

# ATLAS 2000 SINGLE LINE HYDRAULIC HOIST

## OPERATORS' INSTRUCTION MANUAL



Keep this Manual with the Atlas 2000 Hoist at all times. This will allow new users to read it before operating the Hoist.

It is the Atlas 2000 owner's responsibility to ensure that all workers using this Hoist are thoroughly trained. Provide workers with this Operator's Manual and make sure they understand its' contents. Read it to them if necessary. Letting poorly trained workers use this machine can result in property or machine damage, litigation and/or serious injury or death to personnel.

Garlock provides this Operator's Manual at the time of sale as a tool to help instruct the owner/worker in the proper use of the Hoist. Garlock expects the reseller and owner/worker to make every effort to educate themselves in the safe and responsible use of this Hoist before putting this Hoist into service.



## GARLOCK ATLAS 2000 LB HOIST

Thank you for purchasing this Garlock product. With proper use and care, the Atlas Hoist will serve you for many years. For safety of the operator and other people on the jobsite, it is imperative that the operator read and understand the contents of this instruction manual before using.

Date of Purchase \_\_\_\_\_ Serial Number \_\_\_\_\_

**INTENDED USE:** This machine is intended for the sole purpose of hoisting (lifting and lowering) materials and equipment directly up from the ground and directly down to the ground. Never pull a load sideways or toward or away from building.

**WARNING!** This Hoist is to be used on flat, level roofs only. Any other use of this equipment voids the manufacturer's warranty and is the sole responsibility of the owner/user should any damage or injuries occur.

### **Specifications:**

Length-Overall	238"
Length: A-Frame to back of Tray	152"
Width	92"
Height	120"
Weight of total unit	2400 lbs (including concrete –filled counter weights)
Engine	18 HP Honda V-Twin
Hydraulic Fluid	Dextron II
Cable-Standard Length	225 FT 5/16 inch diameter
Cable-Max Length	450 FT 5/16 inch diameter

**WARNING!** When replacing Cable, use only 5/16" dia Cable supplied by Garlock Equipment Co. Using any other Cable voids the Hoist manufacturer's warranty and is the sole responsibility of the Hoist owner/user should Cable fail and cause property damage, machine damage or injury to workers and/or bystanders.

<b>! DANGER</b>	
<b>WEIGHT LIMITS FOR CABLE LENGTHS</b>	
<b>225 FT= 2000 LBS</b>	<b>350 FT= 1400 LBS</b>
<b>275 FT= 1700 LBS</b>	<b>425 FT= 1000 LBS</b>
<b>DO NOT EXCEED THESE LIMITS!</b>	
<b>MACHINE FAILURE AND/OR SERIOUS</b>	
<b>INJURY OR DEATH MAY RESULT!</b>	
<small>160976</small>	

**WARNING!** The 2000 Atlas Hoist is for Single-Line lifting only. **DO NOT DOUBLE-LINE THIS HOIST.** You could exceed its' load-carrying capacity which may cause failure of components and serious injury or death to operator, workers and by-standers.

## 1. OPERATOR PREPARATION:

### Read the Operator's Instruction Manual!

Reading the instructions completely is the first step to safe operation. An uninformed operator can subject themselves and others to serious injury or death.

### Wear Proper Clothing.

Wear Safety Glasses and protective clothing if any cutting, scraping, or sweeping is being done in your work area. Wear Safety Shoes. Hard Hat must be worn by Operator when work is being done overhead.

**WARNING!** Before beginning work on the roof, install OSHA-approved Perimeter Guarding Systems around all roof edges and openings. This includes all Skylights (whether they are left in place or removed) and any Roof Hatches which are left open or have been removed.

It is against Federal Law to leave these areas unguarded and will result in fines against the Contractor if any unguarded openings are on the roof.

In the event of injury or death of a worker due to falling from an unguarded edge or through an unguarded opening, legal prosecution may be brought against the Contractor, Equipment Owner and Building Owner.

**WARNING!** Working at or near the roof edge is dangerous and can subject the Worker to serious injury or death from falls. The Roofing Contractor and the Worker must make every effort to ensure the area where he/she will be working is as safe as possible. This means taking only the tools you need to the roof edge, removing all trip hazards and loose material, the wearing and proper use of OSHA approved Harnesses and Life-Lines, making no sudden or unplanned moves and being constantly aware of your surroundings and your position/location relative to the roof edge.

It is also imperative that the Worker read the Operators' Manual for this Hoist and thoroughly understand how to set up and use this Hoist. This includes knowledge of what the Hoist can do and also how to avoid situations this Hoist was not designed to handle. Garlock provides this Operators' Manual at the time of sale as a tool to help instruct the owner/worker in the proper use of the Hoist and expects the reseller and owner/worker to make every effort to educate themselves in the safe use of this Hoist before putting it into service.

## SITE PREPARATION:

- Select a location on the Roof that permits loading and unloading on the ground that is as far away from road and pedestrian traffic as is practical.
- Do a thorough Roof Structure analysis to ensure Roof can support the total Live Load in the hoisting area. This Live Load includes the total weight of the Hoist and Counter Weights, plus the heaviest load to be lifted, all other equipment used in the Hoisting area and all workers that will move in and out of Hoisting area. INCLUDE THE BUILDING OWNER AND/OR A CERTIFIED ARCHITECT IN THIS ANALYSIS!
- Surround Hoisting area with an OSHA-approved perimeter guarding system.
- Cover all roof openings, including skylights, (whether they are removed or not) and all hatches that must be left open during the work shift with OSHA-approved guarding systems.
- Remove trip hazards from hoisting area. Cover or use Guard Rails to divert workers around hazards that can not be moved.
- Maintain a safe distance from overhead power lines. A minimum of 30 feet is recommended.

## 2. TRANSPORTING HOIST TO THE ROOF:

Use a Hand Hoist, Crane, Elevator or other safe method to bring all components to the Roof.

To ensure maximum safety of personnel, the Main Frame of the Hoist must be assembled at least 10 feet from the Roof Edge. A 3-man team, with practice, can set up the entire Hoist in about 20 minutes.

Tools needed:

- 8 foot step ladder
- 1-1/8 inch combination wrench
- 15/16 inch combination wrenches (2)
- 3/4 inch combination wrench
- (While the 1-1/8 wrench is necessary, a crescent wrench can be substituted for the two smaller wrenches.)
- Hammer

## 3. ASSEMBLING THE HOIST ON THE ROOF:

Garlock recommends assembling the Hoist in the following order: (See Photos for reference)

- Lower Boom to Upper Boom
- A-Frame to Side Leg
- Boom to A-Frame
- Antenna Brace (Mid Brace) to A-frame and Boom
- Bottom Brace to A-frame and Boom
- Swing Arm to A-Frame

At this point, CAREFULLY slide the Hoist to the Roof Edge.

