

SCANIA

SPECIFICATION

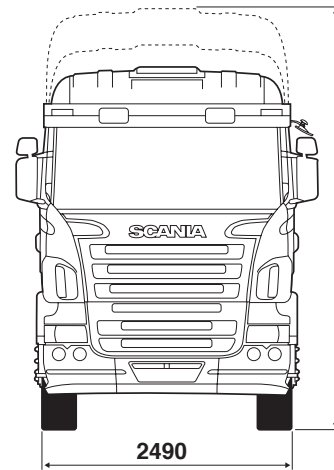
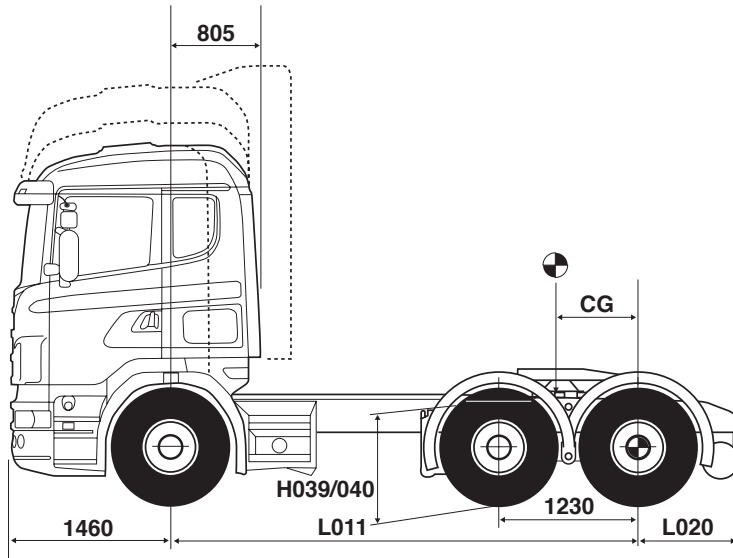
P-, G- and R-series

R/G 400 LA6x2/2MNA

60000Kg GTW

MID-LIFT TRACTOR

R



	R	G
Day Cab	3160	3090
Sleeper Cab	3400	3330
Highline Cab	3600	3530
Topline Cab	3920	N/A

DIMENSIONS (mm)

L011	3975
L015	3515
L020	780
Sleeper Cab CG	927

Fifth Wheel position to suit 16.5m overall length

935 forward of drive axle centre line
Max. imposed load = 14770 kg – Sleeper Cab

H039 unladen = 1000mm H040 laden = 970mm L015 = theoretical wheelbase

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 dimensions measured to top of frame at rear bogie centreline

PLATED WEIGHTS – AWR

	Front Axle	Second Steer	Rear Axle	GVW	GTW
Design Gross	Kg 7500†	6100	10200	23800	60000
Legal Max in GB	Kg 7100¶	6000	10000	23100	44000

† Front axle capacity up to a maximum of 8000 kg available as option.

¶ Legal front axle capacity limited by tyres.
Plated weights dependent on statutory tyre limitations.

CHASSIS/CAB WEIGHTS

(Tolerance +/- 2.5%)

Axle distance	Front	Bogie	Total (kg)
3975	4914	2846	7760

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

R/G 400 LA6x2/2MNA

SL5451084
March 09

ENGINE (EURO 5)

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

	'400'
Type:	DC 13-05
Swept Volume:	12.74 litres
Bore:	130 mm
Stroke:	160 mm
Compression Ratio:	17:1
*Max. Power:	294kW (400 h.p.) at 1900 rev/min
*Max. Torque:	2100 Nm (1549 lbf.ft) between 1000 & 1300 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:	55 litres
Oil Capacity:	40 litres
Air Cleaner:	Dry replaceable paper element
Engine Driven P.T.O. provision:	ED120

Options:-

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

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

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

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

*With fan at max. slip

CLUTCH

Type:	Single dry plate
Operation:	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 DC13-10 and DC13-07 engines

GEAR RATIOS

	Low Range Split		High Range Split	
	L	H	L	H
Crawler	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

Reverse	11.95:1
----------------	---------

Options:-

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

(2) Opticruise: Gearchange management system.

REAR AXLES

Type:	Second axle - Scania ASA720 Drive axle - Scania ADA 1100
Capacity:	Combined 19000 Kg
	Drive axle has pressed steel housing with magnetic oil drain plug.

