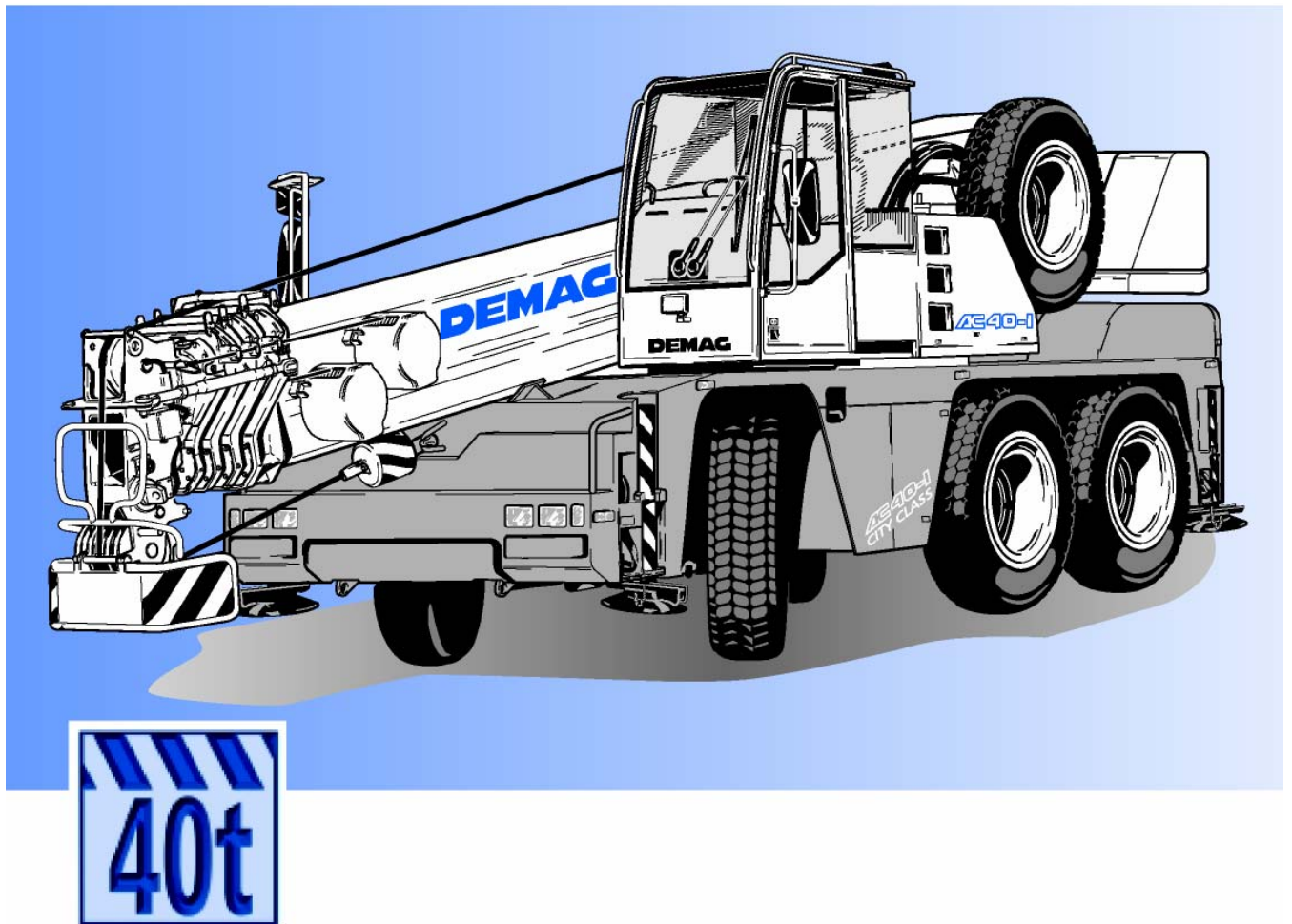


# 40 TONNE DEMAG AC40 “CITY CLASS” ALL TERRAIN CRANE

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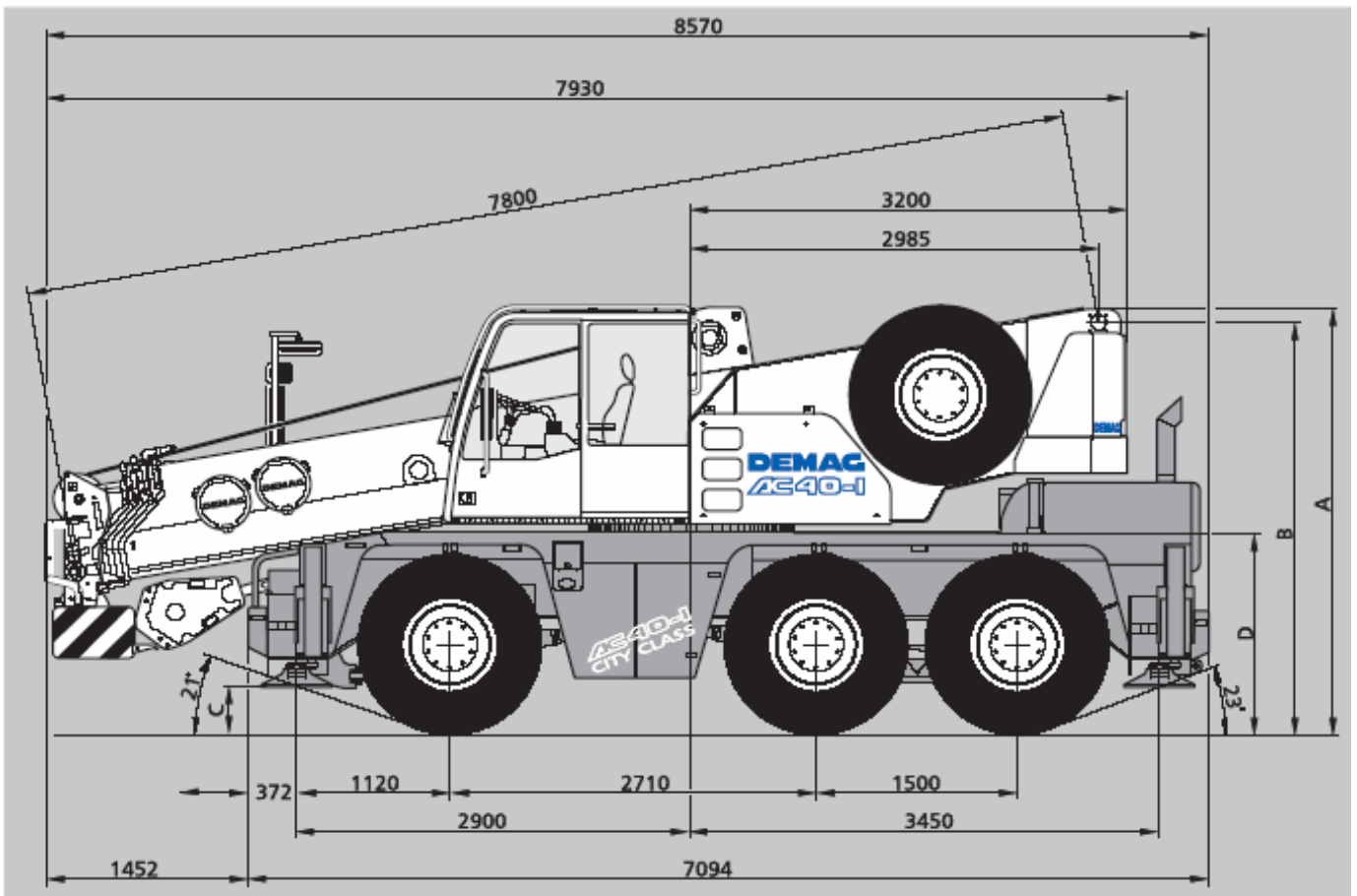
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# 40 Tonne DEMAG AC 40 "CITY CLASS" Mobile Crane

