

# B60E 4x4 Articulated Dump Truck

## ENGINE

**Manufacturer**  
Mercedes Benz (MTU)

**Model**  
OM473LA (MTU 6R 1500)

**Configuration**  
Inline 6, turbocharged and intercooled

**Maximum Net Power**  
430 kW (577 hp) at 1 600 rpm in accordance with UN ECE R120

**Gross Torque**  
2 850 Nm (2 102 lbf) @ 1 300 rpm

**Displacement**  
15,6 litres (952 cu.in)

**Auxiliary Brake**  
Jacobs Engine Brake®

**Fuel Tank Capacity**  
630 litres (166 US gal)

**Certification**  
OM473LA (MTU 6R 1500) is EU Stage IIIA emission level equivalent.

## TRANSMISSION

**Manufacturer**  
Allison

**Model**  
4800 ORS

**Configuration**  
Fully automatic planetary transmission

**Layout**  
Engine mounted

**Gear Layout**  
Constant meshing planetary gears, clutch operated

**Gears**  
7 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**  
W2400

**Layout**  
Remote mounted

**Gear Layout**  
Three in-line helical gears

**Output Differential**  
Interaxle 29/71 proportional differential. Automatic inter-axle differential lock.

## AXLES

**Manufacturer**  
Front - Bell  
Rear - Kessler

**Model**  
Front: 30T  
Rear: 71T

**Differential**  
Front: High input controlled traction differential with spiral bevel gears.  
Rear: Centre input open 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:  
446 kN (100 264 lbf)

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

Maximum brake force:  
341 kN (76 659 lbf)

**Auxiliary Brake**  
Automatic Jacobs Engine Brake®. Automatic retardation through electronic activation of wet brake system.

**Total Retardation Power**  
Continuous: 574 kW (770 hp)  
Maximum: 983 kW (1 318 hp)

## WHEELS

**Type**  
Radial Earthmover

**Tyre**  
Front: 875/65 R29  
Rear: 24.00 R 35 Dual

## FRONT SUSPENSION

Semi-independent, leading A-frame supported by hydro-pneumatic suspension struts. Active dual springrate Comfort Ride suspension, including height control.

## REAR SUSPENSION

Trailing arm cradle supported by hydro-pneumatic suspension struts, with an additional lateral stabiliser.

## HYDRAULIC SYSTEM

Full load sensing system serving the prioritized steering, body tipping, suspension 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**  
300 L/min (79 gal/min)

**Pressure**  
280 Bar (4 060 psi)

**Filter**  
5 microns

## STEERING SYSTEM

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

**Lock to lock turns**  
5,5

**Steering Angle**  
42°

## DUMPING SYSTEM

Two double-acting, two stage telescopic, dump cylinders

**Raise Time**  
18 seconds

**Lowering Time**  
16,5 seconds

**Tipping Angle**  
55 deg 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 100 A

## MAX. VEHICLE SPEED

Gear	km/h	mph
1st	4	2,5
2nd	8	5,6
3rd	16	10,6
4th	21	13,7
5th	30	20
6th	41	27
7th	47	32
R	6	4

