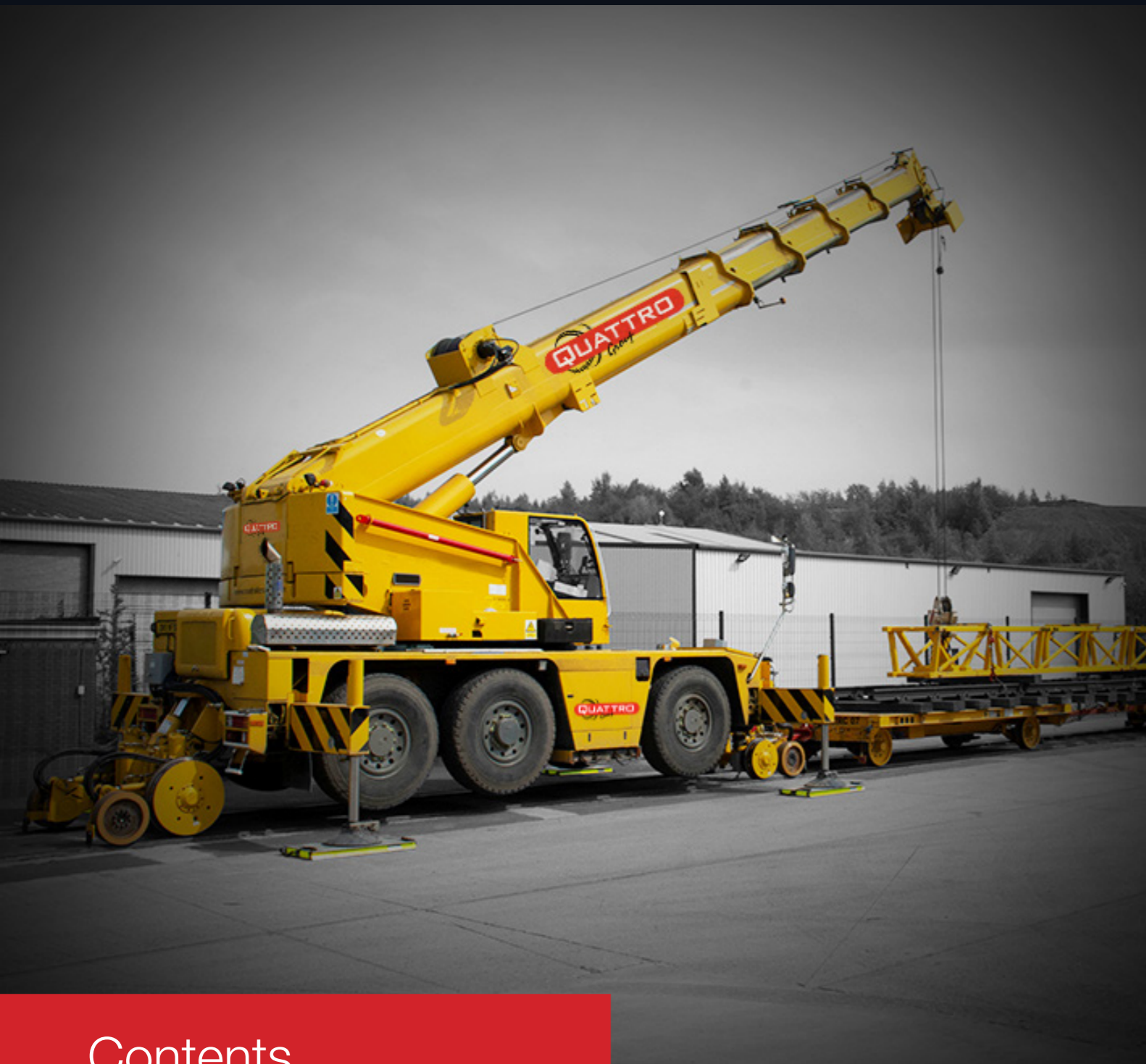




# The AC 40 Road Rail Crane

All Terrain Crane 40t Lifting Capacity Road Rail Crane



# The AC 40 Road Rail Crane

Based on the Terex/Demag AC 40 City Crane, it is the most compact and versatile 3-axle crane in its class.

