R01/85

1-480137 8005-H 1-480135 DUMPVALVE KIT Pendant 1-480093 9-10-86

Auto Crane Company

P.O. BOX 581510 • TULSA, OKLAHOMA 74158 9260 BROKEN ARROW EXPRESSWAY • 918-438-2760 TELEX 158108

OWNER'S MANUAL 8005H SERIES

Serial No. 00/A0 - 066 HD /1-85

8005H OWNER'S MANUAL

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INTRODUCTION - 8005H 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 8005H series for your protection. The material and electrical systems were designed to minimize weight and lengthen durability. The hydraulic components are designed for a 4:1 safety factor. Holding valves are installed to prevent the load from dropping if a hose should fail. A 10u filter is installed in the hydraulic system to remove dirt and grit that may cause premature failure. The reservoir is protected with a 15u filter in the filter cap.

For your convenience the overall dimensions of the 8005H series are included on the General Dimension Drawing. Rotation and turning radius are also listed. See page 31.

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 G.V.W. of 14,500 lbs. is recommended for mounting the 8005H series cranes.

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 material or workmanship is involved, immediate corrective action is taken. It is therefore understandable that Auto Crane Company cannot 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 Service Policy on the last page of this 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 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 - 438-2760. The information contained in this 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

- Make certain the vehicle meets minimum chassis requirements. (These requirements do not guarantee unit stability.)
- 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.
- ALWAYS use outriggers (jacklegs) from vehicle to the ground during crane operation. Insure that they are firmly positioned on solid footings.
- All load ratings are based on crane capacity, NOT unit stability.
- ALWAYS comply with load chart capacities (centerline of rotation to hoist hook).
- 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.
- 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.

- 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. A friction brake holds the load when power is off. The brake may need to be adjusted periodically. Never adjust the brake tighter than required to hold the load. For Economiser and Econoton II Series, no brake adjustment is required.
- 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.
- 18. 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.
- NEVER place a chain link on the tip of the hook and try to lift a load with the hoist.
- 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.
- 21. 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.
- 22. NEVER hold any pendant Select switch on that will negate safe operating conditions.
- 23. ALWAYS store outriggers (jacklegs) before road travel.

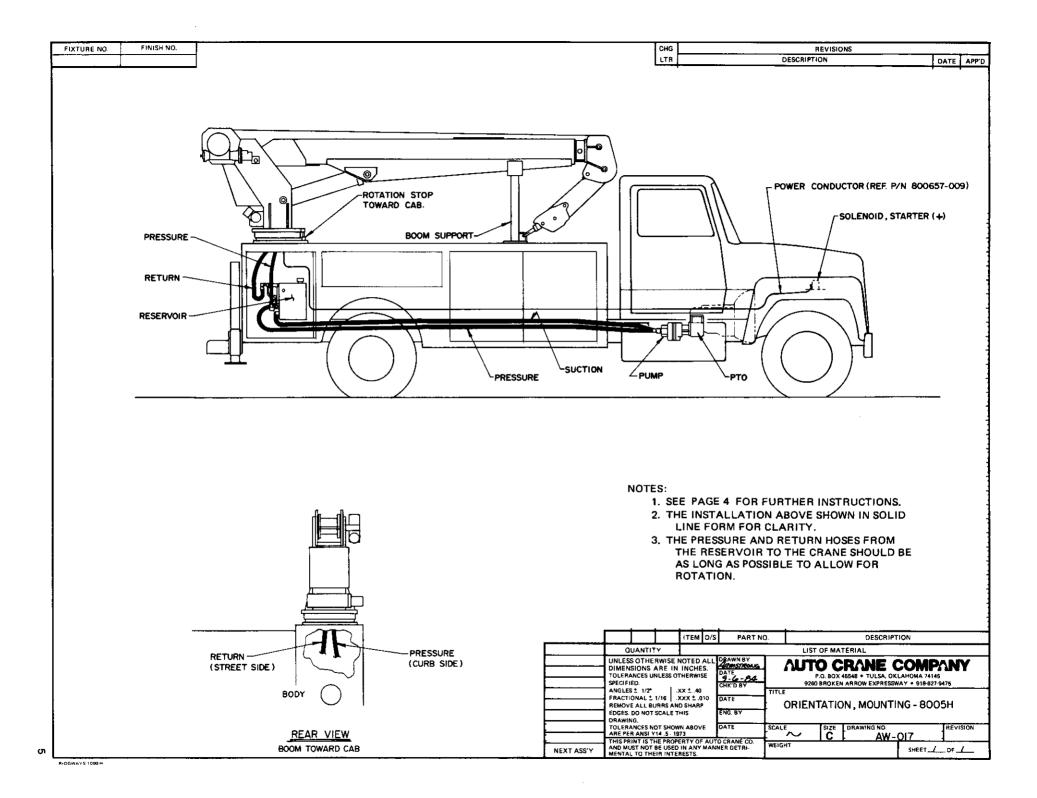
OPERATION OF UNIT

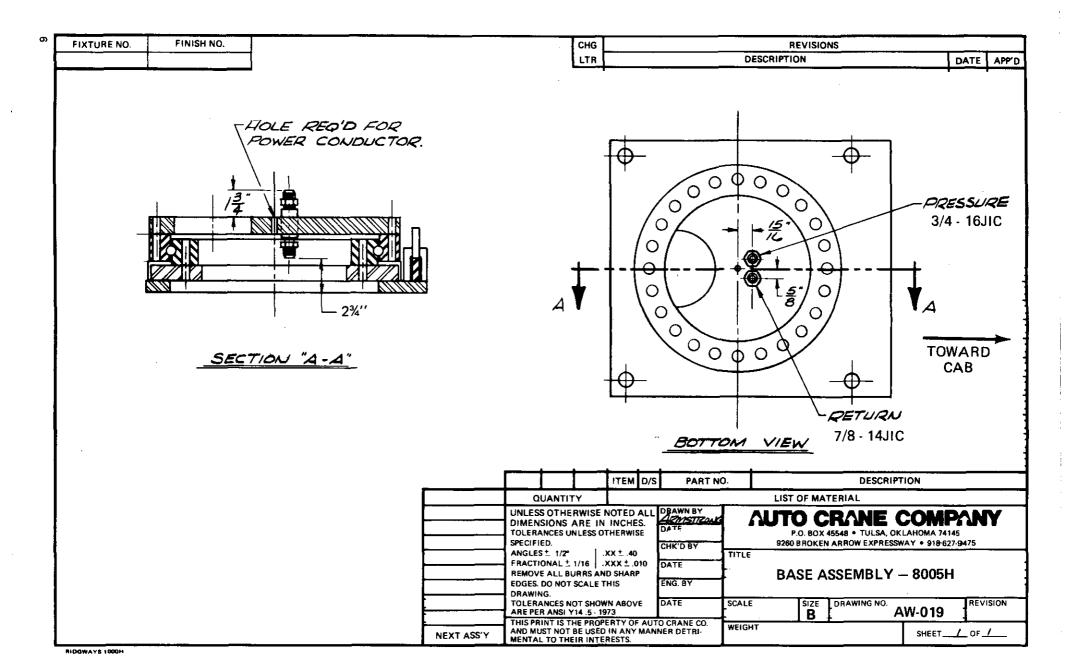
- Make sure this manual has been thoroughly read by all crane operating personnel.
- A routine inspection of the crane should be mandatory before each operating day. Any defects should be corrected immediately.
- At a job site the vehicle should be positioned so that the crane can adequately reach the 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 ignition off with transmission left in gear or in park (for automatic transmissions). 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.
- Always use outriggers (jacklegs) from the truck to the ground. Be sure these are firm and adequately positioned.
- Then remove pendant control from cab (on smaller) 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.
- Always boom up before rotating so that the boom will clear the required boom support.
- When extending the boom always maintain clearance between the boom crown and the traveling block or hoist hook.
- 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.
- Store pendant control in proper location (in cab or on crane).
- 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.
- Press clutch and disengage PTO. Release throttle control and emergency brake.
- Report any unusual occurrence during crane operation that may indicate required maintenance or repair.

MOUNTING AND INSTALLATION - 8005H

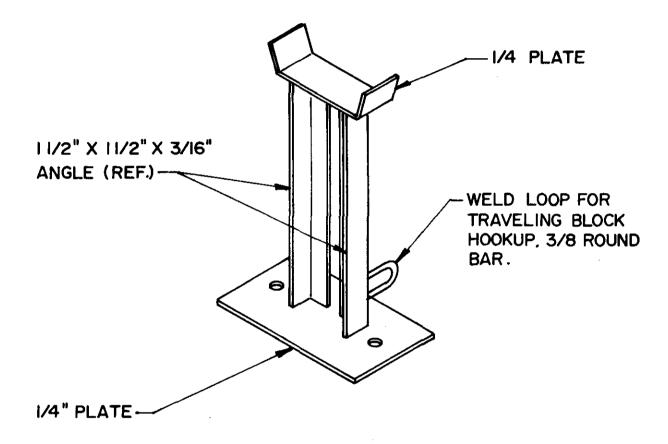
- 1. Vehicle should meet minimum GVW rating of 14,500.
- 2. Make sure compartment or crane mount is adequately reinforced.
- 3. A 13-1/2" Dia. hole should be cut out of mounting location (centered with mounting bolts. Ref: ENG 150, page 31) for access of lower ring gear bolts and hydraulic connections.
- 4. Mounting bolts (015104 Screw, Hx. 7/8 N.F. X 5" G5, 4 required) to be torqued to 440 ft.lbs. (dry).
- 5. Power Conductor (P/N 800657-009, Drawing AW-017) to be uncoiled from bottom of crane and routed to positive pole on starter solenoid (REF. AW-017, page 5).
- 6. REF: For the following instructions see Drawing AW-480150, page 24. Hydraulic hoses from reservoir to crane to be installed by customer at desired lengths. Hose P/N 551228-001 (size 8), Item 11. Reusable Fitting P/N 551227 (Size 10-8, 2 req'd for return line), Item 12 and Reusable Fitting P/N 360266 (Size 8-8, 2 req'd for pressure line), Item 23.
- 7. Also to be installed by customer (at desired lengths) are the Pressure Hose (Item 13, P/N 360274-001, size 12) and Suction Hose (Item 14, P/N 360275-001, size 16) from the Reservoir to the Hydraulic Pump (REF: 480018, page 23). Reusable Fittings (Item 20, P/N 360269, size 10-12) and Hose Adapter (Item 21, P/N 360273) are used.
 - NOTE: If no pressure received at reservoir, alternate hose connections at pump.
- 8. When crane is not in operation, a boom support should always be used. Traveling block should be connected to hook loop. See illustration Drawing AW-017, page 5.
- 9. Always use cable loops on boom and pendant guard to store pendant assembly.
- 10. Crane should receive 8 G.P.M. at 2000 p.s.i.





AUTO CRANE'S SUGGESTED BOOM SUPPORT

LEAVE 3/4" CLEARANCE ON EACH SIDE OF BOOM.



BOOM SUPPORT IS REQUIRED.

AUTO CRANE COMPANY

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

WIRE LINE LUBRICATION

Lubrication of the wire line serves two important purposes: (1) helps to prevent corrosion; (2) lubricates the cable strands to reduce wear due to flexing and abrasion caused by contact with the sheaves, rollers and cable on the drum.

PREPARATION:

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

APPLICATION:

Two methods are illustrated in figures 1 and 2. A light weight motor oil may be used, as in figrue 1; or a heavier lubricant such as grease gun lubricant, as in figure 2.

