6006EH
OWNERS MANUAL

Manual No. 999979
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Serial No. _____

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Auto Crane Warranty Registration

Fax Transmission

To: Warranty Department Fax: (918) 834-5979

From: _____ Date: _____

Re: Product Registration Pages: _____

End User Information: (Required for Warranty Activation)

Name: _____ Phone: _____

Address: _____

City: _____ State: _____ Zip: _____

Contact: _____ E-mail Address: _____

Distributor Information: (Required for Warranty Activation)

Name: _____

Address: _____

City: _____ State: _____ Zip: _____

Contact: _____ E-mail Address: _____

Product Information: (Required for Warranty Activation)

Model No.: _____ Serial No.: _____

Date Product Delivered: _____ Date Processed:*

VIN # _____

* For Auto Crane use only

ONE REGISTRATION FORM PER UNIT (CRANE OR BODY)

Registration form must be mailed or faxed within 15 days of customer installation.

Mail to:
Warranty Department
Auto Crane Company
P.O. Box 581510
Tulsa, OK 74158-0697

WARNINGS

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 state are also considered intermediate stage manufacturing and must be certified as to compliance. The installer of this crane and body is considered on of the manufacturers of the vehicle. As such a manufacturer, the installer is responsible for compliance with all applicable federal and state regulations, and is required to certify that the vehicle is in compliance.

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

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

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INTRODUCTION
6006EH

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 6006EH crane for your protection.

For your convenience the overall dimensions of the 6006EH crane are included on the General Dimension Drawing. Rotation and turning radius are also listed 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.

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

The 6006EH cranes are attached directly to your 12 volt truck electrical system. The power cable is included with the crane. The 6006EH is another highly efficient Auto Crane product. The use of a maintenance-free battery is not recommended for use on any Auto Crane product. The recommended alternator and battery that will give the longest life with the most useful duty cycle is a 75 amp alternator with a 575 cold cranking amp battery. These specifications should be considered minimum.

It has always been Auto Crane Company policy to handle all warranty claims we receive as promptly as possible. If a warranty claim involves discrepant material or workmanship, Auto Crane will take immediate corrective action. It is understandable that Auto Crane Company cannot assume responsibility of liability when it is obvious that our products have been abused, misused, overloaded or otherwise damaged by inexperienced persons trying to operate the equipment without reading the manual.

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

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

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

DISTRIBUTOR ASSISTANCE:

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

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

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

--- IMPORTANT ---
SAFETY TIPS AND PRECAUTIONS

1. No unqualified or unauthorized person shall be allowed to operate the crane.
2. WARNING: Never weld, modify, or use unauthorized components / parts on any Auto Crane unit. This will void any warranty or liability. Also, failure of the crane may result.
3. Make certain the vehicle meets minimum chassis requirements. (These requirements do not guarantee unit stability.)
4. Make certain the crane is installed per factory specifications. Contact your local distributor or the Auto Crane factory if any questions arise.
5. Visual inspections and tests should be conducted at the beginning of each shift each day to ensure that the crane and all its operating systems are in good condition and working order before it is used.
6. Inspect hydraulic hoses frequently for signs of deterioration, and replace them as required.
7. If a hydraulic break occurs, leave the area of the break and do not attempt to stop the break by hand as the hydraulic oil may be hot and under high pressure which can cause serious injury. Shut the system down as soon as possible.
8. Check the hook at least every thirty days for distortions or cracks and replace it as required.
9. Oil gears as required.
10. Stop all operations when cleaning, adjusting or lubricating the machine.
11. Keep dirt and grit out of moving parts by keeping a crane clean. Make sure machine is free of excess oil, grease, mud and rubbish, thus reducing accidents and fire hazards.
12. When a new cable is installed, operate first with a light load to let the cable adjust itself.
13. Locate the vehicle at the work site for the best stability possible.
14. Keep the vehicle in a level position while loading or unloading.
15. Observe operating area for obstructions and/or power lines that might be a hazard
16. WARNING: NEVER OPERATE THE CRANE NEAR ELECTRICAL POWER LINES. Auto Crane Company recommends that the crane never be any closer to a power line (including telephone lines) than 10 feet at any point.
17. Allow the vehicle engine to warm up before operating crane.
18. Know the weight of your rigging and load to avoid overloading the crane.
19. Deduct the weight of the load handling equipment from the load rating to determine how much weight can be lifted.
20. All load ratings are based on crane capacity, NOT the vehicle stability.
    Remember in lifting a heavy load, the weight can create enough tipping moment to overturn the vehicle
21. Always comply with load chart capacities, (centerline of rotation to hook).
22. Secure all loads before lifting.
23. Always set the emergency brake before beginning operation.
24. Keep objects and personnel clear of crane path during operation.
25. Operate control levers slowly and smoothly in order to meter oil flow for safe operation.
26. Always use outriggers from vehicle to the ground during crane operation. Ensure that they are firmly positioned on solid footings. Stand clear of outriggers while they are being extended.
27. If any outrigger, when extended, rests on a curb or other object that prevents it from extending to its maximum distance, shorten bearing or fulcrum point and reduce the maximum load accordingly.
28. When an outrigger will not reach the ground due to holes or grades, it shall be blocked up to provide level and firm support for the truck.
29. When working in soft earth, use wide pads under outrigger feet to prevent sinking.
30. Always store outriggers before transportation.

