INSTRUCTION MANUAL

FOR 6,000 LBS ENGINE HOIST

MODELS COVERED:EHN-60-T

MATERIAL HANDLING.COM

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SPECIFICATION

While every effort has been made to ensure accuracy of information given in this manual is correct at the time of going to print, we reserve the right to change specification without notice.

Lifting Capacity Position 1 …… 6,000 lbs

Lifting Capacity Position 2 …… 4,000 lbs

Lifting Capacity Position 3 …… 3,000 lbs

Lifting Capacity Position 4 …… 2,000 lbs

Maximum Lifting Height (minimum boom extension) …… 84”

Maximum Lifting Height (maximum boom extension) …… 96 9/16”

Boom Reach Position 1 …… 51 7/8”

Boom Reach Position 2 …… 60”

Boom Reach Position 3 …… 68”

Boom Reach Position 4 …… 96 9/16”

Height of Frame …… 7 7/8”

Length of Frame Retracted …… 54 ½”

Length of Frame Extended …… 83 ¼“

Overall Height …… 61”

Width of Frame …… 30 1/8”

Distance between center of rear wheels …… 28 ½”

WARNING

- Do not over load. Overloading can cause damage or failure of the engine crane.
- Never use the crane on uneven floor surface as this could result in the crane tipping over
- Always lock the legs and jib in position before lifting the load
- The nuts and bolts supplied with the crane are all high strength and shouldn’t be substituted for inferior types
- Before each use ensure that all nuts and bolts are correctly fitted and tight
- Never exceed the safe working loads indicated on the jib.

ASSEMBLY INSTRUCTIONS

NOTE: During the assembly procedure, bolts & nuts should be hand-tightened. Once assembly is complete, bolts and nuts must be fully tightened.

1. Attach two 1 ½" x Ø4 swivel casters (#6) to base frame using nuts (#9), lock washers (#10) & washer (#11).
2. Referring to the spare parts drawing, insert two legs (#G) into the base (#F) and secure the legs in place using 2 set screws (#12).
3. Attach the main support post (#C) to the base assembly (#F) using bolts (#8), flat washers (#11) and nuts (#9).
4. Now secure the boom (#B) to the main support post (#C) using bolt (#17), flat washer (#22) and nut (#14).
5. Attach support brackets (#D) to top of the main support post using bolt (#8), flat washers (#11) and nut (#9).
6. Attach support brackets (#D) to the frame base using bolts (#8), flat washers (#11), spring washers (10) and nuts (#9).
7. Connect bottom of cylinder (#E) to main support post (#C) using bolt (#13), flat washer (#22) and nut (#14).
8. Hold the boom up with the help of a helper, connect top of the cylinder (#E) to boom using bolt (#15), flat washer (#21) and nut (#16).
9. Slide boom extension (#A) into the main boom (#B), secure in one of the four positions using lock pin (#19).

10. Tighten all the bolts, lock washers & nuts.

OPERATING INSTRUCTIONS

WARNING!

Δ THIS DOUBLE PUMP LONG RAM IS DESIGNED FOR LIFTING PURPOSE ONLY. NOT FOR SUPPORTING LOADS.

Δ DO NOT LOAD BEYOND IT'S RATED CAPACITY

IMPORTANT: It is possible that air has got into the hydraulic cylinder system, causing poor lifting performance. Purge any air from the system by fully opening release valve (turn handle counterclockwise), then while holding the boom down, operate pump handle rapidly several times.

TO RAISE LOAD

Close release valve by turning handle COUNTERCLOCKWISE very slowly. The speed of lowering the load is controlled by how much you turn the handle.

MAINTENANCE

IMPORTANT: Do not use brake fluid or jack oil in the hydraulic system. If oil is needed, use an anti-wear hydraulic oil with a viscosity grade of 150 SUS at 100°F, (ISO 32@40°C), or a non-synthetic transmission fluid.

