

Articulated Dumper Truck

ADT 30

Automatic transmission
6x6 Drive

- ENGINE
Cummins M11
- POWER
280 bhp 209kW
- GVW 45.95 t (50.7 sh tn)
- Payload
27 t (29.8 sh tn)
- Volume (SAE 2:1)
16,5 m³



ASTRA
Veicoli Industriali

ENGLISH

Courtesy of Machine.Market



ENGINE

Cummins M11: diesel direct injected
turbocharged 4-cycle engine
6 in-line, with replaceable linings

Cylinders

• bore	125 mm	4.92 in
• stroke	147 mm	5.79 in
• displacement	10,8 l	661 in ³

Compression ratio

Power rating 209 kW at 2100 rpm 280 bhp

Torque max 1288 Nm at 1300 rpm 950 lbf ft

Air filter dry type air cleaner

Cold

starting device optional



AUTOMATIC TRANSMISSION

ZF 6WG210 full power-shift gearbox with 8
forward and 6 reverse speeds

Gears/Speed

Ratios F - R		forward		reverse	
		km/h	mph	km/h	mph
5.56 - 5.27	1	5,0	3.1	5,3	3.3
3.62 - 2.14	2	7,7	4.8	13,0	2.1
2.26 - 0.89	3	12,3	7.6	31,1	19.3
1.47	4	18,9	11.7		
0.94	5	29,5	12.3		
0.61	6	45,3	28.2		

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%



Front axle

Rear axles

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

Reductions

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



Rims

Tyres

WHEELS & TYRES

5-piece rims on all 6 wheels

standard Optional

19.5-25 24.00-30

23.5 R 25** 30/65 R 25**



Control

Cylinders

Pump

Max. operative

pressure

Emergency

Steering angle

Turning radius

Steering column

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)

185 bar 2683 PSI

electrical pump, standard fitted

40° both direction

see specific table

adjustable



Service

• front

• rear

Parking

Gear type pump

(see hydraulics)

Engine brake

BRAKE SYSTEM

Dual circuit, full hydraulic system, operated
by pressure accumulators

single caliper dry disc brakes

single caliper dry disc brakes

spring applied twin caliper disc acting on

rear propeller shaft

relief valve pressure

125 bar 1813 PSI

Jakob type exhaust brake



Front

Rear

SUSPENSION

Semi-independent systems front and rear ,
very sensitive to the ground

double air-over-hydraulic cylinders

double beam linked by elastic pin to a

torque reacting structure



Alternator

Starter motor

ELECTRICAL SYSTEM

Voltage 24 V

Battery 2 x 12 V 88 Ah

70 A 28 V

7,6 kW 10.2 Bhp



Capacity

Gear type pump

HYDRAULIC SYSTEM

Hydraulic pump, engine dependent, for
steering, braking, tipping

245 l/min 64.7 US gal/min

max. working pressure

170 bar 2466 PSI

Emergency electrical pump for steering



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 10"

Down 8"

Volume

m³

yd³

• struck SAE

13,0

17.0

• heaped SAE 2:1

16,5

21.5

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, front work lamps 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

Insulation

Air intake

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



SERVICE REFILL CAPACITIES

For fluids specification, please look at Operating & Servicing Manual

	liters	US Gals
Crankcase	34	9.0
Cooling system	43	11.4
Fuel tank	325	86.0
Transmission	19	5.0
Axles • front	11	2.9
• center	14	6.3
• rear	11	2.9
Hubs	2,5x6	0.66x6
Hydraulics	200	52.8

Air conditioning
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
Retarder
Michelin tyres
Tyres 30/65 R 25



OPERATING WEIGHTS

Including fuel and driver (70 kg/154 lb)

	Empty		Rated load		Loaded	
	kg	Lb	kg	lb	kg	lb
Assale anteriore	9.120	20.106	6.830	15.058	15.950	35.164
Assale posteriore (boogie)	9.830	21.671	20.170	44.467	30.000	66.139
Total (G.V.W.)	18.950	41.777	27.000	59.525	45.950	101.303



Articulated Dumper Truck

ADT 30

70°

T

J

R

E

K

L

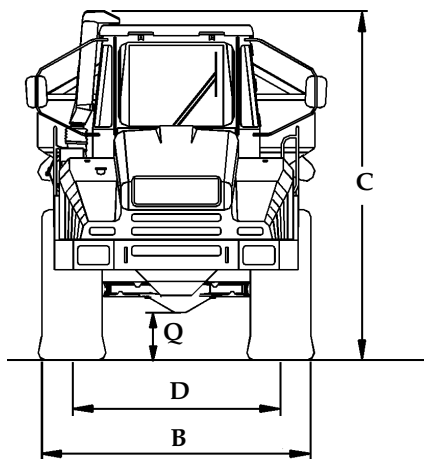
M

N

O

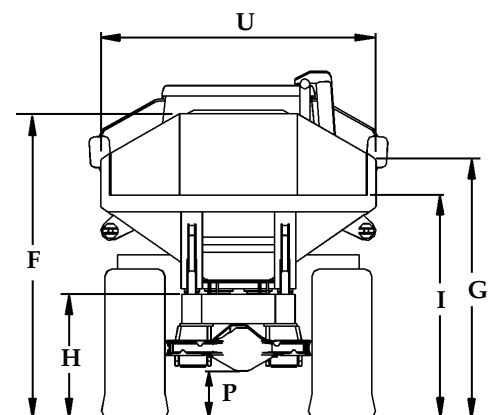
S

A



SAE
Turning
radius
(J695B)

	mm	ft in.
X	4.832	15'10"
Z	8.500	27'11"



	mm	ft in.
A	9.493	31'2"
B	2.800	9'3"
C	3.460	11'4"
D	2.200	7'3"
E	975	3'3"
F	3.104	10'3"
G	2.648	8'9"

	mm	ft in.
H	1.264	4'2"
I	2.277	7'5½"
J	27°	27°
K	2.286	7'6"
L	1.333	4'5"
M	2.900	9'7"
N	1.700	5'7"

	mm	ft in.
O	1.274	4'3"
P	484	1'7"
Q	484	1'7"
R	510	1'8"
S	338	1'2"
T	6.000	19'9"
U	2.800	9'3"