



12/86

Articulating Crane





► 12/86 Articulating Crane

IMT® 12/86 articulating cranes provide a superior lift-to-weight ratio with a max lifting capacity of 10,165 lb (4610 kg), as well as long-reach capabilities with a maximum horizontal boom reach of 49 ft (15 m). Not only do these cranes deliver powerful performance with maximum control in the most demanding of environments, they also have intuitive features that increase versatility, durability, and maneuverability — like a 400-degree rack-and-pinion rotation system with 9,665 ft-lb (1.3 tm) of rotational torque. All these innovations add up to articulating cranes that let you lift more, lift faster, and lift longer.



12/86SL Specifications

	1 - Hydraulic	2 - Hydraulic	3 - Hydraulic	4 - Hydraulic	5 - Hydraulic
Crane Rating*	86,075 ft-lb (11.9 tm)	83,180 ft-lb (11.5 tm)	80,285 ft-lb (11.1 tm)	78,840 ft-lb (10.9 tm)	76,670 ft-lb (10.6 tm)
Max Horizontal Reach	20' (6.1 m)	26' 11" (8.2 m)	34' 5" (10.5 m)	41' 8" (12.7 m)	49' 3" (15 m)
Max Vertical Reach	27' 5" (8.3 m)	34' 6" (10.5 m)	41' 10" (12.8 m)	49' 4" (15 m)	56' 9" (17.3 m)
Max Capacity	10,165 lb (4610 kg)	9920 lb (4500 kg)	9325 lb (4230 kg)	8795 lb (3990 kg)	8335 lb (3780 kg)
Max Cap @ Max Reach	4385 lb (1990 kg)	3020 lb (1370 kg)	2160 lb (980 kg)	1610 lb (730 kg)	1215 lb (550 kg)
Crane Weight **	2590 lb (1175 kg)	2865 lb (1300 kg)	3110 lb (1410 kg)	3320 lb (1505 kg)	3505 lb (1590 kg)
Hook Approach					
Vertical	9' 1" (2.7 m)	8' 10" (2.7 m)	8' 6" (2.6 m)	8' 3" (2.51 m)	7' 11" (2.4 m)
Horizontal	2' 7" (0.79 m)	2' 9" (0.84 m)	2' 11" (0.89 m)	3' 1" (0.94 m)	3' 3" (1 m)
Center of Gravity - Stored					
Vertical	24.5" (622 mm)	25.8" (654 mm)	26.3" (684 mm)	27.8" (706 mm)	28.5" (725 mm)
Horizontal (C/L Rotation to Bridge)	13.2" (336 mm)	13.1" (332 mm)	12.8" (324 mm)	12.2" (311 mm)	11.7" (298 mm)

12/86DL Specifications

	1 - Hydraulic	2 - Hydraulic	3 - Hydraulic	4 - Hydraulic	5 - Hydraulic
Crane Rating*	84,625 ft-lb (11.7 tm)	82,455 ft-lb (11.4 tm)	79,565 ft-lb (11 tm)	77,395 ft-lb (10.7 tm)	75,945 ft-lb (10.5 tm)
Max Horizontal Reach	20' (6.1 m)	26' 11" (8.2 m)	34' 5" (10.5 m)	41' 8" (12.7 m)	49' 3" (15 m)
Max Vertical Reach	27' 5" (8.3 m)	34' 6" (10.5 m)	41' 10" (12.8 m)	49' 4" (15 m)	56' 9" (17.3 m)
Max Capacity	10,230 lb (4640 kg)	9720 lb (4410 kg)	9260 lb (4200 kg)	8840 lb (4010 kg)	8445 lb (3830 kg)
Max Cap @ Max Reach	4320 lb (1960 kg)	3000 lb (1360 kg)	2140 lb (970 kg)	1585 lb (720 kg)	1190 lb (540 kg)
Crane Weight **	2665 lb (1210 kg)	2940 lb (1335 kg)	3185 lb (1445 kg)	3395 lb (1540 kg)	3580 lb (1625 kg)
Hook Approach					
Vertical	9' 1" (2.7 m)	8' 10" (2.7 m)	8' 6" (2.6 m)	8' 3" (2.51 m)	7' 11" (2.4 m)
Horizontal	2' 7" (0.79 m)	2' 9" (0.84 m)	2' 11" (0.89 m)	3' 1" (0.94 m)	3' 3" (1 m)
Center of Gravity - Stored					
Vertical	25.7" (654 mm)	27" (683 mm)	28" (710 mm)	29" (731 mm)	29.3" (745 mm)
Horizontal (C/L Rotation to Bridge)	12.6" (320 mm)	12.5" (318 mm)	12.2" (311 mm)	11.8" (299 mm)	11.4" (289 mm)

* Crane rating (ft-lb) is the rated load (lb) multiplied by 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 is for standard crane with tank & 8-bolt long mounting kit. Does not include stabilizers, tank or oil.