WARNING!

Auto Crane Company cranes are not designed or intended for use in lifting or moving persons. Any such use shall be considered to be improper and the seller shall not be responsible for any claims arising there from. This sale is made with the express understanding that there is no warranty that the goods shall be fit for the purpose of lifting or moving persons or other improper use and there is no implied warranty or responsibility for such purposes.

--- IMPORTANT ---
SAFETY TIPS AND PRECAUTIONS

31. Always store the crane in its stowed position for transportation.
32. Remember the overall height of the entire unit for garage door clearance or when moving under objects with low overhead clearance
33. Disengage power takeoff (PTO) before moving the vehicle.
34. Always walk around the vehicle before moving.
35. Never drive with a load suspended from crane.
36. Do not take your eyes off a moving load. Look in the direction you are moving.
37. Never swing a load over people.
38. Do not stop the load sharply in midair so that it swings like a pendulum. Meter the control levers to avoid this situation.
39. Crane boom length should be kept as short as possible for maximum lifting capacity and greater safety. Longer booms require additional care in accelerating and decelerating the swing motion, and thus slow down the working cycle and reduce productivity.
40. Keep the load directly and vertically under the boom point at all times. Crane booms are designed primarily to handle vertical loads, not side lifts.

    WARNING: Never attempt to lift, drag, tow or pull a load from the side. The boom can fail far below its rated capacity.
41. Do not push down on anything with boom extensions, lift or outer boom function.
42. Do not lift personnel with any wire rope attachment or hook. There is no implied warranty or responsibility for such purposes.
43. WARNING: In using a safety hook, ALWAYS close the hook throat before lifting a load. Proper attention and common sense applied to the use of the hook and various slings will prevent possible damage to material being hoisted and may prevent injury to personnel.
44. WARNING: Never place a chain link on the tip of the hook and try to lift a load with the hoist.
45. WARNING: Never use a sling bar or anything larger than the hook throat which could prevent the safety latch from closing, thus negating the safety feature.
46. If the crane is equipped with an optional winch:
    - do NOT allow personnel to ride on loadline, hook, load, or any other device attached to winch line.
    - do NOT extend boom without reeling off line at the same time when using winch.
    - do pull load-block up against the boom tip.
47. Do not wrap the wire rope around sharp objects when using winch.
48. WARNING: Never unreel last 5 wraps of cable from drum.

--- IMPORTANT ---
OPERATING PRACTICES AND WARNINGS

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

    WARNING! NEVER hold any Control Select Switch on that will cause unsafe operating conditions!

WARNING!

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

--- IMPORTANT ---
OPERATION OF UNIT

1. Make sure this manual has been thoroughly read by all crane operating personnel and supervisors.
2. A routine inspection of the crane should be mandatory before each operating day. Any defects should be corrected immediately.
3. At a job site the vehicle should be positioned so that the crane can adequately reach the load within the rated capacity (centerline of rotation to hoist hook).
4. Keep the vehicle as level as possible during operation.
5. For electric cranes, **engage emergency brake** and leave ignition on with transmission in neutral (or in park for automatic transmissions). Activate any crane power switches. For Auto Crane units requiring battery and hydraulic operation, **engage emergency brake,** place gear selector in neutral, press clutch, activate PTO, release clutch and after hydraulic fluid is warm, set throttle control to proper engine speed.
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 the transmitter from cab or storage area. Power transmitter on. Detach hook from dead man. Crane is now ready for operation.
8. Always boom up before rotating so the boom will clear the required boom support.
9. When extending the boom, always maintain clearance between the boom crown and the traveling block or hoist hook.
10. Always observe safe and practical operation to avoid possible accidents. Refer to Safety Tips and Precautions.
11. After completing lifting operations, return the boom to stowed position on the boom support. Avoid unneeded pressure on the boom support.
12. Store transmitter in proper location (in cab or storage area).
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 PTO. 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.

