

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 three points of contact

Fuel Economy

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

Serviceability

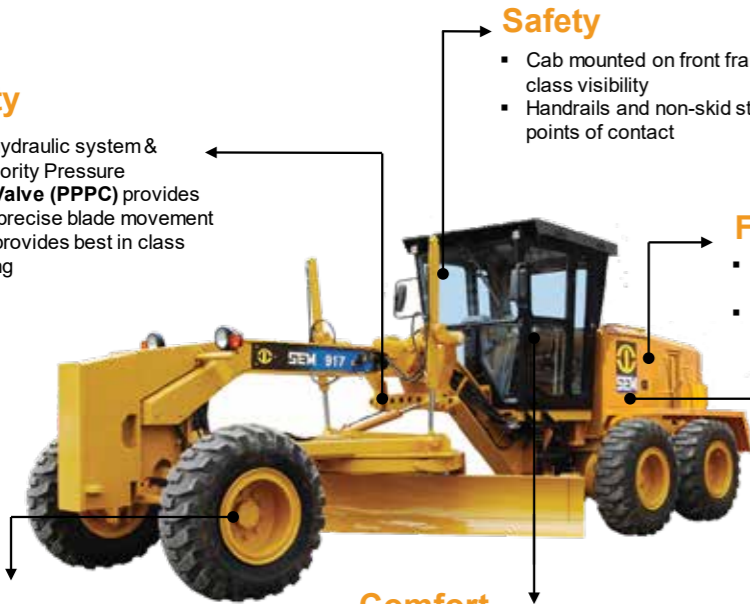
- Adjustment free drive chain and final drive bearings
- Hoses are concealed and easy to remove during repair

Reliability

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

Comfort

- World Class industry control layout with low lever efforts for reduced operator fatigue
- Large cab with telescoping controls for increased operator comfort



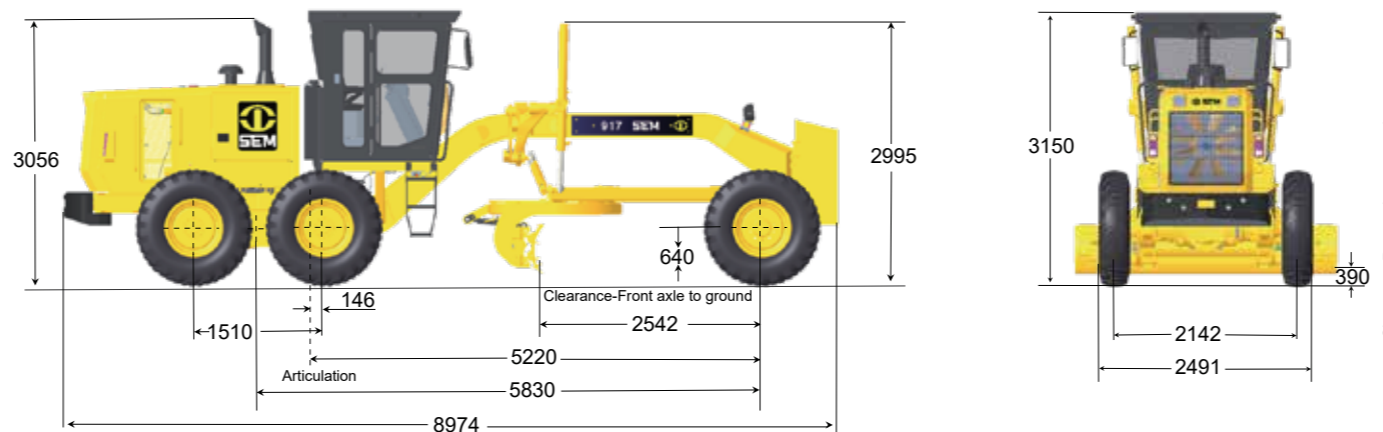
Accessories Option

S = Standard, O = Optional

Specifications	SEM917	Specifications	SEM917
Shanghai Diesel Engine Stage II	S	Headlight	O
Hangchi 6YD130 Transmission	S	Beacon	O
Circle drive with slip clutch	O	Start GP-Normal	S
SEM Tandem Axle	S	Start GP-Cold	O
Blade Group (12')	S	Rear Ripper, Mid-Mount Scarifier,	O
Blade Group (13')	O	Front Blade	O
Non ROPS Cab Group (Cab Accessories GP-STD)	S	Tool Box	O
Non ROPS Cab Group (Cab Accessories GP-Premium)	O	Under Cab Guard	O
ROPS Cab Group	O	Transmission Guard	O
Rim & Tire Group (14.0-24 12PR Tubeless Tire, SP)	S	Rear Fender	O
Rim & Tire Group (17.0-25 12PR Tube & Tubeless Tire, MP)	O	HVAC (Heating Ventilation and Air Conditioner)	O
Rim & Tire Group (13.0-24 12PR Tube Tire)	O	Roading Arrangement-License Plate Mount and Light	O
Load Sensing (Variable Piston Pump + Caterpillar PPPC Valve)	S	Arctic Oil Package	O

