

B35E Articulated Dump Truck

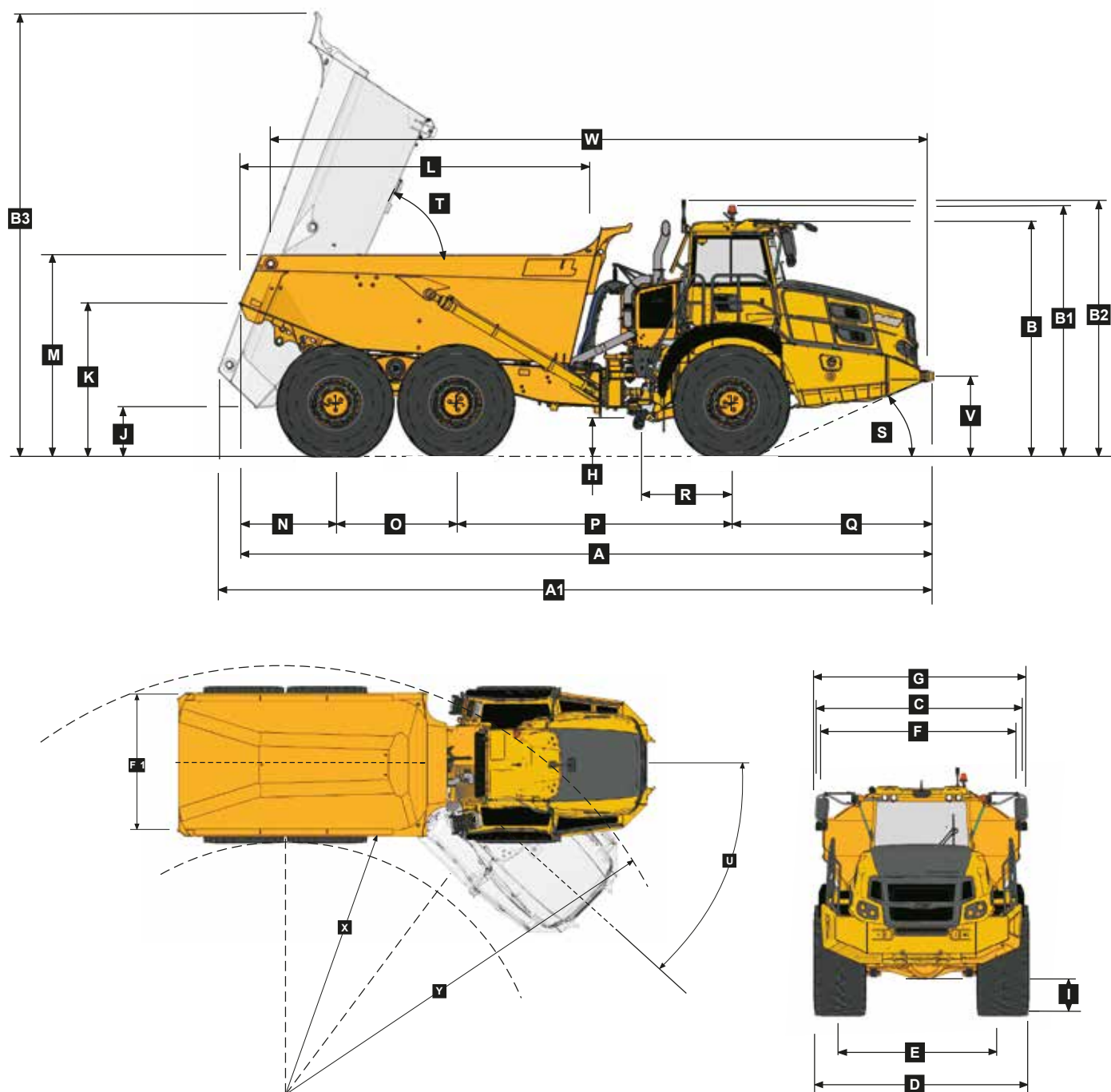
ENGINE Manufacturer Mercedes Benz (MTU) Model OM471LA (MTU 6R 1300) Configuration Inline 6, turbocharged and intercooled. Maximum Net Power 320 kW (429 hp) at 1 600 rpm in accordance with UN ECE R120 Gross Torque 2 600 Nm (1 917 lbft) @ 1 300 rpm Displacement 12,8 litres (781 cu.in) Auxiliary Brake Jacobs Engine Brake® Fuel Tank Capacity 352 litres (93 US gal) AdBlue® Tank Capacity 40 litres (11 US gal) Certification OM471LA (MTU 6R 1300) meets EU Stage V / EPA Tier 4 Final emissions regulations.	Torque Control Hydrodynamic with lock-up in all gears. TRANSFER CASE Manufacturer Kessler Series W2400 Layout Remote mounted Gear Layout Three in-line helical gears Output Differential Interaxle 29/71 proportional differential. Automatic inter-axle differential lock. AXLES Manufacturer Bell Model 30T Differential High input controlled traction differential with spiral bevel gears Final Drive Outboard heavy duty planetary on all axles.	Total Retardation Power Continuous: 442 kW (593 hp) Maximum: 834 kW (1 118 hp) WHEELS Type Radial Earthmover Tyre 26.5 R 25 FRONT SUSPENSION Semi-independent, leading A-frame supported by hydro-pneumatic suspension struts Optional active dual springrate Comfort Ride suspension available, including height control. REAR SUSPENSION Pivoting walking beams with laminated rubber suspension blocks. Optional passive dual-springrate Comfort Ride walking beam available. 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 300 L/min (79 gal/min) Pressure 310 Bar (4 500 psi) Filter 5 microns STEERING SYSTEM Double acting cylinders, with ground-driven emergency steering pump. Lock to lock turns 4.5 Steering Angle 42°	DUMPING SYSTEM Two double-acting, single stage, dump cylinders. Raise Time 12 seconds Lowering Time 11 seconds Tipping Angle 70 deg standard, or any lower angle programmable PNEUMATIC SYSTEM Air drier with heater and integral unloader valve, serving park brake and auxiliary functions. System Pressure 8,1 Bar (117 psi) ELECTRICAL SYSTEM Voltage 24 V Battery Type Two AGM (Absorption Glass Mat) type. Battery Capacity 2 X 75 Ah Alternator Rating 28V 100A MAX. VEHICLE SPEED <table><tr><td>1st</td><td>4 km/h</td><td>3 mph</td></tr><tr><td>2nd</td><td>9 km/h</td><td>6 mph</td></tr><tr><td>3rd</td><td>16 km/h</td><td>10 mph</td></tr><tr><td>4th</td><td>22 km/h</td><td>14 mph</td></tr><tr><td>5th</td><td>31 km/h</td><td>19 mph</td></tr><tr><td>6th</td><td>42 km/h</td><td>26 mph</td></tr><tr><td>7th</td><td>48 km/h</td><td>30 mph</td></tr><tr><td>R</td><td>7 km/h</td><td>4 mph</td></tr></table> CAB ROPS/FOPS certified 77 dBA internal sound pressure measured according to ISO 6396.	1st	4 km/h	3 mph	2nd	9 km/h	6 mph	3rd	16 km/h	10 mph	4th	22 km/h	14 mph	5th	31 km/h	19 mph	6th	42 km/h	26 mph	7th	48 km/h	30 mph	R	7 km/h	4 mph
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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	BRAKING SYSTEM Service Brake Dual circuit, full hydraulic actuation wet disc brakes on front and middle axles. Wet brake oil is circulated through a filtration and cooling system. Maximum brake force: 352 kN (79 133 lbf) Park & Emergency Spring applied, air released driveline mounted disc. Maximum brake force: 206 kN (46 311 lbf) Auxiliary Brake Jacobs Engine Brake®. Automatic retardation through electronic activation of wet brake system.																										

