

# LIFTMOORE 5080 CRANE

**50,000 FT.-LB. MOMENT RATING  
8000 LB. MAXIMUM CAPACITY**

Liftmoore's Model 5080 Crane is the crane you need for heavy lifting and extended duty cycles. The 5080's maximum capacity of 8,000 Lbs. is for your jobs requiring more lifting power. The 5080's hydraulic system is for the extended duty cycles required for loading and unloading operations.

Moment rating of the 5080 is 50,000 Ft.-Lbs. This moment rating allows heavy lifting at greater load radii—5000 Lbs. at 10 Ft. and 2500 Lbs. at 20 Ft.

The standard 5080 crane has a pressure compensated flow control system for minimum heat buildup. Proportional hydraulic control (optional) is offered. With proportional control the speed of each hydraulic function is continuously variable from zero to maximum flow. Speed is controlled by a trigger located in the pistol grip type control handle.

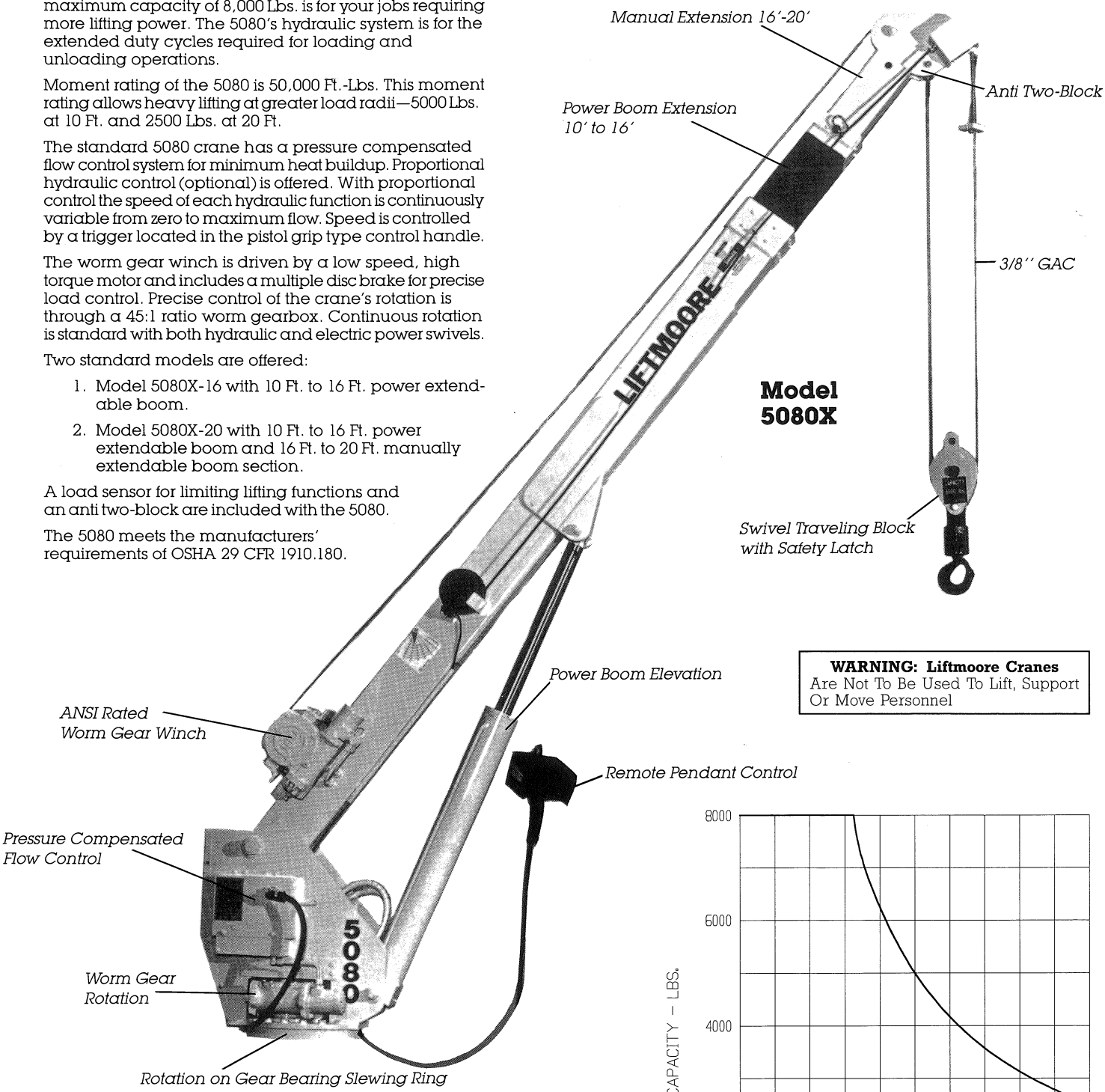
The worm gear winch is driven by a low speed, high torque motor and includes a multiple disc brake for precise load control. Precise control of the crane's rotation is through a 45:1 ratio worm gearbox. Continuous rotation is standard with both hydraulic and electric power swivels.

