

SCANIA

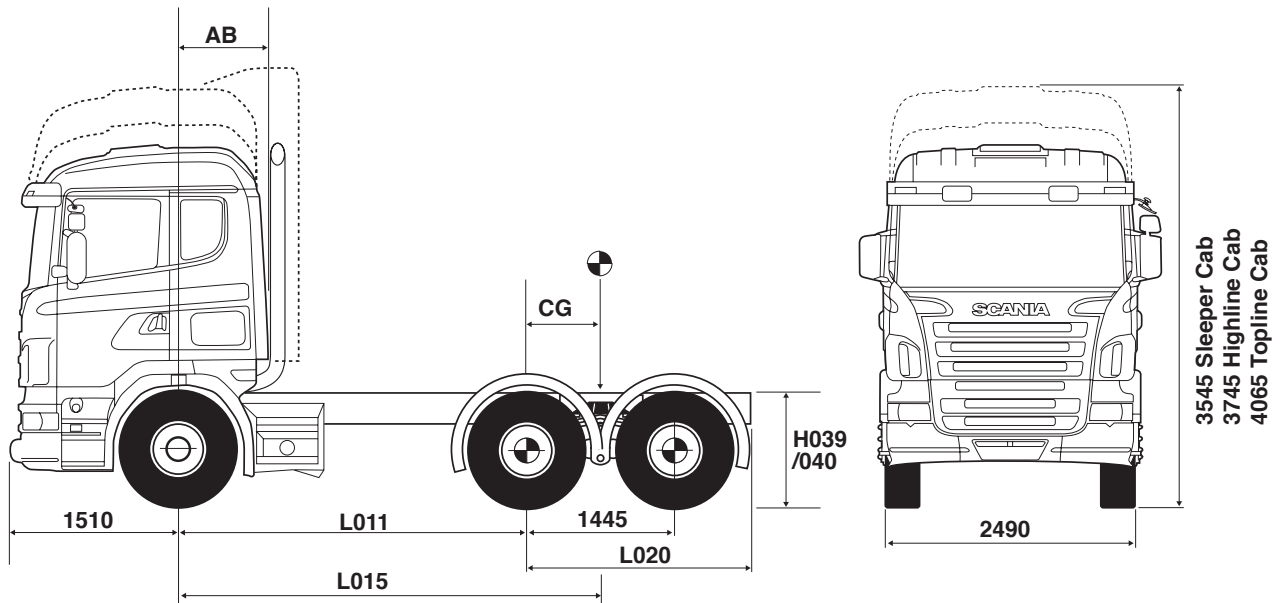
SPECIFICATION

P-, G- and R-series

R 500 LA6x4ESZ

150000Kg GTW

HEAVY HAULAGE PRIME MOVER CATEGORY 3



AB (centreline of front axle to back of cab) Sleeper – 805

DIMENSIONS (mm)

| | | | | |
|-------------|----|------|------|------|
| L011 | | 3100 | 3300 | 3500 |
| L015 | | 3823 | 4023 | 4223 |
| L020 | | 2225 | 2225 | 2225 |
| Sleeper Cab | CG | 320 | 300 | 280 |

H039 unladen = 1115mm H040 laden = 1040mm L015 = Theoretical wheelbase

CG dimension for imposed load calculated for Special Types use on standard model. This dimension can be varied to suit specific trailer swing clearances but may result in a reduction in imposed load.

Height dimension measured to top of frame at rear bogie centreline.

PLATED WEIGHTS – AWR

| | | Front Axle | Bogie | GVW | GTW |
|-----------------|----|------------|--------|-------|--------|
| Design Gross | Kg | 8500 | 30000 | 38500 | 110000 |
| Legal Max in GB | Kg | 8000 | 19000* | 26000 | 44000 |
| ‡ Special Types | Kg | 9000 | 33000 | 42000 | 150000 |

Weights quoted are dependent on statutory tyre limitations.
 *Rear bogie load in GB (with trailer attached) = 17000 kg and GVW 25000 kgs when GTW exceeds 40 tonnes under AWR.
 ‡ A Special Types plate will be issued on written request for a vehicle of this specification operating under The Road Vehicles (Authorisation of Special Types) (General) Order 2003 and amendments. Weights will be determined by tyre equipment fitted and Category 3 speeds applicable. Reduced weights apply above 40 kph. These weights have been determined for operation on normal road surfaces.

