

2020

Telescopic Crane



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Take your projects to new heights with the 2020 telescopic crane from IMT. With a lifting capacity of 5000 lb (2268 kg), a vertical reach of 20' 11" (6.4 m), and a horizontal reach of 20' (6.1 m), our cranes are designed for maximum productivity in a variety of applications. Not only is the 2020 powerful — it's also compact, so it requires minimal mounting space. Plus, it includes cylinder holding valves, an overload shutdown system, electro-hydraulic or PTO-driven hydraulics, and more — giving the 2020 telescopic crane good reason to stand tall.



Standard Features

- 20' (6.1 m) of boom reach
- Worm gear winch
- Crane remote control
- Anti-two-block protection
- Overload shutdown protection

Options

- Radio remote control

Body Sizes

- DSC20
- Dominator® I
- Dominator® II



Optional Single Proportional Tethered Remote Control

Built tough to perform difficult tasks in the most trying environments, our tethered remote control features a pistol grip handle to increase comfort and is ideal for job sites where radio frequency is not allowed.



Optional Radio Remote Control

Our operator-friendly pistol grip radio remote control is designed to decrease hand fatigue while giving you the flexibility and control you need on a job site and the ability to move closer to the load while lifting.

Minimum Chassis Specifications

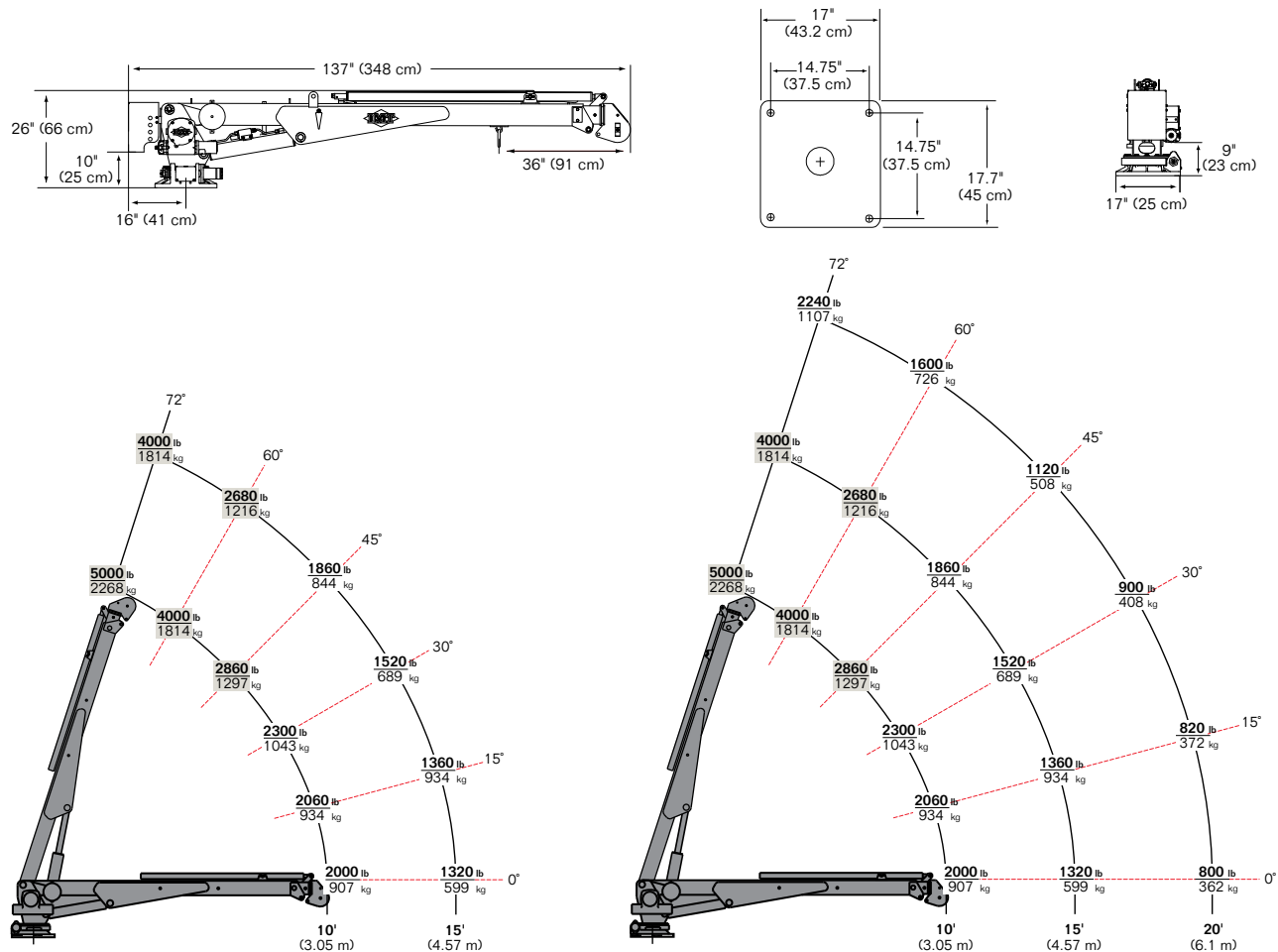
Chassis Style	Conventional cab
Front Axle Rating (GAWR)	4000 lb (1814 kg)
Rear Axle Rating (GAWR)	7500 lb (3402 kg)
Wheelbase	137" (348 cm)
Cab-to-Axle	60" (152 cm)
Resistance to Bending Moment	250,000 in-lb (2881 kg-m)
Frame Section Modulus	8 cu in (131 cm ³)
Frame Yield Strength	36,000 psi (2482 bar)