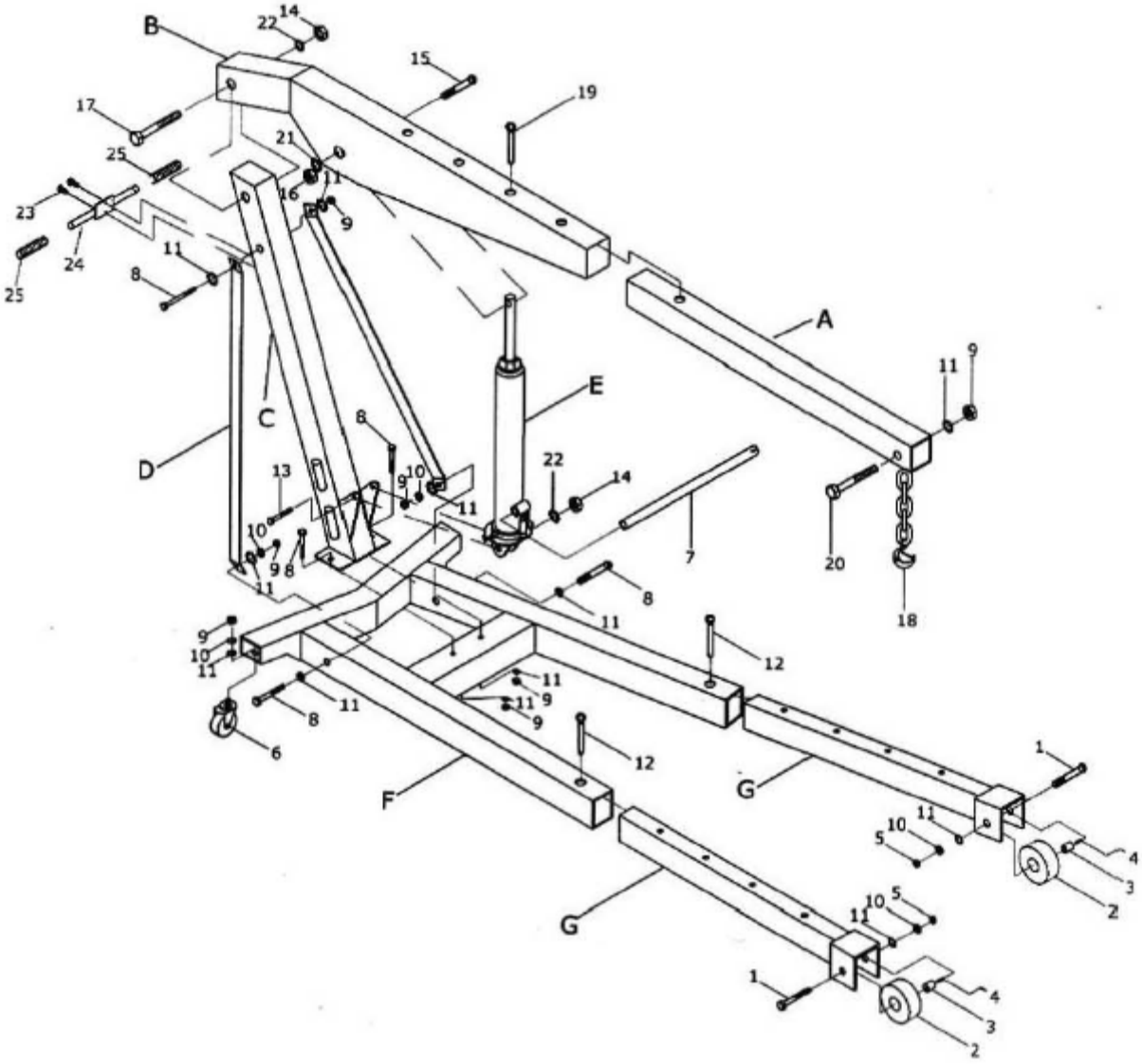
Avoid mixing different grades/types of oil DO NOT use brake fluid, alcohol, glycerin, detergent motor oil or dirty oil. Improper fluid can cause internal damage to long ram.

When adding oil, be VERY CAREFUL, not to permit dirt or foreign matter to get into the system. Check ram & plunger every 3 months for any signs of rust or corrosion. Clean as needed and wipe with an oily cloth. When not using the long ram, always leave the shop crane in fully lowered postion.

