



## AC20-142 Articulating Crane

### Specifications

Number of Extensions	1-Hydraulic	2-Hydraulic	3-Hydraulic	4-Hydraulic	5-Hydraulic	6-Hydraulic
Crane Rating*	141,900 ft-lb (19.6 tm)	141,900 ft-lb (19.6 tm)	141,900 ft-lb (19.6 tm)	141,900 ft-lb (19.6 tm)	141,900 ft-lb (19.6 tm)	141,900 ft-lb (19.6 tm)
Max. Horizontal Reach	20' 5" (6.23 m)	26' 7" (8.10 m)	33' 0" (10.05 m)	40' (12 m)	46'3" (14.1 m)	53'2" (16.2 m)
Max Vertical Reach Hydraulic	32' 6" (9.9 m)	38' 9" (11.8 m)	45' 2" (13.8 m)	51'6" (15.7 m)	58'5" (17.8 m)	65' (19.8 m)
Max. Capacity	19,840 lb (9,000 kg)	19,510 lb (8,850 kg)	18,850 lb (8,550 kg)	18,500 lb (8380 kg)	18,000 lb (8180 kg)	17,600 lb (8000 kg)
Max Capacity @ Max Reach	6,940 lb (3,150 kg)	5,070 lb (2,300 kg)	3,800 lb (1,725 kg)	2,893 lb (1315 kg)	2,200 lb (1000 kg)	1,700 lb (770 kg)
Crane Weight**	4,240 lb (1,920 kg)	4,570 lb (2,070 kg)	4,880 lb (2,210 kg)	6,000 lb (2,700 kg)	6,160 lb (2,800 kg)	6,400 lb (2,900 kg)

\*Crane rating (ft-lb) is the rated load (lb) x the respective distance (ft) from centerline of rotation with all extensions retracted and the inner and outer booms in a horizontal position, per ANSI B30.22.

\*\*Crane weight does not include outrigger

### Specifications

Outrigger Foot Diameter	7.09" (180 mm)	Optimum Pump Capacity	11 GPM (40 L/min)
Crane Storage Height	91" (2,295 mm)	System Pressure	4,351 PSI (300 BAR)
Mounting Space***	44" (1100 mm)	Outrigger Extension Span	
Rotational Torque	15,856 ft-lb (2150 daNm)	Standard (manual out, hydraulic down)	18' (5.5 m)
Rotation	387°		
Oil Reserve Capacity	34.3 gal (130 L)		

\*\*\*Allow an additional 10" between the cab and crane base for swing clearance.

### Minimum Chassis Specifications

Gross Vehicle Weight Rating (GVWR)	41,876 in-lb
Resistance to Bending Moment (RBM)	1,154,925 in-lb

### Notes

A. Weight distribution calculations are required to determine final axle loading. The use of service bodies, diesel engines, or longer wheelbase, can increase the minimum chassis requirements. Please contact Auto Crane for details.

B. GAWR (Gross Axle Weight Rating) is the total weight of the vehicle including the (chassis, driveline, occupants, cargo, etc. ) that is allowed by the manufacturer requirements, for the vehicle to go down the road safely. This is a critical factor in purchasing a truck for the crane application. All chassis and crane applications must be tested by engineering and the final assembler to ensure stability per ANSI B30.22.

### System Characteristics

#### Rotation System

Our Articulating Cranes utilize a rack and pinion rotation system which provides high torque for demanding applications. The column turns on bushings made of an advanced composite material for long service life. The rotation cylinders are protected by a load holding valve and flow controls to ensure safe and precise operation.

#### Cylinder Holding Valves

Flanged load holding valves on hydraulic cylinders provide smooth load control and load holding. In the event of a hose failure, they lock the cylinder in place to prevent uncontrolled crane movement or falling loads.

#### Hydraulic Overload System

Providing the Hydraulic Overload protection are main relief and port relief valves, as well as counterbalance valves.

#### Hydraulic System

The hydraulic system is open-center as standard. Included on the crane is a hydraulic oil reservoir, return line filter, high-pressure filter(1), and control valve with dual-side controls(2). An optional closed-center valve is available on request.

