SCANIA

SPECIFICATION

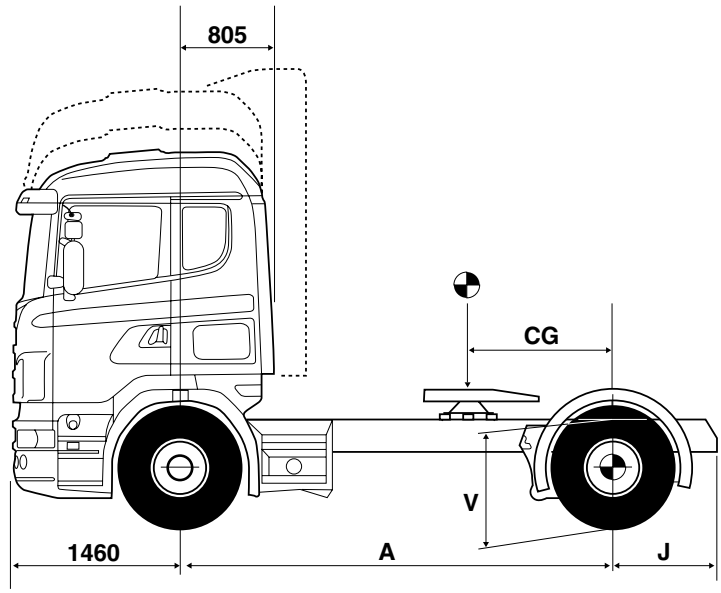
R-series

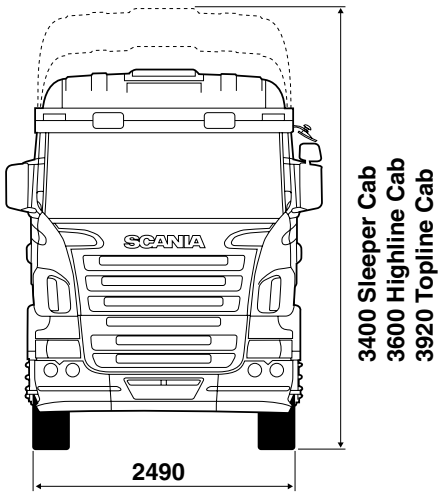
R 500 LA4x2MNA

60000Kg GTW

TWO AXLE TRACTOR

R





DIMENSIONS (mm)

A		**3300**	**3550**	**3700**
J		**780**	**780**	**780**
Sleeper Cab	**CG Max**	**495**	**519**	**537**
	CG Min	**308**	**317**	**326**
Fifth Wheel position to suit 16.5m overall length		**N/A**	**510**	**660 forward of drive axle centre line**

V unladen	V laden	Chassis Height
1000 mm	970 mm	Normal (N)
878 mm	854 mm	Low (L)[1]
803 mm	788 mm	Extra Low (E)[1] – N/A with 3.3m A/D. Air suspension front and rear mandatory

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

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. V dimension measured to top of frame at rear axle centreline

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	5326	1780	7106
3550	5365	1785	7150
3700	5375	1790	7165

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

ENGINE (EURO 4)

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

	'500'
Type:	**DC16-06**
Swept Volume:	15.6 litres
Bore:	127 mm
Stroke:	154 mm
Compression Ratio:	17:1
***Max. Power:**	368 kW (500 h.p.) at 1900 rev/min
***Max. Torque:**	2400 Nm (1770 lbf.ft) between 1100 and 1400 rev/min
Engine Management System:	EMS incorporating Cruise Control and speed limiter.
Emission control:	Scania SCR with 80 litre tank on RHS.
Cooling:	Water cooled with rubber mounted 2 row radiator and electronically regulated fan
Coolant Capacity:	81 litres
Oil Capacity:	30 litres
Air Cleaner:	Dry replaceable paper element

Options:-

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

	'560'
Type:	**DC16-05**
***Max. Power:**	412 kW (560 h.p.) at 1900 rev/min
***Max. Torque:**	2700 Nm (1991 lbf.ft) between 1100 and 1400 rev/min

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

	'620'
Type:	**DC16-08**
***Max. Power:**	456 kW (620 h.p.) at 1900 rev/min
***Max. Torque:**	3000 Nm (2213 lbf.ft) between 1100 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: (2 bag) 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*

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.*

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BRAKE DIMENSIONS

Pad lining area: 2 x 190cm² on all axles
Swept area of each disc: 2 x 940cm²

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

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	*200*		*300*	*300*
	300 (3550)	*300 (3550)*		*350*	*350*
	450 (3550)	*450 (3550)*		*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 EXII/EXIII or FL*
(4) *ADR to EXII/EXIII, FL, OX or AT*

INSTRUMENTS & CONTROLS

Two man, 1 day, EC digital tachograph, rev-counter, gauges for air pressure (2), coolant temperature and fuel. 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

	G670	GR875/GRS895	GR905/GRS905	GRS0905
EG551CC/561: 6	0.54			
EG650CC/660: 5			1.00/1.24H	
EG651CC/661: 5			1.28/1.58H	
EG652CC/662: 5				0.82/1.03H
EG653CC/663: 5				1.03/1.29H
EG654CC/664: 5		1.00/1.24H		
EG655CC/665: 5		1.28/1.58H		
EK730CC/740: 12		1.00	1.00	1.00

CC = close coupled H = High on 'S' splitter gearboxes only

Shaft output N/A on 6 x 2/4 chassis

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

Axle Distance	33	35	37
Ad Blue tank full	+48 +39 +87	+51 +36 +87	+52 +35 +87
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	+84 +29 +113	+86 +27 +113	+87 +26 +113
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	+58 –10 +48	+58 –10 +48	+58 –10 +48
Topline Cab incl. deflectors	+130 –30 +100	+130 –30 +100	+130 –30 +100
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.