Illustrated in figure 1 is one easy and effective method of applying lubrication. Dip the brush into the lubricant and apply. In some cases a rag or piece of sheepskin is dipped in the lubricant and used to swab the lubricant on to the rope.

Another simple method is shown in figure 2. Leather gloves are preferred to canvas because of greater protection and less penetration of the grease.

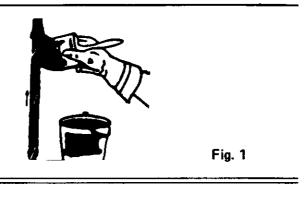




Fig. 2

"LIFE OF WIRE LINE"

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

Some of these factors are:

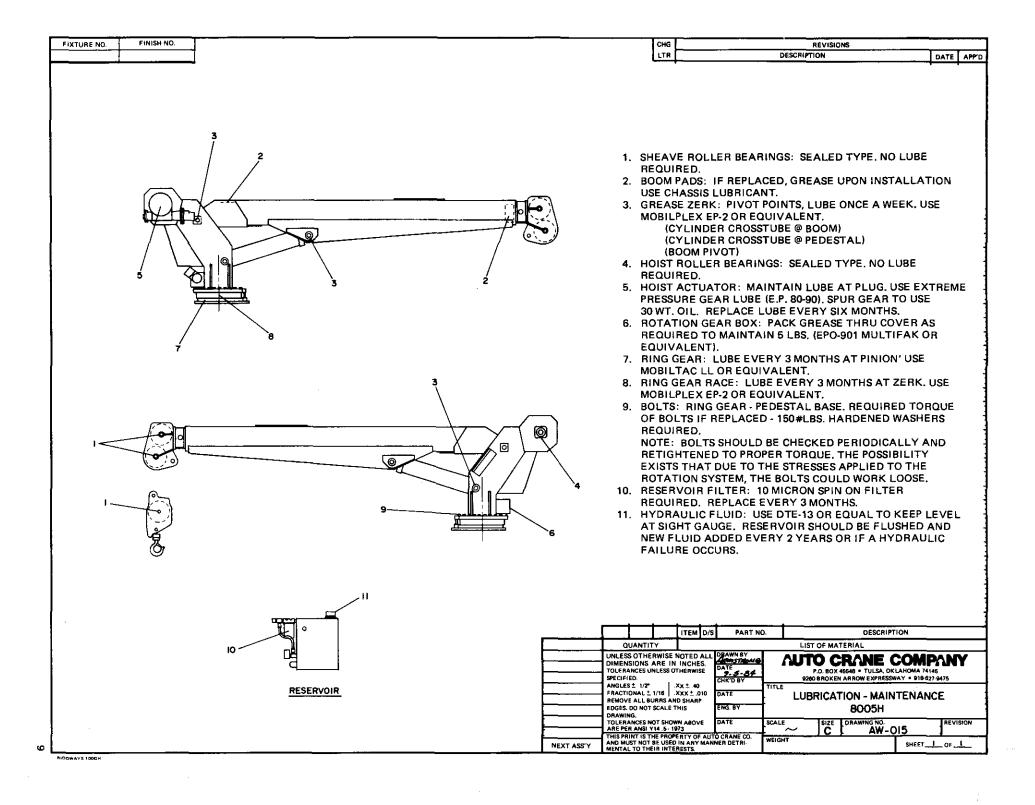
- 1. Load being handled.
- 2. Corrosive conditions.
- 3. Maintenance of the unit.
 - a. Keep the sheaves turning freely.
 - Maintain tension on cable to insure proper spooling.
 - c. Lubricate line. (See above)
 - d. Avoid kinks in cable.
 - e. Avoid abrasive action and contact with sharp corners.
- 4. Frequency of use.

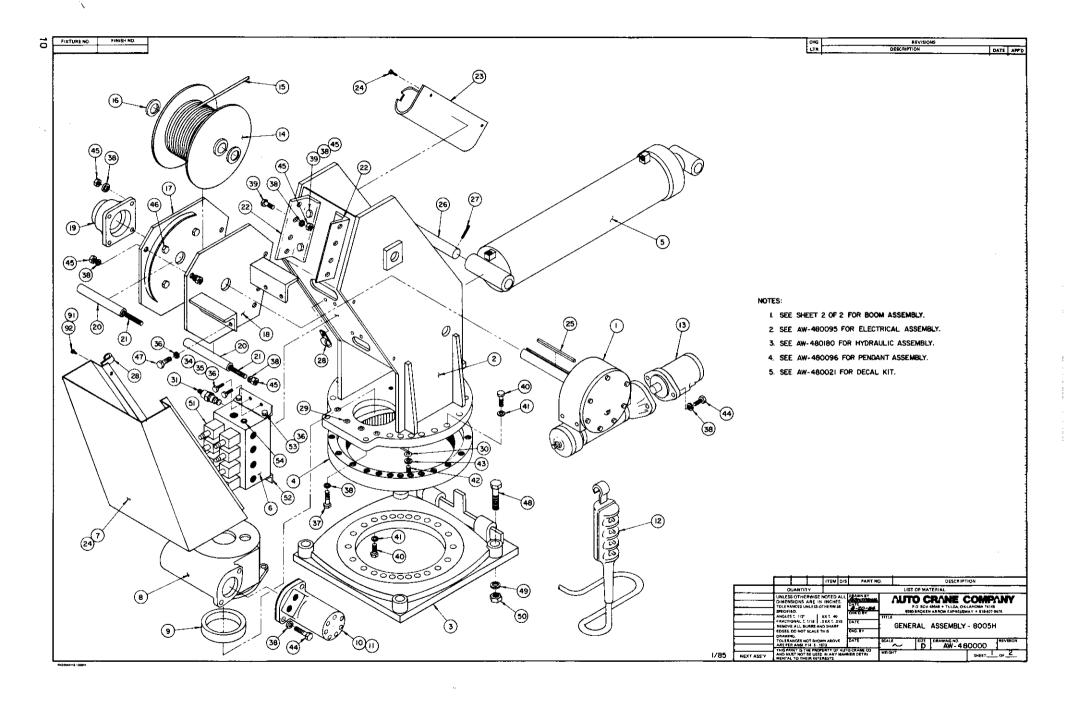
Auto Crane units, with 8000 pound ratings, use 3/8 inch diameter galvanized preformed 7 x 19 aircraft cable which, when new, has a minimum strength of 14,400 pounds. It is recommended when 4,000 pound loads are exceeded to use a two-part line with a traveling block. It can be seen that there is a safety factor of 3.6 to 1 when the cable is new.

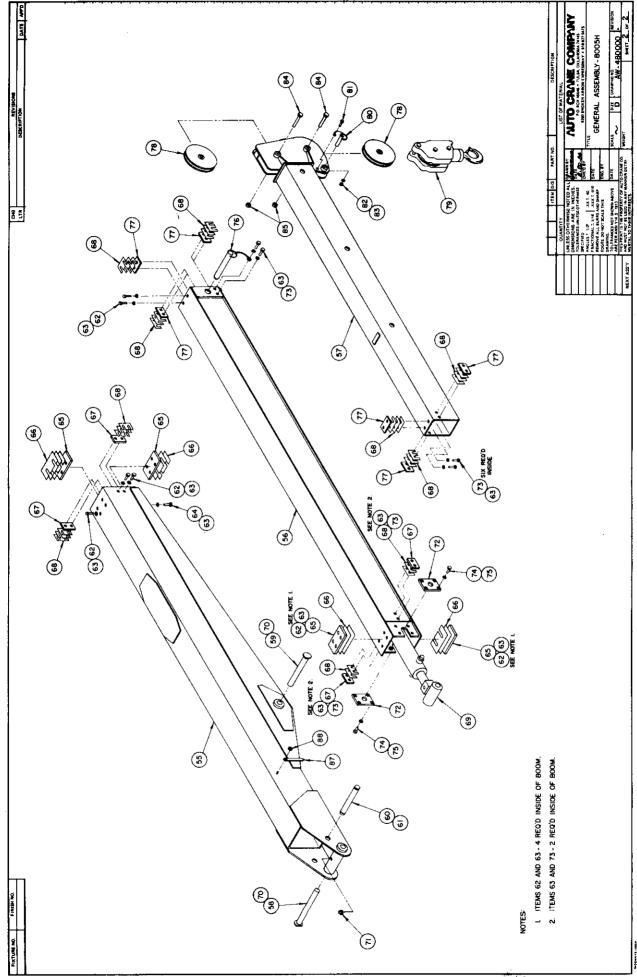
Keeping the above factor of safety in mind and knowing the kind of loads that will be handled, the user can determine by inspection of the cable as to when it should be replaced.

Items to look for while inspecting the cables are:

- 1. Broken strands.
- 2. Kinks and flattened sections.
- 3. Corrosion and abrasion.







