LIFTMOORE 2010REE CRANE

10,000 FT.-LB. MOMENT RATING 2,000 LB. MAXIMUM CAPACITY with full power functions

Meets ANSI/ASME B30.5 Safety Standard; Meets OSHA 1910.180 Requirements



Figure 2: Model 2010REE-15 Load Chart



Figure 1: Model 2010REE-15

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2010REE CRANE SPECIFICATIONS



Figure 3: 2010REE-15 Dimensions with Center of Gravity Shown

CAPACITY:

Moment Rating of 10,000 ft.-lbs. with capacity as follows:

2,000 lbs. at 5 ft.	909 lbs. at 11 ft.
1,428 lbs. at 7 ft.	666 lbs. at 15 ft.
1,111 lbs. at 9 ft.	

HOIST WINCH: The hoist winch has a planetary gear drive for best possible efficiency. A 2.4 HP permanent magnet electric motor powers the winch. First layer, single line capacity of the winch is 2000 Lbs. The winch load is controlled by the dynamic braking of the motor and a load apportioned mechanical brake located in the winch drum. Ratio between winch drum and wire rope meets ANSI B30.5 requirements. The winch is reversed by a 12 volt contactor, not individual solenoids.

First layer performance of the winch is as follows:

Load -	Hook Speed -	Electrical -			
Lbs.	Ft / Min	Amps @ 12VDC			
0	14.7	13			
1,000	13.1	64			
2,000	11.9	115			

HYDRAULIC SYSTEM: A hydraulic pump driven by a 12 volt D.C. series wound electric motor powers the crane's rotation, elevation and extension functions. The pump is a gear type with a 1.2 GPM capacity at 500 psi. Control of the hydraulic functions is through four way spring centered solenoid activated valves. Valves have manual over-ride capability and are mounted on a manifold for easy access. The relief of the pump is set at 1,800 psi.

POWER SOURCE: Crane is powered by the truck's 12 volt DC system. A second battery (Group 31, Deep Cycle) is recommended to provide sufficient voltage and amperage and should be installed in parallel with the vehicle's battery.

BATTERY CABLE AND CONNECTION: #1 battery cable x 30 ft. with quick disconnect is included along with a $1/0 \times 3$ ft. ground wire for the engine battery, and a $1/0 \times 5$ ft. ground wire for the crane base to the chassis or auxiliary battery ground post, two 150 amp circuit breakers, and a master disconnect switch.

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

ANTI TWO-BLOCK: Anti two-block is standard on this crane & prevents extending the boom against the load block and damaging or breaking the cable.

BOOM ELEVATION: The boom's range is -5 to +75 degrees. A double acting cylinder with 3.0" bore, an integral counterbalance valve, and integral pilot operated check valve elevates the boom.

The counterbalance valve, with a relief pressure setting of 2,000 psi., has two important functions. This valve holds the cylinder in the event of hose failure and it controls the rate of cylinder retraction.

BOOM EXTENSION: The boom extends under power from 7 ft. to 11 ft. with a 2.5" bore hydraulic cylinder. The cylinder is mounted inside the boom for its protection. The cylinder has an integral counterbalance valve and a pilot operated check valve.

The counterbalance valve, with a relief pressure setting of 2,000 psi., has two important functions. This valve holds the cylinder in the event of hose failure and it controls the rate of cylinder retraction.

The pilot operated check valve prevents the boom from extending due to system back pressure.

There is an additional boom extension with a 4 ft. manual pull out to 15 ft. with one intermediate position at 13 ft.

ROTATION SYSTEM: The hydraulic powered rotation is driven by a low speed, high torque hydraulic motor and drives through a 36:1 ratio self-locking worm gear. The crane rotates unlimited and continuously through 360 degrees on two 3.75" ID tapered roller bearings.

WIRE ROPE and SHEAVES: The crane is supplied with 50 Ft. of ¼ in. galvanized aircraft cable. Minimum breaking strength of the rope is 7,000 lbs. The wire rope is outside of the boom and visible for operators continual inspection. The hook includes a ball bearing swivel that allows the hook to swivel under load. All sheaves meet ANSI requirements.

VOLTMETER AND AMMETER: A voltmeter and ammeter is included that provides real time digital readings for aiding in diagnostics.