CHASSIS/CAB WEIGHTS

(Tolerance +/- 2.5%)

| Axle distance | Front Axle | Bogie | Total (kg) |
|---------------|------------|-------|------------|
| 3100 | 5646 | 4095 | 9741 |
| 3300 | 5651 | 4110 | 9761 |
| 3500 | 5651 | 4115 | 9766 |

Chassis cab weight includes 20 litres of fuel, oil and water. Driver not included. See overleaf for option weights.

R 500 LA6x4ESZ

SL5451090
March 09

ENGINE (EURO 5)

Scania '16 litre' V8 turbocharged intercooled direct injection diesel with unit injectors.

'500'

| | |
|----------------------------------|--|
| Type: | DC16-19 |
| Swept Volume: | 15.6 litres |
| Bore: | 127 mm |
| Stroke: | 154 mm |
| Compression Ratio: | 17:1 |
| *Max. Power: | 368 kW (500 h.p.) at 1800 rev/min |
| *Max. Torque: | 2500 Nm (1844 lbf.ft) between 1000 and 1350 rev/min |
| Engine Management System: | EMS – incorporating Cruise Control and speed limiter. |
| Emission control: | Scania SCR. |
| Cooling: | Water cooled with rubber mounted 2 row radiator and electronically regulated fan |
| Coolant Capacity: | 76 litres |
| Oil Capacity: | 38 litres |
| Air Cleaner: | Dry replaceable paper element |

Options:-

(1) Details as above except for the following:-

'560'

| | |
|----------------------|---|
| Type: | DC16-18 |
| *Max. Power: | 412 kW (560 h.p.) at 1900 rev/min |
| *Max. Torque: | 2700 Nm (1991 lbf.ft) between 1000 and 1400 rev/min |

(2) Details as above except for the following:-

'620'

| | |
|----------------------|---|
| Type: | DC16-17 |
| *Max. Power: | 456 kW (620 h.p.) at 1900 rev/min |
| *Max. Torque: | 3000 Nm (2213 lbf.ft) between 1000 and 1400 rev/min |

(3) Provision for ED160 engine driven P.T.O.

*With fan at max. slip

CLUTCH

| | |
|-------------------|--|
| Type: | Single dry plate |
| Operation: | Air assisted with clutch wear protection |

GEARBOX

| | |
|----------------------|--|
| Type: | Scania GRS0905 fourteen speed overdrive with synchromesh on all except two crawler gears. Incorporating range change and splitter. Oil cooler. |
| Oil Capacity: | 15.6 litres |

GEAR RATIOS

| | Low Range Split | | High Range Split | |
|----------------|-----------------|---------|------------------|--------|
| | L | H | L | H |
| Crawler | 13.28:1 | 10.63:1 | | |
| | 9.16:1 | 7.33:1 | 2.44:1 | 1.96:1 |
| | 5.82:1 | 4.66:1 | 1.55:1 | 1.24:1 |
| | 3.75:1 | 3.00:1 | 1.00:1 | 0.80:1 |
| Reverse | 11.95:1 | | | |

Options:-

(1) **Opticruise:** Gearchange management system. Only with Traction Control.

(2) **Type:** Scania GRS905 fourteen speed range change/splitter including 2 crawler gears. (N/A with '620' engine).

REAR AXLES

| | |
|------------------|----------------------|
| Type: | Both Scania AD 1501P |
| Capacity: | Combined 30000 Kg |

Pressed steel housing with magnetic oil drain plug.

REAR AXLE GEAR

| | |
|--------------|---|
| Type: | Scania RBP835 (First axle) RP835 (Second axle) |
|--------------|---|

Single reduction spiral bevel plus epicyclic hub reduction. Crown wheel and pinion matched during manufacture. Pneumatically operated inter-axle and cross axle differential locks.

