

Product Range | Articulated Dump Truck





WIN-WIN PARTNERSHIP BETWEEN DOOSAN INFRACORE AND MOXY TRUCKS

BUILT BY MOXY'S TECHNOLOGY AND PRESENTED BY DOOSAN INFRACORE. GROWING, ENHANCING TECHNOLOGY, INCREASING THE PRODUCT OFFERING AND PROVIDING A BIGGER OPPORTUNITY FOR CUSTOMERS.



THE NEXT GENERATION OF ARTICULATED DUMP TRUCKS OFFERS RELIABLE MACHINERY FOR CHALLENGING CONDITIONS

DOOSAN MOXY strives to be a pioneer in the field of product development and performance.

With the new generation of DOOSAN MOXY articulated dump trucks, the product features have been refined and innovated to meet the tough demands of the future. Our philosophy is to stay one step ahead of the competition and always deliver a full-range of articulated dump trucks to the market.



DOOSAN MOXY

Our goal has been to develop a new line of advanced reliable and cost effective articulated dump trucks, loaded with significant competitive advantages.

With the new, modern product design and sophisticated technical features, DOOSAN MOXY is proud to introduce the unique DOOSAN MOXY concept with the following benefits:

Power Productivity Stability Traction Reliability Comfort



Power

DOOSAN MOXY uses proven, reliable and powerful diesel engines with excellent torque which achieves low fuel consumption and fulfills Tier 3 European regulation guidelines.

DOOSAN MOXY utilizes reliable transmissions that feature smooth gear shifting abilities. These features result in the maximum net power transmission to the wheels, resulting in maximum fuel efficiency.





Productivity



The DOOSAN MOXY concept offers a larger load capacity in all weight class categories.

Additional load capacity, combined with superior power and traction allow for improved productivity. The unique advantages of DOOSAN MOXY'S permanent six-wheel drive, free-swinging rear tandem articulation hinge system, independent front wheel suspension system and sloping rear frame provide excellent driving stability with equal weight distribution and wheel power. The DOOSAN MOXY articulated dump truck is designed to work under rough conditions and can also travel at speeds up to 50 km/h.



Stability

DOOSAN MOXY'S free-swinging rear tandem bogie and the special articulation system offer excellent performance and the best possible ground contact in soft and difficult terrain.

The sloping rear frame, in combination with the track width, ensures a lower center of gravity and class-leading sideways stability, which removes the need for wide, low profile tires. One of the main highlights of the DOOSAN MOXY concept is the location of the turning ring in relation to the swing point which always ensures equal weight distribution to the front wheels.

Equal distribution to the front wheels makes it possible to use the diff locks while maintaining maneuverability. DOOSAN MOXY'S unique independent front wheel suspension allows for maximum ground contact and shock absorption.



Traction



The unique DOOSAN MOXY concept offers permanent six-wheel drive which ensures stability and equal distribution to accommodate all job applications.

DOOSAN MOXY'S superior driveline ensures maximum traction performance and durability.



Reliability

DOOSAN MOXY has one of the most reliable dump trucks in the industry because of its strong and reliable system solutions. The automatic central lubrication system is standard on all DOOSAN MOXY models. With over thirty years dedicated to product development, the new generation of DOOSAN MOXY trucks provides innovative drive train and fatigue-proof structure.













Comfort

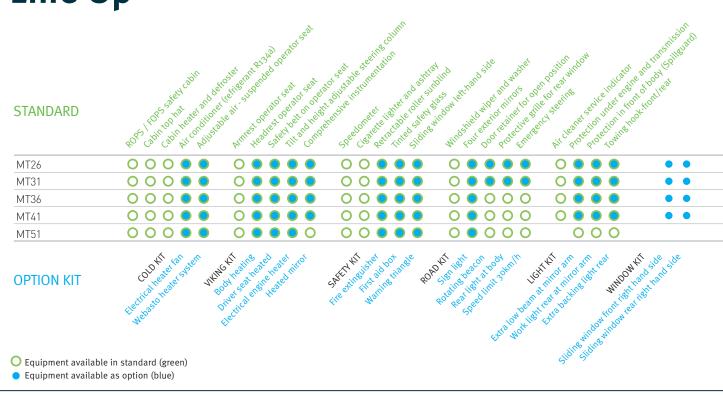
The cabin is equipped with air-conditioning and an operator seat with air suspension to provide excellent operator comfort. Precise steering, good visibility and low noise levels provide a comfortable cabin environment. The "tip-tronic" gearshift feature enables the operator to run the truck in both automatic and manual gears to ensure the smoothest possible gear-shifts and momentum while operating the truck.

