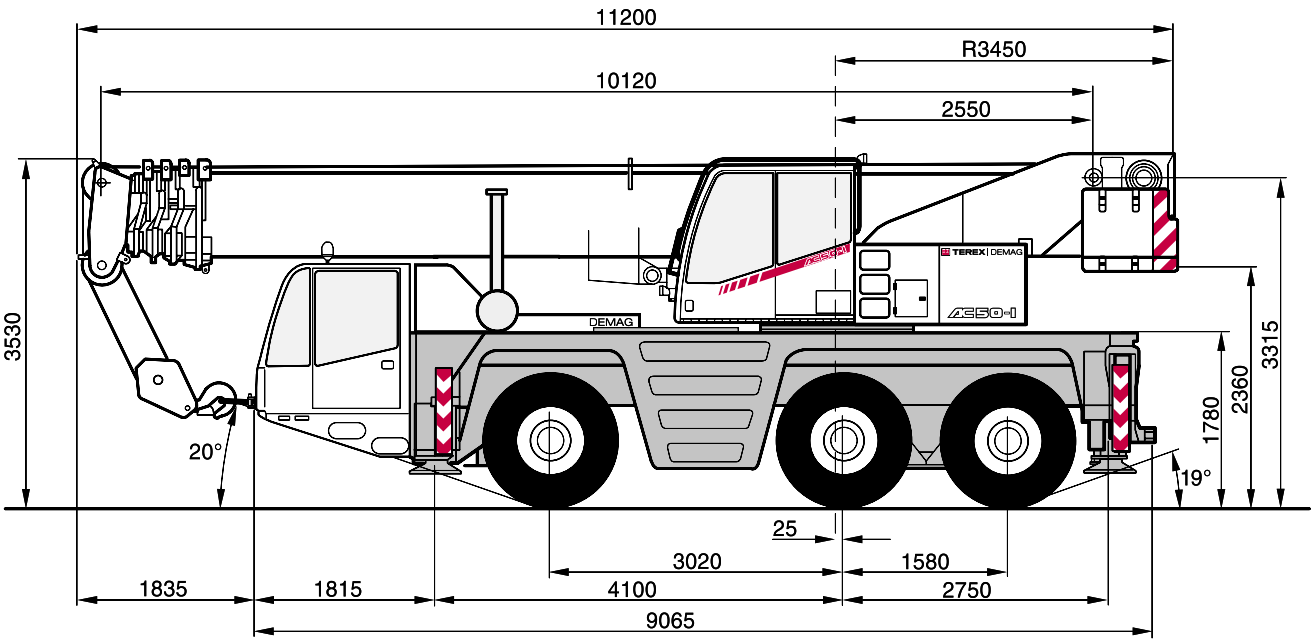
TERRANOVA GROUP

CRANES

DEMAG AC50

A 50t All Terrain Crane With
40 Metres Main Boom

DIMENSIONS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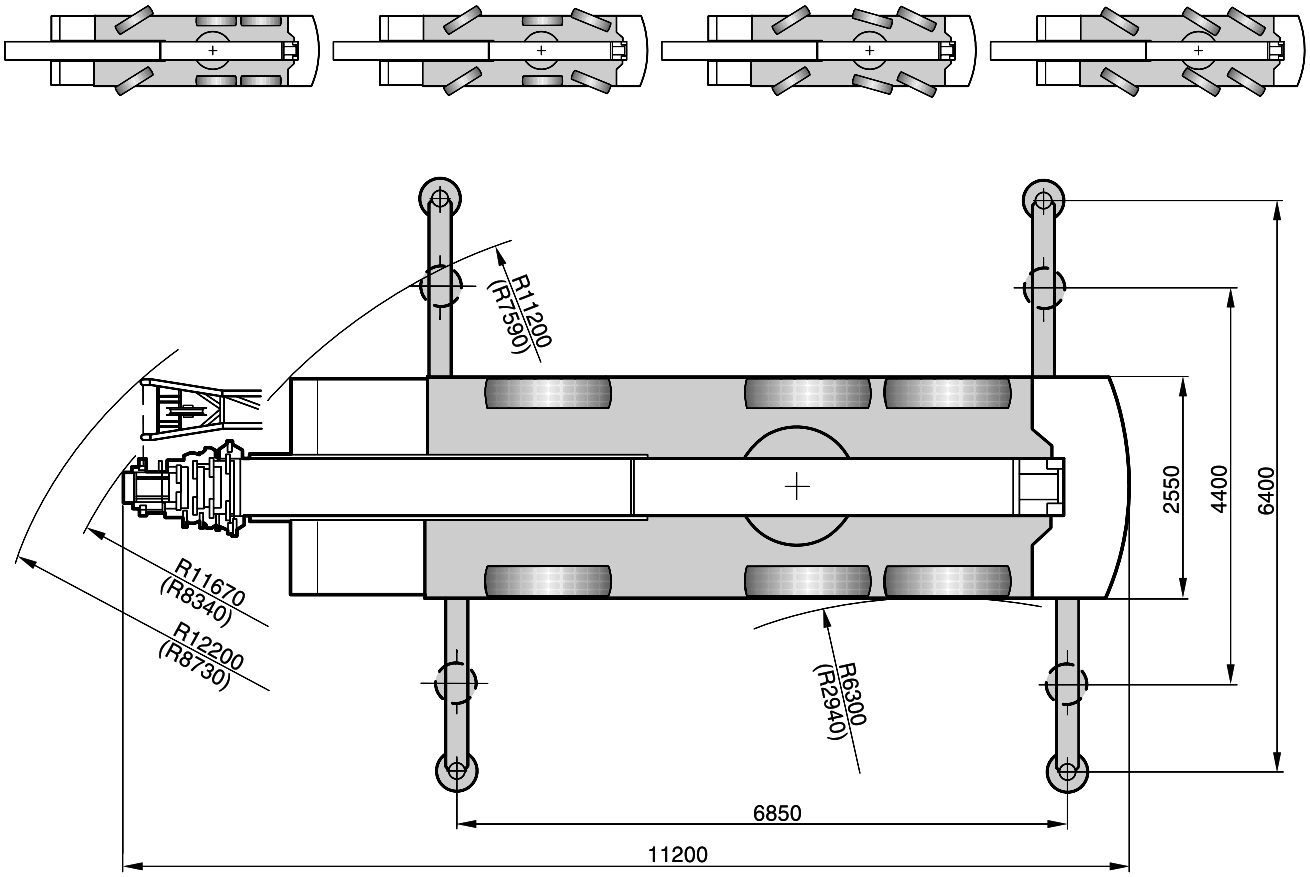
AC50-1



( ) with independent rear axle steering

Duties with reduced outrigger base on request

Terranova Group, 104 Mytchett Road, Camberley, Surrey< GU16 6ET
Telephone 01189 312345 : Fax 01189 314114

SPECIFICATIONS

AXLE LOADS

Crane with main boom, 9.2 m main boom extension, 7.5 t counterweight, tyres 14.00 R 25, single line hook ·

Axles	3 x 12 000 kg
Total	36 000 kg

WORKING SPEEDS (INFINITELY VARIABLE)

Mechanisms	Normal speed	High speed	Max. permissible line pull[1)]	Rope diameter / Rope length
Hoist I	60 m/min	125 m/min	43 kN	16 mm / 180 m
Hoist II	60 m/min	125 m/min	43 kN	16 mm / 180 m
Slewing				max. 0 – 1,7 1/min
Telescoping speed				10,1 – 40 m: 95 s
Boom elevation				–1,5° – +81,5°: 45 s

CARRIER PERFORMANCE

Travel speed	
Forward	0 . . 80 km/h
Reverse	0 . . 12,1 km/h
Gradeability in travel order	max. 45 %
Ground clearance	370 mm

HOOK BLOCK / SINGLE LINE HOOK

Type	Possible load[1)]	Number of sheaves	Weight	„D“	Number of lines	Heavy-lift attachment
63	50,0 t	6	480 kg	2,00 m	12	2 add. sheaves
32	30,1 t	3	370 kg	1,80 m	7	
16	12,9 t	1	250 kg	1,80 m	3	
5	4,3 t	Single line hook	130 kg	0,80 m	1	