REAR AXLE GEAR

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

FRONT AXLE

Type:	Scania AM740 I section rigid beam – AMA740 if air suspension
Capacity:	7500Kg
Options:-	
(1)	Scania AM950 – capacity 9000 kg.
(2)	Scania AMA860 – air only – capacity 8000 kg.

STEERING

Type:	Recirculating ball. Hydraulically assisted power steering
Steering wheel:	Diameter 450mm. Lock to lock 4.9 turns
Turning circle:	Kerb to kerb 3.975m A/D 12.94m

SUSPENSION

Type Front:	Semi-elliptic parabolic springs with swinging shackles and threaded shackle pins. Anti-roll bar.
Type Rear:	Second axle - quarter elliptic with air bellows (A) (2 bag) which may be evacuated from the cab to increase drive axle traction. Pneumatic mid-axle hoist. Drive axle - quarter elliptic with air bellows. Chassis height may be raised or lowered to assist loading. Double acting telescopic shock absorbers are fitted to all axles.

SPRING SIZE

	Front
Length:	1820mm
No. of leaves	2 x 32mm
Design Capacity	7500Kg

Options:-

(1) Air suspension on front axle – design capacity 7500 or 8000 kg.
(2) 3 x 29mm leaves – design capacity 8500 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) Wheel embellishers - axles 1 and 2

FRAME

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

Sidemember Dimensions:

	F950 - 270 x 90 x 9.5mm
	Width over parallel section of frame = 770mm

Bumper: Aerodynamic incorporating FUP

Options:- (1) Side skirts, (2) Steel bumper – increases front overhang to 1510mm, (3) 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 tractor and trailer brakes
Secondary Circuit:	Actuates split service system plus trailer brakes
Parking Brake:	Actuates spring chambers on front and drive axles
Exhaust Brake:	Air actuated operated by brake pedal
Brake Antifreeze Protection:	Air dryer
Brake Wear Adjusters:	Automatic
Options:-	
(1)	Scania Hydraulic Retarder
(2)	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 180 Ah
 Rear H.I. lamps, Reversing lights, Side marker lamps.

Options:-

- (1)** 140Ah batteries, **(2)** 225Ah batteries, **(3)** Battery connection – 200A,
(4) Bodywork electrical preparation – see separate document

FUEL TANKS

1 x 300 Litre LHS

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

	RH Side	LH Side	Aluminium - W	RH Side	LH Side
Steel - G 200		150	–		200
		200	300		300

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

Fixed 5th wheel - 285mm above frame
 Lead-on ramps
 Double Manwalk with step and coupling lamp
 Rear Wings
 Front tow pin

Options:-

- (1)** Fifth wheel position in front of drive axle centre line - 635 to 1085mm in 50mm increments
(2) Sliding fifth wheel - 303mm above frame.
(3) Vertical exhaust outlet – N/A with ADR to EXII/EXIII or FL.
(4) ADR to EXII/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.

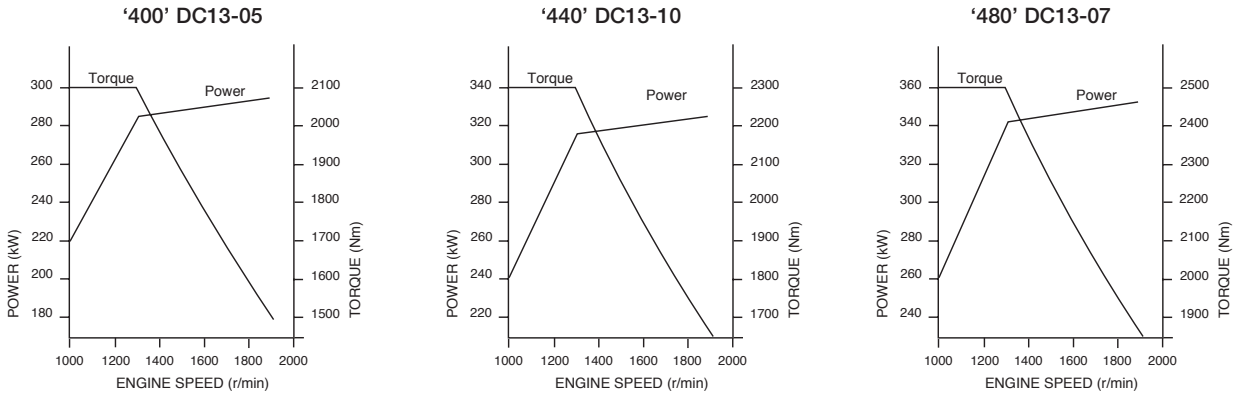
WEIGHTS FOR OPTIONAL EQUIPMENT IN KILOGRAMS (Front – Rear – Total)

