

EFFECTIVE SERIAL NO. 370400-076-DW-5-93

OWNERS MANUAL ECONOTON II / IIR

REVISION 2/2000

PART NO. 999938

SERIAL NO. _____

AUTO CRANE COMPANY

PO BOX 580697, TULSA, OK 74158-0697

4707 N. MINGO ROAD, TULSA, OK 74117

PHONE (918) 836-0463

FAX (918) 834-5979

!! DISTRIBUTORS !!

**PROTECT YOUR CUSTOMER'S WARRANTY!
SUBMIT DELIVERY REPORT WITHIN 15 DAYS.**

Mail to: Auto Crane Company
P.O. Box 580697
Tulsa, OK 74158-0697

Or Fax to: 918/834-5979

Protect your customers warranty - Submit within 15 days from delivery date.



AUTO CRANE COMPANY

**DISTRIBUTOR
DELIVERY REPORT**

DISTRIBUTOR _____		OWNER _____	
ADDRESS _____		CITY/STATE _____	
CITY/STATE/ZIP _____		BUSINESS _____	
MODEL #	SERIAL #	DATE DELIVERED	UNIT DESTINATION

IMPORTANT: ATTACH SIGNED COPY OF CUSTOMER INVOICE / DELIVERY RECEIPT

AC-109 REPORT AUTHORIZED BY: _____

*** REGISTER ONE UNIT ONLY PER CARD ***

WARNINGS - READ THIS PAGE!

WARNING! Federal law (49 cfr part 571) requires that the Final Stage Manufacturer of a vehicle certify that the vehicle complies with all applicable federal regulations. Any modifications performed on the vehicle prior to the final stage are also considered intermediate stage manufacturing and must be certified as to compliance. The installer of this crane and body is considered one of the manufacturers of the vehicle. As such a manufacturer, the installer is responsible for compliance with all applicable federal and state regulations, and is required to certify that the vehicle is in compliance.

WARNING! It is the further responsibility of the installer to comply with the OSHA Truck Crane Stability Requirements as specified by 29 CFR part 1910.180 (C) (1).

WARNING! NEVER OPERATE THE CRANE NEAR ELECTRICAL POWER LINES! Death or serious injury will result from boom, line, or load contacting electric lines. Do not use crane within 10 feet (3.05m) of electric power lines carrying up to 50,000 volts. One foot additional clearance is required for every additional 30,000 volts or less.

WARNING! NEVER

- v **EXCEED** load chart capacities (centerline of rotation to hoist hook).
- v un-reel last 5 wraps of cable from drum!
- v wrap cable around load!
- v attempt to lift or drag a load from the side! The boom can fail far below its rated capacity.
- v weld, modify, or use unauthorized components on any Auto Crane unit! This will void any warranty or liability. Also failure of the crane may result.
- v place a chain link on the tip of the hook and try to lift a load!
- v use a sling bar or anything larger than the hook throat that could prevent the hook latch from closing, thus negating the safety feature!
- v hold on any pendant Select Switch that will cause unsafe operating conditions!

WARNING! In using a hook with latch, **ALWAYS** make sure that the hook throat is closed before lifting a load! Proper attention and common sense applied to the use of the hoist hook and various slings will prevent possible damage to material being hoisted and may prevent injury to personnel.

WARNING! Failure to correctly plumb and wire crane can cause inadvertent operation and damage to crane and/or personnel!

WARNING! Auto Crane Company remote controlled cranes are not designed or intended to be used for any applications involving the lifting or moving of personnel.

WARNING! ALWAYS operate the crane in compliance with the load capacity chart. **Do not use** the overload shutdown device to determine maximum rated loads, if your crane is equipped with this type of device.

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INTRODUCTION

ECONO-TON II / II R

Auto Crane products are designed to provide many years of safe, trouble-free, dependable service when properly used and maintained.

To assist you in obtaining the best service from your crane and to avoid untimely crane and/or vehicle failure, this manual provides the following operating and service instructions. It is **specifically recommended** that all operating and service personnel consider this manual as mandatory material for reading and study before operating or servicing Auto crane products. It is **highly recommended** that crane owners, equipment managers and supervisors also read this manual.

Auto Crane has incorporated several safety features in the Econo-Ton II series for your protection. The material and electrical systems were designed to minimize weight and lengthen durability.

For your convenience the overall dimensions of the Econo-Ton II series crane are on the General Dimension Drawing. Maximum turning radius is shown on the drawing as a distance from the center line of the crane rotation to the outside edge of the winch and on the power rotation model, the outside edge of the rotation motor .

Remember, the crane adds weight to the vehicle. Adding weight may change the driving and riding characteristics of the vehicle unless the appropriate overload spring(s) are installed on the truck. The payload of the vehicle is reduced by the weight of the crane. The operator should exercise care when loading the vehicle. Distributing the payload on the vehicle evenly will greatly improve the driving and riding characteristics of the vehicle.

The Econo-Ton II series cranes are attached directly to your 12 volt truck electrical system. The power cable and retaining clips are included with the crane. A typical power cable mounting and hookup is shown on page 2-3.0.0. The performance of your new crane depends on the truck electrical system. The use of the low maintenance battery is not recommended for use on any Auto Crane product. The recommended alternator and battery that will give the longest life with the most useful duty cycle is a 60 amp. alternator with a 120 minute reserve capacity, deep cycle battery. These specifications should be considered minimum.

Auto Crane Company issues a limited warranty certificate with each unit sold. See last page for warranty policy.

It has always been Auto Crane Company policy to handle all warranty claims we receive as promptly as

possible. If a warranty claim involves discrepant material or workmanship, Auto Crane will take immediate corrective action. It is understandable that Auto Crane company cannot assume responsibility of liability when it is obvious that our products have been abused, mis-used, overloaded or otherwise damaged by inexperienced persons trying to operate the equipment without reading the manual.

Auto Crane will not assume responsibility or liability for any modifications or changes made to unit, or installation of component parts done without authorization.

Auto Crane maintains a strong distributor network and a knowledgeable Customer Service Department. In most cases, an equipment problem is solved via phone conversation with our customer service department. The customer service department also has the ability to bring a local distributor, a regional sales manager, or a factory serviceman into the solution of an equipment problem. If, through no fault of Auto crane company, it is necessary to send an experienced factory serviceman on a field service call, the rates stated in the Auto Crane Distributor's Flat Rate Manual will apply.

Auto Crane Company's extensive Research and Development Program allow our customers to use the best equipment on the market. Our Engineering Staff and our knowledgeable sales people, are always available to our customers in solving crane and winch-type application problems. When in doubt, call the Auto Crane factory.

DISTRIBUTOR ASSISTANCE:

Should you require any assistance not given in this manual, we recommend that you consult your nearest Auto Crane Distributor. Our distributors sell authorized parts and have service departments that can solve almost any needed repair.

NOTE: THIS MANUAL SHOULD REMAIN WITH THE CRANE AT ALL TIMES.

This manual does not cover all maintenance, operating, or repair instructions pertinent to all possible situations. If you require additional information, please contact the **Auto Crane Company** at the following telephone number: **(918) 836-0463**. The information contained in the manual is in effect at the time of this printing. Auto Crane Company reserves the right to update this material without notice or obligation.

--- IMPORTANT ---

OPERATING PRACTICES & WARNINGS

1. Make certain the vehicle meets minimum chassis requirements. (These requirements do not guarantee unit stability)
2. Make certain the crane is installed per factory specifications. Contact your local Distributor or the Auto Crane factory if any questions arise.
3. Keep the vehicle in as level a position as possible while loading or unloading.
4. **ALWAYS** set the vehicle emergency brake before beginning crane operations.
5. **ALWAYS** use outriggers from vehicle to the ground during crane operation. Make sure they are firmly positioned on solid footings.
6. All load ratings are based on crane capacity, **NOT** truck/crane stability.
7. Keep objects and personnel clear of crane path during operation.
8. Keep hoist cable pulled tight at all times.
9. **REMEMBER**, in lifting a heavy load, the weight can create enough tipping momentum to overturn the vehicle.
10. **ALWAYS** keep load as close to ground as possible.
11. Oil gears as required.
12. Periodic adjustment of hoist worm brake may be required (see automatic safety brake drawing in this manual).
13. Hydraulic hoses need to be inspected frequently for signs of deterioration, and be replaced as required.
14. The hoist hook is an important item that an operator should consider and use properly. It should be checked on a daily basis for distortion or cracks.
15. **ALWAYS** store outriggers before road travel.
16. **WARNING! NEVER OPERATE THE CRANE NEAR ELECTRICAL POWER LINES!** Death or serious injury will result from boom, line, or load contacting electric lines. Do not use crane within 10 feet (3.05m) of electric power lines carrying up to 50,000 volts. One foot additional clearance is required for every additional 30,000 volts or less.
17. **WARNING! NEVER EXCEED** load chart capacities (centerline of rotation to hoist hook).
18. **WARNING! NEVER** un-reel last 5 wraps of cable from drum!
19. **WARNING! NEVER** wrap cable around load!
20. **WARNING! NEVER** attempt to lift or drag a load from the side! The boom can fail far below its rated capacity.
21. **WARNING! NEVER** weld, modify, or use unauthorized components on any Auto Crane unit! This will void any warranty or liability. Also failure of the crane may result.
22. **WARNING! NEVER** place a chain link on the tip of the hook and try to lift a load!
23. **WARNING! NEVER** use a sling bar or anything larger than the hook throat that could prevent the hook latch from closing, thus negating the safety feature!
24. **WARNING!** In using a hook with latch, **ALWAYS** insure that the hook throat is closed before lifting a load! Proper attention and common sense applied to the use of the hoist hook and various slings will prevent possible damage to material being hoisted and may prevent injury to personnel.
25. **WARNING! NEVER** hold any pendant Select Switch on that will cause unsafe operating conditions!

WARNING!

Auto Crane Company remote controlled, stiff boom cranes are not designed or intended to be used for any applications involving the lifting or moving of personnel.

--- IMPORTANT --- OPERATION OF UNIT

26. Make sure this manual has been thoroughly read by all crane operating personnel and supervisors.
27. A routine inspection of the crane should be mandatory before each operating day. Any defects should be corrected immediately.
28. At a job site the vehicle should be positioned so that the crane can adequately reach the load within the rated capacity (centerline of rotation to hoist hook).
29. Keep the vehicle as level as possible during operation.
30. For electric cranes, **engage emergency brake** and leave ignition on with transmission in neutral (or in park for automatic transmissions). Activate any crane power switches. For Auto Crane units requiring battery and hydraulic operation, **engage emergency brake**, place gear selector in neutral, press clutch, activate PTO, release clutch and after hydraulic fluid is warm, set throttle control to proper engine speed.
31. Always use outriggers from the truck to the ground. Be sure these are firm and adequately positioned. When rotating, **keep load as low to the ground as possible**.
32. Remove pendant control from cab or storage area. On smaller units, plug pendant into receptacle on crane. On larger units, remove pendant control from guard and unwrap cable from boom. Do not operate crane until cable is unwound completely. On all cranes, detach hook from dead man. Crane is now ready for operation.
33. Always boom up before rotating so the boom will clear the required boom support.
34. When extending the boom, always maintain clearance between the boom crown and the traveling block or hoist hook.
35. Always observe safe and practical operation to avoid possible accidents. Refer to Safety Tips and Precautions.
36. After completing lifting operations, return the boom to stowed position on the boom support. Avoid unneeded pressure on the boom support.
37. Store pendant control on proper location (in cab or on crane).
38. Return outriggers to stowed position. Make sure they are pinned in place or jacklegs are returned to compartment.
39. Check work area for any tools or equipment not stored.
40. Release throttle control, depress clutch and disengage PTO. Deactivate any crane power switches.
41. Report any unusual occurrence during crane operation that may indicate required maintenance or repair.
42. **NEVER** use two cranes to support a load too large for either crane.
43. Spray all electrical equipment with special corrosion resistant coating. This eliminates rust or corrosion due to melting and freezing action of condensation.

OPERATION OF OUTRIGGERS

For hydraulic outriggers:

1. Shift crane/outrigger control valve to "outrigger" position.
2. While operating the outrigger control valves (located on the outrigger cylinders) simultaneously operate the boom-up control switch. This will allow the hydraulic system to build pressure.
3. After outriggers are positioned, return crane/outrigger selector to "crane" position.
4. Crane is now ready to operate.

For manual outriggers:

1. Pull lock pins to release jack leg or drop down outrigger and move to outermost lock position.
2. Make sure lock pins are reinstalled properly.
3. Lower outrigger pad to firm ground and adjust foot to take out slack.
4. Crane is now ready to operate.

LIFE OF WIRE LINE

So many variable factors can cause the deterioration of wire line cable that it is not possible to determine a definite life expectancy. Some of these factors are:

- **Load being handled.**
- **Corrosive conditions.**
- **Maintenance of the unit:**
 - Keep the sheaves turning freely.
 - Maintain tension on cable to insure proper spooling.
 - Avoid kinks in cable.
 - Avoid abrasive action and contact with sharp corner.
- **Frequency of use.**

Auto Crane units, up to 2,400 pound ratings use 3/16 inch diameter galvanized pre-formed 7 x 19 aircraft cable. This cable has a working strength, when new, of 4,200 pounds. It is recommended when 1,200 pound loads are exceeded to use a two part line with a traveling block. This will ensure a 3.5 to 1 safety factor when the cable is new.

Keeping the above factor of safety in mind and knowing the kind of loads that will be handled, the user can determine by inspection of the cable as to when it should be replaced.

Items to look for while inspecting the cables are:

- Broken strands.
- Kinks and flattened sections.
- Corrosion and abrasion.

WIRE LINE LUBRICATION

Lubrication of the wire line serves two important purposes:

- Prevent corrosion.
- Reduce wear due to flexing and abrasion caused by contact with the sheaves, rollers, and cable on the drum.

Preparation

Remove rust and foreign matter with a wire brush and wipe clean. Be sure cable is dry.

Application

Method 1: Dip a brush into a light weight motor oil and apply. In some cases, dip a rag or a piece of sheepskin into the lubricant and swab the lubricant on to the rope.

Method 2: Apply a heavier lubricant such as a grease gun lubricant with hands while wearing leather gloves. (Leather gloves give greater protection and less penetration of the grease than canvas gloves.)

MAINTENANCE OF BATTERIES

Maintenance of Auto Crane unit batteries differs very little from the generally prescribed maintenance of any lead acid battery. All batteries must be kept *properly charged, properly filled with water, and relatively clean.*

Keep Properly Charged

Many things affect the proper charge to a battery, such as:

- 1 Regulator settings
- 2 Proper tightness of belts on the alternator or generator
- 3 Good, clean connections of all cables and wires at the following places:
 - A. Battery
 - B. Regulator
 - C. Starting motor
 - D. Alternator or generator
 - E. Ground connections (most important)

It is of extreme importance to keep the battery as fully charged as possible without overcharging, especially when vehicles are left outside for extended periods in extremely cold climates. A battery *can* freeze. Freezing points for various specific gravities of acid are as follows:

Specific Gravity (Corrected to 80°F)	Freezing Temp. Degrees F.
1.280	-90°F
1.250	-62°F
1.200	-16°F
1.150	5°F
1.100	19°F

As shown, a half-charged battery (about 1.200 specific gravity) cannot stand for any length of time at 20°F or it will freeze.

The *main reason* for keeping the battery as fully charged as possible without over-charging is to ensure that power is available even though the vehicle has been standing for some time.

Keep Properly Filled with Water

The battery should *always* be properly filled with water. If the electrolyte level is allowed to fall below the top of the plates, the results become threefold:

- 1 The exposed portion of the plate will become sulfated.
- 2 The portion of the plate exposed is not usable.
- 3 That portion of the acid remaining becomes more concentrated and may cause more rapid deterioration of the remaining parts of the battery.

Keep A Relatively Clean Battery

The battery should be kept clean. Batteries filled with acid and which are not in use self-discharge to a limited degree because of the nature of the materials within the battery. If dirt is allowed to collect on the top of the battery (and this dirt absorbs moisture) and electrical path can be set up between the various terminals of the battery and the ground. Once such a path has been established, the self-discharge of the battery is accelerated. This also accelerates corrosion of the battery cables at the terminals.

Periodic Maintenance is Needed

A definite program of periodic maintenance of all batteries should be conducted on a regular basis. Periodic maintenance includes:

- 1 Checking belts for tightness on the charging equipment
- 2 Checking battery electrolyte levels
- 3 Checking cables for good connections
- 4 Cleaning where corrosion is apparent

When corrosion is cleaned off, the cable terminals and battery terminals should be coated with a light coating of petroleum jelly before they are replaced. When terminals are cleaned, the top of the battery should be cleaned with a mild solution of soda water.

MAINTENANCE OF BATTERIES

Low Maintenance Batteries (Maintenance Free)

Low maintenance batteries should not be used on Auto Cranes or trucks equipped with Auto Cranes. The batteries are not designed for "deep" discharge.

Testing Your Battery

If the condition of the battery is in question, it should be removed from the vehicle, taken to the shop, and allowed to reach room temperature. It should then be recharged until specific gravity readings taken at one-half hour intervals. If the specific gravity readings are fairly uniform, the battery should be checked with a high rate tester. Use the tester in accordance with the manufacturer's instructions. The high rate tester is the best method to test a questionable battery.

If, after charging, it is noted that the specific gravity reading of one cell is 30 points less than any of the other cells, it may be assumed that the cell is bad and that the battery should be replaced. If all cells are uniform but not up to full charge, a low rate of charge

should be attempted for an extended time. This usually will recover a badly sulfated battery.

Replacing a Battery

If it is necessary to replace a battery, and a dry charge battery is used, the following procedure applies:

- 1 Fill the battery with electrolyte of the proper specific gravity.
- 2 Place the battery on charge according to the manufacturer's instructions.

It is essential that the second step above be followed to ensure that the battery going on the vehicle is fully charged.

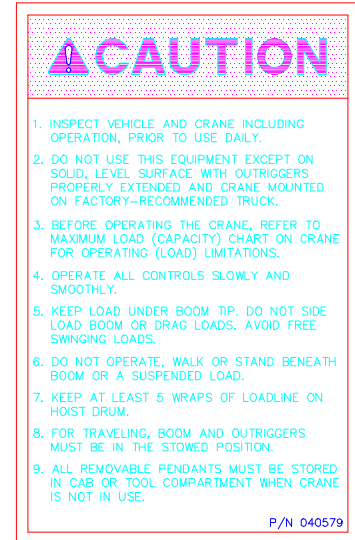
It is also very important that the battery hold-downs be checked periodically to ensure that the batteries are properly positioned to avoid vibration problems, breakage of cables or terminals. Care must be taken to avoid cracking or breaking containers or covers by tightening hold-down fixtures excessively. They also must not be so loose that breakage results from a hold-down that is too loose.

SAFETY DECAL SECTION

ECONO-TON II

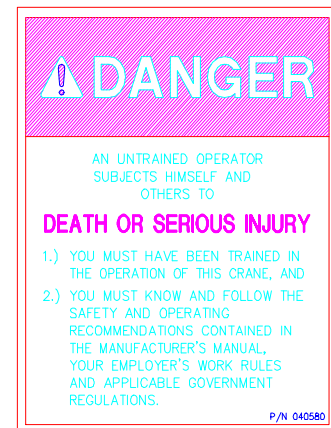
PART NO.:	040579
DECAL:	OPERATION INSTRUCTIONS
FUNCTION:	To inform the operator of the proper procedure to follow for safe operation of the crane.
USED ON:	Econo-Ton II & All Cranes
QUANTITY:	2
PLACEMENT:	Pedestal, Back Side

FIG. 1.



