

Wheel Loader

OPERATING WEIGHT	67,681 lbs (30,700 kg)
MAX ENGINE POWER	360 hp (268 kW) @ 1,600 rpm
BUCKET CAPACITY	6.3 yd ³ (4.8 m ³)
BREAKOUT FORCE	61,373 lbf (273 kN)



WHEEL LOADER
TXL 500-2

Specifications

Engine	
Make / Model	Cummins QSM11
Type	6 cylinder in-line, high-pressure unit injector fuel injection system with electronically controlled direct injection and turbo charged air to air intercooler.
Piston displacement	659 in ³ (10,800 cm ³)
Bore x stroke	4.9" x 5.8" (125 x 147 mm)
Wet replaceable cylinder liner	
Gross power	@ 1,900 rpm (SAE J1995) 335 hp (250 kW)
Maximum power @ 1,600 rpm	360 hp (268 kW)
Maximum torque @ 1,400 rpm	1,237 ft. lb (171 kgf.m)
Cooling type	Hydraulically driven puller type fan with possibility of adjustment.
Air cleaner	Dry type, (triple stage)
Engine emission meets USA EPA Tier 3.	

Electrical System	
Voltage	24V
Batteries in series	2 x 12V
Total capacity	150 Ah
Type	maintenance-free
Starter motor	24V x 7.5 kW
Alternator capacity	70A

Torque Converter	
Type	4-speed, full auto power-shift, countershaft, engine remote mounted with propeller shaft and damper.
Torque stall ratio	2.51

Specifications

Transmission

Type: "Full Power Shift" transmission. It can be used in manual or automatic modes. Equipped with a modulation system allowing soft gear shifting and inversion of travel direction.

The gear and direction shifting is operated by a single lever to the left of the steering wheel. A travel direction control is also mounted on the hydraulic joystick.

The transmission can be de-clutched by the operation of brake pedal to increase the power available to the hydraulic pumps.

	Forward				Reverse		
Gear	1	2	3	4	R1	R2	R3
mph	3.9	7.1	11.2	21.7	3.9	7.1	15.2
(kph)	(6.2)	(11.5)	(18)	(35)	(6.2)	(11.5)	(24.4)

Safety device prevents engine starting while in neutral gear.

Axles

The front and rear axles with planetary hub reductions are built on the base of very reputed components. Fitted as standard, the front and rear limited slip differentials, ensure the traction is optimal in all circumstances.

Make/model	ZF AP420-R Series
LSD Differential:	Front (45%) / Rear (45%)
Oscillation angle	±10°

Tires

Tubeless type	29.5-25-22PR (L3)
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Brakes

Type: Dual circuit multi-plate wet discs. Hydraulic actuation with pump and accumulator. Extended service intervals.

Parking brake: A spring applied and hydraulically released parking brake is mounted on the transmission shaft.

Steering

Type Load sensing type with a flow amplifier and a priority valve.

Steering angle 40°

Maximum flow rate @2,000 rpm 61.2 gpm (232 L/min)

Maximum working pressure 2,683 psi (185 bar)

Cylinders (2) bore x stroke 4.3" (110 mm) x 18" (465 mm)

Emergency steering circuit with hydraulic pumps driven by electric motor.

Hydraulic System

Type Two load-sensing axial piston pumps with variable displacement

Main control valve Double acting 2-spool is controlled by standard single lever.

Automatic boom kick out and bucket return to dig is standard.

All of hydraulic lines are equipped with special seals (ORFS).

Maximum flow delivery (with steering) 61.2 gpm (232 L/min)

Maximum flow delivery (without steering) 122.5 gpm (464 L/min)

Maximum working pressure 3,626 psi (250 bar)

Pressure of pilot circuit 435 psi (30 bar)

Filtration capacity on the return line 10 microns

Load cycles time lift: 6.0 sec dump: 1.8 sec lower: 4.3 sec

Lifting System

The lifting system with two cylinders and Z configuration is designed for the toughest jobs. The breakout force is 27.3 ton with a 6.3 yd³ (4.8 m³) bucket.