CRANE WEIGHT: 705 lbs.

STANDARD WARRANTY: Twelve (12) months free from defects in materials and workmanship, and thirty six (36) months for the crane structural components manufactured by Liftmoore.



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CRANE CONTROL OPTION:

WIRELESS CONTROL & WIFI DIAGNOSTICS:

Crane is available with wireless controls. This option includes the WIFI diagnostic capability (additional tool required).

An additional receiver is available for engaging and disengaging the truck engine and PTO or other auxiliary equipment.



Figure 4: 2010REE-15 WI Wireless Control & WIFI Diagnostics Crane Liftmoore PN 39437

CRANE CONTROL OPTION:

REMOVABLE WIRED PENDANT CONTROL: An

18-ft. long remote pendant is provided for control of each powered function. The pendant control is removable, with a 1/4 turn connector, from the crane to prevent inadvertent or unauthorized use An E-Stop is included for of the crane. emergency shutdown of all crane power as required by OSHA.





MOUNTING: Four 0.50" X 2.5" long Grade 8 hex head cap screws, washers, and lock nuts are provided. Mounting plate is 14" square with a 12" square bolt pattern.

STABILITY: An outrigger or jackstand is needed for stability requirements of OSHA 1910.180. The outrigger or jackstand is necessary to reduce the load on the crane's rotation mechanism and the truck's suspension.

BOOM REST: A boom rest is required on all power rotation model cranes.

CHASSIS: A minimum 10,500 Lb. GVWR is recommended.



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Since 1961 Liftmoore has built electric and hydraulic cranes with the features you need. Liftmoore manufactures a complete line of cranes with capacities ranging from 800 to 10,000 lbs. and with moment ratings from 4,500 to 72,000 ft.-lbs. Cranes can be manual or power rotation and either hydraulic or 12 VDC electric powered. Boom lengths to 30 ft. are offered with either power or manual extension.

Controls offered can be either remote wire pendant, wireless or a combination of both.

Crane accessories manufactured include outriggers, jackstands, boom rests and pedestals.

Typical applications include:

Heavy Equipment Field Service Railroad Maintenance Mining Companies Municipal Water and Wastewater Oil Field maintenance Propane Tank Setting Monument Companies

We can help you select the proper crane for your application with the following information.

CRANE SELECTION

Selecting the correct crane for your application is critical to your successful experience

There are three factors that must be considered:

1. How much weight will be lifted?

Do not use only crane maximum capacity as the determining factor. Allow a safety factor for extra weight. Remember that slings, blocks and any other object attached to the wire line needs to be included in the weight to be lifted

2. How far out from the center of rotation is the load?

The minimum moment rating for the crane you need is determined by multiplying the maximum reach in feet times the maximum weight in Lbs. This is the best and most accurate method to determine the size of crane required for your work. Always add a safety factor as the maximum load will probably change over the years.

3. How often will a lift be made?

This determines whether an electric or hydraulic crane should be ordered. The duty cycle of electric cranes should be under five minutes in thirty. Depending upon reservoir size and load a hydraulic crane's operating time is nearly unlimited.

TYPICAL CRANE MAXIMUM WEIGHT AND MOMENT RATING

Maximum Lift Capacity	Moment Rating FtLbs.	Load Radius - Feet							
		3'	5'	7'	9'	11'	15'	20'	30'
800	4,500	800	800						
2,000	6,500	2,000	1,300	929	772				
2,000	10,000	2,000	2,000	1,428	1,111	909	666		
3,600	12,000	3,600	2,400	1,714	1,333	1,090	800		
4,000	16,000	4,000	3,200	2,286	1,778	1,455	1,067	800	
5,000	25,000		5,000	3,571	2,778	2,273	1,667	1,250	
5,500	30,000		5,500	4,286	3,333	2,727	2,000	1,500	
6,000	36,000		6,000	5,143	4,000	3,273	2,400	1,800	
6,400	40,000		6,400	5,714	4,444	3,636	2,667	2,000	1,333
8,000	50,000		8,000	7,143	5,555	4,545	3,333	2,500	
10,000	60,000		10,000	8,572	6,666	5,454	4,000	3,000	2,000
10,000	72,000		10,000	10,000	8,000	6,545	4,480	3,600	2,400



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