## Highlights

- Exceptionally maneuverable off road.
- Pick and carry duties off track.
- Main boom length of 7.8 m extending to 31.2 m.
- Lifting capacities ranging from 40 t @ 3 m radius to 1.4 t @ 28 m radius.
- Hydraulically adjustable suspension that will assist when accessing track.
- All wheel & crab steering enables the crane to on-track at the most confined access point.
- Towing point's front and rear for push-pull air-braked rail trailer application.
- Auxiliary engine fitted for recovery in the unlikely event of breakdown/emergency to ensure the crane can be removed from track in a safe and timely manner.
- Colour night vision CCTV cameras fitted on offside and at rear for all round visibility.
- The crane stabilisers can be set at three positions - 2.55 m, 4.40 m and 6.2 m.

## Noise Levels

- Exceptionally maneuverable off road.
- Pick and carry duties off track.

## General Specifications

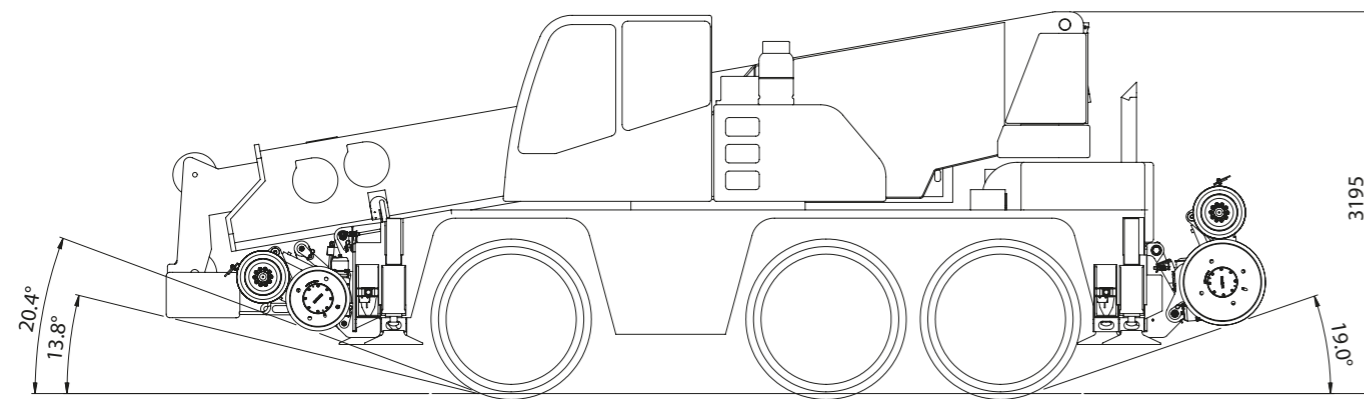
Overall length:	9459 mm
Width:	2500 mm
Height (on rail wheels):	3365 mm
Height (on road wheels):	3195 mm
Weight:	36,000 kg
Drive / steering:	6 x 6 x 6.
Wheels and tyres:	14.00 R 25
Searcher hook	
Maximum wind speed for use:	15 m/s
Maximum travel speed:	32 km/h
Maximum rail cant - travelling:	200 mm
Maximum rail cant - on/off tracking:	165 mm
Maximum rail gradient:	1 in 25
Minimum curve radius:	80m
Rail wheel diameters:	495 mm (front) 680 mm (rear)
Towing capacity air braked load: 3 trailers with air reservoirs:	40,000 kg
Air trailer brake pressures:	service brake 0–8 bar park brake release 8 bar

