

SCANIA

SPECIFICATION

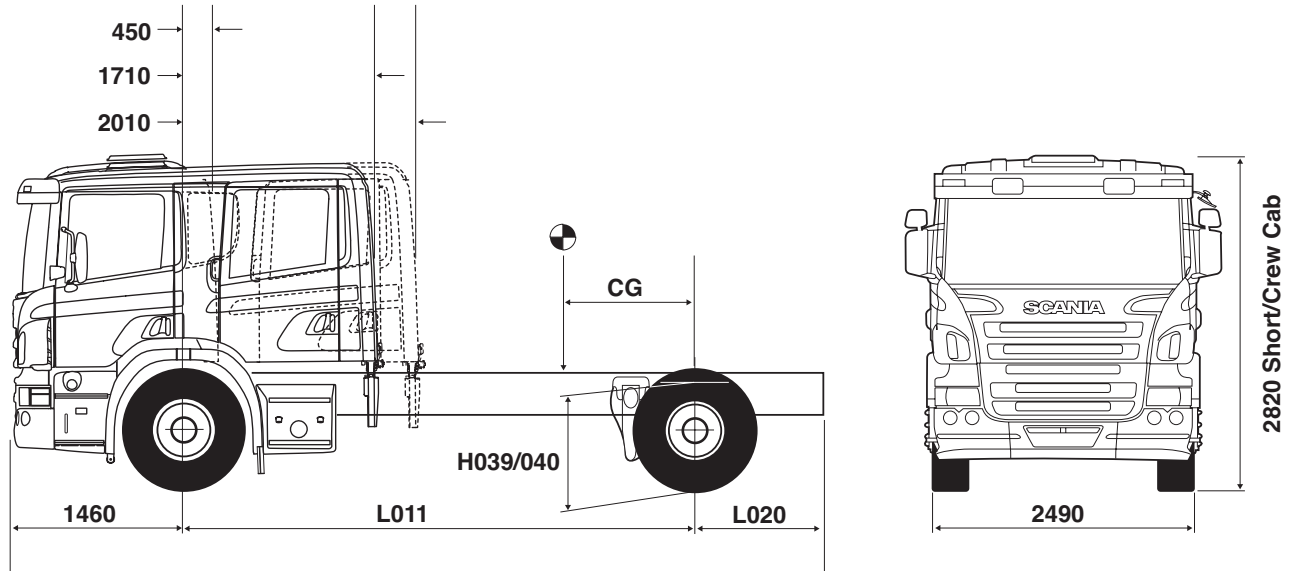
P-, G- and R-series

P 230 DB4x2MNA

18000Kg GVW

FIRE APPLIANCE CHASSIS CAB

P



DIMENSIONS (mm)

L011		3900	4300	4500	4700	4900	5100	5300	5500
L020		1000	1100	1150	1200	1250	1300	1350	1400
CG	Short cab	559	615	637	664	696	724	749	777
	CP28 Crew cab	370	401	410	425	447	463	476	491

H039 unladen = 955mm H040 laden = 933mm.

CG dimension for body and payload calculated for standard model at standard GB plated weights.

L020 Rear overhang can be specified in 10mm steps up to a maximum overall vehicle length of 11870mm

Height dimensions measured to top of frame at rear axle centreline.

PLATED WEIGHTS

		Front Axle	Rear Axle	GVW
Design				
Gross	Kg	6700*	11500	18000
Legal				
Max in GB	Kg	6300	11500	17800

Plated weights dependent on statutory tyre limitations.

*Design = 7500kg with 2x32mm front springs and GB 7100kg with 305/70R22.5 tyres GVW becomes 18000kg

CHASSIS/CAB WEIGHTS

(Tolerance +/- 2.5%)

Axle distance	Front	Rear	Total (kg)
3900	4728	1551	6279
4300	4737	1587	6324
4500	4761	1610	6371
4700	4766	1618	6384
4900	4760	1657	6417
5100	4764	1675	6439
5300	4774	1673	6447
5500	4778	1691	6469

Chassis cab weight includes 20 litres of fuel, oil and water. Driver not included.

