

# SCANIA

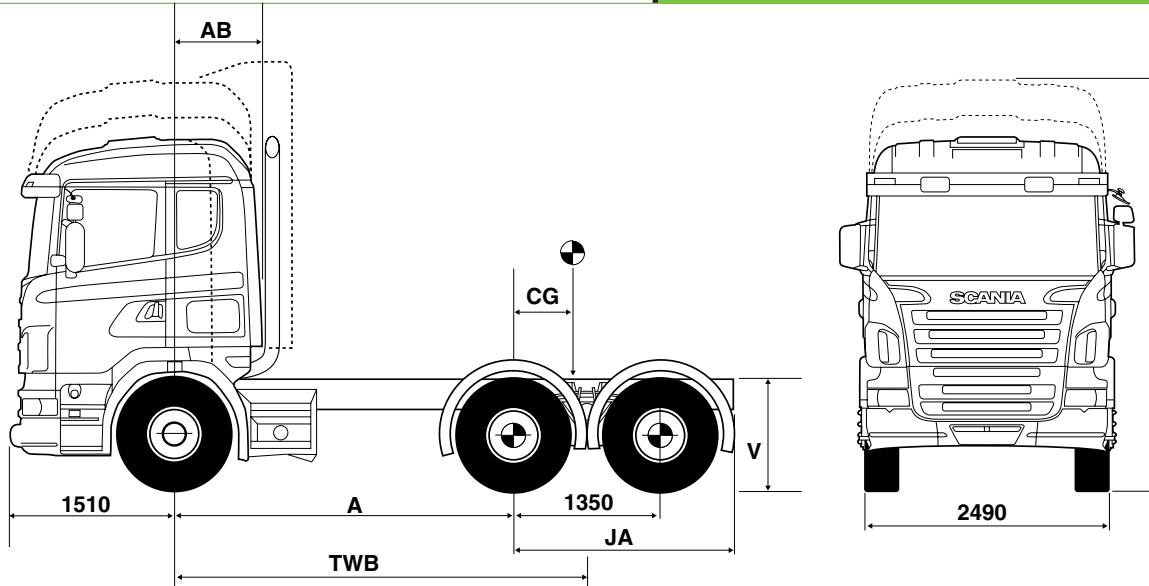
SPECIFICATION

P-, G- and R-series

## R/G 420 CA6x4MHZ

70000Kg GTW

DOUBLE DRIVE TRACTOR



AB (centreline of front axle to back of cab) Day — 535 Sleeper — 805

### DIMENSIONS (mm)

A	3100
TWB	3775
JA	2135
<b>Day cab</b>	
CG Max	269
CG Min	248
<b>Sleeper cab</b>	
CG Max	290
CG Min	268
V unladen	1108
V laden	1061

TWB = Theoretical wheelbase

CG dimension for body and payload 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 bogie centreline.

### PLATED WEIGHTS – AWR

	Front Axle	Bogie	GVW	GTW
Design Gross	Kg 8500†	21000	29500	70000
Legal Max in GB	Kg 7100	19000	26000	44000

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

Plated weights dependent on statutory tyre limitations.

### CHASSIS/CAB WEIGHTS

(Tolerance +/- 2.5%)

Axle distance	Front	Bogie	Total (kg)
3100	4976	3205	8181

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

## R/G 420 CA6x4MHZ

SL5450860  
January 08

## ENGINE (EURO 4)

Scania '12 litre' vertical six cylinder in-line turbocharged intercooled direct injection diesel with Turbo-compound and hydraulic unit injectors (H.P.I.).  
**'420'**

<b>Type:</b>	<b>DT 12-12</b>
<b>Swept Volume:</b>	11.7 litres
<b>Bore:</b>	127 mm
<b>Stroke:</b>	154 mm
<b>Compression Ratio:</b>	17:1
<b>*Max. Power:</b>	309kW (420 h.p.) at 1900 rev/min
<b>*Max. Torque:</b>	2100 Nm (1549 lbf.ft) between 1100 & 1350 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>	33 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:-**

**'480'**

<b>Type:</b>	<b>DT12-17</b>
<b>*Max. Power:</b>	353kW (480 h.p.) at 1900 rev/min
<b>*Max. Torque:</b>	2250 Nm (1660 lbf.ft) between 1100 & 1450 rev/min

\*With fan at max. slip

## CLUTCH

<b>Type:</b>	Single dry plate
<b>Operation:</b>	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 Capacity:** 15.6 litres

### Options:-

**(1) Oil cooler – standard with DT12-17 engine**

## 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 AXLES

<b>Type:</b>	Both Scania AD1300
<b>Capacity:</b>	26000 Kg
	Pressed steel housing with magnetic oil drain plugs.

