### **B30E 4x4** Articulated Dump Truck



#### **FNGINE**

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 (469 cu.in)

Auxiliary Brake Engine valve brake

Fuel Tank Capacity 379 litres (100 US gal)

Certification
OM926LA meets EU Stage II
emissions regulations

### **TRANSMISSION**

Manufacturer Allison

Model 3400 P ORS

Configuration
Fully automatic planetary transmission

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 Layout

Three in-line helical gears

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

### **AXLES**

Manufacturer Bell

Model Front: Bell 18T Rear: Bell 36T

Front 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 rear axles. Wet brake
oil is circulated through a
filtration and cooling system.

Maximum brake force: 284 kN (63 859 lbf)

Park & Emergency Spring applied, air released driveline mounted disc

Maximum brake force: 396 kN (89 000 lbf)

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

Total Retardation Power Continuous: 218 kW (292 hp) Maximum: 609kW (816 hp)

### **WHEELS**

Type Radial Earthmover

Tyre

Front: 23.5 R25 Rear: 875/65 R29

### **FRONT SUSPENSION**

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

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

### **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

Flow 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 4.1

Steering Angle 45°

### **DUMPING SYSTEM**

Two double-acting, single stage, dump cylinders

Raise Time 12 s

Lowering Time 6 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

VEHIC	CLE SPEEDS	
1st	9 km/h	5 mph
2nd	16 km/h	10 mph
3rd	21 km/h	13 mph
4th	32 km/h	20 mph
5th	46 km/h	28 mph
6th	50 km/h	31 mph
R	8 km/h	5 mph

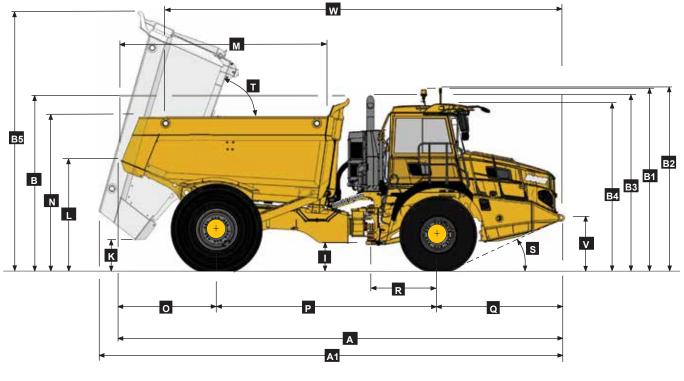
### CAB

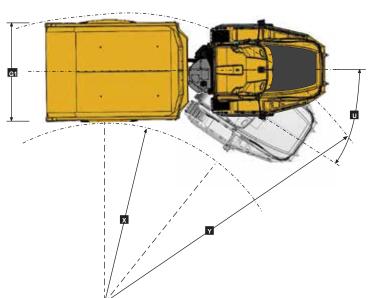
ROPS/FOPS certified 74 dBA internal sound pressure measured according to ISO 6396.

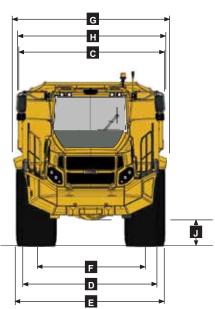
### Load Capacity & Ground Pressure

OPERATIN	G WEIGHTS*	GROUND P	RESSURE*	LOAD CAP	ACITY	OPTION \	WEIGHTS
UNLADEN	kg (lb)	LAD	EN	BODY	m³ (yd³)		kg (lb)
Front	11 499 (25 355)	(No sinkage or To	tal Contact Area)	Struck Capacity	15 (19,5)	Bin liner	1 380 (3 042)
Rear	12 127 (26 740)	23.5 R 25	kPa (Psi)	SAE 2:1 Capacity	18,5 (24)	Tailgate	1 051 (2 317)
Total	23 626 (52 095)	Front	295 (42,8)	SAE 1:1 Capacity	21,5 (28)		
				SAE 1:1 Capacity		EXTRA WHEELSET	Г
LADEN		875/65 R 29	kPa (Psi)	with Tailgate	19,5 (25,5)	23.5 R25	544 (1 199)
Front	13 951 (30 762)	Rear	442 (64)			875/65 R29	1 338 (2 950)
Rear	37 675 (83 073)			Rated Payload	28 000 kg		
Total	51 626 (113 855)				(61 729 lbs)		

