

SCANIA

SPECIFICATION

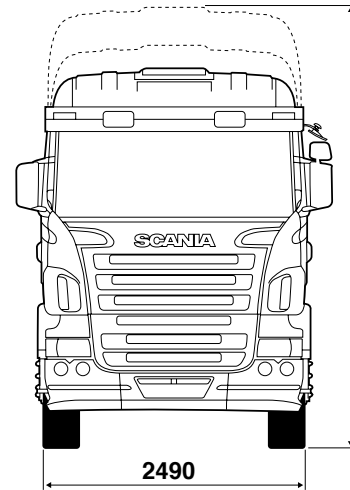
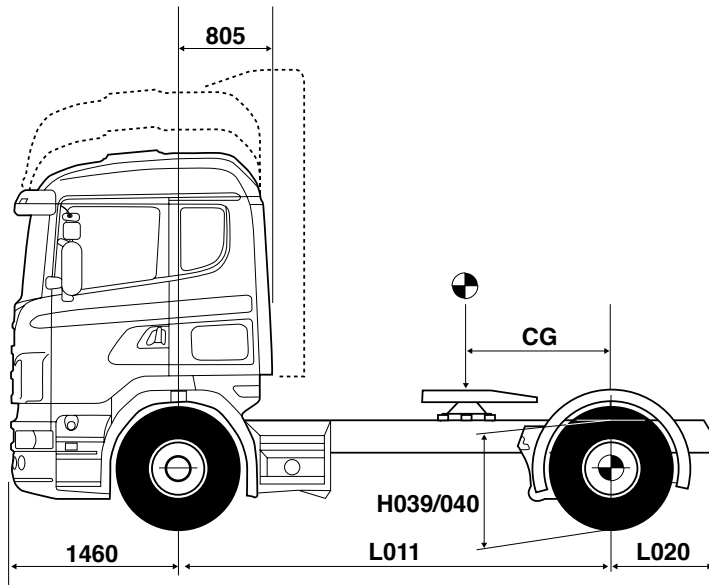
P-, G- and R-series

R 500 LA4x2MNA

60000Kg GTW

TWO AXLE TRACTOR

R



DIMENSIONS (mm)

L011		3300	3550	3700
L020		780	780	780
Sleeper Cab	CG Max	473	496	512
	CG Min	287	294	302
Fifth Wheel position to suit 16.5m overall length		N/A	510	660 forward of drive axle centre line

H039 unladen	H040 laden	Chassis Height
1000 mm	970 mm	Normal (N)
878 mm	854 mm	Low (L) [†]
803 mm	788 mm	Extra Low (E) [†] – N/A with 3.3m A/D. Air suspension front and rear mandatory

CG dimension for imposed load calculated for standard model at standard GB plated weights. 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 axle centreline

[†]Both 'L' and 'E' dimensions assume '60 series' tyre fitment

PLATED WEIGHTS – AWR

	Front Axle	Rear Axle	GVW	GTW
Design Gross	Kg 7500 [†]	11500	19000	60000
Legal Max in GB	Kg 7100 [¶]	11500	18000	40000

[†] Front axle capacity up to a maximum of 9000 kg available as option.

[¶] Legal front axle capacity limited by tyres.

Plated weights dependent on statutory tyre limitations.

CHASSIS/CAB WEIGHTS

(Tolerance +/- 2.5%)

Axle distance	Front	Rear	Total (kg)
3300	5396	1710	7106
3550	5435	1715	7150
3700	5445	1720	7165

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

R 500 LA4x2MNA

SL5451086
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) Type: Scania GRS905 fourteen speed range change/splitter including two crawler gears – '500' and '560' engines only. **(2) Opticruise:** Gearchange management system.

REAR AXLE

Type: Scania ADA 1100

Capacity: 11500 Kg

Pressed steel housing with magnetic oil drain plug.

Options:-

(1) Type: Scania ADA1300

Capacity: 13000 kg – F950 frame mandatory, 'H' duty class only.

REAR AXLE GEAR

Type: Scania R780

Single reduction hypoid. Crown wheel and pinion matched during manufacture. Pneumatically operated differential lock.