OPERATION OF OUTRIGGERS

For hydraulic outriggers:

1. Shift crane/outrigger control valve to "outrigger" position.
2. Operate the outrigger control valves (located on the outrigger cylinders) to position the outriggers.
3. After outriggers are positioned, return crane/outrigger selector to "crane" position.
4. Crane is now ready to operate.

For manual outriggers:

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

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 colors 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 judgment 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.

QUALIFICATIONS FOR AND CONDUCT OF OPERATORS AND OPERATING PRACTICES

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 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/carrier 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. This standard recognizes that articulating boom cranes are designed and intended for handling materials. They do not meet personnel lift or elevator requirements. Therefore, no lifting, lowering, swinging or traveling shall be done while a person is on the hook or load. Hook attached suspended work platforms (baskets) shall not be used with cranes covered by this standard. Work platforms attached to the boom must be approved by crane manufacturer.

    I. The operator should avoid carrying loads over people.

    J. 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.

    K. 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.

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

    M. When rotating the crane, sudden starts and stops shall be avoided. rotational speed shall be such that the load does not swing out beyond the radius at which it can be controlled.

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

    O. 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**

OPERATING NEAR ELECTRICAL POWER LINES

MISCELLANEOUS

INSPECTION, TESTING AND MAINTENANCE GENERAL

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.

RATED TEST LOAD

Prior to initial use, altered, modified, or extensively repaired cranes shall be load tested by or under the direction of an appointed person.

22. **Test loads shall not exceed 110% of the manufacturer's load ratings.**
23. **Written reports shall be maintained showing test procedures and confirming the adequacy of repairs.**

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 insure 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. A. blistering, or abnormal deformation to the outer covering of the hydraulic or pneumatic hose
    C. A. leakage at threaded or clamped joints that cannot be eliminated by normal tightening or recommended procedures
    D. A. 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

INSPECTION, TESTING AND MAINTENANCE GENERAL

32. 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 it's 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

33. 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.

34. 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.

INSPECTION, TESTING AND MAINTENANCE GENERAL

MAINTENANCE

PREVENTIVE MAINTENANCE

24. 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

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

26. 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

27. 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.

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

A. functional operating mechanism

B. safety devices

C. control systems

29. 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

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

C. crane hooks showing cracks, damage, or corrosion shall be taken out of service. Repairs by welding are not recommended

30. 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

31. 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.

INSPECTION, TESTING AND MAINTENANCE GENERAL

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.

35. **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.**

36. **Inspection records**

   A. **A. frequent inspection- no records required**

   B. **A. 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

37. **Rope should be stored to prevent damage or deterioration.**

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

39. **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 seizings on each side of the cut are required, and for non-preformed rope 1 in. (25 mm) diameter or larger, three seizings on each side of the cut are required.**

40. **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.**

41. **Rope should be maintained in a well-lubricated condition. It is important that lubricant applied as a part of a maintenance program shall be compatible with the original lubricant and to this end the rope manufacturer should be consulted. Lubricant applied shall be the type which does not hinder visual inspection. Those sections of rope which are located over sheaves or otherwise hidden during inspection and maintenance procedures require special attention when lubricating rope. The object of rope lubrication is to reduce internal friction and to prevent corrosion.**

42. **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.**

MAINTENANCE OF BATTERIES

Low Maintenance Batteries
(Maintenance Free)

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

Testing Your Battery

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

If, after charging, it is noted that the specific gravity reading of one cell is 30 points less than any of the other cells, it may be assumed that the cell is bad and that the battery should be replaced. If all cells are uniform but not up to full charge, a low rate of charge should be attempted for an extended time. This usually will recover a badly sulfated battery.