- Install Winch Assembly to Boom
- Counterbalance pan to Boom
- Counterweight Cans (concrete filled) into Counterbalance Pan
- Hydraulic swing Cylinder to Antenna Brace and Swing Arm
- Power Unit hoses to Winch and Cylinder.



Fig. 1. Lower Boom to Upper Boom. Use 15/16 inch combination wrenches or Crescent Wrenches to install and tighten the (6) 5/8 inch Bolts and Nuts.



Figs. 2 and 3. Bottom of A-Frame to Side Leg. Use 3/4 inch Combination wrench or Crescent to tighten (2) 1/2 inch Bolts.



Figs. 4 and 5. Top of A-Frame to Side Leg. Use 1-1/8 inch Combination wrench to tighten 3/4 inch Bolt and Nut.



Fig 6: Lift Boom to upper Joint in A-Frame and Pin



Fig 7: Insert front end of Antenna Brace into lower joint in A-Frame.



Fig 8. Secure Front end of Antenna brace to A-Frame using attached Pin and Clip.

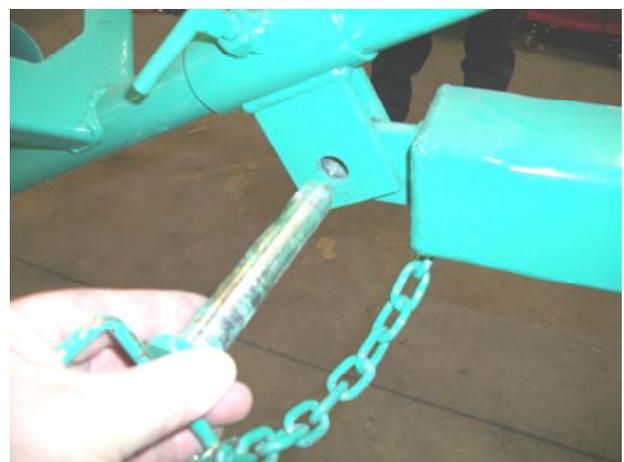


Fig 9. Insert back end of Antenna Brace into Joint in Boom and secure with attached Pin.



Fig 10. Insert back end of lower Brace into Joint on bottom of Boom and secure with attached Pin and Clip.



Fig 11. Insert front end of Lower brace into Joint on Bottom of A-Frame and secure with attached Pin and Clip. **Make sure to tighten T-Bolts on Lower Brace to hold it at the desired length.**



Figs 12 –16. Lift back end of Hoist and install Swing Arm into Pivot Bearings. Applying grease to Pins on Swing Arm will make this step easier. Locate Winch Unit on ground in a nearby position. Hook Power Unit up to Winch Unit and unwind enough Cable to install Mast Pulley at the top of A-frame and route Cable through the Sheave at the end of Swing Arm. Lower back end of Hoist down to roof.



Fig 17. Install Swing Arm Cylinder as shown and secure in place with attached Pins and Clips. Note location of Winch Unit from previous step.



Fig. 18. Using Lifter bar, install the Wheels on both sides of A-Frame as shown. **This is a 2-Person operation!** Attempting this by yourself can put you off-balance, exposing you to serious injury or a fall ,especially when removing Wheels at the Roof Edge.



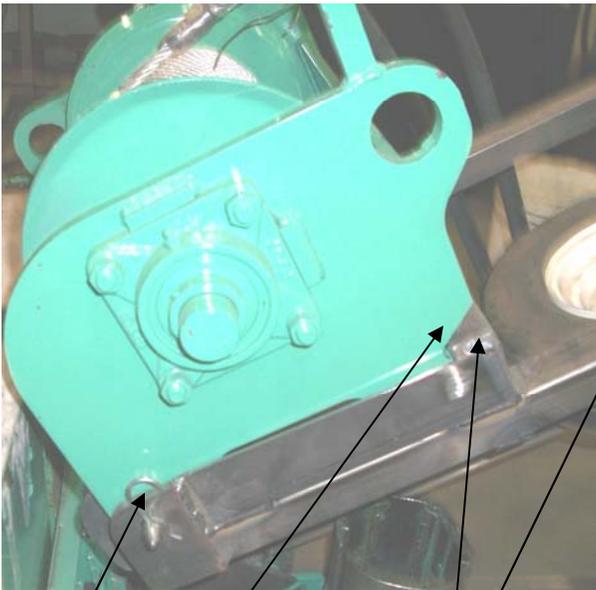
Fig 19. Lower the Operator fence into position. Remove Pin that holds Fence in the "stowed" position. Lower the Arm until hole in end of Arm aligns with holes in Upper Bracket and secure Arm in place with Pin.



Fig 20. CAREFULLY roll Hoist into its' working location at the Roof Edge.

Once Hoist is the proper location, remove both Wheels **using the same 2-person technique** you used to install the Wheels.

**WARNING!** Make sure to remove Wheel Kit before doing any lifting with the Hoist. Not doing so can damage the Hoist, putting the Hoist and the Load in an unstable condition. This can lead to property damage and serious injury or death to operator, nearby workers and pedestrians.



Pin Notch Flange



Notch Rod

Figs 21 and 22. Slip Notch in Winch Frame under Flange in Tray, then lower back of Winch so it rests flat in Tray. Install Rod through holes in back of Frame and secure it with Pin.

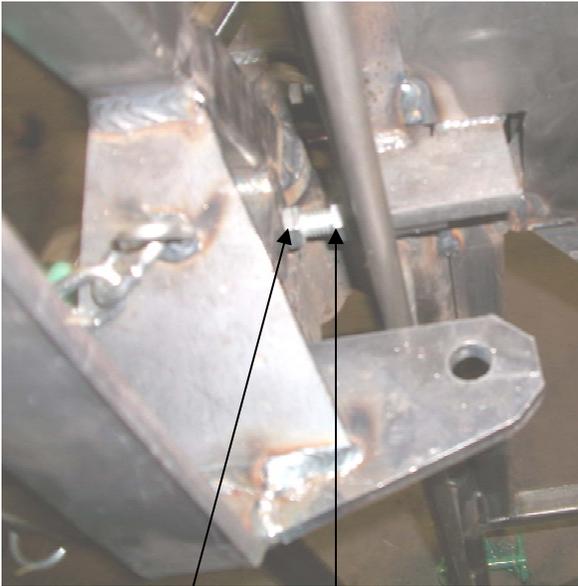


Figs 23 and 24. Install empty Counterbalance Pan onto back of Hoist. Place it so channel in bottom of Pan slips over rectangular Tube on back of Hoist. Slide Pan forward until holes in bracket align with holes in Boom and secure Pan in place with Pin and Clip attached to Pan. Load 16 concrete-filled Garlock Counterweights into Pan as shown.

