

E-series

Articulated Dump Trucks

B18E | B20E | B25E 6x4 | B25E | B30E

Stage II Certified



BELL

E is for evolution

Your business is our business. Bell Articulated Dump Trucks haul more, for longer at the lowest cost-per-ton to deliver more on your profit margins.

As a global leader in Articulated Dump Trucks, Bell Equipment brings you the world class E-series range. The evolutionary E-series is packed with class leading features that deliver production boosting payloads, lower daily operating costs, superior ride quality and uncompromised safety standards.

Bell E-series ADTs will give your business the competitive edge you need.

- Extensive use of highstrength, lightweight materials give these trucks the best payload-to-mass ratios and hauling efficiencies in each class.

- With their oscillating frame and high-floatation tyres, Bell trucks won't leave you stuck on muddy, rutted or hilly terrain.

- The redesigned sound-suppressed cab features fatigue-beating controls, advanced diagnostic monitor and a sealedswitch module for convenient, fingertip operation of numerous functions.

- Fuel-efficient emissioncertified engines deliver clean power without compromise in all conditions. Leading-edge emissions technology ensures rapid engine response and dependable cold-start performance.



The E-series range takes ADT functionality to new industry standards, with customer-focused enhancements and the highest level of automated machine protection available.

Through substantial investments in Research and Development and employing industry leading technology, advancements in the key areas of performance and fuel efficiency – help you to move more material at lower operating costs and environmental impact.

Specifications	B18E	B20E	B25E	B30E
Net power	163 kW (214 hp)	163 kW (214 hp)	205 kW (275 hp)	240 kW (322 hp)
Operating mass				
Empty	15 025 kg (33 130 lb)	15 260 kg (33 643 lb)	20 728 kg (45 697 lb)	22 885 kg (50 453 lb)
Loaded	33 025 kg (72 820 lb)	33 260 kg (73 326 lb)	44 728 kg (98 608 lb)	50 885 kg (112 182 lb)
Rated payload	18 000 kg (39 690 lb)	18 000 kg (39 690 lb)	24 000 kg (52 911 lb)	28 000 kg (61 729 lb)
2:1 heaped capacity	11 m ³ (14,5 yd ³)	11 m ³ (14,5 yd ³)	15 m ³ (19,5 yd ³)	17,5 m ³ (22,9 yd ³)



Building on pedigree

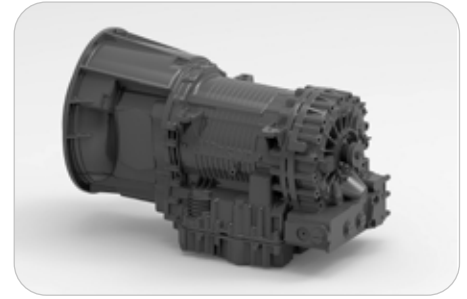
Building on from the proven D-series platform, Bell Equipment's evolutionary approach to design delivers optimised power-to-weight ratio and legendary fuel efficiency.

- Limited slip differentials and electronically controlled automatic Inter-axle Differential Lock (IDL) provide Automatic Traction Control (ATC) in poor underfoot conditions.
- The best-in-class payload-to-weight ratio means that more of your fuel cost is spent moving the material, not running the machine, decreasing your cost per tonne.
- An industry leading, fully automatic six-speed planetary transmission with torque converter lock-up maximises fuel efficiency.
- Automatic retardation slows the truck when the operator backs off the accelerator pedal for more confidence on steep grades and enhanced brake life.
- Improved payloads, faster haul cycles and industry leading fuel economy all help you move more material at a lower cost-per-tonne than your competitors.
- The short front end provides the best approach angle that allows these ADTs to attack steep terrain.

- Electronic unit injection fuel system provides high injection pressures even at low engine speed for improved cold-starting ability, low-speed response and reduced emissions.

High-travel suspension keeps all tyres in constant contact with the ground, for optimum traction.

- Class leading payload-to-weight ratio means that more of your fuel cost is spent moving the material and not running the machine - for maximum productivity and profitability.
- With a high oscillating frame joint, articulated steering, and high floatation tyres, these hard working haulers won't let wet weather or steep grades dampen your plans.



Planetary powershift transmission optimises shift points to match conditions and vehicle weight while protecting the transmission from operator error and abuse. Allison FuelSense® calibration optimises production and fuel burn.



The transfer case inter-axle differential delivers equal torque to each axle when traction is favourable. When conditions deteriorate, the diff-lock automatically engages to deliver torque to the tyres that can best use it.



High-strength steel and widely spaced taper roller bearings in the articulation area enhance long-term durability.



A tailgate is available as an option for better material retention. The tailgate opens as the bin is raised for dumping. Spring steel straps maintain positive seal throughout the haul, ensuring minimal material is lost.

Our innovative front and rear comfort ride suspension options are offered to even further enhance ride quality and ensure minimal whole body vibration exposure.

Productivity increases through reduced cycle times, and reduced haul road maintenance are even further benefits of these extremely successful systems. Experienced ADT operators who have driven trucks installed with these systems have come away amazed by the comfort of the machine, as well as the confidence that the adaptive front suspension engenders.



Uncompromised durability

Built smarter, to work harder. Bell ADTs offer optimised machine weights so you spend more time and money moving material and not running the machine.

With decades of ADT experience, the Bell E-series articulated hauler is designed and manufactured using purpose built, reliable Bell components best suited for the toughest of conditions. The central oscillation joint, high suspension travel on all axles, and balanced weight distribution provide the agility and ability to navigate hostile terrain.



The high-strength steel chassis delivers strength and rigidity without excess weight.

- Dual circuit hydraulically actuated brakes deliver consistent "on-the-mark" braking, even in cold weather. The B30E is fitted with wet disc brakes as standard and the B18E to B25E with dry disc brakes.

- Viscous electronically controlled direct-drive engine fans provide cooling for the best efficiency.

- Class leading engine braking coupled with automated transmission retardation, provides superior braking power and reduces service brake wear.



For comfortable productivity the A-frame suspension system coupled with hydropneumatic suspension struts reduce the lateral vibration often experienced with off-road conditions. A superior suspension seat provides additional isolation for the operator.



Rough terrain demands tough suspensions. Heavy-duty components absorb shocks and come back for more. You get best-in-class suspension travel and ground clearance, too.



Other uptime-boosting features include world class on-board diagnostics with live stream functionality, solid-state sealed switches and satellite fleet management system.

High-strength welded-alloy steel chassis and reinforced articulation joints, offer superior strength and durability with optimised weight for class leading power-to-weight ratio. Lower machine mass reduces powertrain and structural stress.

Operate with ease

Using the latest in automotive technology and state-of-the-art tooling, the E-series takes operator experience to new heights.

Climb into the cab of a Bell ADT and you will feel right at home. Its quiet, spacious interior, ergonomically positioned operator station and climate-controlled cabin is loaded with productivity-boosting comfort and convenience features that minimise operator fatigue and enhance the operator's experience.

Modern flowing lines, in keeping with current styling trends on road vehicles, offer unsurpassed levels of visibility.

From the state-of-the-art 10" full colour screen automotive mouse interface and sealed switch module to air suspension seat, tilt/telescoping steering wheel and optional CD player with high-output speakers, the E-series provides everything your operators need to perform at their best.

- The standard sound-suppression package significantly reduces noise levels and operator fatigue.

- The adaptive transmission control adjusts clutch engagement to ensure smooth, consistent shifts throughout the life of the truck.

- A fully adjustable air-suspension seat with variable damping, auto height adjust according to operator weight, pneumatic lumbar support and multipoint harness for class-leading comfort and safety.

- A purpose designed HVAC climate control system with automotive-style louvres keeps the glass clear and the cab comfortable.

- New machine styling and cabin design improvements, which include full glass access door and high visibility mirror package, provide exceptional all-round visibility.

- You won't find retarder pedals or levers in a Bell truck. Retarder aggressiveness is simply set on the switch pad. Everything else is automatic.



Easy-to-understand instruments and intuitive controls wrap around the operator so they're easier to view and operate.



A user friendly 10" colour monitor offers vital operating information, safety warnings, detailed diagnostic readings and dump body function settings.



An automotive controller provides menu navigation on the colour monitor to extract information on machine operation and adjustment of machine settings.



Convenient sealed switch module provides fingertip control of numerous productivity enhancing functions including: **Keyless Start, I-Tip, Dump Body Upper Limit, Soft Stop/Hard Stop Selection, Retarder Aggressiveness and Speed Control.**



Safety, our business too

By listening to users and delivering on expectations in an ever changing workplace, we provide a truck that leads in application safety with numerous groundbreaking innovations.

Independent features such as Keyless Start, Hill Assist, Bin Tip Prevention, Auto Park Application (APA), Standard Turbo Spin Protection and On-Board Weighing (OBW) are still standard on the E-series.

For improved safety and productivity, the E-series has an electronically controlled automatic Inter-axle Differential Lock (IDL) giving the vehicle full Automatic Traction Control (ATC).

- Full handrails (to ISO 2876) can be installed to offer improved safety when performing engine checks.
- The park brake automatically applies when neutral is selected and it is not possible to engage neutral at speed. Torque dependent park brake release (Hill Assist) ensures no roll back on slopes.
- All trucks can be set up to automatically sound the horn when starting or switching between forward and reverse.

- Best-in-class retarder and engine braking automatically applies when the operator lifts his foot off the accelerator. Retarder aggressiveness can be simply adjusted on the sealed switch module ensuring maximum descent control for all conditions.
- Multiple geofencing in challenging site conditions ensures safe machine operation, such as downhill speed control, geofence speed limits and bin restrictions.



Our quiet operator cabins are ROPS/FOPS certified with an air suspension operator seat. The trainer seat has a retractable lap belt while the operator seat has a standard 3 point seat belt. Both have automatically locking retractors.



An optional integrated reverse camera and high visibility mirrors ensure superior all round visibility.



Keyless start, driver identity and access codes ensure no unauthorised operation of your equipment.



The exclusive on-board weighing presents the operator with real time information on the payload while the machine is being loaded. A 'speed restriction' mode can also be activated if the machine is significantly overloaded.



The incorporation of a pitch and roll sensor in the vehicle prevents bin operation if the truck is in an unsafe position.



Both operator or site selectable maximum speed control allows the vehicle to automatically decelerate and apply the retarder to prevent onsite speeding.



Maximise your uptime

The E-series is loaded with features that make it as easy to maintain as it is to operate. Spend less time and expense getting ready for work and more time getting work done.

Easy-to-reach dipsticks, see-through reservoirs, sight gauges and grouped service points make quick work of the daily routine. Quick change filters, extended engine and hydraulic oil-service intervals lower daily operating costs and provide superior machine uptime.

An industry leading 10" colour monitor offers on-board machine diagnostics as well as automated daily service functionality, this coupled with diagnostic test ports help you troubleshoot and make informed maintenance decisions on site.



If something goes wrong, the diagnostic monitor provides service codes and supporting info to help diagnose the problem.



The cab can be tilted in minutes without special tools, for convenient service access to drivetrain components.



An in-cab load centre simplifies fuse replacement. Fewer relays, connectors and harnesses mean higher reliability.



We offer a remote transmission filter option. They make transmission filter replacement a fast and clean task.



- Automated daily service checks can be done with ease and comfort from inside the operator station using the 10" colour LCD monitor and sealed display controller.

- The load-sensing hydraulic system was designed with simplicity in mind, while maintaining efficiency. Fewer components for improved reliability and serviceability.

- Extended engine transmission and hydraulic oil-change for increased uptime and lower operating cost.

- Available environmental drains allow quick, no-spill changes.

- Your Bell Service Centre has the parts and backup you need to stay productive and offers a wide variety of preventative maintenance and support programmes to help you control costs.



See-through fluid reservoirs and sight gauges let you check fluid levels at a glance.



Easily accessible test ports allow technicians to troubleshoot problems more quickly.



The centralised lube bank places difficult-to-reach grease points within reach.



The convenient and easy to understand RSG decal details daily checks and actions (eg: greasing).

Welcome to the ...

BELL Family

“Power up and plug in
to our end-to-end
customer solutions!”

START

Through our living motto **‘Strong Reliable Machines, Strong Reliable Support’**, we offer both exceptional equipment and aftermarket support products because we want your Bell ownership experience to be a happy one.