# Dimensions







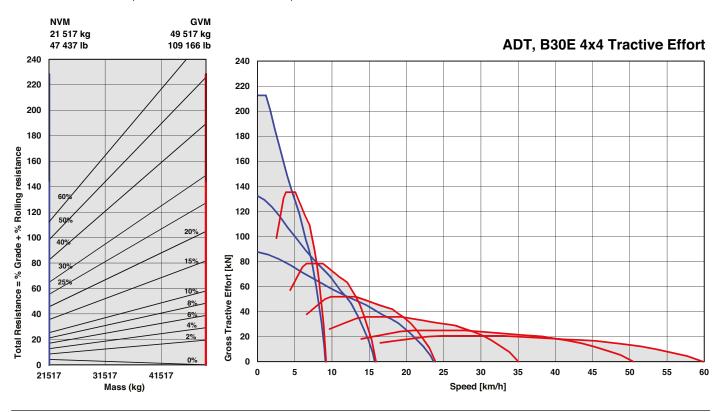
### **Machine Dimensions**

Α	Length - Transport Position	9 122 mm	(29.11 ft.)
A1	Length - Bin Fully Tipped	9 709 mm	(31.10 ft.)
В	Height - Transport Position (no exhaust stack)	3 548 mm	(11.8 ft.)
B1	Height - Rotating Beacon	3 718 mm	(12.2 ft.)
B2	Height - Load Light	3 740 mm	(12.3 ft.)
В3	Height - Exhaust Stack	3 605 mm	(11.10 ft.)
B4	Height - Cab	3 418 mm	(11.3 ft.)
В5	Bin Height - Fully Tipped	5 310 mm	(17.5 ft.)
C	Width Over Mudguards	2 985 mm	(9.10 ft.)
D	Width Over Tyres - Front - 23.5R25	2 998 mm	(9.10 ft.)
Ε	Width Over Tyres - Rear - 875/65 R29	3 270 mm	(10.9 ft.)
F	Tyre Track Width - Front	2 390 mm	(7.10 ft.)
F	Tyre Track Width - Rear	2 386 mm	(7.10 ft.)
G	Width over Bin	3 383 mm	(11.2 ft.)
G1	Width over Tailgate	3 480 mm	(11.5 ft.)
Н	Width over Mirrors - Operating Position	3 260 mm	(10.9 ft.)
1	Ground Clearance - Artic	539 mm	(21.22 in.)

J	Ground Clearance - Front Axle	480 mm	(18.9 in.)
K	Ground Clearance - Bin Fully Tipped	444mm	(17.5 in.)
L	Bin Lip Height - Transport Position	2 331 mm	(7.8 ft.)
M	Bin Length	4 271 mm	(14.00 ft.)
N	Load over Height	3 207 mm	(10.6 ft.)
0	Rear Axle Centre to Bin Rear	1 957 mm	(6.5 ft.)
Р	Rear Axle Centre to Front Axle Centre	4 560 mm	(14.12 ft.)
Q	Front Axle Centre to Machine Front	2 605 mm	(8.7 ft.)
R	Front Axle Centre to Artic Centre	1 360 mm	(4.6 ft.)
S	Approach Angle	25 °	
T	Maximum Bin Tip Angle	70 °	
U	Maximum Articulation Angle	45 °	
V	Front Tie Down Height	1 040 mm	(3.5 ft.)
W	Machine Lifting Centres	8 126 mm	(26.8 ft.)
Χ	Inner Turning Circle Radius	3 488 mm	(11.5 ft.)
Υ	Outer Turning Circle Radius	7 385 mm	(24.3 ft.)

