

B30E 4x4 Articulated Dump Truck

ENGINE

Manufacturer
Mercedes Benz

Model
OM936LA

Configuration
Inline 6, turbocharged and intercooled

Maximum Net Power
260 kW (348 hp) at 1 800 rpm in accordance with UN ECE R120

Gross Torque
1 450 Nm (1 069 lbft)
@ 1 200 -1 600 rpm

Displacement
7,7 litres (469 cu.in)

Auxiliary Brake
Jacobs Engine Brake®

Fuel Tank Capacity
302 litres (79.78 US gal)

AdBlue® Tank Capacity
31 litres (8.2 US gal)

Certification
OM936LA meets EU Stage V / EPA Tier 4 Final emissions regulations

TRANSMISSION

Manufacturer
Allison

Model
3400 P ORS

Configuration
Fully automatic planetary transmission

Layout
Engine mounted

Gear Layout
Constant meshing planetary gears, clutch operated

Gears
6 Forward, 1 Reverse

Clutch Type
Hydraulically operated multi-disc

Control Type
Electronic

Torque Control
Hydrodynamic with lock-up in all gears

TRANSFER CASE

Manufacturer
Kessler

Series
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
Front: Bell 18T
Rear: Bell 36T

Front Differential
High input limited slip differential with spiral bevel gears

Final Drive
Outboard heavy duty planetary on all axles

BRAKING SYSTEM

Service Brake
Dual circuit, full hydraulic actuation wet disc brakes on front and rear axles. Wet brake oil is circulated through a filtration and cooling system.

Maximum brake force:
284 kN (63 859 lbf)

Park & Emergency
Spring applied, air released driveline mounted disc

Maximum brake force:
396 kN (89 000 lbf)

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

Total Retardation Power
Continuous: 332 kW (445 hp)
Maximum: 723 kW (969 hp)

WHEELS

Type
Radial Earthmover

Tyre
Front: 23.5 R 25
Rear: 875/65 R 29

FRONT SUSPENSION

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

Optional active dual springrate Comfort Ride suspension available, including height control.

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
202 L/min (53 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
4,1

Steering Angle
45°

DUMPING SYSTEM

Two double-acting, single stage, dump cylinders

Raise Time
12 s

Lowering Time
10 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
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

VEHICLE SPEEDS

1st	8 km/h	5 mph
2nd	14 km/h	9 mph
3rd	19 km/h	12 mph
4th	29 km/h	18 mph
5th	42 km/h	26 mph
6th	49 km/h	30 mph
R	7 km/h	4 mph

CAB

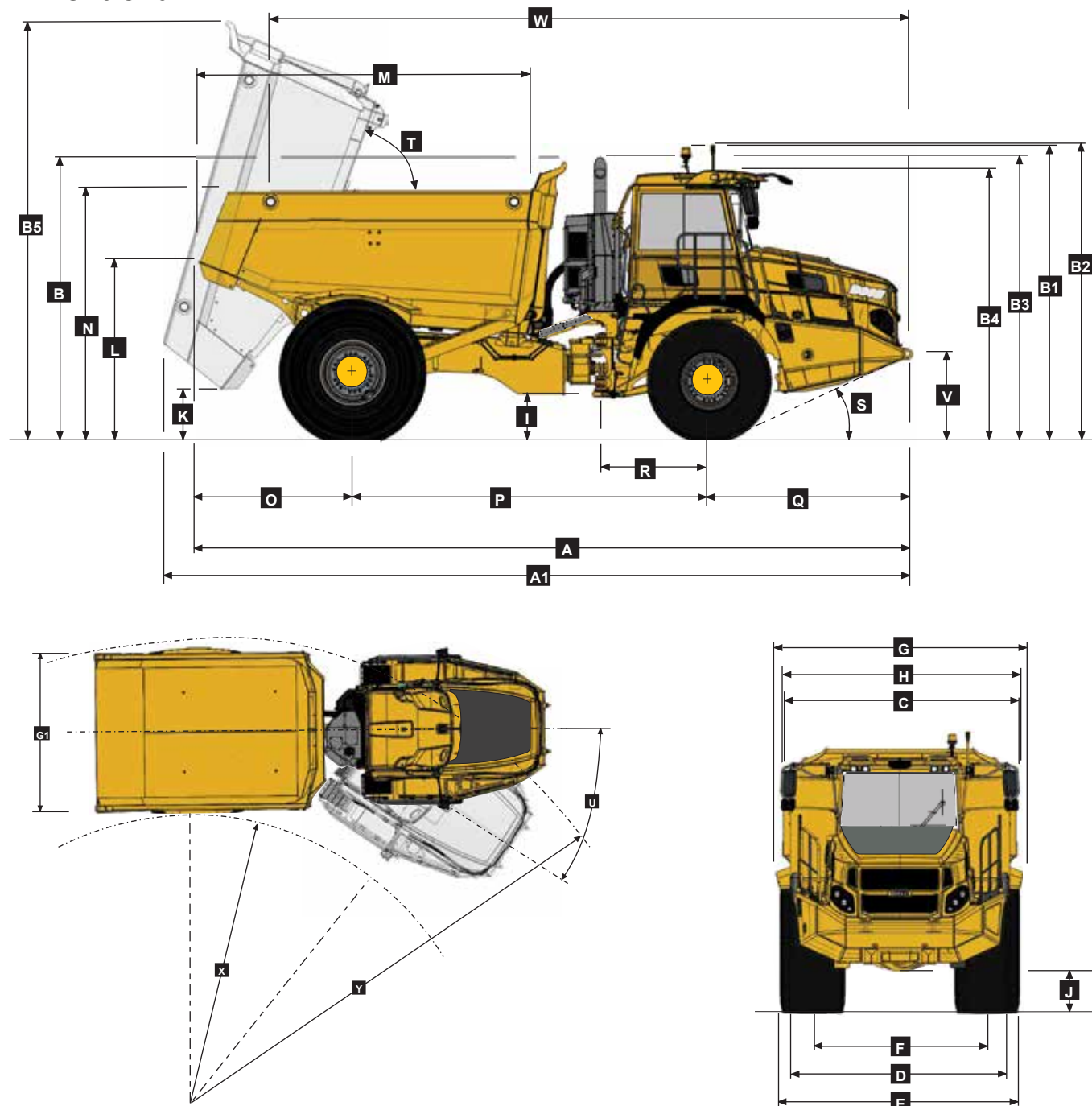
ROPS/FOPS certified 74 dBA internal sound pressure measured according to ISO 6396.

