

# AURY **ML**

# TR 100

Dump Truck



- >> Rated Payload-91t (100 US Ton)
- >> Heaped capacity—57m<sup>3</sup> (74.5yd<sup>3</sup>)
- >> High Torque Rise, Economical Engine Options

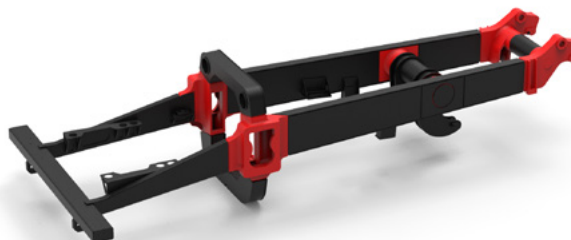
- >> Automatic Electronic Control Allison Transmission
- >> Full Hydraulic disc Brakes; Dual Mode Retardation
- >> Brand New Cab with Full Scene, Low Noise

# TR 100



## >> FRAME

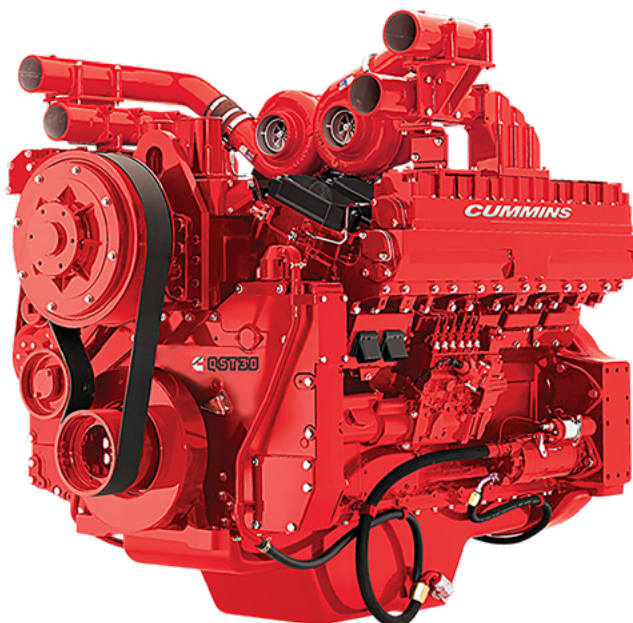
Full box section frame rails, integral front bumper, closed-loop crossmember and rear torque tubes of high yield strength steel and tail seat. Crossmember connections are high strength alloy steel castings.



## >> ENGINE

Model	Cummins QST30	MTU 12V2000C-66
Type 4 Cycle Turbocharged/Aftercooled		
Gross Power @ 2 100 rev/min	783kW (1050hp)	783kW (1050hp)
Net Power @ 2 100 rev/min	727kW (975hp)	727kW (975hp)
Gross Power rating to SAE J1995		
Engine requires no deration up to 2500m (8201 ft) altitude.		
Maximum Torque	4629Nm@1300 rev/min	4620Nm@600 rev/min
Cylinders/Configuration	12V	12V
Bore x Stroke	140 x 165 mm (5.51 x 6.5 in)	135 x 156 (5.32 x 6.14 in)
Displacement	30.5L	26.8L

24 volt negative ground electrical system. Four 12 volt 195 Ah Batteries with master disconnect switch. Two 9kW starters. Neutral start. 100A alternator with integral voltage regulator.



**>> TRANSMISSION**

Allison 86100RS CEC5 Automatic Electronic Control. Remote Mounted in the frame with integral TC 890 torque converter and planetary gearing. Six speeds forward, one reverse. Automatic lock-up in all speed ranges. Downshift inhibitor Hydraulic retarder.

Speeds with standard planetary:

Speed	Forward						Reverse
	1st	2nd	3rd	4th	5th	6th	R1
Ratios	4.24	2.32	1.69	1.31	1.00	0.73	5.75
Km/h	8.2	15.0	20.6	26.5	34.8	47.6	6.0
Mile/h	5.1	9.3	12.8	16.5	21.6	29.6	3.8

**>> DRIVE AXLE**

Heavy duty axle with full floating axle shafts, single reduction spiral bevel gear differential, and planetary reduction at each wheel.

