E-series

Water Tankers

B18E I B25E I B30E I B40E I B45E I B50E (6x6)

BELL

Technical Data - B18E

ENGINE

Manufacturer
Mercedes Benz

Model
OM924LA

Configuration
Inline 4, turbocharged and intercooled.

Gross Power
160 kW (214 hp) @ 2 200 rpm

Net Power
152 kW (204 hp) @ 2 200 rpm

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
200 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 multidisc

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
99 kW (133 hp) Continuous non-retarder.

144 kW (193 hp) Continuous retarder.

99 kW (133 hp) Maximum non-retarder.

505 kW (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 steering, water pump 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°

WATER TANKER PLUMBING

Centrifugal water pump

Rate of Flow
1 800 l/min

Head
50 m head

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 74 dBA internal sound level measured according to ISO 6396.

STANDARD EQUIPMENT

- Dribble bar
- Spray valves (manual activation)
- Fold down top rails
- Suction pipe for filling from dam
- Step ladder access
- Inspection access

OPTIONAL EXTRAS

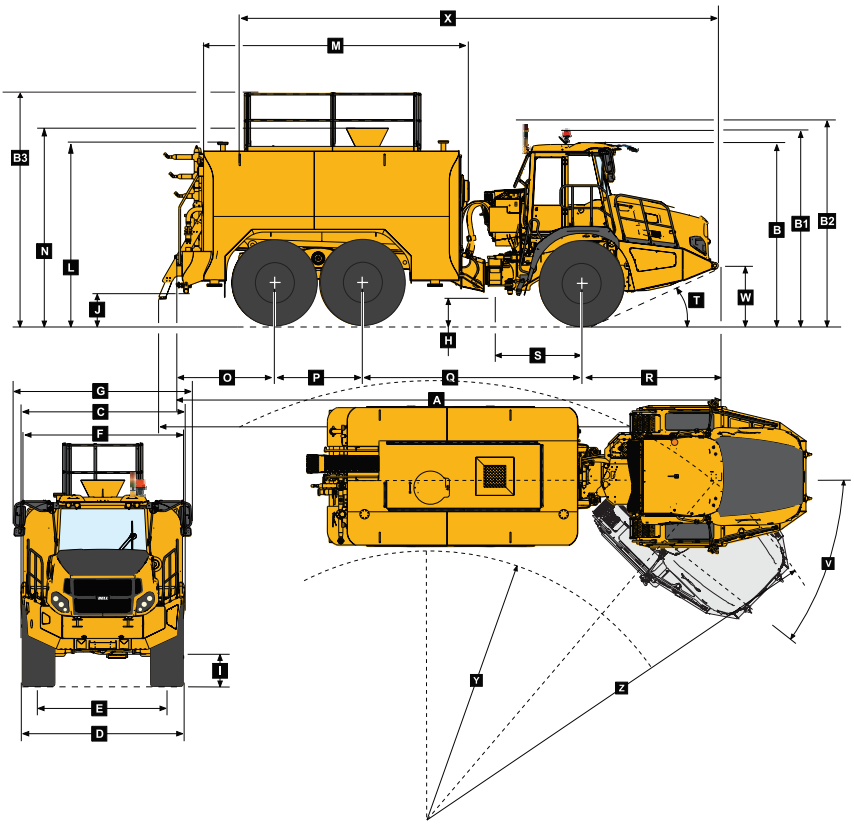
- Manual water cannon
- Remote control water cannon
- Remote control spray nozzles
- Pressurised dribble bar system
- Firefighting option
- Hose reel option

Load Capacity & Ground Pressure

OPERATING WEIGHTS				GROUND PRESSURE		LOAD CAPACITY	
UNLADEN*		LADEN*		LADEN (No sinkage)			
	Tare kg (lb)**		ISO 6016 kg (lb)***	20.5 R 25	kPa (Psi)		
Front	7 770 (17 130)	Front	9 840 (21 693)	Front	223 (32)	Rated Payload	18 000 litres
Middle	3 760 (8 289)	Middle	11 730 (25 860)	Middle	299 (43)		(5 000 gallons)
Rear	3 350 (7 385)	Rear	11 540 (25 441)	Rear	299 (43)		
Total	14 870 (32 783)	Total	33 110 (72 995)				
	ISO 6016 kg (lb)***			LADEN (15% sinkage)			
Front	8 040 (17 725)			20.5 R 25	kPa (Psi)		
Middle	3 740 (8 245)			Front	204 (30)		
Rear	3 330 (7 341)			Middle	246 (36)		
Total	15 110 (33 312)			Rear	246 (36)		

* Note that the axle loading quoted is for the lightest configuration of machine. Addition of options will add to this mass. ** No fuel, no operator. *** Full fuel and operator

Dimensions

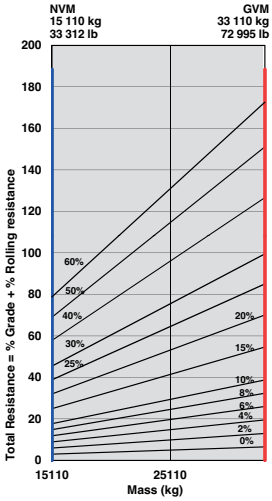


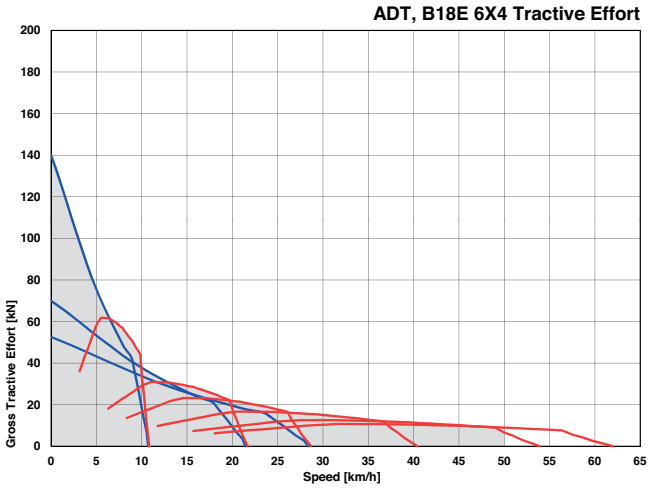
Machine Dimensions

A	Length - Transport Position	9 725 mm
A1	Length - Rear Step	10 046 mm
B	Height - Transport Position	3 454 mm
B1	Height - Rotating Beacon	3 595 mm
B2	Height - Load Light	3 689 mm
B3	Tank Guardrail Height - Operating Position	4 180 mm
C	Width Over Mudguards	2 568 mm
D	Width over Tyres	2 550 mm
E	Tyre Track Width	2 022 mm
F	Width Over Tank	2 545 mm
G	Width Over Mirrors - Operating Position	3 260 mm
H	Ground Clearance - Artic	479 mm
I	Ground Clearance - Front Axle	444 mm
J	Ground Clearance - Tank	705 mm
K	Ground Clearance - Dribble Bar	570 mm
L	Tank Height	3 340 mm
M	Tank Length	5 000 mm
N	Funnel Loading Height	3 555 mm
O	Rear Axle Center to Tank Rear	1 902 mm
P	Mid Axle Center to Rear Axle Center	1 600 mm
Q	Mid Axle Center to Front Axle Center	3 865 mm
R	Front Axle Center to Machine Front	2 357
S	Front Axle Center to Artic Center	1 361 mm
T	Approach Angle	26°
V	Maximum Articulation Angle	45°
W	Front Tie Down Height	1 028 mm
X	Machine Lifting Centers	8 580 mm
Y	Inner Turning Circle	3 954 mm
Z	Outer Turing Circle	7 309 mm

Grade Ability/Rimpull

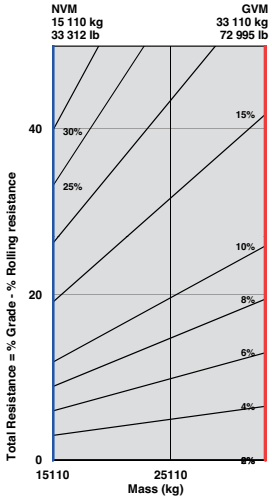
1. Determine tractive resistance by finding intersection of vehicle mass line and grade line. NOTE: 2% typical rolling resistance is already assumed in chart and grade line.
2. From this intersection, move straight right across charts until line intersects rimpull curve.
3. Read down from this point to determine maximum speed attained at that tractive resistance.