**WARNING!** To ensure proper ballasting of Hoist, use only Counterweights supplied by Garlock Equipment Company to counterbalance this Hoist. Do not use Roofing material, Liquids or any "Home-made" weights as these can cause an unstable condition of Hoist and may result in serious injury or death to users and by-standers.



Figs 25, 26 and 27. Re-Install Power Unit Hoses (the large ones) onto the Winch Unit as Shown. Install the 2 smaller Power Unit Hoses to the Swing Arm Cylinder. Due to the different Fittings on each Hose, they only attach one way.



Bolt

Nut

### **Swing Arm Stop Adjustment:**

This only needs to be done on a new Hoists and checked occasionally.

Before Loading the hoist, extend Swing Arm out until it is pointing straight out form A-Frame. Turn head of Bolt until it contacts the Stop on the Swing Arm. This will set the stopping position of Swing Arm. Tighten Nut firmly to lock Bolt in place. This is best done using 2 wrenches.

## **5. BEFORE OPERATING HOIST:**

Before lifting any load to or from the Roof, go through the following “pre-flight” check list to make sure Hoist is safe and ready to go.

- All Bolts, Nuts, Pins and Clips are secure, tight and properly installed.
- Hoist is set up on a flat, level surface that has been determined to be strong enough to carry the combined weight of the Hoist, the Lifted Load, any other equipment that will be used in the Hoisting area and all personnel that will be working near the Hoist.
- Hoisting Area (on roof) has an OSHA-approved Perimeter Guarding System set up around it.
- Area beneath the Hoist (loading Area on ground) is clear of by-standers and pedestrians and has been roped off according to OSHA standards.
- Materials (items) to be hoisted are positioned directly below the Hoist. Cable hangs straight down.
- Counterbalance pan is weighted with Ballast Cans supplied by Garlock Equipment Co. and there is at least 100 lbs of ballast for every 200 lbs of load to be lifted.
- Hydraulic Oil level is at the top of the Sight Glass.
- A fully charged Fire Extinguisher is located near the hoisting area.
- The Cable is in good condition with no frays, flat spots, kinks or other signs of damage or wear.
- The Hoist is in good working order with no damaged parts or signs of wear or abuse.
- Wheel Kit (if installed during Assembly) is removed prior to raising Load.

## 6. OPERATING HOIST:

### Starting the Engine:

Squeeze the Gas Bulb several times. Pull the Choke Button out to apply the Choke. Start Engine using Key Switch according to Engine Operating Instruction Manual supplied with Hoist.

**NOTICE:** On cold days, let the engine warm up for about ten minutes. This allows the Hydraulic Oil in tank to warm up.

### Locating the Power Unit:

**WARNING!** Always locate the Power Unit on the side of Hoist opposite the side where you will be swinging in the Load. The Swing Arm should always point away from the Power Unit and Operator. Never swing the Load toward yourself. Make sure anyone standing on the "Load" side of Hoist is at least 15 feet away from Load as it swings in and is lowered. Approach Load only after it has been set down on Roof.

**WARNING!** Make sure to remove Wheel Kit (if it was installed during assembly) before raising Load. Not doing so can damage Hoist, putting Hoist and the Load in an unstable condition which can lead to property damage and serious injury or death to operator, nearby workers and pedestrians.



### Raising and Lowering the Load:

This is done with a single Lever on the front of the Power Unit. Set the Engine Throttle Control to maximum.

- Move the Lever up to lift the Load.
- Move the Lever down to lower the Load.
- Move the Lever to the "Extend" position to swing the Swing Arm out.
- Move the Lever to the "Retract" position to swing the Swing Arm in.

When lifting your first Load after setting up Hoist, it is recommended you lift it approximately 1-2 feet and stop. At this time check the Hoist and make sure everything is secure. All joints are stable, counterweight is firmly on the roof surface, no part of the Hoist has moved in an abnormal manner, cable is not twisted. After making sure everything is right, proceed with lifting the Load.

**WARNING:** Move the Lever slowly, starting and stopping Loads gradually, especially when lifting and swinging heavy loads. Avoid sudden movement or side-to-side swinging of the load. Such movements put undue stress on the Hoist and underlying roof. This can cause an unstable operating condition and damage to the Hoist; putting operator, nearby workers and pedestrians at risk.

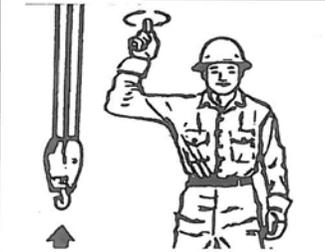
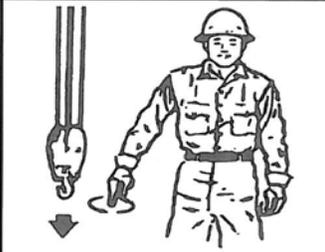
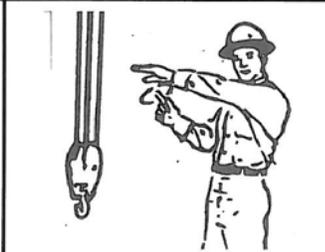
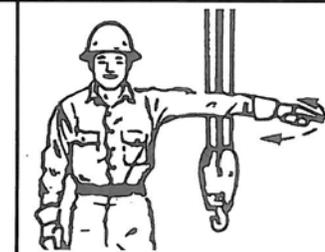
**WARNING!** To prevent damage to cable, always leave a minimum of 6 wraps of Cable on Winch Drum when load is on the ground.

