

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

# **OWNERS MANUAL ECONOTON II / IIR**

**REVISION 1/95**

**PART NO. 999938**

**SERIAL NO. \_\_\_\_\_**

## **AUTO CRANE COMPANY**

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# 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!** Auto Crane Company recommends that a crane never be moved any closer than 10 feet (3.05m) from power lines at any point. SEE DANGER DECAL (P/N 040529) in this Owner's Manual.
- ♦ **WARNING! NEVER .....**
  - **EXCEED** load chart capacities (centerline of rotation to hoist hook).
  - un-reel last 5 wraps of cable from drum!
  - wrap cable around load!
  - attempt to lift or drag a load from the side! The boom can fail far below its' rated capacity.
  - 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.
  - place a chain link on the tip of the hook and try to lift a load!
  - use a sling bar or anything larger than the hook throat that could prevent the hook latch from closing, thus negating the safety feature!
  - 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, stiff boom 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) 438-2760. 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 ---**

# ***SAFETY TIPS AND PRECAUTIONS***

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 moment 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. **NEVER OPERATE THE CRANE NEAR ELECTRICAL POWER LINES!** Auto Crane Company recommends that a crane never be moved any closer than 10 feet (3.05m) from power lines at any point. SEE DANGER DECAL (P/N 040529) in this Owner's Manual.
17. **NEVER** un-reel last 5 wraps of cable from drum!
18. **NEVER** wrap cable around load!
19. **NEVER** attempt to lift or drag a load from the side! The boom can fail far below its' rated capacity.
20. **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.
21. **NEVER** place a chain link on the tip of the hook and try to lift a load!
22. **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!
23. 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.
24. **NEVER** hold any pendant Select Switch on that will cause unsafe operating conditions!
25. **NEVER EXCEED** load chart capacities (centerline of rotation to hoist hook).

**--- IMPORTANT ---**  
**OPERATION OF UNIT**  
**Econo-Ton II Series**

1. Make sure this manual has been thoroughly read by all crane operating personnel and supervisors.
2. A routine inspection of the crane should be mandatory before each operating day. Any defects should be corrected immediately.
3. 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).
4. Keep the vehicle as level as possible during operation.
5. For electric cranes, **engage emergency brake** and leave ignition on with transmission in neutral (or in park for automatic transmissions). 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.
6. 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**.
7. 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.
8. Always boom up before rotating so the boom will clear the required boom support.
9. When extending the boom, always maintain clearance between the boom crown and the traveling block or hoist hook.
10. Always observe safe and practical operation to avoid possible accidents. **Refer to Safety Tips and Precautions.**
11. After completing lifting operations, return the boom to stowed position on the boom support. Avoid unneeded pressure on the boom support.
12. Store pendant control on proper location (in cab or on crane).
13. Return outriggers to stowed position. Make sure they are pinned in place or jacklegs are returned to compartment.
14. Check work area for any tools or equipment not stored.
15. Report any unusual occurrence during crane operation that may indicate required maintenance or repair.
16. NEVER use two cranes to support a load too large for either crane.
17. Spray all electrical equipment with a protective coating to help eliminate rust and corrosion.

# LIFE OF WIRELINE

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:

1. Load being handled

2. Corrosive conditions

3. Maintenance of the unit

A. Keep the sheaves turning freely

B. Maintain tension on cable to insure proper spooling

C. Avoid kinks in cable

D. Avoid abrasive action and contact with sharp corners

4. Frequency of use

Auto Crane units, 2700 pound rating to 3200 pound rating use 7/32 inch diameter galvanized pre-formed 7 x 19 aircraft cable. This cable has a working strength, when new, of 5600 pounds. It is recommended when 1600 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:

1. Broken strands

2. Kinks and flattened sections

3. Corrosion and abrasion

# NOTES



# 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
1.15	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 overcharging 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) an 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.

# MAINTENANCE OF BATTERIES

## 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.

## 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 are unchanged over three readings taken at one-half hour intervals. If the specific gravity readings are fairly uniform, the bat-

tery 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.

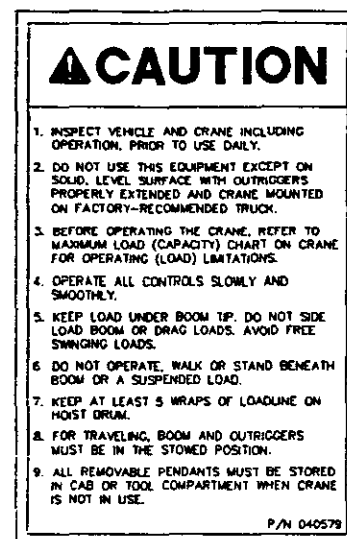
It is also very important that the battery hold-downs be checked periodically to ensure that the batteries are properly positioned to avoid vibration problems, breakage of cables or terminals. Care must be taken to avoid cracking or breaking containers or covers by tightening hold-down fixtures excessively.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

# SAFETY DECAL SECTION

## ECONO-TON II

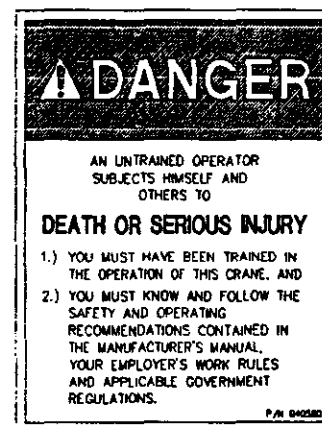
<b>PART NO.:</b>	<b>040579</b>
<b>DECAL:</b>	<b>OPERATION INSTRUCTIONS</b>
<b>FUNCTION:</b>	<b>To inform the operator of the proper procedure to follow for safe operation of the crane.</b>
<b>USED ON:</b>	<b>Econo-Ton II &amp; All Cranes</b>
<b>QUANTITY:</b>	<b>2</b>
<b>PLACEMENT:</b>	<b>Pedestal, Back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

**FIG. 1.**



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

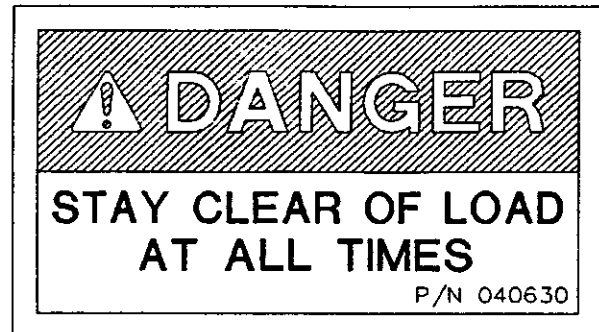
**FIG. 2.**



# SAFETY DECAL SECTION

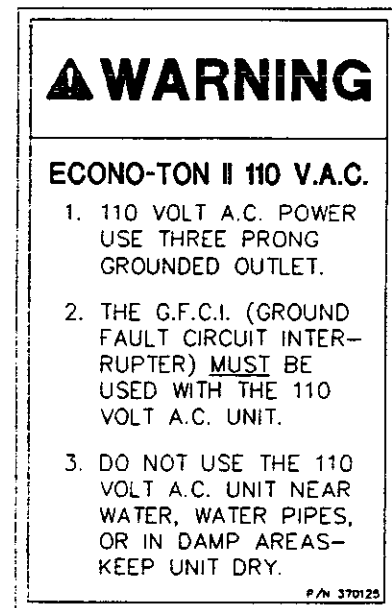
## ECONO-TON II

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

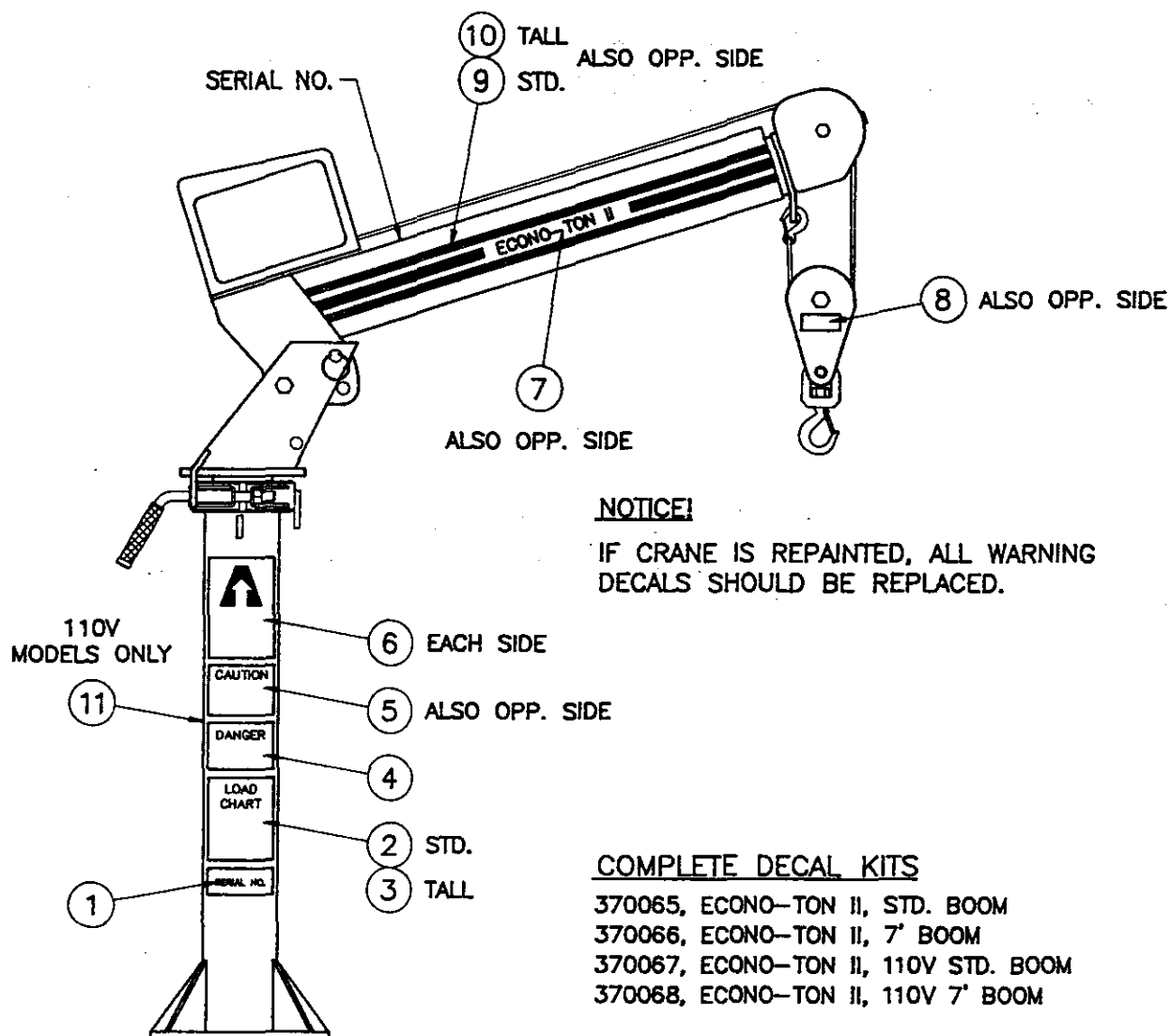


**FIG. 3.**

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

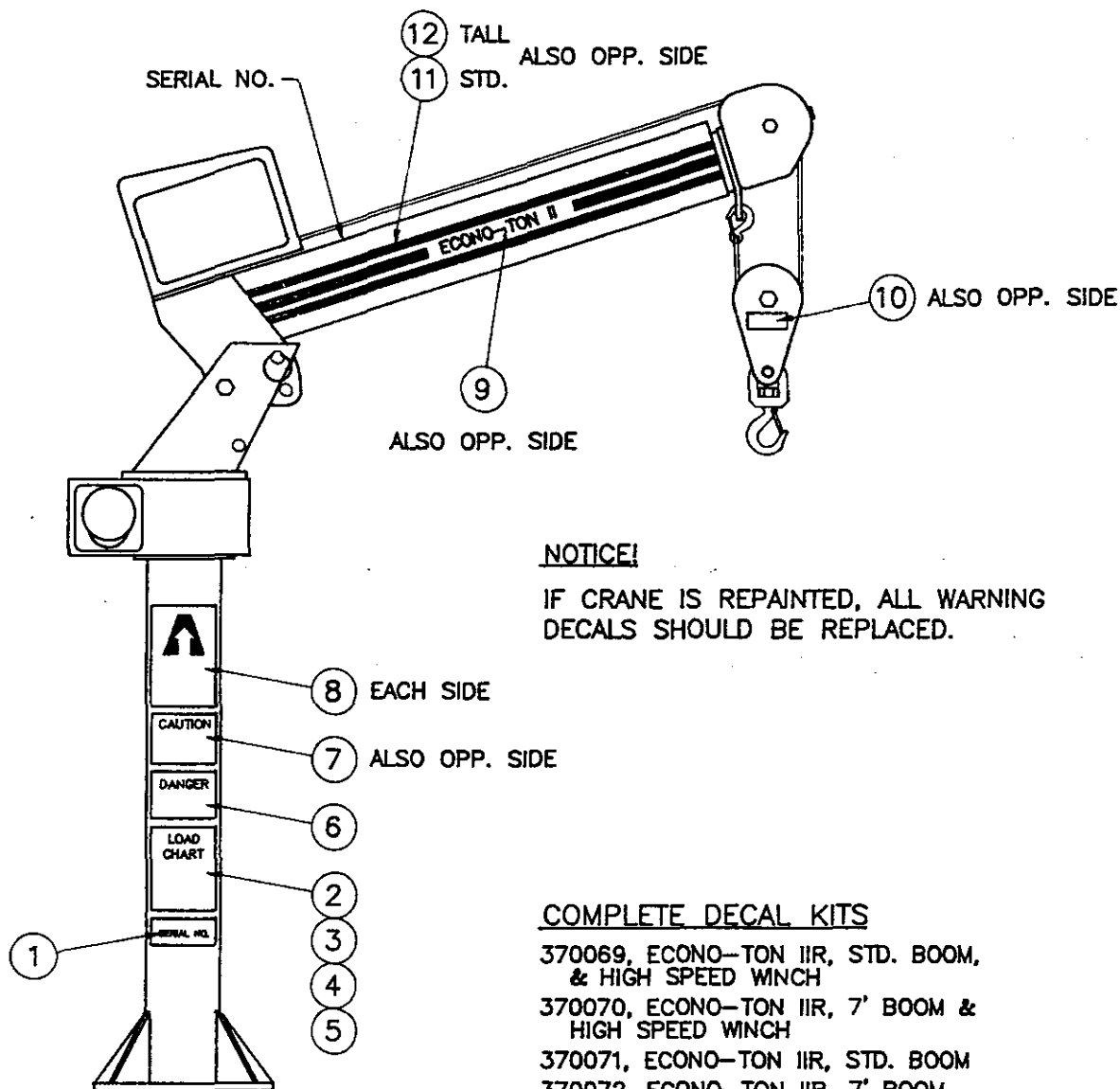


**FIG. 4.**



ITEM	QTY	PART NO.	DESCRIPTION
1	1	330622	DECAL, SERIAL NO.
2	1	370053	DECAL, LOAD CHART, STD. BOOM
3	1	370054	DECAL, LOAD CHART, 7' BOOM
4	1	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' EACH SIDE)
10	2	040620	DECAL, STRIPING (4' EACH SIDE)
11	1	370125	DECAL, 110 VOLT

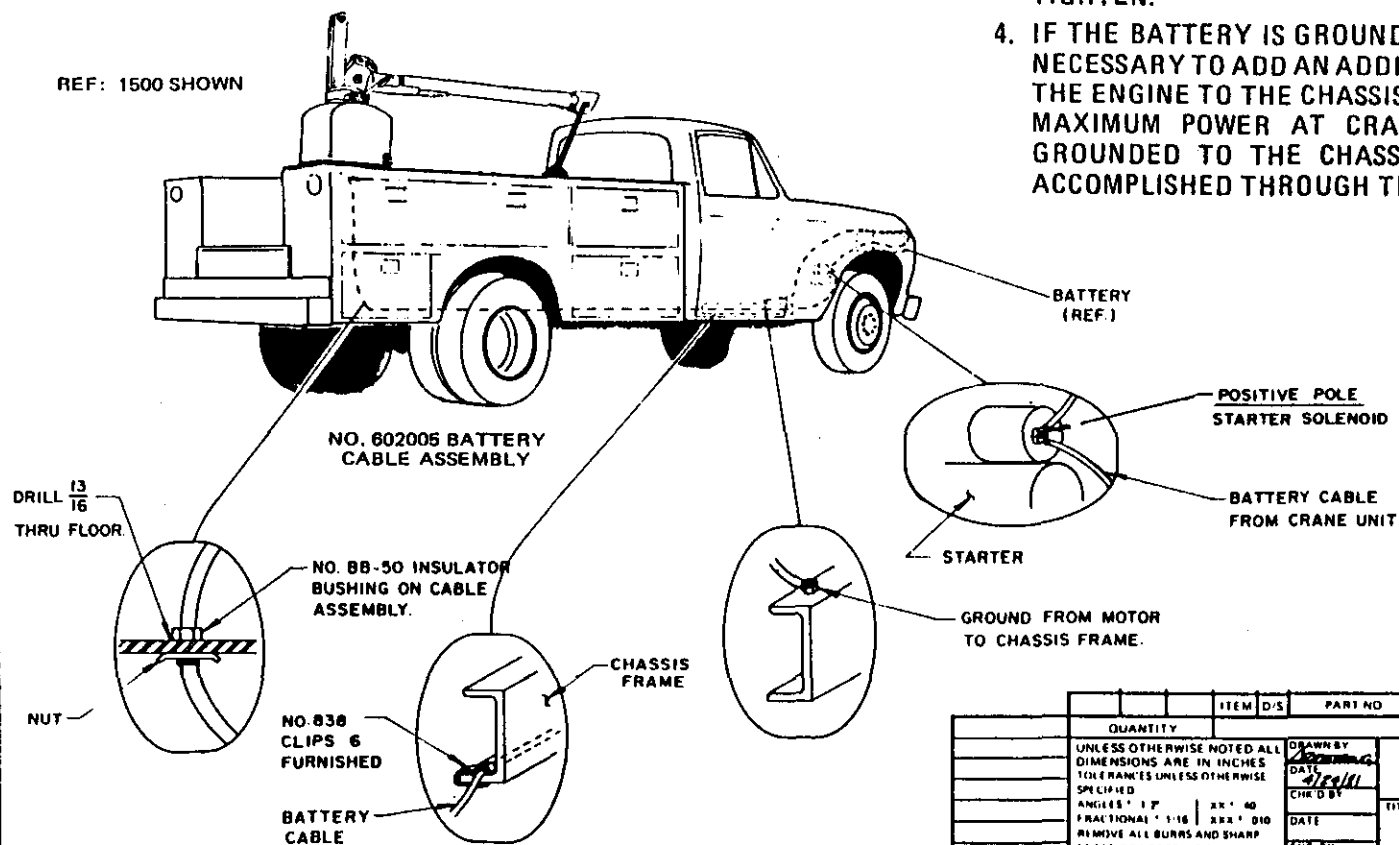
AW-104  
ECONO-TON II DECALS



ITEM	QTY	PART NO.	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	1	370057	DECAL, LOAD CHART, 7' BOOM
5	1	370063	DECAL, LOAD CHART, 7' 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' EACH SIDE)
12	2	040620	DECAL, STRIPING (4' EACH SIDE)