Load Capacity & Ground Pressure

OPERATING WEIGHTS*		GROUND PRESSURE		LOAD CAPACITY		OPTION WEIGHTS	
UNLADEN	kg (lb)	LADEN-No Sinkage		BODY	m³ (yd³)		kg (lb)
Front	11 499 (25 355)	23.5 R 25	kPa (Psi)	Struck Capacity	15 (19,5)	Bin liner	1 380 (3 042)
Rear	12 127 (26 740)	Front	295 (42,8)	SAE 2:1 Capacity	18,5 (24)	Tailgate	1 051 (2 317)
Total	23 626 (52 095)			SAE 1:1 Capacity	21,5 (28)		
		875/65 R 29	kPa (Psi)	SAE 2:1 Capacity		EXTRA WHEELSET	
LADEN		Rear	442 (64)	with Tailgate	19,5 (25,5)	23.5 R25	544 (1 199)
Front	13 951 (30 762)					875/65 R29	1 338 (2 950)
Rear	37 675 (83 073)			Rated Payload	28 000 kg		
Total	51 626 (113 835)				(61 729 lbs)		

* including additional equipment (tailgate)

Dimensions



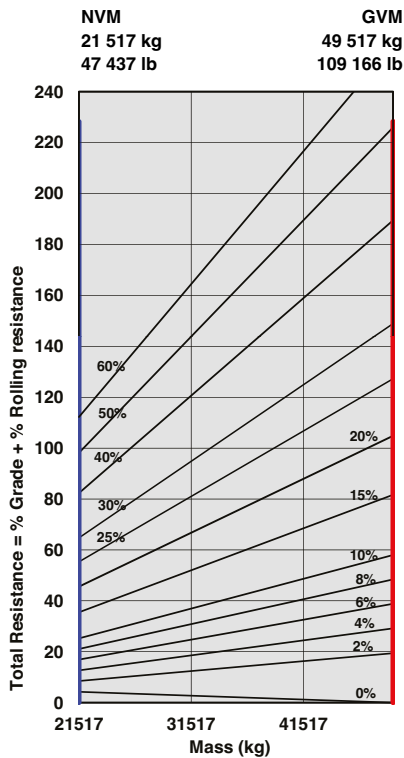
Machine Dimensions

A	Length - Transport Position	9 122 mm	(29.11 ft.)	J	Ground Clearance - Front Axle	480 mm	(18.9 in.)
A1	Length - Bin Fully Tipped	9 709 mm	(31.10 ft.)	K	Ground Clearance - Bin Fully Tipped	444mm	(17.5 in.)
B	Height - Transport Position (no exhaust stack)	3 548 mm	(11.8 ft.)	L	Bin Lip Height - Transport Position	2 331 mm	(7.8 ft.)
B1	Height - Rotating Beacon	3 718 mm	(12.2 ft.)	M	Bin Length	4 271 mm	(14.00 ft.)
