

SCANIA

SPECIFICATION

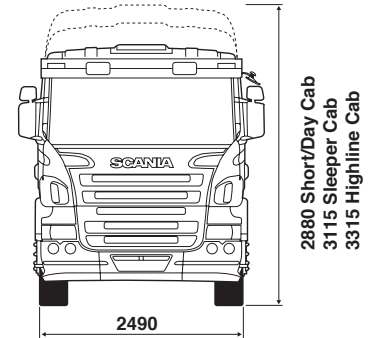
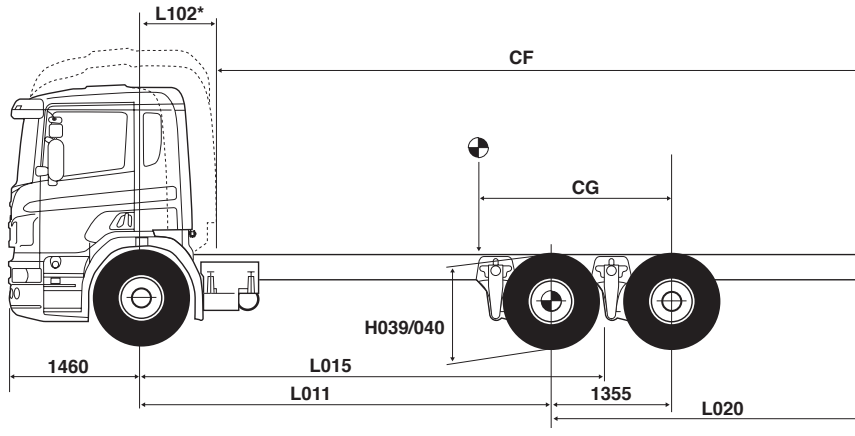
P-, G- and R-series

P 230 DB6x2*4MNA

27500Kg GVW

THREE AXLE RIGID (REAR STEER)

P



L102 (centreline of front axle to start of bodywork) Short – 450 Day – 610 Sleeper – 875

* Increases by 15mm with air deflectors

DIMENSIONS (mm)

L011		3900	4100	4300	4500	4700	4900	5100	5300	5500	5700	5900	6100
L015		4438	4638	4838	5038	5238	5438	5638	5838	6038	6238	6438	6638
L105	Day cab	6541	6890	7244	7594	7947	8303	8655	8920‡	9095‡	9270‡	9445‡	9616‡
	(feet)	(21.5)	(22.6)	(23.8)	(24.9)	(26.0)	(27.2)	(28.4)	(29.3)	(29.8)	(30.4)	(31.0)	(31.6)
Sleeper		6049	6400	6755	7109	7463	7820	8176	8533	8830‡	9005‡	9180‡	9351
	(feet)	(19.9)	(21.0)	(22.2)	(23.3)	(24.5)	(25.7)	(26.8)	(28.0)	(29.0)	(29.5)	(30.1)	(30.7)
CF	Day cab	6540	6890	7240	7590	7940	8300	8650	8920	9090	9270	9440	9610
	Sleeper	6045	6395	6755	7105	7455	7815	8175	8525	8825	9005	9175	9345
L020	Day cab	3250	3400	3550	3700	3850	4010	4160	4230	4200	4180	4150	4120
	Sleeper	3020	3170	3330	3480	3630	3790	3950	4100	4200	4180	4150	4120
L020 Max		4000	4200	4200	4400	4600	4800	5000	5200	5200	5000	4800	4600
CG Max	Day cab	1615	1652	1686	1722	1756	1790	1824	1859	1891	1925	1957	1948
	Sleeper	1597	1633	1666	1701	1735	1768	1801	1834	1866	1899	1930	1940
CG Min	Day cab	1376	1401	1424	1448	1472	1495	1518	1540	1562	1584	1605	1597
	Sleeper	1356	1381	1403	1426	1449	1471	1493	1515	1535	1556	1576	1567

‡ Limited by legal rear overhang – 8500kg legal front axle recommended.