Remarks

1) varies depending on national regulations

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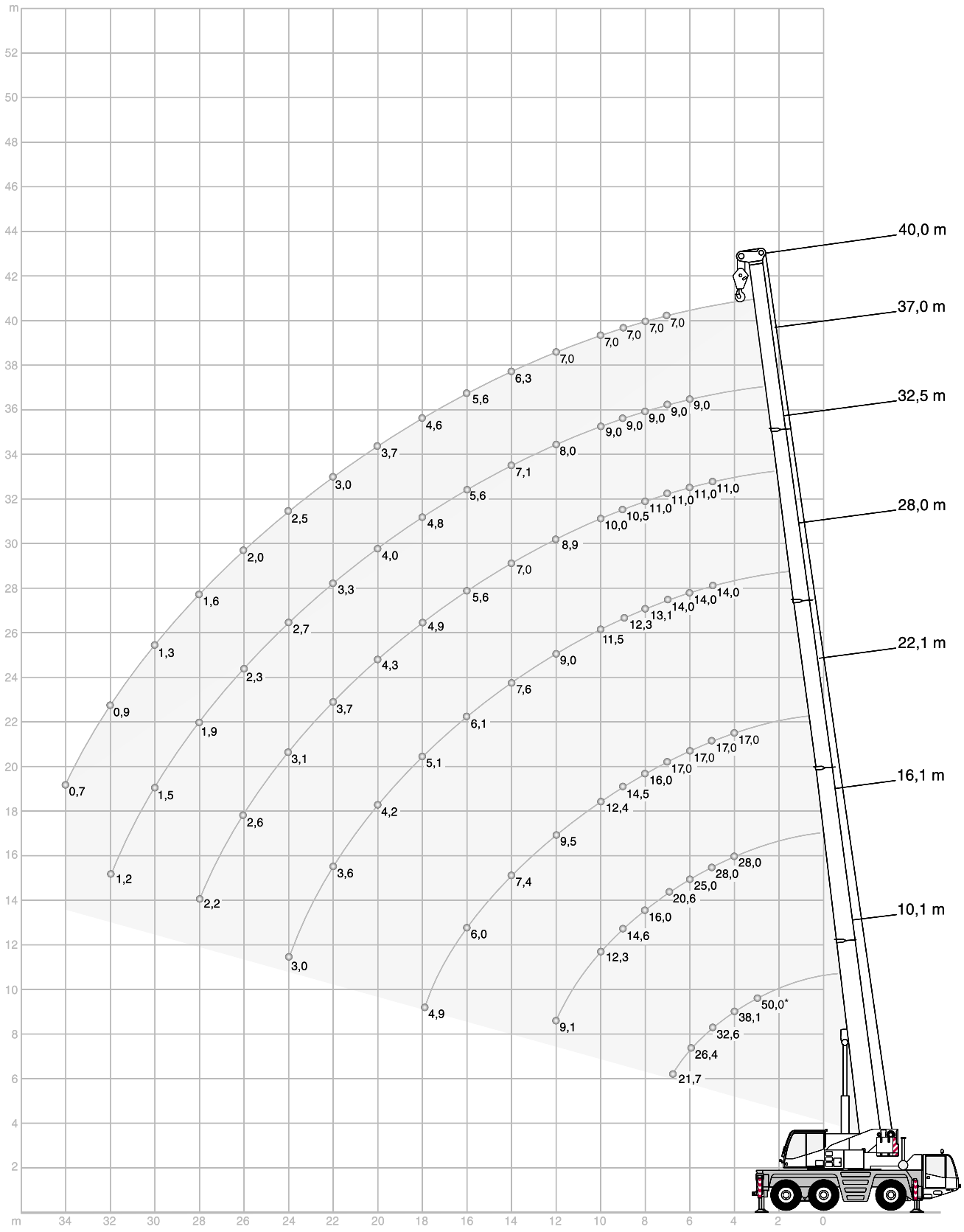
HA WORKING RANGES