Standard Features

- Application-specific product offering
- Superior lift-to-weight ratio
- Long-reach capabilities
- Hexagonal booms for superior reach and maximum control
- Internal hose routing
- 15° overbending on outer boom

Options

- Radio remote control
- Various stabilizer configurations
- Double link arm system
- Boom mounted winch
- Floodlight on outer boom
- Boom tip functions for hydraulic attachments
- Oil cooler

Specifications

Stabilizer Pad Diameter	6" (15.2 cm)
Crane Storage Height	7' (2.1 m)
Mounting Space	2' 5" (0.8 m)
Rotational Torque	9665 ft-lb (1.3 tm)
Rotation	420°
Optimum Pump Performance	10.5 gpm (40 L/min)
System Pressure	4785 psi (330 bar)
Oil Reservoir Capacity	17.2 gal (65 L)
Stabilizer Extension Span	
Standard	15' 2" (4.6 m)
Weight (manual out/hydraulic down fixed stabilizer)	375 lb (170 kg)
Weight (manual out/hydraulic down swing-up stabilizer)	385 lb (175 kg)
Extended Reach	18' 4" (5.6 m)
Weight (hydraulic out/hydraulic down fixed stabilizer)	430 lb (195 kg)
Weight (hydraulic out/hydraulic down swing-up stabilizer)	440 lb (200 kg)

Minimum Chassis Specifications

Front Axle Rating (GAWR)	8000 lb (3630 kg)
Rear Axle Rating (GAWR)	16,000 lb (7260 kg)
Resistance to Bending Moment Minimum	1,290,000 in-lb (148,625 kg-m)

Hexagonal Boom Design

A wide hexagonal profile with large bearing surfaces ensures greater strength and stability for horizontal and vertical spans — even when working in extreme positions with long reaches. Plus, it's protected by powdercoat paint that never fades, flakes, or corrodes.



Internal Hose Routing

Fed internally through protective nylon drag chains or roller guides, all hoses are equipped with sturdy, high-pressure swivel couplings to prevent them from twisting.



Overbending

Overbending between the main boom and jib provides greater flexibility when working under power wires and more potential for high lifting in narrow passages. It also lowers the total height when the loader is stowed over the truck body.



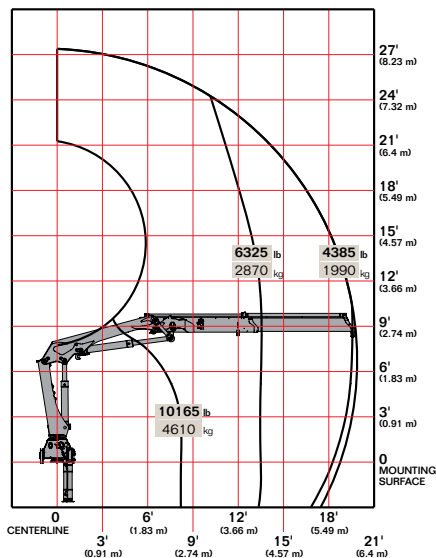
Stow Bracket Innovation

The stow bracket is designed to secure the boom for transport position but not allow for bracket damage. Unlike systems with rigid fixed brackets, the "J" hook will pivot if an incorrect movement is attempted.