### Options:-

**(1) Type:** Both Scania AD1101P for hub reduction rear axles

**Capacity:** 23000 Kg

## REAR AXLE GEAR

<b>Type:</b>	Scania RB662 - first axle
	R660 - second axle

Single reduction hypoid in both axles. Crown wheels and pinions matched during manufacture. Pneumatically operated inter-axle and cross axle differential locks.

### Options:-

**(1) Type:** Scania RBP735 – first axle  
RP735 – second axle

Single reduction spiral bevel plus epicyclic hub reduction.  
Overall ratios: 3.67/3.93/4.22

## FRONT AXLE

<b>Type:</b>	Scania AM900 I section rigid beam
<b>Capacity:</b>	9000Kg

## 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 3.1m A/D 14.2m

## SUSPENSION

<b>Type Front:</b>	Semi-elliptic parabolic springs with swinging shackles and threaded shackle pins. Anti-roll bar.
<b>Type Rear:</b>	Two spring balance beam bogie fitted with rubber mounted radius arms. Anti-roll bar. Double acting telescopic shock absorbers are fitted to all axles.

## SPRING SIZE

	Front	Rear
<b>Length:</b>	1820mm	1530mm
<b>No. of leaves:</b>	3 x 29mm	4 x 41mm
<b>Design Capacity:</b>	8500Kg	21000Kg

### Options:-

**(1) Semi-elliptic parabolic springs front 4 x 28mm -9000kg capacity.**

## 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 – (11.75 x 22.5 wheels – polished only)**

**(4) Front wheel embellishers**

## FRAME

<b>Type:</b>	F950 F958 for 'H' duty class
	Flat top constant depth 'U' channel with riveted crossmembers
<b>Sidemember Dimensions:</b>	F950 – 270 x 90 x 9.5mm F958 – 270 x 90 x 9.5mm External member 247 x 78 x 8mm Internal member
	Width over parallel section of frame = 770mm
<b>Bumper:</b>	Pressed steel

### Options:-

**(1) Centre bumper towing device – protrudes 140mm**

**(2) F958 – 'H' duty class**

## BRAKE SYSTEM

<b>Type:</b>	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
<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 front and leading rear axle
<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>	<b>(1) Scania Hydraulic Retarder</b> <b>(2) Traction control – anti slip device</b>

## BRAKE DIMENSIONS

<b>Front Axle:</b>	Size 413 x 203mm Area 1880cm <sup>2</sup>		
<b>Rear Axle 1:</b>	Size 413 x 203mm Area 1880cm <sup>2</sup>	<b>Rear Axle 2:</b>	Size 413 x 203mm Area 1880cm <sup>2</sup>
<b>Total Area:</b>	Service 5640cm <sup>2</sup> Parking 3760cm <sup>2</sup>		

## ELECTRICAL SYSTEM

<b>Type:</b>	24V neg (-ve) earth	<b>Alternator:</b>	100A
<b>Batteries:</b>	Twin 180Ah		
	Rear H.I. lamps, Reversing lights, Side marker lamps		
<b>Options:-</b>	<b>(1) 140Ah batteries, (2) 225Ah batteries, (3) Bodywork electrical preparation – see separate document.</b>		

## FUEL TANKS

1 x 300 litre RHS + 1 x 150 litre LHS steel

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

	RH Side	LH Side	RH Side	LH Side
<b>Steel - G</b>	150	150	200	200
	200	300	300	
	300		350	
			400	

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

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

Axle Distance	31	
AD1101P rear axles	0	+64 +64
4 x 28mm F/Springs		+29 0 +29
315/80 tyres/9.00 rims		+18 +72 +90
385/65 tyres/11.75 rims		+46 N/A +46
385/65 tyres/11.75 rims		+54 N/A +54
Aluminium wheels		
8.25 x 22.5		-24 -96 -120
9.00 x 22.5		-30 -120 -150
11.75 x 22.5		-44 N/A -44
F958 frame		+66 +160 +226
Retarder		+95 +26 +121
140 Ah Batteries		-14 -3 -17
225 Ah Batteries		+31 +8 +39
Std Tanks Full		+172 +172 +344
*1 x 300l G		-78 -83 -161
CR16 Cab (no deflectors)		-167 0 -167
CR19 Highline		+35 +4 +39
CR19 Topline		+71 +8 +79
CG14 cab (no deflectors)		-200 -10 -210
CG16 cab (no deflectors)		-176 -8 -184
CG19 cab		-25 -4 -29
CG19 Highline cab		+7 0 +7
Air deflectors – CG14		+50 +4 +54
– CG16		+45 +4 +49
– CR16		+45 +4 +49
EG Series PTOs		+15 +3 +18
EK Series PTOs		+42 +5 +47

\* Additional to standard tank full of fuel.