* over rear

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HA LIFTING CAPACITIES

9,5 t | 6,85 m x 6,40 m | 360° | [1)] | **DIN/ISO**

Radius	Main boom									Radius
	10,1	**16,1**	**22,1**	**28,0**	**32,5**	**37,0**	**40,0**	**10,1**	**16,1**	
m	t	t	t	t	t	t	t	t	t	m
3	50,0*	-	-	-	-	-	-	-	-	3
3	45,7	-	-	-	-	-	-	15,4	-	3
3,5	41,6	28,0	-	-	-	-	-	13,9	14,5	3,5
4	38,1	28,0	17,0	-	-	-	-	12,6	13,2	4
4,5	35,2	28,0	17,0	14,0	-	-	-	11,5	12,1	4,5
5	32,6	28,0	17,0	14,0	11,0	-	-	10,4	11,1	5
6	26,4	25,0	17,0	14,0	11,0	9,0	-	7,9	8,6	6
7	21,7	20,6	17,0	14,0	11,0	9,0	7,0	6,2	6,8	7
8	-	16,0	16,0	13,1	11,0	9,0	7,0	-	5,5	8
9	-	14,6	14,5	12,3	10,5	9,0	7,0	-	4,6	9
10	-	12,3	12,4	11,5	10,0	9,0	7,0	-	3,8	10
12	-	9,1	9,5	9,0	8,9	8,0	7,0	-	2,8	12
14	-	-	7,4	7,6	7,0	7,1	6,3	-	-	14
16	-	-	6,0	6,1	5,6	5,6	5,6	-	-	16
18	-	-	4,9	5,1	4,9	4,8	4,6	-	-	18
20	-	-	-	4,2	4,3	4,0	3,7	-	-	20
22	-	-	-	3,6	3,7	3,3	3,0	-	-	22
24	-	-	-	3,0	3,1	2,7	2,5	-	-	24
26	-	-	-	-	2,6	2,3	2,0	-	-	26
28	-	-	-	-	2,2	1,9	1,6	-	-	28
30	-	-	-	-	-	1,5	1,3	-	-	30
32	-	-	-	-	-	1,2	0,9	-	-	32
34	-	-	-	-	-	-	0,7	-	-	34

7,5 t | 6,85 m x 6,40 m | 360° | [1)] | **DIN/ISO**

Radius	Main boom									Radius
m	**10,1**	**16,1**	**22,1**	**28,0**	**32,5**	**37,0**	**40,0**	**10,1**	**16,1**	
m	t	t	t	t	t	t	t	t	t	m
3	50,0*	-	-	-	-	-	-	-	-	3
3	45,6	-	-	-	-	-	-	15,4	-	3
3,5	41,5	28,0	-	-	-	-	-	13,9	14,5	3,5
4	38,1	28,0	17,0	-	-	-	-	12,6	13,2	4
4,5	35,1	28,0	17,0	14,0	-	-	-	10,8	11,7	4,5
5	31,6	28,0	17,0	14,0	11,0	-	-	9,2	10,0	5
6	25,5	24,8	17,0	14,0	11,0	9,0	-	6,9	7,6	6
7	19,6	18,6	17,0	14,0	11,0	9,0	7,0	5,4	6,0	7
8	-	16,0	16,0	13,1	11,0	9,0	7,0	-	4,8	8
9	-	13,3	13,1	12,3	10,5	9,0	7,0	-	4,0	9
10	-	11,1	11,5	11,0	10,0	9,0	7,0	-	3,3	10
12	-	8,2	8,6	8,7	8,2	8,0	7,0	-	2,3	12
14	-	-	6,6	6,8	6,3	6,3	6,3	-	-	14
16	-	-	5,3	5,5	5,5	5,2	4,8	-	-	16
18	-	-	4,3	4,5	4,5	4,2	3,8	-	-	18
20	-	-	-	3,7	3,7	3,4	3,0	-	-	20
22	-	-	-	3,1	3,1	2,8	2,4	-	-	22
24	-	-	-	2,6	2,6	2,2	1,9	-	-	24
26	-	-	-	-	2,2	1,8	1,5	-	-	26
28	-	-	-	-	1,8	1,4	1,2	-	-	28
30	-	-	-	-	-	1,1	0,8	-	-	30
32	-	-	-	-	-	0,8	-	-	-	32
34	-	-	-	-	-	-	-	-	-	34

