



AC 250-1 | All Terrain Crane 300 t Lifting Capacity

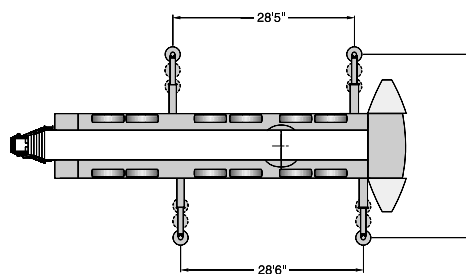
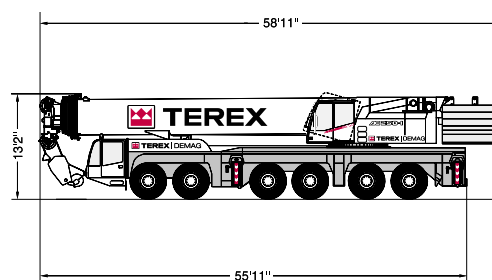
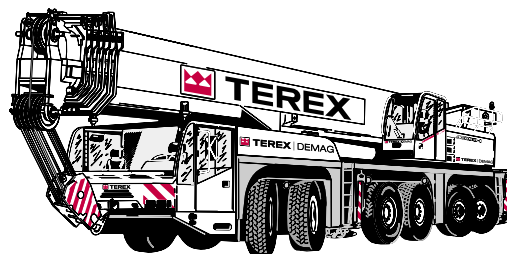


AC 250-1

ALL TERRAIN CRANE

AC 250-1 HIGHLIGHTS

- ▶ Longest main boom in its category with unequalled 262.5 ft
- ▶ Speed-dependent rear axle steering for increased manoeuvrability and driving stability
- ▶ Innovative Demag IC-1 crane control system with touchscreen
- ▶ Boom extension hydraulically offsettable under partial load up to 40°



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Main boom extension

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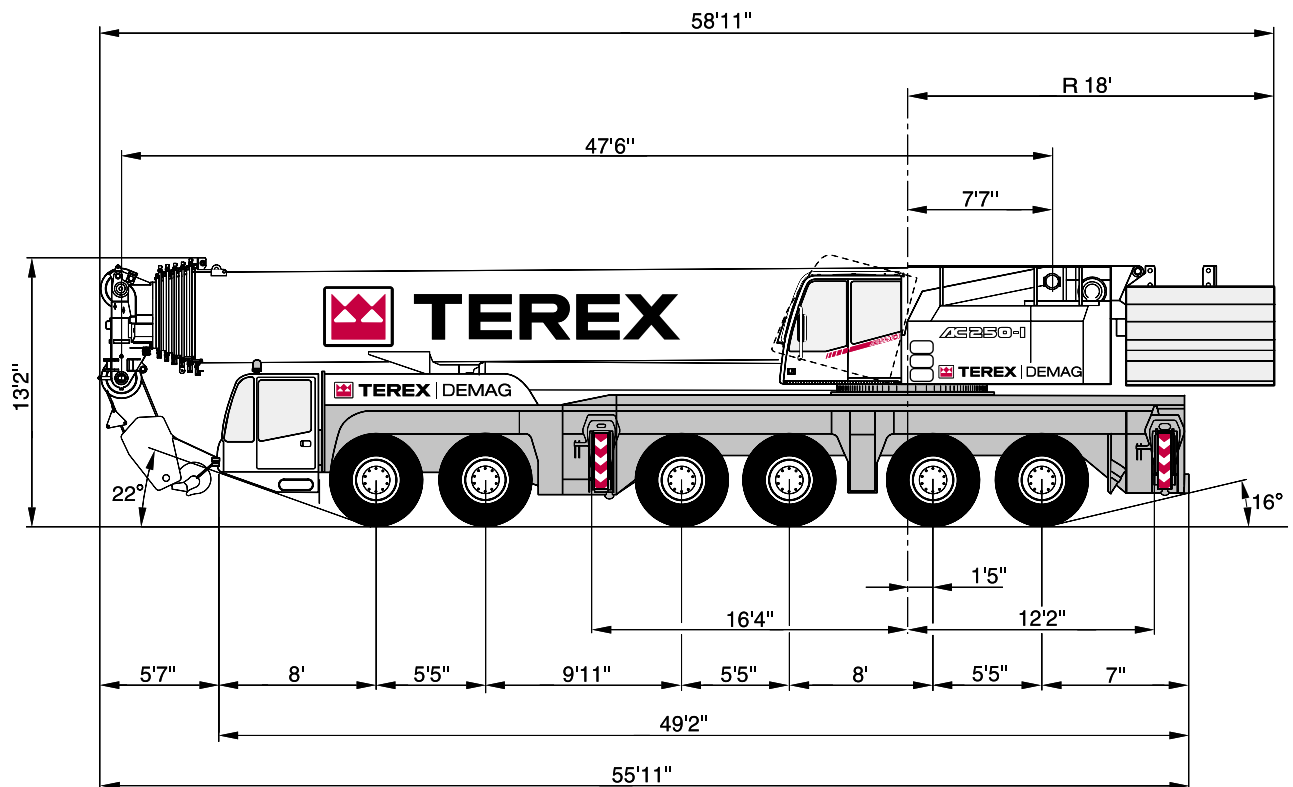
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Technical description

