



Efficient performance is behind this articulated motor grader. The DRESSER 850 handles any assignment from deep ditching to final grading. Choice of steering provides exceptional maneuverability...including tight turns. On-the-go shifting improves operator control and a power shift transmission is teamed up with an integral torque converter for top work performance.

ENGINE

Make and Model DRESSER D505T
 Type 4-cycle diesel, turbocharged
 No. of cylinders 6
 Piston displacement 504.5 in³ (8.27 L)
 Bore and stroke 4.49" x 5.32" (114 x 135 mm)
 Gross horsepower @2500 rpm 177 (132 kW)
 Net flywheel horsepower @2500 rpm 166 (124 kW)
 Compression ratio 17.3:1
 Main bearings 7
 Lubrication Gerotor Gear Pump
 Fan—6 blade suction
 Air cleaner two stage dry type
 Electrical 24 volt w/alternator
 Batteries (2) maintenance free 12 volt
 Gross horsepower is for engine equipped without fan. Net horsepower is for engine equipped with lubricating oil pump, fuel pump, water pump, fan, air cleaner, alternator (not charging) and muffler.



TRANSMISSION & TORQUE CONVERTER

Full powershift transmission with integral torque converter.

SPEEDS (Opt. Double Reduction Final Drive)

Gear	Forward		Reverse	
	mph	km/h	mph	km/h
1st	0- 4.0	0- 6.4	0- 4.0	0- 6.4
2nd	0- 5.9	0- 9.5	0- 5.9	0- 9.5
3rd	0- 7.1	0-11.4	0-14.9	0-24.0
4th	0-10.5	0-16.9		
5th	0-14.9	0-24.0		
6th	0-26.2	0-42.2		

CONTROLS

Load sensing closed center hydraulics with variable displacement pump. Short stroke/low effort direct acting control valves with preselected maximum flow setting to each function. Double acting antidrift check valves on blade lift, tilt, circle shift, articulation, leaning wheels and scarifier.

MOLDBOARD

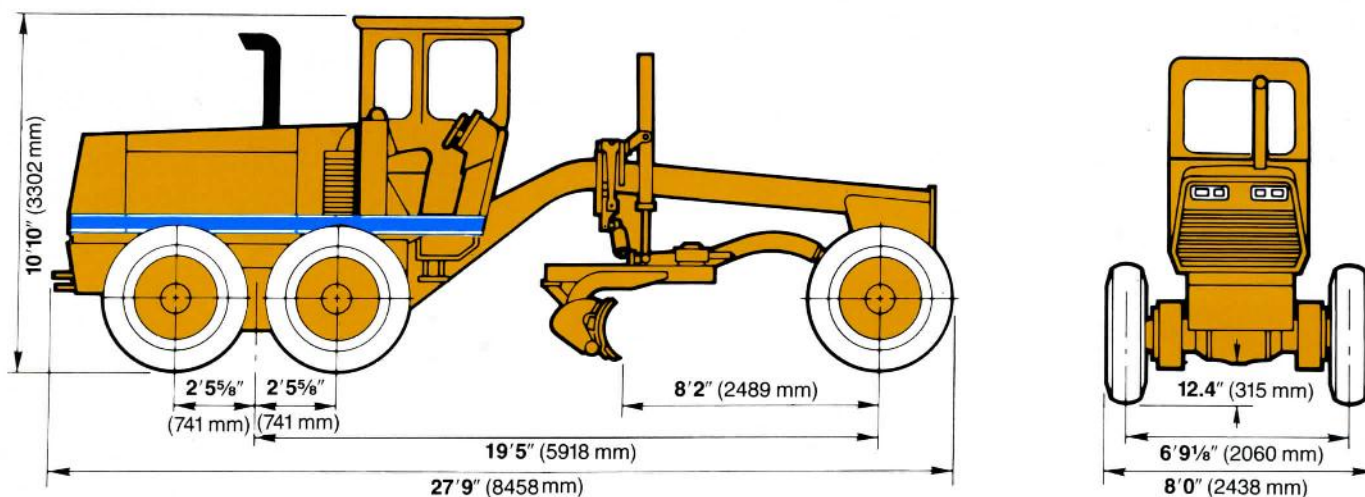
Type 17" (432 mm) radius hydraulic power shift
 High carbon steel 12' x 26" x 7/8" (3658 x 661 x 22 mm)
 Cutting edge thickness 0.62" (16 mm)
 Cutting edge bolt diameter 0.62" (16 mm)
 Blade base 98" (2489 mm)
 Replaceable end bits (size) 0.62" x 6" (16 x 152 mm)