## CAB

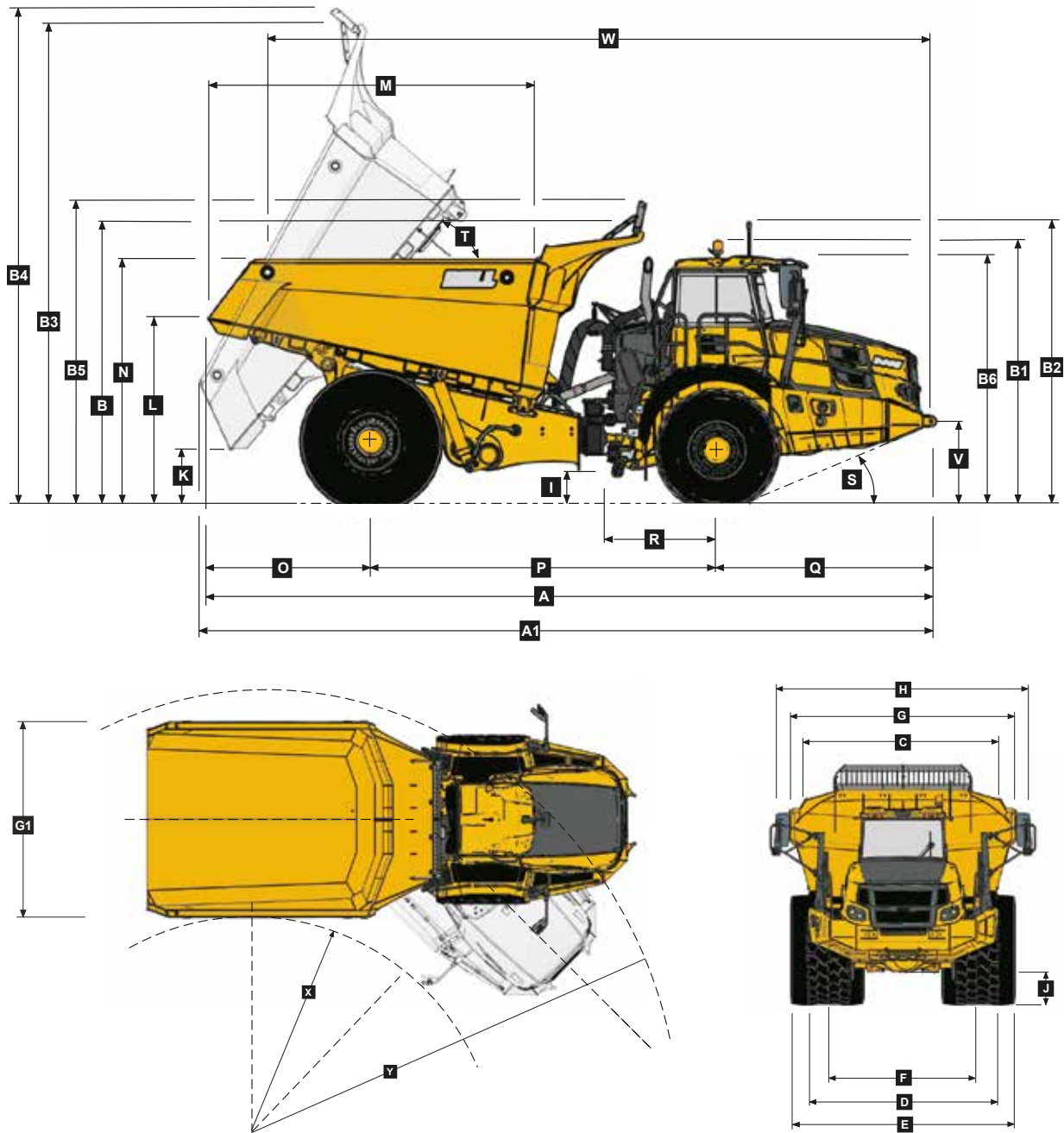
ROPS/FOPS certified 77 dBA internal sound pressure measured according to ISO 6396.

## Load Capacity & Ground Pressure

OPERATING WEIGHTS*		GROUND PRESSURE*		LOAD CAPACITY		OPTION WEIGHTS	
UNLADEN	kg (lb)	LADEN		BODY	m <sup>3</sup> (yd <sup>3</sup> )		kg (lb)
Front	20 242 (44 634)	(No sinkage or Total Contact Area)		Struck Capacity	27 (35,3)	Bin liner	1 117 (2 463)
Rear	25 125 (55 401)	875/65 R29	kPa (Psi)	SAE 2:1 Capacity	35 (45,8)	Tailgate	1 512 (3 333)
Total	45 367 (100 034)	Front	333 (48,2)	SAE 1:1 Capacity	42 (54,9)		
				SAE 2:1 Capacity with Tailgate	36 (47,1)	<b>EXTRA WHEELSET</b>	
<b>LADEN</b>		24.00 R35	kPa			875/65 R29	1 338 (2 950)
Front	26 842 (59 187)	Rear	478 (69,3)	Rated Payload	55 000 kg	24.00 R35	1 240 (2 734)
Rear	73 525 (162 123)				(121 275 lb)		
Total	100 367 (221 309)						

\* including additional equipment (tailgate)