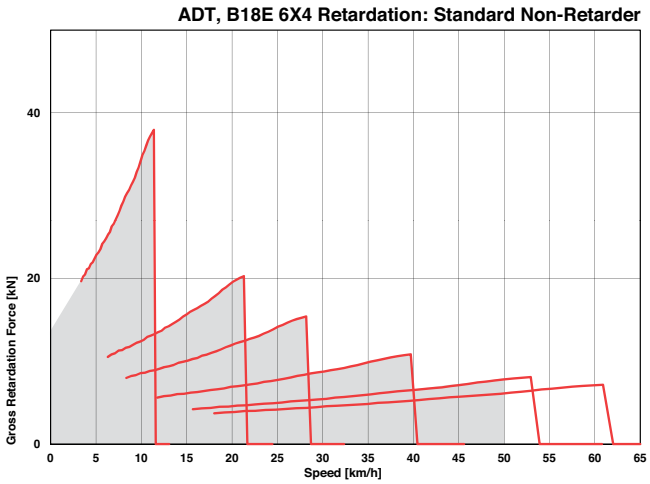




Retardation

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.





Technical Data - B25E

ENGINE

Manufacturer
Mercedes Benz

Model
OM906LA

Configuration
Inline 6, turbocharged and intercooled.

Gross Power
205 kW (275 hp) @ 2 200 rpm

Net Power
198 kW (265 hp) @ 2 200 rpm

Gross Torque
1 100 Nm (811 lbft) @ 1 200 -1 600 rpm

Displacement
6,37 litres (389 cu.in)

Auxiliary Brake
Exhaust Valve Brake
Engine Valve Brake

Fuel Tank Capacity
379 litres (100 US gal)

Certification
OM906LA meets EU Stage II/EPA Tier 2 emissions regulations.

TRANSMISSION

Manufacturer
Allison

Model
3200P 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:
184 kN (41 400 lbf)

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

Maximum brake force:
195 kN (43 900 lbf)

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

Total Retardation Power
250kW (335 hp) Continuous
539 kW (723 hp) Maximum

WHEELS

Type
Radial Earthmover

Tyre
23.5 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 steering, water pump 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
4,1

Steering Angle
45°

WATER TANKER PLUMBING

Centrifugal water pump

Rate of Flow
1 800 l/min

Head
50 m head

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	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

CAB

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

STANDARD EQUIPMENT

- Dribble bar
- Spray valves (manual activation)
- Fold down top rails
- Suction pipe for filling from dam
- Step ladder access
- Inspection access

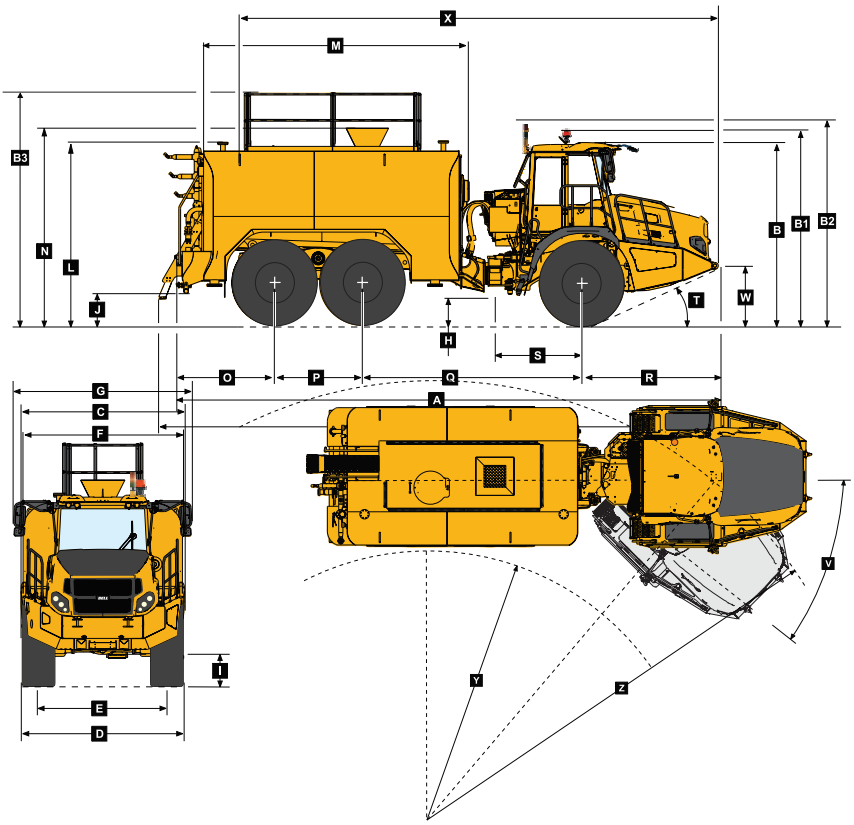
OPTIONAL EXTRAS

- Manual water cannon
- Remote control water cannon
- Remote control spray nozzles
- Pressurised dribble bar system
- Firefighting option
- Hose reel option

Load Capacity & Ground Pressure

OPERATING WEIGHTS		GROUND PRESSURE		LOAD CAPACITY	
UNLADEN		LADEN (No sinkage)			
	kg (lb)	23.5 R 25	kPa (Psi)		
Front	9 740 (21 473)	Front	244 (35)	Rated Payload	23 000 litres
Middle	4 605 (10 152)	Middle	336 (49)		(6 000 gallons)
Rear	4 565 (10 064)	Rear	336 (49)		
Total	18 910 (41 689)				
LADEN		LADEN (15% sinkage)			
Front	12 480 (27 514)	23.5 R 25	kPa (Psi)		
Middle	15 235 (33 587)	Front	225 (33)		
Rear	15 195 (33 499)	Middle	279 (41)		
Total	42 910 (94 600)	Rear	279 (41)		