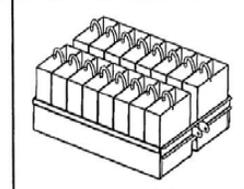
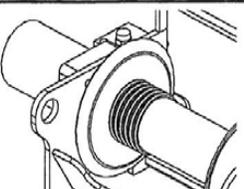
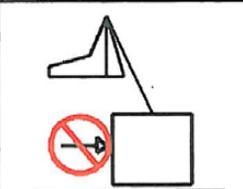
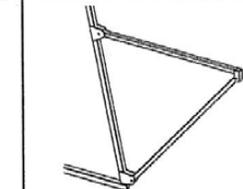
The lift, lower and swing speeds of this Hoist are set at the factory. **These settings are not to be modified by the user.** Doing so can cause an unstable operating condition and damage to the Hoist; putting operator, nearby workers and pedestrians at risk of serious injury or death.

When the Hoist is not in use, run the Cable all the way up, stopping just short of the top. Do not let Cable hang near ground or alongside of the building. This is a safety hazard and may cause damage to the side of the building.

**NOTICE:** Always have a Line Weight attached to end of Cable to keep tension on the Cable. This prevents Cable from unwinding or loosening on the Drum.

**Hand Signals:**

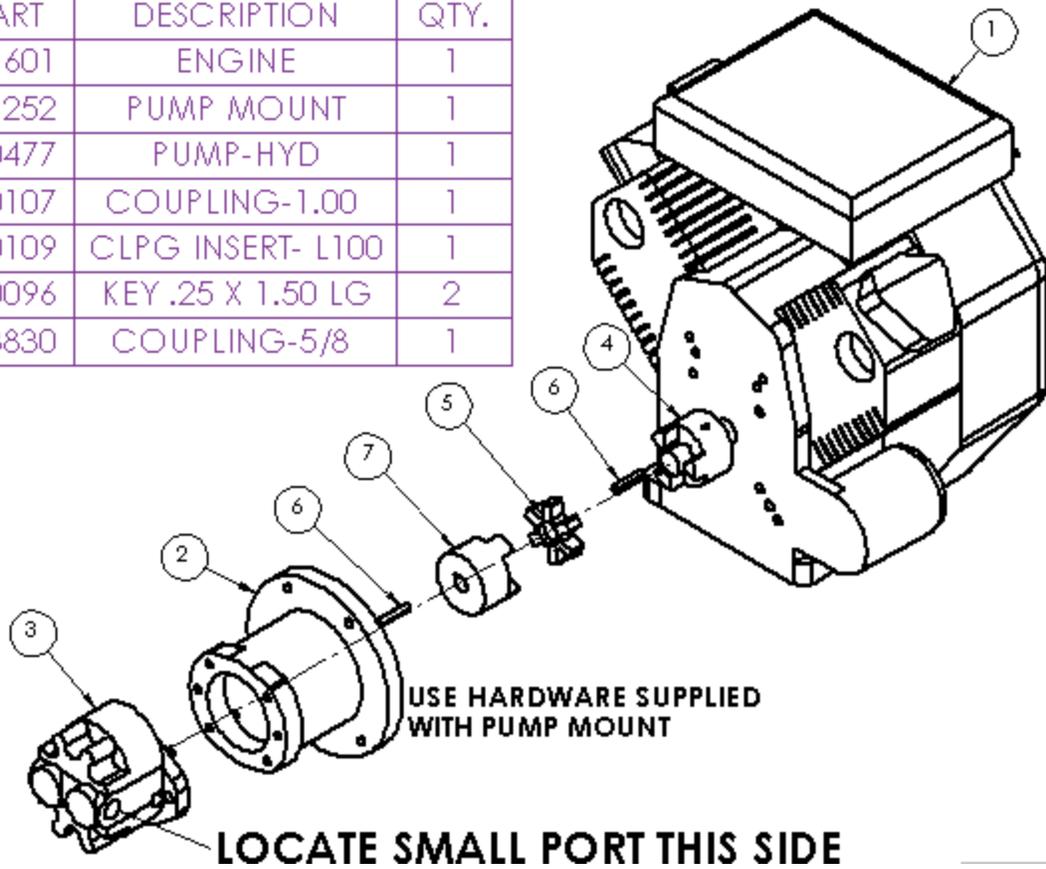
TO MAXIMIZE THE SAFETY OF HOIST OPERATOR, GROUND CREW AND BYSTANDERS, LEARN THESE HOISTING SIGNALS AND MAKE SURE GROUND CREW USES THEM CORRECTLY.			
			
<b>LIFT LOAD.</b> FOREARM VERTICAL FINGER POINTED UP MOVE ARM IN CIRCLE.	<b>LOWER LOAD.</b> ARM AND FINGER POINT DOWN. MOVE ARM IN CIRCLE.	<b>MOVE LOAD SLOWLY</b> WHILE SIGNALING, HOLD OTHER HAND ABOVE SIGNALING HAND.	<b>STOP LOAD.</b> ARM OUT WITH PALM DOWN MOVE ARM BACK AND FORTH. <small>161292</small>

<b>DANGER</b>				
<b>NOTICE TO OPERATOR:</b> DO NOT USE THIS HOIST UNTIL YOU HAVE READ OPERATOR'S MANUAL AND HAVE BEEN THOROUGHLY TRAINED.				
				
USE PROPER GUARD RAIL SYSTEM AND COMPLY WITH ALL OSHA PERIMETER GUARDING REGULATIONS.	COVER ALL HOLES AND ROOF OPENINGS PER OSHA REGULATIONS. REMOVE TRIP HAZARDS.	DO NOT STAND UNDER LOAD. DO NOT LIFT LOAD OVER PEOPLE OR CROWDED AREAS.	USE ONLY COUNTER WEIGHTS SUPPLIED BY GARLOCK EQUIPMENT CO. TO BALLAST THIS HOIST.	HARSH, JERKY USE OF CONTROLS CAN CAUSE LOAD TO SWING OUT OF CONTROL. BE SMOOTH.
HOIST HYDRAULIC CONTROL LEVER CAN BE "FEATHERED" (MOVED SLOWLY) TO STOP/START AND SWING LOADS GRADUALLY.				
				
ALWAYS LEAVE AT LEAST 6 WRAPS OF WIRE ROPE ON WINCH WHEN LOAD IS LOWERED TO GROUND.	ALWAYS LOWER LOAD STRAIGHT DOWN. NEVER PULL LOAD TO SIDE OR AWAY FROM BUILDING.	CHECK LOAD LIMITS OF ROOF WITH BUILDING OWNER OR ARCHITECT. KNOW THE TOTAL HOIST WEIGHT INCLUDING LIFTED LOAD. OVERLOADING ROOF CAN RESULT IN INJURY OR DEATH.	ALWAYS HAVE OPERATOR'S FENCE IN THE LOWERED POSITION AND SECURELY PINNED WHEN USING HOIST.	