## Dimensions

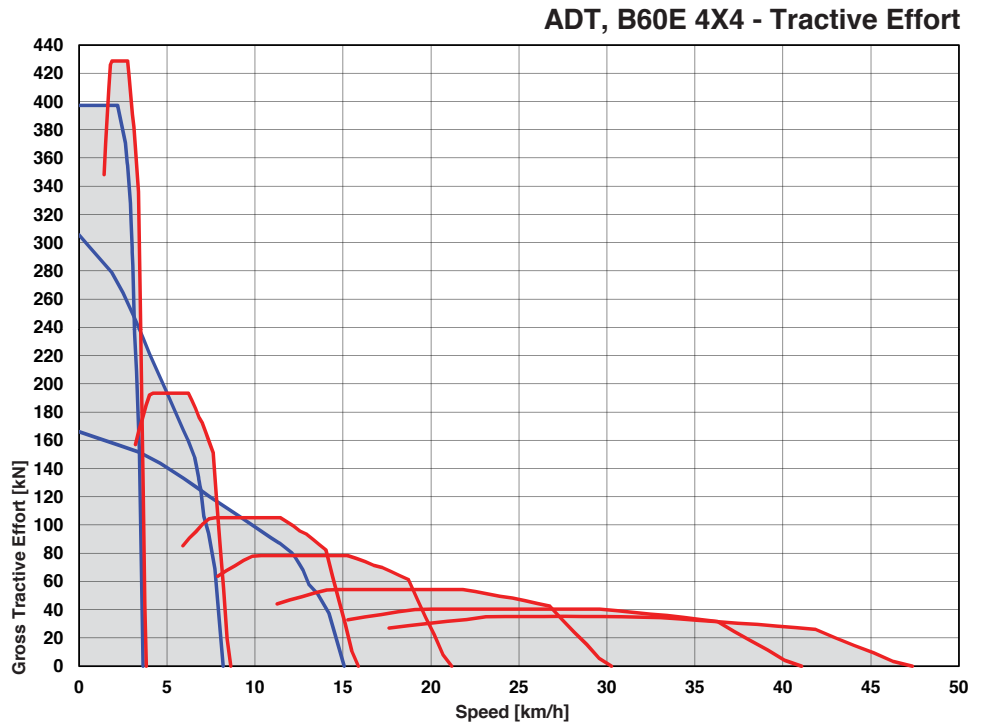
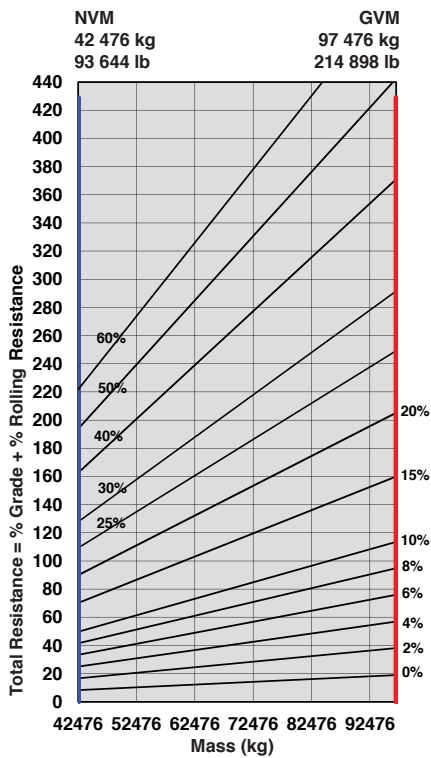


### Machine Dimensions

A	Length - Transport Position	11 114 mm	(33.23 ft.)	I	Ground Clearance - Artic	561 mm	(22.09 in.)
A1	Length - Bin Fully Tipped	11 178 mm	(36 ft. 8 in.)	J	Ground Clearance - Front Axle	554 mm	(21.81 in.)
B	Height - Transport Position w/o Rock Guard	4 209 mm	(13 ft.10 in.)	K	Ground Clearance - Bin Fully Tipped	851 mm	(33.5 in.)
B	Height - Transport Position with Rock Guard	4 212 mm	(13 ft.10 in.)	L	Bin Lip Height - Transport Position	2 952 mm	(9 ft. 8 in.)
B1	Height - Rotating Beacon	4 050 mm	(13 ft. 3 in.)	M	Bin Length	5 036 mm	(16 ft. 6 in.)
B2	Height - Load Light	4 333 mm	(14 ft. 2 in.)	N	Load over Height	3 824 mm	(12 ft. 7 in.)
B3	Bin Height - Fully Tipped w/o Rock Guard	7 476 mm	(24 ft. 6 in.)	O	Rear Axle Centre to Bin Rear	2 477 mm	(8 ft. 2 in.)
B4	Bin Height - Fully Tipped with Rock Guard	7 692 mm	(25 ft. 3 in.)	P	Rear Axle Centre to Front Axle Centre	5 285 mm	(17 ft. 4 in.)
B5	Height - Rock Guard Operating Position	4 675 mm	(15 ft. 4 in.)	Q	Front Axle Centre to Machine Front	3 352 mm	(11 ft.)
B6	Height - Cab	3 813 mm	(12 ft. 6 in.)	R	Front Axle Centre to Artic Centre	1 558 mm	(5 ft. 1 in.)
C	Width over Mudguards	3 790 mm	(12 ft. 5 in.)	S	Approach Angle	22 °	
D	Width over Front Tyres 875/65 R29	3 832 mm	(12 ft. 7 in.)	T	Maximum Bin Tip Angle	55 °	
E	Width over Rear Tyres 24.00R35	4 444 mm	(14 ft. 7 in.)	U	Maximum Articulation Angle	42 °	
F	Tyre Track Width Front 875/65R29	2 949 mm	(9 ft. 8 in.)	V	Front Tie Down Height	1 263 mm	(4 ft. 2 in.)
F	Tyre Track Width Rear 24.00R35	2 992 mm	(9 ft. 10 in.)	W	Machine Lifting Centres	10 116 mm	(33 ft. 2 in.)
G	Width over Bin	4 487 mm	(14 ft. 9 in.)	X	Inner Turning Circle Radius	4 246 mm	(13 ft. 11 in.)
G1	Width over Tailgate	4 800 mm	(15 ft. 9 in.)	Y	Outer Turning Circle Radius	9 216 mm	(30 ft. 3 in.)
H	Width over Mirrors - Operating Position	5 242 mm	(17 ft. 2 in.)				

