WARNINGS

READ THIS PAGE!

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

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

- WARNING! NEVER OPERATE THE CRANE NEAR ELECTRICAL POWER LINES! Auto Crane Company recommends that a crane never be moved any closer than 10 feet (3.05m) from power lines at any point. SEE DANGER DECAL (P/N 040529) in this Owner's Manual.

- WARNING! NEVER ....................
  - EXCEED load chart capacities (centerline of rotation to hoist hook).
  - un-reel last 5 wraps of cable from drum!
  - wrap cable around load!
  - attempt to lift or drag a load from the side! The boom can fail far below its' rated capacity.
  - weld, modify, or use unauthorized components on any Auto Crane unit! This will void any warranty or liability. Also failure of the crane may result.
  - place a chain link on the tip of the hook and try to lift a load!
  - use a sling bar or anything larger than the hook throat that could prevent the hook latch from closing, thus negating the safety feature!
  - hold on any pendant Select Switch that will cause unsafe operating conditions!

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

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

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

- WARNING! ALWAYS operate the crane in compliance with the load capacity chart. Do not use the overload shutdown device to determine maximum rated loads, if your crane is equipped with this type of device.
<table>
<thead>
<tr>
<th>1</th>
<th>INTRODUCTION</th>
<th>1-1.0.0</th>
</tr>
</thead>
<tbody>
<tr>
<td>2</td>
<td>SAFETY TIPS AND PRECAUTIONS</td>
<td>1-2.0.0</td>
</tr>
<tr>
<td>3</td>
<td>OPERATION OF UNIT / OUTRIGGERS</td>
<td>1-3.0.0</td>
</tr>
<tr>
<td>4</td>
<td>QUALIFICATIONS FOR AND CONDUCT OF OPERATORS</td>
<td>1-4.0.0</td>
</tr>
<tr>
<td>5</td>
<td>INSPECTION, TESTING &amp; MAINTENANCE</td>
<td>1-5.0.0</td>
</tr>
<tr>
<td>6</td>
<td>MOUNTING AND INSTALLATION</td>
<td>2-1.0.0</td>
</tr>
<tr>
<td>7</td>
<td>CRANE ORIENTATION AND HYDRAULIC HOOKUP</td>
<td>2-2.0.0</td>
</tr>
<tr>
<td>8</td>
<td>SAFETY DECAL SECTION</td>
<td>2-3.0.0</td>
</tr>
<tr>
<td>9</td>
<td>GENERAL DIMENSIONS</td>
<td>2-4.0.0</td>
</tr>
<tr>
<td>10</td>
<td>AMPLIFIER SETUP PROCEDURE</td>
<td>2-5.0.0</td>
</tr>
<tr>
<td>11</td>
<td>OPTIMETER TROUBLESHOOTING</td>
<td>2-7.0.0</td>
</tr>
<tr>
<td>12</td>
<td>HYDRAULIC Valves, Troubleshooting</td>
<td>3-1.0.0</td>
</tr>
<tr>
<td>13</td>
<td>WIRE LINE MAINTENANCE</td>
<td>3-4.0.0</td>
</tr>
<tr>
<td>14</td>
<td>LUBRICATION &amp; MAINTENANCE SCHEDULE</td>
<td>3-5.0.0</td>
</tr>
<tr>
<td>15</td>
<td>GENERAL ASSEMBLY (PEDESTAL)</td>
<td>4-1.0.0</td>
</tr>
<tr>
<td>16</td>
<td>BOOM ASSEMBLY</td>
<td>4-4.0.0</td>
</tr>
<tr>
<td>17</td>
<td>TWO-BLOCK ASSEMBLY</td>
<td>4-5.0.0</td>
</tr>
<tr>
<td>18</td>
<td>AUTOMATIC SAFETY BRAKE</td>
<td>4-7.0.0</td>
</tr>
<tr>
<td>19</td>
<td>ROTATION GEAR BOX</td>
<td>4-8.0.0</td>
</tr>
<tr>
<td>20</td>
<td>HOIST ACTUATOR</td>
<td>4-10.0.0</td>
</tr>
<tr>
<td>21</td>
<td>ELECTRICAL SECTION</td>
<td>5-1.0.0</td>
</tr>
<tr>
<td>22</td>
<td>HYDRAULIC SECTION</td>
<td>6-1.0.0</td>
</tr>
</tbody>
</table>

Revision 11/94
23  RESERVOIR ASSEMBLY ........................................... 6-9.0.0
24  OUTRIGGERS ......................................................... 7-1.0.0
25  MISCELLANEOUS ....................................................... 8-1.0.0
26  LOAD CHART .......................................................... 9-9.9.9
27  WARRANTY ............................................................ LAST PAGE
INTRODUCTION
6006H SERIES

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

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

Auto Crane has incorporated several safety features in the 6006H series cranes for your protection. The choice of materials and the design of the electrical system minimizes weight and lends durability. The hydraulic components meet or exceed a 3.5:1 safety factor. Holding valves prevent the load from dropping if a hose should fail. A 10μ filter in the return line of the hydraulic system removes dirt and grit that may cause erratic operation. The reservoir has a 15μ air filter in the filter cap. The pump has a 40 mesh strainer in the suction line.

For your convenience the overall dimensions of the 6006H series crane are on the General Dimension Drawing. Maximum turning radius at both the hoist motor and the rotation motor are also on that drawing.

Remember, the crane adds weight to the vehicle. Adding weight may change the driving and riding characteristics of the vehicle unless the appropriate overload spring(s) are installed on the truck. The payload of the vehicle is reduced by the weight of the crane. The operator should exercise care when loading the vehicle. Distributing the payload on the vehicle evenly will greatly improve the driving and riding characteristics of the vehicle. A minimum G.V.W. of 14,500 lbs. is recommended for mounting the 6006H 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 a warranty claim involves discrepant material or workmanship, Auto Crane will take immediate corrective action. It is understandable that Auto Crane company cannot assume responsibility or liability when it is obvious that our products have been abused, mis-used, overloaded or otherwise damaged by inexperienced persons trying to operate the equipment without reading the manual.

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

Auto Crane maintains a strong distributor network and a knowledgeable Customer Service Department. In most cases, an equipment problem is solved via phone conversation with our customer service department. The customer service department also has the ability to bring a local distributor, a regional sales manager, or a factory serviceman into the solution of an equipment problem.

If, through no fault of Auto Crane company, it is necessary to send an experienced factory serviceman on a field service call, the rates stated in the Auto Crane Distributor's Flat Rate Manual will apply.

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

DISTRIBUTOR ASSISTANCE:

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

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

This manual does not cover all maintenance, operating, or repair instructions pertinent to all possible situations. If you require additional information, please contact the Auto Crane Company at the following telephone number: (918) 438-2760. The information contained in the manual is in effect at the time of this printing. Auto Crane Company reserves the right to update this material without notice or obligation.
--- IMPORTANT ---

SAFETY TIPS AND PRECAUTIONS

1. Make certain the vehicle meets minimum chassis requirements. (These requirements do not guarantee unit stability)
2. Make certain the crane is installed per factory specifications. Contact your local Distributor or the Auto Crane factory if any questions arise.
3. Keep the vehicle in an elevated position as possible while loading or unloading.
4. ALWAYS set the vehicle emergency brake before beginning crane operations.
5. ALWAYS use outriggers from vehicle to the ground during crane operation. Make sure they are firmly positioned on solid footings.
6. All load ratings are based on crane capacity, NOT truck/crane stability.
7. Keep objects and personnel clear of crane path during operation.
8. Keep hoist cable pulled tight at all times.
9. REMEMBER, in lifting a heavy load, the weight can create enough tipping moment to overturn the vehicle.
10. ALWAYS keep load as close to ground as possible.
11. Oil gears as required.
12. Periodic adjustment of hoist worm brake may be required (see automatic safety brake drawing in this manual).
13. Hydraulic hoses need to be inspected frequently for signs of deterioration, and be replaced as required.
14. The hoist hook is an important item that an operator should consider and use properly. It should be checked on a daily basis for distortion or cracks.
15. ALWAYS store outriggers before road travel.

16. NEVER OPERATE THE CRANE NEAR ELECTRICAL POWER LINES! Auto Crane Company recommends that a crane never be moved any closer than 10 feet (3.05m) from power lines at any point. SEE DANGER DECAL (P/N 040529) in this Owner's Manual.
17. NEVER un-reel last 5 wraps of cable from drum!
18. NEVER wrap cable around load!
19. NEVER attempt to lift or drag a load from the side! The boom can fail far below its rated capacity.
20. NEVER weld, modify, or use unauthorized components on any Auto Crane unit! This will void any warranty or liability. Also failure of the crane may result.
21. NEVER place a chain link on the tip of the hook and try to lift a load!
22. NEVER use a sling bar or anything larger than the hook throat that could prevent the hook latch from closing, thus negating the safety feature!
23. In using a hook with latch, ALWAYS insure that the hook throat is closed before lifting a load! Proper attention and common sense applied to the use of the hoist hook and various slings will prevent possible damage to material being hoisted and may prevent injury to personnel.
24. NEVER hold any pendant Select Switch on that will cause unsafe operating conditions!
25. NEVER EXCEED load chart capacities (centerline of rotation to hoist hook).
--- IMPORTANT ---

OPERATION OF UNIT

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

OPERATION OF OUTRIGGERS

Prior to operating outriggers, detach crane hook from dead man.

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

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

REVISED 10/94
QUALIFICATIONS FOR AND CONDUCT OF OPERATORS AND OPERATING PRACTICES

OPERATORS

1 Crane operation shall be limited to personnel with the following minimum qualifications:
   A. designated persons
   B. trainees under the direct supervision of a designated person
   C. maintenance and test personnel (when it is necessary in the performance of their duties)
   D. inspectors (crane).

2 No one other than the personnel specified above shall enter the operating area of a crane with the exception of persons such as oilers, supervisors, and those specified persons authorized by supervisors whose duties require them to do so and then only in the performance of their duties and with the knowledge of the operator or other persons.

QUALIFICATIONS FOR OPERATORS

3 Operators shall be required by the employer to pass a practical operating examination. Qualifications shall be limited to the specific type of equipment for which examined.

4 Operators and operator trainees shall meet the following physical qualifications:
   A. Vision of at least 20/30 snellen in one eye and 20/50 in the other, with or without corrective lenses.
   B. Ability to distinguish colors, regardless of position, if color differentiation is required for operation.
   C. Adequate hearing with or without hearing aid for the specific operation.

5 Evidence of physical defects or emotional instability which render a hazard to operator or others, which in the opinion of the examiner could interfere with the operator's performance may be sufficient cause for disqualification. In such cases, specialized clinical or medical judgement and tests may be required.

6 Evidence that the operator is subject to seizures or loss of physical control shall be sufficient reason for disqualification. Specialized medical tests may be required to determine these conditions.

7 Operators and operator trainees should have normal depth perception, coordination, and no tendencies to dizziness or similar undesirable characteristics.

8 In addition to the above listed requirements, the operator shall:
   A. Demonstrate the ability to comprehend and interpret all labels, operator's manuals, safety codes and other information pertinent to correct crane operations.
   B. Possess knowledge of emergency procedures and implementation of same.
   C. Demonstrate to the employer the ability to operate the specific type of equipment.
   D. Be familiar with the applicable safety regulations.
   E. Understand responsibility for maintenance requirements of crane.
   F. Be thoroughly familiar with the crane and its control functions.
   G. Understand the operating procedures as outlined by the manufacturer.

CONDUCT OF OPERATORS

9 The operator shall not engage in any practice which will divert his attention while actually operating the crane.

10 Each operator shall be responsible for those operations under the operator's direct control. Whenever there is any doubt as to safety, the operator shall consult with the supervisor before handling the loads.

11 The operator should not leave a suspended load unattended unless specific precautions have been instituted and are in place.

12 If there is a warning sign on the switch or engine starting controls, the operator shall not close the switch or start the engine until the warning sign has been removed by the appointed person.

13 Before closing the switch or starting the engine, the operator shall see that all controls are in the "OFF" or neutral position and all personnel are in the clear.

14 If power fails during operation, the operator shall:
   A. move power controls to the "OFF" or neutral position.
   B. land the suspended load and boom, if practical.

15 The operator shall be familiar with the equipment and its proper care. If adjustments or repairs are necessary, the operator shall report the same.
QUALIFICATIONS FOR AND CONDUCT OF OPERATORS AND OPERATING PRACTICES

promptly to the appointed person, and shall also notify the next operator.

16 All controls shall be tested by the operator at the start of each shift. If any controls do not operate properly, they shall be adjusted or repaired before operations are begun.

17 Stabilizers shall be visible to the operator while extending or setting unless operator is assisted by a signal person.

OPERATING PRACTICES

HANDLING THE LOAD

18 Size of load
   A. No crane shall be loaded beyond the rated load except for test purposes.
   B. The load to be lifted is to be within the rated load of the crane and its existing configuration.
   C. When loads which are not accurately known are to be lifted, the person responsible for the job shall ascertain that the weight of the load does not exceed the crane rated load at the radius at which the load is to be lifted.

19 Attaching the load
   A. The load shall be attached to the hook by means of slings or other devices of sufficient capacity.
   B. Hoist rope shall not be wrapped around the load.

20 Moving the load
   A. The operator shall determine that:
   B. The crane is level and, where necessary, the vehicle/crane is blocked properly.
   C. The load is well secured and balanced in the sling or lifting device before it is lifted more than a few inches.

D. Means are provided to hold the vehicle stationary while operating the crane.

E. Before starting to lift, the hook shall brought over the load in such a manner as to minimize swinging.

F. During lifting care shall be taken that:
   1. there is no sudden acceleration or deceleration of the moving load.
   2. load, boom or other parts of the crane do not contact any obstruction.

G. Cranes shall not be used for dragging loads sideways.

H. The operator should avoid carrying loads over people.

I. When the crane is so equipped, the stabilizers shall be fully extended and set. Blocking under stabilizers shall meet the requirements as follows:
   1. strong enough to prevent crushing.
   2. of such thickness, width and length as to completely support the stabilizer pad.

J. Firm footing under all tires, or individual stabilizer pads should be level. Where such a footing is not otherwise supplied, it should be provided by timbers, cribbing, or other structural members to distribute the load so as to not exceed allowable bearing capacity or the underlying material.

K. In transit, the boom shall be carried in stowed position.

L. The crane shall not be transported with a load on the hook unless recommended by the manufacturer.

M. No person should be permitted to stand or pass under a suspended load.

21 Stowing procedure. Follow the manufacturer’s procedure and sequence when stowing and un-stowing the crane.
MISCELLANEOUS

OPERATING NEAR ELECTRICAL POWER LINES

22 Except where the electrical distribution and transmission lines have been de-energized and visibly grounded at point of work or where insulating barriers not a part of, or an attachment to, the crane have been erected to prevent physical contact with the lines, cranes shall operate so that no part of the crane or load enters within 10 ft. (3m).

A. caution shall be exercised when working near overhead lines having long spans as they tend to move laterally or vertically due to the wind which would breach the safety zone.

B. in transit with no load and boom lowered the clearance shall be 10 ft. (3.0m)

C. a qualified signal person shall be assigned to observe the 10 ft. (3.0m) clearance and give warning before approaching above.

23 Any overhead wire shall be considered to be an energized line unless and until the person owning such line or the electrical utility authorities verify that it is not an energized line.

24 Exceptions to this procedure, if approved by the administrative or regulatory authority if the alternate procedure provides equivalent protection and set forth in writing.

25 Durable signs shall be installed at the operator's station and on the outside of the crane, warning that electrocution or serious bodily injury may occur unless a minimum clearance of 10 ft. (3.0m) between the crane or the load being handled and energized power lines. Greater clearances are required because of higher voltage as stated above. These signs shall be revised but not removed when local jurisdiction requires greater clearances.
INSPECTION, TESTING AND MAINTENANCE

GENERAL

INSPECTION CLASSIFICATION

1 Initial inspection. Prior to initial use, all new, altered, modified or extensively repaired cranes shall be inspected by a designated person to ensure compliance with provisions of this standard.

2 Regular inspection. Inspection procedure for cranes in regular service is divided into two general classifications based upon the intervals at which inspection should be performed. The intervals in turn are dependent upon the nature of the components of the crane and the degree of their exposure to wear, deterioration, or malfunction. The two general classifications are herein designated as "frequent" and "periodic" with respective intervals between inspections as defined below.

A. frequent inspection - daily to monthly intervals.

B. periodic inspection - one to twelve intervals, or as specifically recommended by the manufacturer.

FREQUENT INSPECTION

3 Inspection shall be performed by designated personnel.

A. control mechanisms for maladjustment interfering with proper operation - daily, when used;

B. control mechanisms for excessive wear of components and contamination by lubricants or other foreign matter;

C. safety devices for malfunction:

D. all hydraulic hoses, particularly those which flex in normal operation of crane functions, should be visually inspected once every working day, when used;

E. hooks and latches for deformation, chemical damage, cracks, and wear. Refer to ANSI/ASME B30.10;

F. rope reeving for compliance with crane manufacturer's specifications, if optional winch is used;

G. electrical apparatus for malfunctioning, signs of excessive deterioration, dirt and moisture accumulation;

H. hydraulic system for proper oil level and leaks daily;

I. tires for recommended inflation pressure, cuts and loose wheel nuts;

J. connecting pins and locking device for wear and damage;

PERIODIC INSPECTION

4 Deformed, cracked or corroded members in the crane structure and carrier;

5 Loose bolts, particularly mounting bolts;

6 Cracked or worn sheaves and drums;

7 Worn, cracked, or distorted parts such as pins, bearings, shafts, gears, rollers and devices;

8 Excessive wear on brake and clutch system parts and lining;

9 Crane hooks inspected for cracks;

10 Travel steering, braking, and locking devices, for malfunction;

11 Excessively worn or damaged tires;

12 Hydraulic and pneumatic hose, fittings, and tubing inspection;

A. evidence of leakage at the surface of the flexible hose or its junction with metal and coupling;

B. blistering, or abnormal deformation to the outer covering of the hydraulic or pneumatic hose;
C. leakage at threaded or clamped joints that cannot be eliminated by normal tightening or recommended procedures;
D. evidence or excessive abrasion or scrubbing on the outer surface of a hose, rigid tube, or fitting. Means shall be taken to eliminate the interference of elements in contact or otherwise protect the components.

13 Hydraulic and pneumatic pumps and motors inspection
A. loose bolts or fasteners;
B. leaks at joints between sections;
C. shaft seal leaks;
D. unusual noises or vibrations;
E. loss of operating speed;
F. excessive heating of the fluid;
G. loss of pressure.

14 Hydraulic and pneumatic valves inspection
A. cracks in valve housing;
B. improper return of spool to neutral position;
C. leaks at spools or joints;
D. sticking spools;
E. failure of relief valves to attain or maintain correct pressure setting;
F. relief valve pressure shall be checked as specified by the manufacturers.

15 Hydraulic and pneumatic cylinders inspection
A. drifting caused by fluid leaking across piston;
B. rod seals leaking
C. leaks at welding joints
D. scored, nicked, or dented cylinder rods;
E. damaged case (barrel);
F. loose or deformed rod eyes or connecting joints.

16 Hydraulic filters. Evidence of rubber particles on the filter elements may indicate hose, "O" ring, or other rubber component deterioration. Metal chips or pieces on the filter may denote failure in pumps, motors, or cylinders. Further checking will be necessary to determine origin of the problem before corrective action can be taken.

17 Labels are to be in place and legible.

CRANES NOT IN REGULAR USE

18 A crane which has been idle for a period of over one month or more, but not less than six months, shall be given an inspection conforming with the initial-regular-frequent inspections.

19 A crane which has been idle for a period of over six months shall be given a complete inspection conforming with the initial-regular-frequent inspection requirements.

INSPECTION RECORDS

20 Dated records for periodic inspection should be made on critical items such as brakes, crane hooks, rope, hydraulic and pneumatic cylinders, and hydraulic and pneumatic relief pressure valves. Records should be kept available to an appointed person.

OPERATIONAL TESTS

21 Prior to initial use, all new, altered, modified, or extensively repaired cranes shall be tested for compliance with the operational requirements of this section, including functions such as the following:
A. load lifting and lowering mechanisms;
B. boom lifting and lowering mechanisms;
C. boom extension and retraction mechanisms;
D. swing mechanisms;
E. safety devices;
F. operating controls comply with appropriate function labels.

Operational crane test results shall be made available to an appointed person.

MAINTENANCE

PREVENTIVE MAINTENANCE
22 Before adjustment and repairs are started on a crane, the following precautions shall be taken as applicable:

A. crane placed where it will cause the least interference with other equipment or operations;
B. all controls at the "off" position;
C. starting means rendered inoperative;
D. boom lowered to the ground if possible or otherwise secured against dropping;
E. relieve hydraulic oil pressure from all hydraulic circuits before loosening or removing hydraulic components.

23 Warning or "OUT OF ORDER" signs shall be placed on the crane controls.

24 After adjustments and repairs have been made, the crane shall not be returned to service until all guards have been reinstalled, trapped air removed from hydraulic system (if required), safety devices reactivated, and maintenance equipment removed.

ADJUSTMENTS AND REPAIRS

25 Any hazardous conditions disclosed by the inspection requirements shall be corrected before operation of crane is resumed. Adjustments and repairs shall be done only by designated personnel.

26 Adjustments shall be maintained to assure correct functioning of components. The following are examples:

A. functional operating mechanism;
B. safety devices;
C. control systems;

27 Repairs or replacements shall be provided as needed for operation.

The following are examples:

A. critical parts of functional operating mechanisms which are cracked, broken, corroded, bent, or excessively worn;
B. critical parts of the crane structure which are cracked, bent, broken, or excessively corroded;
C. crane hooks showing cracks, damage, or corrosion shall be taken out of service. Repairs by welding are not recommended.

28 Instructions shall be provided by the manufacturer for the removal of air from hydraulic circuits.

LUBRICATION

All moving parts of the crane, for which lubrication is specified, should be regularly lubricated per the manufacturer’s recommendations and procedures.

ROPE INSPECTION

29 Frequent Inspection

A. All running ropes in service should be visually inspected once each working day. A visual inspection shall consist of observation of all rope which can be in use during the days operations. These visual observations should be considered with discovering gross damage such as listed below, which may be an immediate hazard;

1. distortion of the rope such as kinking, crushing, un-stranding, birdcaging, main strand displacement, or core protrusion. Loss of rope diameter in a short length or unevenness of outer strands should be replaced;
2. general corrosion;
3. broken or cut strands;
4. number, distribution and type of visible broken wires. When such damage is discovered, the rope shall either be removed from service or given as inspection.

B. Care shall be taken when inspecting sections of rapid deterioration such as flange points, crossover points, and repetitive pickup points on drums.

30 Periodic inspection

A. the inspection frequency shall be determined by a qualified person and shall be based on such factors as:
1. expected rope life as determined by experience on the particular installation or similar installations;
2. severity of environment;
3. percentage of capacity lifts;
4. frequency rates of operation;
5. exposure to shock loads;

Inspection need not be at equal calendar intervals and should be more frequent as the rope approaches the end of its service life. This inspection shall be made at least annually.

B. Periodic inspection shall be performed by a designated person. This inspection shall cover the entire length of the rope. Only the surface wires need be inspected. No attempt should be made to open the rope. Any deterioration results in appreciable loss of original strength, such as described below, shall be noted and determination made as to whether use of the rope would constitute a hazard: points listed above reduction of rope diameter below nominal diameter due to loss of core support, internal or external corrosion, or wear of outside wires; severely corroded, cracked, bent, worn or improperly applied connections;

C. Care shall be taken when inspecting sections subject to rapid deterioration such as the following:
1. sections in contact with saddles, equalizer sheaves, or other sheaves where rope travel is limited;
2. sections of the rope at or near terminal ends where corroded or broken wires may protrude.

ROPE REPLACEMENT

31 No precise rules can be given for determination of the exact time for replacement of rope, since many variable factors are involved.

Continued use in this respect depends upon good judgement by a designated person in evaluating remaining strength in a used rope after allowance for deterioration disclosed by inspection. Continued rope operation depends upon this remaining strength.

32 Conditions such as the following shall be reason for questioning continued use of the rope or increasing the frequency of inspection:

A. in running ropes, six randomly distributed broken wires in one lay or three broken wires in one strand in one lay:
B. one outer wire broken at the contact point with the core of the rope structure and protrudes or loops out of the rope structure. Additional inspection of this section is required.
C. wear of one third of the original diameter of the outside individual wire.
D. kinking, crushing, birdcaging, or any other damage resulting in distortion of the rope structure.
E. evidence of any heat damage from any cause.
F. reduction from nominal diameter of more than 1/64 in. (0.4mm) for diameters up to and including 5/16 in. (8 mm), 1/32 in. (0.8 mm) for diameter 3/8 in. (9.5 mm) to and including 1/2 in. (13 mm), 3/64 in. (1.2 mm) for diameter 9/16 in. (14.5 mm) to and including 3/4 in. (19 mm), 1/16 in. (1.6 mm) for diameter 7/8 in. (22 mm) to and including 11/8 in. (29 mm), 3/32 in. (2.4 mm) for diameters 11/4 in. (32 mm) to and including 11/2 in. (38 mm).
G. In standing ropes, more than two broken wires in one lay in sections beyond end connections or more than one broken wire at an end connection.
H. Replacement rope shall have a strength rating at least as great as the original rope furnished or recommended by the crane manufacturer. Any deviation from the original size, grade, or construction shall be specified by a rope manufacturer, or a qualified person.

33 Rope not in regular use: all rope which has been idle for a period of a month or more due to shutdown or storage of a crane on which it is installed, shall be given and inspection in accordance with above information before it is placed in service. This inspection shall be for all types of deterioration and shall be performed by a qualified person.

34 Inspection records
A. frequent inspection- no records required
B. periodic inspections - in order to establish data as a basis for judging the proper time for replacement, a dated report condition at each periodic inspection should be kept on file. This report shall cover points of deterioration listed above.

**ROPE MAINTENANCE**

35 Rope should be stored to prevent damage or deterioration.

36 Unreeling or uncoiling of rope shall be done as recommended by the rope manufacturer and with care to avoid kinking or inducing twist.