#### Exceptions

(1) Cranes with manual controls do not have high pressure filter

(2) Cranes with radio controls do not have dual-side controls



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Tulsa, OK 74117  
918-836-0463  
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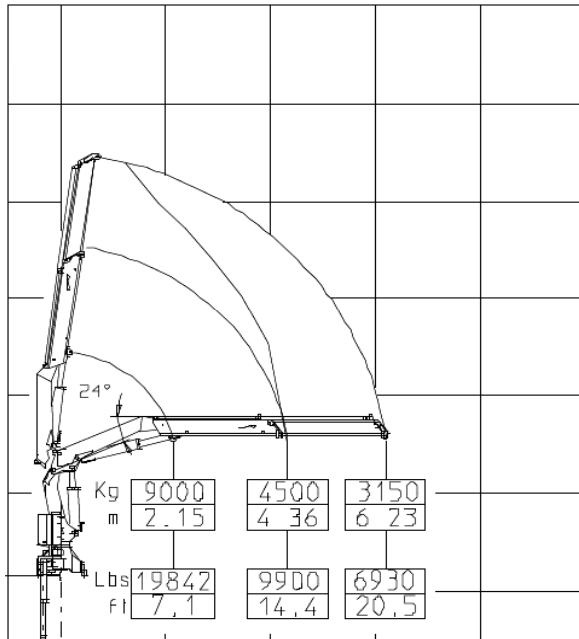
AC20-142



