

Articulated Truck

MAX GROSS VEHICLE WEIGHT	111,308 lbs (50,485 kg)
RATED ENGINE POWER	385 hp (287 kW)
MAX PAYLOAD	30.9 tons (28 t)
HEAPED CAPACITY	22.9 yd ³ (17.5 m ³)


Specifications

Engine	
Make / Model	Cummins QSM11
Type	6 cylinder, in line, four cycle diesel, water-cooled turbocharged with air to air cooling
Piston displacement	660 in ³ (10.8 L)
Bore x stroke	4.92 x 5.79 in (125 x 147 mm)
Rated power at 2,100 rpm	385 hp (287 kW)
Net power at 2,100 rpm	333 hp (248 kW)
Maximum torque	1,310 lbf ft (1,775 Nm) at 1400 rpm
Engine emission meets USA EPA Tier 3 / CARB MOH 40 CFR 89 Tier 3 and EU NRMM (non-road mobile machinery directive) Tier 3.	
24 volt electric start. 70A alternator. Two 12 volt 175 Ah batteries.	
Dry-type air cleaner with safety element, automatic dust ejector and restriction indicator.	
Modulating fan reduces noise level and consumes engine power only when required.	

Transmission									
ZF 6WG 310 RPC Fully automatic with manual override. The transmission assembly consists of a torque converter close-coupled to a countershaft-type gearbox with integral output transfer gearing. Automatic shifting throughout the range, with kick-down feature. Lockup in all forward gears. A torque-proportioning output differential transmits drive permanently to front and rear axles. This differential may be locked by the driver for use in difficult conditions.									
	Forward					Reverse			
Gear	1st	2nd	3rd	4th	5th	6th	R1	R2	R3
mph	3.5	5.4	8.5	13.1	19.3	31.7	3.5	8.5	19.3
km/h	5.6	8.7	13.6	21.1	31.0	51.0	5.6	13.6	31.0

Specifications

Frame
Front and rear frames are all-welded high grade steel fabrications with rectangular box-section beams forming the main side and cross members. Inter-frame oscillation is provided by a large diameter cylindrical coupling which houses nylon bushings. Frames articulate 45° to either side for steering by means of two widely-spaced pivot pins in back-to-back sealed taper roller bearings.

Axles	
Three axles in permanent all-wheel drive (6x6) with differential coupling between each axle to prevent driveline wind-up. Heavy duty axles with fully-floating axle shafts and outboard planetary reduction gearing.	
Automatic limited slip differentials in each axle. Leading rear axle incorporates a through-drive differential to transmit drive to the rearmost axle. This differential and the transmission output differential are locked simultaneously using one switch selected by the driver. Hydraulically actuated multi-plate transverse diff-lock differential for 100% cross-axle lockup.	
Differential ratio	3.44:1
Planetary reduction	6.35:1
Overall Drivetrain reduction	21.85:1

Tires and Wheels		
	Standard	Optional
Tires:	23.5 R 25 two star radial	750 / 65 R25
Rims:	25 x 19.50	25 x 22.00
Wheels:	5-piece earthmover rims with 12 stud fixing	

Suspension
Front: Axle is carried on the leading arms of a sub-frame which pivots on the main frame. Suspension by rubber elements with four heavy duty hydraulic dampers.
Rear: Each axle is coupled to the frame by three rubber-bushed links with lateral restraint by a transverse link. Pivoting inter-axle balance beams equalize load on each rear axle. Suspension movement is cushioned by rubber/metal laminated compression units between each axle and underside of balance beam ends.
Pivot points on leading and trailing links are rubber-bushed and maintenance-free.

Brakes
All hydraulic braking system with multiplate sealed oil immersed disc brake packs at each wheel. Independent circuits for front and rear brake systems.
Parking: Spring-applied, hydraulic-released disc on rear driveline.
Secondary: Secondary brake control actuates service and parking brakes.
Brake system conforms to ISO 3450, SAE J1473.
Retardation: Engine compression brake is standard. Transmission retarder is optional.

Steering	
Hydrostatic power steering by two double-acting cushioned steering cylinders with pressure supplied by a variable displacement / load sensing piston pump. Secondary steering pressure is provided by a ground driven pump mounted on the transmission. An audible alarm and warning light indicates should the secondary system activate.	
System conforms to ISO 5010, SAE J53	
Steering components are protected by advanced full flow filtration on the return line.	
Steering angle to either side	45°
Lock to lock turns, steering wheel	4
System pressure	3,500 lbf/in ² (241 bar)

Hoist	
Two single-stage, double-acting hoist cylinders, cushioned at both ends of stroke. Variable displacement / load sensing piston pump driven from power take-off on transmission. Full flow return line filtration. Full electro-hydraulic hoist control, with electronic detente in power down.	
System pressure	3,200 lbf/in ² (220 bar)
Pump output flow rate	77.6 gpm (4.9 L/sec)
Raise time, loaded	12 sec.
Power down	7.5 sec.

