



INSTRUCTION MANUAL

FOR 6,000 LBS ENGINE HOIST
MODELS COVERED: EHN-60-T



VESTIL MANUFACTURING CORP.

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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 1/2"
Length of Frame Extended	83 1/4"
Overall Height	61"
Width of Frame	30 1/8"
Distance between center of rear wheels	28 1/2"

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.

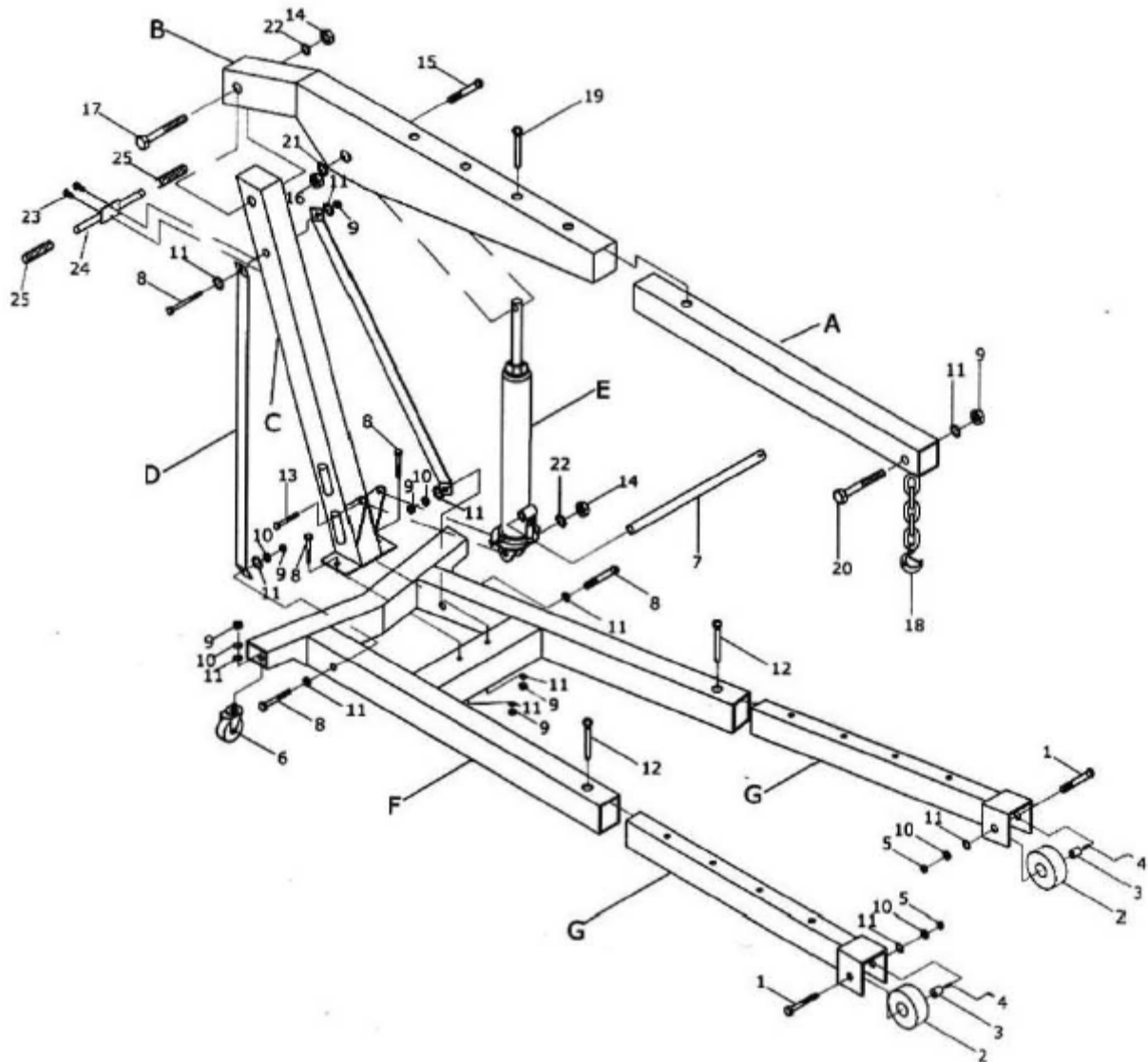
Avoid mixing different grades/types of oil DO NOT use brake fluid, alcohol, glycerin, detergent motor oil or dirty oil. Improper fluid can cause internal damage to long ram.

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 position.