Dimensions

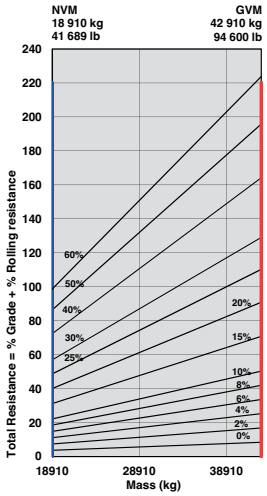


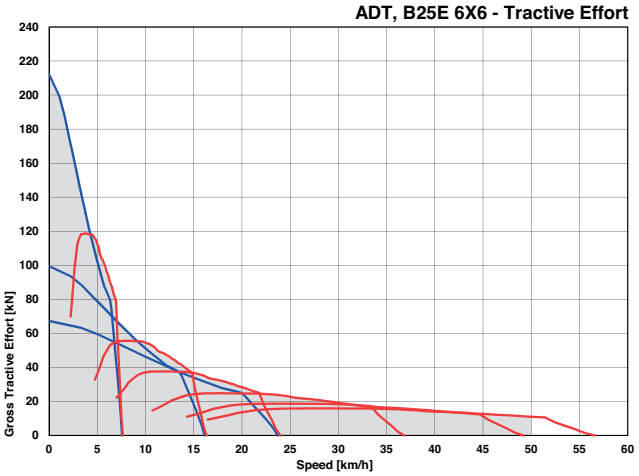
Machine Dimensions

A	Length - Transport Position	10 210 mm
A1	Length - Rear Step	10 530 mm
B	Height - Transport Position	3 426 mm
B1	Height - Rotating Beacon	3 661 mm
B2	Height - Load Light	3 747 mm
B3	Tank Guardrail Height - Operating Position	4 350 mm
C	Width Over Mudguards	2 985 mm
D	Width over Tyres	2 940 mm
E	Tyre Track Width	2 356 mm
F	Width Over Tank	2 940 mm
G	Width Over Mirrors - Operating Position	3 260 mm
H	Ground Clearance - Artic	537 mm
I	Ground Clearance - Front Axle	488 mm
J	Ground Clearance - Tank	650 mm
K	Ground Clearance - Dribble Bar	520 mm
L	Tank Height	3 400 mm
M	Tank Length	5 270 mm
N	Funnel Loading Height	3 670 mm
O	Rear Axle Center to Tank Rear	1 755 mm
P	Mid Axle Center to Rear Axle Center	1 670 mm
Q	Mid Axle Center to Front Axle Center	4 181 mm
R	Front Axle Center to Machine Front	2 602 mm
S	Front Axle Center to Artic Center	1 362 mm
T	Approach Angle	25°
V	Maximum Articulation Angle	45°
W	Front Tie Down Height	1 075 mm
X	Machine Lifting Centers	9 060 mm
Y	Inner Turning Circle	4 110 mm
Z	Outer Turing Circle	8 000 mm

Grade Ability/Rimpull

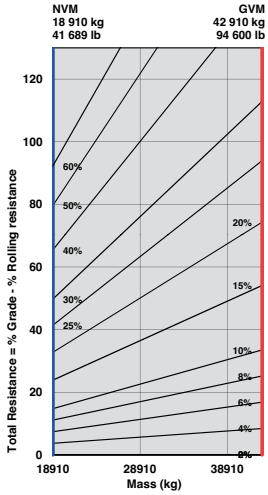
1. Determine tractive resistance by finding intersection of vehicle mass line and grade line. NOTE: 2% typical rolling resistance is already assumed in chart and grade line.
2. From this intersection, move straight right across charts until line intersects rimpull curve.
3. Read down from this point to determine maximum speed attained at that tractive resistance.

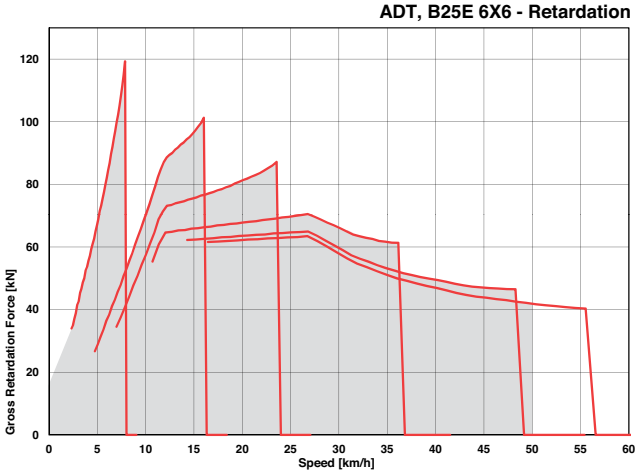




Retardation

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.





Technical Data - B30E

ENGINE

Manufacturer
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 (439 cu.in)

Auxiliary Brake
Exhaust Valve Brake
Engine Valve Brake

Fuel Tank Capacity
379 litres (100 US gal)

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

TRANSMISSION

Manufacturer
Allison

Model
3500PR 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
18T

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:
184 kN (41 400 lbf)

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

Maximum brake force:
214 kN (48 200 lbf)

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

Total Retardation Power
266kW (357 hp) Continuous
554 kW (788 hp) Maximum

WHEELS

Type
Radial Earthmover

Tyre
23.5 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 steering, water pump 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
4,1

Steering Angle
45°

WATER TANKER PLUMBING

Centrifugal water pump

Rate of Flow
1 800 l/min

Head
50 m

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	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

CAB

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

STANDARD EQUIPMENT

- Dribble bar
- Spray valves (manual activation)
- Fold down top rails
- Suction pipe for filling from dam
- Step ladder access
- Inspection access

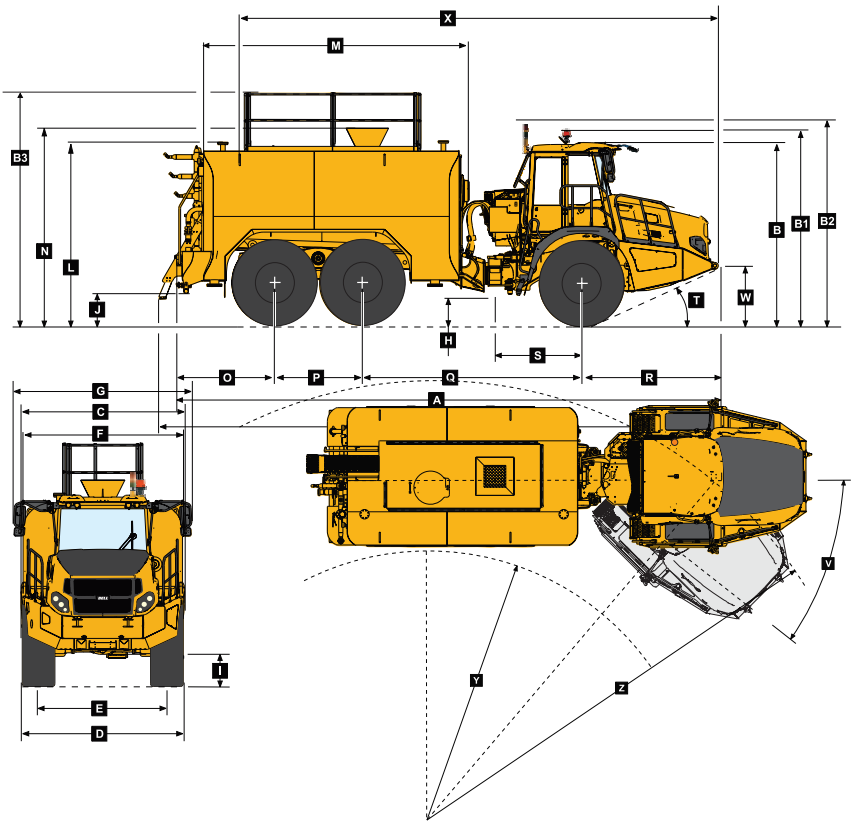
OPTIONAL EXTRAS

- Manual water cannon
- Remote control water cannon
- Remote control spray nozzles
- Pressurised dribble bar system
- Firefighting option
- Hose reel option

Load Capacity & Ground Pressure

OPERATING WEIGHTS		GROUND PRESSURE		LOAD CAPACITY	
UNLADEN		LADEN (No sinkage)			
	kg (lb)	23.5 R 25	kPa (Psi)		
Front	9 750 (21 495)	Front	280 (41)	Rated Payload	27 000 litres
Middle	4 800 (10 582)	Middle	378 (55)		(7 000 gallons)
Rear	4 760 (10 494)	Rear	378 (55)		
Total	19 310 (42 571)				
LADEN		LADEN (15% sinkage)			
Front	13 120 (28 925)	23.5 R 25	kPa (Psi)		
Middle	17 115 (37 732)	Front	240 (35)		
Rear	17 075 (37 644)	Middle	314 (46)		
Total	47 310 (104 301)	Rear	314 (46)		