SETTING YOU UP FOR SUCCESS



TRAINING



PROTECTING YOUR ASSETS



LUBE CHECK



MAINTENANCE CONTRACT



EXTENDED WARRANTY



FLEETM@TIC®



KEEPING YOUR MACHINE RUNNING

LUBRICANTS

PARTS

SERVICE KITS

TECHNICAL SUPPORT

SPECIAL TOOLS

BELL OUTLETS

GIVING YOU EXTRA VALUE, LONGER LIFE



REMAN COMPONENTS



PRE-OWNED EQUIPMENT

SUPPORTING YOU EVERY STEP OF YOUR BELL OWNERSHIP EXPERIENCE

Smarter fleet management



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 machines 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®:

- 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



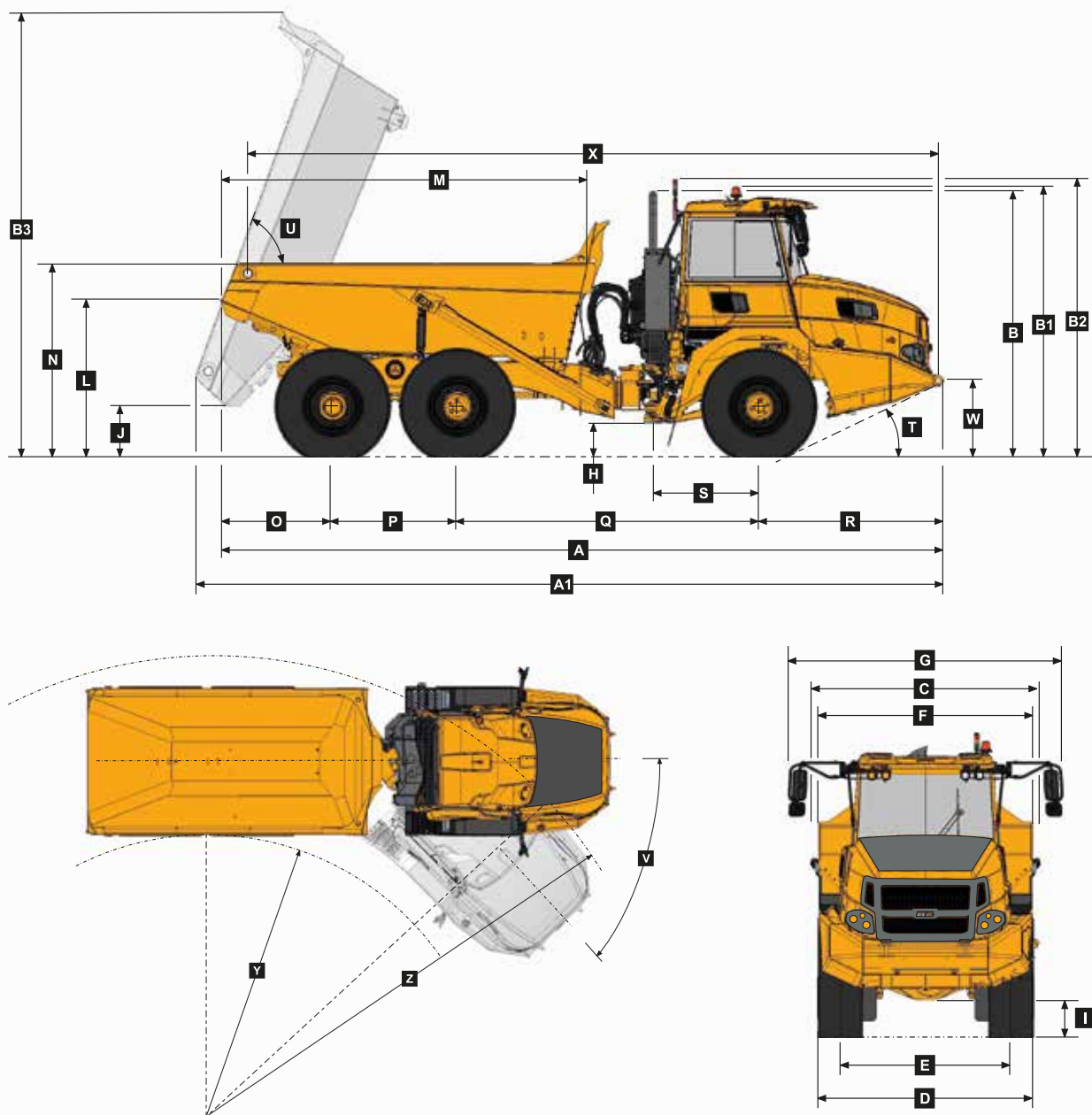
<div>ENGINE</div> <div>Manufacturer Mercedes Benz</div> <div>Model OM924LA</div> <div>Configuration Inline 4, turbocharged and intercooled.</div> <div>Net Power 163 kW (219 hp) @ 2 200 rpm in accordance with UN ECE R120</div> <div>Gross Torque 810 Nm (597 lbft) @ 1 200 -1 600 rpm</div> <div>Displacement 4,80 litres (293 cu.in)</div> <div>Auxiliary Brake Exhaust Valve Brake Engine Valve Brake</div> <div>Fuel Tank Capacity 195 litres (53 US gal)</div> <div>Certification OM924LA meets Euro III emissions regulations</div>	<div>Torque Control Hydrodynamic with lock-up in all gears</div> <div>TRANSFER CASE</div> <div>Manufacturer Kessler</div> <div>Series W1400</div> <div>Layout Remote mounted</div> <div>Gear Layout Three in-line helical gears</div> <div>Output Differential Interaxle 33/67 proportional differential. Automatic inter-axle differential lock.</div> <div>AXLES</div> <div>Manufacturer Bell</div> <div>Model 15T</div> <div>Differential High input limited slip differential with spiral bevel gears.</div> <div>Final Drive Outboard heavy duty planetary on all axles</div> <div>BRAKING SYSTEM</div> <div>Service Brake Dual circuit, full hydraulic actuation dry disc brakes with 8 calipers (4F, 2M, 2R). Maximum brake force: 244 kN (54 720 lbf)</div> <div>Park & Emergency Spring applied, air released driveline mounted disc. Maximum brake force: 182 kN (40 802 lbf)</div> <div>Auxiliary Brake Automatic exhaust valve brake and engine valve brake. Optional automatic, adjustable, integral, hydrodynamic transmission retarder. Output shaft speed dependant.</div>	<div>Total Retardation Power 99kW (133 hp) Continuous non-retarder. 144kW (193 hp) Continuous retarder. 99kW (133 hp) Maximum non-retarder. 505kW (677 hp) Maximum retarder.</div> <div>WHEELS</div> <div>Type Radial Earthmover</div> <div>Tyre 20.5 R 25</div> <div>FRONT SUSPENSION Semi-independent, leading A-frame supported by hydro-pneumatic suspension struts.</div> <div>REAR SUSPENSION Pivoting walking beams with laminated rubber suspension blocks</div> <div>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.</div> <div>Pump Type Variable displacement load sensing piston</div> <div>Flow 155 l/min (41,5 gal/min)</div> <div>Pressure 27 MPa (3 915 psi)</div> <div>Filter 5 microns</div> <div>STEERING SYSTEM Double-acting cylinders with ground driven emergency steering pump.</div>	<div>Lock to lock turns 4,32</div> <div>Steering Angle 45°</div> <div>DUMPING SYSTEM Two double-acting, single stage, dump cylinders</div> <div>Raise Time 10 s</div> <div>Lowering Time 5,5 s</div> <div>Tipping Angle 70° standard, or any lower angle programmable</div> <div>PNEUMATIC SYSTEM Air drier with heater and integral unloader valve, serving park brake and auxiliary functions.</div> <div>System Pressure 810 kPa (117 psi)</div> <div>ELECTRICAL SYSTEM</div> <div>Voltage 24 V</div> <div>Battery Type Two AGM (Absorption Glass Mat) type</div> <div>Battery Capacity 2 X 75 Ah</div> <div>Alternator Rating 28 V 80 A</div> <div>VEHICLE SPEEDS</div> <table><tr><td>1st</td><td>11 km/h</td><td>7 mph</td></tr><tr><td>2nd</td><td>20 km/h</td><td>12 mph</td></tr><tr><td>3rd</td><td>27 km/h</td><td>17 mph</td></tr><tr><td>4th</td><td>38 km/h</td><td>24 mph</td></tr><tr><td>5th</td><td>50 km/h</td><td>31 mph</td></tr><tr><td>6th</td><td>50 km/h</td><td>31 mph</td></tr><tr><td>R</td><td>7 km/h</td><td>4 mph</td></tr></table> <div>CAB ROPS/FOPS certified 71 dBA internal sound level measured according to ISO 6396.</div>	1st	11 km/h	7 mph	2nd	20 km/h	12 mph	3rd	27 km/h	17 mph	4th	38 km/h	24 mph	5th	50 km/h	31 mph	6th	50 km/h	31 mph	R	7 km/h	4 mph
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6th	50 km/h	31 mph																						
R	7 km/h	4 mph																						

Load Capacity & Ground Pressure

OPERATING WEIGHTS				GROUND PRESSURE		LOAD CAPACITY		OPTION WEIGHTS	
UNLADEN*		LADEN*		LADEN (No sinkage)		BODY	m ³ (yd ³)		kg (lb)
Tare	kg (lb)**	ISO 6016	kg (lb)***	20.5 R 25	kPa (Psi)	Struck Capacity	9 (11)	Bin liner	811 (1 788)
Front	7 955 (17 541)	Front	9 840 (21 693)	Front	223 (32)	SAE 2:1 Capacity	11 (14,5)	Extra	
Middle	3 740 (8 247)	Middle	11 730 (25 860)	Middle	299 (43)	SAE 1:1 Capacity	13,5 (17,5)	wheelset	355 (783)
Rear	3 330 (7 343)	Rear	11 540 (25 441)	Rear	299 (43)				
Total	15 025 (33 130)	Total	33 110 (72 995)			Rated Payload	18 000 kg		
ISO 6016	kg (lb)***			LADEN (15% sinkage)			(39 690 lbs)		
Front	9 755 (21 510)			20.5 R 25	kPa (Psi)				
Middle	11 730 (25 865)			Front	204 (30)				
Rear	11 540 (25 446)			Middle	246 (36)				
Total	33 025 (72 820)			Rear	246 (36)				

* Includes additional mass. ** No fuel, no operator. *** Full fuel and operator

Dimensions

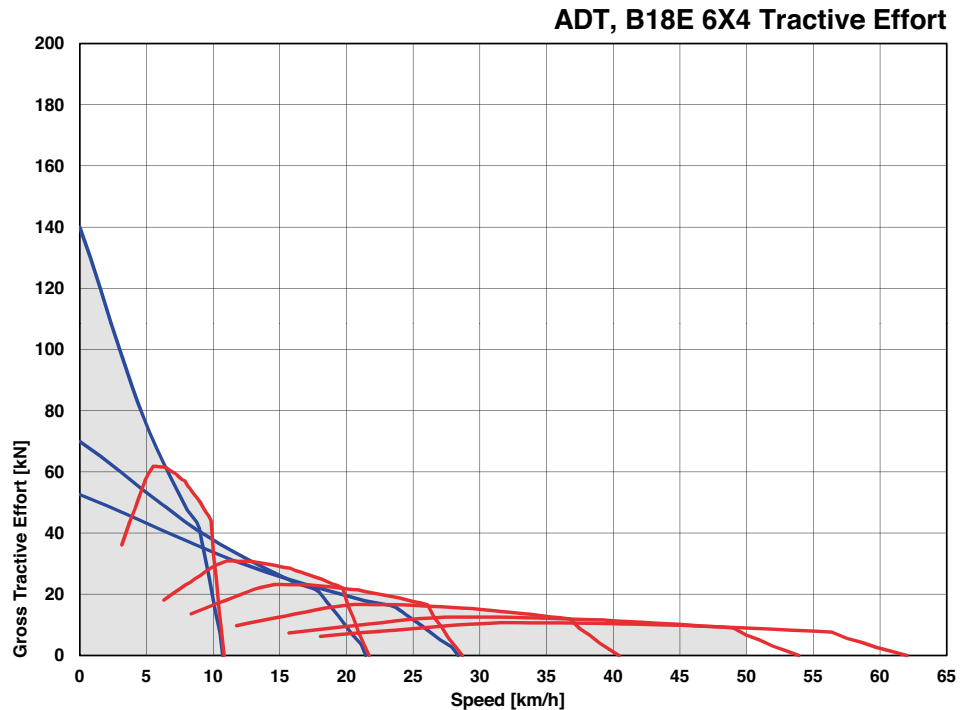
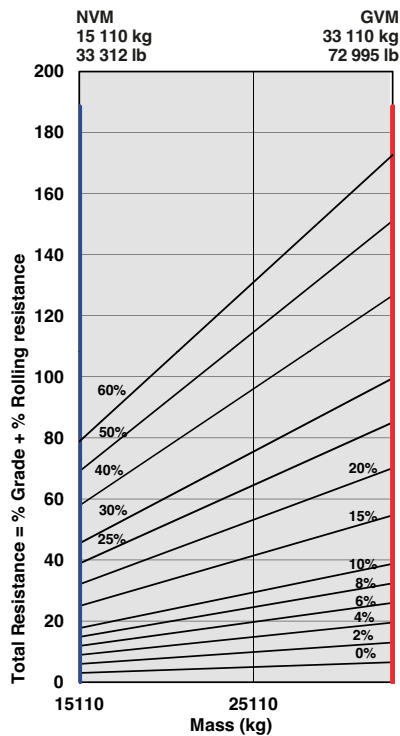


