# Machine Applications

- The sturdy design of the SEM 656D makes it the perfect machine for port cargo handling, mineral yards, steel mills and other high demand applications
- In Quarry and Aggregate and Coal Mining applications the 656D can load more, move faster and burn less fuel
- Multiple work tools are available for increased versatility







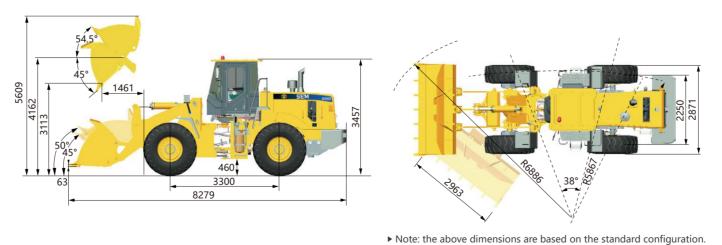
# **Work Tool Options**



# Main Specifications

Items		SEM656D	Items		SEM656D
Main Specifications			Engine		
Rated Load	kg	5 000	Model		Weichai WD10G
Operating Weight with Standard Bucket	kg	16 900	Rated Power	kW	162
Bucket Capacity	m³	2.7-4.5	Rated Speed	r/min	2 000
Wheel Base	mm	3 300	Displacement	L	9.726
Overall Dimension	mm	8 279x2 963x3 457	Implement Hydraulic		
Operating Specifications			Implement System Type		Single load sensing flow sharing syste
Breakout Force	kN	178	Boom Raise Time	s	5.13
Dump Clearance	mm	3 113	Hydraulic Cycle Time	s	9.3
Articulated Angle	0	38±1	System Presure Setting	Мра	18
Transmission			Brake System		
Transmission Type		Countershaft, power shift	Service Brake		Dry & caliper, air to oil control
Transmission Gears			Parking Brake		Drum type shoe brake, spring
		F4/R4			applied & oil released
Torque Converter Type		Sigle stage 3 elements	Steering System		
Maker & Type		TR200	System Type		Flow amplifying
Forward I/ Reverse I	km/h	7.8/7.8	Steering Pump Type		Piston pump
Forward II/ Reverse II	km/h	15/15	System Presure Setting	Мра	16
Forward III/ Reverse III	km/h	22/22	Steering Angle (L/R)	۰	38±1
Forward IV/ Reverse IV	km/h	39/39	Tires		
Axle		SO32	Size		23.5-25
Main Drive Type		Spiral bevel gear, single stage	Туре		Bias
Final Drive Reduction Type		Planetary type, singe stage	Layer		16
Rear - Oscillating +/-	0	±11	Textured Type		L3/E3

# **Machine Dimensions**

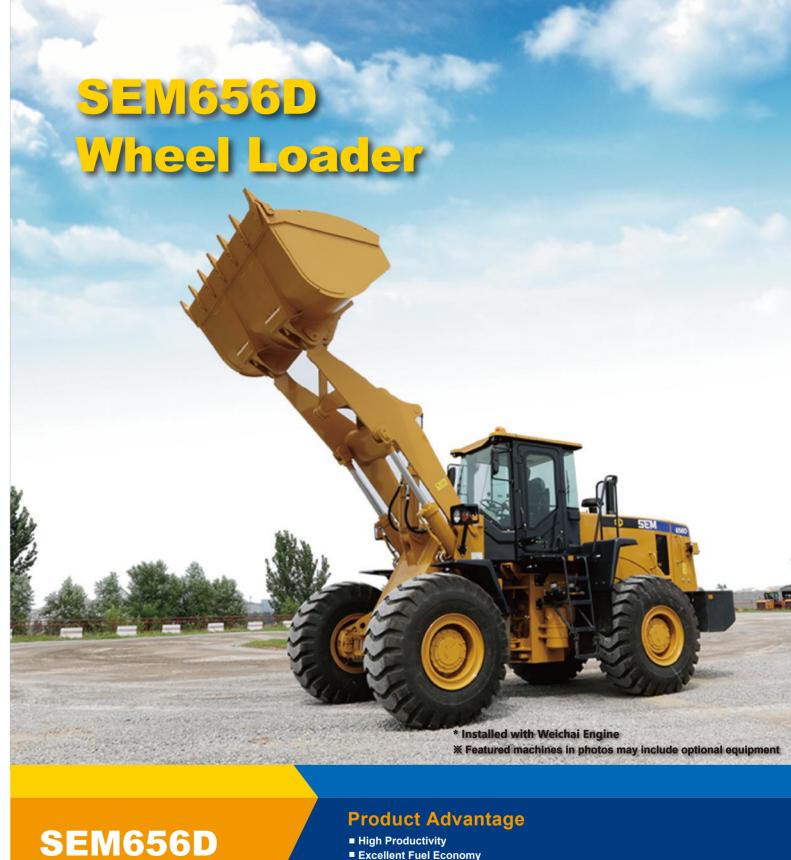


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Website http://www.semmachinery.com





- High Productivity
  Excellent Fuel Economy
  Best-in-class Reliability and Durability
  Outstanding Operator Comfort

## **Optimized Engine**

- Low speed engine with E-fan provides increased operating efficiency
- Enhanced fuel pre-filter eliminates water and contaminant from fuel for best fuel system protection
- The air cleaner provides machine reliability even in the most severe applications





### **Efficient Hydraulic System**

- The advanced load sensing hydraulic system with flow sharing circuits improves efficiency
- World Class hydraulic components ensure high reliability
- The optimized hydraulic system paired with the drive train reduces machine cycle time and increases productivity



#### **Operator Station**

- Premium operator station with increased space and superior visibility
- Sliding side window and AC with fresh air circulation provide operator comfort
- Joystick hydraulic control for easy and precise operation
- Multi-function instrument dashboard with 3-level alarm
- Adjustable suspension seat







## **Reliable Drivetrain**

- Countershaft transmission with upgraded core components provides high reliability
- Large rim-pull in 1st gear and higher speed in 2nd gear provide high efficiency for load and carry applications
- Clutch cutoff selection switch ensures stable and safe operation
- The SEM designed and built axle provides best in class performance in heavy duty applications



### **Advanced Cooling System**

- The standard cooling package provides high reliability in 50°C ambient conditions.
- Shock pad mounts ensure reliability under severe applications

### **Solid Structure**

- Structures undergo Finite Element Analysis (FEA) and On Machine Stress Analysis (OMSA) to ensure durability
- Performance Series (PS) buckets improve loading capability





#### Serviceability

- Centralized lubrication points reduce maintenance time
- System pressure test ports are standard
- Easy access to external air charge connecting port
- Engine hood grill opens for easy service access
- Torque convertor is isolated from transmission making it easy to service





#### Safety

- Safety design complies with all regulatory requirements
- Machine is designed with 3 points of contact to ensure operator safety
- A backup alarm, horn and beacon ensure operational safety with ground personnel
- Caterpillar Production System (CPS) leveraged in manufacturing process
- Environmentally friendly painting process