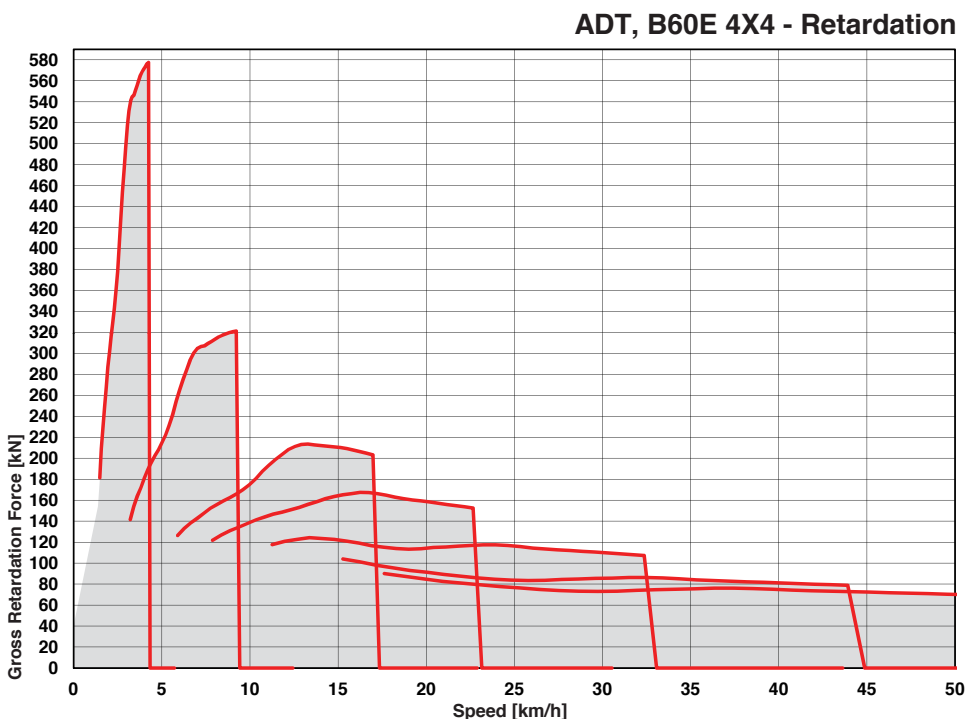
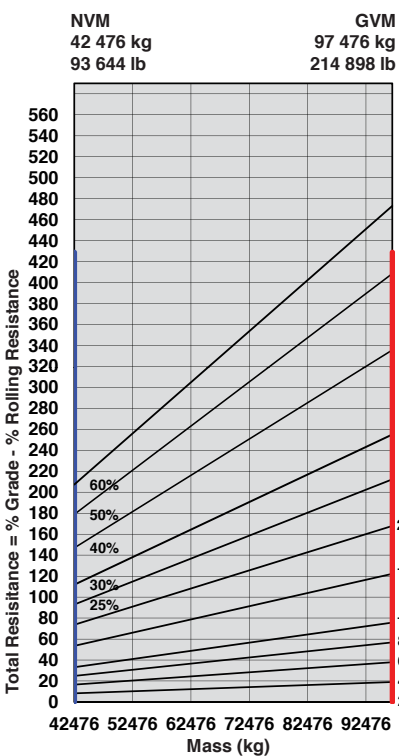
## Gradeability/Rimpull

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.



B30E 4x4	B60E 4x4	
<b>ENGINE</b>		
●	●	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
<b>COOLING</b>		
●	●	Crankshaft mounted electronically controlled viscous fan drive
●	●	Fan guard
<b>PNEUMATIC SYSTEM</b>		
●	●	Engine-mounted compressor
●	●	Air drier with heater
●	●	Integral unloader valve
<b>ELECTRICAL SYSTEM</b>		
●	●	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
<b>STEERING SYSTEM</b>		
●	●	Bi-directional ground-driven secondary steering pump
<b>CAB</b>		
●	●	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

B30E 4x4	B60E 4x4	
<b>CAB (continued)</b>		
●	●	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
<b>DUMP BODY</b>		
●	●	Dump body mechanical lock
▲	▲	Partial body liner
▲	▲	Tailgate
▲	▲	Body heater
▲	▲	Less dump body and cylinders
▲	▲	Bin pole lockout
●	●	Rear wheel mudguards
<b>OTHER</b>		
●	●	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
▲	▲	Fuel heater
●	●	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