

Auto Crane Company

P.O. BOX 580697 • TULSA, OKLAHOMA 74158-0697
4707-N. MINGO ROAD • TULSA, OKLAHOMA 74117
918-836-0463 • TELEX 158108 RAMSEY TUL

OWNER'S MANUAL

2703 SERIES

SERIAL NO. _____

2703 SERIES OWNERS MANUAL

-CONTENTS-

	PAGE
1. INTRODUCTION 2703 SERIES	1- 0
2. INSTALLATION	2- 0
3. GENERAL ASSEMBLY	3- 0
A) MANUAL BRAKE ASSEMBLY	3- 8
B) TWECO ASSEMBLY	3-10
C) TURNER ASSEMBLY	3-12
D) TRAVELING BLOCK ASSEMBLY	3-14
E) ACTUATOR ASSEMBLY-MR.....	3-16
4. DECAL LAYOUT	4- 0
5. GENERAL DIMENSIONS	5- 0
6. ELECTRICAL SECTION	6- 0
7. WARRANTY	7- 0



INTRODUCTION -2703 SERIES

Auto Crane products have been engineered to provide safe, trouble-free, dependable service for many years when these products are properly used and maintained.

To assist you in obtaining the best service from your crane and to avoid untimely failure of the unit and/or the vehicle on which it is mounted, the following operating and service instructions are herein published, and 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 2703 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 2703 series are included on the General Dimension Drawing. Rotation and turning radius are also listed.

Remember that the crane adds weight to the vehicle and may change the driving and riding characteristics of the vehicle on which it is mounted unless this weight is properly provided for with appropriate overload springs. The payload of the vehicle is also reduced by the amount that the crane weighs, and as the vehicle is loaded, care should be exercised not to overload the vehicle. Exercising care in distributing the payload on the vehicle will greatly improve the driving and riding characteristics of the vehicle. A minimum chassis of 8000 lbs. G.V.W.R. with two rear jacklegs (or outriggers) is recommended. Crane side jackleg should extend 45" from centerline of truck chassis.

The 2703 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 2-0. 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 500 cold cranking rated battery. These specifications should be considered minimum.

It has always been Auto Crane Company policy to handle all warranty claims we receive as promptly as possible. If material or workmanship is involved, immediate corrective action is taken. It is therefore, understandable that Auto Crane Company cannot

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

assume responsibility or liability when our products have obviously been abused, mis-used, overloaded or otherwise damaged by inexperienced persons trying to operate the equipment without even reading the manual. The Auto Crane is designed and built to be safe and efficient. Auto Crane will not assume responsibility or liability for any unit which has been modified, changed, or which has unauthorized or unapproved components installed.

Auto Crane maintains a strong distributor network and a knowledgeable Customer Service Department. In most cases an equipment problem can be solved through a telephone 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 necessary. 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 assures our customers of the best equipment on the market, and our Engineering Staff, as well as our knowledgeable sales people are always available to our customers in solving crane and winch-type application problems. When in doubt-call the 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 are stocked with authorized replacement parts and a service department that can solve almost any needed repair.

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

The material herein does not imply to cover all maintenance, instructions, operations, or variations pertinent to every possible situation. If additional information is required, please refer to the Auto Crane Company at the following telephone number: 918 - 836-0463. The information contained in the manual was in effect at the time of printing. Auto Crane Company reserves the right to update this material at any time without prior 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 (jacklegs) from vehicle to the ground during crane operation. Insure that they are firmly positioned on solid footings.
6. All load ratings are based on crane capacity, NOT unit stability.
7. **ALWAYS** comply with load chart capacities (centerline of rotation to hoist hook).
8. **NEVER OPERATE THE CRANE NEAR ELECTRICAL POWER LINES.** Auto Crane Company recommends that a crane never be moved any closer to a power line (including telephone lines) than 20 feet at any point.
9. Keep objects and personnel clear of crane path during operation.
10. Keep hoist cable pulled tight at all times.
11. **NEVER** un-reel last wrap of cable from drum.
12. **NEVER** wrap cable around load.
13. **REMEMBER** - in lifting a heavy load, the weight can create enough tipping moment to overturn the vehicle.
14. **NEVER** attempt to lift or drag a load from the side- the boom can fail far below its rated capacity.
15. Oil gears as required.
16. **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.
17. An important item which an operator should consider and use properly is the hoist hook. It should be checked on a 30-day basis for distortion or cracks.
18. **NEVER** place a chain link on the tip of the hook and try to lift a load with the hoist.
19. **NEVER** use a sling bar or anything larger than the hook throat which could prevent the hook from closing with the block, thus negating the safety feature.
20. In using a safety hook, **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.
21. **NEVER** hold any pendant Select switch on that will negate safe operating conditions.
22. **ALWAYS** store outriggers (jacklegs) before road travel.

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 preformed 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.

OPERATION OF UNIT

1. Make sure this manual has been thoroughly read by all crane operating personnel.
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. Engage emergency brake and turn off ignition with transmission left in gear. (or in park for automatic transmissions). For extended use (more than a few minutes), leave engine running with manual transmission in neutral, or automatic transmissions in park. This is for Auto Crane units requiring only battery operation. For larger Auto Crane units requiring battery and hydraulic operation, engage emergency brake and place gear select in neutral; press clutch and pull PTO knob in gear; release clutch and set throttle control to proper RPM. (see hydraulic section). **WARNING: DO NOT SET THROTTLE ABOVE REQUIRED SPEED - POSSIBLE DAMAGE MAY RESULT.**
6. Always use outriggers (jacklegs) from the truck to the ground. Be sure these are firm and adequately positioned.
7. Then remove pendant control from cab (on small units) and plug into receptacle on crane. Crane is now ready for operation. On Auto Crane's larger units, remove pendant control from guard and unwrap cable from boom. Crane is now ready for operation.
8. Always boom up before rotating so that 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 in proper location (in cab or on crane).
13. Return outriggers (jacklegs) 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. Press clutch and disengage PTO. Release throttle control and emergency brake.
16. Report any unusual occurrence during crane operation that may indicate required maintenance or repair.

COLD WEATHER OPERATION

All standard products (all models of cranes and winches) as manufactured by the Auto Crane Company will operate satisfactorily from 0°F. to 120°F. By making the following minor modifications, all Auto Crane models of winches and cranes will be given the capability of operating from 0°F. down to -65°F.

1. Drain gear oil from actuators by removing drain plug. Replace plug and use one to one-and-one-half pints of kerosene per actuator. Then add extreme pressure gear lube (E.P. 80-90) with maximum capacity of gear oil and kerosene not to exceed two quarts.
2. Replace standard urethane protective boots on pendant control switches with special low-temperature Tech-Nut flex boots.
3. The minimum bend radius of the standard Auto Crane pendant control cable is increased from three inches to nine inches.

4. Spray all electrical equipment with special corrosion-resistant coating (eliminates rust or corrosion due to melting and freezing action of condensation).

The only inconvenience for the operator created by the above procedure is that the pendant control cable must be coiled into larger loops for storage purposes. Care must be exercised to avoid sharp bending of this pendant control cable during extreme cold operating conditions.

When Auto Crane winches and cranes are subjected to extreme cold (-65°F.) for long periods (two to six months or more), it is recommended that the following procedure be placed in action:

1. Completely drain the existing oil from the actuators and flush with kerosene.
2. Fill each actuator with Mobilube SHC-629 (approximately two quarts required per actuator) to the proper level (oil level plug must be removed to check level).

Note: Many customers have utilized heater-blanket type wrapping for these gear boxes.

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; they must be kept properly filled with water; and they must be kept relatively clean.

Many things affect the proper charge to a battery, such as regulator settings, the proper tightness of belts on the alternator or generator, and good, clean connections of all cables and wires at the battery, regulator, starting motor, alternator or generator, and — most important — the ground connections.

Keeping the battery as fully charged as possible without overcharging is of extreme importance, especially when vehicles are left outside for extended periods of time 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 Temperature Degrees F.
1.280	-90°
1.250	-62°
1.200	-16°
1.150	5°
1.100	19°

From the above, it is apparent that 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, of course, is to assure that power is available even though the vehicle has been standing for some time.

The battery should be properly filled with water at all times. 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; and 3) that portion of the acid remaining becomes more concentrated and may cause more rapid deterioration of the remaining parts of the 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; but 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 or the ground. Once such a path has been established, the self-discharge of the battery is considerably 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 checking belts for tightness on the charging equipment, checking battery electrolyte levels, checking cables for good connections, and 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.

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 battery should be checked with a high rate tester in accordance with instructions on the tester. A load test is the best test one can make on a battery.

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

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 that 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 period of time. This usually will recover a badly sulfated 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 in accordance with instructions given by the manufacturer.

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

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

FIXTURE NO.	FINISH NO.

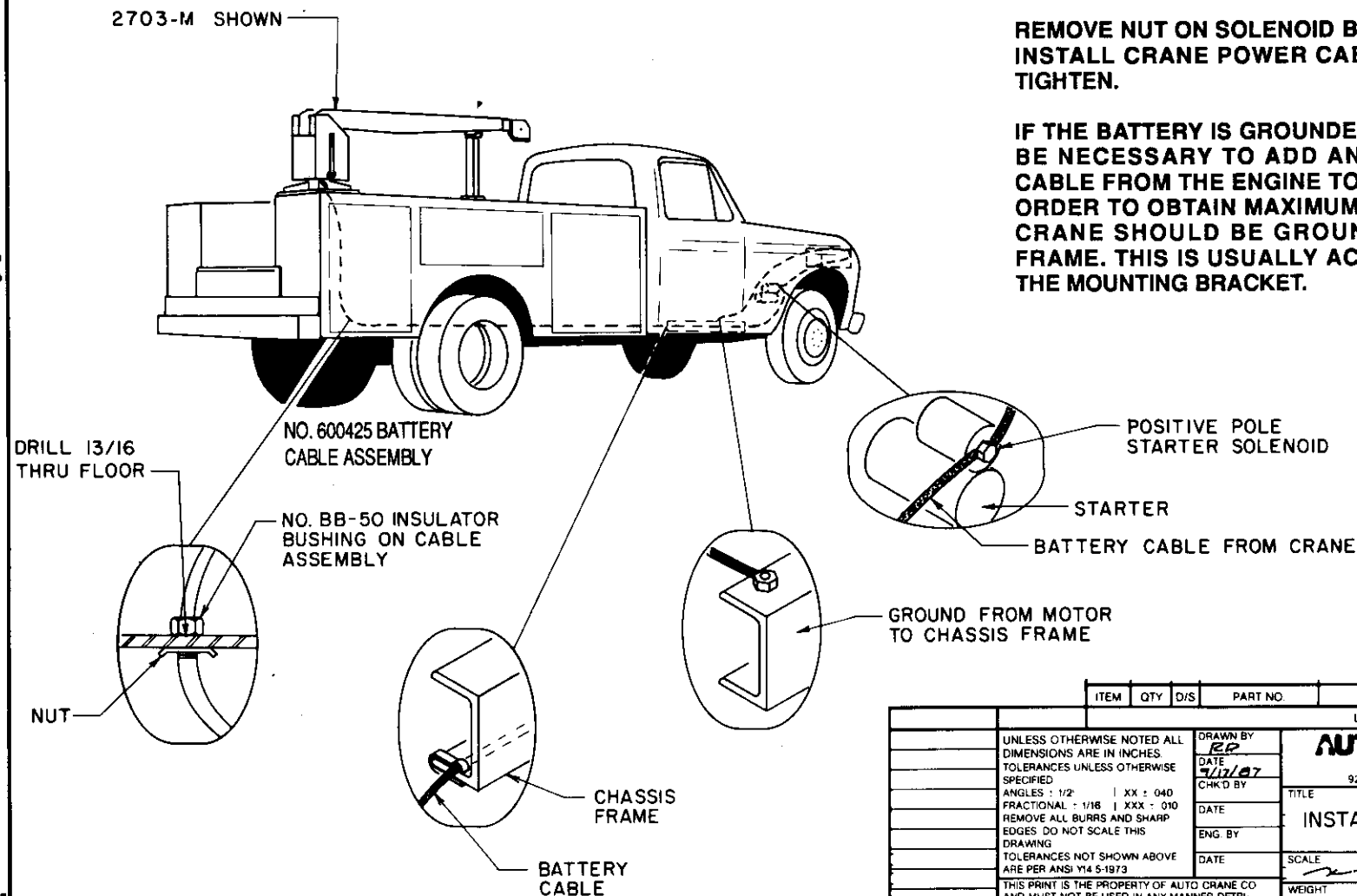
CHG	REVISIONS	DATE	APP'D
LTR	DESCRIPTION		

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.

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.

REMOVE NUT ON SOLENOID BATTERY TERMINAL POST, INSTALL CRANE POWER CABLE, REPLACE NUT AND TIGHTEN.

IF THE BATTERY IS GROUND 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 GROUND TO THE CHASSIS FRAME. THIS IS USUALLY ACCOMPLISHED THROUGH THE MOUNTING BRACKET.

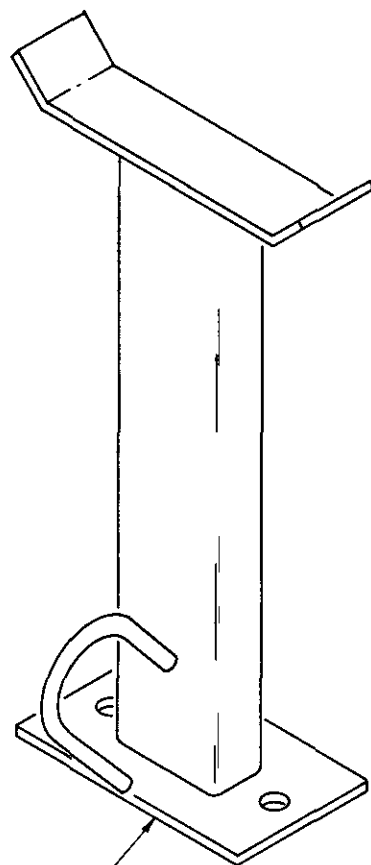


ITEM	QTY	D/S	PART NO.	DESCRIPTION
LIST OF MATERIAL				
AUTO CRANE COMPANY P.O. BOX 45548 • TULSA, OKLAHOMA 74145 9200 BROKEN ARROW EXPRESSWAY • 918-627-9475				
TITLE				
INSTALLATION BATTERY CABLE				
SCALE				
SIZE				
DRAWING NO.				
REVISION				
WEIGHT				
SHEET 1 OF 1				

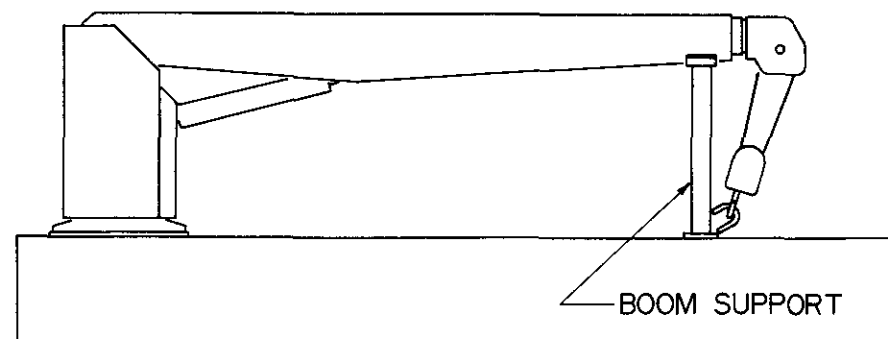
UNLESS OTHERWISE NOTED ALL DIMENSIONS ARE IN INCHES. TOLERANCES UNLESS OTHERWISE SPECIFIED: ANGLES: 1/2" XX: .040 FRACTIONAL: 1/16" XXX: .010 REMOVE ALL BURRS AND SHARP EDGES. DO NOT SCALE THIS DRAWING. TOLERANCES NOT SHOWN ABOVE ARE PER ANSI Y14.5-1973.	DRAWN BY EP DATE 5/12/87 CHK'D BY DATE ENG. BY DATE
THIS PRINT IS THE PROPERTY OF AUTO CRANE CO AND MUST NOT BE USED IN ANY MANNER DETRIMENTAL TO THEIR INTERESTS.	