**7. PARTS LISTS:  
Engine Assembly**

ITEM	PART	DESCRIPTION	QTY.
1	111601	ENGINE	1
2	171252	PUMP MOUNT	1
3	170477	PUMP-HYD	1
4	110107	COUPLING-1.00	1
5	110109	CLPG INSERT- L100	1
6	110096	KEY .25 X 1.50 LG	2
7	153830	COUPLING-5/8	1

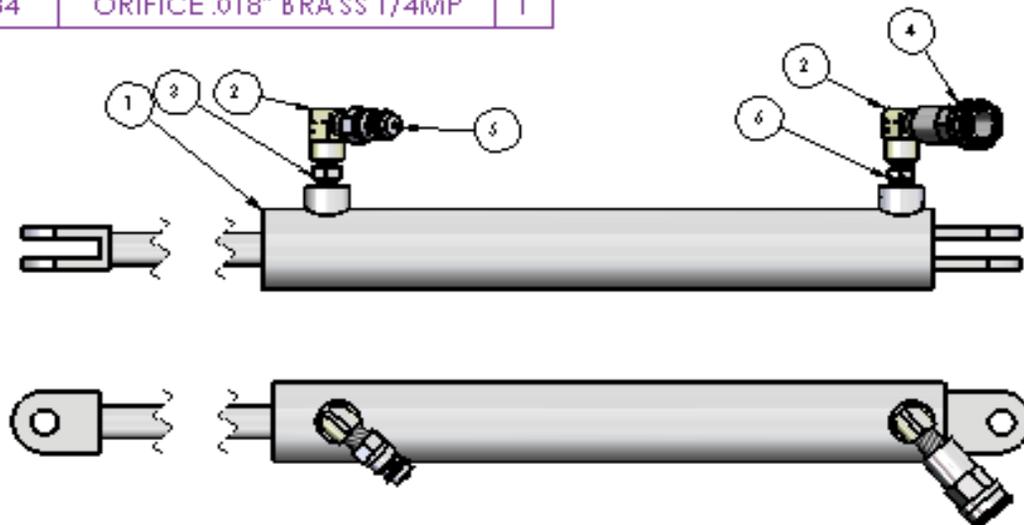
DEC. NO. 406527 REV.



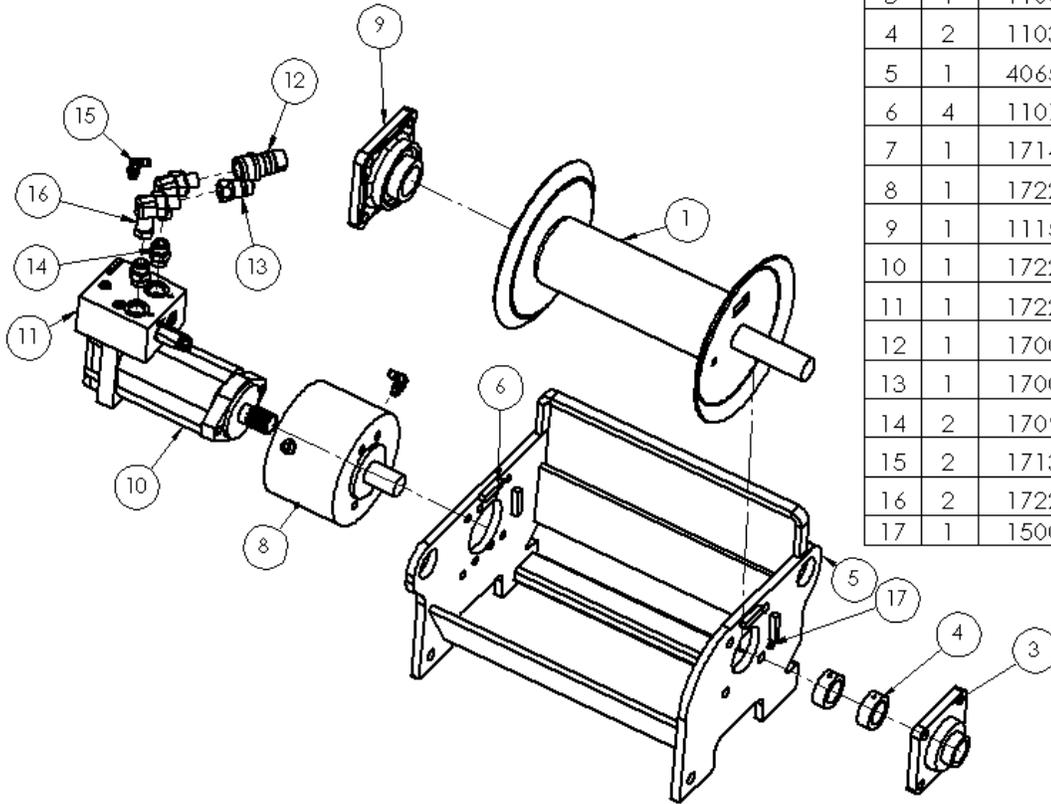
**Cylinder Assembly:**

ITEM	PART NO	DESCRIPTION	QTY.
1	170347	CYLINDER	1
2	170033	ELB OW-4MP-4FP-90	2
3	170092	ADAPTER-4MP-4MP	1
4	170068	QUICK-DISC-SOCKET-4FP	1
5	170069	QUICK DISC-NIPPLE-4MP	1
6	153534	ORIFICE .018" BRASS 1/4MP	1

DEC. NO. 406717 REV.