PART NO.:	040580
DECAL:	OPERATOR TRAINING
FUNCTION:	To inform the operator of the need to receive proper training before using the crane.
USED ON:	Econo-Ton II & All Cranes
QUANTITY:	1
PLACEMENT:	Pedestal, Back Side

FIG. 2.



SAFETY DECAL SECTION

ECONO-TON II

PART NO.:	040630
DECAL:	STAY CLEAR OF LOAD
FUNCTION:	To inform the operator of the hazzard of proximity or contact with the crane load during operation.
USED ON:	Econo-Ton II & All cranes
QUANTITY:	2
PLACEMENT:	Side of Traveling Block



FIG. 3.

PART NO.:	370125
DECAL:	WARNING 110 V.A.C.
FUNCTION:	To warn operator of possible shock hazzard if the unit is not installed and operated properly.
USED ON:	Econo-Ton II 110 Volt AC
QUANTITY:	1
PLACEMENT :	Back of Pedestal

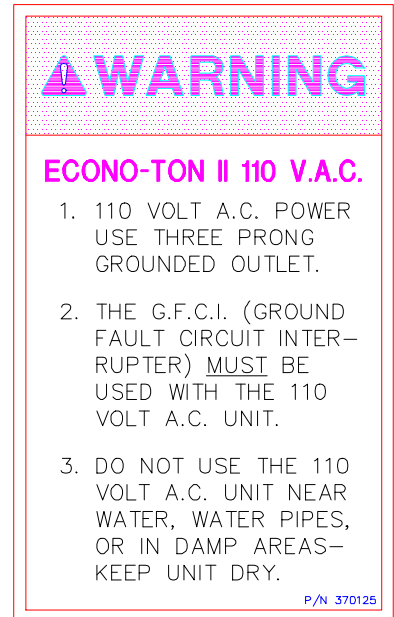
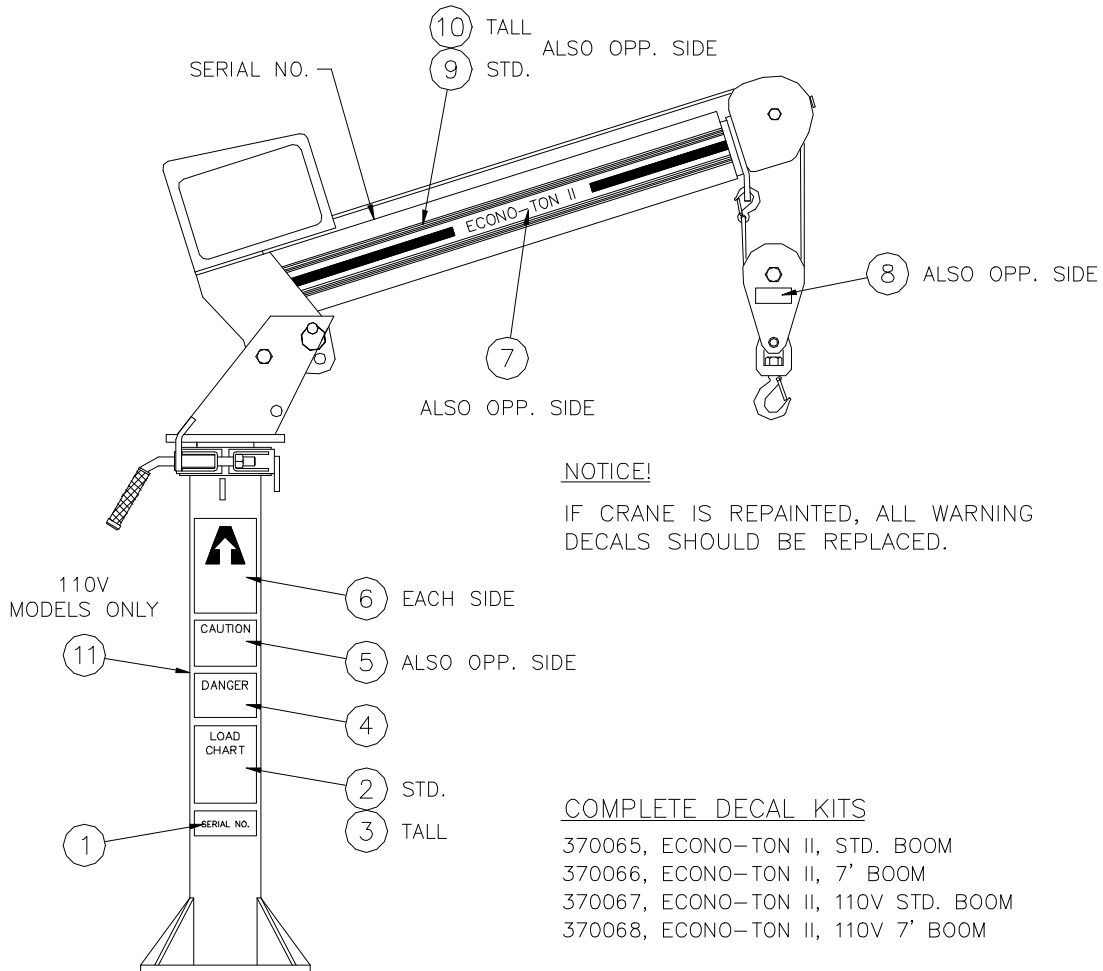


FIG. 4.

ECONO-TON II DECAL LAYOUT

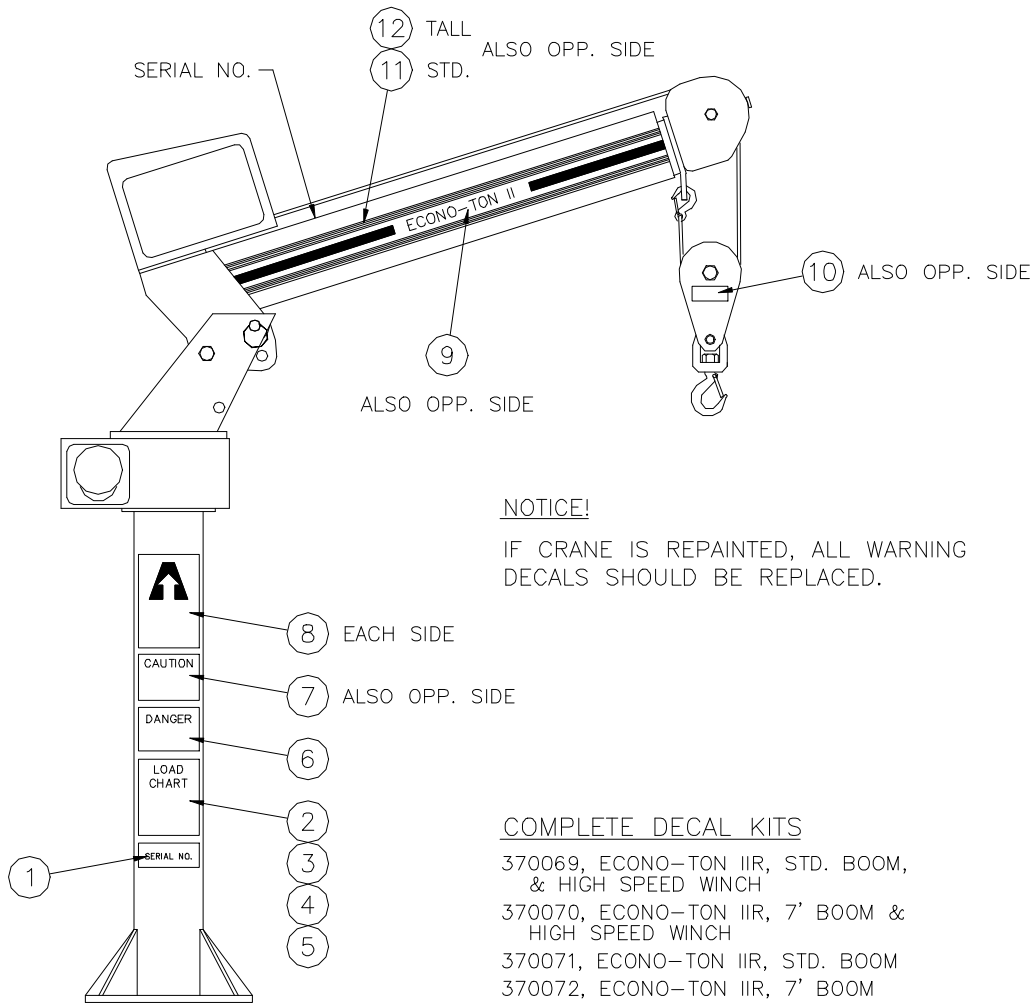
AW-104



ITEM	QUANTITY	PART NUMBER	DESCRIPTION
1	1	330622	DECAL SERIAL NO
2	1	370053	DECAL LOAD CHART STD BOOM
3	1	370054	DECAL LOAD CHART 7 FT BOOM
4	2	040580	DECAL DANGER
5	2	040579	DECAL CAUTION
6	4	040619	DECAL AUTO CRANE
7	2	370018	DECAL ECONO-TON II
8	2	040630	DECAL DANGER
9	2	040620	DECAL STRIPING (3 FT EACH SIDE)
10	2	040620	DECAL STRIPING (4 FT EACH SIDE)
11	1	370125	DECAL 110 VOLT

ECONO-TON II DECAL LAYOUT

AW-094

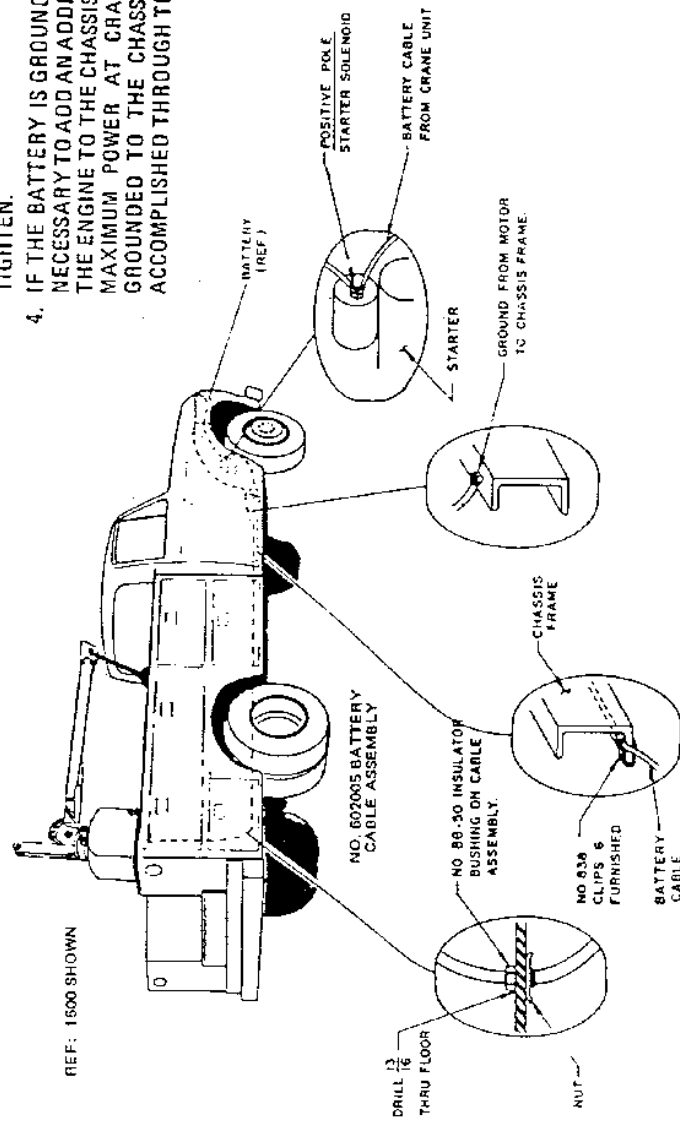


ITEM	QUANTITY	PART NUMBER	DESCRIPTION
1	1	330622	DECAL SERIAL NO
2	1	370055	DECAL LOAD CHART STD BOOM
3	1	370056	DECAL LOAD CHART STD BOOM H.S. WINCH
4	2	370057	DECAL LOAD CHART 7 FT BOOM
5	1	370063	DECAL LOAD CHART 7 FT BOOM H.S. WINCH
6	1	040580	DECAL DANGER
7	2	040579	DECAL CAUTION
8	4	040619	DECAL AUTO CRANE
9	2	370512	DECAL ECONO-TON IIR
10	2	040630	DECAL DANGER
11	2	040620	DECAL STRIPING (3 FT EACH SIDE)
12	2	040620	DECAL STRIPING (4 FT EACH SIDE)

INSTALLATION - BATTERY CABLE

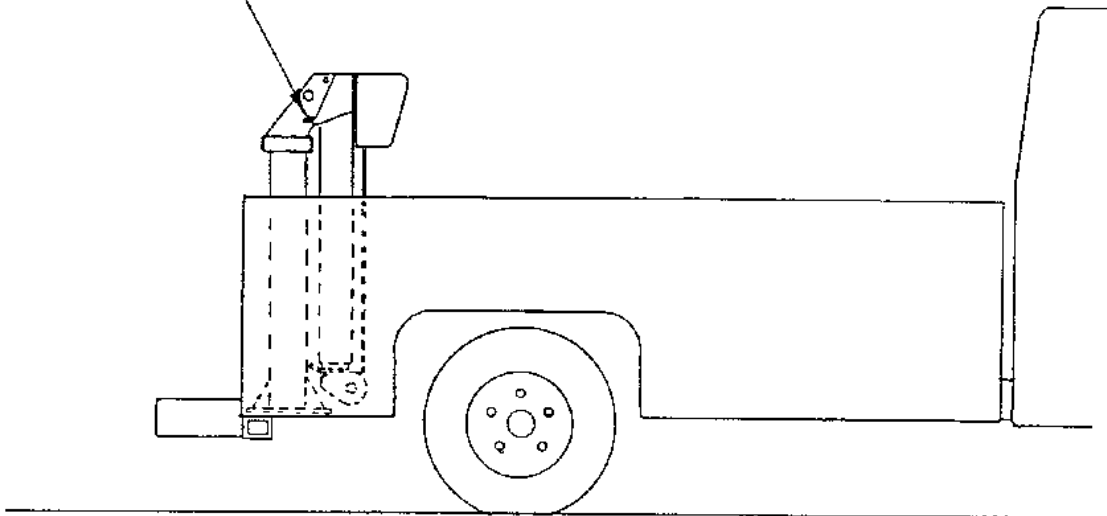
ECONO-TON II

1. DRILL 13/16 DIAMETER HOLE IN FLOOR, INSTALL CABLE, AND BUSHING WHICH IS FURNISHED ON CABLE, AS SHOWN, WRAP ELECTRICAL TAPE AROUND CABLE SO IT WILL FIT BUSHING SNUG.
2. RUN CABLE INSIDE CHASSIS FRAME TO STARTER SOLENOID BATTERY CONNECTION. LOCATE CABLE SO THAT IT WILL BE PROTECTED, AVOID SHARP EDGES. INSTALL THE NO. 838 FRAME CLIPS TO HOLD CABLE SECURELY IN PLACE. IF SURPLUS CABLE EXISTS THE CABLE CAN BE CUT OFF, AND EXTRA TERMINAL FURNISHED WITH CABLE INSTALLED.
3. REMOVE NUT ON SOLENOID BATTERY TERMINAL POST, INSTALL CRANE POWER CABLE, REPLACE NUT AND TIGHTEN.
4. IF THE BATTERY IS GROUNDED TO THE ENGINE IT MAY BE NECESSARY TO ADD AN ADDITIONAL GROUND CABLE FROM THE ENGINE TO THE CHASSIS FRAME IN ORDER TO OBTAIN MAXIMUM POWER AT CRANE. THE CRANE SHOULD BE GROUNDED TO THE CHASSIS FRAME. THIS IS USUALLY ACCOMPLISHED THROUGH THE MOUNTING BRACKET.



BOOM STOWAGE ECONO-TON II

CAUTION
MAKE SURE BOOM IS PINNED
IN STORED POSITION AND
ROTATION BRAKE IS SET
BEFORE ROAD TRAVEL.



ASSEMBLY & INSTALLATION INSTRUCTIONS

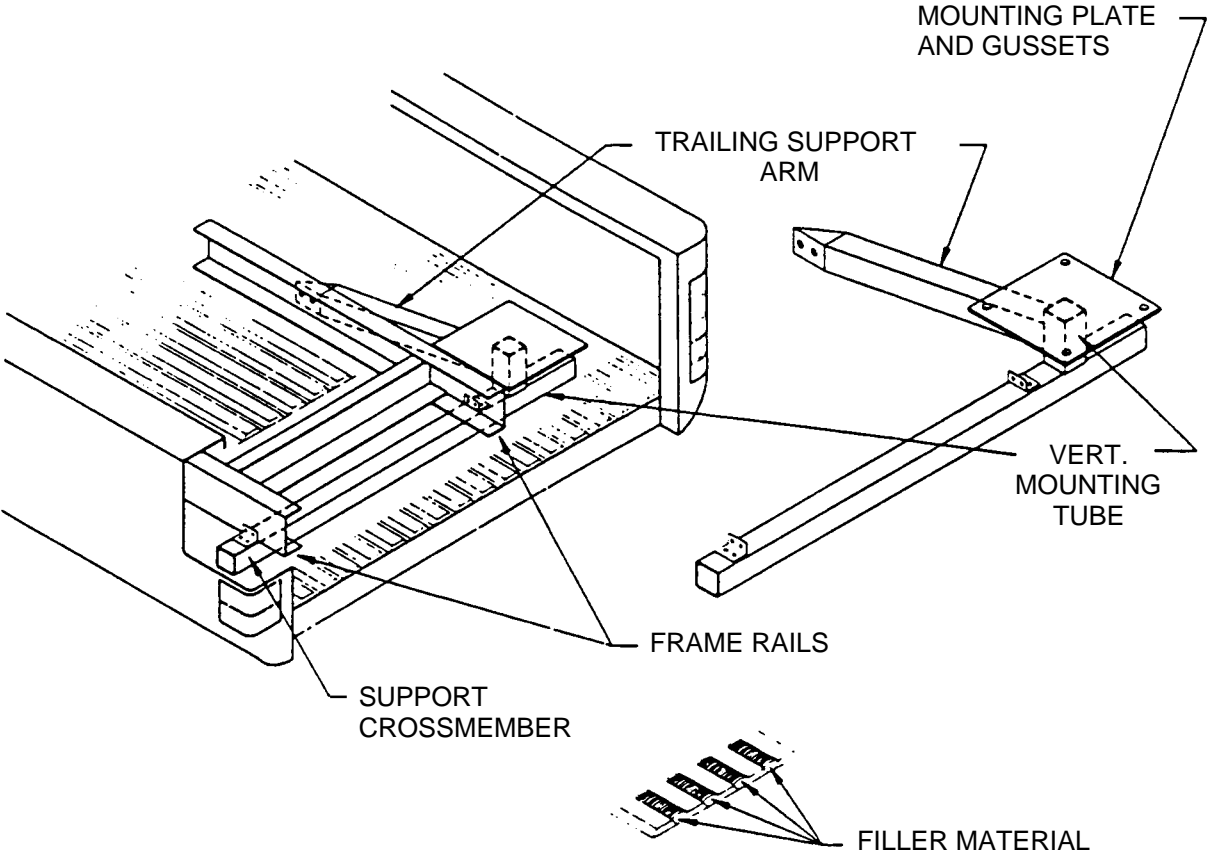
ECONO-TON II SERIES

The Econo-Ton II cranes are shipped in one major assembly. The following is a suggested method for installation of the Econo-Ton II crane:

- 1 Remove the crane from the packing crate and locate on the truck bed in the desired position, checking for proper clearance.
- 2 If the floor is made of wood, it may be desirable to install a 3/8" plate approximately six to eight inches larger than the base plate on top of the wooden deck. If the floor is heavy metal and ribbed, no metal plate will be required under the crane base plate. Fillers should be installed to level the ribbed floor if required. The crane may now be placed in position and the base plate may be used as a template to drill the mounting holes through the truck bed and additional plates if used. Refer to Pages 2-6.0.0 and 2-7.0.0 for a typical installation.
- 3 Each truck has its own unique mounting difficulties. The mount and additional bracing should be constructed so the combined crane load of 6500 ft lbs and a vertical load of 2000 lbs will be directed over the largest area possible. Install a brace which crosses both frame rails and is bolted to the frame as shown in the drawing. This brace may be square tubing and should extend out to both sides of the truck and may be used as pocket for an outrigger, stabilizer, or jack leg holder. Add others structural members as required, including the back-up assembly which has been pre-drilled to match the crane mounting holes. Bolt the crane in place.
- 4 Route the long cable (power cable) under the truck and to the positive pole on the starter solenoid. Tie the power cables with insulated straps to the truck frame and other members as required. Avoid the area of the exhaust system when routing the cable.
- 5 Pin boom in working position.
- 6 Attach the removable pendant control cable and test the crane for power functions.
- 7 With jack legs or outriggers installed, pick up a load of 2000 pounds and manually rotate this load approximately 180° to insure that the crane is sufficiently supported and correctly installed. Further reinforcement of the truck bed may be added if required.
- 8 Store boom during travel. See page 2-4.0.0 for illustration.
- 9 ALWAYS remove pendant when traveling.

