

# SCANIA

SPECIFICATION

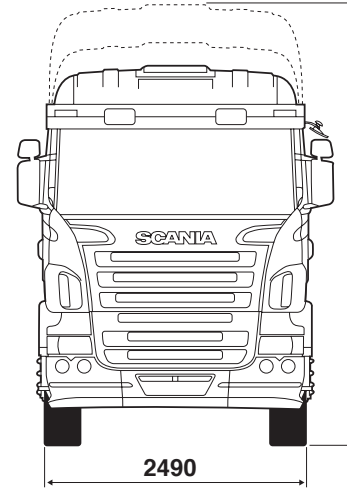
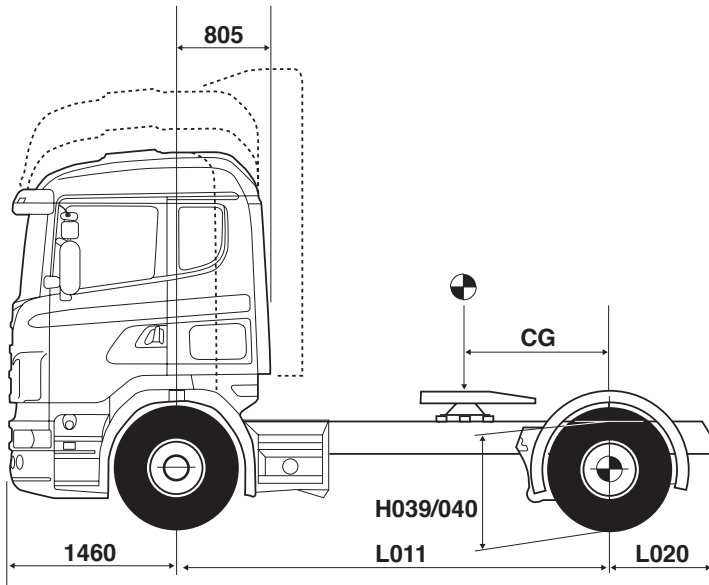
P-, G- and R-series

R/G 400 LA4x2MNA

60000Kg GTW

TWO AXLE TRACTOR

R



	G
Day Cab	3090
Sleeper Cab	3330
Highline Cab	3530
Topline Cab	N/A

## DIMENSIONS (mm)

L011	3300	3550	3700	
L020	780	780	780	
Sleeper Cab	CG Max	572	599	618
	CG Min	384	395	406

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) <sup>†</sup>
813 mm	787 mm	Extra Low (E) <sup>†</sup> – 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

<sup>†</sup>Both 'L' and 'E' dimensions assume '60 series' tyre fitment

## PLATED WEIGHTS – AWR

	Front Axle	Rear Axle	GVW	GTW
Design Gross	Kg 7500 <sup>†</sup>	11500	19000	60000
Legal Max in GB	Kg 7100 <sup>¶</sup>	11500	18000	40000

<sup>†</sup> Front axle capacity up to a maximum of 9000 kg available as option.

<sup>¶</sup> 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	4914	1820	6734
3550	4949	1860	6809
3700	4954	1865	6819

Chassis cab weight includes 20 litres of fuel, oil and water.

Driver not included. See overleaf for option weights.

R/G 400 LA4x2MNA

SL5451085  
March 09

## ENGINE (EURO 5)

Scania '13 litre' vertical six cylinder in-line turbocharged intercooled direct injection diesel with Scania XPI.

<b>Type:</b>	<b>'400'</b>
<b>Type:</b>	<b>DC 13-05</b>
<b>Swept Volume:</b>	12.74 litres
<b>Bore:</b>	130 mm
<b>Stroke:</b>	160 mm
<b>Compression Ratio:</b>	17:1
<b>*Max. Power:</b>	294kW (400 h.p.) at 1900 rev/min
<b>*Max. Torque:</b>	2100 Nm (1549 lbf.ft) between 1000 & 1300 rev/min
<b>Engine Management System:</b>	EMS incorporating Cruise Control and speed limiter
<b>Emission Control:</b>	Scania EGR
<b>Cooling:</b>	Water cooled with rubber mounted 2 row radiator and electronically regulated fan
<b>Coolant Capacity:</b>	55 litres
<b>Oil Capacity:</b>	40 litres
<b>Air Cleaner:</b>	Dry replaceable paper element
<b>Engine Driven P.T.O. provision:</b>	ED120

### Options:-

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

<b>Type:</b>	<b>'440'</b>
<b>Type:</b>	<b>DC13-10</b>
<b>*Max. Power:</b>	324kW (440 h.p.) at 1900 rev/min
<b>*Max. Torque:</b>	2300 Nm (1696 lbf.ft) between 1000 & 1300 rev/min