Two standard models are offered:

1. Model 5080X-16 with 10 Ft. to 16 Ft. power extendable boom.
2. Model 5080X-20 with 10 Ft. to 16 Ft. power extendable boom and 16 Ft. to 20 Ft. manually extendable boom section.

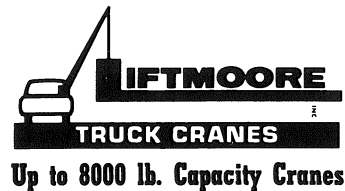
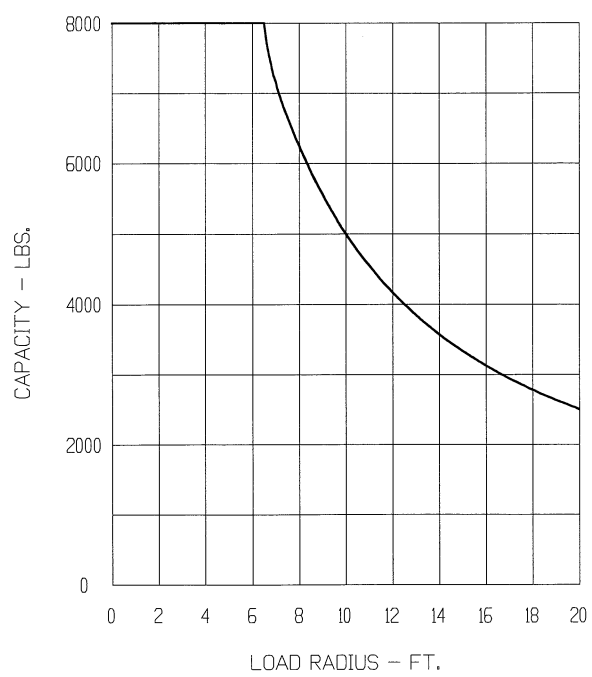
A load sensor for limiting lifting functions and an anti two-block are included with the 5080.

The 5080 meets the manufacturers' requirements of OSHA 29 CFR 1910.180.



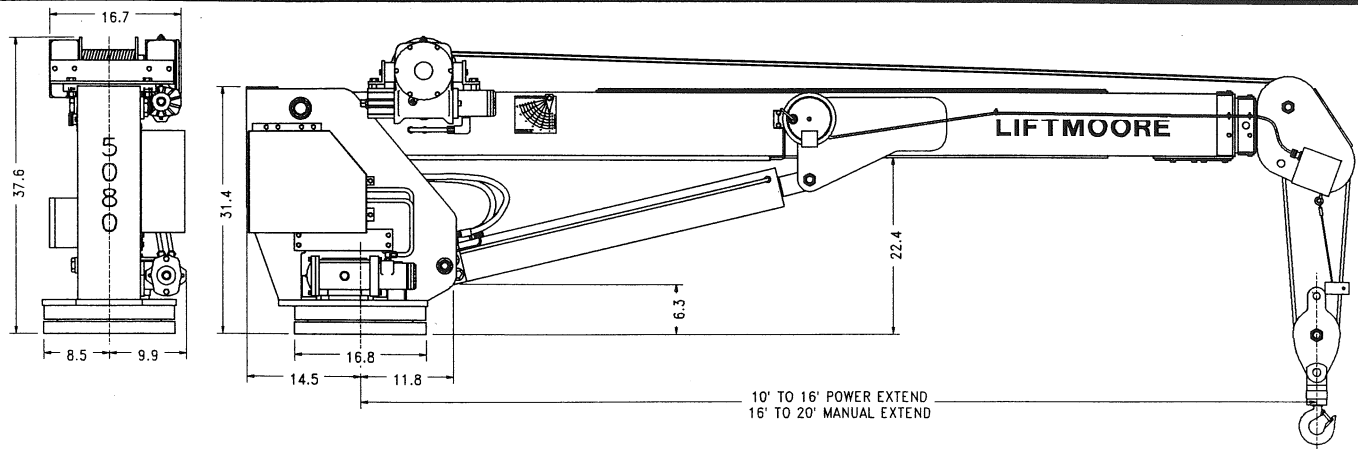
**Model 5080X**

**WARNING: Liftmoore Cranes**  
Are Not To Be Used To Lift, Support  
Or Move Personnel



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# 5080 SPECIFICATIONS



## Capacity:

50,000 Ft.-Lbs.

