



RM165

MOTORGRADER



Unprecedented precision and ease of operation.



The frame, drawbar forged steel circle are designed for durability in heavy duty applications. The strong frame drawbar uses a durable material. The top surface of the circle teeth are hardened to reduce wear and ensure component reliability. A large tapered roller bearing at the lower pivot carries loads evenly and smoothly.



1. Angled cab doors, big rear window assure excellent visibility to the work area.
2. Easy-to-read, high-visibility gauges and warning lamps keep the operator aware of critical system information.
3. The Rhino Comfort seat and arm/wrist rests are fully adjustable for improved comfort and productivity.

ENGINE

Engine Make / Engine Model	Cummins QSB6 or Rhino RMC6121-3
Emissions (optional)	Tier 2 (Tier 3, Tier 4)
Net Power kW (Hp) @2,200 rpm	164(220)
Displacement L (cu. In)	6.7(409)
Net Peak Torque Nm (lb-ft) @1,500rpm	800(590)
Net Torque Rise (%)	12
Aspiration	Turbocharged charged air cooler
Lubrication	Full-flow spin-on filter
Air Cleaner	Under-hood, dual element dry

ELECTRICAL

Volts	24
Alternator Amps	70

POWERTRAIN

Transmission	Hydrodynamic power-shift with separate filtration
Speed Range - Forward	6
Speed Range - Reverse	3
Max. Travel Speeds with 17.5-25 Tires	
Max. Travel Speed - fwd. kph (mph)	47(29)
Max. Travel Speed - rev. kph (mph)	32(20)
Front Axle	
Oscilation (Total) (°)	32 (16 each side)
Wheel Turning Angle (°)	49
Differentials	Spiral bevel gear with automatic differential lock
Steering	Fully hydraulic power frame articulation for increased productivity and maneuverability
Turning Radius mm (ft)	7,300(24.0)
Articulation (both right and left) (°)	26
Brakes	Tandem configuration with sprocket and chain sealed in oil
Service Brakes	Foot pedal activation, hydraulically operated drums on all 4 tandem wheels
Parking Brake	Hydraulically actuated drums effective on all 4 tandem wheels

BLADE FUNCTION

Function Fully hydraulic, industry standard lever placement of blade-function controls, adjustable angle for added comfortability to the operator

Blade Lift Above Ground mm (in) 450(17.7)

Blade Side Shift Right mm (in) 1,920(75.6)

Blade Side Shift Left mm (in) 1,520(59.8)

Pitch at Ground Line

Forward (°) 46

Back (°) 0

ELECTRICAL

Voltage 24

Number of Batteries 2

Battery Capacity 1,700CCA

Reserve Capacity 460 min

Amp-Hour Rating 12 Amp-hour

Alternator Rating 70 Amp

Lights 6 front lights and 2 rear lights, one orange rotating light on the back of the cab

MAINFRAME

Type Welded box construction

Thickness mm (in) 100(3.9)

CIRCLE

Type Welded structure, heat treated for extra strength, machined for flatness

Circle Diameter mm (in) 1,415(55.7)

Rotation (°) 360

Drive Hydraulic motor and worm gear

Circle Side Shift (right and left) mm (in) 455(17.9)

HYDRAULIC SYSTEM

Pump Type Gear pump

Pump Flow L/min (gum) 205(54)

System Pressure Mpa (psi) 17(2,466)

Pump Displacement cm³ (cu.in) 45(2.7)

MOLDBOARD

Moldboard High strength, heat treated high-carbon steel and reversible end bits, blade side shift system includes replaceable wear inserts

Base Length mm (ft) 4,320(14.2)

Height mm (in) measured from edge including cutting edge 645(25.4)

Thickness mm (in) 22(0.9)

CUTTING EDGE

Heat Treated Carbon Steel

Thickness mm (in) 18(0.7)

Width mm (in) 154(6.1)

REAR RIPPER

Parallelogram linkage

Width of Cut mm (ft) 2,300(7.5)

Number of Shanks 5

Lift Above Ground mm (in) 350(13.8)

Max. Penetration mm (in) 460(18.1)