Machine Dimensions

A	Length - Transport Position	9 271 mm (30 ft. 5 in.)	L	Bin Lip Height - Transport Position	2 060 mm (6 ft. 9 in.)
A1	Length - Bin Fully Tipped	9 573 mm (31 ft. 5 in.)	M	Bin Length	4 709 mm (15 ft. 5 in.)
B	Height - Transport Position	3 454 mm (11 ft. 4 in.)	N	Load over Height	2 533 mm (8 ft. 3 in.)
B1	Height - Rotating Beacon	3 595 mm (12 ft.)	O	Rear Axle Centre to Bin Rear	1 449 mm (4 ft. 9 in.)
B2	Height - Load Light	3 689 mm (12 ft. 1 in.)	P	Mid Axle Centre to Rear Axle Centre	1 600 mm (5 ft. 2 in.)
B3	Bin Height - Fully Tipped	5 743 mm (18 ft. 10 in.)	Q	Mid Axle Centre to Front Axle Centre	3 865 mm (12 ft. 8 in.)
C	Width over Mudguards	2 568 mm (8 ft. 5 in.)	R	Front Axle Centre to Machine Front	2 357 mm (7 ft. 8 in.)
D	Width over Tyres - 20.5R25	2 550 mm (8 ft. 4 in.)	S	Front Axle Centre to Artic Centre	1 361 mm (4 ft. 5 in.)
E	Tyre Track Width - 20.5R25	2 022 mm (6 ft. 7 in.)	T	Approach Angle	26 °
F	Width over Bin	2 540 mm (8 ft. 4 in.)	U	Maximum Bin Tip Angle	70 °
F1	Width over Tail Lights	2 582 mm (8 ft. 5 in.)	V	Maximum Articulation Angle	45 °
G	Width over Mirrors - Operating Position	3 260 mm (10 ft. 8 in.)	W	Front Tie Down Height	1 028 mm (3 ft. 4 in.)
H	Ground Clearance - Artic	479 mm (1 ft. 6 in.)	X	Machine Lifting Centres	8 845 mm (29 ft.)
I	Ground Clearance - Front Axle	444 mm (1 ft. 5 in.)	Y	Inner Turning Circle Radius - 23.5R25	3 954 mm (12 ft. 11 in.)
J	Ground Clearance - Bin Fully Tipped	704 mm (2 ft. 3 in.)	Z	Outer Turning Circle Radius - 23.5R25	7 309 mm (23 ft. 11 in.)
K	Ground Clearance - Under Run Bar	535 mm (1 ft. 9 in.)			

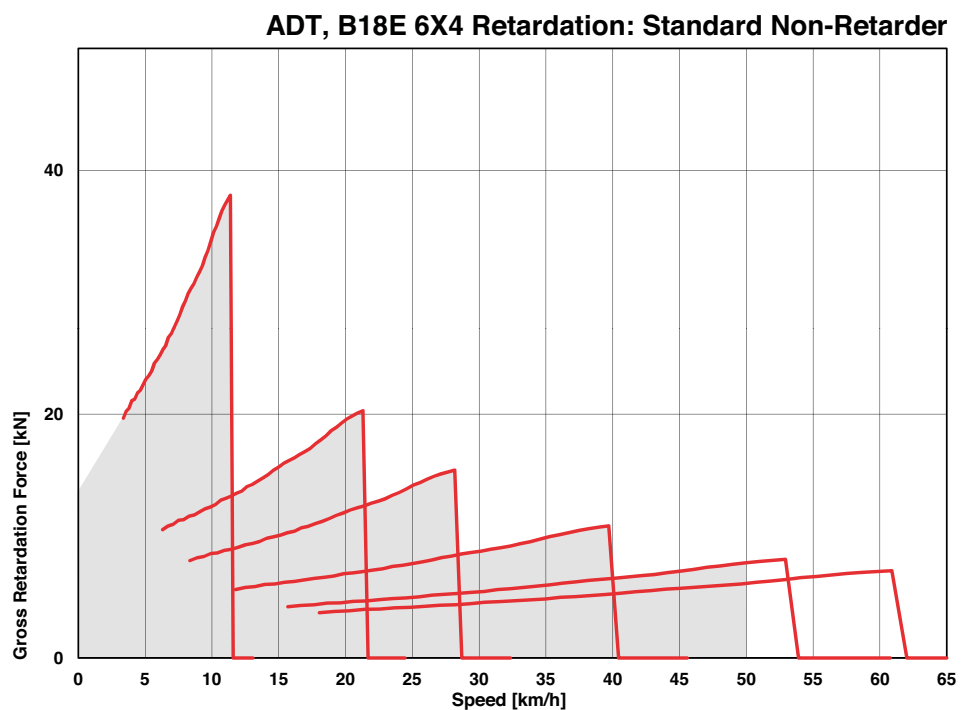
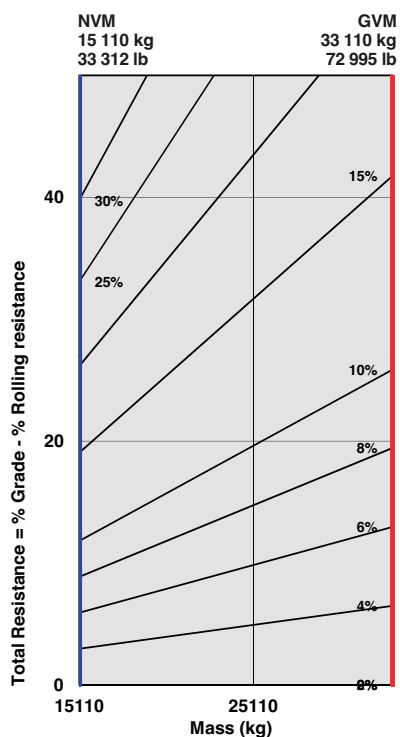
Gradeability/Rimpull

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.



B20E Articulated Dump Truck



ENGINE

Manufacturer
Mercedes Benz

Model
OM924LA

Configuration
Inline 4, turbocharged and intercooled.

Net Power
163 kW (219 hp) @ 2 200 rpm in accordance with UN ECE R120

Gross Torque
810 Nm (597 lbft)
@ 1 200 -1 600 rpm

Displacement
4,80 litres (293 cu.in)

Auxiliary Brake
Exhaust Valve Brake
Engine Valve Brake

Fuel Tank Capacity
195 litres (53 US gal)

Certification
OM924LA meets Euro III emissions regulations

TRANSMISSION

Manufacturer
Allison

Model
Standard Non Retarder: 3000P
ORS
Optional Retarder: 3000PR 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 Layout
Three in-line helical gears

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

AXLES

Manufacturer
Bell

Model
15T

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 dry disc brakes with 8 calipers (4F, 2M, 2R).

Maximum brake force:
244 kN (54 720 lbf)

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

Maximum brake force:
182 kN (40 802 lbf)

Auxiliary Brake
Automatic exhaust valve brake and engine valve brake. Optional automatic, adjustable, integral, hydrodynamic transmission retarder. Output shaft speed dependant.

Total Retardation Power
99kW (133 hp) Continuous non-retarder.
144kW (193 hp) Continuous retarder.
99kW (133 hp) Maximum non-retarder.
505kW (677 hp) Maximum retarder.

WHEELS

Type
Radial Earthmover

Tyre
20.5 R 25

FRONT SUSPENSION

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

REAR SUSPENSION

Pivoting walking beams with laminated rubber suspension blocks

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
155 l/min (41,5 gal/min)

Pressure
27 MPa (3 915 psi)

Filter
5 microns

STEERING SYSTEM

Double-acting cylinders with ground driven emergency steering pump.

Lock to lock turns
4,32

Steering Angle
45°

DUMPING SYSTEM

Two double-acting, single stage, dump cylinders

Raise Time
10 s

Lowering Time
5,5 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
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
28 V 80 A

VEHICLE SPEEDS

1st	11 km/h	7 mph
2nd	20 km/h	12 mph
3rd	27 km/h	17 mph
4th	38 km/h	24 mph
5th	50 km/h	31 mph
6th	50 km/h	31 mph
R	7 km/h	4 mph

CAB

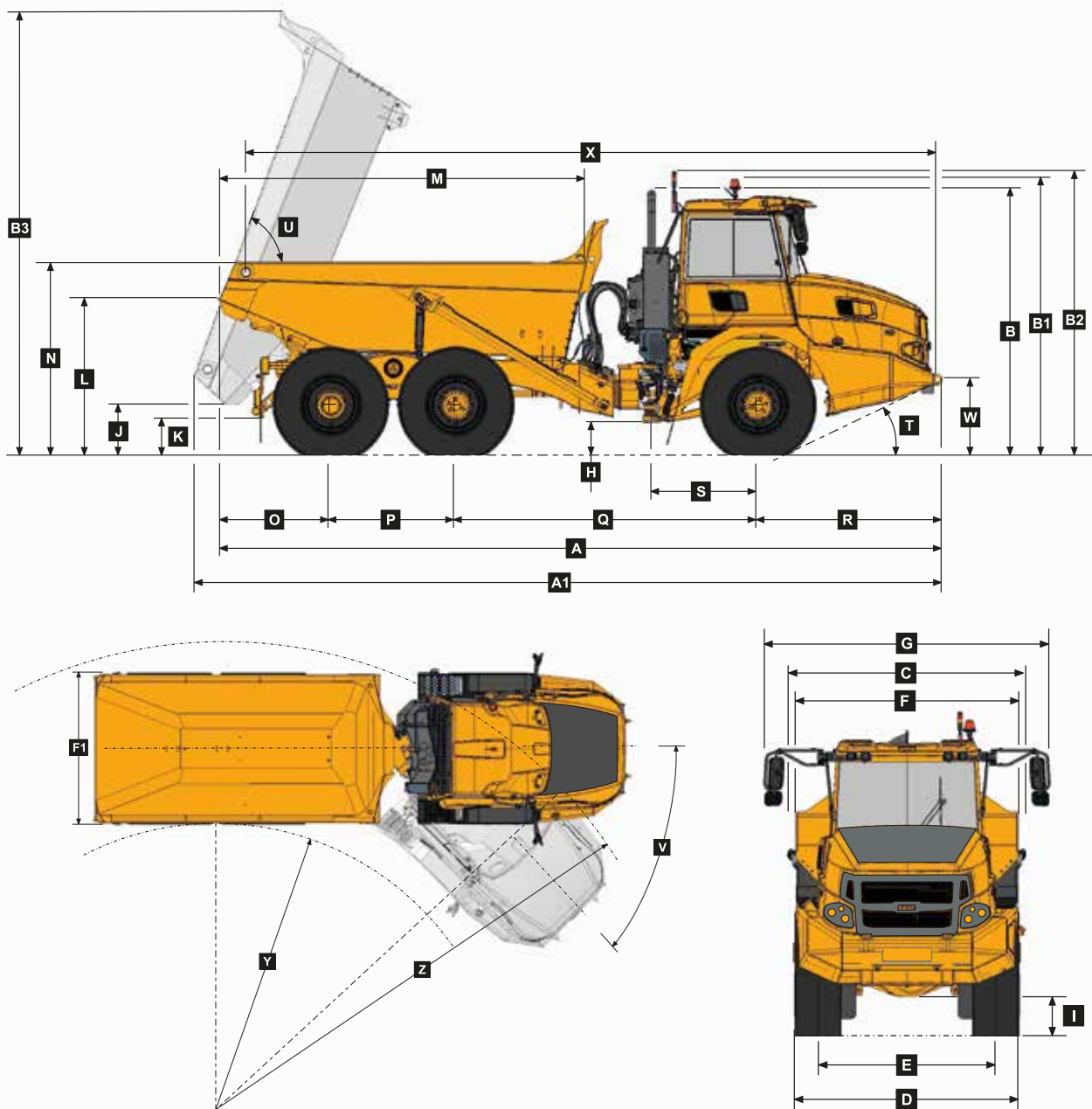
ROPS/FOPS certified 71 dBA internal sound level measured according to ISO 6396.

