

SCANIA

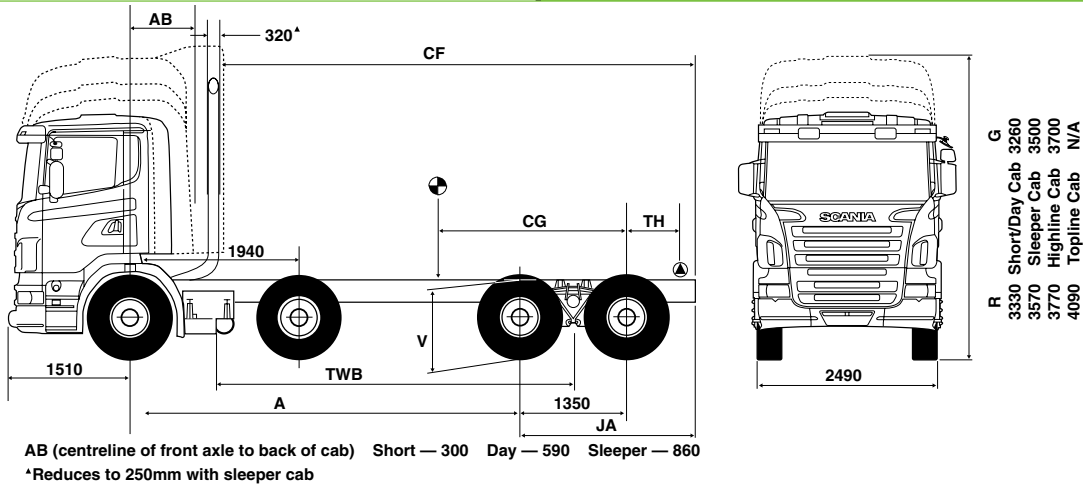
SPECIFICATION

P-, G- and R-series

R/G 420 CB8x4MHZ

34000Kg GVW

FOUR AXLE TIPPER



DIMENSIONS (mm)

A		5100	5300	5500	5700	5900
BLT	Short Cab	6858	7088	7315	7620	7925
	(feet)	(22.5)	(23.25)	(24.0)	(25.0)	(26.0)
	Day	6630	6858	7088	7315	7620
	(feet)	(21.75)	(22.5)	(23.25)	(24.0)	(25.0)
	Sleeper	N/A	6248	6630	6858	7087
	(feet)		(20.5)	(21.75)	(22.5)	(23.25)
CF	Short Cab	6640	6840	7040	7240	7440
	Day	6350	6550	6750	6950	7150
	Sleeper	6150	6350	6550	6750	6950
JA		2160	2160	2160	2160	2160
CG Max	Short Cab	2335	2416	2484	2552	2604
	Day	2328	2409	2477	2544	2613
	Sleeper	2314	2394	2462	2530	2597
CG Min	Short Cab	2084	2155	2213	2271	2311
	Day	2077	2148	2205	2262	2320
	Sleeper	2062	2132	2189	2247	2303
TH		730	730	730	730	730

Frame Height	V unladen	V laden
'H'	1110mm	1062mm
'N'	1060mm	1012mm

Theoretical wheelbase = A - 295mm.

BLT = Nominal tipper bodylength to suit weight distribution. CG dimension for body and payload calculated for standard model at standard GB plated weights. TH = Tipper hinge. V dimension measured to top of frame at rear bogie centreline. 5.9m axle distance model designed for bulk tipping operations with free flowing loads.

PLATED WEIGHTS – AWR

		Front Bogie	Rear Bogie	GVW	GTW†
Design					
Gross	Kg	15000*	21000	34000	37500
Legal					
Max in GB	Kg	14200	19000	32000	35500

† With trailer brakes design = 60000 kg. Max. in GB = 44000 kg.

Rear bogie load in GB (with trailer attached) = 17000 kg

* 14200Kg with 2x32mm front springs.

Plated weights dependent on statutory tyre limitations.

CHASSIS/CAB WEIGHTS

(Tolerance +/- 2.5%)

Axle distance	Front Bogie	Rear Bogie	Total (kg)
5100	6356	2715	9071
5300	6364	2722	9086
5500	6369	2727	9096
5700	6374	2732	9106
5900	6379	2737	9116

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

Driver not included. See overleaf for option weights.