The sloping hood provides an excellent view from the operator's position combined with good rear visibility. DOOSAN MOXY cares about the environment and aims to set the best possible standards in the manufacturing of our products.

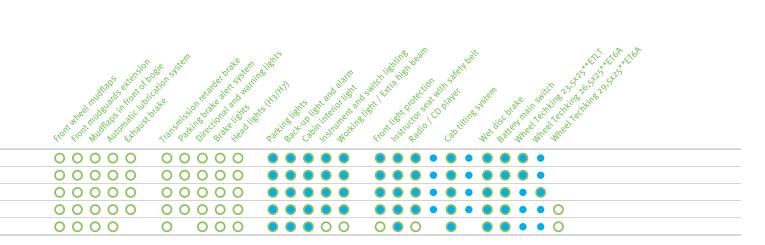
DOOSAN MOXY utilizes industry leading engines that achieve low fuel consumption and fulfill the latest Tier 3 European regulations in addition to all noise regulations. DOOSAN MOXY provides exceptional operator comfort with low cabin vibration levels. Minimal fuel consumption is achieved while lockup clutch is engaged in mechanical mode.



Line Up







Independent options

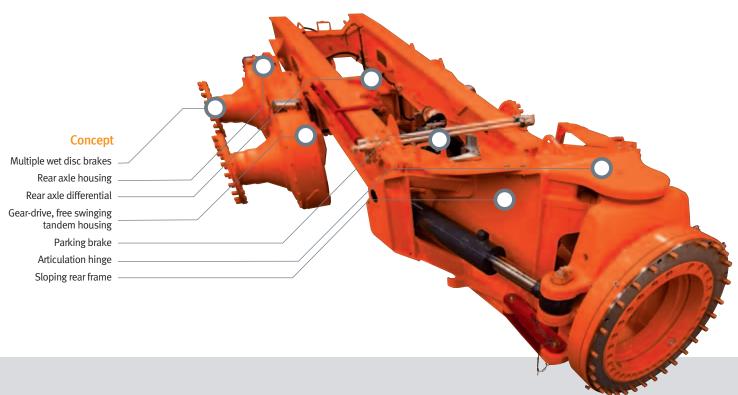
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Unique Concept of **DOOSAN MOXY ADT**

Best Structure for All - Condition Terrain

DOOSAN MOXY articulated dump trucks have permanent 6-wheel drive for equal power distribution while the free-swinging rear tandem bogie and the special articulation system offer excellent driving performance. The articulation hinge is positioned behind the turning ring to ensure equal weight distribution. The sloping body design further enhances Doosan Moxy stability and ensures fast and easy tipping for increased productivity in even the most demanding conditions.

Many DOOSAN MOXY machines have worked more than 25,000 hours without any major overhaul of the engine. Fully automatic transmission control unit and smooth gear-shifting abilities enable the operator to concentrate on working conditions with maximum comfort.



Top 10 Advantages of DOOSAN MOXY Articulated Dump Trucks

- Low operating cost
- Excellent performance in difficult terrain
- Independent front suspension ensures maximum ground contact and stability
- The sloping rear frame ensures low center of gravity, good stability and excellent weight distribution to the front axle
- Improved driver comfort and easy operation
- Easy and safe access to cabine for the driver
- Tier 3 of USA/California regulations (ISO 8178) for emissions
- Free-swinging rear tandem bogie ensures the best possible ground contact

- Articulation hinge system ensures equal weight distribution to the front axle in all situations
- Permanent 6-wheel drive, a significant advantage in rugged terrain
- Easy maintenance