H039 unladen	H040 laden	Chassis Height
1012 mm	985 mm	Normal (N)
888 mm	866 mm	Low (L) ¹

BLR = Max. bodylength to suit weight distribution. CG dimension for body and payload calculated for standard model at standard GB plated weights. Height dimensions measured to top of frame at rear bogie centreline. Rear overhang (L020) can be specified in 10 mm steps up to maximum – check legality.

¹Dimensions assume '55 series' front and '70 series' rear tyre fitment.

CHASSIS/CAB WEIGHTS

(Tolerance +/- 2.5%)

Axle distance	Front	Rear Bogie	Total (kg)
3900	4481	2791	7272
4100	4476	2806	7282
4300	4486	2836	7322
4500	4486	2851	7337
4700	4491	2861	7352
4900	4496	2866	7362
5100	4501	2876	7377
5300	4511	2911	7422
5500	4521	2921	7442
5700	4531	2941	7472
5900	4541	2956	7497
6100	4671	3196	7867

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

PLATED WEIGHTS – AWR

	Front Axle	Drive Axle	Trailing Axle	GVW	GTW [¶]
Design					
Gross	Kg 8500†	11500	7500	27500	31000
Legal					
Max in GB	Kg 8000	11500	7500	26000	29500

[¶]GTW 40000kg when fitted with trailer brakes and either '280' or '320' engine. GR905 gearbox recommended as minimum.

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

Plated weights dependent on statutory tyre limitations.

P 230 DB6x2*4MNA

SL5451093
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 and speed limiter

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

CLUTCH

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

GEARBOX

Type:	Scania GR875 eight speed synchromesh (four speed main fitted with two speed planetary range unit)
Oil Capacity:	11.1 litres

GEAR RATIOS

Low Range

1st	9.17:1
2nd	6.26:1
3rd	4.65:1
4th	3.75:1

Reverse 11.00:1

High Range

5th	2.45:1
6th	1.67:1
7th	1.24:1
8th	1.00:1

Options:-

(1) **Type:** Scania GR905 - eight speed synchromesh (four speed main fitted with two speed planetary range unit) plus one crawler gear.

(2) **Type:** Scania GRS895 twelve speed synchromesh (three speed main fitted with two speed planetary range unit plus splitter).

(3) **Opticruise:** Gearchange management system – N/A with GR905.

(4) **Type:** Automatic 6 speed electronically controlled.

REAR AXLE

Type:	Drive: Scania ADA1300
	Trailing: Scania ARA900
Capacity:	Combined 19000 Kg

Pressed steel housing with magnetic oil drain plug.

REAR AXLE GEAR

Type:	Scania R660
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Single reduction hypoid.Crown wheel and pinion matched during manufacture.Pneumatically operated differential lock.

FRONT AXLE

Type:	Scania AM950 I section rigid beam Scania AMA860 with air suspension
Capacity:	AM950 - 9000Kg AMA860 – 8000Kg

STEERING

Type:	Recirculating ball. Hydraulically assisted power steering to first and last axle.				
Steering wheel:	Diameter 450mm. Lock to lock 4.9 turns				
Turning circle:	Kerb to kerb				
3.9m A/D	14.2m	4.1m A/D	14.9m	4.3m A/D	15.6m
4.5m A/D	16.4m	4.7m A/D	17.1m	4.9m A/D	17.8m
5.1m A/D	18.5m	5.3m A/D	19.2m	5.5m A/D	19.9m
5.7m A/D	20.6m	5.9m A/D	21.3m	6.1m A/D	22.1m

SUSPENSION

Type Front: Semi-elliptic parabolic springs with swinging shackles and threaded shackle pins.

Type Rear: Quarter elliptic with air bellows (A) on both axles. Pneumatic tag-axle hoist. Chassis height may be raised or lowered to assist loading. Double acting telescopic shock absorbers are fitted to all axles.

