



# ST1510

## technical specifications

### CAPACITY – SAE

	kg	(lbs)
Tramming Capacity	15000	(33,075)
Static Tipping Capacity	30112	(66,400)
Breakout Force, Hydraulic	25598	(56,443)
Breakout Force, Mechanical	20517	(45,240)

### VEHICLE SPEEDS

See Vehicle Grade Performance Chart

### ENGINE

Detroit Diesel (4-Cycle)	Series 60 DDEC
MSHA Power Rating @ 2,100 rpm	299 kW (400 hp)
Maximum Torque @ 1,200 rpm	1898 Nm (1,400 ft. lbs.)
Number of Cylinders	6 In Line
Displacement	12.7 L (518 in <sup>3</sup> )
Cooling	Water
MSHA Part 32 Ventilation	
Vent Rate	712m <sup>3</sup> /min (25,000 cfm)
Particulate Index	213m <sup>3</sup> /min (7,500 cfm)

### EXHAUST SYSTEM

Exhaust Conditioner Silencer & Purifier

### ELECTRICAL SYSTEM

System Voltage 24 Volt Starting, 24 Volt Accessories

### TRANSMISSION/CONVERTER

Automatic Power Shift with Integral Converter,  
Modulated 4-Speed Shifting,  
Modulated Forward/Reverse Spicer, Series 40,000

### AXLES

Spiral Bevel Differential, Full Floating, Planetary  
Wheel End Drive Spicer Series 53R

### BRAKES

Service SAHR®  
Spring-Applied, Hydraulically Released;  
Fully Enclosed, Force-Cooled Multiple Wet Discs  
at Each Wheel End  
Parking and Emergency SAHR®

### TIRES

Tubeless, Nylon, Smooth Tread Design for  
Underground Mine Service  
Tire Size, Front and Rear 29.5 x 25, L-5S

### STEERING

Articulated Hydraulic Power Steering,  
Pilot-Operated, Monostick Control  
Turning Angle 85° (42.5° Each Way)  
System Pressure 22.4 MPa (3,250 psi)

### HYDRAULIC SYSTEM

Dump and Hoist Control Pilot-Operated, Joystick  
Cylinders Double Acting, Chrome-Plated Stems  
Cylinder Diameter  
    Steer Cylinders (2) 125 mm (4.9 inch)  
    Hoist Cylinders (2) 216 mm (8.5 inch)  
    Stabilizer Cylinder (1) 267 mm (10.5 inch)  
Pumps Heavy Duty Gear Type  
Filtration Return Line: BETA (2) = 1.4 Micron  
Dump/Hoist System Pressure 20.7 MPa (3,000 psi)

### TANK CAPACITIES

	liters	(U.S. gallons)
Fuel	410	(108)
Hydraulic	221	(58)

### OSCILLATION

Rear Axle, Trunnion Mounted  
Degree of Oscillation Total of 16° (8° each side)

### OPERATOR'S ARRANGEMENT

Side Seated Operator for Bi-Directional Operation  
& Maximum Visibility, MSHA/ROPS/FOPS Canopy  
with Integrated Rib Roll Protection

### OPERATING WEIGHT (Approximate)

	kg	(lbs)
Empty	41033	(90,478)
(Depending on Configuration)		
Fully Loaded	56033	(123,553)

# ST1510

## vehicle grade performance

### DETROIT SERIES 60 DDEC 299 kW (400 hp) — Loaded

Percent Grade	Grade	1st Gear		2nd Gear		3rd Gear		4th Gear	
		kph	mph	kph	mph	kph	mph	kph	mph
0.0%		5.5	3.4	10.7	6.7	18.1	11.2	29.2	18.1
2.0%		5.4	3.3	10.3	6.4	16.8	10.4	23.2	14.4
4.0%		5.3	3.3	9.9	6.2	15.1	9.4	14.8	9.2
6.0%		5.2	3.2	9.5	5.9	12.9	8.0	6.7	4.1
8.3%	1 : 12	5.1	3.2	8.9	5.5	9.6	6.0		
10.0%	1 : 10	5.0	3.1	8.4	5.2	7.6	4.7		
12.5%	1 : 8	4.9	3.0	7.5	4.6	4.3	2.6		
14.3%	1 : 7	4.8	3.0	6.7	4.1				
16.0%		4.7	2.9	5.9	3.7				
18.0%		4.6	2.8	5.0	3.1				
20.0%	1 : 5	4.4	2.8	4.3	2.6				
25.0%		4.0	2.5	2.0	1.3				
30.0%		3.5	2.2						

