

# Articulated Dumper Truck

# ADT 30 E

Automatic transmission  
6x6 Drive

- ENGINE  
Cummins M11
- POWER  
280 bhp 209kW
- GVW 47.2 t (52 sh tn)
- Payload  
27 t (29.8 sh tn)
- Volume (SAE 2:1)  
16,5 m<sup>3</sup>



**ASTRA**  
Veicoli Industriali

ENGLISH

**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 <sup>3</sup>

**Compression ratio**

<b>Power rating</b>	209 kW at 2100 rpm	280 bhp
<b>Torque max</b>	1288 Nm at 1300 rpm	950 lbf ft
<b>Air filter</b>	dry type air cleaner	
<b>Cold starting device</b>	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	
45° both direction	
see specific table	
adjustable	



**Service** • front  
• rear

**Parking**

**Pump**  
**Max. operative pressure**  
**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  
gear type

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**

<b>Voltage</b>	24 V	
<b>Battery</b>	2 x 12 V	28 Ah
	70 A	28 V
	7,6 kW	10.2 Bhp



**Pump**  
**Capacity**  
**Max. operating pressure**  
**Emergency electrical pump for steering**

**HYDRAULIC SYSTEM**

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

245 L/min	64.7 US gal/min
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

**Tipping  
Ejector**

2 double-acting multistage cylinders  
headboard is actuated by a multi-stage double-acting large cylinder

**Load ejecting time** 18 "

**Headboard retracting time** 15 "

**Volume** m<sup>3</sup> yd<sup>3</sup>

• **struck SAE** 13,0 17.0

• **heaped SAE 2:1** 16,5 21.5

**Thickness** mm in.

• **sides** 12 0.50

• **front** 12 0.50

**Rear gate hydraulically controlled**

**CAB**

Steel constructed to current ROPS & FOPS Standards, centrally located mounted on rubber pads pressurized and filtered air tinted glass

**Climate** automatic air conditioning tinted glass

**Driver seat** mechanically sprung

**Engine bonnet** forward tilting and sloped

**Rear-view mirrors** including wide-angle

**SERVICE REFILL CAPACITIES**

For fluids specification, please look at Operating & Servicing Manual

	liters	US Gals
<b>Crankcase</b>	34	9.0
<b>Cooling system</b>	43	11.4
<b>Fuel tank</b>	325	85.9
<b>Transmission</b>	23	6.0
<b>Axles</b> • front	13	3.4
• center	17	4.5
• rear	13	3.4
<b>Hubs</b>	4,4x6	1.2x6
<b>Hydraulics</b>	350	92.5

**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 (+ airc), cigarette lighter, all wheel drive selector, lights/horn, hazard warning, flashing bacon, fwork lamps front and rear, fog light, auto gear-shifting engagement

**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*

Air conditioning  
12 V converter  
Close circuit TV  
Radio cassette player  
Ejecting indicator  
Retarder  
Michelin tyres  
Tyres 30/65 R 25