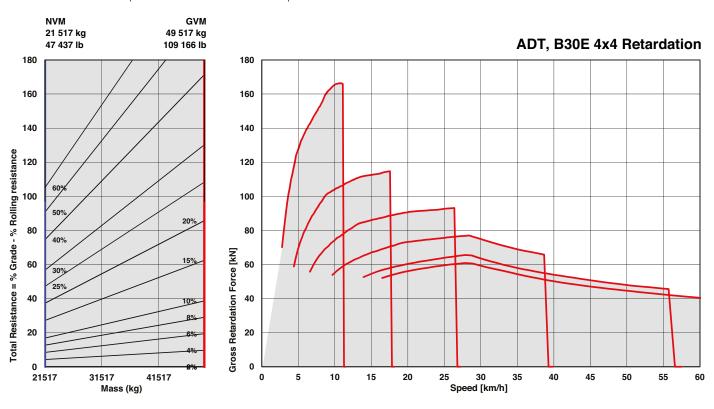
# Gradeability/Rimpull

- 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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### ENGINE

- Jacobs Engine Brake®
- Dual element air cleaner with dust ejector valve
- Pre-cleaner with automatic dust scavenging
- Water separator
- Serpentine drive belt with automatic tensioner
- Provision for fast fill
  - Wet-sleeve cylinder liners

### COOLING

- Crankshaft mounted electronically controlled viscous fan drive
- Fan guard

### PNEUMATIC SYSTEM

- Engine-mounted compressor
- Air drier with heater
- Integral unloader valve

### **ELECTRICAL SYSTEM**

- Battery disconnect
- Halogen drive lights
- LED drive lights
- Air horn
- Reverse alarm
- ▲ White noise reverse alarm
- Rotating beacon
- Pitch roll sensor
- ▲ LED Artic reverse light
- Halogen artic reverse lights
- LED reverse lights

### STEERING SYSTEM

Bi-directional ground-driven secondary steering pump

### CAB

- 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
- Wiper/washer with intermittent control
- Tilt and telescoping steering wheel
- Center-mount air-suspension seat
- Halogen work lights
- LED work lights
- ▲ Rotating beacon: seat belt installation
- ▲ Remote engine and machine isolation
- Remote battery jump start
- Retractable 3 point seat belt
- Heated seat
- Foldaway trainer seat with retractable seat belt
- 12-volt power outlet
- Cab utility bin (removable)
- Cup holder
- Cooled/heated lunch box

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### **CAB** (continued)

- Manually adjusted mirrors
- ▲ Heated mirrors
- Electric adjustable and heated mirrors
- Deluxe 10" color LCD:

Speedometer / Fuel gauge /
Transmission oil temperature gauge /
Engine coolant temperature gauge /
LED function/warning indicators and 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

Backlit sealed switch module functions with:
 Wiper control / Lights / Heated mirrors /
 Retarding aggressiveness / Transfer case
 differential lock / Transmission gear hold /
 Dump-body tip limit / Automatic dump-body
 tip settings / Air conditioner/Heater controls /
 Preselected Speed Control

### DUMP BODY

- Dump body mechanical lock
- Partial body liner
- ▲ Body heater
- ▲ Less dump body and cylinders
  - ▲ Bin pole lockout
  - Rear wheel mudguards

### OTHER

- Automatic Traction Control (ATC)
- Wet disc brakes
- 23.5 R25 Radial Earthmover tyres (Front)
- 875/65 R29 Radial Earthmover tyres (Rear)
  - 875/65 R29 Radial Earthmover tyres (Front)
  - 24.00 R35 Dual (Rear)
- Remote grease banks
- Automatic greasing
- Onboard Weighing
- ▲ Load lights: stack
- ▲ Comfort ride suspension (Front)
  - Comfort ride suspension (Rear)
- ▲ Reverse camera
- Hand rails
- Cab peak
- High pressure hydraulic filter
- Belly cover
- Cross member cover
- ▲ Remote transmission filters
- Engine and transmission remote drain-gravity
  - ▲ Engine and transmission remote drain-scavenge
- ▲ Window smash button
- High visibility mirrors
- Fleetm@tic® Classic Package for 2 years
- Electronic bonnet opening