GENERAL ASSEMBLY 8005H - AW-480000

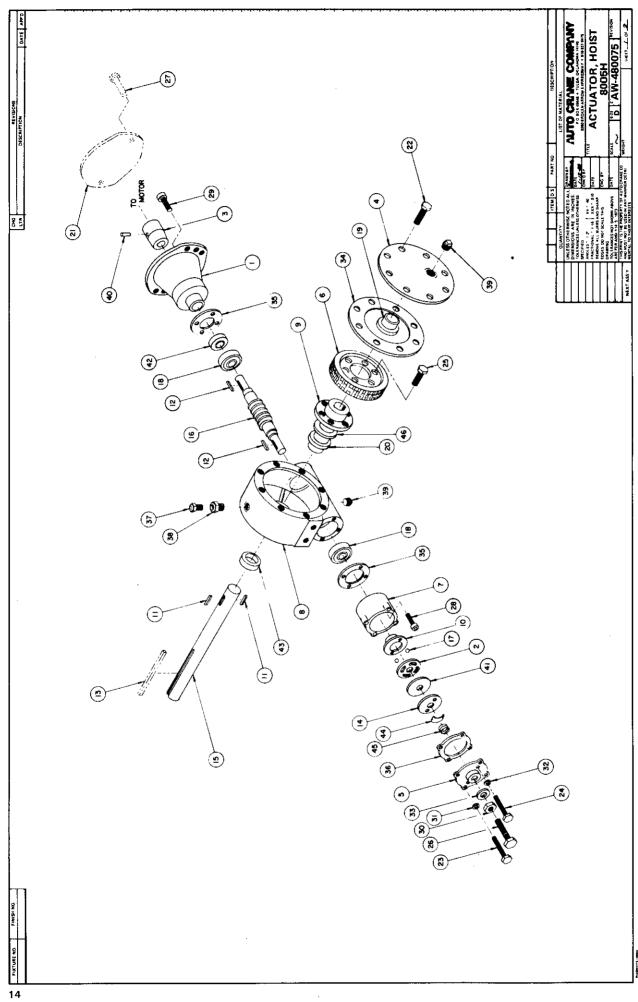
| | | | VERAL ASSEMBLY 8005H - AW-480000 | |
|------|------|-------------------|--------------------------------------|------|
| ITEM | QTY. | PART NO. | DESCRIPTION | |
| 1 | 1 | 480075 | ACTUATOR, HOIST | |
| 2 | i | 480050 | PEDESTAL WELDMENT ASS'Y | |
| 3 | i | 480040 | BASE PLATE ASSEMBLY | J |
| 4 | i | 360163 | BEARING, ROTATION 480023000 | |
| 5 | i | 480016 | CYLINDER, BOOM | |
| 6 | 1 | 480182 | MANIFOLD, CARTRIDGE | |
| 7 | 1 | 480160 | COVER, VALVE | |
| 8 | 1 | 480028 | GEAR BOX, ROTATION | |
| 9 | 1 | 360162 | RING, ECCENTRIC | ì |
| 10 | 1 | 480027 | MOTOR, HYD. (ROTATION) | |
| 11 | 1 | 480019 | GASKET, MOTOR | |
| 12 | 1 | 480096 | PENDANT ASSEMBLY | |
| 13 | 1 | 480076 | MOTOR, HYD. (HOIST) | |
| 14 | 1 | 480066 | DRUM, HOIST | ľ |
| 15 | i | 480031 | CABLE ASSEMBLY (3/8") | |
| 16 | 2 | 480073 | SPACER, WINCH SHAFT | |
| | 1 | 480073 | SIDE PLATE - LEFT | |
| 17 | | | | |
| 18 | 1 - | 480062 | SIDE PLATE - RIGHT | |
| 19 | 1 | 480077 | BEARING, 4-BOLT | |
| 20 | 2 | 480069 | SPACER, TUBE | i |
| 21 | 2 | 480070 | ROD, SPACER | |
| 22 | 2 | 480072 | BRACKET, MOUNTING | |
| 23 | 1_ | 634000 | GUARD, PENDANT | J |
| 24 | 5 | 002615 | SCREW, 1/4-20 X 3/8 S.T. | ŀ |
| 25 | 1 | 800321-001 | KEY, SQ. 3/8 X 6-1/4" LG. | |
| 26 | 1 | 480127 | PIN, PEDESTAL/CYLINDER | ļ |
| 27 | 1 | 360123 | PIN, SPRING | |
| 28 | 2 | 480024 | MOUNT, PENDANT RETAINER | |
| 29 | 4 | 006205 | SCREW, SC. HD. 5/8NC X 1-1/4 G5 | ĺ |
| 30 | 1 | 360207 | RETAINER, ECCENTRIC RING | |
| 31 | 1 | 480183 | CARTRIDGE, FLOW REGULATOR | |
| 32 | 1 | 480012 | SEAL KIT (For 480015 - Ext. Cyl.) | |
| 33 | 1 | 480013 | SEAL KIT (For 480016 - Boom Cyl.) | |
| 34 | 4 | 008701 | SCREW, HX.HD. 3/8 NC X 1" LG. | |
| 35 | 4 | 017100 | NUT, HX. 3/8 NC CP | |
| 36 | 8 | 021100 | WASHER, SP. LK. 3/8 CP | |
| 37 | 4 | 011608 | SCREW, HX.HD. 1/2NC X 2" LG. G5 | ļ |
| 38 | 6 | 021500 | WASHER, SP.LK. 1/2 CP | |
| 39 | 12 | 010201 | BOLT, HX. 1/2 NC X 1-1/2" LG. G5 | ł |
| 40 | 38 | 012198 | SCREW, HX.HD. 5/8 NC X 1-3/4" LG. G8 | ·] |
| 41 | 38 | 023902 | WASHER, FL. 5/8 HARDENED | ļ |
| 42 | 1 | 007402 | SCREW, HX.HD. 5/16 NC X 5/8" LG. G5 | |
| 43 | 5 | 020600 | WASHER, SP.LK. 5/16 | ļ |
| 44 | 4 | 012197 | SCREW, SC.HD. 1/2 NC X 1-1/2" G5 | ļ |
| 45 | 20 | 017701 | NUT, HX. 1/2 NC CP | |
| 46 | 4 | 011605 | SCREW, HX. HD. 1/2 NC X 1-3/4" G5 | |
| 47 | 4 | 008601 | SCREW, HX.HD. 3/8 NC X 7/8" G5 | |
| 48 | 4 | 015104 | SCREW, HX.HD. 7/8 NF X 5" G5 | |
| 49 | 4 | 022200 | WASHER, SP.LK. 7/8 | |
| 50 | 4 | 018900 | NUT, HX. 7/8 NF | ſ |
| 51 | 8 | 480184 | VALVE, CARTRIDGE | |
| 52 | 2 | REF | BRACKET, MANIFOLD | ļ |
| 53 | 4 | REF | SCREW, HX.HD. 3/8 NC X 3/4" LG. | 1 |
| 54 | 1 | 000109 | PLUG, PIPE 3/8 | |
| | | | | ., |
| I | | | | 1/85 |

GENERAL ASSEMBLY 8005H - AW-480000

| ITEM | QTY. | PART NO. | DESCRIPTION |
|----------|----------|----------|--|
| 55 | 1 | 480080 | BOOM, LOWER |
| 56 | 1 | 480100 | BOOM, POWER |
| 57 | 1 | 480110 | BOOM, MANUAL |
| 58 | 1 | 480125 | PIN, PEDESTAL/BOOM |
| 59 | 1 | 480123 | PIN, BOOM/CYLINDER |
| 60 | 1 | 480129 | PIN, EXT. CYLINDER |
| 61 | 2 | 480029 | RING, RETAINING |
| 62 | 18 | 005102 | SCREW, HX.HD. 1/4 NF X 5/8" LG. CP |
| 63 | 36 | 020200 | WASHER, SP.LK. 1/4 CP |
| 64 | 4 | 005501 | SCREW, HX.HD. 1/4 NF X 3/4" LG. CP |
| 65 | 4 | 480032 | PAD, BOOM (LARGE) |
| 66 | As Reg'd | 480033 | SHIM, LARGE (.032 THICK) |
| 67 | 4 | 480036 | PAD, BOOM (SMALL) |
| 68 | As Req'd | 480037 | SHIM, SMALL (.032 THICK) |
| 69 | 1 | 480015 | CYLINDER, EXTENSION |
| 70 | 2 | 360123 | PIN, SPRING |
| 71 | 1 | 239000 | ZERK, GREASE |
| 72 | 2 | 480105 | RETAINER, EXT. CYLINDER |
| 73 | 14 | 005406 | SCREW, HX. HD. 1/4 NF X 1/2" LG. CP |
| 74 | 8 | 010201 | SCREW, HX. HD. 1/2 NC X 1-1/2" LG. G5 |
| 75 | 8 | 021500 | WASHER, SP.LK. 1/2 CP |
| 76 | 1 | 480030 | PIN, MANUAL BOOM |
| 77 | 6 | 480120 | PAD (STEEL) SHEAVE ASSEMBLY (Ref. Bearing P/N 240234) 4 80 132 |
| 78 | 2 | 480133 | SHEAVE ASSEMBLY (Ref. Bearing P/N 240234) 4 90 132 4644 |
| 79 | 1 | 480140 | |
| 80 | 1 | 201101 | PIN, CROWN |
| 81 | 1 | 008100 | SCREW, HX.HD. 3/8 NF X 5/8" LG. CP |
| 82 | 1 | 017102 | NUT, HX. 3/8 NF CP |
| 83 | 1 | 021100 | WASHER, SP.LK. 3/8 CP |
| 84 | 2 | 011506 | SCREW, HX.HD. 1/2 NF X 3-1/2" LG. G5 |
| 85 | 2 | 017800 | NUT, HX.LK. 1/2 NF CP |
| 86 | 2 | 480121 | SPACER |
| 87 | 2 | 360038 | INDICATOR, ANGLE |
| 88 | 2 | 016300 | NUT, HX.LK. 1/4 NC |
| 89 | 1 | 480021 | KIT, DECAL |
| 90 | 1 | 480020 | KIT, SHIP LOOSE |
| 91 92 | 1 1 | 002608 | SCREW, HX.HD. 1/4-20 X 3/4 S.T. |
| 92 | I | 020901 | WASHER, FLAT SAE 5/16 |

NOTE:

ITEMS 36 (Qty. 4), 52 AND 53 COME COMPLETE WHEN ORDERING ITEM 6 (480182 - MANIFOLD, CARTRIDGE).

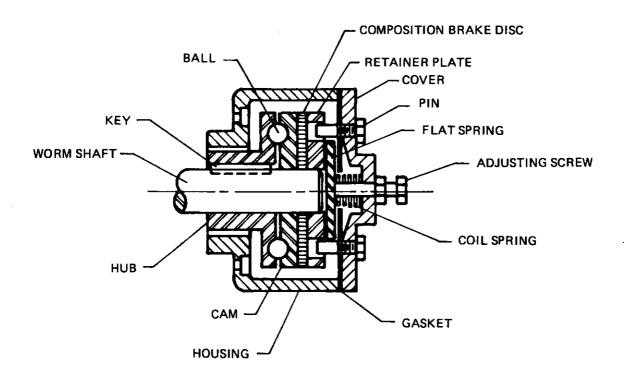


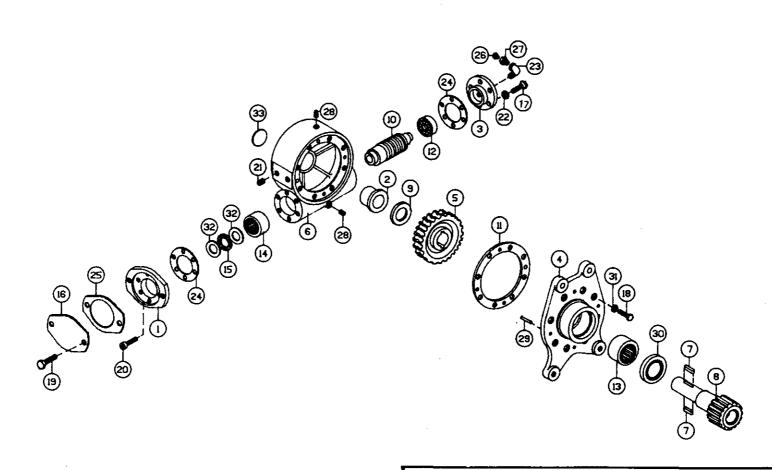
ACTUATOR, HOIST - 8005H -- AW-480075

| ITEM | QTY, | PART NO. | DESCRIPTION |
|-----------|--------|------------------|-------------------------------------|
| I I E IVI | Q11. | FARTNO. | DESCRIFTION |
| 1 | 1 | 360330 | ADAPTER |
| 2 3 | 1 | 360331 | CAM PLATE |
| 3 | 1 | 360332 | COUPLING |
| 4 | 1 | 360333 | COVER, WORM GEAR |
| 5 | 1 | 360334 | COVER, WORM BRAKE |
| 6 | 1 | 360335 | GEAR, R.H. |
| 7 | 1 | 360336 | BRAKE HOUSING |
| 8 | 1 | 360337 | HOUSING, GEAR |
| 9 | 1 | 360338 | HUB, GEAR |
| 10 | 1 | 360339 | HUB, WORM BRAKE |
| 11 | 2 | 360340 | KEY, RD. ENDS |
| 12 | 2 | 360341 | KEY, RD. ENDS |
| 13 | 1 | (Ref) 800321-001 | KEY, 3/8" (Ref. for Drum) |
| 14 | 1 | 360342 | RETAINER |
| 15 | 1 | 480078 | SHAFT |
| 16 | 1 | 360344 | WORM, R.H. |
| 17 | 2 | 360345 | BALL, POPPET |
| 18 | 2 2 | 360346 | BEARING, BALL |
| 19 | 1 | 360347 | BUSHING |
| 20 | 1 | 360348 | BUSHING |
| 21 | 1 | 360349 | COVER, MOTOR (Ref. For Shipping) |
| 22 | 8 | 005500 | CAPSCREW, 1/4NC X 3/4 G5 |
| 23 | 4 | 005604 | CAPSCREW, 1/4NC X 1 |
| 24 | 2 | 360350 | CAPSCREW, 1/4NC X 3/4 C.P. |
| 25 | 6 | 007807 | CAPSCREW, 5/16NC X 3/4 G5 |
| 26 | 1 | 360351 | CAPSCREW, 3/8NC X 1-1/2 G2 |
| 27 | 2 | (Ref) 010202 | CAPSCREW, 1/2NC X 1" (For Shipping) |
| 28 | 4 | 005610 | CAPSCREW, 1/4NC X 3/4 S.HD. |
| 29 | 4 | 360352 | CAPSCREW, 1/4NC X 1-3/4 S.HD. L/W |
| 30 | 1 | 360353 | NUT, 3/8NC HX. JAM |
| 31 | 4 | 360354 | LOCKWASHER, 1/4 MED. SECT. C.P. |
| 32 | 2 | 360355 | WASHER - FLAT, 1/4 ALUM. |
| 33 | 1 | 360356 | WASHER - FLAT, 3/8 ALUM. |
| 34 | 1 | 360357 | GASKET |
| 35 | 2 | 360358 | GASKET |
| 36 | 1 | 360359 | GASKET |
| 37 | 1 | 360360 | RELIEF FITTING |
| 38 | 1 | 360361 | REDUCER |
| 39 | 2 | 360362 | PIPE PLUG |
| 40 | 1 | 360363 | SPIROL PIN |
| 41 | 1 | 360364 | PLATE, THRUST |
| 42 | 1 | 360356 | OILSEAL |
| 43 | 1 | 360366 | OIL SEAL |
| 44 | 1 | 360367 | SPRING, FLAT |
| 45 | 1 | 360368 | SPRING |
| 46 | 1 | 360369 | THRUST WASHER |
| 1 | | | |
| | | | |

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.
- Adjust to suit by tightening or loosening screw on outside of cover. When proper adjustment is obtained, secure screw with jam nut.