Ratios:	Standard	Optional
Differential	2.16:1	2.16:1
Planetary	13.75:1	10.50:1
Total Reduction	29.70:1	22.68:1

**>> SUSPENSION**

Front: King pin strut type independent front wheel suspension uses self-contained, variable rate, nitrogen/oil cylinders.

Rear: Variable rate nitrogen/oil cylinders with A-frame linkage and lateral stabilizer bar.

Maximum Strut Stroke:	Front	235 mm (9.25 in)
	Rear	175 mm (6.90 in)
Maximum Rear Axle Oscillation	± 7.0 Degrees	

**>> TYRES**

Standard:	Front and Rear 2700-49 (48PR) E-4
Rim Width	19.5 in

Consult tyre manufacturers for optimum tyre selection and correct t-km/h (ton-mile/h) capacity for application.

**>> BRAKES**

Service: All hydraulic brake system control. Transmission mounted pressure compensating piston pump provides hydraulic pressure for brakes and steering. Independent circuits front and rear. Each circuit incorporates a nitrogen/hydraulic accumulator which stores energy to provide instant braking response.

Front Brakes:	Dry Disc
Disc diameter	965 mm (38 in)
Pad area, total	2064 cm <sup>2</sup> (320 in <sup>2</sup> )

Rear Brakes:	Oil cooled, multiple disc, completely sealed from dirt and water.
Braking surface total	87 567 cm <sup>2</sup> (13 573 in <sup>2</sup> )

PARKING - Rear brakes applied by spring loaded opposing piston on disc pack, hydraulically released.

RETARDATION - Modulated lever control of rear disc brakes or hydraulic retarder in transmission. 920 kW (1 234 hp) continuous.

SECONDARY - Park push button solenoid control applies service and parking brakes. Automatically applies when engine is switched off. Parking brake applies when system pressure falls below a pre-determined level.

Brakes conform to ISO 3450.

**>> STEERING**

Independent hydrostatic steering with closed-center steering valve, accumulator and pressure compensating piston pump. Accumulator provides uniform steering regardless of engine speed. In the event of loss of engine power it provides steering of approximately two lock-to-lock turns.

A low pressure warning light activates should the system pressure fall below 82 bar (1186 lbf/in<sup>2</sup>).

Steering conforms to ISO 5010.

Maximum Tyre Steering Angle	39°
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# TR100



## >> HOIST

Two body hoists mounted inside the frame rails. Hoists are two - stage with power down in the second stage. The body hydraulic system is independent of the steering hydraulic system.

System Pressure	190 bar (2 750 lbf/in <sup>2</sup> )
Body Hydraulic Pump Flow Rate @ 2 100 rev/ min	365 litre/min (97 US gal/min)
Body Raise Time	16.3 Seconds
Body Lower Time	18 Seconds

## >> BODY

Longitudinal 'V' type floor with integral transverse box-section stiffeners. The body is exhaust heated and rests on resilient impact absorption pads.

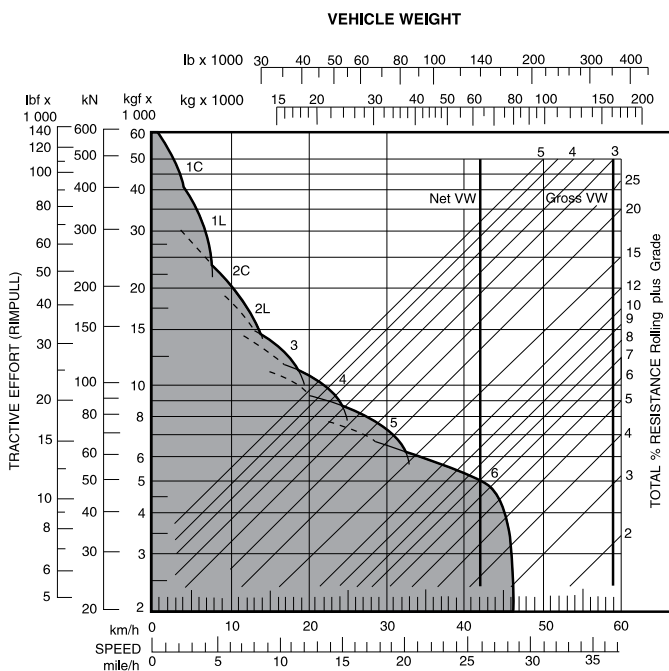
Body wear surfaces are high hardness abrasion resistant steel of yield strength FOPS Protection ISO 3449.