FIXTURE NO.	FINISH NO.

CHG LTR	REVISIONS			
	DESCRIPTION	DATE	APP'D	



SUGGESTED BOOM SUPPORT,
AUTO CRANE PART NUMBER 725045



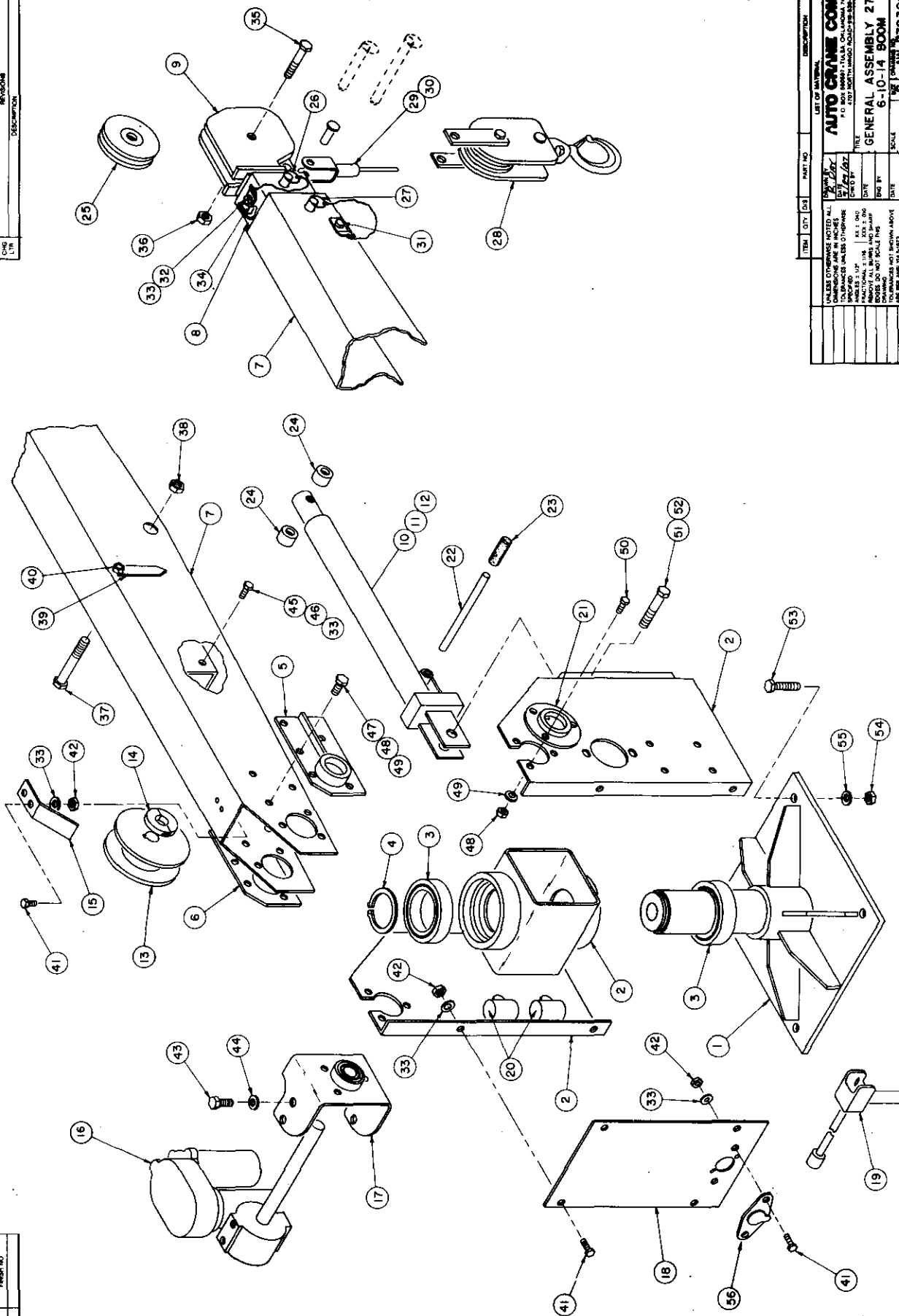
WARNING :

AS WITH ALL AUTO CRANE POWER ROTATION
UNITS, THE 2703 DOES REQUIRE A BOOM
SUPPORT

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 <i>R.D.</i> DATE <i>10/18/87</i> CHK'D BY DATE ENG. BY DATE
AUTO CRANE COMPANY P.O. BOX 45548 • TULSA, OKLAHOMA 74145 9260 BROKEN ARROW EXPRESSWAY • 918-627-9475				TITLE
BOOM SUPPORT				REVISION
SCALE		SIZE	DRAWING NO.	REVISION
WEIGHT		C	AW-058	
THIS PRINT IS THE PROPERTY OF AUTO CRANE CO AND MUST NOT BE USED IN ANY MANNER DETRI- MENTAL TO THEIR INTERESTS.				SHEET <u> </u> OF <u> </u>
NEXT ASSY				

REV	DATE	DESCRIPTION
1		

REV	DATE	DESCRIPTION
1		



ITEM	QTY	DIS	PART NO	DESCRIPTION
1	1			BOOM
2	1			BASE PLATE
3	1			END PLATE
4	1			WASHER
5	1			WASHER
6	1			WASHER
7	1			WASHER
8	1			WASHER
9	1			WASHER
10	1			WASHER
11	1			WASHER
12	1			WASHER
13	1			WASHER
14	1			WASHER
15	1			WASHER
16	1			WASHER
17	1			WASHER
18	1			WASHER
19	1			WASHER
20	1			WASHER
21	1			WASHER
22	1			WASHER
23	1			WASHER
24	1			WASHER
25	1			WASHER
26	1			WASHER
27	1			WASHER
28	1			WASHER
29	1			WASHER
30	1			WASHER
31	1			WASHER
32	1			WASHER
33	1			WASHER
34	1			WASHER
35	1			WASHER
36	1			WASHER
37	1			WASHER
38	1			WASHER
39	1			WASHER
40	1			WASHER
41	1			WASHER
42	1			WASHER
43	1			WASHER
44	1			WASHER
45	1			WASHER
46	1			WASHER
47	1			WASHER
48	1			WASHER
49	1			WASHER
50	1			WASHER
51	1			WASHER
52	1			WASHER
53	1			WASHER
54	1			WASHER
55	1			WASHER
56	1			WASHER

GENERAL ASSEMBLY 2703-M AW-270300
6-10-14 BOOM

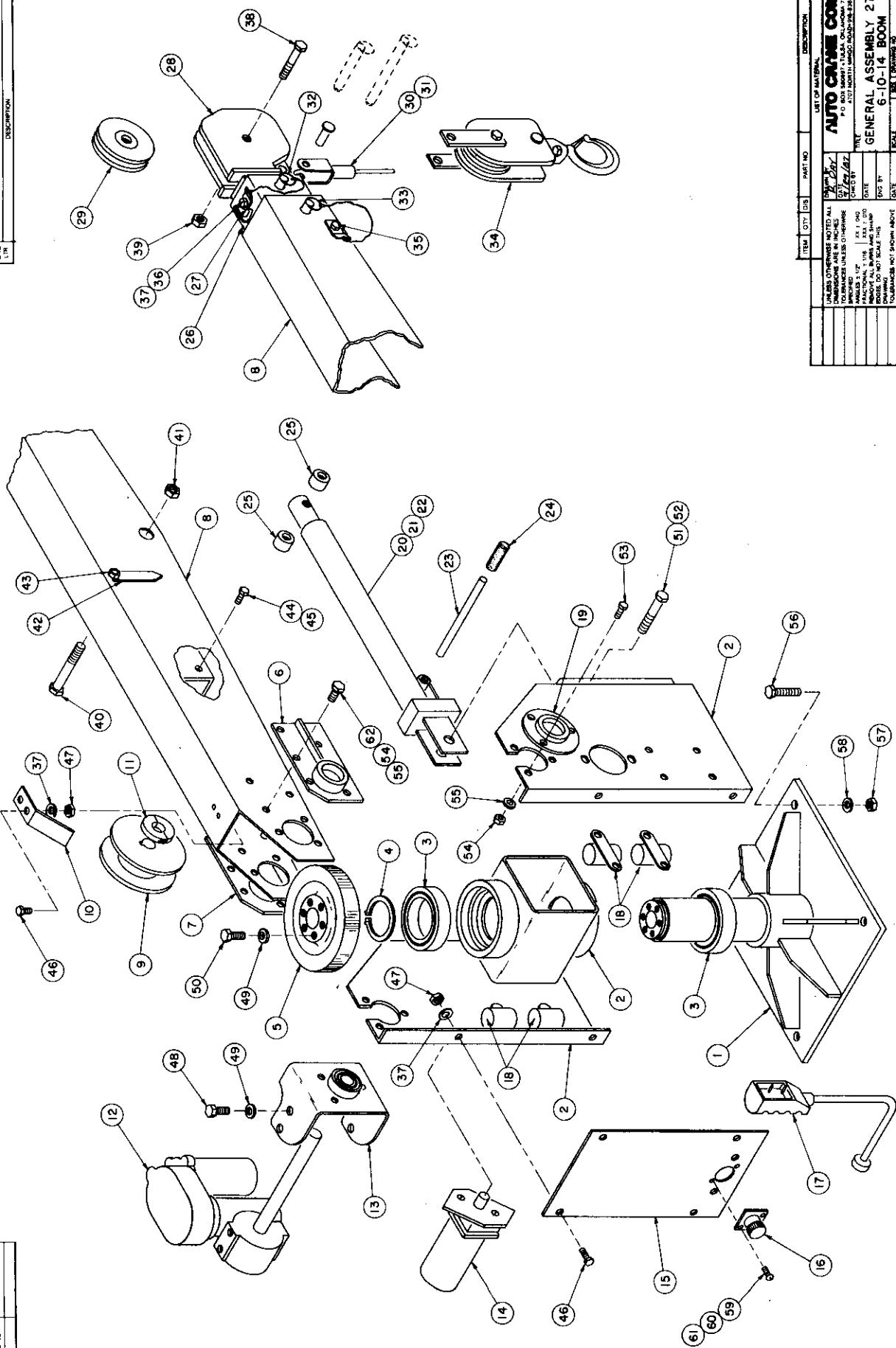
ITEM	QTY.	PART NO.	DESCRIPTION
1	1	270387	QUILL/BASE
2	1	270394	SIDE PLATES/HOUSING
3	2	330192	BEARING, BALL SEALED
4	1	330182	SNAP RING
5	1	330471	BOOM, PIVOT
6	1	330471-001	BOOM, PIVOT
7	1	270380	BOOM, LOWER WELDMENT
8	1	270408	BOOM, MID
9	1	320423	BOOM, MANUAL, WITH CROWN
10	1	330579	CYLINDER, HYDRAULIC
11	1	330623	SEAL KIT (FOR 330579 CYL.)
12	1	330646	REPAIR KIT (FOR 330579 CYL.)
13	1	320379	DRUM
14	2	330468	COLLAR, SP. LK.
15	1	270389	GUARD, CABLE
16	1	320324	ACTUATOR ASSEMBLY
17	1	270403	ACTUATOR BRACKET
18	1	270391	REAR PANEL
19	1	330519	PENDANT CONTROL
20	1	270404	RELAY ASSEMBLY
21	1	330470	FLANGE, BEARING
22	1	800203-006	HANDLE, PUMP
23	1	202800	GRIP, HANDLE
24	2	800167-001	SPACER
25	1	227401	SHEAVE ASSEMBLY (BEARING ONLY 200100)
26	1	320327	POSITION PIN
27	1	320328	POSITION PIN (LONG)
28	1	320433	TRAVELING BLOCK
29	1	320338	CABLE ASS'Y, 62' (STD.)
30	1	320339	CABLE ASS'Y, 75' (OPTIONAL)
31	1	002614	SCREW, HX. HD. 5/16 S.T.
32	1	005501	SCREW, HX. HD. 1/4 X 3/4 N.F.
33	10	020200	WASHER, SP. LK. 1/4
34	1	320415	BOOM, RETAINER MAN.
35	1	012200	SCREW, HX. HD. 5/8 X 1 3/4 N.F. GR.5
36	1	018100	NUT, HX. 5/8 N.F. HLF. LK.
37	1	330185	SCREW, HX. HD. 1" X 5 1/2 N.F. GR.5
38	1	019106	NUT, HX. 1" N.F.
39	1	360038	ANGLE INDICATOR
40	1	016300	NUT, HX. LK. 1/4 N.C.
41	8	005500	SCREW, HX. HD. 1/4 X 3/4 N.C.
42	8	015900	NUT, HX. 1/4 N.C.
43	4	007807	SCREW, HX. HD. 5/16 X 3/4 N.C.
44	4	020600	WASHER, SP. LK. 5/16
45	2	005406	SCREW, HX. HD. 1/4 X 1/2 N.F.
46	2	016100	NUT, HX. 1/4 N.F.
47	12	330370	SCREW, HX. HD. 3/8 X 7/8 N.C.
48	18	330372	NUT, HX. 3/8 N.C.