Body	
All welded construction, fabricated from high hardness (min. 360 BHN) 145,000 lbf/in ² (1,000 MPa) yield strength steel.	
Dual slope tailchute improves material ejection from body.	
Plate thicknesses:	Floor and tailchute 0.55 in (14 mm)
Sides	0.47 in (12 mm)
Front	0.31 in (8 mm)
Volume:	Struck (SAE) 18.0 yd ³ (13.8 m ³)
	Heaped 2:1 (SAE) 22.9 yd ³ (17.5 m ³)

Service Capacities	
Fuel tank	103.0 gal (390 L)
Hydraulic system (steering & body)	53.4 gal (202 L)
Engine crankcase	9.0 gal (34 L)
Cooling system	14.3 gal (54 L)
Transmission (including filters and cooler)	16.6 gal (63 L)
Differentials - front & rear (each)	4.5 gal (17 L)
Differential - center	4.9 gal (18.5 L)
Planetaries (each)	0.8 gal (3 L)

Standard Equipment

CAB

Air conditioner R 134A
27,300 BTU/hr (8 kW)
Cigarette lighter, 24V
Coat hook
Engine diagnostic facility
Heater and de-mister 32,400
BYU/hr (9.5 kW)
Hydraulic diagnostic facility
RS232
Inspection lamp socket, 24V
Insulation, thermal and acoustic
Interior light
Mirrors, rear view (4)
Mug holder
Radio/cassette player
ROPS/FOPS protection
(ISO 3471/3449, SAE J 1040,
Apr 88/SAE J231)
Seat belts, retractable
(SAE J 386)
Seat, operator air suspension,
high back, headrest and
adjustable arm rests
Seat, passenger
Steering wheel, tilt/telescopic
Storage compartment
Sun blind
Tinted glass
Transmission visual display unit
Typical noise levels:
Operator ear (ISO 6394) 78 dbA
Window protection grille, rear
Wiper and washer, front and
rear windows

GAUGES

Fuel level
Hourmeter
Speedometer, with odometer
Tachometer, with hourmeter
Transmission oil temperature
Water temperature

INDICATOR LIGHTS

Direction indicators
Headlight high beam
Retarder
Turn signals

AUDIBLE ALARMS

Brakes, tractor, low pressure

Brakes, trailer, low pressure
Engine stop
Transmission stop
Steering, low pressure

WARNING LIGHTS

Alternator not charging
Body up
Brake pressure balance
Engine maintenance
Front/rear brake pressures
Check engine
Fuel, low level
Secondary steering
Inter-axle diff locks "on"
Parking brake "on"
Steering pressure
Stop engine
Transmission "stop"
Warning lights test button
Audible warning of low brake
pressure

GENERAL

Air filter, dual element with
restriction indicator
Articulation locking bar and
oscillation lock pin
Battery master switch
Body prop
Brake splash guards
Diagnostic pressure test points
Downshift inhibitor
Engine hood, hinged
Engine underguard, hinged
Exhaust muffler
Fan, modulating
Horn, electronic 117db
Hydraulic filter restriction
indicator
Hydraulic oil cooler
Hydraulic retarder
Jake brake
Mudflaps front
Neutral start interlock
Nitrogen inflated tires
Rear light guards
Reverse alarm, audible (SAE J994)
Security kit
Servo body hoist

Tow points, front and rear
Transmission oil cooler with
modulating fan
Transmission sump guard
Wet disc oil immersed brakes
on all 6 axles

LIGHTS

Headlamps, 4, halogen
Highlevel working lamps
Side, tail, stop, reverse & hazard
warning and direction indicators
LED tailights

Optional Equipment

GENERAL

Auto lube system
Cold start kit
Fast fuel adapter
Fire extinguisher
First aid kit
Headlamp guards, hinged
Mirror, front mounted
Mirror, wide angle
Mirrors, heated
Mud flaps, in front of leading
rear wheels
Parking brake guard
Seat, heated
Tachograph
Television monitor, rear view

Tool kit, hand
Tires, 750/65 R25
Transmission retarder

BODY OPTIONS

Exhaust heating
liner plates
Side extensions
Spillguard extensions
Tailgate, scissor-chain operated
Tailgate - underhinged

LIGHTS

Beacon, flashing
Fog, rear
Reverse, flashing
Working, rear-facing

Weights

Net Distribution

Front axle	25,840 lbs (11,720 kg)
Bogie axle leading	11,685 lbs (5,300 kg)
Bogie axle trailing	11,905 lbs (5,400 kg)
Vehicle, net	49,430 lbs (22,420 kg)
Payload	61,730 lbs (28,000 kg)