Load Capacity & Ground Pressure

OPERATING WEIGHTS				GROUND PRESSURE		LOAD CAPACITY		OPTION WEIGHTS	
UNLADEN*		LADEN*		LADEN (No sinkage)		BODY	m ³ (yd ³)		kg (lb)
	Tare kg (lb)**		ISO 6016 kg (lb)***	20.5 R 25	kPa (Psi)	Struck Capacity	9 (11)	Bin liner	493 (1 087)
Front	7 970 (17 575)	Front	9 770 (21 544)	Front	223 (32)	SAE 2:1 Capacity	11 (14,5)	Extra wheelset	355 (783)
Middle	3 941 (8 690)	Middle	11 931 (26 308)	Middle	300 (44)	SAE 1:1 Capacity	13,5 (17,5)		
Rear	3 531 (7 786)	Rear	11 741 (25 889)	Rear	300 (44)				
Total	15 443 (34 051)	Total	33 443 (73 741)			Rated Payload	18 000 kg		
	ISO 6016 kg (lb)***			LADEN (15% sinkage)			(39 690 lbs)		
Front	7 985 (17 607)			20.5 R 25	kPa (Psi)				
Middle	4 042 (8 913)			Front	203 (29)				
Rear	3 632 (8 008)			Middle	248 (36)				
Total	15 659 (34 528)			Rear	248 (36)				

* Includes additional mass. ** No fuel, no operator. *** Full fuel and operator

Dimensions

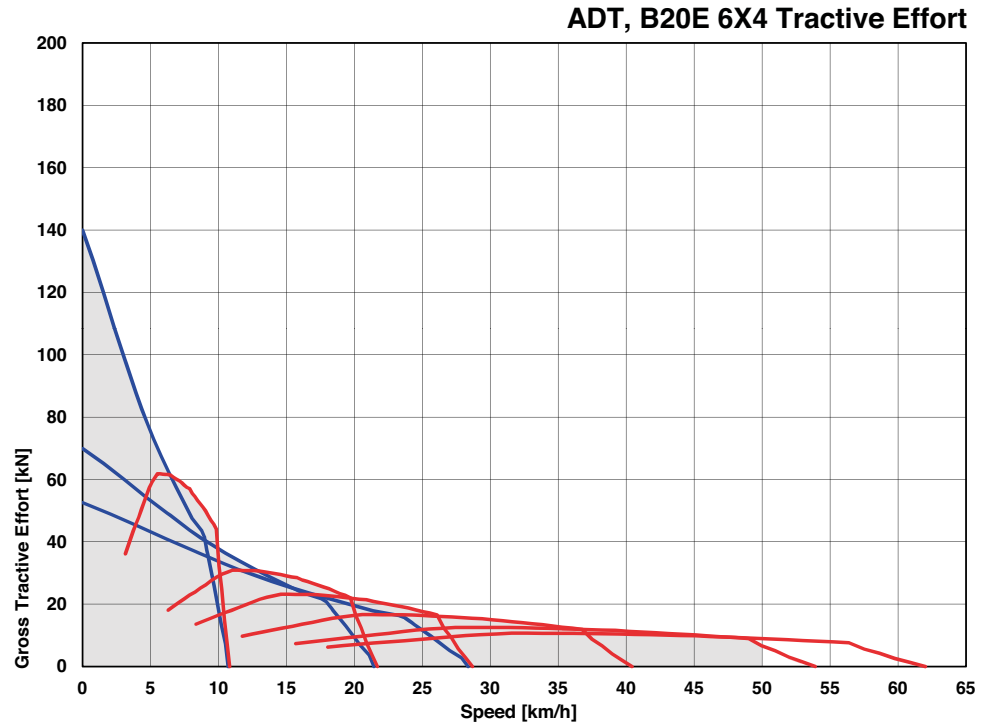
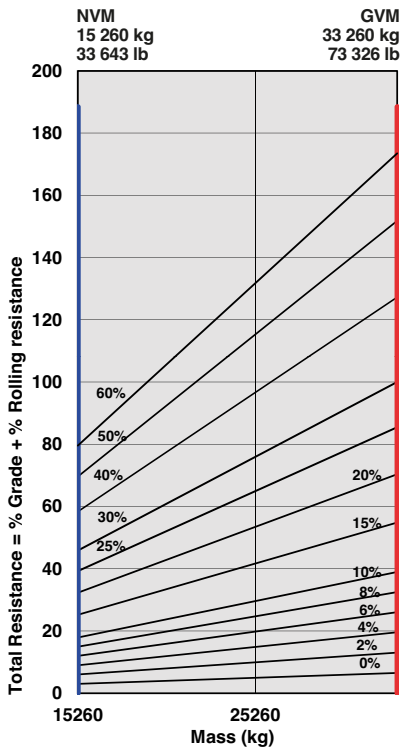


Machine Dimensions

A	Length - Transport Position	9 271 mm (30 ft. 5 in.)	L	Bin Lip Height - Transport Position	2 060 mm (6 ft. 9 in.)
A1	Length - Bin Fully Tipped	9 573 mm (31 ft. 5 in.)	M	Bin Length	4 709 mm (15 ft. 5 in.)
B	Height - Transport Position	3 454 mm (11 ft. 4 in.)	N	Load over Height	2 533 mm (8 ft. 3 in.)
B1	Height - Rotating Beacon	3 595 mm (12 ft.)	O	Rear Axle Centre to Bin Rear	1 449 mm (4 ft. 9 in.)
B2	Height - Load Light	3 689 mm (12 ft. 1 in.)	P	Mid Axle Centre to Rear Axle Centre	1 600 mm (5 ft. 2 in.)
B3	Bin Height - Fully Tipped	5 743 mm (18 ft. 10 in.)	Q	Mid Axle Centre to Front Axle Centre	3 865 mm (12 ft. 8 in.)
C	Width over Mudguards	2 568 mm (8 ft. 5 in.)	R	Front Axle Centre to Machine Front	2 357 mm (7 ft. 8 in.)
D	Width over Tyres - 20.5R25	2 550 mm (8 ft. 4 in.)	S	Front Axle Centre to Artic Centre	1 361 mm (4 ft. 5 in.)
E	Tyre Track Width - 20.5R25	2 022 mm (6 ft. 7 in.)	T	Approach Angle	26°
F	Width over Bin	2 540 mm (8 ft. 4 in.)	U	Maximum Bin Tip Angle	70°
F1	Width over Tail Lights	2 582 mm (8 ft. 5 in.)	V	Maximum Articulation Angle	45°
G	Width over Mirrors - Operating Position	3 260 mm (10 ft. 8 in.)	W	Front Tie Down Height	1 028 mm (3 ft. 4 in.)
H	Ground Clearance - Artic	479 mm (1 ft. 6 in.)	X	Machine Lifting Centres	8 845 mm (29 ft.)
I	Ground Clearance - Front Axle	444 mm (1 ft. 5 in.)	Y	Inner Turning Circle Radius - 23.5R25	3 954 mm (12 ft. 11 in.)
J	Ground Clearance - Bin Fully Tipped	704 mm (2 ft. 3 in.)	Z	Outer Turning Circle Radius - 23.5R25	7 309 mm (23 ft. 11 in.)
K	Ground Clearance - Under Run Bar	535 mm (1 ft. 9 in.)			

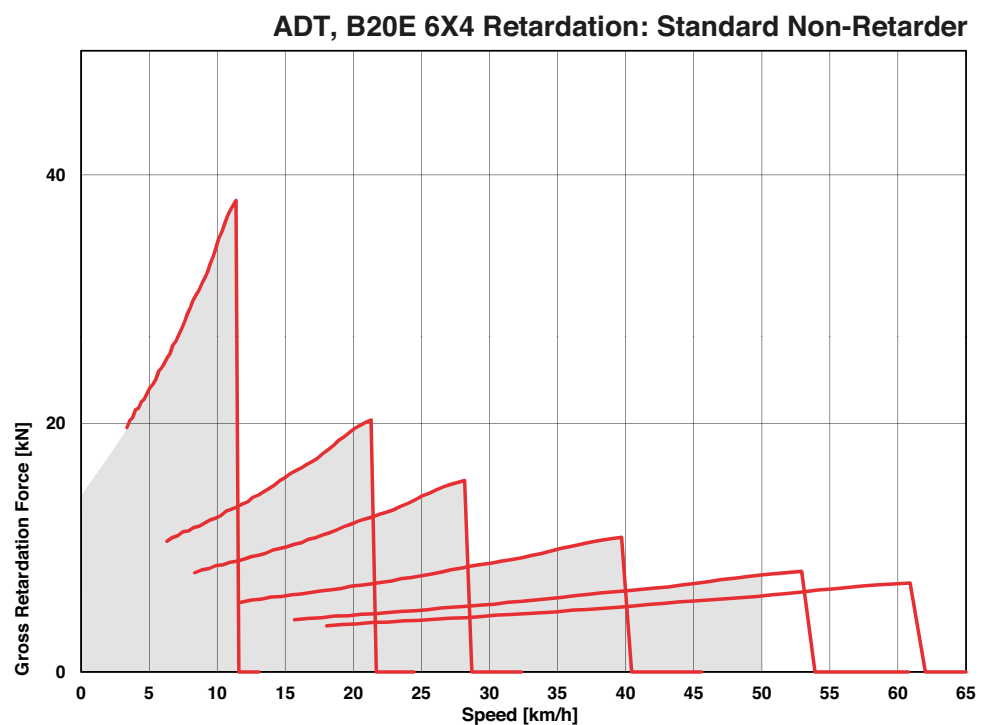
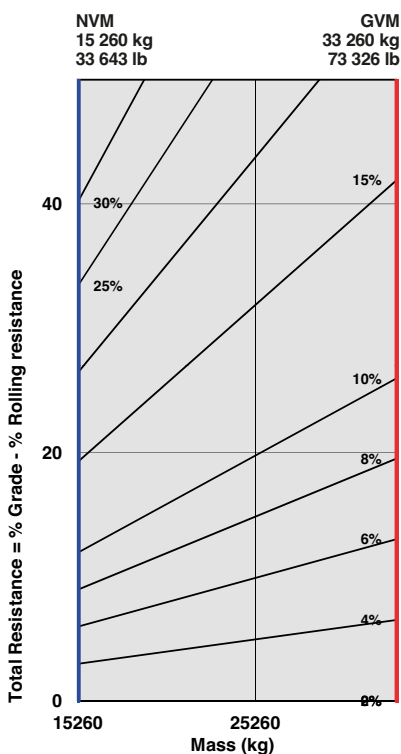
Gradeability/Rimpull

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.



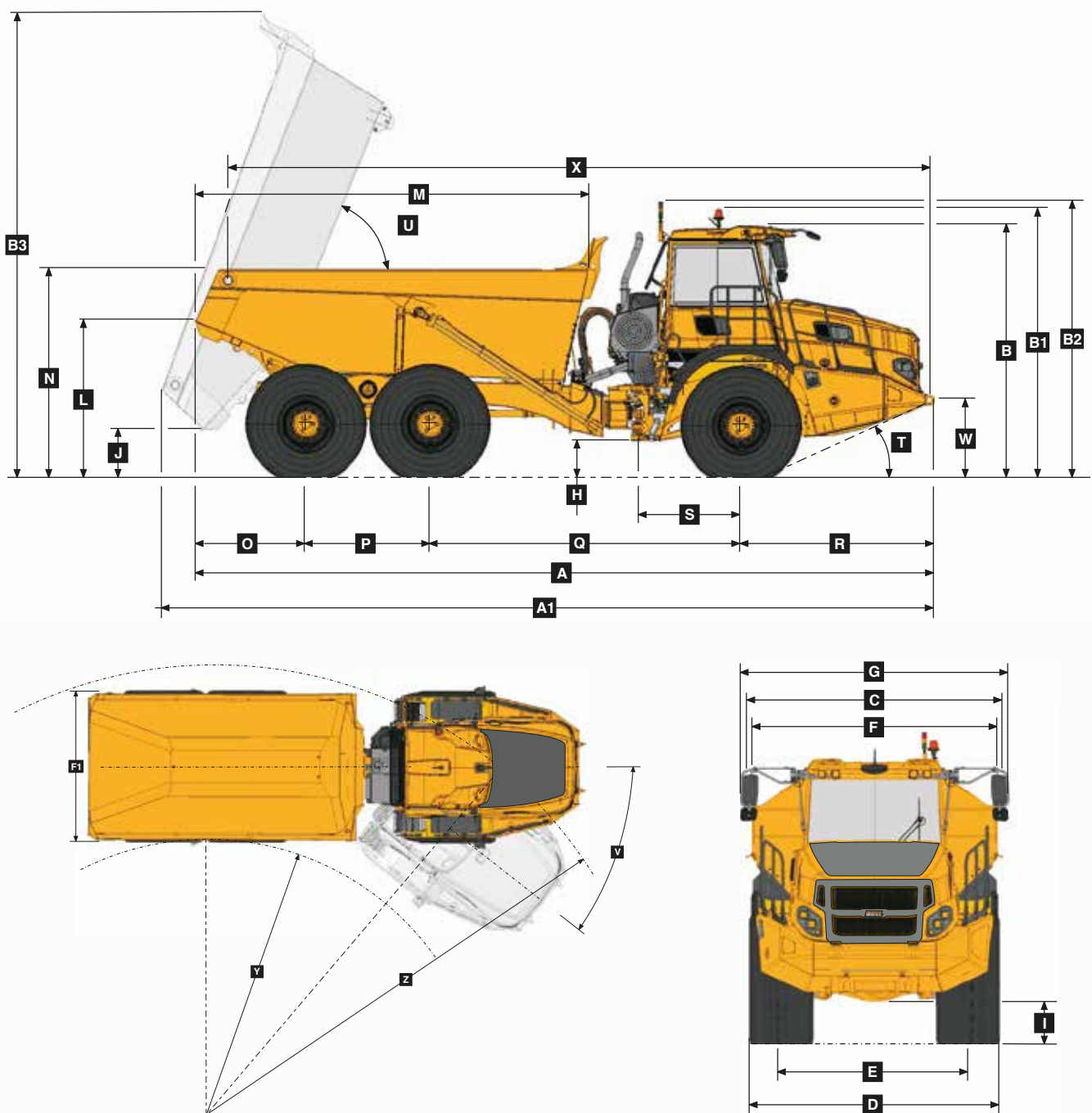
B25E 6x4 Supertruck Articulated Dump Truck

