Technical Data - B35E

ENGINE

Manufacturer
Mercedes Benz (MTU)

Model
OM470LA (MTU 6R 1100)

Configuration
Inline 6, turbocharged and intercooled.

Gross Power
320 kW (429 hp) @ 1 700 rpm

Net Power
301 kW (404 hp) @ 1 700 rpm

Gross Torque
2 100 Nm (1 549 lbft) @ 1 300 rpm

Displacement
10,7 litres (653 cu.in)

Auxiliary Brake
Exhaust Valve Brake

Fuel Tank Capacity
352 litres (93 US gal)

AdBlue® Tank Capacity
40 litres (11 US gal)

Certification
OM470LA (MTU 6R 1100) meets EU Stage IV / EPA Tier 4 Final emissions regulations.

TRANSMISSION

Manufacturer
Allison

Model
4500 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
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
Bell

Model
30T

Differential
High input controlled traction 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:
352 kN (79 133 lbf)

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

Maximum brake force:
206 kN (46 311 lbf)

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

Total Retardation Power
Continuous: 442 kW (593 hp)
Maximum: 834 kW (1 118 hp)

WHEELS

Type
Radial Earthmover

Tyre
26.5 R 25

FRONT SUSPENSION

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

Option: Electronically controlled adaptive suspension with ride height adjustment.

REAR SUSPENSION

Pivoting walking beams with laminated rubber suspension blocks.

Option: Comfort Ride suspension walking beams, with two-stage sandwich block.

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
330 L/min (87 gal/min)

Pressure
315 bar (4 569 psi)

Filter
5 microns

STEERING SYSTEM

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

Lock to lock turns
5

Steering Angle
42°

DUMPING SYSTEM

Two double-acting, single stage, dump cylinders.

Raise Time
11 seconds

Lowering Time
6 seconds

Tipping Angle
70 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
810 kPa (117 psi)

ELECTRICAL SYSTEM

Voltage
24 V

Battery Type
Two AGM (Absorption Glass Mat) type.

Battery Capacity
2 X 75 Ah

Alternator Rating
28V 80A

MAX. VEHICLE SPEED

1st	7 km/h	4 mph
2nd	15 km/h	9 mph
3rd	22 km/h	14 mph
4th	34 km/h	21 mph
5th	45 km/h	28 mph
6th	51 km/h	32 mph
R	6 km/h	4 mph

CAB

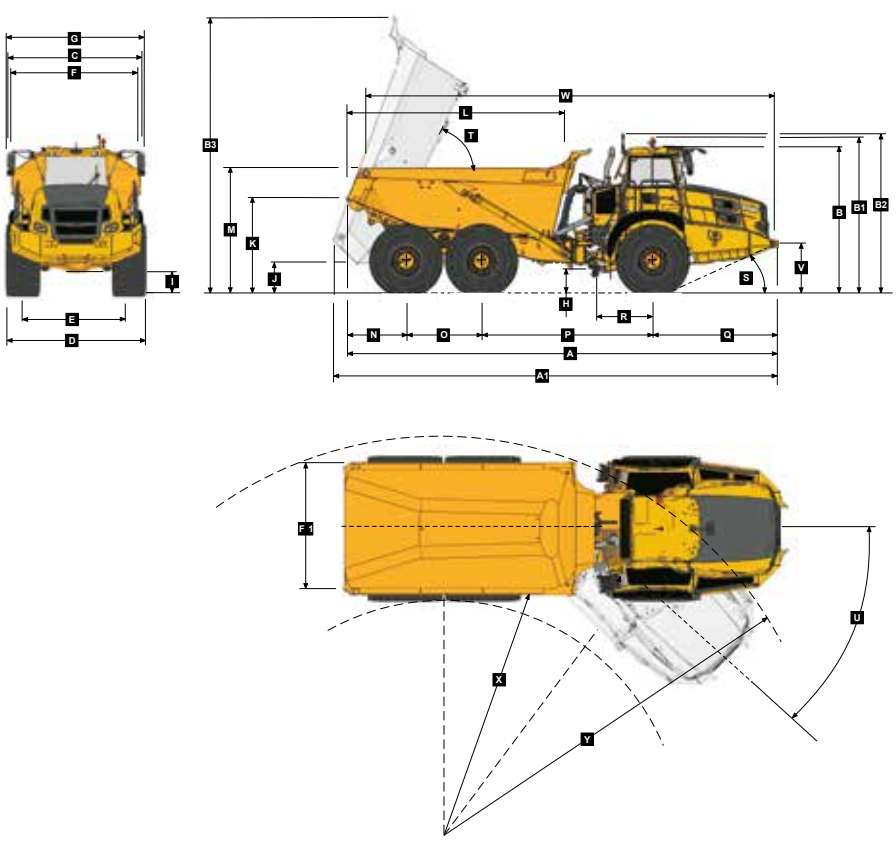
ROPS/FOPS certified 74 dBA internal sound level measured according to ISO 6396.