BLADE RANGE (Opt. 90° right & left bank slope)

Lift above ground (max.) 20.5" (520 mm)
 Pitch angle, Power-Tilt 39°
 Max. reach outside rear tires, (frame straight)
 (right) 76" (1930 mm)
 (left) 79" (2007 mm)
 Max. circle side shift,
 hyd. cylinder 20.625" (524 mm)
 Max. blade side shift,
 (right) 24" (610 mm)
 (left) 26" (660 mm)
 Max. blade angle (right or left) 90°
 Max. cutting depth 34" (864 mm)

CIRCLE

Diameter (outside) 60.50" (1537 mm)
 Material .. Structural steel section — flame hardened teeth
 Circle reversing control Hydraulic, 360°
 Four large 24" circle support shoes



DRAWBAR

T-shape, welded construction 6" x 6.88" x .88" (152 x 175 x 22 mm) shim adjustable ball socket.

FRAME

Articulation 20° R. or L.
 Section, welded unit 11.50" x 11.50" (292 x 292 mm)
 Minimum section modulus (between blade lift and head-block mount) 98.1 in³ (1610 cm³)
 Weight, per foot (average) 241 lbs (110 kg/m)

OPERATOR'S COMPARTMENT

Adjustable foam seat and backrest with swing-up armrests.
 Platform 28.50" x 50" (724 x 1270 mm)

AXLE, FRONT

Oscillation, total 36°
 Wheel lean angle, left or right 17½°
 Material solid bar construction welded steel sections
 Spindle diameter at bearings 3.38" and 2.12"
 (86 and 54 mm)
 Ground clearance 24.2" (614 mm)

STEERING

Type Hydrostatic (Orbitrol)
 Minimum turning radius 24'4" (7.4 m)

AXLE, REAR

Type Full floating
 Material Alloy steel, heat treated
 Differential Spiral bevel gears with NoSpin

TANDEM DRIVE

Oscillating welded box section,
 oil-tight housing 23.50" x 8" (597 x 203 mm)
 Sprocket drive chain 1.25" (32 mm) pitch,
 double strand

WHEELS, FRONT AND REAR

Bearings, type Tapered roller
 Tires, low pressure, tubeless 14:00 x 24-10 P.R.
 Tire rims (demountable) 10" semi-drop center

BRAKES

Service brakes 4-wheel dual system hydraulic,
 self-adjusting with hydraulic power booster
 Size 17" x 4" (432 x 102 mm)
 Parking brake Mechanical caliper acting on final drive

DRIVE FRONT (optional)

A 5.49 in³ (90 cm³) variable displacement pump drives a 2.5 in³ (41 cm³) motor in each front wheel with front and rear wheel speed sensors automatically controlling front wheel assist in all gears. Automatically disengages above 12 mph.

CAPACITIES

	US gal	(Liter)
Fuel tank (usable)	71	(269)
Hydraulic system	26	(98)
Transmission	7	(26)
Tandem housing (each)	8	(30.28)

OPERATING WEIGHTS Approx.

Includes lubricants, coolant, full fuel tank and operator.
 Total 30 100 lbs (13 682 kg)
 On front wheels 8600 lbs (3909 kg)
 On rear wheels 21 500 lbs (9773 kg)

INSTRUMENTATION

Hourmeter, voltmeter and fuel gauge, articulation indicator. Pressure gauge: engine oil. Temperature gauges—transmission oil, engine coolant. Warning light for parking brake, transmission filter, hydraulic filter, transmission clutch pressure.