<div>ENGINE</div> <div>Manufacturer Mercedes Benz</div> <div>Model OM906LA</div> <div>Configuration Inline 6, turbocharged and intercooled.</div> <div>Net Power 205 kW (275 hp) @ 2 200 rpm in accordance with UN ECE R120</div> <div>Gross Torque 1 100 Nm (811 lbft) @ 1 200 -1 600 rpm</div> <div>Displacement 6,37 litres (389 cu.in)</div> <div>Auxiliary Brake Exhaust Valve Brake Engine Valve Brake</div> <div>Fuel Tank Capacity 379 litres (100 US gal)</div> <div>Certification OM906LA meets EU Stage II / EPA Tier 2 emissions regulations</div>	<div>TRANSFER CASE</div> <div>Manufacturer Kessler</div> <div>Series W1400</div> <div>Layout Remote mounted</div> <div>Gear Layout Three in-line helical gears</div> <div>Output Differential Interaxle 33/67 proportional differential. Automatic inter-axle differential lock.</div> <div>AXLES</div> <div>Manufacturer Bell</div> <div>Model 15T</div> <div>Differential High input limited slip differential with spiral bevel gears</div> <div>Final Drive Outboard heavy duty planetary on all axles</div>	<div>WHEELS</div> <div>Type Radial Earthmover</div> <div>Tyre 20.5 R 25</div> <div>FRONT SUSPENSION Semi-independent, leading A-frame supported by hydro-pneumatic suspension struts.</div> <div>REAR SUSPENSION Pivoting walking beams with laminated rubber suspension blocks</div> <div>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.</div> <div>Pump Type Variable displacement load sensing piston</div> <div>Flow 165 l/min (44 gal/min)</div> <div>Pressure 28 Mpa (4 061 psi)</div> <div>Filter 5 microns</div> <div>STEERING SYSTEM Double acting cylinders, with ground-driven emergency steering pump</div> <div>Lock to lock turns 4.1</div> <div>Steering Angle 45°</div> <div>DUMPING SYSTEM Two double-acting, single stage, dump cylinders</div> <div>Raise Time 14 s</div> <div>Lowering Time 7 s</div>	<div>Tipping Angle 70° standard, or any lower angle programmable</div> <div>PNEUMATIC SYSTEM Air drier with heater and integral unloader valve, serving park brake and auxiliary functions.</div> <div>System Pressure 810 kPa (117 psi)</div> <div>ELECTRICAL SYSTEM</div> <div>Voltage 24 V</div> <div>Battery Type Two AGM (Absorption Glass Mat) type</div> <div>Battery Capacity 2 X 75 Ah</div> <div>Alternator Rating 28 V 80 A</div> <div>VEHICLE SPEEDS</div> <table><tr><td>1st</td><td>9 km/h</td><td>6 mph</td></tr><tr><td>2nd</td><td>18 km/h</td><td>11 mph</td></tr><tr><td>3rd</td><td>27 km/h</td><td>17 mph</td></tr><tr><td>4th</td><td>41 km/h</td><td>25 mph</td></tr><tr><td>5th</td><td>50 km/h</td><td>31 mph</td></tr><tr><td>6th</td><td>50 km/h</td><td>31 mph</td></tr><tr><td>R</td><td>8 km/h</td><td>5 mph</td></tr></table> <div>CAB ROPS/FOPS certified 72 dBA internal sound level measured according to ISO 6396.</div>	1st	9 km/h	6 mph	2nd	18 km/h	11 mph	3rd	27 km/h	17 mph	4th	41 km/h	25 mph	5th	50 km/h	31 mph	6th	50 km/h	31 mph	R	8 km/h	5 mph
1st	9 km/h	6 mph																						
2nd	18 km/h	11 mph																						
3rd	27 km/h	17 mph																						
4th	41 km/h	25 mph																						
5th	50 km/h	31 mph																						
6th	50 km/h	31 mph																						
R	8 km/h	5 mph																						
<div>TRANSMISSION</div> <div>Manufacturer Allison</div> <div>Model 3500PR ORS</div> <div>Configuration Fully automatic planetary transmission with integral retarder.</div> <div>Layout Engine mounted</div> <div>Gear layout Constant meshing planetary gears, clutch operated</div> <div>Gears 6 Forward, 1 Reverse</div> <div>Clutch Type Hydraulically operated multi-disc</div> <div>Control Type Electronic</div> <div>Torque Control Hydrodynamic with lock-up in all gears</div>	<div>BRAKING SYSTEM</div> <div>Service Brake Dual circuit, full hydraulic actuation dry disc brakes with 8 calipers (4F, 2M, 2R).</div> <div>Maximum brake force: 194 kN (43 613 lbf)</div> <div>Park & Emergency Spring applied, air released driveline mounted disc.</div> <div>Maximum brake force: 170 kN (38 217 lbf)</div> <div>Auxiliary Brake Automatic exhaust valve brake and engine valve brake. Automatic, adjustable, integral, hydrodynamic transmission retarder. Output shaft speed dependant.</div> <div>Total Retardation Power 250 kW (335 hp) Continuous. 539 kW (723 hp) Maximum.</div>																							

Load Capacity & Ground Pressure

OPERATING WEIGHTS		GROUND PRESSURE		LOAD CAPACITY		OPTION WEIGHTS	
UNLADEN	kg (lb)	LADEN (No sinkage - Total Contact Area)		BODY	m³ (yd³)		kg (lb)
Front	9 640 (21 256)	20.5 R 25	kPa (Psi)	Struck Capacity	12 (15,7)	Extra wheelset	370 (816)
Middle	4 190 (9 239)	Front	305 (44)	SAE 2:1 Capacity	15 (19,5)		
Rear	3 930 (8 666)	Middle	355 (51)	SAE 1:1 Capacity	18 (23,5)		
Total	17 760 (39 161)	Rear	355 (51)				
				Rated Payload	24 000 kg (52 911 lbs)		
LADEN	kg (lb)	LADEN (15% sinkage)					
Front	12 372 (27 276)	20.5 R 25	kPa (Psi)				
Middle	14 760 (32 546)	Front	258 (37)				
Rear	14 630 (32 259)	Middle	301 (44)				
Total	41 760 (92 081)	Rear	301 (44)				

Dimensions

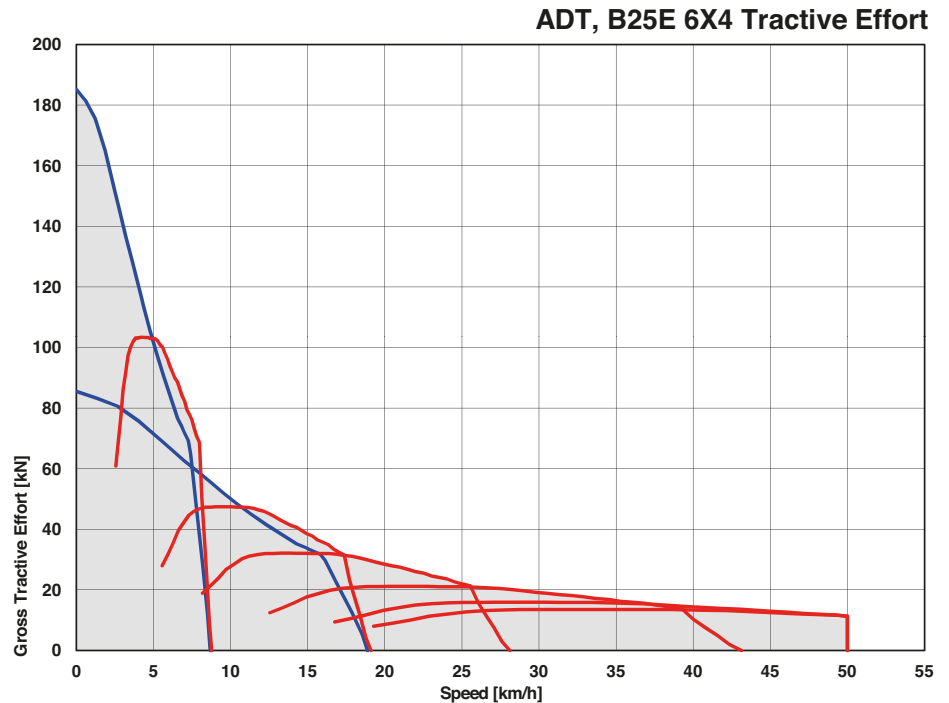
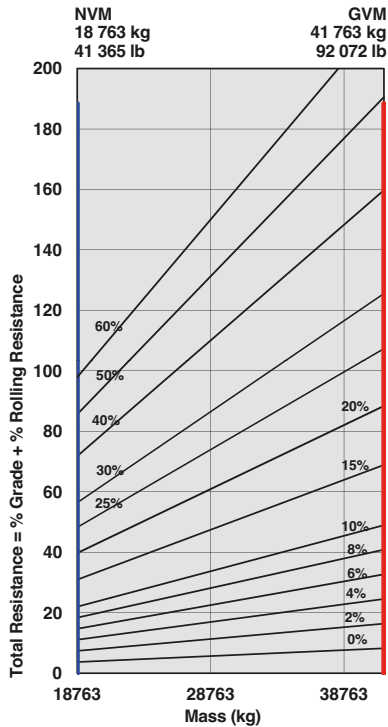


Machine Dimensions

A	Length - Transport Position	9 953 mm (32 ft. 7 in.)	L	Bin Lip Height - Transport Position	2 116 mm (6 ft. 11 in.)
A1	Length - Bin Fully Tipped	10 311 mm (33 ft. 9 in.)	M	Bin Length	5 272 mm (17 ft. 3 in.)
B	Height - Transport Position	3 373 mm (11 ft.)	N	Load over Height	2 703 mm (8 ft. 10 in.)
B1	Height - Rotating Beacon	3 598 mm (11 ft. 9 in.)	O	Rear Axle Centre to Bin Rear	1 500 mm (4 ft. 11 in.)
B2	Height - Load Light	3 693 mm (12 ft. 1 in.)	P	Mid Axle Centre to Rear Axle Centre	1 670 mm (5 ft. 5 in.)
B3	Bin Height - Fully Tipped	6 198 mm (20 ft. 4 in.)	Q	Mid Axle Centre to Front Axle Centre	4 181 mm (13 ft. 8 in.)
C	Width over Mudguards	2 985 mm (9 ft. 9 in.)	R	Front Axle Centre to Machine Front	2 602 mm (8 ft. 6 in.)
D	Width over Tyres - 20.5R25	2 550 mm (8 ft. 4 in.)	S	Front Axle Centre to Artic Centre	1 362 mm (4 ft. 5 in.)
E	Tyre Track Width - 20.5R25	2 022 mm (6 ft. 7 in.)	T	Approach Angle	24°
F	Width over Bin	2 540 mm (8 ft. 4 in.)	U	Maximum Bin Tip Angle	70°
G	Width over Mirrors - Operating Position	3 260 mm (10 ft. 8 in.)	V	Maximum Articulation Angle	45°
H	Ground Clearance - Artic	490 mm (1 ft. 7 in.)	W	Front Tie Down Height	1 024 mm (3 ft. 4 in.)
I	Ground Clearance - Front Axle	435 mm (1 ft. 5 in.)	X	Machine Lifting Centres	9 477 mm (31 ft. 1 in.)
J	Ground Clearance - Bin Fully Tipped	615 mm (2 ft.)	Y	Inner Turning Circle Radius - 20.5R25	4 155 mm (13 ft. 7 in.)
K	Ground Clearance - Under Run Bar	N/A	Z	Outer Turning Circle Radius - 20.5R25	7 955 mm (26 ft. 1 in.)

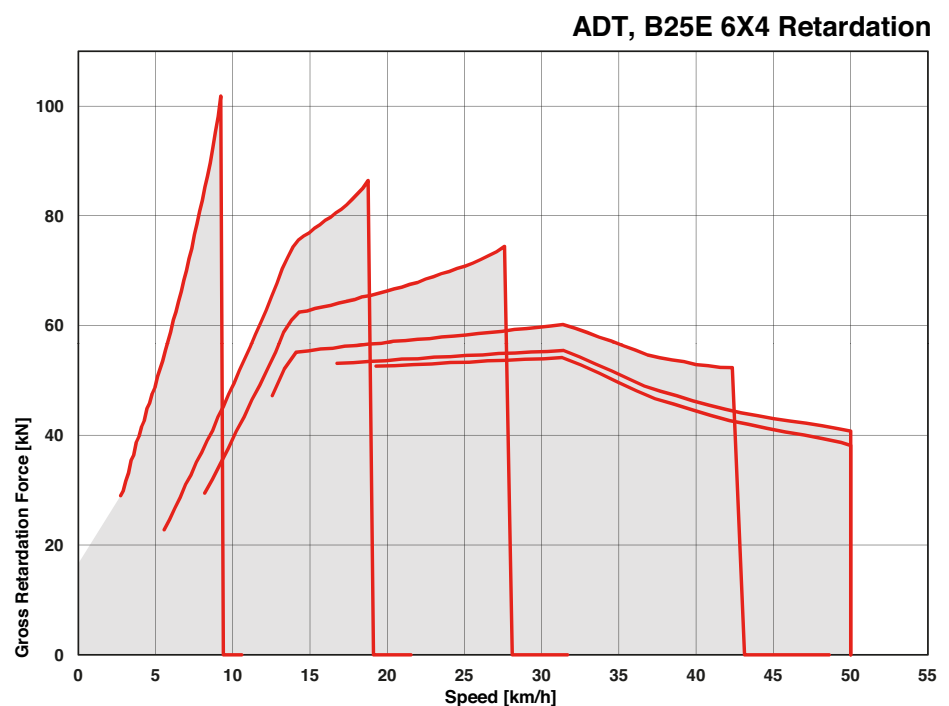
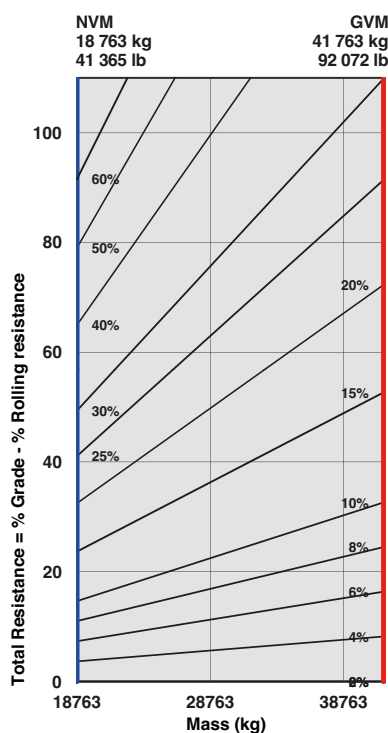
Gradeability/Rimpull

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.