Load Capacity & Ground Pressure

OPERATING WEIGHTS		GROUND PRESSURE*		LOAD CAPACITY		OPTION WEIGHTS	
UNLADEN	kg (lb)	LADEN		BODY	m^3 (yd^3)		kg (lb)
Front	16 279 (35 889)	(No sinkage/Total Contact Area Method)		Struck Capacity	16 (21)	Bin liner	1 216 (2 681)
Middle	7 341 (16 184)	26.5 R 25	kPa (Psi)	SAE 2:1 Capacity	20,5 (27)	Tailgate	906 (1 997)
Rear	6 759 (14 901)	Front	361 (52)	SAE 1:1 Capacity	24,5 (32)		
Total	30 379 (66 974)	Mid & Rear	379 (55)	SAE 2:1 Capacity		EXTRA WHEELSET	
LADEN				with Tailgate	21 (28)	26.5 R 25	672 (1 482)
Front	20 232 (44 602)						
Middle	22 114 (48 755)			Rated Payload	33 500 kg		
Rear	21 533 (47 472)				(73 855 lb)		
Total	63 879 (140 829)						

* All Groundpressures calculated with Michelin XADN+ Tyre

Dimensions

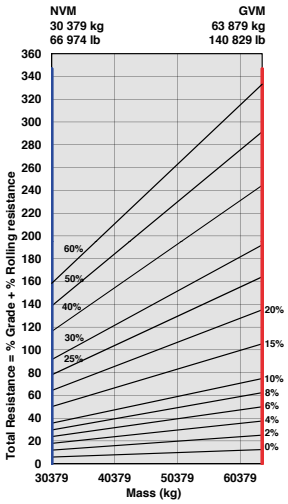


Machine Dimensions

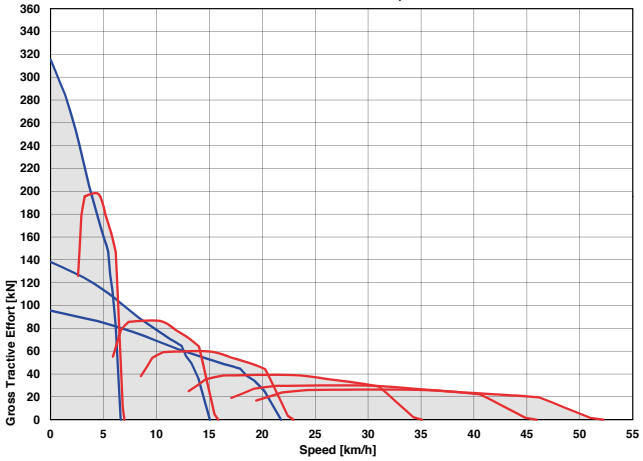
A	Length - Transport Position with Tailgate	11268 mm	(37 ft.)
A	Length - Transport position w/o Tailgate	11188 mm	(36 ft. 8 in.)
A1	Length - Bin Fully Tipped	11631 mm	(38 ft. 2 in.)
B	Height - Transport Position	3752 mm	(12 ft. 4 in.)
B1	Height - Rotating Beacon	3988 mm	(13 ft. 1 in.)
B2	Height - Load Light	4076 mm	(13 ft. 4 in.)
B3	Bin Height - Fully Tipped	7213 mm	(23 ft. 8 in.)
C	Width over Mudguards	3495 mm	(11 ft. 6 in.)
D	Width over Tyres - 26.5R25	3438 mm	(11 ft. 3 in.)
E	Tyre Track Width - 26.5R25	2768 mm	(9 ft. 1 in.)
F	Width over Bin	3112 mm	(10 ft 3 in.)
F1	Width over Tailgate	3402 mm	(11 ft 2 in.)
G	Width over Mirrors - Operating Position	3614 mm	(11 ft. 10 in.)
H	Ground Clearance - Artic	493 mm	(19.41 in.)
I	Ground Clearance - Front Axle	493 mm	(19.41 in.)
J	Ground Clearance - Bin Fully Tipped	822 mm	(32.4 in.)
K	Bin Lip Height - Transport Position	2463 mm	(8 ft. 1 in.)
L	Bin Length	5709 mm	(18 ft. 9 in.)
M	Load over Height	3084 mm	(10 ft. 1 in.)
N	Rear Axle Centre to Bin Rear	1545 mm	(5 ft.)
O	Mid Axle Centre to Rear Axle Centre	1950 mm	(6 ft. 5 in.)
P	Mid Axle Centre to Front Axle Centre	4438 mm	(14 ft. 7 in.)
Q	Front Axle Centre to Machine Front	3255 mm	(10 ft. 8 in.)
R	Front Axle Centre to Artic Centre	1558 mm	(5 ft. 1 in.)
S	Approach Angle	23 °	
T	Maximum Bin Tip Angle	70 °	
U	Maximum Articulation Angle	42 °	
V	Front Tie Down Height	1215 mm	(4 ft.)
W	Machine Lifting Centres	10655 mm	(34 ft. 11 in.)
X	Inner Turning Circle Radius - 26.5R25	4891 mm	(16 ft.)
Y	Outer Turning Circle Radius - 26.5R25	9211 mm	(30 ft. 3 in.)

Grade Ability/Rimpull

1. Determine tractive force 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.

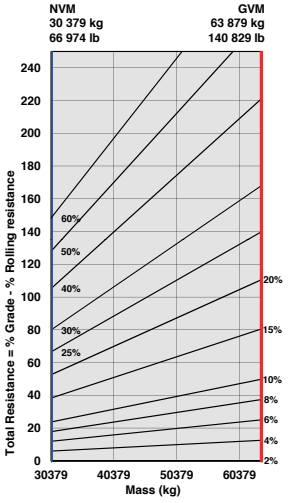


ADT, B35E 6X6 - Tractive Effort



Retardation

1. Determine retardation force 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 the curve.
3. Read down from this point to determine maximum speed.



ADT, B35E 6X6 - Retardation