Options:- (1) Front anti-roll bar

SPRING SIZE

	Front
Length:	1820mm
No. of leaves	3 x 29mm
Design Capacity	8500Kg

Options:-

(1) Air suspension on front axle – design capacity 8000 kg.

(2) 4 x 28mm leaves – design capacity 9000 kg.

WHEELS & TYRES

Front:	9.00 x 22.5 ten stud spigot mounted disc wheels fitted with 315/80R22.5 radial tubeless tyres.
Drive:	9.00 ten stud spigot mounted disc wheels fitted with 315/80R22.5 radial tubeless tyres.
Rear:	9.00 ten stud spigot mounted disc wheels fitted with 315/80R22.5 radial tubeless tyres.

Options:-

(1) 11.75 x 22.5 wheels with 385/65R22.5 or 385/55R22.5 tyres - steered axles only.

(2) Aluminium wheels - machined or polished surface finish.

(3) Wheel embellishers - steered axles only.

(4) Tyre Pressure Monitoring - TPM.

FRAME

Type:	F950-50 – 3.9 to 5.9m A/D F958-50 for 6.1m A/D and all 'H' duty class.
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Flat top constant depth 'U' channel with riveted crossmembers

Sidemember Dimensions:

F950	– 270 x 90 x 9.5mm
F958	– 270 x 90 x 9.5mm External member – 247 x 78 x 8mm Internal member

Pre-drilled for bodywork mounting brackets.
Width over parallel section of frame = 770mm

Bumper: Aerodynamic incorporating FUP

Options:- (1) Steel bumper – increases front overhang to 1510mm.
(2) 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 truck brakes

Secondary Circuit: First position of park brake lever actuates spring brakes.

Parking Brake: Actuates spring chambers on drive and last axles.

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.

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 140Ah

Rear H.I. lamps, Reversing lights, Battery connection - 200A

Options:-
(1) 180Ah batteries, **(2)** 225Ah batteries,
(3) Bodywork electrical preparation – see separate document.

FUEL TANK

1 x 300 litre aluminium RHS

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

	RH Side	LH Side	Aluminium - W	RH Side	LH Side
Steel - G	150	150	200	200	200
	200		300	300	
	300	300	350	350	350
	450	450	400	400	400
			500	500	
			600	600	
			700	700	(4100)

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

GENERAL EQUIPMENT

Front tow pin

Options:-

- (1)** Vertical exhaust outlet – N/A with ADR to EXIII/EXIII or FL.
(2) ADR to EXIII/EXIII, FL, OX or AT.

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

CP16 Day Cab

Please see separate specification – 'Scania Cabs' for equipment levels.

Options:-

- (1)** CP19 Sleeper Cab
(2) CP14
(3) CP19 Highline Cab

P.T.O. OPTIONS Check gearbox availability

	Rear Mount	GR875 / GRS895 / GR/S905	GRS0905
Pump	Flange		
¹ EG640P	¹ EG640F	1.65 / 2.04H	
¹ EG641P	¹ EG641F		1.33 / 1.67H
EG650P	EG660F	1.00 / 1.24H	
¹ EG651P	¹ EG661F	1.28 / 1.58H	
EG652P	EG662F		0.82 / 1.03H
¹ EG653P	¹ EG663F		1.03 / 1.29H
	Side Mount		
EG500P	EG500F	1.33 / 1.65H	
EG501P	EG501F		1.78 / 2.22H
² EG502P	² EG502F	1.33 / 1.65H	
² EG503P	² EG503F		1.78 / 2.22H
	Sandwich		
EK730	EK740	1.00	1.00

¹ = Not in combination with side mounted P.T.O.

² = Not in combination with rear mounted P.T.O.

H= High on 'S' splitter gearboxes only.

