

Stage IIIA Certified



- No tyre scuff thus less tyre and road surface damage
- Smaller turning circle than the associated 6x6 model
- Highly manoeuvrable in tight spaces
- Same payloads as 6x6 associated model



B30E 4x4 Articulated Dump Truck

ENGINE Manufacture Mercedes Benz

Model OM926LA

Configuration Inline 6, turbocharged and intercooled

Gross Power 240 kW (322 hp) @ 2 200 rpm

Net Power 232 kW (311 hp) @ 2 200 rpm

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

Displacement 7,2 litres (469 cu.in)

Auxiliary Brake Jacobs Engine Brake®

Fuel Tank Capacity 379 litres (100 US gal)

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

TRANSMISSION

Manufacturer Allison

Model 3400 ORS

Configuration Fully automatic planetary transmission

Lavout Engine mounted

Gear Layout Constant meshing planetary gears, clutch operated

Gears 6 Forward, 1 Reverse

Clutch Type Hydraulically operated multidisc

Control Type Electronic

Torque Control Hydrodynamic with lock-up in all gears

TRANSFER CASE Manufacturer Kessler

Series W1400

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

Total Retardation Power Continuous: 318 kW (426 hp) Maximum: 588 kW (788 hp)

WHEELS Type Radial Earthmover

Tyre Front: 23.5 R25 Rear: 875/65 R29

FRONT SUSPENSION Semi-independent, leading A-frame supported by hydro-

pneumatic suspension struts. Optional: Adaptive Comfort

Ride suspension.

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 165 l/min (44 gal/min)

Pressure 28 MPa (4 061 psi)

Filter 5 microns

STEERING SYSTEM

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

Lock to lock turns 41 **Steering Angle**

45°

DUMPING SYSTEM

Two double-acting, single stage, dump cylinders

Raise Time 12 s

Lowering Time 6 s

Tippina Anale 70° standard, or any lower angle programmable

Load Capacity & Ground Pressure

OPERATING WEIGHTS		GROUND PRESSURE *		LOAD CAPACITY		OPTION WEIGHTS	
UNLADEN	kg (lb)	LADEN-N	o Sinkage	BODY	m ³ (yd ³)		kg (lb)
Front	11 488 (25 331)	23.5 R 25	kPa (Psi)	Struck Capacity	15 (19,5)	EXTRA WHEELSET	
Rear	10 706 (23 607)	Front	278 (40)	SAE 2:1 Capacity	18,5 (24)	23.5 R25	565 (1 246)
Total	22 194 (48 938)			SAE 1:1 Capacity	21 (27,5)	875/65 R29	1 024 (2 258)
		875/65 R 29	kPa (Psi)				
LADEN		Rear	467 (67)	Rated Payload	28 000 kg		
Front	13 940 (30 738)				(61 729 lbs)		
Rear	36 254 (79 940)						
Total	50 194 (110 678)						

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

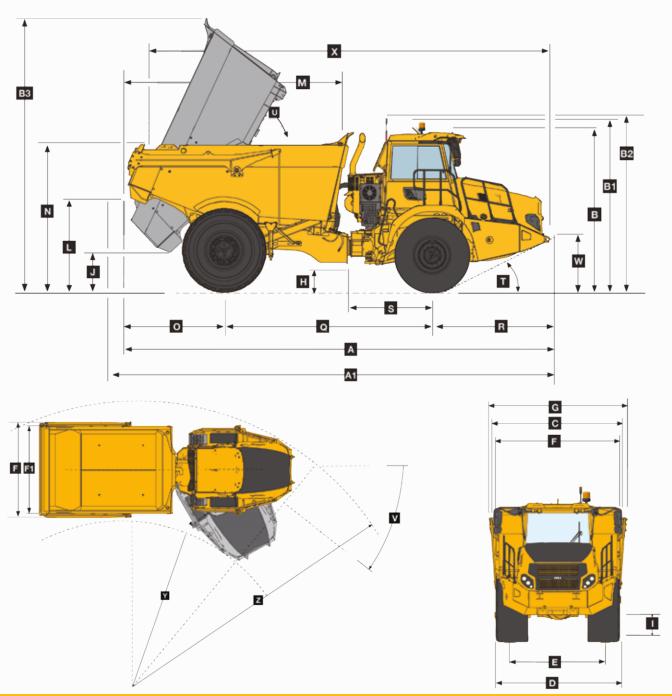
VEHI	CLE SPEEDS	
1st	7 km/h	4 mph
2nd	12 km/h	8 mph
3rd	19 km/h	12 mph
4th	27 km/h	17 mph
5th	39 km/h	24 mph
6th	45 km/h	28 mph
R	7 km/h	4 mph

CAB

ROPS/FOPS certified 72 dBA internal sound level measured according to ISO 6396.



