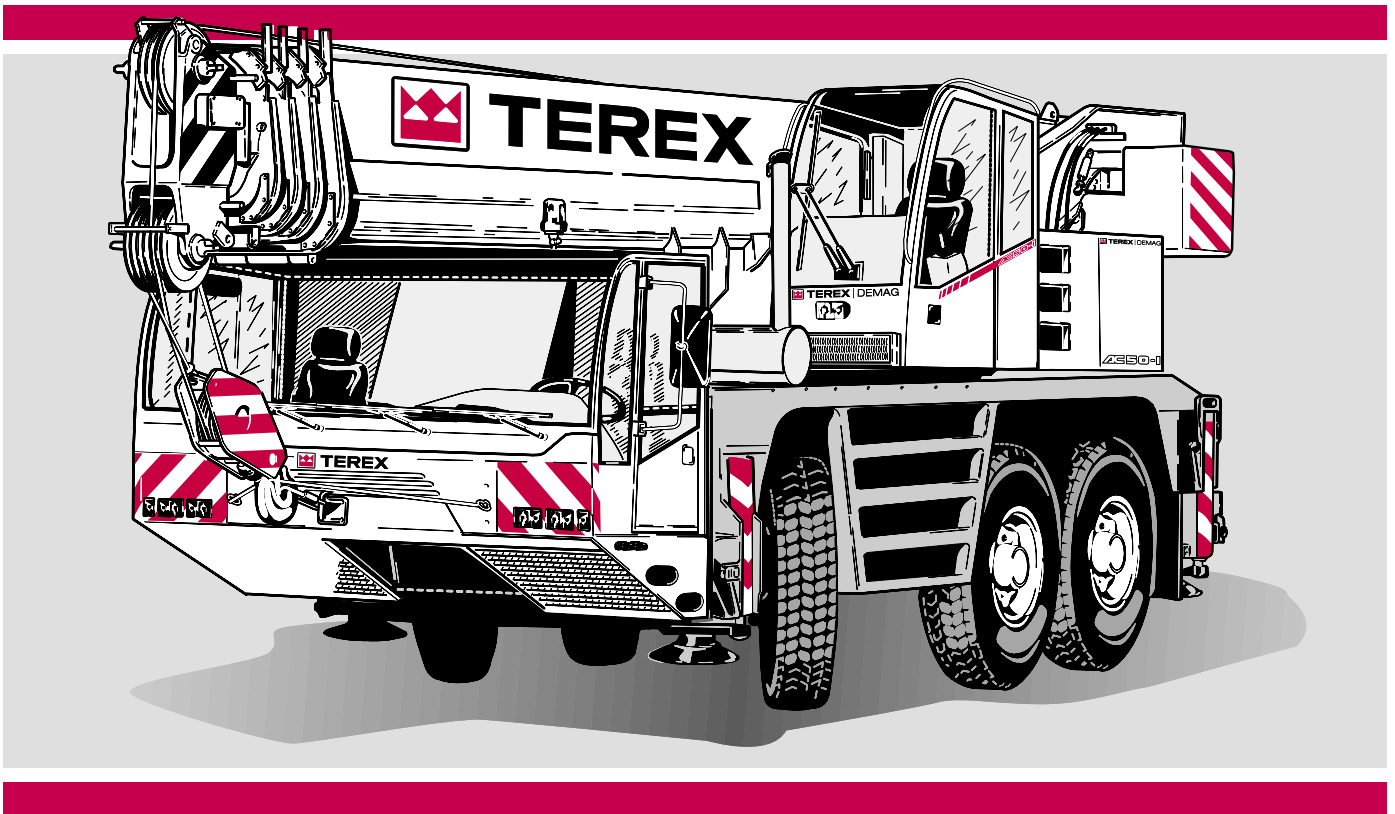


TEREX | DEMAG

AC 50-1



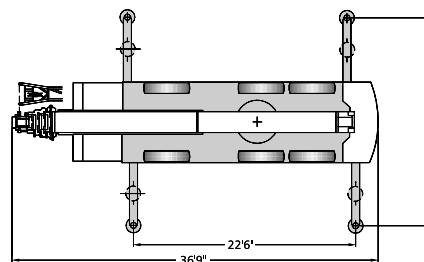
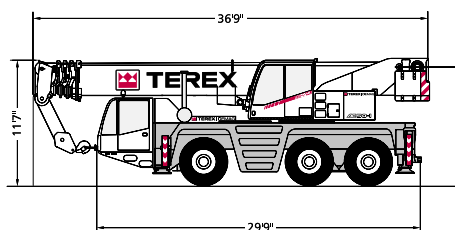
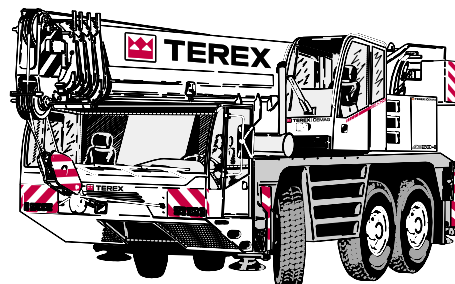
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AC 50-1

