

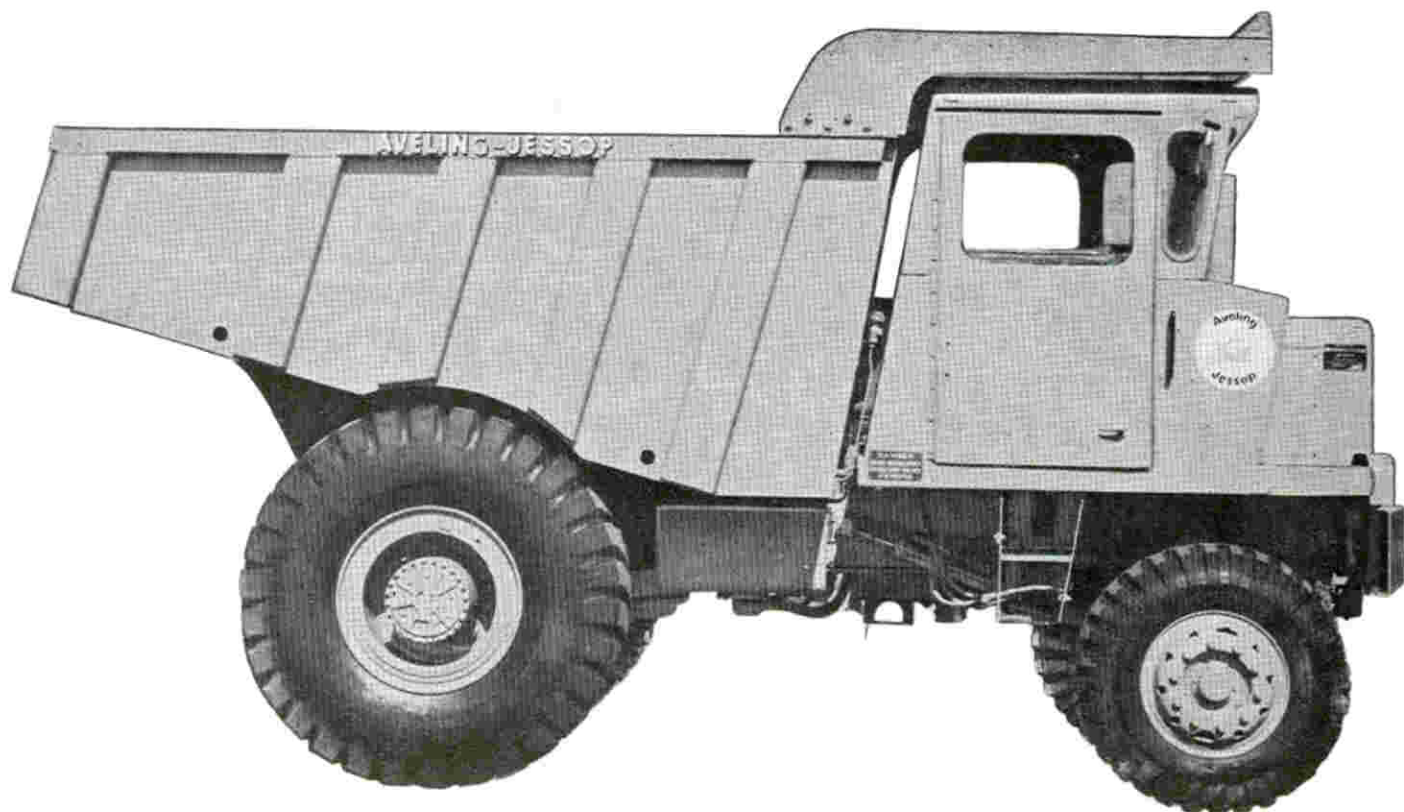
# AVELING JESSOP

## SL 340

# DUMP TRUCK

PAYLOAD 17 U.S. TONS-15422 KG.





#### **ENGINE** (Rating to IS 1601)

Ashok-Leyland 680 six-cylinder diesel engine ; 180 b.h.p. (metric) at 2,200 r.p.m. ; bore 5.0 in. (127mm.); stroke 5.75 in. (146mm.) Displacement 677.5 cu. in. (11,100 c.c.). Max. torque 484 lb. ft. (67 kg. m.) at 1,400 r.p.m. 24-volt dynamo electrical system with 12" (304 mm.) Cyclopac dry type Air Cleaner.

#### **CLUTCH**

Borg & Beck single plate dry disc type 17 in. (431mm.) diameter incorporating clutch brake in gearbox to facilitate gear changing. Air assisted.

#### **TRANSMISSION**

From the clutch, drive is transmitted to the remote rubber-mounted gearbox unit by a short Hardy Spicer propeller shaft. The change speed ratios are obtained through an automotive type of gearbox giving a total of five forward and three reverse speeds. All gears are helical, case hardened, in constant mesh, with splined dog clutch engagement.