	MT26	MT31	MT ₃ 6	MT41	MT51
Engine	Scania DC9	Scania DC9	Scania DC12	Scania DC12	Cummins QSX15
Configuration	5 in Line / 9.0 liter	5 in Line / 9.0 liter	6 in Line /11.7 liter	6 in Line / 11.7 liter	6 in Line / 15 liter
Gross Power	228 kw @2200 Rpm	255 kw @2200 Rpm	294 kw @2200 Rpm	331 kw @2200 Rpm	375 kw @1600 Rpm
Net Power	220 kw @2200 Rpm	247 kw @2200 Rpm	285 kw @ 2200 Rpm	322 kw @2200 Rpm	365 kw @1600 Rpm
Gross Torque	1345 Nm @1500 Rpm	1455 Nm @ 1500 Rpm	1854 Nm @1500 Rpm	1854 NM @1200 Rpm	2244 NM @1400 Rpm
Load Index	25.33 kw/liter	28.33 kw/liter	25.13 kw/liter	28.29 kw/liter	25.0 kw/liter
Capacity Body Volume Density Index Gross Weight Net Weight Payload	SAE 2:1	SAE 2:1	SAE2:1	SAE 2:1	SAE 2:1
	15 m³	18 m³	21 m³	24 m³	29 m³
	1.64 t/m³	1.62 t/m³	1.64 t/m³	1.64 t/m³	1.61 t/m³
	45500 kg	50925 kg	59400 kg	66450 kg	77570 kg
	22000 kg	22925 kg	26700 kg	28450 kg	31300 kg
	23500 kg	28000 kg	32700 kg	38000 kg	46270 kg
Power to Weight	Net Power vs Tons	Net Power vs Tons	Net Power vs Tons	Net Power vs Tons	Net Power vs Tons
Empty	10.98 kw/t	11.60 kw/t	9.90 kw/t	10.82 kw/t	11.66 kw/t
Loaded	5.03 kw/t	4.95 kw/t	4.63 kw/t	4.76 kw/t	4.70 kw/t
Transmission Speeds Travel Speed	ZF 6WG260 RPC	ZF 6WG260 RPC	ZF 6WG ₃ 10 RPC	ZF 6WG ₃ 10 RPC	Allison 4600R ORS
	Countershaft	Countershaft	Countershaft	Countershaft	Planetary
	6F - 3R	6F - 3R	6F - 3R	6F - 3R	6F - 1R/2 speed drop box
	51.0/33.0 km/h	51/33 km/h	51.0 / 31.0 km/h	53.0 / 34.0 km/h	54.0 / 6.4 km/h
Brakes	Wet Multiple Disc	Wet Multiple Disc	Wet Multiple Disc	Wet Multiple Disc	Wet Multiple Disc
Front	Wet Multiple Disc	Wet Multiple Disc	Wet Multiple Disc	Wet Multiple Disc	Wet Multiple Disc
Rear	Exhaust Brake	Engine Exh	Engine Brake	Engine Brake	Engine Brake (Jake brake)
Retarder	& T/M Retarder	& T/M Ret Brake	& T/M Retarder	& T/M Retarder	& T/M Retarder
Body	Hardox 400	Hardox 400	Hardox 400	Hardox 400	Hardox 400
Dimensions Tot Length Width Load over Height Turning Radius	9488 mm	9488 mm	10445 mm	10445 mm	10606 mm
	2750 mm	2990 mm	3275 mm	3460 mm	3475 mm
	2864 mm	2946 mm	3040 mm	3185 mm	3875 mm
	7.91 m	8.03 m	8.75 m	8.85 m	8.85 m

The DOOSAN MOXY Concept

ULTIMATE EFFICIENCY

Lower power curve when empty plus reduced weight achieved through state of the art design and lightweight, high grade, wear resistant steel.

ULTIMATE TRACTION & STABILITY

Sloping Frame, well positioned turning ring and excellent weight distribution remove the need for wide, low profile tires, significantly reducing running costs.

ULTIMATE POWER/WEIGHT RATIO
Class-leading power to weight ratio of 6.48 hp per ton

ULTIMATE COMFORT

Fully independent rubber suspension on MT26-41 and nitrogen on MT51.

ULTIMATE SERVICE ACCESS

Remote mounted service points mean general servicing can be completed at ground level. Excellent access is offered by the rear tilting cabin. Hood design capable of opening to 83° for the improved access. Rear tilting cabin on MT26-41 and side tilting cab on MT51.

ULTIMATE SAFETY

Superior visibility with sloping bonnet.