Carrier · Superstructure · Optional equipment	18
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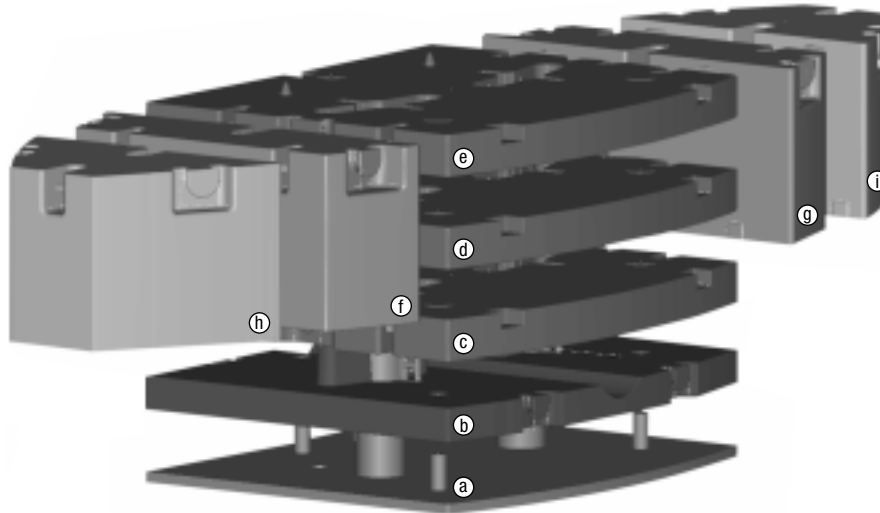
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DIMENSIONS

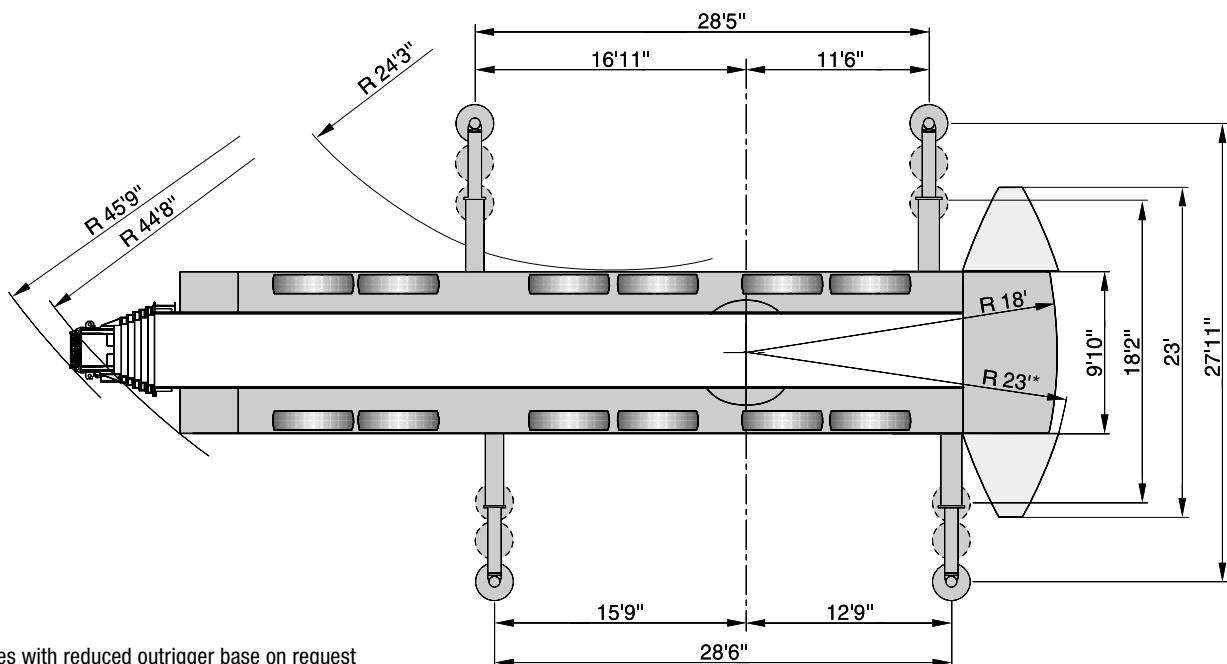


Dimensions based on 16.00 R 25 tires

DIMENSIONS



	Ⓐ 11,000 lb	Ⓑ 22,050 lb	Ⓒ 27,300 lb	Ⓓ 27,300 lb	Ⓔ 27,300 lb	Ⓕ 24,300 lb	Ⓖ 24,300 lb	Ⓗ 24,500 lb	Ⓘ 24,500 lb
0 lb									
11,000 lb	X								
33,100 lb	X	X							
38,400 lb	X		X						
60,400 lb	X	X	X						
88,000 lb	X	X	X	X					
115,300 lb	X	X	X	X	X				
164,000 lb	X	X	X	X	X	X	X		
164,300 lb	X	X	X	X	X			X	X
213,000 lb	X	X	X	X	X	X	X	X	X



Duties with reduced outrigger base on request



SPECIFICATIONS

AXLE LOADS

Basic machine with hook block, 16.00 R 25 tires

Axles

6 x 26,460 lb

Total

158,760 lb

WORKING SPEEDS (INFINITELY VARIABLE)

Mechanisms	Normal speed	High speed	Max. permissible line pull ¹⁾	Rope diameter / Rope length
Hoist I	197 ft / min	427 ft / min	25,850 lb	0.75' / 1,247 ft
Hoist II	197 ft / min	427 ft / min	25,850 lb	0.75' / 1,247 ft
Slewing				max. 1.0 ¹ /min
Boom elevation				-1,8° – +82°