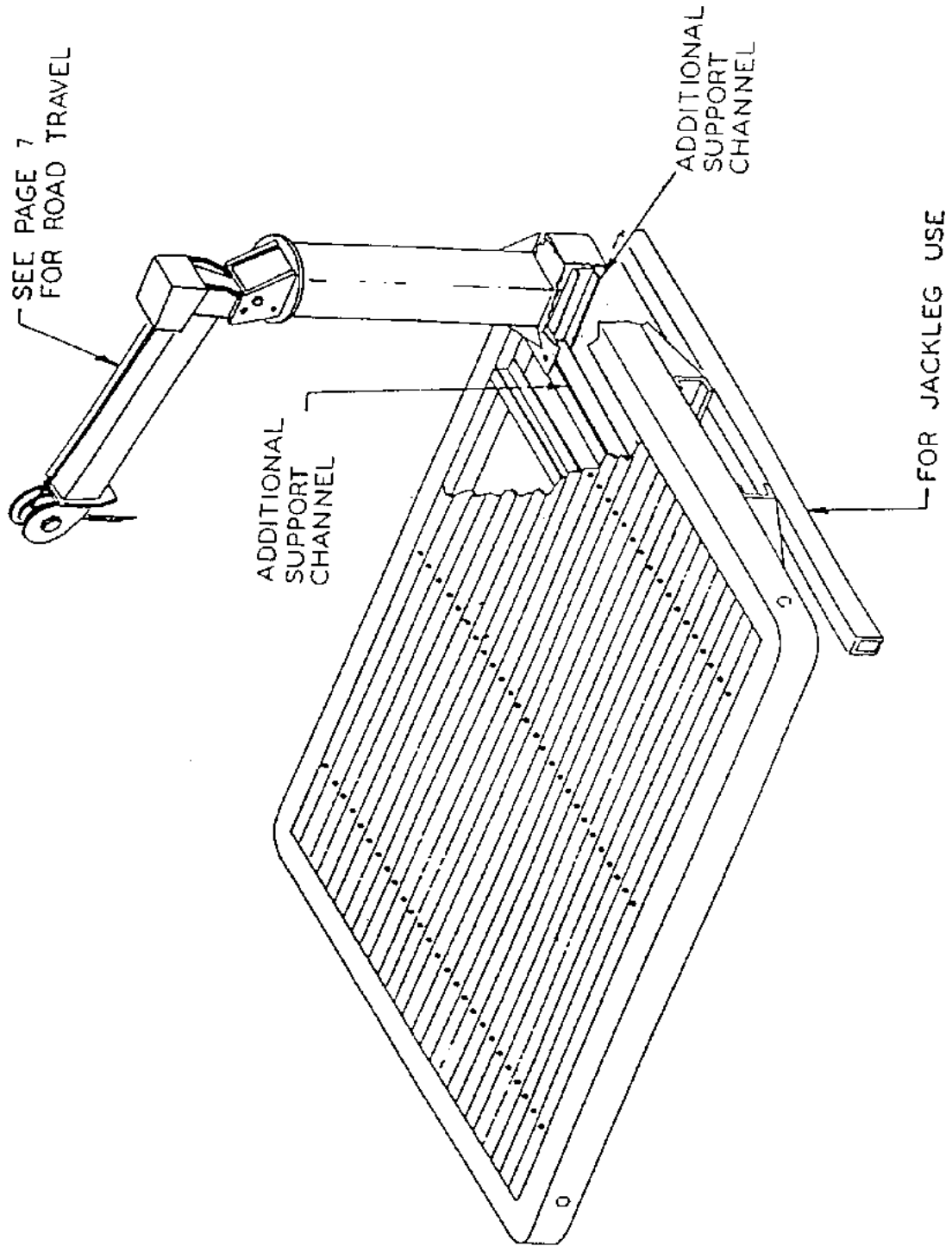
INSTALLATION INSTRUCTIONS

ECONO-TON II



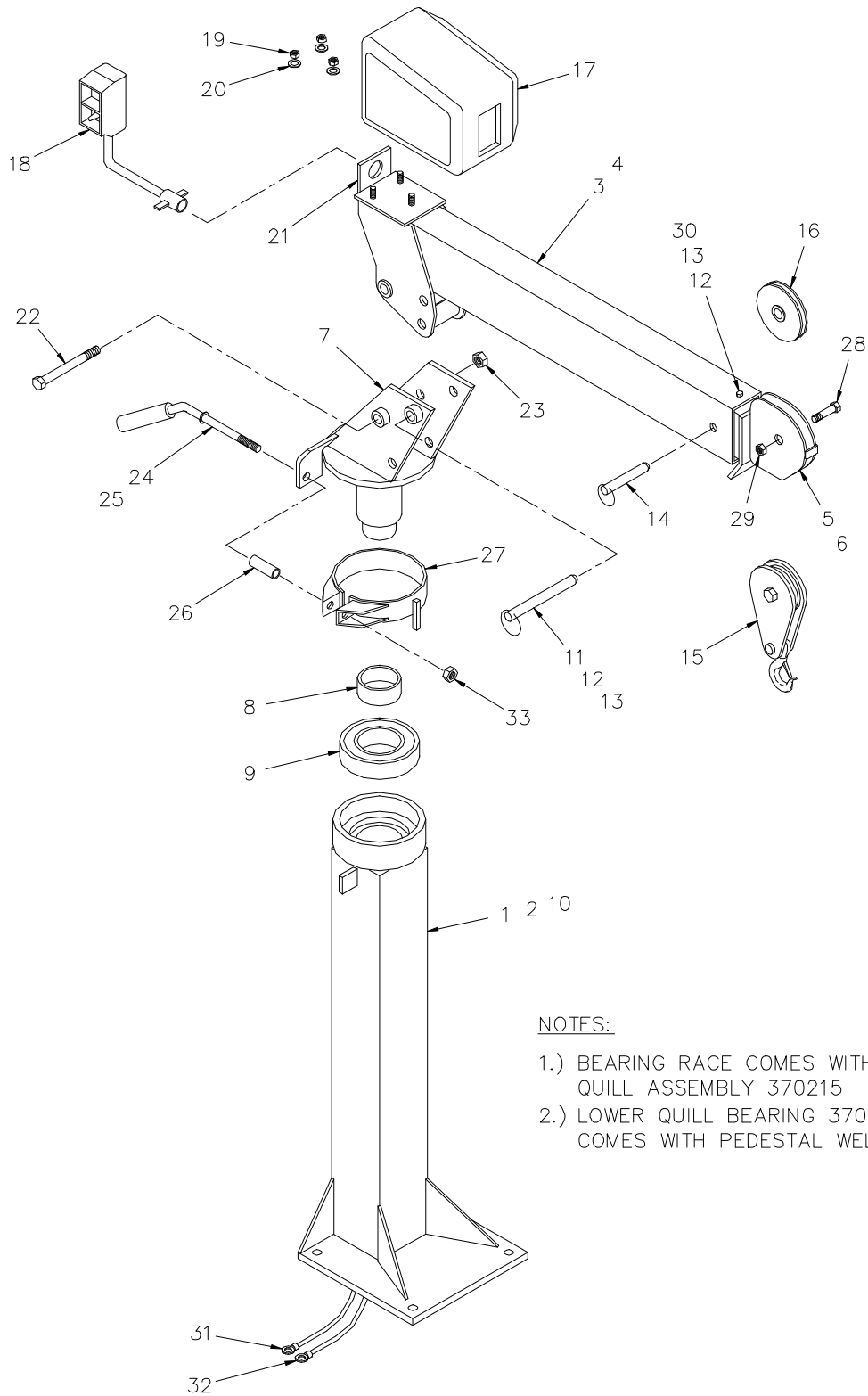
INSTALLATION INSTRUCTIONS

ECONO-TON II FLATBED



ECONO-TON II

P/N 370000



NOTES:

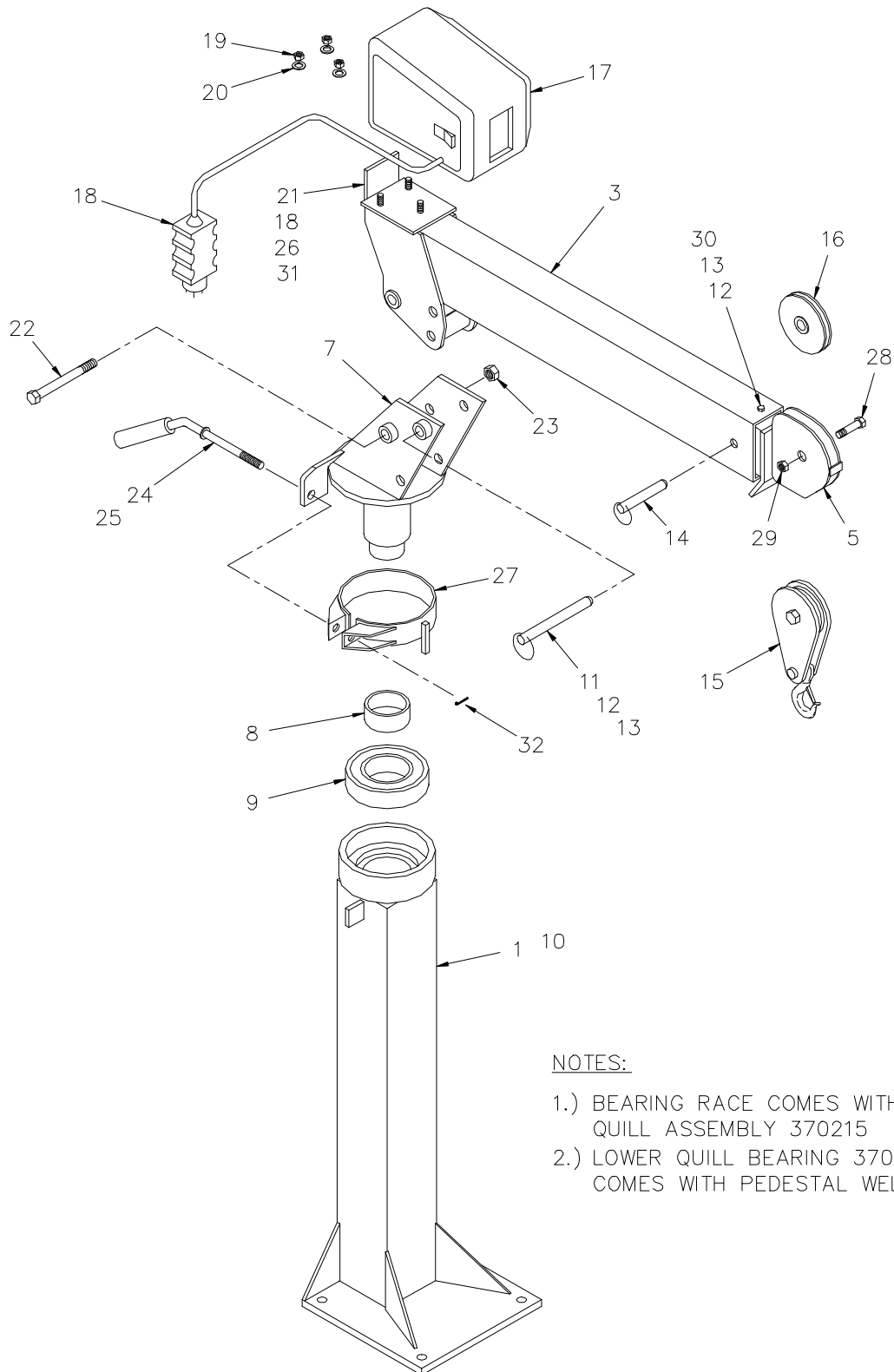
- 1.) BEARING RACE COMES WITH
QUILL ASSEMBLY 370215
- 2.) LOWER QUILL BEARING 370033
COMES WITH PEDESTAL WELDMENT

ECONO-TON II

P/N 370000

<u>ITEM</u>	<u>QUANTITY</u>	<u>PART NUMBER</u>	<u>DESCRIPTION</u>
1	1	370216	PEDESTAL WELDMENT
2	1	370027-001	PEDESTAL WELDMENT (TALL)
3	1	370040	LOWER BOOM
4	1	370045	LOWER BOOM (7 FT BOOM)
5	1	370041	UPPER BOOM
6	1	370046	UPPER BOOM (7 FT BOOM)
7	1	370215	QUILL ASSEMBLY
8	1	370034	BEARING RACE (SEE NOTE 1)
9	1	330192	BEARING BALL
10	1	370033	BEARING NEEDLE ROLLER (SEE NOTE 2)
11	1	370001	LOCK PIN
12	2	005901	SCREW HX HD 1/4-20 NC
13	2	020200	WASHER SP LK 1/4
14	1	370002	LOCK PIN
15	1	100300	TRAVELING BLOCK
16	1	227401	SHEAVE ASSEMBLY (BEARING ONLY 200100)
17	1	272419	WINCH ASSEMBLY
18	1	370129	PENDANT ASSEMBLY
19	3	017701	NUT HX 1/2-13 NC
20	3	021500	WASHER SP LK 1/2
21	1	370022	RECEPTACLE ASSEMBLY (SEE AW-014)
22	1	014302	SCREW HX HD 3/4-16 NF X 7
23	1	018600	NUT HX-LOCK 3/4-16 NF
24	1	371048	HANDLE BRAKE
25	1	272055	GRIP HANDLE
26	1	370220	SPACER BRAKE
27	1	370217	WELDMENT BRAKE BAND
28	1	012200	SCREW HX HD 5/8-18 NF X 1 3/4
29	1	018100	NUT HX-LOCK 5/8-18 NF
30	1	370005	EXTENSION LOCK PAD
31	1	602005	POWER CABLE (SEE AW-014)
32	1	602006	GROUND CABLE (SEE AW-014)
33	1	018301	NUT HX 5/8-11 NC

ECONO-TON II W/110 VAC WINCH P/N 370012



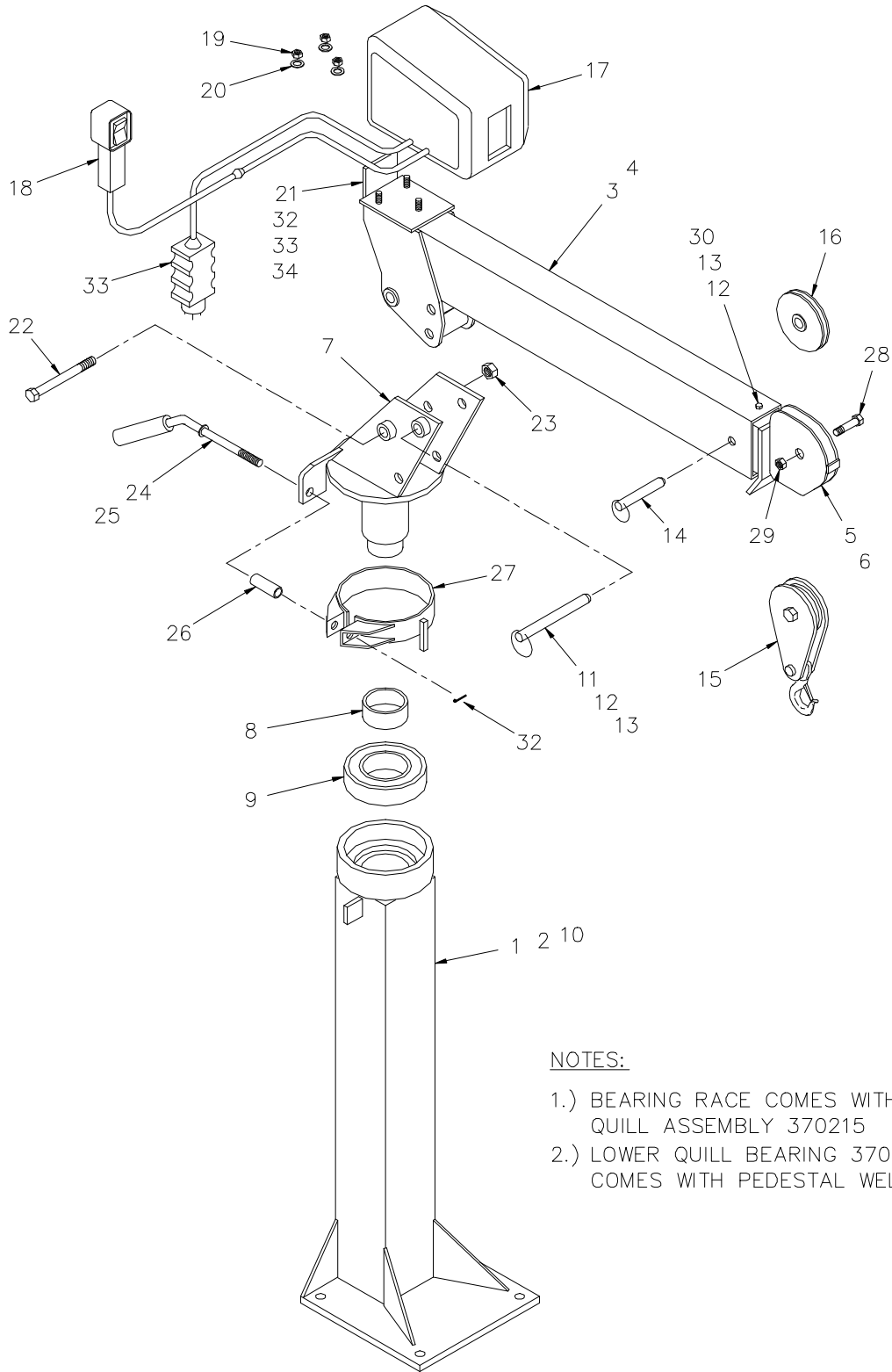
NOTES:

- 1.) BEARING RACE COMES WITH
QUILL ASSEMBLY 370215
- 2.) LOWER QUILL BEARING 370033
COMES WITH PEDESTAL WELDMENT

ECONO-TON II W/110 VAC WINCH
P/N 370012

<u>ITEM</u>	<u>QUANTITY</u>	<u>PART NUMBER</u>	<u>DESCRIPTION</u>
1	1	370027	PEDESTAL WELDMENT
2	-	-	-
3	1	370040	LOWER BOOM
4	-	-	-
5	1	370041	UPPER BOOM
6	-	-	-
7	1	370026	QUILL ASSEMBLY
8	1	370034	BEARING RACE (SEE NOTE 1)
9	1	330192	BEARING BALL
10	1	370033	BEARING NEEDLE ROLLER (SEE NOTE 2)
11	1	370001	LOCK PIN
12	2	005901	SCREW HX HD 1/4-20 NC
13	2	020200	WASHER SP LK 1/4
14	1	370002	LOCK PIN
15	1	100300	TRAVELING BLOCK
16	1	227401	SHEAVE ASSEMBLY (BEARING ONLY 200100)
17	1	370146	WINCH ASSEMBLY
18	2	005401	SCREW HX 1/4-20 NC X 5/8
19	3	017701	NUT HX 1/2-13 NC
20	3	021500	WASHER SP LK 1/2
21	1	370141	COVER PLATE
22	1	014302	SCREW HX HD 3/4-16 NF X 7
23	1	018600	NUT HX-LOCK 3/4-16 NF
24	1	272052	HANDLE BRAKE
25	1	272055	GRIP HANDLE
26	2	020201	WASHER LOCK INT 1/4
27	1	370003	WELDMENT BRAKE BAND
28	1	012200	SCREW HX HD 5/8-18 NF X 1 3/4
29	1	018100	NUT HX-LOCK 5/8-18 NF
30	1	370005	EXTENSION LOCK PAD
31	2	015900	NUT HX 1/4-20 NC
32	1	REF	COTTER PIN

ECONO-TON II W/110 VAC WINCH W/PENDANT P/N 370140



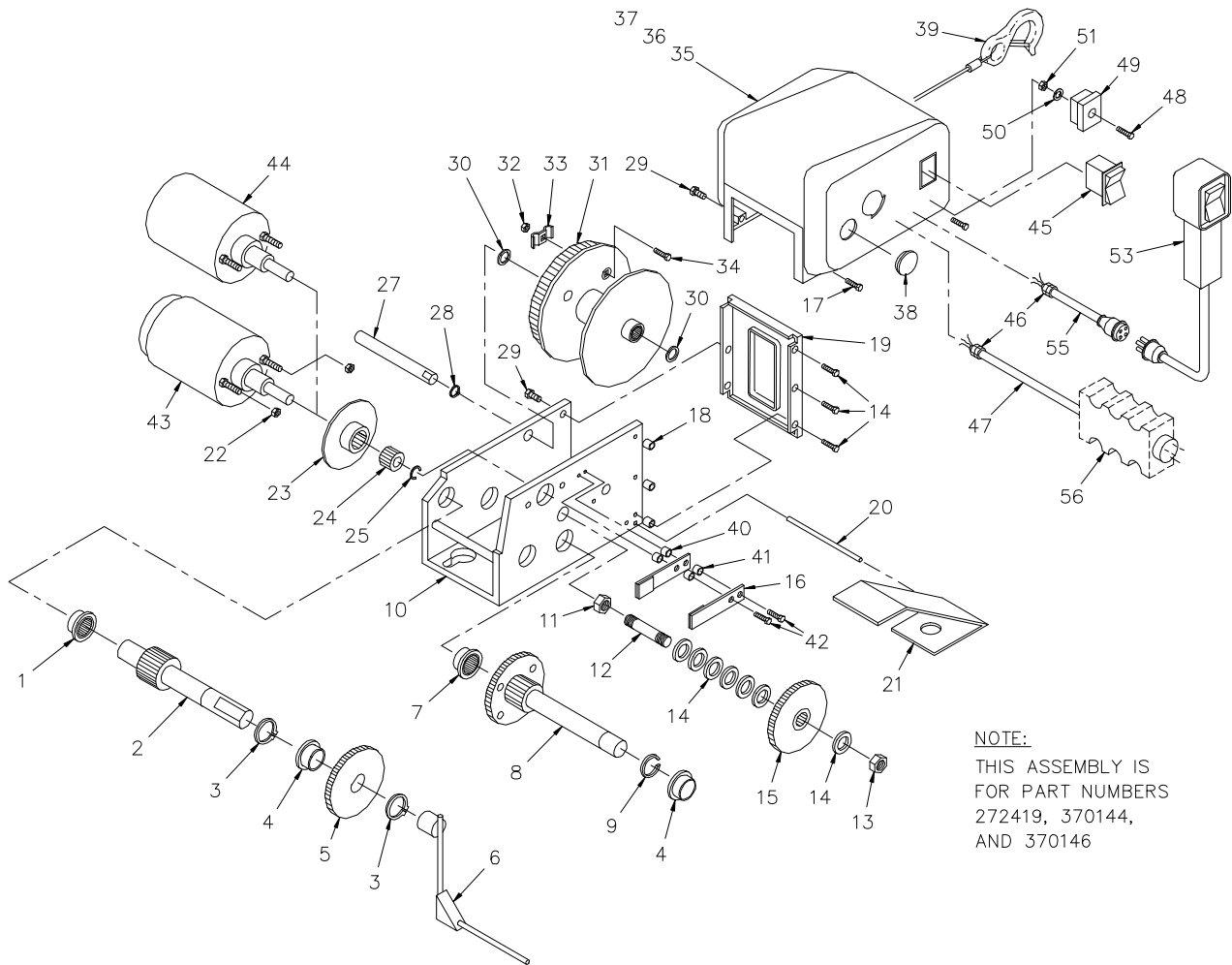
NOTES:

- 1.) BEARING RACE COMES WITH
QUILL ASSEMBLY 370215
- 2.) LOWER QUILL BEARING 370033
COMES WITH PEDESTAL WELDMENT

***ECONO-TON II W/110 VAC WINCH
W/PENDANT P/N 370140***

<u>ITEM</u>	<u>QUANTITY</u>	<u>PART NUMBER</u>	<u>DESCRIPTION</u>
1	1	370027	PEDESTAL WELDMENT
2	1	370027-001	PEDESTAL WELDMENT (TALL)
3	1	370040	LOWER BOOM
4	1	370045	LOWER BOOM (7 FT BOOM)
5	1	370041	UPPER BOOM
6	1	370046	UPPER BOOM (7 FT BOOM)
7	1	370026	QUILL ASSEMBLY
8	1	370034	BEARING RACE (SEE NOTE 1)
9	1	330192	BEARING BALL
10	1	370033	BEARING NEEDLE ROLLER (SEE NOTE 2)
11	1	370001	LOCK PIN
12	2	005901	SCREW HX HD 1/4-20 NC
13	2	020200	WASHER SP LK 1/4
14	1	370002	LOCK PIN
15	1	100300	TRAVELING BLOCK
16	1	227401	SHEAVE ASSEMBLY (BEARING ONLY 200100)
17	1	370144	WINCH ASSEMBLY
18	2	005401	SCREW HX 1/4-20 NC X 5/8
19	3	017701	NUT HX 1/2-13 NC
20	3	021500	WASHER SP LK 1/2
21	1	370141	COVER PLATE
22	1	014302	SCREW HX HD 3/4-16 NF X 7
23	1	018600	NUT HX-LOCK 3/4-16 NF
24	1	272052	HANDLE BRAKE
25	1	272055	GRIP HANDLE
26	2	020201	WASHER LOCK INT 1/4
27	1	370003	WELDMENT BRAKE BAND
28	1	012200	SCREW HX HD 5/8-18 NF X 1 3/4
29	1	018100	NUT HX-LOCK 5/8-18 NF
30	1	370005	EXTENSION LOCK PAD
31	2	015900	NUT HX 1/4-20 NC
32	1	022804	COTTER PIN
33	1	REF	GROUND FAULT INTERRUPTER

WINCH ASSEMBLY AW-061



NOTE:
THIS ASSEMBLY IS
FOR PART NUMBERS
272419, 370144,
AND 370146

WINCH ASSEMBLY

AW-061

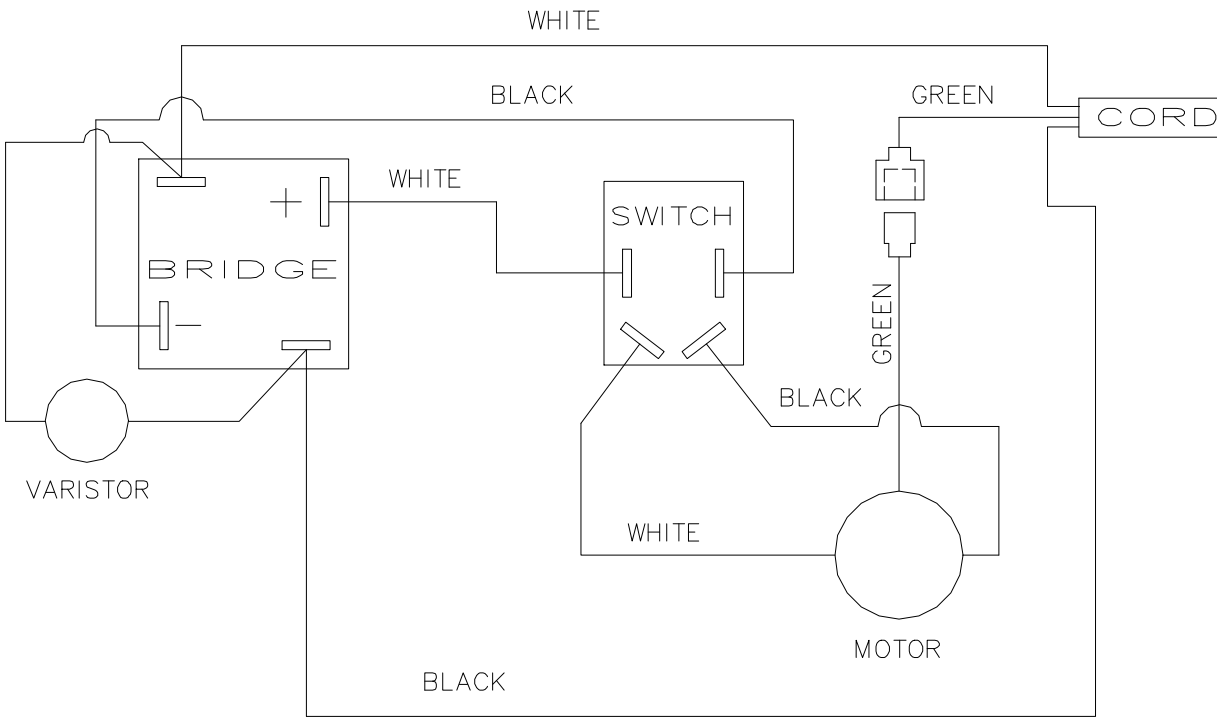
ITEM	QUANTITY	PART NUMBER	DESCRIPTION
1	1	272500	BEARING HOUSING ASSEMBLY
2	1	272151	PRIMARY DRIVE SHAFT ASSEMBLY
3	2	272152	RETAINING RING
4	2	272153	BUSHING
5	1	272154	GEAR 56 T
6	1	272155	HANDLE ASSEMBLY
7	1	272501	DRIVE SHAFT BEARING HOUSING ASSEMBLY
8	1	272158	INTERMEDIATE DRIVE SHAFT ASSEMBLY
9	1	272159	"E" RING
10	1	272160	BASE
11	1	330011	NUT HX LK 7/16-20 NF
12	1	330012	CLUTCH STUD
13	1	330018	LOCKNUT 1/2
14	7	272502	WASHER
15	1	330015	GEAR ASSEMBLY
16	2	272434	BRAKE SPRING ASSEMBLY
17	5	272162	SCREW 1/4-20 NC X 1 1/16
18	3	272163	SPACER
19	1	272164	FRONT PLATE
20	1	272165	LEVEL WIND PIN
21	1	330019	LEVEL WIND
22	2	330022	NUT HX LK10-32 NF
23	1	272433	BRAKE DISC ASSEMBLY
24	1	272170	12 T PINION GEAR
25	1	272171	"E" RING
26	1	272172	BASE SPACER
27	1	272173	REEL SHAFT
28	1	272174	RETAINING RING
29	4	272175	SCREW 1/4-20 NC 3/4
30	2	272176	WASHER
31	1	272503	REEL ASSEMBLY
32	1	272179	NUT HX 1/4-20 NC
33	1	272180	ROPE CLAMP
34	1	272504	CARRIAGE BOLT 1/4-20 NC X 3/4

WINCH ASSEMBLY

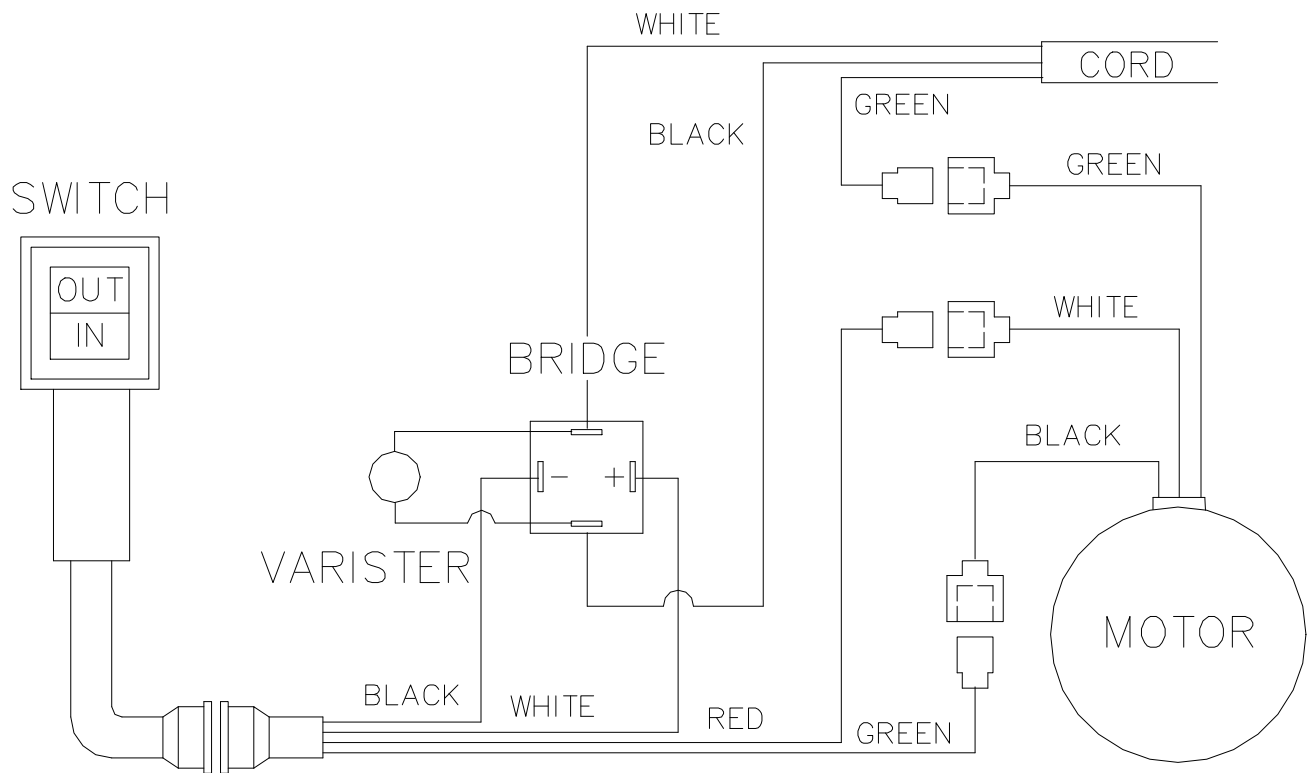
AW-061

ITEM	QUANTITY	PART NUMBER	DESCRIPTION
35	1	272505	COVER (D.C.)
36	1	272506	COVER (A.C.)
37	1	270507	COVER (A.C. REMOTE)
38	1	272508	COVER PLUG
39	1	330028	CABLE & HOOK (3/16 X 25 FT)
40	2	272435	SPACER
41	2	272436	BRAKE SPRING SPACER
42	2	272437	SCREW 10-32 NF X 1
<u>D.C. MOTOR PARTS</u>			
43	1	272184	MOTOR ASSEMBLY
<u>A.C. MOTOR PARTS</u>			
44	1	272495	MOTOR ASSEMBLY
45	1	272498	SWITCH
46	1	272496	STRAIN RELIEF BUSHIING
47	1	272497	ELECTRICAL CORD
48	1	272510	SCREW 3/8-32 NC X 1
49	1	272511	BRIDGE ASSEMBLY
50	1	272512	LOCKWASHER INT #8
51	1	272513	NUT #8-32 NC
<u>A.C. REMOTE</u>			
52	1	272496	STRAIN RELIEF BUSHING
53	1	272514	SWITCH ASSEMBLY
54	1	272515	PLUG ASSEMBLY (FEMALE)
55	1	272516	ELECTRICAL CORD 1/2
56	1	370142	GROUND FAULT INTERUPTER