Unique Concept of **DOOSAN MOXY ADT**

Forward mounted turning ring

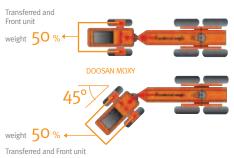
One of the main points in the Doosan Moxy concept is the location of the turning ring in relation to the swing point. The turning ring is located in front of the swing point which always ensures equal weight distribution to the front wheels in all situations, also during maximum turning. Equal weight distribution to the front wheels makes it possible to use the differential with only 45% locking value.

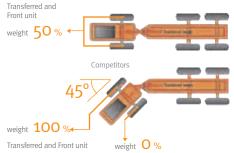
This provides drive to both wheels in all situations without completely locking up the wheels. Our competitors have located the turning ring behind the swing point giving different weight distribution to the front wheels. Due to differentials on the front wheels, our competitors use 100% differential lock causing steering difficulties. A differential lock of 100% creates more force on the driveline in all turns resulting in a higher amount of wear on the tires.





Weight Distribution Articulation System





Unique Frame Sloping for Weight Distribution

Moxy's philosophy on frame design is generally the same as manufacturers of rigid dump trucks. The frame is inclined (sloped) downward from the hinge points to obtain equal weight distribution on all axles while fully loaded. As a result, lower center of gravity is obtained giving better stability.

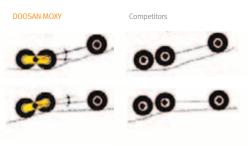


Front Wheel Suspension

Moxy's unique independent front suspension allows for free movement on one side movement contact and shock absorption. Our competitors use rigid axles which cause movement on the opposite side of the axle which results in driver discomfort.



Free - swinging Tandem Housing



Excellent Service Accessibility

- The hood has a wide opening to provide accessibility to the engine for easy maintenance
- The tilting cabin allows the same clear access to the transmission and hydraulic components
- All electrical and AC connections are at the rear of the cabin. This allows tilting of the cabin without disconnecting.



Improvements of III Series



Best Ground Contact in All Condition Terrain



Operating in Tough Conditions

Operating on Extreme Terrain

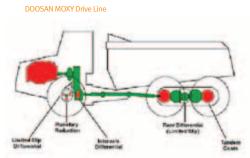
Dumping

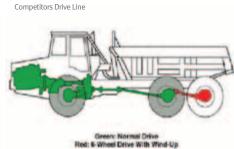
Hauling

Excellent Tire Wear Prevention

DOOSAN MOXY driveline only requires 1 diff lock/ limited slip diff mounted on the rear tandem Rear axle LSD diff lock on 36/41 and Multi Disc diff lock on 26/31.

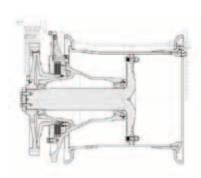
- Competitors drive line requires 2 units on the rear axles
- Competitors' rear differentials get a lot of wear because of the nature of the operation between the middle axle and rear axle because a inter axle drive unit between the 2 rear axle differentials = 100% lock





Wet Disk Brake in Whole Line Up

- More efficient braking under load, which means less brake fade because of the oil cooling plus more brake force
- Less servicing intervals, brake discs last longer - In very adverse conditions like deep mud and water, the dry disc brakes cause the brake pads and discs to have a very short service life - Wet brakes are not affected by these conditions because they are fully encased in Oil
- Reduced maintenance cost
- NAF system in MT26/31 III has a big advantage. It does not require forced cooling like most competitors.
- There is no danger of sparks



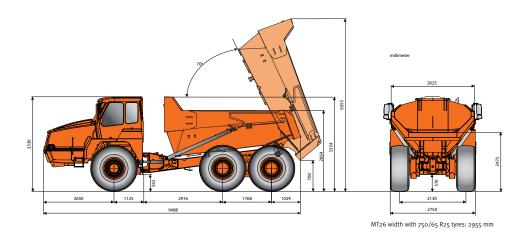
Operator comfort

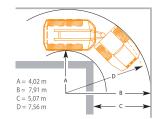
- an operator seat with air-suspension
- · Sloping hood provides an excellent view from the operator's position combined with good rear visibility
- Rubber suspension mounted for CABIN lead to low vibration levels
- Cabin is equipped with air-conditioning and "Tip-tronic" gearshift feature enables the operator to run the truck in both automatic and manual gear to ensure the smoothest possible gear-shift