## Contents

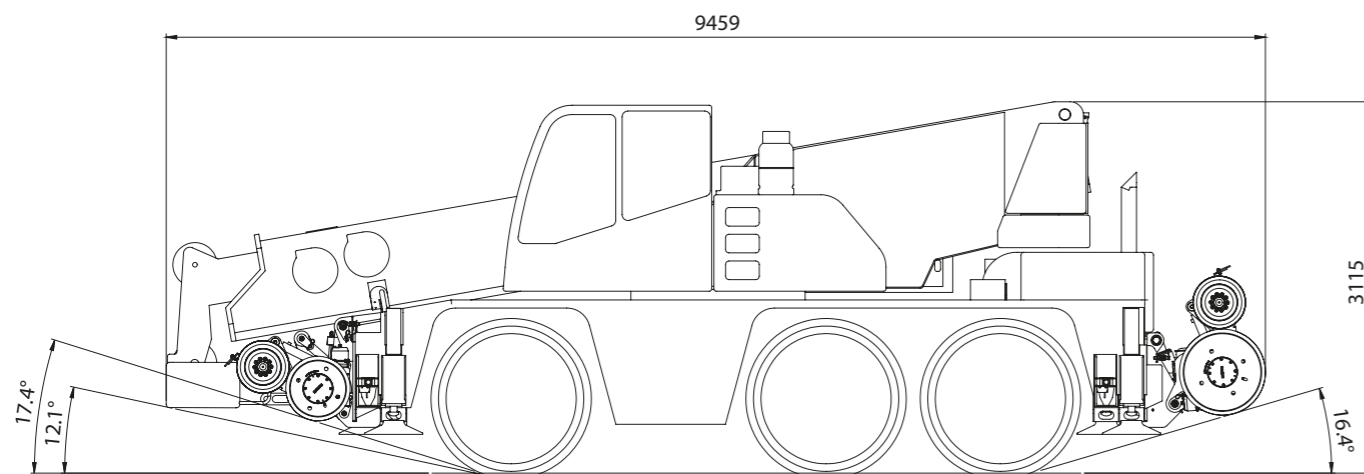
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# Dimensions

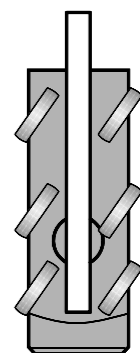