HIGHLIGHTS

- ▶ 131.2 ft main boom gives exceptional lifting capacity
- ▶ Roadable with 16,500 lb counterweight + 30.2 ft main boom extension, giving just 26,500 lb axle load
- ▶ Fully hydraulic boom system provides shortest telescoping times and enormous load telescoping capacity
- ▶ ABS, cruise control and automated transmission are standard features
- ▶ State-of-the-art super-soundproofed DaimlerChrysler engine technology type OM 926 LA
- ▶ 8.4 ft overall width with 14" and 16" tires

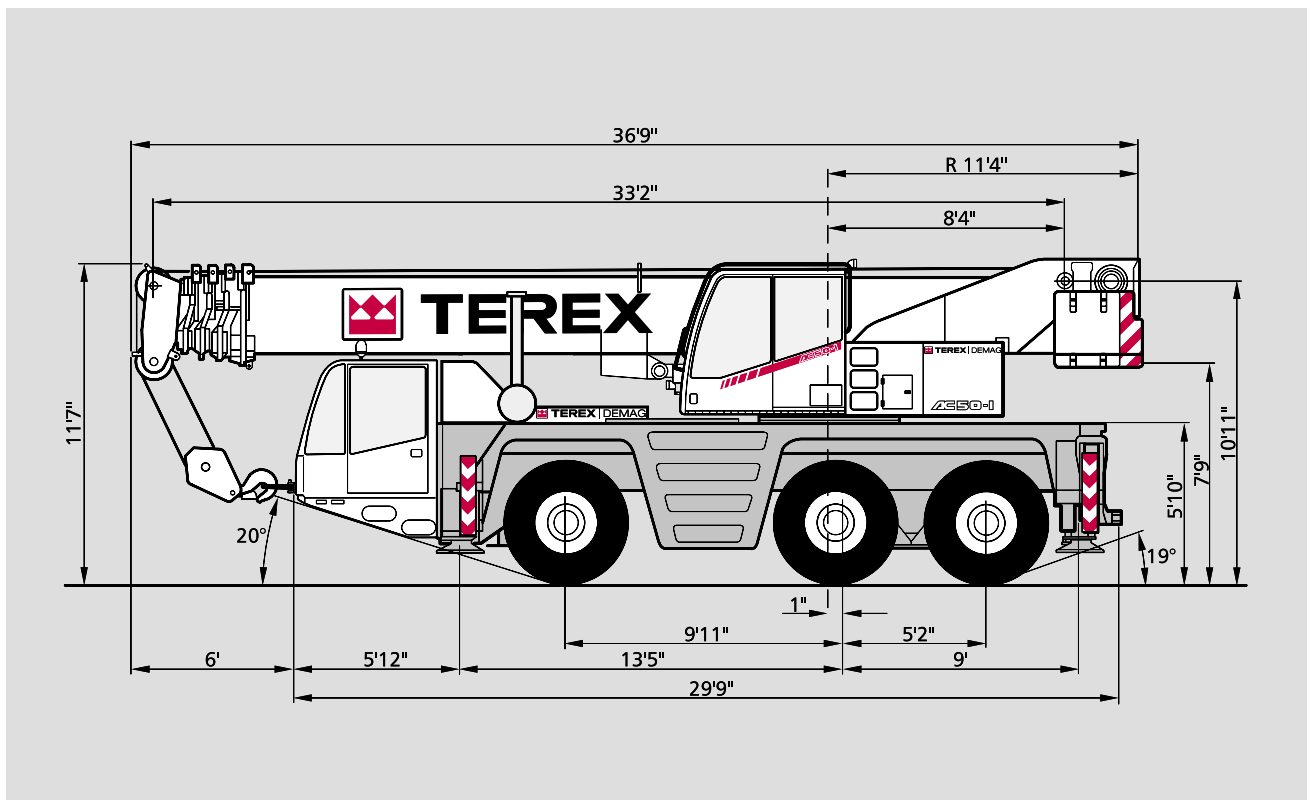


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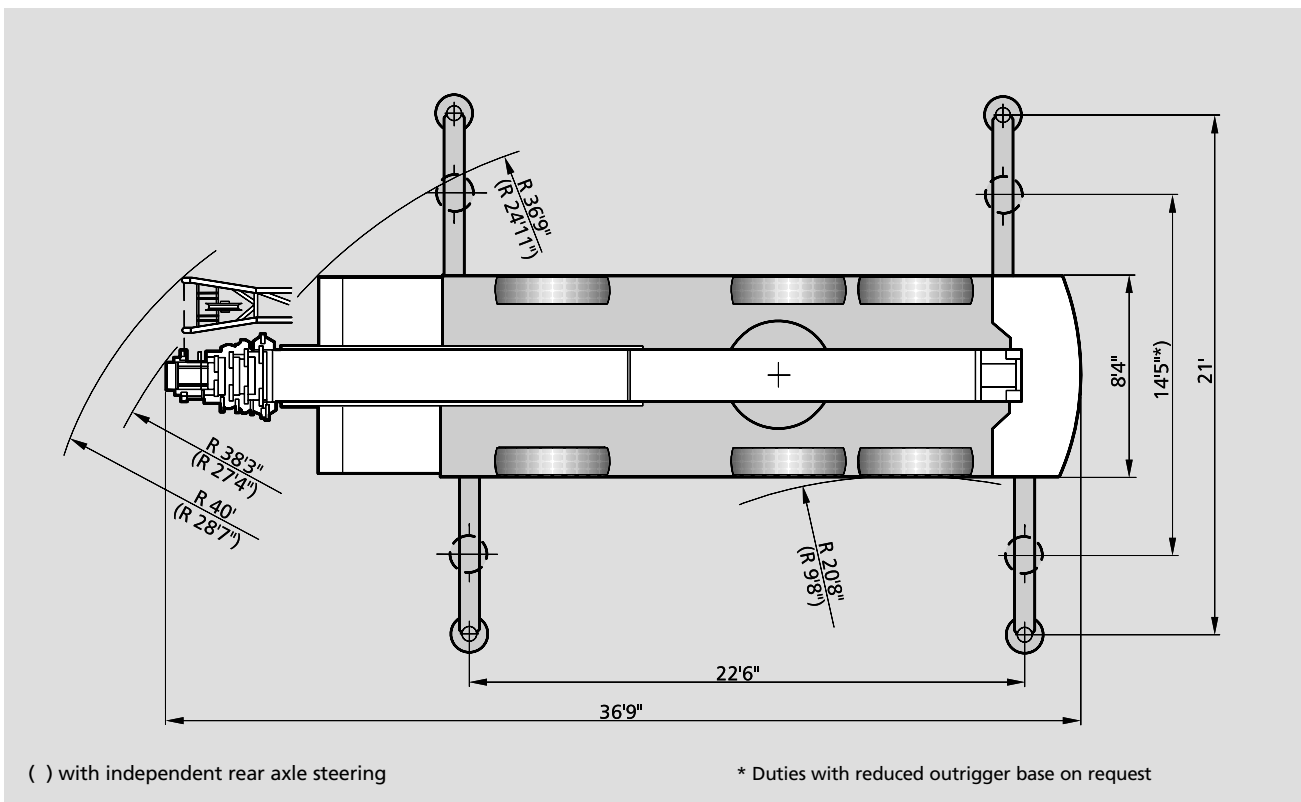
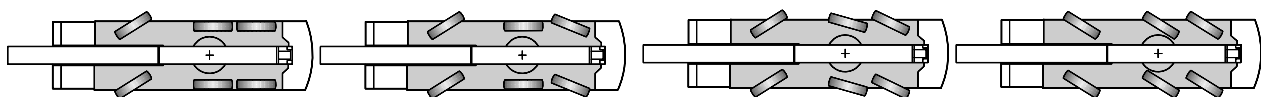
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Dimensions



1



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5

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

Crane operation with main boom is permissible up to a
wind pressure of 1.25 lb/ft²

wind speed of 32 ft

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.