## Dimensions

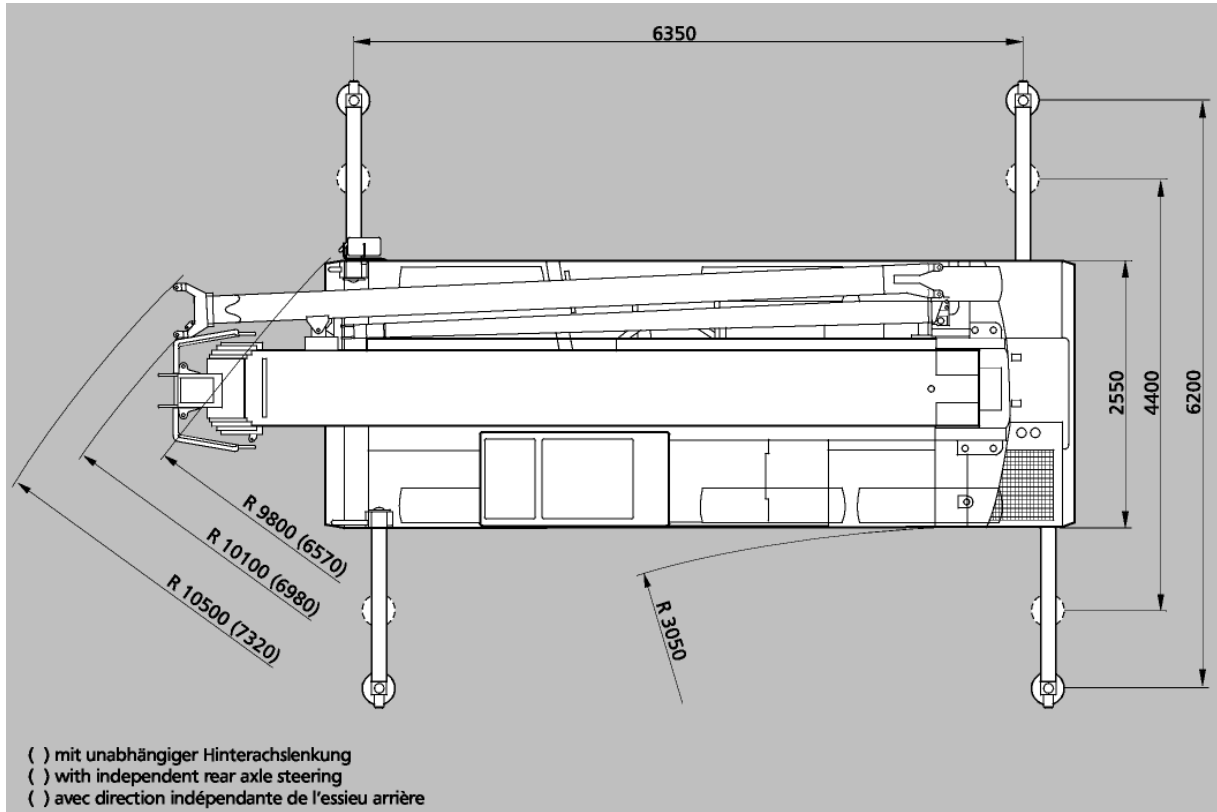
Type of tyres	Level	A	B	C	D
14.00	Road	3195	3085	340	1490
14.00	Lowered	3115	3005	260	1410
445 / 65	Road	3095	2985	240	1390
445 / 65	Lowered	2995	2885	140	1290