Dimensions



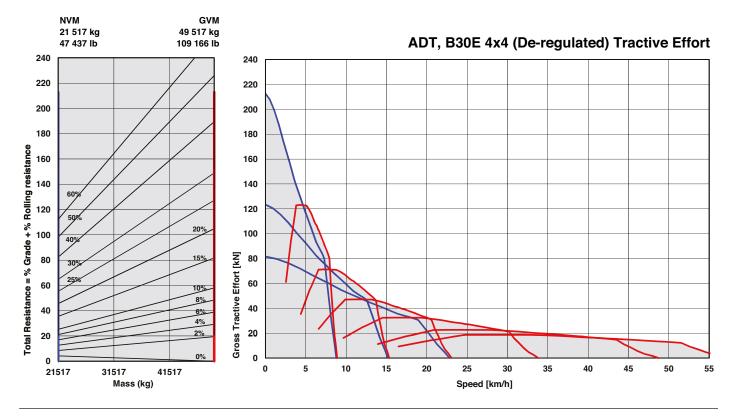
Machine Dimensions

Length - Transport Position	9 193 mm	(30.16 ft.)
Length - Bin Fully Tipped	9 675 mm	(31.74 ft.)
Height - Transport Position	3 426 mm	(11.24 ft.)
Height - Rotating Beacon	3 661 mm	(12.01 ft.)
Height - Load Light	3 747 mm	(12.29 ft.)
Bin Height - Fully Tipped	5 397 mm	(17.7 ft.)
Width over Mudguards	2 985 mm	(9.79 ft.)
Width over Tyres - 23.5R25	2 940 mm	(9.64 ft.)
Width over Tyres - 875/65 R29	3 270 mm	(10.72 ft.)
Tyre Track Width - 23.5R25	2 356 mm	(7.72 ft.)
Tyre Track Width - 875/65 R29	2 385 mm	(7.82 ft.)
Width over Bin	3 140 mm	(10.3 ft.)
Width over Tailgate	3 453 mm	(11.32 ft.)
Width over Mirrors - Operating Position	3 260 mm	(10.69 ft.)
Ground Clearance - Artic	537 mm	(1.76 ft.)
Ground Clearance - Front Axle	488 mm	(1.6 ft.)
	Length - Bin Fully Tipped Height - Transport Position Height - Rotating Beacon Height - Load Light Bin Height - Fully Tipped Width over Mudguards Width over Tyres - 23.5R25 Width over Tyres - 875/65 R29 Tyre Track Width - 875/65 R29 Width over Bin Width over Tailgate Width over Mirrors - Operating Position Ground Clearance - Artic	Length - Bin Fully Tipped9 675 mmHeight - Transport Position3 426 mmHeight - Rotating Beacon3 661 mmHeight - Load Light3 747 mmBin Height - Fully Tipped5 397 mmWidth over Mudguards2 985 mmWidth over Tyres - 23.5R252 940 mmWidth over Tyres - 875/65 R293 270 mmTyre Track Width - 23.5R252 356 mmTyre Track Width - 875/65 R292 385 mmWidth over Bin3 140 mmWidth over Tailgate3 453 mmWidth over Mirrors - Operating Position3 260 mmGround Clearance - Artic537 mm