Thickness: Floor	19 mm (0.75 in)
Side	10 mm (0.39 in)
Front, lower	10 mm (0.39 in)
Volumes: Struck (SAE)	41.6 m <sup>3</sup> (54.4 yd <sup>3</sup> )
Heaped 2:1 (SAE)	57.0 m <sup>3</sup> (74.5 yd <sup>3</sup> )

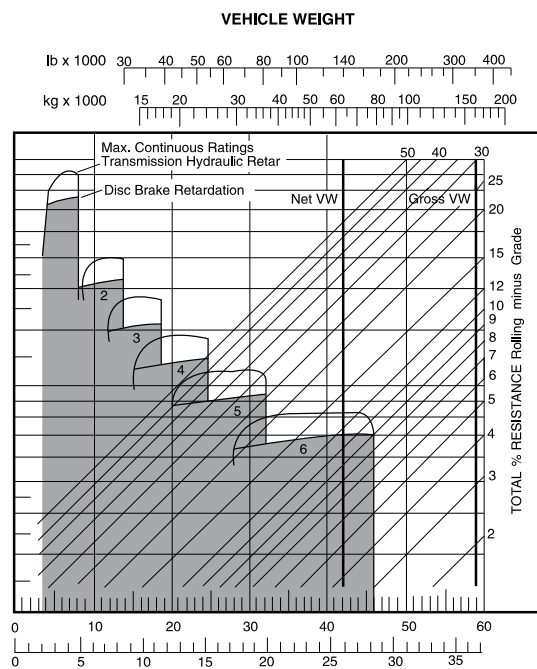
## >> PERFORMANCE DATA

Graphs based on 0% Rolling Resistance.

### GRADEABILITY

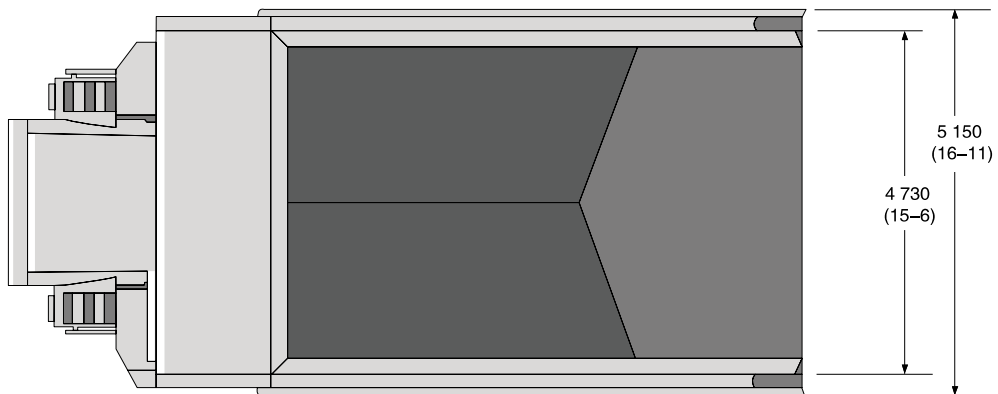
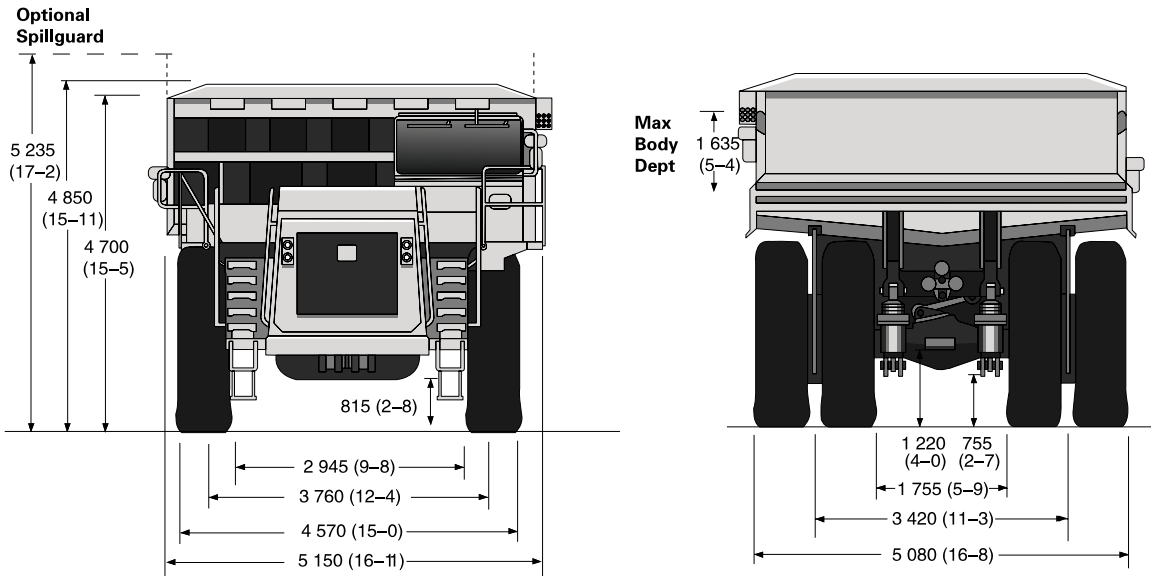