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# 40 Tonne DEMAG AC 40 "CITY CLASS" Mobile Crane

## Dimensions



# 40 Tonne DEMAG AC 40 "CITY CLASS" Mobile Crane

## Specifications

### Axle loads

Crane with main boom, 13.0 m main boom extension, counterweight, tyres 445/65 R 22.5, hook block

Axles	Axles 1	9 000 kg
	Axles 2+3	11 500 kg
<b>Total</b>		<b>32 000 kg</b>

### Working speeds (infinitely variable)

Mechanisms	Normal speed	High speed	Max. permissible line pull <sup>1)</sup>	Rope diameter / Rope length
Hoist I	60 m/min	115 m/min	43 kN	16 mm /150 m
Slewing Orientation				max. 2 <sup>1</sup> /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 <sup>2)</sup>

### Hook block / Single line hook

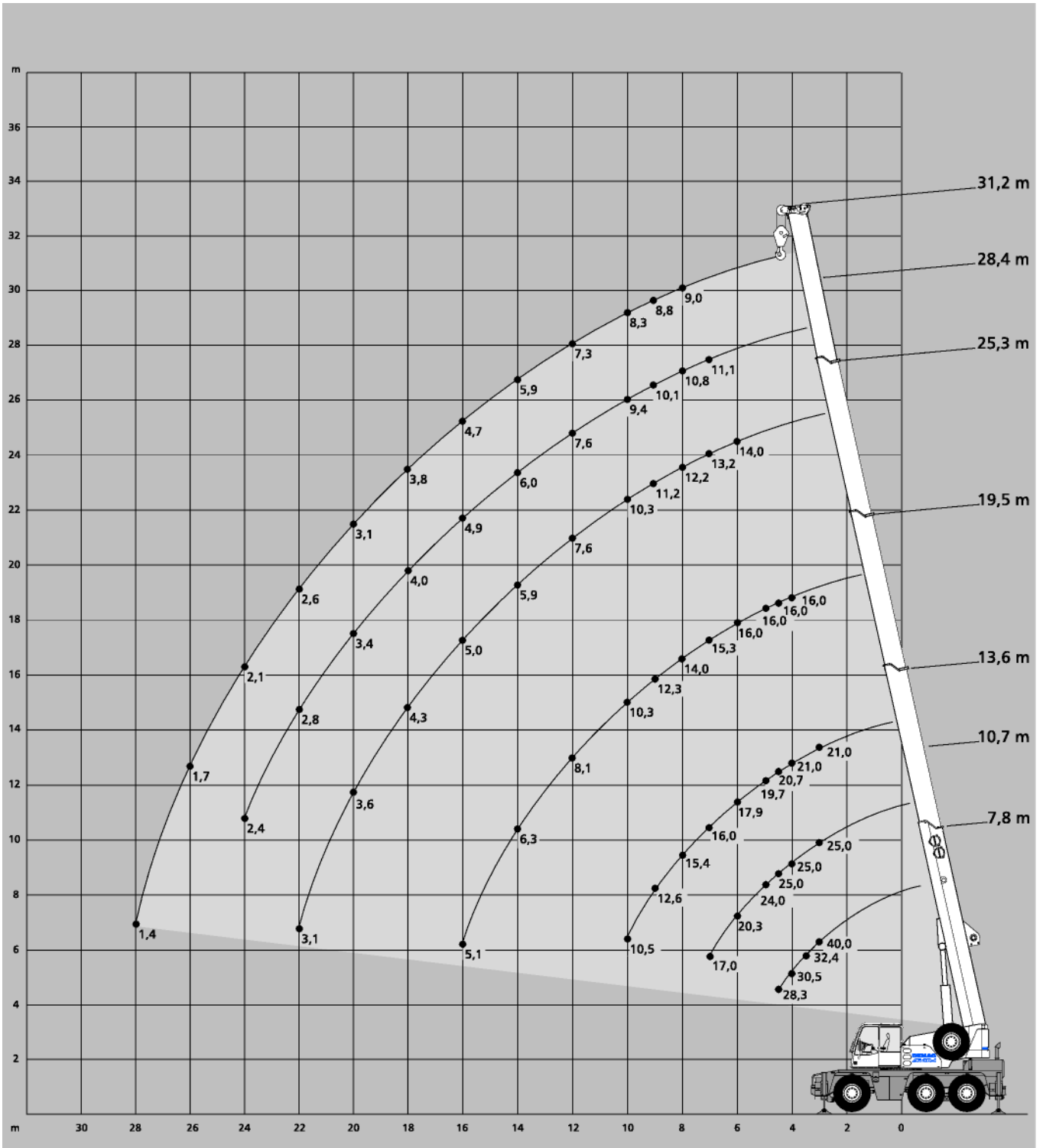
Type	Possible load <sup>1)</sup>	Number of sheaves	Weight	"D"	max. reeving	Heavy-lift attachment
63	50,0 t	6	480 kg	2,00 m	10	1 add. sheave
32	30,1 t	3	325 kg	1,30 m	17	
16	12,9 t	1	250 kg	1,10 m	13	
15	14,3 t	Single line hook	130 kg	0,80 m	11	

