

Articulated Dumper Truck

ADT 16

Automatic Transmission
4x2/4x4

- ENGINE
Cummins 6 BT
- POWER
137 bhp 102kW
- GVW 23.2 t (25.6 sh tn)
- Payload
14 t (15.4 sh tn)
- Volume (SAE 2:1)
10,0 m³



ASTRA
Veicoli Industriali

ENGLISH

Courtesy of Machine.Market

**Cylinders**

• bore	102 mm	4.02 in
• stroke	120 mm	4.77 in
• displacement	5,88 l	359 in³

Compression ratio

Power rating 102 kW at 2000 rpm 137 bhp

Torque max 613 Nm at 1400 rpm 452 lbf ft

Air filter dry type air cleaner

Engine

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

**Automatic Transmission**

DF150 full power-shift gearbox with 8 forward and 3 reverse speeds

Gears/Speed Ratios F - R		forward		reverse	
		km/h	mph	km/h	mph
5.85 - 3.85	1	4,4	2.7	6,6	4.1
4.19 - 2.04	2	6,2	3.9	12,9	8.0
2.96 - 0.83	3	8,7	5.4	30,9	19.2
2.12	4	12,2	7.6		
1.49	5	17,4	10.8		
1.06	6	24,4	15.2		
0.75	7	34,5	21.4		
0.54	8	48,0	29.8		

Single stage torque converter with lock-up in all gears

Built-in drop box with dog-clutch to 4x4 drive

Max. gradeability: >40%

**Axles – 4x4 Drive**

New Holland axles, rigid-type, with double reduction and torque proportional differentials

driven

driven - 4x4 drive can be disengaged

Front axle

Rear axles

Reductions

	standard	optional
• differential	4.625	no option
• hub	4.50	
• total ratio	20.81	

**Wheels & Tyres**

5-piece rims on all 4 wheels

standard **Optional**

17.5-25 19.5-25

20.5 R 25** 25/65 R 25**

Rims

Tyres

**Control****Cylinders****Pump****Emergency****Steering angle****Turning radius****Steering column****Steering System**

Hydraulically operated steering, acting on articulated joint between frames

Orbitrol type

2 double acting hydraulic cylinders

gear type (see hydraulic system)

electrical pump, standard fitted

40° both direction

see specific table

adjustable

**Brake System**

Dual circuit, full hydraulic system, operated by pressure accumulators

Service • front
• rear

Parking

oil-bath multi-plate brakes

oil-bath multi-plate brakes

wet type, multi-plate, maintenance

free brake, transmission built-in



Front

Rear

Suspension

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

air-over-hydraulic cylinders

air-over-hydraulic cylinders



Alternator

Starter motor

Electrical System

Voltage 24 V

Battery 2 x 12 V 100 Ah

70 A 28 V

3,8 kW 5.1 Bhp

**Hydraulic System**

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

Capacity

102 l/min 27US gal/min

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 11"

Down 24"

Volume

m³

yd³

• struck SAE

7,7

10.1

• heaped SAE 2:1

10,0

13.1

Thickness

mm

in.

• floor and scow

10

0.39

• sides

6

0.24

• front

6

0.24



Instruments & Gauges

Digital display and relative lights

for: air cleaner obstruction, battery

charge, headlight highbeam, turn signal, service brake pressure, parking brake, 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 forward tilting and sloped

Insulation

Air intake

Engine bonnet



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

14

3.7

Cooling system

30

7.9

Fuel tank

170

44.9

Transmission

22

5.8

Axles • front

31

8.2

• rear

31

8.2

Hubs

included

included

Hydraulics

100

26.4

Close circuit TV
Radio cassette player
Rotating beacon on cab top
Michelin tyres
Tyres 25/65 R 25



Operating Weights

Including fuel and
Driver (70 kg/154 lb)

Empty
kg Lb

Rated load
kg lb

Loaded
kg lb

Front axle

5.850

12.897

3.500

7.716

9.350

20.613

Rear axle

3.350

7.385

10.500

23.148

13.850

30.533

Total (GVW)