AUTO CRANE COMPANY

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TITLE

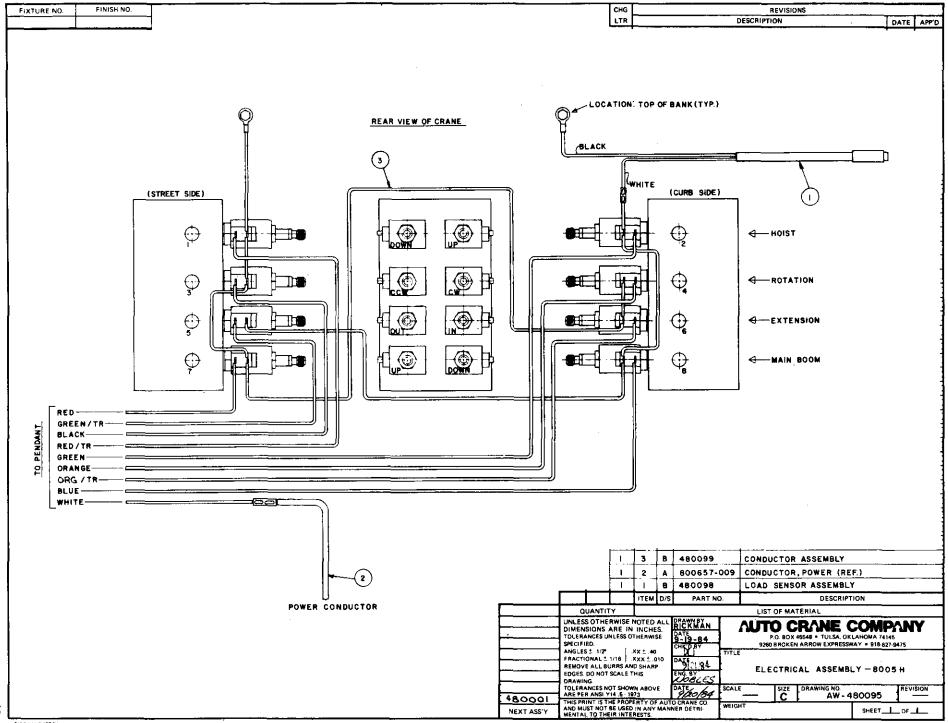
GEAR BOX, ROTATION - 8005H

SCALE SIZE DRAWING NO. REVISION A AW - 480028 —

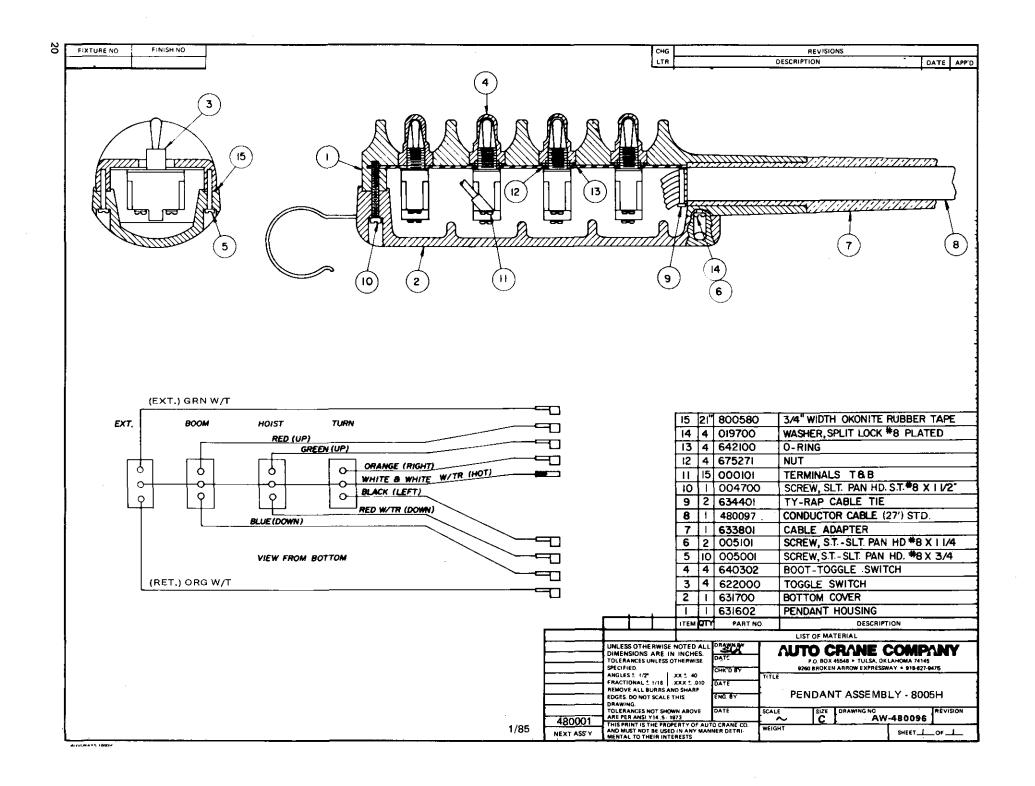
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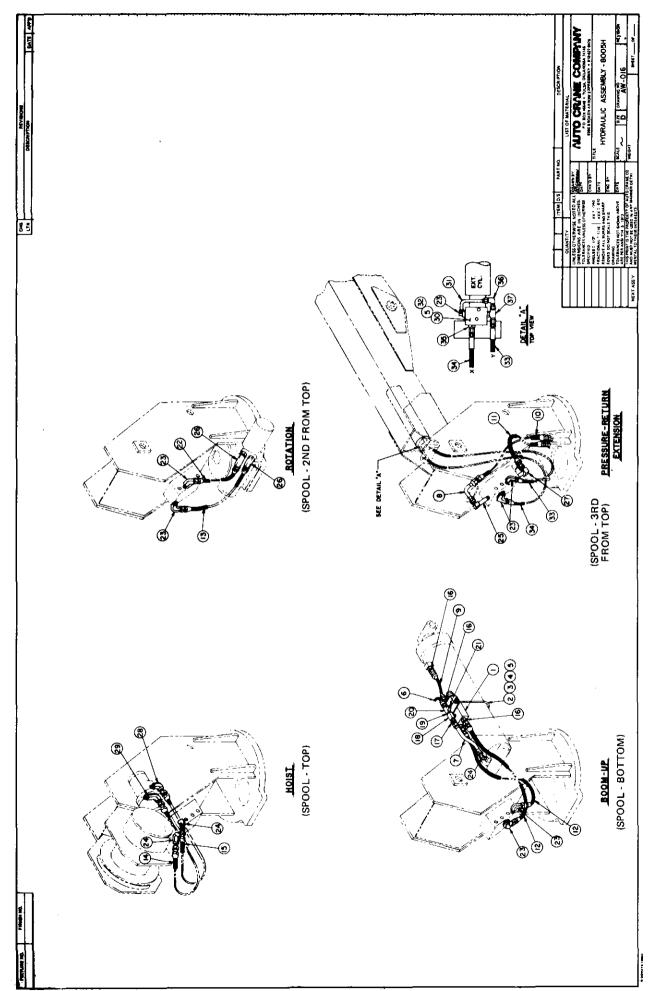
GEAR BOX, ROTATION - 8005H - AW-480028

| ITEM | QTY, | PART NO. | DESCRIPTION |
|----------|--------|------------------|--|
| 1 | 1 | 480240 | ADAPTER |
| 1 | 1 | 480240 | BUSHING |
| 2 | 1 | 480242 | CAP, BRG. |
| 4 | 1 | 480243 | COVER |
| 5 | 1 | 480243 | |
| 6 | 1 | 480245 | GEAR, R.H. HOUSING |
| 7 | 1 | | KEY |
| 8 | 2 1 | 480246 | |
| | 1 | 480247 | SHAFT, OUTPUT |
| 9 | 1 | 480248 | WASHER, THRUST |
| 10 | 1 | 480249 | WORM, R.H. |
| 11 | 1 | 480250 480251 | GASKET |
| 12 | 1 | 480251 | BEARING, BALL |
| 13 | 1 | 480252 | BEARING, NEEDLE |
| 14 | 1 | 480253 | BEARING, NEEDLE |
| 15 | 1 | 480254 | BEARING, THRUST |
| 16 | 1 | 480255 | COVER |
| 17 | 6 | 007400 | CAPSCREW, 5/16-18NC X 1 LG. HX.HD. |
| 18 | 8 | 007804 | CAPSCREW, 5/16-18NC X 1-1/4 LG. HX.HD. CP |
| 19 | 2 | 011508 | CAPSCREW, 1/2-13NC X 1 LG. HX.HD. |
| 20 | 6 | 480256 | CAPSCREW, 5/16-18NC X 1 LG. HX.SOC.HD. LOC-WEL |
| 21 | 4 | 480257 | SETSCREW, 7/16-14NC X 1/2 SOC.HD. |
| 22 | 6 | 480258 | LOCKWASHER, 5/16 MED. SECT. CP |
| 23 | 1 | 480259 | ELBOW, 90 DEG. |
| 24 | 2 1 | 480260 480261 | GASKET |
| 25 | 1. | | GASKET |
| 26 27 | 1 | 480262 480263 | RELIEF FITTING REDUCER |
| 27 | 2 | 480263 480264 | PIPE PLUG |
| 28 | 4 | 480265 | DOWEL PIN |
| 30 | 1 | 480266 | |
| 31 | 8 | 480267 | SEAL, OIL SEAL, WASHER |
| 32 | 2 | 480267 | THRUST WASHER |
| 33 | 1 | 480269 | PLUG, EXPANSION |
| 35 | • | 700203 | I LOG, EXTANSION |