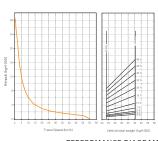
Dimensions & Technical specifications

MT26



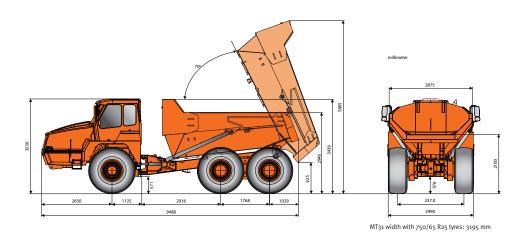


Turning radius according to ISO 7457: 7.56 m

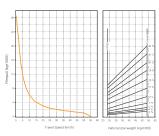


PERFORMANCE DIAGRAM

MT31

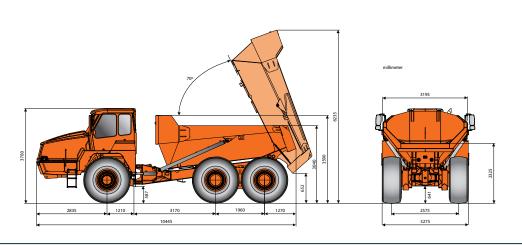


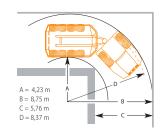
Turning radius according to ISO 7457: 7.68 m



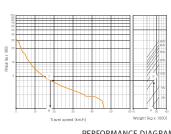
PERFORMANCE DIAGRAM

MT36



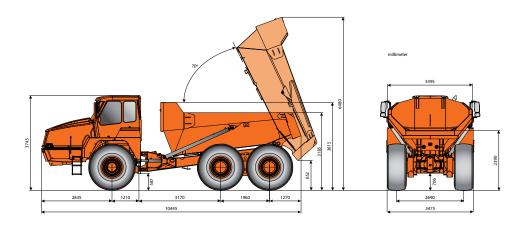


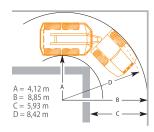
Turning radius according to ISO 7457: 8.37 m



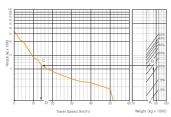
PERFORMANCE DIAGRAM

MT41



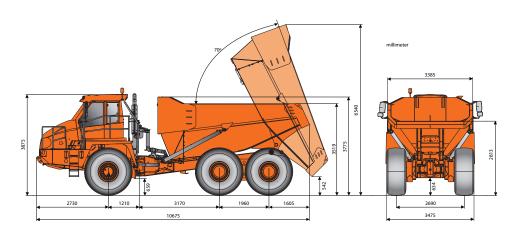


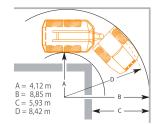
Turning radius according to ISO 7457: 8.42 m



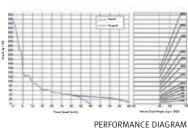
PERFORMANCE DIAGRAM

MT51





Turning radius according to ISO 7457: 8.42 m



MT26 - MT31 - MT36 - MT41 - MT51

Suspension

steering

- Articulation hinge and
- **Drive line**
- Front: Independent with long life rubber springs and hydraulic shock absorbers
- Articulation hinge with forward mounted turning ring
 Steering cylinders (two): Double-acting
 The steering is approved according to ISO 5010

- Full-time 6 x 6 drive with two transverse differentials and one longitudinal
- Front axle transverse differential: Limited-slip diff lock with 45% locking ratio
- Rear axle transverse differential: Multi disc diff lock with 45% locking ratio

- Rear: Free-swinging tandem housin
- Max. steering angle: 45°
- Ground driven emergency steering pump
- Inter-axle longitudinal differential: Torque-proportioning differential, integrated into
- Torque distribution:
- 1/3 to the front axle 2/3 to the rear axle

 - 100% lockable
 - Tandem housing: Gear driven,

free-swinging.