CARRIER PERFORMANCE

Travel speed

0 . . 53 mph

Gradeability

max. 67 %

HOOK BLOCK / SINGLE LINE HOOK

Type	Possible load ¹⁾	Number of sheaves	Weight	„D“	Number of lines	Heavy-lift attachment
200 / 9	432,000 lb	9	4,400 lb	9.8 ft	18	* 1 add'l. sheave
160	343,000 lb	7	3,750 lb	9.8 ft	14	
125	273,200 lb	5	2,645 lb	9.8 ft	11	
80	176,400 lb	3	2,315 lb	9.8 ft	7	
40	77,600 lb	1	1,655 lb	8.9 ft	3	
12,5	26,000 lb	Single line hook	1,100 lb	6.6 ft	1	

Remarks

* on request

¹⁾ varies depending on national regulations

NOTES TO LIFTING CAPACITY

Ratings are in compliance with ISO 4305 and DIN 15019.2 (test load = 1.25 x suspended load + 0.1 x dead weight of boom head).
Lifting capacities do not exceed 85% of tipping load.

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

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.

KEY

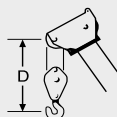


Counterweight



Lifting capacities on outriggers 360°

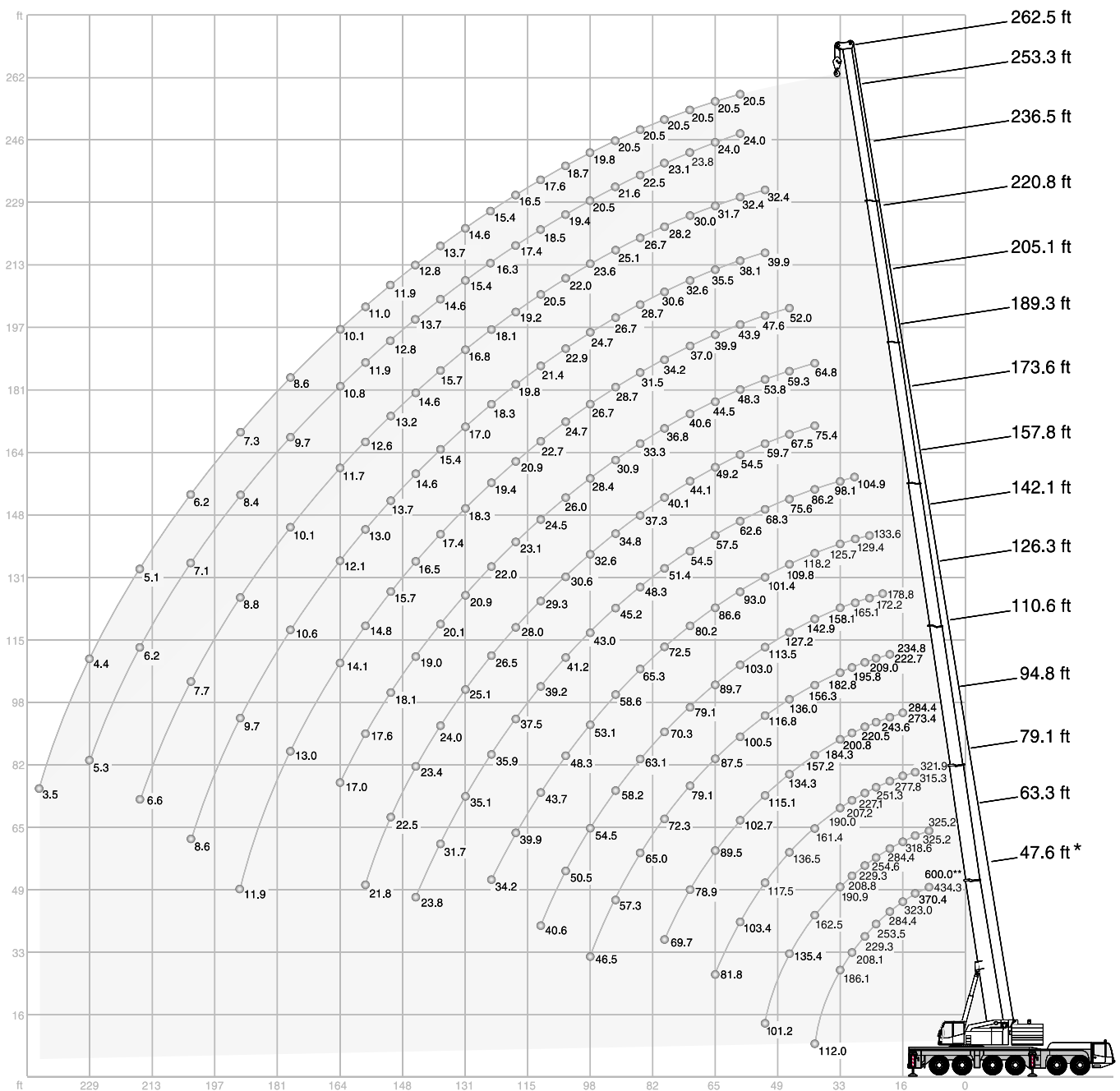
„D“



HA: Main boom

HAV: Main boom extension

HA WORKING RANGES



HA LIFTING CAPACITIES **213,000 lb** **360°****85 %**

		Main boom																
Radius	ft	47.6*	47.6	63.3	79.1	94.8	110.6	126.3	142.1	157.8	173.6	189.3	205.1	220.8	236.5	253.3	262.5	Radius
ft		1,000 lb																ft
	600.0**	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
10	434.3	331.8	325.2	-	-	-	-	-	-	-	-	-	-	-	-	-	-	10
12	400.1	331.8	325.2	-	-	-	-	-	-	-	-	-	-	-	-	-	-	12
13	370.4	331.8	325.2	321.9	-	-	-	-	-	-	-	-	-	-	-	-	-	13
15	345.0	331.8	318.6	321.9	-	-	-	-	-	-	-	-	-	-	-	-	-	15
16	323.0	323.0	318.6	315.3	284.4	-	-	-	-	-	-	-	-	-	-	-	-	16
20	284.4	284.4	284.4	277.8	273.4	234.8	-	-	-	-	-	-	-	-	-	-	-	20
23	253.5	253.5	254.6	251.3	243.6	222.7	178.8	-	-	-	-	-	-	-	-	-	-	23
26	229.3	229.3	229.3	227.1	220.5	209.0	172.2	133.6	-	-	-	-	-	-	-	-	-	26
30	208.1	208.1	208.8	207.2	200.8	195.8	165.1	129.4	104.9	-	-	-	-	-	-	-	-	30