WIRING DIAGRAM
(370146 WINCH) 110 VOLT

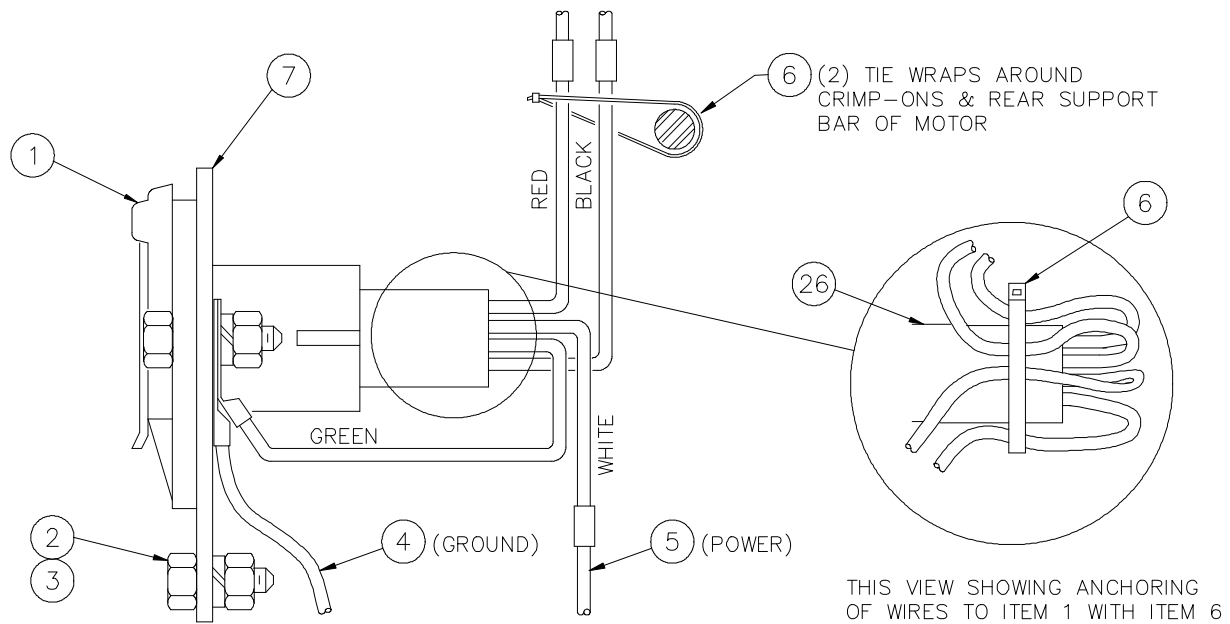


WIRING DIAGRAM (370144 WINCH) 110 VOLT WITH PENDANT



WIRING DETAIL - ECONO-TON II

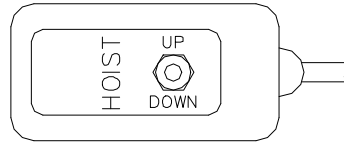
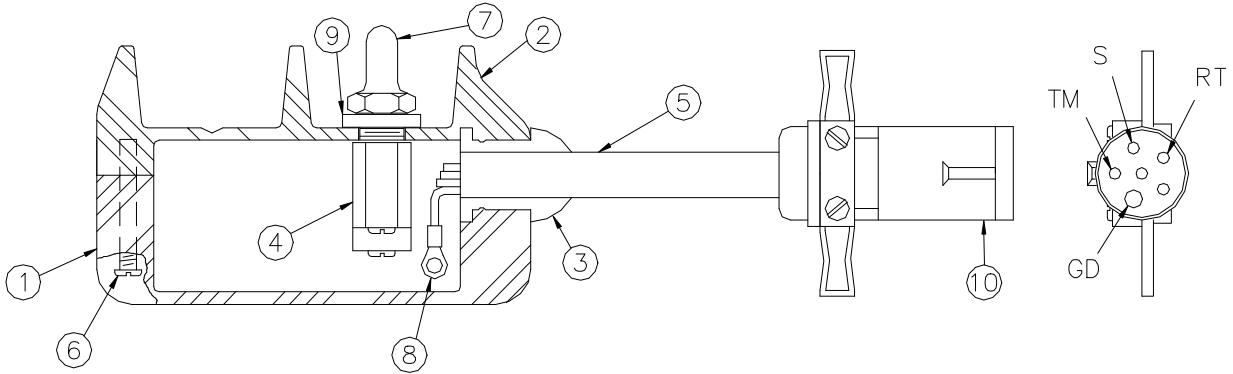
P/N AW-014



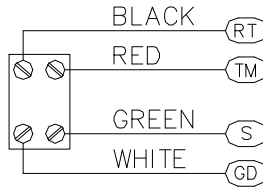
ITEM	QUANTITY	PART NUMBER	DESCRIPTION
1	1	370022	RECEPTACLE ASSEMBLY
2	2	020201	LOCKWASHER INT
3	4	015900	NUT ¼ NC
4	1	602006	GROUND CABLE
5	1	602005	POWER CABLE
6	3	663100	TIE WRAP
7	1	330183	RECEPTACLE MOUNT

PENDANT ASSEMBLY

P/N 370129



DECAL LAYOUT



ITEM	QUANTITY	PART NUMBER	DESCRIPTION
1	1	370130	PENDANT BOX
2	1	370131	PENDANT COVER
3	1	370132	PENDANT HOUSING GASKET
4	1	370136	TOGGLE SWITCH
5	10 FT	800616	CONDUCTOR CABLE
6	4	001207	SCREW SLOTTED PAN HD #8 X 1
7	2	640302	BOOT
8	4	001002	RING TERMINAL
9	1	370135	WASHER SEAL
10	1	642802	CONNECTOR PLUG
11	1	370202	DECAL HOIST UP/DOWN

LUBRICATION & MAINTENANCE SCHEDULE ECONO TON II

SERVICE PERFORMED	DAILY	WEEKLY	MONTHLY	1 YEAR	NOTES
LOAD HOOK	X				INSPECT HOOK & LATCH FOR DEFORMATION, CRACKS, & CORROSION
CABLE DRUM	X				MAKE SURE CABLE IS WOUND EVENLY ON DRUM
HOIST CABLE	X				CHECK FOR FLATTENING, KINKS, & BROKEN STRANDS, SEE MANUAL
MOUNTING BOLTS		X			CHECK-TORQUE TO 128 FT-LBS AS REQ.
MOTOR CONNECTION		X			CHECK TERMINALS FOR TIGHT CONNECTIONS
SHEAVE BEARINGS		X			SEALED BEARING, REPLACE IF ROUGH OR LOOSE
ALL OTHER BOLTS		X			CHECK-TIGHTEN AS REQUIRED
BATTERY CONNECTIONS		X			CHECK FOR CORROSION & TIGHT CONNECTIONS. CLEAN & COAT AS REQUIRED
POWER CABLE			X		CHECK INSULATION FOR DAMAGE OR DETERIORATION
ROTATION GEAR			X		WATER PROOF BEARING GREASE OR DRY MOLYLUBE IF DUSTY
HUMP REDUCER HOSE				X	WATER PROOF BEARING GREASE
FOR ADDITIONAL INFORMATION SEE:	1) OWNER'S MANUAL 2) OSHA SECTION 1910.180 3) ANSI B30.5-1989				

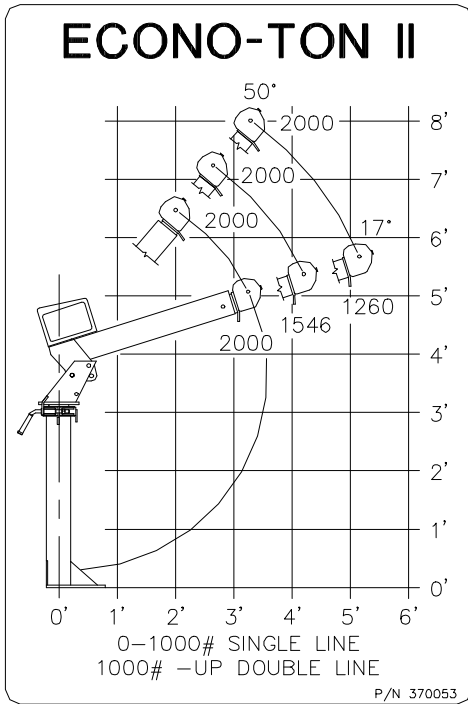
CAUTION

Routine maintenance insures trouble-free operation and protects your investment. All warranties are void if maintenance is neglected.

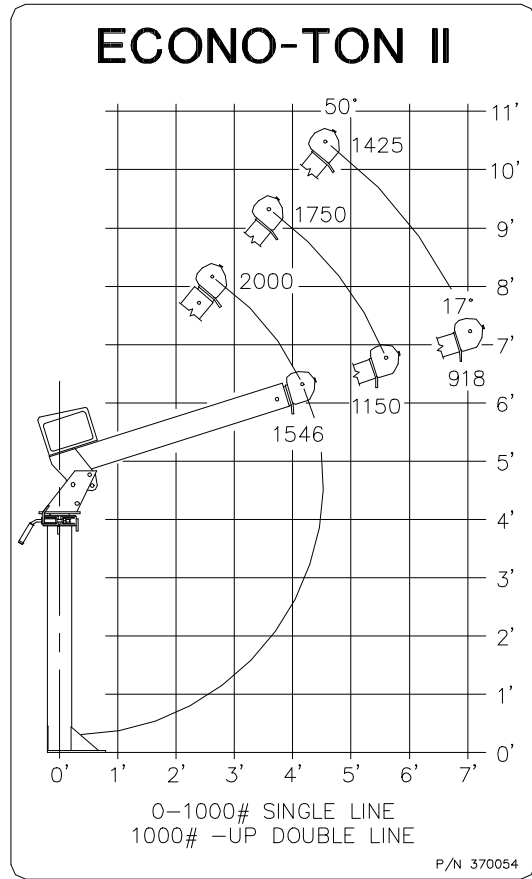
NOTES:

1. Use only authorized parts. Any damage or malfunction caused by the use of unauthorized parts is not covered by Warranty or Product Liability.
2. Once a bolt has been torqued to its rated capacity and then removed; the bolt should be replaced with a new one.
3. Auto Crane Company recommends that this crane be serviced per "Crane Inspection Log" P/N 999978. These logs should be filled in at the intervals noted and kept as a permanent record. Additional copies are available from your local distributor.

LOAD CHARTS, *ECONO-TON II* AW-105



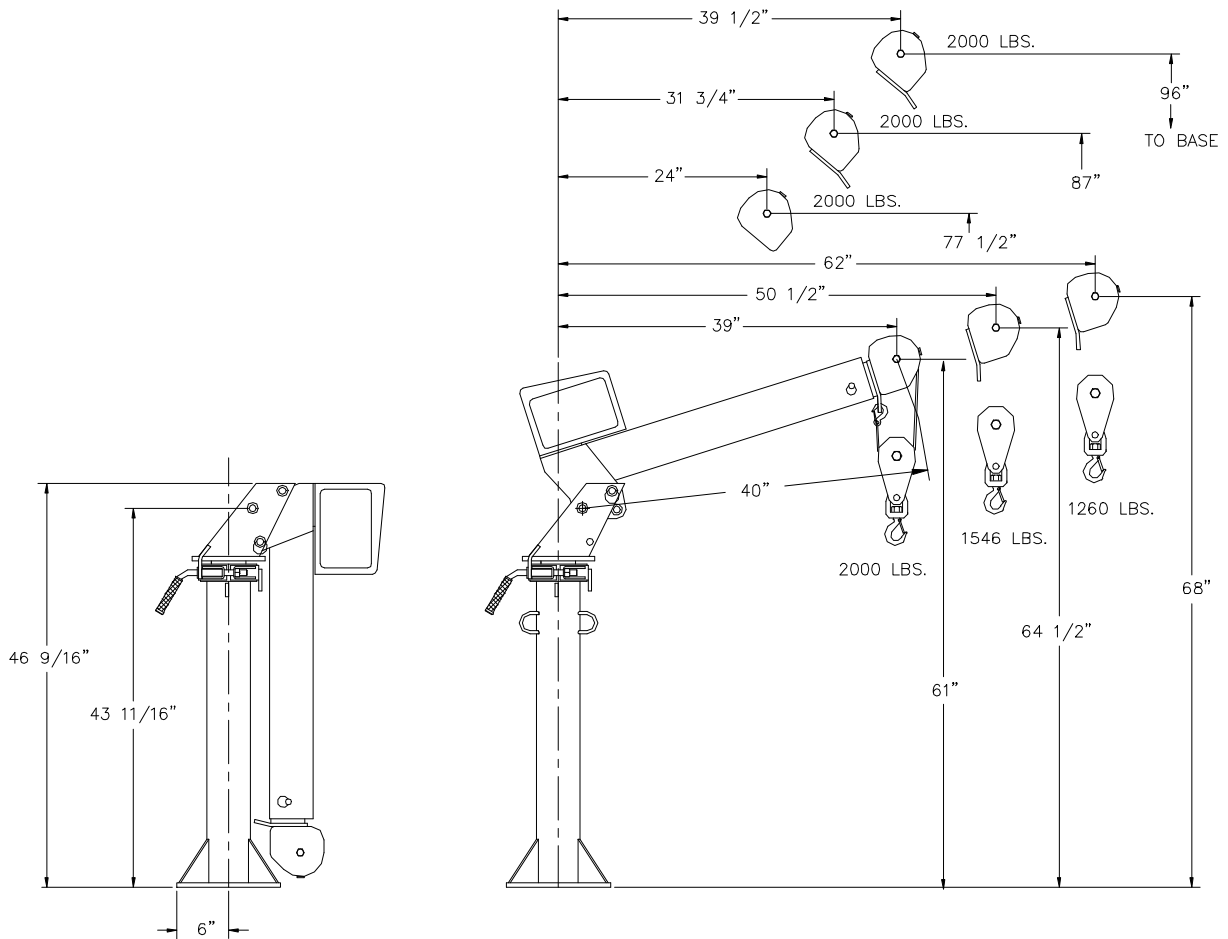
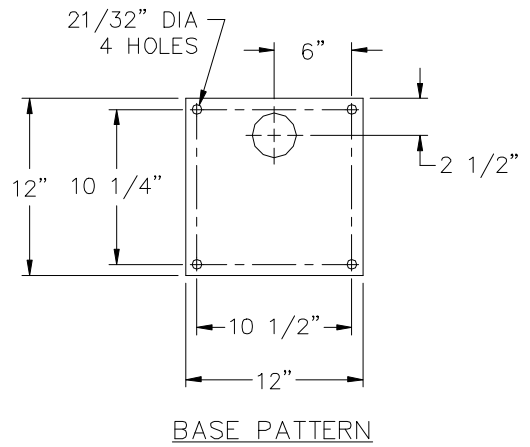
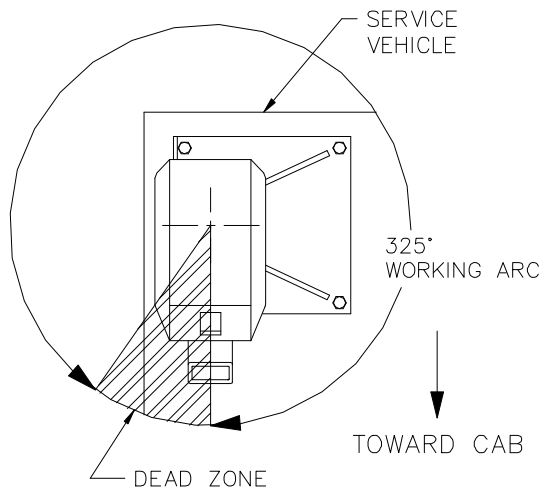
LOAD CHART, 370053
FOR *ECONO-TON II* WITH
STANDARD PEDESTAL AND BOOM



LOAD CHART, 370054
FOR *ECONO-TON II* WITH
TALL PEDESTAL AND 7' BOOM

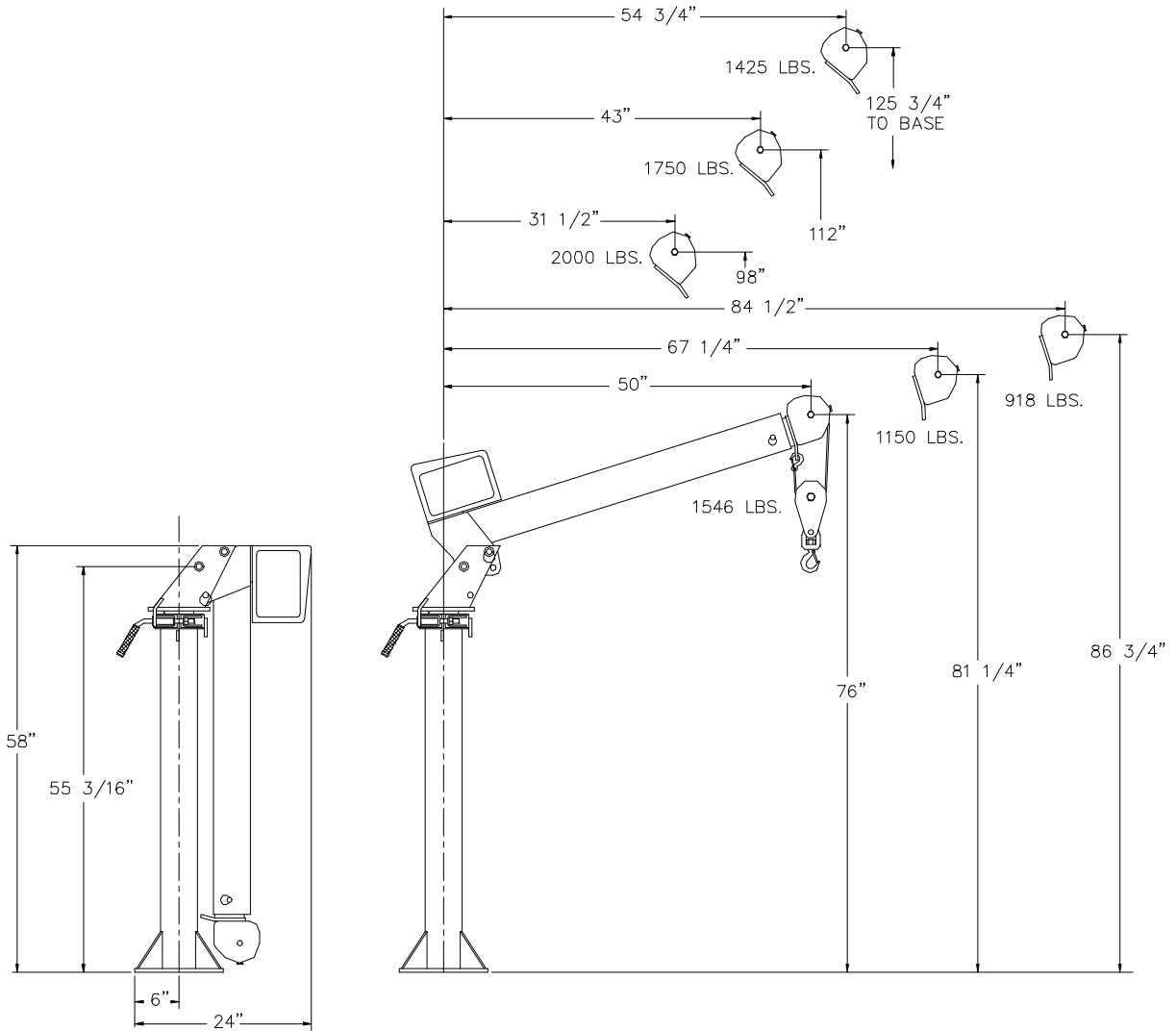
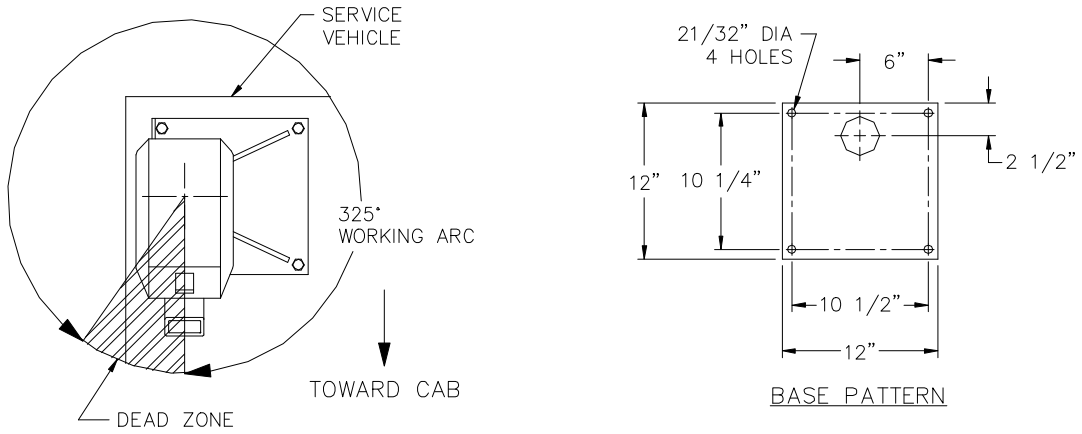
GENERAL DIMENSIONS