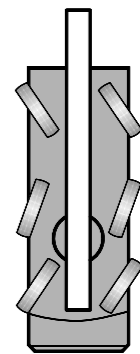
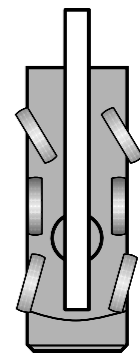
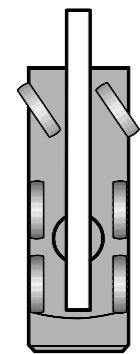
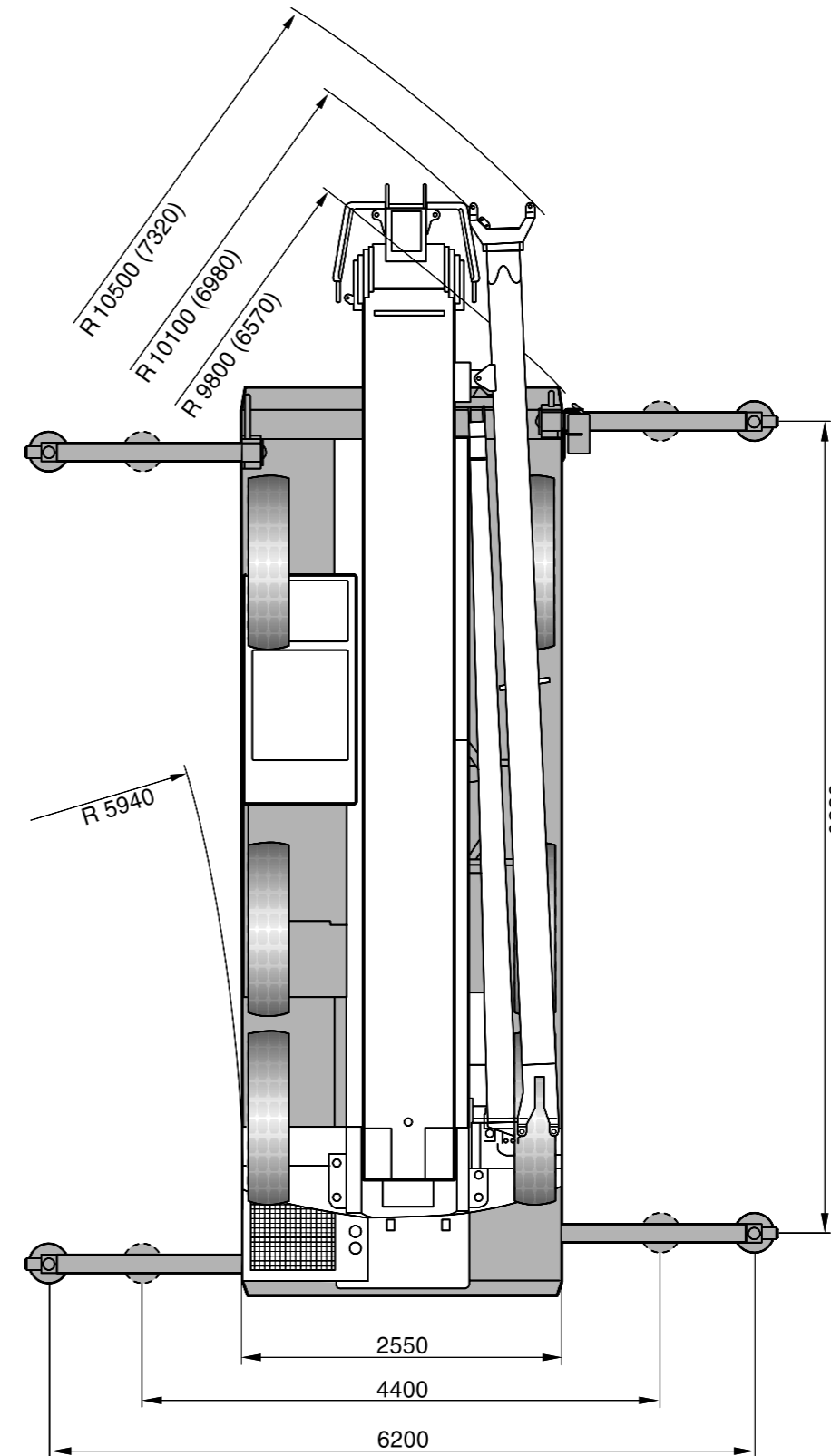
## AC 40 City All Terrain Crane