Axle Distance	3975
DC13-10 engine	+10 +3 +13
DC13-07 engine	+15 +4 +19
AM950 front axle	+13 0 +13
Air suspension front	+40 +15 +55
3 x 29mm front springs	+44 0 +44
9.00x22.5 Wheels + 315/80 Tyres	+18 +54 +72
11.75x22.5 Wheels + 385/65 Tyres	+54 N/A +54
11.75x22.5 Wheels + 385/55 Tyres	+46 N/A +46
Aluminium Wheels	
8.25x22.5	-24 -72 -96
9.00x22.5	-30 -90 -120
11.75x22.5	-44 N/A -44
Side skirts	+20 +19 +39
FUP steel bumper	+67 -13 +54
Centre tow pin	+29 -5 +24
Retarder	+101 +20 +121
140Ah Batteries	-13 -4 -17
225Ah Batteries	+31 +8 +39
Std. Tank Full	+116 +118 +234
*2 x 300l W	+143 +133 +276
Sliding 5th wheel	+8 +52 +60
Vertical exhaust outlet	+37 +8 +45
CR16 Cab w/o deflectors	-153 -14 -167
CR19 Highline Cab	+27 +2 +29
CR19 Topline Cab	+73 +6 +79
CG14 Short Cab	-188 -22 -210
CG16 Day Cab	-168 -16 -184
CG19 Sleeper Cab	-86 -5 -91
CG19 Highline Cab	-63 -2 -65
EG Series PTOs	+15 +3 +18
EK Series PTOs	+42 +5 +47

* Additional to standard tank full of fuel.

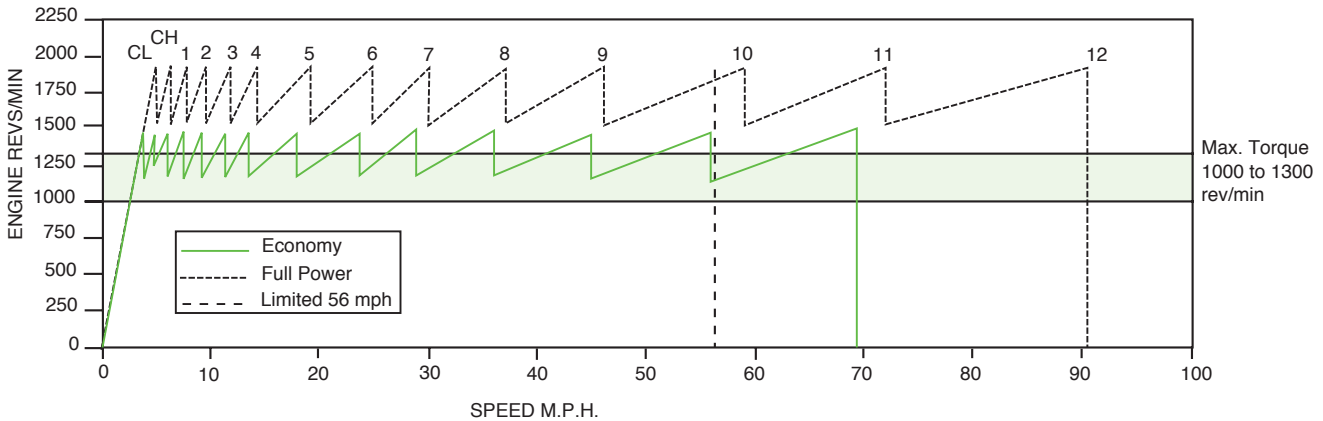
R/G 400 LA6x2/2MNA

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			
		11th	12th	44T	60T	44T	60T	44T	60T
R 780 2.71*	72.5 90.7	>35	26.0	>35	28.7	>35	>35	>35	32.0
R 780 2.92*	67.1 83.8	>35	28.2	>35	31.2	>35	>35	>35	34.8
R 780 3.08 Std	72.6 90.7	>35	26.0	>35	28.8	>35	>35	>35	32.1
R 780 3.27	68.4 85.5	>35	27.8	>35	30.7	>35	>35	>35	34.3
R 780 3.42	65.7 82.2	>35	29.2	>35	32.3	>35	>35	>35	>35
R 780 3.80	58.8 73.5	>35	32.8	>35	>35	>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.