AW-094  
ECONO-TON IIR DECALS

REF: 1500 SHOWN

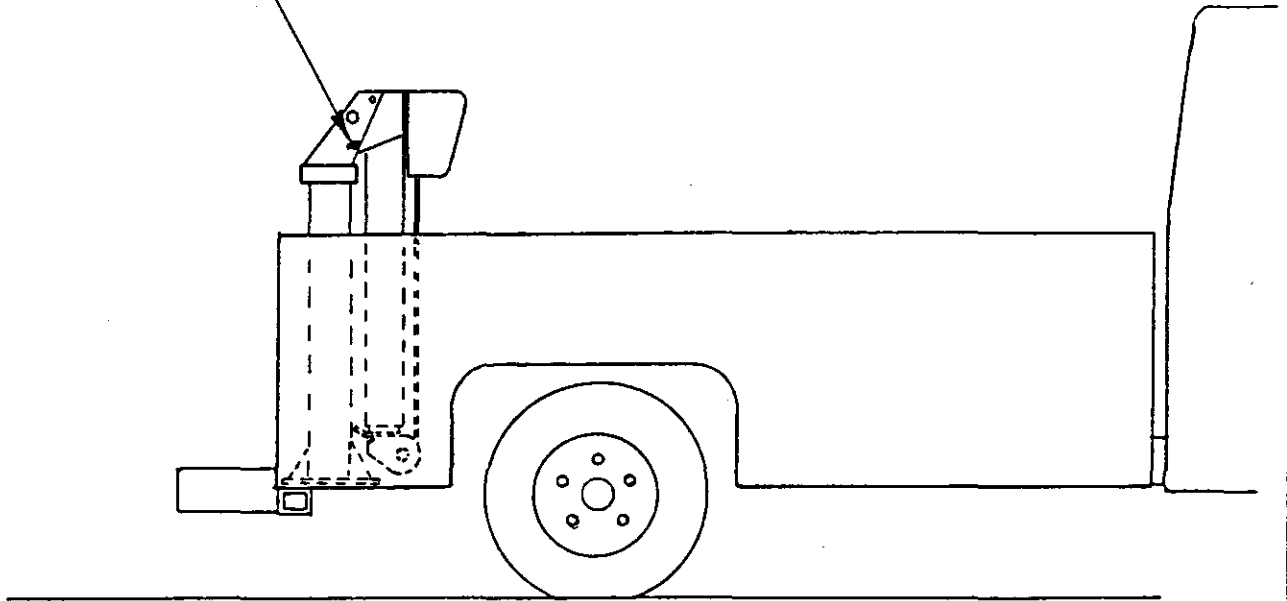


1. DRILL 13/16 DIAMETER HOLE IN FLOOR. INSTALL CABLE, AND BUSHING WHICH IS FURNISHED ON CABLE, AS SHOWN. WRAP ELECTRICAL TAPE AROUND CABLE SO IT WILL FIT BUSHING SNUG.
2. RUN CABLE INSIDE CHASSIS FRAME TO STARTER SOLENOID BATTERY CONNECTION. LOCATE CABLE SO THAT IT WILL BE PROTECTED, AVOID SHARP EDGES. 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.

12/84

		ITEM	D/S	PART NO	DESCRIPTION	
QUANTITY		LIST OF MATERIAL				
UNLESS OTHERWISE NOTED ALL DIMENSIONS ARE IN INCHES TOLERANCES UNLESS OTHERWISE SPECIFIED ANGLES 1" 1' XX .40 FRACTIONAL 1/16 XX .010 REMOVE ALL BURRS AND SHARP EDGES DO NOT SCALE THIS DRAWING TOLERANCES NOT SHOWN ABOVE ARE PER ANSI Y14.5-1973  THIS PRINT IS THE PROPERTY OF AUTO CRANE CO AND MUST NOT BE USED IN ANY MANNER DETRIMENTAL TO THEIR INTERESTS		DRAWN BY <u>James</u>		<b>AUTO CRANE COMPANY</b> P O BOX 45548 • TULSA OKLAHOMA 74145 8760 BROKEN ARROW EXPRESSWAY • 918 627 9475		
		DATE <u>4/20/11</u>				
		CHK'D BY				
		DATE				
		ENG BY				
NEXT ASSY		DATE		TITLE  INSTALLATION-BATTERY CABLE		
		SCALE		SIZE C	DRAWING NO AW-6018	REVISION
		WEIGHT		SHEET <u>1</u> OF <u>1</u>		

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



**AUTO CRANE COMPANY**

P.O. BOX 45548 • TULSA, OKLAHOMA 74145  
9260 BROKEN ARROW EXPRESSWAY • 918-627-9475



## NOTES

# **ASSEMBLY & INSTALLATION INSTRUCTIONS**

## **ECONO-TON II SERIES**

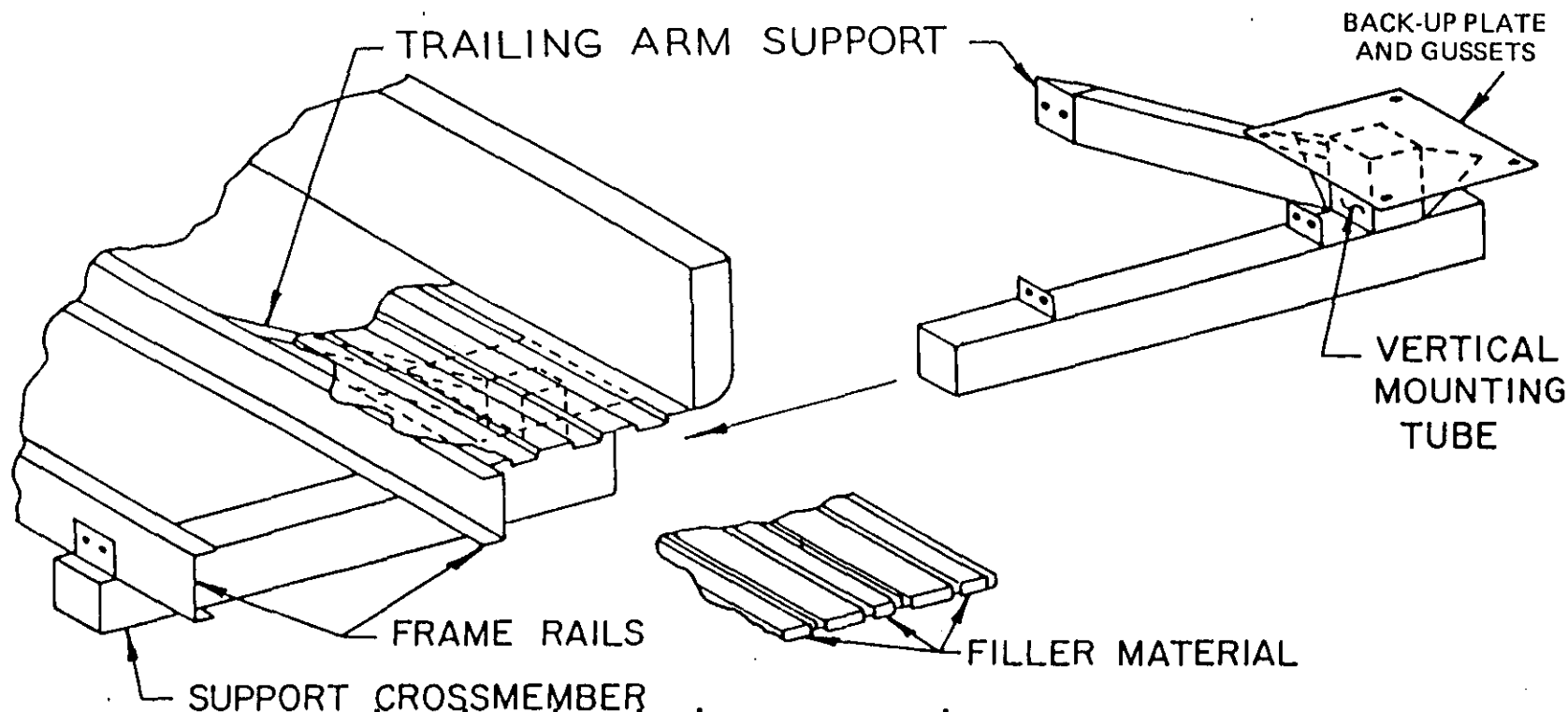
The Econo-Ton II cranes are shipped in one major assembly. the following is a suggested method for installation of the Econo-Ton II crane:

- 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 to 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 2,000 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.

CHG  
LTR

REVISIONS  
DESCRIPTION

DATE APP'D

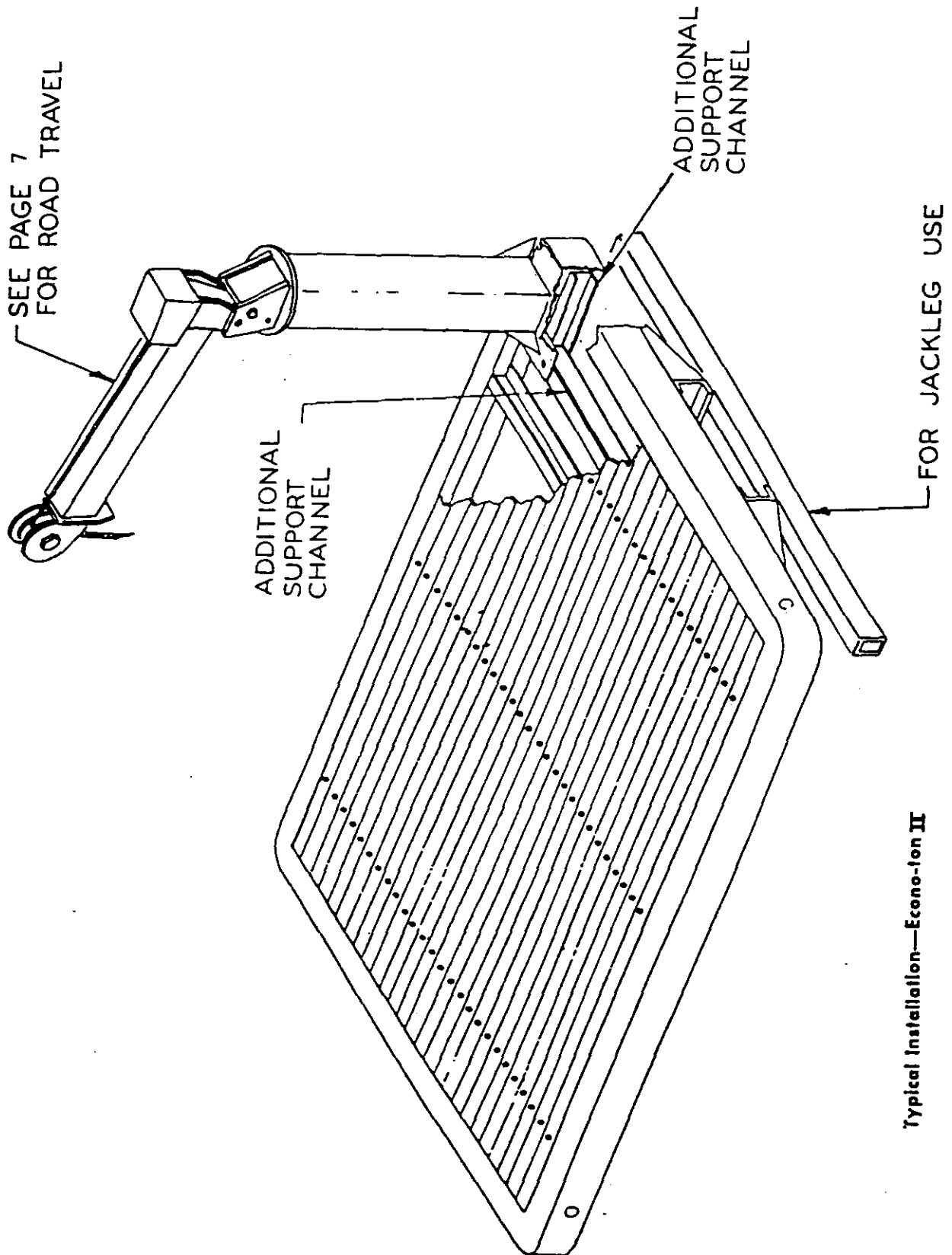


12/84

ITEM	D/S	PART NO.	DESCRIPTION
QUANTITY		LIST OF MATERIAL	
<p>UNLESS OTHERWISE NOTED ALL DIMENSIONS ARE IN INCHES. TOLERANCES UNLESS OTHERWISE SPECIFIED.</p> <p>ANGLES <math>\pm 1/2^\circ</math></p> <p>FRACTIONAL <math>\pm 1/16</math>   .XXX <math>\pm .010</math></p> <p>REMOVE ALL BURRS AND SHARP EDGES. DO NOT SCALE THIS DRAWING.</p> <p>TOLERANCES NOT SHOWN ABOVE ARE PER ANSI Y14.5 - 1973</p>		<p>DRAWN BY <b>MGR</b></p> <p>DATE <b>2-13-84</b></p> <p>CHK'D BY</p> <p>DATE</p> <p>ENG. BY</p> <p>DATE</p>	<p><b>AUTO CRANE COMPANY</b></p> <p>P.O. BOX 45548 • TULSA, OKLAHOMA 74145</p> <p>9260 BROKEN ARROW EXPRESSWAY • 918-627-9475</p> <p>TITLE <b>INSTALLATION - ECONO - TON II</b></p>
NEXT ASS'Y		SCALE	SIZE <b>A</b>
		DRAWING NO.	REVISION
		WEIGHT	SHEET <b>1</b> OF <b>1</b>

