2806E

ARTICULATED TRACTOR

4x4

- Gross Power: 205 kW (275 hp)
- Gross Torque: 1 100 Nm (811 lbft)
- Gross Combination Mass: 56 000 kg (123 459 lbs)

BELL

Technical Data - 2806E Articulated Tractor 4x4

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
3500PR ORS

Configuration
Fully automatic planetary transmission with optional 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 BOX

Manufacturer
Kessler

Series
W1400

Layout
Remote mounted

Gear Layout
Three in-line helical gears

Output Differential
Permanent interaxle differential lock

AXLES

High torque, low speed suitable for dual wheels.

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 6 calipers (4F, 2R).

Maximum Brake Force:
132 kN (29 675 lbf) with standard tyres.

Park & Emergency
Spring applied air released, driveline mounted disc

Maximum Brake Force:
242 kN (54 400 lbf)

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

Maximum Retardation
165 kW (221 hp) Standard continuous
539 kW (723 hp) with Maximum retarder option

WHEELS

Standard Tyre: Size
23.5R25

Standard Tyre: Type
Radial Earthmover

Optional Tyre 1: Size
Dual 15X34

Optional Tyre 1: Type
Traction

Optional Tyre 2: Size
620/75 R26

Optional Tyre 2: Type
Dual purpose (Traction and haulage)

FRONT SUSPENSION

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

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
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°

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	8 km/h	5 mph
2nd	15 km/h	9 mph
3rd	20 km/h	12 mph
4th	28 km/h	17 mph
5th	37 km/h	23 mph
6th	43 km/h	27 mph
R	6 km/h	3 mph

CAB

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

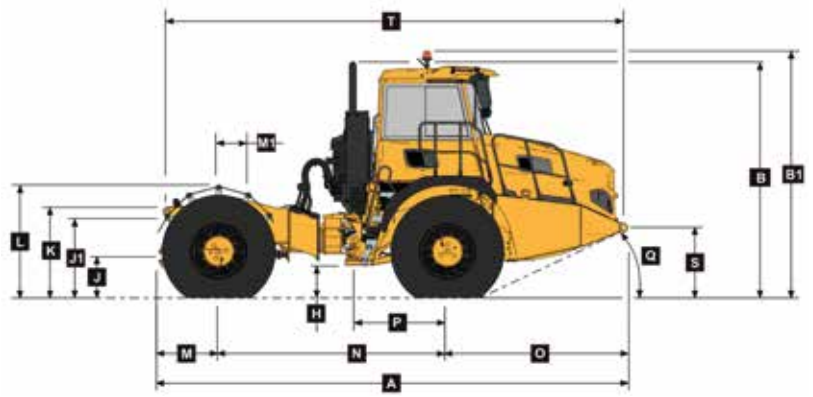
Operating Weights

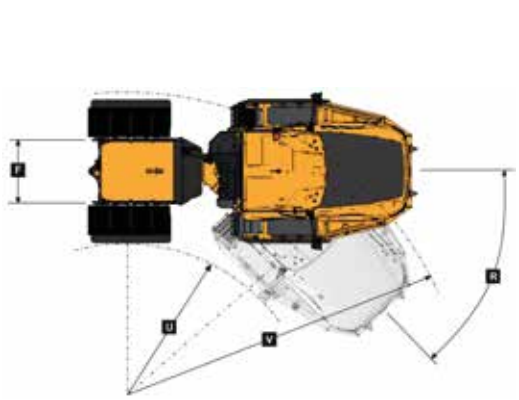
OPERATING WEIGHTS AND GROUND PRESSURE			
EMPTY	**kg (lbs)**	**LADEN**	**kg (lbs)**
Front	9 180 (20 238)	Front	11 200 (24 692)
Rear	4 740 (10 450)	Rear	11 200 (24 692)
Total	13 920 (30 688)	* Gross Vehicle Mass	22 400 (49 383)
		** Gross Combination Mass (braked trailer)	56 000 (123 459)
UNLADEN	**(No sinkage)**	** Gross Combination Mass (un-braked trailer)	22 000 (48 502)
23.5R25	**kPa (Psi)**		
Front	208 (30)		
Rear	165 (24)		

* Gross Vehicle Mass (GVM) is the maximum allowable mass that the vehicle can accommodate with load transfer from trailers onto the vehicle. This is limited by permissible tyre loading. Quoted number is for Trelleborg 650/75R26 tyres.

** Gross Combination Mass (GCM) is maximum allowable mass for the vehicle plus laden trailers. The different values are for braked or unbraked trailers.

