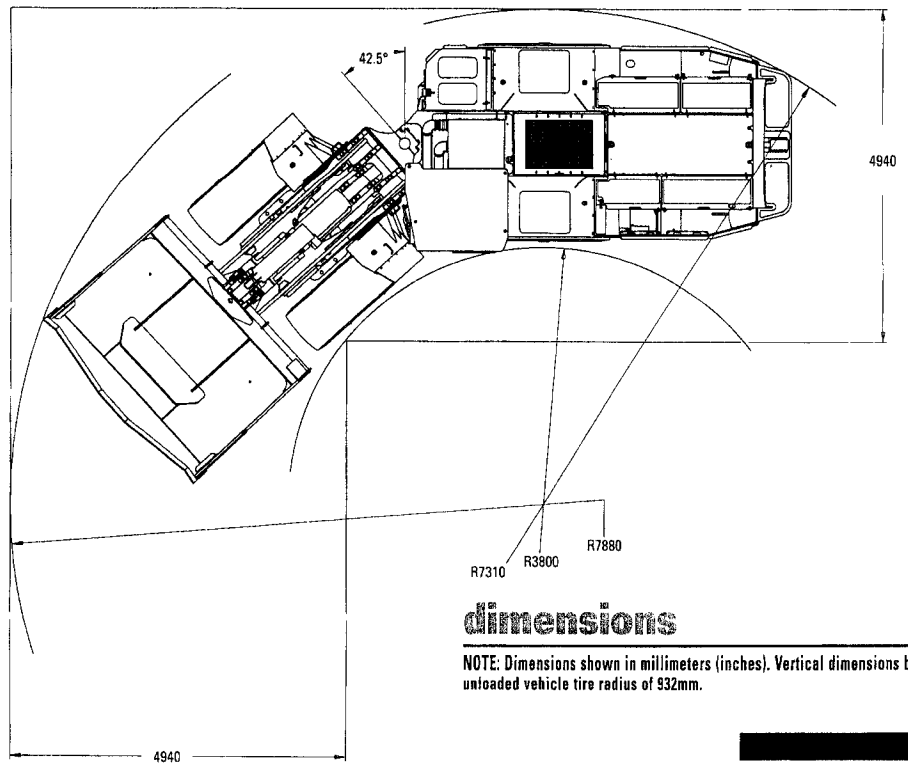
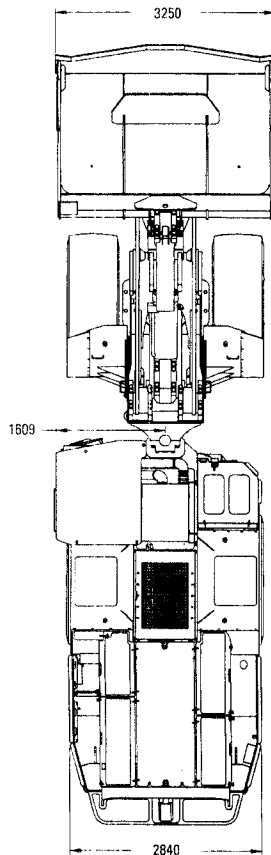
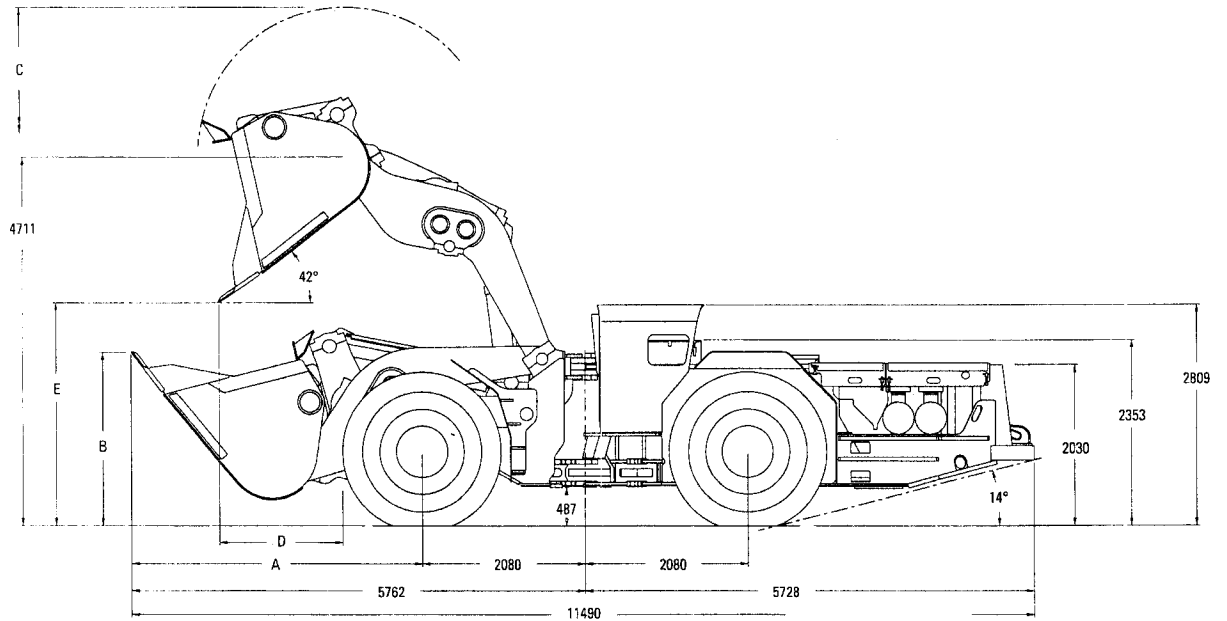