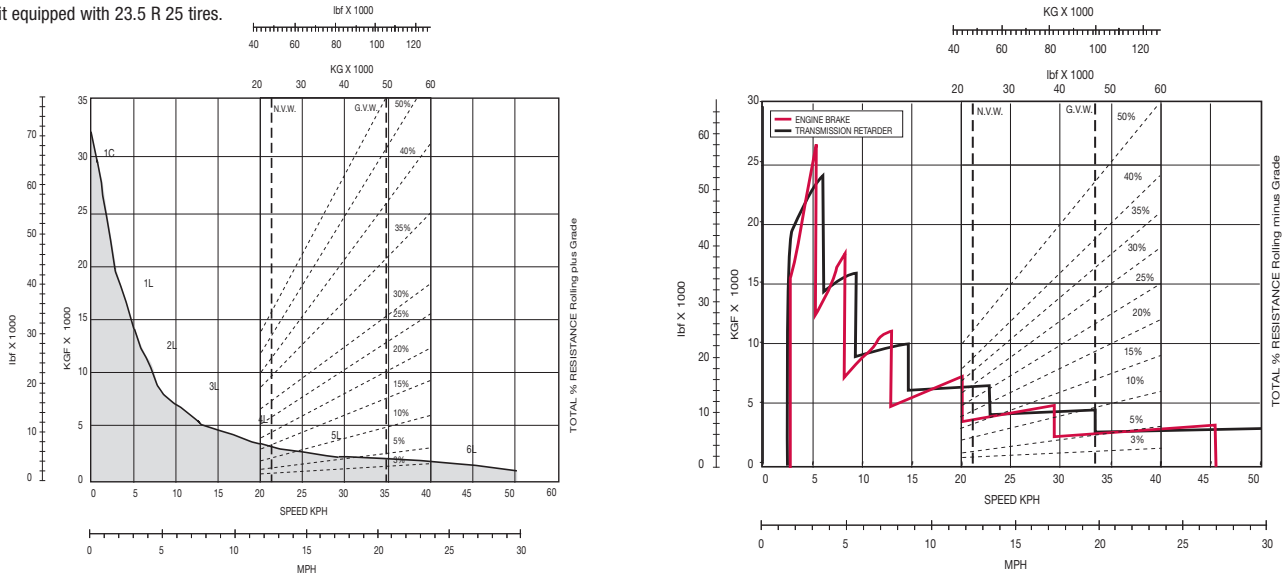
Gross Distribution

Front axle	37,040 lbs (16,800 kg)
Bogie axle leading	36,860 lbs (16,720 kg)
Bogie axle trailing	37,360 lbs (16,900 kg)
Vehicle Gross	111,160 lbs (50,420 kg)
Bare chassis	38,560 lbs (17,490 kg)
Body	9,700 lbs (4,400 kg)
Hoists, pair	1,170 lbs (530 kg)

Articulated Truck TA30

Performance Data (Graphs Based On 2% Rolling Resistance)

Unit equipped with 23.5 R 25 tires.

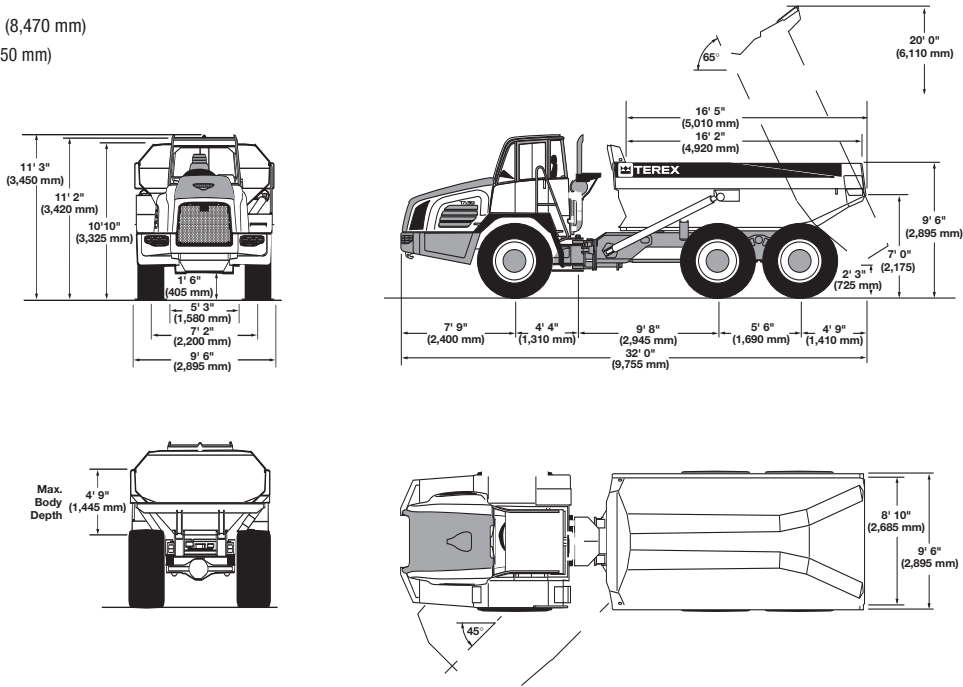


Instructions: From intersection of vehicle weight and percentage resistance line read across to determine maximum gear attainability and ten downward for speed.

Dimensions

SAE turning radius 27' 9" (8,470 mm)

Clearing radius 29' 4" (8,950 mm)



For more information, product demonstration, or details on purchase, lease and rental plans, please contact your local Terex Distributor.

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