Load Capacity & Ground Pressure

OPERATING WEIGHTS		GROUND PRESSURE*				LOAD CAPACITY		OPTION WEIGHTS	
UNLADEN	kg (lb)	LADEN				BODY	m³ (yd³)		kg (lb)
Front	16 816 (37 073)	No sinkage/Total Contact Area (as recommended by tyre manufacturer)	Calculation method used by competition			Struck Capacity	16 (21)	Bin liner	1 216 (2 681)
Middle	8 708 (19 198)					SAE 2:1 Capacity	20,5 (27)	Tailgate	924 (2 037)
Rear	8 495 (18 728)	26.5 R 25	kPa (Psi)	26.5 R 25	kPa (Psi)	SAE 1:1 Capacity	24,5 (32)		
Total	34 019 (74 999)	Front	376 (54,5)	Front	167 (24,2)	SAE 2:1 Capacity with Tailgate	21 (28)	EXTRA WHEELSET	
LADEN		Mid/Rear	382 (55,4)	Rear	181 (26,3)			26.5 R 25	
Front	20 770 (45 790)							(per vehicle) Add	330 (727,5)
Middle	23 481 (51 767)					Rated Payload	33 500 kg		
Rear	23 268 (51 297)						(73 855 lb)		
Total	67 519 (148 854)								