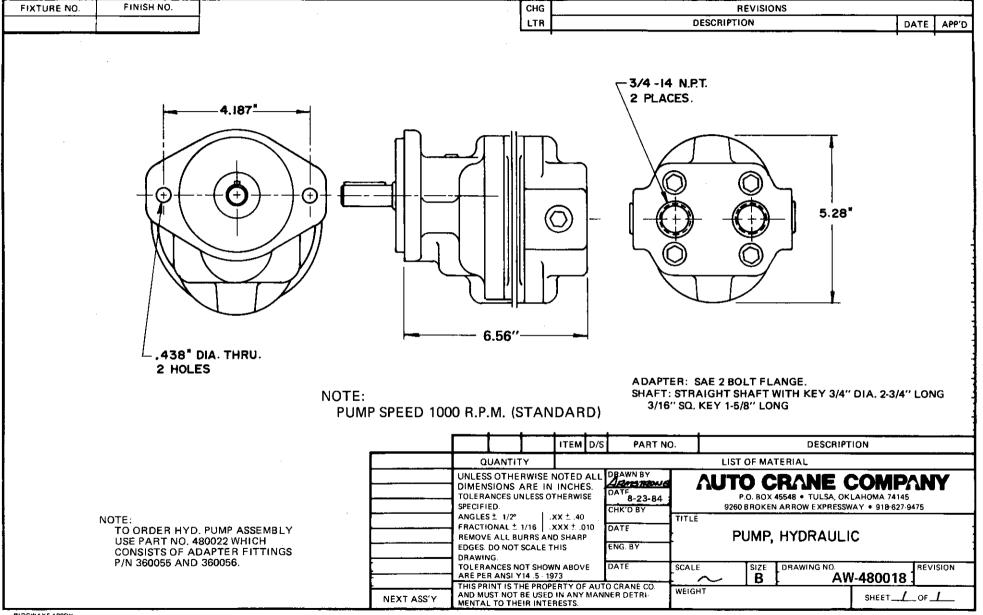
RIDGWAYS 1000H

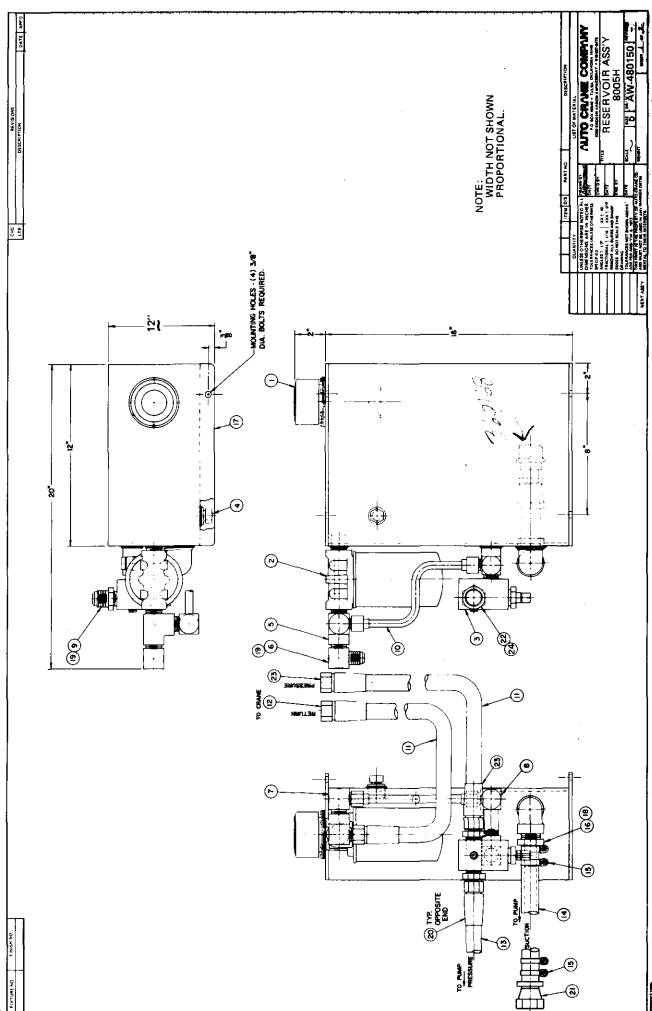




HYDRAULIC ASSEMBLY - 8005H - AW-016

| ITEM | QTY. | PART NO. | DESCRIPTION |
|------|------|----------|------------------------------------|
| 1 | 1 | 480187 | VALVE, COUNTERBALANCE |
| 2 | 1 | 480146 | U-BOLT |
| 3 | 1 | 480145 | CLAMP |
| 4 | 2 | 015900 | NUT, HX 1/4 NC |
| 5 | 4 | 020200 | LOCKWASHER, 1/4 |
| 6 | 1 | 480043 | LOAD SENSOR (REF.) |
| 7 | 1 | 480210 | TUBE ASS'Y |
| 8 | 1 | 480211 | TUBE ASS'Y |
| 9 | 1 | 480209 | HOSE ASS'Y |
| 10 | 1 | 480200 | HOSE ASS'Y (PRESSURE) |
| 11 | 1 | 480201 | HOSE ASS'Y (RETURN) |
| 12 | 2 | 480208 | HOSE ASS'Y (BOOM-UP 31-1/2") |
| 13 | 1 | 480205 | HOSE ASS'Y (ROTATION 19-1/4") |
| 14 | 1 | 480203 | HOSE ASS'Y (HOIST 24-3/4") |
| 15 | 1 | 480202 | HOSE ASS'Y (HOIST 21-1/2") |
| 16 | 4 | 360042 | ADAPTER 3/8 P/9/16-18 JIC |
| 17 | 1 | 360040 | ADAPTER 3/8 P/ 3/4-16 JIC |
| 18 | 1 . | 360053 | TEE 3/8 P. FM RUN / 3/8 P. M |
| 19 | 1 | 200880 | BUSHING 3/8 P/ 1/4 P |
| 20 | 1 | 480193 | TEE 1/4 P EXT./ 1/4 P INT. |
| 21 | 1 | 000209 | PLUG 1/4 PIPE |
| 22 | 1 | 480204 | HOSE ASS'Y (ROTATION 17-1/2") |
| 23 | 7 | 200892 | ELL 90° 3/8 P/ 9/16-18JIC |
| 24 | 3 | 360044 | ELL 90° 3/8 P/ 3/4-16 JIC STD |
| 25 | 1 | 480190 | ELL 90° 3/8 P/ 3/4-16 JIC EXT LONG |
| 26 | 2 | 202759 | ELL 90° 1/2 P/ 9/16-18JIC |
| 27 | 1 | 480213 | ELL, 90° 3/8 PIPE/3/4-16 JIC LONG |
| 28 | 1 | 360043 | ELL 90° 1/2 P/ 3/4-16JIC STD |
| 29 | 1 | 360045 | ELL 90° 1/2 P/ 3/4-16JIC MED. LONG |
| 30 | 1 | 330412 | VALVE, COUNTERBALANCE |
| 31 | 1 | 480212 | TUBE ASSEMBLY |
| 32 | 2 | 005810 | SCREW, HX.HD. 1/4NC X 1-3/4 LG-G5 |
| 33 | 1 | 480207 | HOSE ASSEMBLY |
| 34 | 1 | 480206 | HOSE ASSEMBLY |
| 35 | 1 | 200876 | ADAPTER, O-RING |
| 36 | 1 | 480194 | ELL, 90° #6 JIC SWIVEL/ #6 JIC |
| 37 | 1 | 241168 | TEE, O-RING/ 37° JIC |
| | | | |