Remarks

* over rear

[1)] free on wheels, 0° over rear

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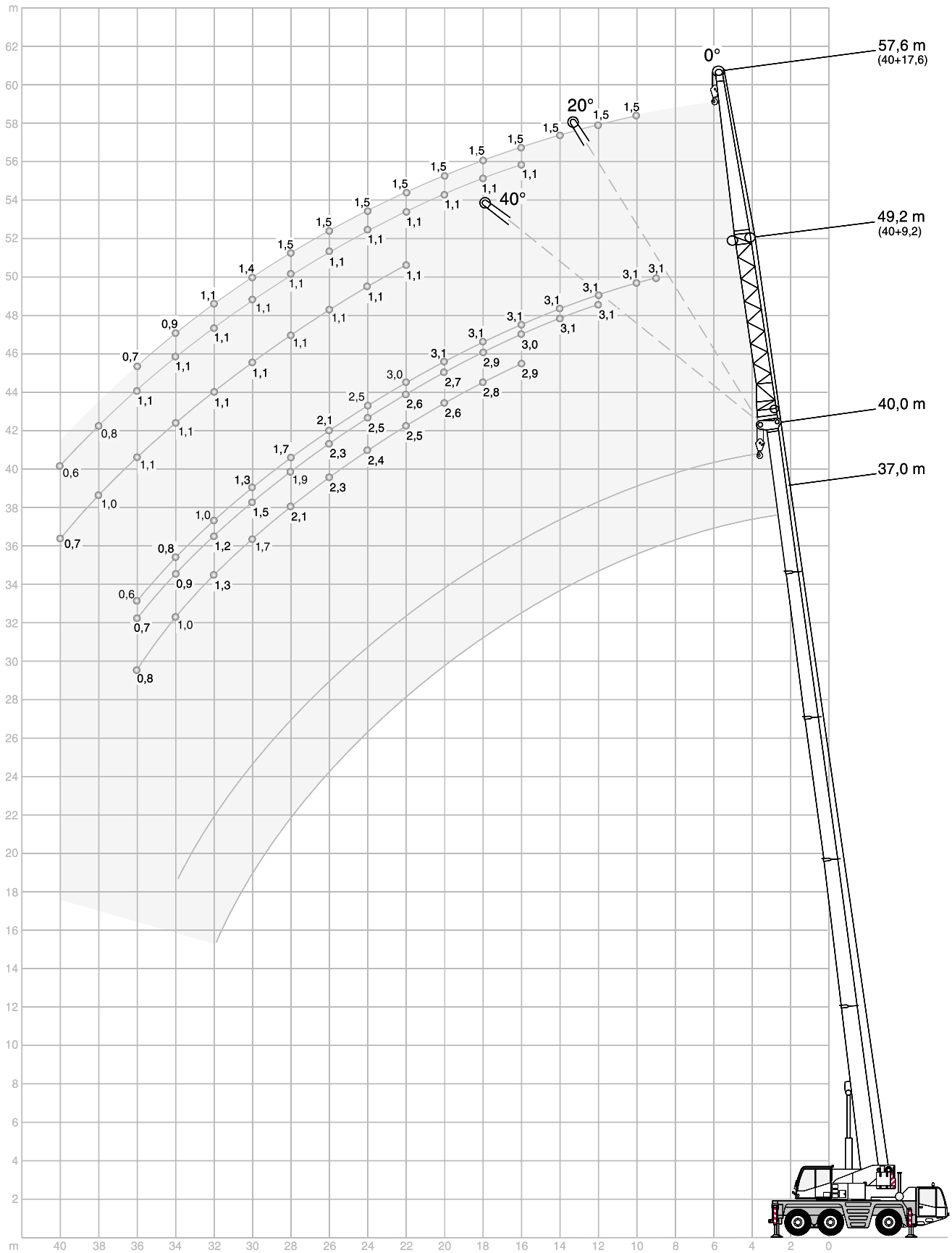
HAV WORKING RANGES