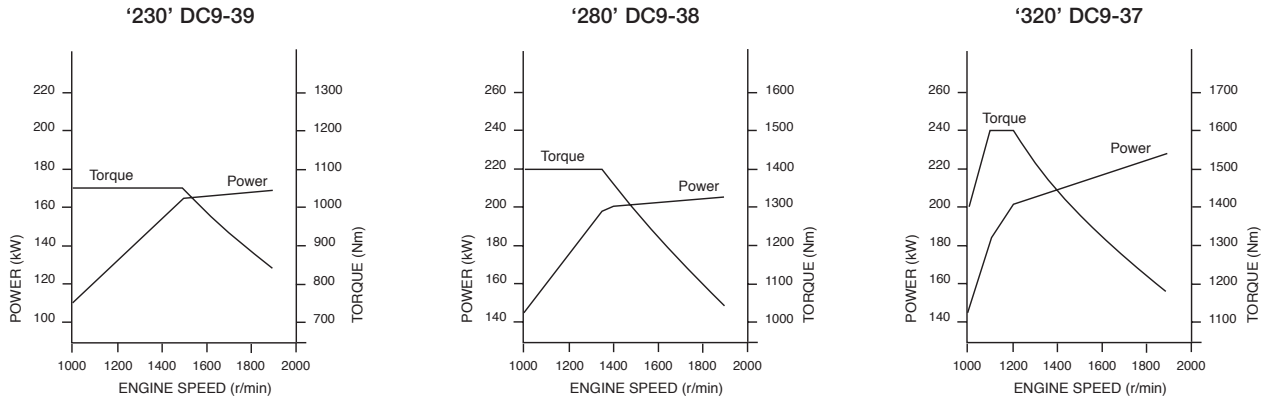
Flange output rear mount N/A on 6x2/4 or 6x2/2 chassis