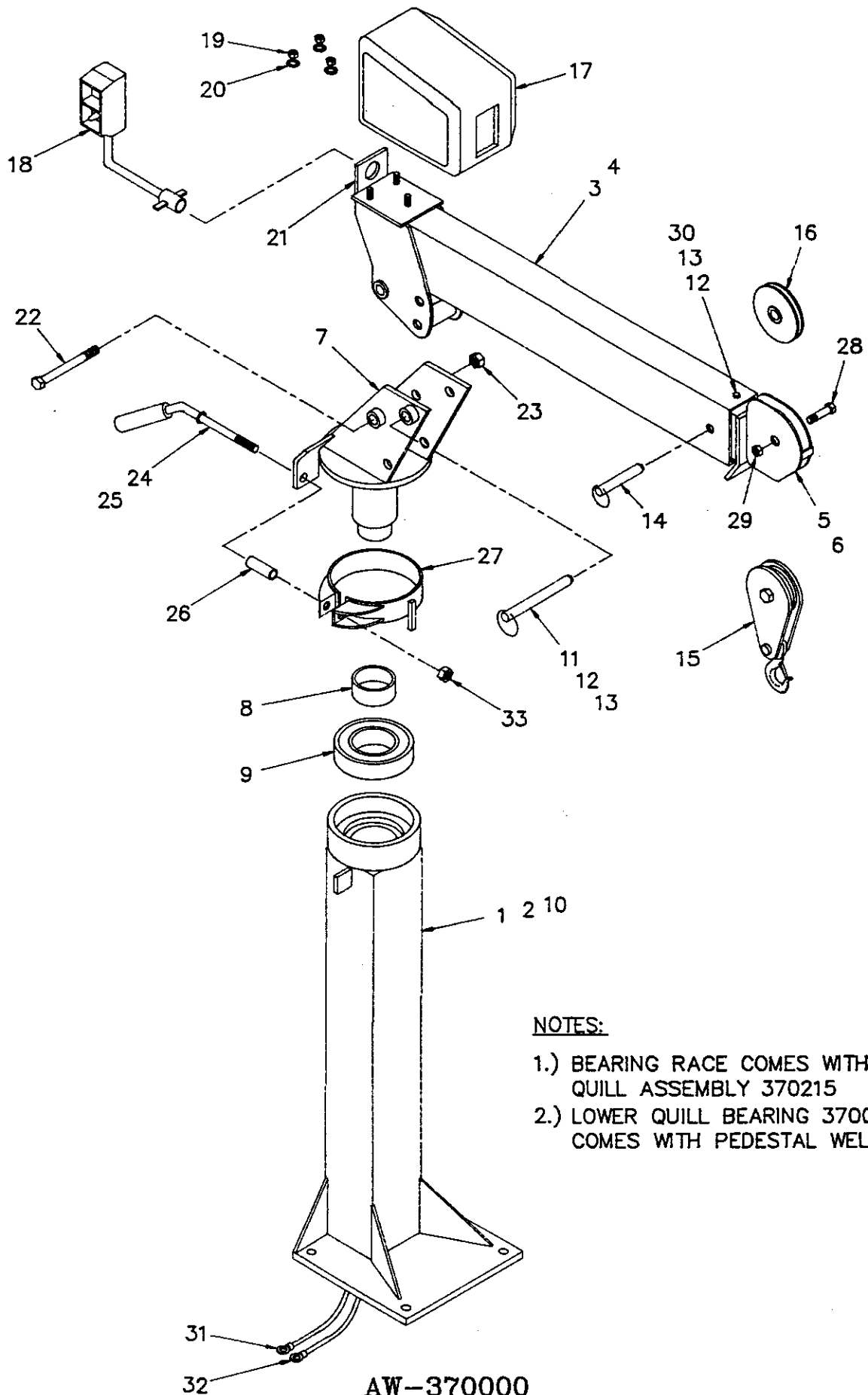
2-6.0.0

# AUTO CRANE



Typical Installation—Econo-Ion II

12/84



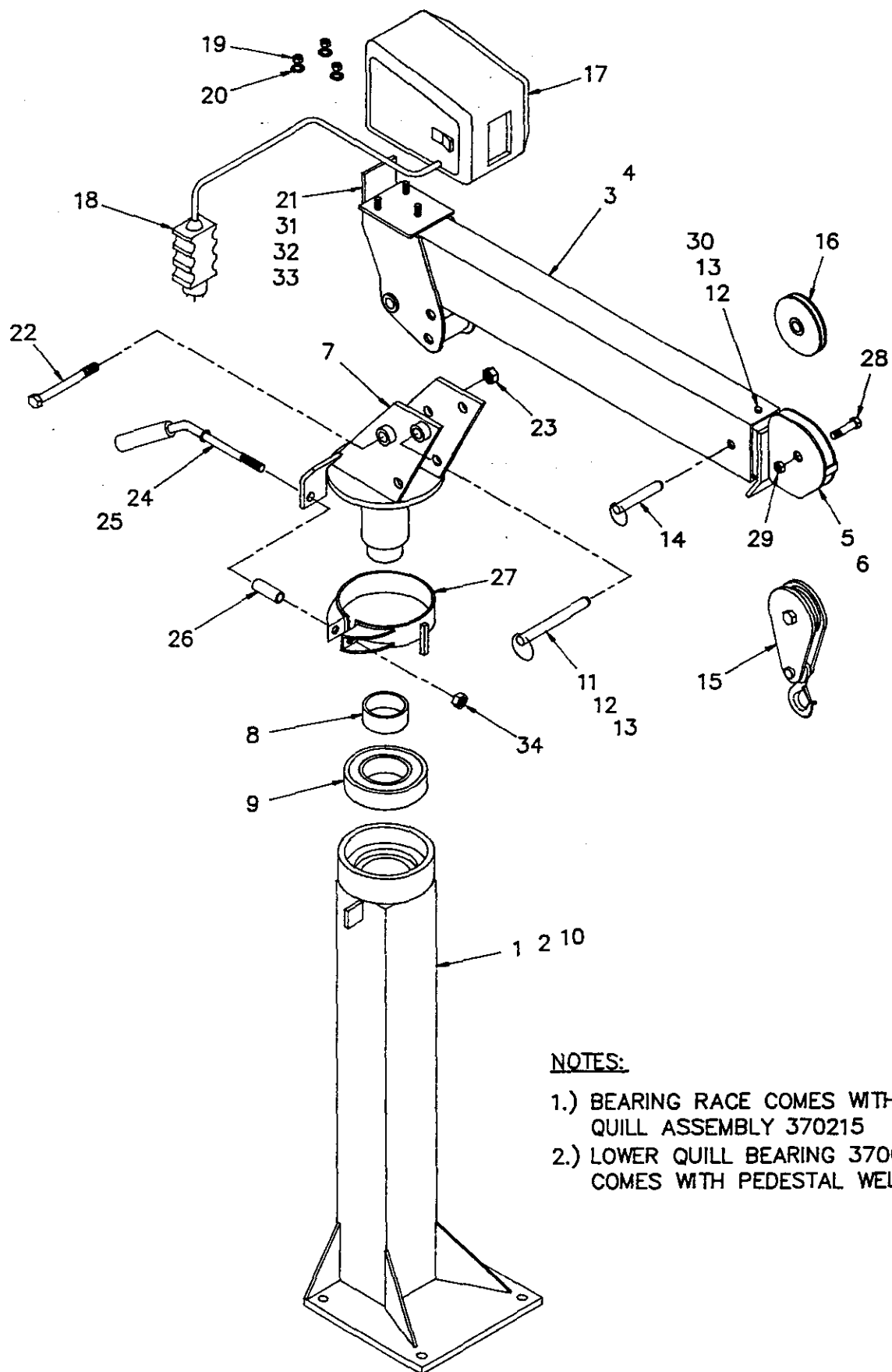
NOTES:

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

AW-370000  
ECONO-TON II

AW-370000  
ECONO-TON II

ITEM	QTY.	PART NO.	DESCRIPTION
1	1	370216	PEDESTAL WELDMENT
2	1	370027-001	PEDESTAL WELDMENT (TALL)
3	1	370040	LOWER BOOM
4	1	370045	LOWER BOOM (7' BOOM)
5	1	370041	UPPER BOOM
6	1	370046	UPPER BOOM (7' 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, HEX HD 1/4-20NC
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
19	3	017701	NUT, HEX 1/2-13NC
20	3	021500	WASHER, SP LK 1/2
21	1	330183	RECEPTACLE MOUNT (SEE AW-014)
22	1	014302	SCREW, HEX HD 3/4-16NF x 7" LG.
23	1	018600	NUT, HEX-LOCK 3/4-16NF
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, HEX HD 5/8-18NF x 1 3/4 LG.
29	1	018100	NUT, HEX-LOCK 5/8-18NF
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, HEX 5/8-11NC



**NOTES:**

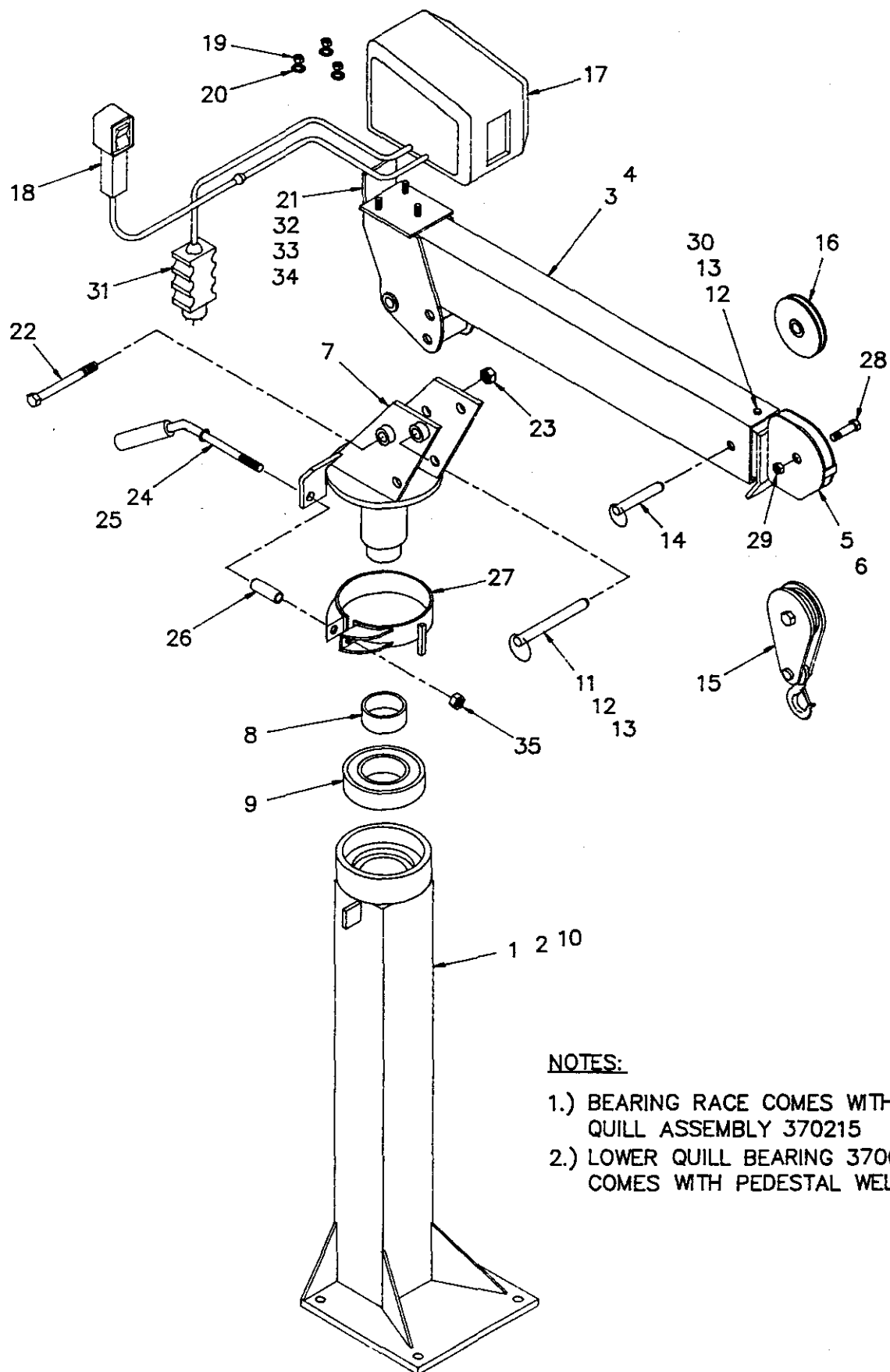
- 1.) BEARING RACE COMES WITH  
QUILL ASSEMBLY 370215
- 2.) LOWER QUILL BEARING 370033  
COMES WITH PEDESTAL WELDMENT

**AW-370012  
ECONO-TON II, 110 VOLT**

AW-370012  
ECONO-TON II, 110 VOLT

ITEM	QTY.	PART NO.	DESCRIPTION
1	1	370216	PEDESTAL WELDMENT
2	1	370027-001	PEDESTAL WELDMENT (TALL)
3	1	370040	LOWER BOOM
4	1	370045	LOWER BOOM (7' BOOM)
5	1	370041	UPPER BOOM
6	1	370046	UPPER BOOM (7' 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, HEX HD 1/4-20NC
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	1	REF.	GROUND FAULT INTERRUPTER
19	3	017701	NUT, HEX 1/2-13NC
20	3	021500	WASHER, SP LK 1/2
21	1	370141	COVER PLATE
22	1	014302	SCREW, HEX HD 3/4-16NF x 7" LG.
23	1	018600	NUT, HEX-LOCK 3/4-16NF
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, HEX HD 5/8-18NF x 1 3/4 LG.
29	1	018100	NUT, HEX-LOCK 5/8-18NF
30	1	370005	EXTENSION, LOCK PAD
31	2	005401	SCREW, HEX HD 1/4-20NC x 5/8 LG.
32	2	020201	WASHER, LOCK INT 1/4
33	2	015900	NUT, HEX 1/4-20NC
34	1	018301	NUT, HEX 5/8-11NC





NOTES:

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

AW-370140  
ECONO-TON II, 110 VOLT w/ PENDANT

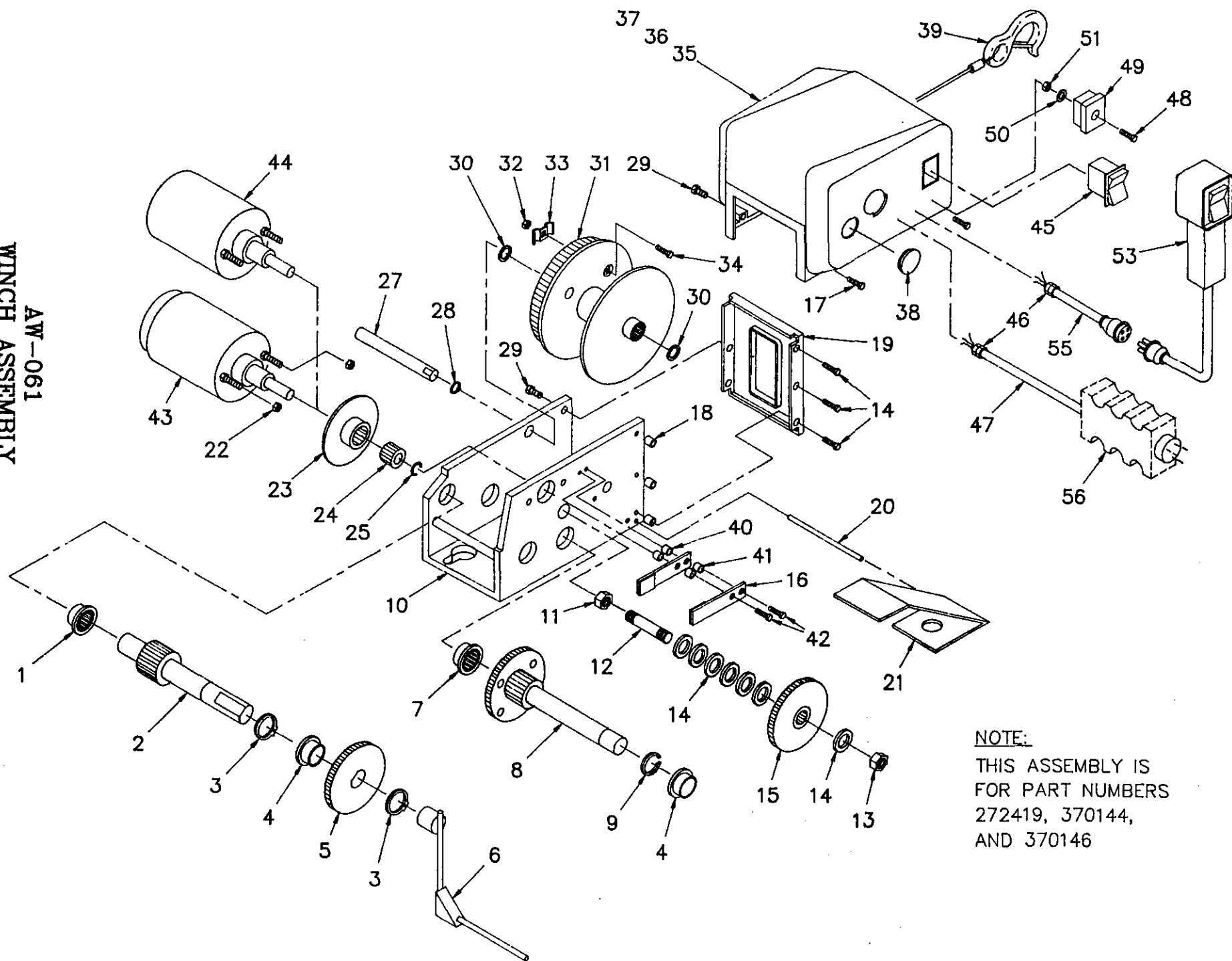
AW-370012  
ECONO-TON II, 110 VOLT w/ PENDANT

ITEM	QTY.	PART NO.	DESCRIPTION
1	1	370216	PEDESTAL WELDMENT
2	1	370027-001	PEDESTAL WELDMENT (TALL)
3	1	370040	LOWER BOOM
4	1	370045	LOWER BOOM (7' BOOM)
5	1	370041	UPPER BOOM
6	1	370046	UPPER BOOM (7' 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, HEX HD 1/4-20NC
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	1	REF.	PENDANT
19	3	017701	NUT, HEX 1/2-13NC
20	3	021500	WASHER, SP LK 1/2
21	1	370141	COVER PLATE
22	1	014302	SCREW, HEX HD 3/4-16NF x 7" LG.
23	1	018600	NUT, HEX-LOCK 3/4-16NF
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, HEX HD 5/8-18NF x 1 3/4 LG.
29	1	018100	NUT, HEX-LOCK 5/8-18NF
30	1	370005	EXTENSION, LOCK PAD
31	1	REF.	GROUND FAULT INTERRUPTER
32	2	005401	SCREW, HEX HD 1/4-20NC x 5/8 LG.
33	2	020201	WASHER, LOCK INT 1/4
34	2	015900	NUT, HEX 1/4-20NC
35	1	018301	NUT, HEX 5/8-11NC