#### **GEARBOX RATIOS**

Forward 5.22/1 ; 3.51/1 ; 1.90/1 ; 1.00/1 and 0.66/1.  
Reverse 5.10/1 ; 3.34/1 and 1.85/1.

#### **SPEEDS**

Forward 3.18, 4.76, 8.82, 16.85 and 26.47 m.p.h.  
5.08, 7.59, 14.12, 26.91 and 42.35 k.p.h.  
Reverse 3.26, 4.85 and 9.0 m.p.h.  
5.21, 7.76 and 14.47 k.p.h.

#### **REAR AXLE**

Extra heavy-duty specially developed for arduous off-road conditions. The cast-steel housing is mounted semi-rigidly to the chassis by eight shock springs on the mounting bolts. Fully floating half shafts. Triple reduction, first stage by spiral bevel pinion and crown wheel, second stage by double helical bull gear and bull pinion, and third stage by epicyclic gears within road wheel hubs. The centre part of the axle casting contains a bevel type differential carried on taper roller bearings.

Ratio Spiral bevel gear 1.409 to 1  
Double helical bull gear 3.727 to 1  
Planetary gears 4,125 to 1  
Total 21.66 to 1

#### **FRONT AXLE**

Forged steel axle of 'I' section with 1½ in. (32mm.) drop bed giving ample ground clearance. Two robust semi-elliptic springs are longitudinally attached to the chassis by ball ends in spherical seats thus eliminating twisting of spring leaves. A hydraulic shock absorber is mounted between each main frame member and the front axle.

#### **BRAKES**

Service and Parking :

Rear wheel brakes are air-actuated through two 30 in. (762mm.) diaphragm type chambers which incorporate "Fail Safe" spring brake arrangement.

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Contained in a separate chamber attached to each diaphragm chamber, is an extremely powerful coil spring which is held compressed by air pressure in the braking system. If the air pressure falls below 30 p.s.i. (2.1 kg/cm<sup>2</sup>) the brakes are automatically applied by the springs, thus providing full rear wheel "Fail Safe" braking. In the event of a complete failure of the air system, the brakes can be released manually by an adjusting nut at the rear of each chamber.

For parking, operation of a small valve located in the cab, exhausts air from the spring chamber, thus applying the brakes.

Front wheel brakes are heavy-duty, cam-operated internal expanding, applied by air-pressure diaphragm brake chambers through stiff operating lever.

Total friction area 642 sq. in. (4,142 cm<sup>2</sup>).

## WHEELS AND TYRES

All wheels are of the flat base type and are easily detachable.

Steering 8.00 x 20 fitted with 12.00 x 20, 18 ply, all-weather tread.

Driving 13.00 x 25 fitted with 18.00 x 25, 32 ply, Rock Grip tread.

## STEERING

Two-way operation by single raked 18 in. (457mm.) steering wheel with duplicate foot controls. The machine can thus be driven with equal ease in forward and reverse yet retaining normal steering action. Hydraulic power assistance by Vickers drag-link valve and ram, deriving power from an engine-driven pump.

Turning radius 23 ft. 6 in. (7,160 mm.).

Two external mirrors fitted.

## TIPPING

By twin hydraulic, inverted two-stage telescopic rams also allowing power return of body. The rams are universally mounted to both body and chassis eliminating all side strain. Body can be held at any angle upto maximum tipping angle of 65° which is reached in 10 seconds.

## BODY

Standard. Of welded fabrication in high tensile steel

plate. Floor plates are T-1 steel (or equivalent), 100,000 p. s. i. (7030 kg/cm<sup>2</sup>) yield point,  $\frac{1}{2}$  in. (12.7mm.) thick. Side and end plates in high tensile steel 59,736 p. s. i. (4200 kg/cm<sup>2</sup>) yield point 8 mm. thick. Heavily reinforced with 152mm. x 152mm. folded box sections. The body is pivoted at the rear on two large Nylatron bushes and is supported on the chassis by rubber pads. Built-in body lock allows servicing tasks to be carried out in complete safety. Protective canopy of 5mm. plate with 10mm. thick side plates extends over driver and cab when body is in travelling position.

Maximum payload 34000 lb (15422 kg) 17 U.S. tons

Struck capacity 7.6 m<sup>3</sup> (10 cu. yds.)

Heaped capacity 9.5 m<sup>3</sup> (12.4 cu. yds.)

## FRAME

All welded construction. The main members are 300 mm. x 90 mm. channels boxed with 10 mm. plates at points of maximum stress. Cross members well braced into side channels forming a rigid chassis of tremendous strength.

## LIGHTING

Four head, two side lights in front and one head-lamp, two stop-tail lamps incorporating reflectors at rear. Flashing directional indicators fitted.

## CAB

Totally-enclosed, steel, with safety glass windows. Provides ample protection for driver without impairing visibility. Windscreen wiper fitted.