ECONO-TON II AW-103

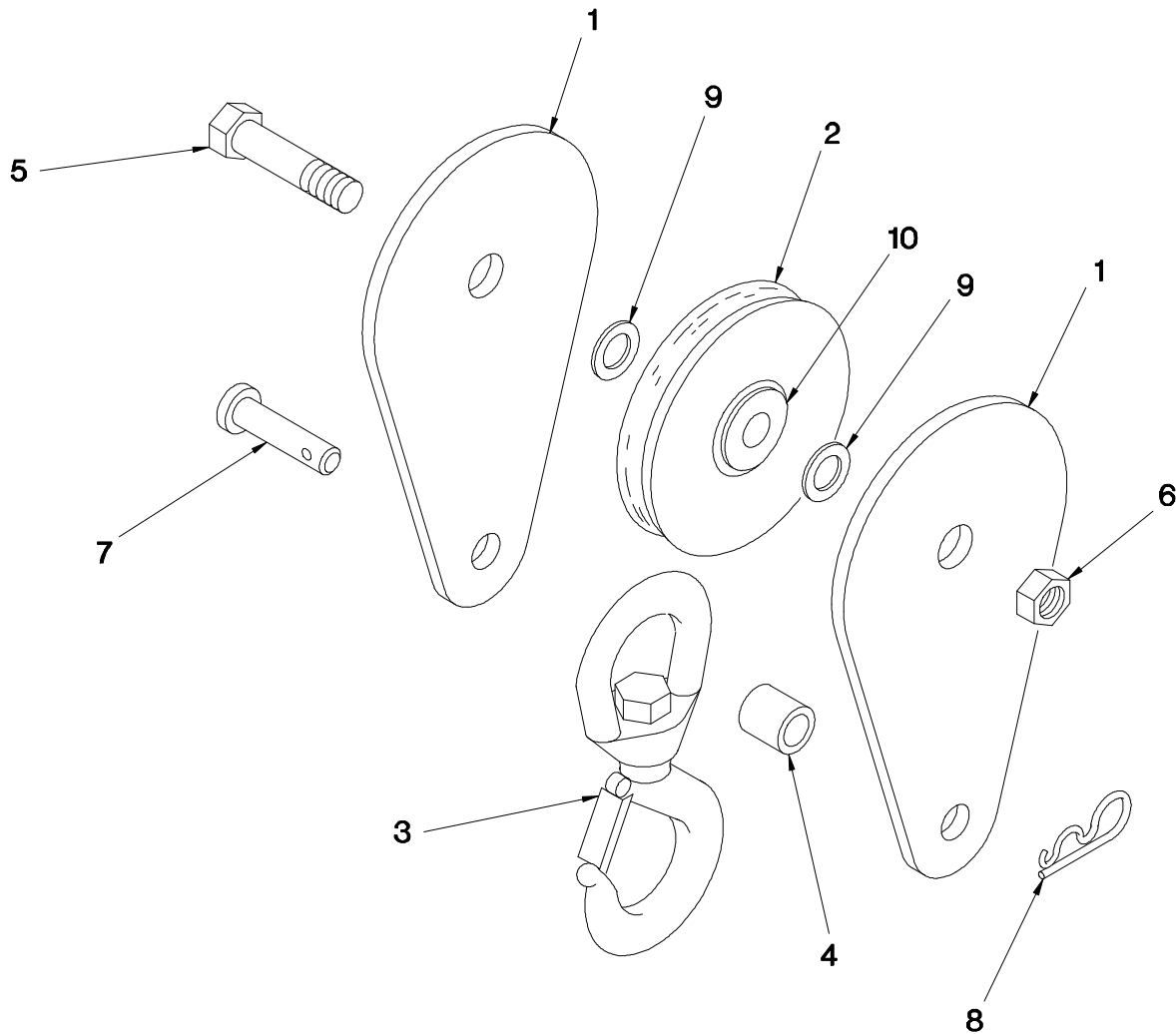


GENERAL DIMENSIONS *ECONO-TON II*

TALL PEDESTAL 7' BOOM AW-106



TRAVELING BLOCK ASSEMBLY

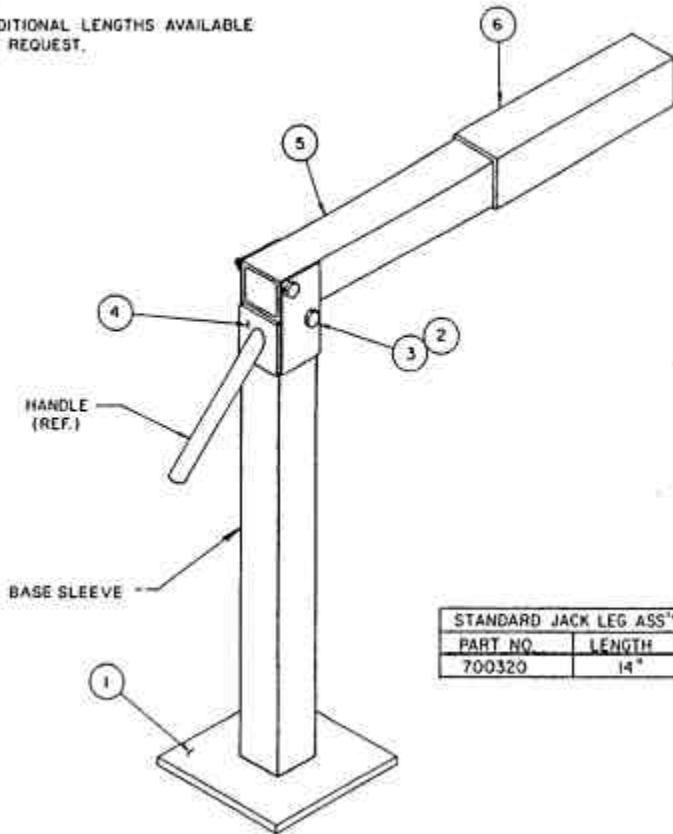


<u>ITEM</u>	<u>QUANTITY</u>	<u>PART NUMBER</u>	<u>DESCRIPTION</u>
1	2	100303	SIDE PLATE
2	1	200909	SHEAVE ASSEMBLY
3	1	100309	SWIVEL HOOK
4	1	340317	PIPE 1/2 X 2
5	1	013507	SCREW HX 5/8-18 X 2
6	1	018100	NUT HX HLF LK 5/8-18
7	1	330634	PIN
8	2	360124	HITCH PIN
9	1	330100	FLAT WASHER
10	1	200100	BEARING (COMES WITH SHEAVE ASSEMBLY)

JACK LEG ASSEMBLY SMALL

AW-700320

NOTE:
ADDITIONAL LENGTHS AVAILABLE
ON REQUEST.



INSTALLATION INSTRUCTIONS (JACK LEG)

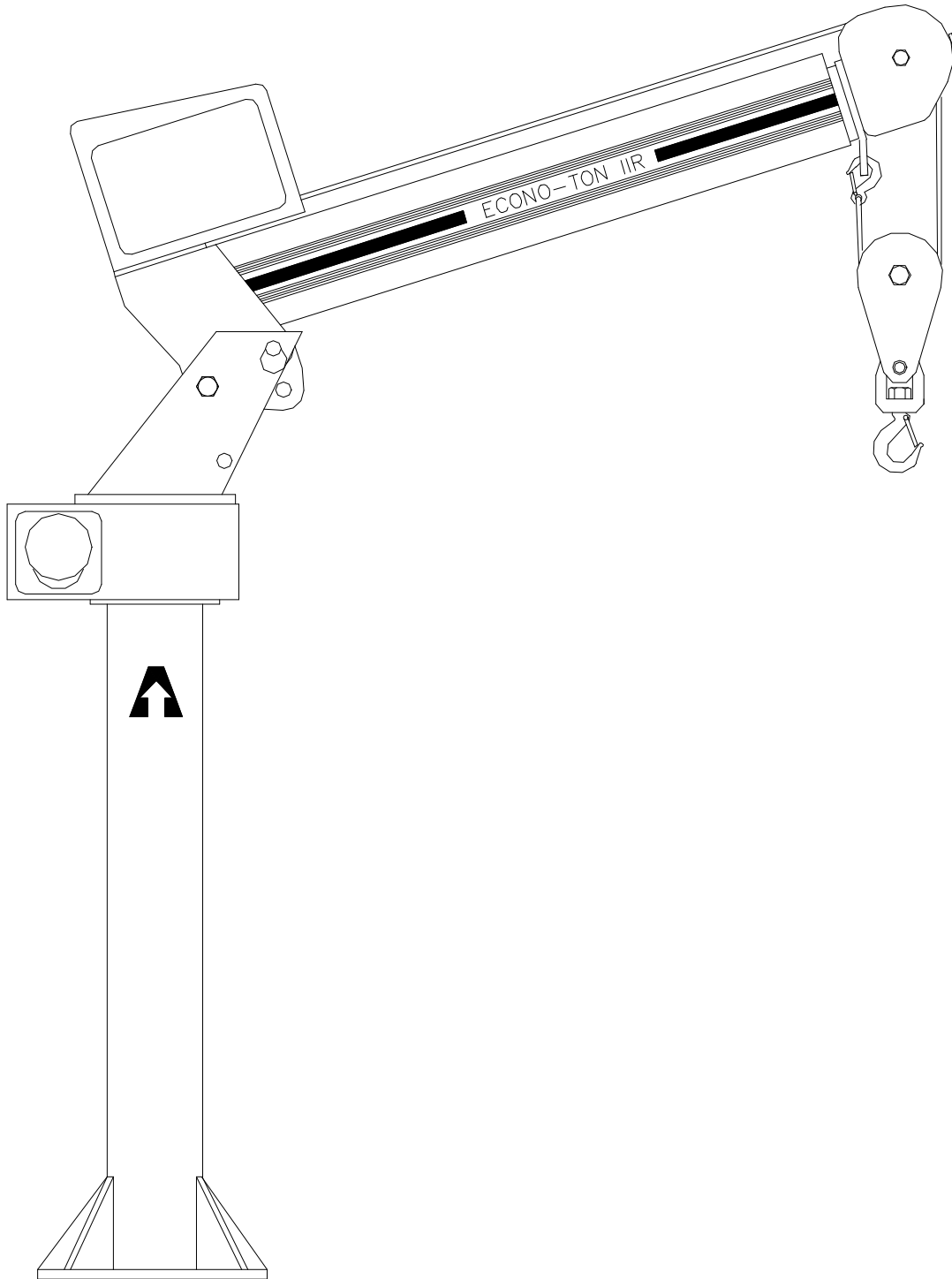
MAKE SURE TRUCK IS PARKED ON LEVEL SURFACE. WELD POCKET (ITEM 6) TO TRUCK AT REAR JUST INSIDE BUMPER, OR DESIRABLE LOCATION. END OF POCKET SHOULD BE FLUSH WITH OUTSIDE OF THE TRUCK BODY. BE SHURE THE POCKET IS WELDED SECURELY. NEXT, SLIDE HORIZONTAL MEMBER (ITEM 5) INTO POCKET, MAKE SHURE LEG ASSEMBLY IS FULLY INSERTED IN POCKET.

JACK LEG IS READY FOR USE. UPON USE, MAKE SURE JACK LEG HAS ADEQUATE TENSION (SELF-DETERMINING), BEFORE SELF-LOCKING IN PLACE.

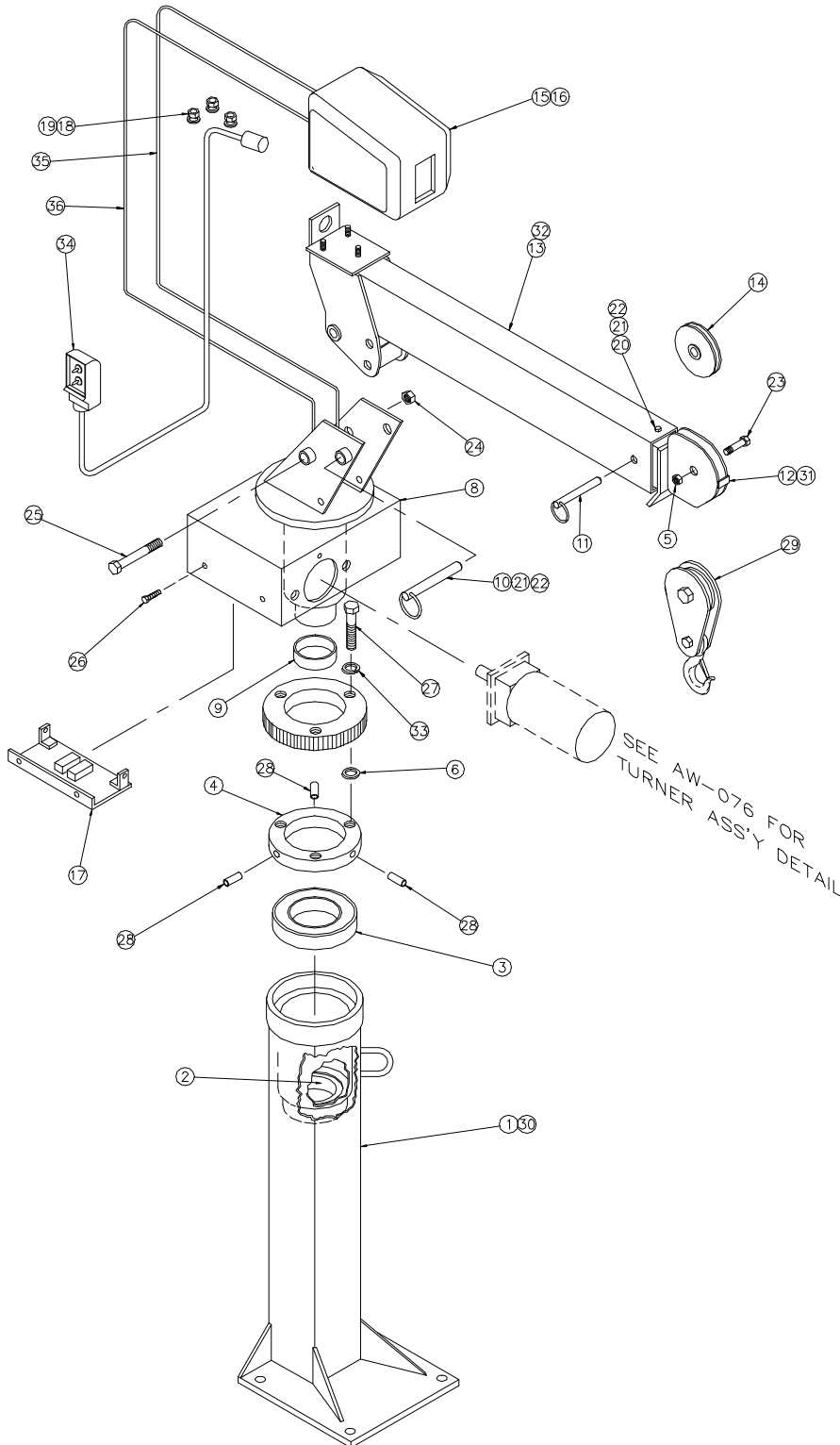
STANDARD JACK LEG ASS'Y	
PART NO.	LENGTH
700320	14"

ITEM	QUANTITY	PART NUMBER	DESCRIPTION
1	1	200454	BASE ASSEMBLY
2	2	017400	LOCKNUT HX 3/8 NF
3	2	009101	CAPSCREW HX HD 3/8 NF X 2 3/4
4	1	200074	TOGGLE
5	1	200282	MEMBER HORIZONTAL
6	1	200372	TUBE POCKET

***ADDENDUM SECTION
ECONO-TON II WITH POWER ROTATION***



ECONO-TON IIR
P/N 370400-200 AND 370400-300



ECONO-TON IIR
P/N 370400-200 AND 370400-300

<u>ITEM</u>	<u>QUANTITY</u>	<u>PART NUMBER</u>	<u>DESCRIPTION</u>
1	1	370491	PEDESTAL WELDMENT
2	1	370033	BEARING (SEE NOTE 1)
3	1	330192	BEARING BALL
4	1	370485	GEAR SPACER RING
5	1	018100	NUT LK 5/8 NF
6	A/R	370431	SHIM
7	1	370418	WORM GEAR BRONZE
8	1	370487	QUILL/HOUSING ASSEMBLY
9	1	370034	BEARING RACE (SEE NOTE 2)
10	1	370001	LOCK PIN
11	1	370002	LOCK PIN
12	1	370041	UPPER BOOM
13	1	370040	LOWER BOOM
14	1	227401	SHEAVE ASSEMBLY
15	1	272419	WINCH ASSEMBLY
16	1	370410	HIGH SPEED WINCH ASSEMBLY
17	1	370490	LIMIT SWITCH ASSEMBLY
18	3	017701	NUT HX 1/2 NC
19	3	021500	LOCK WASHER SP LK 1/2
20	1	370005	EXTENSION LOCK PAD-
21	2	005901	SCREW HX HD 1/4 NC
22	2	020200	LOCK WASHER 1/4 SP LK
23	1	012200	SCREW HX HD 5/8 NF
24	1	018600	NUT HX LK 3/4 NF
25	1	014302	SCREW HX HD 3/4 NF X 7 LG
26	4	370470	SCREW THRD CUTTER #10-24 X 1/2
27	3	009109	SCREW HX HD 3/8 NC X 1 1/2
28	3	330189	POLL PIN 1/4 X 3/4
29	1	100300	TRAVELING BLOCK
30	1	370492	PEDESTAL WELDMENT (7'-1" EXT)
31	1	370046	UPPER BOOM (7'-1" EXT)
32	1	370045	LOWER BOOM (7'-1" EXT)
33	3	021100	LOCK WASHER 3/8 SP LK