Dimensions

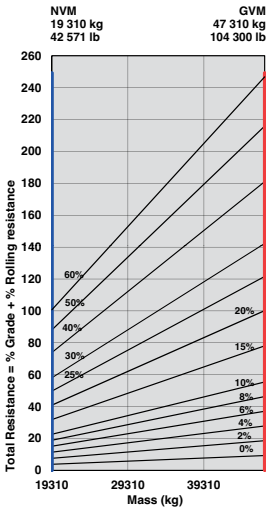


Machine Dimensions

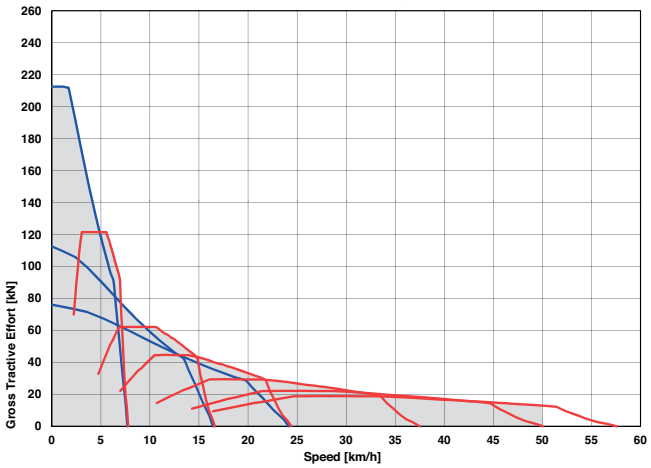
A	Length - Transport Position	10 380 mm
A1	Length - Rear Step	10 590 mm
B	Height - Transport Position	3 426 mm
B1	Height - Rotating Beacon	3 661 mm
B2	Height - Load Light	3 747 mm
B3	Tank Guardrail Height - Operating Position	4 570 mm
C	Width Over Mudguards	2 985 mm
D	Width over Tyres	2 940 mm
E	Tyre Track Width	2 356 mm
F	Width Over Tank	2 940 mm
G	Width Over Mirrors - Operating Position	3 260 mm
H	Ground Clearance - Artic	537 mm
I	Ground Clearance - Front Axle	488 mm
J	Ground Clearance - Tank	600 mm
K	Ground Clearance - Dribble Bar	600 mm
L	Tank Height	3 670 mm
M	Tank Length	5 280 mm
N	Funnel Loading Height	3 940 mm
O	Rear Axle Center to Tank Rear	1 755 mm
P	Mid Axle Center to Rear Axle Center	1 670 mm
Q	Mid Axle Center to Front Axle Center	4 181 mm
R	Front Axle Center to Machine Front	2 602 mm
S	Front Axle Center to Artic Center	1 362 mm
T	Approach Angle	25°
V	Maximum Articulation Angle	45°
W	Front Tie Down Height	1 075 mm
X	Machine Lifting Centers	9 060 mm
Y	Inner Turning Circle	4 110 mm
Z	Outer Turing Circle	8 000 mm

Grade Ability/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

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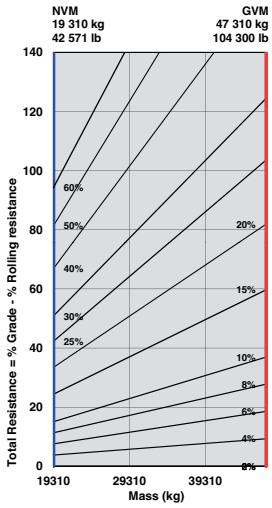
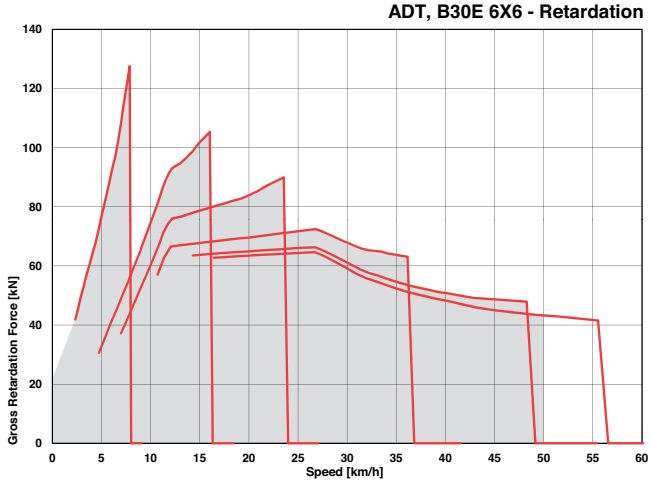
3. Read down from this point to determine maximum speed.



ADT, B30E 6X6 - Retardation



Technical Data - B40E

ENGINE

Manufacturer
Mercedes Benz (MTU)

Model
OM471LA (MTU 6R 1300)

Configuration
Inline 6, turbocharged and intercooled.

Gross Power
380 kW (510 hp) @ 1 700 rpm

Net Power
359 kW (481 hp) @ 1 700 rpm

Gross Torque
2 380 Nm (1 755 lbft) @ 1 300 rpm

Displacement
12,8 litres (781 cu.in)

Auxiliary Brake
Exhaust Valve Brake

Fuel Tank Capacity
533 litres (140.8 US gal)

Certification
OM471LA (MTU 6R 1300) is EU Stage IIIA / EPA Tier 3 emission level equivalent.

TRANSMISSION

Manufacturer
Allison

Model
4700 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
W 2400

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:
305 kN (68 567 lbf)

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

Maximum brake force:
218 kN (49 008 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: 854 kW (1 145 hp)

WHEELS

Type
Radial Earthmover

Tyre
29.5 R 25 (875/65 R 29 optional)

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 steering, water pump 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°

WATER TANKER PLUMBING

Centrifugal water pump

Rate of Flow
1 800 l/min

Head
50 m

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	4 km/h	2,5 mph
2nd	9 km/h	6 mph
3rd	17 km/h	11 mph
4th	23 km/h	14 mph
5th	33 km/h	21 mph
6th	44 km/h	27,3 mph
7th	51 km/h	32 mph
R	7 km/h	4 mph

CAB

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

STANDARD EQUIPMENT

- Dribble bar
- Spray valves (manual activation)
- Fold down top rails
- Suction pipe for filling from dam
- Step ladder access
- Inspection access