FRONT AXLE

| | |
|------------------|-----------------------------------|
| Type: | Scania AM920 I section rigid beam |
| Capacity: | 9000Kg |

STEERING

| | | | | | |
|------------------------|---|----------|-------|----------|-------|
| Type: | Recirculating ball. Hydraulically assisted power steering | | | | |
| Steering wheel: | Diameter 450mm. Lock to lock 4.9 turns | | | | |
| Turning circle: | Kerb to kerb | | | | |
| 3.1m A/D | 14.2m | 3.3m A/D | 14.9m | 3.5m A/D | 15.7m |

SUSPENSION

| | |
|--------------------|---|
| Type Front: | Semi-elliptic multi-leaf springs with swinging shackles and threaded shackle pins damped by double acting telescopic shock absorbers. |
| Type Rear: | Two spring balance beam bogie fitted with rubber mounted radius arms |

Options:- (1) Anti-roll bar – rear (2) Anti-roll bars – front and rear

SPRING SIZE

| | Front | Bogie |
|-------------------------|----------|----------|
| Length: | 1820mm | 1550mm |
| No. of leaves: | 9 x 15mm | 5 x 48mm |
| Design Capacity: | 8500Kg | 32000Kg |

Options:- (1) Semi-elliptic springs front – 3 x 29mm

WHEELS & TYRES

9.00 x 22.5 ten stud spigot mounted disc wheels fitted with 315/80R22.5 radial tubeless tyres.

Options:- (1) 11.75 x 22.5 wheels with 385/65R22.5 or 385/55R22.5 tyres - front axle only

(2) Aluminium wheels - Machined or Polished surface finish

(3) Front wheel embellishers

FRAME

| | |
|--------------|---|
| Type: | F958 |
| | Flat top constant depth 'U' channel with riveted crossmembers |

Sidemember Dimensions:

| | |
|------------------|-----------------|
| 270 x 90 x 9.5mm | External member |
| 247 x 78 x 8mm | Internal member |

Width over parallel section of frame = 770mm

Bumper: Pressed steel plus FUP

Options:- (1) Centre tow pin

BRAKE SYSTEM

| | |
|-------------------------------------|--|
| Type: | Dual circuit, full air, EC brake system incorporating load sensing and category 1 ABS. Brake pipes manufactured from either rust protected steel or high impact synthetics |
| Service Circuit: | Actuates all tractor and trailer brakes |
| Secondary Circuit: | First position of park brake lever actuates tractor spring brakes plus trailer brakes |
| Parking Brake: | Actuates spring chambers on all tractor axles |
| Exhaust Brake: | Air actuated operated by brake pedal |
| Brake Antifreeze Protection: | Air dryer |
| Brake Wear Adjusters: | Automatic |
| Options:- (1) | Scania Hydraulic Retarder |
| (2) | Traction Control - anti-slip device |

BRAKE DIMENSIONS

| | | | |
|---------------------|--|---------------------|--|
| Front Axle: | Size 413 x 203mm Area 1880cm ² | Rear Axle 1: | Size 413 x 254mm Area 2400cm ² |
| Rear Axle 2: | Size 413 x 254mm Area 2400cm ² | Total Area: | Service 6680cm ² Parking 4280cm ² |

ELECTRICAL SYSTEM

Type: 24V neg (-ve) earth **Alternator:** 100A
Batteries: Twin 180 Ah
Rear H.I. lamps, Reversing lights, Side Marker Lamps

Options:-

- (1)** 140Ah batteries, **(2)** 225Ah batteries, **(3)** Battery connection – 200A,
(4) Bodywork electrical preparation – see separate document.

FUEL TANKS

1 x 300 litre LHS steel – (1 x 200 litre with 33 A/D)
AdBlue tank on RHS – capacity 75l with 'W' tanks – 50l with 'G' tanks.

Options:- (Minimum axle distance and suspension type in brackets)

| | RH Side | LH Side | | RH Side | LH Side |
|------------------|----------------|-----------------|----------------------|----------------|----------------|
| Steel - G | 150 | 150 | Aluminium - W | 200 | 200 |
| | | 200 (3300Z) | | 300 (3300Z) | 300 |
| | | 300 (N/A 3300Z) | | 350 (3300Z) | 350 (3300Z) |
| | | | | | 400 (3500Z) |
| | | | | | 500 (3300Z) |

Tank sizes can be supplied in LH + RH combinations of the above but steel and aluminium cannot be mixed. Sides viewed from rear.

GENERAL EQUIPMENT

Double Manwalk with step and coupling lamp
Front tow pin
Vertical exhaust outlet
Rear Wings

Options:-

- (1)** ADR to EXIII/EXIII, FL, OX or AT – N/A with vertical exhaust

INSTRUMENTS & CONTROLS

Two man, one day, EC digital tachograph, rev-counter and gauges for coolant temperature and fuel. Central display for vehicle information and warning messages. Six speed wipers with four jet integral screen wash. Halogen headlamps adjustable from cab for correction of beam height. Warning lights for all major systems grouped within easy vision.