Dimensions





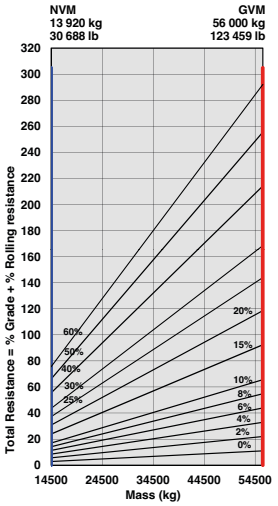
Machine Dimensions

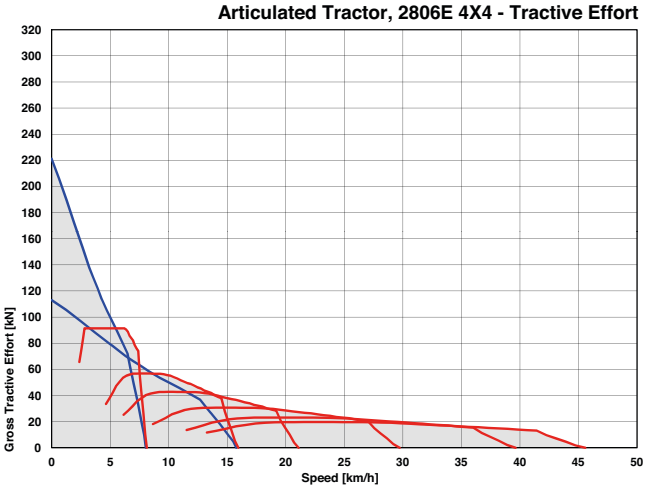
A	Length-Transport Position	6 523 mm
B	Height-Transport Position	3 517 mm
B1	Height-Rotating Beacon	3 644 mm
C	Width over Mudguards	2 632 mm
D	Width over Tyres-23.5R25	2 752 mm
D1	Width over Tyres-Dual 15x34	3 371 mm
E	Tyre Track Width-23.5R25	2 137 mm
E1	Tyre Track Width-Dual 15x34	2 402 mm
F	Width over Rear Chassis	1 310 mm
G	Width over Mirrors-Operating Position	3 260 mm
H	Ground Clearance-Artic	541 mm
I	Ground Clearance-Front Axle	490 mm
J	Hitch Centre Height	701 mm
J1	Ball Hitch Top Height(Option)	1 317 mm
K	Rear Chassis Height	1 423 mm
L	Rear Mudguard Height	1 741 mm
M	Rear Axle Centre to Machine Rear	867 mm
M1	Rear Axle Centre to Ball Hitch Centre (Option)	356 mm
N	Rear Axle Centre to Front Axle Centre	3 296 mm
O	Front Axle Centre to Machine Front	2 360 mm
P	Front Axle Centre to Artic Centre	1 362 mm
Q	Approach Angle	27°
R	Maximum Articulation Angle	45°
S	Front Tie Down Height	1 045 mm
T	Machine Lifting Centres	6 322 mm
U	Inner Turning Circle Radius-23.5R25	2 484 mm
U1	Inner Turning Circle Radius-Dual 15x34	2 175 mm
V	Outer Turning Circle Radius-23.5R25	5 473 mm
V1	Outer Turning Circle Radius-Dual 15x34	5 783 mm

Unladen Tyre Deflections:
Front: 70.02 mm, Rear: 37.06 mm, Tyre Free Diam: 1 612 mm

Gradeability / Rimpull

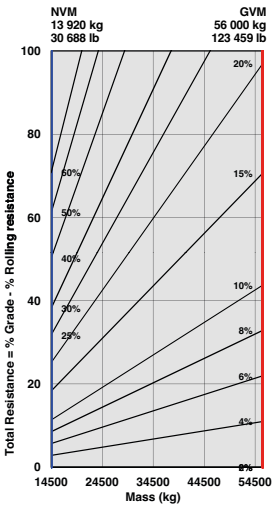
1. Determine tractive resistance by finding intersection of vehicle mass line and grade line. NOTE: 2% typical rolling resistance is already assumed in chart and grade line.
2. From this intersection, move straight left across charts until line intersects rimpull curve.
3. Read down from this point to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