OPTIONAL EXTRAS

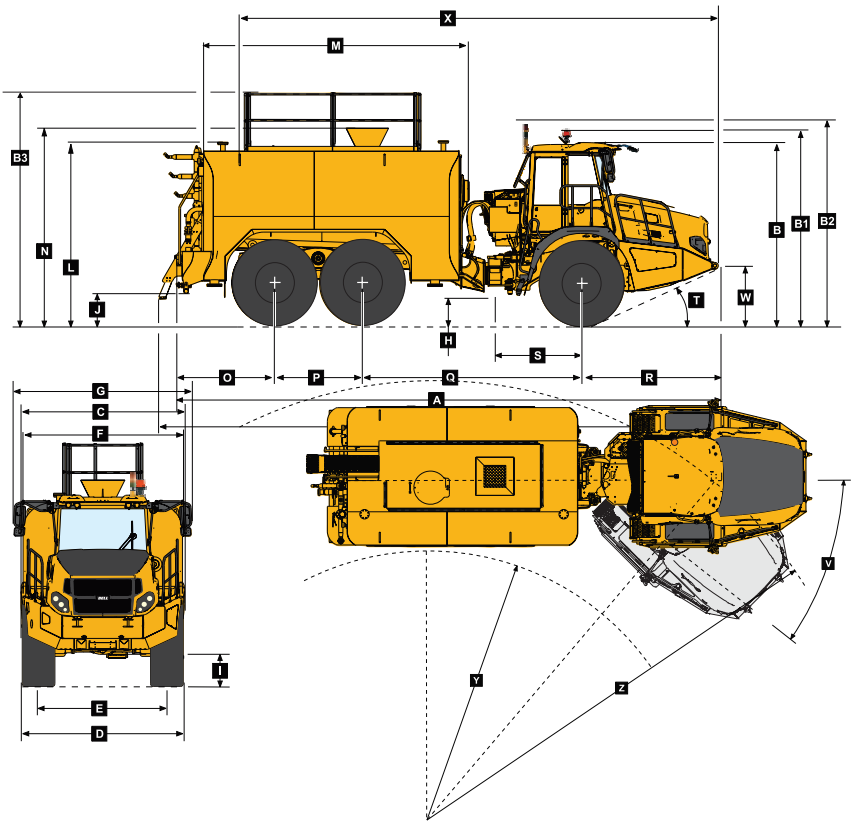
- Manual water cannon
- Remote control water cannon
- Remote control spray nozzles
- Pressurised dribble bar system
- Firefighting option
- Hose reel option

Load Capacity & Ground Pressure

OPERATING WEIGHTS		GROUND PRESSURE		LOAD CAPACITY	
UNLADEN		LADEN (No sinkage/Total Contact Area Method)			
	kg (lb)	29.5 R 25	kPa (Psi)		
Front	16 972 (37 417)	Front	310 (45)	Rated Payload	35 000 litres
Middle	7 737 (17 057)	Middle	341 (50)		(9 000 gallons)
Rear	7 524 (16 588)	Rear	341 (50)		
Total	32 233 (71 062)				
LADEN					
Front	21 847 (48 164)	875/65 R29	kPa (Psi)		
Middle	24 800 (54 675)	Front	293 (43)		
Rear	24 586 (54 203)	Middle	329 (48)		
Total	71 233 (157 042)	Rear	329 (48)		

* 29.5R25 Groundpressures calculated with Michelin XADN+ Tyre. 875/65R29 Groundpressures calculated with Michelin XAD65-1 Tyre.

Dimensions

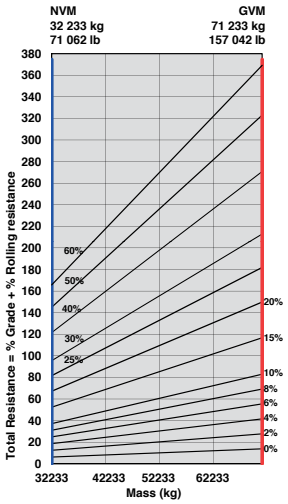


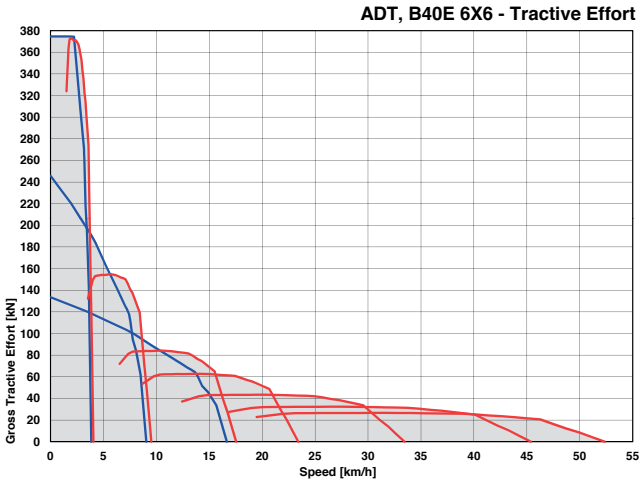
Machine Dimensions

A	Length - Transport Position	11 790 mm
A1	Length - Rear Step	12 000 mm
B	Height - Transport Position	3 804 mm
B1	Height - Rotating Beacon	4 040 mm
B2	Height - Load Light	4 129 mm
B3	Tank Guardrail Height - Operating Position	4 770 mm
C	Width Over Mudguards	3 495 mm
D	Width over Tyres	3 487 mm
E	Tyre Track Width	2 725 mm
F	Width Over Tank	3 500 mm
G	Width Over Mirrors - Operating Position	3 614 mm
H	Ground Clearance - Artic	545 mm
I	Ground Clearance - Front Axle	545 mm
J	Ground Clearance - Tank	760 mm
K	Ground Clearance - Dribble Bar	760 mm
L	Tank Height	3 880 mm
M	Tank Length	6 420 mm
N	Funnel Loading Height	4 090 mm
O	Rear Axle Center to Tank Rear	2 140 mm
P	Mid Axle Center to Rear Axle Center	1 950 mm
Q	Mid Axle Center to Front Axle Center	4 438 mm
R	Front Axle Center to Machine Front	3 255 mm
S	Front Axle Center to Artic Center	1 558 mm
T	Approach Angle	24°
V	Maximum Articulation Angle	42°
W	Front Tie Down Height	1 265 mm
X	Machine Lifting Centers	10 065 mm
Y	Inner Turning Circle	4 866 mm
Z	Outer Turing Circle	9 235 mm

Grade Ability/Rimpull

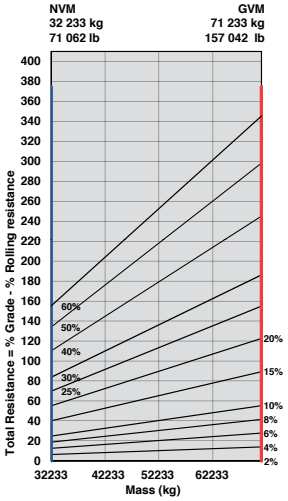
1. Determine tractive resistance by finding intersection of vehicle mass line and grade line. NOTE: 2% typical rolling resistance is already assumed in chart and grade line.
2. From this intersection, move straight right across charts until line intersects rimpull curve.
3. Read down from this point to determine maximum speed attained at that tractive resistance.

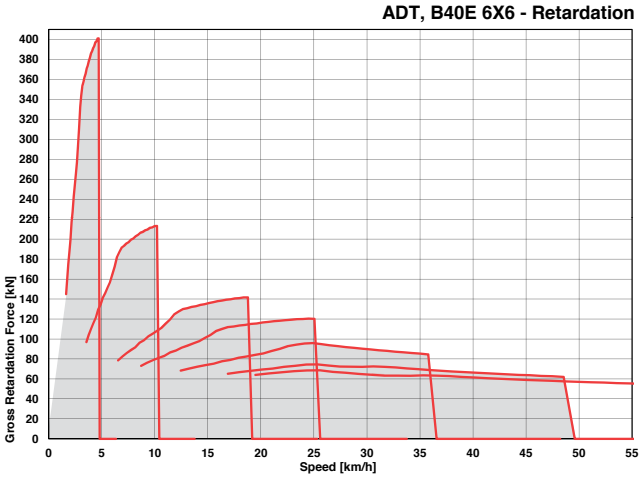




Retardation

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





Technical Data - B45E

ENGINE

Manufacturer
Mercedes Benz (MTU)

Model
OM471LA (MTU 6R 1300)

Configuration
Inline 6, turbocharged and intercooled.

Gross Power
390 kW (523 hp) @ 1 700 rpm

Net Power
369 kW (495 hp) @ 1 700 rpm

Gross Torque
2 460 Nm (1 814 lbft) @ 1 300 rpm

Displacement
12,8 litres (781 cu.in)

Auxiliary Brake
Engine Valve Brake

Fuel Tank Capacity
533 litres (140.8 US gal)

Certification
OM471LA (MTU 6R 1300) is EU Stage IIIA / EPA Tier 3 emission level equivalent.

