

B22D

ARTICULATED DUMP TRUCK Mk VI



D SERIES

- Gross power: 170 kw (288 hp)
- Gross torque: 810 Nm (597 lbft)
- Load capacity: 14 m³ SAE 2:1 Capacity

BELL

B22D ARTICULATED DUMP TRUCK MkVI

ENGINE

Mercedes Benz inline 6 cylinder, turbocharged, intercooled, low emission diesel engine

Gross power	170 kW (288 hp) @ 2 200 rpm SAE J1349
Net Power	165 kW (221 hp) @ 2 200 rpm
Gross torque	810 Nm (597 lbf) @ 1 050 - 1 850 rpm SAE J1349
Net torque	780 Nm (575 lbf) @ 1 050 - 1 850 rpm
Displacement	6,37 litres (389 cu.in)
Fuel tank capacity	200 l (85 US gal)
Auxiliary Brake	Exhaust brake Engine Valve Brake (EVB)
Certification Regulated	OM 906 LA.E3A/1 meets Europe (EU) step 3

TRANSMISSION

Engine mounted, fully automatic ZF planetary transmission with six forward gears and one reverse gear. Hydrodynamic with lock-up in all gears.

Model 6HP592C Ecomat 2 plus

Control Type Electronic

TRANSFER BOX

Manufacturer	VGR
Model	13100
Layout	Three in-line helical gears.
Output Differential	67/33 torque proportioning, Pneumatically lockable on the move.

AXLES

High strength steel fabricated with spiral bevel type gears on the limited slip locking differential and heavy duty outboard planetary gears.

Model Bell 15T

BRAKING SYSTEM

SERVICE BRAKE	Dual circuit, full hydraulic actuation caliper brakes on all wheels
Maximum brake force	164 kN (36,900 lbf)
PARK & EMERGENCY	Spring applied, air released driveline mounted disc.
Maximum brake force	396 kN (89,000 lbf)
AUXILLIARY BRAKE	Automatic exhaust brake and Engine Valve Brake (EVB)
	Variable Adjustable
Maximum retardation	Hydraulic Retarder 442 kW (593 hp)

WHEELS

Tyre	Earthmover 20.5R25
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FRONT SUSPENSION

Semi-independent, quad rubber mounted leading arm linkages supported by nitrogen and oil filled struts.

REAR SUSPENSION

Pivoting walking beams, distributing equal load through laminated rubber suspension blocks. Each axle is coupled to the chassis by four rubber-bushed links for ideal vertical movement.

HYDRAULIC SYSTEM

Flow	Full load sensing system incorporating a ground driven emergency steering pump.
Pressure	184 l/min (48.6 gal/min)
Filter	25 Mpa (3915 psi) 5 micron

STEERING SYSTEM

Hydrostatically actuated, low effort, fast acting.	
Two double-acting steering cylinders	
Lock to lock turns	4.1
Steering Angle	+/-45°

DUMPING SYSTEM

Two double-acting, single stage, dump cylinders	
Raise Time	12 s
Lowering Time	6 s
Tipping Angle	70°

PNEUMATIC SYSTEM

Air drier with heater and integral unloader valve, serving park brake and auxilliary functions	
System Pressure	810 kPa (117 psi)

ELECTRICAL SYSTEM

Voltage	24 V
Battery Type	Two maintenance free permanently sealed
Battery Capacity	2 X 105 Ah
Alternator Rating	28 V 80 A

