B30E Articulated Dump Truck



ENGINE

Manufacturer Mercedes Benz

Model OM926LA

Configuration
Inline 6, turbocharged and intercooled.

Maximum Net Power 240 kW (322 hp) @ 2 200 rpm in accordance with UN ECE R120

Gross Torque 1 300 Nm (959 lbft) @ 1 200 -1 600 rpm

Displacement 7,2 litres (439 cu.in)

Auxiliary Brake Exhaust Valve Brake Engine Valve Brake

Fuel Tank Capacity 379 litres (100 US gal)

Certification
OM926LA meets EU Stage II /
EPA Tier 2 emissions regulations

TRANSMISSION

Manufacturer Allison

Model 3400P ORS

Configuration
Fully automatic planetary transmission with integral

retarder

Layout
Engine mounted

Gear layout
Constant meshing planetary
gears, clutch operated

Gears 6 Forward, 1 Reverse

Clutch Type Hydraulically operated multi-disc

Control Type Electronic

Torque Control Hydrodynamic with lock-up in all gears.

TRANSFER CASE

Manufacturer Kessler

Series W1400

Layout Remote mounted

Gear Lavout

Three in-line helical gears

Output Differential Interaxle 33/67 proportional differential. Automatic inter-axle differential lock,

AXLES

Manufacturer Bell

Model 18T

Differential

High input limited slip differential with spiral bevel gears.

Final Drive
Outboard heavy duty planetary
on all axles

BRAKING SYSTEM

Service Brake
Dual circuit, full hydraulic
actuation wet disc brakes on
front and middle axles. Wet
brake oil is circulated through a
filtration and cooling system.

Maximum brake force: 174 kN (39 116 lbf)

Park & Emergency Spring applied, air released driveline mounted disc.

Maximum brake force: 251 kN (56 400 lbf)

Auxiliary Brake
Automatic engine valve brake.
Automatic retardation through
electronic activation of wet
brake system.

Total Retardation Power 265 kW (355 hp) Continuous 494 kW (662 hp) Maximum

WHEELS

Type Radial Earthmover

Tyre 23.5 R 25 (750/65 R 25 Optional)

FRONT SUSPENSION

Semi-independent, leading A-frame supported by hydropneumatic suspension struts.

Optional active dual springrate Comfort Ride suspension available, including height control.

REAR SUSPENSION

Pivoting walking beams with laminated rubber suspension blocks.

Optional passive dual-springrate Comfort Ride walkingbeam available.

HYDRAULIC SYSTEM

Full load sensing system serving the prioritized steering, body tipping and brake functions. A ground-driven, load sensing emergency steering pump is integrated into the main system.

Pump Type Variable displacement load sensing piston.

202 L/min (53 gal/min)

Pressure 310 Bar (4 500 psi)

Filter 5 microns

STEERING SYSTEM

Double acting cylinders, with ground-driven emergency steering pump.

Lock to lock turns

Steering Angle 45°

DUMPING SYSTEM

Two double-acting, single stage, dump cylinders

Raise Time 12 s

Lowering Time 10 s

Tipping Angle 70° standard, or any lower angle programmable

PNEUMATIC SYSTEM

Air drier with heater and integral unloader valve, serving park brake and auxiliary functions.

System Pressure 8,1 Bar (117 psi)

ELECTRICAL SYSTEM

Voltage 24 V

Battery Type Two AGM (Absorption Glass Mat) type

Battery Capacity 2 X 75 Ah

Alternator Rating 28 V 80 A

VEHI	CLE SPEEDS	
1st	8 km/h	5 mph
2nd	14 km/h	9 mph
3rd	20 km/h	12 mph
4th	29 km/h	18 mph
5th	43 km/h	26 mph
6th	50 km/h	31 mph
R	8 km/h	5 mph