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HAV LIFTING CAPACITIES

9,5 t | 6,85 m x 6,40 m | 360° | **DIN/ISO**

37,0 m **Main boom**

Radius	Extension						
	9,2 m			17,6 m			
	0°	20°	40°	0°*	0°	20°	40°
m	t	t	t	t	t	t	t
8	4,1	-	-	-	-	-	-
9	4,1	-	-	-	-	-	-
10	4,1	-	-	-	1,8	-	-
12	4,1	3,7	-	-	1,8	-	-
14	4,0	3,5	3,2	-	1,8	-	-
16	3,9	3,4	3,1	-	1,8	1,8	-
18	3,7	3,2	3,0	-	1,8	1,7	-
20	3,5	3,1	2,9	-	1,8	1,6	-
22	3,1	2,9	2,8	-	1,7	1,6	1,5
24	2,6	2,8	2,8	-	1,7	1,5	1,5
26	2,1	2,4	2,5	-	1,6	1,5	1,4
28	1,7	1,9	2,1	-	1,5	1,4	1,4
30	1,4	1,6	1,7	-	1,5	1,4	1,3
32	1,1	1,2	1,4	-	1,2	1,3	1,3
34	0,8	1,0	1,1	-	1,0	1,3	1,2
36	0,6	0,7	-	-	0,8	1,0	1,2
38	-	-	-	-	-	0,8	1,0
40	-	-	-	-	-	0,6	0,8
42	-	-	-	-	-	-	-

40,0 m **Main boom**

Radius	Extension						
	9,2 m			17,6 m			
	0°	20°	40°	0°*	0°	20°	40°
m	t	t	t	t	t	t	t
9	3,1	-	-	-	-	-	-
10	3,1	-	-	1,5	1,1	-	-
12	3,1	3,1	-	1,5	1,1	-	-
14	3,1	3,1	-	1,5	1,1	-	-
16	3,1	3,0	2,9	1,5	1,1	1,1	-
18	3,1	2,9	2,8	1,5	1,1	1,1	-
20	3,1	2,7	2,6	1,5	1,1	1,1	-
22	3,0	2,6	2,5	1,5	1,1	1,1	1,1
24	2,5	2,5	2,4	1,5	1,1	1,1	1,1
26	2,1	2,3	2,3	1,5	1,1	1,1	1,1
28	1,7	1,9	2,1	1,5	1,1	1,1	1,1
30	1,3	1,5	1,7	1,4	1,1	1,1	1,1
32	1,0	1,2	1,3	1,1	1,1	1,1	1,1
34	0,8	0,9	1,0	0,9	0,9	1,1	1,1
36	0,6	0,7	0,8	0,7	0,7	1,0	1,1
38	-	-	-	-	-	0,8	1,0
40	-	-	-	-	-	0,6	0,7

7,5 t | 6,85 m x 6,40 m | 360° | **DIN/ISO**

37,0 m **Main boom**

Radius	Extension						
	9,2 m			17,6 m			
	0°	20°	40°	0°*	0°	20°	40°
m	t	t	t	t	t	t	t
8	4,1	-	-	-	-	-	-
9	4,1	-	-	-	-	-	-
10	4,1	-	-	-	1,8	-	-
12	4,1	3,7	-	-	1,8	-	-
14	4,0	3,5	3,2	-	1,8	-	-
16	3,9	3,4	3,1	-	1,8	1,8	-
18	3,7	3,2	3,0	-	1,8	1,7	-
20	3,3	3,1	2,9	-	1,8	1,6	-
22	2,7	2,9	2,8	-	1,7	1,6	1,5
24	2,1	2,4	2,7	-	1,7	1,5	1,5
26	1,7	2,0	2,1	-	1,6	1,5	1,4
28	1,3	1,6	1,7	-	1,5	1,4	1,4
30	1,0	1,2	1,4	-	1,2	1,4	1,3
32	0,8	0,9	1,0	-	0,9	1,3	1,3
34	-	0,7	0,8	-	0,7	1,0	1,2
36	-	-	-	-	-	0,8	1,0
38	-	-	-	-	-	0,6	0,7
40	-	-	-	-	-	-	-
42	-	-	-	-	-	-	-

40,0 m **Main boom**

Radius	Extension						
	9,2 m			17,6 m			
	0°	20°	40°	0°*	0°	20°	40°
m	t	t	t	t	t	t	t
9	3,1	-	-	-	-	-	-
10	3,1	-	-	1,5	1,1	-	-
12	3,1	3,1	-	1,5	1,1	-	-
14	3,1	3,1	-	1,5	1,1	-	-
16	3,1	3,0	2,9	1,5	1,1	1,1	-
18	3,1	2,9	2,8	1,5	1,1	1,1	-
20	3,1	2,7	2,6	1,5	1,1	1,1	-
22	2,6	2,6	2,5	1,5	1,1	1,1	1,1
24	2,1	2,4	2,4	1,5	1,1	1,1	1,1
26	1,7	1,9	2,1	1,5	1,1	1,1	1,1
28	1,3	1,5	1,7	1,4	1,1	1,1	1,1
30	1,0	1,2	1,3	1,1	1,1	1,1	1,1
32	0,7	0,9	1,0	0,8	0,9	1,1	1,1
34	-	0,7	0,8	0,6	0,6	1,0	1,1
36	-	-	-	-	-	0,7	1,0
38	-	-	-	-	-	-	0,7
40	-	-	-	-	-	-	-