The bucket angles maintain good positions on all ranges of bucket movement.

Lifting cylinders (2) bore x stroke: 7.5" (190 mm) x 35" (899 mm)

Bucket cylinders (1) bore x stroke: 9.0" (230 mm) x 23" (575 mm)

Cab

The modular cab allows excellent visibility. Optimal ventilation is obtained by numerous ventilation outlets. Touch buttons control the air re-circulation air conditioning and heating systems. Air of the cab is filtered. All necessary information is centralized in front of the operator. The main functions are actuated via switches located on a console at the right of the operator. Generous storage places are well located. The cab, mounted on viscous element and equipped with an air suspended seat, offers a better comfort for the operator.

Access door 1

Emergency exits 2

The cab conforms ROPS ISO 3471 and FOPS: ISO 3449

Guaranteed external noise level Lwa:
(following 2000 / 14 / EC) 108 dB (A)

Capacities

Engine	Lube oil	8.9 gal (34 L)	Transmission oil	14.2 gal (54 L)
	Coolant	15.8 gal (60 L)		Hydraulic system
	Fuel tank	125.7 gal (476 L)		

Axles Front 13.2 gal (50 L) Rear 13.2 gal (50 L)

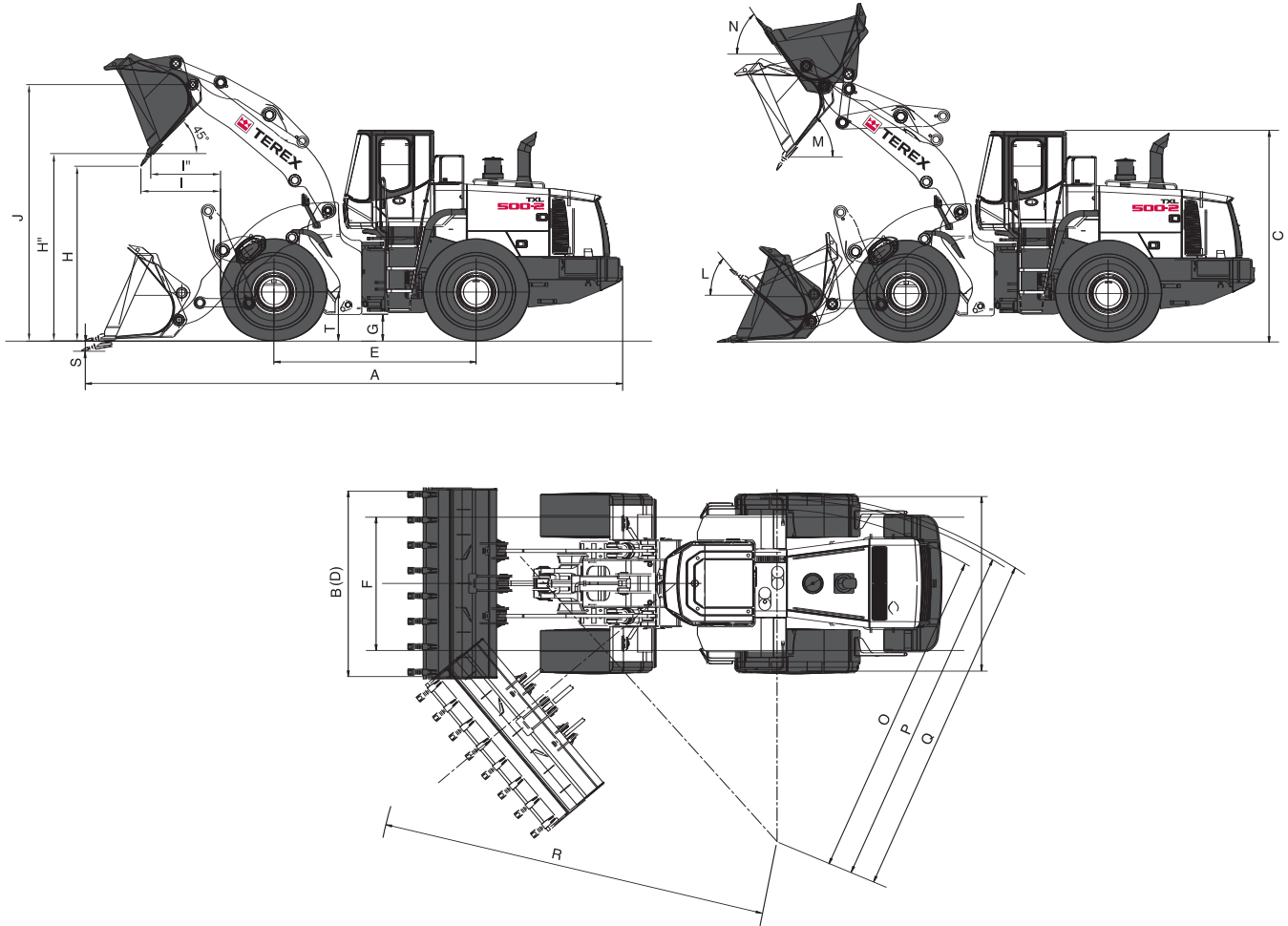
Operating Data and Dimensions

Bucket Type		General Purpose					Rock
Configuration	Unit	Teeth (std.)	Bolt-on edge	Teeth	Teeth	Teeth	
Tooth type		Adapter tooth	–	Integrated tooth	Adapter tooth	Adapter tooth	
Capacity heaped ISO/SAE	yd ³	6.3	6.8	6.3	6.9	5.9	
	m ³	4.8	5.2	4.8	5.2	4.5	
Breakout force	lbf	61,373	61,373	61,373	61,373	61,373	
	kN	273	273	273	273	273	
Static tipping load (straight)	lb	50,706	50,706	50,706	50,706	50,706	
	kg	23,000	23,000	23,000	23,000	23,000	
Static tipping load (40°) ¹	lb	40,092	40,092	40,092	40,092	40,092	
	kg	20,000	20,000	20,000	20,000	20,000	
Overall length	A ft.in	31' 3"	30' 7"	31' 1"	31' 3"	30' 0"	