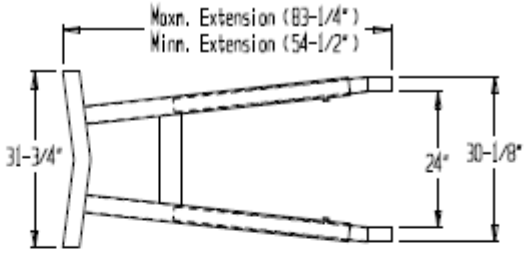
TROUBLE SHOOTING

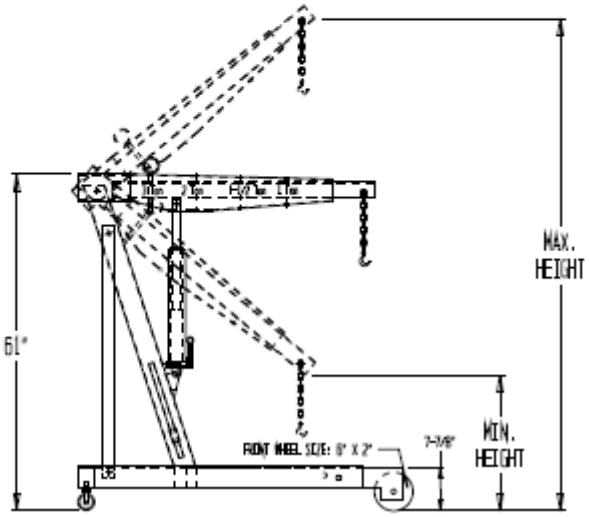
Problem	Possible Cause	Action
Will not hold load	Dirt on valve seats	1. Lower lifting boom. Close the release valve and remove oil filter plug. 2. Place one foot on the leg and pull up the lifting boom to its full height by hand. 3. Open release valve to lower the lifting boom. 4. Worn seals.
Will not lift load Will not lift to the full height Pump feels unsteady under load. Pump will not lower completely	Air block	1. Open the release valve and remove oil filler plug. 2. Pump handle a couple of full strokes and close the release valve.
Pump will not lift its full height Pump feels unsteady under load	The reservoir could be over filled Low hydraulic oil level	Check the oil level. Remove the filler plug. Fill the oil to correct level
Pump feels unsteady under load	The pump seal could be worn out	Replace cup seal with new one
Will not lower completely	Air block. Unit requires lubrication	Release air from hydraulic pump by removing filler plug. Oil external moving parts.

6000LBS ENGING HOIST



Part No	Description	Q'TY	Part No	Description	Q'TY	Part No	Description	Q'TY
A	BOOM EXTENSION	1	5	NUT M16	2	16	NUT M22	1
B	BOOM	1	6	UNIVERSAL WHEEL	2	17	Bolt M20X135	1
C	MAST	1	7	JACK HANDLE	1	18	HOOK AND CHAIN	1
D	MAST BRACE	2	8	BOLT M16x110	5	19	LOCK PIN	1
E	HYDRAUUC RAM	1	9	NUT M16	8	20	BOLT M16X100	1
F	BASE	1	10	SPRING WASHER	6	21	WASHER Ø22	1
G	LEG EXTENSION	2	11	WASHER Ø16	13	22	WASHER Ø20	2
1	Bolt M16x100	2	12	SET SCREW M12X20	2	23	BOLT M8X10	2
2	DIRECTIVE WHEEL	2	13	BOLT M20X100	1	24	HANDRAIL	1
3	BUSHING	2	14	NUT M20	2	25	HANDRAIL COVER	2
4	BEARING	2	15	BOLT M22X125	1			





STANDARD FEATURES:

1 - NON-FOLDABLE DESIGN
2 - HEAVY DUTY STEEL CONSTRUCTION.
3 - ADJUSTABLE LEGS FOR GREATER STABILITY.
4 - ADJUSTABLE BOOM ALLOWS FOR MULTIPLE LIFTING CAPACITY.
5 - 12-TON CAPACITY HYDRAULIC LONG RAM PROVIDES FASTER RISING ACTION, AND A LARGE DIA. RAM TO WITHSTAND ANGLE LOADS.

CAPACITY	3 TON	2 TON	1-1/2 TON	1 TON
BOOM REACH	51 7/8"	60"	68"	76 1/4"
MAX. HEIGHT	84"	88 3/16"	92 3/8"	96 9/16"
MIN. HEIGHT	22"	16 11/16"	11 1/2"	6 1/4"
LEG EXTENSION	6-11/16"	18-1/2"	26-1/2"	34-1/4"

OVERALL SIZE (WXL): 31 3/4" X 54 1/2"

WEIGHT: 340 LBS.

T & S EQUIPMENT COMPANY

SCALE: 1:15	APPROVED BY:	DRAWN BY: T.MAHMOOD
DATE: 06-05-05		SIZE: B

EHH-60-T (NON FOLDABLE 6000 lbs. SHOP CRANE ENGINE HOIST)

MATERIAL:

DRAWING NUMBER: TM-05-005-005

REV