Provides equal drive to rear wheels and ensures the best possible ground contact - whatever the ground conditions

Brake system

- Dual circuit braking system acting on all six wheels
 Approved according to ISO 3450
 All hydraulic operated brakes with enclosed oil-cooled
- wet multiple discs all round
 Spring actuated hydraulic released parking brake, mounted on propeller shaft

- Max. gradient, parking brake: 20°
 Automatic engine brake as standard
 Automatic transmission retarder as standard

Cab

- Approved to ROPS/FOPS standards (ISO 3471, ISO 3449)
- Low interior sound level 74 dB(A) (ISO 6394)
- The cab is centrally located on rubber mountings
- Hand and arm vibrations are less than 2.5 m/s according to ISO 5349-2
 Whole body vibration is less than 0.5 m/s according to ISO 2631-1
- Superior visibility for safer operation

- Superior operating controls location
- Adjustable suspended operator seat
- Adjustable steering columnHeater and Air Conditioning
- Tilting for service access

Dimensions & Technical specifications

	MT26	5	MT	31
Body Material Tilt cylinders Tipping time Body Sloping body Level capacity Heaped capacity (Acc. SAE J 1363, 2:1) Heaped capacity: (Acc. SAE J 1363, 1:1)	Hardened abrasion-resistant steel plates Single stage, double-acting Up: 11 sec. / Down: 10 sec. Designed for exhaust heating Down from the hinge point 12 m³ 15 m³ 18 m³		Hardened abrasion-resistant steel plates Single stage, double-acting Up: 11 sec. / Down: 10 sec. Designed for exhaust heating Down from the hinge point 14 m³ 18 m³ 22 m³	
Weights Empty: Front axle Rear axle Loaded: Front axle Rear axle Pay load Total weight (loaded)	10950 k 11050 k 15200 k 30300 k 23500 k 45560 k NOTE: All weights include a fu	95 95 95 95 95 95	11425 11500 16500 34425 28000 50925 NOTE: All weights include a	o kg o kg 5 kg o kg 5 kg
Ground Pressures Empty: Front axle Rear axle Loaded: Front axle Rear axle	Standard 23.5 x 25 tires 107 kP: 45 kPi 138 kP: 144 kP:	a 1 a	Standard 23.5 x 25 tiru 104 k 53 k 141 k 162 k	KPa Pa KPa
Capacities Fuel Tank Hydraulic System Engine Cooling System Transmission Engine Crankcase Front Reduction Gear Rear Differential Tandem Housing Rear Reduction Gear Dropbox	320 l 138 l 45 l 57 l 33 l 2 x 11 l 16 l 2 x 48 l 4 x 7 l		350 l 150 l 45 l 57 l 33 l 2 x 11 l 16 l 2 x 48 l 4 x 7 l	
Speeds 1st 2nd 3rd 4th 5th 6th	Forward 6 Km/h 9 Km/h 14 Km/h 22 Km/h 33 Km/h 51 Km/h	Reverse 6 Km/h 14 Km/h 33 Km/h	Forward 6 Km/h 9 Km/h 14 Km/h 22 Km/h 33 Km/h 51 Km/h	Reverse 6 Km/h 14 Km/h 33 Km/h
Engine Complies with Stage 3 of EU Directive 97/68/-EC for emissions	Scania DC 9, water-cooled, unit injected diesel engine with turbo charger and air to air intercooler		Scania DC 9, water-cooled, unit injected diesel engine with turbo charger and air to air intercooler	
Power rating (ISO 3046) (ISO 9249) No. of cylinders Cylinder volume Air filter	310 hp (228 kW) 299 hp (220 kW) 5 (in line) 9.0 liters Dry type		347 hp (255 kW) 336 hp (247 kW) 5 (in line) 9.0 liters Dry type	
Transmission	ZF 6 WG 260 Dash 4 electronically-controlled automatic transmission the torque converter has automatic lock-up in all gears		ZF 6 WG 260 Dash 4 electronically-controlled automatic transmission the torque converter has automatic lock-up in all gears	
Hydraulic System Pumps	2 variable displacement piston pumps: for steering & tipping		2 variable displacement piston pumps: for steering & tipping for cooling fan, brakes & auxiliaries	
Delivery	230 l/min @ 2200 rpm for cooling fan, brakes & auxiliaries		230 l/min @ 2200 rpm	
Filtration Pressure-setting, main safety valves: Tipping Circuit Steering Circuit	One return flow filter & high pressure filter 280 bar 210 bar		One return flow filter & high pressure filter 280 bar 210 bar	
Electrical System Alternator Batteries (two) Starter	28V 100A 12V 140Ah (series connected to give 24V) 5.4 HP (4.0 kW)		28V 100A 12V 140Ah (series connected to give 24V) 5.4 HP (4.0 kW)	
Tires Standard	23.5 R25 two star radial		23.5 R25 two star radial	