**Winch Assembly:**

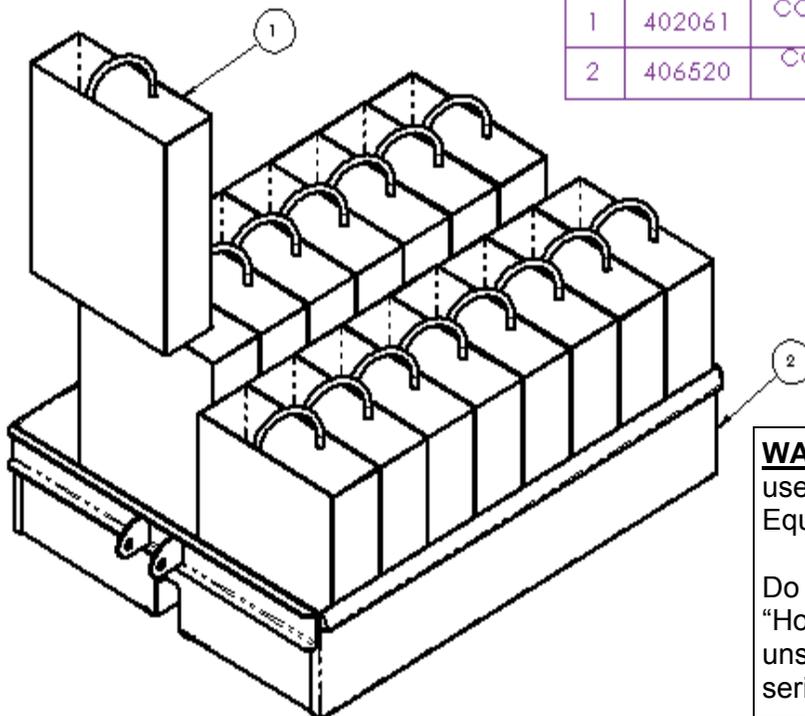


ITEM	QTY.	PART NO.	DESCRIPTION
1	1	406512	SPOOL WELDMENT
2	1	171450	HYD MOTOR BRAKE
3	1	110074	BEARING- FLANGE 1.38
4	2	110363	SET COLLAR- 1.38
5	1	406513	SPOOL FRAME-2000
6	4	110714	KEY .38 X 1.75 LG
7	1	171433	MANIFOLD-WINCH
8	1	172239	BRAKE-2200 HOIST
9	1	111599	FLANGE BEARING-1.75
10	1	172238	Motor Assembly
11	1	172240	HOIST BLOCK-2200
12	1	170070	QUICK-DISC-SOCKET-8FP
13	1	170071	QUICK-DISC-NIPPLE-8FP
14	2	170901	ADAPTER-10MB-10MJ
15	2	171371	ELBOW-4MB-4MJ-90°
16	2	172243	ELBOW-10FJX-8MP 90
17	1	150013	GREASE ZERK

**Counterweight Assembly:**

PRE. NO. 406521 REV.

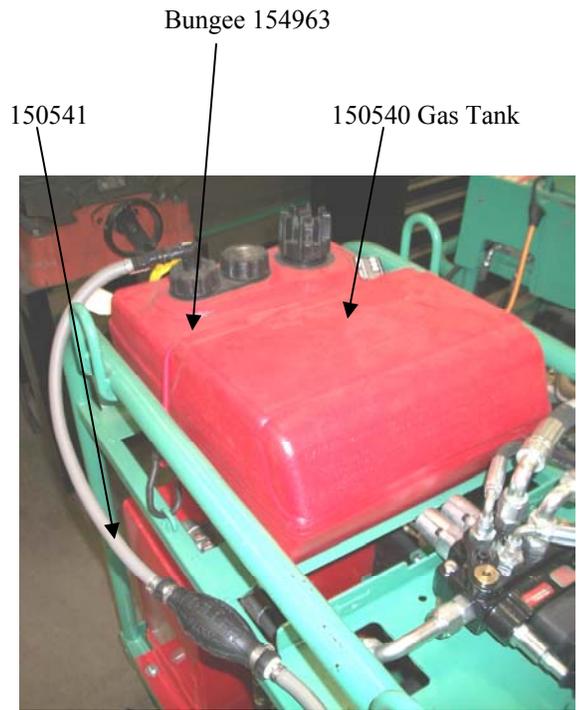
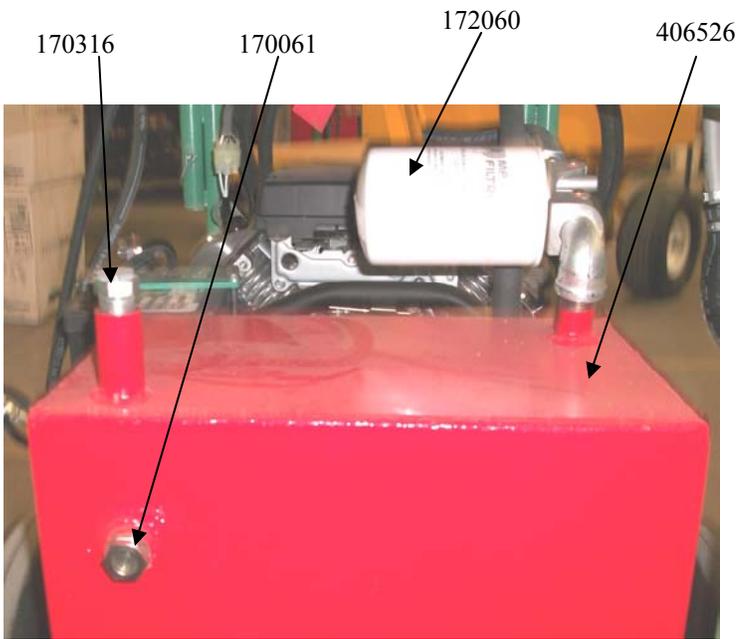
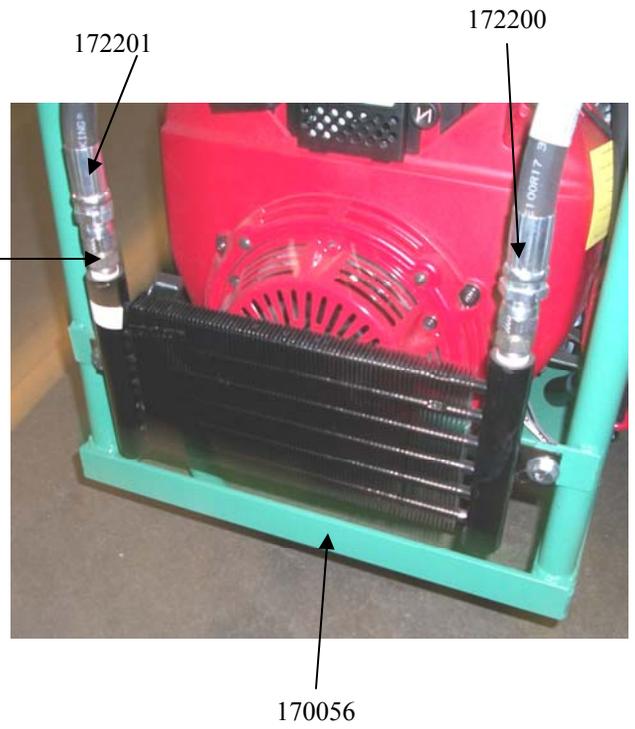
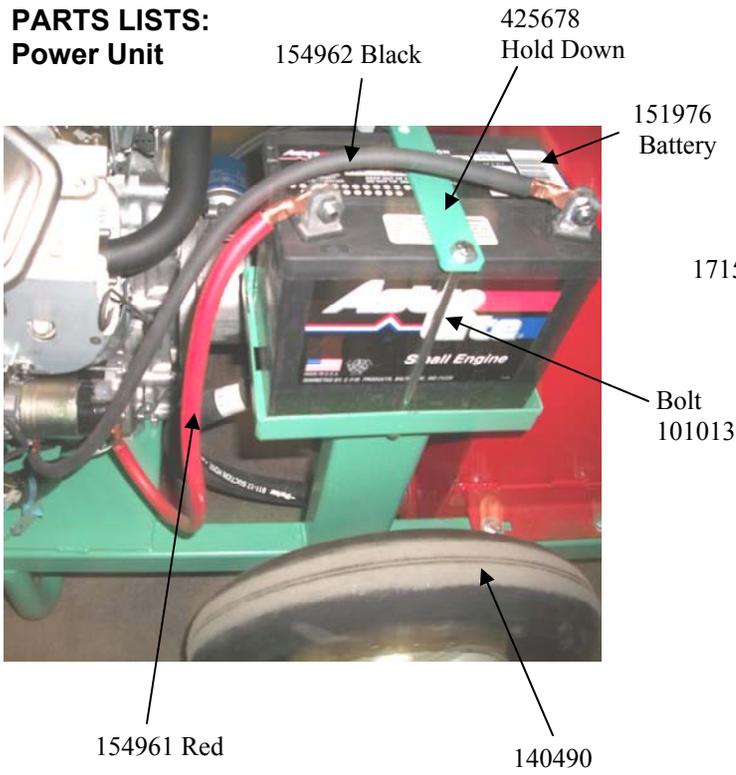
ITEM	PART	DESCRIPTION	QTY.
1	402061	COUNTERBALANCE CAN	16
2	406520	COUNTER WEIGHT BOX 2200	1