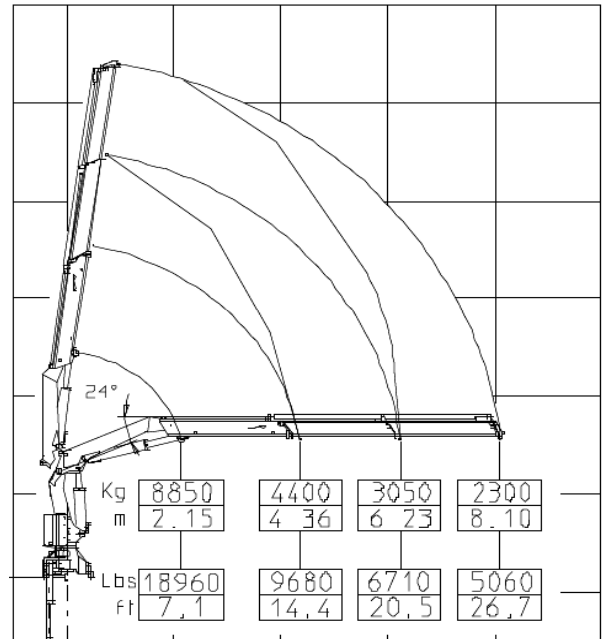
## AC20-142 Articulating Crane

### Capacity Charts

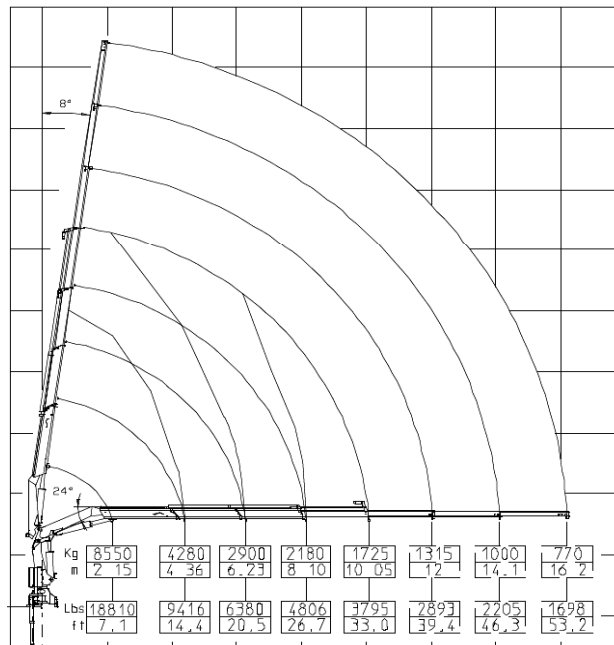
AC20-142 1 Hydraulic Extension



AC20-142 2 Hydraulic Extension



AC20-142 3 Hydraulic Extension



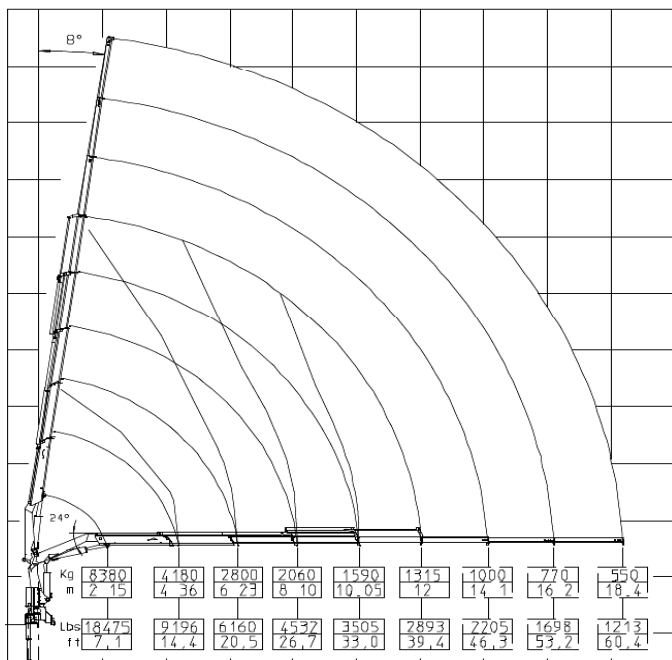
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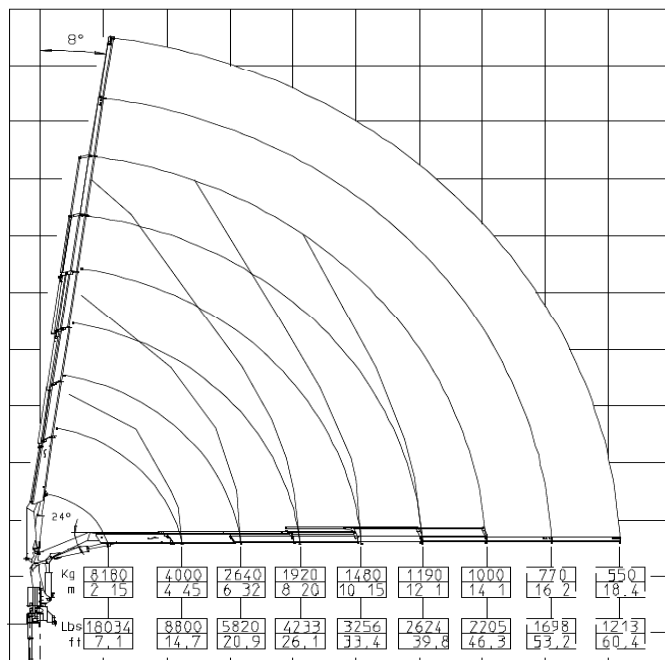
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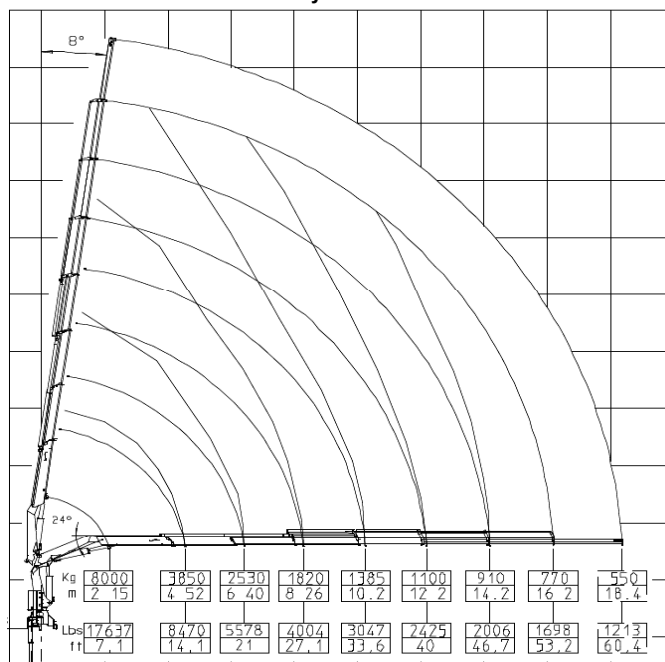
AC20-142 4 Hydraulic Extension