Specifications

Axle loads

| | | | | |
|--|--|--|--|---------------|
| Crane with main boom, 30.2 ft main boom extension, 16,500 lb counterweight, tires 14.00 R 25, single line hook | | | | |
| Axles | | | | 3 x 26,500 lb |
| Total | | | | 79,500 lb |

Working speeds (infinitely variable)

| Mechanisms | Normal speed | High speed | Max. permissible line pull ¹⁾ | Rope length |
|-------------------|---------------|-------------|--|-----------------------|
| Hoist I | 196.9 ft /min | 410 ft /min | 9,500 lb | 591 ft |
| Hoist II | 196.9 ft /min | 410 ft /min | 9,500 lb | 591 ft |
| Slewing | | | | max. 0 – 1.7 1/min |
| Telescoping speed | | | | 33.1 – 131.2 ft: 95 s |
| Boom elevation | | | | –1,5° – +81,5°: 45 s |

Carrier performance

| | | | | |
|------------------------------|--|--|--|---------------|
| Travel speed: | | | | |
| Forward | | | | 0 . . 50 mph |
| Reverse | | | | 0 . . 7.5 mph |
| Gradeability in travel order | | | | max. 45 % |
| Ground clearance | | | | 1' 1" |

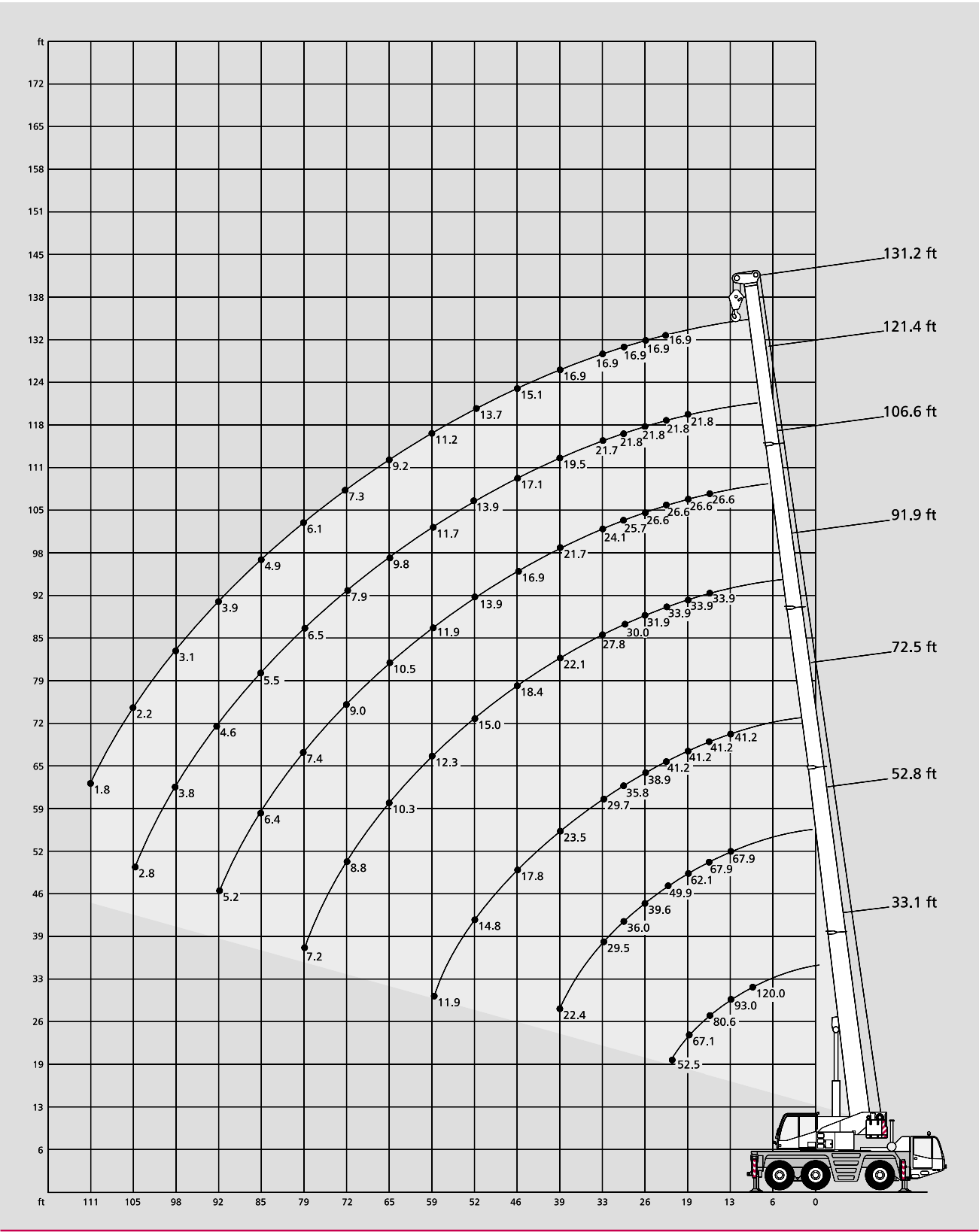
Hook block / Single line hook

| Type | Possible load ¹⁾ | Number of sheaves | Weight | „D“ | max. reeving | Heavy-lift attachment |
|------|-----------------------------|-------------------|----------|--------|--------------|-----------------------|
| 63 | 110,000 lb | 6 | 1,058 lb | 6.6 ft | 12 | 2 add. sheaves |
| 32 | 66,400 lb | 3 | 815 lb | 5.9 ft | 7 | |
| 16 | 28,400 lb | 1 | 551 lb | 5.9 ft | 3 | |
| 5 | 9,500 lb | Single line hook | 287 lb | 2.6 ft | 1 | |

Remarks

¹⁾ varies depending on national regulations

Working ranges main boom



Lifting capacities main boom

20,900 lb

22.6 x 21.0 ft 360°

| | | Main boom | | | | | | |
|--------|----|-----------|------|------|------|-------|-------|-------|