**WARNING!** To ensure proper ballasting of Hoist, use only Counterweights supplied by Garlock Equipment Company to counterbalance this Hoist.

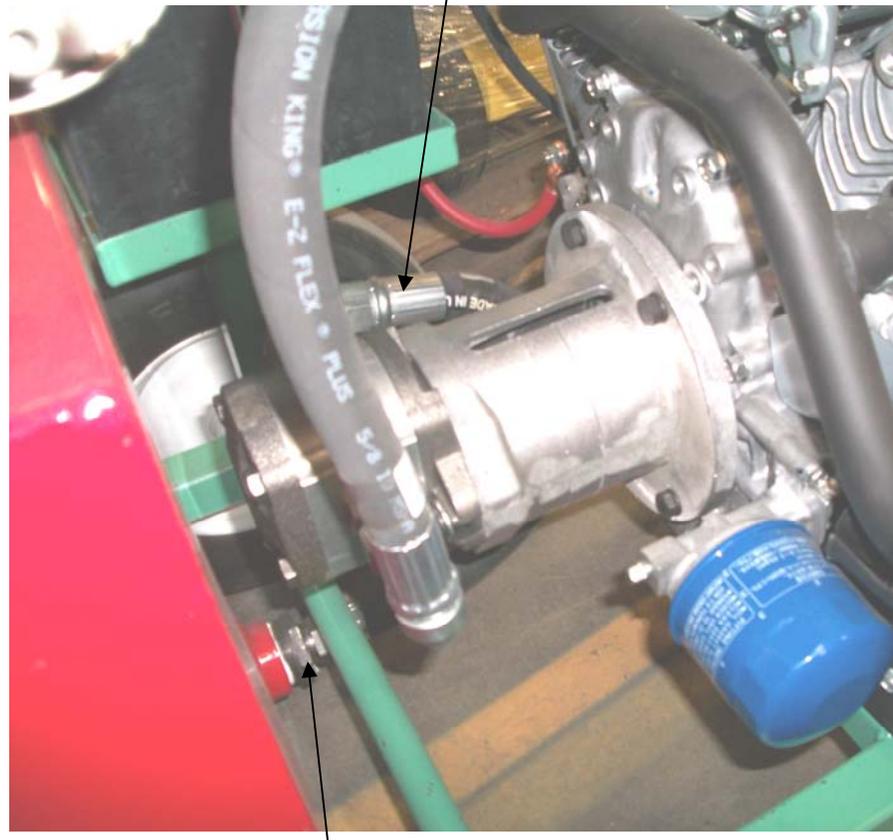
Do not use Roofing material, Liquids or any "Home-made" weights as these can cause an unstable condition of Hoist and may result in serious injury or death to users and by-standers.

**PARTS LISTS:  
Power Unit**





Suction Hose .75" 172205  
Fitting 172250



Barb Fitting 120457  
Strainer 172192

**8. DAILY MAINTENANCE: Perform all maintenance steps with the engine turned off!**

- Check the condition of cable and Hoist components. Make sure they show no signs of wear, abuse or an unsafe condition.
- Check the Hydraulic Oil level by looking at the Oil Level Sight Glass. If the level is below the top of the window, remove Filler Plug and fill.
- Check Engine oil level, fuel level and other items according to the Honda Engine Manual supplied with this Hoist. Maintain Engine per the instructions in the Honda Engine manual.

**9. EVERY OTHER DAY MAINTENANCE:**

- Grease the two Pulleys on the Hoist Swing Arm and A-Frame.  
Grease the two Vertical Pivot Pins that connect the Swing Arm to the A-Frame.

**10. ONCE PER MONTH MAINTENANCE:**

- Grease the pillow Blocks on the Winch Unit.

**11. EVERY 6 MONTH MAINTENANCE:**

- Service Engine per Honda recommendations.  
Replace the Hydraulic Oil Filter and Hydraulic Oil. Fill Tank with 11 gallons, and then check oil level.

This space is intentionally left blank.

This space is intentionally left blank.

This space is intentionally left blank.

---

**To replace any Warning Decals on your Atlas Hoist (300960), simply tear off the bottom half of this page and mail or fax to Garlock Equipment Company for FREE REPLACEMENTS.**

**Address:  
Garlock Equipment Co.  
2601 Niagara Lane  
Plymouth, MN 55447  
Attention: Sales Dept.**

**Fax: 800-820-3268**



This card must be filled out completely and mailed within ten (10) days from date equipment is delivered or warranty is null and void.

EQUIPMENT PURCHASED ..... SERIAL NO. ....