AC20-142 5 Hydraulic Extension



AC20-142 6 Hydraulic Extension



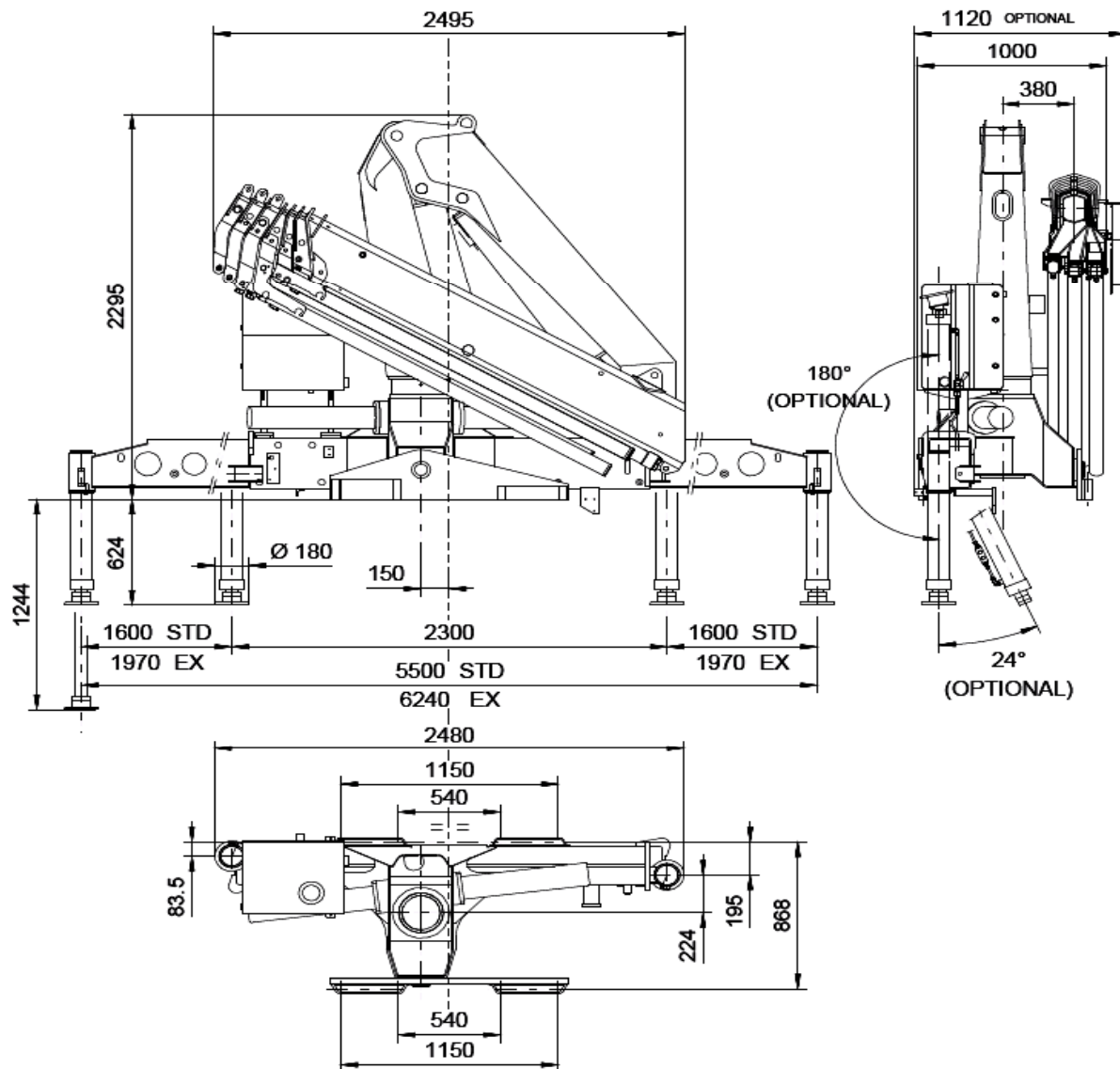
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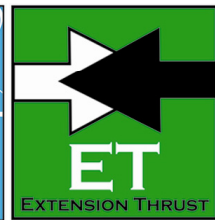
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### Geometric Configurations (Dimensions)

AC20-142 6 Hydraulic Extension (mm)



### Special Features (on select models)



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