ECONO-TON IIR
P/N 370400-200 AND 370400-300

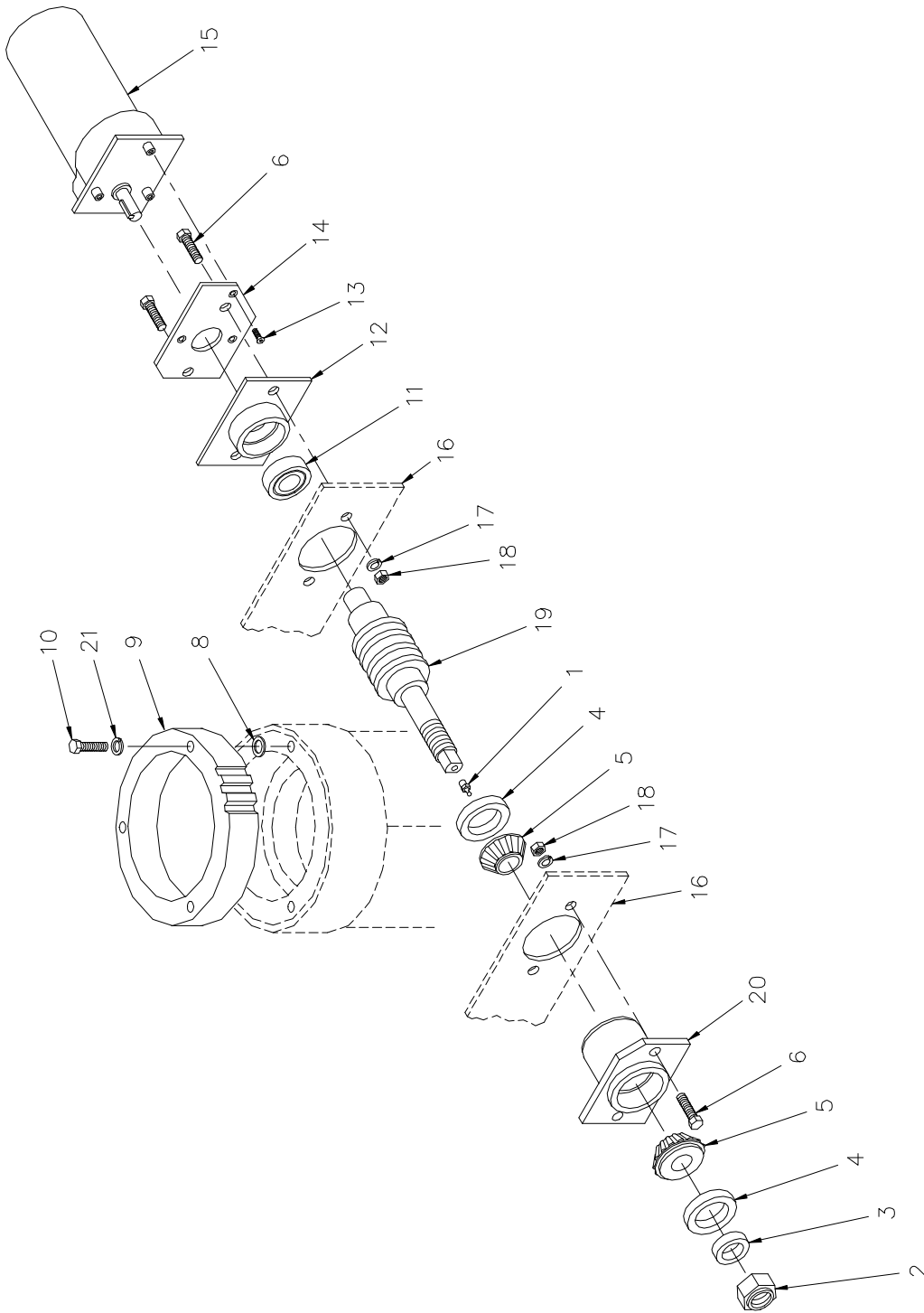
<u>ITEM</u>	<u>QUANTITY</u>	<u>PART NUMBER</u>	<u>DESCRIPTION</u>
34	1	370429	PENDANT ASSEMBLY
35	1	REF	POWER CABLE (SEE AW-078) (602005)
36	1	REF	GROUND CABLE (SEE AW-078) (602006)

NOTES:

1. ITEM NO. 2 IS INCLUDED AS PART OF ITEM 1, AND 30, PEDESTAL WELDMENT.
2. ITEM 9, BEARING RACE, IS PART OF ITEM 8, QUILL HOUSING ASSEMBLY.

ROTATION ASSEMBLY

A/W-076



ROTATION ASSEMBLY

AW-076

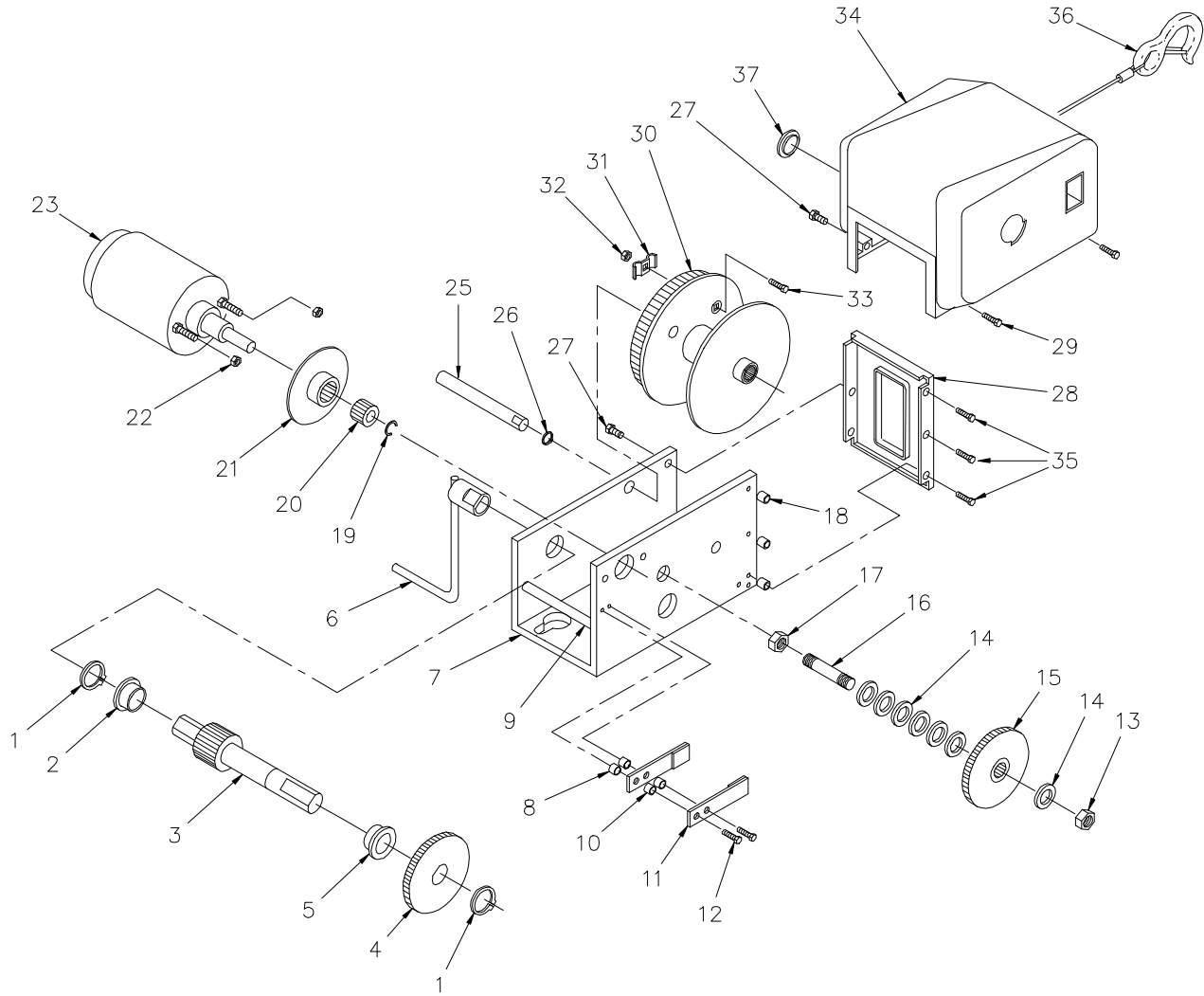
<u>ITEM</u>	<u>QUANTITY</u>	<u>PART NUMBER</u>	<u>DESCRIPTION</u>
1	1	239300	ZERK GREASE
2	1	019000	NUT HX LK 7/8 NF
3	1	330483	SPACER
4	2	330486	OIL SEAL
5	2	330485	BEARING CONE
6	4	011510	SCREW HX HD 1/2 NC X 1 1/4
7	3	021100	WASHER SP LK 3/8
8	A/R	370431	SHIM
9	1	370418	WORM GEAR BRONZE
10	3	009109	SCREW HX HD 3/8 NC X 1 1/2
11	1	330500	BEARING (SEE NOTE 1)
12	1	370473	BEARING HOUSING (SEE NOTE 1)
13	3	330389	SCREW FL HD 1/4 NC X 3/4
14	1	330504	MOTOR MOUNT
15	1	330313	MOTOR ELECTRIC
16	1	370487	HOUSING/QUILL ASSEMBLY
17	4	021500	WASHER SP LK 1/2
18	4	017701	NUT HX 1/2 NC
19	1	330421	WORM SHAFT
20	1	330472	HOUSING BEARING (W/2 BEARING CUPS 330474)

NOTES:

1. ITEM NUMBERS 11 & 12 ARE ORDERED AS AN ASSEMBLY P/N: 370474.

HIGH SPEED WINCH ASSEMBLY

P/N: 370410



HIGH SPEED WINCH ASSEMBLY

P/N: 370410

<u>ITEM</u>	<u>QUANTITY</u>	<u>PART NUMBER</u>	<u>DESCRIPTION</u>
1	2	272152	RETAINING RING
2	1	272153	BUSHING
3	1	370450	DRIVE SHAFT ASSEMBLY
4	1	370451	GEAR (56 T)
5	1	370467	BUSHING
6	1	272155	HANDLE ASSEMBLY
7	1	370452	BASE
* 8	2	REF	SPACER (SEE NOTE) (P/N: 370453)
9	1	370454	BASE SPACER
* 10	2	REF	BRAKE SPRING SPACER (SEE NOTE) (P/N: 370455)
11	2	272434	BRAKE SPRING ASSEMBLY
12	2	272437	SCREW #10-32 NF X 1 SELF TAPPING
13	1	330018	NUT LK 1/2 NC
14	7	272502	WASHER
15	1	370456	GEAR
16	1	330012	STUD
17	1	330011	NUT LK 7/16 NF
18	3	370457	FRONT PLATE SPACER
19	1	272171	"E" RING
20	1	272170	OTOR PINION (22 T)
21	1	370458	BRAKE DISK ASSEMBLY
22	2	330022	NUT LK #10-32 NF
23	1	272184	MOTOR ASSEMBLY (D.C.)
24	-	-	-
25	1	370459	REEL SHAFT
26	1	370460	RETAINING RING
27	4	272175	SCREW HX HD 1/4 NC X 1/2
28	1	370461	FRONT PLATE
29	2	370462	SCREW HX HD 1/4 NC X 7/8
30	1	370463	REEL ASSEMBLY
31	1	370463	ROPE CLAMP
32	1	272180	NUT HX 1/4 NC
33	1	272179	CARRIAGE BOLT 1/4 NC

HIGH SPEED WINCH ASSEMBLY

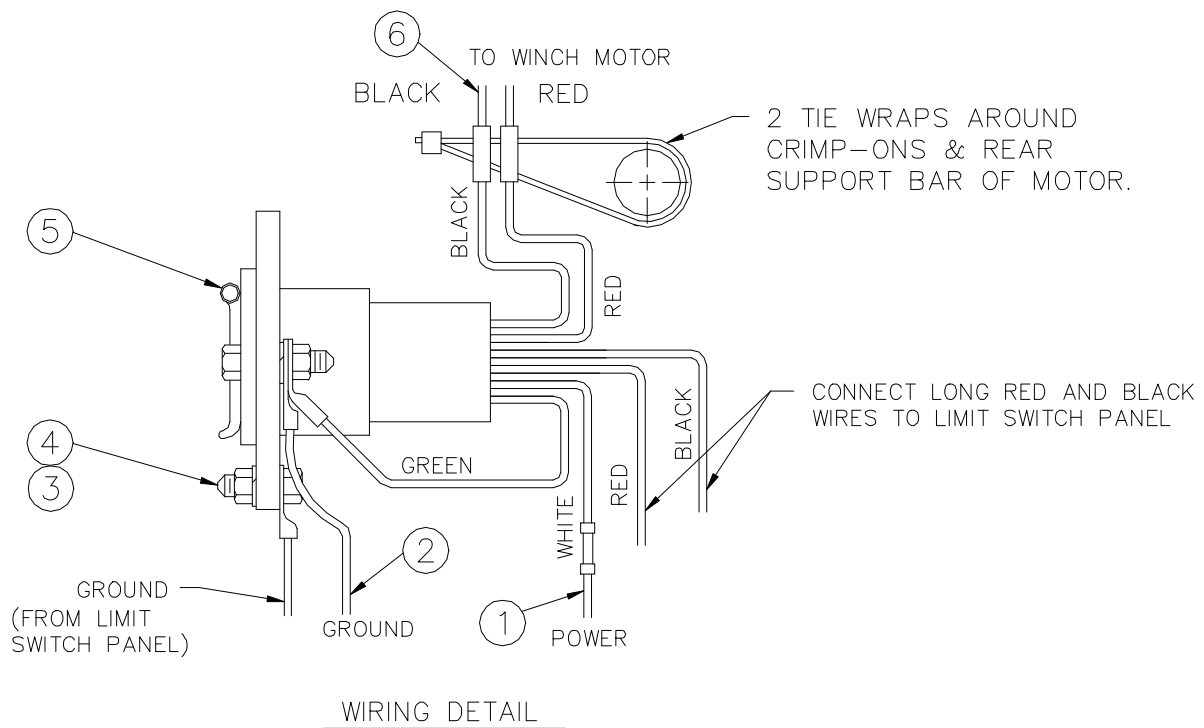
P/N: 370410

<u>ITEM</u>	<u>QUANTITY</u>	<u>PART NUMBER</u>	<u>DESCRIPTION</u>
34	1	370465	COVER (D.C.)
35	3	005500	SCREW HX HD 1/4 NC X 3/4
36	1	370466	CABLE & HOOK 3/16 X 20 FT CABLE
37	1	272508	COVER PLUG

* ORDER AS BRAKE SPRING KIT P/N: 370468

SOCKET ASSEMBLY

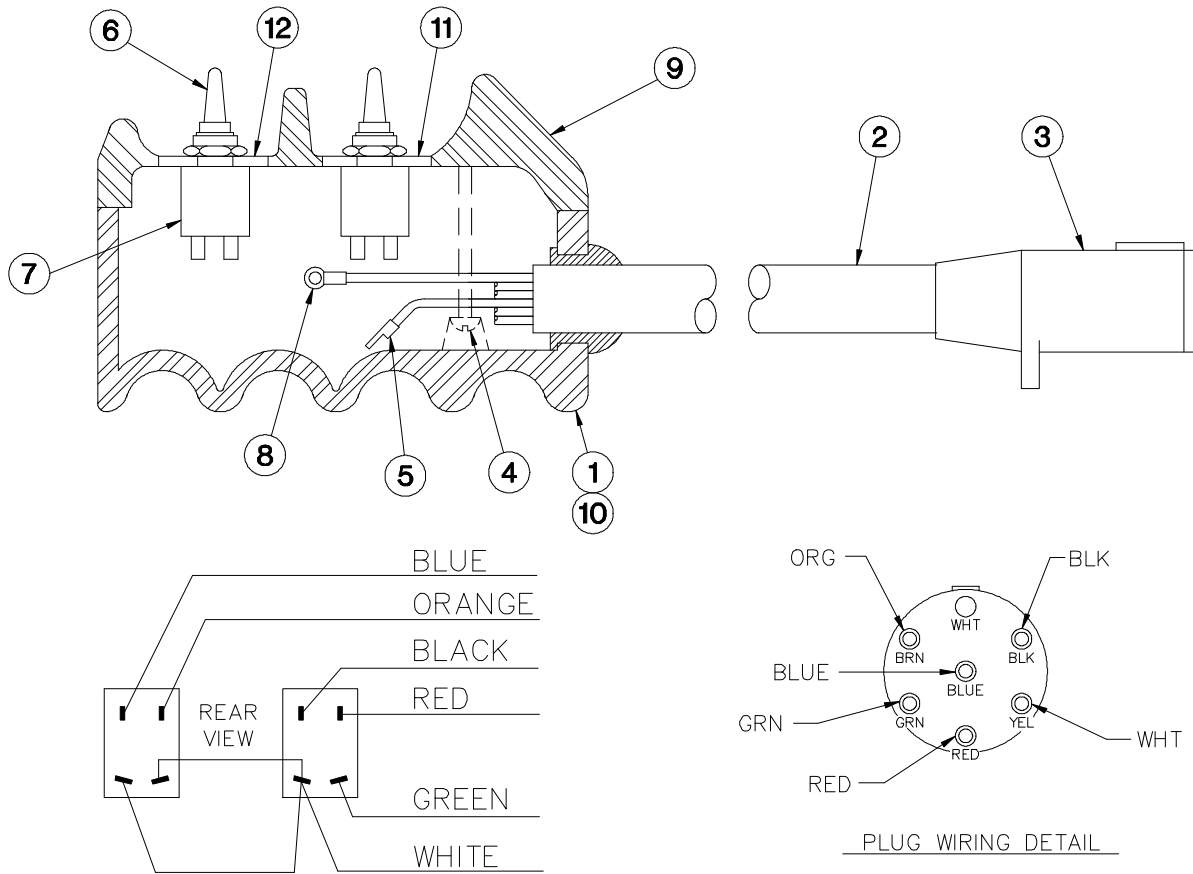
AW-078



ITEM	QUANTITY	PART NUMBER	DESCRIPTION
1	1	602005	10K BODY ASSEMBLY
2	1	602006	STREET SIDE HORIZONTAL SHELF
3	2	020201	CURB SIDE HORIZONTAL SHELF
4	2	015900	CURB/STREET SIDE FRONT SHELF
5	1	370436	CURB SIDE REAR SHELF
6	2	663100	TIE WRAP

PENDANT ASSEMBLY

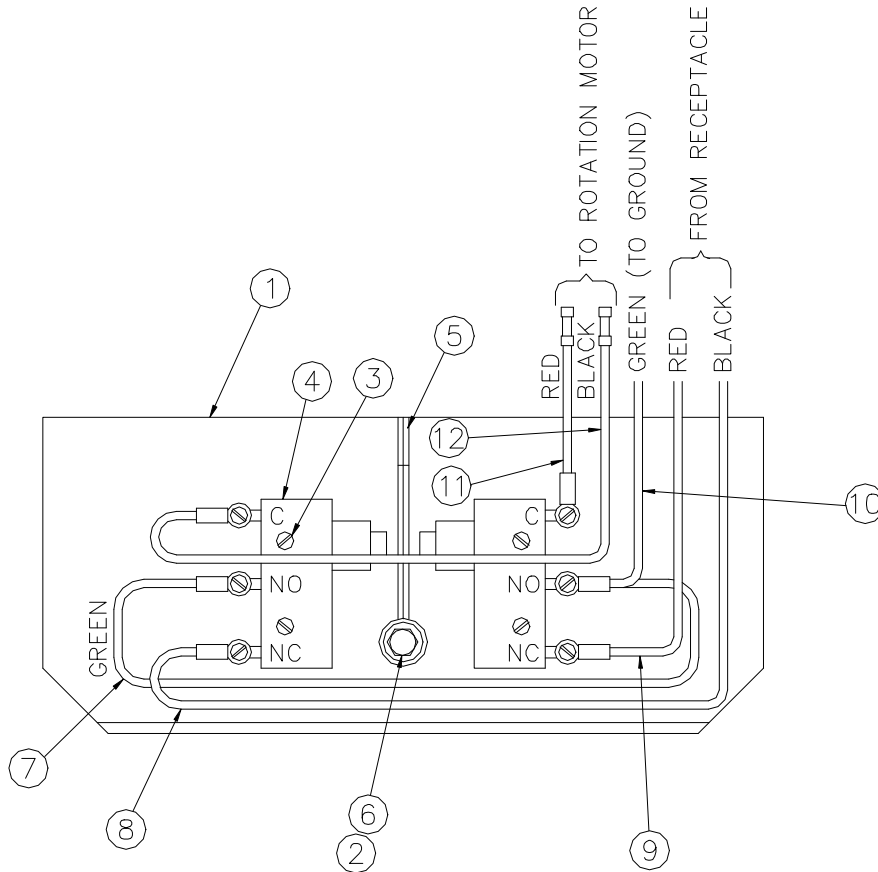
P/N: 370429



ITEM	QUANTITY	PART NUMBER	DESCRIPTION
1	1	370130	PENDANT HOUSING BOTTOM
2	10 FT	801005	CONDUCTOR CABLE 12/6
3	1	370445	PLUG PENDANT
4	4	001207	SCREW #8 NC X 1
5	8	000201	TERMINAL (12 GA)
6	2	640300	BOOT
7	2	370136	TOGGLE SWITCH
8	2	001002	TERMINAL (12 GA) (GREEN WIRE ONLY)
9	1	370131	PENDANT HOUSING TOP
10	1	370132	PENDANT HOUSING GASKET
11	1	370202	DECAL HOIST UP/DN
12	1	370203	DECAL ROTATION CW/CCW