## CAPACITIES

	Imp. gal.	litres
Fuel Tank	44	200
Cooling System	14	63.4
Hydraulic System	20.7	93.2
Engine Sump	7	31.8
Rear axle differential	4	18

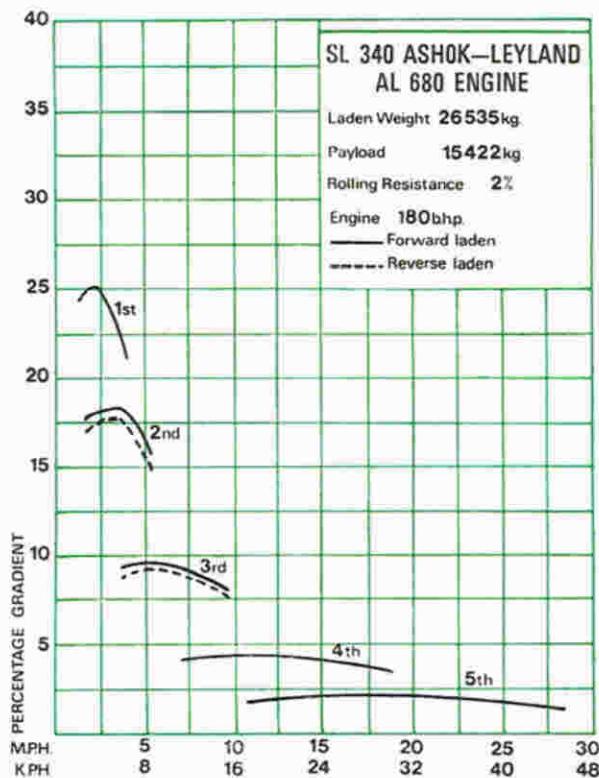
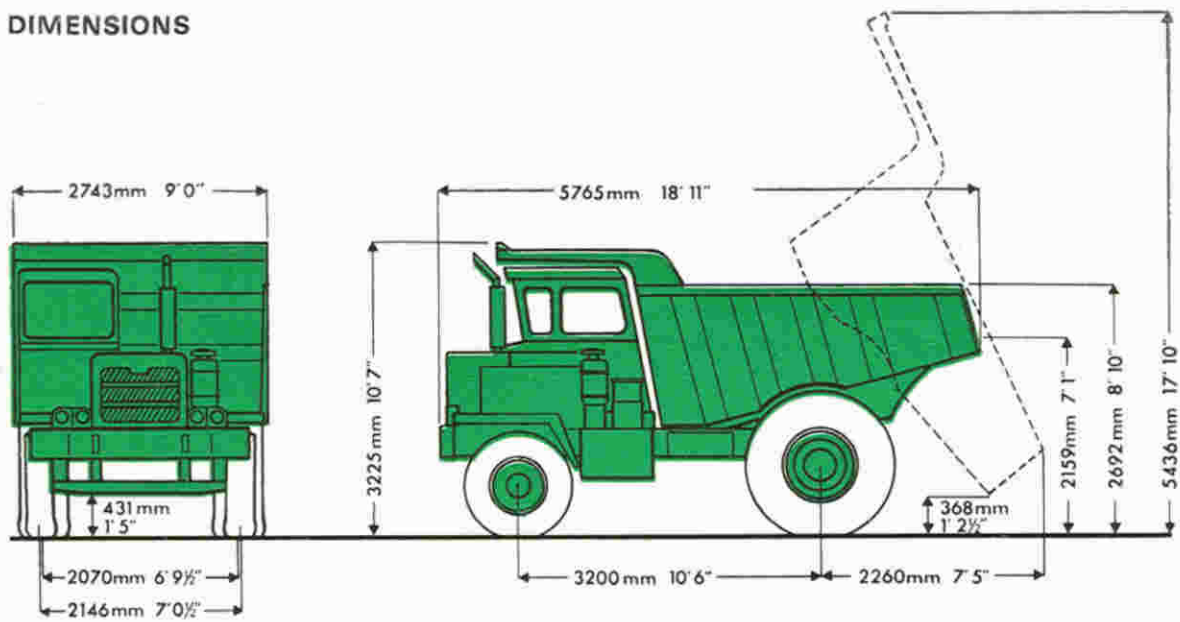
## WEIGHTS

		lb.	kg.
Unladen	Total	24,500	11,113
	Front Axle	10,390	4,713
	Rear Axle	14,110	6,400
Laden	Total	58,500	26,535
	Front Axle	14,840	6,731
	Rear Axle	43,660	19,804

## SHIPPING SPECIFICATION (Approximate)

	Volume		Long Tons	kg.
	cu. ft.	cu. m.		
Dump Truck on wheels with cab	1800	51	10.92	11,100

## DIMENSIONS



# AVELING-JESSOP

## SL 340

### DUMP TRUCK

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