Instrument panel of modular design with switches and controls grouped according to usage. All instruments are back-lit and non-reflective. Impact absorbing, adjustable steering wheel with column lock.

CAB

CR19 Sleeper Cab

Please see separate specification – 'Scania Cabs' for equipment levels.

Options:-

- (1)** CR19 Highline
(2) CR19 Topline

P.T.O. OPTIONS Check gearbox availability

| Rear Mount | | G670 | GR875 / GRS895 / GR/S905 | GRS0905 |
|------------|--------|------|--------------------------|--------------|
| Pump | Flange | | | |
| EG551P | EG561F | 0.54 | | |
| EG650P | EG660F | | 1.00 / 1.24H | |
| EG651P | EG661F | | 1.28 / 1.58H | |
| EG652P | EG662F | | | 0.82 / 1.03H |
| EG653P | EG663F | | | 1.03 / 1.29H |
| EK730 | EK740 | | 1.00 | 1.00 |

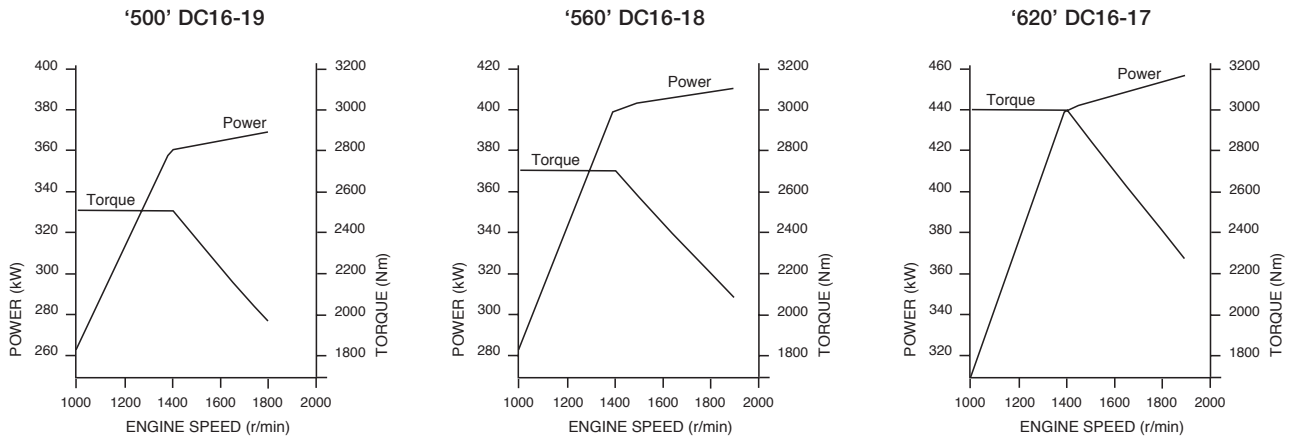
H= High on 'S' splitter gearboxes only.
Flange output N/A on 6x2/4 chassis.

WEIGHTS FOR OPTIONAL EQUIPMENT IN KILOGRAMS (Front – Rear – Total)

| Axle Distance | 31 | 33 | 35 |
|--------------------------|---------------|---------------|----------------|
| Ad Blue 'W' tank full | +50 +32 +82 | +52 +30 +82 | +53 +29 +82 |
| Ad Blue 'G' tank full | +33 +21 +54 | +34 +20 +54 | +35 +19 +54 |
| Anti-roll bars | +33 +53 +86 | +33 +53 +86 | +33 +53 +86 |
| 3 x 29mm F/Springs | -74 0 -74 | -74 0 -74 | -74 0 -74 |
| 385/55 tyres/11.75 rims | +28 N/A +28 | +28 N/A +28 | +28 N/A +28 |
| 385/65 tyres/11.75 rims | +36 N/A +36 | +36 N/A +36 | +36 N/A +36 |
| Aluminium wheels | | | |
| 9.00 x 22.5 | -30 -120 -150 | -30 -120 -150 | -30 -120 -150 |
| 11.75 x 22.5 | -44 N/A -44 | -44 N/A -44 | -44 N/A -44 |
| Retarder | +69 +52 +121 | +71 +50 +121 | +74 +47 +121 |
| 140 Ah Batteries | -14 -3 -17 | -14 -3 -17 | -14 -3 -17 |
| 225 Ah Batteries | +31 +8 +39 | +31 +8 +39 | +31 +8 +39 |
| Std Tanks Full | +95 +129 +224 | +70 +74 +144 | +107 +117 +244 |
| CR19 Highline | +27 +2 +29 | +27 +2 +29 | +27 +2 +29 |
| CR19 Topline | +73 +6 +79 | +73 +6 +79 | +73 +6 +79 |
| Air Deflectors – Sleeper | +54 +8 +62 | +54 +8 +62 | +54 +8 +62 |
| EG Series PTOs | +15 +3 +18 | +15 +3 +18 | +15 +3 +18 |
| EK Series PTOs | +42 +5 +47 | +42 +5 +47 | +42 +5 +47 |