Shank Size mm (in) 63x293(2.5x11.5)

TIRES

Type 17.5R25 tires on 356mm (14in) rim

Overall Width mm (in) 2,600(8.5)

Ground Clearance (front axle) mm (in) 610(24.0)

REFILL CAPACITIES L (gal)

Fuel Tank 350(92)

Cooling System 60(16)

Engine Oil 27(7)

Transmission Fluid 45(12)

Differentials 84(22)

Hydraulic Tank 70(18)

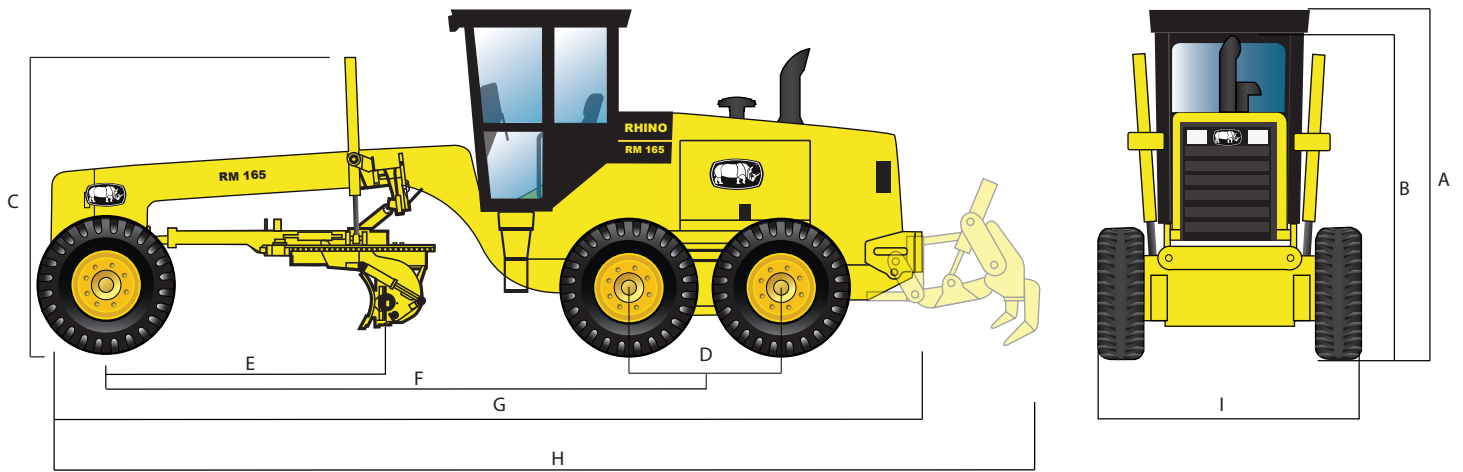
Brakes 0,8(0.2)

OPERATING WEIGHTS

Front kg (lb) 4,920(10.847)

Rear kg (lb) 11,480(25.309)

Total kg (lb) 16,400(36.156)



MACHINE DIMENSIONS

A. Height to Top of Cab mm (ft)	3,400(11.2)
B. Height to Top of Exhaust mm (ft)	2,860(9.4)
C. Height to Top of Blade-Lift Cylinders mm (ft)	2,780(9.1)
D. Tandem Axle Spacing mm (ft)	1,530(5.0)
E. Blade Base mm (ft)	2,575(8.4)
F. Wheelbase mm (ft)	6,150(20.2)
G. Overall Length mm (ft)	8,990(29.5)
H. Overall Length with Ripper mm (ft)	9,895(32.5)
I. Overall Width with 16/70-20 Tires mm (ft)	2,600(8.5)

OPTIONS

Rhino Motor Graders can come standard with rear ripper. They can come with front scarifier, front dozer blade, mid-body scarifier, and rear scarifier. As well as many other options depending on client requirements.

Available Tier 3 and Tier 4 Final engines.

Grader operating information is based on machine with identified linkage and standard equipment, standard tires, full fuel tank, and 79-kg (175 lb.) operator. This information is affected by changes in tires, ballast, and different attachments.