MT36	MT41	MT ₅ 1	
Hardened abrasion-resistant steel plates Single stage, double-acting Up: 11 sec. / Down: 10 sec. Designed for exhaust heating Down from the hinge point 16 m³ 21 m³ 26 m³	Hardened abrasion-resistant steel plates Single stage, double-acting Up: 11 sec. / Down: 10 sec. Designed for exhaust heating Down from the hinge point 18.5 m³ 24 m³ 29 m³	Hardened abrasion-resistant steel plates Single stage, double-acting Up: 12 sec. / Down: 11 sec. Designed for exhaust heating Down from the hinge point 23 m³ 29 m³ 35 m³	
13400 kg 13300 kg 19500 kg 39900 kg 32700 kg 59400 kg NOTE: All weights include a full fuel tank and operator	13700 kg 14750 kg 20050 kg 46400 kg 38000 kg 66450 kg NOTE: All weights include a full fuel tank and operator	16300 kg 15000 kg 22310 kg 55320 kg 46270 kg 77630 kg NOTE: All weights include a full fuel tank and operator	
Standard 26.5 x 25 tires with 15% sinkage 108 kPa 62 kPa 160 kPa 170 kPa	Standard 29.5 x 25 tires with 15% sinkage 88 kPa 48 kPa 130 kPa 152 kPa	Standard 26.5 x 25 tires with 15% sinkage 102 kPa 48 kPa 142 kPa 176 kPa	
425 l 250 l 50 l 55 l 34 l 2 x 7.5 l 46 l 2 x 150 l	490 l 275 l 50 l 55 l 34 l 2 x 7.5 l 46 l 2 x 150 l	600 l 250 l 75 l 45 l 45 l 2 x 7.5 l 56 l 2 x 150 l	
Forward Reverse 6 Km/h 6 Km/h 9 Km/h 14 Km/h 14 Km/h 33 Km/h 22 Km/h 33 Km/h 51 Km/h	Forward Reverse 6 Km/h 9 Km/h 15 Km/h 15 Km/h 23 Km/h 34 Km/h 53 Km/h	Forward Reverse 7 Km/h 16 Km/h 23 Km/h 35 Km/h 47 Km/h 53 Km/h	
Scania DC 12, water-cooled, unit injected diesel engine with turbo charger and air to air intercooler	Scania DC 12, water-cooled, unit injected diesel engine with turbo charger and air to air intercooler	Cummins QSX15 water-cooled diesel engine with multi-positioned waste gated turbo charger and air to air intercooler	
400 hp (294 kW) 388 hp (285 kW) 6 (in line) 11.7 liters Dry type	450 hp (331 kW) 438 hp (322 kW) 6 (in line) 11.7 liters Dry type	510 hp (375 kW) 508 hp (374 kW) 6 (in line) 15 liters Dry type	
ZF 6 WG 310 Dash 4 electronically-controlled automatic transmission the torque converter has automatic lock-up in all gears	ZF 6 WG 310 Dash 4 electronically-controlled automatic transmission the torque converter has automatic lock-up in all gears	Allison 4600 ORS automatic transmission with lock up in all gears Remote propshaft driven two speed dropbox	
2 variable displacement piston pumps 320 l/min @ 2200 rpm for steering & tipping	2 variable displacement piston pumps: 1 for steering & tipping 320 l/min @ 2200 rpm for steering & tipping	Engine mounted 3 load sensing piston pumps & 2 gear pumps for tipping, steering, brake charging, cooling fan & auxilaries 326 l/min @ 2000 rpm	
60 l/min @ 2200 rpm for cooling fan, brakes & auxiliaries One return flow filter & high pressure filter 280 bar		One return flow filter 280 bar	
210 bar	210 bar	210 bar	
28V 100A 12V 225Ah (series connected to give 24V) 9 HP (6.7 kW)	28V 100A 12V 225Ah (series connected to give 24V) 9.1 HP (6.7 kW)	24V 70A 12V 225Ah (series connected to give 24V) 12 HP (9.0 kW)	
26.5 R25 two star radial	29.5 R25 two star radial	29.5 R25 two star radial	