37 Before cutting a rope, seizing shall be placed on each side of the place where the rope is to be cut to prevent unlaying of the strands. On pre-formed rope, one seizing on each side of the cut is required. On non-preformed ropes of 7/8 in. (22 mm) diameter or smaller, two seizures on each side of the cut are required, and for non-preformed rope 1 in. (25 mm) diameter or larger, three seizures on each side of the cut are required.

38 During installation care should be exercised to avoid dragging of the rope in the dirt or around objects which will scrape, nick crush or induce sharp bends in it.

39 When an operating rope shows greater wear or well defined localized areas than on the remainder of the rope, rope life can be extended in cases where a section at the worn end, and thus shifting the wear to different areas of the rope.
MOUNTING and INSTALLATION 6006H

1. CHECK TO MAKE SURE THE FOLLOWING ITEMS ARE WITH YOUR CRANE:

<table>
<thead>
<tr>
<th>ITEM</th>
<th>PART NO.</th>
<th>DESCRIPTION</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.</td>
<td>3652030000</td>
<td>Swivel Block</td>
</tr>
<tr>
<td>2.</td>
<td>3652120000</td>
<td>Vented Relief Valve (Non-proportional Units Only)</td>
</tr>
<tr>
<td>3.</td>
<td>4805250000</td>
<td>Control Valve Assembly (Proportional Units Only)</td>
</tr>
<tr>
<td>4.</td>
<td>4800180000</td>
<td>Pump Assembly (Optional)</td>
</tr>
<tr>
<td>5.</td>
<td>9939460000</td>
<td>Owners Manual</td>
</tr>
<tr>
<td>6.</td>
<td>0151040000</td>
<td>Bolt system: 7/8 NF x 5&quot;, Grade 8, (4 Req'd)</td>
</tr>
</tbody>
</table>

2. PRESSURE AND RETURN HOSES ARE NOT FURNISHED WITH THIS CRANE. THE HOSES MUST BE PROVIDED BY THE INSTALLER AND THE LENGTHS DETERMINED AT INSTALLATION.

REQUIREMENTS FOR INSTALLATION USING 8 GALLON RESERVOIR WITH RELIEF VALVE AND AUTO CRANE PROVIDED PUMP

A. RETURN LINE FROM CRANE TO RESERVOIR (IN COMPARTMENT): -8 SAE 100R2 (OR EQUIVALENT). HOSE LENGTH IS DETERMINED BY INSTALLER. RETURN LINES LONGER THAN 6 FEET SHOULD BE SIZE -12. HOSE END FITTINGS ARE -8 JIC FEMALE SWIVEL (CRANE END) AND -10 JIC FEMALE SWIVEL (RESERVOIR END).

B. PRESSURE LINE FROM VENTED RELIEF VALVE TO CRANE: -8 SAE 100R2 (OR EQUIVALENT). HOSE LENGTH IS DETERMINED BY INSTALLER. HOSE END FITTINGS ARE BOTH -8 JIC FEMALE SWIVEL.

NOTE: CRANE MUST USE RELIEF VALVE P/N 386212, WHICH IS PROVIDED.

C. SUCTION HOSE FROM PUMP TO RESERVOIR: -16 HYDRAULIC SUCTION HOSE WITH TWO (2) -16 HOSE CLAMPS ON EACH END.

D. PRESSURE LINE FROM PUMP TO VENTED RELIEF VALVE (LOCATED ON RESERVOIR): -12 SAE 100R2 (OR EQUIVALENT). HOSE LENGTH IS DETERMINED BY INSTALLER. HOSE END FITTINGS ARE BOTH -10 JIC FEMALE SWIVEL.

NOTE: REFER TO OWNERS MANUAL FOR ADDITIONAL INSTALLATION INFORMATION, AND OTHER RESERVOIR AND PUMP COMBINATIONS.

CAUTION - FAILURE TO USE CLEAN HYDRAULIC HOSES AND COMPONENTS MAY CONTAMINATE THE CRANE AND HYDRAULIC SYSTEM AND VOID WARRANTY.

3. CRANE MUST BE PROVIDED WITH A FLOW OF 8 GALLONS PER MINUTE AND A PRESSURE OF 2200 PSI. EXCESS FLOW WILL CAUSE ERRATIC OPERATION, AND TOO LITTLE FLOW WILL CAUSE POOR CRANE OPERATION.

4. VEHICLE SHOULD MEET MINIMUM GVW RATING OF 14,500 POUNDS.

5. THE VEHICLE MUST BE EQUIPPED WITH AN ENGINE SPEED CONTROL AND TACHOMETER.

6. MAKE SURE MOUNTING SURFACE IS PROPERLY REINFORCED TO WITHSTAND 36,000 FT-LB CAPACITY LOADING OF CRANE AND THAT OUTRIGGERS ARE USED TO PROVIDE TOTAL STABILITY FOR THE TRUCK.

7. A 13 1/2" DIA. HOLE SHOULD BE CUT OUT OF MOUNTING LOCATION (CENTEREDED WITH MOUNTING BOLTS) FOR ACCESS TO LOWER RING GEAR BOLTS AND HYDRAULIC CONNECTIONS.

8. MAKE SURE THE MOUNTING BOLTS ARE 7/8x DIA., GRADE 8. TORQUE BOLTS TO 440 FT-LBS (DRY).

9. WHEN CRANE IS NOT IN OPERATION, A BOOM SUPPORT SHOULD ALWAYS BE USED. TRAVELING BLOCK SHOULD BE CONNECTED TO HOOK LOOP.

10. ALWAYS USE CABLE LOOPS ON SIDE OF BOOM AND PENDANT GUARD ON SIDE OF PEDESTAL TO STORE PENDANT ASSEMBLY, IF THIS TYPE OF STORAGE APPLIES.
11. **CHECK FOR PROPER PRESSURE AND RETURN LINE HOOK-UP TO CRANE:** PRESSURE PORT IS ON RIGHT SIDE AS VIEWED FROM THE REAR OF THE CRANE.

12. **USE MEDIUM PRESSURE AUTO CRANE FILTER IN THE RETURN LINE UNLESS FILTER EXIT PORT IS MOUNTED DIRECTLY TO THE RESERVOIR.**

13. **ELECTRICAL HOOKUP**

   **NON-REMOVABLE PENDANT UNITS:**
   A. RUN THE FOLLOWING WIRES THROUGH HOLE IN BASE ASSEMBLY OF CRANE AND SEAL WITH SILICONE RUBBER TO PREVENT WIRE CHAFING AND LEAKS.
   B. CONNECT WIRE FROM DIRECTIONAL VALVE SOLENOID (P/N 480137) TO WHITE WIRE W/ TRACER AT PENDANT CABLE END.
   C. CONNECT POWER CONDUCTOR FROM STARTER SOLENOID TO BLACK WIRE AT BASE OF CRANE, PASSING THROUGH THE MAIN POWER RELAY. USE THE IN-LINE FUSE PROVIDED.

   **REMOVABLE PENDANT UNITS:**
   A. OBTAIN THE PROPER WIRING DIAGRAM.
   B. WIRE TERMINAL STRIP PER DIAGRAM AND PROTECT STRIP FROM ACCIDENTAL CONTACT.

**WARNING!** FAILURE TO CORRECTLY PLUMB AND WIRE CRANE CAN CAUSE INADVERTENT OPERATION AND DAMAGE TO CRANE AND/OR PERSONNEL!

14. **ONCE CRANE AND PLUMBING ARE INSTALLED ON THE TRUCK, FILL THE RESERVOIR TO TOP OF SIGHT GLASS (MOBIL DTE 13 or EQUAL). BEFORE OPERATING CRANE CONNECT TOGETHER THE PRESSURE AND RETURN HOSES GOING TO BASE OF CRANE USING 8 JIC UNION AND ENGAGE PTO WITH ENGINE RUNNING. ALLOW OIL TO CIRCULATE FOR 15 TO 20 MINUTES. THIS WILL FLUSH CONTAMINANTS FROM THE SYSTEM BACK TO THE RETURN LINE FILTER. OPERATE ALL CYLINDERS TO FULL EXTENSION AND RETRACTION A MINIMUM OF SIX TIMES, TO BLEED AIR FROM SYSTEM. RETURN ALL CYLINDERS TO THE STORED POSITION AND DISENGAGE PTO. REFILL RESERVOIR TO TOP SIGHT GLASS. TO ENSURE 6 GALLONS PER MINUTE (GPM), INSTALL AN IN-LINE FLOW METER BETWEEN THE CRANE AND THE RESERVOIR IN THE RETURN HOSE, OR CONFIRM PUMP SPEED IS CORRECT. THE PROPER SPEED FOR AUTO CRANE GEAR PUMP P/N 480016 IS 1000 RPM.

15. **PROPER PRESSURE SETTING CAN BE ACHIEVED BY, WITH THE PTO DISENGAGED, REMOVING THE PIPE PLUG ON THE VENTED RELIEF VALVE OR PROPORTIONAL VALVE AND INSTALLING A 2500 PSI PRESSURE GAUGE. EXTEND THE BOOM "IN" ALL THE WAY AND CONTINUE HOLDING THE SWITCH ON. FOR PROPORTIONAL SYSTEMS, THE TRIGGER SHOULD BE PULLED COMPLETELY BACK (ON). READ THE PRESSURE GAUGE AND ADJUST RELIEF VALVE TO READ 2200 PSI. RECHECK PRESSURE SETTING TO VERIFY ADJUSTMENT.

16. **LOAD TEST THE CRANE TO ENSURE PROPER FUNCTIONING AND TRUCK STABILITY.**

17. **MAKE CERTAIN THE OWNER'S MANUAL IS DELIVERED TO THE CUSTOMER.**

18. **FOR ADDITIONAL HELP: CALL THE SERVICE DEPARTMENT AT THE AUTO CRANE COMPANY.**

   (918) 836-0463 (TULSA, OKLAHOMA)

**WARNING**

**FEDERAL LAW** (49 CFR PART 571) **REQUIRES THAT THE FINAL STAGE MANUFACTURER OF A VEHICLE CERTIFY THAT THE VEHICLE COMPLIES WITH ALL APPLICABLE FEDERAL REGULATIONS. ANY MODIFICATIONS PERFORMED ON THE VEHICLE PRIOR TO THE FINAL STAGE ARE ALSO CONSIDERED INTERMEDIATE STAGE MANUFACTURING AND MUST BE CERTIFIED AS TO COMPLIANCE. THE INSTALLER OF THIS CRANE AND BODY IS CONSIDERED ONE OF THE MANUFACTURERS OF THE VEHICLE. AS SUCH A MANUFACTURER, THE INSTALLER IS RESPONSIBLE FOR COMPLIANCE WITH ALL APPLICABLE FEDERAL AND STATE REGULATIONS, AND IS REQUIRED TO CERTIFY THAT THE VEHICLE IS IN COMPLIANCE.

**IT IS THE FURTHER RESPONSIBILITY** OF THE INSTALLER OF THE CRANE TO COMPLY WITH THE OSHA TRUCK CRANE STABILITY REQUIREMENTS AS SPECIFIED BY 29 CFR PART 1910.180 (C) (1).
HOLE REQ'D FOR POWER CONDUCTOR

ADAPTER, ST. 1/4 NPT - 3/4 - 16 JIC (360054) TYP. 2 PLC'S

SECTION A-A

BOTTOM VIEW

REDUCER 1/4 - 14 NPT / 3/4 - 18 NPTF (750413)
SWIVEL JOINT-8 (750412)

RETURN

PRESSURE

REDUCER 1/4 - 14 NPT / 3/4 - 18 NPTF (750413)
SWIVEL JOINT-8 (750412)

TOWARD CAB
AUTO CRANE'S SUGGESTED BOOM SUPPORT

LEAVE 3/4" CLEARANCE ON EACH SIDE OF BOOM

1 1/2" x 1 1/2" x 3/16" ANGLE (REF.)

WELD LOOP FOR TRAVELING BLOCK HOOKUP. 3/8" ROUND BAR.

1/4" PLATE

BOOM SUPPORT IS REQUIRED.
<table>
<thead>
<tr>
<th>ITEM</th>
<th>QTY</th>
<th>PART NO.</th>
<th>DESCRIPTION</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>1</td>
<td>750585</td>
<td>BASE</td>
</tr>
<tr>
<td>2</td>
<td>1</td>
<td>750590</td>
<td>EXTENSION TUBE</td>
</tr>
<tr>
<td>3</td>
<td>1</td>
<td>750589</td>
<td>BOOM SUPPORT</td>
</tr>
<tr>
<td>4</td>
<td>2</td>
<td>009800</td>
<td>BOLT, HX. 3/8&quot; NF</td>
</tr>
<tr>
<td>5</td>
<td>2</td>
<td>017102</td>
<td>NUT HX. 3/8&quot; NF</td>
</tr>
<tr>
<td>6</td>
<td>2</td>
<td>021101</td>
<td>WASHER, SP. LK. 3/8&quot;</td>
</tr>
</tbody>
</table>

AW-08I BOOM SUPPORT (P/N 750585)
Safety Decal Section 6006H
Revision 11/94

<table>
<thead>
<tr>
<th>ITEM</th>
<th>DESCRIPTION</th>
<th>QTY</th>
<th>FIG</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>CAUTION, WORK RULES</td>
<td>1</td>
<td>5-1</td>
</tr>
<tr>
<td>2</td>
<td>DANGER, OPERATOR TRAINING</td>
<td>1</td>
<td>5-2</td>
</tr>
<tr>
<td>3</td>
<td>WARNING, TAPERING WITH OVERLOAD</td>
<td>1</td>
<td>5-3</td>
</tr>
<tr>
<td>4</td>
<td>DANGER, ELECTROCUTION HAZARD</td>
<td>2</td>
<td>5-4</td>
</tr>
<tr>
<td>5</td>
<td>DANGER, STAY CLEAR OF BOOM</td>
<td>2</td>
<td>5-5</td>
</tr>
<tr>
<td>6</td>
<td>DANGER, STAY CLEAR OF LOAD</td>
<td>2</td>
<td>5-6</td>
</tr>
<tr>
<td>7</td>
<td>CAUTION, HYD REQUIREMENTS</td>
<td>1</td>
<td>5-7</td>
</tr>
<tr>
<td>8</td>
<td>WARNING, LOAD SENSOR TAMPERING</td>
<td>1</td>
<td>5-8</td>
</tr>
<tr>
<td>9</td>
<td>DANGER, SCISSORS POINT</td>
<td>2</td>
<td>5-9</td>
</tr>
</tbody>
</table>

AUTO CRANE COMPANY
PO BOX 580697, Tulsa, OK 74158-0697
4707 N. MINGO ROAD, Tulsa, OK 74117
Phone (918) 836-0463, Telex 158108 Ramsey Tul
Sales Fax (918) 438-6688 Service Fax (918) 834-5979

2.3.0.0
SAFETY DECAL SECTION 6006H

PART NO.: 040579
DECAL: OPERATION INSTRUCTIONS
FUNCTION: To inform the operator of the proper procedure to follow for safe operation of the crane.
USED ON: All Cranes
QUANTITY: 1
PLACEMENT: Right sideplate

PART NO.: 040580
DECAL: OPERATOR TRAINING
FUNCTION: To inform the operator of the need to receive proper training before using the crane.
USED ON: All Cranes
QUANTITY: 1
PLACEMENT: Right sideplate (6006H)

PART NO.: 040632
DECAL: TAMPERING WITH OVERLOAD DEVICE
FUNCTION: To inform the operator that tampering with the overload device may cause a unit failure or possible personnel injury.
USED ON: 6006H
QUANTITY: 1
PLACEMENT: Right side of valve cover

FIG. S-1.

FIG. S-2.

FIG. S-3.
PART NO.: 040529
DECAL: ELECTROCUTION HAZARD
FUNCTION: To inform the operator of the hazard involved with contacting electrical power lines with crane boom.
USED ON: Articulated & Stiff Boom Cranes
QUANTITY: 2
PLACEMENT: Both sides of end of lower boom

PART NO.: 040517
DECAL: STAY CLEAR OF BOOM
FUNCTION: To inform the operator of the hazard of proximity or contact with the crane boom during operation.
USED ON: All cranes
QUANTITY: 2
PLACEMENT: Both sides of crown

PART NO.: 040518
DECAL: STAY CLEAR OF LOAD
FUNCTION: To inform the operator of the hazard of proximity or contact with the crane load during operation.
USED ON: All cranes
QUANTITY: 2
PLACEMENT: Both sides of crown plate
SAFETY DECAL SECTION
6006H

PART NO.: 366209
DECAL: HYDRAULIC REQUIREMENT
FUNCTION: To inform the operator of the hydraulic requirements for proper crane operation.
USED ON: 6006H
QUANTITY: 1
PLACEMENT: On the hydraulic reservoir

FIG. S-7.

PART NO.: 040587
DECAL: LOAD SENSOR, DON'T TAMPER
FUNCTION: To inform the operator that the load sensor is pre-set and that tampering with the sensor may cause potentially hazardous situation.
USED ON: All cranes equipped with a load sensor.
QUANTITY: 1
PLACEMENT: On the lift cylinder near the load sensor

FIG. S-8.

PART NO.: 040519
DECAL: SCISSORS POINT
FUNCTION: To inform the operator of possible danger at scissors point on crane.
USED ON: All cranes
QUANTITY: 2
PLACEMENT: Both sides of the lift cylinder

FIG. S-9.
INSTALLATION:

1. Install amplifier at a convenient location near the proportional crane terminal strip (ref: Owner's Manual, PROPORTIONAL CRANE WIRING DIAGRAMS) using two screws and lock nuts provided.

2. At the 12 station terminal block, disconnect all power to the system.

3. Connect the din connector plug to the proportional valve, making sure the gasket seals properly. Secure the plug to the proportional valve coil with screw. Attach wires per applicable wiring diagram.

ATTACH WIRES IN THIS ORDER: (numbers are on 22 station terminal strip)

1. Attach the BLACK wire to terminal "N" (#13)
2. Attach the RED wire to terminal "T" (#10)
3. Attach the WHITE wire to terminal "M" (#12)
4. Attach the GREEN wire to the BROWN wire from the proportional din connector plug using the bullet connector supplied

CAUTION: FAILURE TO DO SO MAY CAUSE PREMATURE AMPLIFIER FAILURE AND VOID WARRANTY.
* Observe all connections for proper installation before connecting power to the terminal block. Proceed to the set-up procedure.

SETUP:

1. Remove four screws on front plate of amplifier and remove front plate.

2. With power on, pull pendant trigger to full on position. Adjust potentiometer adjustment screw located next to the red light (see Figure 1) until light just turns off, then turn trim pot back until the light just comes on. The light should stay on during full trigger movement. Clockwise rotation of the trim pot will turn light off. Counter-clockwise rotation will turn the light on. This "tunes" the amplifier to the trigger potentiometer.

3. After warming the hydraulic system oil, determine which function should be used to set the low position switch (ROTATE USES THE LEAST AMOUNT OF PRESSURE). Activate that function with trigger released, and turn the lower range setting dial (REF. FIG 1: MARKED WITH "L" ON CIRCUIT BOARD) until the desired speed is reached. The "Zero" and the "F" on the dial are opposite ends of the switch. To adjust the low set point, turn COUNTERWISE DIRECTION for INCREASED FLOW, COUNTER COUNTERWISE DIRECTION for DECREASED FLOW. This adjusts the "Threshold Speed" for the trigger in the released position.
4. Operate the boom up function with trigger pulled back to the maximum position. Turn the high range setting dial (REF. FIG 1, MARKED WITH "H" ON CIRCUIT BOARD) until there is a noticeable decrease in speed, then back up one or two notches as desired. "Zero" is the maximum speed setting and "F" is the most reduced speed setting. To set the high range dial, turn CLOCKWISE DIRECTION for DECREASED FLOW, COUNTER CLOCKWISE DIRECTION FOR INCREASED FLOW. This operation adjusts the trigger "Dead Band" at the fully pulled position.

5. Replace cover and install screws. Make sure the amplifier wiring is secured and does not interfere with rotating hoses and electrical wiring.
OVERLOAD SYSTEM / ANTI-2-BLOCK
TROUBLE SHOOTING GUIDE

IF THE THREE FUNCTIONS, BOOM DOWN, HOIST UP AND EXTEND OUT, QUIT WORKING, the problem probably lies in either the Overload System or the Anti-2-block system or both. If these three functions are NOT WORKING and most other functions are, an investigation should be made as follows:

1 ANTI-2-BLOCK
A. Unplug the anti-2-block system from the overload system and connect A and B to bypass the anti-2-block system.
   1. If the three functions work, check continuity of anti-2-block system using continuity tester at disconnected Weatherpack connectors, and investigate switch at end of boom, cable and cable reel.
   2. If the three functions do not work, continue on with section #2.

2 LOAD SENSOR (Pressure Switch)
   A. With crane unloaded, unplug weatherpack connector on load sensor wire.
      1. If the three functions work, re-check the Pressure Switch by taking an ohm reading on the two wires coming from the Switch. The switch has normally open contacts, so the reading should be the maximum. If less than maximum ohm reading is indicated (usually a dead short), replace the Switch.
      2. If the three functions do not work, continue with section #3.

3 RELAY BOX
   A. Carefully open the black plastic box lid covering the overload system timer and relay.

   B. Carefully remove the yellow wire terminal from tab #1.
      1. If the three functions begin to work, connect the wire connector (yellow wire) to a ground to double check the operation of the relay switch. With the wire grounded the three functions should not work. With the wire ungrounded the system should work.
      2. If the three functions do not work, replace the Relay and re-attach yellow wire to terminal #1.
      3. If the three functions work with the new relay when it is installed but not when it is reconnected to the Time Delay Relay, re-attach yellow wire to terminal #1 and continue on with section #4.

4 TIME DELAY RELAY
   A. With the black plastic box still open, remove the wires connected to terminals #6 and #7. Remove any dirt, corrosion and moisture from around terminals.
      1. If the relay resets after this and the load sensor has been previously checked, spray area around terminals with protective coating before replacing box lid.
      2. If the three functions still do not work, continue on with Item #B.

   B. With the black plastic box still open, remove the wires connected to terminals #6 and #7.
OVERLOAD SYSTEM / ANTI-2-BLOCK
TROUBLESHOOTING GUIDE

1. Short between the terminals #6 and #7 with a screwdriver blade. The relay should "click" after approximately 2 seconds. When the blade is removed, the relay should reset in approximately 2 seconds.

i. Operating correctly as above would mean the Solid State Timer is operating properly.

ii. If the SS Timer does not operate as above replace the SS Timer.

5 BE SURE TO RE-CONNECT ALL WIRES BEFORE FINAL TESTING!

OVERLOAD SYSTEM, ANTI-2-BLOCK
TROUBLESHOOTING GUIDE

Figure 1

OPERATING PRINCIPAL: The three functions have their ground wires passing through the normally closed contacts on the relay. The ground of the relay coil is connected to the #1 terminal on the Solid State Relay. By connecting terminal #6 and terminal #7 the timing is initiated and the SS Timer "times out" (1 3/4 seconds) and connects terminal #1 to terminal #2. Terminal #2 is grounded, which grounds the relay coil and opens the normally closed contacts. This breaks the ground side of the circuit for the three valve functions. The SS Timer takes 1 3/4 seconds to reset after the initiation circuit is opened.
<table>
<thead>
<tr>
<th>ITEM</th>
<th>QTY.</th>
<th>PART NO.</th>
<th>DESCRIPTION</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>1</td>
<td>366985</td>
<td>ENCLOSURE, PLASTIC</td>
</tr>
<tr>
<td>2</td>
<td>2</td>
<td>366968</td>
<td>CONNECTOR, CORD</td>
</tr>
<tr>
<td>3</td>
<td>5'</td>
<td>366967</td>
<td>CORD, 3-WIRE 18 AWG WITH DRAIN</td>
</tr>
<tr>
<td>4</td>
<td>5'</td>
<td>366966</td>
<td>CORD, 2-WIRE 22 AWG WITH DRAIN</td>
</tr>
<tr>
<td>5</td>
<td>1</td>
<td>320351</td>
<td>RELAY, SOLID STATE TIMING</td>
</tr>
<tr>
<td>6</td>
<td>1</td>
<td>320355</td>
<td>RELAY, DROP OUT</td>
</tr>
<tr>
<td>7</td>
<td>1</td>
<td>005901</td>
<td>SCREW, HX HD 1/4-20NC X 1/2 LG.</td>
</tr>
<tr>
<td>8</td>
<td>1</td>
<td>020200</td>
<td>WASHER, SP LK 1/4</td>
</tr>
<tr>
<td>9</td>
<td>1</td>
<td>015900</td>
<td>NUT, HX 1/4-20NC</td>
</tr>
<tr>
<td>10</td>
<td>1</td>
<td>000602</td>
<td>SCREW, ROUND HD #6-32NC X 1 LG.</td>
</tr>
<tr>
<td>11</td>
<td>2</td>
<td>015400</td>
<td>NUT, HX #6-32NC</td>
</tr>
<tr>
<td>12</td>
<td>7</td>
<td>000405</td>
<td>TERMINAL FLAG</td>
</tr>
<tr>
<td>13</td>
<td>1</td>
<td>366978</td>
<td>CONDUCTOR ASSEMBLY (YELLOW)</td>
</tr>
<tr>
<td>14</td>
<td>4&quot;</td>
<td>800556</td>
<td>WIRE, RED 18 AWG 600V</td>
</tr>
<tr>
<td>15</td>
<td>4&quot;</td>
<td>800558</td>
<td>WIRE, BLACK 18 AWG 600V</td>
</tr>
<tr>
<td>16</td>
<td>1</td>
<td>366248</td>
<td>CONN. ASSY WEATHER PACK 1-WAY MALE 18-20</td>
</tr>
<tr>
<td>17</td>
<td>1</td>
<td>366249</td>
<td>CONN. ASSY WEATHER PACK 1-WAY FEMALE 18-20</td>
</tr>
<tr>
<td>18</td>
<td>1</td>
<td>366250</td>
<td>CONN. ASSY WEATHER PACK 2-WAY MALE 18-20</td>
</tr>
<tr>
<td>19</td>
<td>1</td>
<td>000601</td>
<td>TERMINAL, RING 10-3/8</td>
</tr>
<tr>
<td>20</td>
<td>3</td>
<td>750737</td>
<td>TIE, CABLE</td>
</tr>
</tbody>
</table>
OPTIMETER TROUBLE SHOOTING GUIDE
STIFF BOOM CRANES

FOLLOW THE TROUBLE SHOOTING SEQUENCE

1 Obtain the proper wiring diagram and check wiring.

2 With truck running, check terminal "I" voltage.
   A. If 12 - 13.75 volts, proceed.
   B. If not, check for blown fuse or broken wires.