J	Ground Clearance - Bin Fully Tipped	374 mm	(1.22 ft.)
L	Bin Lip Height - Transport Position	2 310 mm	(7.57 ft.)
Μ	Bin Length	4 425 mm	(14.51 ft.)
Ν	Load over Height	3 150 mm	(10.33 ft.)
0	Rear Axle Centre to Bin Rear	2 093 mm	(6.86 ft.)
Q	Rear Axle Centre to Front Axle Centre	4 565 mm	(14.97 ft.)
R	Front Axle Centre to Machine Front	2 602 mm	(8.53 ft.)
S	Front Axle Centre to Artic Centre	1 362 mm	(4.46 ft.)
Т	Approach Angle	25 °	
U	Maximum Bin Tip Angle	70 °	
V	Maximum Articulation Angle	45 °	
W	Front Tie Down Height	1 075 mm	(3.52 ft.)
Х	Machine Lifting Centres	7 968 mm	(26.14 ft.)
Y	Inner Turning Circle Radius - 23.5R25	3 526 mm	(11.56 ft.)
Ζ	Outer Turning Circle Radius - 23.5R25	7 316 mm	(24 ft.)

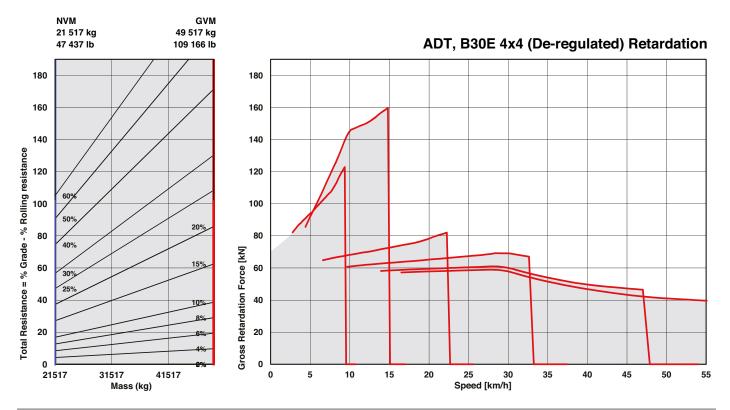
Gradeability/Rimpull

- 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.



Smarter fleet management

Hours Operated in Shire

Fuel Consumption

Payload.

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Fuel Consumption

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Cutting edge technology, helping you run your fleet smarter. Providing accurate, up-to-date operational data, production data and diagnostic data.

The key to a productive and profitable fleet, lies in the ability to monitor and manage your machines and operators efficiently. Machine operational data is processed and compiled into useful production and performance statistics, accessible via the Bell Fleetm@tic® website. These reports are also automated and emailed directly to you. The two monitoring packages that we have available, are:

• The Classic Package supplies you with good enough information for you to have a very good understanding of how your machine is operating for each shift that it runs. This package comes standard with the machine for 2 years.

• **The Premium Package** is focused on customers who need to have extremely detailed information of the machine's operation. For this package we offer similar information to that of the Classic Package but for each individual laden - unladen cycle. In addition, live tracking is available on the Fleetm@tic® website on a per minute basis.

Fleetm@tic[®]:

17793

- Maximise productivity
- Generate machine utilisation reports
- Identify operator training requirements
- Pro-active maintenance planning
- Implement safety features
- Receive machine fault codes as well as suggested trouble shooting procedures
- Protect investments
- Receive real time geospatial data



1:1=4

B60E All Wheel Drive

The Bell B60E offers our customers more tonnage than ever before, and at a related lower cost per tonne.

It keeps all of the traditional Bell safety and productivity features while still offering off-road capability that non-ADT solutions cannot match.

Bell has a history of leading the ADT industry and offering our customers more in two distinct ways - through the innovations that we apply to our products and our principle that larger trucks give lower cost per tonne. These two factors are ideally combined in the B60E to give a real value adding package.

The Bell B60E has been developed as a result of the Bell tradition of listening to our customers. They were looking for a machine that would perform better than conventional haulage solutions in slippery and undulating conditions, but didn't need the 'go anywhere' ability of a 3 axle 6x6 ADT.

In response Bell has filled this conspicuous gap in the market with the B60E crossover solution.

The B60E has been enthusiastically received, giving productivity during adverse weather conditions when other machines are unable to operate, and also tolerating less site maintenance, which has large cost and hassle implications for many sites.



• The oscillation joint is what makes an ADT. It keeps the wheels on the ground ensuring traction when driving over rough terrain. The B60E has inherited the oscillation joint of the B50E, which has been strengthened appropriately.