### **Remarks**

- 1) varies depending on national regulations
- 2) depending on type of tyres

# 40 Tonne DEMAG AC 40 "CITY CLASS" Mobile Crane

## Working Ranges Main Boom



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# 40 Tonne DEMAG AC 40 "CITY CLASS" Mobile Crane

## Lifting capacities main boom

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

6,35 x 2,34 m 360°		DIN/ISO				360°**		DIN/ISO					
Ausladung Radius	Hauptausleger · Main boom · Flèche principale						Hauptausleger · Main boom · Flèche principale						
Portée	m	7,8	10,7	13,6	19,5					m			
m						7,8	10,7	13,6			m		
t	t	t	t	t	t	t	t	t			t		
4		11,8	11,2	12,6	12,9					-	-	-	4
4,5		9,8	9,2	10,5	10,8					5,9	5,4	6,6	4,5
5		-	7,7	8,9	9,2					-	4,7	5,8	5
6		-	5,7	6,7	7,0					-	3,6	4,7	6
7		-	4,3	5,3	5,5					-	2,8	3,8	7
8		-	-	4,3	4,5					-	-	3,1	8
9		-	-	3,6	3,8					-	-	2,6	9
10		-	-	3,0	3,2					-	-	2,2	10
12		-	-	-	2,3					-	-	-	12
14		-	-	-	1,7					-	-	-	14
16		-	-	-	1,3					-	-	-	16
Traglast · Capacities Charges <sup>1)</sup>		8,0	2,8	2,1	-			4,8	1,9	1,3	Traglast · Capacities Charges <sup>1)</sup>		

### Remarks

\* 0° over rear

\*\* only stationary

1) with horizontal boom

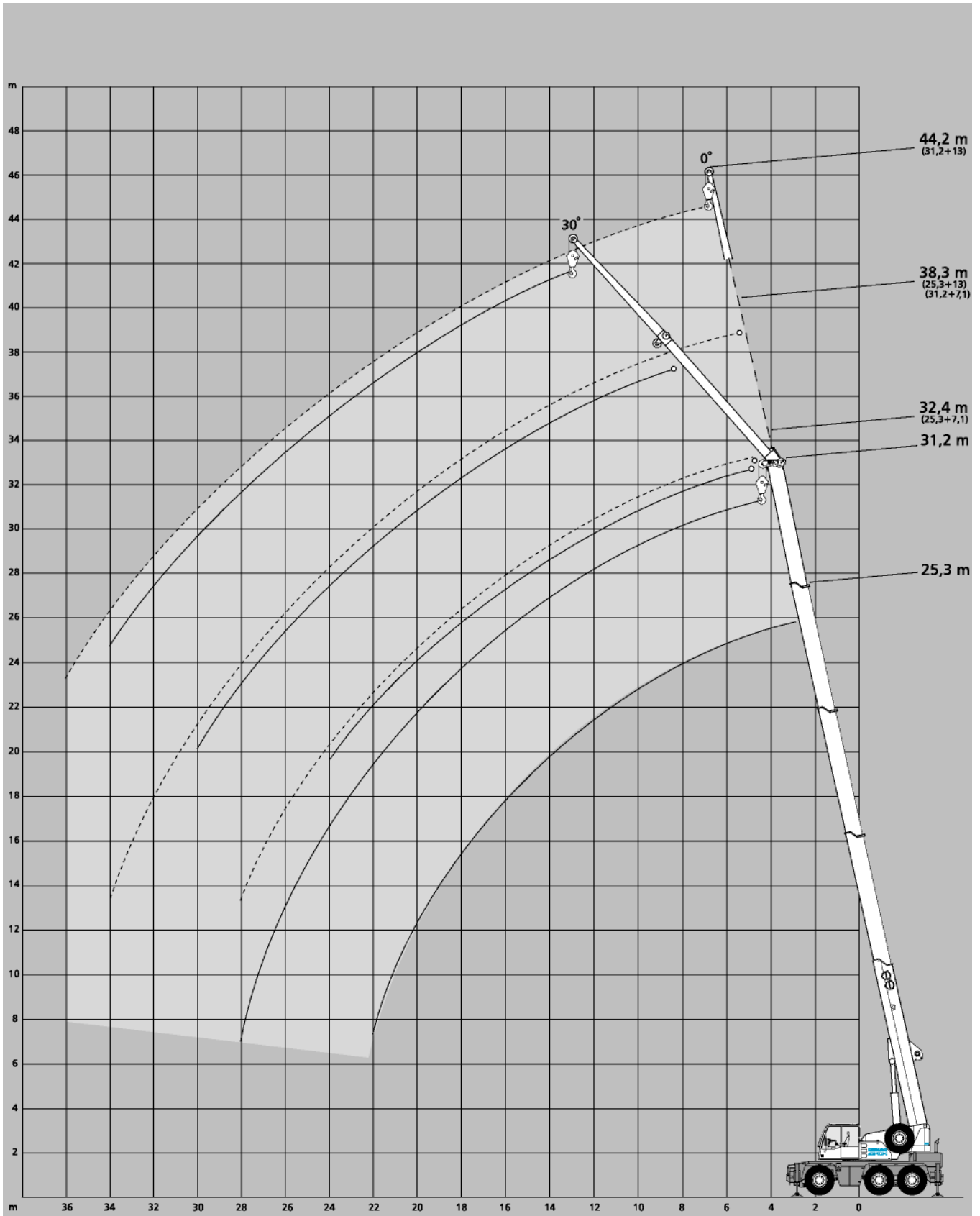
# 40 Tonne DEMAG AC 40 "CITY CLASS" Mobile Crane