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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'

Type:	DT 12-12
Swept Volume:	11.7 litres
Bore:	127 mm
Stroke:	154 mm
Compression Ratio:	17:1
*Max. Power:	309kW (420 h.p.) at 1900 rev/min
*Max. Torque:	2100 Nm (1549 lbf.ft) between 1100 & 1350 rev/min
Engine Management System:	EMS incorporating Cruise Control and speed limiter
Emission Control:	Scania EGR
Cooling:	Water cooled with rubber mounted 2 row radiator and temperature regulated fan
Coolant Capacity:	55 litres
Oil Capacity:	33 litres
Air Cleaner:	Dry replaceable paper element
Engine Driven P.T.O. provision:	ED120

Options:-

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

'480'

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

*With fan at max. slip

CLUTCH

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

GEARBOX

Type:	Scania GR905 eight speed synchromesh (four speed main fitted with two speed planetary range unit), plus one crawler gear.
Oil Capacity:	15.6 litres

GEAR RATIOS

Crawler 16.41:1

Low Range

1st	10.34:1
2nd	7.19:1
3rd	5.08:1
4th	3.75:1

High Range

5th	2.76:1
6th	1.92:1
7th	1.35:1
8th	1.00:1

Reverse 14.78:1

Options:-

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

(2) Type: Scania GRS0905 fourteen speed range change/splitter including 2 crawler gears and overdrive top gear.

(3) Opticruise: Gearchange management system. Only with GRS gearboxes and Traction Control.

REAR AXLES

Type:	Both Scania AD1300
Capacity:	26000 Kg

Pressed steel housing with magnetic oil drain plugs.

Option:-

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

Capacity: 23000Kg

REAR AXLE GEAR

Type:	Scania RB662 - first axle / R660 - second axle - F950-50 frame only
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Single reduction hypoid in both axles. Crown wheels and pinions matched during manufacture. Pneumatically operated inter-axle and cross axle differential locks.

Option:-

(1) Type:	Scania RBP735 - first axle RP735 - second axle
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Single reduction spiral bevel plus epicyclic hub reduction.

Overall ratios - 3.67 / 3.93 / 4.22

FRONT AXLES

Type:	Scania AM900 I section rigid beam - 'H' chassis. Scania AM920 I section rigid beam - 'N' chassis
Capacity:	9000Kg each

STEERING

Type:	Recirculating ball. Hydraulically assisted power steering
Steering wheel:	Diameter 450mm. Lock to lock 4.9 turns
Turning circle:	Kerb to kerb
	5.1m A/D 21.4m 5.3m A/D 22.2m 5.5m A/D 22.9m 5.7m A/D 23.6m 5.9m A/D 24.4m

SUSPENSION

Type Front: Semi-elliptic parabolic 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 and double acting telescopic shock absorbers.

Options:-

(1) Rear or front and rear anti-roll bar(s) – rear N/A with tipper specification.

SPRING SIZE

	Front 1	Front 2	Rear
Length:	1820mm	1820mm	1530mm
No. of leaves:	3 x 29mm	3 x 29mm	4 x 41mm
Design Capacity:	8500Kg	8500Kg	21000Kg

Options:-

(1) Semi-elliptic parabolic springs (Z) front (2 x 32mm) – design capacity 7500Kg

WHEELS & TYRES

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

Rear: 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 tyres – front axles only.

(3) Aluminium wheels – machined or polished surface finish.

(4) Front wheel embellishers.

FRAME

Type: F950-50
Flat top constant depth 'U' channel with riveted crossmembers

Sidemember Dimensions:

F950-50 – 270 x 90 x 9.5mm

Rear of chassis prepared for tipper hinge – 5.1 to 5.9m axle distance and F950-50 frame only. Width over parallel section of frame = 770mm

Bumper: Pressed steel

Options:-

(1) Brackets for front end tipping ram - N/A with F958 frame, sleeper cabs or retarder. (2) F958 frame. (N/A with preparation for tipper hinge).

(3) Aerodynamic bumper incorporating FUP – reduces front overhang to 1460mm. (4) Centre tow-pin – steel bumper only.

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BRAKE SYSTEM

Type:	Dual circuit, full air, EC brake system incorporating category 1 ABS. Brake pipes manufactured from either rust protected steel or high impact synthetics
Service Circuit:	Actuates all truck brakes
Secondary Circuit:	First position of park brake lever actuates spring chambers on second front and first rear axle.
Parking Brake:	Actuates spring chambers on second front and first rear axle.
Exhaust Brake:	Air actuated operated by brake pedal
Brake Antifreeze Protection:	Air dryer
Brake Wear Adjusters:	Automatic
Options:-	(1) 2 line EC trailer brake pipes to rear section of chassis. (2) Scania hydraulic retarder (3) Traction control – Anti-slip device