3 Install pendant, turn system power on (eight (8) switch pendants only), and check terminal "t" for truck voltage.
   A. If truck voltage, proceed.
   B. If no voltage or low voltage (less than truck voltage), make sure the power switch on the eight (8) switch pendant is in the "on" position. (Does not apply to four (4) switch pendant.)
   C. Then, check for loose connection in the pendant or a broken wire in the pendant cable.

4 Disconnect bullet connector on line connecting green wire from amplifier to brown wire from proportional valve din connector. Then ground brown wire to a chassis ground. This will send maximum current thru proportional valve and should close it completely.
   OR

5 Depress the manual operator pin on top of the valve with an allen wrench till valve closes completely.

6 Check for proper crane operation.
   A. If crane operates properly, proceed.
   B. If not, check coil resistance from pin to pin (should be 5.0 ohms) and from pin to ground ring on coil (should be infinite resistance). If resistance is much different than above, replace coil, then proceed.
   C. Re-connect brown and green wire.

7 Check terminal "m" for 0.5 volts w/trigger released
   A. Solid truck voltage at terminal "m" means a loss of ground. Search the ground wire for bad connections or breaks and repair.
   B. If more than 0.7 volts or less than 0.2 volts w/trigger released, readjust trigger on pot shaft. (Note: care must be taken when handling the pot assembly to keep from breaking the wires at their attachment points.)
   C. If voltage is correct w/trigger released, smoothly activate trigger looking for a smooth, gradual increase of voltage to near 5.0 volts at maximum pulled position (3.5 to 7 volts is OK).
   D. If voltage is erratic and jumps up to truck voltage and back down during the trigger movement, replace potentiometer assembly.
8 Pull trigger and check for red light inside amplifier then perform the following adjustments with the trigger pulled to the maximum position:
   A. Light off
      - Turn small trim pot screw ccw (left) till light just gets bright, then stop. (if 10 turns do not turn light on, look for more than 9 volts at term "m")
   B. Light on
      - Turn small trim pot screw cw (right) till light just turns off, then turn ccw (left) till light just gets bright, then stop. (If 10 turns do not turn light off, look for less than 1 volt at term "m")

9 Release trigger.

10 Set two adjustment switches (hi & lo) to number "4". (One side of the switch knob has an indicator)

11 The LO switch takes the "dead space" out of the beginning trigger activation, and will continue to raise the low signal to give half flow with the trigger at full released position. The higher the number or letter (0 thru f), the higher the flow to the crane with the trigger in the fully released position.

12 The HI switch takes the "dead space" out of the full trigger position, and will continue to lower the high signal to half the flow at the maximum trigger pulled position. The higher the number or letter (0 thru f), the lower the flow to the crane with the trigger in the fully pulled position.

13 A good starting position would be to have both switches on the number "4".

NOTE: Both switches on "F" will limit flow to a median value and not allow any change.
AW-180
THROTTLE SOLENOID ASSY

NOTES:
1) THIS NEW VERSION WILL START PRODUCTION EFFECTIVE JAN. 1993
2) SEE SHEET 2 FOR REPLACEMENT PARTS OF OLD STYLE PRODUCED THRU DEC. 1992
3) SHIP DOCUMENTATION (ITEMS 5, 6 & 7) IN A PLASTIC BAG
4) REPLACEMENT P/N 3

Solenoid = 751159-001
Module = 751159-002
Cable = 751159-003
NOTES:
1.) THIS VERSION WILL BE IN PRODUCTION THRU DEC. 1992; AFTER THAT DATE USE THIS SHEET FOR REPLACEMENT PARTS.
2.) SEE SHEET 1 FOR NEW STYLE EFFECTIVE JAN. 1993.

<table>
<thead>
<tr>
<th>Item</th>
<th>Qty</th>
<th>Part No.</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>12</td>
<td>1 C</td>
<td>AW751149</td>
<td>WIRING DIAGRAM (REDUCED TO &quot;A&quot; SIZE)</td>
</tr>
<tr>
<td>11</td>
<td>1 A</td>
<td>751156</td>
<td>WIRE STOP ASSEMBLY</td>
</tr>
<tr>
<td>10</td>
<td>15' A</td>
<td>800503-009</td>
<td>WIRE, 18G WHITE w/ BLACK TRACER</td>
</tr>
<tr>
<td>9</td>
<td>8 A</td>
<td>000101</td>
<td>TERMINAL WIRE A</td>
</tr>
<tr>
<td>8</td>
<td>1 A</td>
<td>751143-001</td>
<td>ISOLATOR MODULE ASSY</td>
</tr>
<tr>
<td>7</td>
<td>2 A</td>
<td>016300</td>
<td>NUT, HEX-LOCK 1/4-20NC</td>
</tr>
<tr>
<td>6</td>
<td>2 A</td>
<td>005000</td>
<td>SCREW, HEX HD 1/4-20NC X 3/4 LG</td>
</tr>
<tr>
<td>5</td>
<td>2 A</td>
<td>731137</td>
<td>BALL JOINT, STRAIGHT</td>
</tr>
<tr>
<td>4</td>
<td>1 A</td>
<td>731148</td>
<td>THROTTLE CABLE</td>
</tr>
<tr>
<td>3</td>
<td>1 A</td>
<td>731149</td>
<td>BULKHED FITTING</td>
</tr>
<tr>
<td>2</td>
<td>1 B</td>
<td>751141</td>
<td>12 VDC SOLENOID w/ CONTROL MODULE</td>
</tr>
<tr>
<td>1</td>
<td>1 C</td>
<td>751146</td>
<td>BRACKET, THROTTLE SOLENOID</td>
</tr>
</tbody>
</table>

ITEM QTY B/S PART NO. DESCRIPTION

R1/83
THROTTLE CONTROL SOLENOID INSTALLATION

LOCATION

Follow these simple rules to properly locate your throttle control kit:

1. Mount the solenoid off the engine but within 46 inches of the throttle lever, to avoid engine vibration and high temperature components (more than 257 °F [125 °C]).

2. Mount control module out of the engine compartment if possible. If not possible, mount the module as far away from high temperature components as possible. Maximum temperature range is 185 °F (85 °C).

3. Route the flexible cable away from high temperature (220° F [105° C]) components such as exhaust manifolds.

4. Avoid sharp bends in flexible cable. Bends should form a smooth arc (360° maximum) with a radius of 5 inches minimum.

CONTROLLING THE SOLENOID THROTTLE KIT

The throttle kit can be controlled remotely by applying a low current 12 VDC signal to the module "AUX" terminal.

Examples of activating signals are an air compressor pressure switch or a crane "dump valve" coil.

MOUNTING PROCEDURES

Use the following procedure to mount your throttle controller:

1. Mount the solenoid and control module according to the recommendations in the "LOCATION" instructions.

2. Electrically connect the solenoid to the control module and power source according to the wiring diagram.

3. Mount the cable bracket and fasten the cable sheath to the bracket using the collar nut so the sheath does not turn during idle adjustment.

SET HIGH ENGINE IDLE SPEED NOTE:

Do not leave the aluminum adjustment nut tight against the solenoid body since this does not allow the cable to float.

1. Make sure the jam nut is loose and turn the aluminum adjustment nut clockwise until the high engine idle speed is reached.

2. Tighten the jam nut.

3. Check the throttle speed controller operation by rechecking the "normal" engine idle speed with the solenoid de-activated and the high engine idle speed with the solenoid activated.

SYSTEM OPERATION

The control module allows the solenoid to operate as a continuous duty device. When the module is wired as recommended, applying 12 VDC to the "AUX" terminal applies voltage to the hold-in and pull-in coil of the solenoid. After 0.5 to 0.75 seconds, power is automatically removed from the pull-in coil. Power will remain at the hold-in coil.
THROTTLE CONTROL SOLENOID INSTALLATION

until the 12 VDC signal is removed from the "AUX" terminal.

WARNING II To avoid control module damage, always disconnect the module when you jump-start the vehicle with voltages that exceed 32 VDC.

TROUBLESHOOTING HINTS

If solenoid will not engage, check the following:

1. Check the stranded pull cable for damage (e.g., melted or crimped sheath)
2. Check the stranded pull cable for binding.
3. Check system voltage at the "+HOT" and "+AUX" terminals.
4. Check module terminals for proper voltage and operation. If the module does not meet the specifications shown below, replace it.

5. Check solenoid resistance (remove wires from module). If resistance is not within specifications listed below, replace the solenoid.

   a. White to Black wire - 0.17 ohms
   b. Red to Black wire - 13 ohms

6. Make sure you have used the recommended wire length and gage (refer to the chart on AW751140)

7. Be sure cable is not bent beyond guidelines.

8. Check for proper adjustments.

9. Contact Auto Crane Company if you are unable to resolve the problem.

<table>
<thead>
<tr>
<th>GND</th>
<th>Chassis Ground</th>
</tr>
</thead>
<tbody>
<tr>
<td>+HOT</td>
<td>12 VDC at all times</td>
</tr>
<tr>
<td>+AUX</td>
<td>12 VDC required to activate solenoid</td>
</tr>
<tr>
<td>A RED</td>
<td>12 VDC when signal is present at &quot;AUX&quot; terminal</td>
</tr>
<tr>
<td>B WHT</td>
<td>12 VDC for 0.5 to 0.75 seconds after signal at &quot;AUX&quot; terminal is present</td>
</tr>
<tr>
<td>C BLK</td>
<td>Common for solenoid</td>
</tr>
</tbody>
</table>

CONTROL MODULE VOLTAGE MEASUREMENTS

2-83.0
NOTES:
1) THIS DIAGRAM SHOWS SPEED CONTROL INSTALLATION WITH OR WITHOUT AN AIR COMPRESSOR. DISREGARD ISOLATOR BLOCK & PRESSURE SWITCH ON DIAGRAM IF NOT USING AN AIR COMPRESSOR.
2) REMOVE METAL JUMPER CUP FROM CONTROL MODULE IF SO EQUIPPED (S500-A6)
3) THE WIRE SIZE AND LENGTH TO "AUX" TERMINAL OF THE CONTROL MODULE IS NOT CRITICAL BECAUSE OF LOW CURRENT; 16-18 GAUGE WIRE MAY BE USED.
ENGINE START RELAY

ENGINE STOP RELAY

<table>
<thead>
<tr>
<th>ITEM</th>
<th>QTY</th>
<th>P/N</th>
<th>DESCRIPTION</th>
<th>ITEM</th>
<th>QTY</th>
<th>P/N</th>
<th>DESCRIPTION</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>2</td>
<td>320355</td>
<td>RELAY, 12V</td>
<td>6</td>
<td>3</td>
<td>000501</td>
<td>TERMINAL, RING 5/16</td>
</tr>
<tr>
<td>2</td>
<td>2</td>
<td>320363</td>
<td>PLUG, RELAY</td>
<td>7</td>
<td>6</td>
<td>800595</td>
<td>WIRE, 16GA, GREEN</td>
</tr>
<tr>
<td>3</td>
<td>10</td>
<td>320357</td>
<td>CONN., FEM SPD LOCK</td>
<td>8</td>
<td>49</td>
<td>800590</td>
<td>WIRE, 16GA, BLACK</td>
</tr>
<tr>
<td>4</td>
<td>2</td>
<td>480495</td>
<td>TERMINAL, FLG’D SPADE</td>
<td>9</td>
<td>17</td>
<td>800593</td>
<td>WIRE, 16GA, RED</td>
</tr>
<tr>
<td>5</td>
<td>3</td>
<td>000402</td>
<td>TERMINAL, RING 1/4</td>
<td>10</td>
<td>35</td>
<td>800594</td>
<td>WIRE, 16GA, BLUE</td>
</tr>
</tbody>
</table>

AW-480533
RELAY KIT
ENGINE START/STOP

2-9.0.0
R 8/94
### Auxiliary Relay

**Diagram:**

- TO "P" POSITION ON TERMINAL BLOCK
- TO SWITCHED 12VDC POSITIVE
- POWER FOR AUXILIARY FUNCTION
- NOT USED

### Item List

<table>
<thead>
<tr>
<th>ITEM</th>
<th>QTY</th>
<th>P/N</th>
<th>Description</th>
<th>ITEM</th>
<th>QTY</th>
<th>P/N</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>1</td>
<td>320355</td>
<td>RELAY, 12V</td>
<td>6</td>
<td>1</td>
<td>000501</td>
<td>TERMINAL, RING 5/16</td>
</tr>
<tr>
<td>2</td>
<td>1</td>
<td>320363</td>
<td>PLUG, RELAY</td>
<td>7</td>
<td>38'</td>
<td>800595</td>
<td>WIRE, 16GA, GREEN</td>
</tr>
<tr>
<td>3</td>
<td>5</td>
<td>320357</td>
<td>CONN., FEM SPD LOCK</td>
<td>8</td>
<td>10'</td>
<td>800593</td>
<td>WIRE, 16GA, RED</td>
</tr>
<tr>
<td>4</td>
<td>2</td>
<td>000101</td>
<td>TERMINAL, RING #6</td>
<td>9</td>
<td>25'</td>
<td>800592</td>
<td>WIRE, 16GA, WHITE</td>
</tr>
<tr>
<td>5</td>
<td>1</td>
<td>000402</td>
<td>TERMINAL, RING 1/4</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**AW-460534**

**RELAY KIT**

**AUXILIARY**

2-9.1.0 R 8/94
Vented Relief Valve Setting

- The crane must receive 8 to 9 Gallons Per Minute (GPM) and 2200 psi. To assure proper flow, install an in-line flow meter between the crane and the reservoir in the return hose, or confirm correct pump speed (or engine speed with PTO ratio multiplied). Proper pressure setting for units without proportional control can be achieved by, with PTO disengaged, removing the plug, item 5, and installing a 2500 psi gauge. Test the pressure by fully retracting the cylinder and holding Boom-In function while reading the gauge.

- The boom can now be retracted fully and the switch held in retract position until full pressure is reached and the pressure gauge is checked. If the gauge is not 2200 PSI, adjust the vented relief valve (item 2). Verify this setting by operating the retract switch a few times and checking the pressure setting.

- Disengage PTO. Remove gauge and re-install the pipe plug. Crane is now ready for use.

Proportional Relief Valve Setting

- The crane must receive 8 to 9 Gallons Per Minute (GPM) and 2200 PSI. To assure proper flow, install an in-line flow meter between the crane and the reservoir in the return hose, or confirm correct pump speed (or engine speed with PTO rotation multiplier).

- Proper pressure setting for the proportional control relief valve can be achieved by removing the -4 SAE plug (with PTO disengaged), and installing a 2500 PSI gauge. Test the pressure by pulling the trigger all the way back towards the handle and operating the boom down switch while reading the gauge. Double check the setting by operating the manual override located on the top of the proportional valve (using an Allen wrench or something similar to press the steel button) and simultaneously operate the boom retract function. If the reading is higher, check the proportional system troubleshooting section.
of this manual to find out why the valve was not fully closing.

- If it is the same, with PTO disengaged, remove the gauge and re-install the plug. The crane is now ready for use.

Counterbalance Valve Adjustment

- With PTO disengaged, remove O-ring plug marked "X" port (see CB valve diagram). Install a pressure gauge (0-2500 psi) into the port.
- Engage PTO and insure pump flow is 8 to 9 GPM and main relief is set to 2200 psi. With no load on boom, boom up to an angle of 50 degrees.
- Loosen the 5mm lock nut on the flow control valve (see CB valve diagram). With a 4mm Allen wrench, turn the adjusting screw counterclockwise (ccw) four (4) full turns to open the valve.

- Boom up to 70 degrees and then boom down while observing pressure. If the pressure is not 1200 ± 50 psi then the counterbalance valve requires adjustment as follows:
  - To increase setting, loosen the 17mm locknut and, with a 5mm Allen wrench, turn the adjusting screw clockwise (cw).
  - To decrease setting, loosen the 17mm locknut, and with a 5mm Allen wrench, turn the adjusting screw counterclockwise (ccw).
  - Tighten the lock nut on the counterbalance valve and recheck the pressure setting.

- Turn the flow control valve adjusting screw clockwise (cw) four (4) turns to return it to the original position. Then adjust the flow control valve to increase the pressure gage reading to 1300 ± 50 psi.
  - The boom down speed can be reduced by continuing to close the flow control valve and increasing the pressure.
  - A slight bounce on boom down will be seen when the flow control is open too far and the pressure is lower than the above recommended setting.
  - Tighten the lock nut on the flow control valve and recheck the pressure setting.

- Disengage the PTO and remove the gage from the "X" port. Replace the O-ring plug. The crane is now ready for operation.

**WARNING:**

DO NOT TRY TO ADJUST VALVES WHILE BOOM IS MOVING. Failure to do so may result in personal injury!
HYDRAULIC TROUBLESHOOTING 6006H

Issue Date: October, 1994

CAUTION: Never check for hydraulic leaks by feeling around hoses, fittings, or any other components. High pressure oil can be injected through the skin causing severe injury, or death.

The hydraulic system of the 6006H 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 2200 psi. Standard pump speed is 1000 RPM (Ref. Pump P/N 48001R). This pump is for direct flange mounting only. It is not to be shaft driven unless an outboard bearing is installed, Auto Crane Kit P/N 480006.

PROBLEM
FLOW PRESENT BUT FUNCTION WILL NOT WORK

SOLUTION
Remove valve cover to gain access to the manual override on the end of the valve cartridge. If the pump is operating, operate the relief valve manual override or the proportional valve override and push and twist (CCW) the directional control valve manual override to unlock, then pull to operate the function. If the function does not operate, check for loose wire, low voltage or bad ground. 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. If the function does not operate, see the "NO FLOW" paragraph in this section.

HYDRAULIC "CHATTER"

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

NO FLOW OR LIMITED FLOW TO CRANE

Check for adequate oil supply in reservoir. Check operation of bypass system by pressing manual override on solenoid valve operator on vented relief valve or proportional valve while operating crane. If crane functions, check for 12V at vented relief valve solenoid when operating a function, or follow proportional trouble shooting procedure for the proportional valve. If low flow condition continues to exist when the manual override is operated, remove relief valve cartridge and check for dirt. Other possible causes for a low flow condition are:

1. Engine speed is too slow.
2. A blocked pressure hose from pump. This condition can be identified by excessive lugging of engine and rapid overheating of oil.
3. Collapsed or blocked suction hose to pump. This condition is usually identified by pump cavitation noise.
4. Bad pumps: a bad pump will usually have some flow but the flow will drop off rapidly as pressure increases. This condition will cause overheating of the system. A drop of four (4) or more GPM from Zero (0) PSI to Two Thousand (2000) PSI is cause for pump investigation.

3-3.0.0
PROBLEM | SOLUTION

NO PRESSURE OR TOO LOW PRESSURE | Check the sight gauge and maintain an adequate oil level in reservoir. Make sure pressure gauge is functioning correctly. Possible relief valve stuck open. Check for excessive leakage and correct. Check to ensure that pressure limit switch is correctly set.

TOO HIGH FLOW | Make sure pump size is correct and pump speed is not too fast (Consult manufacturer's data sheet). Check or replace flow control. Check components for flow displacements. High flow may cause erratic valve operation.

TOO HIGH PRESSURE | Make sure pressure relief valve is correctly set.

CAUTION

The Auto Crane 6006H series cranes are manufactured with a standard overload protection system to prevent structural damage to the crane. When the crane load rating is exceeded, main boom down, extend out, and hoist up will not function. These operations cannot be used again until the load on the crane is reduced. Also, the main boom elevation will be limited in its operation as the crane becomes overloaded. Attempting to raise the main boom with a load greatly exceeding the crane rating will open the main relief valve resulting in no boom movement. This problem can be resolved by moving the load closer to the crane pedestal, or reducing the load.
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 figure 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.

"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.
   b. 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 6000 pound ratings, use 3/8 inch diameter galvanized preformed 7 x 19 aircraft cable which, when new, has 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.
## LUBRICATION & MAINTENANCE SCHEDULE 6006H CRANE

<table>
<thead>
<tr>
<th>SERVICE PERFORMED</th>
<th>DAILY</th>
<th>WEEKLY</th>
<th>3 MONTHS</th>
<th>6 MONTHS</th>
<th>1 YEAR</th>
<th>NOTES</th>
</tr>
</thead>
<tbody>
<tr>
<td>LOAD HOOK</td>
<td>X</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>INSPECT HOOK &amp; LATCH FOR DEFORMATION, CRACKS, &amp; CORROSION</td>
</tr>
<tr>
<td>CABLE DRUM</td>
<td>X</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>MAKE SURE CABLE IS WOUND EVENLY ON DRUM</td>
</tr>
<tr>
<td>HOIST CABLE</td>
<td>X</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>CHECK FOR FLATTENING, KINKS, &amp; BROKEN STRANDS, SEE MANUAL</td>
</tr>
<tr>
<td>HYDRAULIC HOSES</td>
<td>X</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>VISUAL INSPECTION</td>
</tr>
<tr>
<td>HYDRAULIC FLUID</td>
<td>X</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>CHECK FLUID LEVEL</td>
</tr>
<tr>
<td>MOUNTING BOLTS</td>
<td>X</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>CHECK-TORQUE TO 440 FT-LBS (DRY) AS REQUIRED</td>
</tr>
<tr>
<td>ROTATION RING GEAR</td>
<td>X</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>LUBE WITH MOBILPLEX LL, OR LUBRIPLATE P/N 15263, OR EQUIV.</td>
</tr>
<tr>
<td>SHEAVE BEARINGS</td>
<td>X</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>SEALED BEARING, REPLACE IF ROUGH OR LOOSE</td>
</tr>
<tr>
<td>ALL OTHER BOLTS</td>
<td>X</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>CHECK-TIGHTEN AS REQUIRED</td>
</tr>
<tr>
<td>BOOM PIVOTS</td>
<td>X</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>GREASE WITH MOBILPLEX EP-2 OR EQUIV @ ZERKS</td>
</tr>
<tr>
<td>BOOM CYLINDER</td>
<td>X</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>CHECK AROUND CYLINDER ROD FOR EXCESS FLUID LEAKAGE</td>
</tr>
<tr>
<td>BOOM CYLINDER PINS</td>
<td>X</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>GREASE WITH MOBILPLEX EP-2 OR EQUIV @ ZERKS</td>
</tr>
<tr>
<td>EXTENSION DETENT PIN</td>
<td>X</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>LUBE DETENT SPRING &amp; BALL W/ WD-40</td>
</tr>
<tr>
<td>RETURN LINE FILTER</td>
<td></td>
<td></td>
<td>X</td>
<td></td>
<td></td>
<td>REPLACE ELEMENT</td>
</tr>
<tr>
<td>HI-PRES. FILTER</td>
<td>X</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>CLEAN AFTER FIRST WEEK, THEN EVERY 3 MONTHS (OPT EQUIP)</td>
</tr>
<tr>
<td>ROTATION BEARING</td>
<td>X</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>GREASE WITH MOBILPLEX EP-2 OR EQUIV @ ZERKS</td>
</tr>
<tr>
<td>ROTATION BRNG BOLTS</td>
<td>X</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>CHECK-TORQUE TO 150 FT- LBS AS REQUIRED</td>
</tr>
<tr>
<td>ROTATION GEAR BOX</td>
<td>X</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>CHECK-TORQUE TO 65 FT-LBS AS REQUIRED</td>
</tr>
<tr>
<td>ROTATION GEAR BOX</td>
<td></td>
<td></td>
<td>X</td>
<td></td>
<td></td>
<td>EP GEAR LUBE SAE 140</td>
</tr>
<tr>
<td>HOIST GEARBOX</td>
<td>X</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>WORM GEAR-EP GEAR LUBE SAE 80-90</td>
</tr>
<tr>
<td>HYDRAULIC FLUID</td>
<td></td>
<td></td>
<td></td>
<td>X</td>
<td></td>
<td>DRAIN, FLUSH, &amp; REFILL WITH MOBIL, DTE 13, OR EQUIV.</td>
</tr>
<tr>
<td>BOOM SLIDE PADS</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>PADS GREASED WHEN REPLACED</td>
</tr>
</tbody>
</table>

For additional information see:

1) Owner's Manual
2) OSHA Section 1910.180
3) ANSI B30.5-1980
1. SHEAVE ROLLER BEARINGS:
   SEALED TYPE, NO LUBE REQUIRED.

2. BOOM PADS:
   IF REPLACED, GREASE UPON INSTALLATION WITH CHASSIS LUBRICANT.

3. PIVOT POINT GREASE ZERKS:
   LUBE ONCE A WEEK WITH MOBILPLEX EP-2 OR EQUIVALENT.

4. HOIST ROLLER BEARINGS:
   SEALED TYPE, NO LUBE REQUIRED.

5. HOIST ACTUATOR:
   MAINTAIN GEAR BOX LUBRICANT AT FILL PLUG.
   USE ONE PINT OF EP GEAR LUBE SAE 80-90.
   REPLACE EVERY SIX MONTHS.

6. ROTATION ACTUATOR:
   MAINTAIN OIL LEVEL OF 1 1/2 PINTS OF EP GEAR LUBE, SAE 140.
   REPLACE EVERY SIX MONTHS.

7. RESERVOIR FILTER:
   10 MICRON SPIN ON FILTER REQUIRED. REPLACE EVERY THREE MONTHS. SEE RESERVOIR ASSEMBLY FOR PART NUMBER.