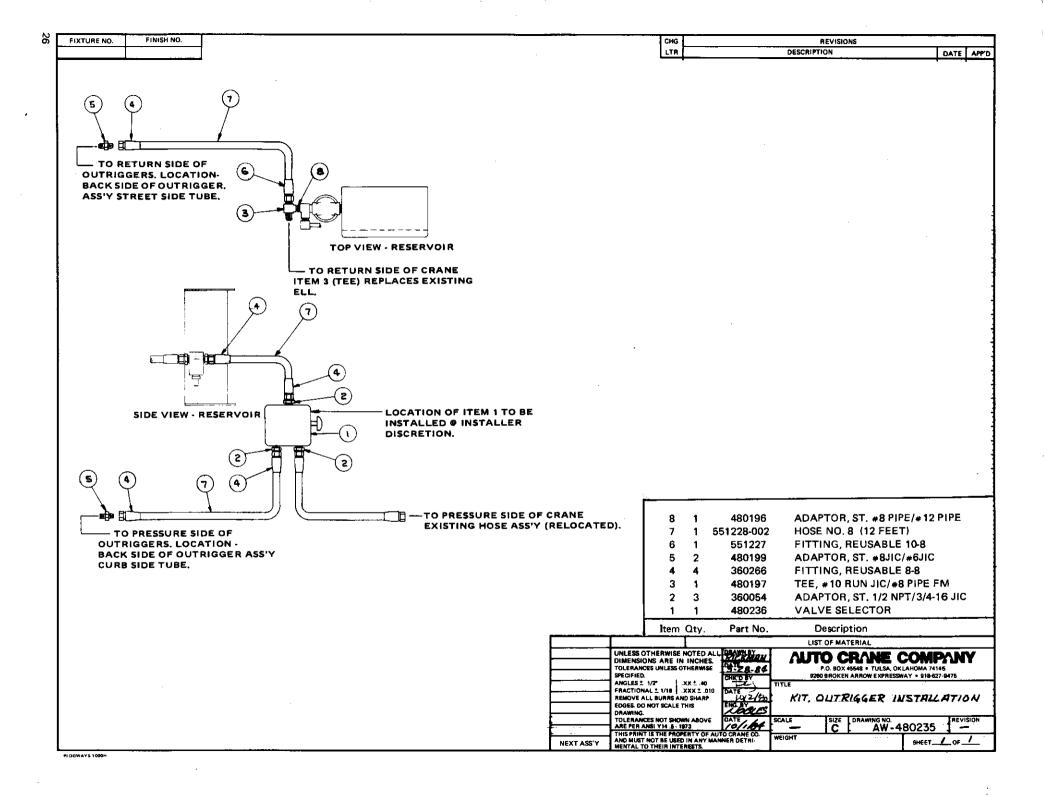


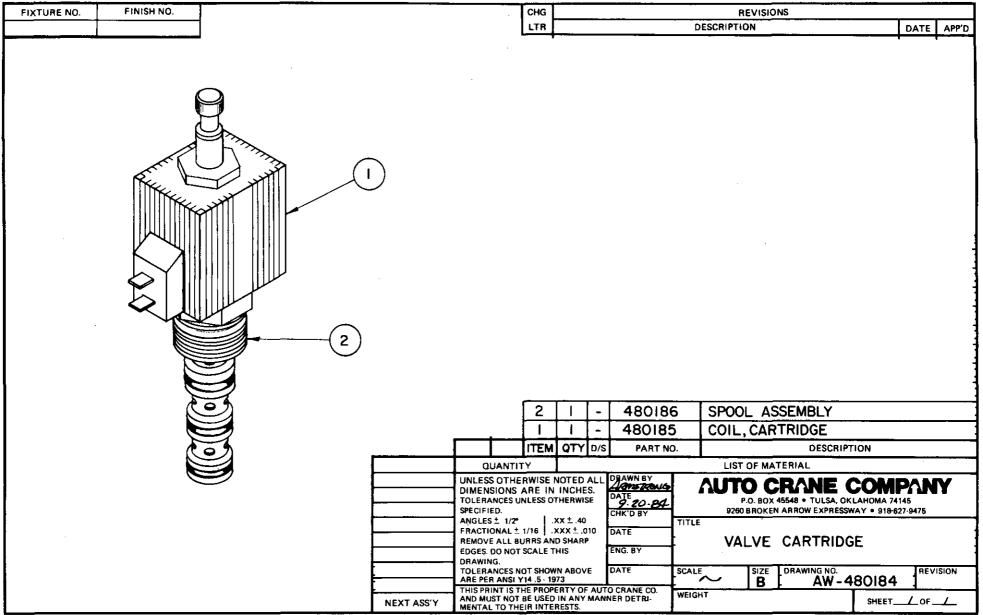
RESERVOIR ASSEMBLY - 8005H - AW-480150

| ITEM | QTY. | PART NO. | DESCRIPTION |
|-------------|--------|------------|--------------------------------------|
| 1 | 1 | 360151 | FILLER ASSY., RESERVOIR |
| 2 | 1 | 360156 | FILTER, HYD. FLUÍD |
| 2 3 | 1 | 480156 | VALVE, RELIEF (MAIN PRESSURE) |
| 4 | i | 360150 | PLUG, RESERVOIR SIGHT |
| | 1 | 360262 | TEE |
| 6 | 1 | 360263 | ELL |
| 5 6 7 | 1 | 551222 | ELL |
| 8 | 1 | 360264 | ELL |
| 9 | 1 | 551215 | ADAPTER, STRAIGHT |
| 10 | 1 | 360267 | TUBE ASSY. |
| 11 | 1 | 551228-001 | HOSE (SIZE 8) - 9 FT. |
| 12 | 2 | 551227 | FITTING, REUSABLE 10-8 |
| 13 | 1 | 360274-001 | HOSE (SIZE 12) - 20 FT. |
| 14 | 1 | 360275-001 | HOSE (SIZE 16) - 20 FT. |
| 15 | 4 | 360268 | CLAMPS, HOSE |
| 16 | 1 | 360270 | ADAPTER, STRAIGHT SUCTION |
| 17 | 1 | 480151 | RESERVOIR, WELDMENT |
| 18 | 1 | 360271 | CAP, DUST (1" I.D.) PLASTIC |
| 19 | 2 | 360272 | CAP, DUST (7/8" I.D.) PLASTIC |
| 20 | 2 | 360269 | FITTING, REUSABLE 10-12 |
| 21 | 1 | 360273 | ADAPTER, HOSE |
| 22 | 1 | 360054 | ADAPTER, ST. 1/2 NPT / 3/4-16 JIC |
| 23 | 2 1 | 360266 | FITTING, REUSABLE 8-8 |
| 24 | 1 | 360276 | CAP, DUST 3/4 I.D. PLASTIC |
| 25 | 1 | 360277 | FILTER, HYD. REPLACEMENT (NOT SHOWN) |

NOTE:

- 1. ITEMS 11, 12, 13, 14, 15, 20, 21 AND 23 ARE SHIPPED LOOSE FOR CUSTOMER INSTALLATION.
- 2. ORDER ITEM 25 WHEN REPLACEMENT FILTER IS NEEDED.





HYDRAULICS - 8005H

COUNTERBALANCE VALVE ADJUSTMENT

REF. SEE HYDRAULIC ASSEMBLY AW-016 - PAGE 21

- With PTO disengaged and boom properly supported, remove pipe plug (Item 21, P/N 000209) shown on Boom-Up Illustration. Install a pressure gauge (0 - 2500 psi) into tee (Item 20, P/N 480193).
- Engage PTO (Requirements: Pump speed setting 1000 R.P.M., 8 G.P.M., 2000 psi to crane). With no load on boom, boom-up to 75° (Boom-up cylinder fully extended). Activate Boom-down and note pressure reading. If pressure reading is not approximately 1300 psi, the counterbalance valve requires adjustment.
 - A. To increase the counterbalance setting, turn the adjustment screw counter-clockwise (Location: Front of Item 1, P/N 480187 Counterbalance Valve; curb side with boom toward cab. Adjustment: Loosen nut and adjust allen head set screw).
 - B. To reduce the counterbalance setting, turn the adjustment screw clockwise.
- 3. Tighten nut on adjustment screw and repeat procedure if needed to obtain the proper pressure setting.
- 4. Disengage PTO, remove the pressure gauge and install pipe plug. Crane is now ready for operation.

NOTE:

In an emergency situation when it becomes necessary to lower the boom without flow present, the counterbalance adjustment can be turned clockwise until the boom begins to descend.

RELIEF VALVE SETTING

REF. SEE RESERVOIR ASSEMBLY AW-480150 - PAGE 24

- The crane must receive 8 GPM and 2000 psi. To assure proper flow, install an in-line flow meter between the
 crane and the reservoir in the return hose or confirm pump (480018) speed at 1000 R.P.M. Proper pressure
 setting can be achieved by removing the pipe plug (P/N 000209, Item 21 of Hydraulic Assembly AW-016) from
 the boom cylinder and installing a 0 2500 psi pressure gauge. This should be done with the Boom-up cylinder
 fully retracted.
- 2. The boom can now be elevated to 75° (full extension) and the pressure on the gauge noted. If the gauge reading is not 2000 psi, adjust the pressure relief (P/N 480156, Item 3 of Reservoir Assy AW-480150) until the correct pressure is registered. Verify this setting by booming down to 60°, then booming up to full cylinder extension and the pressure checked for 2000 psi.
- 3. Disengage PTO. Remove gauge and re-install the pipe plug. Crane is now ready for operation.

8005H SERIES HYDRAULICS TROUBLESHOOTING

The hydraulic system of the 8005H power version is electrically operated and requires a minimum of 12V for satisfactory performance. The hydraulic pump is bi-rotational with a pressure relief setting of 2000 p.s.i. (REF.) Standard pump speed to be 1000 R.P.M. (Ref. Pump P/N 480018).

| PROBLEM |
|---------|
|---------|

SOLUTION

FLOW PRESENT BUT FUNCTION WILL NOT WORK

Remove valve cover (P/N 480160, Item 7, Page 10) to gain access to the manual override on the end of the valve cartridge (Ref. AW-480184). If the pump is operating, and pushing the manual override in does not operate the selected function, check pump pressure. If the function does operate, check for loose wire, low voltage or bad ground. If the above items check out all right, replace valve cartridge. If the problem is traced to no voltage at the valve cartridge, remove pendant and with the switch engaged check for an open circuit with an ohmmeter. If the circuit is open, check for broken wiring or bad switch.

HYDRAULIC "CHATTER"

When a hydraulic function is engaged and causes the crane to "chatter," check for loose wire, low voltage at valve cartridge, or low pump pressure.

NO FLOW OR CRANE FAILS TO MOVE WHEN OPERATED

Check to maintain adequate oil in reservoir (approx. 8 gal.) by means of sight gauge. Replace if coupling or coupling key is broken. Correct if relieve valve stuck open. Check for pressure line blockage. Make sure pump is working correctly. Also check actuator. Insure no restriction in suction line. Check valve cartridge.

Progressively disconnect fittings at test points to verify existence of flow. Rule: Pumps pump flow only; systems and their loads-resistances produce pressure, up to that limit imposed by lowest pressure limiting device exposed to pressure.

NO PRESSURE OR TOO LOW PRESSURE

Check to maintain adequate oil in reservoir (approx. 8 gal.) by means of sight gauge. Make sure pressure gauge is functioning correctly. Possible relief hung open. Check for excessive leakage and correct. Check to insure that pressure limit switch is correctly set.

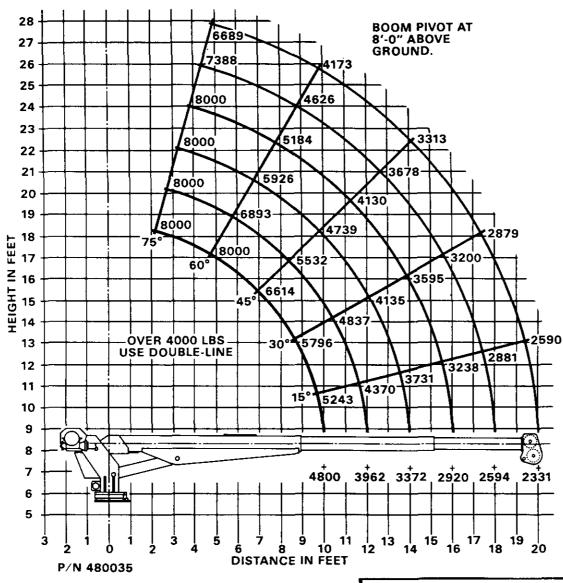
Progressively test circuit points to determine pressure existence.

TOO HIGH FLOW

Make sure pump size is correct and pump speed is not too fast (1000 R.P.M.). Check or replace flow control. Check components for flow displacements.

TOO HIGH PRESSURE

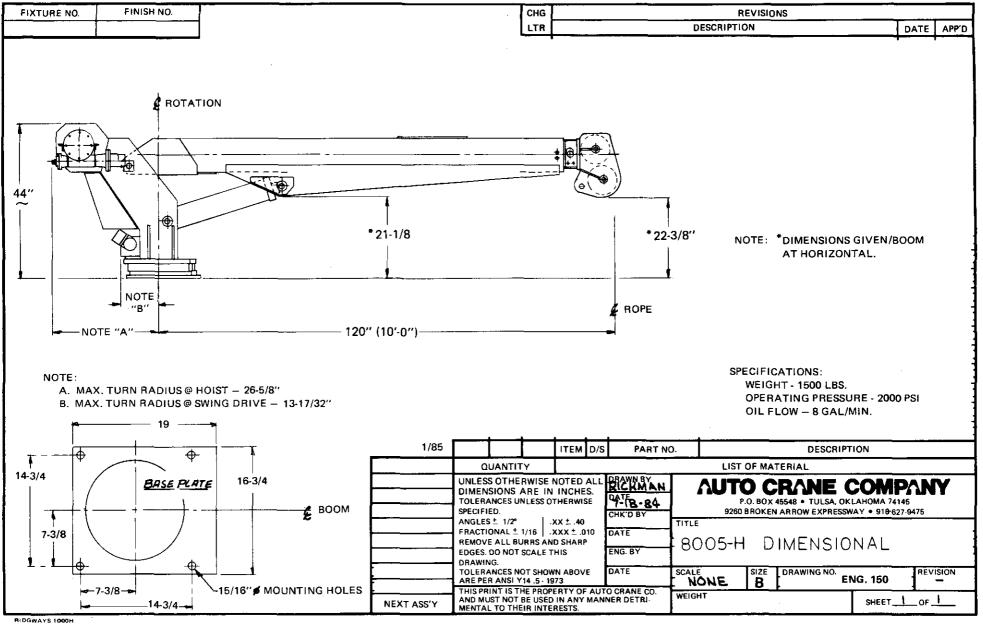
Make sure pressure limit switch is correctly set.