## GENERAL EQUIPMENT

Double Manwalk with step and coupling lamp  
Rear wings  
Front tow pin  
Side angle brackets for 5th wheel – raised 40mm above frame  
Vertical exhaust outlet – N/A with ADR to EXII/EXIII or FL

### Options:-

**(1) 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) 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

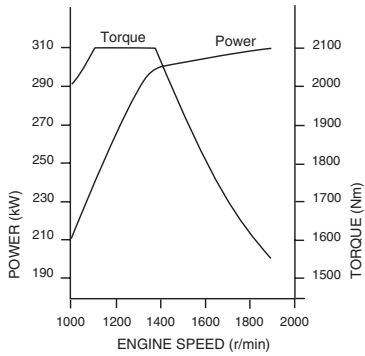
Check gearbox availability

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

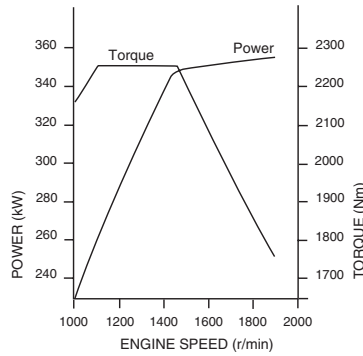
H= High on 'S' splitter gearboxes only.  
Flange output N/A on 6x2/4 chassis.

### ENGINE PERFORMANCE

'420' DT12-12

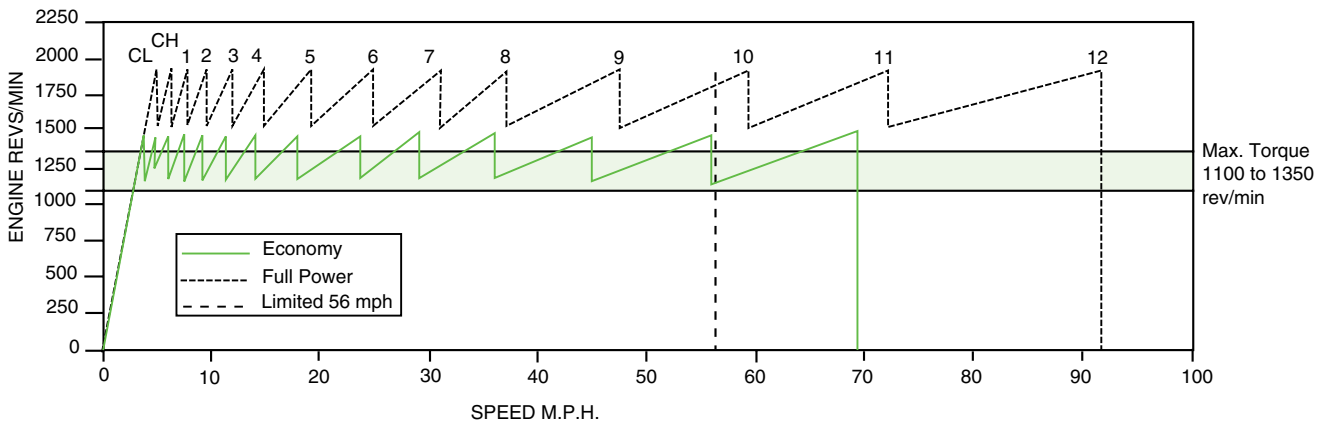


'480' DT12-17



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			
		11th	12th	DT12-12		DT12-17	
				44T	70T	44T	70T
RB 662	3.07 Std	72.7	91.3	>35	21.6	>35	23.3
RB 662	3.42	65.2	82.0	>35	24.3	>35	26.2
RB 662	3.80	59.0	73.9	>35	27.3	>35	29.4
RB 662	4.22	52.8	66.5	>35	30.6	>35	33.1
RB 662	4.88	46.0	57.1	>35	>35	>35	>35

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.