8. HYDRAULIC FLUID:
   USE DTE-13 OR EQUIVALENT. KEEP LEVEL AT SIGHT GAUGE. RESERVOIR SHOULD BE FLUSHED AND NEW FLUID ADDED ONCE A YEAR, OR IF A HYDRAULIC FAILURE OCCURS.

AW-074
LUBRICATION MAINTENANCE

3-6.0.0  R 11/94
LUBRICATION OF ROTATION BEARING

RACE
1. LUBRICATE BEARING RACE AT THE GREASE ZERK LOCATED ON THE OUTSIDE OF THE ROTATION BEARING DIRECTLY UNDER THE ROTATION STOP OF THE PEDESTAL.

2. LISTED IN THE CHART BELOW ARE SEVERAL LUBRICANTS WHICH ARE ACCEPTABLE FOR BOTH RUST INHIBITING AND EXTREME PRESSURE CHARACTERISTICS.
   A. LUBRICATION THE BEARING DAILY IF THE CRANE IS USED ON A DAILY BASIS.
   B. LUBRICATION THE BEARING EVERY 30 DAYS IF THE CRANE IS USED INTERMITTENTLY.
   C. ROTATE THE BEARING THROUGH TWO OR MORE ROTATIONS DURING LUBRICATION PROCESS.

GEAR
1. THE CHART BELOW LISTS SEVERAL LUBRICANTS FOR THE GEAR. IT IS RECOMMENDED THAT THE TEETH BE LUBRICATED WITH A SMALL AMOUNT OF GREASE EVERY 8 HOURS IF THE CRANE IS USED DAILY. THE GREASE IS PURGED FROM THE TEETH BY THE VERY NATURE OF BEING EXPOSED TO THE ELEMENTS. THEREFORE CLOSE ATTENTION TO THE GEAR LUBRICANT WILL PROVIDE A LONGER TOOTH LIFE. GREASE THE GEAR TEETH AT THE PINION LOCATION.

<table>
<thead>
<tr>
<th></th>
<th>MOBIL</th>
<th>TEXACO</th>
<th>SUNOCO</th>
<th>PURE</th>
<th>SOMO</th>
</tr>
</thead>
<tbody>
<tr>
<td>GEAR</td>
<td>Mobilote-S</td>
<td>Crater Compound</td>
<td>407 compound B</td>
<td>Pogo Gearshield</td>
<td>Sohitac F1</td>
</tr>
</tbody>
</table>

INSTALLATION OF ROTATION BEARING

1. MAKE SURE MOUNTING SURFACES ARE FLAT AND CLEAR OF DEBRIS.

2. INSTALL BEARING SUCH THAT THE GREASE ZERK ON THE BEARING IS LOCATED DIRECTLY UNDER THE ROTATION STOP OF THE PEDESTAL.

3. INSTALL TOP AND BOTTOM BOLTS AND FLAT WASHERS. ALL BOLTS MUST BE GRADE 8 AND USED WITH HARDENED FLAT WASHERS. REFER TO PEDESTAL ASSEMBLY FOR PART NUMBERS.

4. SNUG ALL BOLTS, THEN TIGHTEN ACCORDING TO THE TORQUE SEQUENCE ILLUSTRATION UNTIL ALL BOLTS ARE TORQUED TO 150 FT.-LBS (NON-PLATED) OR 110 FT.-LBS (PLATED).
   NOTE: BOLTS SHOULD BE CHECKED PERIODICALLY AND RETIGHTENED TO PROPER TORQUE.

5. GREASE THE ROTATION BEARING ACCORDING TO LUBRICATION INSTRUCTIONS AT LEFT.

<table>
<thead>
<tr>
<th>ITEM</th>
<th>QTY.</th>
<th>PART NO.</th>
<th>DESCRIPTION</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>1</td>
<td>360536</td>
<td>BASE PLATE ASSEMBLY</td>
</tr>
<tr>
<td>2</td>
<td>1</td>
<td>366045</td>
<td>PEDESTAL WELDMENT</td>
</tr>
<tr>
<td>3</td>
<td>1</td>
<td>480023-002</td>
<td>ROTATION BEARING</td>
</tr>
<tr>
<td>4</td>
<td>1</td>
<td>480028</td>
<td>GEAR BOX, ROTATION</td>
</tr>
<tr>
<td>5</td>
<td>1</td>
<td>480075</td>
<td>ACTUATOR, HOIST</td>
</tr>
<tr>
<td>6</td>
<td>1</td>
<td>460076</td>
<td>HYD. MOTOR (HOIST)</td>
</tr>
<tr>
<td>7</td>
<td>1</td>
<td>480027</td>
<td>HYD. MOTOR (ROTATION)</td>
</tr>
<tr>
<td>8</td>
<td>1</td>
<td>480019</td>
<td>GASKET, MOTOR</td>
</tr>
<tr>
<td>9</td>
<td>1</td>
<td>360162</td>
<td>ECCENTRIC RING</td>
</tr>
<tr>
<td>10</td>
<td>1</td>
<td>480011</td>
<td>SEAL, ROTATION BOX</td>
</tr>
<tr>
<td>11</td>
<td>1</td>
<td>480093</td>
<td>PENDANT, 4 FUNCTION</td>
</tr>
<tr>
<td>12</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>13</td>
<td>1</td>
<td>634000</td>
<td>GUARD, PENDANT</td>
</tr>
<tr>
<td>14</td>
<td>2</td>
<td>002815</td>
<td>SCREW, 1/4-20 NC x 3/8 SELF-TAPPING</td>
</tr>
<tr>
<td>15</td>
<td>2</td>
<td>239000</td>
<td>GREASE ZERK</td>
</tr>
<tr>
<td>16</td>
<td>1</td>
<td>366191</td>
<td>PIN, PEDESTAL/CYLINDER</td>
</tr>
<tr>
<td>17</td>
<td>1</td>
<td>366192</td>
<td>PIN, LOWER BOOM PIVOT</td>
</tr>
<tr>
<td>18</td>
<td>2</td>
<td>330468</td>
<td>COLLAR, SPLIT LOCK</td>
</tr>
<tr>
<td>19</td>
<td>2</td>
<td>400500</td>
<td>BEARING</td>
</tr>
<tr>
<td>20</td>
<td>1</td>
<td>480094</td>
<td>KEY, 3/8 SQ.</td>
</tr>
<tr>
<td>21</td>
<td>1</td>
<td>360207</td>
<td>RETAINER, ECCENTRIC RING</td>
</tr>
<tr>
<td>22</td>
<td>1</td>
<td>020600</td>
<td>WASHER, SP. LK. 5/16</td>
</tr>
<tr>
<td>23</td>
<td>1</td>
<td>007807</td>
<td>SCREW, HEX HD. 5/16 NC X 3/4 GR.5</td>
</tr>
<tr>
<td>24</td>
<td>2</td>
<td>750413</td>
<td>REDUCER, −8 NPT/−6 NPTF</td>
</tr>
<tr>
<td>25</td>
<td>2</td>
<td>750412</td>
<td>SWIVEL JOINT, −8</td>
</tr>
<tr>
<td>26</td>
<td>2</td>
<td>360054</td>
<td>ADAPTER, −8 NPT/−8 JIC</td>
</tr>
<tr>
<td>27</td>
<td>2</td>
<td>480024</td>
<td>MOUNT, PENDANT RETAINER</td>
</tr>
<tr>
<td>28</td>
<td>1</td>
<td>480182</td>
<td>MANIFOLD, CARTRIDGE</td>
</tr>
<tr>
<td>29</td>
<td>8</td>
<td>480184</td>
<td>VALVE, CARTRIDGE</td>
</tr>
<tr>
<td>30</td>
<td>1</td>
<td>480183</td>
<td>CARTRIDGE, FLOW REGULATOR</td>
</tr>
<tr>
<td>31</td>
<td>1</td>
<td>000109</td>
<td>PLUG, PIPE 3/8</td>
</tr>
<tr>
<td>32</td>
<td>38</td>
<td>012198</td>
<td>SCREW, HEX HD. 5/8 NC X 1 3/4 GR.8</td>
</tr>
<tr>
<td>33</td>
<td>38</td>
<td>023902</td>
<td>WASHER, FLAT 5/8 (HARDENED)</td>
</tr>
<tr>
<td>34</td>
<td>4</td>
<td>006205</td>
<td>SCREW, SOC. HD. 5/8 NC X 1 1/4 GR.8</td>
</tr>
<tr>
<td>35</td>
<td>4</td>
<td>015104</td>
<td>SCREW, HEX HD. 7/8 NF X 5* GR.8</td>
</tr>
<tr>
<td>36</td>
<td>4</td>
<td>022200</td>
<td>LOCK WASHER, 7/8</td>
</tr>
<tr>
<td>37</td>
<td>4</td>
<td>018900</td>
<td>NUT, HEX 7/8 NF</td>
</tr>
<tr>
<td>38</td>
<td>2</td>
<td>011608</td>
<td>SCREW, HEX HD. 1/2 NC X 2* GR.5</td>
</tr>
<tr>
<td>39</td>
<td>4</td>
<td>021500</td>
<td>WASHER, SP. LK. 1/2</td>
</tr>
<tr>
<td>40</td>
<td>4</td>
<td>012197</td>
<td>SCREW, SOC. HD. 1/2 NC X 1 1/2 GR.5</td>
</tr>
<tr>
<td>41</td>
<td>6</td>
<td>002608</td>
<td>SCREW, 1/4-20 X 3/4 S.T. TYPE F</td>
</tr>
<tr>
<td>42</td>
<td>1</td>
<td>360544</td>
<td>COVER, VALVE</td>
</tr>
<tr>
<td>43</td>
<td>4</td>
<td>330394</td>
<td>SCREW, HEX HD. 3/8 NC X 1 1/2</td>
</tr>
<tr>
<td>44</td>
<td>4</td>
<td>017100</td>
<td>NUT, HEX 3/8 NC</td>
</tr>
<tr>
<td>45</td>
<td>10</td>
<td>021100</td>
<td>WASHER, SP. LK. 3/8</td>
</tr>
<tr>
<td>46</td>
<td>5</td>
<td>330370</td>
<td>SCREW, HEX HD. 3/8 NC X 7/8 GR.8</td>
</tr>
<tr>
<td>47</td>
<td>1</td>
<td>366180</td>
<td>DRUM, HOIST</td>
</tr>
<tr>
<td>48</td>
<td>1</td>
<td>366158</td>
<td>SCREW, HEX HD. 3/8 NC X 3/4 GR.8</td>
</tr>
<tr>
<td>ITEM</td>
<td>QTY.</td>
<td>PART NO.</td>
<td>DESCRIPTION</td>
</tr>
<tr>
<td>------</td>
<td>------</td>
<td>----------</td>
<td>-------------</td>
</tr>
<tr>
<td>49</td>
<td>2</td>
<td>009118</td>
<td>SCREW, SOC. HD. 1/2 NC X 2&quot; GR.5</td>
</tr>
<tr>
<td>50</td>
<td>1</td>
<td>366161</td>
<td>CYLINDER, BOOM UP (COMPLETE)</td>
</tr>
<tr>
<td></td>
<td>1</td>
<td>366161-001</td>
<td>CASE ASSEMBLY</td>
</tr>
<tr>
<td></td>
<td>1</td>
<td>366161-002</td>
<td>SHAFT ASSEMBLY</td>
</tr>
<tr>
<td></td>
<td>1</td>
<td>366161-003</td>
<td>HEAD GLAND</td>
</tr>
<tr>
<td></td>
<td>1</td>
<td>366161-004</td>
<td>PISTON</td>
</tr>
<tr>
<td>51</td>
<td>1</td>
<td>366544</td>
<td>SEAL KIT</td>
</tr>
<tr>
<td>52</td>
<td>1</td>
<td>370433</td>
<td>CABLE, CONNECTOR</td>
</tr>
<tr>
<td>53</td>
<td>1</td>
<td>480031</td>
<td>CABLE, HOIST 3/8</td>
</tr>
<tr>
<td>54</td>
<td>2</td>
<td>021502</td>
<td>WASHER, SP. LK. 1/2 (HI-COLLAR)</td>
</tr>
<tr>
<td>55</td>
<td>2</td>
<td>021601</td>
<td>WASHER, FLAT 1/2 SAE (SPECIAL)</td>
</tr>
<tr>
<td>56</td>
<td>1</td>
<td>366987</td>
<td>RETAINING CLIP, RELAY BOX ASSEMBLY</td>
</tr>
<tr>
<td>ITEM</td>
<td>QTY</td>
<td>PART NO.</td>
<td>DESCRIPTION</td>
</tr>
<tr>
<td>------</td>
<td>-----</td>
<td>----------</td>
<td>-------------</td>
</tr>
<tr>
<td>1</td>
<td>1</td>
<td>360536</td>
<td>BASE PLATE ASSEMBLY</td>
</tr>
<tr>
<td>2</td>
<td>1</td>
<td>366045</td>
<td>PEDESTAL WELDMENT</td>
</tr>
<tr>
<td>3</td>
<td>1</td>
<td>480023-002</td>
<td>ROTATION BEARING</td>
</tr>
<tr>
<td>4</td>
<td>1</td>
<td>480028</td>
<td>GEAR BOX, ROTATION</td>
</tr>
<tr>
<td>5</td>
<td>1</td>
<td>480075</td>
<td>ACTUATOR, HOIST</td>
</tr>
<tr>
<td>6</td>
<td>1</td>
<td>480076</td>
<td>HYD. MOTOR (HOIST)</td>
</tr>
<tr>
<td>7</td>
<td>1</td>
<td>480027</td>
<td>HYD. MOTOR (ROTATION)</td>
</tr>
<tr>
<td>8</td>
<td>1</td>
<td>480019</td>
<td>GASKET, MOTOR</td>
</tr>
<tr>
<td>9</td>
<td>1</td>
<td>360162</td>
<td>ECCENTRIC RING</td>
</tr>
<tr>
<td>10</td>
<td>1</td>
<td>480011</td>
<td>SEAL, ROTATION BOX</td>
</tr>
<tr>
<td>11</td>
<td>1</td>
<td>480590</td>
<td>PENDANT, 4 FUNCTION</td>
</tr>
<tr>
<td>12</td>
<td>1</td>
<td>480591</td>
<td>PENDANT, 4 FUNCTION (WITH PROPORTIONAL)</td>
</tr>
<tr>
<td>13</td>
<td>1</td>
<td>480052</td>
<td>PENDANT, 8 FUNCTION</td>
</tr>
<tr>
<td>14</td>
<td>1</td>
<td>480593</td>
<td>PENDANT, 8 FUNCTION (WITH PROPORTIONAL)</td>
</tr>
<tr>
<td>15</td>
<td>2</td>
<td>239000</td>
<td>GREASE ZERK</td>
</tr>
<tr>
<td>16</td>
<td>1</td>
<td>366191</td>
<td>PIN, PEDESTAL/CYLINDER</td>
</tr>
<tr>
<td>17</td>
<td>1</td>
<td>366192</td>
<td>PIN, LOWER BOOM PIVOT</td>
</tr>
<tr>
<td>18</td>
<td>2</td>
<td>330468</td>
<td>COLLAR, SPLIT LOCK</td>
</tr>
<tr>
<td>19</td>
<td>2</td>
<td>400500</td>
<td>BEARING</td>
</tr>
<tr>
<td>20</td>
<td>1</td>
<td>480094</td>
<td>KEY, 3/8 SQ.</td>
</tr>
<tr>
<td>21</td>
<td>1</td>
<td>360207</td>
<td>RETAINER, ECCENTRIC RING</td>
</tr>
<tr>
<td>22</td>
<td>1</td>
<td>020600</td>
<td>WASHER, SP. LK. 5/16</td>
</tr>
<tr>
<td>23</td>
<td>1</td>
<td>007807</td>
<td>SCREW, HEX HD. 5/16 NC X 3/4 GR.5</td>
</tr>
<tr>
<td>24</td>
<td>2</td>
<td>750413</td>
<td>REDUCER, -8 NPT/-6 NPTF</td>
</tr>
<tr>
<td>25</td>
<td>2</td>
<td>750412</td>
<td>SWIVEL JOINT, -8</td>
</tr>
<tr>
<td>26</td>
<td>2</td>
<td>360054</td>
<td>ADAPTER, -8 NPT/-8 JIC</td>
</tr>
<tr>
<td>27</td>
<td>1</td>
<td>480024</td>
<td>MOUNT, PENDANT RETAINER</td>
</tr>
<tr>
<td>28</td>
<td>1</td>
<td>480182</td>
<td>MANIFOLD, CARTRIDGE</td>
</tr>
<tr>
<td>29</td>
<td>8</td>
<td>480184</td>
<td>VALVE, CARTRIDGE</td>
</tr>
<tr>
<td>30</td>
<td>1</td>
<td>480183</td>
<td>CARTRIDGE, FLOW REGULATOR</td>
</tr>
<tr>
<td>31</td>
<td>1</td>
<td>000109</td>
<td>PLUG, PIPE 3/8</td>
</tr>
<tr>
<td>32 38</td>
<td>1</td>
<td>012198</td>
<td>SCREW, HEX HD. 5/8 NC X 1 3/4 GR.8</td>
</tr>
<tr>
<td>33 38</td>
<td>1</td>
<td>023902</td>
<td>WASHER, FLAT 5/8 (HARDENED)</td>
</tr>
<tr>
<td>34</td>
<td>4</td>
<td>006205</td>
<td>SCREW, SOC. HD. 5/8 NC X 1 1/4 GR.8</td>
</tr>
<tr>
<td>35</td>
<td>4</td>
<td>015104</td>
<td>SCREW, HEX HD. 7/8 NF X 5&quot; GR.8</td>
</tr>
<tr>
<td>36</td>
<td>4</td>
<td>022200</td>
<td>LOCKWASHER, 7/8</td>
</tr>
<tr>
<td>37</td>
<td>4</td>
<td>018900</td>
<td>NUT, HEX 7/8 NF</td>
</tr>
<tr>
<td>38</td>
<td>2</td>
<td>011608</td>
<td>SCREW, HEX HD. 1/2 NC X 2&quot; GR.5</td>
</tr>
<tr>
<td>39</td>
<td>4</td>
<td>021500</td>
<td>WASHER, SP. LK. 1/2</td>
</tr>
<tr>
<td>40</td>
<td>4</td>
<td>012197</td>
<td>SCREW, SOC. HD. 1/2 NC X 1 1/2 GR.5</td>
</tr>
<tr>
<td>41</td>
<td>6</td>
<td>002608</td>
<td>SCREW, 1/4-20 X 3/4 S.T. TYPE F</td>
</tr>
<tr>
<td>42</td>
<td>1</td>
<td>480403</td>
<td>COVER, VALVE (w/ NOTCH)</td>
</tr>
<tr>
<td>43</td>
<td>4</td>
<td>330394</td>
<td>SCREW, HEX HD. 3/8 NC X 1 1/2</td>
</tr>
<tr>
<td>44</td>
<td>4</td>
<td>017100</td>
<td>NUT, HEX 3/8 NC</td>
</tr>
<tr>
<td>45</td>
<td>10</td>
<td>021100</td>
<td>WASHER, SP. LK. 3/8</td>
</tr>
<tr>
<td>46</td>
<td>5</td>
<td>330370</td>
<td>SCREW, HEX HD. 3/8 NC X 7/8 GR.8</td>
</tr>
<tr>
<td>47</td>
<td>1</td>
<td>366180</td>
<td>DRUM, HOIST</td>
</tr>
<tr>
<td>48</td>
<td>1</td>
<td>366158</td>
<td>SCREW, HEX HD. 3/8 NC X 3/4 GR.8</td>
</tr>
<tr>
<td>ITEM</td>
<td>QTY.</td>
<td>PART NO.</td>
<td>DESCRIPTION</td>
</tr>
<tr>
<td>------</td>
<td>------</td>
<td>----------</td>
<td>-------------</td>
</tr>
<tr>
<td>49</td>
<td>2</td>
<td>009118</td>
<td>SCREW, SOC. HD. 1/2 NC X 2&quot; GR.5</td>
</tr>
<tr>
<td>50</td>
<td>1</td>
<td>366161</td>
<td>CYLINDER, BOOM UP (COMPLETE)</td>
</tr>
<tr>
<td>51</td>
<td>1</td>
<td>366544</td>
<td>SEAL KIT</td>
</tr>
<tr>
<td>52</td>
<td>1</td>
<td>480597</td>
<td>RECEPTACLE ASSEMBLY</td>
</tr>
<tr>
<td>53</td>
<td>2</td>
<td>000404</td>
<td>SCREW, #6-32 X 5/8</td>
</tr>
<tr>
<td>54</td>
<td>2</td>
<td>019600</td>
<td>WASHER, SP. LK. #6</td>
</tr>
<tr>
<td>55</td>
<td>2</td>
<td>015400</td>
<td>NUT, HEX #5-32</td>
</tr>
<tr>
<td>56</td>
<td>1</td>
<td>480547</td>
<td>CAP, RECEPTACLE</td>
</tr>
<tr>
<td>57</td>
<td>1</td>
<td>480410</td>
<td>BRACKET</td>
</tr>
<tr>
<td>58</td>
<td>1</td>
<td>370433</td>
<td>CABLE, CONNECTOR</td>
</tr>
<tr>
<td>59</td>
<td>1</td>
<td>480031</td>
<td>CABLE, HOIST 3/8</td>
</tr>
<tr>
<td>60</td>
<td>2</td>
<td>021502</td>
<td>WASHER, SP. LK. 1/2 (HI-COLLAR)</td>
</tr>
<tr>
<td>61</td>
<td>2</td>
<td>021601</td>
<td>WASHER, FLAT 1/2 SAE (SPECIAL)</td>
</tr>
<tr>
<td>62</td>
<td>1</td>
<td>366987</td>
<td>RETAINING CLIP, RELAY BOX ASSEMBLY</td>
</tr>
<tr>
<td>ITEM</td>
<td>QTY.</td>
<td>PART NO.</td>
<td>DESCRIPTION</td>
</tr>
<tr>
<td>------</td>
<td>------</td>
<td>----------</td>
<td>-------------</td>
</tr>
<tr>
<td>1</td>
<td>1</td>
<td>360536</td>
<td>BASE PLATE ASSEMBLY</td>
</tr>
<tr>
<td>2</td>
<td>1</td>
<td>366045</td>
<td>PEDESTAL WELDMENT</td>
</tr>
<tr>
<td>3</td>
<td>1</td>
<td>480023-002</td>
<td>ROTATION BEARING</td>
</tr>
<tr>
<td>4</td>
<td>1</td>
<td>480028</td>
<td>GEAR BOX, ROTATION</td>
</tr>
<tr>
<td>5</td>
<td>1</td>
<td>480075</td>
<td>ACTUATOR, HOIST</td>
</tr>
<tr>
<td>6</td>
<td>1</td>
<td>480076</td>
<td>HYD. MOTOR (HOIST)</td>
</tr>
<tr>
<td>7</td>
<td>1</td>
<td>480027</td>
<td>HYD. MOTOR (ROTATION)</td>
</tr>
<tr>
<td>8</td>
<td>1</td>
<td>480019</td>
<td>GASKET, MOTOR</td>
</tr>
<tr>
<td>9</td>
<td>1</td>
<td>360162</td>
<td>ECCENTRIC RING</td>
</tr>
<tr>
<td>10</td>
<td>1</td>
<td>480011</td>
<td>SEAL, ROTATION BOX</td>
</tr>
<tr>
<td>11</td>
<td>1</td>
<td>480590</td>
<td>PENDANT, 4 FUNCTION</td>
</tr>
<tr>
<td>12</td>
<td>1</td>
<td>480591</td>
<td>PENDANT, 4 FUNCTION (WITH PROPORTIONAL)</td>
</tr>
<tr>
<td>13</td>
<td>1</td>
<td>480592</td>
<td>PENDANT, 8 FUNCTION</td>
</tr>
<tr>
<td>14</td>
<td>1</td>
<td>480593</td>
<td>PENDANT, 8 FUNCTION (WITH PROPORTIONAL)</td>
</tr>
<tr>
<td>15</td>
<td>2</td>
<td>239000</td>
<td>GREASE ZERK</td>
</tr>
<tr>
<td>16</td>
<td>1</td>
<td>366191</td>
<td>PIN, PEDESTAL/CYLINDER</td>
</tr>
<tr>
<td>17</td>
<td>1</td>
<td>366192</td>
<td>PIN, LOWER BOOM PIVOT</td>
</tr>
<tr>
<td>18</td>
<td>2</td>
<td>330468</td>
<td>COLLAR, SPLIT LOCK</td>
</tr>
<tr>
<td>19</td>
<td>2</td>
<td>400500</td>
<td>BEARING</td>
</tr>
<tr>
<td>20</td>
<td>1</td>
<td>460084</td>
<td>KEY, 3/8 SQ.</td>
</tr>
<tr>
<td>21</td>
<td>1</td>
<td>360207</td>
<td>RETAINER, ECCENTRIC RING</td>
</tr>
<tr>
<td>22</td>
<td>1</td>
<td>020600</td>
<td>WASHER, SP. LK. 5/16</td>
</tr>
<tr>
<td>23</td>
<td>1</td>
<td>007807</td>
<td>SCREW, HEX HD. 5/16 NG X 3/4 GR.5</td>
</tr>
<tr>
<td>24</td>
<td>2</td>
<td>750413</td>
<td>REDUCER, -8 NPT/-6 NPTF</td>
</tr>
<tr>
<td>25</td>
<td>2</td>
<td>750412</td>
<td>SWIVEL JOINT, -8</td>
</tr>
<tr>
<td>26</td>
<td>2</td>
<td>360054</td>
<td>ADAPTER, -8 NPT/-8 JIC</td>
</tr>
<tr>
<td>27</td>
<td>1</td>
<td>480024</td>
<td>MOUNT, PENDANT RETAINER</td>
</tr>
<tr>
<td>28</td>
<td>1</td>
<td>460182</td>
<td>MANIFOLD, CARTRIDGE</td>
</tr>
<tr>
<td>29</td>
<td>8</td>
<td>480184</td>
<td>VALVE, CARTRIDGE</td>
</tr>
<tr>
<td>30</td>
<td>1</td>
<td>480183</td>
<td>CARTRIDGE, FLOW REGULATOR</td>
</tr>
<tr>
<td>31</td>
<td>1</td>
<td>000109</td>
<td>PLUG, PIPE 3/8</td>
</tr>
<tr>
<td>32</td>
<td>38</td>
<td>012198</td>
<td>SCREW, HEX HD. 5/8 NC X 1 3/4 GR.8</td>
</tr>
<tr>
<td>33</td>
<td>38</td>
<td>023902</td>
<td>WASHER, FLAT 5/8 (HARDENED)</td>
</tr>
<tr>
<td>34</td>
<td>4</td>
<td>006205</td>
<td>SCREW, SOC. HD. 5/8 NC X 1 1/4 GR.8</td>
</tr>
<tr>
<td>35</td>
<td>4</td>
<td>015104</td>
<td>SCREW, HEX HD. 7/8 NF X 5&quot; GR.8</td>
</tr>
<tr>
<td>36</td>
<td>4</td>
<td>022200</td>
<td>LOCK WASher, 7/8</td>
</tr>
<tr>
<td>37</td>
<td>4</td>
<td>018900</td>
<td>NUT, HEX 7/8 NF</td>
</tr>
<tr>
<td>38</td>
<td>2</td>
<td>011608</td>
<td>SCREW, HEX HD. 1/2 NC X 2&quot; GR.5</td>
</tr>
<tr>
<td>39</td>
<td>4</td>
<td>021500</td>
<td>WASHER, SP. LK. 1/2</td>
</tr>
<tr>
<td>40</td>
<td>4</td>
<td>012197</td>
<td>SCREW, SOC. HD. 1/2 NC X 1 1/2 GR.5</td>
</tr>
<tr>
<td>41</td>
<td>6</td>
<td>002608</td>
<td>SCREW, 1/4-20 X 3/4 S.T. TYPE F</td>
</tr>
<tr>
<td>42</td>
<td>1</td>
<td>360544</td>
<td>COVER, VALVE</td>
</tr>
<tr>
<td>43</td>
<td>4</td>
<td>330394</td>
<td>SCREW, HEX HD. 3/8 NC X 1 1/2</td>
</tr>
<tr>
<td>44</td>
<td>4</td>
<td>017100</td>
<td>NUT, HEX 3/8 NC</td>
</tr>
<tr>
<td>45</td>
<td>10</td>
<td>021100</td>
<td>WASHER, SP. LK. 3/8</td>
</tr>
<tr>
<td>46</td>
<td>5</td>
<td>330370</td>
<td>SCREW, HEX HD. 3/8 NC X 7/8 GR.8</td>
</tr>
<tr>
<td>47</td>
<td>1</td>
<td>366180</td>
<td>DRUM, HOIST</td>
</tr>
<tr>
<td>48</td>
<td>1</td>
<td>366158</td>
<td>SCREW, HEX HD. 3/8 NC X 3/4 GR.8</td>
</tr>
<tr>
<td>ITEM</td>
<td>QTY.</td>
<td>PART NO.</td>
<td>DESCRIPTION</td>
</tr>
<tr>
<td>------</td>
<td>------</td>
<td>--------------</td>
<td>-----------------------------------------------------</td>
</tr>
<tr>
<td>49</td>
<td>2</td>
<td>009118</td>
<td>SCREW, SOC. HD. 1/2 NC X 2” GR.5</td>
</tr>
<tr>
<td>50</td>
<td>1</td>
<td>366161</td>
<td>CYLINDER, BOOM UP (COMPLETE)</td>
</tr>
<tr>
<td></td>
<td>1</td>
<td>366161-001</td>
<td>CASE ASSEMBLY</td>
</tr>
<tr>
<td></td>
<td>1</td>
<td>366161-002</td>
<td>SHAFT ASSEMBLY</td>
</tr>
<tr>
<td></td>
<td>1</td>
<td>366161-003</td>
<td>HEAD GLAND</td>
</tr>
<tr>
<td></td>
<td>1</td>
<td>366161-004</td>
<td>PISTON</td>
</tr>
<tr>
<td>51</td>
<td>1</td>
<td>368544</td>
<td>SEAL KIT</td>
</tr>
<tr>
<td>52</td>
<td>1</td>
<td>370433</td>
<td>CABLE, CONNECTOR</td>
</tr>
<tr>
<td>53</td>
<td>1</td>
<td>480031</td>
<td>CABLE, HOIST 3/8</td>
</tr>
<tr>
<td>54</td>
<td>2</td>
<td>021502</td>
<td>WASHER, SP. LK. 1/2 (HI-COLLAR)</td>
</tr>
<tr>
<td>55</td>
<td>2</td>
<td>021601</td>
<td>WASHER, FLAT 1/2 SAE (SPECIAL)</td>
</tr>
<tr>
<td>56</td>
<td>1</td>
<td>366987</td>
<td>RETAINING CLIP, RELAY BOX ASSEMBLY</td>
</tr>
</tbody>
</table>
AW-480584
6006H BOOM ASSEMBLY