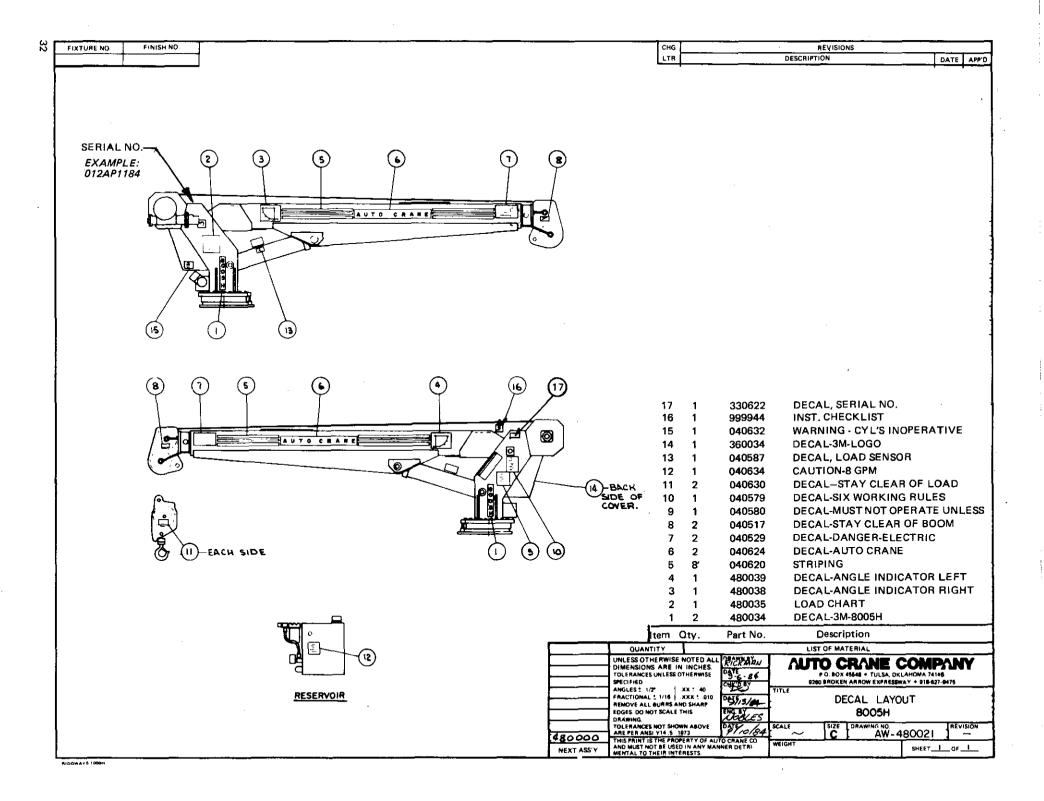


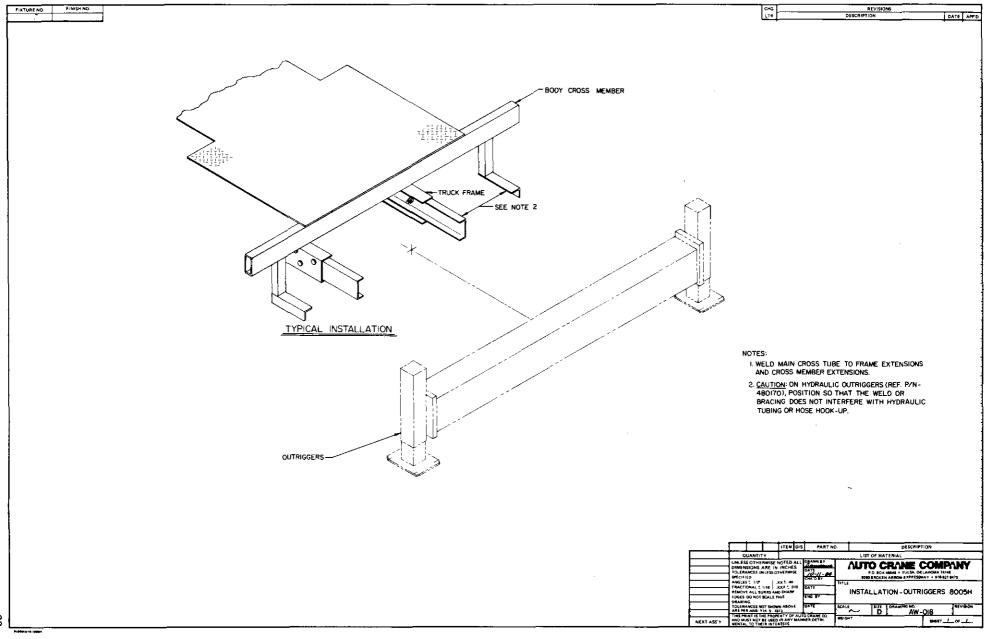
AUTO CRANE COMPANY

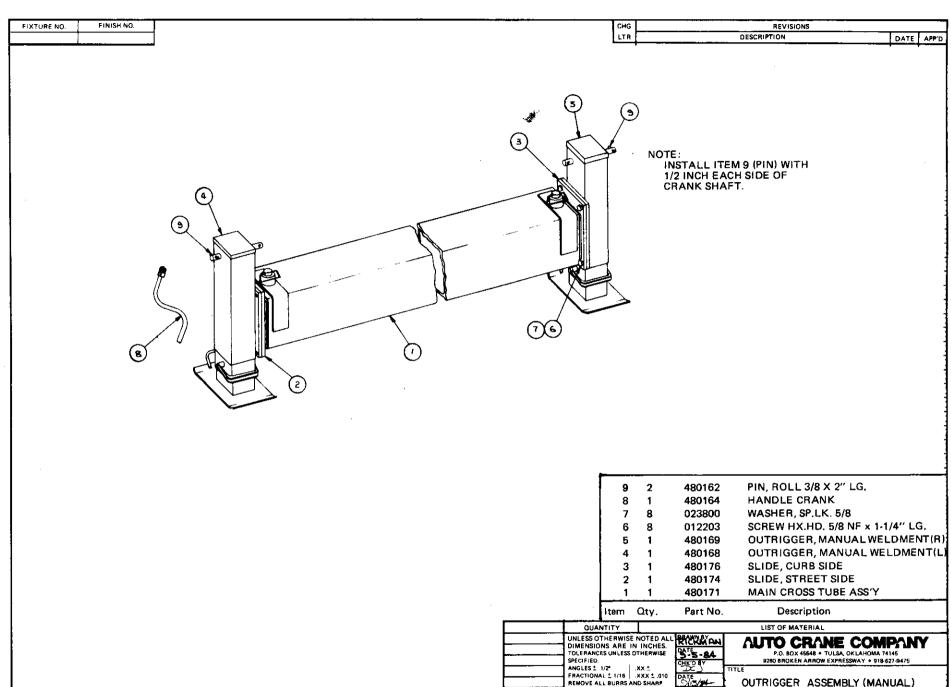
P.O. BOX 45548 • TULSA, OKLAHOMA 74145 9260 BROKEN ARROW EXPRESSWAY • 918-627-9475

TITLE LOAD CHART-8005H DWG. NO. AW-480035









EDGES. DO NOT SCALE THIS ORAWING.

NEXT ASS'Y

ORAWING.
TOLERANCES NOT SHOWN ABOVE

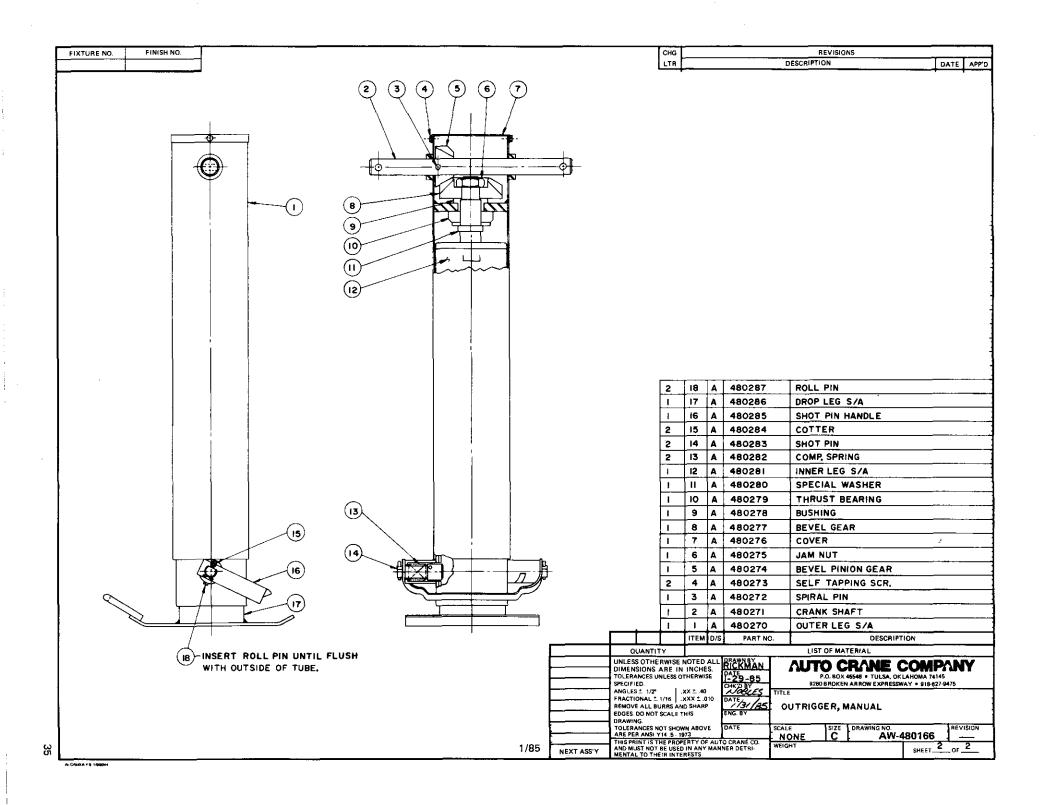
DATE
ARE PER ANSI Y14.5 · 1973

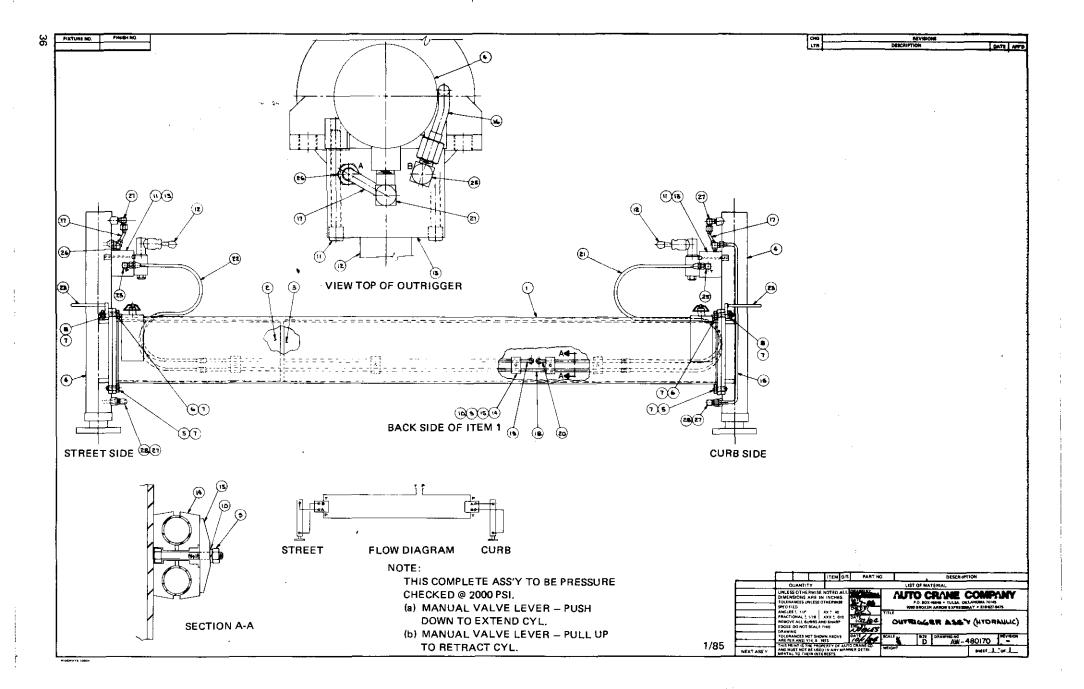
THIS PRINT IS THE PROPERTY OF AUTO CRAWE CO.
AND MUST NOT BE USED I'M ANY MANNER DETRIMENTAL TO THEIR INTERESTS.