STANDARD ROAD MODE



WITH ROAD AXLES LOWERED



# Specifications

## Working Speeds (Infinitely Variable)

Mechanisms	Normal Speed	High Speed	Max. Permissible Line Pull <sup>1</sup>	Rope Diameter Rope Length
Hoist	60 m /min	115 m /min	43 kN	16 mm / 140 m
Slewing				max. 2 1/min
Telescoping Speed				7,8 – 31,2 m: 90 s
Boom Elevation				-10° - +78°: 50 s

## Carrier Performance

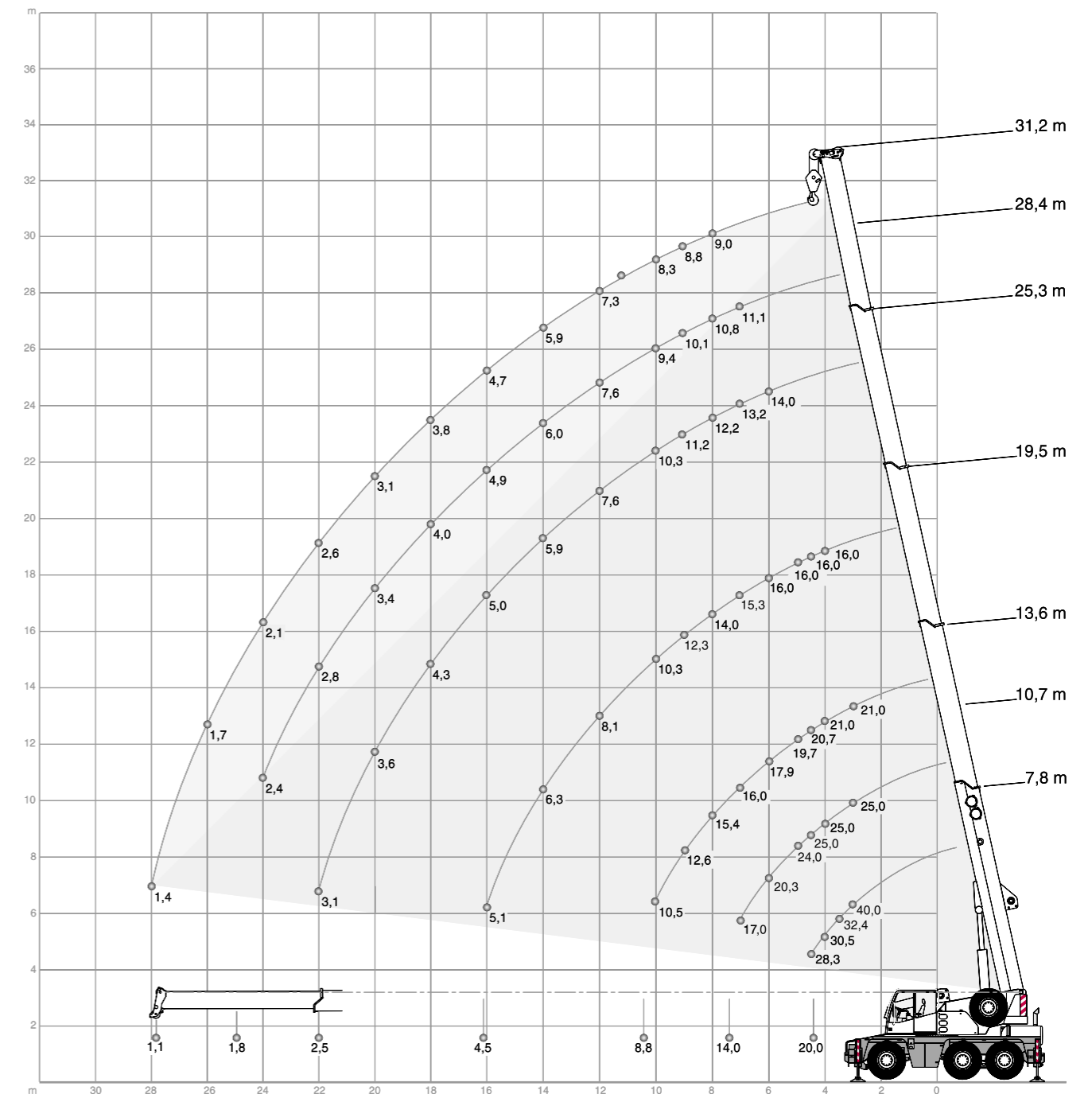
Travel Speed	0 . . 80/85 km/h <sup>2</sup> )
Gradeability in Travel Order	> 60%
Ground Clearance	300/400 mm

## Hook Block / Heavy-Lift Attachment

Type	Possible Load <sup>1)</sup>	Number of	Weight	„D“	Number of Lines	Heavy-Lift Attachment
32	30,0 t	3	350 kg	1,30 m	7	-
5	4,4 t	Single Line Hook	130 kg	0,80 m	1	-

# Working Ranges

## AC 40 City - All Terrain Crane



A big thank you for your hard work and professionalism that enabled the installation to be a success. From intricate planning and cross discipline cooperation we managed to execute a safe and successful job. You are a very close, safety focused, well planned and managed team and this sort of success is becoming the day job.