* All Ground pressures calculated with Michelin XADN+ Tyre

Dimensions

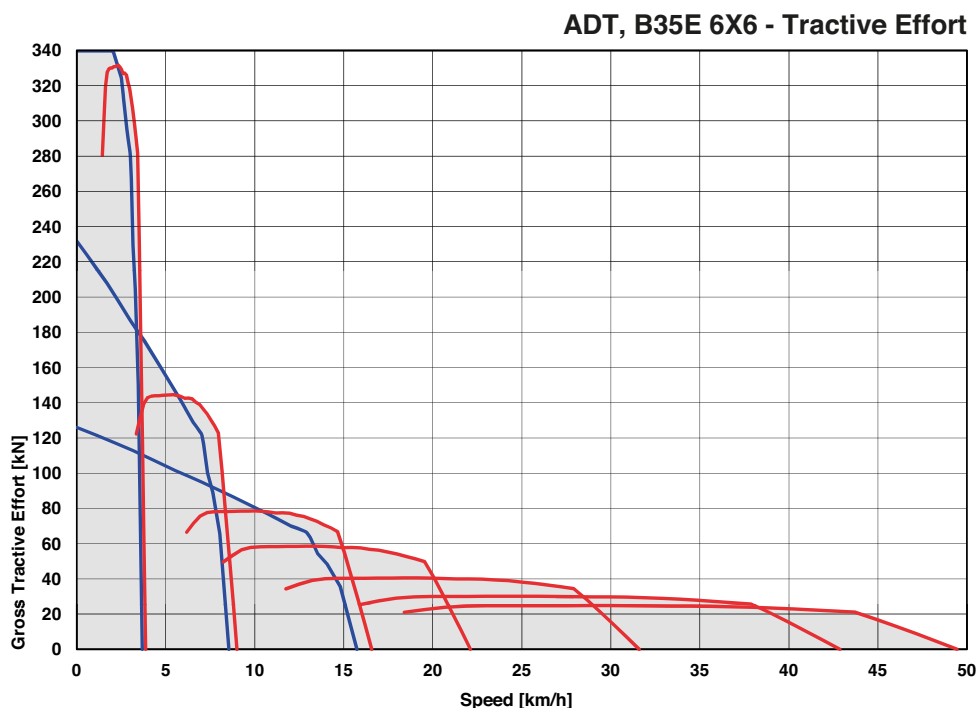
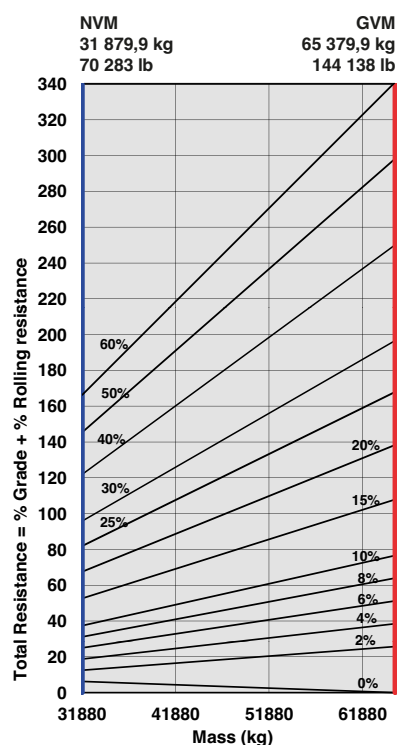