AW-061  
WINCH ASSEMBLY

4-1.0.0

R 1/95



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

AW-061  
WINCH ASSEMBLY

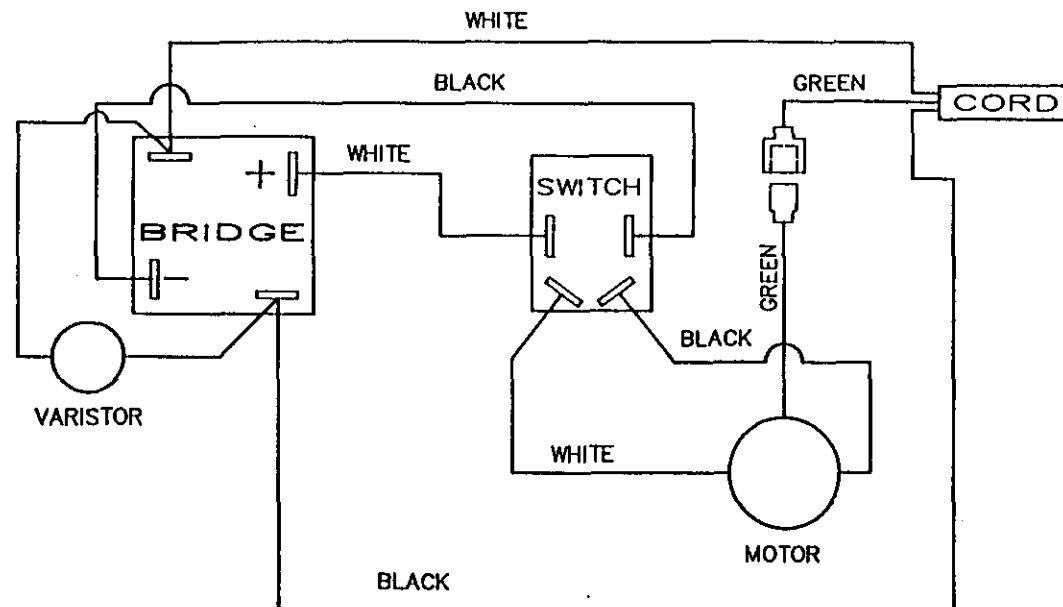
ITEM	QTY.	PART NO.	DESCRIPTION
1	1	272500	BEARING HOUSING ASSEMBLY
2	1	272151	PRIMARY DRIVE SHAFT ASSEMBLY
3	2	272152	RETAINING RING
4	2	272153	BUSHING
5	1	272154	GEAR 56 T
6	1	272155	HANDLE ASSEMBLY
7	1	272501	DRIVE SHAFT BEARING HOUSING ASSEMBLY
8	1	272158	INTERMEDIATE DRIVE SHAFT ASSEMBLY
9	1	272159	"E" RING
10	1	272160	BASE
11	1	330011	NUT, HEX 7/16-20NF LOCK
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, 1/4-20NC 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, HEX 10-32NF LOCK
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, 1/4-20NC x 3/4
30	2	272176	WASHER
31	1	272503	REEL ASSEMBLY
32	1	272179	NUT, HEX 1/4-20NC
33	1	272180	ROPE CLAMP
34	1	272504	CARRIAGE BOLT 1/4-20NC x 3/4
35	1	272505	COVER (D.C.)
36	1	272506	COVER (A.C.)
37	1	272507	COVER (A.C. REMOTE)
38	1	272508	COVER PLUG
39	1	330028	CABLE & HOOK (3/16 x 25')
40	2	272435	SPACER
41	2	272436	BRAKE SPRING SPACER
42	2	272437	SCREW, 10-32NF x 1"

AW-061  
WINCH ASSEMBLY

ITEM	QTY.	PART NO.	DESCRIPTION
<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 BUSHING
47	1	272497	ELECTRICAL CORD
48	1	272510	SCREW, 8-32NC x 1"
49	1	272511	BRIDGE ASSEMBLY
50	1	272512	LOCKWASHER #8 INT
51	1	272513	NUT, 8-32NC
<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 INTERRUPTER

# NOTES

5-1.0.0

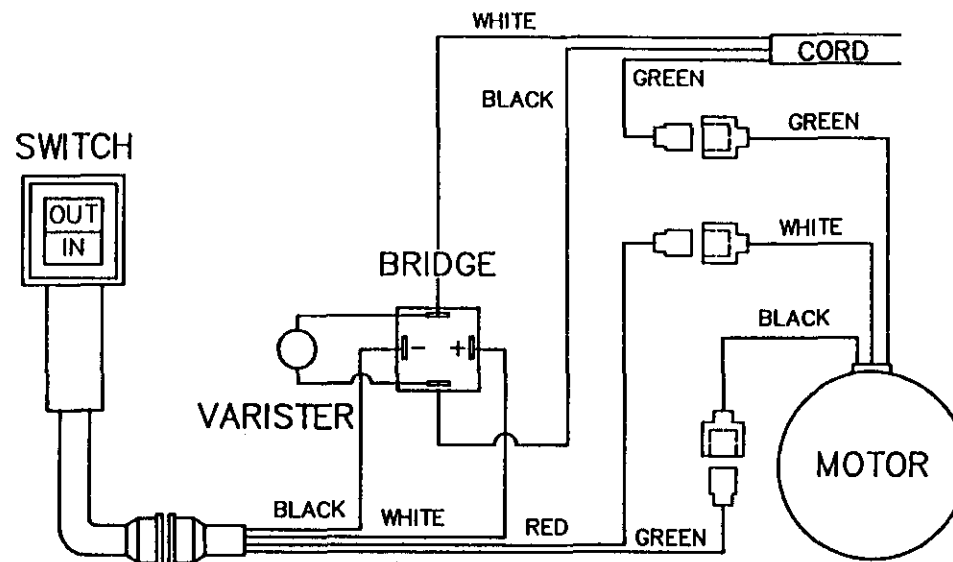


ITEM	QTY	D/S	PART NO.	DESCRIPTION
LIST OF MATERIAL				
UNLESS OTHERWISE NOTED ALL DIMENSIONS ARE IN INCHES. TOLERANCES UNLESS OTHERWISE SPECIFIED. ANGLES $\pm 1/2^\circ$   XX $\pm .040$ FRACTIONAL $\pm 1/16$   XXX $\pm .010$ REMOVE ALL BURRS AND SHARP EDGES. DO NOT SCALE THIS DRAWING. TOLERANCES NOT SHOWN ABOVE ARE PER ANSI Y14.5-1973			DRAWN BY <b>R.D.</b> DATE <b>12-7-87</b> CHK'D BY DATE ENG. BY DATE	<b>AUTO CRANE COMPANY</b> P.O. BOX 580697 • TULSA, OKLAHOMA 74158-0697 4707 NORTH MINGO ROAD • 918-836-0463
THIS PRINT IS THE PROPERTY OF AUTO CRANE CO. AND MUST NOT BE USED IN ANY MANNER DETRIMENTAL TO THEIR INTERESTS.			TITLE <b>WIRING DIAGRAM, (370146 WINCH 110 VOLT</b>	
SCALE .			SIZE <b>B</b>	DRAWING NO. <b>AW-063</b>
WEIGHT			REVISION	
SHEET <b>1</b> OF <b>1</b>				

CHG LTR	DESCRIPTION	DATE	APP'D
	REVISIONS		

NEXT ASS'Y

5-2.0.0



ITEM	QTY	D/S	PART NO.	DESCRIPTION
LIST OF MATERIAL				
UNLESS OTHERWISE NOTED ALL DIMENSIONS ARE IN INCHES. TOLERANCES UNLESS OTHERWISE SPECIFIED: ANGLES $\pm 1/2^\circ$   .XX $\pm .040$ FRACTIONAL $\pm 1/16$   .XXX $\pm .010$ REMOVE ALL BURRS AND SHARP EDGES. DO NOT SCALE THIS DRAWING. TOLERANCES NOT SHOWN ABOVE ARE PER ANSI Y14.5-1973 THIS PRINT IS THE PROPERTY OF AUTO CRANE CO. AND MUST NOT BE USED IN ANY MANNER DETRIMENTAL TO THEIR INTERESTS.			<b>AUTO CRANE COMPANY</b> P.O. BOX 580697 • TULSA, OKLAHOMA 74158 0697 4707 NORTH MINGO ROAD • 918-836-0463 <b>TITLE</b> WIRING DIAGRAM, (370144 WINCH) 110 VOLT WITH PENDANT	
DRAWN BY R.D. DATE 12-7-87 CHK'D BY DATE ENG. BY DATE			SCALE WEIGHT	SIZE B DRAWING NO. AW-062 REVISION
NEXT ASS'Y			SHEET 1 OF 1	

CHG LTR	DESCRIPTION	DATE	APP'D
	REVISIONS		



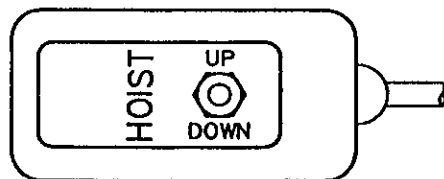
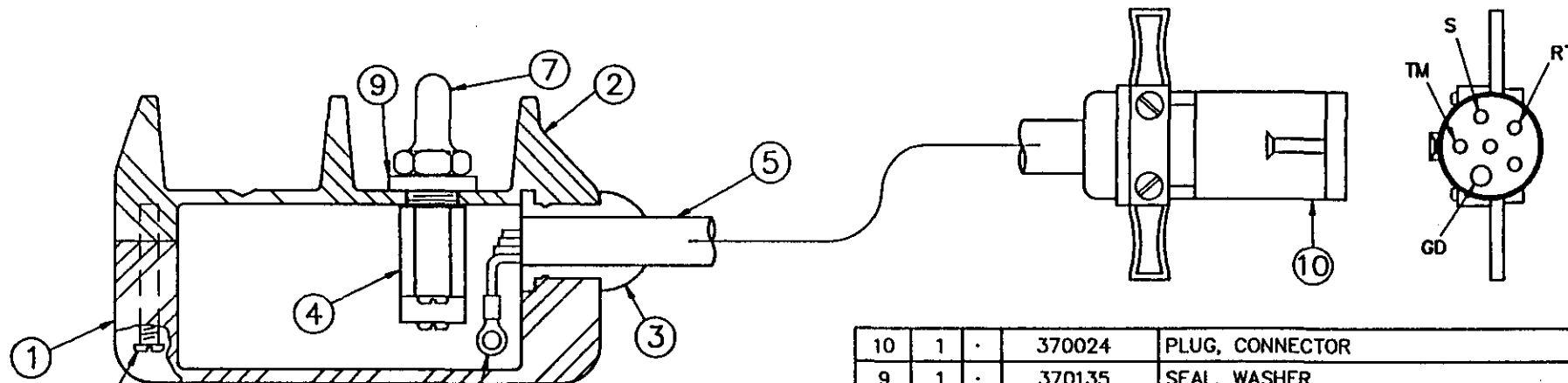
5-3.0.0

FIXTURE NO.	FINISH NO.	CHG	REVISIONS																																					
		LTR	DESCRIPTION	DATE	APP'D																																			
		NOTE: ITEM 1 INCLUDES:																																						
		QTY.	PART NO.	DESCRIPTION																																				
		1	330183	BRACKET, RECEPTACLE MOUNT																																				
		1	642801	SOCKET, MALE																																				
		2	005401	SCREW, HX 1/4 NC X 5/8																																				
		2	020200	WASHER, SPLK 1/4																																				
		2	015900	NUT 1/4 NC																																				
		1	670700	CONDUCTOR (RED)																																				
		1	670701	CONDUCTOR (BLACK)																																				
		1	670702	CONDUCTOR (GREEN)																																				
		1	670703	CONDUCTOR (WHITE)																																				
		6	3	663100	WRAPS, TIE																																			
		5	1	602005	CABLE, POWER																																			
		4	1	602006	CABLE, GROUND																																			
		3	4	015900	NUT, 1/4 NC																																			
		2	2	020201	LOCKWASHER, INT																																			
		1	1	370022	RECEPTACLE ASSEMBLY																																			
		<table border="1" style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th>ITEM</th> <th>QTY</th> <th>D/S</th> <th>PART NO.</th> <th>DESCRIPTION</th> </tr> </thead> <tbody> <tr> <td colspan="5" style="text-align: center;">LIST OF MATERIAL</td> </tr> <tr> <td colspan="5"> <div style="display: flex; justify-content: space-between;"> <div style="width: 45%;"> <p>UNLESS OTHERWISE NOTED ALL DIMENSIONS ARE IN INCHES. TOLERANCES UNLESS OTHERWISE SPECIFIED.</p> <p>ANGLES: 1/2" .XX ± .40</p> <p>FRACTIONAL: 1/16 .XXX ± .010</p> <p>REMOVE ALL BURRS AND SHARP EDGES. DO NOT SCALE THIS DRAWING.</p> <p>TOLERANCES NOT SHOWN ABOVE ARE PER ANSI Y14.5 - 1973</p> <p>THIS PRINT IS THE PROPERTY OF AUTO CRANE CO. AND MUST NOT BE USED IN ANY MANNER DETRIMENTAL TO THEIR INTERESTS.</p> </div> <div style="width: 50%;"> <p>DRAWN BY: <i>W. H. H. H.</i></p> <p>DATE: <i>3-6-84</i></p> <p>CHK'D BY:</p> <p>DATE:</p> <p>ENG' BY:</p> <p>DATE:</p> </div> </div> </td> </tr> <tr> <td colspan="5" style="text-align: center;"> <b>AUTO CRANE COMPANY</b>            P.O. BOX 45548 • TULSA, OKLAHOMA 74145            9260 BROKEN ARROW EXPRESSWAY • 918-827-9475         </td> </tr> <tr> <td colspan="5" style="text-align: center;">TITLE: <b>WIRING DETAIL - ECONO-TON II</b></td> </tr> <tr> <td colspan="2">SCALE: <i>~</i></td> <td>SIZE: <b>B</b></td> <td>DRAWING NO. <b>AW-014</b></td> <td>REVISION</td> </tr> <tr> <td colspan="2">WEIGHT</td> <td colspan="3">SHEET <u>1</u> OF <u>1</u></td> </tr> </tbody> </table>				ITEM	QTY	D/S	PART NO.	DESCRIPTION	LIST OF MATERIAL					<div style="display: flex; justify-content: space-between;"> <div style="width: 45%;"> <p>UNLESS OTHERWISE NOTED ALL DIMENSIONS ARE IN INCHES. TOLERANCES UNLESS OTHERWISE SPECIFIED.</p> <p>ANGLES: 1/2" .XX ± .40</p> <p>FRACTIONAL: 1/16 .XXX ± .010</p> <p>REMOVE ALL BURRS AND SHARP EDGES. DO NOT SCALE THIS DRAWING.</p> <p>TOLERANCES NOT SHOWN ABOVE ARE PER ANSI Y14.5 - 1973</p> <p>THIS PRINT IS THE PROPERTY OF AUTO CRANE CO. AND MUST NOT BE USED IN ANY MANNER DETRIMENTAL TO THEIR INTERESTS.</p> </div> <div style="width: 50%;"> <p>DRAWN BY: <i>W. H. H. H.</i></p> <p>DATE: <i>3-6-84</i></p> <p>CHK'D BY:</p> <p>DATE:</p> <p>ENG' BY:</p> <p>DATE:</p> </div> </div>					<b>AUTO CRANE COMPANY</b> P.O. BOX 45548 • TULSA, OKLAHOMA 74145 9260 BROKEN ARROW EXPRESSWAY • 918-827-9475					TITLE: <b>WIRING DETAIL - ECONO-TON II</b>					SCALE: <i>~</i>		SIZE: <b>B</b>	DRAWING NO. <b>AW-014</b>	REVISION	WEIGHT		SHEET <u>1</u> OF <u>1</u>		
ITEM	QTY	D/S	PART NO.	DESCRIPTION																																				
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WEIGHT		SHEET <u>1</u> OF <u>1</u>																																						

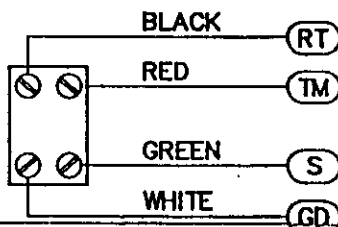
12/84

NEXT ASS'Y

S-4.0.0



DECAL LAYOUT



10	1	•	370024	PLUG, CONNECTOR
9	1	•	370135	SEAL, WASHER
8	4	•	001002	TERMINAL, RING
7	2	•	640302	BOOT
6	4	•	001205	SCREW SLOTTED PAN HD #8 x 7/8"
5	1	•	370134	CABLE, CONDUCTOR (10')
4	1	•	370136	SWITCH, TOGGLE
3	1	•	370132	GASKET, PENDANT HOUSING
2	1	•	370131	COVER, PENDANT
1	1	•	370130	BOX, PENDANT

ITEM	QTY	D/S	PART NO.	DESCRIPTION
------	-----	-----	----------	-------------

## LIST OF MATERIAL

UNLESS OTHERWISE NOTED ALL DIMENSIONS ARE IN INCHES. TOLERANCES UNLESS OTHERWISE SPECIFIED.  
 ANGLES  $\pm 1/2^\circ$  .XX  $\pm .040$   
 FRACTIONAL  $\pm 1/16$  .XXX  $\pm .010$   
 REMOVE ALL BURRS AND SHARP EDGES. DO NOT SCALE THIS DRAWING.  
 TOLERANCES NOT SHOWN ABOVE ARE PER ANSI Y14.5-1973

THIS PRINT IS THE PROPERTY OF AUTO CRANE CO. AND MUST NOT BE USED IN ANY MANNER DETRIMENTAL TO THEIR INTERESTS.

DRAWN BY  
L. EubanksDATE  
12-18-87

CHK'D BY

DATE

ENG. BY

DATE

**AUTO CRANE COMPANY**P.O. BOX 580697 • TULSA, OKLAHOMA 74158-0697  
4707 NORTH MINGO ROAD • 918 836-0483

TITLE

PENDANT ASSEMBLY

SCALE

SIZE  
B

DRAWING NO.

AW370129

REVISION

WEIGHT

SHEET 1 OF 1

CHG LTR	DESCRIPTION	DATE	APP'D
	REVISIONS		

NEXT ASS'Y

# **MAINTENANCE**

## **ECONO-TON II**

### **LUBRICATION OF THE ECONO-TON II**

Most bearings on the winch are factory sealed and cannot be greased. Lube winch gear once a month.

The only other place to lube this crane is at the bushings in the base (P/N 272406) of this unit. Wipe a small amount of grease (bearing type) on these bushings or stem that fits into these bushings once a month, depending on use, maybe more often.

### **BRAKE ADJUSTMENT - WINCH**

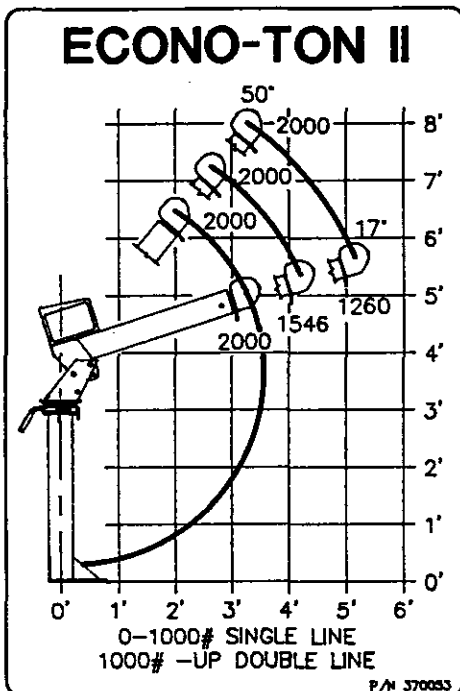
The brake on this unit consists of two springs with pads on the ends, which rub the brake disc (P/N 272434) on end of the shaft coming out of the motor. This drum works free one way. Then when you hoist down, it works to hold the speed and load. There is no real adjustment of this brake. If you try to bend the springs too much, they will break. These winches come with the brake already installed.