Siemens, watford gantry installation



# Lifting Capacities

## AC 40 City - All Terrain Crane

6,35 m x 6,20 m		360°							DIN/ISO			0°*			DIN/ISO		
Radius	M	Main Boom							Main Boom								
		7,8	10,7	13,6	19,5	25,3	28,4	31,2	7,8*	10,7*	13,6*	7,8*	10,7*	13,6*			
m		t	t	t	t	t	t	t	t	t	t	t	t	t	t	t	t
3		40,0*	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
3		34,3	25,0	21,0	-	-	-	-	14,5	14,0	15,1	-	-	-	-	-	-
3,5		32,4	25,0	21,0	-	-	-	-	12,9	12,4	13,4	-	-	-	-	-	-
4		30,5	25,0	21,0	16,0	-	-	-	11,5	11,1	12,1	-	-	-	-	-	-
4,5		28,3	25,0	20,7	16,0	-	-	-	10,4	10,0	11,0	-	-	-	-	-	-
5		-	24,0	19,7	16,0	-	-	-	-	9,0	10,0	-	-	-	-	-	-
6		-	20,3	17,9	16,0	14,0	-	-	-	7,5	8,4	-	-	-	-	-	-
7		-	17,0	16,0	15,3	13,2	11,1	-	-	6,1	7,2	-	-	-	-	-	-
8		-	-	15,4	14,0	12,2	10,8	9,0	-	-	5,9	-	-	-	-	-	-
9		-	-	12,6	12,3	11,2	10,1	8,8	-	-	4,8	-	-	-	-	-	-
10		-	-	10,5	10,3	10,3	9,4	8,3	-	-	4,1	-	-	-	-	-	-
12		-	-	-	8,1	7,6	7,6	7,3	-	-	-	-	-	-	-	-	-
14		-	-	-	6,3	5,9	6,0	5,9	-	-	-	-	-	-	-	-	-
16		-	-	-	5,1	5,0	4,9	4,7	-	-	-	-	-	-	-	-	-
18		-	-	-	-	4,3	4,0	3,8	-	-	-	-	-	-	-	-	-
20		-	-	-	-	3,5	3,4	3,1	-	-	-	-	-	-	-	-	-
22		-	-	-	-	3,0	2,8	2,6	-	-	-	-	-	-	-	-	-
24		-	-	-	-	-	2,3	2,1	-	-	-	-	-	-	-	-	-
26		-	-	-	-	-	-	1,7	-	-	-	-	-	-	-	-	-
28		-	-	-	-	-	-	1,4	-	-	-	-	-	-	-	-	-
30		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
<b>Capacities<sup>1)</sup></b>		<b>20,0</b>	<b>14,0</b>	<b>8,8</b>	<b>4,5</b>	<b>2,5</b>	<b>1,8</b>	<b>1,1</b>	<b>8,0</b>	<b>4,0</b>	<b>3,0</b>						

### Remarks:

- \* 0° over rear
- \*\* Only stationary
- 1) With horizontal boom

## AC 40 City - All Terrain Crane

6,35 m x 2,34 m		360°				DIN/ISO			360°**			DIN/ISO		
Radius	M	Main Boom				Main Boom								
		7,8	10,7	13,6	19,5	7,8	10,7	13,6	7,8	10,7	13,6			
m		t	t	t	t	t	t	t	t	t	t	t	t	
4		11,8	11,2	12,6	12,9	-	-	-	-	-	-	-	-	
4,5		9,8	9,2	10,5	10,8	5,9	5,4	6,6	-	-	-	-	-	
5		-	7,7	8,9	9,2	-	4,7	5,8	-	-	-	-	-	
6		-	5,7	6,7	7,0	-	3,6	4,7	-	-	-	-	-	
7		-	4,3	5,3	5,5	-	2,8	3,8	-	-	-	-	-	
8		-	-	4,3	4,5	-	-	3,1	-	-	-	-	-	
9		-	-	3,6	3,8	-	-	2,6	-	-	-	-	-	
10		-	-	3,0	3,2	-	-	2,2	-	-	-	-	-	
12		-	-	-	2,3	-	-	-	-	-	-	-	-	
14		-	-	-	1,7	-	-	-	-	-	-	-	-	
16		-	-	-	1,3	-	-	-	-	-	-	-	-	
<b>Capacities<sup>1)</sup></b>		<b>8,0</b>	<b>2,8</b>	<b>2,1</b>	<b>-</b>	<b>4,8</b>	<b>1,9</b>	<b>1,3</b>						