Additional Weights			Total (kg)
CP14 Cab	-355	-72	-427
CP31 Crew cab	45	10	55
Full fuel (150l)	78	26	104

P 230 DB4x2MNA

SL5451095
July 09

ENGINE (EURO 5)

Scania '9 litre' vertical five cylinder in-line turbocharged intercooled direct injection diesel with Scania XPI.

'230'

Type:	DC9-39
Swept Volume:	9.3 litres
Bore:	130 mm
Stroke:	140 mm
Compression Ratio:	17:1
*Max. Power:	169kW (230 h.p.) at 1900 rev/min
*Max. Torque:	1050 Nm (774 lbf.ft) between 1000 and 1500 rev/min
Engine Management System:	EMS incorporating Cruise Control
Emission Control:	Scania EGR
Cooling:	Water cooled with rubber mounted 2 row radiator and electronically regulated fan
Coolant Capacity:	42 litres
Oil Capacity:	31 litres
Air Cleaner:	Dry replaceable paper element
Engine driven PTO provision:	ED120

Options:-

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

'280'

Type:	DC9-38
*Max. Power:	206kW (280 h.p.) at 1900 rev/min
*Max. Torque:	1400 Nm (1033 lbf.ft) between 1000 and 1350 rev/min

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

'320'

Type:	DC9-37
*Max. Power:	235kW (320 h.p.) at 1900 rev/min
*Max. Torque:	1600 Nm (1180 lbf.ft) between 1100 and 1200 rev/min

*With fan at max. slip

GEARBOX

Type: Scania GA765R-(Allison MD3000PP) with 8 o'clock P.T.O. output. Automatic 6 speed electronically controlled with integral retarder

Gear Selector: Steering column stalk

Options:-

(1) Gear Selector – Lever control floor mounted

(2) Above gearbox without retarders

REAR AXLE GEAR

Type: Scania R660 Single reduction hypoid. Ratio: 4.88:1
Pneumatically operated differential lock.

FRONT AXLE

Type: Scania AM740 I section rigid beam
Capacity: 7500Kg

STEERING

Type:	Recirculating ball. Hydraulically assisted power steering	
Steering wheel:	Diameter 450mm. Lock to lock 4.9 turns	
Turning circle:	Kerb to kerb	Swept
3.9m A/D	14.21m	15.57m
4.3m A/D	15.64m	16.99m
4.5m A/D	16.35m	17.70m
4.7m A/D	17.07m	18.41m
4.9m A/D	17.78m	19.12m
5.1m A/D	18.49m	19.83m
5.3m A/D	19.21m	20.54m
5.5m A/D	19.92m	21.25m

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 30mm
Design Capacity:	6700Kg

Options:-

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

(2) Air suspension on both front and rear axles

(3) Semi-elliptic parabolic springs (3x26mm + 2x26mm) plus anti-roll bar on rear axle.

WHEELS & TYRES

8.25 x 22.5 ten stud spigot mounted disc wheels fitted with 275/70R22.5 radial tubeless tyres.

Options:-

(1) 8.25 x 22.5 wheels with 305/70R22.5 tyres

(2) Tyre Pressure Monitoring - TPM

FRAME

Type: F700-50
F800 – 50 With front axle design > 8000 kg
With air suspension front and rear
With 'Low' chassis height
Flat top constant depth 'U' channel with riveted crossmembers.

Sidemember Dimensions:

F700 – 270 x 90 x 7mm

F800 – 270 x 90 x 8mm

Pre-drilled for bodywork mounting brackets

Width over parallel section of frame = 770mm

Bumper: Aerodynamic incorporating FUP

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 truck brakes
Secondary Circuit:	First position of park brake lever actuates spring chambers on both axles
Parking Brake:	Actuates spring chambers on both axles
Exhaust Brake:	Air actuated operated by foot switch
Air Reservoirs:	3 x 28.8 litres
Brake Antifreeze Protection:	Air dryer
Brake Wear Adjusters:	Automatic
Options:-	(1) Drum brakes on all axles (2) Traction Control anti-slip device – only with drum brakes – standard with disc brakes. (3) 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 180Ah		
Fog and spot lights in bumper, Rear H.I. lamps, Reversing lights, Battery connection – 200A			
Bodywork system ECU. Three 7-core wiring harnesses with 8m of cable for bodybuilder interface. Remote engine start preparation. Dashboard harness for additional switches.			
Options:-	(1) 140Ah batteries		

FUEL TANK

CP28 cab	CP14 and CP31 cabs
1 x 150 litre aluminium RHS	1 x 200 litre aluminium RHS
Side viewed from rear.	