### **CHANGE CABLE**

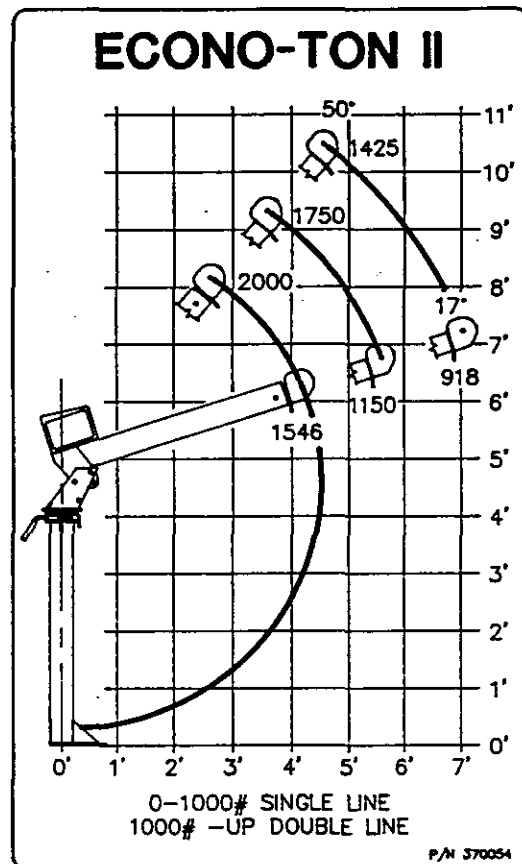
To change cable, hoist down to the end of the old cable on the drum. There is a small carriage bolt and clamp; loosen the bolt in the clamp to remove the cable. Replace with a new cable passed underneath the clamp. Tighten the bolt securely and re-spool the cable on the drum; maintain a light tension on the cable so the cable will spool properly.

### **LOWER QUILL BEARING**

If lower quill bearing (P/N 370033) is to be replaced, press until existing bearing drops to the bottom of pedestal. Press new bearing in until the edge of the bearing is even with the machined edge in the pedestal quill.

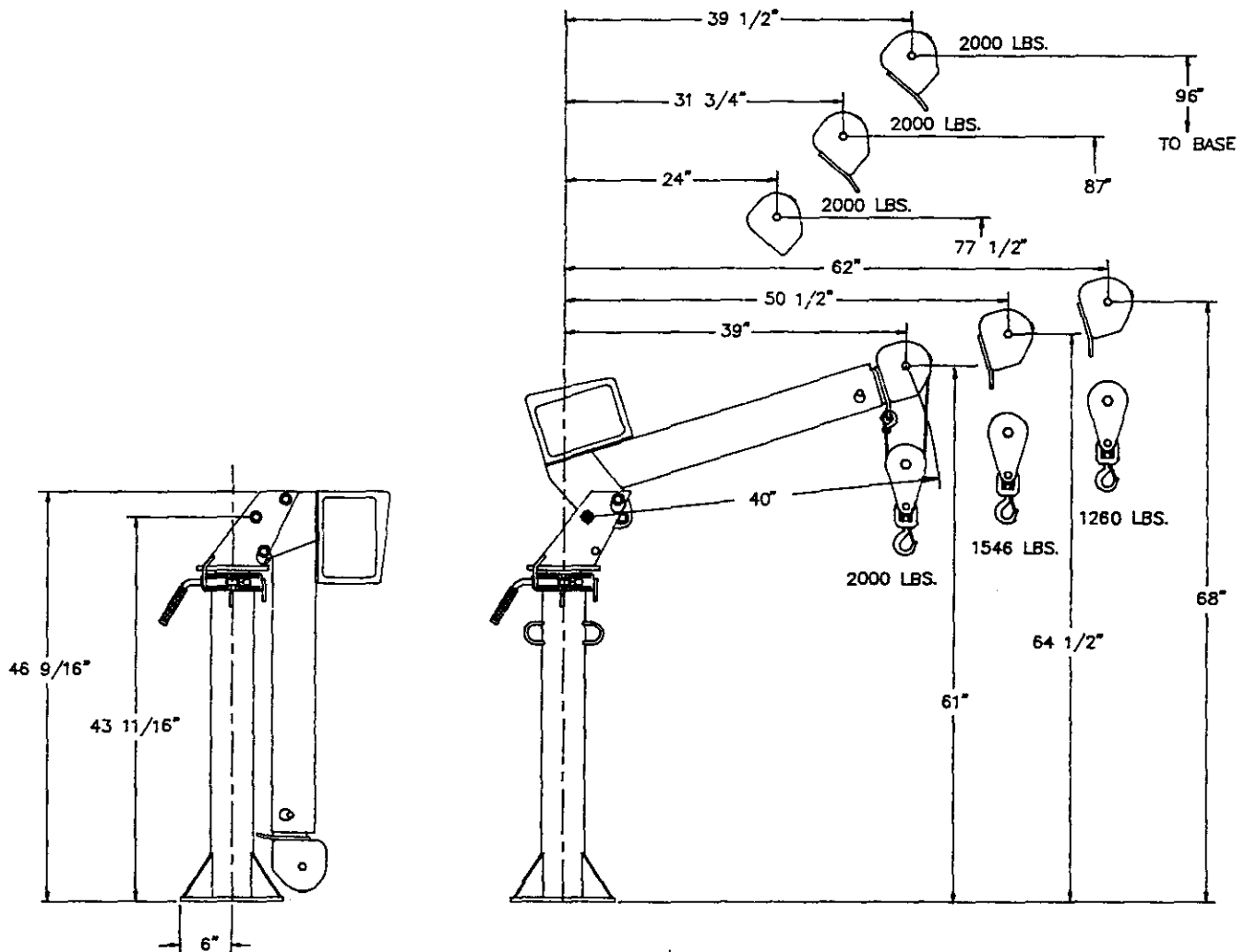
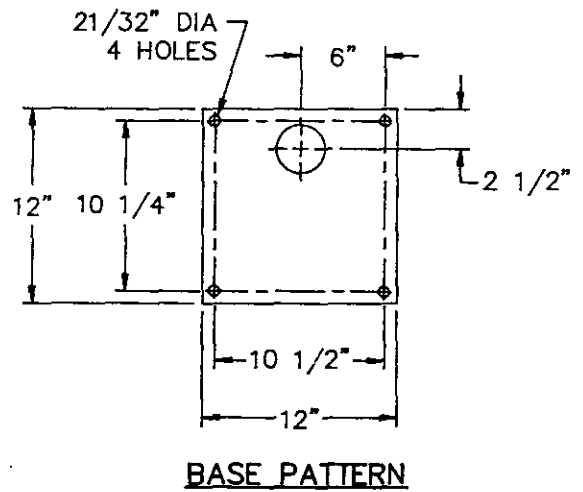
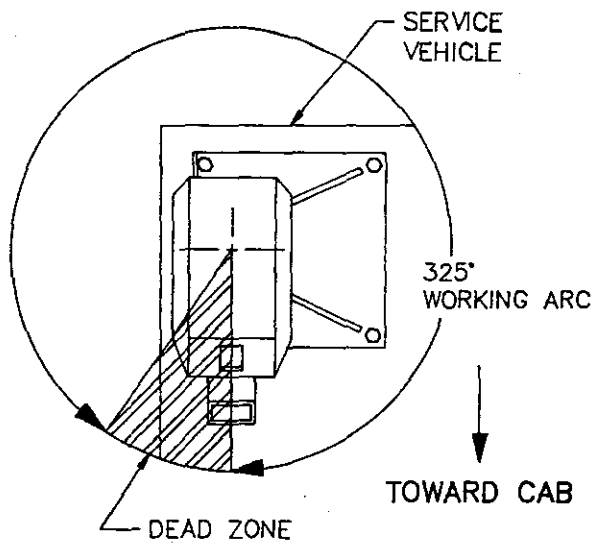


LOAD CHART, 370053  
FOR ECONO-TON II WITH  
STANDARD PEDESTAL AND BOOM

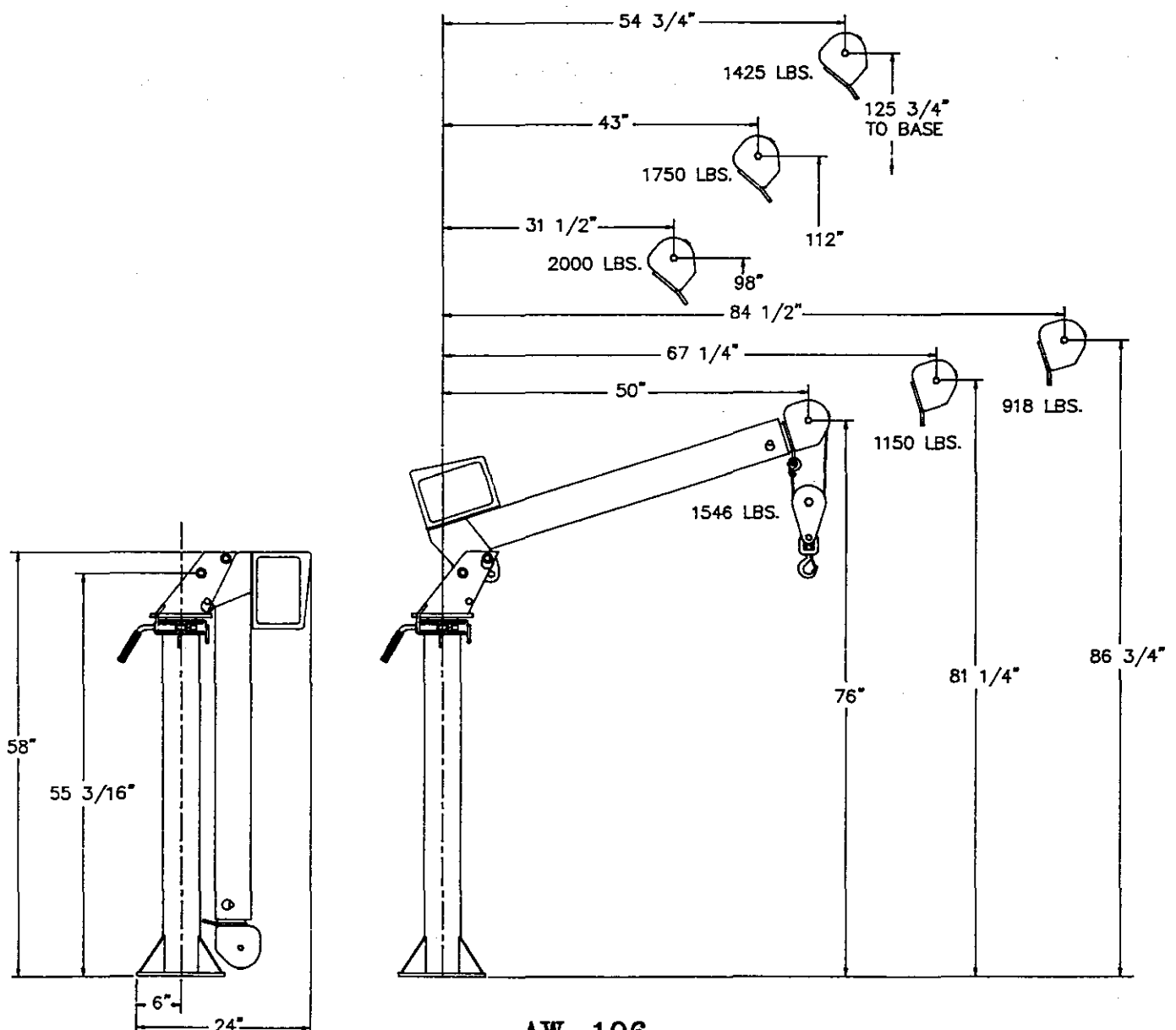
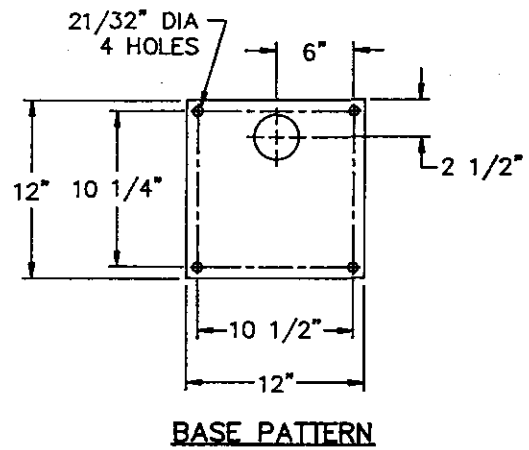
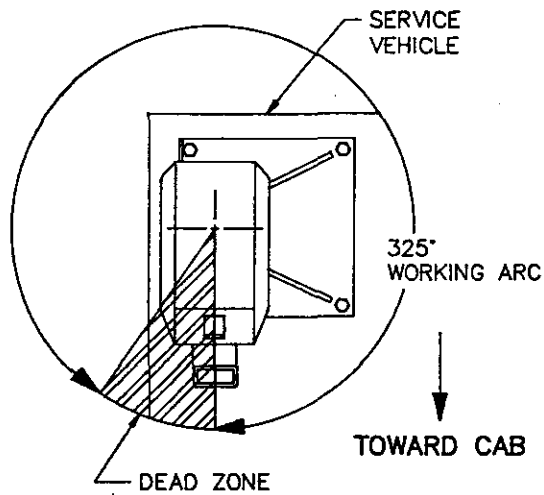


LOAD CHART, 370054  
FOR ECONO-TON II WITH  
TALL PEDESTAL AND 7' BOOM

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



**AW-103**  
**GENERAL DIMENSIONS, ECONO-TON II**



AW-106  
GENERAL DIMENSIONS, ECONO-TON II  
TALL PEDESTAL, 7' BOOM

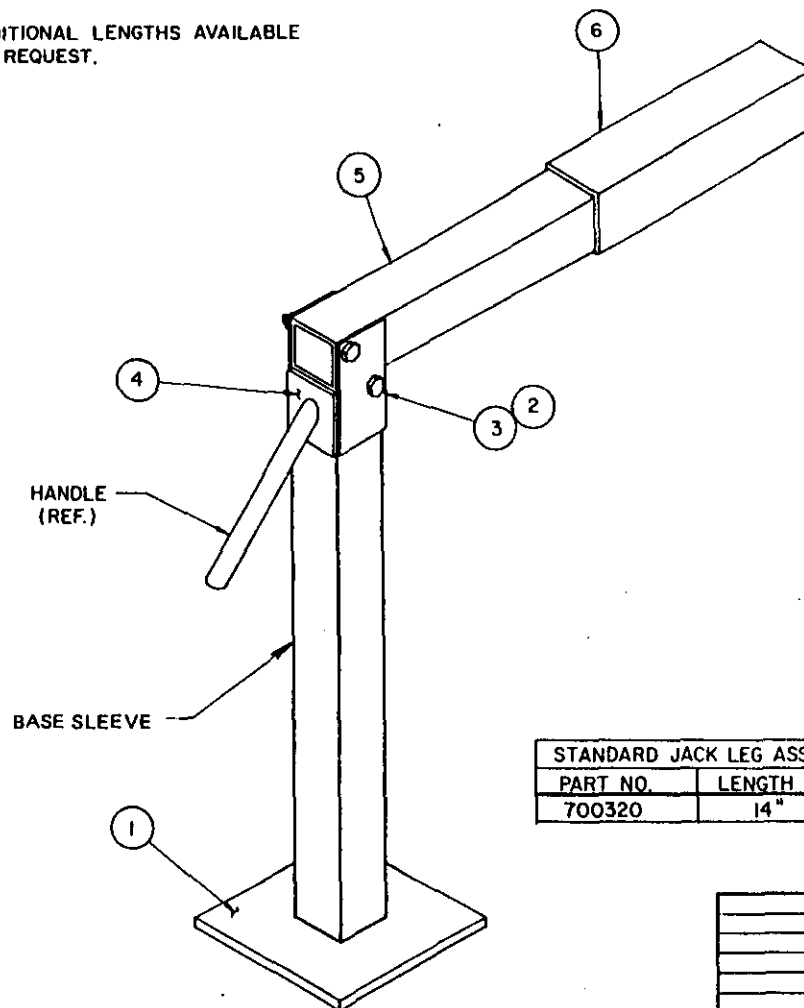
9-1.00

FIXTURE NO.	FINISH NO.	CHG	REVISIONS			DATE	APP'D																																								
		LTR	DESCRIPTION																																												
<p>NOTE :</p> <p>REF. - BEARING P/N 200100 USED IN SHEAVE ASSEMBLY, (200209) ITEM 2.</p>																																															
<table border="1" style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th>ITEM</th> <th>D/S</th> <th>PART NO.</th> <th>DESCRIPTION</th> </tr> </thead> <tbody> <tr><td>9</td><td>2</td><td>330100</td><td>WASHER, FLAT ADJUSTING</td></tr> <tr><td>8</td><td>1</td><td>360124</td><td>HITCH PIN</td></tr> <tr><td>7</td><td>1</td><td>330634</td><td>PIN, TRAVELING BLOCK</td></tr> <tr><td>6</td><td>1</td><td>018100</td><td>NUT, HX. HLF. LK. 5/8"-18</td></tr> <tr><td>5</td><td>1</td><td>013507</td><td>SCREW, HX. 5/8"-18X2" GR 5</td></tr> <tr><td>4</td><td>1</td><td>800203-004</td><td>PIPE, BLACK 1/2"</td></tr> <tr><td>3</td><td>1</td><td>100309</td><td>SWIVEL HOOK ASS'Y W/ LATCH</td></tr> <tr><td>2</td><td>1</td><td>200909</td><td>SHEAVE ASSEMBLY</td></tr> <tr><td>1</td><td>2</td><td>100303</td><td>PLATE, SIDE SHEAVE</td></tr> </tbody> </table>								ITEM	D/S	PART NO.	DESCRIPTION	9	2	330100	WASHER, FLAT ADJUSTING	8	1	360124	HITCH PIN	7	1	330634	PIN, TRAVELING BLOCK	6	1	018100	NUT, HX. HLF. LK. 5/8"-18	5	1	013507	SCREW, HX. 5/8"-18X2" GR 5	4	1	800203-004	PIPE, BLACK 1/2"	3	1	100309	SWIVEL HOOK ASS'Y W/ LATCH	2	1	200909	SHEAVE ASSEMBLY	1	2	100303	PLATE, SIDE SHEAVE
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2	1	200909	SHEAVE ASSEMBLY																																												
1	2	100303	PLATE, SIDE SHEAVE																																												
QUANTITY		LIST OF MATERIAL																																													
UNLESS OTHERWISE NOTED ALL DIMENSIONS ARE IN INCHES. TOLERANCES UNLESS OTHERWISE SPECIFIED. ANGLES: 1/2"    XX: .40 FRACTIONAL: 1/16    XXX: .010 REMOVE ALL BURRS AND SHARP EDGES DO NOT SCALE THIS DRAWING. TOLERANCES NOT SHOWN ABOVE ARE PER ANSI Y14.5, 1975. THIS PRINT IS THE PROPERTY OF AUTO CRANE CO. AND MUST NOT BE USED IN ANY MANNER DETRIMENTAL TO THEIR INTERESTS.		DRAWN BY <i>H.P.</i>		DATE <i>1-18-86</i>																																											
		DATE <i>1-18-86</i>		TITLE <b>AUTO CRANE COMPANY</b>																																											
		ENG BY		TRAVELING BLOCK ASSEMBLY																																											
		DATE		SCALE    SIZE    DRAWING NO.    REVISION																																											
		WEIGHT		AW-100300    1 of 1																																											
NEXT ASS'Y																																															

FIGURE NO.	FINISH NO.