• By configuring the driveline to direct drive to all wheels, the Bell B60E can go places where conventional trucks cannot.

• At 35m³ this is the largest ADT bin in the world today. You can carry more material and make more money, it's that simple.



• Articulated steering between the front and rear chassis produces much tighter turning circles than a steered axle, and makes the B60E an ideal machine for tight sites.

• In deep soft mud it won't necessarily match its 3 axle counterparts but it has proven itself to be a more than capable machine in challenging conditions.



B60E 4x4 Articulated Dump Truck

ENGINE Manufacturer Mercedes Benz (MTU)

Model OM473LA (MTU 6R 1500)

Configuration Inline 6, turbocharged and intercooled

Gross Power 430 kW (577 hp) @ 1 700 rpm

Net Power 405 kW (543 hp) @ 1 700 rpm

Gross Torque 2 750 Nm (2 028 lbft) @ 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 / EPA Tier 3 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 multidisc

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: 437 kN (98 242 lbf)

Park & Emergency Spring applied, air released driveline mounted disc

Maximum brake force: 379 kN (85 203 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: Twin 24.00 R35

FRONT SUSPENSION

Semi-independent, leading A-frame supported by hydropneumatic suspension struts. Suspension is electronically controlled adaptive suspension with ride height adjustment.

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 330 L/min (87 gal/min)

Pressure 250 bar (3 626 psi)

Filter 5 microns

STEERING SYSTEM

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



Lock to lock turns 4,9 Steering Angle 42°

DUMPING SYSTEM

Two double-acting, two stage telescopic, dump cylinders

Raise Time 17 seconds

Lowering Time 18 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 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 SP	EED
1st	4 km/h	2,5 mph
2nd	8 km/h	5,6 mph
3rd	16 km/h	10,6 mph
4th	21 km/h	13,7 mph
5th	30 km/h	20 mph
5th	41 km/h	27 mph
7th	47 km/h	32 mph
R	6 km/h	4 mph

CAB

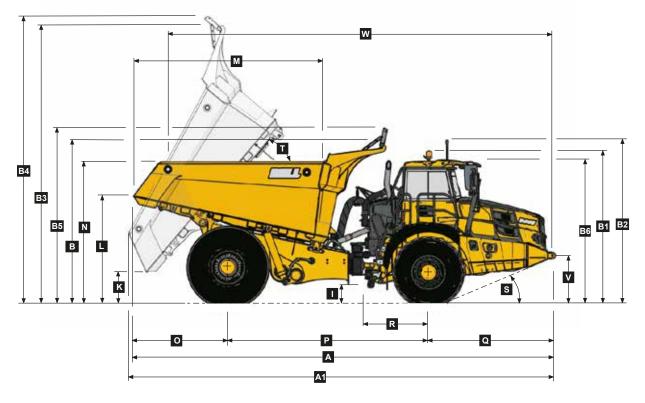
ROPS/FOPS certified 77 dBA internal sound level measured according to ISO 6396.

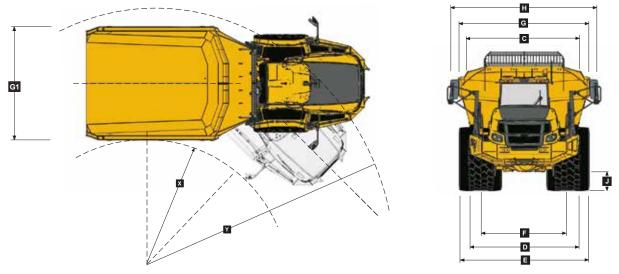
Load Capacity & Ground Pressure

OPERATING WEIGHTS		GROUND PRESSURE *		LOAD CAPACITY		OPTION WEIGHTS	
UNLADEN	kg (lb)	LAI	DEN	BODY	m ³ (yd ³)		kg (lb)
Front	20 151 (44 433)	(No sir	nkage/	Struck Capacity	27 (35,3)	Bin liner	1 116 (2 460)
Rear	25 245 (55 665)	Total Contact	Area Method)	SAE 2:1 Capacity	35 (45,8)	Tailgate	1 516 (3 342)
Total	45 396 (100 098)	875/65 R29	kPa (Psi)	SAE 1:1 Capacity	42 (54,9)		
		Front	333 (48)	SAE 2:1 Capacity		EXTRA WHEELSET	
LADEN				with Tailgate	35,6 (46,6)	875/65 R29	1 024 (2 258)
Front	26 751 (58 986)	24.00 R35	kPa			24.00 R35	1 240 (2 734)
Rear	73 645 (162 387)	Rear	469 (68)	Rated Payload	55 000 kg		
Total	100 396 (221 373)				(121 254 lb)		