| Radius | ft | 33.1 | 52.8 | 72.5 | 91.9 | 106.6 | 121.4 | 131.2 |
| ft | | 1,000 lb | | | | | | |
| 10 | | 120.0* | - | - | - | - | - | - |
| 10 | | 109.9 | - | - | - | - | - | - |
| 11 | | 103.6 | 67.9 | - | - | - | - | - |
| 13 | | 93.0 | 67.9 | 41.2 | - | - | - | - |
| 15 | | 84.4 | 67.9 | 41.2 | 33.9 | - | - | - |
| 16 | | 80.6 | 67.9 | 41.2 | 33.9 | 26.6 | - | - |
| 19 | | 67.1 | 62.1 | 41.2 | 33.9 | 26.6 | 21.8 | - |
| 23 | | 52.5 | 49.9 | 41.2 | 33.9 | 26.6 | 21.8 | 16.9 |
| 26 | | - | 39.6 | 38.9 | 31.9 | 26.6 | 21.8 | 16.9 |
| 29 | | - | 36.0 | 35.8 | 30.0 | 25.7 | 21.8 | 16.9 |
| 33 | | - | 29.5 | 29.7 | 27.8 | 24.1 | 21.7 | 16.9 |
| 39 | | - | 22.4 | 23.5 | 22.1 | 21.7 | 19.5 | 16.9 |
| 46 | | - | - | 17.8 | 18.4 | 16.9 | 17.1 | 15.1 |
| 52 | | - | - | 14.8 | 15.0 | 13.9 | 13.9 | 13.7 |
| 59 | | - | - | 11.9 | 12.3 | 11.9 | 11.7 | 11.2 |
| 65 | | - | - | - | 10.3 | 10.5 | 9.8 | 9.2 |
| 72 | | - | - | - | 8.8 | 9.0 | 7.9 | 7.3 |
| 79 | | - | - | - | 7.2 | 7.4 | 6.5 | 6.1 |
| 85 | | - | - | - | - | 6.4 | 5.5 | 4.9 |
| 92 | | - | - | - | - | 5.2 | 4.6 | 3.9 |
| 98 | | - | - | - | - | - | 3.8 | 3.1 |
| 105 | | - | - | - | - | - | 2.8 | 2.2 |
| 111 | | - | - | - | - | - | - | 1.8 |


1)
85 %

| Radius | ft | 33.1 | 52.8 |
|--------|----|----------|------|
| | | 1,000 lb | |
| ft | | | |
| 10 | | - | - |
| 10 | | 33.6 | - |
| 11 | | 31.6 | 32.8 |
| 13 | | 27.9 | 29.3 |
| 15 | | 25.0 | 26.3 |
| 16 | | 23.5 | 25.0 |
| 19 | | 18.5 | 20.1 |
| 23 | | 13.6 | 14.9 |
| 26 | | - | 12.3 |
| 29 | | - | 10.4 |
| 33 | | - | 8.3 |
| 39 | | - | 6.2 |
| 46 | | - | - |
| 52 | | - | - |
| 59 | | - | - |
| 65 | | - | - |
| 72 | | - | - |
| 79 | | - | - |
| 85 | | - | - |
| 92 | | - | - |
| 98 | | - | - |
| 105 | | - | - |
| 111 | | - | - |