### DETROIT SERIES 60 DDEC 299 kW (400 hp) — Empty

Percent Grade	Grade	1st Gear		2nd Gear		3rd Gear		4th Gear	
		kph	mph	kph	mph	kph	mph	kph	mph
0.0%		6.2	3.9	12.1	7.5	20.6	12.8	33.8	21.0
2.0%		6.1	3.8	11.7	7.3	19.4	12.1	29.2	18.2
4.0%		6.0	3.7	11.4	7.1	18.2	11.3	22.2	13.8
6.0%		5.9	3.7	11.0	6.8	16.4	10.2	14.8	9.2
8.3%	1 : 12	5.8	3.6	10.6	6.6	14.0	8.7	4.6	2.9
10.0%	1 : 10	5.7	3.6	10.2	6.3	11.7	7.3		
12.5%	1 : 8	5.6	3.5	9.5	5.9	8.8	5.4		
14.3%	1 : 7	5.5	3.4	8.9	5.5	6.7	4.2		
16.0%		5.5	3.4	8.3	5.1	4.4	2.7		
18.0%		5.4	3.3	7.4	4.6				
20.0%	1 : 5	5.3	3.3	6.6	4.1				
25.0%		5.0	3.1	4.7	2.9				
30.0%		4.6	2.8	2.7	1.7				

NOTE: 3% rolling resistance assumed. Actual performance may vary depending on the application.



The face of commitment

## ST1510 bucket dimensions

		STD						
<b>MATERIAL DENSITY</b>								
	tonnes/m <sup>3</sup>	1.8	2.0	2.2	2.4	2.6	2.8	3.0
	lb/yds <sup>3</sup>	3035	3372	3709	4046	4384	4721	5058
<b>STANDARD BUCKETS</b>								
Bucket Volume (Nominal Heaped)	m <sup>3</sup>	8.3	7.5	6.8	6.3	5.8	5.4	5.0
	yd <sup>3</sup>	10.8	9.8	8.9	8.2	7.5	7.0	6.5
Bucket Width	mm	2920	2920	2920	2920	2920	2920	2920
	inches	115	115	115	115	115	115	115
<b>TRAM POSITION</b>								
Axle Centerline to Bucket Tip (A)	mm		3797	3721	3645			
	inches		149	146	144			
Ground to Bucket Tip (B)	mm		2005	1928	1850			
	inches		79	76	73			
<b>RAISED POSITION</b>								
Back Height (C)	mm	6000	6000	6000	6000	6000	6000	6000
	inches	236	236	236	236	236	236	236
40° Dump Angle Reach (D)	mm		2226	2134	2051			
	inches		88	84	81			
Bucket Tip Height (E)	mm		2294	2358	2422			
	inches		90	93	95			

Atlas Copco Wagner Inc.

Your mine partner...  
giving you the most for your money!

P.O. Box 20307 • Portland, Oregon 97294-0307 • USA • Telephone (503) 255-2863 • Facsimile (503) 251-3014

©2002 Atlas Copco Wagner Inc. SAHR, Rock Tough, Teletram, E-O-D, Scooptram, Scoopy, and Strongback are registered trademarks of Atlas Copco Wagner Inc. Atlas Copco is a registered trademark of Atlas Copco AB and is used with permission. Other brands and symbols are trademarks of their respective companies. We reserve the right to change specifications and designs at anytime without prior notice.

For further information: Contact Atlas Copco Wagner Inc. at our web site: [www.atlascopcowagner.com](http://www.atlascopcowagner.com).

Visit Atlas Copco's web site at: [www.atlascopco.com](http://www.atlascopco.com)