FRONT AXLE

Type: Scania AM740 I section rigid beam – AMA740 if air suspension
AMA860 with air suspension on 'Extra Low' chassis

Capacity: 7500Kg

Options:- (1) Scania AM950 – capacity 9000 kg. (2) Scania AMA860 – air only – capacity 8000 kg.

STEERING

Type:	Recirculating ball. Hydraulically assisted power steering					
Steering wheel:	Diameter 450mm. Lock to lock 4.9 turns					
Turning circle:	Kerb to kerb					
	3.30m A/D	12.4m	3.55m A/D	13.0m	3.70m A/D	13.5m

SUSPENSION

Type Front: Semi-elliptic parabolic springs with swinging shackles and threaded shackle pins. Anti-roll bar.

Type Rear: Quarter elliptic with air bellows (A). Chassis height may be raised or lowered to assist loading. Double acting telescopic shock absorbers are fitted to both axles.

SPRING SIZE

	Front
Length:	1820mm
No. of leaves	2 x 32mm
Design Capacity	7500Kg

Options:-

(1) Air suspension on front axle – design capacity 7500 or 8000 kg. Mandatory with 'E' Extra Low frame height.

(2) 3 x 29mm leaves – design capacity 8500 kg.

(3) 4 x 28mm leaves – design capacity 9000 kg.

WHEELS & TYRES

8.25 x 22.5 ten stud spigot mounted disc wheels fitted with 295/80R22.5 radial tubeless tyres.

Options:-

(1) 9.00 x 22.5 wheels with 315/80R22.5 tyres

(2) 11.75 x 22.5 wheels with 385/65R22.5 or 385/55R22.5 tyres - front axle only

(3) Aluminium wheels – Machined or Polished surface finish

(4) Wheel embellishers – steering axle

(5) Tyre Pressure Monitoring (TPM)

FRAME

Type: F800 - 50
F950 - 50 for 'H' class and Extra Low chassis

Flat top constant depth 'U' channel with riveted crossmembers

Sidemember Dimensions:

F800 - 270 x 90 x 8mm

F950 - 270 x 90 x 9.5mm

Width over parallel section of frame = 770mm

Bumper: Aerodynamic incorporating FUP

Options:-

(1) Side skirts (N/A with Extra Low chassis). (2) Steel bumper increases front overhang to 1510mm. (3) Centre tow-pin – steel bumper only.

BRAKE SYSTEM

Type: Ventilated disc brakes on all axles. Dual circuit, full air, EC brake system incorporating Category 1 ABS and Traction Control. Electronic signalling with pneumatic back-up. Pad wear indicator. 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 both axles

Exhaust Brake: Air actuated operated by brake pedal

Brake Antifreeze Protection: Air dryer

Brake Wear Adjusters: Automatic

Options:- (1) Scania Hydraulic Retarder. (2) ESP – Electronic stability programme.

BRAKE DIMENSIONS

Pad lining area:	2 x 190cm ² on all axles
Swept area of each disc:	2 x 940cm ²

ELECTRICAL SYSTEM

Type: 24V neg (-ve) earth **Alternator:** 100A

Batteries: Twin 180 Ah

Rear H.I. lamps, Reversing lights

Options:-

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

FUEL TANK

1 x 300 litre RHS aluminium

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	200	200
	200	200	300	300
	300 (3550)	300 (3550)	350	350
Aluminium - W			400 (3550)	500 (3550)
			500 (3700)	600 (3550)
				700 (3700)

Tank sizes can be supplied in LH + RH combinations of the above but steel and aluminium cannot be mixed. Aluminium tanks are not available with 'E' frame height. Sides viewed from rear.