## Lifting capacities main boom

6,35 x 4,40 m 360°										DIN/ISO
Ausladung Radius	Hauptausleger · Main boom · Flèche principale								Ausladung Radius	
Portée	m	7,8	10,7	13,6	19,5	25,3	28,4	31,2	Portée	
m		t	t	t	t	t	t	t	m	
3		34,3	25,0	21,0	-	-	-	-	3	
3,5		31,2	25,0	21,0	-	-	-	-	3,5	
4		28,3	25,0	21,0	16,0	-	-	-	4	
4,5		23,8	23,0	20,7	16,0	-	-	-	4,5	
5		-	18,4	18,0	16,0	-	-	-	5	
6		-	13,0	14,4	14,2	13,6	-	-	6	
7		-	9,8	11,1	11,4	10,9	10,8	-	7	
8		-	-	8,9	9,2	8,7	8,8	8,8	8	
9		-	-	7,3	7,6	7,7	7,4	7,2	9	
10		-	-	6,2	6,4	6,5	6,3	6,1	10	
12		-	-	-	4,8	4,9	4,7	4,5	12	
14		-	-	-	3,7	3,8	3,6	3,4	14	
16		-	-	-	3,0	3,0	2,8	2,7	16	
18		-	-	-	-	2,5	2,3	2,1	18	
20		-	-	-	-	2,1	1,8	1,7	20	
22		-	-	-	-	1,7	1,5	1,3	22	
24		-	-	-	-	-	1,2	1,0	24	
26		-	-	-	-	-	-	0,8	26	
28		-	-	-	-	-	-	0,6	28	
Traglast · Capacities Charges <sup>1)</sup>		20,0	7,0	5,2	2,5	1,5	0,8	-	Traglast · Capacities Charges <sup>1)</sup>	