Machine Dimensions

A	Length - Transport Position with Tailgate	11 268 mm	(37 ft.)	K	Bin Lip Height - Transport Position	2 463 mm	(8 ft. 1 in.)
A	Length - Transport Position w/o Tailgate	11 188 mm	(36 ft. 8 in.)	L	Bin Length	5 709 mm	(18 ft. 9 in.)
A1	Length - Bin Fully Tipped	11 631 mm	(38 ft. 2 in.)	M	Load over Height	3 084 mm	(10 ft. 1 in.)
B	Height - Transport Position	3 752 mm	(12 ft. 4 in.)	N	Rear Axle Centre to Bin Rear	1 545 mm	(5 ft.)
B1	Height - Rotating Beacon	3 988 mm	(13 ft. 1 in.)	O	Mid Axle Centre to Rear Axle Centre	1 950 mm	(6 ft. 5 in.)
B2	Height - Load Light	4 076 mm	(13 ft. 4 in.)	P	Mid Axle Centre to Front Axle Centre	4 438 mm	(14 ft. 7 in.)
B3	Bin Height - Fully Tipped	7 213 mm	(23 ft. 8 in.)	Q	Front Axle Centre to Machine Front	3 255 mm	(10 ft. 8 in.)
C	Width over Mudguards	3 495 mm	(11 ft. 6 in.)	R	Front Axle Centre to Artic Centre	1 558 mm	(5 ft. 1 in.)
D	Width over Tyres - 26.5R25	3 438 mm	(11 ft. 3 in.)	S	Approach Angle	23 °	
E	Tyre Track Width - 26.5R25	2 768 mm	(9 ft. 1 in.)	T	Maximum Bin Tip Angle	70 °	
F	Width over Bin	3 112 mm	(10 ft. 3 in.)	U	Maximum Articulation Angle	42 °	
F1	Width over Tailgate	3 402 mm	(11 ft. 2 in.)	V	Front Tie Down Height	1 215 mm	(4 ft.)
G	Width over Mirrors - Operating Position	3 614 mm	(11 ft. 10 in.)	W	Machine Lifting Centres	10 655 mm	(34 ft. 11 in.)
H	Ground Clearance - Artic	493 mm	(19.41 in.)	X	Inner Turning Circle Radius - 26.5R25	4 891 mm	(16 ft.)
I	Ground Clearance - Front Axle	493 mm	(19.41 in.)	Y	Outer Turning Circle Radius - 26.5R25	9 211 mm	(30 ft. 3 in.)
J	Ground Clearance - Bin Fully Tipped	822 mm	(32.4 in.)				

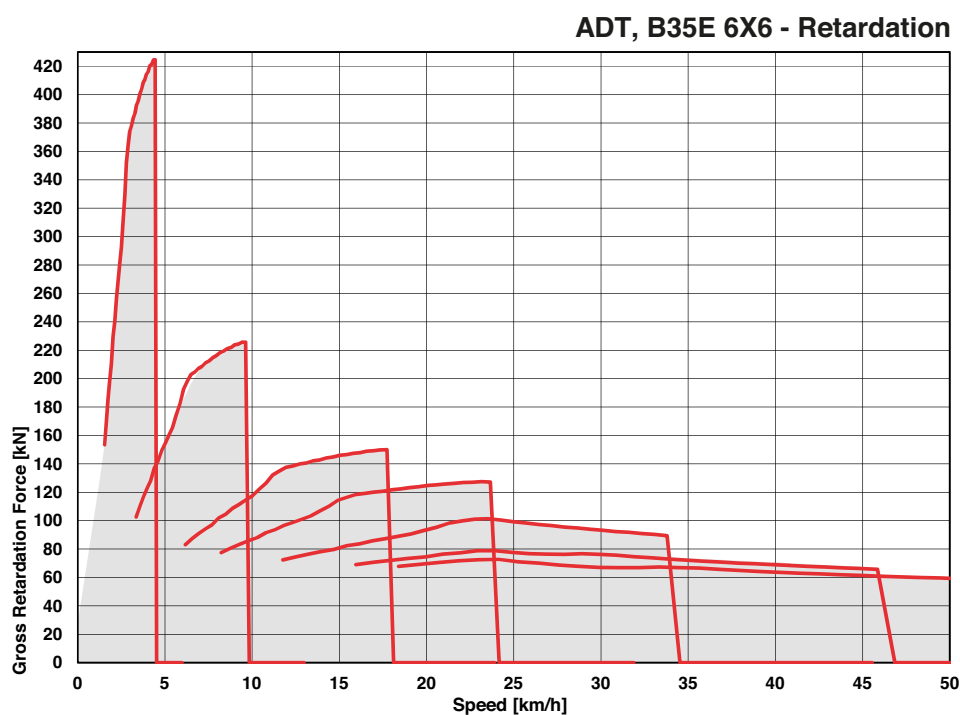
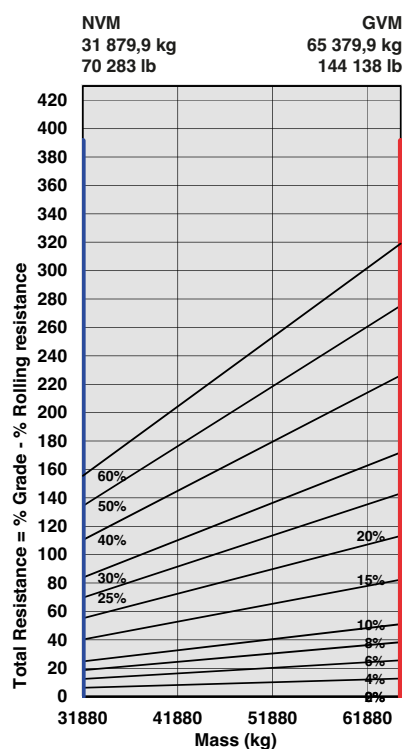
Gradeability/Rimpull

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.