ST1800

17.5 TONNE SCOOPTRAM®

technical specifications and performance data



dimensions

NOTE: Dimensions shown in millimeters (inches). Vertical dimensions based on an unloaded vehicle tire radius of 932mm.

Atlas Copco

technical specifications

CAPACITY — SAE

	kg	(lbs)
Tramming Capacity	17500	(38,588)
Break-out Force, Digging	79600	(175,520)
Break-out Force, Hydraulic	32066	(70,705)

VEHICLE SPEEDS — LOADED

Forward or Reverse with 3% Rolling Resistance

Gear	1st	2nd	3rd	4th
Speed in km/h	4.5	8.5	14.0	20.9
Speed in mph	(2.8)	(5.3)	(8.7)	(13.0)

ENGINE

Detroit Diesel (4-Cycle)	Model Series 60
MSHA Power Rating @ 2,100 rpm	317 kW (425 hp)
Maximum Torque @ 1,200 rpm	2000 Nm (1,425 ft.-lbs)
Number of Cylinders	6 In Line
Displacement	12.7 L (518 in ³)
Cooling	Water
MSHA Ventilation	1303 m ³ /min (46,000 cfm)

ELECTRICAL SYSTEM

24-Volt Starting, 24-Volt Accessories

TRANSMISSION/CONVERTER

Automatic Power Shift with Integral Converter, modulated
4-Speed Shifting, Modulated Forward/Reverse
Fock Tough® TV 180J Series

AXLES

Spiral Bevel Differential, Full Floating, Planetary
Wheel End Drive
Fock Tough® A 180I Series

BRAKES

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

TIRES

Tubeless, Nylon, Smooth Tread Design
for Underground Mine Service, on Demountable Rims
Tire Size, Front & Rear: Bridgestone 29.5 R 29

STEERING

Articulated Hydraulic Power Steering, Pilot-Operated,
Mono-Stick control
Turning Angle 85° (42.5° each way)
System Pressure 20.7 MPa (3,000 psi)

HYDRAULIC SYSTEM

Dump and Hoist Control Pilot-Operated, Joystick
Cylinders Double-Acting, Chrome-Plated Stems
Pumps Heavy-Duty Gear Type
Filtration Return Line: 4 Micron
System Pressure 20.7 MPa (3,000 psi)

TANK CAPACITIES

	litres	(gallons)
Fuel	504	(133)
Hydraulic	348	(92)