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

Axle Distance	39	41	43	45	47	49	51	53	55	57	59	61
GR905 Gearbox	+34 +9 +43	+34 +9 +43	+34 +9 +43	+35 +8 +43	+35 +8 +43	+36 +7 +43	+36 +7 +43	+36 +7 +43	+36 +7 +43	+37 +6 +43	+37 +6 +43	+37 +6 +43
GRS895	+2 0 +2	+2 0 +2	+2 0 +2	+2 0 +2	+2 0 +2	+2 0 +2	+2 0 +2	+2 0 +2	+2 0 +2	+2 0 +2	+2 0 +2	+2 0 +2
Front anti-roll bar	+34 -1 +33	+34 -1 +33	+34 -1 +33	+34 -1 +33	+34 -1 +33	+34 -1 +33	+34 -1 +33	+34 -1 +33	+34 -1 +33	+34 -1 +33	+34 -1 +33	+34 -1 +33
Air suspension front	+40 +15 +55	+40 +15 +55	+40 +15 +55	+40 +15 +55	+40 +15 +55	+40 +15 +55	+40 +15 +55	+40 +15 +55	+40 +15 +55	+40 +15 +55	+40 +15 +55	+40 +15 +55
4x26mm f/springs	+28 0 +28	+28 0 +28	+28 0 +28	+28 0 +28	+28 0 +28	+28 0 +28	+28 0 +28	+28 0 +28	+28 0 +28	+28 0 +28	+28 0 +28	+28 0 +28
385/55 tyres/ 11.75 rims	+30 +30 +60	+30 +30 +60	+30 +30 +60	+30 +30 +60	+30 +30 +60	+30 +30 +60	+30 +30 +60	+30 +30 +60	+30 +30 +60	+30 +30 +60	+30 +30 +60	+30 +30 +60
385/65 tyres/ 11.75 rims	+38 +38 +76	+38 +38 +76	+38 +38 +76	+38 +38 +76	+38 +38 +76	+38 +38 +76	+38 +38 +76	+38 +38 +76	+38 +38 +76	+38 +38 +76	+38 +38 +76	+38 +38 +76
Aluminium Wheels												
9.00x22.5	-30 -90 -120	-30 -90 -120	-30 -90 -120	-30 -90 -120	-30 -90 -120	-30 -90 -120	-30 -90 -120	-30 -90 -120	-30 -90 -120	-30 -90 -120	-30 -90 -120	-30 -90 -120
11.75x22.5	-44 -44 -88	-44 -44 -88	-44 -44 -88	-44 -44 -88	-44 -44 -88	-44 -44 -88	-44 -44 -88	-44 -44 -88	-44 -44 -88	-44 -44 -88	-44 -44 -88	-44 -44 -88
F958-50 frame	+105 +190 +295	+105 +190 +295	+110 +195 +305	+110 +195 +305	+115 +195 +310	+120 +200 +320	+130 +200 +330	+130 +210 +340	+140 +210 +350	+140 +220 +360	+150 +220 +370	Std.
Steel bumper	+19 -2 +17	+19 -2 +17	+19 -2 +17	+19 -2 +17	+19 -2 +17	+19 -2 +17	+19 -2 +17	+19 -2 +17	+19 -2 +17	+19 -2 +17	+19 -2 +17	+19 -2 +17
FUP - steel bumper	+67 -13 +54	+67 -13 +54	+67 -13 +54	+67 -13 +54	+67 -13 +54	+67 -13 +54	+67 -13 +54	+67 -13 +54	+67 -13 +54	+67 -13 +54	+67 -13 +54	+67 -13 +54
Centre tow pin	+29 -5 +24	+29 -5 +24	+29 -5 +24	+29 -5 +24	+29 -5 +24	+29 -5 +24	+29 -5 +24	+29 -5 +24	+29 -5 +24	+29 -5 +24	+29 -5 +24	+29 -5 +24
Retarder	+66 +22 +88	+68 +20 +88	+71 +17 +88	+73 +15 +88	+76 +12 +88	+79 +9 +88	+80 +8 +88	+82 +6 +88	+83 +5 +88	+84 +4 +88	+85 +3 +88	+86 +2 +88
180 Ah batteries	+14 +3 +17	+14 +3 +17	+14 +3 +17	+14 +3 +17	+14 +3 +17	+14 +3 +17	+14 +3 +17	+14 +3 +17	+14 +3 +17	+14 +3 +17	+14 +3 +17	+14 +3 +17
225 Ah batteries	+46 +10 +56	+46 +10 +56	+46 +10 +56	+46 +10 +56	+46 +10 +56	+46 +10 +56	+46 +10 +56	+46 +10 +56	+46 +10 +56	+46 +10 +56	+46 +10 +56	+46 +10 +56
Std tank-full	+138 +86 +224	+142 +82 +224	+145 +79 +224	+149 +75 +224	+151 +73 +224	+154 +70 +224	+157 +67 +224	+159 +65 +224	+161 +63 +224	+163 +61 +224	+165 +59 +224	+167 +57 +224
*1x450l G	+71 +100 +171	+75 +96 +171	+79 +92 +171	+83 +88 +171	+86 +85 +171	+89 +82 +171	+92 +79 +171	+95 +76 +171	+97 +74 +171	+100 +71 +171	+102 +69 +171	+104 +67 +171
Vertical exh outlet	+30 +9 +39	+30 +9 +39	+30 +9 +39	+30 +9 +39	+30 +9 +39	+30 +9 +39	+30 +9 +39	+30 +9 +39	+30 +9 +39	+30 +9 +39	+30 +9 +39	+30 +9 +39
CP14 cab	-35 +2 -33	-35 +2 -33	-35 +2 -33	-35 +2 -33	-35 +2 -33	-35 +2 -33	-35 +2 -33	-35 +2 -33	-35 +2 -33	-35 +2 -33	-35 +2 -33	-35 +2 -33
CP19 Sleeper Cab	+65 +15 +80	+65 +15 +80	+65 +15 +80	+65 +15 +80	+65 +15 +80	+65 +15 +80	+65 +15 +80	+65 +15 +80	+65 +15 +80	+65 +15 +80	+65 +15 +80	+65 +15 +80
CP19 Highline cab	+89 +21 +110	+89 +21 +110	+89 +21 +110	+89 +21 +110	+89 +21 +110	+89 +21 +110	+89 +21 +110	+89 +21 +110	+89 +21 +110	+89 +21 +110	+89 +21 +110	+89 +21 +110
Air deflectors -CP14	+40 +2 +42	+40 +2 +42	+40 +2 +42	+40 +2 +42	+40 +2 +42	+40 +2 +42	+40 +2 +42	+40 +2 +42	+40 +2 +42	+40 +2 +42	+40 +2 +42	+40 +2 +42
-CP16/19/19H	+39 +3 +42	+39 +3 +42	+39 +3 +42	+39 +3 +42	+39 +3 +42	+39 +3 +42	+39 +3 +42	+39 +3 +42	+39 +3 +42	+39 +3 +42	+39 +3 +42	+39 +3 +42
EG Series PTOs	+15 +3 +18	+15 +3 +18	+15 +3 +18	+15 +3 +18	+15 +3 +18	+15 +3 +18	+15 +3 +18	+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	+42 +5 +47	+42 +5 +47	+42 +5 +47	+42 +5 +47	+42 +5 +47	+42 +5 +47	+42 +5 +47