TRANSMISSION

Manufacturer
Allison

Model
4700 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
W 2400

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:
330 kN (74 187 lbf)

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

Maximum brake force:
218 kN (49 008 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: 854 kW (1 145 hp)

WHEELS

Type
Radial Earthmover

Tyre
29.5 R 25 (875/65 R 29 optional)

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 steering, water pump 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°

WATER TANKER PLUMBING

Centrifugal water pump

Rate of Flow
1 800 l/min

Head
50 m

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	4 km/h	2,5 mph
2nd	9 km/h	6 mph
3rd	17 km/h	11 mph
4th	23 km/h	14 mph
5th	33 km/h	21 mph
6th	44 km/h	27,3 mph
7th	51 km/h	32 mph
R	7 km/h	4 mph

CAB

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

STANDARD EQUIPMENT

- Dribble bar
- Spray valves (manual activation)
- Fold down top rails
- Suction pipe for filling from dam
- Step ladder access
- Inspection access

OPTIONAL EXTRAS

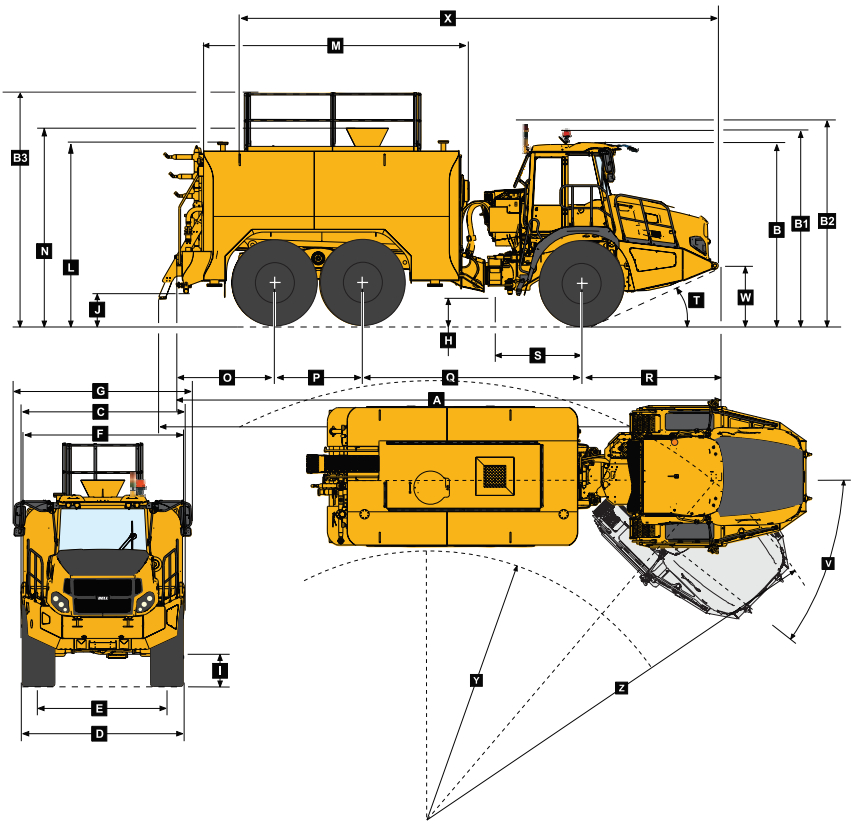
- Manual water cannon
- Remote control water cannon
- Remote control spray nozzles
- Pressurised dribble bar system
- Firefighting option
- Hose reel option

Load Capacity & Ground Pressure

OPERATING WEIGHTS		GROUND PRESSURE		LOAD CAPACITY	
UNLADEN		LADEN (No sinkage/Total Contact Area Method)			
	kg (lb)	29.5 R 25	kPa (Psi)		
Front	16 984 (37 443)	Front	321 (47)	Rated Payload	35 000 litres
Middle	7 778 (17 148)	Middle	370 (54)		(9 080 gallons)
Rear	7 564 (16 676)	Rear	370 (54)		
Total	32 326 (71 267)				
LADEN					
Front	22 109 (48 742)	875/65 R29	kPa (Psi)		
Middle	25 715 (56 692)	Front	294 (43)		
Rear	25 502 (56 222)	Middle	331 (48)		
Total	73 326 (161 656)	Rear	331 (48)		

* 29.5R25 Groundpressures calculated with Michelin XADN+ Tyre. 875/65R29 Groundpressures calculated with Michelin XAD65-1 Tyre.

Dimensions

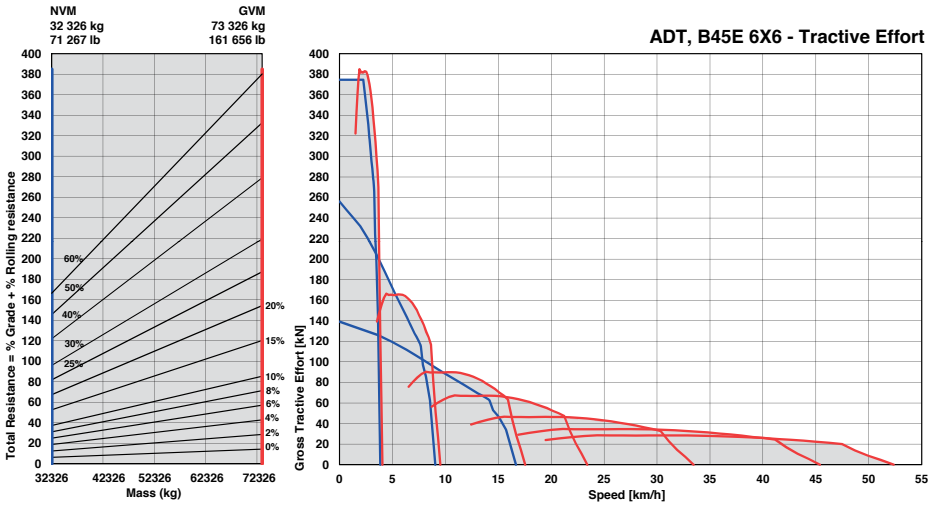


Machine Dimensions

A	Length - Transport Position	11 790 mm
A1	Length - Rear Step	12 000 mm
B	Height - Transport Position	3 804 mm
B1	Height - Rotating Beacon	4 040 mm
B2	Height - Load Light	4 129 mm
B3	Tank Guardrail Height - Operating Position	4 770 mm
C	Width Over Mudguards	3 495 mm
D	Width over Tyres	3 487 mm
E	Tyre Track Width	2 725 mm
F	Width Over Tank	3 500 mm
G	Width Over Mirrors - Operating Position	3 614 mm
H	Ground Clearance - Artic	545 mm
I	Ground Clearance - Front Axle	545 mm
J	Ground Clearance - Tank	760 mm
K	Ground Clearance - Dribble Bar	760 mm
L	Tank Height	3 880 mm
M	Tank Length	6 420 mm
N	Funnel Loading Height	4 090 mm
O	Rear Axle Center to Tank Rear	2 140 mm
P	Mid Axle Center to Rear Axle Center	1 950 mm
Q	Mid Axle Center to Front Axle Center	4 438 mm
R	Front Axle Center to Machine Front	3 255 mm
S	Front Axle Center to Artic Center	1 558 mm
T	Approach Angle	24°
V	Maximum Articulation Angle	42°
W	Front Tie Down Height	1 265 mm
X	Machine Lifting Centers	10 065 mm
Y	Inner Turning Circle	4 866 mm
Z	Outer Turing Circle	9 235 mm

