

Articulated Dumper Truck

ADT 25

Automatic transmission
6x6

- ENGINE
Cummins CTA 8.3
- POWER
260 bhp 194kW
- GVW 40 t (44 sh tn)
- Payload
22.95 t (25.3 sh tn)
- Volume (SAE 2:1)
13,0 m³



 **ASTRA**
Veicoli Industriali

ENGLISH



ENGINE

Cummins 6 CTA 8.3: diesel direct injected turbocharged 4-cycle engine
6 in-line, with replaceable linings

Cylinders

- bore 114 mm 4.49 in
- stroke 135 mm 5.30 in
- displacement 8,30 l 506 in³

Compression ratio

Power rating 194 kW at 2200 rpm 260 bhp
Torque max 1123 Nm at 1300 rpm 828 lbf ft
Air filter dry type air cleaner
Cold starting device optional



AUTOMATIC TRANSMISSION

DF250 full power-shift gearbox with 8 forward and 3 reverse speeds

Gears/Speed Ratios F - R

		forward		reverse	
		km/h	mph	km/h	mph
6.01 - 5.63	1	4,8	3.0	5,2	3.2
4.28 - 3.00	2	6,8	4.2	11,9	7.4
3.07 - 1.23	3	9,5	5.9	23,6	14.7
2.19	4	13,3	8.3		
1.51	5	19,3	12.0		
1.08	6	26,9	16.7		
0.77	7	37,8	23.5		
0.55	8	52,7	32.7		

Single stage torque converter with lock-up in all gears
Built-in drop box with dog-clutch differential lock between front and rear drives. Max. gradeability: >40%



AXLES – 6x6 DRIVE

ZF axles, rigid-type, with planetary gear-type hub reduction
driven, with limited slip differential
driven, with limited slip differentials and lockable interaxle differential

Front axle
Rear axles

Reductions

- | | standard | optional |
|----------------|----------|-----------|
| • differential | 3.44 | no option |
| • hub | 6.35 | |
| • total ratio | 21.85 | |



WHEELS & TYRES

5-piece rims on all 6 wheels

Rims
Tyres

	standard	Optional
	19.5-25	17.00-25
	23.5 R 25**	20.5 R 25**



STEERING SYSTEM

Hydraulically operated steering, acting on articulated joint between frames
Orbitrol plus hydraulic amplifier
2 double acting hydraulic cylinders
gear type (see hydraulic system)

Control Cylinders Pump

Max. operative pressure
Emergency Steering angle
Turning radius
Steering column

185 bar 2683 PSI
electrical pump, standard fitted
45° both direction
see specific table
adjustable



BRAKE SYSTEM

Dual circuit, full hydraulic system, operated by pressure accumulators
single caliper dry disc brakes
single caliper dry disc brakes
wet type, multi-plate, maintenance free brake, transmission built-in

Service • front
• rear

Parking

Max. operative pressure
Engine brake

125 bar 1813 PSI
Jakob type exhaust brake.



SUSPENSION

Semi-independent systems front and rear , very sensitive to the ground
air-over-hydraulic cylinders
double beam linked by elastic pin to a torque reacting structure

Front
Rear



ELECTRICAL SYSTEM

Voltage 24 V
Battery 2 x 12 V 100 Ah
70 A 28 V
7,6 kW 10.2 Bhp

Alternator
Starter motor



HYDRAULIC SYSTEM

Hydraulic pump, engine dependent, for steering, braking, tipping
gear type
211 l/min 55.7 US gal/min

Pump Capacity
Max. operating pressure
Emergency electrical pump for steering

170 bar 2466 PSI



Steel Profile

FRAME & CHASSIS

Front and rear frames are linked by heavy duty articulation pin joint and taper roller bearing ring
high tensile steel Hardox 400
box section and plates



BODY

Hardened and tempered wear resi-stant steel plates, reinforced by high tensile pressed steel Hardox 400

2 double-acting multistage cylinders

Tipping
Tipping angle

70°

Tipping time

Up 15" Down 16"

Volume

m³ yd³

• struck SAE

11.0 14.4

• heaped SAE 2:1

13.0 17.0

Thickness

mm in.