2
16,500 lb

22.6 x 21.0 ft 360°

| | | Main boom | | | | | | |
|--------|----|-----------|------|------|------|-------|-------|-------|
| Radius | ft | 33.1 | 52.8 | 72.5 | 91.9 | 106.6 | 121.4 | 131.2 |
| ft | | 1,000 lb | | | | | | |
| 10 | | 120.0* | - | - | - | - | - | - |
| 10 | | 109.9 | - | - | - | - | - | - |
| 11 | | 103.5 | 67.9 | - | - | - | - | - |
| 13 | | 93.0 | 67.9 | 41.2 | - | - | - | - |
| 15 | | 83.8 | 67.9 | 41.2 | 33.9 | - | - | - |
| 16 | | 78.7 | 67.9 | 41.2 | 33.9 | 26.6 | - | - |
| 19 | | 65.0 | 61.7 | 41.2 | 33.9 | 26.6 | 21.8 | - |
| 23 | | 47.4 | 45.0 | 41.2 | 33.9 | 26.6 | 21.8 | 16.9 |
| 26 | | - | 35.6 | 38.9 | 31.9 | 26.6 | 21.8 | 16.9 |
| 29 | | - | 33.2 | 32.8 | 30.0 | 25.7 | 21.8 | 16.9 |
| 33 | | - | 26.6 | 27.7 | 26.4 | 24.1 | 21.7 | 16.9 |
| 39 | | - | 20.2 | 21.3 | 21.3 | 20.0 | 19.5 | 16.9 |
| 46 | | - | - | 16.0 | 16.5 | 15.1 | 15.1 | 15.1 |
| 52 | | - | - | 13.0 | 13.6 | 13.5 | 12.7 | 11.9 |
| 59 | | - | - | 10.3 | 11.0 | 11.0 | 10.1 | 9.2 |
| 65 | | - | - | - | 9.2 | 9.2 | 8.3 | 7.4 |
| 72 | | - | - | - | 7.5 | 7.5 | 6.8 | 5.7 |
| 79 | | - | - | - | 6.3 | 6.3 | 5.2 | 4.5 |
| 85 | | - | - | - | - | 5.3 | 4.4 | 3.7 |
| 92 | | - | - | - | - | 4.3 | 3.2 | 2.8 |
| 98 | | - | - | - | - | - | 2.6 | 2.0 |
| 105 | | - | - | - | - | - | 1.9 | - |
| 111 | | - | - | - | - | - | - | - |


1)
85 %

| Radius | ft | 33.1 | 52.8 |
|--------|----|----------|------|
| | | 1,000 lb | |
| ft | | | |
| 10 | | - | - |
| 10 | | 33.6 | - |
| 11 | | 31.6 | 32.8 |
| 13 | | 27.9 | 29.3 |
| 15 | | 23.3 | 25.2 |
| 16 | | 21.1 | 22.9 |
| 19 | | 16.2 | 17.8 |
| 23 | | 11.8 | 13.2 |
| 26 | | - | 10.7 |
| 29 | | - | 9.1 |
| 33 | | - | 7.2 |
| 39 | | - | 5.1 |
| 46 | | - | - |
| 52 | | - | - |
| 59 | | - | - |
| 65 | | - | - |
| 72 | | - | - |
| 79 | | - | - |
| 85 | | - | - |
| 92 | | - | - |
| 98 | | - | - |
| 105 | | - | - |
| 111 | | - | - |