GENERAL EQUIPMENT

Fixed 5th wheel - 245mm above frame

Lead-on ramps

Double Manwalk with step and coupling lamp

Rear Wings

Front tow pin

Options:-

(1) Fifth wheel position in front of drive axle centre line - 210 to 760mm in 50mm increments

(2) Sliding 5th wheel - 263mm above frame

(3) Vertical exhaust outlet – N/A with ADR to EXIII/EXIII or FL

(4) ADR to EXIII/EXIII, FL, OX or AT

(5) Adaptive Cruise Control (ACC) – retarder mandatory

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			
EG551P	0.54		
EG650P		1.00 / 1.24H	
EG651P		1.28 / 1.58H	
EG652P			0.82 / 1.03H
EG653P			1.03 / 1.29H
EK730		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	33	35	37
Ad Blue 'W' tank full	+45 +37 +82	+48 +34 +82	+49 +33 +82
Ad Blue 'G' tank full	+30 +24 +54	+32 +22 +54	+32 +22 +54
ADA1300 rear axle	0 +21 +21	0 +21 +21	0 +21 +21
AM950 front axle	+13 0 +13	+13 0 +13	+13 0 +13
Air suspension front	+40 +15 +55	+40 +15 +55	+40 +15 +55
3 x 29mm front springs	+44 0 +44	+44 0 +44	+44 0 +44
4 x 28mm front springs	+70 0 +70	+70 0 +70	+70 0 +70
9.00x22.5 Wheels + 315/80 Tyres	+18 +36 +54	+18 +36 +54	+18 +36 +54
11.75x22.5 Wheels + 385/55 Tyres	+46 N/A +46	+46 N/A +46	+46 N/A +46
11.75x22.5 Wheels + 385/65 Tyres	+54 N/A +54	+54 N/A +54	+54 N/A +54
Aluminium Wheels			
8.25x22.5	-24 -48 -72	-24 -48 -72	-24 -48 -72
9.00x22.5	-30 -60 -90	-30 -60 -90	-30 -60 -90
11.75x22.5	-44 N/A -44	-44 N/A -44	-44 N/A -44
F950 frame	+25 +25 +50	+25 +25 +50	+25 +25 +50
FUP steel bumper	+67 -13 +54	+67 -13 +54	+67 -13 +54
Centre tow pin	+29 -5 +24	+29 -5 +24	+29 -5 +24
Side skirts	+18 +17 +35	+18 +18 +36	+19 +18 +37
Retarder	+97 +24 +121	+98 +23 +121	+99 +22 +121
140Ah Batteries	-14 -3 -17	-14 -3 -17	-14 -3 -17
225Ah Batteries	+31 +8 +39	+31 +8 +39	+31 +8 +39
Std. Tank Full	+109 +115 +224	+117 +107 +224	+121 +103 +224
*1 x 500l W	+62 +122 +184	+71 +113 +184	+75 +109 +184
*1 x 400 + 1 x 600l W	N/A	+254 +400 +654	+275 +379 +654
Sliding 5th wheel	+7 +53 +60	+9 +51 +60	+11 +49 +60
Vertical exhaust outlet	+45 +12 +57	+45 +12 +57	+45 +12 +57
CR19 Highline Cab	+27 +2 +29	+27 +2 +29	+27 +2 +29
CR19 Topline Cab	+73 +6 +79	+73 +6 +79	+73 +6 +79
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 tank full of fuel.

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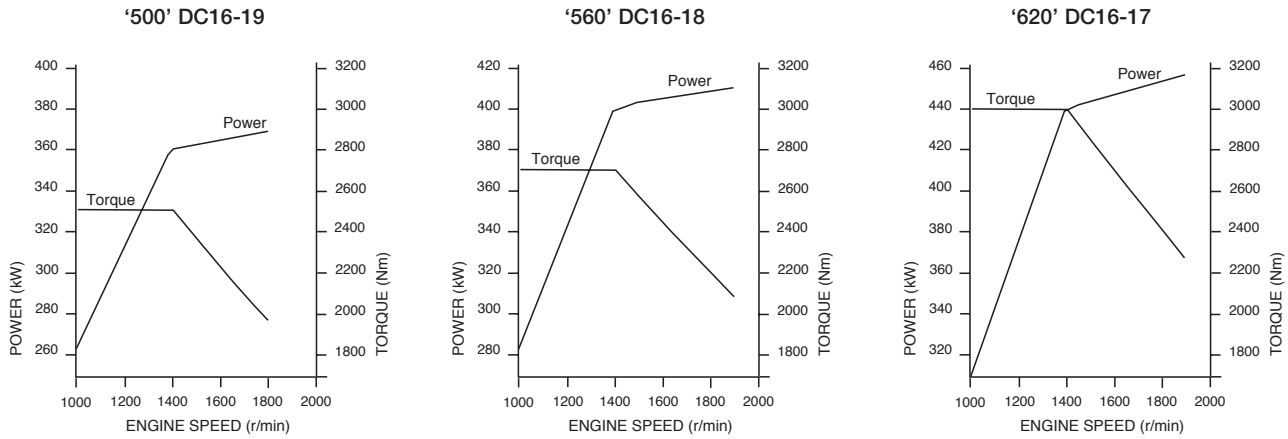
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R 500 LA4x2MNA