VEHICLE SPEEDS

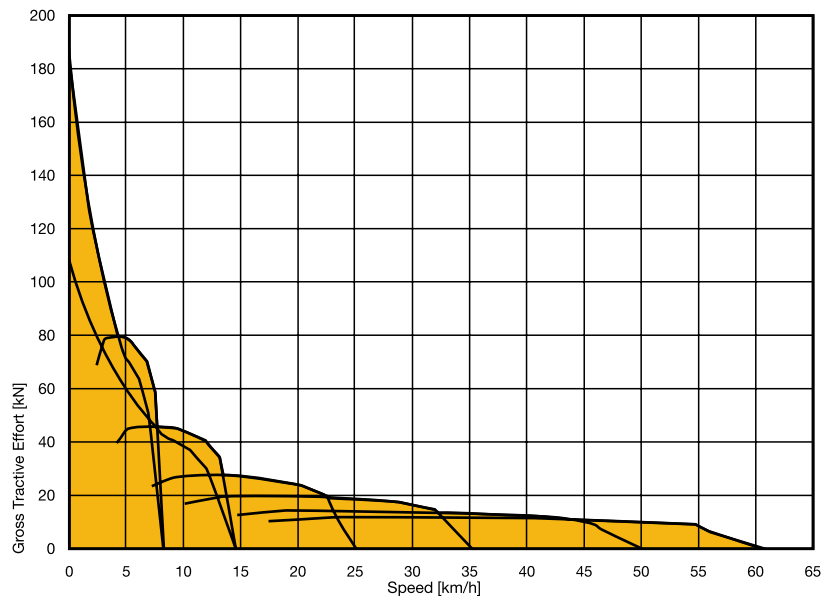
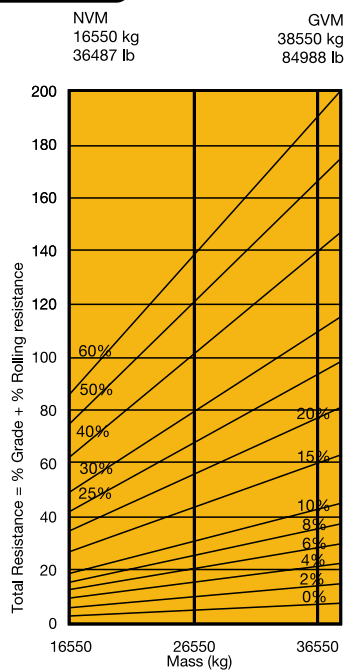
	km/h	mph
1st	8	5
2nd	14	9
3rd	25	16
4th	35	22
5th	50	31
6th	60	37
R	9	6



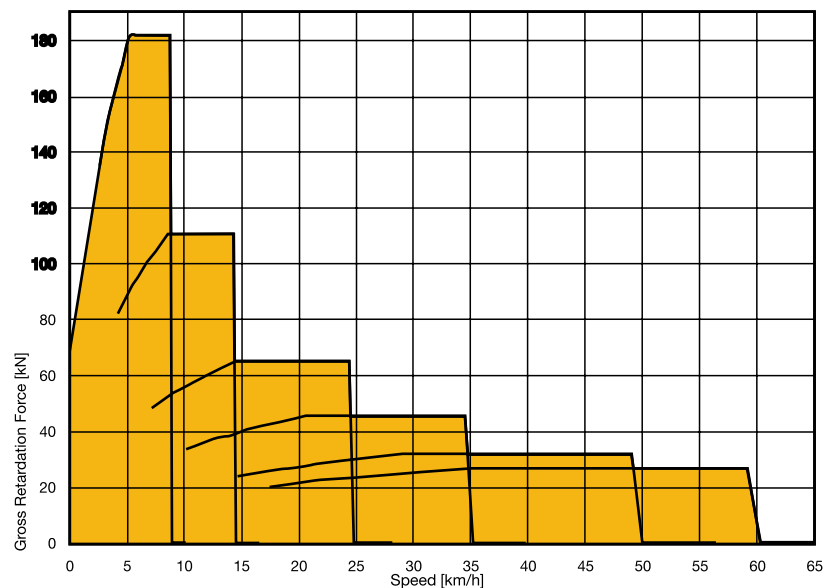
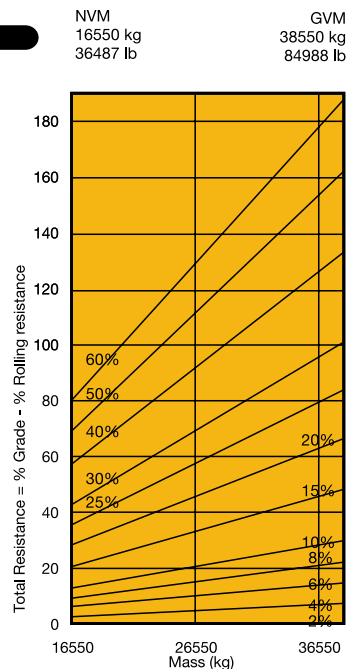
LOAD CAPACITY & GROUND PRESSURE