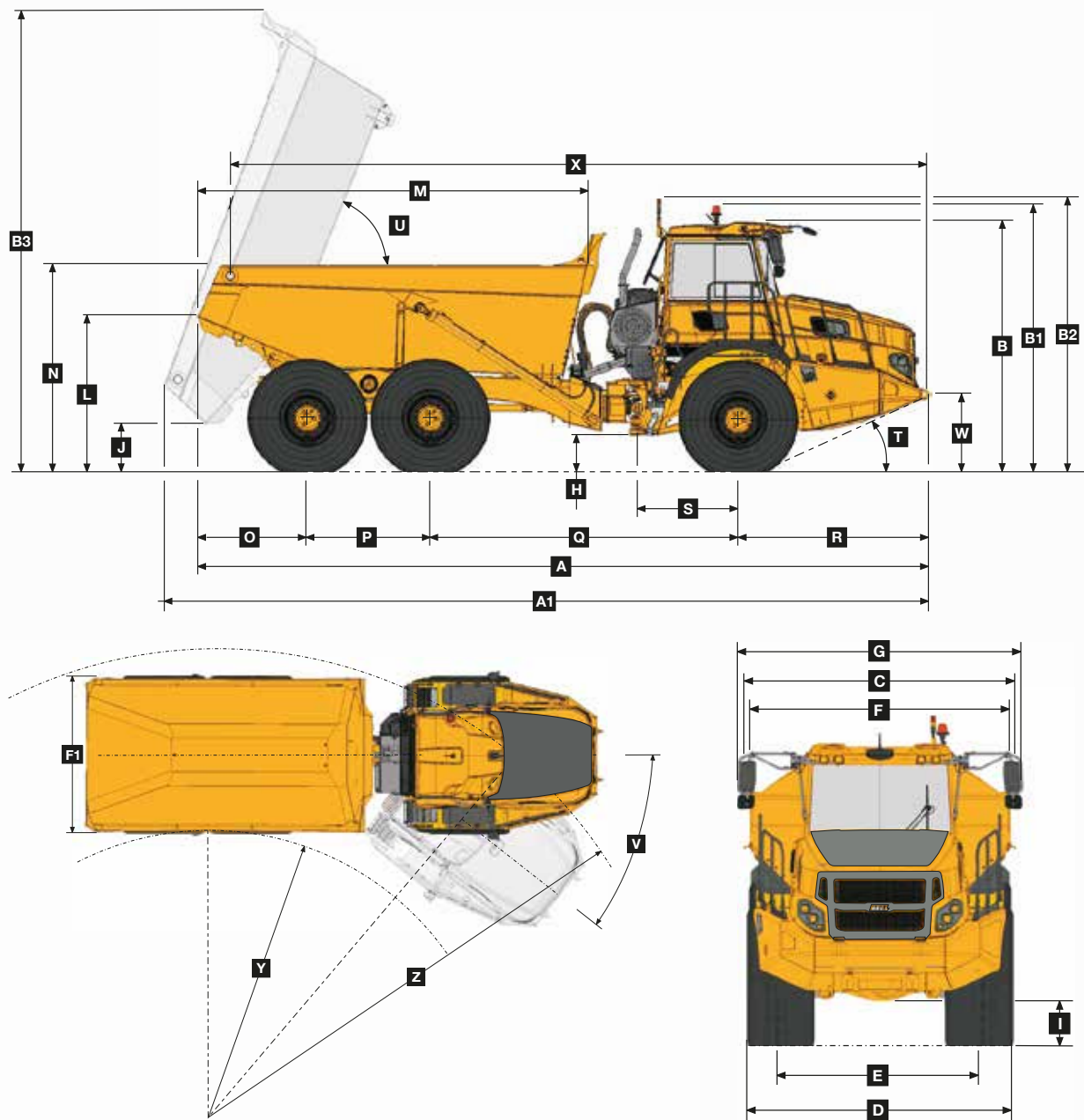
B25E Articulated Dump Truck

ENGINE	TRANSFER CASE	WHEELS	
Manufacturer Mercedes Benz	Manufacturer Kessler	Type Radial Earthmover	Tipping Angle 70° standard, or any lower angle programmable
Model OM906LA	Series W1400	Tyre 23.5 R 25	
Configuration Inline 6, turbocharged and intercooled.	Layout Remote mounted	FRONT SUSPENSION Semi-independent, leading A-frame supported by hydro-pneumatic suspension struts	PNEUMATIC SYSTEM Air drier with heater and integral unloader valve, serving park brake and auxiliary functions.
Net Power 205 kW (275 hp) @ 2 200 rpm in accordance with UN ECE R120	Gear Layout Three in-line helical gears		System Pressure 810 kPa (117 psi)
Gross Torque 1 100 Nm (811 lbft) @ 1 200 -1 600 rpm	Output Differential Interaxle 33/67 proportional differential. Automatic inter-axle differential lock.	REAR SUSPENSION Pivoting walking beams with laminated rubber suspension blocks	ELECTRICAL SYSTEM Voltage 24 V
Displacement 6,37 litres (389 cu.in)	AXLES Manufacturer Bell	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.	Battery Type Two AGM (Absorption Glass Mat) type
Auxiliary Brake Exhaust Valve Brake Engine Valve Brake	Model 15T	Pump Type Variable displacement load sensing piston	Battery Capacity 2 X 75 Ah
Fuel Tank Capacity 379 litres (100 US gal)	Differential High input limited slip differential with spiral bevel gears.	Flow 165 l/min (44 gal/min)	Alternator Rating 28 V 80 A
Certification OM906LA meets EU Stage II/EPA Tier 2 emissions regulations.	Final Drive Outboard heavy duty planetary on all axles	Pressure 28 Mpa (4 061 psi)	VEHICLE SPEEDS
		Filter 5 microns	1st 7 km/h 4 mph 2nd 15 km/h 9 mph 3rd 23 km/h 14 mph 4th 35 km/h 22 mph 5th 47 km/h 29 mph 6th 50 km/h 31 mph R 7 km/h 4 mph
TRANSMISSION Manufacturer Allison	BRAKING SYSTEM Service Brake Dual circuit, full hydraulic actuation dry disc brakes with 8 calipers (4F, 2M, 2R).	STEERING SYSTEM Double acting cylinders, with ground-driven emergency steering pump.	CAB ROPS/FOPS certified 72 dBA internal sound level measured according to ISO 6396.
Model 3500PR ORS	Maximum brake force: 184 kN (41 400 lbf)	Lock to lock turns 4,1	
Configuration Fully automatic planetary transmission with integral retarder.	Park & Emergency Spring applied, air released driveline mounted disc.	Steering Angle 45°	
Layout Engine mounted	Maximum brake force: 195 kN (43 900 lbf)	DUMPING SYSTEM Two double-acting, single stage, dump cylinders	
Gear layout Constant meshing planetary gears, clutch operated	Auxiliary Brake Automatic exhaust valve brake and engine valve brake. Automatic, adjustable, integral, hydrodynamic transmission retarder. Output shaft speed dependant.	Raise Time 14 s	
Gears 6 Forward, 1 Reverse	Total Retardation Power 250kW (335 hp) Continuous 539 kW (723 hp) Maximum	Lowering Time 7 s	
Clutch Type Hydraulically operated multi-disc			
Control Type Electronic			
Torque Control Hydrodynamic with lock-up in all gears.			

Load Capacity & Ground Pressure

OPERATING WEIGHTS		GROUND PRESSURE		LOAD CAPACITY		OPTION WEIGHTS	
UNLADEN	kg (lb)	LADEN (No sinkage)		BODY	m³ (yd³)		kg (lb)
Front	9 632 (21 235)	23.5 R 25	kPa (Psi)	Struck Capacity	11,5 (15)	Bin liner	1 050 (2 314)
Middle	5 568 (12 275)	Front	246 (36)	SAE 2:1 Capacity	15 (19,5)	Tailgate	769 (1 695)
Rear	5 528 (12 187)	Middle	337 (49)	SAE 1:1 Capacity	18 (23,5)	Extra wheelset	565 (1 246)
Total	20 728 (45 697)	Rear	337 (49)	SAE 2:1 Capacity with tailgate	15 (19,6)		
LADEN	kg (lb)	LADEN (15% sinkage)					
Front	12 372 (27 276)	23.5 R 25	kPa (Psi)	Rated Payload	24 000 kg		
Middle	16 198 (35 710)	Front	230 (33)		(52 920 lbs)		
Rear	16 158 (35 622)	Middle	283 (41)				
Total	44 728 (98 608)	Rear	283 (41)				