• floor and scow

12 0.50

• sides

8 0.31

• front

10 0.39



INSTRUMENTS & GAUGES

Digital display and relative lights

for: air cleaner obstruction, battery

charge, headlight highbeam, turn signal, service brake pressure, parking brake, longitudinal differential engaged, torque converter lockup, fuel level, engine coolant temperature, engine oil level, engine oil temperature, transmission pressure, transmission temperature, hour meter, speed (MPH or Km/h) engine speed (RPM), clock.

Controls and indicators for: engaged gear, wiper washer, wiper speed (2 speed)), heater vent (+ airco), cigarette lighter, all wheel drive selector, lights/horn, hazard warning, flashing bacon, work lamps front and rear, fog light, auto gear-shifting engagement



CAB

Steel constructed to current ROPS & FOPS

Standards, centrally located

mounted on rubber pads

pressurized and filtered air

tinted glass

Engine bonnet

forward tilting and sloped

Driver seat

mechanically sprung

Engine bonnet

forward tilting and sloped

Rear-view mirrors

including wide-angle



STANDARD EQUIPMENT

Equipment and accessories follow

Markets requirements and Laws.

Ergo standards and optionals are stated by local price lists.



OPTIONALS

See notice in Standard

- 12 V converter
- Close circuit TV
- Cold starting device
- Radio cassette player
- Body extension
- Body heating kit
- Body liners
- Dump indicator
- Rear gate hydraulically controlled
- Rotating beacon on cab top
- Michelin tyres
- Tyres 20.5 R 25



SERVICE REFILL CAPACITIES

For fluids specification, please look at Operating & Servicing Manual

	liters	US Gals
Crankcase	34	9.0
Cooling system	37	9.8
Fuel tank	325	85.9
Transmission	23	6.0
Axles • front	11	2.9
• center	14	3.7
• rear	11	2.9
Hubs	2,5x6	0.66x6
Hydraulics	200	52.8



OPERATING WEIGHTS

Including fuel and driver (70 kg/154 lb)

	Empty		Rated load		Loaded	
	kg	Lb	kg	lb	kg	lb
Front axle	8.450	18.629	7.450	16.424	15.900	35.053
Rear axle (boogie)	8.600	18.960	15.500	34.172	24.100	53.132
Total (GVW)	17.050	37.589	22.950	50.596	40.000	88.185



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70°

T

J

R

E

K

L

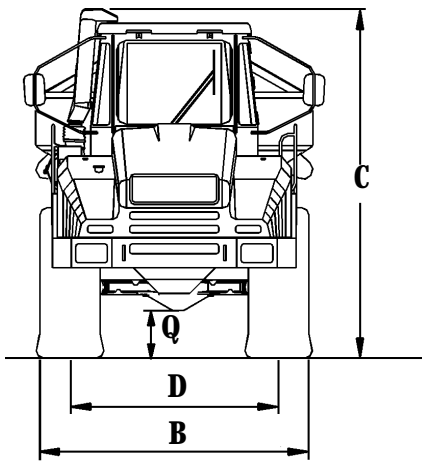
M

N

O

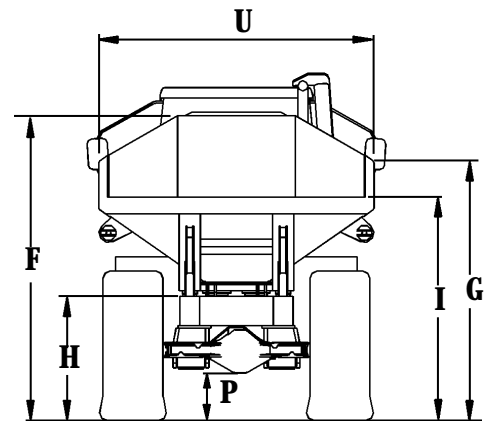
S

A



SAE
Turning
radius
(J695B)

	mm	ft in.
X	5.025	16'6"
Z	8.500	27'11"



	mm	ft in.
A	9.503	30'7"
B	2.673	8'10"
C	3.410	11'3"
D	1.973	6'5"
E	890	2'10"
F	3.130	10'3"
G	2.698	8'11"

	mm	ft in.
H	1.264	4'2"
I	2.258	7'5"
J	27°	27°
K	2.286	7'5"
L	1.333	4'5"
M	2.900	9'7"
N	1.700	5'7"

	mm	ft in.
O	1.284	4'4"
P	510	1'8"
Q	510	1'8"
R	540	1'9"
S	316	1'1"
T	6.190	20'2"
U	2.500	8'2"