**GENERAL ASSEMBLY 2703-M AW-270300
6-10-84 BOOM**

ITEM	QTY.	PART NO.	DESCRIPTION
49	18	021100	WASHER, SP. LK. 3/8
50	6	330371	SCREW, HX. HD. 3/8 X 1" N.C. GR.8
51	1	014300	SCREW, HX. HD. 3/4 X 4 1/2 N.F.
52	1	018600	NUT, HX. LK. 3/4 N.F.
53	4	011200	SCREW HX. HD. 1/2 X 2 1/2 N.F. GR.5
54	4	017704	NUT, HX. 1/2 N.F. HEAVY
55	4	021500	WASHER 1/2 SP.LK.
56	1	REF.	RECEPTACLE ASSEMBLY (SEE RELAY ASS'Y)

DATE	DESCRIPTION	REVISIONS
1/1/60		

DATE	DESCRIPTION	REVISIONS
1/1/60		



ITEM	QTY	UNIT	PART NO	DESCRIPTION
AUTO CRANE COMPANY P.O. BOX 1000, TULSA, OKLAHOMA 74101-0000 TEL: (918) 436-1234 FAX: (918) 436-1235 E-MAIL: INFO@AUTOCRANE.COM				
GENERAL ASSEMBLY 2703 - MR 6-10-14 BOOM				
SCALE: 1" = 1'-0" DATE: 1/1/60 DRAWN BY: J. D. [Signature] CHECKED BY: J. D. [Signature] DATE: 1/1/60 PART NO: 270302 WEIGHT: 15.0 LBS NET WT: 15.0 LBS GROSS WT: 15.0 LBS				

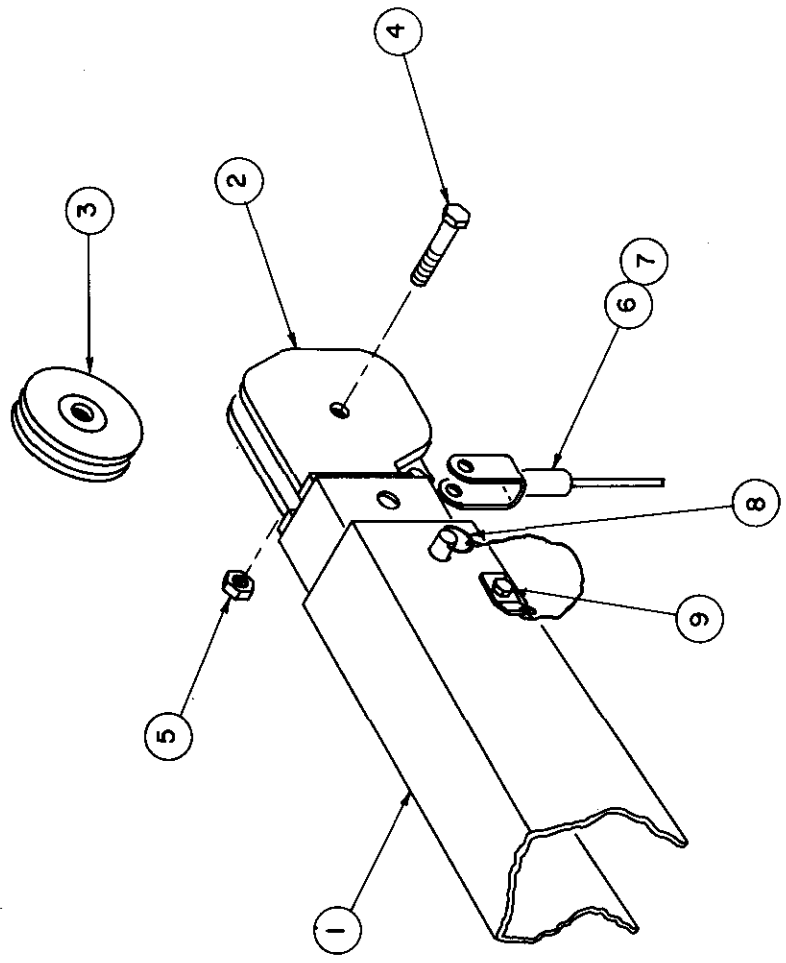
**GENERAL ASSEMBLY, 2703-MR AW-270302
6-10-14 BOOM**

ITEM	QTY.	PART NO.	DESCRIPTION
1	1	270388	QUILL/BASE
2	1	270398	SIDE PLATES/HOUSING
3	2	330192	BEARING, BALL SEALED
4	1	330182	SNAP RING
5	1	270385	GEAR, WORM
6	1	330471	BOOM PIVOT
7	1	330471-001	BOOM PIVOT
8	1	270380	BOOM, LOWER WELDMENT
9	1	320379	DRUM, HOIST
10	1	270389	CABLE GUARD
11	2	330468	COLLAR, SP. LK.
12	1	320324	ACTUATOR ASSEMBLY
13	1	270403	ACTUATOR BRACKET
14	1	330313	GEAR, MOTOR 12 V
15	1	270391	REAR PANEL
16	1	REF.	RECEPTACLE ASSEMBLY (SEE RELAY ASS'Y)
17	1	330311	PENDANT CONTROL OR (320500 PENDANT)
18	1	270401	RELAY ASSEMBLY
19	1	330470	FLANGE, BEARING
20	1	330579	HYD. CYLINDER
21	1	330623	SEAL KIT (FOR 330579 CYL.)
22	1	330646	REPAIR KIT (FOR 330579 CYL.)
23	1	800203-006	HANDLE, PUMP
24	1	202800	GRIP, HANDLE
25	2	800167-001	SPACER
26	1	270408	BOOM, MAN. MID.
27	1	320415	BOOM, RETAINER
28	1	320423	BOOM, MANUAL WITH CROWN
29	1	227401	SHEAVE ASS'Y (REF. BEARING ONLY 200100)
30	1	320338	CABLE ASSEMBLY 62' (STD.)
31	1	320339	CABLE ASSEMBLY 75' (OPTIONAL)
32	1	320327	POSITION PIN
33	1	320328	POSITION PIN (LONG)
34	1	320433	TRAVELING, BLOCK
35	1	002614	SCREW HX. HD. 5/16 SELF. TAP.
36	1	005501	SCREW. HX. HD. 1/4 X 3/4 NF.
37	7	020200	WASHER, 1/4 SP. LK.
38	1	012200	SCREW HX. HD. 5/8 X 1 3/4 N.F. GR. 5
39	1	018100	NUT, HX. 5/8 N.F. HLF. LK
40	1	330185	SCREW, HX. HD. 1" X 5 1/2 N.F. GR. 5
41	1	019106	NUT, 1" N.F.
42	1	360038	ANGLE, INDICATOR
43	1	016300	NUT, HX. LK. 1/4 N.C.
44	2	005406	SCREW HX. HD. 1/4 X 1/2 N.F.
45	2	016100	NUT HX. 1/4 N.F.
46	6	005500	SCREW, HX. HD. 1/4 X 3/4 N.C.
47	6	015900	NUT, HX. 1/4 N.C.
48	4	007807	SCREW HX. HD. 5/16 X 3/4 N.C.

**GENERAL ASSEMBLY 2703-MR AW-270302
6-10-14 BOOM**

ITEM	QTY.	PART NO.	DESCRIPTION
49	10	020600	WASHER, SP. LK. 5/16
50	6	007805	SCREW, HX. HD. 5/16 X 1 1/2 N.C. GR.5
51	1	014300	SCREW, HX. HD. 3/4 X 4 1/2 N.F.
52	1	018600	NUT, HX. LK. 3/4 N.F.
53	6	330371	SCREW HX. HD. 3/8 X 1" N.C. GR.8
54	18	330372	NUT, HX. 3/8 N.C.
55	18	021100	WASHER SP. LK. 3/8
56	4	011200	SCREW, HX. HD. 1/2 X 2 1/2 N.F. GR.5
57	4	017704	NUT, HX. 1/2 N.F. HEAVY
58	4	021500	WASHER, SP. LK. 1/2
59	2	000404	SCREW, RD. HD. # 6-32 X 5/8
60	2	019600	WASHER, SP LK. # 6
61	2	015400	NUT HX. # 6-32
62	12	330370	SCREW, HX. HD. 3/8 X 7/8 N.C.

FIXTURE NO.	FINISH NO.	CHG LTR	REVISIONS	DATE	APPD
			DESCRIPTION		



ITEM	QTY	D/S	PART NO.	DESCRIPTION
LIST OF MATERIAL				
AUTO CRANE COMPANY P.O. BOX 45548 • TULSA, OKLAHOMA 74145 9280 BROKEN ARROW EXPRESSWAY • 918-427-9475				
TITLE: GENERAL ASSEMBLY 2703-M, MR OPTIONAL 6-10 FT. MANUAL BOOM				
DRAWN BY: <u>W. J. J.</u> DATE: <u>8/20/87</u> CHECKED BY: <u>W. J. J.</u> DATE: <u>8/20/87</u> ENG. BY: <u>W. J. J.</u> DATE: <u>8/20/87</u>				
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 IS NOT TO BE REPRODUCED IN ANY MANNER DETRIMENTAL TO THEIR INTERESTS.				
SCALE: <u>1" = 1'-0"</u> WEIGHT: <u>303</u> LBS SHEET <u>1</u> OF <u>1</u>				

GENERAL ASSEMBLY 2703-M, MR AW-270301/303
6-10 BOOM

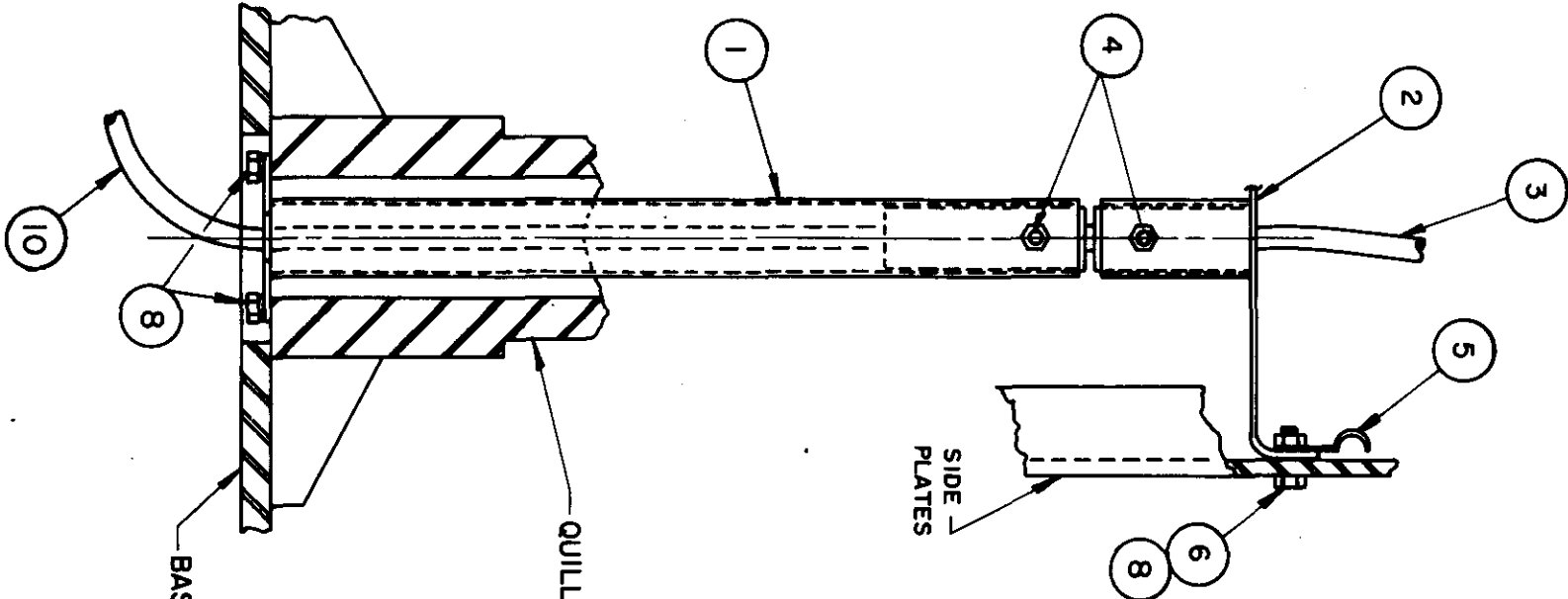
ITEM	QTY.	PART NO.	DESCRIPTION
1	1	270380	BOOM, LOWER WELDMENT
2	1	270402	BOOM, MANUAL WITH CROWN
3	1	227401	SHEAVE ASS'Y (BEARING ONLY 200100)
4	1	012200	SCREW, HX. HD. 5/8 X 1 3/4 N.F. GR.5
5	1	018100	NUT, HLF. LK. 5/8 N.F.
6	1	320338	CABLE ASS'Y 62' (STD.)
7	1	320339	CABLE ASS'Y 75' (OPTIONAL)
8	1	320328	POSITION PIN
9	1	002614	SCREW HX. HD. 5/16 S.T.

FIXTURE NO.	FINISH NO.	CHG LTR	REVISIONS	DATE	APP'D																																								
		DESCRIPTION																																											
<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" style="text-align: center;"> AUTO CRANE COMPANY P.O. BOX 45548 • TULSA, OKLAHOMA 74145 9280 BROKEN ARROW EXPRESSWAY • 918-627-9475 </td> </tr> <tr> <td colspan="5"> TITLE BRAKE ASSEMBLY 2703-M </td> </tr> <tr> <td colspan="2">SCALE</td> <td>SIZE</td> <td>DRAWING NO.</td> <td>REVISION</td> </tr> <tr> <td colspan="2"></td> <td>C</td> <td>AW-053</td> <td></td> </tr> <tr> <td colspan="2">WEIGHT</td> <td colspan="2">SHEET</td> <td>OF</td> </tr> <tr> <td colspan="2"></td> <td colspan="2"></td> <td></td> </tr> </tbody> </table>						ITEM	QTY	D/S	PART NO.	DESCRIPTION	LIST OF MATERIAL					AUTO CRANE COMPANY P.O. BOX 45548 • TULSA, OKLAHOMA 74145 9280 BROKEN ARROW EXPRESSWAY • 918-627-9475					TITLE BRAKE ASSEMBLY 2703-M					SCALE		SIZE	DRAWING NO.	REVISION			C	AW-053		WEIGHT		SHEET		OF					
ITEM	QTY	D/S	PART NO.	DESCRIPTION																																									
LIST OF MATERIAL																																													
AUTO CRANE COMPANY P.O. BOX 45548 • TULSA, OKLAHOMA 74145 9280 BROKEN ARROW EXPRESSWAY • 918-627-9475																																													
TITLE BRAKE ASSEMBLY 2703-M																																													
SCALE		SIZE	DRAWING NO.	REVISION																																									
		C	AW-053																																										
WEIGHT		SHEET		OF																																									
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.																																													
NEXT ASS'Y																																													

BRAKE ASSEMBLY 2703-M, AW-053

ITEM	QTY.	PART NO.	DESCRIPTION
1	1	270376	BRAKE BAND ASSEMBLY
2	1	330184	SPRING, COMPRESSION
3	1	330490	SPACER
4	1	018301	NUT, HX. 5/8 N.C.
5	1	330488	SPRING, COMPRESSION
6	1	330489	SPACER
7	1	013503	SCREW, HX. HD. 5/8 X 7 N.C. GR.5
8	1	330303	GRIP, HANDLE
9	1	330136	HANDLE, BRAKE

FIXTURE NO.	FINISH NO.	CHG	REVISIONS		DATE	APP'D
		LTR	DESCRIPTION			



1

4

2

3

5

8

6

8

10

8

QUANTITY	ITEM	D/S	PART NO.	DESCRIPTION
	LIST OF MATERIAL			
AUTO CRANE COMPANY P.O. BOX 45648 • TULSA, OKLAHOMA 74145 9280 BROKEN ARROW EXPRESSWAY • 918-627-9475				
			TITLE TWECO ASSEMBLY - 2703 M, MR	
			SCALE ~	SIZE B
			DRAWING NO. AW- 052	REVISION
			WEIGHT	SHEET <u>1</u> OF <u>2</u>

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

ANGLES $\pm 1/2^\circ$.XX $\pm .40$

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

DATE

CHK'D BY

DATE

ENG. BY

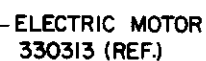
DATE

NEXT ASS'Y

3-10

TWECO ASSEMBLY, 2703-M, MR AW-052

ITEM	QTY.	PART NO.	DESCRIPTION
1	1	320488	POWER CABLE ASS'Y
2	1	330212	BRACKET, TWECO UPPER
3	1	REF.	CONNECTOR, TWECO MALE
4	1	002900	SCREW HX. 1/4 X 3/8 S.T.
5	1	000115	CLAMP
6	1	005500	SCREW, HX. HD. 1/4 X 3/4 N.C.
7	1	015900	NUT HX. 1/4 N.C.
8	3	020200	WASHER SP. LK. 1/4
9	2	005401	SCREW, HX. HD. 1/4-20 X 5/8
10	1	REF.	CONNECTOR, TWECO FEMALE



		ITEM		D/S		PART NO.		DESCRIPTION	
QUANTITY				LIST OF MATERIAL					
UNLESS OTHERWISE NOTED ALL DIMENSIONS ARE IN INCHES. TOLERANCES UNLESS OTHERWISE SPECIFIED. ANGLES $\pm 1/2^\circ$.XXX $\pm .40$ 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. G. STAFFORD		AUTO CRANE COMPANY P.O. BOX 45648 • TULSA, OKLAHOMA 74146 9280 BROKEN ARROW EXPRESSWAY • 918-627-8475			
				DATE 5-9-82					
				CHK'D BY		TITLE			
				DATE		TURNER ASSEMBLY (ELECTRIC)			
				ENG. BY					
DATE		SCALE	~	SIZE	C	DRAWING NO.	AW-006	REVISION	
NEXT ASS'Y		WEIGHT				SHEET <u>1</u> OF <u>1</u>			