Main Specifications

Operating Weight		Hydraulic System	
Standard / kg	13,500	Circuit Type	Load Sensing, PPPC
With Ripper+Front Counterweight / kg	13,780	Pump Type	Variable Piston
With Front Blade / kg	14,130	Max. Pump Output / L / min	162.8
With Ripper+Front Blade / kg	14,410	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)	3,972 (13')
Articulation Angle, Left /Right	20°	Moldboard Height / mm	610
Gradeability	30°	Moldboard Thickness / mm	20
Wheelbase / mm	5,830	Throat Clearance / mm	112
Travel Speed, Forward / kph	5.3/8.2/13.3/20.3/29/40	Float Function	Optional
Travel Speed, Reverse / kph	5.3/13.3/29	Moldboard Sideshift, LH / mm	647
Drawbar Pull / kN	78	Moldboard Sideshift, RH / mm	528
Engine		Circle Centershift, LH / mm	512
Engine Manufacturer	SDEC (ShangHai Diesel)	Circle Centershift, RH / mm	663
Engine Model	SC7H170.1G2B	Max. Blade Position Angle	90°
Rated Power / kW @ RPM	125 @ 2,200	Blade Tip, Forward	40°
Max. Torque / Nm @ RPM	750 @ 1,400	Blade Tip, Backward	5°
Emission	Tier 2	Blade Cutting Angle	24-69°
Displacement / L	6.5	Max. Shoulder Reach outside of Tires, LH / mm	1,748
Bore / mm	105	Max. Shoulder Reach outside of Tires, RH / mm	1,912
Stroke / mm	124	Max. Lift above Ground / mm	460
Number of Cylinders	6	Max. Cutting Depth / mm	725
Transmission		Service Refill Capacity	
Brand / Manufacturer	Advance / HangChi	Fuel Tank / L	218
Type	Converter, Powershift	Engine Oil / L	17.5
Powershift Pressure / MPa	1.3~1.7	Coolant / L	37
Forward / Reverse Gears	6 Forward / 3 Reverse	Transmission / L	17
Parking Brake	Spring Actuated, Air Released	Differential Case/ L	27
Tandem Axle		Tandem Case, Each Side / L	50
Brand / Manufacturer	SEM / Caterpillar	Circle Drive, Non Slip Clutch / L	2
Model	ST18	Circle Drive, With Slip Clutch / L	7
Differential	No-Spin	Hydraulic Oil Tank / L	55
Service Brake	Caliper-Disc	Service Refill Capacity	
Secondary	Dual Circuit	High Profile ROPS Cab	Elec-Hydraulic Pin Puller
Oscillation Front Up	15°	Front Blade / Front Blade Ready	Hydraulic Blade Tip
Oscillation Front Down	25°	Rear Ripper / Rear Ripper Ready	Circle Drive with Slip Clutch
Front Axle		Mid Mounted Scarifier(MMS) / MMS Ready	Circle Saver
Ground Clearance / mm	640	Front Counterweight, 1000kg	Rear Fender
Wheel Lean, Left / Right	±18°	Rear Counterweight, 600kg	Cold Start
Max. Oscillation	±16°	Blade Float	
Steering Range, Left / Right	±45°		



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SEM917 Motor Grader



Featured machine in photo may include optional equipments.

SEM917

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" .

Website

<http://www.semmachinery.com>



A Caterpillar Brand

SEM Tandem Axle

- Leveraging Caterpillar designing and experience on MG tandem axle
- 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
- Leading in class manufacturing and quality control level, mandatory performance testing before delivering to MG assembly line



Control System

7 position link bar with 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

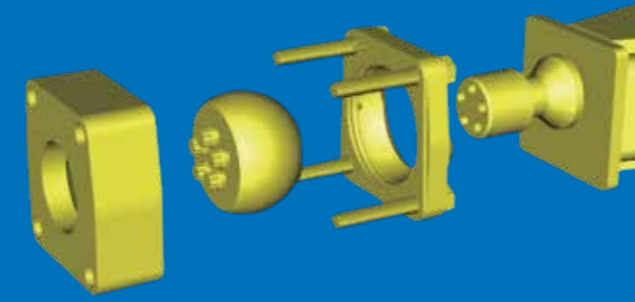


- Proportional Priority Pressure Compensating (PPPC) Valves contain specifically cut spools for motor grader applications, continuously matching of hydraulic flow and pressure to power demands, allowing ease of multi-function control for optimizing working efficiency
- World-class variable displacement 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

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



Control Layout



- Short throw levers are efficiently spaced, allowing ease of multi-function control
- Short lever travel (40mm) with low effort reduces operator fatigue



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
- Optional large cab with 1.9m height and 30% larger space than most competitors, provides exceptional comfort



Optional Attachments



【Mid-Mount Scarifier】



【Slip Clutch】



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.