Remarks

* Special length: main boom 38.4 m

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TECHNICAL DESCRIPTION

CARRIER

Drive / steering	6 x 4 x 2.
Frame	Monobox main frame with outrigger boxes integral, of high-strength fine-grain structural steel.
Outriggers	Four hydraulically telescoping outrigger beams with hydraulic jack legs.
Engine	DaimlerChrysler OM 926 LA, water-cooled 6-cylinder engine, output to DIN: 240 kW (326 HP) at 2200 ^{1}/min, max. torque 1300 Nm at 1300-1600 ^{1}/min, certified in compliance with EURO MOT 3a, Tier 3 and CARB. Fuel tank capacity: 335 l.
Transmission	Automated powershift transmission with torque-converter and integral transfer case, 6 speeds forward and 2 reverse, longitudinal differential lockout control.
Axles	Axle 1: with planetary hubs, steer, transverse differential lockout control; axle 2: non-drive, non-steer; axle 3: with planetary hubs, non-steer, transverse differential lockout control.
Suspension	Hydropneumatic suspension, all axles hydraulically blockable.
Wheels and tyres	6 disk-type wheels fitted with 14.00 R 25 tyres. Single wheels on all axles.
Steering	Dual-circuit hydraulic steering.
Brakes	Service brake: dual-line air system, acting on all wheels, ABS. Parking brake: spring-loaded type on axles 2 and 3. Sustained action brake: exhaust brake, constant choke valve, automatic downhill cruise control.
Electrical equipment	24 V system.
2-man driver's cab	Rubber-mounted all steel driver's cab with safety glazing, controls and instrumentation, air-sprung and heated driver's and passenger seat, vertically adjustable steering wheel, electrically adjustable and heated outside mirrors, rotaflare warning light, cruise control, air-conditioning as standard.

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	7.5 t fixed on superstructure.
Hydraulic system	Powered by carrier engine, 1 variable-displacement axial piston pump and separate fixed-displacement pump to allow 3 simultaneous, independent working movements.
Hoist	Fixed-displacement axial-piston motor, hoist drum with planetary reduction integral and spring-loaded multi-disk brake.
Slew unit	Hydraulic motor with planetary reduction, foot-pedal operated brake and spring-loaded holding brake.
Boom elevation	1 differential cylinder with automatically controlled lowering brake valve.
Crane cab	Spacious all-steel comfortable cab with sliding door and large hinged windscreen, tiltable 20°, roof window with armoured glass, full instrumentation and crane controls, working light. Self-contained hot water heater with timer, thermostat-controlled. Windscreen washer and intermittent control type windscreen wiper, air-conditioning as standard.
Operator aids	Electronic load indicator with 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.
Hydraulic servo control	Hydraulic pilot-control by self-centering control levers.

OPTIONAL EQUIPMENT

Drive / steering	6 x 6 x 6 + top-steer facility.
Wheels and tyres	16.00 R 25 (Note increased weight and width!).
Trailer coupling	For central axle trailers with max. 24 t total weight and ABS air hookup: D = 190; D_C = 155; V = 75.
Hoist II	Fixed-displacement axial piston motor, hoist drum with planetary reduction integral and spring-loaded multi-disk brake (avoids re-reeving of hoist line when using the optional jib). Installed with assist crane.
Main boom extension	Side-folding 1 or 2-part jib, 9.2 m or 17.6 m. 0°, 20° and 40° offset.
Additional counterweight	2.0 t.
Heavy-lift attachment	2 additional sheaves on boom head for duties over 34.4 t.
Heavy-lift runner	1.20 m long, 1-sheave.
Handling facility for additional counterweight	
Telma electric retarder	
Rooster sheave	1-sheave.

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