

Value Story

Productivity

- Load sensing hydraulic system & Proportional Priority Pressure Compensated Valve (PPPC) provides consistent and precise blade movement
- 7-hole link bar provides best-in-class blade positioning

Safety

- Cab mounted on front frame for best-in-class visibility
- Handrails and non-skid steps for safer ingress and egress
- Secondary brakes for better braking efficiency

Fuel Economy

- Load sensing hydraulics reduce system heat and fuel consumption
- Hydraulically driven fan reduces fuel consumption

Serviceability

- 500 hours change interval for engine oil
- Adjustment-free drive chain and final drive bearings
- Hoses are concealed and easy to remove during repair
- Gauges and indicators in the cabin with A/V alarm for all systems
- Cat® connectivity offers machine SMU, geo location and fencing

Comfort

- World-class industry control layout with low-effort levers for reduced operator fatigue
- Large cab with telescoping controls for increased operator comfort

Reliability

- Box style front frame provides rigid and durable structure
- Single non-welded sheet used on front frame for longer life
- A-frame designed drawbar provides strength in all blade positions
- In-house made tandem axle with Caterpillar technology



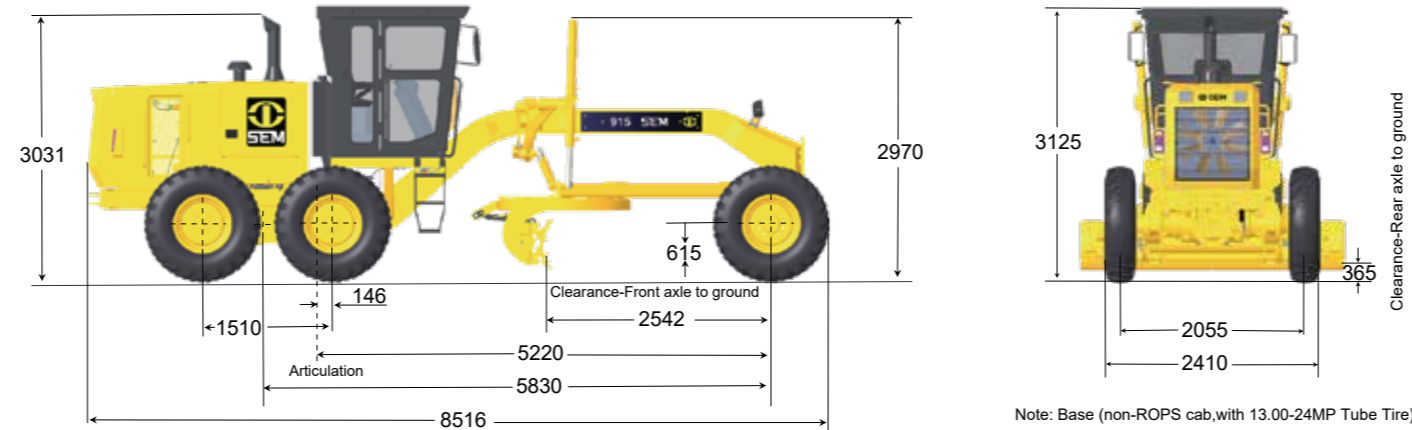
Machine Applications

- Predominantly used in...

Dealer to complete - Include points on main applications and images of machines at worksite

Main Specifications

Operating Weight		Hydraulic System	
Standard / kg	12,500	Circuit Type	Load Sensing, PPPC
With Ripper+Front Counterweight / kg	14,180	Pump Type	Variable Piston
With Front Blade / kg	13,630	Max. Pump Output / L / min	162.8
Added Weight by ROPS Cab / kg	320	Max. System Pressure / MPa	22
Operating Specifications		Standby Pressure / MPa	2.0-2.2
Top Speed, Forward / kph	40	Moldboard	
Top Speed, Reverse / kph	29	Blade Width, Standard / mm (Ft)	3,669 (12')
Min. Turning Radius / mm	7,300	Blade Width, Optional / mm (Ft)	3,059 (10')
Articulation Angle, Left /Right	20°	Moldboard Height / mm	580
Gradeability	30°	Moldboard Thickness / mm	20
Travel Speed, Forward / kph	5.2/8.1/13/19.8/29/40	Throat Clearance / mm	112
Travel Speed, Reverse / kph	5.2/13/29	Float Function	OPT
Drawbar Pull / kN	72	Moldboard Sideshift, LH / mm	342
Engine		Moldboard Sideshift, RH / mm	463
Engine Manufacturer	SDEC(ShangHai Diesel)	Circle Centershift, LH / mm	512
Engine Model	SC7H150G4A	Circle Centershift, RH / mm	663
Rated Power / kW @ RPM	110 @ 2200	Max. Blade Position Angle	90°
Max. Torque / Nm @ RPM	660 @ 1400	Blade Tip, Forward	40°
Emission	CEV Stage IV	Blade Tip, Backward	5°
Displacement / L	6.5	Blade Cutting Angle	24-69°
Transmission		Max. Shoulder Reach outside of Tires, LH / mm	1,179
Brand / Manufacturer	Advance / HangChi	Max. Shoulder Reach outside of Tires, RH / mm	1,583
Model	6YD13	Max. Lift above Ground / mm	435
Type	Converter, Powershift	Max. Cutting Depth / mm	750
Powershift Pressure / MPa	1.3-1.7	Service Refill Capacity	
Forward / Reverse Gears	6 Forward/ 3 Reverse	Fuel Tank / L	200
Parking Brake	Spring actuated, air released	Engine Oil / L	17.5
Tandem Axle		Coolant / L	37
Brand / Manufacturer	SEM/Caterpillar	Transmission / L	17
Model	ST18	Differential Case/ L	27
Differential	No-Spin	Tandem Case, Each Side / L	50
Service Brake	Air over oil, Disc	Circle Drive, Non Slip Clutch / L	2
Secondary	Dual circuit	Circle Drive, With Slip Clutch / L	7
Oscillation Front Up	15°	Hydraulic Oil Tank / L	55
Oscillation Front Down	25°	Urea tank /L	19
Tires Size	13.00-24-12PR, Tube	Main Optional Equipment	
Front Axle		Mid Mounted Scarifier(MMS) / MMS Ready	Circle Drive with Slip Clutch
Ground Clearance / mm	615	Ripper/Ripper ready	Circle Saver
Wheel Lean, Left / Right	±18°	Front blade/Front blade ready	Fender
Max. Oscillation	±16°	High Profile ROPS Cab	Elec-Hydraulic Pin Puller
Steering Range, Left / Right	±45°	Blade Float	Hydraulic Blade Tip