BRAKE DIMENSIONS

Front Axle 1:	Size 413 x 178mm Area 1640cm ²	Front Axle 2:	Size 413 x 178mm Area 1640cm ²
Rear Axle 1:	Size 413 x 203mm Area 1880cm ²	Rear Axle 2:	Size 413 x 203mm Area 1880cm ²
Total Area:	Service 7040cm ² Parking 3520cm ²		

ELECTRICAL SYSTEM

Type:	24V neg (-ve) earth	Alternator:	100A
Batteries:	Twin 140Ah		
	Rear H.I. lamps, Reversing lights		
Options:-	(1) 180Ah batteries. (2) Battery connection – 200A. (3) Bodywork electrical preparation – see separate document.		

FUEL TANK

1 x 300 litre steel RHS

Options:- (Minimum axle distance in brackets)

	RH Side	LH Side	Aluminium – W	RH Side	LH Side
Steel – G 200		200(5300)		300	300(5300)
	300	300(5700)		350	350(5500)
	450(5300)			500	500(5900)
				600(5300)	

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	51	53	55	57	59
GRS905/GRS0905	+6 +3 +9	+6 +3 +9	+6 +3 +9	+6 +3 +9	+6 +3 +9
AD1101P R/Axles	0 +64 +64	0 +64 +64	0 +64 +64	0 +64 +64	0 +64 +64
Anti-roll bars	+50 +48 +98	+50 +48 +98	+50 +48 +98	+50 +48 +98	+50 +48 +98
2 x 32mm F/Springs	-84 0 -84	-84 0 -84	-84 0 -84	-84 0 -84	-84 0 -84
315/80 tyres/9.00 rims	+36 +72 +108	+36 +72 +108	+36 +72 +108	+36 +72 +108	+36 +72 +108
385/65 tyres/11.75 rims	+92 N/A +92	+92 N/A +92	+92 N/A +92	+92 N/A +92	+92 N/A +92
Aluminium wheels					
8.25 x 22.5	-48 -96 -144	-48 -96 -144	-48 -96 -144	-48 -96 -144	-48 -96 -144
9.00 x 22.5	-60 -120 -180	-60 -120 -180	-60 -120 -180	-60 -120 -180	-60 -120 -180
11.75 x 22.5	-88 N/A -88	-88 N/A -88	-88 N/A -88	-88 N/A -88	-88 N/A -88
F/E ram brkts	+51 -3 +48	+51 -3 +48	+51 -3 +48	+51 -3 +48	+51 -3 +48
Delete tipper hinge prep.	+13 -70 -57	+13 -70 -57	+13 -70 -57	+13 -70 -57	+13 -70 -57
F958 frame	+116 +182 +298	+122 +187 +309	+128 +192 +320	+133 +192 +325	+140 +198 +338
Aerodynamic bumper	-19 +2 -17	-19 +2 -17	-19 +2 -17	-19 +2 -17	-19 +2 -17
Centre tow pin	+29 -5 +24	+29 -5 +24	+29 -5 +24	+29 -5 +24	+29 -5 +24
Retarder	+102 +20 +122	+102 +20 +122	+103 +19 +122	+104 +18 +122	+105 +17 +122
180 Ah Batteries	+17 0 +17	+17 0 +17	+17 0 +17	+17 0 +17	+17 0 +17
Std Tank Full	+120 +104 +224	+124 +100 +224	+128 +96 +224	+132 +92 +224	+135 +89 +224
*1 x 450l G	N/A	+54 +87 +141	+57 +84 +141	+60 +81 +141	+63 +78 +141
CR19 Sleeper cab	+99 +6 +105	+99 +6 +105	+99 +6 +105	+99 +6 +105	+99 +6 +105
CR19 Highline cab	+126 +8 +134	+126 +8 +134	+126 +8 +134	+126 +8 +134	+126 +8 +134
CR19 Topline inc. defl	+220 +26 +246	+220 +26 +246	+220 +26 +246	+220 +26 +246	+220 +26 +246
CG14 short cab	-30 -13 -43	-30 -13 -43	-30 -13 -43	-30 -13 -43	-30 -13 -43
CG16 day cab	-15 -2 -17	-15 -2 -17	-15 -2 -17	-15 -2 -17	-15 -2 -17
CG19 Sleeper cab	+64 +12 +76	+64 +12 +76	+64 +12 +76	+64 +12 +76	+64 +12 +76
CG19 Highline cab	+84 +18 +102	+84 +18 +102	+84 +18 +102	+84 +18 +102	+84 +18 +102
EG Series PTOs	+15 +3 +18	+15 +3 +18	+15 +3 +18	+15 +3 +18	+15 +3 +18
EK Series PTOs	+42 +5 +47	+42 +5 +47	+42 +5 +47	+42 +5 +47	+42 +5 +47

* Additional to standard tank full of fuel.