* Front ground pressure calculated with Michelin XAD65-1 tyre. Rear ground pressure calculated with Michelin XDT B tyre.

Dimensions





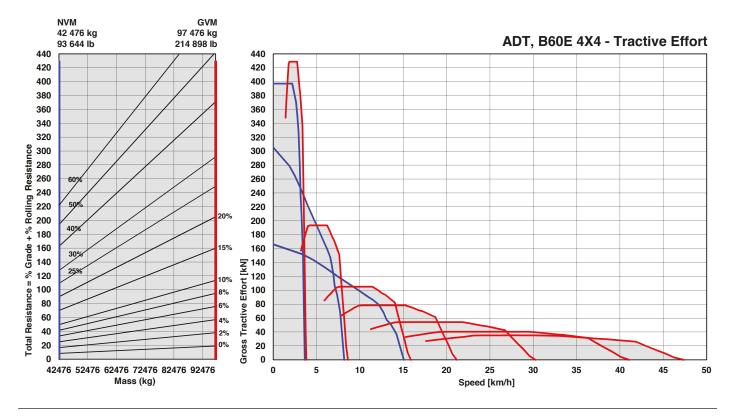
Machine Dimensions

А	Length - Transport Position	11 114 mm	(33.23 ft.)
A1	Length - Bin Fully Tipped	11 178 mm	(36 ft. 8 in.)
В	Height - Transport Position w/o Rock Guard	4 209 mm	(13 ft.10 in.)
В	Height - Transport Position with Rock Guard	4 212 mm	(13 ft.10 in.)
B1	Height - Rotating Beacon	4 050 mm	(13 ft. 3 in.)
B2	Height - Load Light	4 333 mm	(14 ft. 2 in.)
B3	Bin Height - Fully Tipped w/o Rock Guard	7 476 mm	(24 ft. 6 in.)
B4	Bin Height - Fully Tipped with Rock Guard	7 692 mm	(25 ft. 3 in.)
B5	Height - Rock Guard Operating Position	4 675 mm	(15 ft. 4 in.)
B6	Height - Cab	3 813 mm	(12 ft. 6 in.)
С	Width over Mudguards	3 790 mm	(12 ft. 5 in.)
D	Width over Front Tyres 875/65 R29	3 832 mm	(12 ft. 7 in.)
Е	Width over Rear Tyres 24.00R35	4 444 mm	(14 ft. 7 in.)
F	Tyre Track Width Front 875/65R29	2 949 mm	(9 ft. 8 in.)
F	Tyre Track Width Rear 24.00R35	2 992 mm	(9 ft. 10 in.)
G	Width over Bin	4 487 mm	(14 ft. 9 in.)
G1	Width over Tailgate	4 800 mm	(15 ft. 9 in.)
Н	Width over Mirrors - Operating Position	5 242 mm	(17 ft. 2 in.)

I.	Ground Clearance - Artic	561 mm (22.09 in.)
J	Ground Clearance - Front Axle	554 mm (21.81 in.)
Κ	Ground Clearance - Bin Fully Tipped	851 mm (33.5 in.)
L	Bin Lip Height - Transport Position	2 952 mm (9 ft. 8 in.)
М	Bin Length	5 036 mm (16 ft. 6 in.)
Ν	Load over Height	3 824 mm (12 ft. 7 in.)
0	Rear Axle Centre to Bin Rear	2 477 mm (8 ft. 2 in.)
Р	Rear Axle Centre to Front Axle Centre	5 285 mm (17 ft. 4 in.)
Q	Front Axle Centre to Machine Front	3 352 mm (11 ft.)
R	Front Axle Centre to Artic Centre	1 558 mm (5 ft. 1 in.)
S	Approach Angle	22 °
Т	Maximum Bin Tip Angle	55 °
U	Maximum Articulation Angle	42 °
V	Front Tie Down Height	1 263 mm (4 ft. 2 in.)
W	Machine Lifting Centres	10 116 mm (33 ft. 2 in.)
Х	Inner Turning Circle Radius	4 246 mm (13 ft. 11 in.)
Y	Outer Turning Circle Radius	9 216 mm (30 ft. 3 in.)
	-	