### RETARDATION

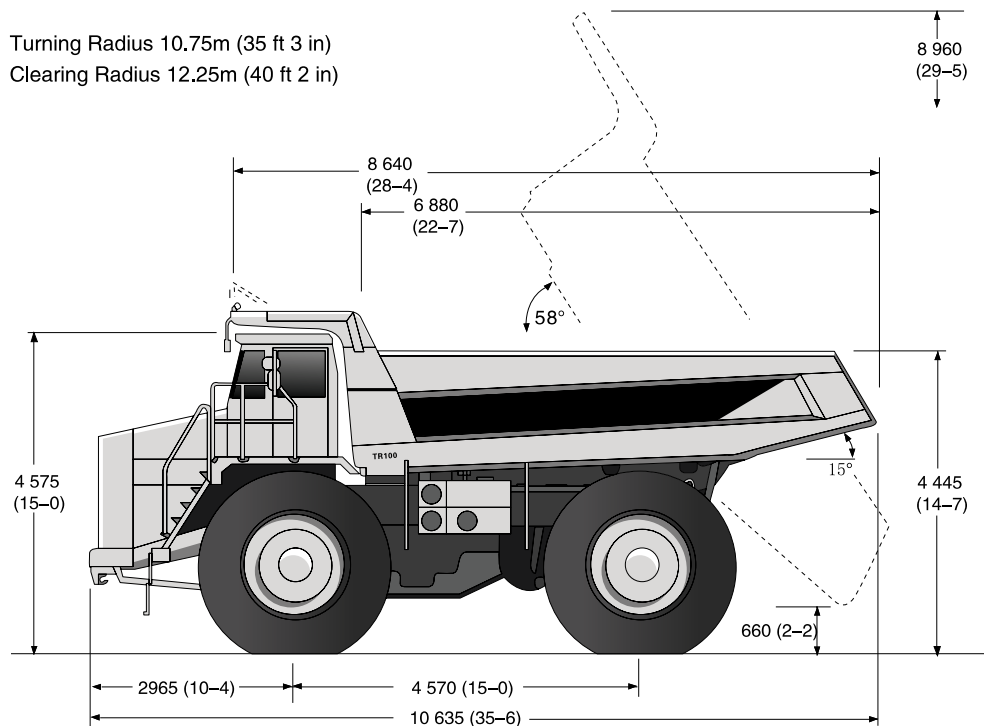


**Instructions:** From intersection of Vehicle Weight with Percentage Resistance line read across to determine maximum Gear attainable, and then downwards for Vehicle Speed.