9.200

20.282

14.000

30.864

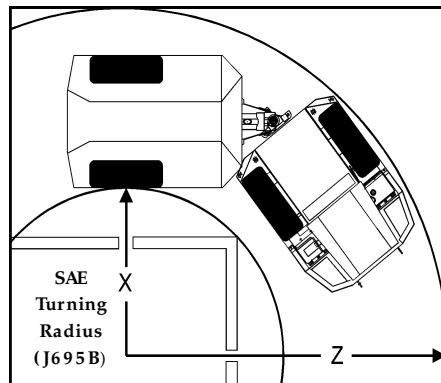
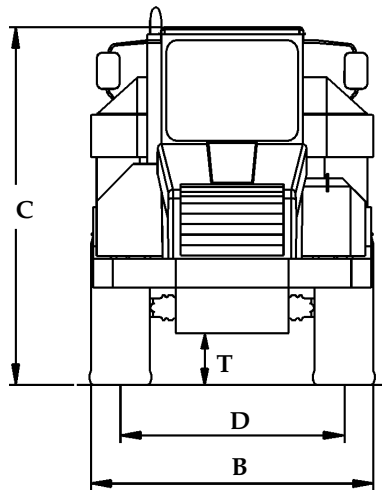
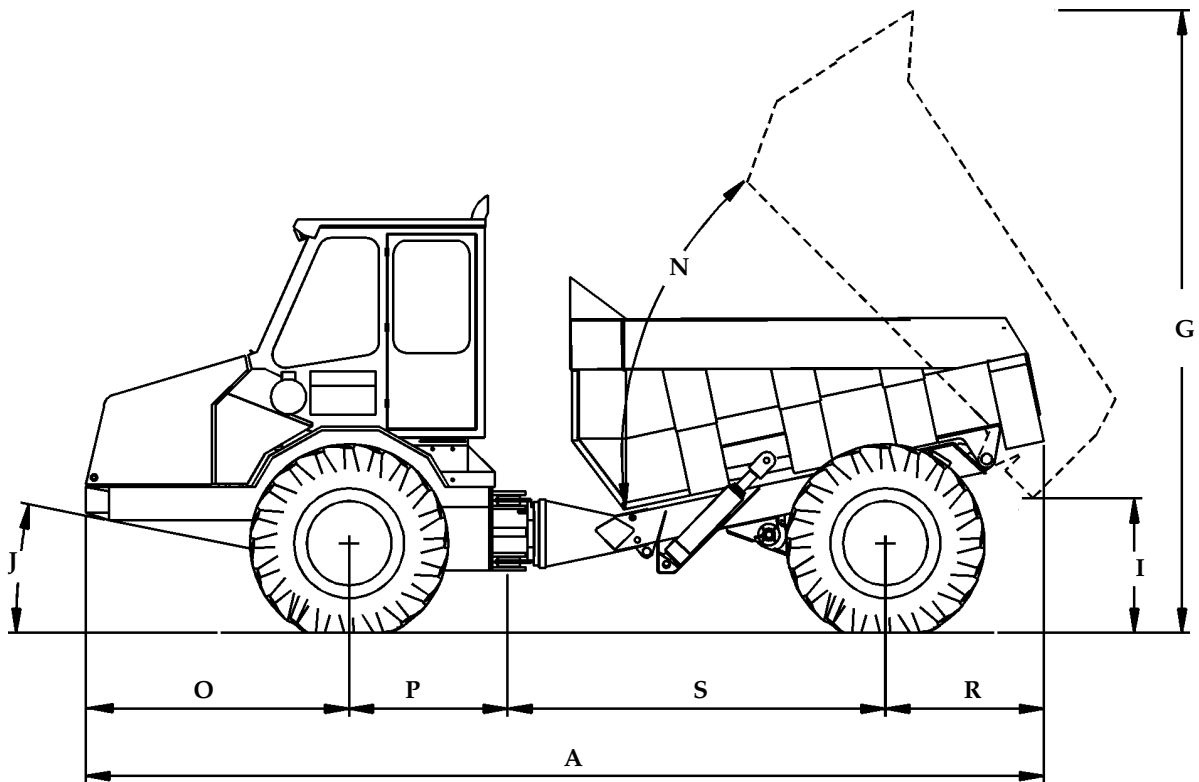
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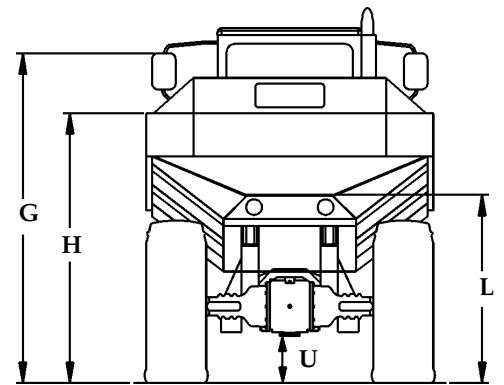


Articulated Dumper Truck

ADT 16



	mm	ft in.
X	4.066	13'4"
Z	7.100	23'4"



	mm	ft in.
A	7.145	23'6"
B	2.500	8'3"
C	3.260	11'3"
D	1.955	6'6"
E	4.700	15'5"
G	2.650	8'9"
H	2.420	8'0"
I	975	3'3"
J	27°	27°

	mm	ft in.
L	1.690	5'1"
M	1.778	5'10"
N	70°	70°
O	1.970	6'6"
P	1.200	3'11"
R	1.175	3'10"
S	2.800	9'3"
T	490	1'7"
U	490	1'7"