**OPERATING WEIGHTS**

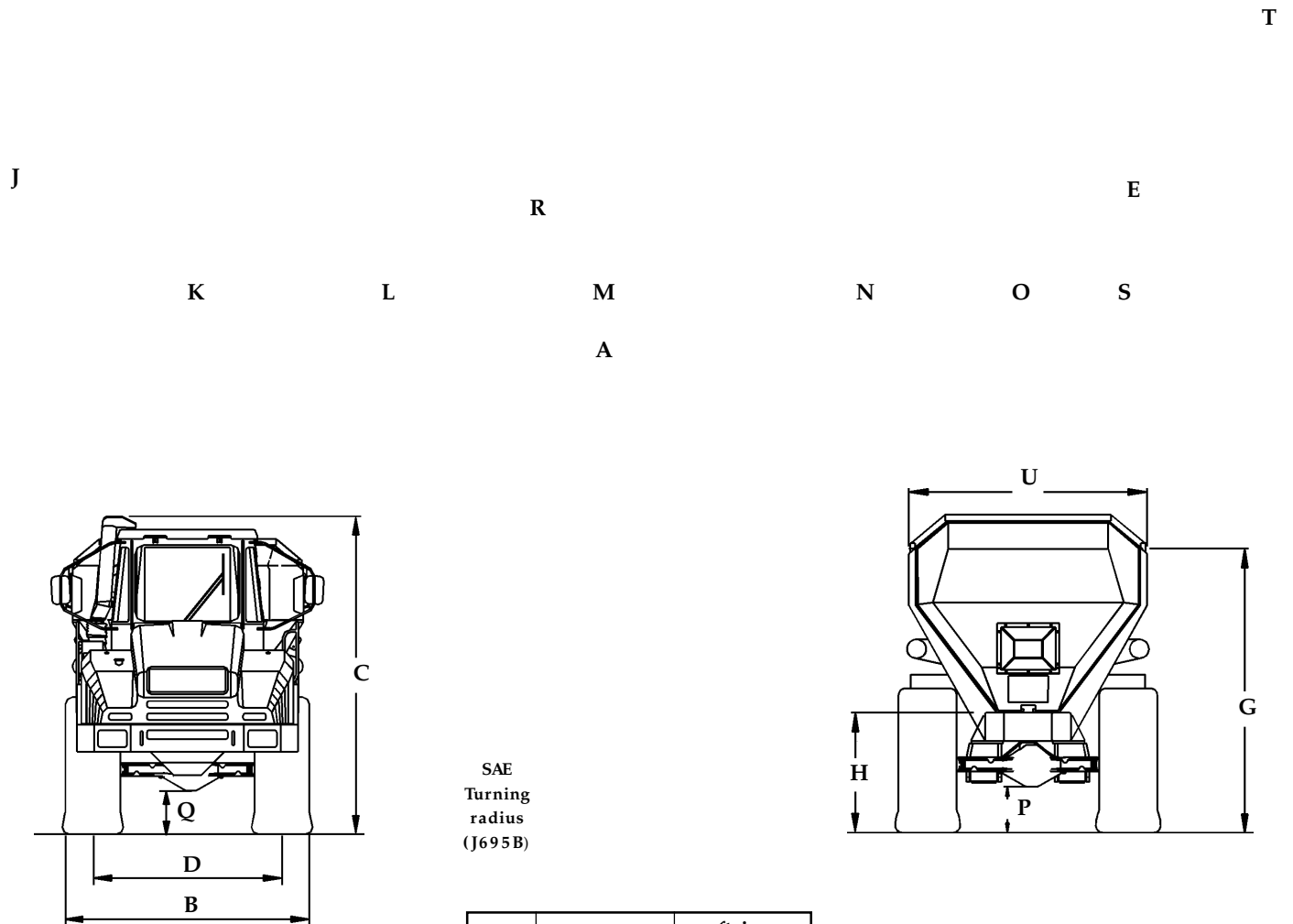
Including fuel and driver (70 kg/154 lb)

	Empty		Rated load		Loaded	
	kg	Lb	kg	lb	kg	lb
<b>Front axles</b>	9.550	21.054	5.950	13.118	15.950	34.172
<b>Rear axles (boogie)</b>	10.650	23.479	21.050	46.407	31.700	69.886
<b>Total (G.V.W.)</b>	<b>20.200</b>	<b>44.533</b>	<b>27.000</b>	<b>59.525</b>	<b>47.200</b>	<b>104.058</b>



# Articulated Dumper Truck

## ADT 30E



	mm	ft in.
X	4.688	15'5"
Z	8.500	27'11"

	mm	ft in.
A	9.756	32'2"
B	2.716	8'11"
C	3.700	12'2"
D	2.106	6'11"
E	964	
F	3.380	
G	3.000	9'10"

	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	3.275	10'9"
N	1.700	5'7"

	mm	ft in.
O	1.162	3'10"
P	484	1'07"
Q	484	1'17"
R	510	1'8"
S	610	2'
T	3.670	11'10"
U	2.500	8'2"