	mm	9,525	9,325	9,475	9,525	9,365	
Overall width	B ft.in	11' 2"	11' 2"	11' 2"	11' 2"	11' 2"	
	mm	3,400	3,400	3,400	3,400	3,400	
Overall height	C ft.in	12' 6"	12' 6"	12' 6"	12' 6"	12' 6"	
	mm	3,820	3,820	3,820	3,820	3,820	
Bucket width	D ft.in	11' 2"	11' 2"	11' 2"	11' 2"	11' 2"	
	mm	3,400	3,400	3,400	3,400	3,400	
Wheelbase	E ft.in	11' 10"	11' 10"	11' 10"	11' 10"	11' 10"	
	mm	3,600	3,600	3,600	3,600	3,600	
Tread	F ft.in	7' 11"	7' 12"	7' 12"	7' 14"	7' 15"	
	mm	2,420	2,420	2,420	2,420	2,420	
Ground clearance	G ft.in	1' 8"	1' 8"	1' 8"	1' 8"	1' 8"	
	mm	510	510	510	510	510	
Dump height, at 45° (to tooth or cutting edge)	H ft.in	10' 3"	10' 9"	10' 5"	10' 3"	10' 11"	
	mm	3,120	3,270	3,170	3,120	3,330	
Dump height, at 45° (to bucket edge)	H* ft.in	11' 0"	11' 0"	11' 0"	11' 0"	11' 0"	
	mm	3,356	3,356	3,356	3,356	3,356	
Dump reach at 45° (to tooth or cutting edge)	I ft.in	4' 8"	4' 3"	4' 7"	4' 8"	4' 4"	
	mm	1,430	1,285	1,395	1,430	1,330	
Dump reach at 45° (to bucket edge)	I* ft.in	4' 1"	4' 1"	4' 1"	4' 1"	4' 1"	
	mm	1,250	1,250	1,250	1,250	1,250	
Bucket hinge height	J ft.in	15' 0"	15' 0"	15' 0"	15' 0"	15' 0"	
	mm	4,584	4,584	4,584	4,584	4,584	
Max. tilt angle at carry	– deg	49	49	49	49	49	
Max. tilt angle on ground	L deg	44	44	44	44	44	
Max. dump angle at fully raised	M deg	47	47	47	47	47	
Max. tilt angle at fully raised	N deg	58	58	58	58	58	
Turning radius							
(Out tire edge)	O ft.in	21' 7"	21' 7"	21' 7"	21' 7"	21' 7"	
	mm	6,157	6,157	6,157	6,157	6,157	
(Tire center)	P ft.in	20' 2"	20' 2"	20' 2"	20' 2"	20' 2"	
	mm	6,350	6,350	6,350	6,350	6,350	
(C/weight edge)	Q ft.in	21' 7"	21' 7"	21' 7"	21' 7"	21' 7"	
	mm	6,586	6,586	6,586	6,586	6,586	
(Bucket edge)	R ft.in	24' 2"	24' 2"	24' 2"	24' 2"	24' 2"	
	mm	7,370	7,370	7,370	7,370	7,370	
Digging depth	S ft.in	3' 7"	3' 7"	3' 7"	3' 7"	1' 2"	
	mm	93	93	93	93	45	