SEM915 CEV Stage IV Motor Grader



Featured machine in photo may include optional equipment

SEM915 CEV Stage IV

Product Advantages

- High Performance:** Load sensing variable piston pump and specially designed PPPC valves provide superior implement control and better machine performance.
- High Reliability:** Specially designed SEM tandem axle, flanged large box section front frame, A-shape drawbar frame with box section, are designed to handle heavy duty applications providing excellent reliability and durability.
- Easy Operation:** Specially designed operating levers matching specially designed hydraulic system give operators outstanding "feel"
- Low Operation Cost:** Maintenance free tandem axle for reduced maintenance cost and engine ECO mode reduces the fuel consumption.

Website <http://www.semmachinery.com>

Improved Engine

- 6.5L Shanghai Diesel engine delivering 150HP
- Best-in-class after treatment to ensure the particulate matter and NOX emissions are reduced
- World-class Diesel Particulate Filter (DPF) is deployed to reduce soot from the exhaust
- Diesel Exhaust Fluid (DEF) is sprayed in the exhaust by an electronically controlled injector
- Hydraulically driven engine fan reduces the fuel consumption
- Caterpillar patented cooling system provides ease of service and longer engine life



Transmission

- Industry leading supplier - Hangzhou Advance Gearbox Group Co., Ltd
- Specifically designed for motor grader application
- 6F / 3R electronically controlled hydraulically actuated gears
- Torque converter ensures steady flow of power to the transmission



SEM Tandem Axle

- Leveraging Caterpillar design and experience on MG tandem axle
- Mandatory performance testing before delivering to MG assembly line
- Improved bearing layout and optimized load distribution with 4 planetary gears final drive
- Less down time and reduced labor and service cost for maintenance and repairing
- Longer service interval for lubrication oil change



Control System

7 position link bar with optional electric over hydraulic control allows ease of operation from within the cab

- Optimum blade reach capability, quick DCM re-positioning for greater reach for better working on high bank side slope
- The link bar is essential for extending reach capability when cutting a bank slope or back slope of a ditch
- Replaceable bushings reduce service time and cost



Blade Float

Optional blade float function allows blade to lower without hydraulic pressure for increased versatility

- Blade float is engaged by pushing the left and right lift cylinder controls all the way forward, past the detent
- Provides protection for machine and pavement during snow removal and snow plowing



Hydraulic System

- Proportional Priority Pressure Compensating (PPPC) Valves contain specifically cut spools for motor grader applications, continuously matching of hydraulic flow and pressure to power demands, allowing ease of multi-function control for optimizing working efficiency
- World-class variable displacement piston pump, efficiently reduces power consumption and hydraulic system heat, improving fuel efficiency
- Load-sensing hydraulic system provides consistent and precise blade movement, improving finishing performance
- Inboard lock check valves within PPPC, prevents inadvertent cylinder movement and potential leaks
- Short throw levers are efficiently spaced, allowing ease of multi-function control
- Short lever travel (40mm) with low effort reduces operator fatigue, providing exceptional comfort



Drawbar

- A-frame tubular design drawbar provides maximum strength and durability
- Replaceable drawbar draft ball (bolted – not welded) for less service time and cost
- Easy removal of wear shims to adjust drawbar



Front Frame

- Flanged box section design removes welds from high stress areas, improving reliability and durability
- Continuous top and bottom plate construction provides consistency and strength, improving front frame durability
- Hydraulic hose routing minimizes exposure to damage and provides quick access for service
- Maintenance-free bushings improve durability and reduce overall service cost



Large Cab

- High performance dashboard with 3 levels alarming monition system
- Cab mounted on the front frame provides exceptional view to blade and front axle even during articulation
- Large cab with 1.9m height and 30% larger space than most competitors, provides exceptional comfort



Cat® Product Link™

Cat® Product Link™ will support your business, and accurately convey information of the equipment to relevant personnel in a timely and effective manner for your better equipment management.