Replacing a Battery

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

1 Fill the battery with electrolyte of the proper specific gravity.

2 Place the battery on charge according to the manufacturer's instructions.

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

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

SAFETY DECAL SECTION
6006EH

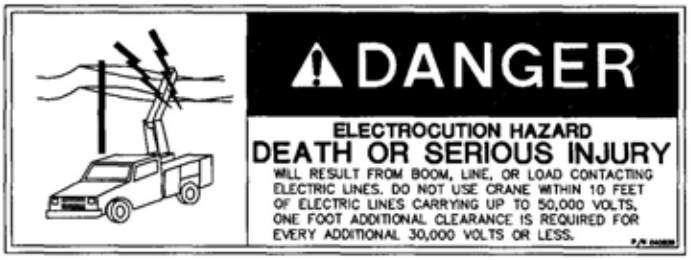
PART NO.: 40579000
DECAL: OPERATING INSTRUCTIONS
FUNCTION: To inform the operator of the proper procedure to follow for safe operation of the crane.
USED ON: All Cranes
QUANTITY: 1
PLACEMENT: Right side plate

PART NO.: 040580000
DECAL: OPERATING 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 side plate

PART NO.: 040632000
DECAL: TAMPERING WITH OVERLOAD DEVICE
FUNCTION: To inform the operator that tamperating with the overload device may cause a unit failure or possible personal injury.
USED ON: All Cranes equiped with a load sensor
QUANTITY: 1
PLACEMENT: Right side of valve sensor.

SAFETY DECAL SECTION
6006EH

PART NO.: 040529000
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



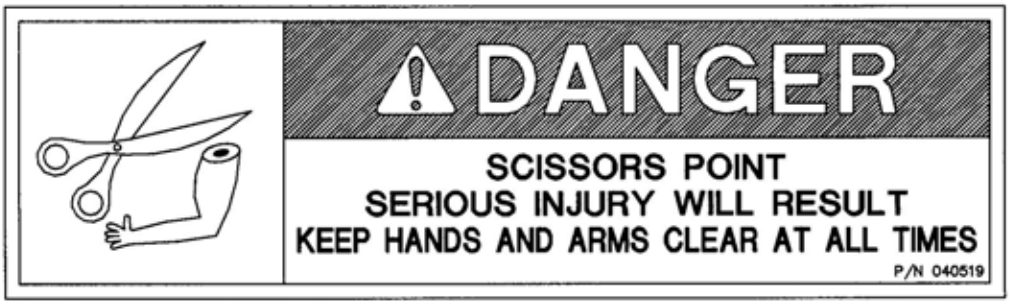
PART NO.: 040517000
DECAL: STAY CLEAR OF BOOM
FUNCTION: To inform the operator of the hazard of proximity or contact with the crane boom during operation.
USED ON: All Cranes
QUANTITY: 2
PLACEMENT: Both sides of crown

PART NO.: 040518000
DECAL: STAY CLEAR OF LOAD
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 plate

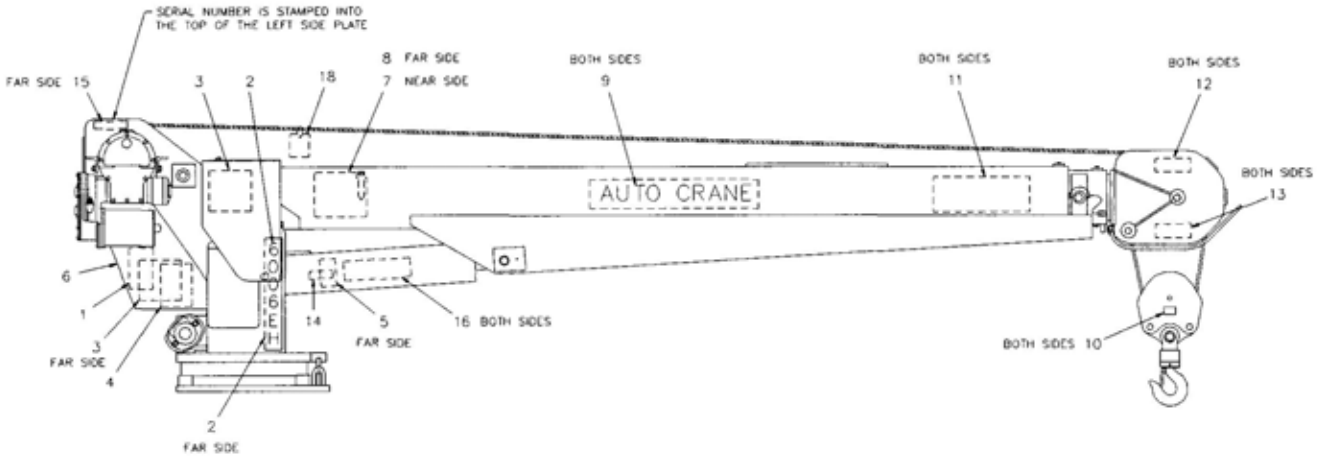
SAFETY DECAL SECTION
6006EH

PART NO.:	040587000	USED ON:	All cranes equipped with a load sensor.
DECAL:	LOAD SENSOR, DON'T TAMPER	QUANTITY:	1
FUNCTION:	To inform the operator that the load sensor is pre-set and that tampering with the sensor may cause potentially hazardous situation.	PLACEMENT:	On the lift cylinder near the load sensor