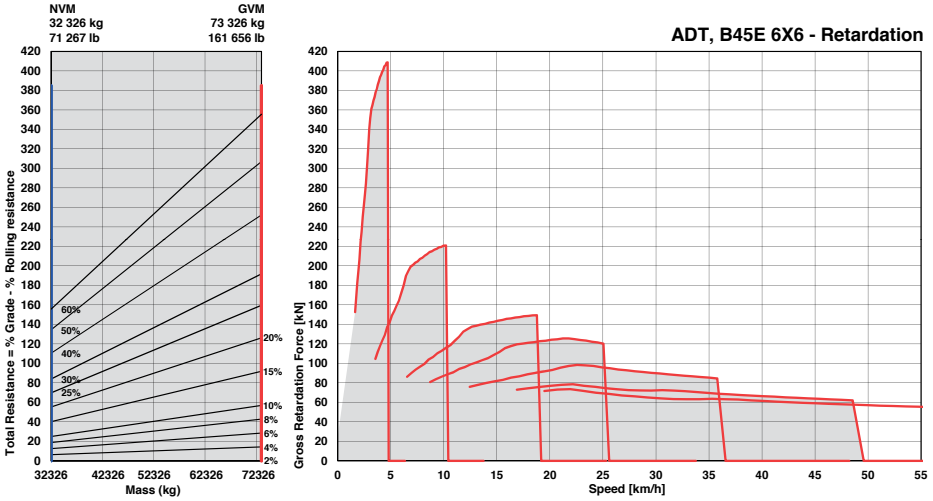
Grade Ability/Rimpull

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 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 the curve.
3. Read down from this point to determine maximum speed.



Technical Data - B50E

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
Engine Valve Brake

Fuel Tank Capacity
588 litres (155 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 multi-disc

Control Type
Electronic

Torque Control
Hydrodynamic with lock-up in all gears.

TRANSFER CASE

Manufacturer
Kessler

Series
W 2400

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

Maximum brake force:
458 kN (102 962 lbf)

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

Maximum brake force:
215,5 kN (48 446 lbf)

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

Total Retardation Power
Continuous: 546 kW (732 hp)
Maximum: 963 kW (1 291 hp)

WHEELS

Type
Radial Earthmover

Tyre
875/65 R 29 (29.5 R 25 optional)

FRONT SUSPENSION

Semi-independent, leading A-frame supported by hydro-pneumatic suspension struts. Suspension is 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 steering, water pump, 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
315 bar (4 569 psi)

Filter
5 microns

STEERING SYSTEM

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

Lock to lock turns
4,9

Steering Angle
42°

WATER TANKER PLUMBING

Centrifugal water pump

Rate of Flow
1 800 l/min

Head
50 m

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	4 km/h	2,5 mph
2nd	9 km/h	6 mph
3rd	17 km/h	11 mph
4th	23 km/h	14 mph
5th	33 km/h	21 mph
6th	44 km/h	27,3 mph
7th	51 km/h	32 mph
R	7 km/h	4 mph

CAB

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

STANDARD EQUIPMENT

- Dribble bar
- Spray valves (manual activation)
- Fold down top rails
- Suction pipe for filling from dam
- Step ladder access
- Inspection access

OPTIONAL EXTRAS

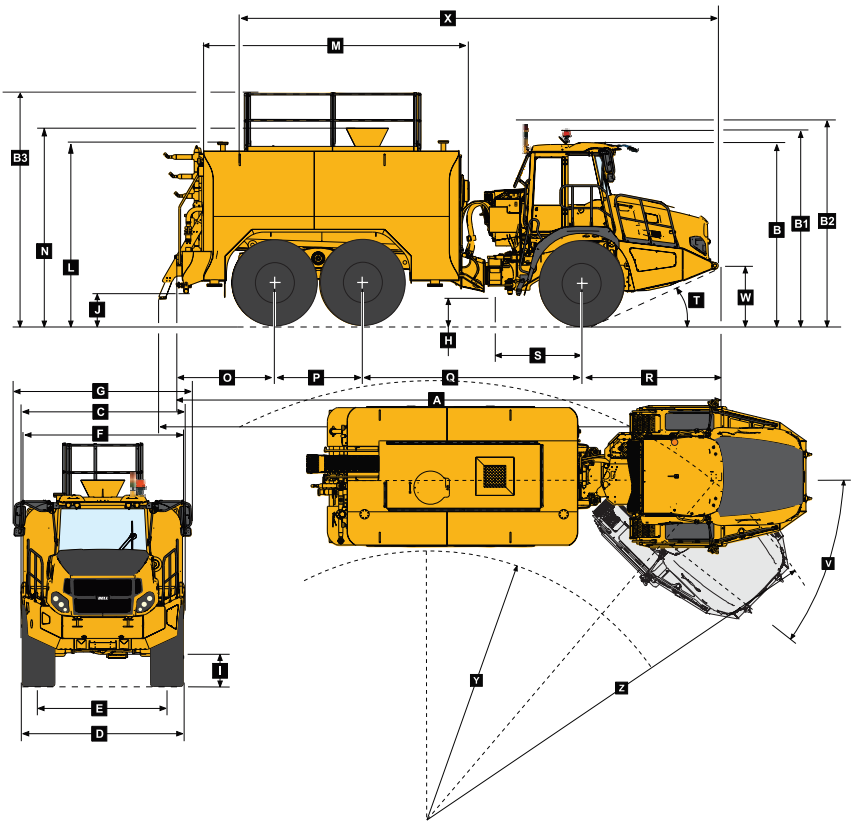
- Manual water cannon
- Remote control water cannon
- Remote control spray nozzles
- Pressurised dribble bar system
- Firefighting option
- Hose reel option

Load Capacity & Ground Pressure

OPERATING WEIGHTS		GROUND PRESSURE		LOAD CAPACITY	
UNLADEN		LADEN (No sinkage/Total Contact Area Method)			
	kg (lb)	875/65 R29	kPa (Psi)		
Front	18 484 (40 750)	Front	296 (43)	Rated Payload	43 000 litres
Middle	8 648 (19 066)	Middle	366 (53)		(11 000 gallons)
Rear	8 543 (18 834)	Rear	366 (53)		
Total	35 675 (78 650)				
LADEN					
Front	24 204 (53 361)	29.5 R 25	kPa (Psi)		
Middle	28 488 (62 805)	Front	326 (47)		
Rear	28 383 (62 574)	Middle	395 (57)		
Total	81 075 (178 740)	Rear	395 (57)		

* 29.5R25 Groundpressures calculated with Michelin XADN+ Tyre. 875/65 R29 Groundpressures calculated with Michelin XAD65-1 Tyre.