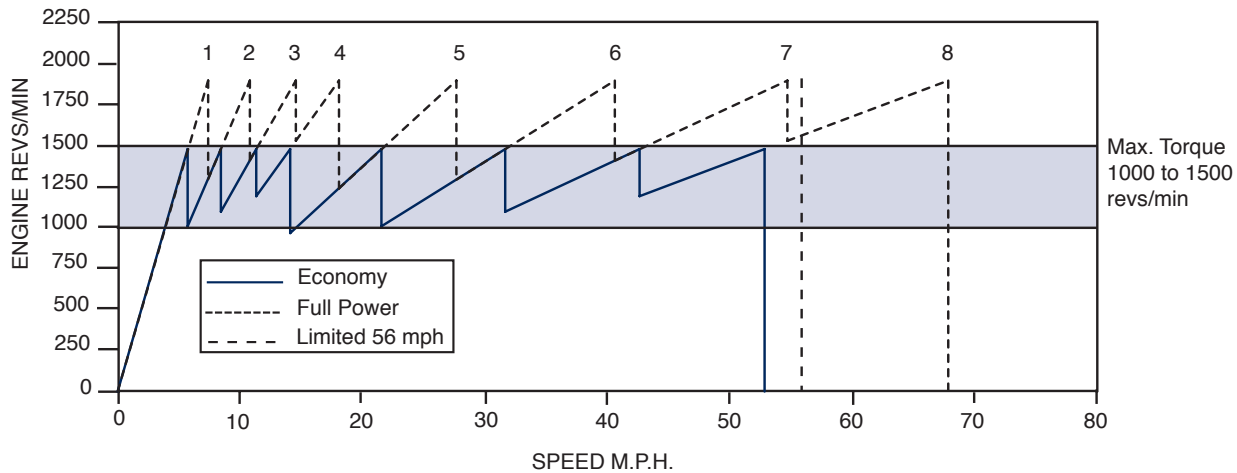
* Additional to standard tank full of fuel.

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				
		DC9-39 26T	DC9-38 26T	DC9-37 40T\$	DC9-37 26T	DC9-37 40T\$
R 660 2.92*	44-56	19.4	24.9	29.4	26.9	31.8
R 660 3.07	45-56	19.2	24.7	29.1	26.6	31.4
R 660 3.42 std.	40-53	21.6	27.8	32.8	31.0	>35
R 660 3.80	36-48	24.2	31.2	>35	33.7	>35
R 660 4.22	32-43	27.1	>35	>35	>35	>35
R 660 4.88	28-37	31.8	>35	>35	>35	>35

\$40T calculations shown with GR905 gearbox. *2.92 only available with low profile tyres – calculations based on 315/70R22.5 rear tyres.

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.