Dimensions

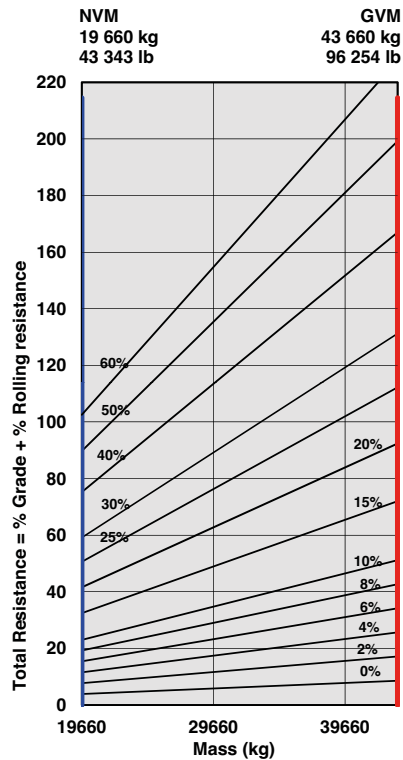


Machine Dimensions

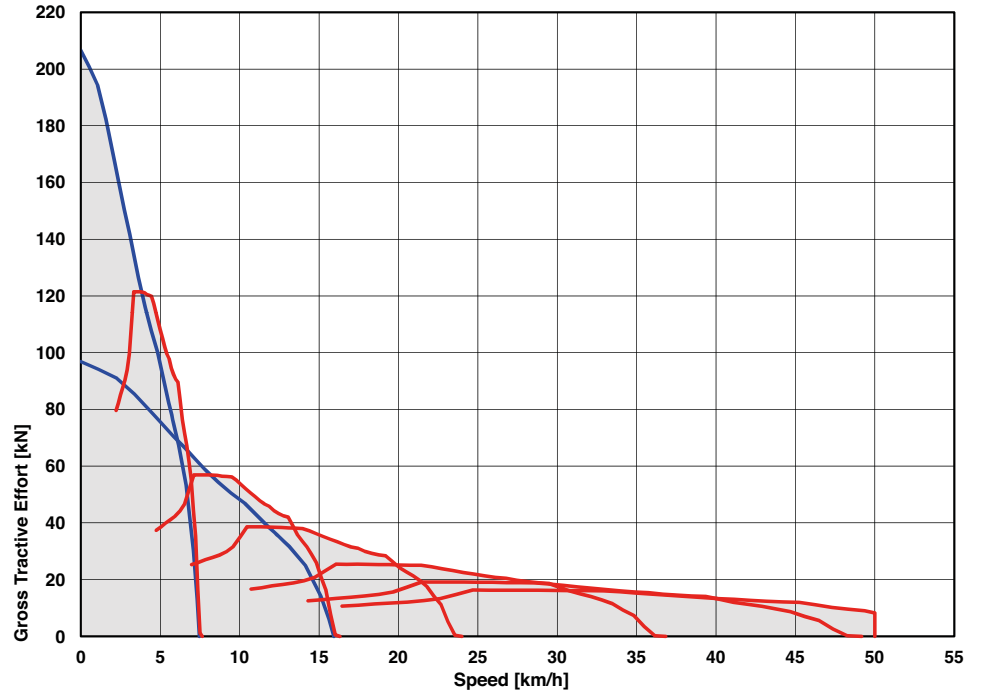
A	Length - Transport Position	9 953 mm (32 ft. 7 in.)	L	Bin Lip Height - Transport Position	2 176 mm (7 ft. 1 in.)
A1	Length - Bin Fully Tipped	10 395 mm (34 ft. 1 in.)	M	Bin Length	5 294 mm (17 ft. 4 in.)
B	Height - Transport Position	3 426 mm (11 ft. 2 in.)	N	Load over Height	2 864 mm (9 ft. 4 in.)
B1	Height - Rotating Beacon	3 661 mm (12 ft.)	O	Rear Axle Centre to Bin Rear	1 500 mm (4 ft. 11 in.)
B2	Height - Load Light	3 747 mm (12 ft. 3 in.)	P	Mid Axle Centre to Rear Axle Centre	1 670 mm (5 ft. 5 in.)
B3	Bin Height - Fully Tipped	6 307 mm (20 ft. 8 in.)	Q	Mid Axle Centre to Front Axle Centre	4 181 mm (13 ft. 8 in.)
C	Width over Mudguards	2 985 mm (9 ft. 9 in.)	R	Front Axle Centre to Machine Front	2 602 mm (8 ft. 6 in.)
D	Width over Tyres - 23.5R25	2 940 mm (9 ft. 7 in.)	S	Front Axle Centre to Artic Centre	1 362 mm (4 ft. 5 in.)
D1	Width over Tyres - 750/65 R25	2 998 mm (9 ft. 10 in.)	T	Approach Angle	25°
E	Tyre Track Width - 23.5R25	2 356 mm (7 ft. 8 in.)	U	Maximum Bin Tip Angle	70°
E1	Tyre Track Width - 750/65 R25	2 260 mm (7 ft. 4 in.)	V	Maximum Articulation Angle	45°
F	Width over Bin	2 968 mm (9 ft. 8 in.)	W	Front Tie Down Height	1 075 mm (3 ft. 6 in.)
F1	Width over Tailgate	2 998 mm (9 ft. 10 in.)	X	Machine Lifting Centres	9 443 mm (30 ft. 11 in.)
G	Width over Mirrors - Operating Position	3 260 mm (10 ft. 8 in.)	Y	Inner Turning Circle Radius - 23.5R25	4 110 mm (13 ft. 5 in.)
H	Ground Clearance - Artic	537 mm (21.14 in.)	Y1	Inner Turning Circle Radius - 750/65 R25	4 081 mm (13 ft. 4 in.)
I	Ground Clearance - Front Axle	488 mm (19.21 in.)	Z	Outer Turning Circle Radius - 23.5R25	8 000 mm (26 ft. 2 in.)
J	Ground Clearance - Bin Fully Tipped	670 mm (26.38 in.)	Z1	Outer Turning Circle Radius - 750/65 R25	8 029 mm (26 ft. 4 in.)
K	Ground Clearance - Under Run Bar	N/A			

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.

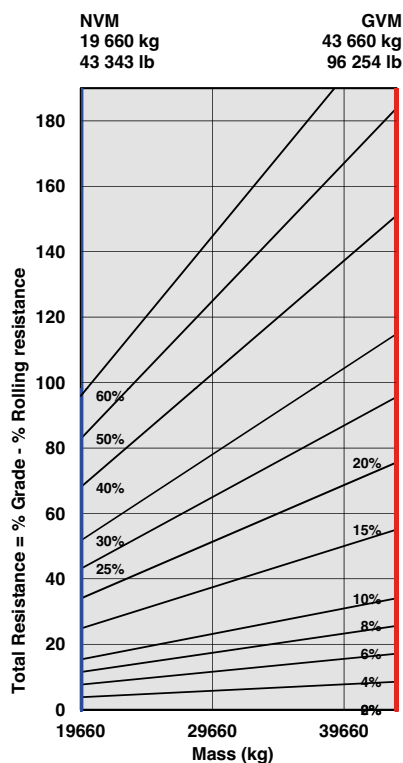


ADT, B25E 6X6 - Tractive Effort

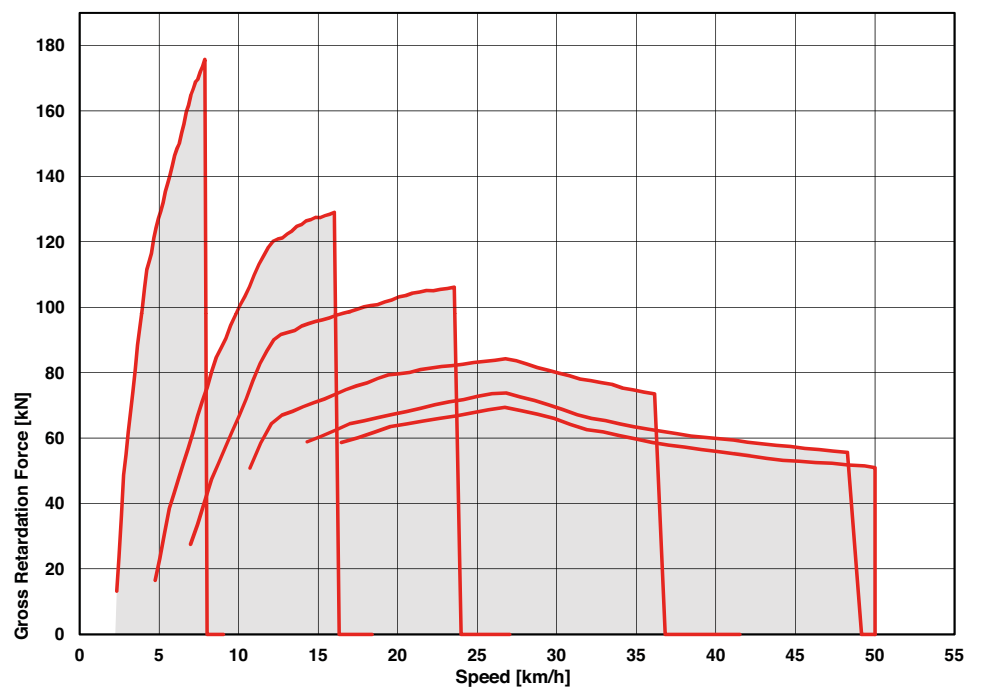


Retardation

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.



ADT, B25E 6X6 - Retardation



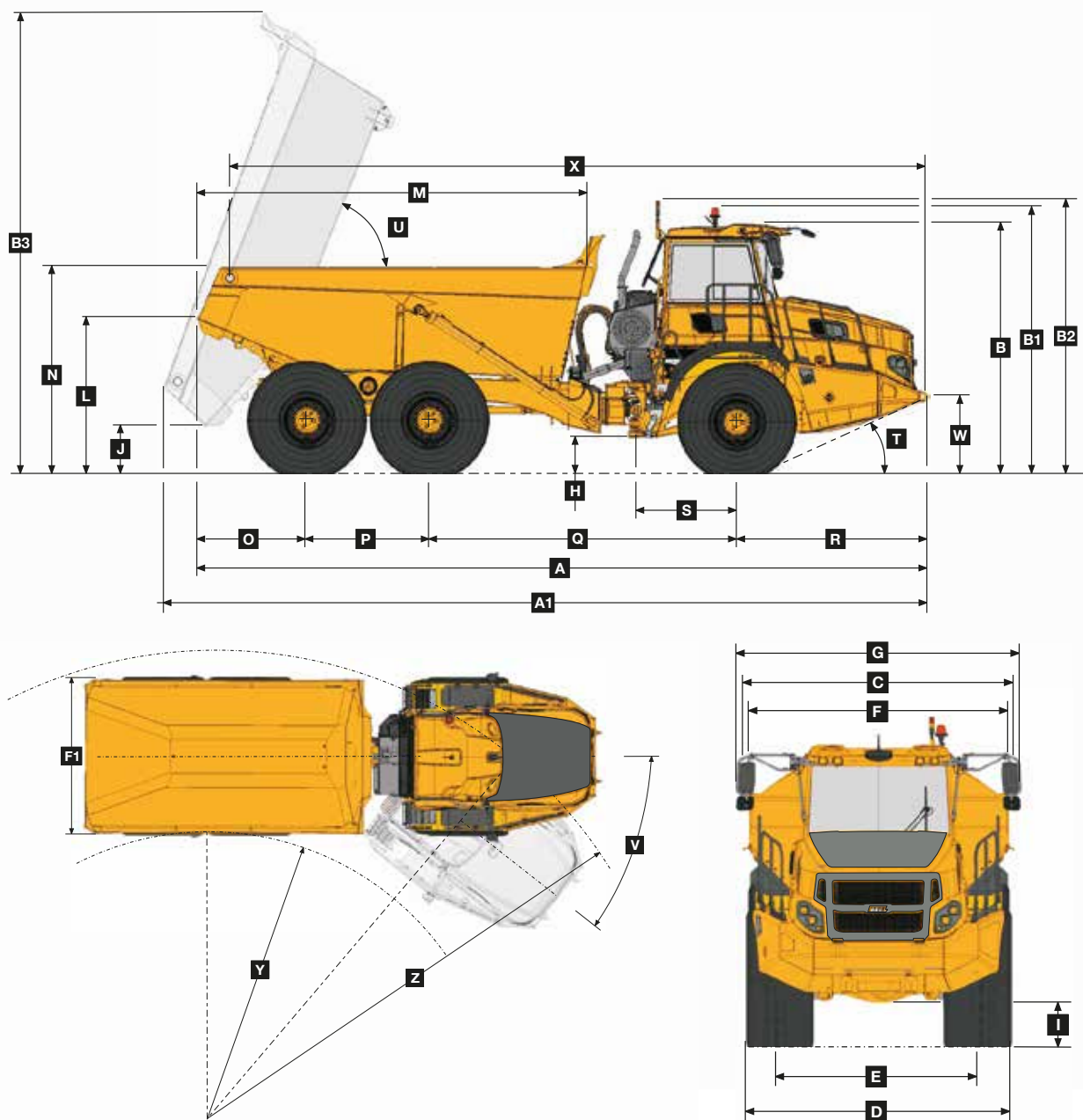
B30E Articulated Dump Truck

ENGINE	TRANSFER CASE	WHEELS	Tipping Angle
Manufacturer Mercedes Benz	Manufacturer Kessler	Type Radial Earthmover	70° standard, or any lower angle programmable
Model OM926LA	Series W1400	Tyre 23.5 R 25	PNEUMATIC SYSTEM
Configuration Inline 6, turbocharged and intercooled.	Layout Remote mounted	FRONT SUSPENSION Semi-independent, leading A-frame supported by hydro-pneumatic suspension struts.	Air drier with heater and integral unloader valve, serving park brake and auxiliary functions.
Net Power 240 kW (322 hp) @ 2 200 rpm in accordance with UN ECE R120	Gear Layout Three in-line helical gears	REAR SUSPENSION Pivoting walking beams with laminated rubber suspension blocks	System Pressure 810 kPa (117 psi)
Gross Torque 1 300 Nm (959 lbft) @ 1 200 -1 600 rpm	Output Differential Interaxle 33/67 proportional differential. Automatic inter-axle differential lock.	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.	ELECTRICAL SYSTEM
Displacement 7,2 litres (439 cu.in)	AXLES	Pump Type Variable displacement load sensing piston.	Voltage 24 V
Auxiliary Brake Exhaust Valve Brake Engine Valve Brake	Manufacturer Bell	Flow 165 l/min (44 gal/min)	Battery Type Two AGM (Absorption Glass Mat) type
Fuel Tank Capacity 379 litres (100 US gal)	Model 18T	Pressure 28 Mpa (4 061 psi)	Battery Capacity 2 X 75 Ah
Certification OM926LA meets EU Stage II/EPA Tier 2 emissions regulations.	Differential High input limited slip differential with spiral bevel gears.	Filter 5 microns	Alternator Rating 28 V 80 A
TRANSMISSION	Final Drive Outboard heavy duty planetary on all axles	STEERING SYSTEM Double acting cylinders, with ground-driven emergency steering pump.	VEHICLE SPEEDS
Manufacturer Allison	BRAKING SYSTEM	Lock to lock turns 4,1	1st 8 km/h 5 mph
Model 3400P ORS	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.	Steering Angle 45°	2nd 14 km/h 9 mph
Configuration Fully automatic planetary transmission	Maximum brake force: 187 kN (42 000 lbf)	DUMPING SYSTEM Two double-acting, single stage, dump cylinders	3rd 20 km/h 12 mph
Layout Engine mounted	Park & Emergency Spring applied, air released driveline mounted disc.	Raise Time 14 s	4th 29 km/h 18 mph
Gear layout Constant meshing planetary gears, clutch operated	Maximum brake force: 251 kN (56 400 lbf)	Lowering Time 7 s	5th 43 km/h 26 mph
Gears 6 Forward, 1 Reverse	Auxiliary Brake Automatic engine valve brake. Automatic retardation through electronic activation of wet brake system.		6th 50 km/h 31 mph
Clutch Type Hydraulically operated multi-disc	Total Retardation Power 265 kW (355 hp) Continuous 494 kW (662 hp) Maximum		R 8 km/h 5 mph
Control Type Electronic			CAB
Torque Control Hydrodynamic with lock-up in all gears.			ROPS/FOPS certified 72 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 (No sinkage)		BODY	m³ (yd³)		kg (lb)
Front	10 953 (24 151)	23.5 R 25	kPa (Psi)	Struck Capacity	13,5 (17,6)	Bin liner	1 182 (2 606)
Middle	6 194 (13 658)	Front	282 (41)	SAE 2:1 Capacity	17 (22)	Tailgate	825 (1 818)
Rear	5 738 (12 652)	Middle	380 (55)	SAE 1:1 Capacity	21 (27,5)	Extra wheelset	565 (1 246)
Total	22 885 (50 461)	Rear	380 (55)	SAE 2:1 Capacity with tailgate	18 (23,5)		
LADEN	kg (lb)	LADEN (15% sinkage)					
Front	14 323 (31 582)	23.5 R 25	kPa (Psi)	Rated Payload	28 000 kg		
Middle	18 509 (40 812)	Front	246 (36)		(61 740 lbs)		
Rear	18 053 (39 807)	Middle	317 (46)				
Total	50 885 (112 201)	Rear	317 (46)				