Dimensions

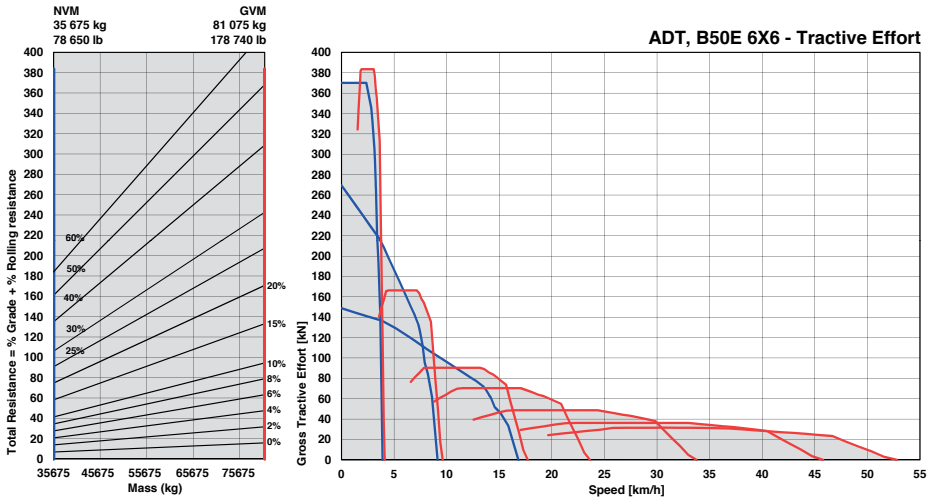


Machine Dimensions

A	Length - Transport Position	11 985 mm
A1	Length - Rear Step	12 195 mm
B	Height - Transport Position	3 822 mm
B1	Height - Rotating Beacon	4 050 mm
B2	Height - Load Light	4 141 mm
B3	Tank Guardrail Height - Operating Position	4 902 mm
C	Width Over Mudguards	3 790 mm
D	Width over Tyres	3 714 mm
E	Tyre Track Width	2 952 mm
F	Width Over Tank	3 820 mm
G	Width Over Mirrors - Operating Position	4 027 mm
H	Ground Clearance - Artic	558 mm
I	Ground Clearance - Front Axle	555 mm
J	Ground Clearance - Tank	690 mm
K	Ground Clearance - Dribble Bar	690 mm
L	Tank Height	4 022 mm
M	Tank Length	6 500 mm
N	Funnel Loading Height	4 225 mm
O	Rear Axle Center to Tank Rear	2 240 mm
P	Mid Axle Center to Rear Axle Center	1 950 mm
Q	Mid Axle Center to Front Axle Center	4 438 mm
R	Front Axle Center to Machine Front	3 351 mm
S	Front Axle Center to Artic Center	1 558 mm
T	Approach Angle	24°
V	Maximum Articulation Angle	42°
W	Front Tie Down Height	1 269 mm
X	Machine Lifting Centers	10 161 mm
Y	Inner Turning Circle	4 753 mm
Z	Outer Turing Circle	9 349 mm

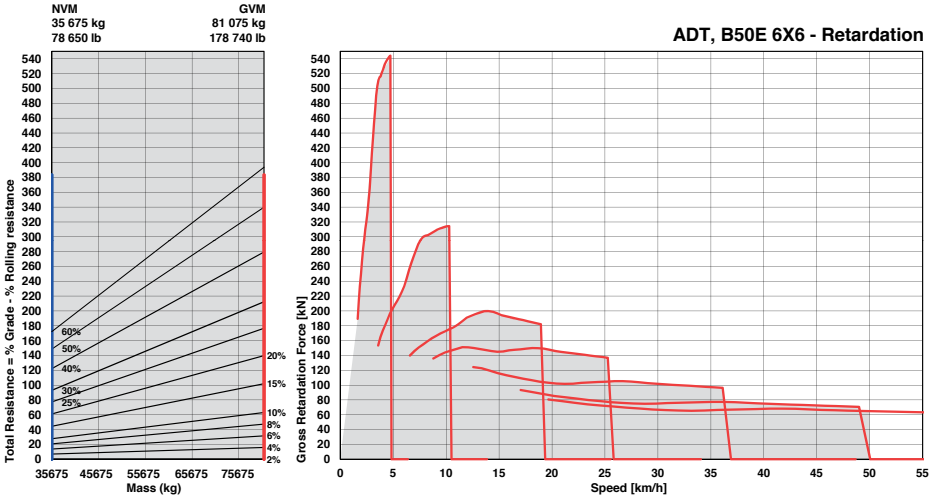
Grade Ability/Rimpull

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.

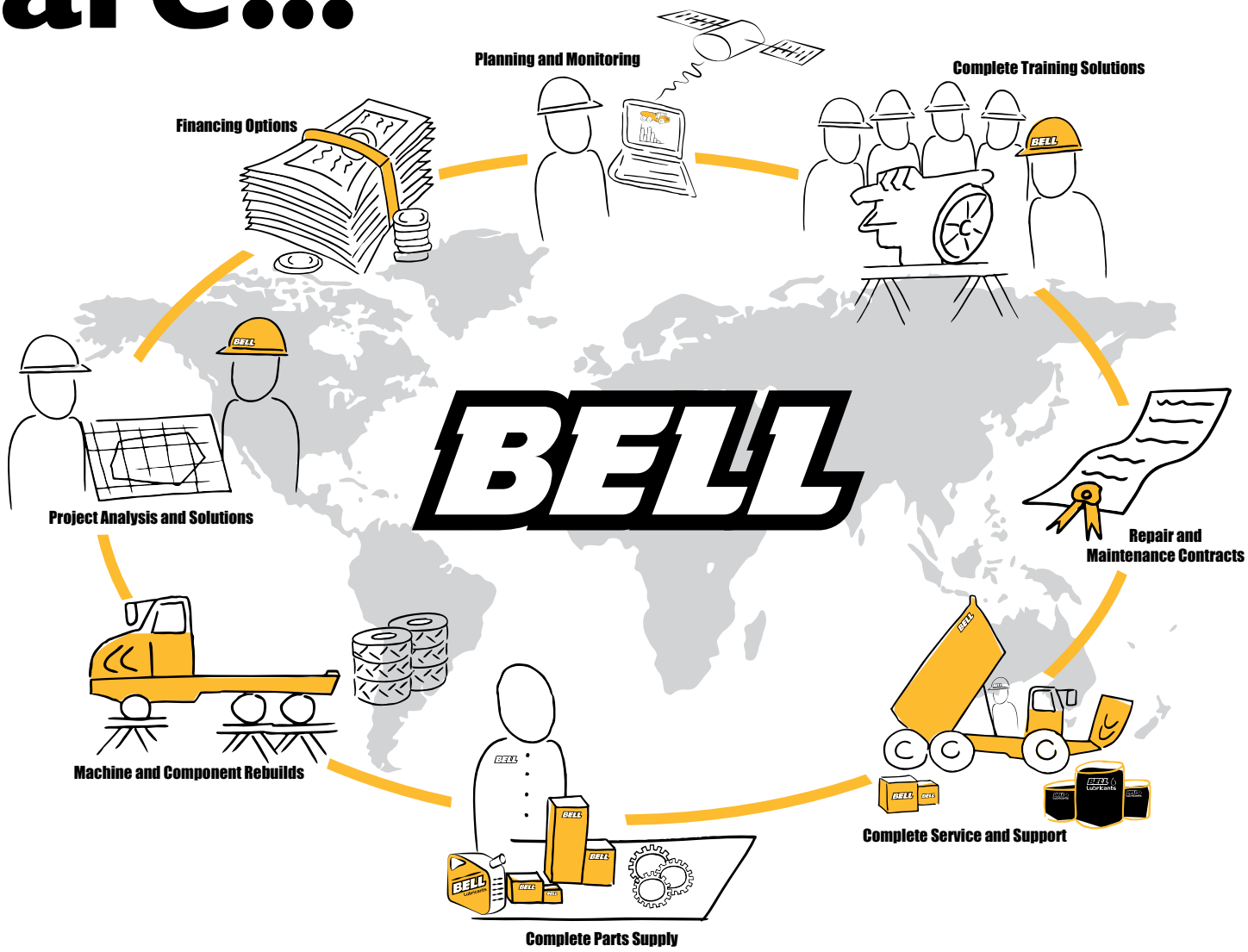


Retardation

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



Where ever you are...



Through our own network as well as approved dealers and strategic alliances we ensure supply and support to the global market.

Develop a lasting and meaningful partnership with Bell Equipment through our tailor-made support structure furnished with all the after-sales tools you need to give you best value, peace of mind and a unique after-sales experience.

...we have you covered

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 abillity 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
- Receive machine health data
- Implement safety features
- Protect investments
- Receive real time geospatial data

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.

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