CHG	REVISIONS	DATE	APP'D
LTR	DESCRIPTION		

NOTE:  
ADDITIONAL LENGTHS AVAILABLE  
ON REQUEST.



#### INSTALLATION INSTRUCTIONS (JACK LEG)

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

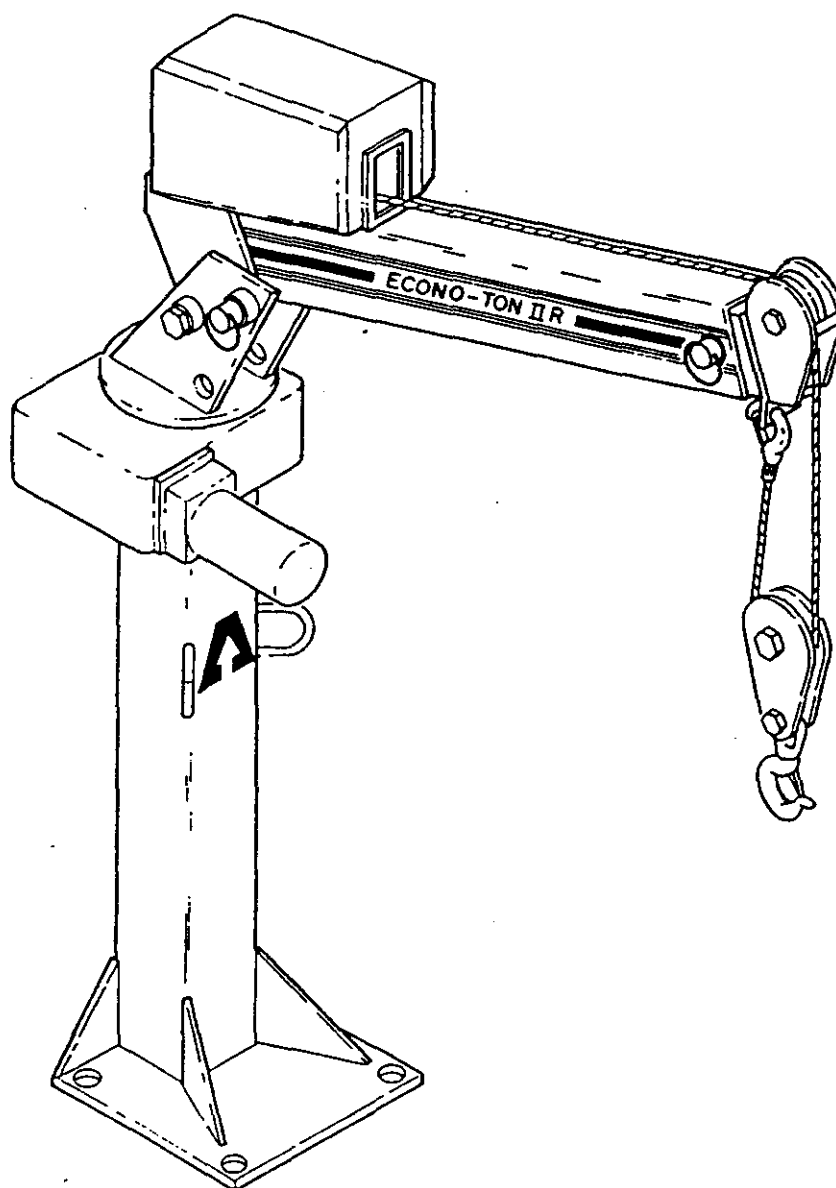
STANDARD JACK LEG ASS'Y	
PART NO.	LENGTH
700320	14"

6	1	200372	TUBE, POCKET
5	1	200282	MEMBER, HORIZONTAL
4	1	200074	TOGGLE
3	2	009101	CAPSCREW, HEX. HD. 3/8" NF X 2-3/4"
2	2	017400	LOCKNUT, HEX. NF 3/8"
1	1	200454	BASE ASSEMBLY

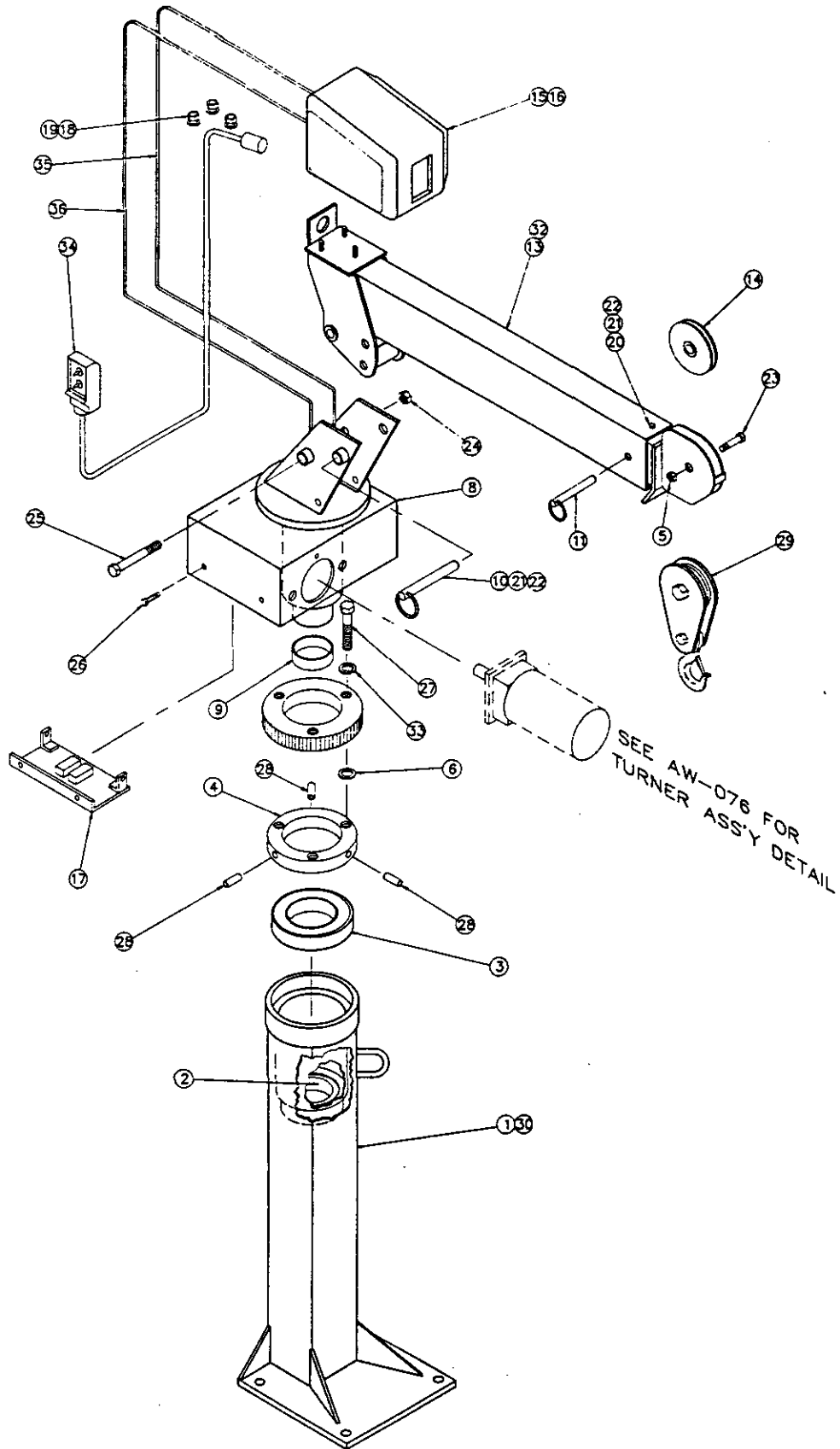
QUANTITY		PART NO.		DESCRIPTION	
LIST OF MATERIAL					
<b>AUTO CRANE COMPANY</b> P.O. BOX 45648 • TULSA, OKLAHOMA 74145 8760 BROKEN ARROW EXPRESSWAY • 918 627 9475					
UNLESS OTHERWISE NOTED ALL DIMENSIONS ARE IN INCHES TOLERANCES UNLESS OTHERWISE SPECIFIED ANGLES: 1/2"    R.R. ± .40 FRACTIONAL: 1/16"    R.R. ± .010 REMOVE ALL BURRS AND SHARP EDGES DO NOT SCALE THIS DRAWING TOLERANCES NOT SHOWN ABOVE ARE PER ANSI Y14.5-1973		DRAWN BY DATE CHECKED BY DATE ENG. BY DATE		TITLE <b>JACK LEG ASSEMBLY, SMALL</b>	
THIS PRINT IS THE PROPERTY OF AUTO CRANE CO. AND MUST NOT BE USED IN ANY MANNER DETRIMENTAL TO THEIR INTERESTS		SCALE ~    C		DRAWING NO. <b>AW-700320</b>	
NEXT ASS'Y		WEIGHT		SHEET 1 OF 1	



# NOTES



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



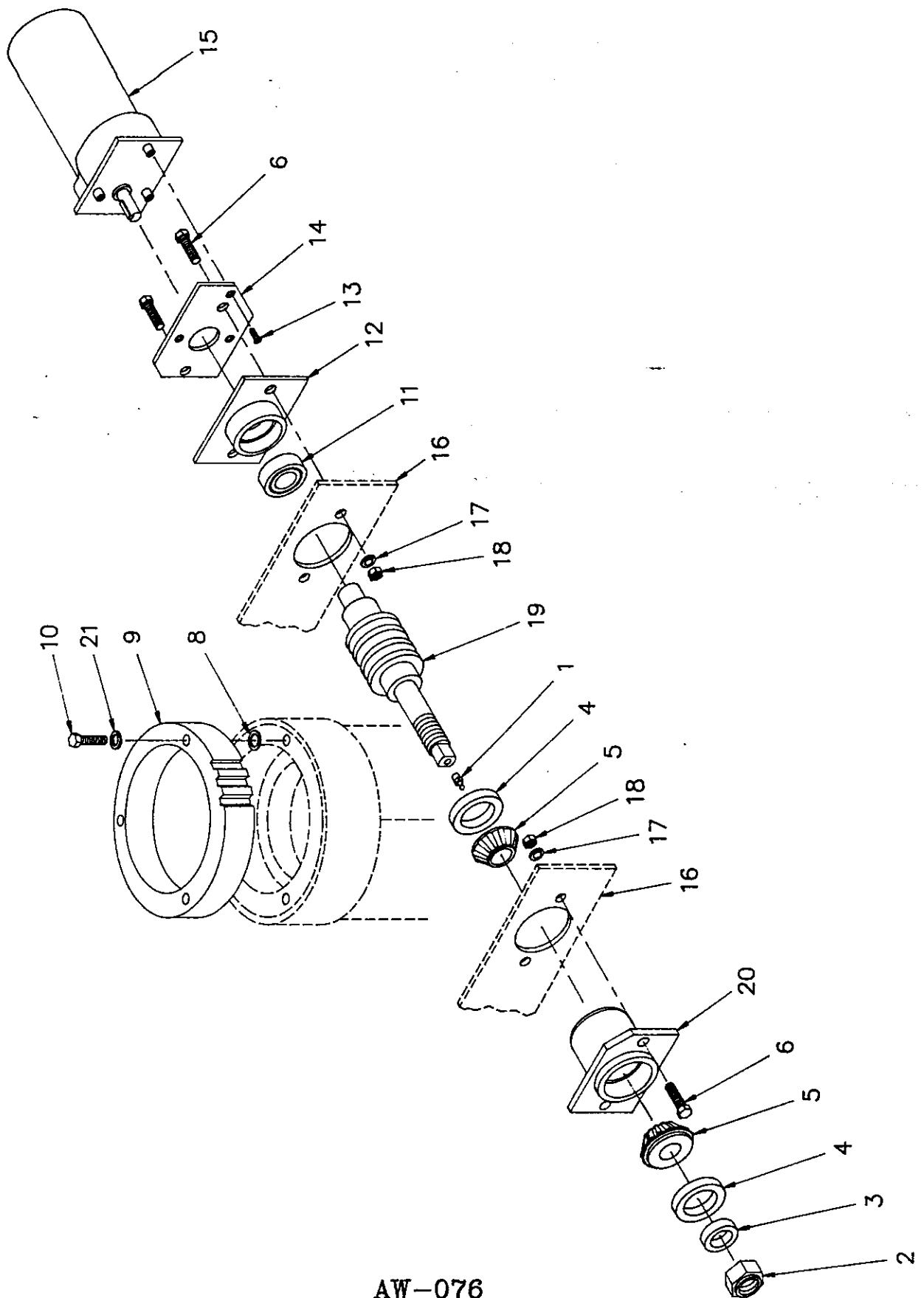
AW-370400 & AW-370400-100  
AW-370400-200 & AW-370400-300  
GENERAL ASSEMBLY ECONO-TON IIR

**AW-370400-200 & AW-370400-300 GENERAL ASS'Y, ECONO-TON IIR**

ITEM	QTY.	PART NO.	DESCRIPTION
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, LOCK 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	370051	UPPER BOOM
13	1	370060	LOWER BOOM
14	1	200909	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 - 13 NC
19	3	021500	LOCKWASHER, 1/2 SP. LK.
20	1	370005	EXTENSION LOCK PAD
21	2	005901	SCREW, HX. HD. 1/4 - 20 NC
22	2	020200	LOCKWASHER, 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 - 16 NC X 1 1/2
28	3	330189	ROLL PIN 1/4 X 3/4"
29	1	100300	TRAVELING BLOCK
30	1	370492	PEDESTAL WELDMENT (7' - 1" EXT.)
31	1	370051-001	UPPER BOOM (7' - 1" EXT.)
32	1	370060-001	LOWER BOOM (7' - 1" EXT.)
33	3	021100	LOCKWASHER, 3/8 SP. LK.
34	1	370429	PENDANT ASSEMBLY
35	1	REF.	POWER CABLE (SEE AW-078)
36	1	REF.	GROUND CABLE (SEE AW-078)