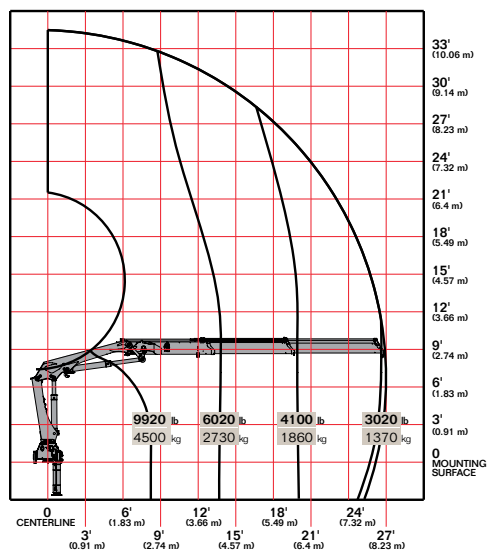


► 12/86SL Capacity Charts

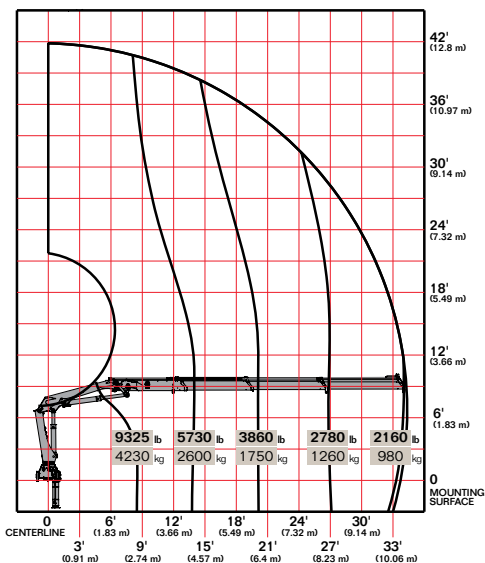
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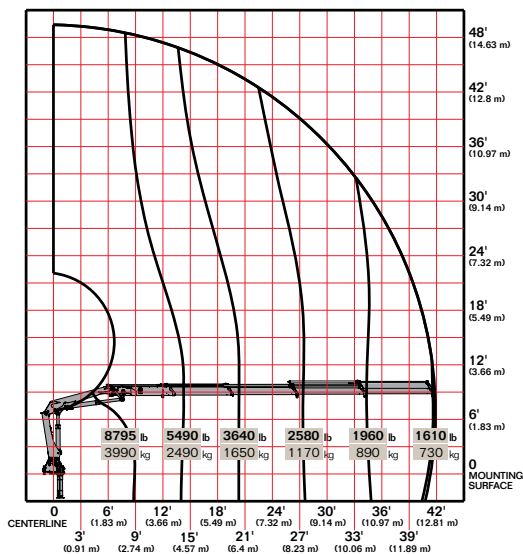
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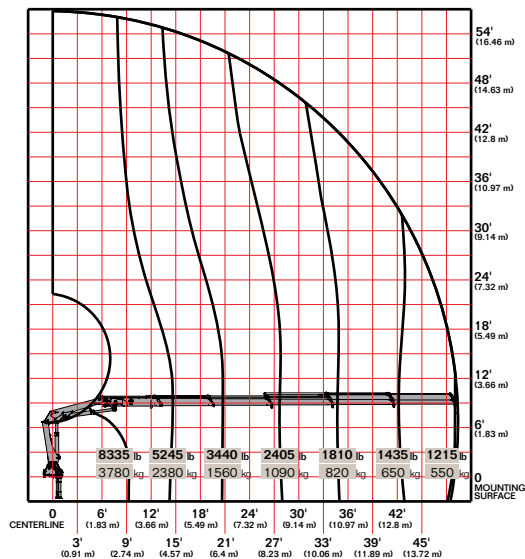
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12/86SL K4



12/86SL K5

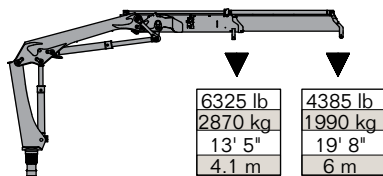


Limit working loads to those shown. Deduct the weight of load-handling devices.