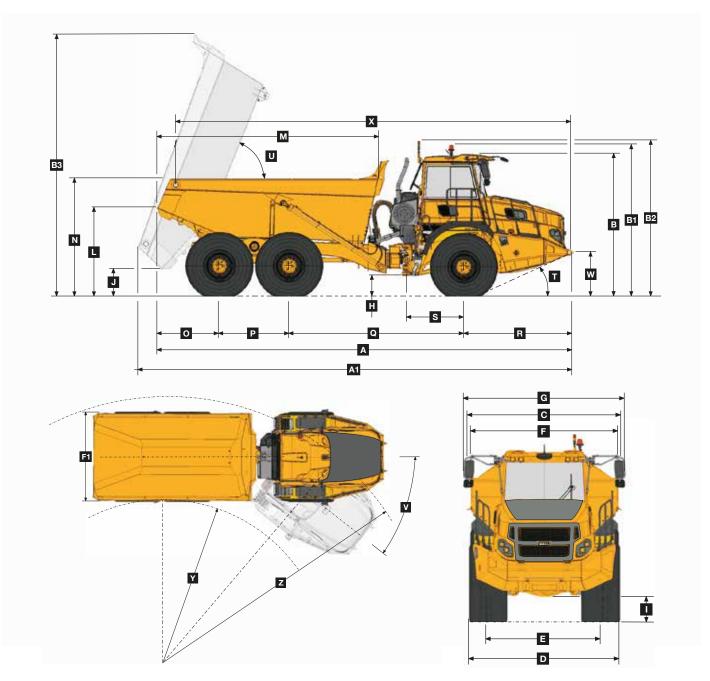
CAB

ROPS/FOPS certified 74 dBA internal sound pressure measured according to ISO 6396.

Load Capacity & Ground Pressure

*OPERATING WEIGHTS		GROUND PRESSURE				LOAD CAPACITY	Y	OPTION WEIGHTS		
UNLADEN	kg (lb)		LADEN		BODY	m³ (yd³)		kg (lb)		
Front	10 953 (24 151)	No sinkage/Tota		ended by		Struck Capacity	13,5 (17,6)	Bin liner	853 (1 881)	
Middle	6 194 (13 658)	tyre manu				SAE 2:1 Capacity	17 (22)	Tailgate	785 (1 731)	
Rear	5 738 (12 652)	23.5 R 25	kPa (Psi)	23.5 R 25	kPa (Psi)	SAE 1:1 Capacity	21 (27,5)	Wheelset 750/6	5R25	
Total	22 885 (50 461)	Front	298 (43,2)	Front 134 (19,4)		SAE 2:1 Capacity		(per vehicle) Add	642 (1 415)	
		Mid/Rear	405 (58,7)	Mid/Rear	169 (24,5)	with tailgate	18 (23,5)			
LADEN	kg (lb)							EXTRA WHEELSE	Γ	
Front	14 323 (31 582)	750/65 R 25		750/65 R 25		Rated Payload	28 000 kg	23.5 R 25		
Middle	18 509 (40 812)	Front	240 (34,8)	Front	111 (16,1)		(61 740 lbs)	(per vehicle) Add	544 (1 199)	
Rear	18 053 (39 807)	Mid/Rear	310 (45)	Mid/Rear	143 (20,7)			750/65R25		
Total	50 885 (112 201)							(per vehicle) Add	656 (1 446)	

Dimensions



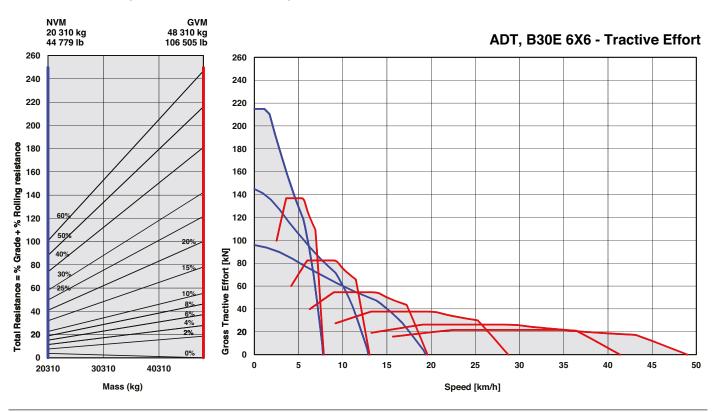
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M	a	C	n	ın	9	D	ım	10	n	SI	O	n	S

