SUGGESTED SPECIFICATIONS
LIFTMOORE MODEL 4000X CRANE

2000 Lb. Capacity Winch with Two Part Wire Line

CAPACITY: Moment Rating 16,000 Ft.-Lbs. with capacities as follows:

*4000 Lbs.	at	4 Ft.
*2666 Lbs.	at	6 Ft.
*2000 Lbs.	at	8 Ft.
1600 Lbs.	at	10 Ft.
1333 Lbs.	at	12 Ft.
1142 Lbs.	at	14 Ft.
1000 Lbs.	at	16 Ft.
800 Lbs.	at	20 Ft.

*Use traveling block double line, for loads above 2000 Lbs.

HOIST WINCH: The hoist winch has a planetary gear drive for best possible efficiency. A 2.7 HP permanent magnet electric motor powers the winch. Single line capacity of the winch is 2000 Lbs. The winch load is controlled by the dynamic braking of the motor and by a load apportioned mechanical brake located in the winch drum. The winch motor is reversed by a heavy duty, weather resistant, industrial double pole electrical contactor. Ratio between winch drum diameter and wire rope meets ANSI B30.5 requirements. Winch performance is as follows:

Load (Lbs.)	Hook Speed (Ft./Min.)	AMP Draw
1000	13.1	64
2000	11.9	115

* A traveling block for two part rigging is supplied for loads above 2000 Lbs.

WIRE ROPE AND SHEAVES: The crane is supplied with 75 Ft. of ¼ In. galvanized aircraft cable. The minimum breaking strength of the rope is 7000 Lbs. The wire rope is outside of the boom and visible for operator's continual inspection. A traveling block for easy two and three part hookup is included. All sheaves meet ANSI requirements.

HYDRAULIC SYSTEM: The hydraulic pump is driven by a 12 Volt DC Series Wound electric motor. This is a gear type pump with 1.2 GPM capacity at 500 PSI. Hydraulic functions are controlled through four way spring centered solenoid activated valves. The valves actuate at a minimum of 10 volts, have manual over-ride capabilities and are mounted on a manifold for easy access. The reservoir capacity is 1 gallon. The relief valve on the pump is set at 1800 PSI.

ROTATION SYSTEM: The hydraulic powered rotation is driven by a low speed, high torque hydraulic motor and drives through a 54:1 ratio self locking worm gear. The worm gear is an Aluminum Bronze Alloy. The worm is hardened steel. The crane rotates 360 degrees continuously without limit on two 4.00 In. ID tapered roller bearings.

LIFTMOORE
TRUCK CRANES

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BOOM ELEVATION: The boom is capable of moving from –5 degrees to +75 degrees. It is elevated by a 3.5 In. bore double acting cylinder. The cylinder has an integral counterbalance valve with relief set at 2000 PSI. The counterbalance valve has two vital purposes. It will hold the cylinder in the event of hose failure and it controls the rate of boom descent.

BOOM EXTENSION:

4000X-16: Extend under power from 8 Ft. to 12 Ft. powered by a 2.5 In. bore hydraulic cylinder. The cylinder is mounted inside the boom for protection. The cylinder has a counterbalance valve integrally mounted with relief set at 2000 PSI. The counterbalance valve will hold the cylinder in the event of hose failure and also controls the rate of cylinder retraction. The boom also has a manual telescoping section that can be extended from 12 Ft. to 16 Ft. with one intermediate position at 14 Ft. The power extendable section moves on nylatron slide pads.

4000X-20: Extended under power from 10 Ft. to 16 Ft. powered by a 2.5 In. bore hydraulic cylinder. The cylinder is mounted inside the boom for protection. The cylinder has a counterbalance valve integrally mounted with relief set at 2000 PSI. The counterbalance valve will hold the cylinder in the event of hose failure and also controls the rate of cylinder retraction. The boom also has a manual telescoping section that can be extended from 16 Ft. to 20 Ft. with one intermediate position at 18 Ft. The power extendable section moves on nylatron slide pads.

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

ANTI TWO-BLOCK: The anti-two block system is standard equipment on the 4000X. This prevents extending the boom against the traveling block which could break the cable and when activated will stop the following motions: winch up, boom down, and boom out.

PENDANT CONTROL: Each function is controlled by momentary contact toggle switches, mounted in a high impact pistol grip case. The controller is connected to the crane by a 25 foot cable connected to the crane with a quick connection plug. The pendant is removable and may be stored when not in use. An E-Stop is included that turns off all power to the crane as required by OSHA.

BATTERIES: Liftmoore advises that a second battery be mounted on the vehicle near the crane to maintain the voltage as high as possible. The battery should be as large as possible and installed in parallel with the vehicle's battery for charging and operation with the engine operating. Use of a "Deep Cycle" battery, Group 31 or larger is recommended.

BATTERY CABLE: The crane is supplied with 25 Ft. of #1 battery power cable with quick disconnects, an additional ground wire, two 150 Amp circuit breakers, for protecting the battery cable and a master cut off switch is mounted near the crane.

MOUNTING: Four 0.75 In. x 3.0 In. long Grade 8 Hex Head Cap Screws and Lock Nuts are supplied for mounting. The bolt pattern is 12 In. square on a 15 In. square base plate.

ACCESSORIES: An outrigger assembly is necessary to keep the truck as level as possible as well as reducing the load on the crane's rotation mechanism and the truck's suspension components. Jackstands are also available for stability of the truck. A boom rest is required to support the crane while the vehicle is in motion. Liftmoore can supply all the optional equipment.

CHASSIS: Minimum recommended GVWR for mounting the 4000 is 14,500 Lbs.

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