B2	Height - Load Light	3 740 mm	(12.3 ft.)	N	Load over Height	3 207 mm	(10.6 ft.)
B3	Height - Exhaust Stack	3 605 mm	(11.10 ft.)	O	Rear Axle Centre to Bin Rear	1 957 mm	(6.5 ft.)
B4	Height - Cab	3 418 mm	(11.3 ft.)	P	Rear Axle Centre to Front Axle Centre	4 560 mm	(14.12 ft.)
B5	Bin Height - Fully Tipped	5 310 mm	(17.5 ft.)	Q	Front Axle Centre to Machine Front	2 605 mm	(8.7 ft.)
C	Width Over Mudguards	2 985 mm	(9.10 ft.)	R	Front Axle Centre to Artic Centre	1 360 mm	(4.6 ft.)
D	Width Over Tyres - Front - 23.5R25	2 998 mm	(9.10 ft.)	S	Approach Angle	25 °	
E	Width Over Tyres - Rear - 875/65 R29	3 270 mm	(10.9 ft.)	T	Maximum Bin Tip Angle	70 °	
F	Tyre Track Width - Front	2 390 mm	(7.10 ft.)	U	Maximum Articulation Angle	45 °	
F	Tyre Track Width - Rear	2 386 mm	(7.10 ft.)	V	Front Tie Down Height	1 040 mm	(3.5 ft.)
G	Width over Bin	3 383 mm	(11.2 ft.)	W	Machine Lifting Centres	8 126 mm	(26.8 ft.)
G1	Width over Tailgate	3 480 mm	(11.5 ft.)	X	Inner Turning Circle Radius	3 488 mm	(11.5 ft.)
H	Width over Mirrors - Operating Position	3 260 mm	(10.9 ft.)	Y	Outer Turning Circle Radius	7 385 mm	(24.3 ft.)
I	Ground Clearance - Artic	539 mm	(21.22 in.)				

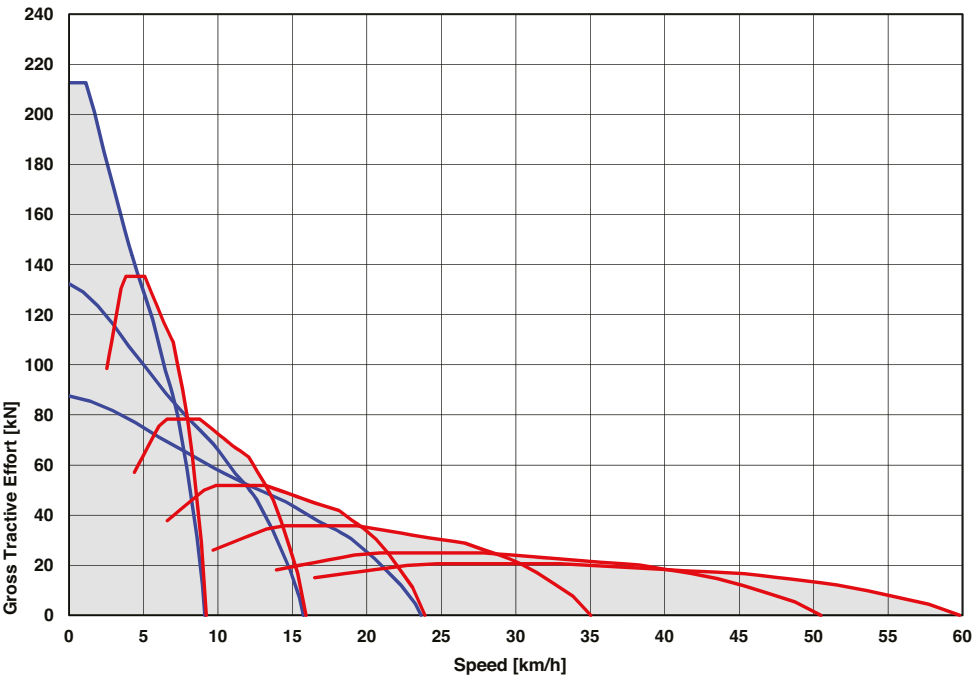
B30E 4x4

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.