## Lift Capacities:

8000 Lbs. at 6 Ft.	3125 Lbs. at 16 Ft.
6250 Lbs. at 8 Ft.	2777 Lbs. at 18 Ft.
5000 Lbs. at 10 Ft.	2500 Lbs. at 20 Ft.
4166 Lbs. at 12 Ft.	

## Hoist Winch:

The hoist winch is a worm gear design with a 38:1 gear ratio. The safety brake includes a one way clutch that releases the brake when lifting the load. The winch drum to wire rope ratio is 17:1 as required by ANSI. The winch is powered by a low speed, high torque hydraulic motor. Line speed is 19 FPM with 6 GPM input. The hoist winch is mounted on the boom.

## Winch Cable and Block:

The 5080 crane is supplied with 95 Ft. of 3/8" 7 x 19 galvanized aircraft cable. Minimum breaking strength of the cable is 14,400 Lbs. and meets ANSI requirements. Wire rope is outside of the boom and clearly visible for operator's inspection. A 4 Ton capacity swivel traveling block assembly with roller thrust bearing and safety latch is included.

All sheaves include cast bronze bearings with grease zerts for lubrication.

## Rotation:

Rotation is 360 degree continuous and unlimited. A gear bearing supports the crane. Crane rotation is powered by a 45:1 ratio worm gear box with integral low speed, high torque hydraulic motor. Rotation will be restricted on models with auxiliary electrical controls.

## Boom Elevation:

A 4.5" bore hydraulic cylinder elevates the boom from -5 to +75 degrees. A counterbalance valve is mounted integral with the cylinder. This valve is an important safety feature. It will hold the load in the event of a hose failure, control the rate of descent when powered down and relieve the cylinder from high pressures.

## Boom Extension:

The boom is extended hydraulically from 10 Ft. to 16 Ft. by a 3" bore hydraulic cylinder and is extended manually from 16 Ft. to 20 Ft. The extension cylinder is mounted inside the boom for protection. For safety a counterbalance valve is mounted in the cylinder. The power extendable portion of the boom slides on Nylatron slide pads for minimum friction.



Up to 8000 lb. Capacity Cranes

Bulletin 439 2/00

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## Hydraulic System:

For smooth operation and minimum heat buildup a pressure compensated flow control system is used. The system will not build up pressure above the level required to operate a function. This reduces the heat buildup in the oil and the power required from the engine. A parallel control circuit is used.

An optional **proportional control system** is available. This system provides variable speed control of each crane function with a constant input flow to the crane.

Manual override controls are provided for each hydraulic function.

## Hydraulic Pump:

All crane functions are hydraulically powered by an engine driven hydraulic pump. PTO, pump, reservoir and hoses are not supplied with the crane. Flow and pressure requirements are 6 GPM and 2500 PSI. Liftmoore offers a reservoir package that includes a suction line strainer and return line oil filter.

## Pendant Control:

A remote pendant is provided for control of each function. The pendant is 25 Ft. long and is removeable from the crane for storage. All functions are controlled by momentary contact switches.

## Load Sensor:

A load limiting sensor is installed in the elevation cylinder. This sensor will shut down hoist up, boom out, and boom up and boom down when an overload is detected. The sensor will reset after the load is lowered.

## Anti Two-Block:

The 5080 includes an anti two-block feature that prevents extending the boom against the traveling block and breaking the cable.

## Engine Speed Control:

An optional engine high idle speed control solenoid is available from Liftmoore.

## Mounting:

Four 1" Grade 8 bolts are required. The bolt pattern is 14.75" square. Bolts are not supplied. Base plate is 16.75" square. Minimum chassis requirement is 20,000 Lbs. GVWR.

## Weights:

5080X-20—Shipping 1810 Lbs.  
Actual 1610 Lbs.

## Optional Accessories:

Outrigger—Manual pull out, manual crank up/down.  
Outrigger—Manual pull out, hydraulic up/down  
Outrigger—Hydraulic in/out, hydraulic up/down  
Pedestal  
Boom Rest  
10 gallon hydraulic reservoir with filter strainer and diffuser.