Dimensions

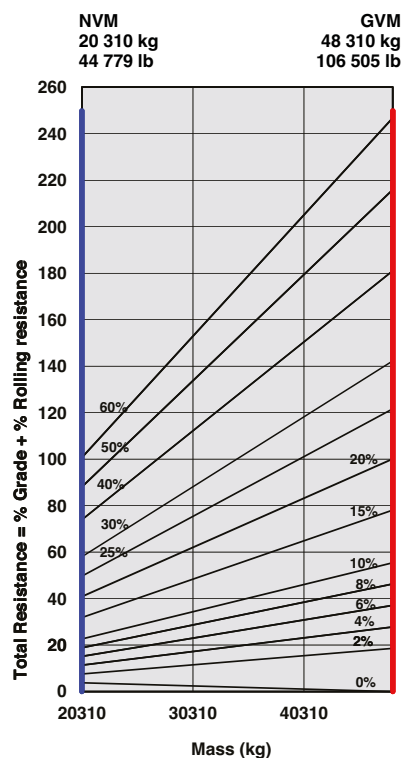


Machine Dimensions

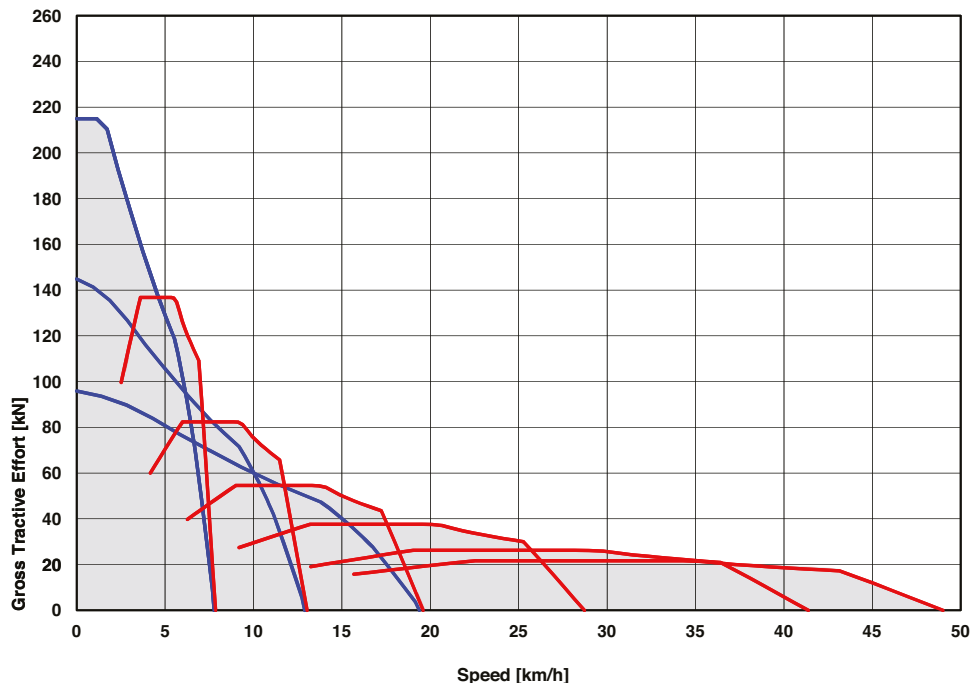
A	Length - Transport Position	9 953 mm (32 ft. 7 in.)	L	Bin Lip Height - Transport Position	2 176 mm (7 ft. 1 in.)
A1	Length - Bin Fully Tipped	10 395 mm (34 ft. 1 in.)	M	Bin Length	5 294 mm (17 ft. 4 in.)
B	Height - Transport Position	3 426 mm (11 ft. 2 in.)	N	Load over Height	2 864 mm (9 ft. 4 in.)
B1	Height - Rotating Beacon	3 661 mm (12 ft.)	O	Rear Axle Centre to Bin Rear	1 500 mm (4 ft. 11 in.)
B2	Height - Load Light	3 747 mm (12 ft. 3 in.)	P	Mid Axle Centre to Rear Axle Centre	1 670 mm (5 ft. 5 in.)
B3	Bin Height - Fully Tipped	6 307 mm (20 ft. 8 in.)	Q	Mid Axle Centre to Front Axle Centre	4 181 mm (13 ft. 8 in.)
C	Width over Mudguards	2 985 mm (9 ft. 9 in.)	R	Front Axle Centre to Machine Front	2 602 mm (8 ft. 6 in.)
D	Width over Tyres - 23.5R25	2 940 mm (9 ft. 7 in.)	S	Front Axle Centre to Artic Centre	1 362 mm (4 ft. 5 in.)
D1	Width over Tyres - 750/65 R25	2 998 mm (9 ft. 10 in.)	T	Approach Angle	25°
E	Tyre Track Width - 23.5R25	2 356 mm (7 ft. 8 in.)	U	Maximum Bin Tip Angle	70°
E1	Tyre Track Width - 750/65 R25	2 260 mm (7 ft. 4 in.)	V	Maximum Articulation Angle	45°
F	Width over Bin	2 968 mm (9 ft. 8 in.)	W	Front Tie Down Height	1 075 mm (3 ft. 6 in.)
F1	Width over Tailgate	3 268 mm (10 ft. 8 in.)	X	Machine Lifting Centres	9 443 mm (30 ft. 11 in.)
G	Width over Mirrors - Operating Position	3 260 mm (10 ft. 8 in.)	Y	Inner Turning Circle Radius - 23.5R25	4 110 mm (13 ft. 5 in.)
H	Ground Clearance - Artic	537 mm (21.14 in.)	Y1	Inner Turning Circle Radius - 750/65 R25	4 081 mm (13 ft. 4 in.)
I	Ground Clearance - Front Axle	488 mm (19.21 in.)	Z	Outer Turning Circle Radius - 23.5R25	8 000 mm (26 ft. 2 in.)
J	Ground Clearance - Bin Fully Tipped	670 mm (26.38 in.)	Z1	Outer Turning Circle Radius - 750/65 R25	8 029 mm (26 ft. 4 in.)
K	Ground Clearance - Under Run Bar	N/A			

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.

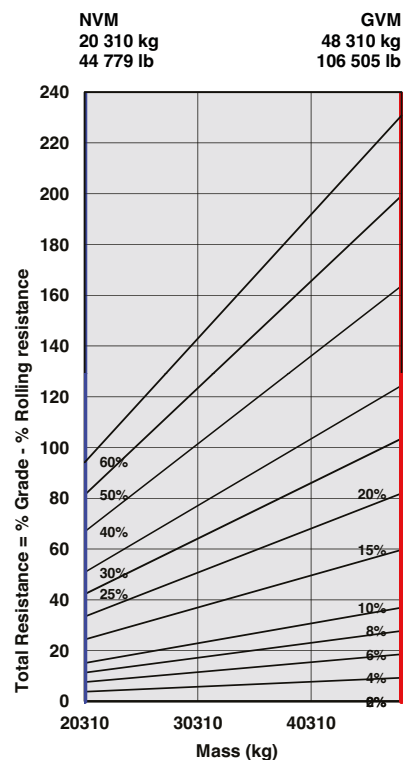


ADT, B30E 6X6 - Tractive Effort

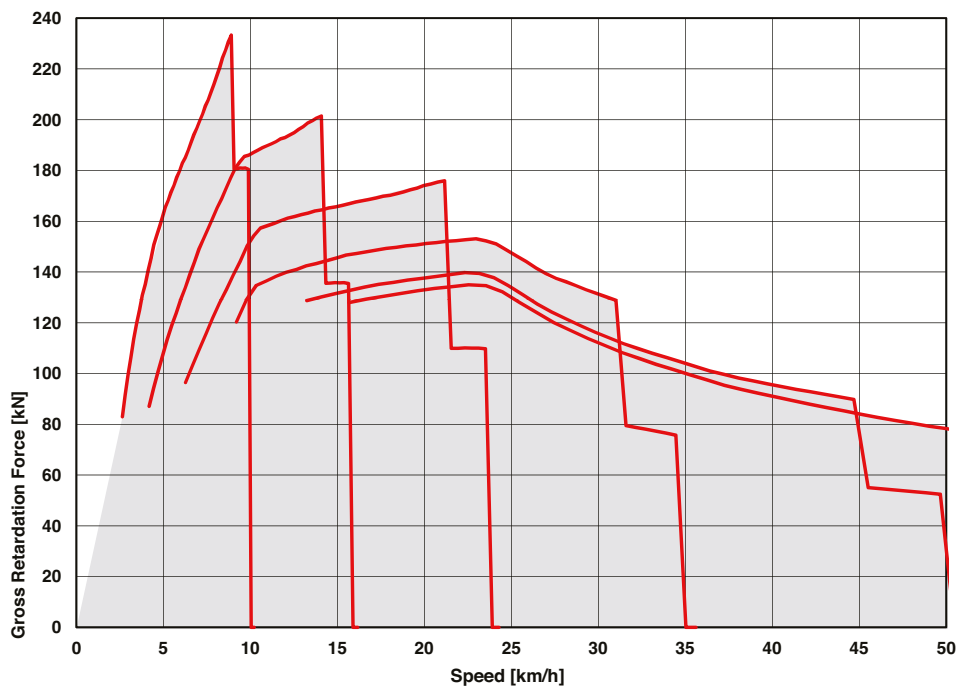


Retardation

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.



ADT, B30E 6X6 - Retardation



B18E	B20E	B25E (6x4)	B25E	B30E		
					ENGINE	
●	●	●	●	●	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	
					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	
●	●	●	●	●	Drive lights	
●	●	●	●	●	Air horn	
●	●	●	●	●	Reverse alarm	
▲	▲	▲	▲	▲	White noise reverse alarm	
●	●	●	●	●	Rotating beacon	
●	●	●	●	●	Pitch Roll sensor	
▲	▲	▲	▲	▲	LED Artic reverse light	
▲	▲	▲	▲	▲	Halogen Artic reverse light	
●	●	●	●	●	LED reverse light	
					STEERING SYSTEM	
▲	▲	▲	▲		Bi-directional ground driven secondary steering pump	
●	●	●	●		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	
▲	▲	▲	▲		Extra wide wiper system	
●	●	●	●		Tilt and telescoping steering wheel	
●	●	●	●		Centre-mount air-suspension seat	
●	●	●	●		Retractable 3-point seat belt	
●	●	●	●		Foldaway trainer seat with retractable seat belt	
▲	▲	▲	▲		Rotating beacon: seat belt installation	
●	●	●	●		Halogen work lights	
▲	▲	▲	▲		LED work lights	
▲	▲	▲	▲		Remote engine and machine isolation	
					CAB (continued)	
●	●	●	●	●	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:	
					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	
●	●	●	●	●	Deluxe 10" colour 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	
					DUMP BODY	
●	●	●	●	●	Partial up dump-body mechanical lock	
▲	▲	▲	●	●	Fully up dump-body mechanical lock	
▲	▲	▲	▲	▲	Body liner	
			▲	▲	Tailgate	
			▲	▲	Body heater	
▲	▲	▲	▲	▲	Less dump body and cylinders	
					OTHER	
●	●	●	●	●	Automatic Traction Control (ATC)	
●	●	●		●	20.5R25 Radial earthmover tyres	
			●	●	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	
		▲	▲	▲	Hand rails	
●	●	●	●	●	Cab peak	
▲	▲	▲	▲	▲	High pressure hydraulic filter	
▲	▲	▲	▲	▲	Fuel heater	
●	●	●	●	●	Belly cover	
		▲	▲	▲	Cross member cover	
▲	▲	▲	▲	▲	Remote transmission filters	
▲	▲	▲	▲	▲	Window smash button	
●	●	●	●	●	Electronic bonnet opening	



All dimensions are shown in millimetres, 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.

BELL INTERNATIONAL: Tel: +27 (0)35-907 9431

E-mail: marketing@bellequipment.com

Web: www.bellequipment.com



Tel: +61 (0)8-9355-2442



Tel: +27 (0)11-928-9700



Tel: +49 (0)6631 / 91-13-0



Tel: +44 (0)1283-712862



Tel: +33 (0)5-55-89-23-56



Tel: +1 (704) 655 2802

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