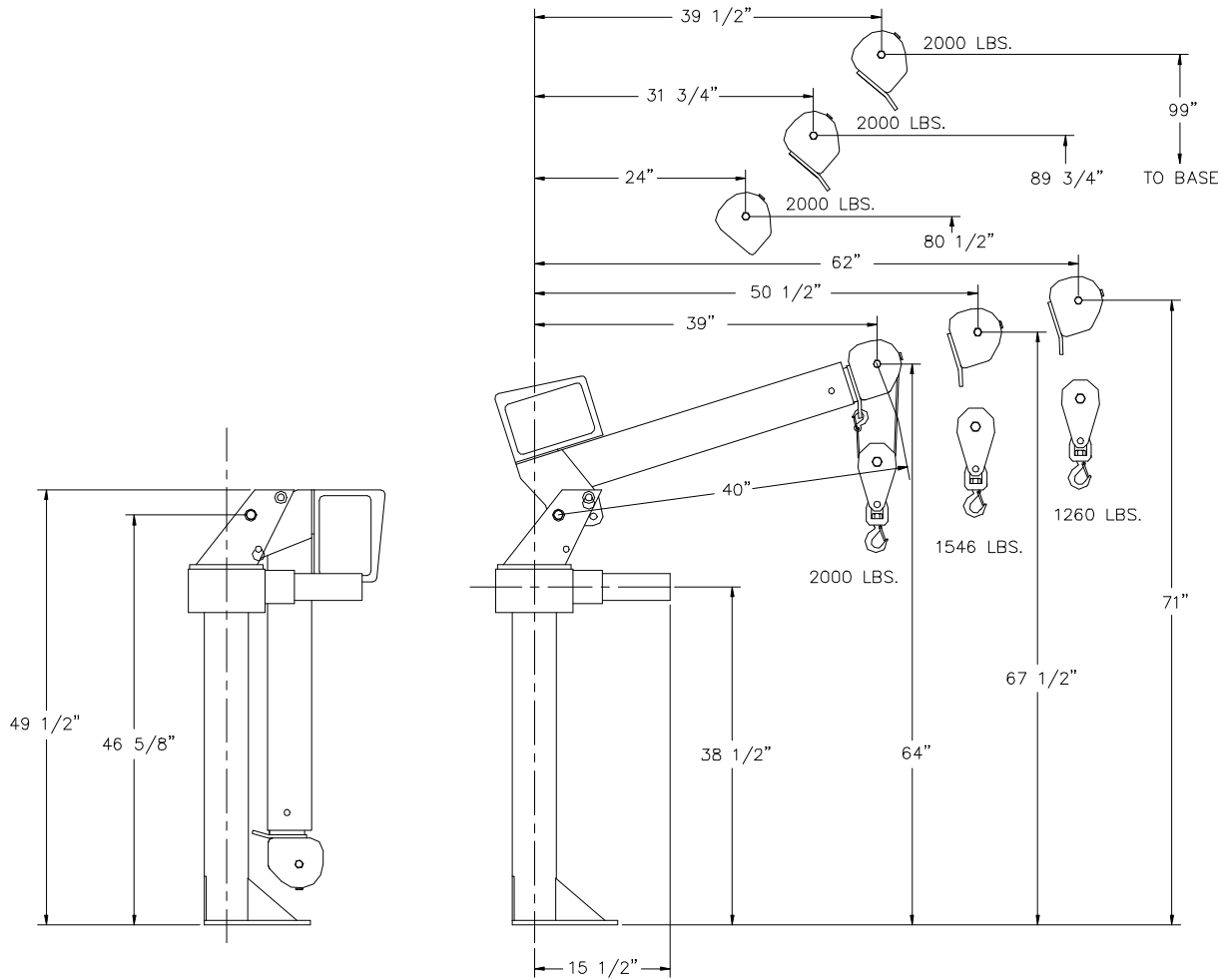
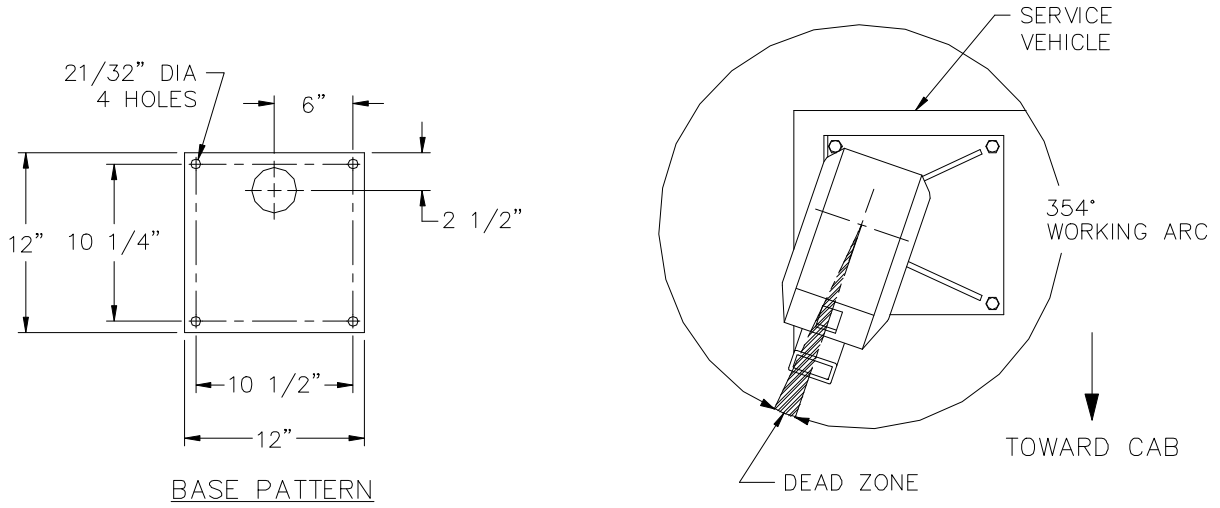
LIMIT SWITCH PANEL ASSEMBLY

P/N: 370490



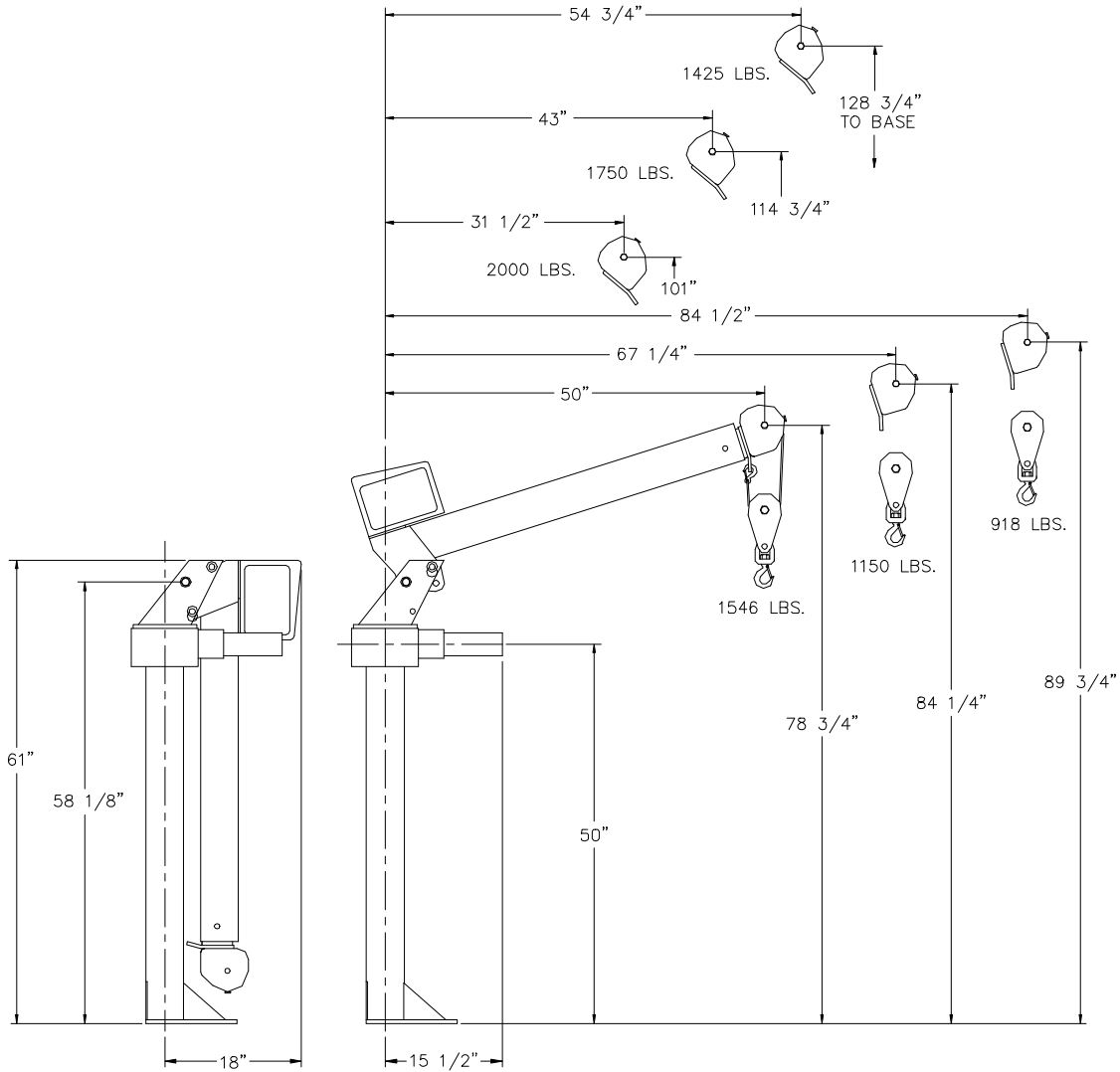
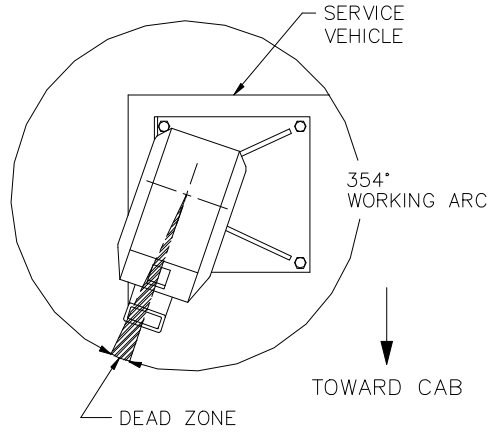
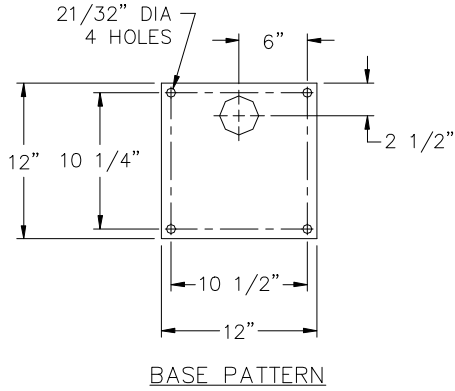
ITEM	QUANTITY	PART NUMBER	DESCRIPTION
1	1	370489	SWITCH PANEL WELDMENT
2	1	015900	NUT HX 1/4 NC
3	4	000602	SCREW RD HD #6-32
4	2	370419	LIMIT SWITCH
5	1	370413	TRIGGER ASSEMBLY
6	1	005611	SCREW SH 1/2 NC
7	1	370441	CONDUCTOR ASSEMBLY (GREEN)
8	1	370442	CONDUCTOR ASSEMBLY (BLACK)
9	1	370443	CONDUCTOR ASSEMBLY (RED)
10	1	370440	CONDUCTOR ASSEMBLY (GREEN)
11	1	370438	CONDUCTOR ASSEMBLY (RED 12 GA)
12	1	370437	CONDUCTOR ASSEMBLY (BLACK 12 GA)

ECONO-TON IIR GENERAL DIMENSIONS AW-107



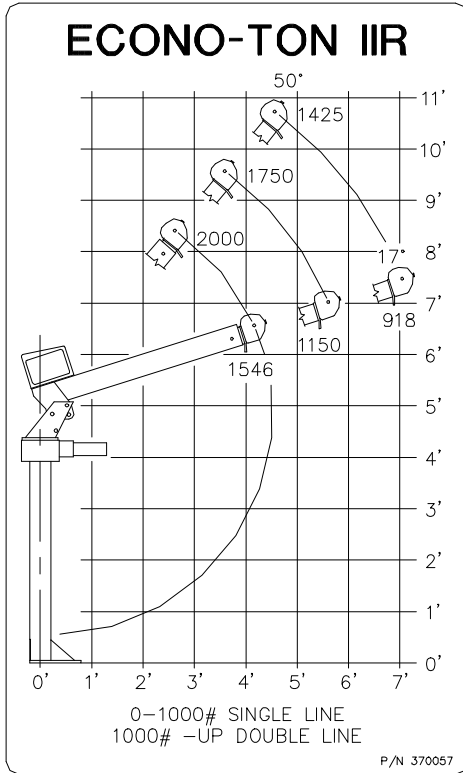
ECONO-TON IIR GENERAL DIMENSIONS

TALL PEDESTAL 7 FT BOOM AW-108

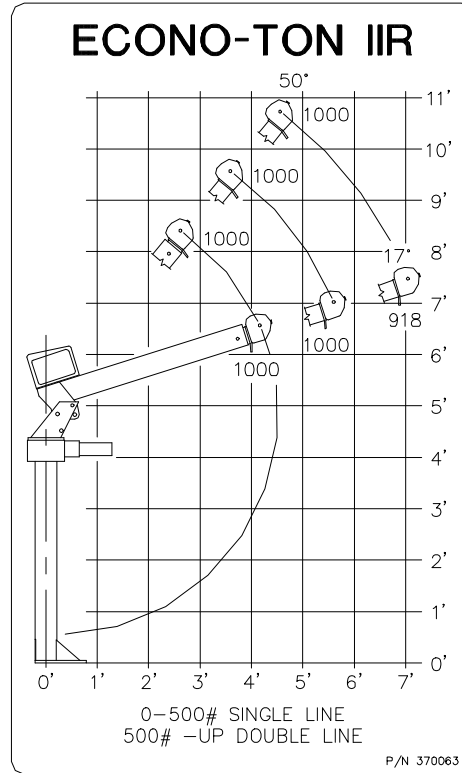


ECONO-TON IIR LOAD CHARTS

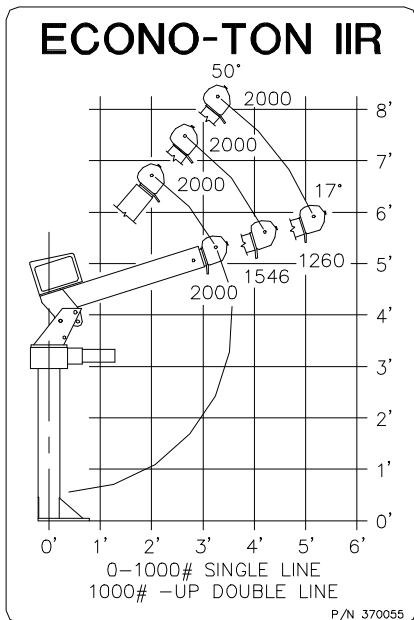
AW-109



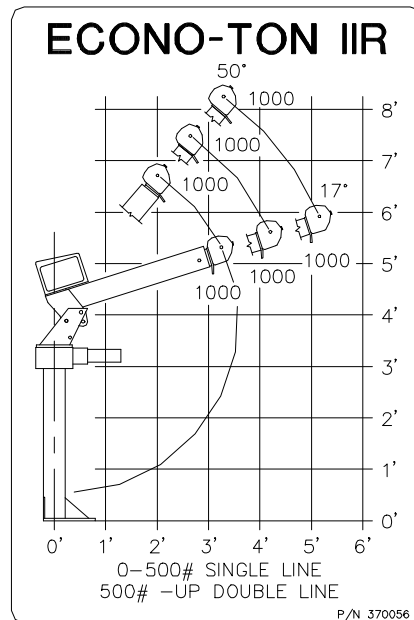
LOAD CHART, 370057
FOR ECONO-TON IIR WITH
TALL PEDESTAL AND 7' BOOM



LOAD CHART, 370063
FOR ECONO-TON IIR, WITH HIGH SPEED WINCH,
TALL PEDESTAL AND 7' BOOM



LOAD CHART, 370055
FOR ECONO-TON IIR WITH
STANDARD PEDESTAL AND BOOM



LOAD CHART, 370056
FOR ECONO-TON IIR, WITH HIGH SPEED WINCH
STANDARD PEDESTAL AND BOOM



AUTO CRANE COMPANY

P. O. BOX 581510 • TULSA, OKLAHOMA 74158

Limited Warranty

Auto Crane will warranty to consumer for a period of twelve months from date of purchase that each new Auto Crane product it sells will be free under normal use and service, from defects in material and workmanship. Date of purchase will be honored as either date of purchase by distributor or his date of sale of the product as substantiated by Distributor Delivery Report.

Obligation of Auto Crane under this warranty is limited to replacement or repair of parts that appear to manufacturer after review and / or inspection to be defective. This warranty does not obligate Auto Crane to bear the cost of labor or transportation charges in connection with the replacement or repair of defective parts. Responsibility for customer's claims arising from misapplication, abuse, misuse or alteration of equipment or parts lies with the distributor or user and no warranty obligation is assumed in the circumstances by Auto Crane.

Auto Crane will in no event be liable for any consequential damages or contingent liabilities arising out of the failure of any Auto Crane product or parts to operate properly.

Auto Crane makes no warranty in respect to component accessories, same being subject to the warranties of their respective manufacturers.

If field service, at the request of buyer, is rendered and fault is found not to be with Auto Crane's product, the buyer shall pay the time and expense of the field representative. Claims for service labor or other expenses that have been incurred by the buyer without approval or authorization of Auto Crane will not be accepted.

AUTO CRANE COMPANY IS UNDER NO OBLIGATION TO EXTEND THIS WARRANTY TO ANY CUSTOMER FOR WHICH AN AUTO CRANE WARRANTY REGISTRATION CARD HAS NOT BEEN COMPLETED AND MAILED TO AUTO CRANE COMPANY WITHIN FIFTEEN (15) DAYS AFTER DATE OF PURCHASE.