33	186.1	186.1	190.9	190.0	184.3	182.8	158.1	125.7	98.1	-	-	-	-	-	-	-	-	33
39	112.0	112.0	162.5	161.4	157.2	156.3	142.9	118.2	86.2	75.4	64.8	-	-	-	-	-	-	39
46	-	-	135.4	136.5	134.3	136.0	127.2	109.8	75.6	67.5	59.3	52.0	-	-	-	-	-	46
53	-	-	101.2	117.5	115.1	116.8	113.5	101.4	68.3	59.7	53.8	47.6	39.9	32.4	-	-	-	53
59	-	-	-	103.4	102.7	100.5	103.0	93.0	62.6	54.5	48.3	43.9	38.1	32.4	24.0	20.5	-	59
66	-	-	-	81.8	89.5	87.5	89.7	86.6	57.5	49.2	44.5	39.9	35.5	31.7	24.0	20.5	-	66
72	-	-	-	-	78.9	79.1	79.1	80.2	54.5	44.1	40.6	37.0	32.6	30.0	23.8	20.5	-	72
79	-	-	-	-	69.7	72.3	70.3	72.5	51.4	40.1	36.8	34.2	30.6	28.2	23.1	20.5	-	79
85	-	-	-	-	-	65.0	63.1	65.3	48.3	37.3	33.3	31.5	28.7	26.7	22.5	20.5	-	85
92	-	-	-	-	-	57.3	58.2	58.6	45.2	34.8	30.9	28.7	26.7	25.1	21.6	20.5	-	92
98	-	-	-	-	-	46.5	54.5	53.1	43.0	32.6	28.4	26.7	24.7	23.6	20.5	19.8	-	98
105	-	-	-	-	-	-	50.5	48.3	41.2	30.6	26.0	24.7	22.9	22.0	19.4	18.7	-	105
112	-	-	-	-	-	-	40.6	43.7	39.2	29.3	24.5	22.7	21.4	20.5	18.5	17.6	-	112
118	-	-	-	-	-	-	-	39.9	37.5	28.0	23.1	20.9	19.8	19.2	17.4	16.5	-	118
125	-	-	-	-	-	-	-	34.2	35.9	26.5	22.0	19.4	18.3	18.1	16.3	15.4	-	125
131	-	-	-	-	-	-	-	-	35.1	25.1	20.9	18.3	17.0	16.8	15.4	14.6	-	131
138	-	-	-	-	-	-	-	-	31.7	24.0	20.1	17.4	15.4	15.7	14.6	13.7	-	138
144	-	-	-	-	-	-	-	-	23.8	23.4	19.0	16.5	14.6	14.6	13.7	12.8	-	144
151	-	-	-	-	-	-	-	-	-	22.5	18.1	15.7	13.7	13.2	12.8	11.9	-	151
158	-	-	-	-	-	-	-	-	-	21.8	17.6	14.8	13.0	12.6	11.9	11.0	-	158
164	-	-	-	-	-	-	-	-	-	-	17.0	14.1	12.1	11.7	10.8	10.1	-	164
177	-	-	-	-	-	-	-	-	-	-	-	13.0	10.6	10.1	9.7	8.6	-	177
190	-	-	-	-	-	-	-	-	-	-	-	11.9	9.7	8.8	8.4	7.3	-	190
203	-	-	-	-	-	-	-	-	-	-	-	-	8.6	7.7	7.1	6.2	-	203
217	-	-	-	-	-	-	-	-	-	-	-	-	-	6.6	6.2	5.1	-	217
230	-	-	-	-	-	-	-	-	-	-	-	-	-	-	5.3	4.4	-	230
243	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	3.5	-	243