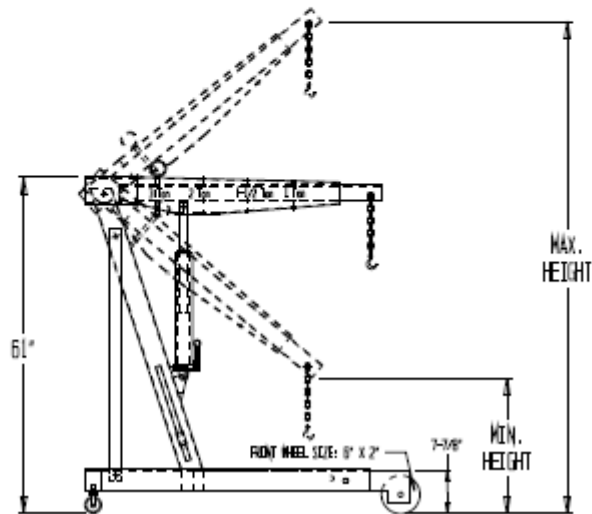
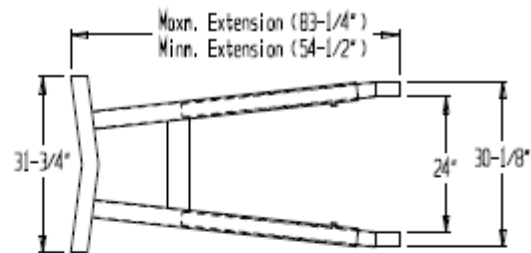
TROUBLE SHOOTING

Problem	Possible Cause	Action
Will not hold load	Dirt on valve seats	<ol style="list-style-type: none">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	<ol style="list-style-type: none">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"	16-1/2"	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	DESIGNED BY:	DRAWN BY: T. HAROLD
DATE: 05-05-05		DATE: 11
E4H-60-T (NON FOLDABLE 6000 lbs. SHOP CRANE ENGINE HOIST)		
WHEEL:	DRUM SIZE:	REV:
	TH-05-005-005	

LIMITED WARRANTY

Vestil Manufacturing Corporation ("Vestil") warrants this product to be free of defects in material and workmanship during the warranty period. *Our warranty obligation is to provide a replacement for a defective original part if the part is covered by the warranty, after we receive a proper request from the warrantee (you) for warranty service.*

Who may request service?

Only a warrantee may request service. *You are a warrantee if* you purchased the product from Vestil or from an authorized distributor AND Vestil has been fully paid.

What is an "original part"?

An original part is a part used to make the product as shipped to the warrantee.

What is a "proper request"?

A request for warranty service is proper if Vestil receives: 1) a photocopy of the Customer Invoice that displays the shipping date; AND 2) a written request for warranty service including your name and phone number. Send requests by any of the following methods:

Mail
Vestil Manufacturing Corporation
2999 North Wayne Street, PO Box 507
Angola, IN 46703

Fax
(260) 665-1339
Phone
(260) 665-7586

Email
sales@vestil.com

In the written request, list the parts believed to be defective and include the address where replacements should be delivered.

What is covered under the warranty?

After Vestil receives your request for warranty service, an authorized representative will contact you to determine whether your claim is covered by the warranty. Before providing warranty service, Vestil may require you to send the entire product, or just the defective part or parts, to its facility in Angola, IN. The warranty covers defects in the following *original* dynamic components: motors, hydraulic pumps, electronic controllers, switches and cylinders. It also covers defects in *original* parts that wear under normal usage conditions ("wearing parts"): bearings, hoses, wheels, seals, brushes, batteries, and the battery charger.

How long is the warranty period?

The warranty period for original components is 30 days. The warranty period begins on the date when Vestil ships the product to the warrantee. If the product was purchased from an authorized distributor, the period begins when the distributor ships the product. Vestil may extend the warranty period for products shipped from authorized distributors by *up to* 30 days to account for shipping time.

If a defective part is covered by the warranty, what will Vestil do to correct the problem?

Vestil will provide an appropriate replacement for any *covered* part. An authorized representative of Vestil will contact you to discuss your claim.

What is not covered by the warranty?

1. Labor;
2. Freight;
3. Occurrence of any of the following, which automatically voids the warranty:
 - Product misuse;
 - Negligent operation or repair;
 - Corrosion or use in corrosive environments;
 - Inadequate or improper maintenance;
 - Damage sustained during shipping;
 - Collisions or other incidental contacts causing damage to the product;
 - Unauthorized modifications: DO NOT modify the product IN ANY WAY without first receiving written authorization from Vestil. Modification(s) might make the product unsafe to use or might cause excessive and/or abnormal wear.

Do any other warranties apply to the product?

Vestil Manufacturing Corp. makes no other express warranties. All implied warranties are disclaimed to the extent allowed by law. Any implied warranty not disclaimed is limited in scope to the terms of this Limited Warranty.