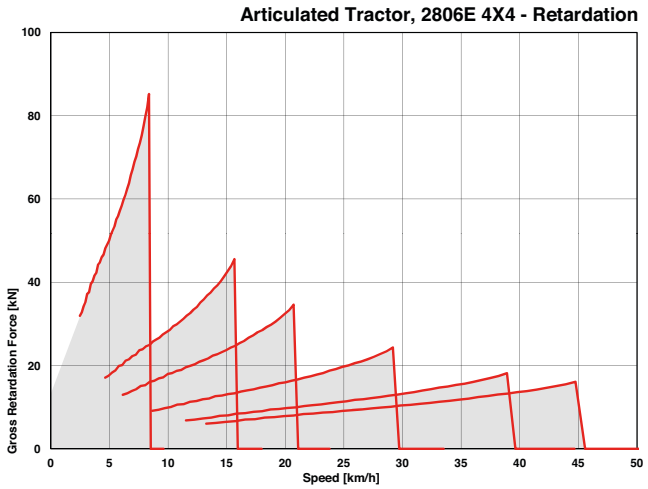




Retardation

1. Determine retardation force required by finding intersection of vehicle mass line.
2. From this intersection, move straight left 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.





Features and Options

● STANDARD ▲ OPTION

ENGINE
- ● Engine valve brake and exhaust brake
- ● Dual element air cleaner with dust ejector valve
- ● Precleaner
- ● Water separator
- ● Serpentine drive belt with automatic tensioner

COOLING
- ● Crank-shaft mounted viscous-drive fan
- ● Fan guard

PNEUMATIC SYSTEM
- ● Engine-mounted compressor
- ● Air drier with heater
- ● Integral unloader valve

ELECTRICAL SYSTEM
- ● Battery disconnect
- ● Drive lights
- ▲ Deluxe work lights
- ● Electric hooter
- ● Reverse alarm
- ● Rotating beacon
- ▲ Artic reverse light

STEERING SYSTEM
- ● Ground-driven secondary steering pump

CAB
- ● ROPS/FOPS certification
- ● Tilt cab
- ● Gas strut-supported door
- ● Air conditioner
- ● Heater
- ▲ AM/FM radio/CD player
- ● Rear window guard
- ● Wiper/washer with intermittent control
- ● Tilt and telescoping steering wheel
- ● Centre-mount air-suspension seat
- ▲ LED work lights
- ▲ Rotating beacon: seat belt installation
- ▲ Remote engine and machine isolation
- ▲ Remote battery jump start
- ▲ High visibility mirrors

CAB (continued)
- ● Retractable seat belt
- ● Foldaway trainer seat with retractable seat belt
- ● 12-volt power outlet
- ● Cup holder
- ● Cooled/heated lunch box
- ● Ashtray
- ▲ Electric adjustable 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 / 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 / Airconditioner/ Heater controls / Preselected Speed Control

OTHER
- ● 23.5R25 tyres
- ▲ 620/75R26 tyres
- ▲ Dual 15x34 Traction tyres
- ● Remote grease banks
- ▲ Automatic greasing
- ● Cab peak
- ▲ High pressure hydraulic filter
- ▲ Fuel heater
- ● Belly cover
- ▲ Handrails
- ▲ Remote transmission filter

ATTACHMENT OPTIONS
- ● Goose neck (125 mm)
- ▲ Pin + Ballast
- ● Rear Hydraulic bulkhead blanking
- ▲ Rear Hydraulic bulkhead quick couplers

FEATURES OF ARTICULATED TRACTORS...

• VALUE: Bell tractors are not farm tractor derivatives.
They are built from the ground up for trouble free operation and maximum durability in full-time heavy duty construction work.

• PRODUCTIVE: Powerful built-for hauling ADT drivetrains are well matched for pulling and retarding heavy loads.
Nitrogen over oil strut suspension smooths the ride for operator and machine.

• ECONOMY: Modern fuel efficient engine, lockup torque converter and planetary transmission deliver more work per unit of fuel used

• EASY TO OPERATE: High quality cab is conducive to operator care.
Simple to use controls and electronic interfaces protect the machine from accidental misuse.

BELL INTERNATIONAL: Tel: +27 (0)35-907 9431
E-mail: marketing@bellequipment.com Web: www.bellequipment.com

Tel: +61 (0)8-9355-2442
Tel: +49 (0)6631 / 91-13-0
Tel: +27 (0)11-928-9700
Tel: +44 (0)1283-712862
Tel: +33 (0)5-55-89-23-56
Tel: +7-495-287-80-02
Tel: (704) 655 2802

Strong Reliable Machines
Strong Reliable Support

BELL

2806E Articulated Tractor Spec21560818, English