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

<b>Type:</b>	<b>'480'</b>
<b>Type:</b>	<b>DC13-07</b>
<b>*Max. Power:</b>	353kW (480 h.p.) at 1900 rev/min
<b>*Max. Torque:</b>	2500 Nm (1844 lbf.ft) between 1000 & 1300 rev/min

\*With fan at max. slip

## CLUTCH

<b>Type:</b>	Single dry plate
<b>Operation:</b>	Air assisted with clutch wear protection

## GEARBOX

<b>Type:</b>	Scania GRS0905 fourteen speed overdrive with synchromesh on all except two crawler gears. Incorporating range change and splitter
--------------	---

**Oil Capacity:** 15.6 litres

### Options:-

(1) Oil cooler – standard with DC13-10 and DC13-07 engines

## GEAR RATIOS

	Low Range Split		High Range Split	
	L	H	L	H
<b>Crawler</b>	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
<b>Reverse</b>	11.95:1			

### Options:-

(1) **Type:** Scania GRS905 fourteen speed range change/splitter including two crawler gears

(2) **Opticruise:** Gearchange management system.

## REAR AXLE

<b>Type:</b>	Scania ADA1100
<b>Capacity:</b>	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

<b>Type:</b>	Scania R780
	Single reduction hypoid. Crown wheel and pinion matched during manufacture. Pneumatically operated differential lock.

## FRONT AXLE

<b>Type:</b>	Scania AM740 I section rigid beam – AMA740 if air suspension AMA860 with air suspension on 'Extra Low' chassis
<b>Capacity:</b>	7500Kg
<b>Options:-</b>	
(1)	Scania AM950 – capacity 9000 kg.
(2)	Scania AMA860 – air only – capacity 8000 kg.

## STEERING

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

## SUSPENSION

<b>Type Front:</b>	Semi-elliptic parabolic springs with swinging shackles and threaded shackle pins. Anti-roll bar.
<b>Type Rear:</b>	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

	<b>Front</b>
<b>Length:</b>	1820mm
<b>No. of leaves</b>	2 x 32mm
<b>Design Capacity</b>	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) Front wheel embellishers  
(5) Tyre Pressure Monitoring (TPM)

## FRAME

<b>Type:</b>	F800-50 for 'M' class 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

<b>Type:</b>	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
<b>Service Circuit:</b>	Actuates all tractor and trailer brakes
<b>Secondary Circuit:</b>	First position of park brake lever actuates tractor spring brakes plus trailer brakes
<b>Parking Brake:</b>	Actuates spring chambers on both axles
<b>Exhaust Brake:</b>	Air actuated operated by brake pedal
<b>Brake Antifreeze Protection:</b>	Air dryer
<b>Brake Wear Adjusters:</b>	Automatic
<b>Options:-</b> (1)	Scania Hydraulic Retarder
(2)	ESP - Electronic stability programme

## BRAKE DIMENSIONS

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

## 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	200	200
	200	200	300	300
Aluminium - W	300	300 (3550)	350	350
			400	500 (3550)
			500	600 (3550)
			600 (3550)	700 (3700)
			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) 5th 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) CR16 Day Cab, (2) CR19 Highline, (3) CR19 Topline,  
(4) CG14 Short Cab, (5) CG16 Day Cab, (6) CG19 Sleeper,  
(7) CG19 Highline.

## 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.

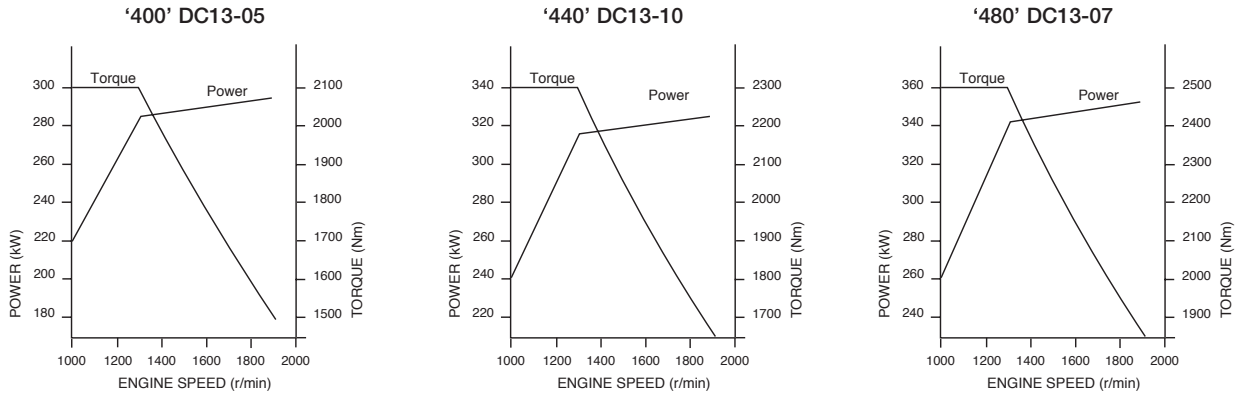
## WEIGHTS FOR OPTIONAL EQUIPMENT IN KILOGRAMS (Front – Rear – Total)