Α	Length - Transport Position	9 953 mm	(32 ft. 7 in.)
A1	Length - Bin Fully Tipped	10 395 mm	(34 ft. 1 in.)
В	Height - Transport Position	3 426 mm	(11 ft. 2 in.)
B1	Height - Rotating Beacon	3 661 mm	(12 ft.)
B2	Height - Load Light	3 747 mm	(12 ft. 3 in.)
В3	Bin Height - Fully Tipped	6 307 mm	(20 ft. 8 in.)
C	Width over Mudguards	2 985 mm	(9 ft. 9 in.)
D	Width over Tyres - 23.5R25	2 940 mm	(9 ft. 7 in.)
D1	Width over Tyres - 750/65 R25	2 998 mm	(9 ft. 10 in.)
Ε	Tyre Track Width - 23.5R25	2 356 mm	(7 ft. 8 in.)
E1	Tyre Track Width - 750/65 R25	2 260 mm	(7 ft. 4 in.)
F	Width over Bin	2 968 mm	(9 ft. 8 in.)
F1	Width over Tailgate	3 268 mm	(10 ft. 8 in.)
G	Width over Mirrors - Operating Position	3 260 mm	(10 ft. 8 in.)
Н	Ground Clearance - Artic	537 mm	(21.14 in.)
I	Ground Clearance - Front Axle	488 mm	(19.21 in.)
J	Ground Clearance - Bin Fully Tipped	670 mm	(26.38 in.)
K	Ground Clearance - Under Run Bar	N/A	

ı	L	Bin Lip Height - Transport Position	2 176 mm	(7 ft. 1 in.)
	M	Bin Length	5 294 mm	(17 ft. 4 in.)
-	N	Load over Height	2 864 mm	(9 ft. 4 in.)
(0	Rear Axle Centre to Bin Rear	1 500 mm	(4 ft. 11 in.)
-	Р	Mid Axle Centre to Rear Axle Centre	1 670 mm	(5 ft. 5 in.)
(0	Mid Axle Centre to Front Axle Centre	4 181 mm	(13 ft. 8 in.)
I	R	Front Axle Centre to Machine Front	2 602 mm	(8 ft. 6 in.)
(S	Front Axle Centre to Artic Centre	1 362 mm	(4 ft. 5 in.)
1	Γ	Approach Angle	25°	
Į	J	Maximum Bin Tip Angle	70 °	
١	V	Maximum Articulation Angle	45°	
١	W	Front Tie Down Height	1 075 mm	(3 ft. 6 in.)
)	X	Machine Lifting Centres	9 443 mm ((30 ft. 11 in.)
١	Y	Inner Turning Circle Radius - 23.5R25	4 110 mm	(13 ft. 5 in.)
١	Y1	Inner Turning Circle Radius - 750/65 R25	4 081 mm	(13 ft. 4 in.)
7	7	Outer Turning Circle Radius - 23.5R25	8 000 mm	(26 ft. 2 in.)
-	Z1	Outer Turning Circle Radius - 750/65 R25	8 029 mm	(26 ft. 4 in.)