OSCILLATION

Rear Axle, Trunnion-Mounted
Degree of Oscillation Total 16°

EXHAUST CONDITIONER

Rock Tough® Exhaust Silencer & Purifier

OPERATOR'S ARRANGEMENT

Side Seating For Bi-Directional Operation & Maximum
Visibility
ISO ROPS/FOPS Cab or Canopy
(Canopy is MSHA-Certified)

OPERATING WEIGHT

Operating Weight	kg	(lbs)
Empty, Approximate	50,800–53,200	(117,300–117,000)
Loaded, Approximate	68,300–70,700	(150,600–155,900)

ST1800



vehicle grade performance

DETROIT 317 kW (425 hp) – LOADED

Percent Grade	Ratio	1st GEAR		2nd GEAR		3rd GEAR		4th GEAR	
		KPH	MPH	KPH	MPH	KPH	MPH	KPH	MPH
0.0%		4.5	2.8	8.5	5.3	14.0	8.7	20.9	13.0
2.0%		4.3	2.7	8.0	5.0	12.2	7.6	11.4	7.1
4.0%		4.2	2.6	7.6	4.7	9.2	5.7		
6.0%		4.1	2.5	6.9	4.3				
8.0%		4.0	2.5	5.9	3.7				
10.0%		3.8	2.4	4.9	3.0				
12.5%	1:08	3.7	2.3						
14.3%	1:07	3.5	2.2						
16.0%		3.3	2.1						
18.0%		3.1	1.9						
20.0%	1:05	2.8	1.8						
25.0%	1:04	2.2	1.4						
30.0%		1.6	1.0						

DETROIT 317 kW (425 hp) – EMPTY

Percent Grade	Ratio	1st GEAR		2nd GEAR		3rd GEAR		4th GEAR	
		KPH	MPH	KPH	MPH	KPH	MPH	KPH	MPH
0.0%		4.6	2.9	8.7	5.4	14.4	9.0	23.1	14.4
2.0%		4.4	2.7	8.3	5.1	13.3	8.3	16.2	10.1
4.0%		4.3	2.7	7.9	4.9	11.5	7.2		
6.0%		4.2	2.6	7.5	4.7	8.9	5.6		
8.0%		4.1	2.5	7.0	4.3				
10.0%		4.0	2.5	6.3	3.9				
12.5%	1:08	3.9	2.4	5.2	3.2				
14.3%	1:07	3.8	2.4	4.5	2.8				
16.0%		3.7	2.3	3.8	2.4				
18.0%		3.6	2.2						
20.0%	1:05	3.4	2.1						
25.0%	1:04	2.9	1.8						
30.0%		2.4	1.5						

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

bucket dimensions

		0121	0131	0141	0151	0161	0171	0181	0191
Bucket Option Codes									
Ore Density	tonnes/cu.m.	1.8	2.0	2.2	2.4	2.6	2.8	3.0	3.2
	lbs/cu.yd.	3035	3372	3709	4046	4384	4721	5058	5395
Bucket Volume (Nominal Heaped)	cu.m.	9.7	8.8	8	7.3	6.7	6.3	5.8	5.5
	cu.yd.	12.7	11.4	10.4	9.5	8.8	8.1	7.6	7.1
Bucket Width	mm	3450	3250	3250	3250	3250	3250	3250	3250
	inches	136	128	128	128	128	128	128	128
DIMENSIONS IN TRUCK POSITION									
Axle Centerline to Bucket Tip	(A)-mm	3868	3775	3682	3630	3578	3525	3473	3420
Ground to Bucket Tip	(B)-mm	2430	2308	2186	2117	2048	1979	1910	1840
DIMENSIONS IN FULLY RAISED POSITION									
Back Height	(C)-mm	6583	6583	6583	6583	6583	6583	6583	6583
42° Dump Angle	Reach (D)-mm	1719	1598	1477	1437	1396	1355	1315	1276
	Bucket Tip Height (E)-mm	2589	2682	2775	2845	2915	2986	3056	3126
30° Dump Angle	Reach (D)-mm	2059	1923	1787	1651	1596	1540	1485	1431
	Bucket Tip Height (E)-mm	2925	2997	3069	3141	3190	3241	3290	3340

NOTE: Full dump angle is 42°

A Global Legacy of Rock-Solid Innovation™

Atlas Copco

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