R 11/94
AW-480584
6006H BOOM ASSEMBLY

<table>
<thead>
<tr>
<th>ITEM</th>
<th>QTY.</th>
<th>PART NO.</th>
<th>DESCRIPTION</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>1</td>
<td>480581</td>
<td>BOOM, LOWER (SEE NOTE 1)</td>
</tr>
<tr>
<td>2</td>
<td>1</td>
<td>366080</td>
<td>BOOM, CENTER</td>
</tr>
<tr>
<td>3</td>
<td>1</td>
<td>366110</td>
<td>BOOM, MANUAL</td>
</tr>
<tr>
<td>4</td>
<td>6</td>
<td>021200</td>
<td>WASHER, FLAT 3/8</td>
</tr>
<tr>
<td>5</td>
<td>1</td>
<td>366183</td>
<td>STOP, CENTER</td>
</tr>
<tr>
<td>6</td>
<td>1</td>
<td>366112</td>
<td>STOP, UPPER BOOM</td>
</tr>
<tr>
<td>7</td>
<td>1</td>
<td>366201</td>
<td>PAD, BOOM TOP</td>
</tr>
<tr>
<td>8</td>
<td>1</td>
<td>366202</td>
<td>PAD, BOOM TOP</td>
</tr>
<tr>
<td>9</td>
<td>1</td>
<td>366199</td>
<td>PAD, BOOM</td>
</tr>
<tr>
<td>10</td>
<td>1</td>
<td>366187</td>
<td>PAD, RETAINER LOWER</td>
</tr>
<tr>
<td>11</td>
<td>1</td>
<td>366185</td>
<td>PAD, BOOM (CENTER BOOM)</td>
</tr>
<tr>
<td>12</td>
<td>3</td>
<td>366186</td>
<td>PAD, BOOM (CENTER BOOM)</td>
</tr>
<tr>
<td>13</td>
<td>2</td>
<td>366184</td>
<td>RETAINER, EXTENSION CYLINDER</td>
</tr>
<tr>
<td>14</td>
<td>1</td>
<td>366190</td>
<td>PIN, ASSEMBLY w/ LANYARD</td>
</tr>
<tr>
<td>15</td>
<td>1</td>
<td>366189</td>
<td>PIN, BOOM CYLINDER</td>
</tr>
<tr>
<td>16</td>
<td>2</td>
<td>020600</td>
<td>WASHER, SP. LK. 5/16</td>
</tr>
<tr>
<td>17</td>
<td>1</td>
<td>366193</td>
<td>PIN, EXTENSION CYLINDER</td>
</tr>
<tr>
<td>18</td>
<td>2</td>
<td>480029</td>
<td>RING, RETAINING</td>
</tr>
<tr>
<td>19</td>
<td>1</td>
<td>366198</td>
<td>SHEAVE ASSEMBLY 3/8 (BEARING ONLY - 366197)</td>
</tr>
<tr>
<td>20</td>
<td>1</td>
<td>360125</td>
<td>PIN, BLOCK</td>
</tr>
<tr>
<td>21</td>
<td>1</td>
<td>360124</td>
<td>PIN, HITCH</td>
</tr>
<tr>
<td>22</td>
<td>2</td>
<td>360038</td>
<td>ANGLE INDICATOR</td>
</tr>
<tr>
<td>23</td>
<td>1</td>
<td>366158</td>
<td>SCREW, HEX HD. 3/8-16NC x 3/4 LG. GR.8</td>
</tr>
<tr>
<td>24</td>
<td>1</td>
<td>239000</td>
<td>GREASE ZERK</td>
</tr>
<tr>
<td>25</td>
<td>2</td>
<td>016300</td>
<td>NUT, HEX LOCK 1/4-20NC</td>
</tr>
<tr>
<td>26</td>
<td>1</td>
<td>014304</td>
<td>SCREW, HEX HD. 3/4-16NF x 6&quot; LG. GR.5</td>
</tr>
<tr>
<td>27</td>
<td>1</td>
<td>018600</td>
<td>NUT, HEX LOCK 3/4-16NF</td>
</tr>
<tr>
<td>28</td>
<td>12</td>
<td>008400</td>
<td>SCREW, HEX HD. 3/8-16NC x 3/4 LG.</td>
</tr>
<tr>
<td>29</td>
<td>8</td>
<td>007808</td>
<td>SCREW, HEX HD. 5/16-24NF x 1/2 LG.</td>
</tr>
<tr>
<td>30</td>
<td>4</td>
<td>005406</td>
<td>SCREW, HEX HD. 1/4-28NF x 1/2 LG.</td>
</tr>
<tr>
<td>31</td>
<td>4</td>
<td>008800</td>
<td>SCREW, HEX HD. 3/8-24NF x 1&quot; LG.</td>
</tr>
<tr>
<td>32</td>
<td>6</td>
<td>021100</td>
<td>WASHER, SP. LK. 3/8</td>
</tr>
<tr>
<td>33</td>
<td>1</td>
<td>366203</td>
<td>TRAVELING BLOCK</td>
</tr>
<tr>
<td>34</td>
<td>1</td>
<td>366162</td>
<td>CYLINDER, EXTENSION (COMPLETE)</td>
</tr>
<tr>
<td>35</td>
<td>1</td>
<td>366162-001</td>
<td>CASE ASSEMBLY</td>
</tr>
<tr>
<td></td>
<td></td>
<td>366162-002</td>
<td>SHAFT ASSEMBLY</td>
</tr>
<tr>
<td></td>
<td></td>
<td>366162-003</td>
<td>HEAD GLAND</td>
</tr>
<tr>
<td></td>
<td></td>
<td>366162-004</td>
<td>PISTON</td>
</tr>
<tr>
<td>36</td>
<td>1</td>
<td>366166</td>
<td>SEAL KIT</td>
</tr>
<tr>
<td>37</td>
<td>1</td>
<td>REF.</td>
<td>CORD REEL BRACKET (320551)</td>
</tr>
<tr>
<td>38</td>
<td>7</td>
<td>REF.</td>
<td>D-RING (366108)</td>
</tr>
<tr>
<td>39</td>
<td>3</td>
<td>REF.</td>
<td>SPACER (B0C246-025)</td>
</tr>
</tbody>
</table>

NOTES:
1.) BOOM 366070 HAS HOOKS FOR PENDANT CABLE. BOOM 480581 IS EXACTLY THE SAME LESS THE HOOKS AND IS USED FOR PROPORTIONAL UNITS.
<table>
<thead>
<tr>
<th>ITEM</th>
<th>QTY.</th>
<th>PART NO.</th>
<th>DESCRIPTION</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>1</td>
<td>366116–001</td>
<td>BAIL, 2-BLOCK CROWN BRACKET</td>
</tr>
<tr>
<td>2</td>
<td>1</td>
<td>366973–001</td>
<td>CORD REEL ASSY</td>
</tr>
<tr>
<td>3</td>
<td>1</td>
<td>366196</td>
<td>2-BLOCK ARM</td>
</tr>
<tr>
<td>4</td>
<td>4</td>
<td>016100</td>
<td>NUT, HEX HD. 1/4–28 NF</td>
</tr>
<tr>
<td>5</td>
<td>3</td>
<td>016200</td>
<td>NUT, HEX LOCK 1/4–28 NF</td>
</tr>
<tr>
<td>6</td>
<td>3</td>
<td>002608</td>
<td>SCREW, HEX HD. SELF TAPPING 1/4–20 NC x 3/4 LG.</td>
</tr>
<tr>
<td>7</td>
<td>3</td>
<td>000115</td>
<td>CLIP, #15</td>
</tr>
<tr>
<td>8</td>
<td>1</td>
<td>007803</td>
<td>SCREW, HEX HD. 5/16–18 NC x 3 1/2 LG.</td>
</tr>
<tr>
<td>9</td>
<td>1</td>
<td>016801</td>
<td>NUT, HEX LOCK 5/16–18 NC</td>
</tr>
<tr>
<td>10</td>
<td>1</td>
<td>363006</td>
<td>BEARING, ROD END</td>
</tr>
<tr>
<td>11</td>
<td>1</td>
<td>REF.</td>
<td>SCREW, HEX HD. 3/4–16 NF x 6&quot; LG.</td>
</tr>
<tr>
<td>12</td>
<td>1</td>
<td>320551</td>
<td>BRACKET, REEL MOUNT</td>
</tr>
<tr>
<td>13</td>
<td>2</td>
<td>005901</td>
<td>SCREW, 1/4–20 NC x 1/2 LG.</td>
</tr>
<tr>
<td>14</td>
<td>6</td>
<td>366108</td>
<td>D-RING</td>
</tr>
<tr>
<td>15</td>
<td>1</td>
<td>646900</td>
<td>SWITCH</td>
</tr>
<tr>
<td>16</td>
<td>1</td>
<td>642908</td>
<td>CORD CONNECTOR</td>
</tr>
<tr>
<td>17</td>
<td>1</td>
<td>363013–001</td>
<td>MOUNTING PLATE ASSY</td>
</tr>
<tr>
<td>18</td>
<td>1</td>
<td>363004</td>
<td>COVER, SWITCH</td>
</tr>
<tr>
<td>19</td>
<td>2</td>
<td>002602</td>
<td>SCREW, RD. HD. #6–32 NC x 1 1/4 LG.</td>
</tr>
<tr>
<td>20</td>
<td>2</td>
<td>019600</td>
<td>WASHER, SP. LK. #6</td>
</tr>
<tr>
<td>21</td>
<td>1</td>
<td>363005</td>
<td>LINKAGE, WELDMENT ROD</td>
</tr>
<tr>
<td>22</td>
<td>1</td>
<td>363006</td>
<td>BEARING, ROD END</td>
</tr>
<tr>
<td>23</td>
<td>1</td>
<td>017301</td>
<td>NUT, HEX LOCK 3/8–16 NC</td>
</tr>
</tbody>
</table>
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.
<table>
<thead>
<tr>
<th>ITEM</th>
<th>QTY.</th>
<th>PART NO.</th>
<th>DESCRIPTION</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>1</td>
<td>480240</td>
<td>ADAPTER</td>
</tr>
<tr>
<td>2</td>
<td>1</td>
<td>480241</td>
<td>BUSHING</td>
</tr>
<tr>
<td>3</td>
<td>1</td>
<td>480242</td>
<td>CAP, BEARING</td>
</tr>
<tr>
<td>4</td>
<td>1</td>
<td>480243</td>
<td>COVER</td>
</tr>
<tr>
<td>5</td>
<td>1</td>
<td>480244</td>
<td>GEAR, R.H.</td>
</tr>
<tr>
<td>6</td>
<td>1</td>
<td>480237</td>
<td>HOUSING, GEAR</td>
</tr>
<tr>
<td>7</td>
<td>2</td>
<td>480246</td>
<td>KEY $\text{\textregistered}$</td>
</tr>
<tr>
<td>8</td>
<td>1</td>
<td>480247</td>
<td>SHAFT, OUTPUT $35739$</td>
</tr>
<tr>
<td>9</td>
<td>1</td>
<td>480248</td>
<td>WASHER, THRUST</td>
</tr>
<tr>
<td>10</td>
<td>1</td>
<td>480249</td>
<td>WORM, R.H.</td>
</tr>
<tr>
<td>11</td>
<td>1</td>
<td>480251</td>
<td>BEARING, BALL</td>
</tr>
<tr>
<td>12</td>
<td>1</td>
<td>480252</td>
<td>BEARING, NEEDLE</td>
</tr>
<tr>
<td>13</td>
<td>1</td>
<td>480253</td>
<td>BEARING, NEEDLE</td>
</tr>
<tr>
<td>14</td>
<td>1</td>
<td>480254</td>
<td>BEARING, THRUST</td>
</tr>
<tr>
<td>15</td>
<td>1</td>
<td>480255</td>
<td>COVER</td>
</tr>
<tr>
<td>16</td>
<td>6</td>
<td>007400</td>
<td>CAPSCREW, 5/16-18 NC x 1&quot; LG. HX. HD.</td>
</tr>
<tr>
<td>17</td>
<td>8</td>
<td>480238</td>
<td>CAPSCREW, 5/16-18 NC x 1 1/4 LG. HX.</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>NYLOC HVY PATCH</td>
</tr>
<tr>
<td>18</td>
<td>2</td>
<td>011508</td>
<td>CAPSCREW, 1/2-13 NC x 3/4 LG. HX. HD.</td>
</tr>
<tr>
<td>19</td>
<td>6</td>
<td>480256</td>
<td>CAPSCREW, 5/16-18 NC x 1&quot; LG. SOC. HD. LOC.-WEL</td>
</tr>
<tr>
<td>20</td>
<td>6</td>
<td>480258</td>
<td>LOCK WASHER, 5/16 MED. SECT. C.P.</td>
</tr>
<tr>
<td>21</td>
<td>1</td>
<td>480259</td>
<td>ELBOW, 90°</td>
</tr>
<tr>
<td>22</td>
<td>2</td>
<td>480260</td>
<td>GASKET</td>
</tr>
<tr>
<td>23</td>
<td>1</td>
<td>480250</td>
<td>GASKET</td>
</tr>
<tr>
<td>24</td>
<td>1</td>
<td>480262</td>
<td>FITTING, RELIEF</td>
</tr>
<tr>
<td>25</td>
<td>1</td>
<td>480239</td>
<td>O-RING</td>
</tr>
<tr>
<td>26</td>
<td>1</td>
<td>480263</td>
<td>REDUCER</td>
</tr>
<tr>
<td>27</td>
<td>2</td>
<td>480264</td>
<td>PLUG, PIPE</td>
</tr>
<tr>
<td>28</td>
<td>4</td>
<td>480265</td>
<td>PIN, DOWEL</td>
</tr>
<tr>
<td>29</td>
<td>1</td>
<td>480266</td>
<td>SEAL, OIL $\text{\textregistered}$</td>
</tr>
<tr>
<td>30</td>
<td>2</td>
<td>480268</td>
<td>WASHER, THRUST</td>
</tr>
<tr>
<td>31</td>
<td>1</td>
<td>480269</td>
<td>PLUG, EXPANSION</td>
</tr>
<tr>
<td>ITEM</td>
<td>QTY.</td>
<td>PART NO.</td>
<td>DESCRIPTION</td>
</tr>
<tr>
<td>------</td>
<td>------</td>
<td>----------</td>
<td>-------------</td>
</tr>
<tr>
<td>1</td>
<td>1</td>
<td>360450</td>
<td>COVER, WORM BRAKE</td>
</tr>
<tr>
<td>2</td>
<td>1</td>
<td>360359</td>
<td>GASKET</td>
</tr>
<tr>
<td>3</td>
<td>1</td>
<td>360368</td>
<td>SPRING</td>
</tr>
<tr>
<td>4</td>
<td>1</td>
<td>360367</td>
<td>SPRING, FLAT</td>
</tr>
<tr>
<td>5</td>
<td>1</td>
<td>360342</td>
<td>PLATE, RETAINER</td>
</tr>
<tr>
<td>6</td>
<td>1</td>
<td>360364</td>
<td>PLATE, THRUST</td>
</tr>
<tr>
<td>7</td>
<td>1</td>
<td>360331</td>
<td>CAM, PLATE</td>
</tr>
<tr>
<td>8</td>
<td>2</td>
<td>360345</td>
<td>BALL, BRAKE</td>
</tr>
<tr>
<td>9</td>
<td>1</td>
<td>360339</td>
<td>HUB--BRAKE</td>
</tr>
<tr>
<td>10</td>
<td>1</td>
<td>360336</td>
<td>HOUSING--BRAKE</td>
</tr>
<tr>
<td>11</td>
<td>2</td>
<td>360358</td>
<td>GASKET</td>
</tr>
<tr>
<td>12</td>
<td>2</td>
<td>360346</td>
<td>BEARING</td>
</tr>
<tr>
<td>13</td>
<td>1</td>
<td>480078</td>
<td>SHAFT--OUTPUT</td>
</tr>
<tr>
<td>14</td>
<td>1</td>
<td>480094</td>
<td>KEY, 3/8 SQ.</td>
</tr>
<tr>
<td>15</td>
<td>4</td>
<td>360464</td>
<td>KEY, BARTH</td>
</tr>
<tr>
<td>16</td>
<td>1</td>
<td>360360</td>
<td>FITTING--RELIEF</td>
</tr>
<tr>
<td>17</td>
<td>1</td>
<td>360361</td>
<td>REDUCER</td>
</tr>
<tr>
<td>18</td>
<td>1</td>
<td>360344</td>
<td>WORM--R.H.</td>
</tr>
<tr>
<td>19</td>
<td>1</td>
<td>360365</td>
<td>OIL SEAL</td>
</tr>
<tr>
<td>20</td>
<td>1</td>
<td>360330</td>
<td>ADAPTER</td>
</tr>
<tr>
<td>21</td>
<td>1</td>
<td>360332</td>
<td>COUPLING</td>
</tr>
<tr>
<td>22</td>
<td>1</td>
<td>360363</td>
<td>SPIROL PIN</td>
</tr>
<tr>
<td>23</td>
<td>1</td>
<td>360461</td>
<td>HOUSING--GEAR (EFFECTIVE ON SERIAL NO. 636238)</td>
</tr>
<tr>
<td>24</td>
<td>2</td>
<td>360362</td>
<td>PIPE PLUG</td>
</tr>
<tr>
<td>25</td>
<td>1</td>
<td>360348</td>
<td>BUSHING</td>
</tr>
<tr>
<td>26</td>
<td>1</td>
<td>360369</td>
<td>THRUST WASHER</td>
</tr>
<tr>
<td>27</td>
<td>1</td>
<td>360460</td>
<td>GEAR--R.H. (EFFECTIVE ON SERIAL NO. 601090)</td>
</tr>
<tr>
<td>28</td>
<td>1</td>
<td>360462</td>
<td>BUSHING</td>
</tr>
<tr>
<td>29</td>
<td>1</td>
<td>360459</td>
<td>GASKET</td>
</tr>
<tr>
<td>30</td>
<td>1</td>
<td>360458</td>
<td>COVER</td>
</tr>
<tr>
<td>31</td>
<td>10</td>
<td>360350</td>
<td>CAPSCREW, 1/4--20NC x 3/4 LG. HX HD GR5</td>
</tr>
<tr>
<td>32</td>
<td>1</td>
<td>360466</td>
<td>THRUST WASHER</td>
</tr>
<tr>
<td>33</td>
<td>2</td>
<td>010202</td>
<td>CAPSCREW, 1/2--13NC x 1&quot; LG. HX HD</td>
</tr>
<tr>
<td>34</td>
<td>4</td>
<td>360352</td>
<td>CAPSCREW, 1/4--20NC x 1 3/4 LG. SOC HD LOC--WEL</td>
</tr>
<tr>
<td>35</td>
<td>4</td>
<td>360463</td>
<td>CAPSCREW, 1/4--20NC x 7/8 SOC HD</td>
</tr>
<tr>
<td>36</td>
<td>6</td>
<td>360453</td>
<td>CAPSCREW, 1/4--20NC x 1&quot; HX HD ALL THRD GR5 NYLOC H.P.</td>
</tr>
<tr>
<td>37</td>
<td>1</td>
<td>360456</td>
<td>CAPSCREW, 3/8--16NC x 1 1/2 LG HX HD ALL THRD GR5</td>
</tr>
<tr>
<td>38</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>39</td>
<td>4</td>
<td>360465</td>
<td>THREAD SEAL</td>
</tr>
<tr>
<td>40</td>
<td>1</td>
<td>360353</td>
<td>NUT, 3/8--16NC HX JAM</td>
</tr>
<tr>
<td>41</td>
<td>1</td>
<td>360371</td>
<td>THREAD SEAL</td>
</tr>
<tr>
<td>42</td>
<td>2</td>
<td>360455</td>
<td>WASHER, FLAT 1/4 ALUM.</td>
</tr>
<tr>
<td>43</td>
<td>1</td>
<td>360349</td>
<td>COVER--HYD. ADAPTER</td>
</tr>
<tr>
<td>44</td>
<td>2</td>
<td>360341</td>
<td>KEY</td>
</tr>
<tr>
<td>45</td>
<td>1</td>
<td>360366</td>
<td>OIL SEAL</td>
</tr>
<tr>
<td>46</td>
<td>1</td>
<td>480306</td>
<td>SEAL AND GASKET KIT</td>
</tr>
</tbody>
</table>
TO COILS ON MANIFOLD BLOCK

(SEE APPROPRIATE WIRING SCHEMATICS)

CRANE BASE

SHIPPED LOOSE

BACK WALL OF CRANE COMPARTMENT

NOTE:
USE DECAL (ITEM 2) AS A DRILL TEMPLATE WHEN MOUNTING TERMINAL BLOCK AND COVER

NOTE:
MOUNT PENDANT BRACKET (ITEM 4) INSIDE CRANE COMPARTMENT WITH SCREWS SHOWN OR WELD IN PLACE. IN AUTO CRANE BODIES USE HOLES AS SHOWN TO MOUNT BRACKET IN UPPER RIGHT REAR CORNER.

