

# 2020

Telescopic Crane



## ► 2020 Telescopic Crane

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

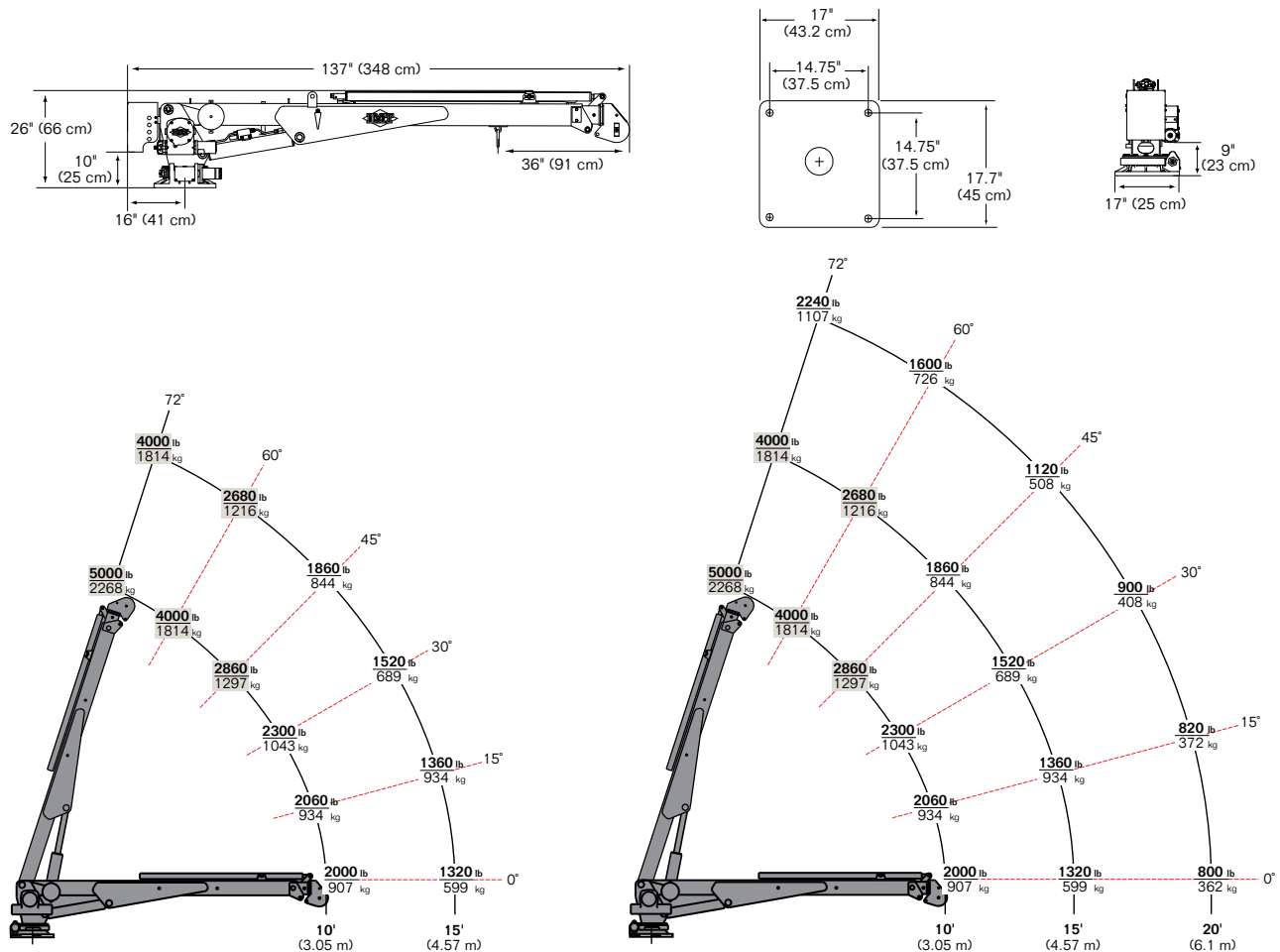
Chassis Style	Conventional cab
Front Axle Rating (GAWR)	4000 lb (1814 kg)
Rear Axle Rating (GAWR)	7500 lb (3402 kg)
Wheelbase	137" (348 cm)
Cab-to-Axle	60" (152 cm)
Resistance to Bending Moment	250,000 in-lb (2881 kg-m)
Frame Section Modulus	8 cu in (131 cm <sup>3</sup> )
Frame Yield Strength	36,000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

## Specifications

	1-Hydraulic	1-Hydraulic/1-Manual
<b>Crane Rating*</b>	20,000 ft-lb (2.8 tm)	20,000 ft-lb (2.8 tm)
<b>Max. Capacity</b>	5000 lb (2267.9 kg)	5000 lb (2267.9 kg)
<b>Max. Horizontal Reach</b>	15' (4.6 m)	20' (6.1 m)
<b>Max. Capacity @ Max. Reach</b>	1320 lb (598.7 kg)	800 lb (362.9 kg)
<b>Fully Retracted</b>	10' (3 m)	10' (3 m)
<b>Extensions</b>	60" (152.4 cm) N/A	60" (152.4 cm) 60" (152.4 cm)
<b>Lifting Height</b>	16' 2" (4.9 m)	20' 11" (6.4 m)
<b>Crane Weight</b>	830 lb (376.5 kg)	920 lb (417.3 kg)
<b>Crane Storage Height</b>	28" (71.1 cm)	28" (71.1 cm)
<b>Center of Gravity</b> 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)
<b>Required Mounting Space for Crane Base</b>	17" x 17-3/4" (43.2 cm x 45 cm)	17" x 17-3/4" (43.2 cm x 45 cm)
<b>Optimum Pump Capacity</b> 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)
<b>Tie-Down Bolt Pattern</b>	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)
<b>Rotational Torque</b>	3000 ft-lb (0.42 tm)	3000 ft-lb (0.42 tm)
<b>Main Boom Elevation Speed</b> PTO-driven Two-stage, electric	10 sec 15 sec	10 sec 15 sec
<b>Extension Boom Extend Speed</b> 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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