3-12

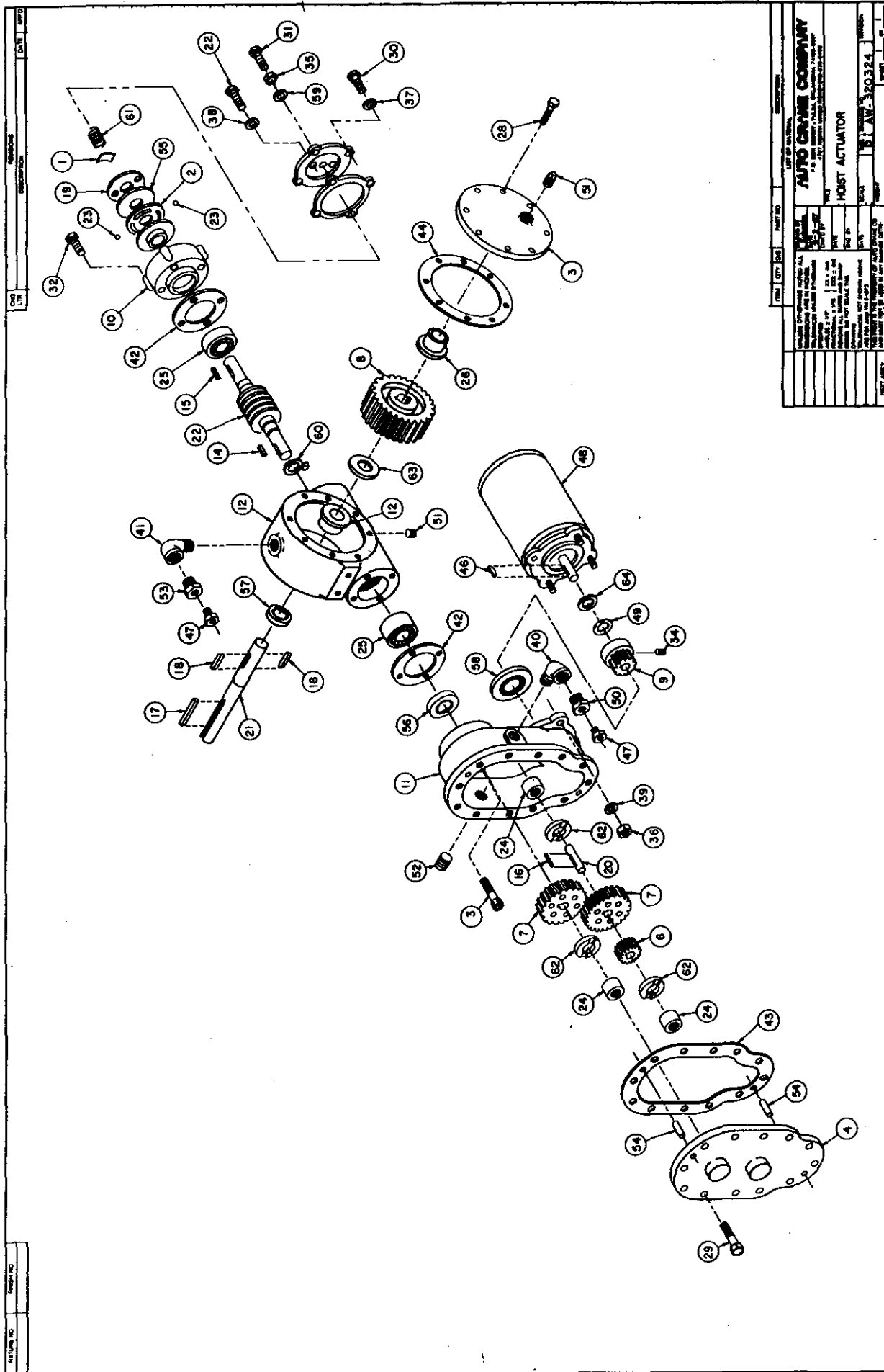
TURNER ASSEMBLY AW-006

ITEM	QTY.	PART NO.	DESCRIPTION
1	2	010201	SCREW 1/2 NC X 1 1/2 GR.5
2	3	330389	SCREW, FL. HD. 1/4 NC X 1/2
3	1	330504	MOUNT, MOTOR
4	1	330498	MOUNT, TURN MOTOR
5	4	021500	WASHER, SP. LK. 1/2 CP
6	4	017701	NUT, HX. 1/2 NCCP
7	1	330500	BEARING
8	1	330421	SHAFT ASSEMBLY
9	2	330486	SEAL, OIL
10	2	330385	BEARING, CONE
11	1	330472	HOUSING, BEARING
12	2	011603	SCREW, HX. 1/2 NC X 1 3/4 GR.5
13	1	239300	ZERK, GREASE
14	1	330483	SPACER
15	1	019000	NUT HX. 7/8 - 14 NF CP GR.5

FIXTURE NO.	FINISH NO.	CHG LTR	REVISIONS	DATE	APP'D																																																		
		DESCRIPTION																																																					
<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>9</td> <td>2</td> <td>A</td> <td>330100</td> <td>WASHER, FLAT ADJUSTING</td> </tr> <tr> <td>8</td> <td>2</td> <td>B</td> <td>320404</td> <td>BLOCK, TRAVELING</td> </tr> <tr> <td>7</td> <td>1</td> <td>A</td> <td>018200</td> <td>NUT HX, HL-LOCK 5/8 NC</td> </tr> <tr> <td>6</td> <td>1</td> <td>A</td> <td>012700</td> <td>SCW HX, HD. 5/8 X 3" LG</td> </tr> <tr> <td>5</td> <td>1</td> <td>B</td> <td>200909</td> <td>SHEAVE ASSY W/ BEARING</td> </tr> <tr> <td>4</td> <td>2</td> <td>B</td> <td>320403</td> <td>BLOCK, 3203 TRAVELING</td> </tr> <tr> <td>3</td> <td>2</td> <td>B</td> <td>320434</td> <td>PIN, BLOCK</td> </tr> <tr> <td>2</td> <td>2</td> <td>A</td> <td>360124</td> <td>HITCH PIN (HAIR PIN)</td> </tr> <tr> <td>1</td> <td>1</td> <td>A</td> <td>100309</td> <td>SWIVEL HOOK ASSY. W/ LATCH</td> </tr> </tbody> </table>						ITEM	QTY	D/S	PART NO.	DESCRIPTION	9	2	A	330100	WASHER, FLAT ADJUSTING	8	2	B	320404	BLOCK, TRAVELING	7	1	A	018200	NUT HX, HL-LOCK 5/8 NC	6	1	A	012700	SCW HX, HD. 5/8 X 3" LG	5	1	B	200909	SHEAVE ASSY W/ BEARING	4	2	B	320403	BLOCK, 3203 TRAVELING	3	2	B	320434	PIN, BLOCK	2	2	A	360124	HITCH PIN (HAIR PIN)	1	1	A	100309	SWIVEL HOOK ASSY. W/ LATCH
ITEM	QTY	D/S	PART NO.	DESCRIPTION																																																			
9	2	A	330100	WASHER, FLAT ADJUSTING																																																			
8	2	B	320404	BLOCK, TRAVELING																																																			
7	1	A	018200	NUT HX, HL-LOCK 5/8 NC																																																			
6	1	A	012700	SCW HX, HD. 5/8 X 3" LG																																																			
5	1	B	200909	SHEAVE ASSY W/ BEARING																																																			
4	2	B	320403	BLOCK, 3203 TRAVELING																																																			
3	2	B	320434	PIN, BLOCK																																																			
2	2	A	360124	HITCH PIN (HAIR PIN)																																																			
1	1	A	100309	SWIVEL HOOK ASSY. W/ LATCH																																																			
<table border="1" style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th colspan="5">LIST OF MATERIAL</th> </tr> </thead> <tbody> <tr> <td colspan="5" style="text-align: center;"> AUTO CRANE COMPANY P.O. BOX 45548 • TULSA, OKLAHOMA 74145 9280 BROKEN ARROW EXPRESSWAY • 918-627-9475 </td> </tr> <tr> <td colspan="2"> UNLESS OTHERWISE NOTED ALL DIMENSIONS ARE IN INCHES. TOLERANCES UNLESS OTHERWISE SPECIFIED: ANGLES ± 1/2° XX ± .040 FRACTIONAL ± 1/16 .XXX ± .010 REMOVE ALL BURRS AND SHARP EDGES. DO NOT SCALE THIS DRAWING. TOLERANCES NOT SHOWN ABOVE ARE PER ANSI Y14.5-1973. </td> <td colspan="3"> DRAWN BY: LEWISMAN DATE: 7-23-87 CHK'D BY: DATE: ENG. BY: DATE: </td> </tr> <tr> <td colspan="2"> THIS PRINT IS THE PROPERTY OF AUTO CRANE CO. AND MUST NOT BE USED IN ANY MANNER DETRIMENTAL TO THEIR INTERESTS. </td> <td colspan="3"> SCALE: 1/2 SIZE: C DRAWING NO: AW-320433 REVISION: - WEIGHT: SHEET 1 OF 1 </td> </tr> </tbody> </table>						LIST OF MATERIAL					AUTO CRANE COMPANY P.O. BOX 45548 • TULSA, OKLAHOMA 74145 9280 BROKEN ARROW EXPRESSWAY • 918-627-9475					UNLESS OTHERWISE NOTED ALL DIMENSIONS ARE IN INCHES. TOLERANCES UNLESS OTHERWISE SPECIFIED: ANGLES ± 1/2° XX ± .040 FRACTIONAL ± 1/16 .XXX ± .010 REMOVE ALL BURRS AND SHARP EDGES. DO NOT SCALE THIS DRAWING. TOLERANCES NOT SHOWN ABOVE ARE PER ANSI Y14.5-1973.		DRAWN BY: LEWISMAN DATE: 7-23-87 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.		SCALE: 1/2 SIZE: C DRAWING NO: AW-320433 REVISION: - WEIGHT: SHEET 1 OF 1																																
LIST OF MATERIAL																																																							
AUTO CRANE COMPANY P.O. BOX 45548 • TULSA, OKLAHOMA 74145 9280 BROKEN ARROW EXPRESSWAY • 918-627-9475																																																							
UNLESS OTHERWISE NOTED ALL DIMENSIONS ARE IN INCHES. TOLERANCES UNLESS OTHERWISE SPECIFIED: ANGLES ± 1/2° XX ± .040 FRACTIONAL ± 1/16 .XXX ± .010 REMOVE ALL BURRS AND SHARP EDGES. DO NOT SCALE THIS DRAWING. TOLERANCES NOT SHOWN ABOVE ARE PER ANSI Y14.5-1973.		DRAWN BY: LEWISMAN DATE: 7-23-87 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.		SCALE: 1/2 SIZE: C DRAWING NO: AW-320433 REVISION: - WEIGHT: SHEET 1 OF 1																																																					

TRAVELING BLOCK ASSEMBLY AW-320433

ITEM	QTY.	PART NO.	DESCRIPTION
1	1	100309	SWIVEL HOOK
2	2	360124	HITCH PIN
3	2	320434	PIN, BLOCK
4	2	320403	BLOCK
5	1	200909	SHEAVE ASS'Y WITH BEARING
6	1	013512	SCREW. HX - HD. 5/8 NC X 3 1/2
7	1	018200	NUT HX. HLF. LK. 5/8 NC
8	2	320404	BLOCK TRAVELING
9	2	330100	WASHER FLAT



HOIST ACTUATOR AW-320324

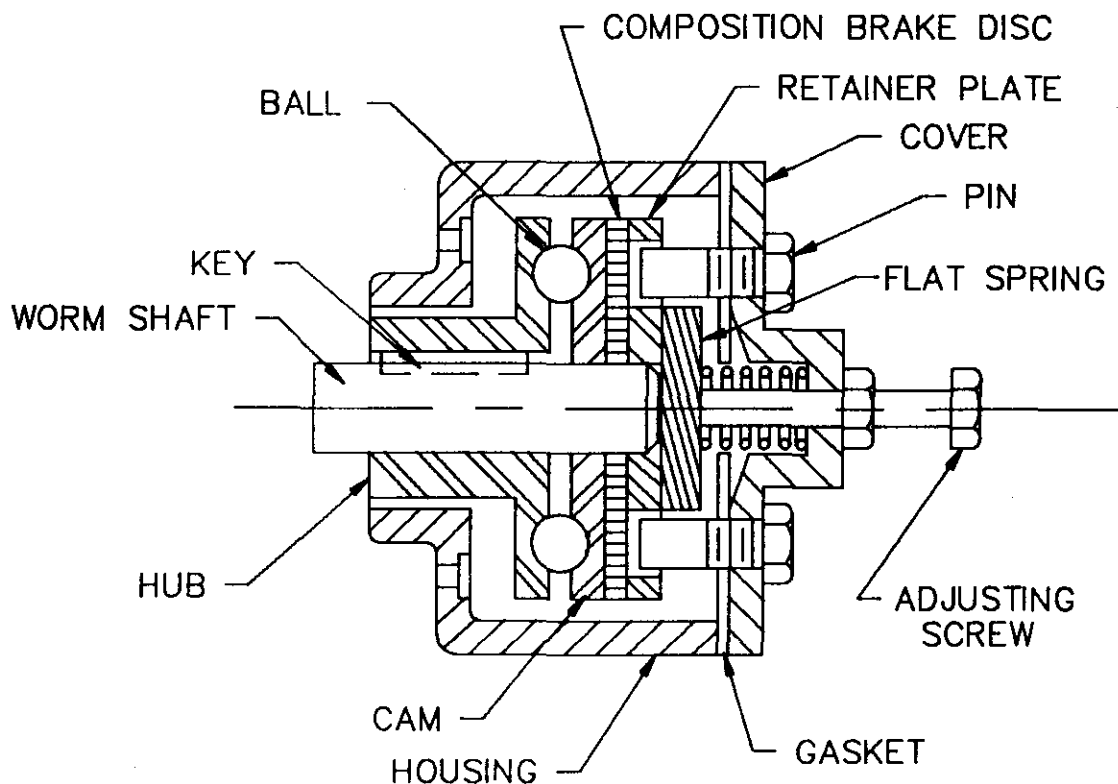
ITEM	QTY.	PART NO.	DESCRIPTION
1	1	360367	SPRING, FLAT
2	1	360331	PLATE, CAM
3	1	300041	COVER, GEAR HOUSING
4	1	300042	COVER, SPUR GEAR HOUSING
5	1	360450	COVER, BRAKE
6	1	300043	GEAR, IDLER
7	2	300044	GEAR, SPUR
8	1	300045	GEAR, WORM R.H.
9	1	300046	GEAR, PINION
10	1	360336	HOUSING, BRAKE
11	1	300047	HOUSING, SPUR GEAR
12	1	300048	HOUSING, GEAR
13	1	360339	HUB, BRAKE
14	1	300049	KEY SQ. END 3/16 X 3/16 X 1/2 LG.
15	1	360341	KEY RD. END 3/16 X 3/16 X 1" LG.
16	1	300050	KEY SQ. END 3/16 X 3/16 X 1 9/16 LG.
17	1	800320-004	KEY SQ. END 1/4 X 1/4 X 2 3/4 LG.
18	2	300052	KEY RD. END 5/16 X 5/16 X 15/16 LG.
19	1	360342	PLATE, RETAINER
20	1	300053	SHAFT, SPUR GEAR
21	1	320323	SHAFT, OUTPUT
22	1	320312	WORM R.H.
23	2	360345	BALL
24	3	300056	BEARING, NEEDLE
25	2	300057	BEARING, BALL
26	1	300058	BUSHING
27	1	300059	BUSHING
28	10	320313	CAPSCREW 1/4 - 20 X 3/4 HX. HD. NYLOCK HVY PATCH GR.5
29	12	005500	CAPSCREW 1/4 - 20 X 3/4 HX. HD. GR.5
30	4	005604	CAPSCREW 1/4 - 20 X 1, HX. HD. GR.5
31	1	320311	CAPSCREW 3/8 - 16 NC X 1 1/2 HX. HD. ALL THRD.
32	4	320310	CAPSCREW 1/4 - 20 X 1 BUTTON HD.
33	4	300060	CAPSCREW 1/4 - 20 X 1 3/4 SOC. HD. LOC.-WEL.
34	1	300061	SETSCREW 1/4 - 20 X 5/16 HX. SOC. LOC.-WEL.
35	1	360353	NUT - HX. JAM 3/8 - 16 NC
36	3	071012	NUT HX. 3/8 - 24 NF REG. C.P.
37	4	360354	LOCKWASHER 1/4 MED SECT. C.P.
38	2	360455	WASHER FLAT 1/4 ALUM.
39	3	021100	LOCKWASHER 3/8 MED. SECT. C.P.
40	1	320314	ELBOW 90° 3/8 - 18 NPT BOTH ENDS
41	1	320315	ELBOW 90° 1/4 - 18 NPT BOTH ENDS
42	2	300062	GASKET BEARING
43	1	300063	GASKET, SPUR GEAR HOUSING
44	1	300064	GASKET, GEAR HOUSING COVER
45	1	360359	GASKET, BRAKE COVER
46	1	360065	KEY WOODRUFF
47	2	300066	FITTING, RELIEF
48	1	300067	MOTOR 12V