# 40 Tonne DEMAG AC 40 "CITY CLASS" Mobile Crane



## Working ranges main boom extension





# 40 Tonne DEMAG AC 40 "CITY CLASS" Mobile Crane

## Lifting capacities main boom extension

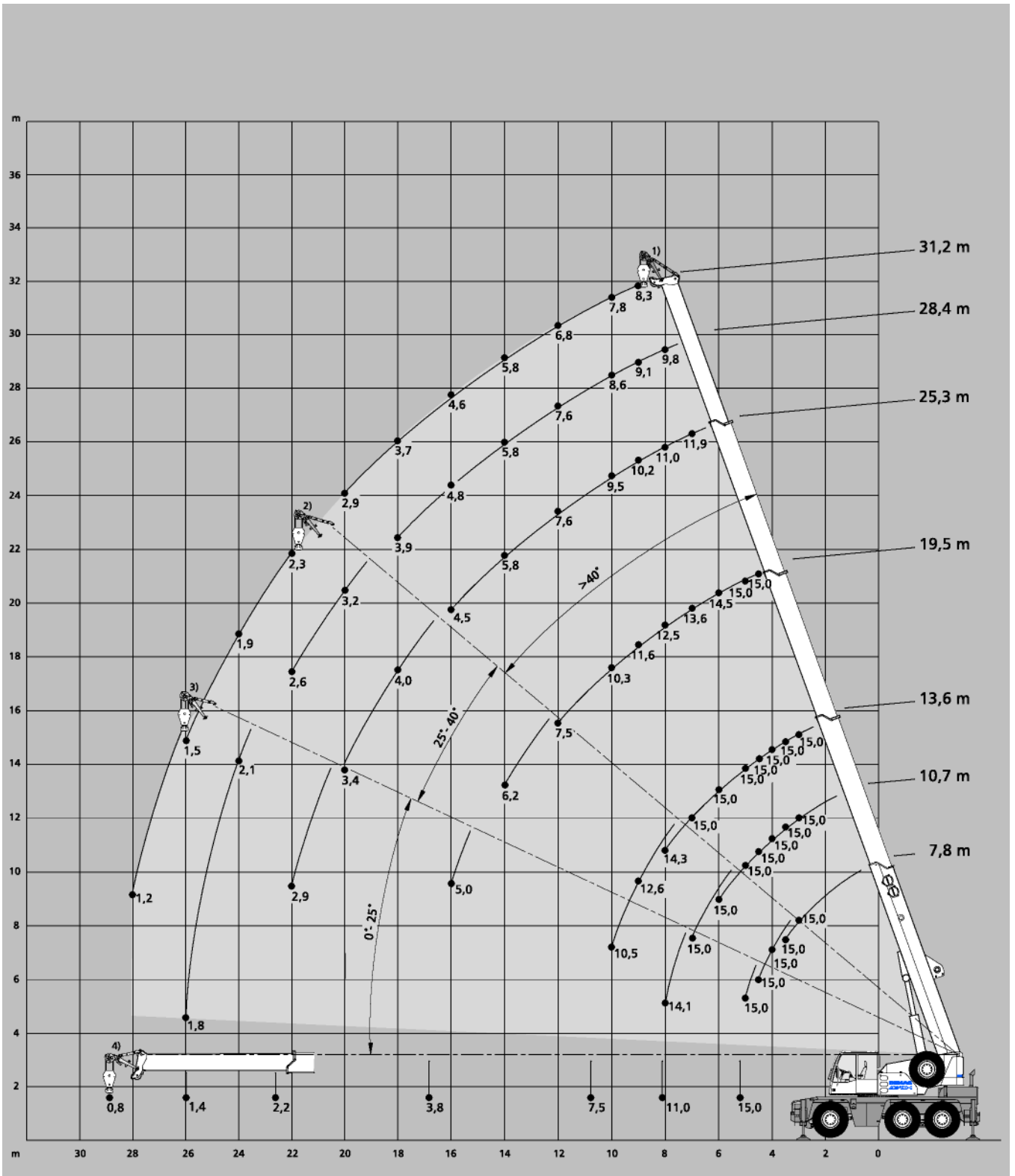
 <b>6,35 x 6,20 m</b> <b>360°</b> <b>DIN/ISO</b>					 <b>6,35 x 4,40 m</b> <b>360°</b> <b>DIN/ISO</b>				
<b>25,3 m Hauptausleger · Main boom · Flèche principale</b>					<b>25,3 m Hauptausleger · Main boom · Flèche principale</b>				
Ausladung Radius Portée	Verlängerung · Extension · Rallonge de flèche				Ausladung Radius Portée	Verlängerung · Extension · Rallonge de flèche			
	7,1 m		13,0 m			7,1 m		13,0 m	
	0°	30°	0°	30°		0°	30°	0°	30°
8	6,5	-	-	-	8	6,5	-	-	-
9	6,2	-	-	-	9	6,2	-	-	-
10	5,9	4,2	3,6	-	10	5,9	4,2	3,6	-
12	5,4	4,0	3,3	-	12	4,7	4,0	3,3	-
14	4,9	3,8	3,0	-	14	3,6	3,8	3,0	-
16	4,5	3,7	2,8	2,2	16	2,8	3,1	2,8	2,2
18	4,0	3,5	2,6	2,1	18	2,3	2,5	2,4	2,1
20	3,3	3,4	2,4	2,0	20	1,8	2,0	1,9	2,0
22	2,8	2,9	2,3	1,9	22	1,5	1,6	1,6	1,9
24	2,3	2,4	2,1	1,9	24	1,2	1,3	1,3	1,6
26	1,9	-	2,0	1,8	26	0,9	-	1,0	1,3
28	1,6	-	1,7	1,8	28	0,7	-	0,8	1,0
30	-	-	1,5	1,6	30	-	-	0,6	0,8
32	-	-	1,2	-	32	-	-	-	-
34	-	-	1,0	-	34	-	-	-	-
36	-	-	-	-	36	-	-	-	-
38	-	-	-	-	38	-	-	-	-

<b>31,2 m Hauptausleger · Main boom · Flèche principale</b>					<b>31,2 m Hauptausleger · Main boom · Flèche principale</b>				
m	t	t	t	t	m	t	t	t	t
8	-	-	-	-	8	-	-	-	-
9	-	-	-	-	9	-	-	-	-
10	5,0	-	-	-	10	5,0	-	-	-
12	4,8	3,9	3,0	-	12	4,6	3,9	3,0	-
14	4,6	3,7	2,9	-	14	3,5	3,7	2,9	-
16	4,4	3,5	2,8	-	16	2,8	3,1	2,8	-
18	4,0	3,3	2,7	2,1	18	2,2	2,5	2,3	2,1
20	3,3	3,1	2,5	2,0	20	1,7	2,0	1,8	2,0
22	2,7	2,9	2,4	1,9	22	1,4	1,6	1,5	1,8
24	2,2	2,4	2,2	1,9	24	1,1	1,3	1,2	1,5
26	1,8	2,0	1,9	1,8	26	0,8	1,0	0,9	1,2
28	1,5	1,6	1,6	1,8	28	0,6	0,7	0,7	1,0
30	1,2	1,3	1,3	1,6	30	-	-	-	0,7
32	0,9	-	1,1	1,3	32	-	-	-	-
34	0,7	-	0,9	1,0	34	-	-	-	-
36	-	-	0,7	-	36	-	-	-	-
38	-	-	-	-	38	-	-	-	-