AW-178
INSTALLATION DRAWING
IN-COMPARTMENT (IC) PENDANT

4-11.0.0
R 2/93
<table>
<thead>
<tr>
<th>ITEM</th>
<th>QTY.</th>
<th>PART NO.</th>
<th>DESCRIPTION</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>1</td>
<td>480492</td>
<td>HARNESS, CRANE PIGTAIL</td>
</tr>
<tr>
<td>2</td>
<td>1</td>
<td>480490</td>
<td>DECAL, 22 STATION TERMINAL BLOCK</td>
</tr>
<tr>
<td>3</td>
<td>1</td>
<td>480491</td>
<td>HARNESS, 22 STATION/19 PIN SOCKET</td>
</tr>
<tr>
<td>4</td>
<td>1</td>
<td>480626</td>
<td>BRACKET, PENDANT</td>
</tr>
<tr>
<td>5</td>
<td>1</td>
<td>480493</td>
<td>COVER, 22 STATION TERMINAL BLOCK</td>
</tr>
<tr>
<td>6</td>
<td>4</td>
<td>000404</td>
<td>SCREW, ROUND HD. #6-32NC x 5/8 LG.</td>
</tr>
<tr>
<td>7</td>
<td>4</td>
<td>015400</td>
<td>NUT, HEX #6-32NC</td>
</tr>
<tr>
<td>8</td>
<td>4</td>
<td>019600</td>
<td>WASHER, SP. LK. #6</td>
</tr>
<tr>
<td>9</td>
<td>1</td>
<td>480547</td>
<td>CAP, RECEPTACLE (19 PIN)</td>
</tr>
<tr>
<td>10</td>
<td>6</td>
<td>750738</td>
<td>WIRE TIE STICK ON RETAINER</td>
</tr>
<tr>
<td>11</td>
<td>6</td>
<td>634401</td>
<td>WIRE TIE (7&quot; LG.)</td>
</tr>
<tr>
<td>12</td>
<td>3</td>
<td>330038</td>
<td>SCREW, HEX HD. #10-24NC x 3/4 LG. SELF TAPPING</td>
</tr>
<tr>
<td>13</td>
<td>2</td>
<td>005500</td>
<td>SCREW, HEX HD. 1/4-20NC x 3/4 LG. G5</td>
</tr>
<tr>
<td>14</td>
<td>2</td>
<td>015800</td>
<td>NUT, HEX 1/4-20NC</td>
</tr>
<tr>
<td>15</td>
<td>2</td>
<td>020200</td>
<td>WASHER, SP. LK. 1/4</td>
</tr>
</tbody>
</table>
NOTE:
USE DECAL (ITEM 2) AS A DRILL TEMPLATE WHEN MOUNTING TERMINAL BLOCK AND COVER

NOTE:
MOUNT PENDANT BRACKET (ITEM 4) INSIDE CRANE COMPARTMENT WITH SCREWS SHOWN OR WELD IN PLACE. IN AUTO CRANE BODIES USE HOLES AS SHOWN TO MOUNT BRACKET IN UPPER RIGHT REAR CORNER.

NOTE:
PROPORTIONAL AMPLIFIER ONLY NEEDED IF PENDANT IS USED ALSO

AW-179
FM REMOTE INSTALLATION

4-12.0.0
R 5/94
<table>
<thead>
<tr>
<th>ITEM</th>
<th>QTY.</th>
<th>PART NO.</th>
<th>DESCRIPTION</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>1</td>
<td>480492</td>
<td>HARNESS, CRANE PIGTAIL</td>
</tr>
<tr>
<td>2</td>
<td>1</td>
<td>480490</td>
<td>DECAL, 22 STATION TERMINAL BLOCK</td>
</tr>
<tr>
<td>3</td>
<td>1</td>
<td>480491</td>
<td>HARNESS, 22 STATION/19 PIN SOCKET</td>
</tr>
<tr>
<td>4</td>
<td>1</td>
<td>480626</td>
<td>BRACKET, PENDANT</td>
</tr>
<tr>
<td>5</td>
<td>1</td>
<td>480493</td>
<td>COVER, 22 STATION TERMINAL BLOCK</td>
</tr>
<tr>
<td>6</td>
<td>4</td>
<td>000404</td>
<td>SCREW, ROUND HD. #6-32NC x 5/8 LG.</td>
</tr>
<tr>
<td>7</td>
<td>4</td>
<td>015400</td>
<td>NUT, HEX #6-32NC</td>
</tr>
<tr>
<td>8</td>
<td>4</td>
<td>019600</td>
<td>WASHER, SP. LK. #6</td>
</tr>
<tr>
<td>9</td>
<td>1</td>
<td>480547</td>
<td>CAP, RECEPTACLE (19 PIN)</td>
</tr>
<tr>
<td>10</td>
<td>6</td>
<td>750738</td>
<td>WIRE TIE STICK ON RETAINER</td>
</tr>
<tr>
<td>11</td>
<td>6</td>
<td>634401</td>
<td>WIRE TIE (7&quot; LG.)</td>
</tr>
<tr>
<td>12</td>
<td>3</td>
<td>330038</td>
<td>SCREW, HEX HD. #10-24NC x 3/4 LG. SELF TAPPING</td>
</tr>
<tr>
<td>13</td>
<td>2</td>
<td>005500</td>
<td>SCREW, HEX HD. 1/4-20NC x 3/4 LG. G5</td>
</tr>
<tr>
<td>14</td>
<td>2</td>
<td>015800</td>
<td>NUT, HEX 1/4-20NC</td>
</tr>
<tr>
<td>15</td>
<td>2</td>
<td>020200</td>
<td>WASHER, SP. LK. 1/4</td>
</tr>
<tr>
<td>16</td>
<td>1</td>
<td>480629</td>
<td>FM REMOTE TRANSMITTER/RECEIVER ASSEMBLY</td>
</tr>
<tr>
<td>17</td>
<td>1</td>
<td>(SEE NOTE)</td>
<td>ANTENNA (STD.)</td>
</tr>
<tr>
<td>18</td>
<td>4</td>
<td>002607</td>
<td>SCREW, ROUND HD. #10-24NC x 3/4 LG.</td>
</tr>
<tr>
<td>19</td>
<td>4</td>
<td>015801</td>
<td>NUT, HEX LOCK #10-24NC</td>
</tr>
<tr>
<td>20</td>
<td>1</td>
<td>480537</td>
<td>AMPLIFIER, PROPORTIONAL</td>
</tr>
<tr>
<td>21</td>
<td>2</td>
<td>002200</td>
<td>SCREW, ROUND HD. #10-32NF x 3/4 LG.</td>
</tr>
<tr>
<td>22</td>
<td>2</td>
<td>015800</td>
<td>NUT, HEX LOCK #10-32NF</td>
</tr>
<tr>
<td>23</td>
<td>1</td>
<td>480625</td>
<td>CONTROL CABLE</td>
</tr>
</tbody>
</table>

**NOTE:**

STANDARD ANTENNA COMES WITH TRANSMITTER/RECEIVER ASSEMBLY; AN EXTRANEOUS MAGNETIC BASE (P/N 480608) CAN BE ORDERED AS AN EXTRA COST OPTION
AW-353
CRANE WIRING, 5005H & 6006H
w/ 4 & 8 FUNCTION PENDANTS, PROPORTIONAL (-200, -400)

5-3.0.0
R 10/94
AW-354
CRANE WIRING, 5005H & 6006H
w/ 4 & 8 FUNCTION PENDANTS, LESS PROPORTIONAL (-100, -300)

5-4.0.0
R 10/94
AW-356
CRANE WIRING, 5005H & 6006H
w/ 4 & 8 FUNCTION PENDANTS, LESS PROP. IC (−110,−310)
5-6.0.0
R 10/94
AW-357
CRANE WIRING, 5005H & 6006H
8 FUNCTION PENDANT PROP. IC & 12 FUNCTION FM REMOTE (-510,-530)

5-7.0.0
R 10/94
AW-358
CRANE WIRING, 5005H & 6006H
w/ FM REMOTE, PROPORTIONAL (-500, -520)
5-8.0.0
R 10/94
<table>
<thead>
<tr>
<th>ITEM</th>
<th>QTY</th>
<th>P/N</th>
<th>DESCRIPTION</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>1</td>
<td>480542</td>
<td>RECEPTACLE (19 PIN)</td>
</tr>
<tr>
<td>2</td>
<td>1</td>
<td>480594-002</td>
<td>CONDUCTOR 16 Ga/19 CON. x 8′-0″ LG.</td>
</tr>
<tr>
<td>3</td>
<td>6</td>
<td>000405</td>
<td>TERMINAL, FLAG</td>
</tr>
<tr>
<td>4</td>
<td>1</td>
<td>480385</td>
<td>CONDUCTOR ASSEMBLY, WEATHER PACK</td>
</tr>
<tr>
<td>5</td>
<td>1</td>
<td>001105</td>
<td>TERMINAL, BUTT CONNECTOR NON-INS</td>
</tr>
<tr>
<td>6</td>
<td>3″</td>
<td>366995</td>
<td>1/4″ SHRINK TUBING</td>
</tr>
</tbody>
</table>

**AW-480597**
PENDANT RECEPTACLE ASSEMBLY

5-9.0.0  R 2/94
### Wiring Guide

- A: RED
- B: GREEN
- C: ORANGE
- D: RED W/WHITE T
- E: BLACK
- F: RED W/BLACK T
- G: BLUE
- H: ORANGE W/BLACK T
- J: GREEN W/BLACK T
- K: WHITE W/BLACK T
- L: WHITE
- M: BLUE W/BLACK T
- N: BLACK W/WHITE T
- P: GREEN W/WHITE T
- R: BLUE W/WHITE T
- S: BLACK W/RED T
- T: WHITE W/RED T
- U: ORANGE W/RED T
- V: BLUE W/RED T

### View From Bottom

### Part List

<table>
<thead>
<tr>
<th>Item</th>
<th>Qty</th>
<th>P/N</th>
<th>Description</th>
<th>Item</th>
<th>Qty</th>
<th>P/N</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>1</td>
<td>631601</td>
<td>PENDANT HOUSING</td>
<td>11</td>
<td>2</td>
<td>0020101</td>
<td>TERMINAL, RING #5/14-16 Gx</td>
</tr>
<tr>
<td>2</td>
<td>1</td>
<td>631700</td>
<td>COVER, BOTTOM</td>
<td>12</td>
<td>4</td>
<td>675271</td>
<td>NUT, HEX</td>
</tr>
<tr>
<td>3</td>
<td>4</td>
<td>634200</td>
<td>SWITCH, TOGGLE</td>
<td>13</td>
<td>4</td>
<td>642100</td>
<td>&quot;O&quot;-RING</td>
</tr>
<tr>
<td>4</td>
<td>4</td>
<td>640302</td>
<td>BOOT, TOGGLE SWITCH</td>
<td>14</td>
<td>4</td>
<td>019700</td>
<td>WASHER, SP. LK. #6</td>
</tr>
<tr>
<td>5</td>
<td>10</td>
<td>005001</td>
<td>SCREW, PAN HO. #8 x 3/4</td>
<td>15</td>
<td>2</td>
<td>800580</td>
<td>3/4&quot; OKONITE RUBBER TAPE</td>
</tr>
<tr>
<td>6</td>
<td>2</td>
<td>005101</td>
<td>SCREW, PAN HO. #8 x 1 1/4</td>
<td>16</td>
<td>1</td>
<td>004700</td>
<td>SCREW, PAN HO. #8 x 1 1/2</td>
</tr>
<tr>
<td>7</td>
<td>1</td>
<td>633801</td>
<td>ADAPTER, CABLE</td>
<td>17</td>
<td>4</td>
<td>622346</td>
<td>CONDUCTOR ASSY 2 1/8&quot; LG.</td>
</tr>
<tr>
<td>8</td>
<td>1</td>
<td>480594-001</td>
<td>CONDUCTOR CABLE (19 COND.)</td>
<td>18</td>
<td>3</td>
<td>622347</td>
<td>CONDUCTOR ASSY 3 1/8&quot; LG.</td>
</tr>
<tr>
<td>9</td>
<td>2</td>
<td>634401</td>
<td>CABLE TIE</td>
<td>19</td>
<td>1</td>
<td>002012</td>
<td>TERMINAL, RING #6/18-22 Gx.</td>
</tr>
<tr>
<td>10</td>
<td>4</td>
<td>636600</td>
<td>JUNCTION</td>
<td>20</td>
<td>1</td>
<td>480514</td>
<td>PLUG, CONNECTOR</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>21</td>
<td>1</td>
<td>480515</td>
<td>CLAMP, CABLE</td>
</tr>
</tbody>
</table>

**AW-480540**

PENDANT ASSEMBLY, 4 FUNCTION
REMOVABLE w/ 19 PIN CONNECTOR
<table>
<thead>
<tr>
<th>ITEM</th>
<th>QTY</th>
<th>P/N</th>
<th>DESCRIPTION</th>
<th>ITEM</th>
<th>QTY</th>
<th>P/N</th>
<th>DESCRIPTION</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>1</td>
<td>631601</td>
<td>PENDANT HOUSING</td>
<td>11</td>
<td>10</td>
<td>000101</td>
<td>TERMINAL, RING</td>
</tr>
<tr>
<td>2</td>
<td>1</td>
<td>631700</td>
<td>COVER, BOTTOM</td>
<td>12</td>
<td>4</td>
<td>675271</td>
<td>NUT, HEX</td>
</tr>
<tr>
<td>3</td>
<td>4</td>
<td>634200</td>
<td>SWITCH, TOGGLE</td>
<td>13</td>
<td>4</td>
<td>642100</td>
<td>&quot;O&quot;-RING</td>
</tr>
<tr>
<td>4</td>
<td>4</td>
<td>640302</td>
<td>BOOT, TOGGLE SWITCH</td>
<td>14</td>
<td>4</td>
<td>019700</td>
<td>WASHER, SP. LK. #8</td>
</tr>
<tr>
<td>5</td>
<td>10</td>
<td>005001</td>
<td>SCREW, PAN HD. #8 x 3/4</td>
<td>15</td>
<td>21</td>
<td>800580</td>
<td>3/4&quot; OKONITE RUBBER TAPE</td>
</tr>
<tr>
<td>6</td>
<td>2</td>
<td>005101</td>
<td>SCREW, PAN HD. #8 x 1 1/4</td>
<td>16</td>
<td>1</td>
<td>004700</td>
<td>SCREW, PAN HD. #8 x 1 1/2</td>
</tr>
<tr>
<td>7</td>
<td>1</td>
<td>633801</td>
<td>ADAPTER, CABLE</td>
<td>17</td>
<td>4</td>
<td>622346</td>
<td>CONDUCTOR ASSY 2 1/8&quot; LG.</td>
</tr>
<tr>
<td>8</td>
<td>1</td>
<td>800632-004</td>
<td>CONDUCTOR CABLE (27&quot;)</td>
<td>18</td>
<td>3</td>
<td>622347</td>
<td>CONDUCTOR ASSY 3 1/8&quot; LG.</td>
</tr>
<tr>
<td>9</td>
<td>2</td>
<td>634401</td>
<td>CABLE TIE</td>
<td>19</td>
<td>2</td>
<td>001102</td>
<td>SPLICE, BUTT (REF.)</td>
</tr>
<tr>
<td>10</td>
<td>4</td>
<td>636600</td>
<td>JUMPER</td>
<td>20</td>
<td>8</td>
<td>000405</td>
<td>TERMINAL, FLAG (REF.)</td>
</tr>
</tbody>
</table>

**NOTE:**

ITEMS 19 & 20 ARE INCLUDED WITH ITEM 8

AW-480093
PENDANT ASSEMBLY
4 FUNCTION, NONREMOVABLE
### Wiring Diagram

```
1 1 480501 PENDANT HOUSING
2 1 480513 DECAL, COVER PLATE
3 5 REF.* NUT
4 5 640300 BOOT, TOGGLE SWITCH
5 1 370433 CONNECTOR, HUBBEL F3
6 2 002607 SCREW, #10-24NC x 3/4
7 2 015801 NUT, HK. LK. #10-24NC
8 4 634200 SWITCH, TOGGLE DPDT
9 1 480504 BACK PLATE
10 4 480516 SCREW, S.T. RD. HD. #6 x 3/4
```

```
11 1 480585 CABLE ASSEMBLY
12 5 REF.* WASHER, LOCK
13 4 660302 CONDUCTOR ASSEMBLY
14 4 636600 JUMPER
15 4 622346 CONDUCTOR ASSEMBLY 2 1/8"
16 3 622347 CONDUCTOR ASSEMBLY 3 1/8"
17 1 480598 COVER, TRIGGER OPENING
18 1 750090 SWITCH, TOGGLE ON/OFF
19 2 750737 TIE, CABLE
```

*COMES WITH ITEM 8*

### AW-480590
PENDANT ASSEMBLY
FOUR (4) FUNCTION, STANDARD

5-12.0.0

R 2/94
AW-480591
PROPORTIONAL PENDANT ASSEMBLY
FOUR (4) FUNCTION

ITEM QTY. | PART NO. | DESCRIPTION
--- | --- | ---
1 | 480501 | PENDANT HOUSING
2 | 480513 | DECAL, COVER PLATE
3 | REF.* | NUT
4 | 640300 | BOOT, TOGGLE SWITCH
5 | 370433 | CONNECTOR, HUBBEL F3
6 | 002507 | SCREW, #10-24NC x 3/4
7 | 018691 | NUT, HX. LK. #10-24NC
8 | 480507 | POTENTIOMETER ASSEMBLY
9 | 480506 | TRIGGER
10 | 480517 | SCREW, SOC. HD. #10-32NF x 5/8
11 | 634200 | SWITCH, TOGGLE DPDT
12 | 480504 | BACK PLATE

ITEM QTY. | PART NO. | DESCRIPTION
--- | --- | ---
13 | 4 | 480516 | SCREW, S.T. RD. HD. #6 x 3/4
14 | 1 | 480596 | CABLE ASSEMBLY
15 | 4 | REF.* | WASHER, Lock
16 | 4 | 660302 | CONDUCTOR ASSEMBLY
17 | 1 | 480524 | CONDUCTOR ASSEMBLY
18 | 1 | 480523 | SPRING, TRIGGER RETURN
19 | 1 | 005003 | SCREW, PAN HD. S.T. #6 x 3/8
20 | 4 | 635600 | JUMPER
21 | 4 | 622346 | CONDUCTOR ASSEMBLY 2 1/8"x
22 | 3 | 622347 | CONDUCTOR ASSEMBLY 3 1/8"x
23 | 2 | 750737 | TIE, CABLE
24 | 1 | 750090 | SWITCH, TOGGLE ON/OFF

* COMES WITH ITEM 11
ITEM QTY.  PART NO.  DESCRIPTION
1  1  480501  PENDANT HOUSING
2  1  480518  DECAL, COVER PLATE
3  8  REF.  NUT
4  8  640300  BOOT, TOGGLE SWITCH
5  1  370433  CONNECTOR, HUBBELL F3
6  2  002607  SCREW, #10-24NC x 3/4
7  2  015801  NUT, HX. UK. #10-24NC
8  4  634200  SWITCH, TOGGLE DPDT
9  1  480504  BACK PLATE
10  4  480516  SCREW, S.T. RD. HD. #6 x 3/4
11  1  480588  CABLE ASSEMBLY

ITEM QTY.  PART NO.  DESCRIPTION
12  8  REF.  WASHER, LOCK
13  3  660302  CONDUCTOR ASSEMBLY
14  4  636600  JUMPER
15  4  622346  CONDUCTOR ASSEMBLY 2 1/8"
16  3  622347  CONDUCTOR ASSEMBLY 3 1/8"
17  1  622000  SWITCH, TOGGLE SPDT
18  3  750080  SWITCH, TOGGLE ON/OFF
19  1  480526  CONDUCTOR ASSEMBLY
20  2  750737  TIE, CABLE
21  1  480588  COVER, TRIGGER OPENING

* COMES WITH ITEM B

AW-480592
PENDANT ASSEMBLY
EIGHT (8) FUNCTION, STANDARD

5-14.0.0  R 2/94
AW-480593
PROPORTIONAL PENDANT ASSEMBLY
EIGHT (8) FUNCTION

ITEM QTY. | PART NO. | DESCRIPTION
--- | --- | ---
1 | 480501 | PENDANT HOUSING
2 | 480518 | DECAL, COVER PLATE
3 | 8 | REF.*
4 | 640300 | BOOT, TOGGLE SWITCH
5 | 1 | 370433 | CONNECTOR, HUBBEL FJ
6 | 2 | 002607 | SCREW, #10-24NC x 3/4
7 | 2 | 015801 | NUT, HK. LK. #10-24NC
8 | 1 | 480507 | POTentiOMETER ASSEMBLY
9 | 1 | 480506 | TRIGGER
10 | 1 | 480517 | SCREW, SCCC. HD. #10-32NF x 5/8
11 | 4 | 634200 | SWITCH, TOGGLE DPDT
12 | 1 | 480004 | BACK PLATE
13 | 4 | 480516 | SCREW, S.T. RD. HD. #6 x 3/4
14 | 1 | 480589 | CABLE ASSEMBLY
15 | 8 | REF.*
16 | 3 | 660302 | CONDUCTOR ASSEMBLY
17 | 1 | 480524 | CONDUCTOR ASSEMBLY
18 | 1 | 480523 | SPRING, TRIGGER RETURN
19 | 1 | 005003 | SCREW, PAN HD. S.T. #8 x 3/8
20 | 4 | 633600 | JUMPER
21 | 4 | 622346 | CONDUCTOR ASSEMBLY 3 1/8"
22 | 3 | 622347 | CONDUCTOR ASSEMBLY 3 1/8"
23 | 1 | 622000 | SWITCH, TOGGLE SPDT
24 | 3 | 750090 | SWITCH, TOGGLE ON/OFF
25 | 1 | 480526 | CONDUCTOR ASSEMBLY
26 | 2 | 750737 | TIE CABLE

* COMES WITH ITEM 11

5-15.0.0 R 2/94
WIRING GUIDE

A—RED
B—GREEN
C—ORANGE
D—RED W/WHITE T
E—BLACK
F—RED W/BLACK T
G—BLUE
H—ORANGE W/BLACK T
J—GREEN W/BLACK T
K—WHITE W/BLACK T
L—WHITE
M—BLUE W/BLACK T
N—BLACK W/WHITE T
P—GREEN W/WHITE T
R—BLUE W/WHITE T
S—BLACK W/RED T
T—WHITE W/RED T
U—ORANGE W/RED T
V—BLUE W/RED T

ITEM | QTY  | P/N      | DESCRIPTION                        
---   | ---   | ---      | ----------------------------------- 
1     | 1     | 480514   | PLUG, CONNECTOR                    
2     | 1     | 480515   | CLAMP, CABLE                       
3     | 30’   | 480594–001 | CABLE, CONDUCTOR (19 COND.)       
4     | 2     | 000101   | TERMINAL, RING #6 / 14–16 Ga      
5     | 13    | 002012   | TERMINAL, RING #6 / 18–22 Ga      

AW—480588
PENDANT CABLE ASSEMBLY

5–16.0.0         R 2/94
WIRING GUIDE

A—RED
B—GREEN
C—ORANGE
D—RED W/WHITE T
E—BLACK
F—RED W/BLACK T
G—BLUE
H—ORANGE W/BLACK T
J—GREEN W/BLACK T
K—WHITE W/BLACK T
L—WHITE
M—BLUE W/BLACK T
N—BLACK W/WHITE T
P—GREEN W/WHITE T
R—BLUE W/WHITE T
S—BLACK W/RED T
T—WHITE W/RED T
U—ORANGE W/RED T
V—BLUE W/RED T

ITEM | QTY | P/N   | DESCRIPTION
1    | 1   | 480514 | PLUG, CONNECTOR
2    | 1   | 480515 | CLAMP, CABLE
3    | 30' | 480594–001 | CABLE, CONDUCTOR (19 COND.)
4    | 2   | 000101 | TERMINAL, RING #6 / 14–16 Ga
5    | 2   | 480510 | BULLET CONNECTOR, FEMALE
6    | 13  | 002012 | TERMINAL, RING #6 / 18–22 Ga

AW—4805B9
PENDANT CABLE ASSEMBLY

5–17.0.0
R 2/94
WIRING GUIDE

A—RED
B—GREEN
C—ORANGE
D—RED W/WHITE T
E—BLACK
F—RED W/BLACK T
G—BLUE
H—ORANGE W/BLACK T
J—GREEN W/BLACK T
K—WHITE W/BLACK T
L—WHITE
M—BLUE W/BLACK T
N—BLACK W/WHITE T
P—GREEN W/WHITE T
R—BLUE W/WHITE T
S—BLACK W/RED T
T—WHITE W/RED T
U—ORANGE W/RED T
V—BLUE W/RED T

<table>
<thead>
<tr>
<th>ITEM</th>
<th>QTY</th>
<th>P/N</th>
<th>DESCRIPTION</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>1</td>
<td>480514</td>
<td>PLUG, CONNECTOR</td>
</tr>
<tr>
<td>2</td>
<td>1</td>
<td>480515</td>
<td>CLAMP, CABLE</td>
</tr>
<tr>
<td>3</td>
<td>30'</td>
<td>480594-001</td>
<td>CABLE, CONDUCTOR (19 COND.)</td>
</tr>
<tr>
<td>4</td>
<td>2</td>
<td>000101</td>
<td>TERMINAL, RING #6 / 14-16 Ga</td>
</tr>
<tr>
<td>5</td>
<td>9</td>
<td>002012</td>
<td>TERMINAL, RING #6 / 18-22 Ga</td>
</tr>
</tbody>
</table>

AW-480595
PENDANT CABLE ASSEMBLY

5-18.0.0
R 2/94
WIRING GUIDE

A—RED  L—WHITE
B—GREEN  M—BLUE W/BLACK T
C—ORANGE  N—BLACK W/WHITE T
D—RED W/WHITE T  P—GREEN W/WHITE T
E—BLACK  Q—BLUE W/WHITE T
F—RED W/BLACK T  R—BLUE W/WHITE T
G—BLUE  S—BLACK W/RED T
H—ORANGE W/BLACK T  T—WHITE W/RED T
J—GREEN W/BLACK T  U—ORANGE W/RED T
K—WHITE W/BLACK T  V—BLUE W/RED T