HOIST ACTUATOR AW-320324

ITEM	QTY.	PART NO.	DESCRIPTION
49	1	300068	O-RING 1" O.D. X 1/8 THK.
50	1	300069	REDUCER 3/8 - 18 NPT - 1/8 - 27 NPT
51	2	300070	PLUG, PIPE 1/4 - 18 NPT SQ. HD.
52	1	300073	PLUG, PIPE 3/8 - 18 NPT HX. SOC. HEADLESS
53	1	300074	REDUCER 1/4 - 18 NPT - 1/8 - 27 NPT
54	2	300075	PIN - DOWEL
55	1	360364	PLATE - THRUST
56	1	300076	SEAL OIL 3/4 I.D. X 1 1/4 O.D. X 1/4 THK.
57	1	300077	SEAL OIL 1 1/4 I.D. X 1 3/4 O.D. X 1/4 THK.
58	1	300078	SEAL OIL 1 1/2 I.D. X 2 1/4 O.D. X 5/16 THK.
59	1	360371	SEAL THREAD
60	1	300079	RING - SNAP
61	1	360368	SPRING
62	3	300080	WASHER - THRUST
63	1	300081	WASHER - THRUST
64	1	300082	WASHER FIBER

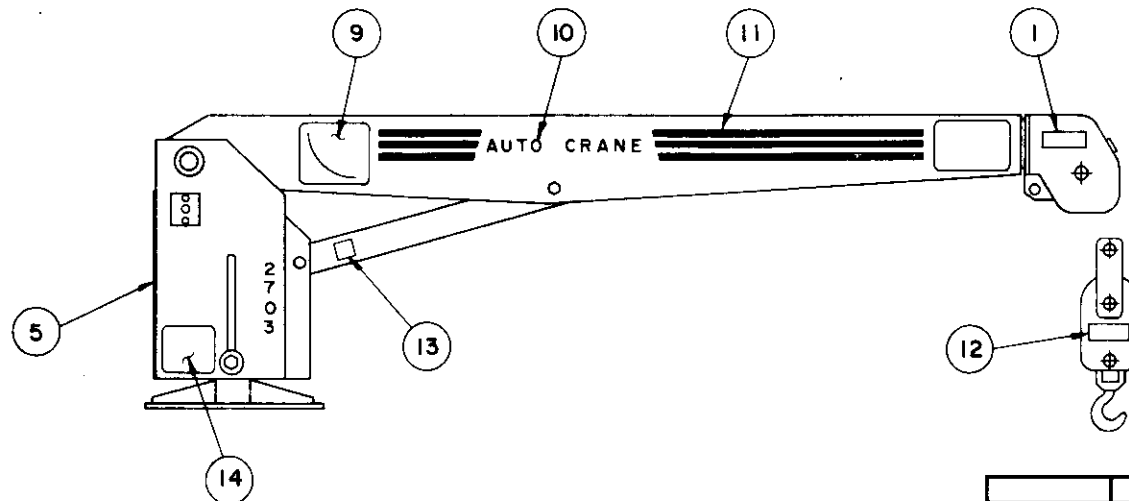
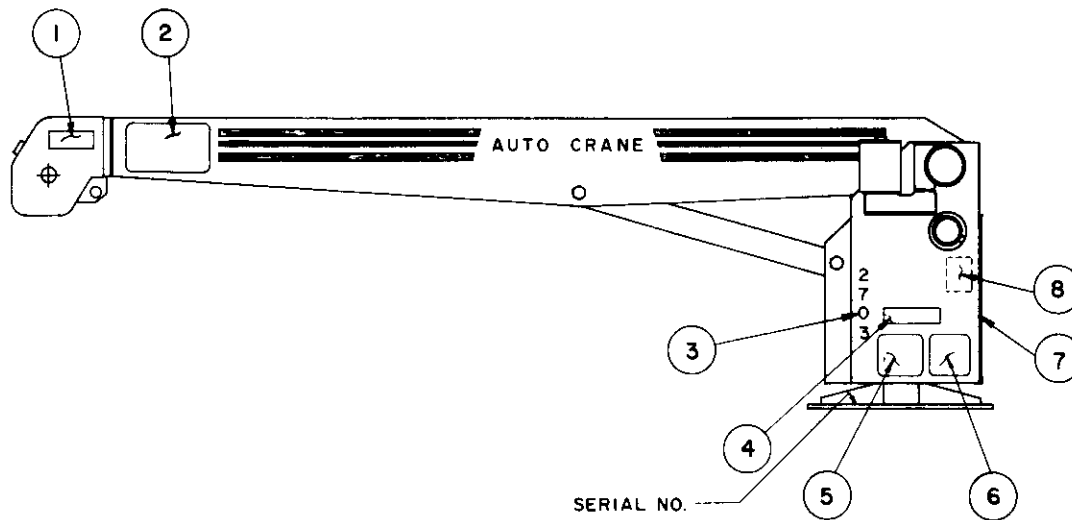
AUTOMATIC SAFETY BRAKE ASSEMBLY (OIL COOLED) HOIST

1. Winch has right hand worm and gear and spools over drum; use number one slots for brake balls.
2. Install brake hub on winch worm with key.
3. Assemble balls in cam using hard grease to hold balls in place.
4. Install cam and balls, fitting balls in slots on hub.
5. Install brake disc.
6. Install retainer.
7. Install flat spring in brake housing cover (arch down).
8. Install brake housing cover, fitting pins in slots on spring and holes in retainer.
9. Test brake by shifting winch to UP then DOWN to see if brake is working in proper rotation. If not, remove brake and locate brake balls in opposite set of slots.
10. Adjust to suit by tightening or loosening screw on outside of cover. When proper adjustment is obtained, secure screw with jam nut.



FIXTURE NO.	FINISH NO.

CHG LTR	REVISIONS		
	DESCRIPTION	DATE	APP'D



ITEM	QTY	D/S	PART NO.	DESCRIPTION
14	1		270322	DECAL, LOAD CHART
13	1		330624	DECAL, LOWER BOOM
12	2		040630	DECAL, DANGER STAY CLEAR....
11	10'		040620	DECAL, STRIPING
10	2		040624	DECAL, A/C
9	1		360036	DECAL, ANGLE IND.
8	1		040552	DECAL, RELAY
7	1		040622	DECAL, A/C LOGO
6	1		040580	DECAL, DANGER MUST....
5	1		040579	DECAL, WORK RULES....
4	1		330622	DECAL, SERIAL NO.
3	2		270321	DECAL, 2703
2	2		040529	DECAL, DANGER ELECT....
1	2		040517	DECAL, STAY CLEAR

UNLESS OTHERWISE NOTED ALL DIMENSIONS ARE IN INCHES. TOLERANCES UNLESS OTHERWISE SPECIFIED:		DRAWN BY ED		DATE 12-2-87	
ANGLES ± 1/2°		XX ± .040		CHK'D BY	
FRACTIONAL ± 1/16		XXX ± .010		DATE	
REMOVE ALL BURRS AND SHARP EDGES. DO NOT SCALE THIS DRAWING.		ENG BY		DATE	
TOLERANCES NOT SHOWN ABOVE ARE PER ANSI Y14.5-1973		SCALE		SIZE	
THIS PRINT IS THE PROPERTY OF AUTO CRANE CO AND MUST NOT BE USED IN ANY MANNER DETRIMENTAL TO THEIR INTERESTS.		WEIGHT		DRAWING NO.	
NEXT ASSY				C1	
				AW-270395	
				REVISION	
				SHEET 1 OF 1	

AUTO CRANE COMPANY

P.O. BOX 45548 • TULSA, OKLAHOMA 74145
9280 BROKEN ARROW EXPRESSWAY • 918-627-9475

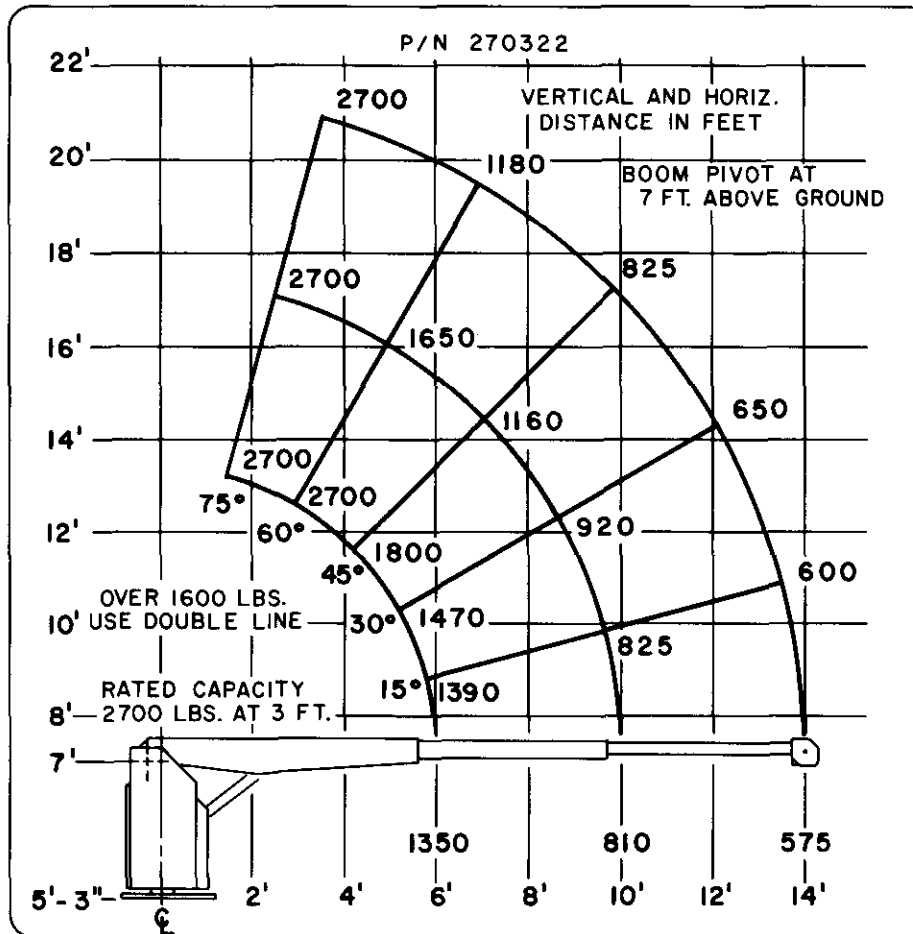
TITLE
DECAL DRAWING
2703M & 2703MR

SCALE
C1

WEIGHT

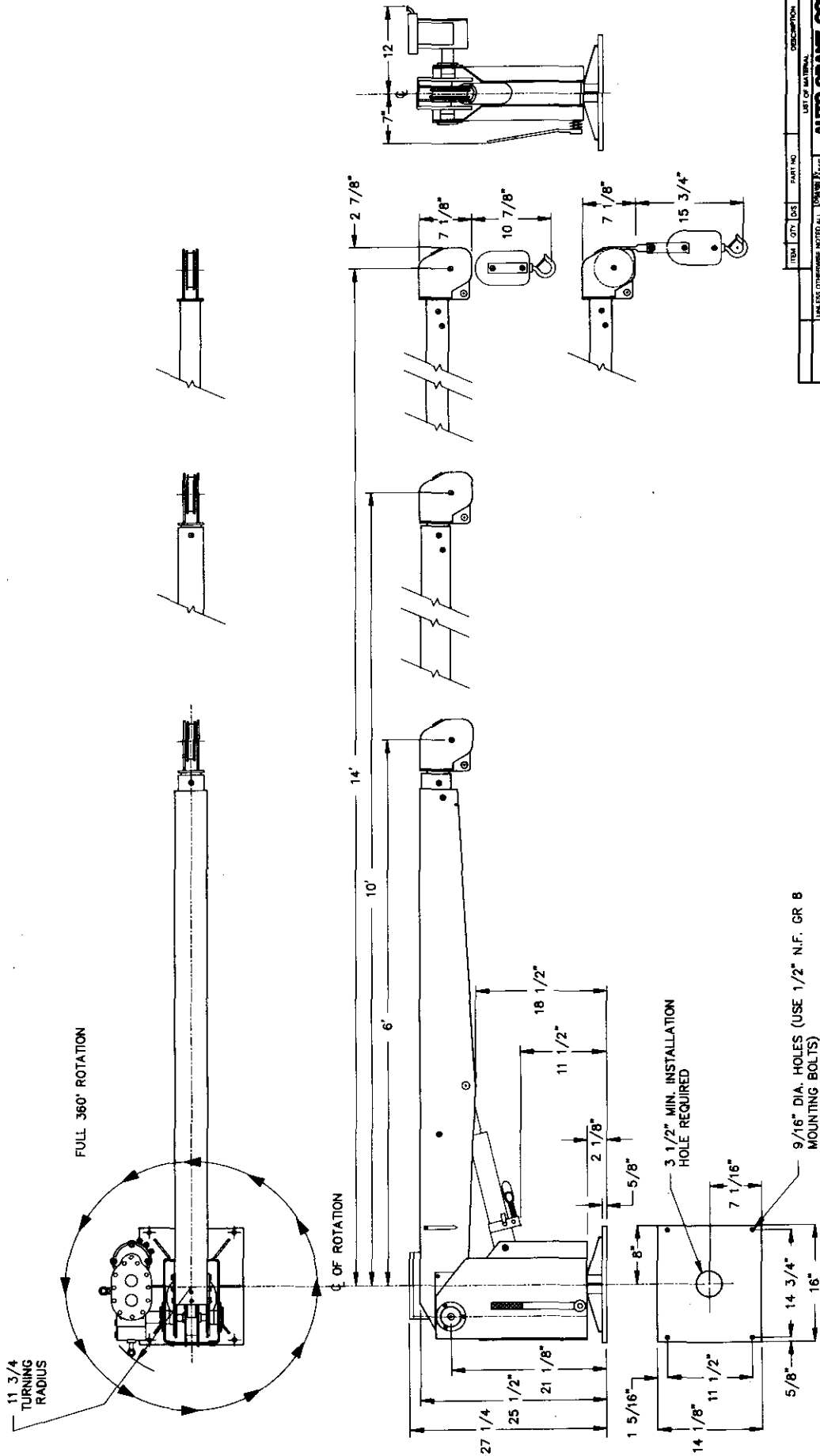
FIXTURE NO.	FINISH NO.