PART NO.:	040519000	USED ON:	All cranes.
DECAL:	SCISSORS POINT	QUANTITY:	1
FUNCTION:	To inform the operator of possible danger at scissors point on crane.	PLACEMENT:	Both sides of the lift cylinder

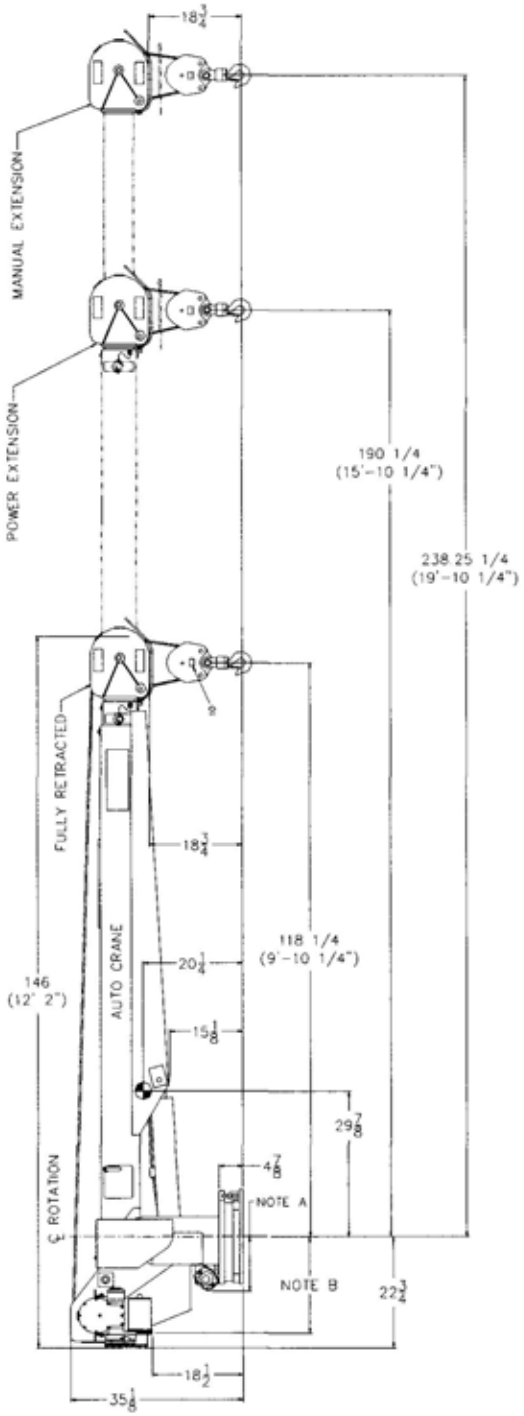


DECAL LAYOUT
6006EH

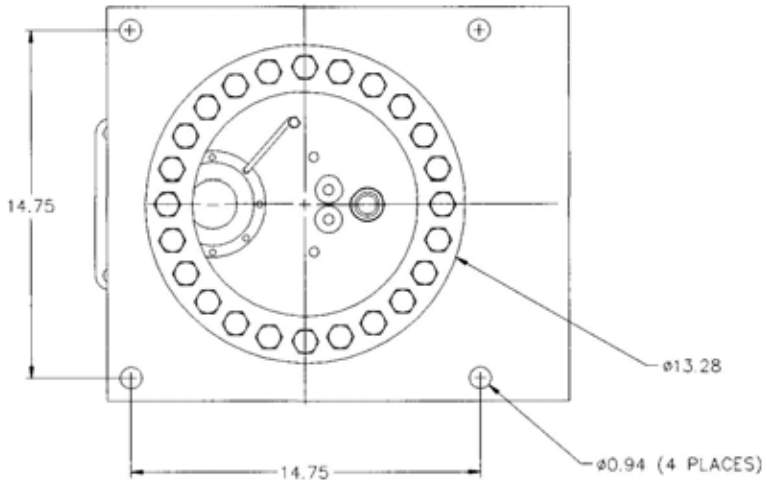


ITEM NO.	QTY.	PART NO.	DESCRIPTION
1	1	040579	DECAL, CAUTION-WORK RULES
2	2	366804	DECAL, 6006EH
3	1	366803	DECAL, LOAD CHART
4	1	040580	DECAL, DANGER-OPERATE
5	1	040632	DECAL, DANGER-CYL OPERATION
6	1	360034	DECAL, LOGO
7	1	320318001	DECAL, ANGLE INDICATOR, RIGHT
8	1	320318000	DECAL, ANGLE INDICATOR, LEFT
9	2	040624	DECAL, AUTO CRANE
10	2	360480-100	DECAL, BLOCK WEIGHT & MAX LOAD
11	2	040529	DECAL, DANGER-SHOCK
12	2	040517	DECAL, DANGER-STAY CLEAR
13	2	040518	DECAL, DANGER-STAY CLEAR
14	1	999960	INSTALLATION CHECK LIST
15	1	040587	DECAL, WARNING-LOAD SENSOR
16	1	330622	DECAL, SERIAL NUMBER
17	2	040519	DECAL, DANGER-SCISSOR POINT

GENERAL DIMENSIONS
6006EH



SPECIFICATIONS	
LENGTH	12' 5"
WIDTH	22 1/2"
HEIGHT	35 1/8"
BOOM LENGTH	10' 4 3/4" (SINGLE LINE, RETRACTED)
BOOM EXTENSION	
POWER	6'
MANUAL	4'
TOTAL	10'
CRANE WEIGHT	1350 LBS
POWER SOURCE	24 VDC WITH HYD POWER UNIT, REMOTE MOUNTED VOLTAGE SWITCHING UNIT AND PENDANT CONTROL BOX
ROTATION	370 DEGREES
HYD RELIEF SETTING	2200 PSI
MAX AMP DRAW, HOIST	APPROX 95 AMPS
MAX AMP DRAW, HYD UNIT	APPROX 120 AMPS



BOLT PATTERN
PEDESTAL BASE

NOTE A: MAXIMUM TURNING RADIUS AT ROTATION MOTOR = 14 ½"
NOTE B: MAXIMUM TURNING RADIUS AT HOIST ACTUATOR = 24 ½"

MOUNTING AND INSTALLATION
6006EH

1. Check to make sure the following items are with your crane.

ITEM	QTY	PART NO.	DESCRIPTION
1	1	360480	TRAVELING BLOCK
2	1	999979	Owners Manual
3	4	015104000	Bolt 7/8 NF x 5" Grade 8 (4 Req'd)