Remarks

* with special attachment

** over rear



HA LIFTING CAPACITIES

115,500 lb

360°

85 %

		Main boom															
Radius	ft	47.6	63.3	79.1	94.8	110.6	126.3	142.1	157.8	173.6	189.3	205.1	220.8	236.5	253.3	262.5	Radius
ft		1,000 lb															ft
10		331.8	325.2	-	-	-	-	-	-	-	-	-	-	-	-	-	10
12		331.8	325.2	-	-	-	-	-	-	-	-	-	-	-	-	-	12
13		331.8	325.2	321.9	-	-	-	-	-	-	-	-	-	-	-	-	13
15		331.8	318.6	321.9	-	-	-	-	-	-	-	-	-	-	-	-	15
16		312.0	312.0	308.6	284.4	-	-	-	-	-	-	-	-	-	-	-	16
20		275.6	275.6	274.5	272.3	234.8	-	-	-	-	-	-	-	-	-	-	20
23		245.8	245.8	244.7	243.6	222.7	178.8	-	-	-	-	-	-	-	-	-	23
26		218.3	218.9	217.6	215.2	209.0	172.2	133.6	-	-	-	-	-	-	-	-	26
30		189.4	192.2	189.2	186.3	188.9	165.1	129.4	104.9	-	-	-	-	-	-	-	30
33		166.4	169.5	168.0	168.2	166.0	158.1	125.7	98.1	-	-	-	-	-	-	-	33
39		112.0	135.8	135.8	134.5	133.6	133.2	118.2	86.2	75.4	64.8	-	-	-	-	-	39
46		-	109.6	107.1	110.5	108.5	107.8	108.0	75.6	67.5	59.3	52.0	-	-	-	-	46
53		-	88.6	89.7	89.1	90.4	90.2	87.5	68.3	59.7	53.8	47.6	39.9	32.4	-	-	53
59		-	-	74.5	73.9	76.7	74.7	72.3	62.6	54.5	48.3	43.9	38.1	32.4	24.0	20.5	59
66		-	-	65.7	66.1	65.0	63.1	60.6	57.5	49.2	44.5	39.9	35.5	31.7	24.0	20.5	66
72		-	-	-	56.7	55.8	53.8	52.0	53.8	44.1	40.6	37.0	32.6	30.0	23.8	20.5	72
79		-	-	-	49.4	48.3	46.5	48.3	46.3	40.1	36.8	34.2	30.6	28.2	23.1	20.5	79
85		-	-	-	-	42.3	42.1	42.5	40.1	37.3	33.3	31.5	28.7	26.7	22.5	20.5	85
92		-	-	-	-	37.3	39.2	37.5	35.3	34.8	30.4	28.7	26.7	25.1	21.6	20.5	92
98		-	-	-	-	34.0	34.8	33.1	30.9	32.2	27.8	26.7	24.7	23.6	20.5	19.8	98
105		-	-	-	-	-	31.3	29.5	28.9	28.2	26.0	23.6	22.9	22.0	19.4	18.7	105
112		-	-	-	-	-	28.2	26.2	27.3	24.9	24.5	22.0	21.2	20.5	18.5	17.6	112
118		-	-	-	-	-	-	24.0	24.5	22.0	22.3	20.7	19.2	19.2	17.4	16.5	118
125		-	-	-	-	-	-	22.9	21.8	20.7	19.6	19.4	17.9	17.0	16.3	15.4	125
131		-	-	-	-	-	-	-	19.6	19.4	17.4	17.2	16.3	14.8	15.2	14.6	131
138		-	-	-	-	-	-	-	17.6	17.6	16.3	15.2	14.1	12.8	13.2	12.6	138
144		-	-	-	-	-	-	-	16.3	15.7	15.2	13.7	12.3	10.8	11.5	10.8	144
151		-	-	-	-	-	-	-	-	14.1	13.7	12.6	10.8	9.9	9.7	9.0	151
158		-	-	-	-	-	-	-	-	12.8	12.1	11.0	9.3	9.3	8.2	7.7	158
164		-	-	-	-	-	-	-	-	-	10.8	9.7	7.9	8.2	6.8	6.2	164
177		-	-	-	-	-	-	-	-	-	7.7	8.6	6.6	5.7	4.4	4.0	177
190		-	-	-	-	-	-	-	-	-	-	6.6	5.3	3.7	2.4	-	190
203		-	-	-	-	-	-	-	-	-	-	-	3.5	-	-	-	203

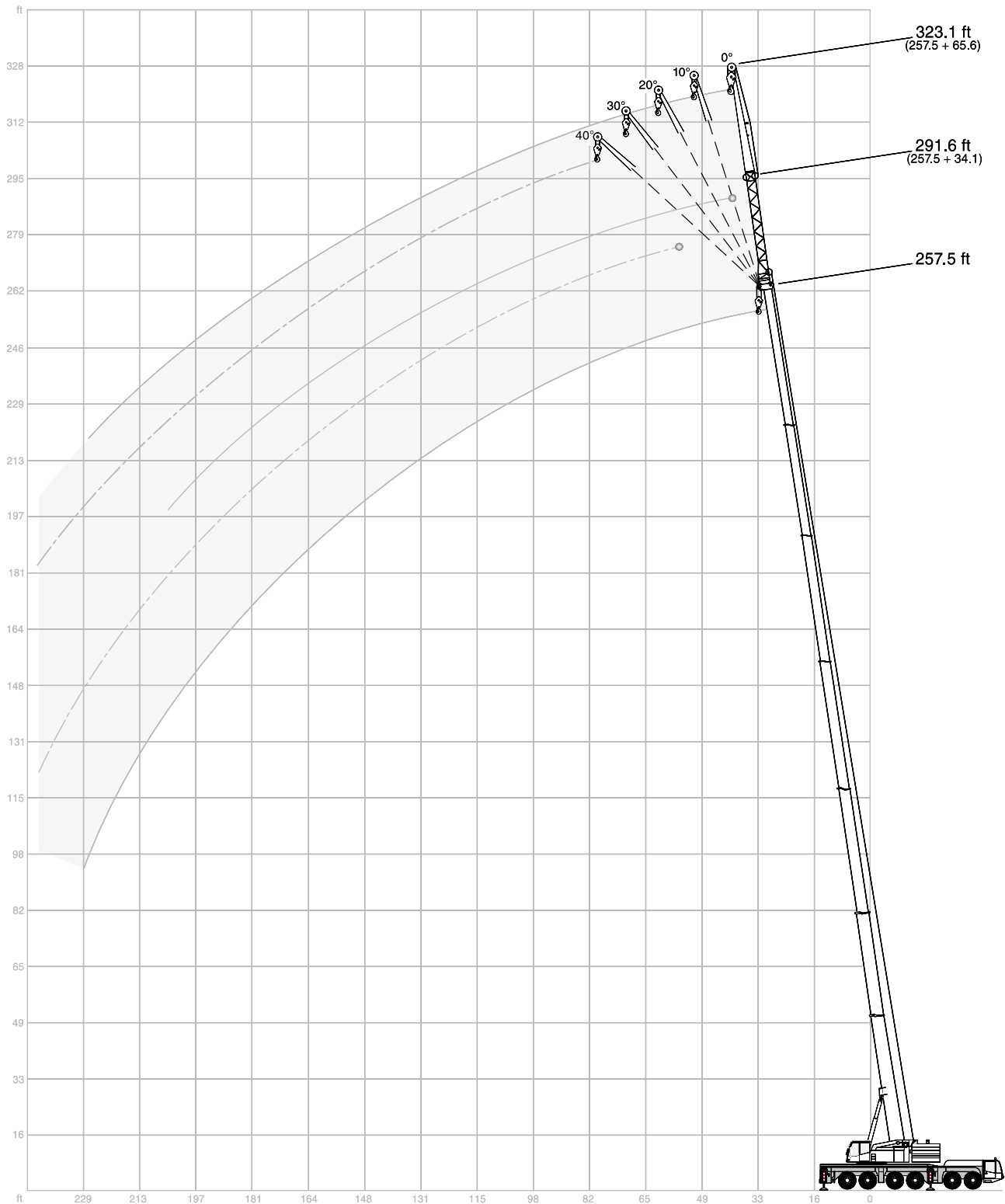
HA LIFTING CAPACITIES
 **14,600 lb**
 **360°**
85 %