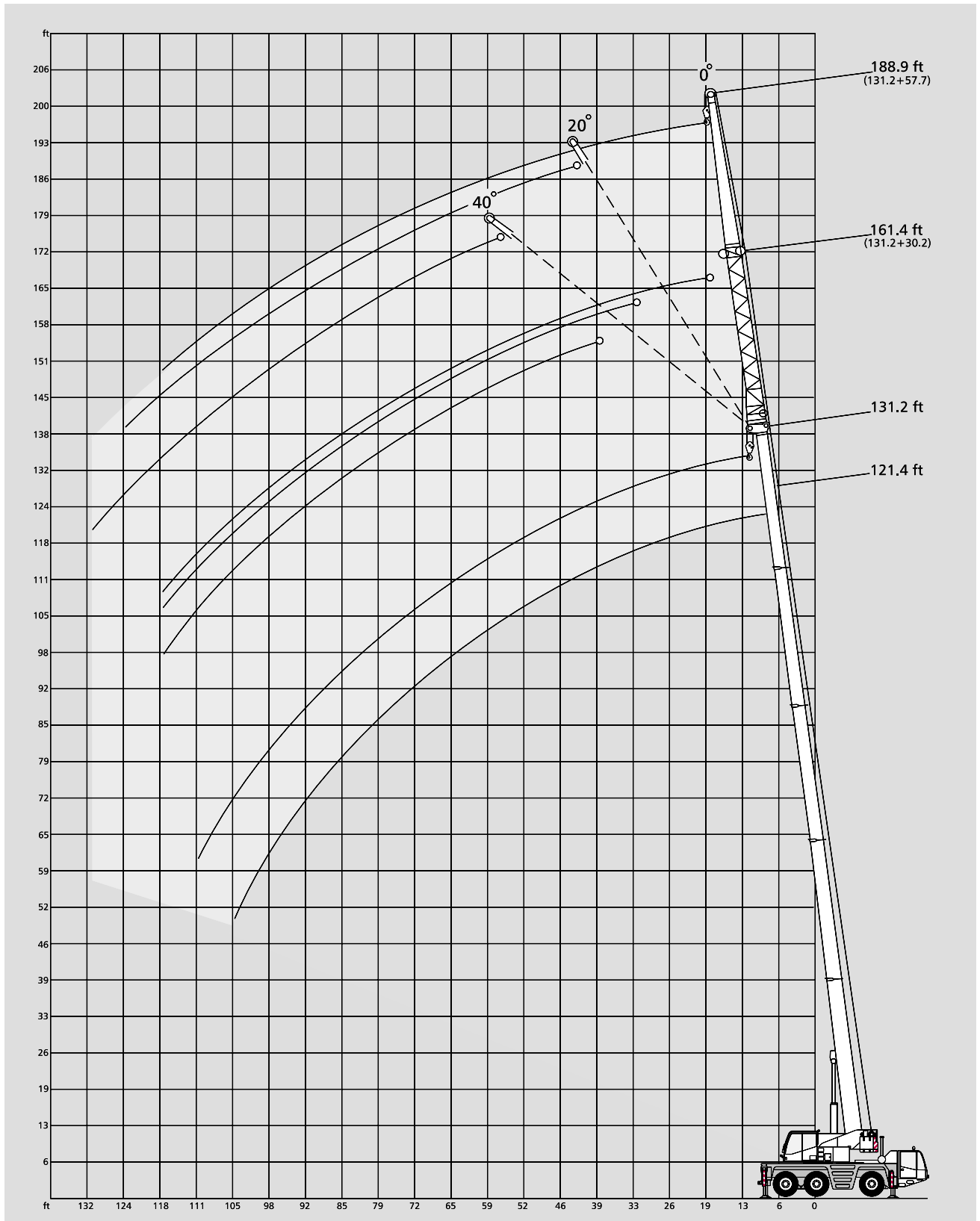
Remarks

* over rear

¹⁾ free on wheels, 0° over rear

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Working ranges main boom extension



Lifting capacities main boom extension

20,900 lb

 22.6 x 21.0 ft 360° 85 %

16,500 lb

 22.6 x 21.0 ft 360° 85 %

| 121.4 ft Main boom | | | | | | | | |
|--------------------|----------|-----|-----|-----------|-----|-----|-----|--|
| Radius | 30.2 ft | | | Extension | | | | |
| | | | | 57.7 ft | | | | |
| | 0° | 20° | 40° | 0°* | 0° | 20° | 40° | |
| ft | 1,000 lb | | | 1,000 lb | | | | |
| 26 | 9.9 | - | - | - | - | - | - | |
| 29 | 9.9 | - | - | - | - | - | - | |
| 33 | 9.9 | - | - | - | 4.4 | - | - | |
| 39 | 9.9 | 9.0 | - | - | 4.4 | - | - | |
| 46 | 9.6 | 8.5 | 7.7 | - | 4.4 | - | - | |
| 52 | 9.4 | 8.1 | 7.5 | - | 4.4 | 4.4 | - | |
| 59 | 9.0 | 7.7 | 7.2 | - | 4.4 | 4.1 | - | |
| 65 | 8.6 | 7.5 | 7.0 | - | 4.4 | 3.9 | - | |
| 72 | 7.5 | 7.0 | 6.8 | - | 4.1 | 3.9 | 3.7 | |
| 79 | 6.3 | 6.7 | 6.8 | - | 4.1 | 3.7 | 3.7 | |
| 85 | 5.1 | 5.7 | 6.2 | - | 3.9 | 3.7 | 3.3 | |
| 92 | 4.1 | 4.6 | 5.0 | - | 3.7 | 3.3 | 3.3 | |
| 98 | 3.3 | 4.0 | 4.2 | - | 3.7 | 3.3 | 3.1 | |
| 105 | 2.6 | 2.8 | 3.0 | - | 2.8 | 3.0 | 3.0 | |
| 111 | 2.0 | 2.4 | 2.4 | - | 2.4 | 3.0 | 2.8 | |
| 118 | 1.5 | 1.7 | - | - | 1.9 | 2.4 | 2.8 | |
| 124 | - | - | - | - | - | 2.0 | 2.4 | |
| 131 | - | - | - | - | - | 1.5 | 1.7 | |
| 138 | - | - | - | - | - | - | - | |

