

Telescopic Crane 7025

Technical Specifications

Material Handling Systems

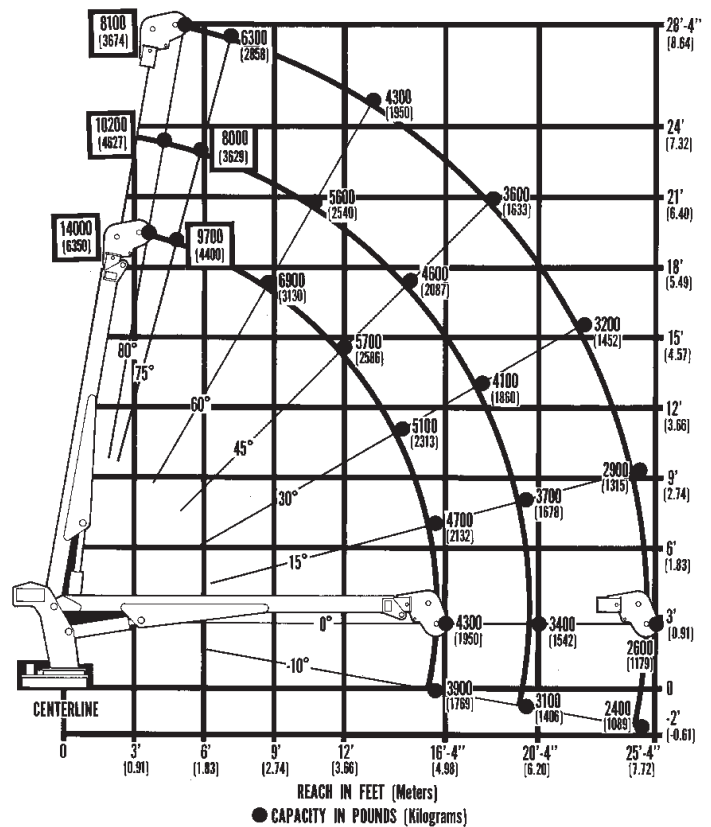


7025 Telescopic Crane

Specifications	1 Hydraulic
Crane Rating*	70,000 ft-lb (9.7 tm)
Horizontal Reach from centerline of rotation	25' 4" (7.7 m)
Hydraulic Extension	108" (274.3 cm)
Manual Extension	None
Lifting Height from base of crane	28' 4" (8.6 m)
Crane Weight	3,200 lb (1,452 kg)
Outrigger Span required option	11' 11" (3.6 m)
Crane Storage Height	54" (137.2 cm)
Mounting Space Required crane base	24" x 34-1/2" (61.0 cm x 87.6 cm)
Optimum Pump Capacity	10 U.S. gpm (37.9 L/min)
System Operating Pressure	2,500 psi (172 bar)
Oil Reservoir Capacity	20 U.S. gal (75 L)
Center of Gravity horizontal from centerline of rotation vertical from bottom of crane base	43" (109.2 cm) 28" (71.1 cm)
Tie-Down Bolt Pattern 8 holes	20" x 30-1/2" (50.8 cm x 77.5 cm)
Rotational Torque	7,500 ft-lb (1.0 tm)

*Crane rating (ft-lb) is the rated load (lb) x the respective distance (ft) from centerline of rotation with all extensions retracted and lower boom in horizontal position. This is the ANSI B30.5 standard.

Capacity Chart



- Maximum 1-part line capacity is 7,000 lb (3,175 kg). For greater loads, use 2-part line.
- Weights of load-handling devices are part of the load lifted and must be deducted from the capacity.



Performance Characteristics

Rotation	450° (7.9 rad)	38 seconds
Inner Boom Elevation	-10° to +80° (-0.2 to +1.4 rad)	16 seconds
Extension Cylinder	108" (274.3 cm)	20 seconds
Horizontal Outrigger Extension	23-3/4" (60.3 cm)	4 seconds
Vertical Outrigger Extension	21" (53.3 cm)	6 seconds
2-Speed Winch		
high speed	34 fpm (10.4 m/min)	
low speed	17 fpm (5.2 m/min)	

Power Source

Integral mounted hydraulic pump and PTO application. Other standard power sources may be used. Minimum power required is 17 hp based on 10 gpm at 2,500 psi.

Cylinder Holding Valves

The base end of the extension cylinder is equipped with a pilot-operated locking holding valve to prevent sudden cylinder collapse in the event of a hose breakage or other hydraulic component failure. The extend side of the lower boom cylinder is equipped with a 10 gpm counterbalance valve. The counterbalance valve serves several functions. First, it is a holding valve. Second, it is designed to control the speed at which the lowering function operates and allow that motion to be metered under load. Finally, it prevents the loss of an excess amount of oil in the event of a hose failure. Only the oil in the hose at the time of the failure will be lost.

Rotation System

Turntable bearing powered by a high-torque hydraulic motor through a ring-and-pinion type spur-gear train. Total gear reduction is 50.7 to 1.

Hydraulic System

The hydraulic system is an open-centered, full-pressure system requiring maximum flow of 10 gpm at 2,500 psi. It is equipped with a 7-spool, electric remote, stack-type control valve. Three spools are manually controlled from the crane compartment to activate outrigger functions. Four spools for crane swing, lower boom, extension boom, and winch are solenoid-activated remotely via a 30' 0" control cable. The system includes a separate hydraulic oil reservoir, suction-line filter, return-line filter, and control valve.

Excessive Load Limit System (ELLS)

The ELLS limits overloading of the crane. Dual pressure switches mounted on the lift cylinder sense various overload conditions. When in an overload situation, the winch up, extension out, and boom down functions are stopped. To relieve the situation, raise the boom, retract the extensions, or lower the winch.