Main boom																	Radius
Radius	ft	47.6	63.3	79.1	94.8	110.6	126.3	142.1	157.8	173.6	189.3	205.1	220.8	236.5	253.3	262.5	
ft	1,000 lb																ft
10	331.8	325.2	-	-	-	-	-	-	-	-	-	-	-	-	-	-	10
12	331.8	325.2	-	-	-	-	-	-	-	-	-	-	-	-	-	-	12
13	331.8	325.2	321.9	-	-	-	-	-	-	-	-	-	-	-	-	-	13
15	323.0	318.6	310.9	-	-	-	-	-	-	-	-	-	-	-	-	-	15
16	287.7	288.8	264.6	240.3	-	-	-	-	-	-	-	-	-	-	-	-	16
20	231.5	222.7	201.9	187.4	164.7	-	-	-	-	-	-	-	-	-	-	-	20
23	175.9	171.3	157.4	148.2	136.7	122.4	-	-	-	-	-	-	-	-	-	-	23
26	126.1	132.1	129.4	120.4	110.2	98.1	95.5	-	-	-	-	-	-	-	-	-	26
30	94.4	105.4	105.2	98.1	89.3	87.7	78.5	72.1	-	-	-	-	-	-	-	-	30
33	72.5	83.6	86.0	80.7	79.4	73.4	67.7	64.4	-	-	-	-	-	-	-	-	33
39	45.2	54.2	60.0	62.2	58.6	57.3	52.7	50.5	46.7	42.8	-	-	-	-	-	-	39
46	-	37.9	43.9	45.4	46.3	44.1	42.1	38.8	35.9	35.1	31.7	-	-	-	-	-	46
53	-	27.3	32.8	34.4	35.7	35.1	33.3	30.6	28.2	27.8	24.7	21.4	-	-	-	-	53
59	-	-	25.4	26.7	28.2	28.0	26.7	24.5	22.3	22.0	19.4	16.3	-	-	-	-	59
66	-	-	19.4	20.9	22.5	22.0	21.4	19.6	17.6	17.4	15.0	12.3	-	-	-	-	66
72	-	-	15.0	16.3	17.9	17.6	17.2	15.9	13.9	13.9	11.5	9.0	-	-	-	-	72
79	-	-	-	12.8	14.1	13.9	13.7	12.8	10.8	10.8	8.6	6.2	-	-	-	-	79
85	-	-	-	9.9	11.2	11.0	10.6	9.9	8.2	8.4	6.2	4.0	-	-	-	-	85
92	-	-	-	-	8.8	8.6	8.2	7.5	6.0	6.2	4.2	-	-	-	-	-	92
98	-	-	-	-	6.8	6.6	6.2	5.5	4.0	4.4	2.4	-	-	-	-	-	98
105	-	-	-	-	5.1	4.9	4.4	3.7	2.2	2.6	-	-	-	-	-	-	105
112	-	-	-	-	-	3.3	3.1	2.2	-	-	-	-	-	-	-	-	112
118	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	118