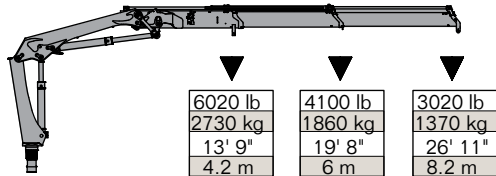


► 12/86SL Lifting Capacity

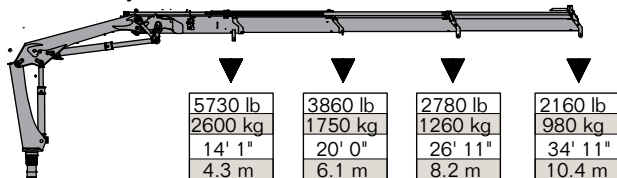
12/86SL - 1 Hydraulic



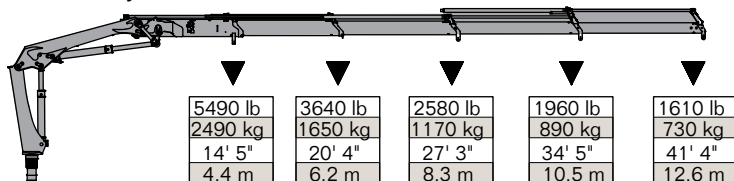
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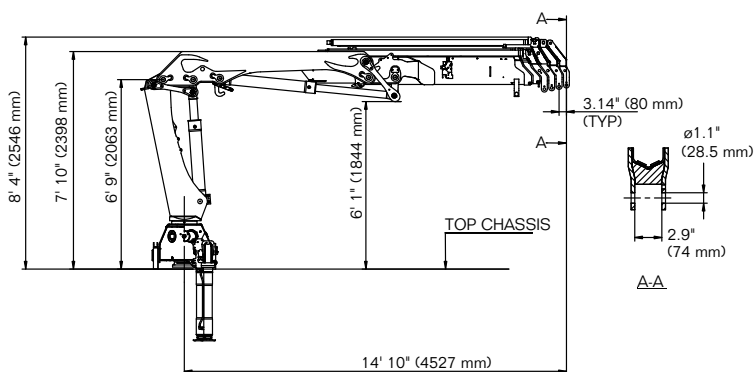
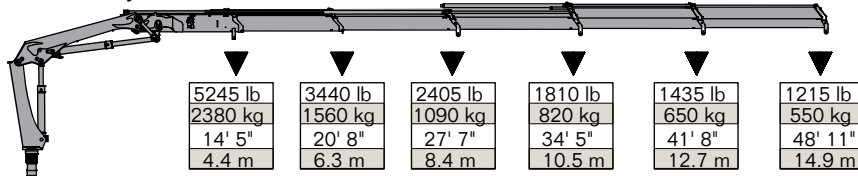
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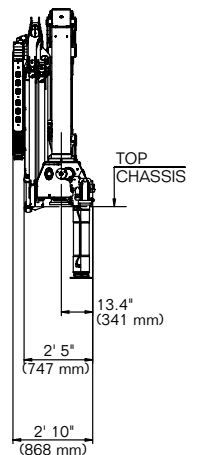
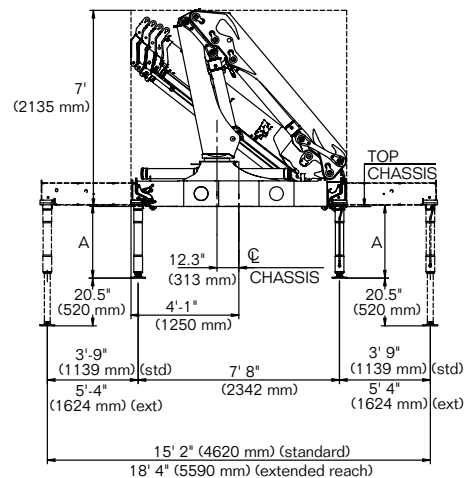
12/86SL - 4 Hydraulic



12/86SL - 5 Hydraulic



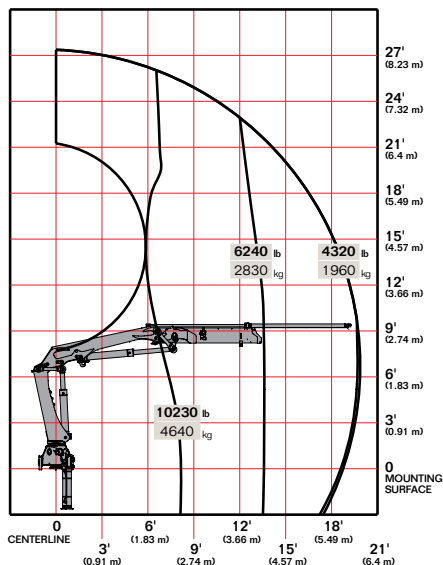
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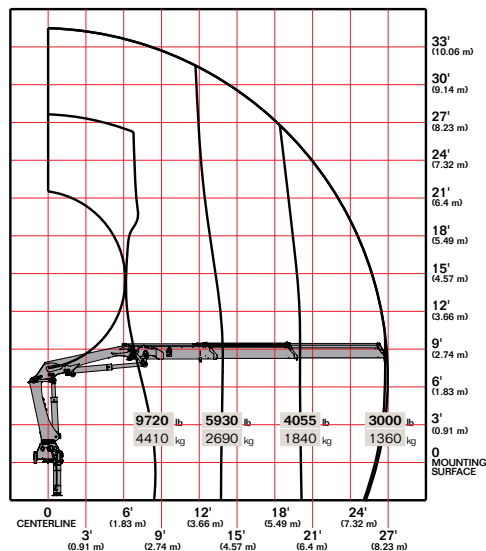