60000Kg GTW

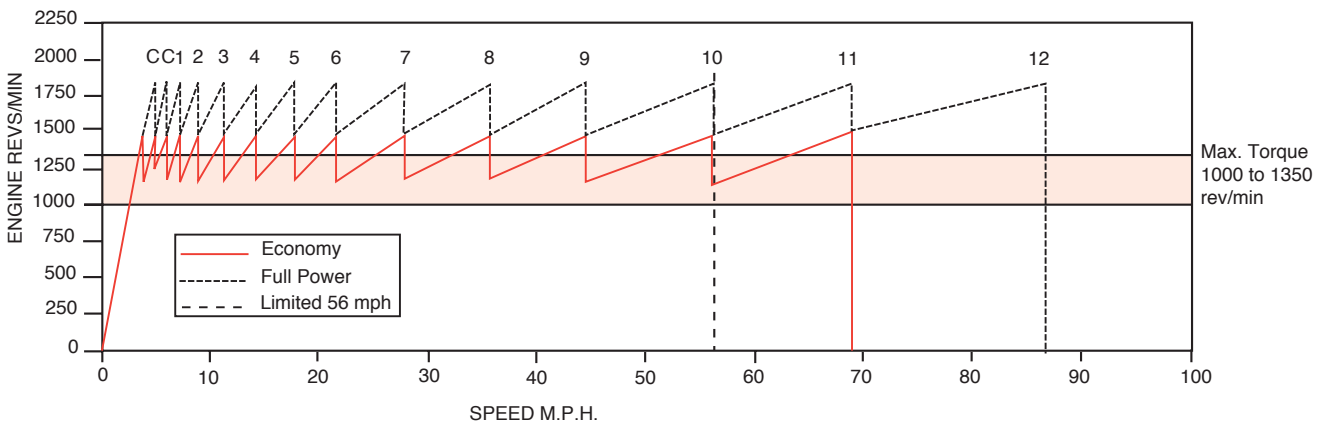
TWO AXLE TRACTOR

ENGINE PERFORMANCE



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

GEAR STEP DIAGRAM



SPEED/GRADEABILITY Gradeability may be limited by tyre adhesion.

Axle gear/ Ratio	Geared Speed M.P.H.	Gradeability - steady climb - in percent							
		DC16-19		DC16-18		DC16-17			
		11th	12th	40T	60T	40T	60T	40T	60T
R 780 2.71*	69.4 86.8	>35	31.6	>35	34.4	>35	34.4	>35	>35
R 780 2.92*	64.4 80.6	>35	34.3	>35	>35	>35	>35	>35	>35
R 780 3.08 Std	69.3 86.6	>35	31.6	>35	34.4	>35	34.4	>35	>35
R 780 3.27	65.3 81.6	>35	33.8	>35	>35	>35	>35	>35	>35
R 780 3.42	62.8 78.5	>35	>35	>35	>35	>35	>35	>35	>35
R 780 3.80	56.2 70.2	>35	>35	>35	>35	>35	>35	>35	>35

*2.71 and 2.92 only available with low profile tyres. Calculations based on 295/60R22.5 rear tyres.

Remaining 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.



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