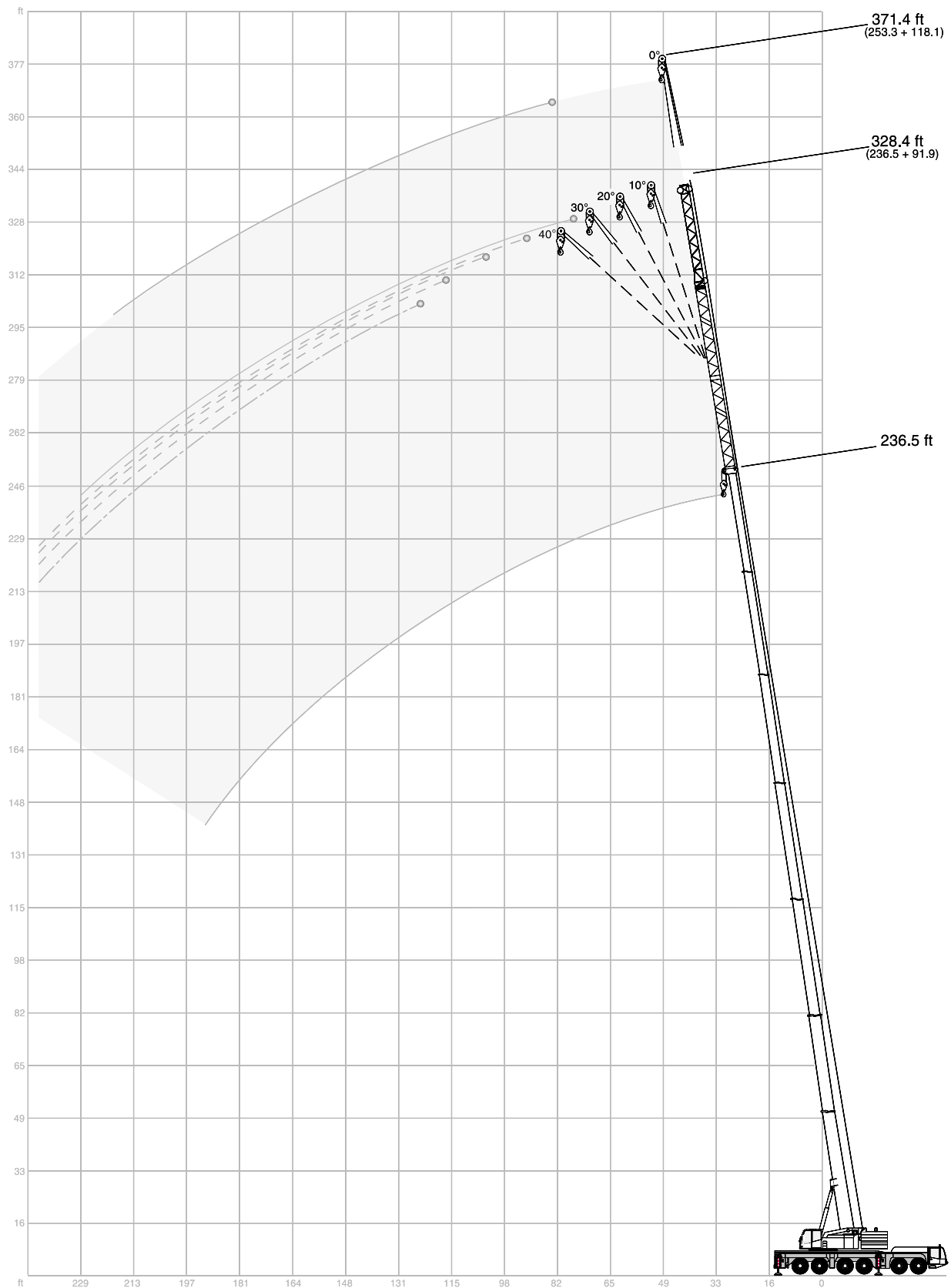
 **0 lb**
 **360°**
85 %

Main boom																		Radius
Radius	ft	47.6	63.3	79.1	94.8	110.6	126.3	142.1	157.8	173.6	189.3	205.1	220.8	236.5	253.3	262.5	Radius	
ft																	ft	
10	331.8	325.2	-	-	-	-	-	-	-	-	-	-	-	-	-	-	10	
12	331.8	325.2	-	-	-	-	-	-	-	-	-	-	-	-	-	-	12	
13	331.8	325.2	303.1	-	-	-	-	-	-	-	-	-	-	-	-	-	13	
15	312.0	300.9	254.6	-	-	-	-	-	-	-	-	-	-	-	-	-	15	
16	274.5	250.2	212.5	187.2	-	-	-	-	-	-	-	-	-	-	-	-	16	
20	200.2	179.2	157.4	145.9	127.9	-	-	-	-	-	-	-	-	-	-	-	20	
23	134.0	132.9	125.7	112.4	98.3	93.0	-	-	-	-	-	-	-	-	-	-	23	
26	92.6	103.6	97.0	87.7	84.4	75.6	70.5	-	-	-	-	-	-	-	-	-	26	
30	66.1	77.6	78.5	75.8	69.2	65.7	60.8	54.7	-	-	-	-	-	-	-	-	30	
33	48.7	58.6	64.8	63.1	60.2	55.6	51.6	46.5	-	-	-	-	-	-	-	-	33	
39	28.9	37.0	43.0	44.5	44.1	41.0	38.4	34.6	31.3	30.0	-	-	-	-	-	-	39	
46	-	24.9	30.2	31.5	33.1	31.3	29.3	26.2	23.6	22.7	19.4	-	-	-	-	-	46	
53	-	17.4	22.0	23.4	24.7	24.5	22.7	20.1	17.9	17.2	14.3	-	-	-	-	-	53	
59	-	-	16.5	17.6	19.0	18.7	17.6	15.4	13.4	13.0	10.6	-	-	-	-	-	59	
66	-	-	12.3	13.4	14.8	14.6	13.7	11.9	9.9	9.7	7.3	-	-	-	-	-	66	
72	-	-	9.5	10.4	11.5	11.2	10.6	9.0	7.1	6.8	4.6	-	-	-	-	-	72	
79	-	-	-	7.9	9.0	8.8	7.9	6.6	4.6	4.6	2.4	-	-	-	-	-	79	
85	-	-	-	5.5	6.8	6.4	6.0	4.4	2.6	2.6	-	-	-	-	-	-	85	
92	-	-	-	-	4.9	4.4	4.0	2.6	-	-	-	-	-	-	-	-	92	
98	-	-	-	-	3.1	2.9	2.4	-	-	-	-	-	-	-	-	-	98	
105	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	105	