GENERAL EQUIPMENT

Vertical exhaust outlet – N/A with ADR to EXII/EXIII or FL
Front tow pin

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 intermittent wipe and 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

CR16 Day Cab

Please see separate specification – ‘Scania Cabs’ for equipment levels.

Options:-
(1) CR19 Sleeper, **(2)** CR19 Highline, **(3)** CR19 Topline,
(4) CG14 Short Cab, **(5)** CG16 Day Cab, **(6)** CG19 Sleeper,
(7) CG19 Highline.

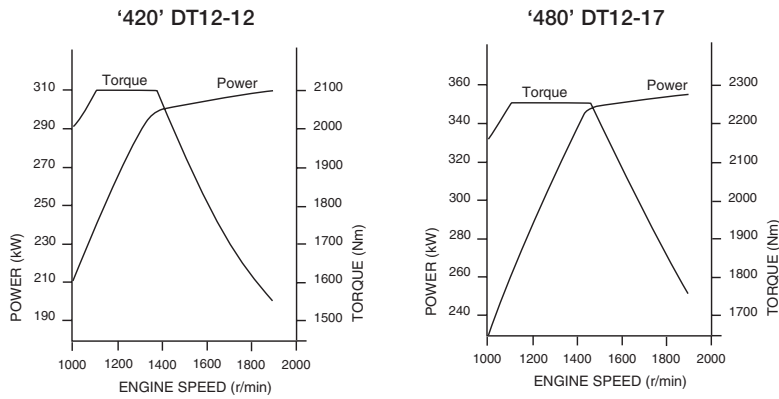
P.T.O. OPTIONS Check gearbox availability

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		
EG653P	EG663F		0.82 / 1.03H
EK730	EK740		1.03 / 1.29H
		1.00	1.00

H= High on ‘S’ splitter gearboxes only.

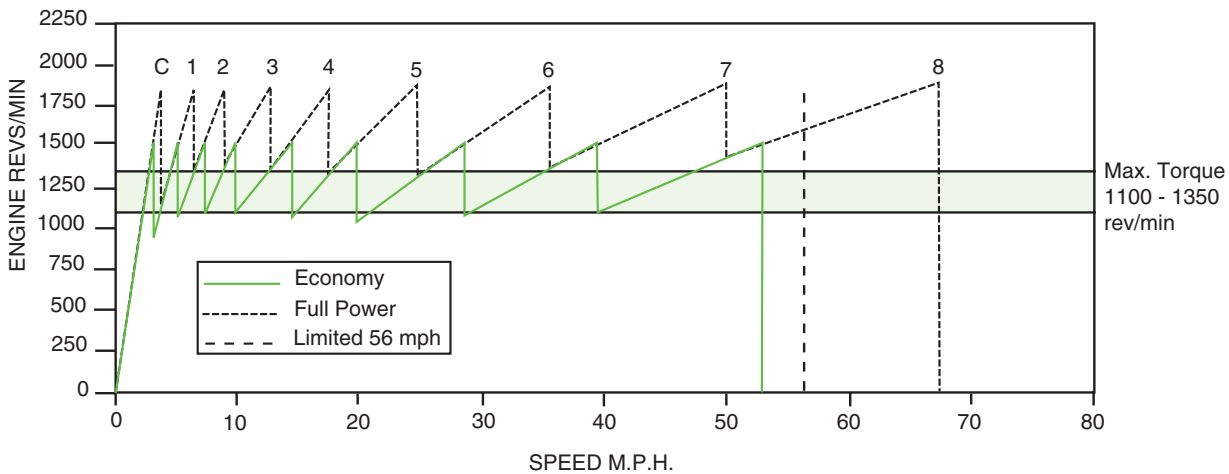
Flange output N/A on 6x2/4 chassis.

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	Optimum Cruising Speed M.P.H.	Gradeability - steady climb - in percent			
		DT12-12		DT12-17	
		32T	44T	32T	44T
RB 662 3.07	56	>35	>35	>35	>35
RB 662 3.42 std.	50 - 54	>35	>35	>35	>35
RB 662 3.80	45 - 48	>35	>35	>35	>35
RB 662 4.22	41 - 43	>35	>35	>35	>35
RB 662 4.88	35 - 37	>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.