Specifications

	1-Hydraulic	1-Hydraulic/1-Manual
Crane Rating*	20,000 ft-lb (2.8 tm)	20,000 ft-lb (2.8 tm)
Max. Capacity	5000 lb (2267.9 kg)	5000 lb (2267.9 kg)
Max. Horizontal Reach	15' (4.6 m)	20' (6.1 m)
Max. Capacity @ Max. Reach	1320 lb (598.7 kg)	800 lb (362.9 kg)
Fully Retracted	10' (3 m)	10' (3 m)
Extensions	60" (152.4 cm) N/A	60" (152.4 cm) 60" (152.4 cm)
Lifting Height	16' 2" (4.9 m)	20' 11" (6.4 m)
Crane Weight	830 lb (376.5 kg)	920 lb (417.3 kg)
Crane Storage Height	28" (71.1 cm)	28" (71.1 cm)
Center of Gravity Horizontal from centerline of rotation Vertical from bottom of crane base	29" (73.6 cm) 16" (40.6 cm)	31" (78.7 cm) 17" (43.1 cm)
Required Mounting Space for Crane Base	17" x 17-3/4" (43.2 cm x 45 cm)	17" x 17-3/4" (43.2 cm x 45 cm)
Optimum Pump Capacity PTO-driven Two-stage, electric** (low speed/high speed)	5 gpm (18.9 L/min) 1.5/3.5 gpm (5.7/13.2 L/min)	5 gpm (18.9 L/min) 1.5/3.5 gpm (5.7/13.2 L/min)
Tie-Down Bolt Pattern	14-3/4" x 14-3/4" (37.5 cm x 37.5 cm)	14-3/4" x 14-3/4" (37.5 cm x 37.5 cm)
Rotational Torque	3000 ft-lb (0.42 tm)	3000 ft-lb (0.42 tm)
Main Boom Elevation Speed PTO-driven Two-stage, electric	10 sec 15 sec	10 sec 15 sec
Extension Boom Extend Speed PTO-driven Two-stage, electric	11 sec 15 sec	11 sec 15 sec

*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.

**The two-stage pump delivers 1.5 gpm (5.7 L/min) at low speed and 3.5 gpm (13.2 L/min) at high speed. Normally under load, the pump operates as a single-stage pump. The pump operates as a two-stage pump to save time during setup.



- Maximum one-part line capacity is 2500 lb (1134 kg).
- The weight of load-handling devices is part of the load lifted and must be deducted from the rated capacity.

Power Source Options

PTO-Driven

- Integral-mounted hydraulic pump and PTO application
- Min. requirement is 8 hp based on 5 gpm at 2300 psi (18.9 L/min at 158.5 bar)
- Other standard power sources can be used

Electric Motor

- Powered by solenoid connected to 12VDC truck battery
- Chassis must have 4000-watt Delco Freedom battery (or equivalent) connected to the chassis' standard heavy-duty battery
- Chassis must have heavy-duty alternator (63-amp for GM vehicles and 60-amp for Ford vehicles)
- 130-amp alternator is recommended for best results

Cylinder Holding Valves

- All cylinders equipped with integral-mounted counterbalance valves or load-holding check valves
- Prevent sudden cylinder collapse in case of hose failure

Rotation System

- Consists of a worm gear and turntable bearing
- Powered by a high-torque hydraulic motor through self-locking worm
- Rotation speed is 37 seconds

Hydraulic System (PTO-driven)

- Open-centered, full-pressure system
- System requires 5 gpm (18.9 L/min) optimum oil flow at 2300 psi (158.5 bar)
- Four-spool, stack-type, electric remote control valve with 25' (7.6 m) control cable
- System requires separate oil reservoir, suction-line strainer, control valve, and return-line filter

Electro-Hydraulic System — Two-Speed/Auto-Shift

- Open-centered, full-pressure system features two-stage hydraulic pump
- First stage delivers 1.5 gpm (5.7 L/min); second stage delivers 3.5 gpm (13.2 L/min) at 2300 psi (158.5 bar)
- Control valve bank is four-spool, stack-type, 12VDC valve system
- System includes 5 gal hydraulic reservoir, 10-micron spin-on-type return-line filter, hydraulic pump driven by totally enclosed fan-cooled 12VDC motor, and all necessary hoses and fittings

Excessive Load Limit System (ELLS)

- Dual pressure switches on lift cylinder sense various overload conditions
- When overloaded, the following functions are stopped: winch-up, extension-out, and boom-down
- Situation can be fixed by raising boom, retracting extensions, or lowering winch

Winch

- Capacity of 2500 lb (1133.9 kg) powered by a hydraulic motor through a 38:1 ratio worm gear with a mechanical brake
- Single line operating speed of 25 fpm (7.6 m/min) under no-load conditions
- Equipped with 65' (19.81 m) of 5/16" (7.9 mm), 6x25 FW PRF RRL IWRC XIPS wire rope
- Anti-two-block device prevents lower block or hook assembly from coming in contact with boom sheave assembly
- Meets ANSI B30.5 standards



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