ITEM  QTY  P/N  DESCRIPTION
1  1  480514  PLUG, CONNECTOR
2  1  480515  CLAMP, CABLE
3  30’  480594—001  CABLE, CONDUCTOR (19 COND.)
4  2  000101  TERMINAL, RING #6 / 14—16 Ga
5  2  480510  BULLET CONNECTOR, FEMALE
6  9  002012  TERMINAL, RING #6 / 18—22 Ga

AW—480596
PENDANT CABLE ASSEMBLY

5-19.0.0  R 2/94
NOTES:
1.) FOR SEAL KIT, ORDER PART NO. 480184-002
2.) FOR REPLACEMENT COIL, ORDER PART NO. 480184-003

AW-480184
CARTRIDGE VALVE
AW-480623
FM REMOTE TRANSMITTER
TOGGLE SWITCH

<table>
<thead>
<tr>
<th>ITEM</th>
<th>QTY</th>
<th>P/N</th>
<th>DESCRIPTION</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>1</td>
<td>480621-002</td>
<td>FM REMOTE TRANSMITTER (TOGGLE)</td>
</tr>
<tr>
<td>2</td>
<td>6</td>
<td>640300</td>
<td>BOOT, TOGGLE</td>
</tr>
<tr>
<td>3</td>
<td>1</td>
<td>480605</td>
<td>BATTERY, 9V</td>
</tr>
</tbody>
</table>

5-21.0.0
AW-480633
FM REMOTE TRANSMITTER
MEMBRANE SWITCH

<table>
<thead>
<tr>
<th>ITEM</th>
<th>QTY</th>
<th>P/N</th>
<th>DESCRIPTION</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>1</td>
<td>480622-001</td>
<td>FM REMOTE TRANSMITTER (MEMBRANE)</td>
</tr>
<tr>
<td>2</td>
<td>1</td>
<td>480632</td>
<td>DECAL, EMERGENCY STOP</td>
</tr>
<tr>
<td>3</td>
<td>1</td>
<td>480605</td>
<td>BATTERY, 9V</td>
</tr>
</tbody>
</table>

R 10/94
<table>
<thead>
<tr>
<th>ITEM</th>
<th>QTY</th>
<th>PART NO.</th>
<th>DESCRIPTION</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>7</td>
<td>200892</td>
<td>ELL, 90° -6 NPT/-6 JIC</td>
</tr>
<tr>
<td>2</td>
<td>2</td>
<td>202759</td>
<td>ELL, 90° -8 NPT/-6 JIC</td>
</tr>
<tr>
<td>3</td>
<td>2</td>
<td>360043</td>
<td>ELL, 90° -8 NPT/-8 JIC</td>
</tr>
<tr>
<td>4</td>
<td>2</td>
<td>360044</td>
<td>ELL, 90° -6 NPT/-8 JIC</td>
</tr>
<tr>
<td>5</td>
<td>1</td>
<td>480190</td>
<td>ELL, 90° -6 NPT/-8 JIC (LONG)</td>
</tr>
<tr>
<td>6</td>
<td>1</td>
<td>480213</td>
<td>ELL, 90° -6 NPT/-8 JIC (MED. LG.)</td>
</tr>
<tr>
<td>7</td>
<td>1</td>
<td>480194</td>
<td>ELL, 90° -6 JIC SWIVEL/-6 JIC</td>
</tr>
<tr>
<td>8</td>
<td>1</td>
<td>241168</td>
<td>TEE, -6 O-RING/-6 JIC RUN</td>
</tr>
<tr>
<td>9</td>
<td>1</td>
<td>330412</td>
<td>COUNTER BALANCE VALVE</td>
</tr>
<tr>
<td>10</td>
<td>1</td>
<td>480212</td>
<td>TUBE ASSEMBLY (EXT. CYL.)</td>
</tr>
<tr>
<td>11</td>
<td>1</td>
<td>480211</td>
<td>TUBE ASSEMBLY (PRESSURE)</td>
</tr>
<tr>
<td>12</td>
<td>3</td>
<td>200876</td>
<td>ADAPTER, -6 O-RING/-6 JIC</td>
</tr>
<tr>
<td>13</td>
<td>1</td>
<td>330647</td>
<td>ELL 45°, SWIVEL -6 JIC</td>
</tr>
<tr>
<td>14</td>
<td>2</td>
<td>360573</td>
<td>HOSE ASSEMBLY</td>
</tr>
<tr>
<td>15</td>
<td>1</td>
<td>480202</td>
<td>HOSE ASSEMBLY</td>
</tr>
<tr>
<td>16</td>
<td>1</td>
<td>480203</td>
<td>HOSE ASSEMBLY</td>
</tr>
<tr>
<td>17</td>
<td>2</td>
<td>480204</td>
<td>HOSE ASSEMBLY</td>
</tr>
<tr>
<td>18</td>
<td>1</td>
<td>360578</td>
<td>HOSE ASSEMBLY</td>
</tr>
<tr>
<td>19</td>
<td>1</td>
<td>360579</td>
<td>HOSE ASSEMBLY</td>
</tr>
<tr>
<td>20</td>
<td>2</td>
<td>480208</td>
<td>HOSE ASSEMBLY</td>
</tr>
<tr>
<td>21</td>
<td>2</td>
<td>480195</td>
<td>ELL, 45° -6 O-RING/-6 JIC</td>
</tr>
<tr>
<td>22</td>
<td>1</td>
<td>366164</td>
<td>COUNTER BALANCE VALVE</td>
</tr>
<tr>
<td>23</td>
<td>1</td>
<td>366167</td>
<td>TUBE ASSEMBLY</td>
</tr>
<tr>
<td>24</td>
<td>2</td>
<td>360054</td>
<td>ADAPTER, -8 NPT/-8 JIC</td>
</tr>
<tr>
<td>25</td>
<td>2</td>
<td>750413</td>
<td>REDUCER, -8 NPT/-6 NPTF</td>
</tr>
<tr>
<td>26</td>
<td>2</td>
<td>750412</td>
<td>SWIVEL JOINT</td>
</tr>
<tr>
<td>27</td>
<td>4</td>
<td>005612</td>
<td>SCREW, 1/4-20 X 3/4 SC. HD.</td>
</tr>
<tr>
<td>28</td>
<td>2</td>
<td>020200</td>
<td>1/4&quot; LK. WASHER</td>
</tr>
<tr>
<td>29</td>
<td>2</td>
<td>005810</td>
<td>SCREW, 1/4 NC X 1 3/4 HX. HD.</td>
</tr>
<tr>
<td>30</td>
<td>1</td>
<td>320543</td>
<td>LOAD SENSOR</td>
</tr>
<tr>
<td>31</td>
<td>1</td>
<td>360620</td>
<td>VALVE BANK ASSEMBLY</td>
</tr>
<tr>
<td>32</td>
<td>4</td>
<td>008701</td>
<td>SCREW, HEX HD 3/8-16NC X 1&quot; LG.</td>
</tr>
<tr>
<td>33</td>
<td>4</td>
<td>021100</td>
<td>WASHER, SP LK 3/8</td>
</tr>
<tr>
<td>34</td>
<td>4</td>
<td>017100</td>
<td>NUT, HEX 3/8-16NC</td>
</tr>
<tr>
<td>35</td>
<td>1</td>
<td>366161</td>
<td>CYLINDER, BOOM UP</td>
</tr>
<tr>
<td>36</td>
<td>1</td>
<td>366162</td>
<td>CYLINDER, EXTENSION</td>
</tr>
</tbody>
</table>
RELIEF VALVE SHOWN
WITH SOLENOID ENERGIZED

AW-070P
6006H HYDRAULIC SCHEMATIC
PROPORTIONAL

6-3.0.0
NOTE:
RELIEF VALVE MUST BE LOCATED BETWEEN PUMP AND ANY OTHER VALVES AND ACCESSORIES.

RETURN TO RESERVOIR

PRESSURE TO CRANE

FROM PUMP

BLUE WIRE = POWER + 12VDC
BROWN WIRE = NEG. (GROUND)
YELLOW w/ TR = NOT USED (OR GROUND)

<table>
<thead>
<tr>
<th>ITEM</th>
<th>QTY</th>
<th>P/N</th>
<th>DESCRIPTION</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>1</td>
<td>366211</td>
<td>VALVE, VENTED RELIEF 2200 PSI</td>
</tr>
<tr>
<td>2</td>
<td></td>
<td>366211–001</td>
<td>REPLACEMENT CARTRIDGE</td>
</tr>
<tr>
<td>3</td>
<td>1</td>
<td>480137</td>
<td>VALVE, DIRECTIONAL SOLENOID</td>
</tr>
<tr>
<td>4</td>
<td>1</td>
<td>480613</td>
<td>DIN CONNECTOR</td>
</tr>
<tr>
<td>5</td>
<td>1</td>
<td>000209</td>
<td>PLUG, PIPE – SOC. 1/4”</td>
</tr>
</tbody>
</table>

AW–366212
VENTED RELIEF VALVE
ASSEMBLY w/ SOLENOID (2200 PSI)
MANUAL OVERRIDE

FROM PUMP 3/4"-16 SAE PORT - RING

 spir 5/8"-16 SAE PORT - RING

GAGE PORT 7/16-20 SAE PORT - RING

PRESSURE TO CRANE 5/8"-16 SAE PORT - RING

TO TANK 1/2"-14 NPT

DIN CONNECTOR

BLUE WIRE - POWER + 12VDC

YELLOW W/ TR - NE. (GROUND)

BROWN WIRE - TO AMPLIFIER
GREEN WIRE

ITEM | QTY | P/N | DESCRIPTION
--- | --- | --- | ---
1 | 1 | 480521 | MANIFOLD, BLOCK
2 | 1 | 360157-002 | VALVE, RELIEF
3 | 1 | 480522 | AMPLIFIER, PROP. (IN SHIP KIT)
4 | 1 | 480520 | VALVE, SOLENOID
5 | 1 | 000211 | PLUG, -4 SAE "O"-RING

AW-480525
HYDRAULIC MANIFOLD ASSEMBLY
PROPORTIONAL

6-7.0.0
R 2/93
ADAPTER: SAE "A" 2-DOLE FLANGE (DIRECT MOUNT)
SHAFT: STRAIGHT, 3/4" DIA. X 2 3/4" LONG
KEY: 3/16" SQ. X 1 5/8" LONG

3/4"-14 N.P.T.
2 PLACES

NOTES:
1. FOR HYD. PUMP ASSEMBLY USE PART NO. 48002, WHICH CONSISTS OF HYD. PUMP (48008), ADAPTER SUCTION (360050), 3/4"-14 N.P.T. 1/8"-12 JIC ADAPTER, 3/4"-14 N.P.T. / 1/8"-12 JIC.
2. FOR SEAL KIT USE PART NO. 48008-001
3. FOR SERVICE KIT USE PART NO. 48008-002

B.G.P.M. AT 1000 R.P.M.
<table>
<thead>
<tr>
<th>ITEM</th>
<th>QTY.</th>
<th>PART NO.</th>
<th>DESCRIPTION</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>1</td>
<td>480151</td>
<td>RESERVOIR, WELDMENT</td>
</tr>
<tr>
<td>2</td>
<td>1</td>
<td>360151</td>
<td>FILLER ASSEMBLY</td>
</tr>
<tr>
<td>3</td>
<td>1</td>
<td>360156</td>
<td>FILTER ASSEMBLY</td>
</tr>
<tr>
<td>4</td>
<td>1</td>
<td>360150</td>
<td>SIGHT PLUG</td>
</tr>
<tr>
<td>5</td>
<td>1</td>
<td>551222</td>
<td>ELL</td>
</tr>
<tr>
<td>6</td>
<td>1</td>
<td>360262</td>
<td>TEE</td>
</tr>
<tr>
<td>7</td>
<td>1</td>
<td>360263</td>
<td>ELL</td>
</tr>
<tr>
<td>8</td>
<td>1</td>
<td>360264</td>
<td>HOSE ASSEMBLY</td>
</tr>
<tr>
<td>9</td>
<td>1</td>
<td>360054</td>
<td>ADAPTER, STRAIGHT</td>
</tr>
<tr>
<td>10</td>
<td>1</td>
<td>750715</td>
<td>DRAIN</td>
</tr>
<tr>
<td>11</td>
<td>1</td>
<td>360282</td>
<td>STRAINER, SUCTION LINE</td>
</tr>
<tr>
<td>12</td>
<td>4</td>
<td>005500</td>
<td>SCREW, HEX HD 1/4–20NC x 3/4</td>
</tr>
<tr>
<td>13</td>
<td>4</td>
<td>020200</td>
<td>WASHER, SP LK 1/4</td>
</tr>
<tr>
<td>14</td>
<td>1</td>
<td>360249</td>
<td>COVER, CLEAN OUT</td>
</tr>
<tr>
<td>15</td>
<td>1</td>
<td>360277</td>
<td>FILTER, SPIN ON (FOR REPLACEMENT)</td>
</tr>
<tr>
<td>16</td>
<td>1</td>
<td>REF.</td>
<td>VENTED RELIEF VALVE ASSEMBLY</td>
</tr>
<tr>
<td>17</td>
<td>1</td>
<td>REF.</td>
<td>ADAPTER, STRAIGHT (360054)</td>
</tr>
<tr>
<td>18</td>
<td>1</td>
<td>REF.</td>
<td>ADAPTER, STRAIGHT (551215)</td>
</tr>
<tr>
<td>19</td>
<td>1</td>
<td>REF.</td>
<td>HOSE, –8 (551228–001)</td>
</tr>
<tr>
<td>20</td>
<td>1</td>
<td>REF.</td>
<td>HOSE, –12 (360274–001)</td>
</tr>
<tr>
<td>21</td>
<td>1</td>
<td>REF.</td>
<td>HOSE, –16 (360275–001)</td>
</tr>
<tr>
<td>22</td>
<td>4</td>
<td>REF.</td>
<td>HOSE CLAMP, –16 (360268)</td>
</tr>
<tr>
<td>23</td>
<td>1</td>
<td>REF.</td>
<td>HOSE ADAPTER (360273)</td>
</tr>
<tr>
<td>24</td>
<td>1</td>
<td>REF.</td>
<td>FITTING, REUSABLE –10/–8 (551227)</td>
</tr>
<tr>
<td>25</td>
<td>2</td>
<td>REF.</td>
<td>FITTING, REUSABLE –10/–12 (360269)</td>
</tr>
<tr>
<td>26</td>
<td>3</td>
<td>REF.</td>
<td>FITTING, REUSABLE –8/–8 (360266)</td>
</tr>
<tr>
<td>27</td>
<td>1</td>
<td>REF.</td>
<td>ADAPTER, STRAIGHT (360270)</td>
</tr>
<tr>
<td>ITEM</td>
<td>QTY</td>
<td>P/N</td>
<td>DESCRIPTION</td>
</tr>
<tr>
<td>------</td>
<td>-----</td>
<td>------</td>
<td>---------------------------</td>
</tr>
<tr>
<td>1</td>
<td>1</td>
<td>750501</td>
<td>RESERVOIR WELDMENT</td>
</tr>
<tr>
<td>2</td>
<td>1</td>
<td>360151</td>
<td>FILLER ASSEMBLY</td>
</tr>
<tr>
<td>3</td>
<td>1</td>
<td>360282</td>
<td>STRAINER, SUCTION</td>
</tr>
<tr>
<td>4</td>
<td>1</td>
<td>360150</td>
<td>SIGHT GLASS</td>
</tr>
<tr>
<td>5</td>
<td>1</td>
<td>750708</td>
<td>STRAINER, DIFFUSER</td>
</tr>
</tbody>
</table>

**AW-750500**

**9 GALLON RESERVOIR**
<table>
<thead>
<tr>
<th>ITEM</th>
<th>QTY</th>
<th>P/N</th>
<th>DESCRIPTION</th>
<th>ITEM</th>
<th>QTY</th>
<th>P/N</th>
<th>DESCRIPTION</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>1</td>
<td>750691</td>
<td>RESERVOIR WELDMENT</td>
<td>7</td>
<td>1</td>
<td>750707</td>
<td>STRAINER, SUCTION</td>
</tr>
<tr>
<td>2</td>
<td>1</td>
<td>750712</td>
<td>COVER</td>
<td>8</td>
<td>2</td>
<td>360150</td>
<td>SIGHT PLUG</td>
</tr>
<tr>
<td>3</td>
<td>1</td>
<td>750709</td>
<td>ADAPTER, BAFFLE</td>
<td>9</td>
<td>2</td>
<td>750708</td>
<td>STRAINER, DIFFUSER</td>
</tr>
<tr>
<td>4</td>
<td>1</td>
<td>750716</td>
<td>WASHER, CRUSH</td>
<td>10</td>
<td>1</td>
<td>750477</td>
<td>PLUG, PIPE -8</td>
</tr>
<tr>
<td>5</td>
<td>1</td>
<td>750711</td>
<td>BOLT, END COVER</td>
<td>11</td>
<td>2</td>
<td>009108</td>
<td>SCW, HX HD 3/8NC x 1 1/4</td>
</tr>
<tr>
<td>6</td>
<td>1</td>
<td>360151</td>
<td>FILLER ASSEMBLY</td>
<td>12</td>
<td>2</td>
<td>017400</td>
<td>NUT, HX LK 3/8NC</td>
</tr>
</tbody>
</table>

AW-750690
18 GALLON RESERVOIR
<table>
<thead>
<tr>
<th>ITEM</th>
<th>QTY.</th>
<th>PART NO.</th>
<th>DESCRIPTION</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>1</td>
<td>759035</td>
<td>MAIN CROSS TUBE</td>
</tr>
<tr>
<td>2</td>
<td>1</td>
<td>750893</td>
<td>SLIDE, STREET SIDE</td>
</tr>
<tr>
<td>3</td>
<td>1</td>
<td>750894</td>
<td>SLIDE, CURB SIDE</td>
</tr>
<tr>
<td>4</td>
<td>2</td>
<td>480017</td>
<td>CYLINDER, VERTICAL</td>
</tr>
<tr>
<td>5</td>
<td>4</td>
<td>012203</td>
<td>SCREW, HX. HD. 5/8 - NF X 1 1/4</td>
</tr>
<tr>
<td>6</td>
<td>8</td>
<td>013506</td>
<td>SCREW, HX. HD. 5/8 - NF X 2 1/4</td>
</tr>
<tr>
<td>7</td>
<td>8</td>
<td>023800</td>
<td>WASHER, SP. LK. 5/8</td>
</tr>
<tr>
<td>8</td>
<td>4</td>
<td>018302</td>
<td>NUT, HX. 5/8 - NF</td>
</tr>
<tr>
<td>9</td>
<td>5</td>
<td>016500</td>
<td>NUT, HX. 5/16 - NC</td>
</tr>
<tr>
<td>10</td>
<td>5</td>
<td>020600</td>
<td>WASHER, SP. LK. 5/16</td>
</tr>
<tr>
<td>11</td>
<td>4</td>
<td>003906</td>
<td>SCREW SQC. HD. 5/16 - 18 NC X 3 1/4</td>
</tr>
<tr>
<td>12</td>
<td>2</td>
<td>480230</td>
<td>VALVE MANUAL, OUTRIGGER (VERTICAL)</td>
</tr>
<tr>
<td>13</td>
<td>2</td>
<td>480231</td>
<td>MANIFOLD, OUTRIGGER</td>
</tr>
<tr>
<td>14</td>
<td>5</td>
<td>480232</td>
<td>CLAMP, HALVES</td>
</tr>
<tr>
<td>15</td>
<td>5</td>
<td>480233</td>
<td>PLATE, TWIN COVER</td>
</tr>
<tr>
<td>16</td>
<td>2</td>
<td>480220</td>
<td>TUBE ASS'Y (LEG)</td>
</tr>
<tr>
<td>17</td>
<td>2</td>
<td>480221</td>
<td>TUBE ASS'Y (LEG)</td>
</tr>
<tr>
<td>18</td>
<td>1</td>
<td>480222</td>
<td>TUBE ASS'Y</td>
</tr>
<tr>
<td>19</td>
<td>1</td>
<td>480223</td>
<td>TUBE ASS'Y</td>
</tr>
<tr>
<td>20</td>
<td>1</td>
<td>480224</td>
<td>TUBE ASS'Y</td>
</tr>
<tr>
<td>21</td>
<td>2</td>
<td>480225</td>
<td>HOSE ASS'Y O.R. (CURB SIDE)</td>
</tr>
<tr>
<td>22</td>
<td>2</td>
<td>480226</td>
<td>HOSE ASS'Y O.R. (STREET SIDE)</td>
</tr>
<tr>
<td>23</td>
<td>2</td>
<td>480227</td>
<td>HANDLE ASS'Y</td>
</tr>
<tr>
<td>24</td>
<td>1</td>
<td>480235</td>
<td>KIT, OUTRIGGER INSTALLATION</td>
</tr>
<tr>
<td>25</td>
<td>6</td>
<td>241175</td>
<td>ELL, 90°, -6 ORB/-6 JIC</td>
</tr>
<tr>
<td>26</td>
<td>2</td>
<td>480195</td>
<td>ELL, 45°, -6 ORB/-5 JIC</td>
</tr>
<tr>
<td>27</td>
<td>4</td>
<td>200882</td>
<td>ELL, 90°, 3/8 NP/-6 JIC</td>
</tr>
<tr>
<td>28</td>
<td>2</td>
<td>360048</td>
<td>ELL, 90°, -6 NPT/-6 NPTF</td>
</tr>
<tr>
<td>29</td>
<td>1</td>
<td>480014</td>
<td>SEAL KIT (FOR CYL. 480017)</td>
</tr>
</tbody>
</table>
NOTE:
INSTALL ITEM 3 (PIN) WITH 
\( \frac{1}{4} \) INCH EACH SIDE OF CRANK SHAFT.
CAUTION:
A RELIEF VALVE MUST BE LOCATED IN THE OUTRIGGER PRESSURE LINE OR DAMAGE MAY OCCUR TO HYDRAULIC COMPONENTS. PLACEMENT OF THE RELIEF VALVE UPSTREAM OF THE SELECTOR VALVE IS PREFERRED.

AW-480235
OUTRIGGER INSTALLATION KIT

7-6.0.0
R 11/94
CONTINENTAL

SEAL KIT (CONTINENTAL)
480230-009

REXROTH

SEAL KITS (REXROTH)
480230-010, BUNA (LOW TEMP)
480230-011, VITA (HIGH TEMP.)