DATE DELIVERED ..... NAME OF PURCHASER .....

ADDRESS ..... CITY ..... STATE ..... ZIP .....

PURCHASED FROM (DEALERS NAME) .....

ADDRESS ..... CITY ..... STATE .....

Was a copy of the owner's manual and operating instructions included with the above equipment? YES ..... NO .....

Will the owner of the equipment provide instruction and copies of the owner's manual for all operators of the equipment?

YES ..... NO .....

Was the equipment specified above, received in good condition? YES ..... NO .....

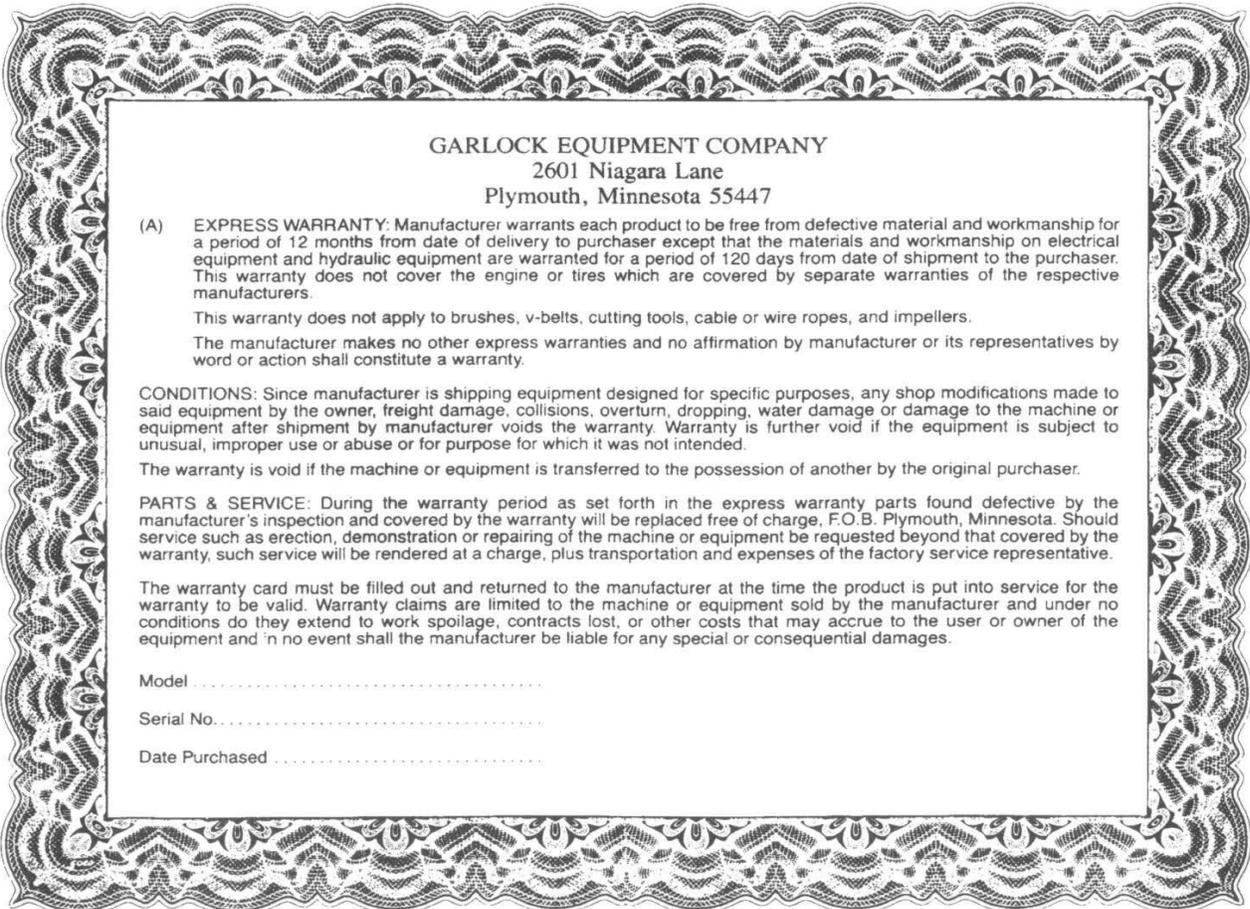
If there was some defect or damage to the equipment, please indicate the nature of the same .....

Please send product catalog

SIGNATURE OF PURCHASER .....

(If purchaser is a corporation, this card must be signed by corporate officer)

CUT ALLONG DOTTED LINES AND MAIL TO GARLOCK EQUIPMENT CO., 2601 NIAGARA LN., MINNEAPOLIS, MN 55447



GARLOCK EQUIPMENT COMPANY  
2601 Niagara Lane  
Plymouth, Minnesota 55447

(A) EXPRESS WARRANTY: Manufacturer warrants each product to be free from defective material and workmanship for a period of 12 months from date of delivery to purchaser except that the materials and workmanship on electrical equipment and hydraulic equipment are warranted for a period of 120 days from date of shipment to the purchaser. This warranty does not cover the engine or tires which are covered by separate warranties of the respective manufacturers.

This warranty does not apply to brushes, v-belts, cutting tools, cable or wire ropes, and impellers.

The manufacturer makes no other express warranties and no affirmation by manufacturer or its representatives by word or action shall constitute a warranty.

CONDITIONS: Since manufacturer is shipping equipment designed for specific purposes, any shop modifications made to said equipment by the owner, freight damage, collisions, overturn, dropping, water damage or damage to the machine or equipment after shipment by manufacturer voids the warranty. Warranty is further void if the equipment is subject to unusual, improper use or abuse or for purpose for which it was not intended.

The warranty is void if the machine or equipment is transferred to the possession of another by the original purchaser.

PARTS & SERVICE: During the warranty period as set forth in the express warranty parts found defective by the manufacturer's inspection and covered by the warranty will be replaced free of charge, F.O.B. Plymouth, Minnesota. Should service such as erection, demonstration or repairing of the machine or equipment be requested beyond that covered by the warranty, such service will be rendered at a charge, plus transportation and expenses of the factory service representative.

The warranty card must be filled out and returned to the manufacturer at the time the product is put into service for the warranty to be valid. Warranty claims are limited to the machine or equipment sold by the manufacturer and under no conditions do they extend to work spoilage, contracts lost, or other costs that may accrue to the user or owner of the equipment and in no event shall the manufacturer be liable for any special or consequential damages.

Model .....

Serial No. ....

Date Purchased .....