# 40 Tonne DEMAG AC 40 "CITY CLASS" Mobile Crane

## Runner for workshop applications



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# 40 Tonne DEMAG AC 40 “CITY CLASS” Mobile Crane

## Lifting capacities runner

<b>6,35 m x 6,20 m</b> <b>360°</b>										DIN/ISO
Ausladung Radius		Hauptausleger · Main boom · Flèche principale								Ausladung Radius
Portée	m	7,8	10,7	13,6	19,5	25,3	28,4	31,2	Portée	
m	t	t	t	t	t	t	t	t	m	
3	15,0 <sup>1)</sup>	15,0 <sup>1)</sup>	15,0 <sup>1)</sup>	15,0 <sup>1)</sup>	-	-	-	-	3	
3,5	15,0 <sup>1)</sup>	15,0 <sup>1)</sup>	15,0 <sup>1)</sup>	15,0 <sup>1)</sup>	-	-	-	-	3,5	
4	15,0 <sup>2)</sup>	15,0 <sup>1)</sup>	15,0 <sup>1)</sup>	15,0 <sup>1)</sup>	-	-	-	-	4	
4,5	15,0 <sup>2)</sup>	15,0 <sup>1)</sup>	15,0 <sup>1)</sup>	15,0 <sup>1)</sup>	15,0 <sup>1)</sup>	-	-	-	4,5	
5	15,0 <sup>3)</sup>	15,0 <sup>1)</sup>	15,0 <sup>1)</sup>	15,0 <sup>1)</sup>	15,0 <sup>1)</sup>	-	-	-	5	
6	-	15,0 <sup>1)</sup>	15,0 <sup>1)</sup>	15,0 <sup>1)</sup>	14,5 <sup>1)</sup>	-	-	-	6	
7	-	15,0 <sup>2)</sup>	15,0 <sup>1)</sup>	15,0 <sup>1)</sup>	13,6 <sup>1)</sup>	11,9 <sup>1)</sup>	-	-	7	
8	-	14,1 <sup>3)</sup>	14,3 <sup>1)</sup>	14,3 <sup>1)</sup>	12,5 <sup>1)</sup>	11,0 <sup>1)</sup>	9,8 <sup>1)</sup>	-	8	
9	-	-	12,6 <sup>2)</sup>	11,6 <sup>1)</sup>	10,2 <sup>1)</sup>	9,1 <sup>1)</sup>	8,3 <sup>1)</sup>	-	9	
10	-	-	10,5 <sup>2)</sup>	10,3 <sup>1)</sup>	9,5 <sup>1)</sup>	8,6 <sup>1)</sup>	7,8 <sup>1)</sup>	-	10	
12	-	-	-	7,5 <sup>1)</sup>	7,6 <sup>1)</sup>	7,6 <sup>1)</sup>	6,8 <sup>1)</sup>	-	12	
14	-	-	-	6,2 <sup>2)</sup>	5,8 <sup>1)</sup>	5,8 <sup>1)</sup>	5,8 <sup>1)</sup>	-	14	
16	-	-	-	5,0 <sup>3)</sup>	4,5 <sup>1)</sup>	4,8 <sup>1)</sup>	4,6 <sup>1)</sup>	-	16	
18	-	-	-	-	4,0 <sup>2)</sup>	3,9 <sup>1)</sup>	3,7 <sup>1)</sup>	-	18	
20	-	-	-	-	3,4 <sup>2)</sup>	3,2 <sup>2)</sup>	2,9 <sup>1)</sup>	-	20	
22	-	-	-	-	2,9 <sup>3)</sup>	2,6 <sup>2)</sup>	2,3 <sup>2)</sup>	-	22	
24	-	-	-	-	-	2,1 <sup>3)</sup>	1,9 <sup>2)</sup>	-	24	
26	-	-	-	-	-	1,8 <sup>3)</sup>	1,5 <sup>2)</sup>	-	26	
28	-	-	-	-	-	-	1,2 <sup>3)</sup>	-	28	
Traglast · Capacities Charges <sup>4)</sup>		15,0 <sup>2+3)</sup>	11,0 <sup>2+3)</sup>	7,5 <sup>2+3)</sup>	3,8 <sup>2+3)</sup>	2,2 <sup>2+3)</sup>	1,4 <sup>2+3)</sup>	0,8 <sup>2+3)</sup>	Traglast · Capacities Charges <sup>4)</sup>	