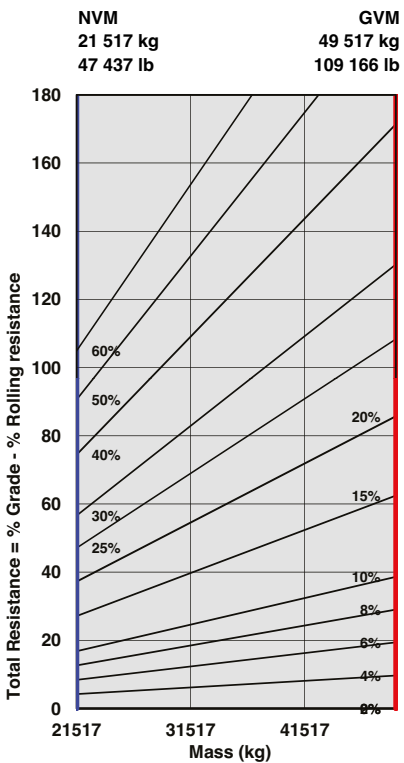


ADT, B30E 4x4 Tractive Effort

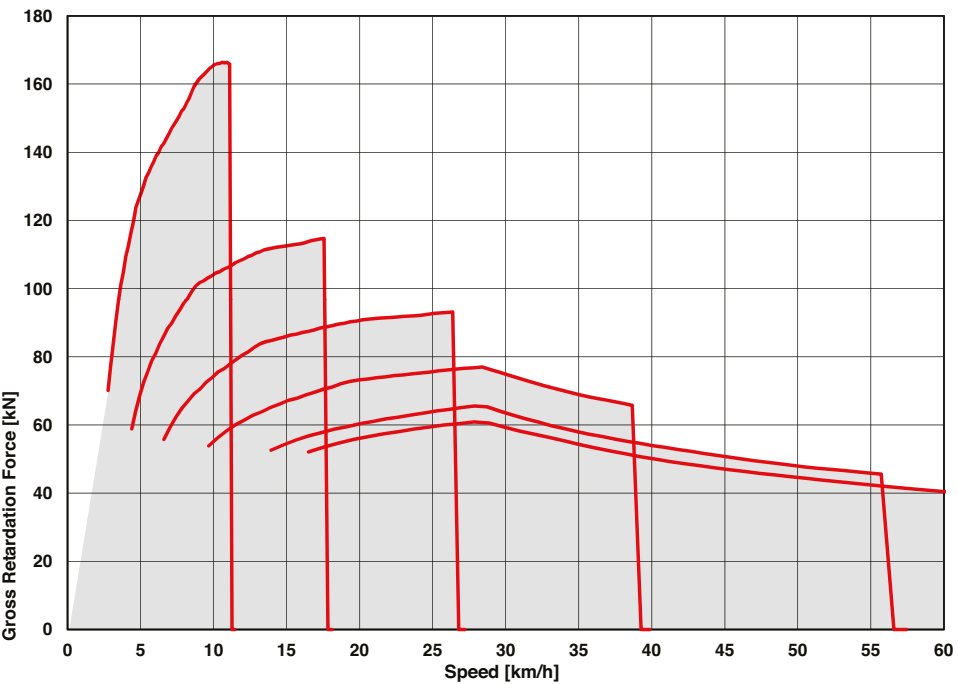


Retardation

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 4x4 Retardation



B30E 4x4	B45E 4x4	B60E 4x4	
ENGINE			
●	●	●	Jacobs Engine Brake®
●	●	●	Dual element air cleaner with dust ejector valve
●	●	●	Pre-cleaner 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			
●	●	●	Battery disconnect
●	●	●	Halogen drive lights
	▲	●	LED drive lights
●	●	●	Air horn
●	●	●	Reverse alarm
▲	▲	▲	White noise reverse alarm
●	●	●	Rotating beacon
●	●	●	Pitch roll sensor
▲	▲	●	LED Artic reverse light
●	●	●	Halogen artic reverse lights
●	●	●	LED reverse lights
STEERING SYSTEM			
●	●	●	Bi-directional 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
●	●	●	Tilt and telescoping steering wheel
●	●	●	Center-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
	▲		Heated mirrors

B30E 4x4	B45E 4x4	B60E 4x4	
CAB (continued)			
●	●		Electric adjustable and heated mirrors
●	●	●	Deluxe 10" color 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 / Air conditioner/ Heater controls /
			Preselected Speed Control
DUMP BODY			
●	●	●	Dump body mechanical lock
▲	▲	▲	Partial body liner
▲	▲	▲	Tailgate
▲	▲	▲	Body heater
▲	▲	▲	Less dump body and cylinders
	▲	▲	Bin pole lockout
	▲		Narrow bin body
	●	●	Rear wheel mudguards
OTHER			
●	●	●	Automatic Traction Control (ATC)
●	●	●	Wet disc brakes
●			23.5 R25 Radial Earthmover tyres (Front)
	●		775/65 R29 Radial Earthmover tyres (Front)
		●	875/65 R29 Radial Earthmover tyres (Front)
	▲		26.5 R25 Radial Earthmover tyres (Front-optional)
●			875/65 R29 Radial Earthmover tyres (Rear)
	●		21.00 R35 Dual (Rear)
		●	24.00 R35 Dual (Rear)
●	●		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
●	●	●	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