► 12/86DL Capacity Charts

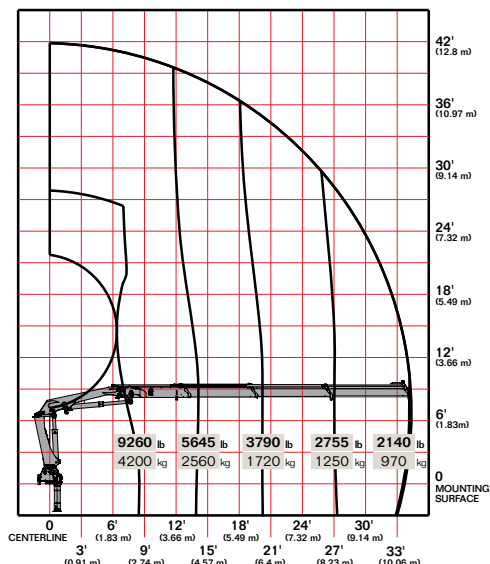
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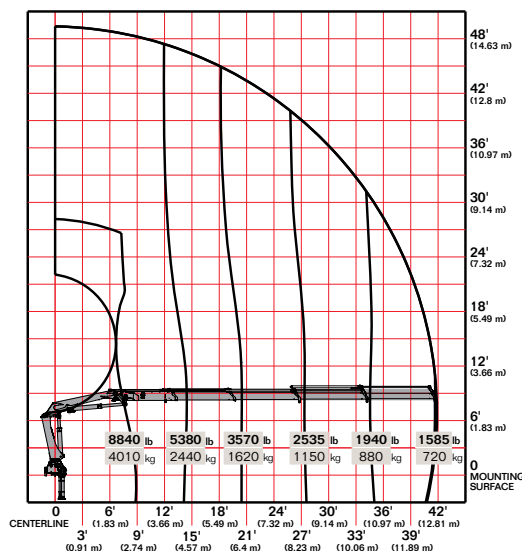
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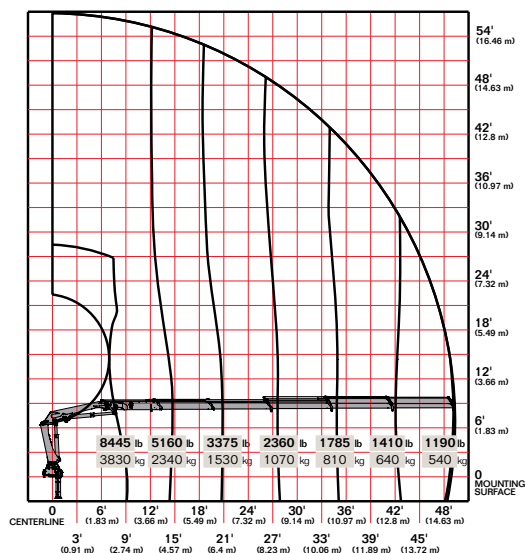
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12/86DL K4



12/86DL K5

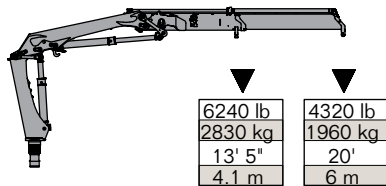


Limit working loads to those shown. Deduct the weight of load-handling devices.