| 131.2 ft Main boom | | | | | | | | | |
|--------------------|----------|-----|-----|-----------|----------|---------|-----|-----|--|
| Radius | 30.2 ft | | | Extension | | 57.7 ft | | | |
| | 0° | 20° | 40° | | 0°* | 0° | 20° | 40° | |
| | 1,000 lb | | | | 1,000 lb | | | | |
| ft | | | | | | | | | |
| 29 | 7.4 | - | - | | - | - | - | - | |
| 33 | 7.4 | - | - | | 3.5* | 2.6 | - | - | |
| 39 | 7.4 | 7.4 | - | | 3.5* | 2.6 | - | - | |
| 46 | 7.4 | 7.4 | - | | 3.5* | 2.6 | - | - | |
| 52 | 7.4 | 7.2 | 7.0 | | 3.5* | 2.6 | 2.6 | - | |
| 59 | 7.4 | 7.0 | 6.8 | | 3.5* | 2.6 | 2.6 | - | |
| 65 | 7.4 | 6.6 | 6.4 | | 3.5* | 2.6 | 2.6 | - | |
| 72 | 7.2 | 6.3 | 6.1 | | 3.5* | 2.6 | 2.6 | 2.6 | |
| 79 | 6.1 | 6.1 | 5.7 | | 3.5* | 2.6 | 2.6 | 2.6 | |
| 85 | 5.1 | 5.5 | 5.5 | | 3.5* | 2.6 | 2.6 | 2.6 | |
| 92 | 4.1 | 4.6 | 5.0 | | 3.5* | 2.6 | 2.6 | 2.6 | |
| 98 | 3.1 | 3.8 | 4.2 | | 3.3* | 2.6 | 2.6 | 2.6 | |
| 105 | 2.4 | 2.8 | 3.0 | | 2.6* | 2.6 | 2.6 | 2.6 | |
| 111 | 1.8 | 2.2 | 2.4 | | 2.2* | 2.2 | 2.6 | 2.6 | |
| 118 | - | 1.5 | 1.9 | | 1.7* | 1.7 | 2.4 | 2.6 | |
| 124 | - | - | - | | - | - | 2.0 | 2.4 | |
| 131 | - | - | - | | - | - | 1.5 | 1.7 | |

Remarks

* Special length: main boom 126.0 ft

3

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), max. torque 1300 Nm at 1200-1500 1/min. Fuel tank capacity: 87 gallons. |
| 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 tires | 6 disk-type wheels fitted with 14.00 R 25 tires. 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 brake 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 | 16,500 lb 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. |
| Safety devices | Electronic safe 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 tires | 16.00 R 25, 20.5 R 25 (Note increased weight and width!) |
| Trailer coupling | For central axle trailers with max. 53,000 lb 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, 30.2 ft or 57.7 ft. 0°, 20° and 40° offset. |
| Additional counterweight | 4,400 lb. |
| Heavy-lift attachment | 2 additional sheaves on boom head for duties over 75,800 lb. |
| Heavy-lift runner | 3.9 ft long, 1-sheave. |
| Handling facility for additional counterweight | |
| Telma electric retarder | |
| Rooster sheave | 1-sheave. |

Key



Counterweight

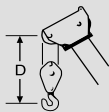


Lifting capacities on outriggers 360°



free on wheels, 0° over rear

„D“



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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.

Subject to change without notice. · Machine operation is subject to computer charts only.

08 / 04

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