GENERAL EQUIPMENT

Rear light brackets
Brake blow-off hose

INSTRUMENTS & CONTROLS

Two man, 1 day, EC digital tachograph, engine hour meter, rev-counter and gauges for 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.

CAB

CP28 Crew Cab

Four point air suspended galvanised steel, six man safety cab with electrically powered hydraulic tilt to 38 degrees and door opening angle of 80 degrees. Luxuriously appointed cab interior, fully sound and heat insulated with colour co-ordinated trim. Lower section of grille hinged to provide step for cleaning of windscreen. Finish painted red BS538 as standard with full anti-rust protection. Other single paint finish colours available as option – not metallic or reflective due to environmental reasons.

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.

Complete with the following equipment :

Central locking, cigar lighter, document box, electric window winders, electrically heated rear view mirrors plus wide angle, kerb and front view, electrically adjustable passenger mirror, exclusive interior lighting, filtered through-flow ventilation system with heater/demister and five speed fan, floor mats, driver's electrically heated seat, fixed passenger seat, seat mounted red seat belts, laminated windscreen, manual roof hatch, odometer trip, outside temperature indicator, radio preparation including voltage reduction unit, loud speakers and aerial, CB radio preparation, phone preparation, beacon preparation, 12V socket, retracting crew compartment steps, side deflectors, sun visors – internal and external, yellow grab handles and three fixing beams in rear wall of cab for BA seats.

Crew Cab Options:-

Rear roof shelf

Crew bench – (1) Basic. (2) Medium – includes back and head rests. (3) Luxury – includes back and head rests plus seat belts for four.

Under bench storage with shutter door.

OPTIONAL CABS

(1) CP14 Short Cab

(2) CP16 Day Cab

(3) CP19 Sleeper Cab

(4) CP31 Crew Cab

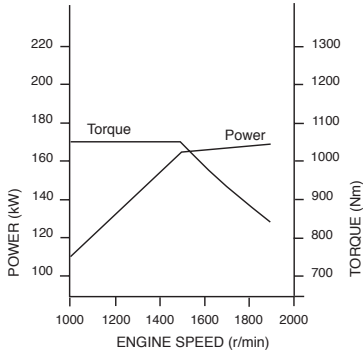
As for CP28 but 30cm longer.

Options:-

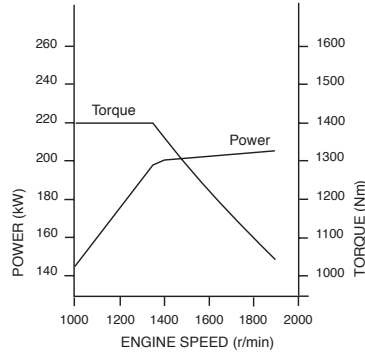
Air conditioning, Air suspended driver's seat, Air suspended passenger seat, Cab colour, Electronic Temperature control, Fire extinguisher, Headlight wash/wipe, Rear window, Tinted windscreen.

ENGINE PERFORMANCE

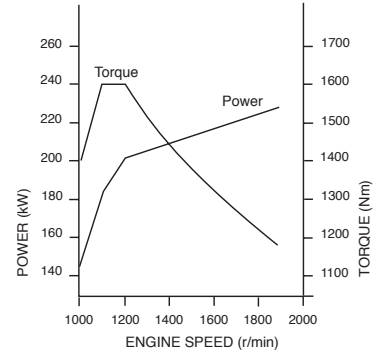
'230' DC9-39



'280' DC9-38



'320' DC9-37



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

PERFORMANCE

Calculated performance figures

	14.0t G.V.W.		18.0t G.V.W.	
	0-40 mph seconds	Gradeability %	0-40 mph seconds	Gradeability %
'230'	20	>35	27	28.9
'280'	21	>35	27	34.4
'320'	19	>35	25	>35

Gradeability may be limited by tyre adhesion.

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.