HAV WORKING RANGES



HAV WORKING RANGES





TECHNICAL DESCRIPTION

CARRIER

Drive / Steering	12 x 8 x 10.
Frame	Torsion-resistant box girder frame fabricated from high-strength fine grain structural steel.
Outriggers	4 telescopic outriggers, fabricated from fine grain structural steel, fully hydraulic horizontal and vertical extension.
Engine	Water-cooled 8 cylinder DaimlerChrysler diesel engine OM 502 LA, rating 450 kW (612 HP) at 1800 1/min, torque 2700 Nm at 1300 1/min, certified in compliance with EURO MOT 3a, Tier 3 and CARB. Fuel tank capacity: 175 gallons (for carrier and superstructure).
Transmission	ZF AS-Tronic, electronically automated transmission with automatic clutch, 16 forward and 2 reverse speeds with integrated retarder, 2-range transfer case, cruise control.
Axles	Axles 2, 4, 5 and 6: driven, 1, 2, 3, 5 and 6: steering. Transverse differential lockout control on axles 2, 4, 5 and 6. Longitudinal lockout control on axles 4 and 5.
Suspension	Hydro-pneumatic suspension on all axles, hydraulically lockable for on-site travel.
Wheels and tires	12 wheels fitted with 16.00 R 25 tires (Michelin or Bridgestone).
Steering	12 x 10, ZF dual-circuit semiblock mechanical steering with hydraulic booster and mechanical steering limiter, speed-dependent steering, 5th and 6th axles provide for independent rear axle steering.
Brakes	To EC directives, sustained action brake: hydraulic retarder integrated into gearbox. Exhaust brake and constant choke valve, with ABS.
Electrical equipment	24 V system.
Driver's cab	Highly comfortable ergonomic cab with clearly arranged dashboard, rubber mounted steel cab, corrosion-resistant powder coating with 2-pack top coat. 9.8 ft ft wide, 2 comfortable seats, with pneumatically sprung and heated driver's seat incl. head and arm rests, and three-point seat belts, vertically adjustable steering wheel, safety glass used throughout, electric windows, heated and electrically adjustable mirrors, windscreen defroster fans, engine-dependent hot water heater, electric windscreen washer and wiper, roller blinds, radio with CD player, stowage compartment, air-conditioning.

SUPERSTRUCTURE

Engine	Water-cooled 6 cylinder DaimlerChrysler diesel engine OM 906 LA, rating 205 kW (279 HP) at 2200 1/min, torque 1100 Nm at 1200-1600 1/min, certified in compliance with EURO MOT 3a, Tier 3 and CARB. Fuel tank capacity: 13 gallons additional tank.
Hydraulic system	Two variable displacement axial piston pumps with automatic power control enabling the operator to engage four independent working movements simultaneously, separate pump for slewing. Hydraulic oil cooler included as standard.
Hoist	Axial-piston variable displacement motor, hoist drum with integrated planetary gear reducer, and spring-applied multi-disk brake. Hydraulic brake, drum rotation indicator.
Slew unit	Fixed displacement axial piston motor.
Boom elevation	1 differential cylinder with automatic lowering brake valve.
Crane cab	Highly comfortable cab with sliding door, roof window and large hinged windscreen, safety glass used throughout, sprung and hydraulically damped operator's seat with head and arm rests, wiper for windscreen and roof window, self-contained hot water heater with timer and 'Heizmatic' for sensitive heat flow control, dashboard with instrumentation and crane controls, e.g. drum rotation indicator for hoists I and II, load moment limiter, outrigger loading indicator, 2 working lights, air-conditioning. The crane cab can be tilted back hydraulically 18°.
Main boom	Boom base and 6 telescopic sections fabricated from fine grain structural steel, anti-deflection Demag Ovaloid profile.
Counterweight	213,000 lb hydraulically stowed on carrier.
Operator aids	Electronic load indicator with graphic display and touchscreen, digital readout for hook load, rated load, boom length and angle, radius, monitoring code to assist in trouble shooting, and analog display to indicate capacity utilization in %, integrated control system for boom telescoping, display for duty charts and theoretical and actual outrigger loading. Working range limitation to certain pre-defined slew angles, heights and radii („virtual walls“) included as standard.

OPTIONAL EQUIPMENT

Runner	5.4 ft, 2-sheaves.
Twist arrestor	To prevent the hoist ropes from twisting.
Heavy-lift attachment	1 additional sheave on boom head, max. lifting capacity 341,780 lb, 14 parts of line. The max. lifting capacity of the standard crane without heavy-lift attachment is 295,470 lb (6 sheaves on boom head).
Hoist 2	Technical data see hoist 1.
Emergency control	Interface for emergency control to recover small loads, transformer as option, with hydraulic motor and hydraulic pump available on request.
Warning light	For boom and attachments.
Rooster sheave	Sheave on boom head folding to the side of the boom, for single-line operation.
Wheels and tires	12 wheels fitted with 14.00 R 25 tires, 17.5 R 25 and 20.5 R 25.
Reversing camera	
Hydraulically luffing main boom extension	

The information contained in this brochure merely consists of general descriptions and a broad compilation of performance features which might not apply precisely as described under specific application conditions or which may change as a result of further product development. The desired performance features only become binding once expressly agreed in the final contract.

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.

Subject to change without notice.

09 / 06

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