**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.



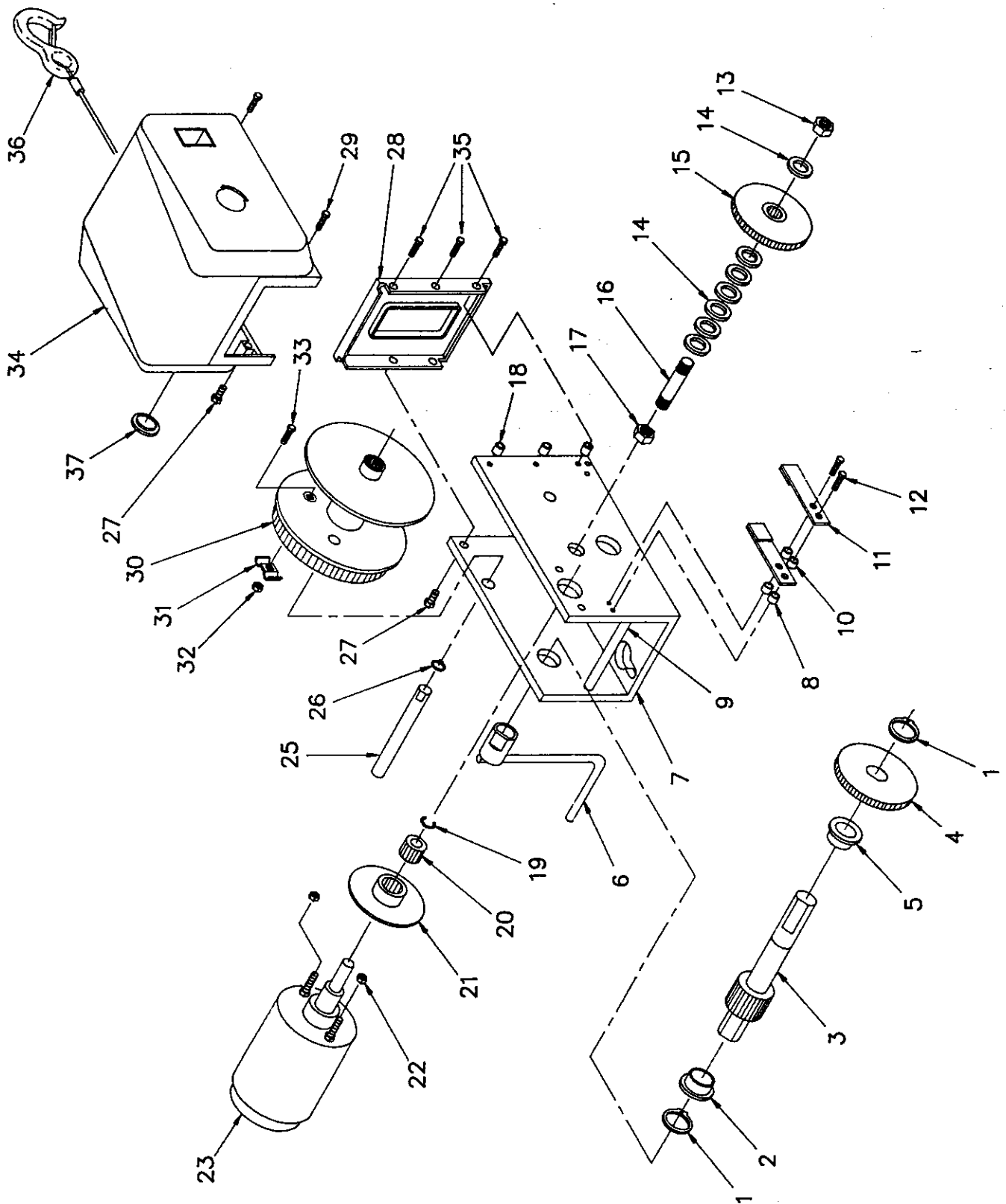
AW-076  
ROTATION ASSEMBLY

AW-076  
ROTATION ASSEMBLY

ITEM	QTY.	PART NO.	DESCRIPTION
1	1	239300	ZERK, GREASE
2	1	019000	NUT, HEX LOCK 7/8-14NF
3	1	330483	SPACER
4	2	330486	OIL SEAL
5	2	330485	BEARING CONE
6	4	011510	SCREW, HEX HD 1/2-13NC x 1 1/4 LG.
7	3	021100	WASHER, SP LK 3/8
8	A/R	370431	SHIM
9	1	370418	WORM GEAR, BRONZE
10	3	009109	SCREW, HEX HD 3/8-16NC x 1 1/2 LG.
11	1	330500	BEARING (SEE NOTE 1)
12	1	370473	BEARING HOUSING (SEE NOTE 1)
13	3	330389	SCREW, FL HD 1/4-20NC x 3/4 LG.
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, HEX 1/2-13NC
19	1	330421	WORM SHAFT
20	1	330472	HOUSING, BEARING (w/ 2 BEARING CUPS, 330474)

NOTE:

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



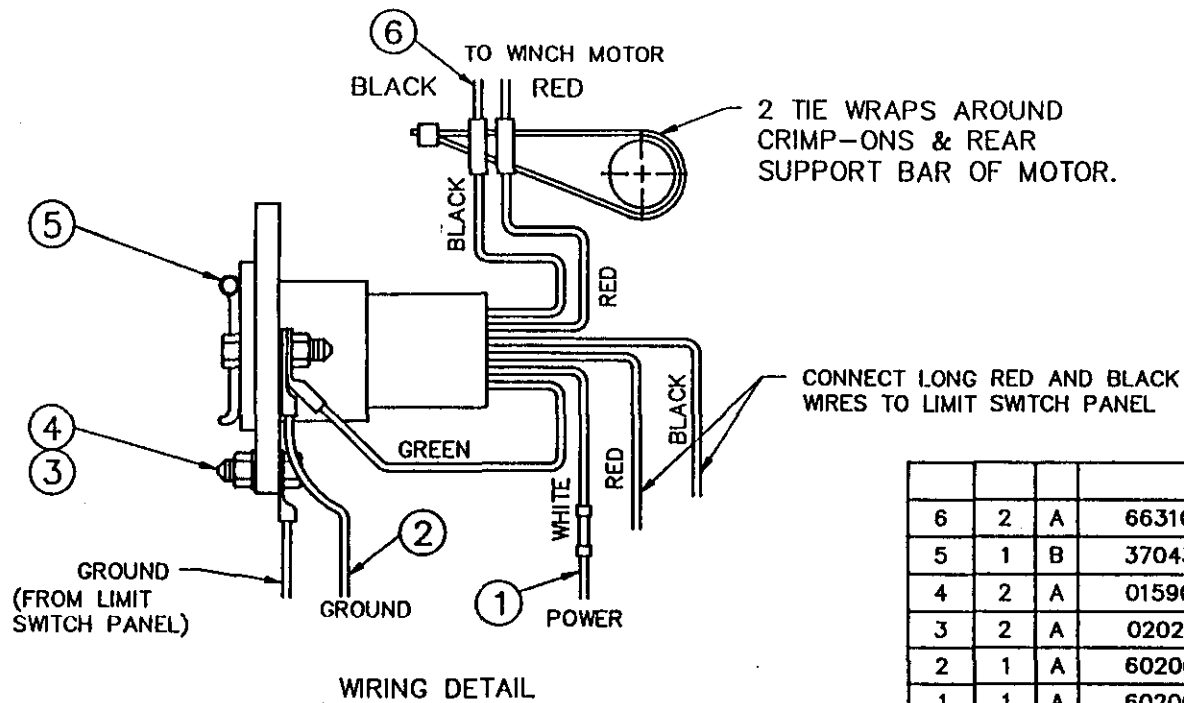
AW-370410  
WINCH ASSEMBLY  
(HIGH SPEED WINCH)

AW-370410  
HIGH SPEED WINCH ASSEMBLY

ITEM	QTY.	PART NO.	DESCRIPTION
1	2	272152	RETAINING RING
2	1	272153	BUSHING
3	1	370450	DRIVE SHAFT ASSEMBLY
4	1	370451	GEAR (56T)
5	1	370467	BUSHING
6	1	272155	HANDLE ASSEMBLY
7	1	370452	BASE
* 8	2	-	SPACER (SEE NOTE) (P/N 370453)
9	1	370454	BASE SPACER
* 10	2	-	BRAKE SPRING SPACER (SEE NOTE) (P/N 370455)
11	2	272434	BRAKE SPRING ASSEMBLY
12	2	272437	SCREW, #10-32NF x 1" SELF TAPPING SCREW
13	1	330018	NUT, LOCK 1/2-13NC
14	7	272502	WASHER
15	1	370456	GEAR
16	1	330012	STUD
17	1	330011	NUT, LOCK 7/16-20NF
18	3	370457	FRONT PLATE SPACER
19	1	272171	"E" RING
20	1	272170	MOTOR PINION (22T)
21	1	370458	BRAKE DISC ASSEMBLY
22	2	330022	NUT, LOCK #10-32NF
23	1	272184	MOTOR ASSEMBLY (D.C.)
24	-	-	-
25	1	370459	REEL SHAFT
26	1	370460	RETAINING RING
27	4	272175	SCREW, HEX HD 1/4-20NC x 1/2 LG.
28	1	370461	FRONT PLATE
29	2	370462	SCREW, HEX HD 1/4-20NC x 7/8 LG.
30	1	370463	REEL ASSEMBLY
31	1	272180	ROPE CLAMP
32	1	272179	NUT, HEX 1/4-20NC
33	1	370464	CARRIAGE BOLT, 1/4-20NC
34	1	370465	COVER (D.C.)
35	3	005500	SCREW, HEX HD 1/4-20NC x 3/4 LG.
36	1	370466	CABLE & HOOK, 3/16" x 20' CABLE
37	1	272508	COVER PLUG

\* ORDER AS BRAKE SPRING KIT P/N 370468





ITEM	QTY	D/S	PART NO.	DESCRIPTION
6	2	A	663100	TIE WRAP
5	1	B	370436	RECEPTACLE ASS'Y
4	2	A	015900	HEX NUT, 1/4-20NC
3	2	A	020201	LOCKWASHER, 1/4"
2	1	A	602006	GROUND CABLE
1	1	A	602005	POWER CABLE

UNLESS OTHERWISE NOTED ALL DIMENSIONS ARE IN INCHES. TOLERANCES UNLESS OTHERWISE SPECIFIED.

ANGLES  $\pm 1/2^\circ$  | .XX  $\pm .040$   
FRACTIONAL  $\pm 1/16$  | .XXX  $\pm .010$

REMOVE ALL BURRS AND SHARP EDGES. DO NOT SCALE THIS DRAWING.

TOLERANCES NOT SHOWN ABOVE ARE PER ANSI Y14.5-1973

THIS PRINT IS THE PROPERTY OF AUTO CRANE CO. AND MUST NOT BE USED IN ANY MANNER DETRIMENTAL TO THEIR INTERESTS.

DRAWN BY  
J. Bailey  
DATE  
6-8-88  
CHK'D BY  
DATE  
ENG. BY  
DATE

**AUTO CRANE COMPANY**

P.O. BOX 580697 • TULSA, OKLAHOMA 74158-0697  
4707 NORTH MINGO ROAD • 918-836-0463

TITLE

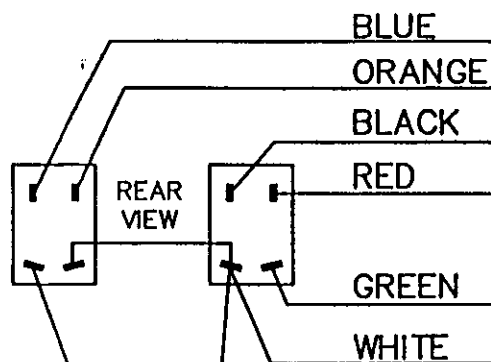
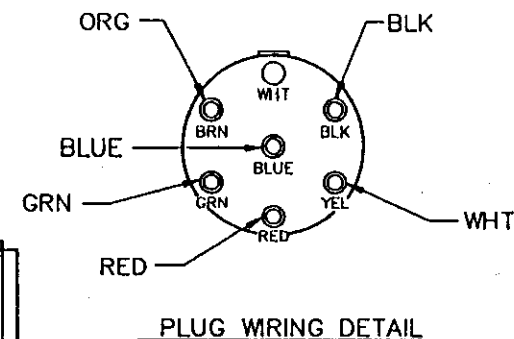
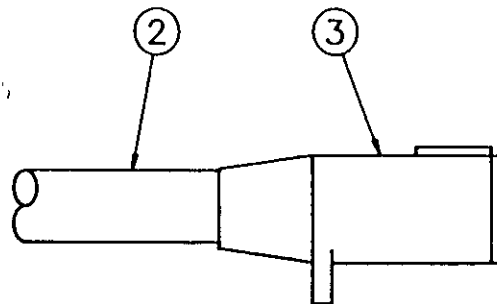
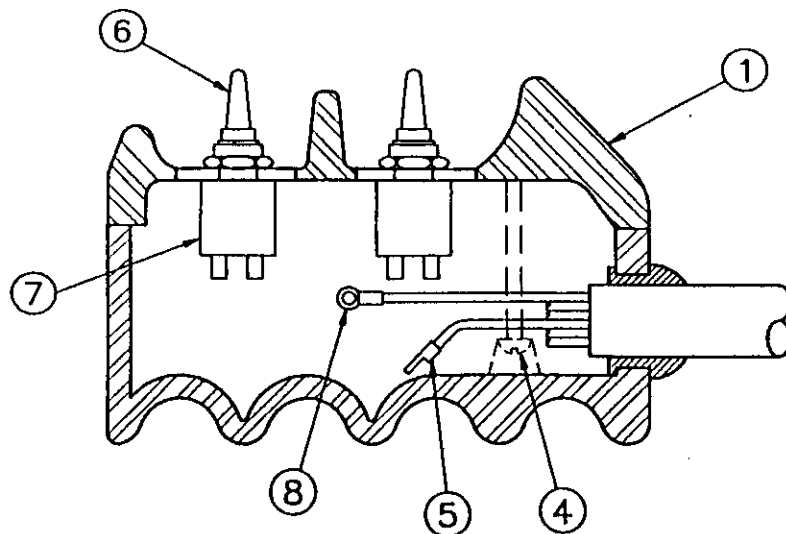
SOCKET ASSEMBLY

SCALE NONE SIZE B DRAWING NO. AW-078 REVISION

WEIGHT SHEET 1 OF 1

CHG LTR	DESCRIPTION	DATE	APP'D
	REVISIONS		
	NEXT ASS'Y		

# NOTES

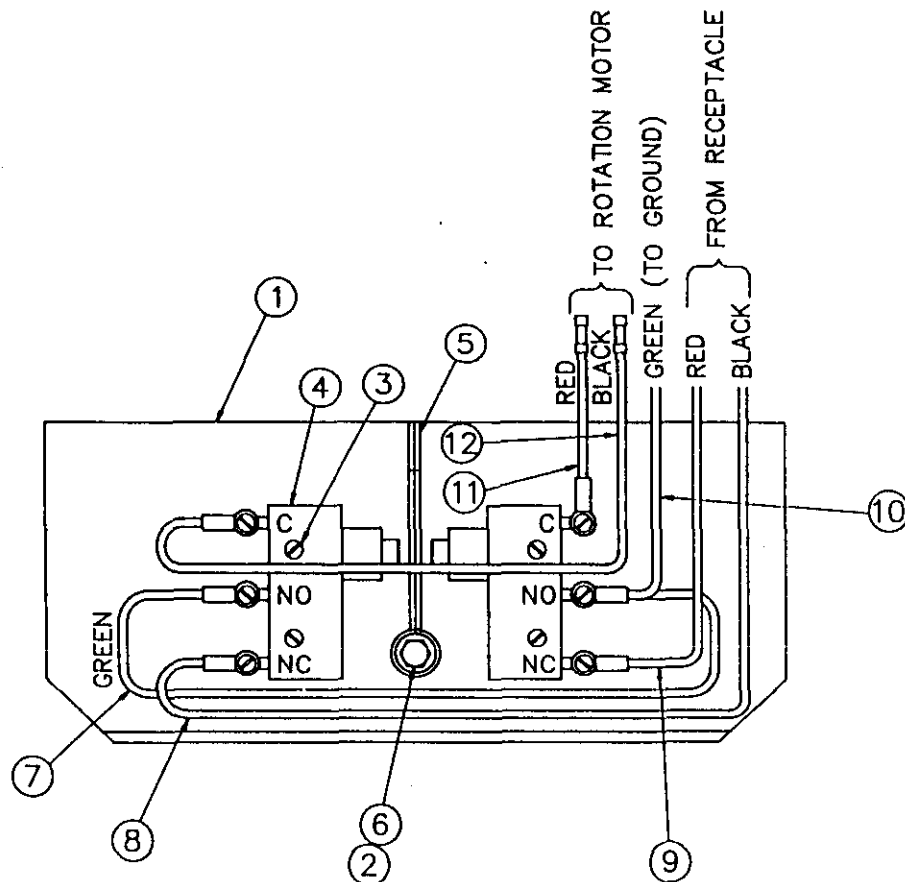


ITEM	QTY	D/S	PART NO.	DESCRIPTION
LIST OF MATERIAL				
<b>AUTO CRANE COMPANY</b> P.O. BOX 580697 • TULSA, OKLAHOMA 74158-0697 4707 NORTH MINGO ROAD • 918-836-0463				
UNLESS OTHERWISE NOTED ALL DIMENSIONS ARE IN INCHES. TOLERANCES UNLESS OTHERWISE SPECIFIED: ANGLES $\pm 1/2^\circ$   .XX $\pm .040$ FRACTIONAL $\pm 1/16$   .XXX $\pm .010$ REMOVE ALL BURRS AND SHARP EDGES. DO NOT SCALE THIS DRAWING. TOLERANCES NOT SHOWN ABOVE ARE PER ANSI Y14.5-1973			DRAWN BY RD DATE 2-20-89 CHK'D BY DATE ENG. BY DATE	
THIS PRINT IS THE PROPERTY OF AUTO CRANE CO. AND MUST NOT BE USED IN ANY MANNER DETRIMENTAL TO THEIR INTERESTS.			TITLE <b>PENDANT ASSEMBLY</b> SCALE 1=1 SIZE B DRAWING NO. AW-370429 REVISION	
NEXT ASS'Y			SHEET 1 OF 1	

CHG LTR	DESCRIPTION	DATE	APP'D
	REVISIONS		

**AW-370429, PENDANT ASSEMBLY, TON II (POWER ROTATION)**

ITEM	QTY.	PART NO.	DESCRIPTION
1	1	370138	PENDANT BOX
2	1	801005-001	CONDUCTOR CABLE 12/6
3	1	370445	PLUG, PENDANT
4	4	001205	SCREW, #8 NC X 7/8" LG.
5	8	000201	TERMINAL (12 ga.)
6	2	640302	BOOT
7	2	370136	TOGGLE SWITCH
8	2	001002	TERMINAL 12 GA. (GREEN WIRE ONLY)
9	4	001205	SCREW, #8 NC X 7/8" LG.
10	1	370445	PLUG, PENDANT