AW-073. OUTRIGGER VALVE (PART NO. 480230)
<table>
<thead>
<tr>
<th>ITEM</th>
<th>QTY.</th>
<th>PART NO.</th>
<th>DESCRIPTION</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>1</td>
<td>480230-001</td>
<td>KNOB</td>
</tr>
<tr>
<td>2</td>
<td>1</td>
<td>480230-002</td>
<td>LEVER ASS'Y</td>
</tr>
<tr>
<td>3</td>
<td>1</td>
<td>480230-003</td>
<td>BOOT</td>
</tr>
<tr>
<td>4</td>
<td>1</td>
<td>480230-004</td>
<td>HOUSING, ASS'Y</td>
</tr>
<tr>
<td>5</td>
<td>1</td>
<td>480230-005</td>
<td>BOLT KIT (4 SOC. HD. SCREWS #10 - 24 X 7/8)</td>
</tr>
<tr>
<td>6</td>
<td>1</td>
<td>480230-006</td>
<td>KNOB</td>
</tr>
<tr>
<td>7</td>
<td>1</td>
<td>480230-007</td>
<td>BOLT KIT(4, SOC. HD. SCREWS #10 - 24 X 2&quot; LG)</td>
</tr>
<tr>
<td>8</td>
<td>1</td>
<td>480230-008</td>
<td>LEVER ASS'Y</td>
</tr>
</tbody>
</table>
NOTE.
1. ALL TENABLED HOSES TO BE CAPED
2. CORD HOSES TO BE PRESSURE CHECKED
3. SEE SH: 2 FOR HOSE & VALVE INSTALLATION

FLOW DIAGRAM

OUTRIGGER, 36K (MAN. OUT/HYD. DOWN)

AW-725933

7-9.0.0

R 10/94
<table>
<thead>
<tr>
<th>ITEM</th>
<th>QTY.</th>
<th>PART NO.</th>
<th>DESCRIPTION</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>1</td>
<td>725920</td>
<td>BUMPER (WELDMENT)</td>
</tr>
<tr>
<td>2</td>
<td>1</td>
<td>725941</td>
<td>TUBE, OUTER W/ SLIDE (STREET SIDE)</td>
</tr>
<tr>
<td>3</td>
<td>1</td>
<td>725944</td>
<td>TUBE, OUTER W/ SLIDE (CURB SIDE)</td>
</tr>
<tr>
<td>4</td>
<td>2</td>
<td>725935</td>
<td>TUBE, INNER (WELDMENT)</td>
</tr>
<tr>
<td>5</td>
<td>2</td>
<td>725949</td>
<td>CYLINDER, 36K HYD. O.R.</td>
</tr>
<tr>
<td>6</td>
<td>2</td>
<td>725946</td>
<td>PIN, UPPER CYL. (WELDMENT)</td>
</tr>
<tr>
<td>7</td>
<td>2</td>
<td>725948</td>
<td>PIN, LOWER CYL. (WELDMENT)</td>
</tr>
<tr>
<td>8</td>
<td>4</td>
<td>005901</td>
<td>SCREW, HEX HD 1/4--20NC X 1/2&quot; LG.</td>
</tr>
<tr>
<td>9</td>
<td>4</td>
<td>020200</td>
<td>WASHER, SP LK 1/4</td>
</tr>
<tr>
<td>10</td>
<td>2</td>
<td>725945</td>
<td>CAP, TUBE TOP</td>
</tr>
<tr>
<td>11</td>
<td>8</td>
<td>370470</td>
<td>SCREW, THRD. CUT #10NC X 1/2&quot; LG.</td>
</tr>
<tr>
<td>12</td>
<td>12</td>
<td>019800</td>
<td>WASHER, SP LK #10</td>
</tr>
<tr>
<td>13</td>
<td>1</td>
<td>752480</td>
<td>VALVE, DUKE'S 1618AS (W/ POWER BEYOND)</td>
</tr>
<tr>
<td>14</td>
<td>1</td>
<td>752477</td>
<td>VALVE, MODIF. (W/ O POWER BEYOND)</td>
</tr>
<tr>
<td>15</td>
<td>2</td>
<td>725950</td>
<td>TUBE ASSEMBLY</td>
</tr>
<tr>
<td>16</td>
<td>2</td>
<td>725951</td>
<td>TUBE ASSEMBLY</td>
</tr>
<tr>
<td>17</td>
<td>4</td>
<td>480194</td>
<td>ELL 90 -----6 SWIVEL</td>
</tr>
<tr>
<td>18</td>
<td>4</td>
<td>241175</td>
<td>ELL 90, 0-RING -----6 JIC</td>
</tr>
<tr>
<td>19</td>
<td>6</td>
<td>200876</td>
<td>ADAPTER, STR. O-RING -----6 JIC</td>
</tr>
<tr>
<td>20</td>
<td>1</td>
<td>480195</td>
<td>ELL 45, 0-RING -----6 JIC</td>
</tr>
<tr>
<td>21</td>
<td>2</td>
<td>480225</td>
<td>HOSE ASSEMBLY</td>
</tr>
<tr>
<td>22</td>
<td>1</td>
<td>812204--035</td>
<td>HOSE ASSEMBLY</td>
</tr>
<tr>
<td>23</td>
<td>1</td>
<td>812203--062</td>
<td>HOSE ASSEMBLY</td>
</tr>
<tr>
<td>24</td>
<td>1</td>
<td>812204--039</td>
<td>HOSE ASSEMBLY</td>
</tr>
<tr>
<td>25</td>
<td>3</td>
<td>480232</td>
<td>CLAMP HALVES</td>
</tr>
<tr>
<td>26</td>
<td>3</td>
<td>480233</td>
<td>PLATE, TWIN COVER</td>
</tr>
<tr>
<td>27</td>
<td>3</td>
<td>007805</td>
<td>SCREW, HEX HD 5/16NC X 1 1/2&quot; LG.</td>
</tr>
<tr>
<td>28</td>
<td>3</td>
<td>020600</td>
<td>WASHER, SP LK 5/16</td>
</tr>
<tr>
<td>29</td>
<td>3</td>
<td>016500</td>
<td>NUT, HEX 5/16NC</td>
</tr>
<tr>
<td>30</td>
<td>1</td>
<td>367134</td>
<td>TEE, UNION -----6 JIC</td>
</tr>
<tr>
<td>31</td>
<td>1</td>
<td>725952</td>
<td>TUBE ASSEMBLY</td>
</tr>
<tr>
<td>32</td>
<td>1</td>
<td>725953</td>
<td>TUBE ASSEMBLY</td>
</tr>
<tr>
<td>33</td>
<td>1</td>
<td>725954</td>
<td>TUBE ASSEMBLY</td>
</tr>
<tr>
<td>34</td>
<td>1</td>
<td>725955</td>
<td>TUBE ASSEMBLY</td>
</tr>
<tr>
<td>35</td>
<td>2</td>
<td>725931</td>
<td>PAD, OUTRIGGER BUMPER</td>
</tr>
<tr>
<td>36</td>
<td>4</td>
<td>750657</td>
<td>SCREW, FL HD SOC 10--32 X 5/8&quot; LG.</td>
</tr>
<tr>
<td>37</td>
<td>2</td>
<td>330645</td>
<td>ELL 90', 0-RING LONG</td>
</tr>
<tr>
<td>38</td>
<td>4</td>
<td>015600</td>
<td>NUT, HEX #10NF</td>
</tr>
<tr>
<td>39</td>
<td>2</td>
<td>725961</td>
<td>DECAL, DANGER</td>
</tr>
<tr>
<td>40</td>
<td>4</td>
<td>759017</td>
<td>DECAL, CAUTION</td>
</tr>
<tr>
<td>41</td>
<td>4</td>
<td>040581</td>
<td>DECAL, DANGER</td>
</tr>
</tbody>
</table>
NOTES:

1. ADDITIONAL 3/4" HOLES MAY BE DRILLED IN THE LEG ASSEMBLIES FOR PROPER HEIGHTS. (DEPENDING ON INDIVIDUAL APPLICATIONS.)
2. WELD ITEM 3 TO FRAME EXTENSIONS AND CROSS MEMBER EXTENSIONS.

<table>
<thead>
<tr>
<th>ITEM</th>
<th>QTY</th>
<th>PART No.</th>
<th>DESCRIPTION</th>
</tr>
</thead>
<tbody>
<tr>
<td>6</td>
<td>2</td>
<td>759017</td>
<td>DECAL, CAUTION</td>
</tr>
<tr>
<td>5</td>
<td>2</td>
<td>040581</td>
<td>DECAL, DANGER CRUSHING</td>
</tr>
<tr>
<td>4</td>
<td>1</td>
<td>725589</td>
<td>SOCKET/ PULL PIN ASSEMBLY (STREET SIDE)</td>
</tr>
<tr>
<td>3</td>
<td>1</td>
<td>360303-001</td>
<td>O.R. SOCKET/ PULL PIN ASSEMBLY</td>
</tr>
<tr>
<td>2</td>
<td>1</td>
<td>725588</td>
<td>SOCKET/ PULL PIN ASSEMBLY (CURB SIDE)</td>
</tr>
<tr>
<td>1</td>
<td>2</td>
<td>360301</td>
<td>LEG ASSEMBLY</td>
</tr>
</tbody>
</table>

AUTO CRANE COMPANY
P.O. BOX 506597 TULSA OKLAHOMA 74102-0697
4707 NORTH HINGS ROAD 918-831-0613

STABILIZER ASSEMBLY
<table>
<thead>
<tr>
<th>ITEM</th>
<th>QTY.</th>
<th>PART NO.</th>
<th>DESCRIPTION</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>1</td>
<td>725920</td>
<td>BUMPER (WELDMENT)</td>
</tr>
<tr>
<td>2</td>
<td>1</td>
<td>725381</td>
<td>TUBE, OUTER WITH SLIDE (STREET SIDE)</td>
</tr>
<tr>
<td>3</td>
<td>1</td>
<td>725580</td>
<td>TUBE, OUTER WITH SLIDE (CURB SIDE)</td>
</tr>
<tr>
<td>4</td>
<td>2</td>
<td>725935</td>
<td>TUBE, INNER (WELDMENT)</td>
</tr>
<tr>
<td>5</td>
<td>2</td>
<td>725949</td>
<td>CYLINDER, 36K HYD. O.R.</td>
</tr>
<tr>
<td>6</td>
<td>2</td>
<td>725946</td>
<td>PIN, UPPER CYLINDER (WELDMENT)</td>
</tr>
<tr>
<td>7</td>
<td>2</td>
<td>725948</td>
<td>PIN, LOWER CYLINDER (WELDMENT)</td>
</tr>
<tr>
<td>8</td>
<td>4</td>
<td>005901</td>
<td>SCREW, HEX HEAD 1/4-20 NC x 1 1/2&quot; LG.</td>
</tr>
<tr>
<td>9</td>
<td>4</td>
<td>020200</td>
<td>WASHER, SP. LK. 1/4</td>
</tr>
<tr>
<td>10</td>
<td>2</td>
<td>725945</td>
<td>CAP, TUBE TOP</td>
</tr>
<tr>
<td>11</td>
<td>8</td>
<td>370470</td>
<td>SCREW, THREAD CUT #10 NC x 1 1/2&quot; LG.</td>
</tr>
<tr>
<td>12</td>
<td>12</td>
<td>019800</td>
<td>WASHER, SP. LK. #10</td>
</tr>
<tr>
<td>13</td>
<td>1</td>
<td>752480</td>
<td>VALVE, DUKES 1618AS (W/POWER BEYOND)</td>
</tr>
<tr>
<td>14</td>
<td>1</td>
<td>725477</td>
<td>VALVE, MODIF. (W.O./POWER BEYOND)</td>
</tr>
<tr>
<td>15</td>
<td>2</td>
<td>725950</td>
<td>TUBE, ASSEMBLY</td>
</tr>
<tr>
<td>16</td>
<td>2</td>
<td>725951</td>
<td>TUBE, ASSEMBLY</td>
</tr>
<tr>
<td>17</td>
<td>4</td>
<td>780194</td>
<td>ELL 90° #6 SWIVEL</td>
</tr>
<tr>
<td>18</td>
<td>4</td>
<td>241175</td>
<td>ELL 90°, O-RING #6 JIC</td>
</tr>
<tr>
<td>19</td>
<td>6</td>
<td>200876</td>
<td>ADAPTER, STR. O-RING #6 JIC</td>
</tr>
<tr>
<td>20</td>
<td>1</td>
<td>480195</td>
<td>ELL 45°, O-RING #6 JIC</td>
</tr>
<tr>
<td>21</td>
<td>2</td>
<td>480225</td>
<td>HOSE ASSEMBLY</td>
</tr>
<tr>
<td>22</td>
<td>1</td>
<td>812204-035</td>
<td>HOSE ASSEMBLY</td>
</tr>
<tr>
<td>23</td>
<td>1</td>
<td>812203-062</td>
<td>HOSE ASSEMBLY</td>
</tr>
<tr>
<td>24</td>
<td>1</td>
<td>812204-039</td>
<td>HOSE ASSEMBLY</td>
</tr>
<tr>
<td>25</td>
<td>3</td>
<td>480232</td>
<td>CLAMP HALVES</td>
</tr>
<tr>
<td>26</td>
<td>3</td>
<td>480233</td>
<td>PLATE, TWIN COVER</td>
</tr>
<tr>
<td>27</td>
<td>3</td>
<td>007805</td>
<td>SCREW, HEX HEAD 5/16 NC x 1 1/2&quot; LG.</td>
</tr>
<tr>
<td>28</td>
<td>3</td>
<td>020600</td>
<td>WASHER, SP. LK. 5/16</td>
</tr>
<tr>
<td>29</td>
<td>3</td>
<td>016500</td>
<td>NUT, HEX 5/16 NC</td>
</tr>
<tr>
<td>30</td>
<td>1</td>
<td>367134</td>
<td>TEE, UNION #6 JIC</td>
</tr>
<tr>
<td>31</td>
<td>1</td>
<td>725952</td>
<td>TUBE ASSEMBLY</td>
</tr>
<tr>
<td>32</td>
<td>1</td>
<td>725953</td>
<td>TUBE ASSEMBLY</td>
</tr>
<tr>
<td>33</td>
<td>1</td>
<td>725954</td>
<td>TUBE ASSEMBLY</td>
</tr>
<tr>
<td>34</td>
<td>1</td>
<td>725955</td>
<td>TUBE ASSEMBLY</td>
</tr>
<tr>
<td>35</td>
<td>2</td>
<td>725931</td>
<td>PAD, OUTRIGGER BUMPER</td>
</tr>
<tr>
<td>36</td>
<td>4</td>
<td>750657</td>
<td>SCREW, FLAT HEAD SOCKET 10-32 x 5/8&quot; LG.</td>
</tr>
<tr>
<td>37</td>
<td>2</td>
<td>330645</td>
<td>ELL90°, O-RING LONG</td>
</tr>
<tr>
<td>38</td>
<td>4</td>
<td>015600</td>
<td>NUT, HEX #10 NF</td>
</tr>
<tr>
<td>39</td>
<td>2</td>
<td>725961</td>
<td>DECAL, DANGER</td>
</tr>
<tr>
<td>40</td>
<td>4</td>
<td>759017</td>
<td>DECAL, CAUTION</td>
</tr>
<tr>
<td>41</td>
<td>4</td>
<td>040581</td>
<td>DECAL, DANGER</td>
</tr>
<tr>
<td>ITEM</td>
<td>QTY.</td>
<td>PART NO.</td>
<td>DESCRIPTION</td>
</tr>
<tr>
<td>------</td>
<td>------</td>
<td>----------</td>
<td>-------------</td>
</tr>
<tr>
<td>1</td>
<td>1</td>
<td>725820</td>
<td>BUMPER (WELDMENT)</td>
</tr>
<tr>
<td>2</td>
<td>1</td>
<td>725587</td>
<td>TUBE, OUTER WITH SLIDE (STREET SIDE)</td>
</tr>
<tr>
<td>3</td>
<td>1</td>
<td>725566</td>
<td>TUBE, OUTER WITH SLIDE (CURB SIDE)</td>
</tr>
<tr>
<td>4</td>
<td>2</td>
<td>725935</td>
<td>TUBE, INNER (WELDMENT)</td>
</tr>
<tr>
<td>5</td>
<td>2</td>
<td>725949</td>
<td>CYLINDER, 36K HYD. O.R.</td>
</tr>
<tr>
<td>6</td>
<td>2</td>
<td>725948</td>
<td>PIN, LOWER CYLINDER (WELDMENT)</td>
</tr>
<tr>
<td>7</td>
<td>2</td>
<td>725948</td>
<td>PIN, UPPER CYLINDER (WELDMENT)</td>
</tr>
<tr>
<td>8</td>
<td>4</td>
<td>005901</td>
<td>SCREW, HEX HEAD 1/4-20 NC x 1/2&quot; LG.</td>
</tr>
<tr>
<td>9</td>
<td>4</td>
<td>020200</td>
<td>WASHER, SP. LK. 1/4</td>
</tr>
<tr>
<td>10</td>
<td>2</td>
<td>725845</td>
<td>CAP, TUBE TOP</td>
</tr>
<tr>
<td>11</td>
<td>8</td>
<td>370470</td>
<td>SCREW, THREAD CUT #10 NC x 1/2&quot; LG.</td>
</tr>
<tr>
<td>12</td>
<td>12</td>
<td>019800</td>
<td>WASHER, SP. LK. #10</td>
</tr>
<tr>
<td>13</td>
<td>2</td>
<td>480231</td>
<td>MANIFOLD, OUTRIGGERS</td>
</tr>
<tr>
<td>14</td>
<td>2</td>
<td>480230</td>
<td>VALVE, MANUAL OUTRIGGER</td>
</tr>
<tr>
<td>15</td>
<td>4</td>
<td>003906</td>
<td>SCREW, SOCKET HEAD 5/16-18 x 3 1/4&quot; LG.</td>
</tr>
<tr>
<td>16</td>
<td>6</td>
<td>200876</td>
<td>ADAPTOR, STR. -6 ORM/ -6 JIC</td>
</tr>
<tr>
<td>17</td>
<td>4</td>
<td>725618</td>
<td>TUBE, ASSEMBLY</td>
</tr>
<tr>
<td>18</td>
<td>6</td>
<td>241175</td>
<td>ELL 90°, O-RING #8 JIC</td>
</tr>
<tr>
<td>19</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>20</td>
<td>1</td>
<td>360446</td>
<td>CAP, -6 JIC</td>
</tr>
<tr>
<td>21</td>
<td>2</td>
<td>480225</td>
<td>HOSE ASSEMBLY</td>
</tr>
<tr>
<td>22</td>
<td>1</td>
<td>812204--035</td>
<td>HOSE ASSEMBLY</td>
</tr>
<tr>
<td>23</td>
<td>1</td>
<td>812212--058</td>
<td>HOSE ASSEMBLY</td>
</tr>
<tr>
<td>24</td>
<td>1</td>
<td>812212--039</td>
<td>HOSE ASSEMBLY</td>
</tr>
<tr>
<td>25</td>
<td>3</td>
<td>480232</td>
<td>CLAMP HALVES</td>
</tr>
<tr>
<td>26</td>
<td>3</td>
<td>480233</td>
<td>PLATE, TWIN COVER</td>
</tr>
<tr>
<td>27</td>
<td>3</td>
<td>007805</td>
<td>SCREW, HEX HEAD 5/16 NC x 1 1/2&quot; LG.</td>
</tr>
<tr>
<td>28</td>
<td>3</td>
<td>020600</td>
<td>WASHER, SP. LK. 5/16</td>
</tr>
<tr>
<td>29</td>
<td>3</td>
<td>016500</td>
<td>NUT, HEX 5/16 NC</td>
</tr>
<tr>
<td>30</td>
<td>1</td>
<td>367134</td>
<td>TEE, UNION #6 JIC</td>
</tr>
<tr>
<td>31</td>
<td>1</td>
<td>725952</td>
<td>TUBE ASSEMBLY</td>
</tr>
<tr>
<td>32</td>
<td>1</td>
<td>725953</td>
<td>TUBE ASSEMBLY</td>
</tr>
<tr>
<td>33</td>
<td>1</td>
<td>725954</td>
<td>TUBE ASSEMBLY</td>
</tr>
<tr>
<td>34</td>
<td>1</td>
<td>725955</td>
<td>TUBE ASSEMBLY</td>
</tr>
<tr>
<td>35</td>
<td>2</td>
<td>725931</td>
<td>PAD, OUTRIGGER BUMPER</td>
</tr>
<tr>
<td>36</td>
<td>4</td>
<td>750657</td>
<td>SCREW, FLAT HEAD SOCKET 10-32 x 5/8&quot; LG.</td>
</tr>
<tr>
<td>37</td>
<td>2</td>
<td>725919</td>
<td>PLATE, OUTRIGGER</td>
</tr>
<tr>
<td>38</td>
<td>4</td>
<td>015600</td>
<td>NUT, HEX #10 NF</td>
</tr>
<tr>
<td>39</td>
<td>2</td>
<td>725961</td>
<td>DECAL, DANGER</td>
</tr>
<tr>
<td>40</td>
<td>4</td>
<td>759017</td>
<td>DECAL, CAUTION</td>
</tr>
<tr>
<td>41</td>
<td>4</td>
<td>040581</td>
<td>DECAL, DANGER</td>
</tr>
<tr>
<td>ITEM</td>
<td>QTY.</td>
<td>PART NO.</td>
<td>DESCRIPTION</td>
</tr>
<tr>
<td>------</td>
<td>------</td>
<td>----------</td>
<td>-------------</td>
</tr>
<tr>
<td>1</td>
<td>1</td>
<td>725921</td>
<td>O.R. SOCKET PULL PIN ASSEMBLY</td>
</tr>
<tr>
<td>2</td>
<td>1</td>
<td>725587</td>
<td>TUBE, OUTER WITH SLIDE (STREET SIDE)</td>
</tr>
<tr>
<td>3</td>
<td>1</td>
<td>725586</td>
<td>TUBE, OUTER WITH SLIDE (CURB SIDE)</td>
</tr>
<tr>
<td>4</td>
<td>2</td>
<td>725935</td>
<td>TUBE, INNER (WELDMENT)</td>
</tr>
<tr>
<td>5</td>
<td>2</td>
<td>725949</td>
<td>CYLINDER, 36K HYD. O.R.</td>
</tr>
<tr>
<td>6</td>
<td>2</td>
<td>725946</td>
<td>PIN, UPPER CYLINDER (WELDMENT)</td>
</tr>
<tr>
<td>7</td>
<td>2</td>
<td>725948</td>
<td>PIN, LOWER CYLINDER (WELDMENT)</td>
</tr>
<tr>
<td>8</td>
<td>4</td>
<td>005901</td>
<td>SCREW, HEX HEAD 1/4-20 NC x 1/2&quot; LG.</td>
</tr>
<tr>
<td>9</td>
<td>4</td>
<td>020200</td>
<td>WASHER, SP. LK. 1/4</td>
</tr>
<tr>
<td>10</td>
<td>2</td>
<td>725945</td>
<td>CAP, TUBE TOP</td>
</tr>
<tr>
<td>11</td>
<td>8</td>
<td>370470</td>
<td>SCREW, THREAD CUT #10 NC x 1/2&quot; LG.</td>
</tr>
<tr>
<td>12</td>
<td>12</td>
<td>019800</td>
<td>WASHER, SP. LK. #10</td>
</tr>
<tr>
<td>13</td>
<td>2</td>
<td>480231</td>
<td>MANIFOLD, OUTRIGGERS</td>
</tr>
<tr>
<td>14</td>
<td>2</td>
<td>480230</td>
<td>VALVE, MANUAL OUTRIGGER</td>
</tr>
<tr>
<td>15</td>
<td>4</td>
<td>003806</td>
<td>SCREW, SOCKET HEAD 5/16-18 x 3 1/4&quot; LG.</td>
</tr>
<tr>
<td>16</td>
<td>6</td>
<td>200876</td>
<td>ADAPTOR, STR. -6 ORM/ -6 JIC</td>
</tr>
<tr>
<td>17</td>
<td>4</td>
<td>725918</td>
<td>TUBE, ASSEMBLY</td>
</tr>
<tr>
<td>18</td>
<td>6</td>
<td>241175</td>
<td>ELB 90', O-RING #6 JIC</td>
</tr>
<tr>
<td>19</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>20</td>
<td>1</td>
<td>360446</td>
<td>CAP, -6 JIC</td>
</tr>
<tr>
<td>21</td>
<td>2</td>
<td>480225</td>
<td>HOSE ASSEMBLY</td>
</tr>
<tr>
<td>22</td>
<td>1</td>
<td>812204-035</td>
<td>HOSE ASSEMBLY</td>
</tr>
<tr>
<td>23</td>
<td>1</td>
<td>812212-058</td>
<td>HOSE ASSEMBLY</td>
</tr>
<tr>
<td>24</td>
<td>1</td>
<td>812212-039</td>
<td>HOSE ASSEMBLY</td>
</tr>
<tr>
<td>25</td>
<td>3</td>
<td>480232</td>
<td>CLAMP HALVES</td>
</tr>
<tr>
<td>26</td>
<td>3</td>
<td>480233</td>
<td>PLATE, TWIN COVER</td>
</tr>
<tr>
<td>27</td>
<td>3</td>
<td>007805</td>
<td>SCREW, HEX HEAD 5/16 NC x 1 1/2&quot; LG.</td>
</tr>
<tr>
<td>28</td>
<td>3</td>
<td>020600</td>
<td>WASHER, SP. LK. 5/16</td>
</tr>
<tr>
<td>29</td>
<td>3</td>
<td>016500</td>
<td>NUT, HEX 5/16 NC</td>
</tr>
<tr>
<td>30</td>
<td>1</td>
<td>367134</td>
<td>TEE, UNION #6 JIC</td>
</tr>
<tr>
<td>31</td>
<td>1</td>
<td>725952</td>
<td>TUBE ASSEMBLY</td>
</tr>
<tr>
<td>32</td>
<td>1</td>
<td>725953</td>
<td>TUBE ASSEMBLY</td>
</tr>
<tr>
<td>33</td>
<td>1</td>
<td>725954</td>
<td>TUBE ASSEMBLY</td>
</tr>
<tr>
<td>34</td>
<td>1</td>
<td>725955</td>
<td>TUBE ASSEMBLY</td>
</tr>
<tr>
<td>35</td>
<td>2</td>
<td>725931</td>
<td>PAD, OUTRIGGER BUMPER</td>
</tr>
<tr>
<td>36</td>
<td>4</td>
<td>750657</td>
<td>SCREW, FLAT HEAD SOCKET 10-32 x 5/8&quot; LG.</td>
</tr>
<tr>
<td>37</td>
<td>2</td>
<td>725919</td>
<td>PLATE, OUTRIGGER</td>
</tr>
<tr>
<td>38</td>
<td>4</td>
<td>015600</td>
<td>NUT, HEX #10 NF</td>
</tr>
<tr>
<td>39</td>
<td>2</td>
<td>725961</td>
<td>DECAL, DANGER</td>
</tr>
<tr>
<td>40</td>
<td>4</td>
<td>759017</td>
<td>DECAL, CAUTION</td>
</tr>
<tr>
<td>41</td>
<td>4</td>
<td>040581</td>
<td>DECAL, DANGER</td>
</tr>
<tr>
<td>ITEM</td>
<td>QTY.</td>
<td>PART NO.</td>
<td>DESCRIPTION</td>
</tr>
<tr>
<td>------</td>
<td>------</td>
<td>-----------</td>
<td>----------------------------------</td>
</tr>
<tr>
<td>1</td>
<td>1</td>
<td>480130</td>
<td>SHEAVE ASSEMBLY</td>
</tr>
<tr>
<td>2</td>
<td>1</td>
<td>200197</td>
<td>HOOK, SWIVEL</td>
</tr>
<tr>
<td>3</td>
<td>2</td>
<td>360601</td>
<td>BLOCK, SIDE PLATE</td>
</tr>
<tr>
<td>4</td>
<td>1</td>
<td>240237</td>
<td>SPACER, BUSHING 1&quot; O.D.</td>
</tr>
<tr>
<td>5</td>
<td>1</td>
<td>006801</td>
<td>SCREW, HX. HD. 1/2 - 20 X 4&quot; LG.</td>
</tr>
<tr>
<td>6</td>
<td>1</td>
<td>017600</td>
<td>NUT, HX. LK. 1/2 - 20</td>
</tr>
<tr>
<td>7</td>
<td>2</td>
<td>360124</td>
<td>PIN, HITCH</td>
</tr>
<tr>
<td>8</td>
<td>2</td>
<td>360605</td>
<td>PIN, BLOCK</td>
</tr>
</tbody>
</table>

8-1.1.0
ITEM | QTY | P/N    | DESCRIPTION                  |
1    | 2   | 480362 | SIDE PLATE (MACH.)           |
2    | 1   | 480130 | SHEAVE ASSEMBLY              |
3    | 1   | 480364 | TACKLE, LOWER                |
4    | 1   | 480371 | HOOK, SWIVEL - 3 TON         |
5    | 1   | 480372 | BOLT, SHEAVE w/ ZERK         |
6    | 1   | 017800 | NUT, HX LK 1/2-20NF          |
7    | 2   | 480367 | PIN, BLOCK                   |
8    | 1   | 480368 | PIN, SWIVEL HOOK             |
9    | 3   | 360124 | PIN, HITCH (HAIR PIN)        |
10   | 2   | 366063-100 | DECAL, MAX. LOAD |

AW-366063
TRAVELING BLOCK ASSEMBLY
6006H (SHORT)
NOTE:
1. DISTANCE FROM BASE OF CRANE TO CENTER OF BOOM PIVOT IS 28"

OVER 4000 LBS USE DOUBLE LINE

AW-366195
6006H LOAD CHART

P/N 366195

0 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20
DISTANCE IN FEET

1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20
HEIGHT IN FEET
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.

AC-57 11/87