SCANIA

SPECIFICATION

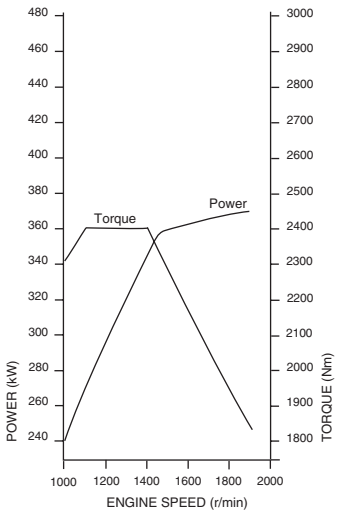
R 500 LA4x2MNA

60000Kg GTW

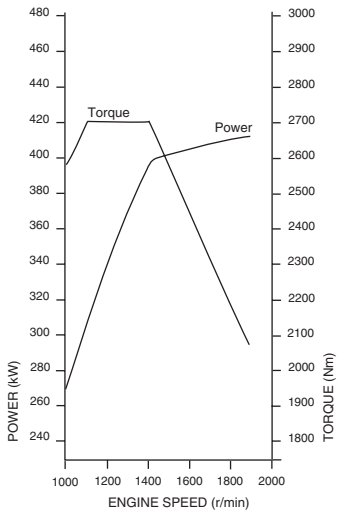
TWO AXLE TRACTOR

ENGINE PERFORMANCE

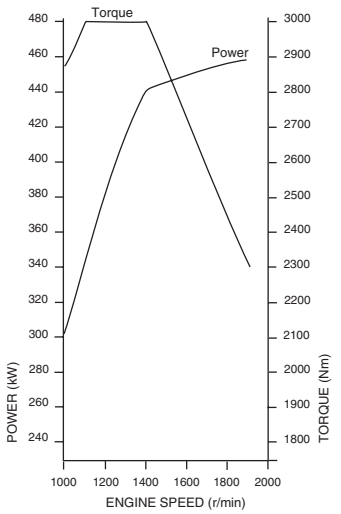
'500' DC16-06



'560' DC16-05

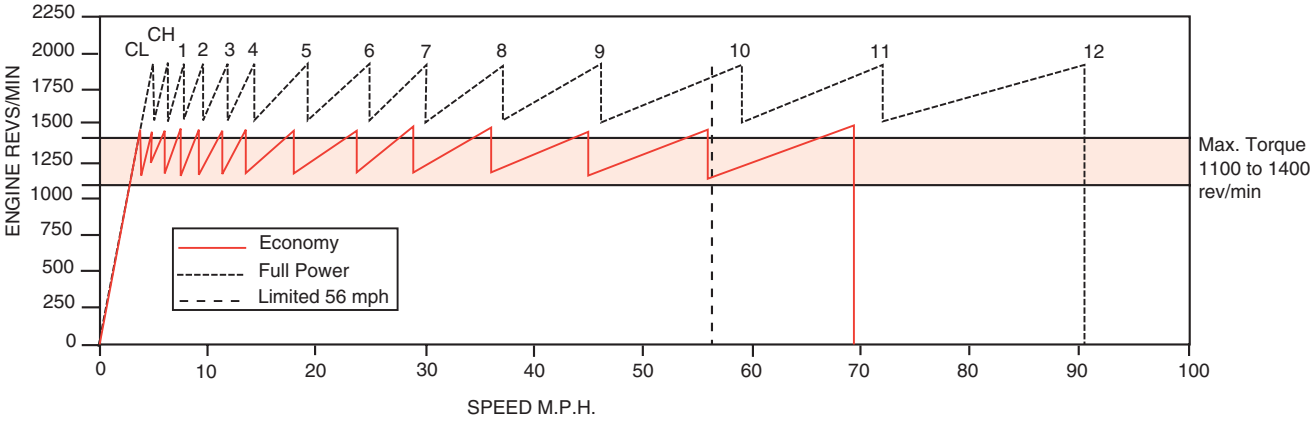


'620' DC16-08



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 DC16-06		DC16-05		DC16-08	
		11th	12th	40T	60T	40T	60T	40T	60T
R 780	2.71*	72.5	90.7	>35	30.0	>35	34.4	>35	>35
R 780	2.92*	67.1	83.8	>35	32.6	>35	>35	>35	>35
R 780	3.08 Std	72.6	90.7	>35	30.1	>35	34.4	>35	>35
R 780	3.27	68.4	85.5	>35	32.2	>35	>35	>35	>35
R 780	3.40	65.7	82.2	>35	33.6	>35	>35	>35	>35
R 780	3.80	58.8	73.5	>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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