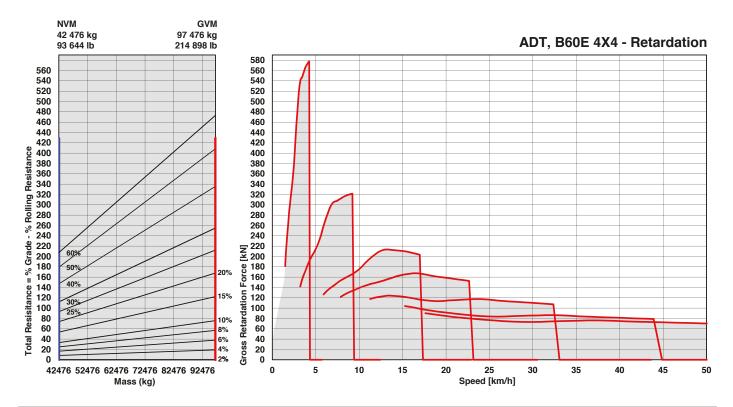
Gradeability/Rimpull

- 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.

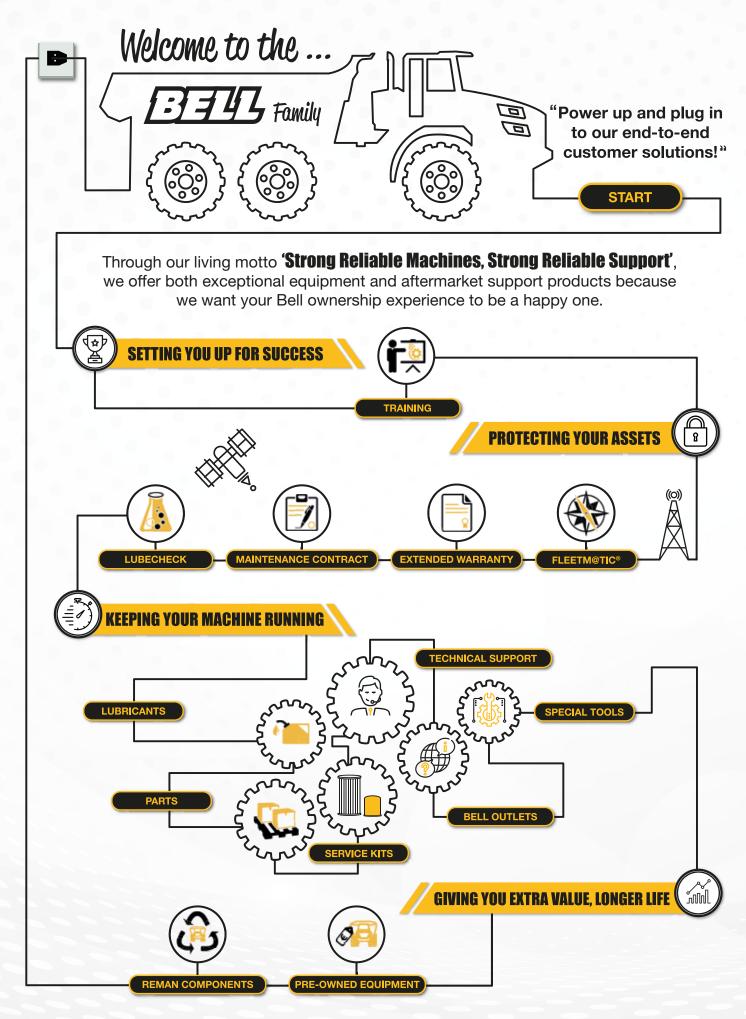


Retardation

- 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.