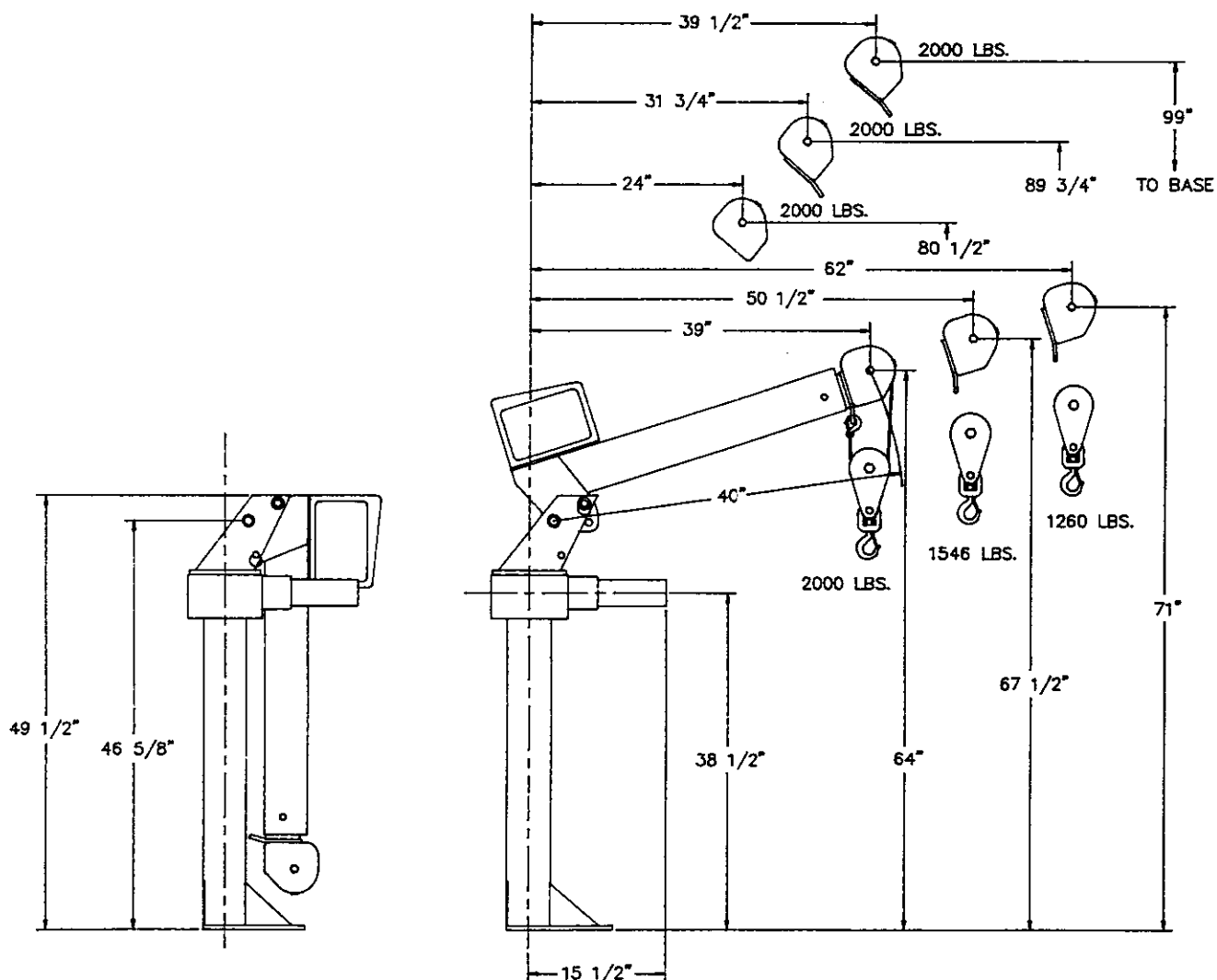
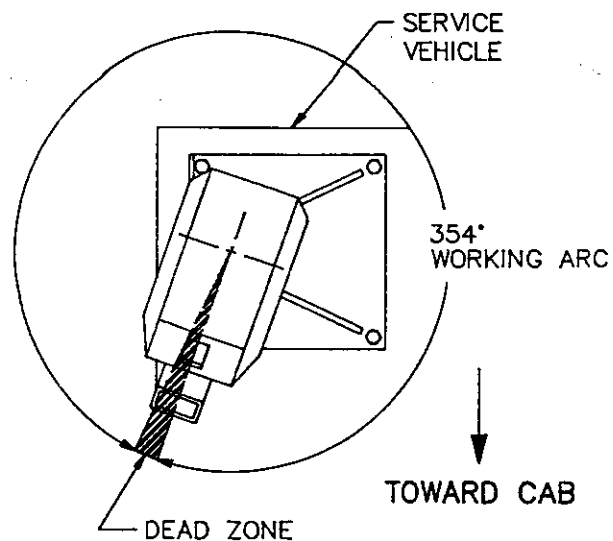
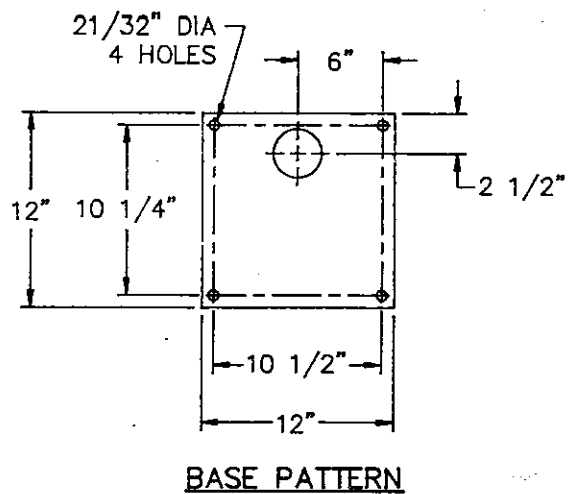


12	1	-	370437	CONDUCTOR ASS'Y (BLACK, 12 GA.)
11	1	-	370438	CONDUCTOR ASS'Y (RED, 12 GA.)
10	1	-	370440	CONDUCTOR ASS'Y (GREEN)
9	1	-	370443	CONDUCTOR ASS'Y (RED)
8	1	-	370442	CONDUCTOR ASS'Y (BLACK)
7	1	-	370441	CONDUCTOR ASS'Y (GREEN)
6	1	-	005611	SCREW, S.H. 1/4"-20NC X 1"
5	1	-	370413	TRIGGER ASS'Y
4	2	-	370419	LIMIT SWITCH
3	4	-	000602	SCREW, RD. HD. #6-32 X 1"
2	1	-	015900	NUT, HX. 1/4"-20NC
1	1	-	370489	SWITCH PANEL WELDMENT
ITEM	QTY	D/S	PART NO	DESCRIPTION

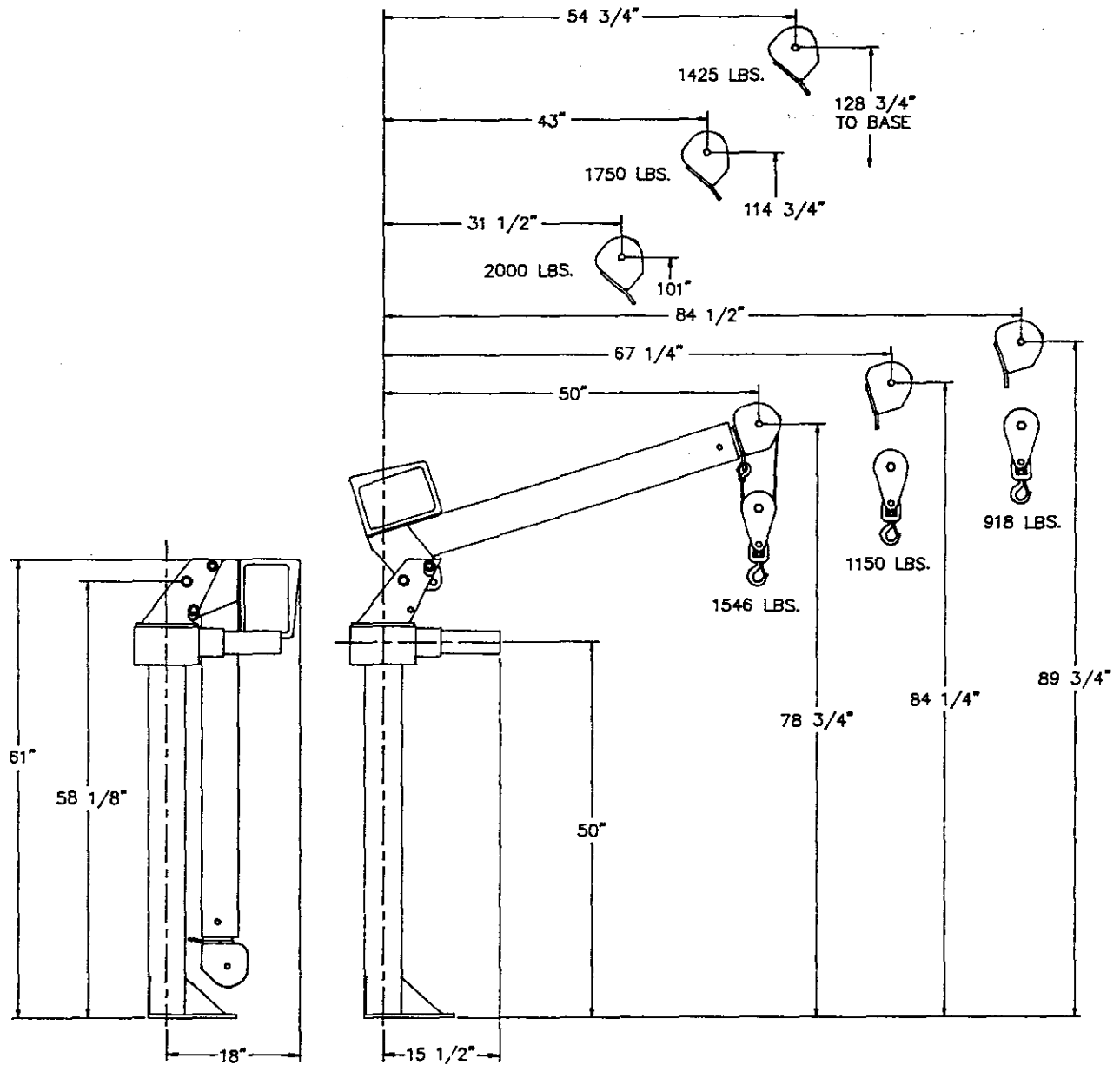
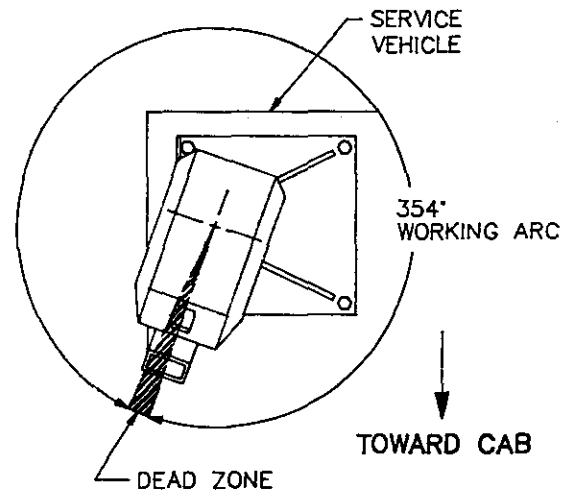
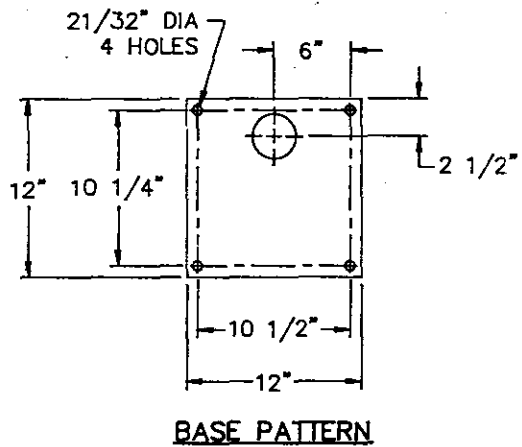
UNLESS OTHERWISE NOTED ALL DIMENSIONS ARE IN INCHES TOLERANCES UNLESS OTHERWISE SPECIFIED ANGLES 1/2" XX ± .040 FRACTIONAL 3/16 XXX ± .010 REMOVE ALL BURRS AND SHARP EDGES DO NOT SCALE THIS DRAWING TOLERANCES NOT SHOWN ABOVE ARE PER ANSI Y14.5-1973		DRAWN BY RD DATE 1-9-89 CHKD BY		<b>AUTO CRANE COMPANY</b> P.O. BOX 89007 • TULSA, OKLAHOMA 74189-0007 4707 NORTH MINOR ROAD • TULSA, OKLAHOMA 74112	
THIS PRINT IS THE PROPERTY OF AUTO CRANE CO AND MUST NOT BE USED IN ANY MANNER DETRIMENTAL TO THEIR INTERESTS.		DATE ENG BY		TITLE <b>LIMIT SWITCH PNL. ASS'Y</b>	
NEXT ASS'Y		DATE		SCALE SIZE C	
				DRAWING NO <b>AW-370490</b>	
				REVISION SHEET 1 OF 1	

CHG	DESCRIPTION	DATE	APP'D
LTP	REVISIONS		

# NOTES

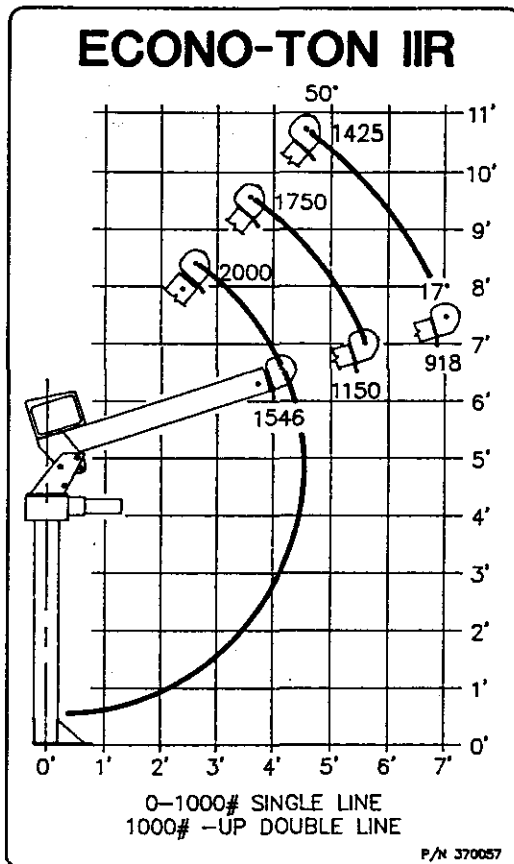


**AW-107**  
**GENERAL DIMENSIONS ECONO-TON IIR**

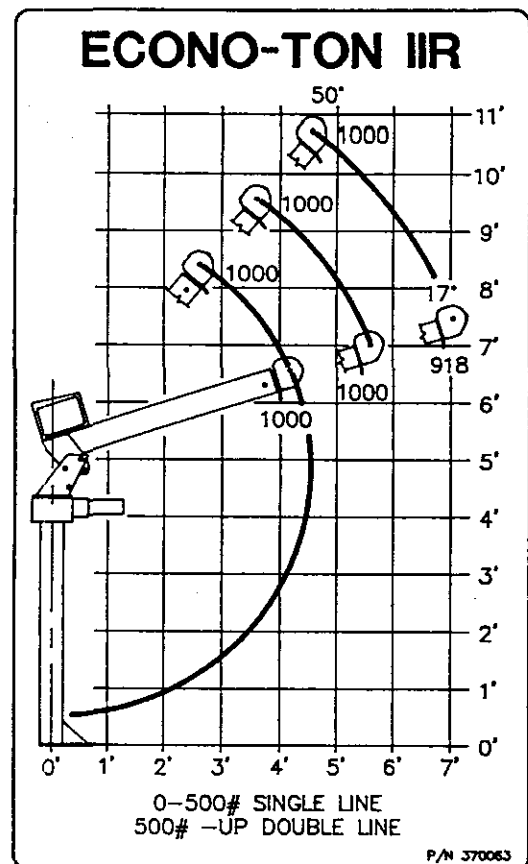


**AW-108**  
**GENERAL DIMENSIONS, ECONO-TON IIR**  
**TALL PEDESTAL, 7' BOOM**

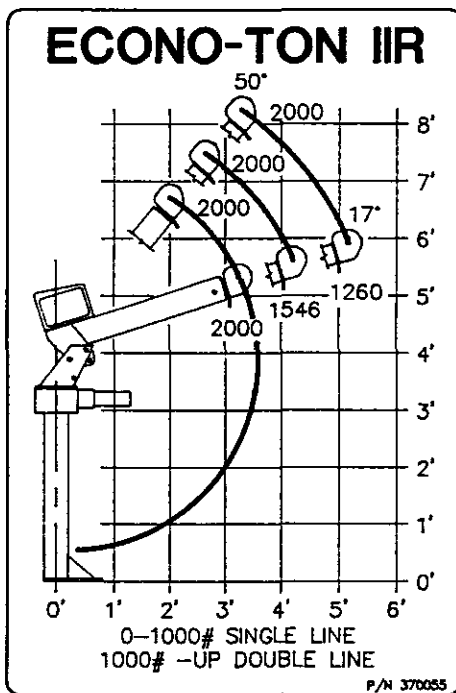




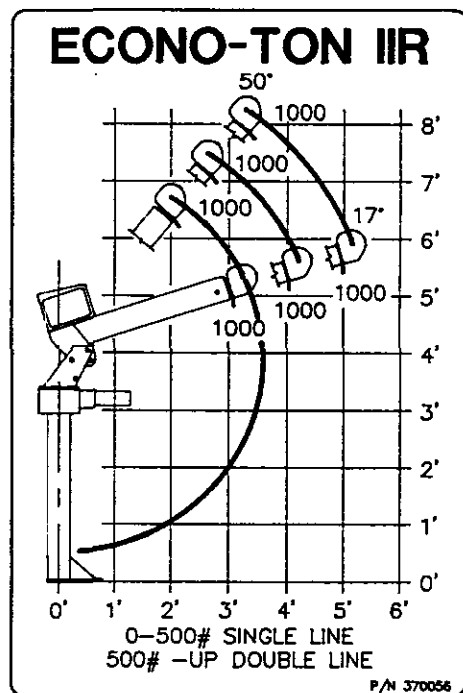
LOAD CHART, 370057  
FOR ECONO-TON IIR WITH  
TALL PEDESTAL AND 7' BOOM



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

## AW-109 LOAD CHARTS, ECONO-TON IIR



## **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.