1) Measured to the tip of the bucket teeth or bolt-on edge.

2) All measurements with tires 29.5R25VSN(L4).

Dimensions



Measured to the tip of the bucket teeth or bolt-on edge with tires 29.5R25VSN(L4)

Weights and Dimensions (Supplemental specifications)

	Operating weight	Loaded radius	Ground clearance	Static tipping load (straight)	Static tipping load (Full turn)
29.5-25-22 PR(BIAS)	-2,161 lbs (-980 kg)	-0.79" (-20 mm)	-0.79" (-20 mm)	-1,389 lbs (-630 kg)	-1,213 lbs (-550 kg)
29.5R25-L3(VMT)	-992 lbs (-450 kg)	-0.79" (-20 mm)	-0.79" (-20 mm)	-551 lbs (-250 kg)	-485 lbs (-220 kg)
29.5R25-L4(VSNT)	0	0	0	0	0
29.5R25-L5(VSDL)	+2,469 lbs (+1,120kg)	+1.38" (+35 mm)	+1.38" (+35 mm)	+1,874 lbs (+850 kg)	+1,631 lbs (+740 kg)

Standard Equipment

ENGINE

Coolant filter

Crankcase ventilation oiltrap system

Electric driven fuel feeding pump

External drains for engine oil and coolant

Hydraulically driven fan with bi-direction flow for core cleaning proportional to fluid temperature

Mode selector switch for the engine power (Standard / Economy mode)

Preheating of induction air

Three stage air cleaner with TURBO-2 pre-cleaner, inner filter, and external plugging indicator as at the dashboard

Self-diagnosis function

Two fuel filters

Water separator with fuel filter

LIFTING AND HYDRAULIC SYSTEM

Automatic boom kick out

Automatic bucket return to dig

Fast couplers for hydraulic check

FNR mono lever with 3rd function lever for third section

General purpose bucket 6.3 yd³ (4.8 m³)
SAE, heaped

Hydraulic control valve with two sections

Robust Z bar lifting system

Variable piston and load sensing hydraulic system

STEERING SYSTEM

Load sensing steering system

EXTERNAL EQUIPMENT

Articulation lock in the transport position

Fender

Lower protection plates

Lifting hooks

Tools compartment

Towing hitch

ELECTRIC SYSTEM

Alternator 70A / 24 V

Driving lights: low and high beams

Tail indicators, stop, reversing lights

Reversing alarm

Working lights: 2 at the front and 4 at the rear (6 x 70W)

DRIVE LINE AND BRAKE SYSTEM

Dual brake circuits with accumulator

Dual service brake pedals

Gear box which can be declutched when braking

Gear box with diagnosis and monitoring indicator, and electronic plug for a fast adjustment

Kickdown and travelling direction selection: lever at left of the steering wheel or on the joystick