B35E	B40E	B45E	B50E		
				ENGINE	
●	●	●	●	Jacobs Engine Brake®	
●	●	●	●	Dual element air cleaner with dust ejector valve	
●	●	●	●	Precleaner with automatic dust scavenging	
●	●	●	●	Water separator	
●	●	●	●	Serpentine drive belt with automatic tensioner	
●	●	●	●	Provision for fast fill	
●	●	●	●	Wet-sleeve cylinder liners	
				COOLING	
●	●	●	●	Crankshaft mounted electronically controlled viscous fan drive	
●	●	●	●	Fan guard	
				PNEUMATIC SYSTEM	
●	●	●	●	Engine-mounted compressor	
●	●	●	●	Air drier with heater	
●	●	●	●	Integral unloader valve	
				ELECTRICAL SYSTEM	
▲	▲	▲	▲	PDS Hardware	
●	●	●	●	Battery disconnect	
●	●	●	●	Halogen drive lights	
▲	▲	▲	▲	LED drive lights	
●	●	●	●	Air horn	
●	●	●	●	Reverse alarm	
▲	▲	▲	▲	White noise reverse alarm	
●	●	●	●	Rotating beacon	
●	●	●	●	Pitch Roll Sensor	
●	●	●	●	Halogen Artic reverse light	
▲	▲	▲	▲	LED Artic reverse light	
●	●	●	●	LED reverse lights	
				STEERING SYSTEM	
●	●	●	●	Unidirectional pump	
▲	▲	▲	▲	Bi-directional pump	
				CAB	
●	●	●	●	ROPS/FOPS certification	
●	●	●	●	Tilt cab	
●	●	●	●	Gas strut-supported door	
●	●	●	●	I-Tip programmable dump-body tip settings	
●	●	●	●	HVAC semi-climate control system	
●	●	●	●	AM/FM radio with Aux + USB	
●	●	●	●	Rear window guard	
●	●	●	●	Wiper/washer with intermittent control	
●	●	●	●	Tilt and telescoping steering wheel	
●	●	●	●	Centre-mount air-suspension seat	
●	●	●	●	Halogen work lights	
▲	▲	▲	▲	LED work lights	
▲	▲	▲	▲	Rotating beacon: seat belt installation	
▲	▲	▲	▲	Remote engine and machine isolation	
●	●	●	●	Remote battery jump start	
●	●	●	●	Retractable 3 point seat belt	
●	●	●	●	Heated seat	
●	●	●	●	Foldaway trainer seat with retractable seat belt	
●	●	●	●	12-volt power outlet	
●	●	●	●	Cab utility bin (removable)	
●	●	●	●	Cup holder	
●	●	●	●	Cooled/heated lunch box	
				CAB (continued)	
				Manually adjusted mirrors	
				Heated mirrors	
●	●	●	●	Electrically adjusted and heated mirrors	
●	●	●	●	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	
●	●	●	●	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	
				DUMP BODY	
●	●	●	●	Dump body mechanical locks (x2). Partially up	
				and fully up	
▲	▲	▲	▲	Body liner	
▲	▲	▲	▲	Tailgate	
▲	▲	▲	▲	Body heater	
▲	▲	▲	▲	Less dump body and cylinders	
▲	▲	▲	▲	Low SG bin extensions	
▲	▲	▲	▲	Bin pole lockout	
				OTHER	
●	●	●	●	Automatic Traction Control (ATC)	
●	●	●	●	Wet disc brakes	
●				26.5 R 25 Radial Earthmover tyres	
	●	●	▲	29.5 R 25 Radial Earthmover tyres	
	▲	▲	●	875/65 R 29 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	
▲	▲	▲	▲	HSE Hand rails	
●	●	●	●	Cab peak	
▲	▲	▲	▲	High pressure hydraulic filter	
▲	▲	▲	▲	Fuel heater	
●	●	●	●	Belly plate	
▲	▲	▲	▲	Belly covers	
▲	▲	▲	▲	Remote transmission filters	
●	●	●	●	Engine and transmission remote drain-gravity	
▲	▲	▲	▲	Engine and transmission remote drain-scavenge	
▲	▲	▲	▲	Window smash button	
●	●	●	●	High visibility mirrors	
●	●	●	●	Fleetm@tic® Classic Package for 2 years	
●	●	●	●	Electronic bonnet opening	

The compilation of standard and optional equipment may vary by market region. Please check with your local distributor.