WEIGHTS			GROUND PRESSURE			LOAD CAPACITY		
UNLADEN	kg	lbs	UNLADEN	kPa	psi	BODY	m³	cu.yd
Front	8 100	17,857	Front	232	33.6	Struck Capacity	11	14.4
Middle	4 250	9,370	Middle	221	32	SAE 2:1 Capacity	14	18.3
Rear	4 200	9,260	Rear	221	32	SAE 1:1 Capacity	18	23.5
Total	16 550	36,487				SAE 2:1 Capacity with Autogate	14,5	19
LADEN			LADEN					
Front	11 100	24,471	Front	259	37.6			
Middle	13 750	30,314	Middle	341	49.4	Rated Payload	22 000 kg	48,502 lbs
Rear	13 700	30,203	Rear	341	49.4			
Total	38 550	84,988						

GRADEABILITY/RIMPULL

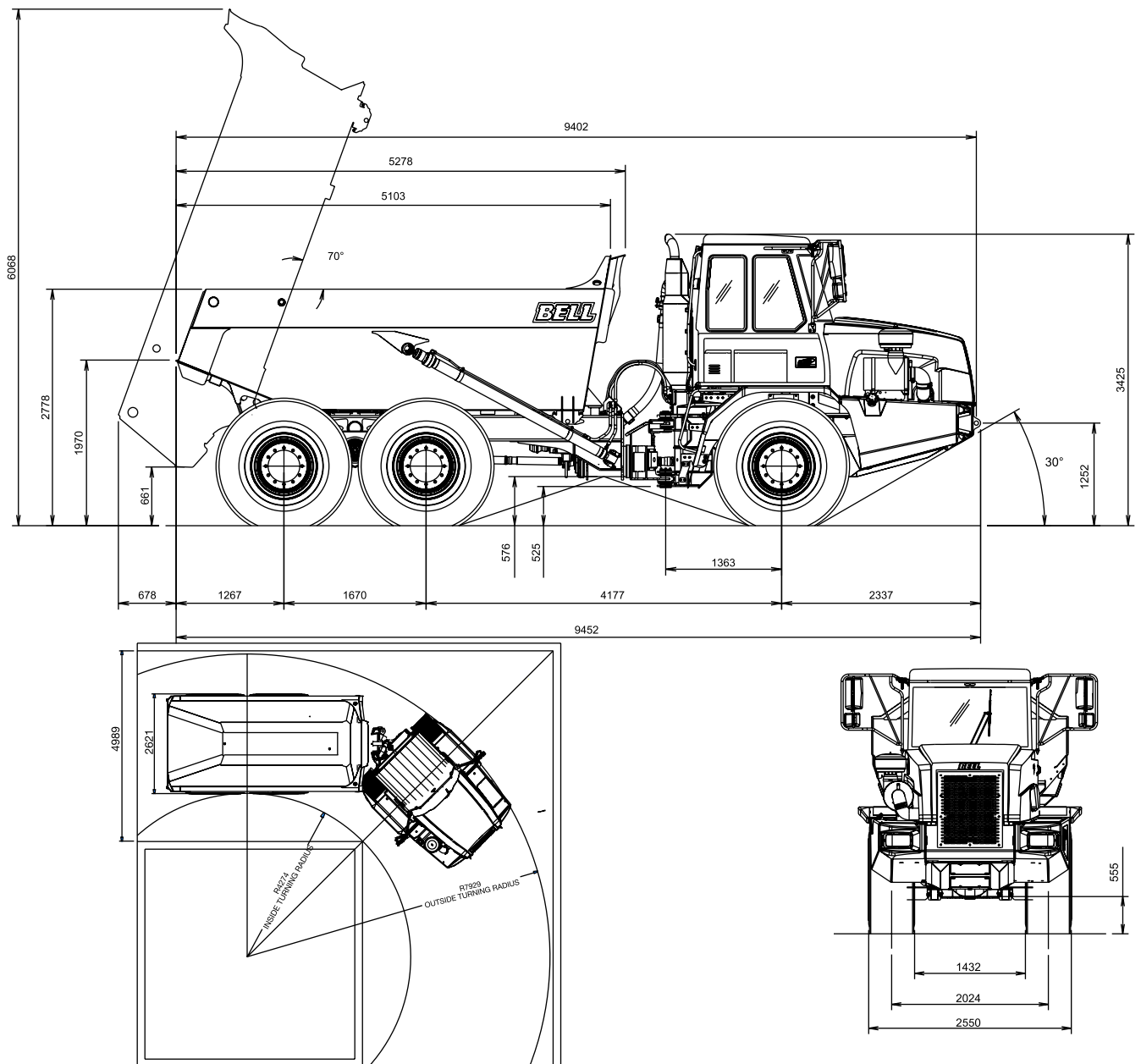


RETARDATION



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DIMENSIONS



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AVAILABLE EQUIPMENT*

Cab

- ROPS/FOPS certification
- Protective rear window guard
- Tilt cab for service access
- Gas strut supported door
- Tinted safety glass
- Sliding windows
- Rear view mirrors - regular and wide angle
- Sun visor
- Wiper/washer with intermittent control
- Tilt and telescoping steering wheel
- Adjustable, air suspension seat with retractable seat belt
- Fold-away trainer seat with retractable seat belt
- HVAC climate control system with filtered and ducted air
- Rotating beacon
- 12 V power outlet/12 V cigarette lighter
- Ash tray
- Drinks holder
- Cooled/heated lunch box
- I-Tip programmable bin tip
- Sound insulated to 76 dB(A) to ISO 6394
- Radio/CD/Tape
- Memory Module
- Air horn

MDU Features

- Operator / Site selected speed control
- Tipping counter
- Trip timer
- Trip distance
- Transmission gear selection
- Fuel Consumption
- Diagnostics
- Intermittent wiper timing control
- Speedo calibration for alternative tyre sizes
- Metric /Imperial unit selection
- Warning lights with audible buzzer

Gauges

- Engine coolant temperature
- Engine oil pressure
- Transmission oil temperature
- Fuel
- Tachometer
- Battery voltage
- Hourmeter
- Odometer
- System air pressure

Vehicle

- Ground driven emergency steering
- Bin safety prop
- Articulation lock