Limited slip differential on front and rear axles

Mode selector switch for the transmission (Manual / Auto 1<->4 / Auto 2<->4)

Parking brake on the transmission, electric-hydraulic

Secondary brake system

Starting safety system

Tires: 29.5-25-22PR (L3)

CAB

Adjustable steering column

Air-conditioning / heating with recirculation function

Air suspension seat with 3" seat belt

Cassette radio AM / FM

Coat hook

Cigarette lighter

Compartment for shoes

Compartment for cans

Cup holder

Digital clock

Double filtered air cab

Electrical horn

Exterior rear view mirrors (2)

Floor mat

FOPS Cabin (Falling Objects Protective Structure): FOPS meets the following criteria - SAE J 231, ISO 3449

Front and rear washers

Front and rear wiper

Glass antenna

Heated rearview mirrors

Heatwire in side mirror

Left sliding window

Interior cab light

Interior room mirror (2)

Machine monitoring (condition, control & maintenance indicators in front of the driver by dials, gauges and lamps)

Main switches in front of the driver (starter & hazard switches)

Mechanical suspended seat with 2" safety belt

ROPS Cabin (Rollover Protective Structure): ROPS meets the following criteria - SAE 1040, ISO 3471

Sun visor

Switches for the general functions in the right console

Tinted glass

12 Volt socket

Wheel Loader TXL 500-2

Optional Equipment

GROUND ENGAGING TOOLS

Various types of buckets, palette fork, timber grapples and accessories

TIRES

L3, L4, L5 following various types of manufacturers

HYDRAULIC

Emergency steering pump driven by electric motor

Hydraulic 3rd function control valve

Three hydraulic levers for 3 sections function

Load isolation system (LIS)

Two hydraulic levers for 2 sections function

ELECTRIC SYSTEM

Additional lighting

Rotating beacon

CAB

MP3 / CD player

Rear camera (CCTV) and monitor

VARIOUS

Additional counterweight

Mudguard

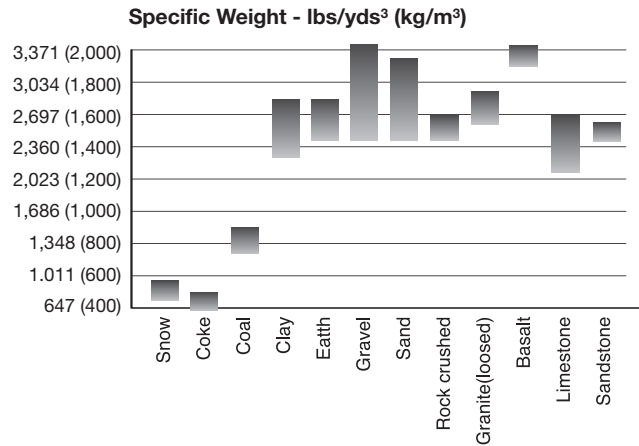
Tool Kit

EXTERNAL EQUIPMENT

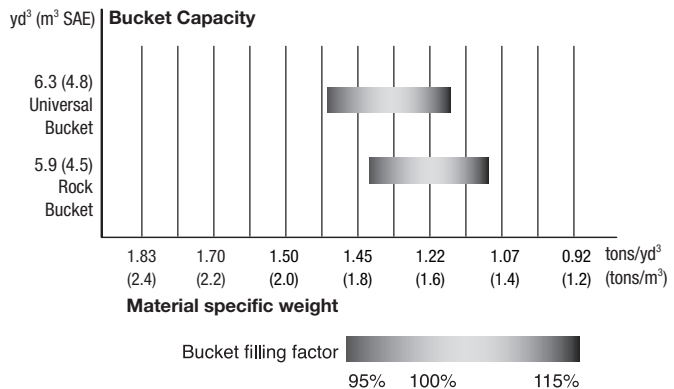
Full fender with rubber protector

Wheel chocks

Typical Material Weights / Densities



The specific weight of material largely depends on moisture rate, compacting value percentage of various component etc. This chart is an example only.



The bucket filling factor depends also on the nature of material, the working conditions, and the operator's ability.



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