CHG LTR	REVISIONS			
	DESCRIPTION	DATE	APP'D	



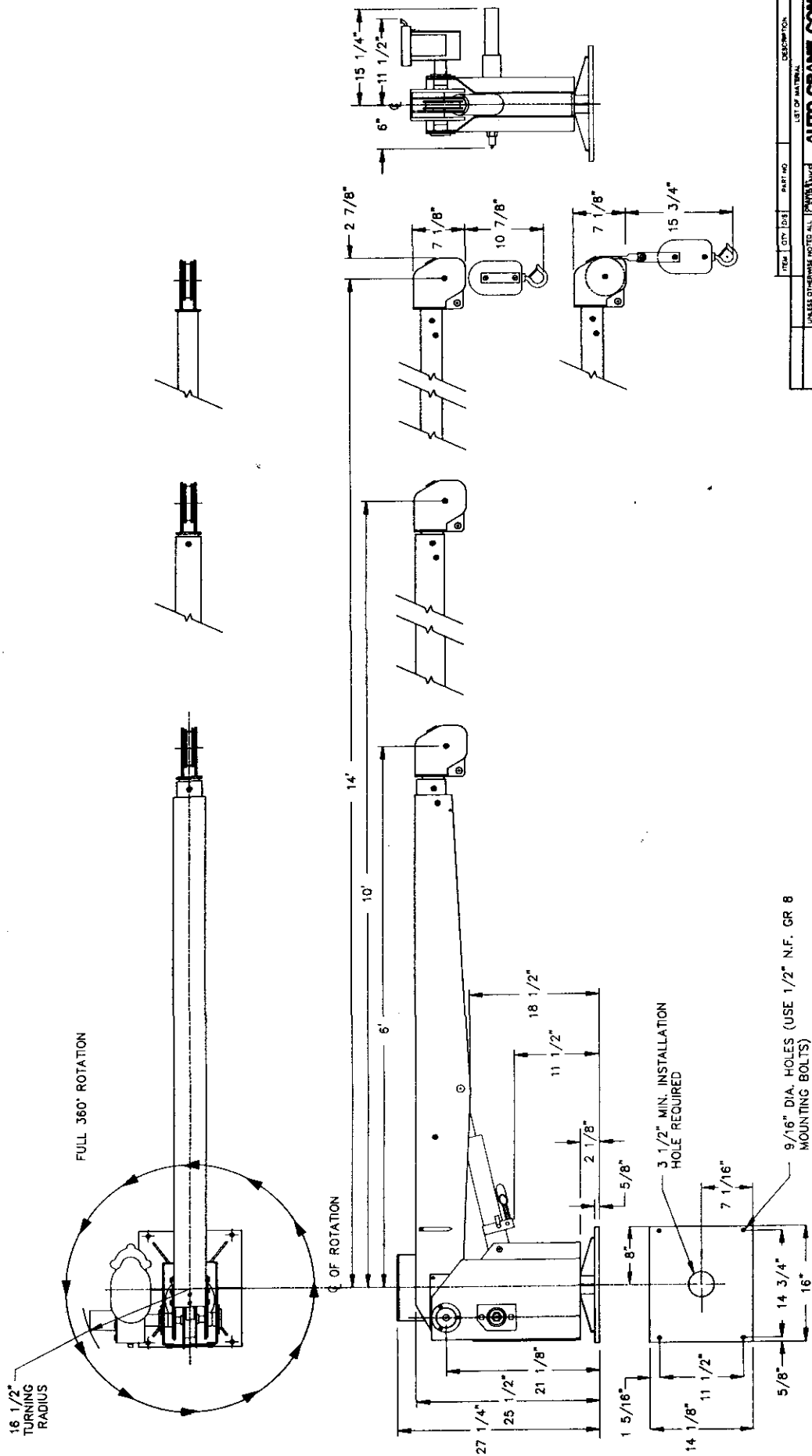
ITEM	QTY	D/S	PART NO.	DESCRIPTION
LIST OF MATERIAL				
UNLESS OTHERWISE NOTED ALL DIMENSIONS ARE IN INCHES. TOLERANCES UNLESS OTHERWISE SPECIFIED			DRAWN BY RR DATE 8-10-87 CHK'D BY DATE ENG. BY DATE	
ANGLES ± 1/2° FRACTIONAL ± 1/16 REMOVE ALL BURRS AND SHARP EDGES. DO NOT SCALE THIS DRAWING TOLERANCES NOT SHOWN ABOVE ARE PER ANSI Y14.5-1973			AUTO CRANE COMPANY P.O. BOX 45548 • TULSA, OKLAHOMA 74145 9290 BROKEN ARROW EXPRESSWAY • 918-827-9475	
THIS PRINT IS THE PROPERTY OF AUTO CRANE CO AND MUST NOT BE USED IN ANY MANNER DETRIMENTAL TO THEIR INTERESTS.			TITLE LOAD CHART 2703	
NEXT ASSY			SCALE WEIGHT	SIZE C DRAWING NO AW-270322 REVISION
			SHEET 1 OF 1	

FIGURE NO.	FINISH NO.	REVISIONS	DATE	APPROVED

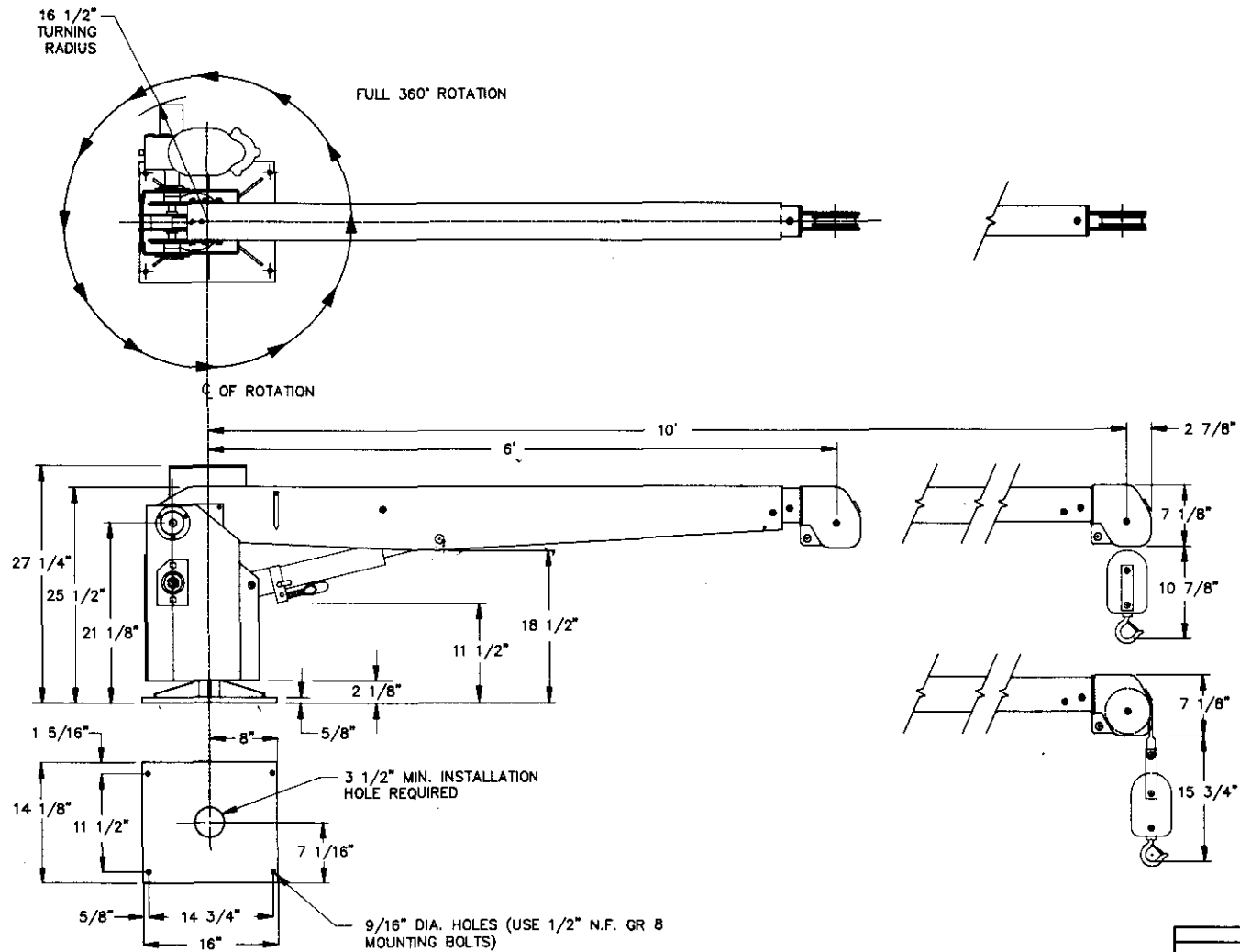


ITEM	QTY	UNIT	PART NO.	DESCRIPTION
LIST OF MATERIALS AUTO CRANE COMPANY P.O. BOX 30087 - TULSA, OKLAHOMA 74108-0087 PHONE (918) 438-1111 FAX (918) 438-1112 E-MAIL: SALES@AUTO-CRANE.COM WEBSITE: WWW.AUTO-CRANE.COM				
GENERAL DIMENSIONS 2703-M 6-10-14				
SCALE: 1" = 1'-0" DATE: 10-10-14 DRAWN BY: JN-004 CHECKED BY: JN-004 APPROVED BY: JN-004 NEXT ASSY: 2703-M 6-10-14				

FIGURE NO.	FIGURE NO.	REVISIONS	DATE	BY



ITEM	QTY	DS	PART NO.	DESCRIPTION
LIST OF MATERIAL				
AUTO CRANE COMPANY				
P.O. BOX 10001, TULSA, OKLAHOMA 74110-0001				
GENERAL DIMENSIONS				
2703-MR 6-10-14				
SCALE: 1/8" = 1'-0"				
DRAWN BY: J.W. 054				
CHECKED BY: J.W. 054				
DATE: 10/1/87				
BY: J.W. 054				
DATE: 10/1/87				
BY: J.W. 054				
DATE: 10/1/87				
BY: J.W. 054				
DATE: 10/1/87				
BY: J.W. 054				
DATE: 10/1/87				
BY: J.W. 054				
DATE: 10/1/87				
BY: J.W. 054				
DATE: 10/1/87				
BY: J.W. 054				
DATE: 10/1/87				
BY: J.W. 054				
DATE: 10/1/87				
BY: J.W. 054				
DATE: 10/1/87				
BY: J.W. 054				
DATE: 10/1/87				
BY: J.W. 054				
DATE: 10/1/87				
BY: J.W. 054				
DATE: 10/1/87				
BY: J.W. 054				
DATE: 10/1/87				
BY: J.W. 054				
DATE: 10/1/87				
BY: J.W. 054				
DATE: 10/1/87				
BY: J.W. 054				
DATE: 10/1/87				
BY: J.W. 054				
DATE: 10/1/87				
BY: J.W. 054				
DATE: 10/1/87				
BY: J.W. 054				
DATE: 10/1/87				
BY: J.W. 054				
DATE: 10/1/87				
BY: J.W. 054				
DATE: 10/1/87				
BY: J.W. 054				
DATE: 10/1/87				
BY: J.W. 054				
DATE: 10/1/87				
BY: J.W. 054				
DATE: 10/1/87				
BY: J.W. 054				
DATE: 10/1/87				
BY: J.W. 054				
DATE: 10/1/87				
BY: J.W. 054				
DATE: 10/1/87				
BY: J.W. 054				
DATE: 10/1/87				
BY: J.W. 054				
DATE: 10/1/87				
BY: J.W. 054				
DATE: 10/1/87				
BY: J.W. 054				
DATE: 10/1/87				
BY: J.W. 054				
DATE: 10/1/87				
BY: J.W. 054				
DATE: 10/1/87				
BY: J.W. 054				
DATE: 10/1/87				
BY: J.W. 054				
DATE: 10/1/87				
BY: J.W. 054				
DATE: 10/1/87				
BY: J.W. 054				
DATE: 10/1/87				
BY: J.W. 054				
DATE: 10/1/87				
BY: J.W. 054				
DATE: 10/1/87				
BY: J.W. 054				
DATE: 10/1/87				
BY: J.W. 054				
DATE: 10/1/87				
BY: J.W. 054				
DATE: 10/1/87				
BY: J.W. 054				
DATE: 10/1/87				
BY: J.W. 054				
DATE: 10/1/87				
BY: J.W. 054				
DATE: 10/1/87				
BY: J.W. 054				
DATE: 10/1/87				
BY: J.W. 054				
DATE: 10/1/87				
BY: J.W. 054				
DATE: 10/1/87				
BY: J.W. 054				
DATE: 10/1/87				
BY: J.W. 054				
DATE: 10/1/87				
BY: J.W. 054				
DATE: 10/1/87				
BY: J.W. 054				
DATE: 10/1/87				
BY: J.W. 054				
DATE: 10/1/87				
BY: J.W. 054				
DATE: 10/1/87				
BY: J.W. 054				
DATE: 10/1/87				
BY: J.W. 054				
DATE: 10/1/87				
BY: J.W. 054				
DATE: 10/1/87				
BY: J.W. 054				
DATE: 10/1/87				
BY: J.W. 054				
DATE: 10/1/87				
BY: J.W. 054				
DATE: 10/1/87				
BY: J.W. 054				
DATE: 10/1/87				
BY: J.W. 054				
DATE: 10/1/87				
BY: J.W. 054				
DATE: 10/1/87				
BY: J.W. 054				
DATE: 10/1/87				
BY: J.W. 054				
DATE: 10/1/87				
BY: J.W. 054				
DATE: 10/1/87				
BY: J.W. 054				
DATE: 10/1/87				
BY: J.W. 054				
DATE: 10/1/87				
BY: J.W. 054				
DATE: 10/1/87				
BY: J.W. 054				
DATE: 10/1/87				
BY: J.W. 054				
DATE: 10/1/87				
BY: J.W. 054				
DATE: 10/1/87				
BY: J.W. 054				
DATE: 10/1/87				
BY: J.W. 054				
DATE: 10/1/87				
BY: J.W. 054				
DATE: 10/1/87				
BY: J.W. 054				
DATE: 10/1/87				
BY: J.W. 054				
DATE: 10/1/87				
BY: J.W. 054				
DATE: 10/1/87				
BY: J.W. 054				
DATE: 10/1/87				
BY: J.W. 054				
DATE: 10/1/87				
BY: J.W. 054				
DATE: 10/1/87				
BY: J.W. 054				
DATE: 10/1/87				
BY: J.W. 054				
DATE: 10/1/87				
BY: J.W. 054				
DATE: 10/1/87				
BY: J.W. 054				
DATE: 10/1/87				
BY: J.W. 054				
DATE: 10/1/87				
BY: J.W. 054				
DATE: 10/1/87				
BY: J.W. 054				
DATE: 10/1/87				
BY: J.W. 054				
DATE: 10/1/87				
BY: J.W. 054				
DATE: 10/1/87				
BY: J.W. 054				
DATE: 10/1/87				
BY: J.W. 054				
DATE: 10/1/87				
BY: J.W. 054				
DATE: 10/1/87				
BY: J.W. 054				
DATE: 10/1/87				
BY: J.W. 054				
DATE: 10/1/87				
BY: J.W. 054				
DATE: 10/1/87				
BY: J.W. 054				
DATE: 10/1/87				
BY: J.W. 054				
DATE: 10/1/87				
BY: J.W. 054				
DATE: 10/1/87				
BY: J.W. 054				
DATE: 10/1/87				
BY: J.W. 054				
DATE: 10/1/87				
BY: J.W. 054				
DATE: 10/1/87				
BY: J.W. 054				
DATE: 10/1/87				
BY: J.W. 054				
DATE: 10/1/87				
BY: J.W. 054				
DATE: 10/1/87				
BY: J.W. 054				
DATE: 10/1/87				
BY: J.W. 054				
DATE: 10/1/87				
BY: J.W. 054				
DATE: 10/1/87				
BY: J.W. 054				
DATE: 10/1/87				
BY: J.W. 054				
DATE: 10/1/87				
BY: J.W. 054				
DATE: 10/1/87				
BY: J.W. 054				
DATE: 10/1/87				
BY: J.W. 054				
DATE: 10/1/87				
BY: J.W. 054				
DATE: 10/1/87				
BY: J.W. 054				
DATE: 10/1/87				
BY: J.W. 054				
DATE: 10/1/87				
BY: J.W. 054				
DATE: 10/1/87				
BY: J.W. 054				
DATE: 10/1/87				
BY: J.W. 054				
DATE: 10/1/87				
BY: J.W. 054				
DATE: 10/1/87				
BY: J.W. 054				
DATE: 10/1/87				
BY: J.W. 054				
DATE: 10/1/87				
BY: J.W. 054				
DATE: 10/1/87				
BY: J.W. 054				
DATE: 10/1/87				
BY: J.W. 054				
DATE: 10/1/87				
BY: J.W. 054				
DATE: 10/1/87				
BY: J.W. 054				
DATE: 10/1/87				
BY: J.W. 054				
DATE: 10/1/87				
BY: J.W. 054				
DATE: 10/1/87				
BY: J.W. 054				
DATE: 10/1/87				
BY: J.W. 054				
DATE: 10/1/87				
BY: J.W. 054				
DATE: 10/1/87				
BY: J.W. 054				
DATE: 10/1/87				
BY: J.W. 054				
DATE: 10/1/87				
BY: J.W. 054				
DATE: 10/1/87				
BY: J.W. 054				
DATE: 10/1/87				
BY: J.W. 054				
DATE: 10/1/87				
BY: J.W. 054				
DATE: 10/1/87				
BY: J.W. 054</				