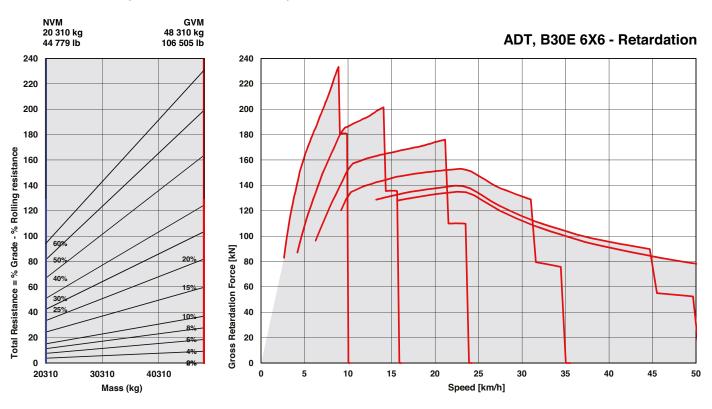
Gradeability/Rimpull

- 1. Determine tractive resistance by finding intersection of vehicle mass line and grade line. NOTE: 2% typical rolling resistance is already assumed in chart and grade line.
- 2. From this intersection, move straight right across charts until line intersects rimpull curve.
- 3. Read down from this point to determine maximum speed attained at that tractive resistance.



Retardation

- 1. Determine retardation force required by finding intersection of vehicle mass line.
- 2. From this intersection, move straight right across charts until line intersects the curve. NOTE: 2% typical rolling resistance is already assumed in chart.
- 3. Read down from this point to determine maximum speed.





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B B B B		18/	8	8/8	ر مر	
	ENGINE					CAB (continued)
	Engine valve brake and exhaust brake Dual element air cleaner with dust ejector valve Precleaner with automatic dust scavenging Water separator Serpentine drive belt with automatic tensioner	•			•	Remote battery jump start High visibility mirrors 12-volt power outlet Cup holder Electric adjustable and heated mirrors Cooled/heated lunch box Backlit sealed switch module functions with:
	COOLING Crankshaft mounted electronically controlled viscous fan drive Fan guard					Wiper control / Lights / Heated mirrors / Retarding aggressiveness / Transfer case differential lock / Transmission gear hold / Dump-body tip limit / Automatic dump- body tip settings / Airconditioner/Heater controls / Preselected Speed Control
	Engine-mounted compressor Air drier with heater Integral unloader valve	•			•	Deluxe 10" colour LCD: Speedometer / Fuel gauge / Transmission oil temperature gauge / Engine coolant temperature gauge / LED function/warning indicators and
	ELECTRICAL SYSTEM Battery disconnect Drive lights Air horn Reverse alarm White noise reverse alarm					audible alarm / Transmission gear selection / Tachometer / Battery voltage / Hour meter / Odometer / Fuel consumption / Tip counter / Trip timer / Trip distance / Metric/English units / Service codes/diagnostics
	Rotating beacon					DUMP BODY
	Pitch Roll sensor LED Artic reverse light Halogen Artic reverse light LED reverse light STEERING SYSTEM	A A A				Partial up dump-body mechanical Fully up dump-body mechanical lock Body liner Tailgate Body heater Less dump body and cylinders
	Bi-directional ground driven secondary steering pump			A		Greedy boards (200 mm)
• • •	Ground-driven secondary steering pump CAB	•	•	•	•	OTHER Automatic Traction Control (ATC) 20.5R25 Radial earthmover tyres
	ROPS/FOPS certification Tilt cab Gas strut-supported door I-Tip programmable dump-body tip settings HVAC Climate control system AM/FM radio with Aux + USB Rear window guard	•				23.5R25 Radial earthmover tyres Remote grease banks Automatic greasing Onboard weighing Load lights: stack Comfort ride suspension (Front) Comfort ride suspension (Rear) Reverse camera
A A A A	Wiper/washer with intermittent control Extra wide wiper system Tilt and telescoping steering wheel	•			•	HSE hand rails Cab peak
	Centre-mount air-suspension seat Retractable 3-point seat belt Foldaway trainer seat with retractable seat	•			A	High pressure hydraulic filter Fuel heater Belly cover
	belt Rotating beacon: seat belt installation					Cross member cover Remote transmission filters
	Halogen work lights LED work lights	•	•		•	Window smash button Electronic bonnet opening
	Remote engine and machine isolation					