Axle Distance	33	35	37
DC13-10 engine	+10 +3 +13	+10 +3 +13	+10 +3 +13
DC13-07 engine	+15 +4 +19	+15 +4 +19	+15 +4 +19
ADA1300 rear axle	0 +21 +21	0 +21 +21	0 +21 +21
AMA 950 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 +			
385/65 Tyres	+54 N/A +54	+54 N/A +54	+54 N/A +54
11.75x22.5 Wheels +			
385/55 Tyres	+46 N/A +46	+46 N/A +46	+46 N/A +46
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 350 + 1 x 500l W	+204 +304 +508	+230 +278 +508	+257 +251 +508
Sliding 5th wheel	+7 +53 +60	+9 +51 +60	+11 +49 +60
Vertical exhaust outlet	+45 +12 +57	+45 +12 +57	+45 +12 +57
CR16 Cab w/o deflectors	-153 -14 -167	-153 -14 -167	-153 -14 -167
CR19 Highline Cab	+27 +2 +29	+27 +2 +29	+27 +2 +29
CR19 Topline Cab	+73 +6 +79	+73 +6 +79	+73 +6 +79
CG14 Short Cab	-188 -22 -210	-188 -22 -210	-188 -22 -210
CG16 Day Cab	-168 -16 -184	-168 -16 -184	-168 -16 -184
CG19 Sleeper Cab	-86 -5 -91	-86 -5 -91	-86 -5 -91
CG19 Highline Cab	-63 -2 -65	-63 -2 -65	-63 -2 -65
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.

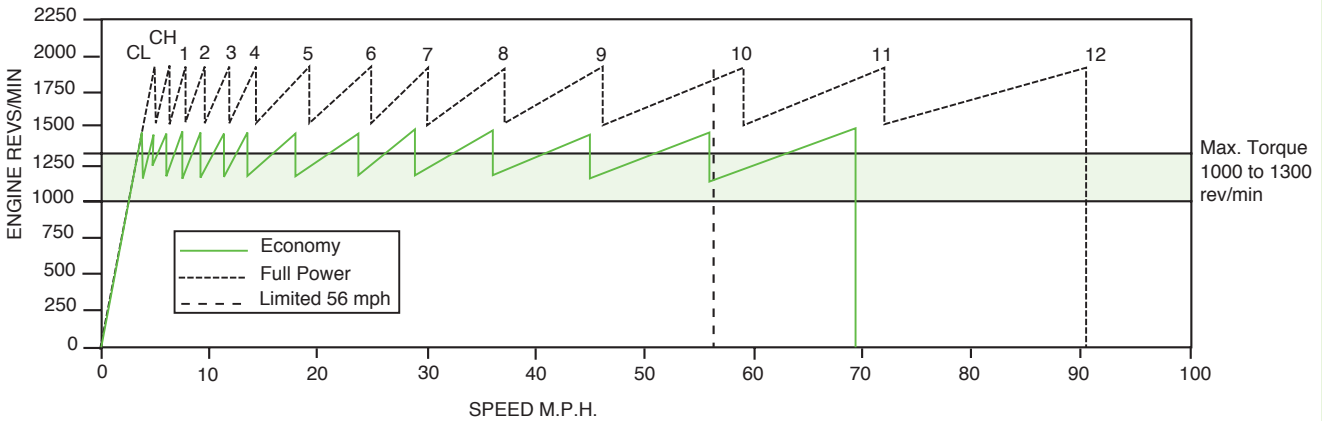
R/G 400 LA4x2MNA

### 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					
		DC13-05		DC13-10		DC13-07	
		40T	60T	40T	60T	40T	60T
R 780 2.71*	72.5 90.7	>35	26.0	>35	28.7	>35	32.0
R 780 2.92*	67.1 83.8	>35	28.2	>35	31.2	>35	34.8
R 780 3.08 Std	72.6 90.7	>35	26.0	>35	28.8	>35	32.1
R 780 3.27	68.4 85.5	>35	27.8	>35	30.7	>35	34.3
R 780 3.42	65.7 82.2	>35	29.2	>35	32.3	>35	>35
R 780 3.80	58.8 73.5	>35	32.8	>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.**