Dimensions in mm (ft-in)



Turning Radius 10.75m (35 ft 3 in)  
 Clearing Radius 12.25m (40 ft 2 in)



## >> STANDARD EQUIPMENT

### CAB

Air Conditioner 5.4kW  
(18 500 BTU/hr)

Acoustic Lining

Door Locks

Floor Mat

FOPS Body Guard

FOPS Protection - ISO 3449

Heater and Defroster 10.3 kW  
(35 000 BTU/h)

Interior Light/Courtesy Light

Radio

Seat, Operator

Seat, Passenger

Seat Belts SAE J386

Steering Column - adjustable

Sun Visor - full cab width

Tinted Glass

Utility Compartment

Windshield Wipers, 2 speed,  
and Washers

### CONTROLS

Battery Isolator

Automatic Transmission Shift

Transmission Test Button

Power/Economy Key Switch

Manual Mode Key Switch

### GAUGES – ELECTRIC

Converter Temperature

Engine Coolant Temperature

Engine Oil Pressure

Fuel

Speedometer/Odometer

Tachometer/Hourmeter

Transmission Oil Pressure

### INDICATORS - LIGHT AND ALARM

Brake Pressure, front

Brake Pressure, rear

Steering Pressure

Steering/Brakes oil level

Transmission, "Do not shift"

### INDICATOR LIGHTS ONLY

Air Cleaner Restriction

Alternator Not Charging

Body Up

Brake Oil Temperature

Converter Drive

Coolant Level

Coolant Temperature

Direction Indicators

Low Engine Oil Pressure

Indicator Lights

Headlamps, Main Beam

Parking Brake 'On'

Retarder 'On'

Steering Filter Restriction

Transmission 'Check'

Transmission Filter

Restriction

Transmission Manual Mode

Transmission Oil

Temperature

Warning Light Test

### GENERAL

Accumulator Steering

Air Cleaners (3), two stage

Body Down Signal

Body Heating, Exhaust

Body Hoist, Servo Actuated

Cold Start Kit

Coolant Filter

Diagnostic Pressure Test Points

Downshift Inhibitor

Dual Brake System

Engine pre-lube starter

Engine Pan Guard

Exhaust Muffler, part time

Front Brake Pressure

Reduction Selector

Fuel Sight Gauge

Headlights - Quartz Halogen (4)

Horn, Dual Electric, 117dB SAE J1105

Mud Flaps

Operator Arm Guard

Parking Brake

Rear View Mirrors - 4

Radiator, replaceable tube core

Retarder, Transmission or  
Oil-cooled Disc Brakes

Retarder Light-amber rear

Reverse Alarm

Reversing Light quartz halogen

Rock Ejectors

Secondary Brake System

Security Kit

Side, Tail, Stop, Direction  
Indicators and Hazard

Tow Points, front and rear

Transmission Guard

Warning Lights

## >> OPTIONAL EQUIPMENT

Automatic Lubrication System	Fan Clutch	Planetary Ratio 10.5: 1
Body, Enlarged Capacity	Fast Fuel Adaptor	Television Monitor, Rear View
Body, Heavy Duty	Fire Suppression System	Spill Guard Extension, folding
Body Wear Plates (floor, end, side and front protection)	Exhaust Mufflex, full time	Traction Bias Differential
Canopy, ROPS, frame mounted	Fire Extinguisher	Tyres, 27.00R49 Radial
	On-board Weighing System	

## >> WEIGHTS

	Kg	lb
Chassis, with hoists	53 240	117 380
Body, standard	15 380	33 900
Net Weight	68 620	151 280
Rating Payload	91 000	200 617
Permissible gross weight*	160 000	352 734
* Maximum permissible gross vehicle weight with options, attachments, full fuel tank and payload.		
<b>WEIGHT DISTRIBUTION</b>		
	Front Axle	Rear Axle
Empty	49%	51%
Loaded	34%	66%

## >> SERVICE DATA

SERVICE CAPACITIES	LITRES	(US gal)
Engine Crankcase and Filters	134	(35.4)
Transmission and Filters	100	(26.0)
Cooling System	304	(80.3)
Fuel Tank	1090	(288.0)
Steering Hydraulic Tank	61	(16.1)
Steering Hydraulic System (Total)	72	(19.0)
Hydraulic Tank	297	(78.5)
Body Hydraulic System and Brake Cooling System	557	(147.1)
Planetaries (Total)	57	(15.1)
Differential	61	(15.1)
Front Ride Strut (Each)	27	(7.1)
Rear Ride Strut (Each)	18	(4.8)
Power Take Off	2	(1.1)

TR  
100

Dump Truck



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