EX 3098 ENGINE	$\begin{array}{c} & & & \\ & & & & \\ & & & \\ & & & \\ & & & \\ & & & & \\ & & & \\ & & & \\ & & & \\ & & & \\ & & & \\ & & & \\ & & & & \\ &$
Engine valve brake	 Manually adjusted mirrors
 Dual element air cleaner with dust ejector valve 	Heated mirrors
 Pre-cleaner with automatic dust scavenging 	 Electric adjustable and heated mirrors
 Water separator 	Deluxe 10" color LCD:
 Serpentine drive belt with automatic tensioner 	Speedometer / Fuel gauge /
Provision for fast fill	Transmission oil temperature gauge /
• Wet-sleeve cylinder liners	Engine coolant temperature gauge /
	LED function/warning indicators and audible
COOLING	alarm / Transmission gear selection /
Crankshaft mounted electronically controlled	Tachometer / Battery voltage / Hour meter /
viscous fan drive	Odometer / Fuel consumption / Tip counter /
Fan guard	Trip timer / Trip distance / Metric/English units /
	Service codes/diagnostics
PNEUMATIC SYSTEM	• • Backlit sealed switch module functions with:
 Engine-mounted compressor 	Wiper control / Lights / Heated mirrors /
• Air drier with heater	Retarding aggressiveness / Transfer case
 Integral unloader valve 	differential lock / Transmission gear hold /
	Dump-body tip limit / Automatic dump-body
ELECTRICAL SYSTEM	tip settings / Air conditioner/Heater controls /
 Battery disconnect 	Preselected Speed Control
Halogen drive lights	
 LED drive lights 	DUMP BODY
Air horn	 Dump body mechanical locks (x2). Partially up
Reverse alarm	and fully up
White noise reverse alarm	Body liner (Partial for B60E)
 Rotating beacon 	Tailgate
 Pitch roll sensor 	Body heater
 LED Artic reverse light 	Less dump body and cylinders
Halogen artic reverse lights	Bin pole lockout
LED reverse lights	Rear wheel mudguards
STEERING SYSTEM	OTHER
 Bi-directional ground-driven secondary 	 Automatic Traction Control (ATC)
steering pump	 Wet disc brakes
steering portip	 Wer disc blakes 23.5 R25 Radial Earthmover tyres (Front)
CAB	 875/65 R29 Radial Earthmover tyres (Rear)
ROPS/FOPS certification	 875/65 R29 Radial Earthmover tyres (Rear) 875/65 R29 Radial Earthmover tyres (Front)
 Tilt cab 	 Twin 24.00 R35 Dual (Rear)
 Gas strut-supported door 	 Remote grease banks
 I-Tip programmable dump-body tip settings 	 A totomatic greasing
 Hypological integration and a second body hip second point of the second	 Onboard Weighing
 AM/FM radio with Aux + USB 	 Load lights: stack
 Rear window guard 	 Comfort ride suspension (Front)
 Wiper/washer with intermittent control 	 Comfort ride suspension (Rear)
 Tilt and telescoping steering wheel 	 Reverse camera
 Center-mount air-suspension seat 	 Hand rails
Halogen work lights	
 LED work lights 	 High pressure hydraulic filter
 Rotating beacon: seat belt installation 	Fuel heater
Remote engine and machine isolation	 Belly cover
 Remote battery jump start 	 Cross member cover
 Retractable 3 point seat belt 	 Remote transmission filters
 Heated seat 	 Engine and transmission remote drain-gravity
 Foldaway trainer seat with retractable seat belt 	 Engine and transmission remote drain-scaveng
 12-volt power outlet 	▲ Window smash button
 Cab utility bin (removable) 	 High visibility mirrors
 Cup holder 	 Fleetm@tic® Classic Package for 2 years



SUPPORTING YOU EVERY STEP OF YOUR BELL OWNERSHIP EXPERIENCE

Notes	

1	lotes



All dimensions are shown in millimeters, unless otherwise stated between brackets. Under our policy of continuous improvement, we reserve the right to change technical data and design without prior notice. Photographs featured in this brochure may include optional equipment. Blu@dvantage™ is a trademark of Bell Equipment Co. (PTY) Ltd. AdBlue® is a registered trademark of VDA.

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Strong Reliable Machines Strong Reliable Support