DRAWING NO. AW-480165

SHEET 1 OF 1

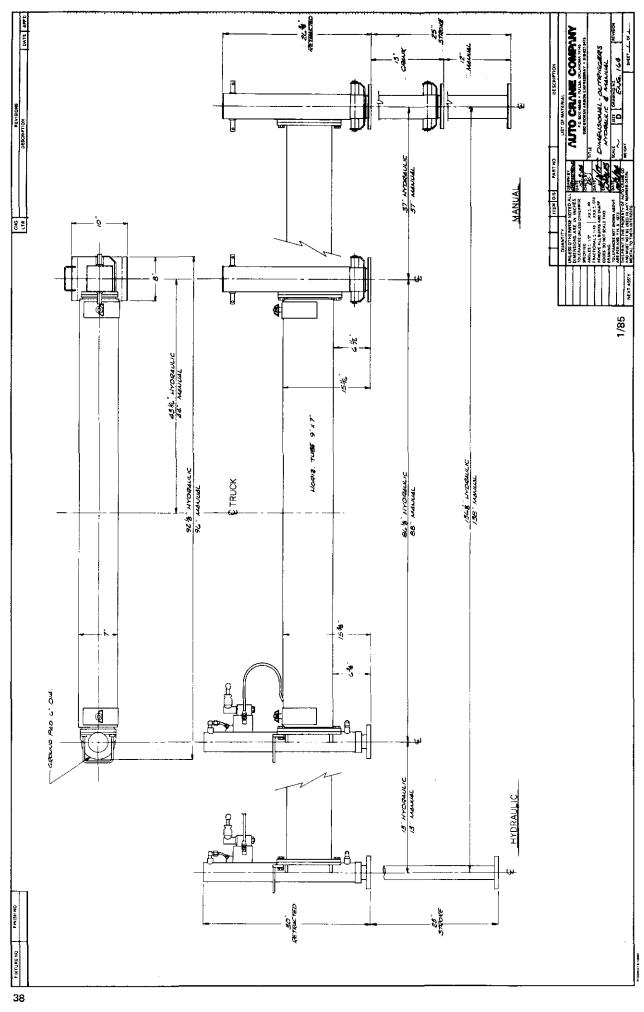
RIDGWAYS 1000H

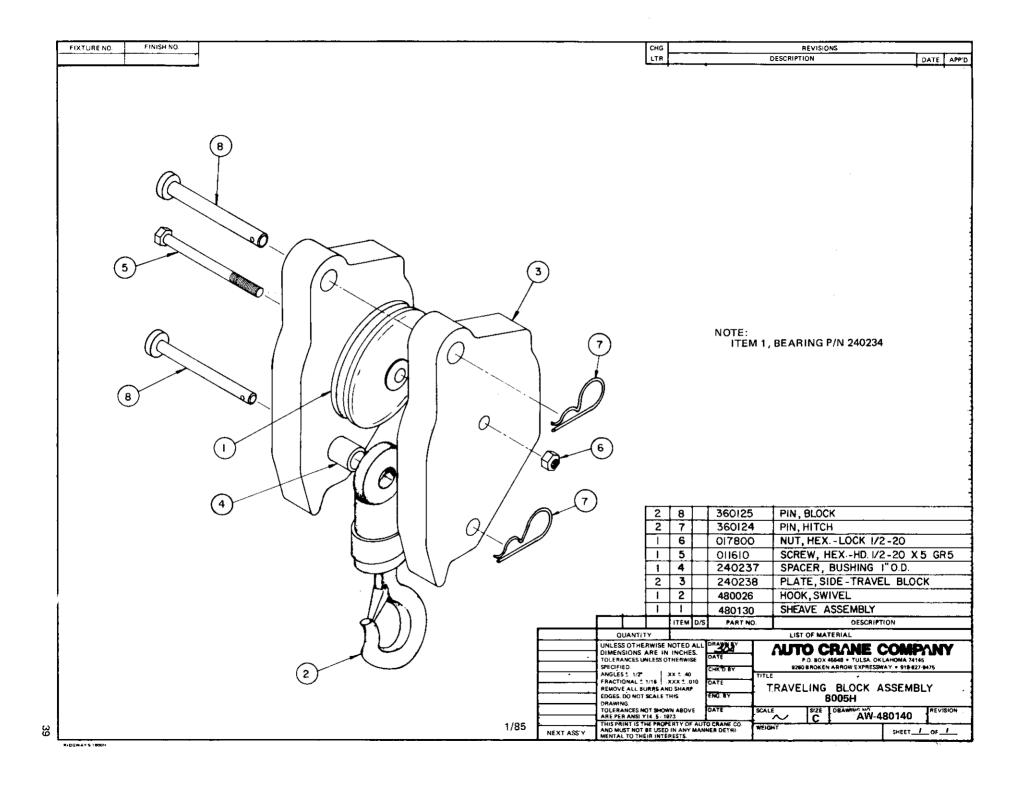




OUTRIGGER ASSEMBLY (HYDRAULIC) - AW-480170

| OUTHIGGER ASSEMBLT (ITT DITACEO) - ATT-400170 | | | | |
|---|-------------|----------|------------------------------------|--|
| ITEM | QTY. | PART NO. | DESCRIPTION | |
| 1 | 1 | 480171 | MAIN CROSS TUBE ASS'Y | |
| 2 | 1 | 480174 | SLIDE, STREET SIDE | |
| 3 | 1 | 480176 | SLIDE, CURB | |
| 4 | 2 | 480017 | CYLINDER | |
| 5 | 4 | 012203 | SCREW HX.HD. 5/8 NF x 1-1/4" LG. | |
| 6 | 4 | 013506 | SCREW HX.HD. 5/8 NF x 2-1/4" LG. | |
| 7 | 12 | 023800 | WASHER, SPLK 5/8 | |
| 8 | 4 | 018302 | NUT, HX. 5/8 NF | |
| 9 | 5 | 016500 | NUT, HX. 5/16 NC | |
| 10 | 5 | 020600 | WASHER, SP LK 5/16 | |
| 11 | 4 | 003905 | SCREW, SC.HD. 5/16-24 x 3-1/4" LG. | |
| 12 | 2 | 480230 | VALVE, MANUAL - OUTRIGGER | |
| 13 | 2 | 480231 | MANIFOLD - OUTRIGGER | |
| 14 | 5 5 2 | 480232 | CLAMP HALVES | |
| 15 | 5 | 480233 | PLATE, TWIN COVER | |
| 16 | 2 | 480220 | TUBE ASS'Y - LEG | |
| 17 | 2 | 480221 | TUBE ASS'Y - LEG | |
| 18 | 1 | 480222 | TUBE ASS'Y | |
| 19 | 1 | 480223 | TUBE ASS'Y | |
| 20 | 1 | 480224 | TUBE ASS'Y | |
| 21 | 2 | 480225 | HOSE ASS'Y O.R CURB | |
| 22 | 2 | 480226 | HOSE ASS'Y O.R STREET | |
| 23 | 2 | 480227 | HANDLE ASS'Y | |
| 24 | 1 | 480235 | KIT, OUTRIGGER INSTALLATION | |
| 25 | 6 | 241175 | ELL 90° #6 O-RING/# 6 JIC STD | |
| 26 | 2 | 480195 | ELL 45° #6 O-RING/#6 JIC | |
| 27 | 4 | 200892 | ELL 90° #6 PIPE/#6 JIC | |
| 28 | 2 | 360048 | ELL 90° #6 PIPE M/#6 PIPE FM | |
| 29 | 1 | 480014 | SEAL KIT (For 480017 - O.R. Cyl.) | |
| 1 | | | · | |







AUTO CRANE COMPANY

P. O. BOX 581510 • TULSA, OKLAHOMA 74158

Limited Warranty

Auto Crane Company warrants to Consumer for a period of six (6) months from date of purchase, each new Auto Crane product sold by it to be free, under normal use and service, from defects in material and workmanship. Such warranty is expressly limited to the replacement or the repair of parts without charge exclusive of component accessories, which are returned, with all transportation charges prepaid, to Auto Crane Company's factory in Tulsa, Oklahoma, and are disclosed, upon the inspection and to the satisfaction of Auto Crane Company to be thus defective.

This warranty does not obligate Auto Crane Company to bear the cost of labor or parts or transportation charges in connection therewith when the replacement or repair of parts claimed to be defective is performed by a party other than Auto Crane Company; nor shall this warranty apply to an Auto Crane product upon which any alterations or repairs, other than normal maintenance, have been made without the approval of Auto Crane Company.

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

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

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.

5-1-84



AUTO CRANE SERVICE POLICY



Auto Crane's main service point is Tulsa, Oklahoma.

Other service points staffed by trained factory personnel.

REQUESTS FOR SERVICE

Requests for service and parts on Auto Crane products may be made with your nearest Auto Crane distributor or by calling Auto Crane Company at 918–438-2760.

PARTS

Parts orders may be placed through any authorized Auto Crane distributor or dealer. Parts returned to the factory by an authorized Auto Crane distributor or dealer for warranty adjustment, are to be prepaid. If, upon inspection at our plant, such part or parts are deemed to be defective, credit will be issued.

Authority to return special parts not carried in current stocks, may be granted by Auto Crane Company with credit being determined at that time. PARTS MAY NOT BE RETURNED TO THE FACTORY FOR CREDIT WITHOUT THE EXPRESS AUTHORITY OF AUTO CRANE COMPANY.

ALL returned parts, when authorized by Auto Crane Company must have transportation charges prepaid.

FACTORY SERVICE TRAVEL EXPENSE

Regular Field Service Vehicle — 0.30 per mile. Air Lines — Regular Coach Fare when Available. Other transportation prices upon application.

EXPENSES

All expenses incurred by factory serviceman while on customer's service job will be based upon the total of such expense to Auto Crane, except \$50.00 per man per day will be charged when serviceman remains away from home base overnight.

OVERTIME RATES

Overtime is all time other than regular time and holidays. Overtime and holiday rate is one and a half times regular time rates.

Regular time rates apply between the hours of 8:00 AM and 5:00 PM Monday through Friday, except on holidays.

Holidays are New Year's Day, Good Friday, Memorial Day, Independence Day, Labor Day, Thanksgiving Day, Friday after Thanksgiving Day, Christmas Eve, Christmas Day.

MISCELLANEOUS SERVICE CHARGES

Any miscellaneous expenses incurred in the repair of the unit, such as machining or welding work not performed by the serviceman — whether in the field or at a shop (other than Auto Crane's) — will be charged to the customer. Customer may, however, have such work done in their shops or on their own order if they so desire.

Special work desired by the customer such as changing a unit over from one truck to another, installing new accessories on old equipment, adapting booms to unit not originally constructed, may be arranged for and charges will be based on the nature of the work, the amount of engineering involved, etc.

REGULAR SHOP AND FIELD RATES

Shop rate \$30.00 per hour Field rate, experienced Serviceman \$30.00 per hour

NOTE:

Service rates start when Auto Crane's employee is assigned to the job or field activity pursuant to the customer's service request. Rates subject to change without notice.

(Rates Subject to Change Without Notice)

SERVICE PHONES -

For Service or Parts, call the Service Department

For fast efficient service call Auto Crane Company, (Mail address: P. O. Box 581510, Tulsa, Oklahoma 74158), or your nearest Auto Crane Distributor or Dealer.