CHG	REVISIONS		DATE	APP'D
	DESCRIPTION			

ITEM	QTY	D/S	PART NO.	DESCRIPTION
LIST OF MATERIAL				
UNLESS OTHERWISE NOTED ALL DIMENSIONS ARE IN INCHES				
TOLERANCES UNLESS OTHERWISE SPECIFIED				
ANGLES ± 1°				
FRACTIONAL ± 1/16				
REMOVE ALL BURRS AND SHARP EDGES DO NOT SCALE THIS DRAWING				
TOLERANCES NOT SHOWN ABOVE ARE PER ANSI Y14.5-1973				
THIS DRAWING IS THE PROPERTY OF AUTO CRANE CO. AND MUST NOT BE USED IN ANY MANNER WITH- OUT WRITTEN PERMISSION.				
NEXT ASSY				
DRAWN BY LEIBRANKS DATE 10-6-87			CHECKED BY DATE END BY DATE	
TITLE GENERAL DIMENSIONS 2703-MR 6-10			SCALE 1" = 1'-0"	
WEIGHT			DRAWING NO. AW-057	
SHEET 1 OF 1			REVISION	

AUTO CRANE COMPANY

P.O. BOX 180887 - TULSA, OKLAHOMA 74158-0887
4701 NORTH MINCO ROAD - TULSA, OKLAHOMA 74158-0453

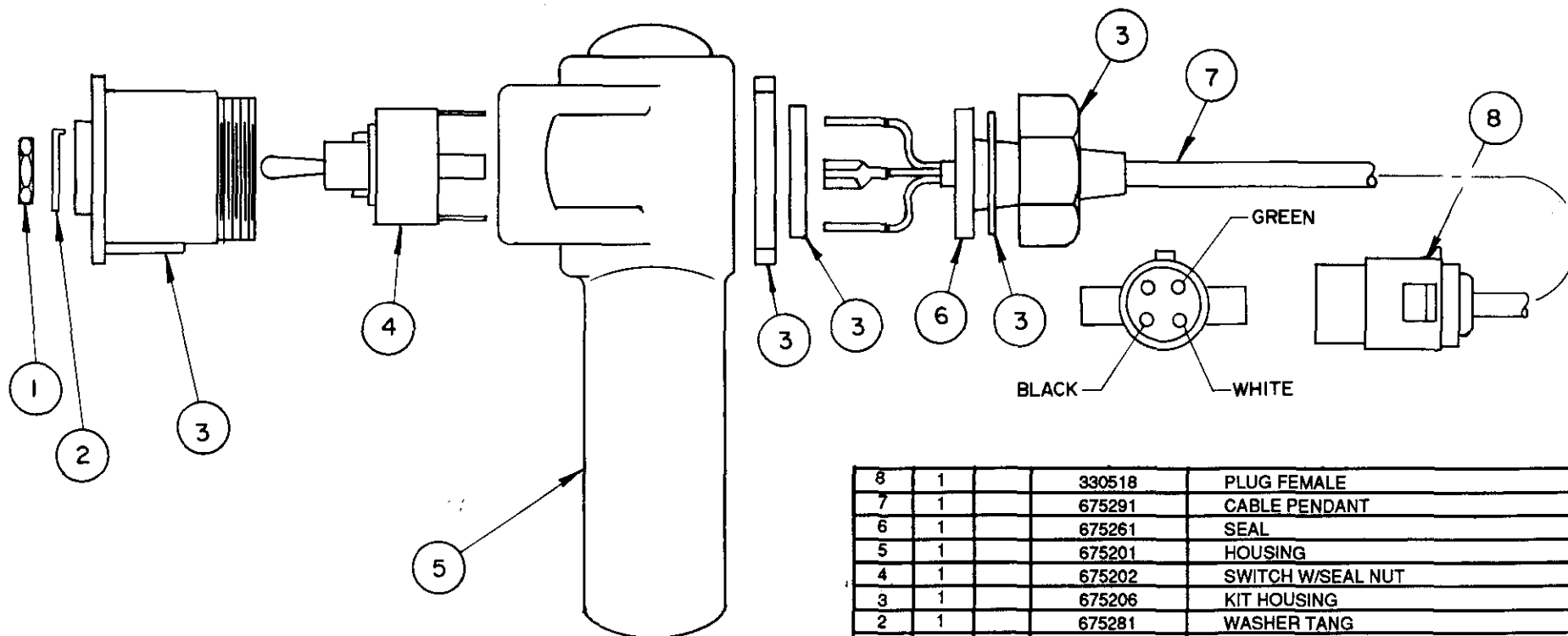
GENERAL DIMENSIONS
2703-MR 6-10

AW-057

SHEET 1 OF 1

FIXTURE NO.	FINISH NO.

CHG	REVISIONS		DATE	APP'D
LTR	DESCRIPTION			



8	1		330518	PLUG FEMALE
7	1		675291	CABLE PENDANT
6	1		675261	SEAL
5	1		675201	HOUSING
4	1		675202	SWITCH W/SEAL NUT
3	1		675206	KIT HOUSING
2	1		675281	WASHER TANG
1	1		675271	NUT, HX.
ITEM	QTY	D/S	PART NO.	DESCRIPTION

UNLESS OTHERWISE NOTED ALL DIMENSIONS ARE IN INCHES. TOLERANCES UNLESS OTHERWISE SPECIFIED. ANGLES $\pm 1/2^\circ$.XX \pm . 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 <i>ARMSTRONG</i> DATE 9-12-84 CHK'D BY		LIST OF MATERIAL AUTO CRANE COMPANY P.O. BOX 45548 • TULSA, OKLAHOMA 74145 9260 BROKEN ARROW EXPRESSWAY • 918-627-9475	
		DATE ENG. BY		TITLE PENDANT, HOIST CONTROL	
		DATE		SCALE ~	
		NEXT ASS'Y		SIZE B	
		DRAWING NO. AW-330519		REVISION	
		WEIGHT		SHEET <u>1</u> OF <u>1</u>	

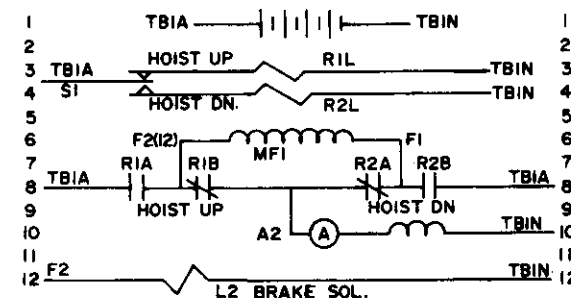
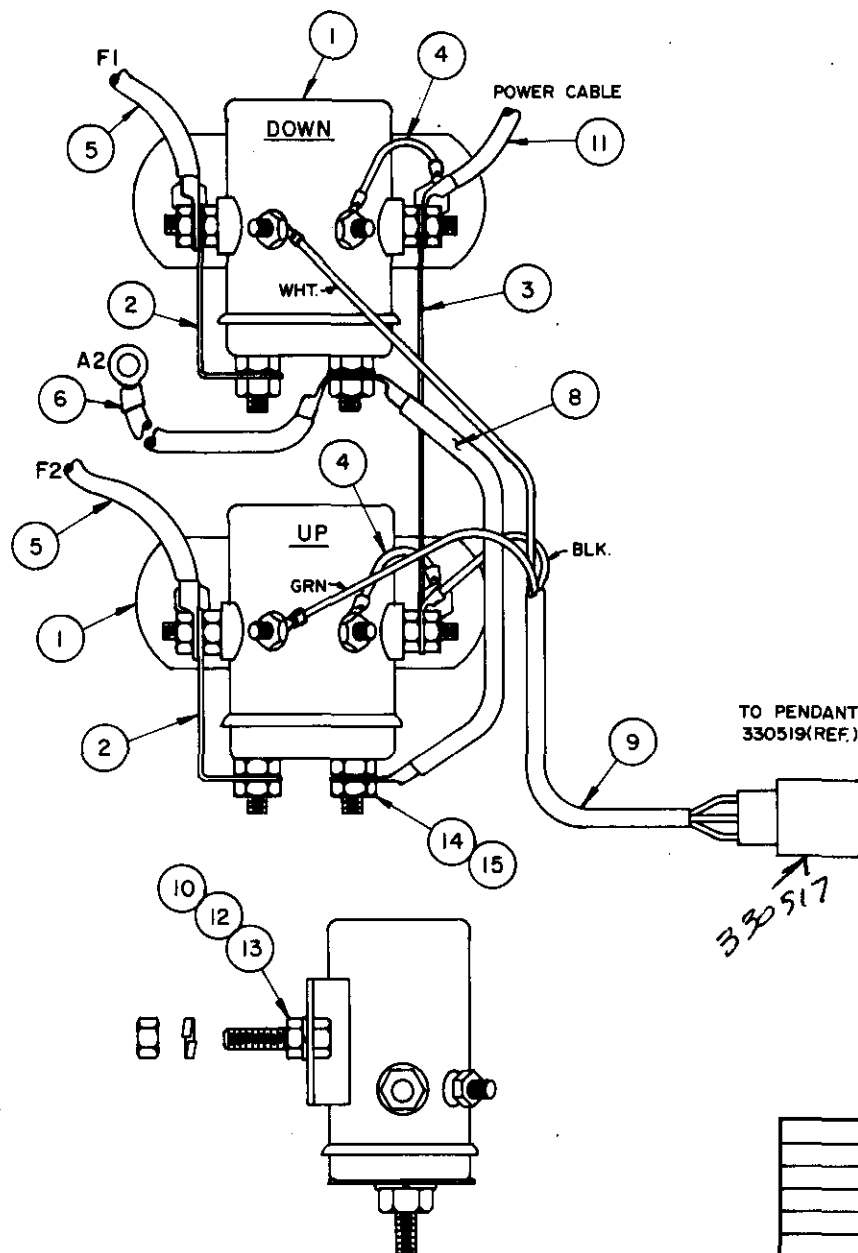
1/88

FIXTURE NO.	FINISH NO.	CHG LTR	REVISIONS	DATE	APP'D		
		DESCRIPTION					
		13	7	000101	TERMINALS, STAKON		
		12	1	642907	CONNECTOR, CORD		
		11	2	622000	SWITCH, TOGGLE		
		10	1	300411	PLUG, CONNECTOR		
		9	15'	800629	CABLE, CONDUCTOR		
		8	2	640302	BOOT		
		7	1	300412	CLAMP, CABLE		
		6	4	001205	SCREW		
		5	1	642905	COVER		
		4	1	642909	DIAPHRAGM		
		3	1	642903	BASE, SUPPORT		
2	1	016400	LOCKNUT, 1/2"				
1	1	642901	BOX, PENDANT				
		ITEM	QTY	D/S	PART NO.	DESCRIPTION	
		<p>UNLESS OTHERWISE NOTED ALL DIMENSIONS ARE IN INCHES. TOLERANCES UNLESS OTHERWISE SPECIFIED.</p> <p>ANGLES $\pm 1/2^\circ$.XX $\pm .40$</p> <p>FRACTIONAL $\pm 1/16$.XXX $\pm .010$</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>					
		<p>DRAWN BY <i>Demetrius</i></p> <p>DATE <i>4/2/91</i></p> <p>CHK'D BY</p> <p>DATE</p> <p>ENG. BY</p> <p>DATE</p>					
		<p>LIST OF MATERIAL</p> <p>AUTO CRANE COMPANY</p> <p>P.O. BOX 45548 • TULSA, OKLAHOMA 74145</p> <p>9260 BROKEN ARROW EXPRESSWAY • 918-627-9475</p>					
		<p>TITLE</p> <p>PENDANT ASSEMBLY</p>					
		SCALE	SIZE	DRAWING NO.	REVISION		
		~	B	AW-330311			
		WEIGHT	SHEET <u>1</u> OF <u>1</u>				
		NEXT ASS'Y					