6,35 m x 4,40 m		360°							DIN/ISO						
Radius	M	Main Boom							Main Boom						
		7,8	10,7	13,6	19,5	25,3	28,4	31,2	7,8	10,7	13,6	19,5	25,3	28,4	31,2
m		t	t	t	t	t	t	t	t	t	t	t	t	t	t
3		34,3	25,0	21,0	-	-	-	-	-	-	-	-	-	-	-
3,5		31,2	25,0	21,0	-	-	-	-	-	-	-	-	-	-	-
4		28,3	25,0	21,0	16,0	-	-	-	-	-	-	-	-	-	-
4,5		23,8	23,0	20,7	16,0	-	-	-	-	-	-	-	-	-	-
5		-	18,4	18,0	16,0	-	-	-	-	-	-	-	-	-	-
6		-	13,0	14,4	14,2	13,6	-	-	-	-	-	-	-	-	-
7		-	9,8	11,1	11,4	10,9	10,8	-	-	-	-	-	-	-	-
8		-	-	8,9	9,2	8,7	8,8	8,8	-	-	-	-	-	-	-
9		-	-	7,3	7,6	7,7	7,4	7,2	-	-	-	-	-	-	-
10		-	-	6,2	6,4	6,5	6,3	6,1	-	-	-	-	-	-	-
12		-	-	-	4,8	4,9	4,7	4,5	-	-	-	-	-	-	-
14		-	-	-	3,7	3,8	3,6	3,4	-	-	-	-	-	-	-
16		-	-	-	3,0	3,0	2,8	2,7	-	-	-	-	-	-	-
18		-	-	-	-	2,5	2,3	2,1	-	-	-	-	-	-	-
20		-	-	-	-	2,1	1,8	1,7	-	-	-	-	-	-	-
22		-	-	-	-	1,7	1,5	1,3	-	-	-	-	-	-	-
24		-	-	-	-	-	1,2	1,0	-	-	-	-	-	-	-
26		-	-	-	-	-	-	0,8	-	-	-	-	-	-	-
28		-	-	-	-	-	-	0,6	-	-	-	-	-	-	-
<b>Capacities<sup>1)</sup></b>		<b>20,0</b>	<b>7,0</b>	<b>5,2</b>	<b>2,5</b>	<b>1,5</b>	<b>0,8</b>	<b>-</b>							

# Technical Description

## AC 40 City All Terrain Crane

Carrier	
Drive / Steering	6 x 6 x 6.
Frame	Monobox main frame with outrigger boxes integral, of high-strength fine-grain structural steel.
Outriggers	4 hydraulically telescoping outrigger beams with hydraulic jack legs.
Engine	DaimlerChrysler OM 906 LA water-cooled 6-cylinder engine, output to DIN: 205 kW (279 HP), max. torque 1100 Nm at 1300 1/min. Fuel tank capacity: 300 l.
Transmission	Allison automatic transmission with torque-converter, 6 forward speeds and 1 reverse, transfer case with off-road range and longitudinal differential lock-out control incl. ADM.
Suspension	Hydropneumatic suspension, blockable hydraulically.
Wheels And Tyres	6 wheels fitted with 14.00 R 25 tyres.
Travel Speed	80 km/h.
Steering	ZF dual-circuit hydraulic steering with mech. steering end stop. 1 engine-driven master steering pump, 1 emergency steering pump. Independent, electronic-hydraulic rear axle steering.
Brakes	Service brake: dual-line air system. Parking brake: spring-loaded type. Sustained action brake: engine exhaust brake and constant decompression valve. ABS as standard.
Electrical Equipment	24 V system, 3-phase alternator 80 A, 2 batteries 12 V / 120 Ah. Lighting in compliance with EC-directives.

Superstructure	
Main Boom	Boom base and 4 telescopic sections, fabricated from fine-grain structural steel, telescoping with partial load, anti-deflection Demag ovaloid design.
Counterweight	5.4 t.
Hydraulic System	Powered by carrier engine, 1 variable-displacement axial piston pump to enable 3 simultaneous, independent working movements, separate fixed-displacement pump for slew unit.
Hoist	Fixed-displacement axial-piston motor, hoist drum with planetary reduction integral and spring-applied multi-disk brake.
Slew Unit	Hydraulic motor with planetary gear reducer, pedal-operated service brake and spring-applied holding brake. Slewing speed infinitely variable.
Boom Elevation	1 differential cylinder with pilot-controlled lowering brake valve.
Crane Cab	Spacious all-steel comfortable cab with sliding door, large folding-out windscreen, roof window with armoured glass, air-sprung and heated driver's seat, controls and instrumentation for all crane movements, washer and interval control wiper for windscreen and roof window, electrically adjustable and heated outside mirrors, sliding rear window, air-conditioning.
Safety Devices	Electronic safe load indicator with graphic display and digital readout for hook load, rated load, boom length, boom angle, load radius. Integrated display to indicate the percentage of tele sequence, limit switches on hoist and lowering motions, pressure-relief and safety holding valves.



## About Quattro Group

With an unrivalled fleet of modern and varied equipment, Quattro Group provides a reliable nationwide solution for plant needs to a variety of sectors including rail, construction and transport.

As a leading contractor within the rail market, Quattro Group enjoys a strong relationship with Network Rail and works closely with teams across the UK to help deliver a safe and efficient network for passengers.

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