Winch

The winch is powered by means of a hydraulic motor driving a 30:1 worm gear arrangement with a mechanical brake. The line speed of 34 fpm (10.3 m/min) is achieved at an optimum oil flow of 10 gpm (37.8 L/min) with 1-part line. Maximum 1-part line lifting capacity of the winch is 7,000 lb (3,175 kg). Maximum 2-part line lifting capacity of the winch is 14,000 lb (6,350 kg). The winch is equipped with 100 ft (30.5 m) of 1/2 in (12.7 mm), 6x36 FW PRF RRL IWRC XIPS wire rope. An anti two-block device is included to prevent the lower block or hook assembly from coming in contact with the boom sheave assembly. The winch assembly complies to ANSI B30.5 standard.

Minimum Chassis Specifications

Chassis Style	Conventional Cab
Front Axle Rating (GAWR)	11,000 lb
Rear Axle Rating (GAWR)	21,000 lb
Wheelbase	189"
Cab-To-Axle	120"
Resistance To Bending Moment	900,000 in-lb
Frame Section Modulus	19.2 in ³
Frame Yield Strength	50,000 psi
Transmission	5-speed

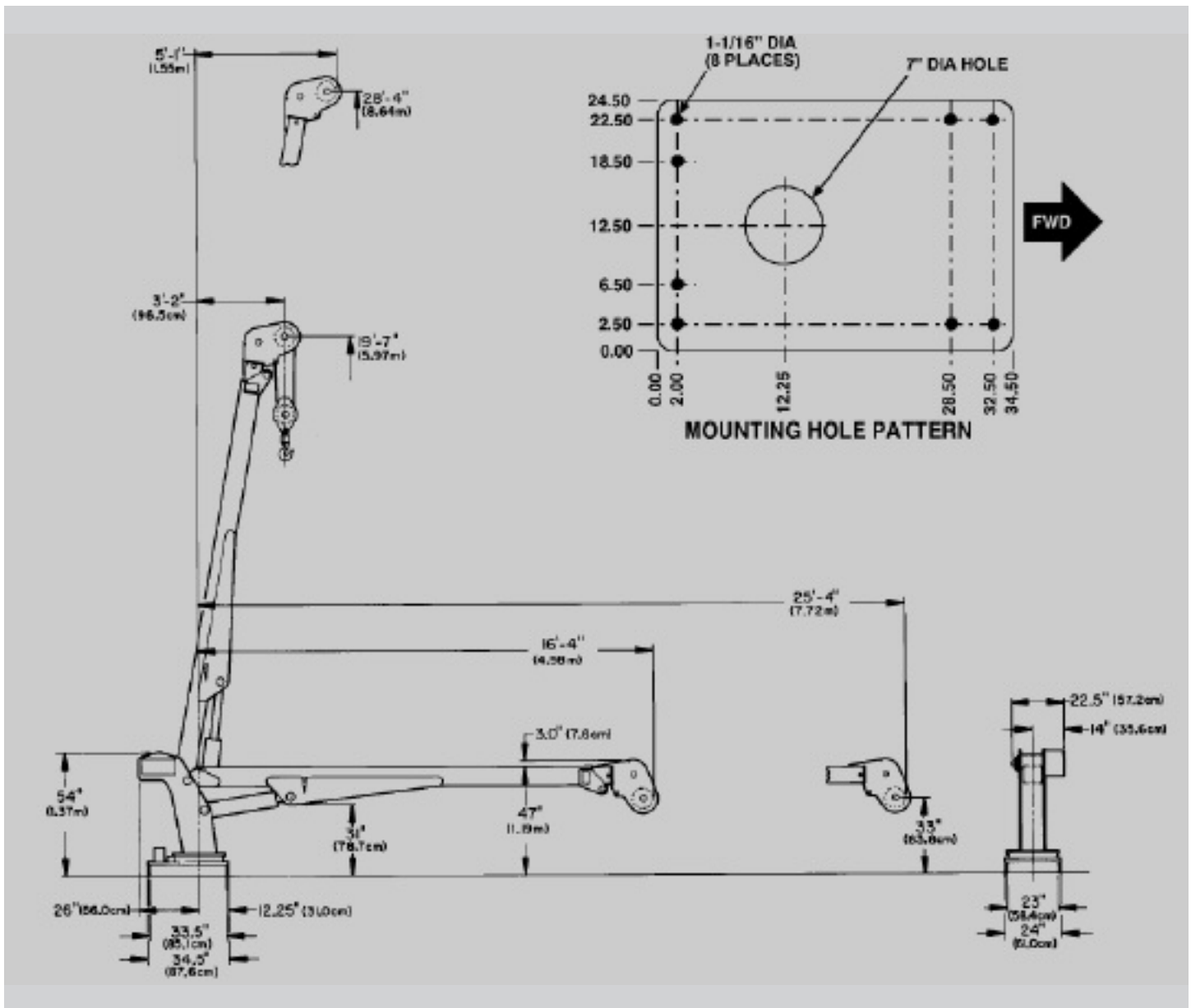
In addition to these specifications, heavy-duty electrical and cooling systems and dual rear wheels are required. It is recommended that the vehicle be equipped with an engine tachometer, auxiliary brake lock, and power steering.

Notes

1. GAWR means Gross Axle Weight Rating and is dependent on all components of the vehicle such as axles, tires, wheels, springs, brakes, steering, and frame strength meeting the manufacturer's recommendations. Always specify GAWR when purchasing a truck.
2. Minimum axle requirements may increase with use of diesel engines, longer wheelbase, or service bodies. Contact the factory for further information.
3. Weight distribution calculations are required to determine final axle loading.
4. All chassis, crane, and body combinations must be stability-tested to ensure stability per ANSI B30.5.

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Geometric Configurations



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