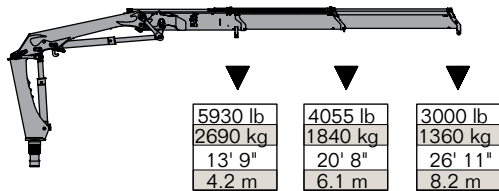


► 12/86DL Lifting Capacity

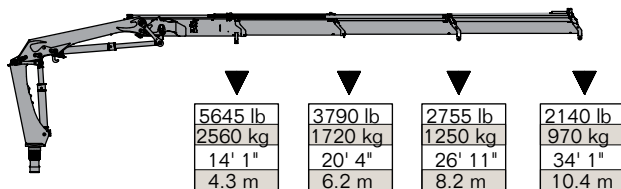
12/86DL - 1 Hydraulic



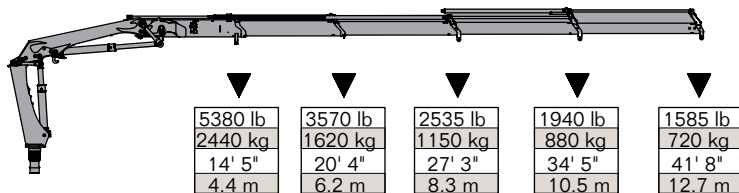
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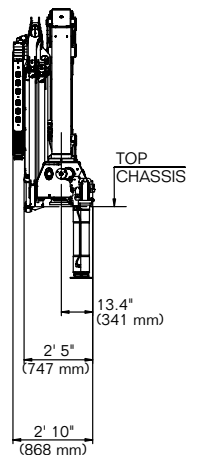
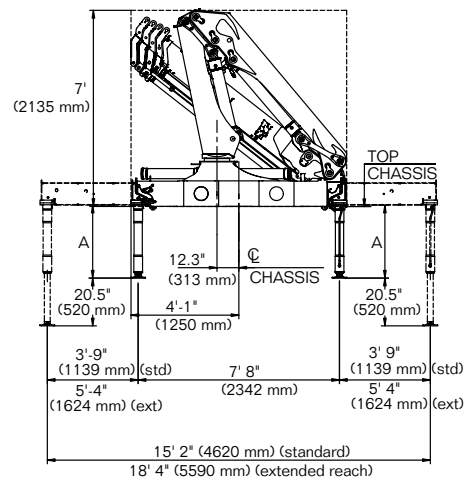
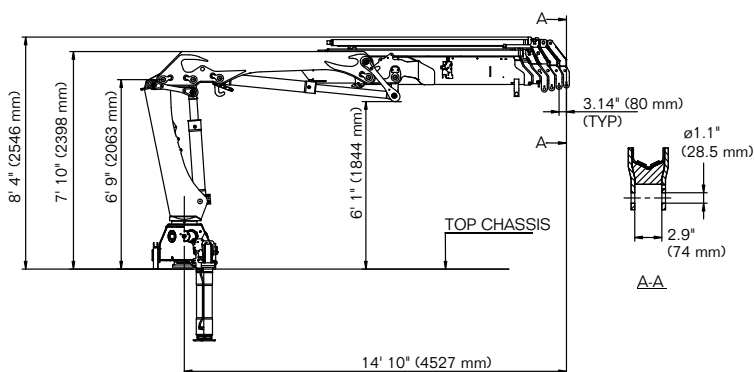
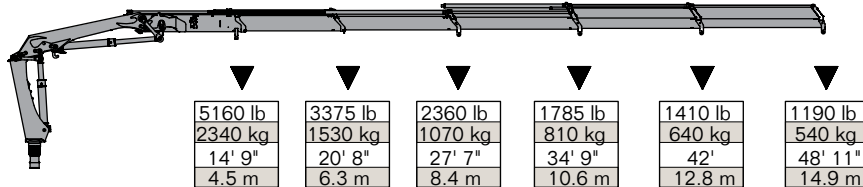
12/86DL - 3 Hydraulic



12/86DL - 4 Hydraulic



12/86DL - 5 Hydraulic





Power Source

- Standard integral-mounted piston hydraulic pump and PTO application

Cylinder Holding Valves

- Integral-mounted counterbalance valves or load-holding check valves
- Prevention of sudden cylinder collapse in case of hose failure

Rotation System

- 400 degree rack and pinion
- 9665 ft-lb (1.3 tm) rotational torque
- Counterbalance valve on each cylinder to stop motion in case of hose failure

Hydraulic System

- Open-centered system — closed optional
- Regeneration system on extension cylinder to ensure quick deployment
- Hydraulic oil reservoir, air breather, replaceable return-line filter, and control valve with levers

Overload System

- Load-limiting capability for boom functions
- Rated capacity limitation (RCL) 5300 blocks load-increasing functions when full capacity is attained



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