<b>6,35 m x 4,40 m</b> <b>360°</b>										DIN/ISO
Ausladung Radius		Hauptausleger · Main boom · Flèche principale								Ausladung Radius
Portée	m	7,8	10,7	13,6	19,5	25,3	28,4	31,2	Portée	
m	t	t	t	t	t	t	t	t	m	
3	15,0 <sup>1)</sup>	15,0 <sup>1)</sup>	15,0 <sup>1)</sup>	15,0 <sup>1)</sup>	-	-	-	-	3	
3,5	15,0 <sup>1)</sup>	15,0 <sup>1)</sup>	15,0 <sup>1)</sup>	15,0 <sup>1)</sup>	-	-	-	-	3,5	
4	15,0 <sup>2)</sup>	15,0 <sup>1)</sup>	15,0 <sup>1)</sup>	15,0 <sup>1)</sup>	-	-	-	-	4	
4,5	15,0 <sup>2)</sup>	15,0 <sup>1)</sup>	15,0 <sup>1)</sup>	15,0 <sup>1)</sup>	15,0 <sup>1)</sup>	-	-	-	4,5	
5	15,0 <sup>3)</sup>	15,0 <sup>1)</sup>	15,0 <sup>1)</sup>	15,0 <sup>1)</sup>	15,0 <sup>1)</sup>	11,0 <sup>1)</sup>	-	-	5	
6	-	13,3 <sup>1)</sup>	14,7 <sup>1)</sup>	14,4 <sup>1)</sup>	8,7 <sup>1)</sup>	-	-	-	6	
7	-	10,0 <sup>2)</sup>	11,2 <sup>1)</sup>	11,0 <sup>1)</sup>	7,2 <sup>1)</sup>	-	-	-	7	
8	-	7,9 <sup>3)</sup>	8,9 <sup>1)</sup>	9,2 <sup>1)</sup>	6,5 <sup>1)</sup>	8,7 <sup>1)</sup>	-	-	8	
9	-	-	7,4 <sup>2)</sup>	7,6 <sup>1)</sup>	4,8 <sup>1)</sup>	7,4 <sup>1)</sup>	7,2 <sup>1)</sup>	-	9	
10	-	-	6,2 <sup>2)</sup>	6,4 <sup>1)</sup>	3,7 <sup>1)</sup>	6,2 <sup>1)</sup>	6,0 <sup>1)</sup>	-	10	
12	-	-	-	4,7 <sup>1)</sup>	2,9 <sup>1)</sup>	4,6 <sup>1)</sup>	4,3 <sup>1)</sup>	-	12	
14	-	-	-	3,6 <sup>2)</sup>	2,4 <sup>2)</sup>	3,5 <sup>1)</sup>	3,3 <sup>1)</sup>	-	14	
16	-	-	-	2,9 <sup>3)</sup>	1,9 <sup>2)</sup>	2,7 <sup>1)</sup>	2,5 <sup>1)</sup>	-	16	
18	-	-	-	-	1,6 <sup>3)</sup>	2,1 <sup>1)</sup>	1,9 <sup>1)</sup>	-	18	
20	-	-	-	-	-	1,7 <sup>2)</sup>	1,5 <sup>1)</sup>	-	20	
22	-	-	-	-	-	1,3 <sup>2)</sup>	1,1 <sup>2)</sup>	-	22	
24	-	-	-	-	-	1,1 <sup>3)</sup>	0,8 <sup>2)</sup>	-	24	
26	-	-	-	-	-	0,8 <sup>3)</sup>	-	-	26	
28	-	-	-	-	-	-	-	-	28	
Traglast · Capacities Charges <sup>4)</sup>		15,0 <sup>2+3)</sup>	6,8 <sup>2+3)</sup>	4,8 <sup>2+3)</sup>	2,3 <sup>2+3)</sup>	1,2 <sup>2+3)</sup>	-	-	Traglast · Capacities Charges <sup>4)</sup>	

### Remarks

- 1) Working range – max. offset for runner
- 2) Working range – medium offset for runner
- 3) Working range – min. offset for runner
- 4) with horizontal boom

# 40 Tonne DEMAG AC 40 "CITY CLASS" Mobile Crane

## Technical description

### Carrier

Drive/steering	6 x 4 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.
Axles	Axle 1: with ext. planetary hubs, steering, transverse differential locks; axle 2: non-driving, steering for crab steer mode; axle 3: with ext. planetary hubs, steering for crab steer mode, transverse differential locks.
Suspension	Hydropneumatic suspension, blockable hydraulically.
Wheels and tyres	6 wheels fitted with 445/65 R 22.5 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 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.
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	Integrated into superstructure.
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, vertically adjustable operator's seat, controls and instrumentation for all crane movements, washer and interval control wiper for windscreen and roof window.
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.

### Optional equipment

Drive/steering	6 x 6 x 6.
Wheels and tyres	14.00 R 25 or 17.5 R 25.
Main boom extension	Side-folding 1 or 2-part jib, 7.1 m or 13.0 m. 0° and 30° offset.
Heavy-lift attachment	1 additional sheave on boom head.
Heavy-lift runner	1.20 m long, 3-sheave with several offset positions for working inside buildings.
Searcher hook	
Air-conditioning	
Cool box	

# 40 Tonne DEMAG AC 40 "CITY CLASS" Mobile Crane

## Notes to lifting capacity Conditions

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Ratings are in compliance with ISO 4305 and DI N 15019.2 (test load = 1.25 x suspended load + 0.1 x dead weight of boom reduced to boom point).

Weight of hook blocks and slings is part of the load, and is to be deducted from the capacity ratings.

Crane operation is permissible up to a  
wind pressure of ..... 60 N/m<sup>2</sup>


wind speed of ..... 9.8 m/s


Consult operation manual for further details.

Note: Data published herein is intended as a guide only and shall not be construed to warrant applicability for lifting purposes. Crane operation is subject to the computer charts and operation manual both supplied with the crane.

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## Key

 Lifting capacities on outriggers 360°

 free on wheels