FIXTURE NO.	FINISH NO.	CHG LTR	REVISIONS	DESCRIPTION	DATE	APP'D																																																												
<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>11</td><td>1</td><td>•</td><td>300412</td><td>CLAMP, CABLE</td></tr> <tr><td>10</td><td>1</td><td>•</td><td>300411</td><td>PLUG, CONNECTOR</td></tr> <tr><td>9</td><td>2</td><td>•</td><td>370135</td><td>SEAL, WASHER</td></tr> <tr><td>8</td><td>7</td><td>•</td><td>000101</td><td>TERMINAL, RING</td></tr> <tr><td>7</td><td>2</td><td>•</td><td>640302</td><td>BOOT</td></tr> <tr><td>6</td><td>4</td><td>•</td><td>001205</td><td>SCREW SLOTTED PAN HD #8 x 7/8"</td></tr> <tr><td>5</td><td>1</td><td>•</td><td>370133</td><td>CABLE, CONDUCTOR (17')</td></tr> <tr><td>4</td><td>2</td><td>•</td><td>622000</td><td>SWITCH, TOGGLE</td></tr> <tr><td>3</td><td>1</td><td>•</td><td>370132</td><td>GASKET, PENDANT HOUSING</td></tr> <tr><td>2</td><td>1</td><td>•</td><td>370131</td><td>COVER, PENDANT</td></tr> <tr><td>1</td><td>1</td><td>•</td><td>370130</td><td>BOX, PENDANT</td></tr> </tbody> </table>							ITEM	QTY	D/S	PART NO.	DESCRIPTION	11	1	•	300412	CLAMP, CABLE	10	1	•	300411	PLUG, CONNECTOR	9	2	•	370135	SEAL, WASHER	8	7	•	000101	TERMINAL, RING	7	2	•	640302	BOOT	6	4	•	001205	SCREW SLOTTED PAN HD #8 x 7/8"	5	1	•	370133	CABLE, CONDUCTOR (17')	4	2	•	622000	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																																																														
11	1	•	300412	CLAMP, CABLE																																																														
10	1	•	300411	PLUG, CONNECTOR																																																														
9	2	•	370135	SEAL, WASHER																																																														
8	7	•	000101	TERMINAL, RING																																																														
7	2	•	640302	BOOT																																																														
6	4	•	001205	SCREW SLOTTED PAN HD #8 x 7/8"																																																														
5	1	•	370133	CABLE, CONDUCTOR (17')																																																														
4	2	•	622000	SWITCH, TOGGLE																																																														
3	1	•	370132	GASKET, PENDANT HOUSING																																																														
2	1	•	370131	COVER, PENDANT																																																														
1	1	•	370130	BOX, PENDANT																																																														
<div style="display: flex; justify-content: space-between;"> <div style="width: 45%;"> </div> <div style="width: 50%;"> <table border="1" style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th colspan="2">LIST OF MATERIAL</th> </tr> </thead> <tbody> <tr> <td colspan="2" style="text-align: center;">AUTO CRANE COMPANY</td> </tr> <tr> <td colspan="2" style="text-align: center;">P.O. BOX 45548 • TULSA, OKLAHOMA 74145 9260 BROKEN ARROW EXPRESSWAY • 918-627-9475</td> </tr> <tr> <td colspan="2" style="text-align: center;">PENDANT ASS'Y 2703 MR</td> </tr> <tr> <td>SCALE</td> <td>SIZE B</td> </tr> <tr> <td>DRAWING NO. AW320500</td> <td>REVISION</td> </tr> <tr> <td colspan="2" style="text-align: center;">SHEET 1 OF 1</td> </tr> </tbody> </table> </div> </div>							LIST OF MATERIAL		AUTO CRANE COMPANY		P.O. BOX 45548 • TULSA, OKLAHOMA 74145 9260 BROKEN ARROW EXPRESSWAY • 918-627-9475		PENDANT ASS'Y 2703 MR		SCALE	SIZE B	DRAWING NO. AW320500	REVISION	SHEET 1 OF 1																																															
LIST OF MATERIAL																																																																		
AUTO CRANE COMPANY																																																																		
P.O. BOX 45548 • TULSA, OKLAHOMA 74145 9260 BROKEN ARROW EXPRESSWAY • 918-627-9475																																																																		
PENDANT ASS'Y 2703 MR																																																																		
SCALE	SIZE B																																																																	
DRAWING NO. AW320500	REVISION																																																																	
SHEET 1 OF 1																																																																		
<table border="1" style="width: 100%; border-collapse: collapse;"> <tr> <td style="width: 30%;"> <p>UNLESS OTHERWISE NOTED ALL DIMENSIONS ARE IN INCHES. TOLERANCES UNLESS OTHERWISE SPECIFIED.</p> <p>ANGLES $\pm 1/2^\circ$ JOX $\pm .040$</p> <p>FRACTIONAL $\pm 1/16$ JOOX $\pm .010$</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> </td> <td style="width: 30%;"> <p>DRAWN BY J. Eubanks</p> <p>DATE 1-5-88</p> <p>CHK'D BY</p> <p>DATE</p> <p>ENG. BY</p> <p>DATE</p> </td> <td style="width: 40%;"> <p>THIS PRINT IS THE PROPERTY OF AUTO CRANE CO. AND MUST NOT BE USED IN ANY MANNER DETRIMENTAL TO THEIR INTERESTS.</p> </td> </tr> </table>							<p>UNLESS OTHERWISE NOTED ALL DIMENSIONS ARE IN INCHES. TOLERANCES UNLESS OTHERWISE SPECIFIED.</p> <p>ANGLES $\pm 1/2^\circ$ JOX $\pm .040$</p> <p>FRACTIONAL $\pm 1/16$ JOOX $\pm .010$</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>DRAWN BY J. Eubanks</p> <p>DATE 1-5-88</p> <p>CHK'D BY</p> <p>DATE</p> <p>ENG. BY</p> <p>DATE</p>	<p>THIS PRINT IS THE PROPERTY OF AUTO CRANE CO. AND MUST NOT BE USED IN ANY MANNER DETRIMENTAL TO THEIR INTERESTS.</p>																																																									
<p>UNLESS OTHERWISE NOTED ALL DIMENSIONS ARE IN INCHES. TOLERANCES UNLESS OTHERWISE SPECIFIED.</p> <p>ANGLES $\pm 1/2^\circ$ JOX $\pm .040$</p> <p>FRACTIONAL $\pm 1/16$ JOOX $\pm .010$</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>DRAWN BY J. Eubanks</p> <p>DATE 1-5-88</p> <p>CHK'D BY</p> <p>DATE</p> <p>ENG. BY</p> <p>DATE</p>	<p>THIS PRINT IS THE PROPERTY OF AUTO CRANE CO. AND MUST NOT BE USED IN ANY MANNER DETRIMENTAL TO THEIR INTERESTS.</p>																																																																

FIXTURE NO.	FINISH NO.

CHG	REVISIONS	DATE	APP'D
LTR	DESCRIPTION		



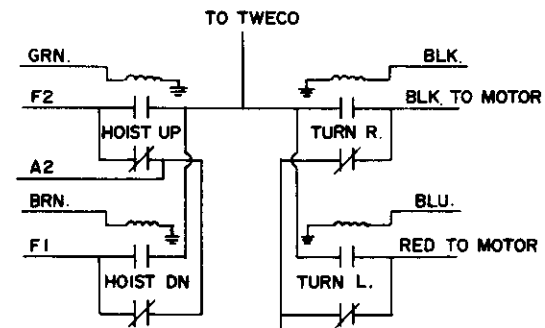
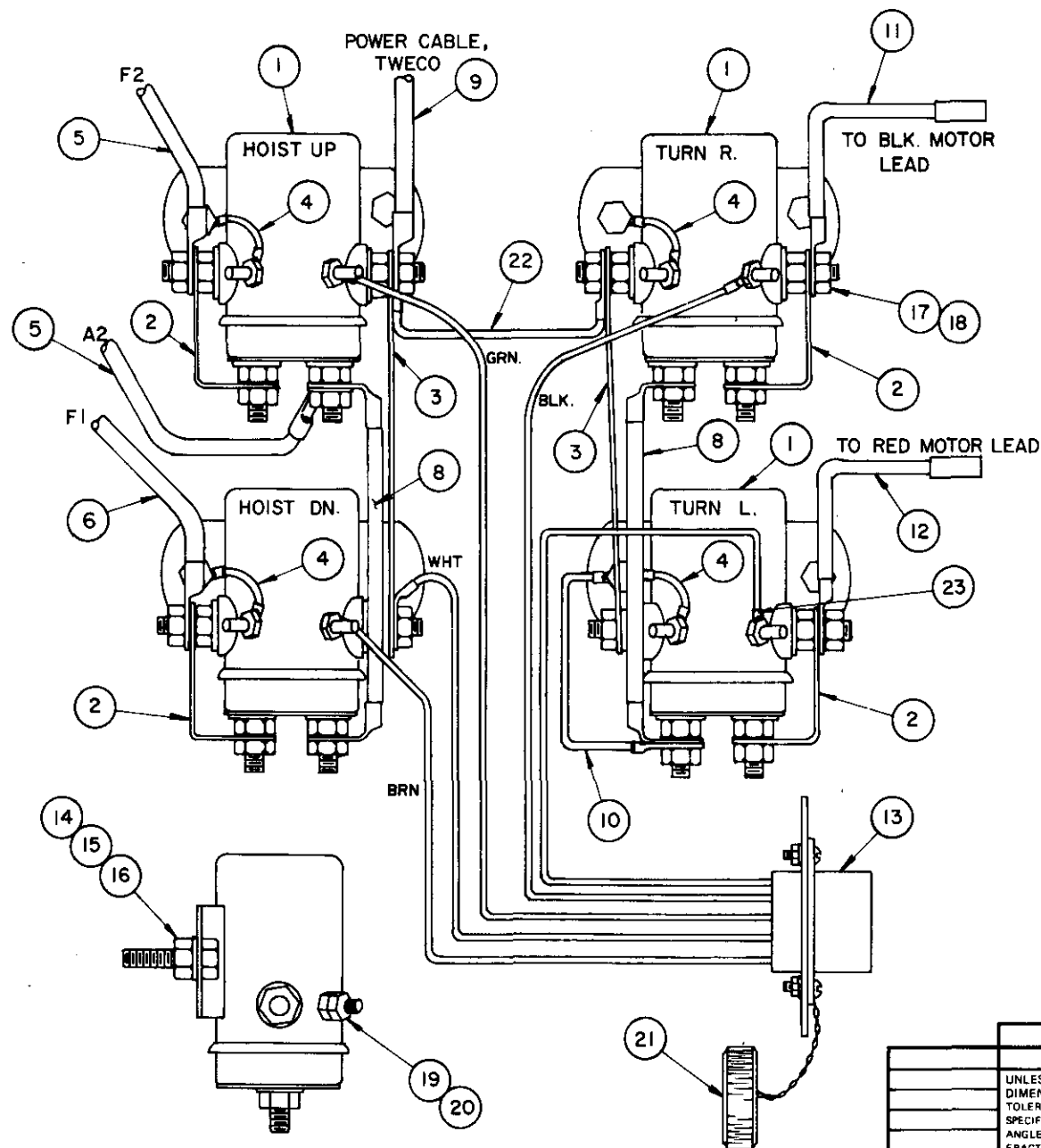
WIRING SCHEMATIC

15	8	016800	NUT, HX.-HLF. 5/16 NFCP
14	8	020700	WASHER, INTLK 5/16 CP
13	4	005604	SCREW, 1/4-20 X 1"
12	4	015900	NUT - HEX. 1/4 - 20
11	1	602002	CONDUCTOR
10	4	020200	WASHER, SPLIT-LOCK 1/4
9	1	270406	RECEPTACLE ASSEMBLY
8	1	600304	CONDUCTOR
7			
6	1	622327	CONDUCTOR
5	2	622323	CONDUCTOR
4	2	659904	CONDUCTOR
3	1	658400	CONDUCTOR
2	2	658300	CONDUCTOR
1	2	200182	RELAY

ITEM	QTY	D/S	PART NO.	DESCRIPTION
LIST OF MATERIAL				
UNLESS OTHERWISE NOTED ALL DIMENSIONS ARE IN INCHES. TOLERANCES UNLESS OTHERWISE SPECIFIED:				
ANGLES $\pm 1/2^\circ$ FRACTIONAL $\pm 1/16$ DECIMAL $\pm .010$ 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 DATE CHK'D BY DATE ENG. BY DATE			AUTO CRANE COMPANY P.O. BOX 45648 • TULSA, OKLAHOMA 74145 9280 BROKEN ARROW EXPRESSWAY • 918-627-0475	
NEXT ASS'Y			TITLE RELAY PANEL ASSEMBLY 2703-M	
			SCALE	REVISION
			SIZE	DRAWING NO.
			WEIGHT	AW-270404
			SHEET 1 OF 1	

FIXTURE NO.	FINISH NO.

CHG	LTR	REVISIONS	DATE	APP'D
		DESCRIPTION		



SCHEMATIC

23	1	000300	TERM. WIRE RB-14-10
22	1	330415	CONDUCTOR, 12 GA. BLK.
21	1	300413	CAP, RECEPTACLE
20	8	020001	WASHER, #10 INT. LOCK
19	8	015600	NUT, HEX. #10-32
18	16	020700	WASHER, INT. LOCK
17	16	016800	NUT, HEX. HLF. 5/16 N.F.
16	8	005604	SCREW, HEX. HD. 1/4-20 X 1
15	8	015900	NUT, HEX. 1/4 - 20
14	8	020200	WASHER, SPLK. 1/4
13	1	270407	RECEPTACLE ASSEMBLY
12	1	330387	CONDUCTOR
11	1	330388	CONDUCTOR
10	1	330386	CONDUCTOR
9	1	330258	TWECO ASSEMBLY
8	2	600304	CONDUCTOR
7			
6	1	622327	CONDUCTOR
5	2	622323	CONDUCTOR
4	4	659904	CONDUCTOR
3	2	658400	CONDUCTOR
2	4	658300	CONDUCTOR
1	4	200182	RELAY

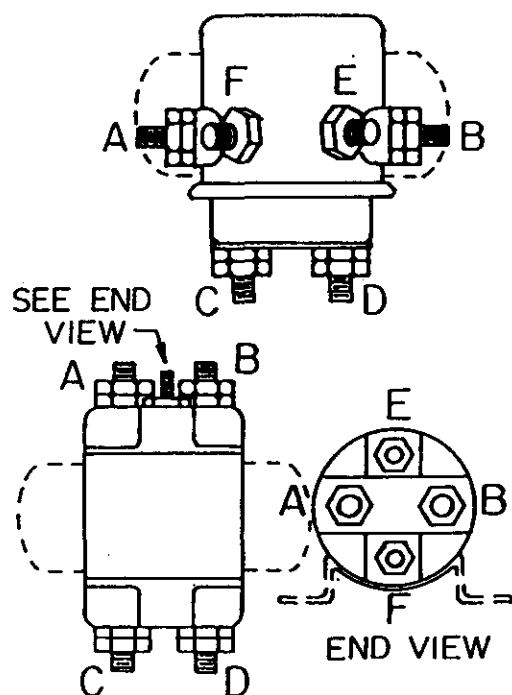
ITEM	QTY	D/S	PART NO.	DESCRIPTION
LIST OF MATERIAL				
AUTO CRANE COMPANY P.O. BOX 45548 • TULSA, OKLAHOMA 74145 9260 BROKEN ARROW EXPRESSWAY • 918-627-9475				
TITLE RELAY ASSEMBLY - 2703 - MR				
SCALE		SIZE	DRAWING NO.	REVISION
WEIGHT		C	AW-270401	
SHEET 1 OF 1				

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 Y14.5-1973
 THIS PRINT IS THE PROPERTY OF AUTO CRANE CO. AND MUST NOT BE USED IN ANY MANNER DETRIMENTAL TO THEIR INTERESTS.

DRAWN BY
DATE
9/30/87
CHK'D BY
DATE
ENG. BY
DATE

NEXT ASS'Y

HOW TO CHECK RELAY:



To check a relay on this or any Auto Crane product is the same. The difference being in physical appearance. Shown at left are two types of relays Auto Crane uses. Our relays are normally closed across the bottom posts (C & D). When activated, they will open across (C & D) and close across (A & B). To activate these relays, use 12V positive and 12V negative wires and place them on posts (F & E). You may place 12V+ on post F or E as long as you place 12V on the remaining post (F & E) using an ohm meter or test light. Check across posts (A & B). You should get an ohm reading or your test light should be on when you have the relay activated. With the relay still activated, check across posts (C & D). You should have no ohm reading or test light at this point with relay activated. (At this point, disconnect 12V+ and 12V- from posts (F & E). This should let relay return to its normal position. Using your ohm meter or test light again, check the relay across posts (A & B). If relay is working correctly, you should have no reading at all. Then check across posts (C & D). You should have an ohm reading or test light should be on. If you get the above results, relay is okay. If you get any variation in the above explanation on the relay you are checking, check the relay again. If it still shows a difference, the relay is bad and should be replaced.

NOTE: The above explanation is with relays completely disconnected from all wires on motor circuits and ground wires. These circuits can give you false readings sometimes.



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.