- Integral transmission output retarder with 6 settings

Other

- (Factory or field installed)
- On Board Weigh System (OBW)
- Electrically adjustable rearview mirrors - one per side
- Groeneveld auto greasing system
- Retractable sun visor
- Exhaust body heating
- Autogate
- Body liners
- Fleetmatic Satellite Monitoring System
- Driver ID and immobiliser
- Forward working lights
- Artic reverse light
- Fuel heater
- External windshield visor
- Headlight protection grills
- Rear window wiper
- Antenna mounting bracket
- Provision for reverse camera
- Wiggins quick fuelling system

*standard specification for machines may vary according to region



What makes the B22D a great performer...

- **With a highly efficient power and drive-train combined with low rolling resistance, the Bell B22D delivers superior fuel efficiency and lowest cost per tonne solution.**
- **High performance engine with increased power and torque.**
- **Powerful hydraulic transmission retarder drastically cuts brake use extending pad life by up to five times.**
- **Extended service intervals and centralised lubrication**
- **Supreme driver comfort from a nitrogen over oil strut suspension system.**
- **Deluxe cab - setting new standards in comfort, sound levels and simplicity in operation.**
- **Tight turning circle increases manoeuvrability.**
- **Electronic component protection to ensure maximum machine availability.**
- **Easy service access reduces maintenance times and ensures maximum machine availability.**
- **Fast and safer tip cycles ensured with the use of i-Tip and chassis inclinometer.**
- **Automated safety features ensure maximum uptime.**

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All dimensions are shown in millimetres, unless otherwise stated between brackets.
Under our policy of continuous improvement, we reserve the right to change specifications and design without prior notice. Photographs featured in this brochure may include optional equipment.

Strong Reliable Machines
Strong Reliable Support