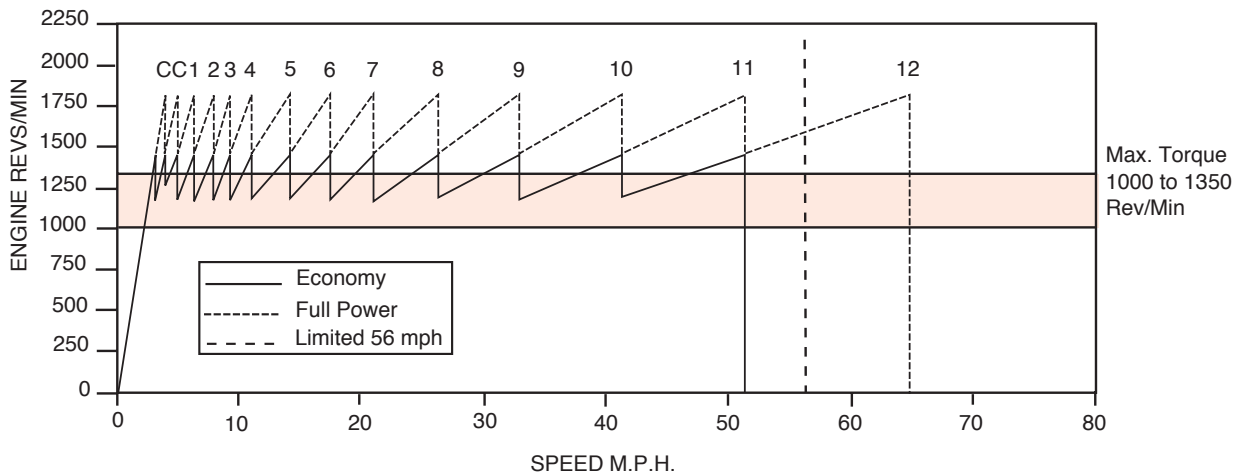
* Additional to standard tanks full of fuel.

ENGINE PERFORMANCE



Net engine performance to 80/1269*1999/99EC

GEAR STEP DIAGRAM



SPEED/GRADEABILITY Gradeability may be limited by tyre adhesion. GRS905 gearbox figures in brackets.

| Axle gear/ Ratio | Geared Speed M.P.H. | Gradeability - steady climb - in percent | | | | | |
|-----------------------|------------------------|---|-------------|---------|-------------|---------|------|
| | | DC16-19 | | DC16-18 | | DC16-17 | |
| | | 44T | 150T | 44T | 150T | 44T | 150T |
| RBP835/RP835 3.96 | 69.6 (55.3) | >35 | 14.3 (17.9) | >35 | 15.5 (18.7) | >35 | 17.4 |
| RBP835/RP835 4.27 std | 64.6 (51.5) | >35 | 15.5 (19.4) | >35 | 16.8 (20.2) | >35 | 18.8 |
| RBP835/RP835 4.85 | 56.5 (45.3) | >35 | 17.7 (22.2) | >35 | 19.3 (23.2) | >35 | 21.5 |
| RBP835/RP835 5.14 | 53.4 (42.9) | >35 | 18.9 (23.7) | >35 | 20.5 (24.7) | >35 | 22.9 |

Calculations assume standard specifications. Performance achieved in operation will depend on conditions, bodywork, gear ratios and tyre specification.

The specifications contained in this publication are intended as a general guide, and not as representations as to the product described, nor as binding in detail.