4	4	022200000	Washer Split Lock 7/8 (4 Req'd)
5	4	018900	NUT, HEX 7/8 NF
6	1	680050	Pendant assembly
7	1	320355	POWER RELAY
8	1	480689	FUSE 15 AMP TIME DELAY
9	1	480688	FUSE HOLDER WATERPROOF
10	120"	800596	CONDUCTOR 16GA YELLOW X 120 INCHES LONG
11	6	634401	WIRE TIE 7 INCHES LONG
12	6	750738	WIRE TIE STICK ON RETAINER
13	5	320357	CONNECTOR FEM SPD
14	1	320363	PLUG RELAY
15	1	360705	LOAD CHART DECAL, 6006EH
16	1	340638	CONDUCTOR POWER
17	1	360802-001	VOLTAGE SWITCHING UNIT

2. Vehicle should meet minimum **GVW** rating of **14,500 pounds**. (does not include bodies or accessories)
3. 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.
4. A 13 ½" dia. Hole should be cut out of mounting location (centered with mounting bolts) for access to lower ring gear bolts. Refrence general dimensions for bolt pattern.
5. Make sure the mounting blots are 7/8" dia, grade 8. Torque bolts to 440 ft-lbs (dry).
6. When crane is not in operation, a boom support should always be used. Traveling block should be connected to hood loop. Contact Auto Crane dealer for recommended Auto Crane boom support P/N.
7. Install **Voltage switching unit** inside compartment safe from weather and contamination.
8. Electrical hookup, Wiring (cable from voltage switching unit):
   A. CONNECT THE BLACK WIRE TO THE BATTERY NEGATIVE (GROUND).
   B. CONNECT THE RED WIRE TO FUSED 24VDC POWER. 24VDC POWER SHOULD BE SUPPLIED THROUGH A DEDICATED SWITCH THAT IS POWERED ONLY WHEN THE IGNITION SWITCH IS ON. A RELAY IS PROVIDED TO SEPARATE POWER SOURCES.
9. Load test the crane to ensure proper functioning and truck stability
10. Make certain the owner's manual is delivered to the customer.
11. 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 HE 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.

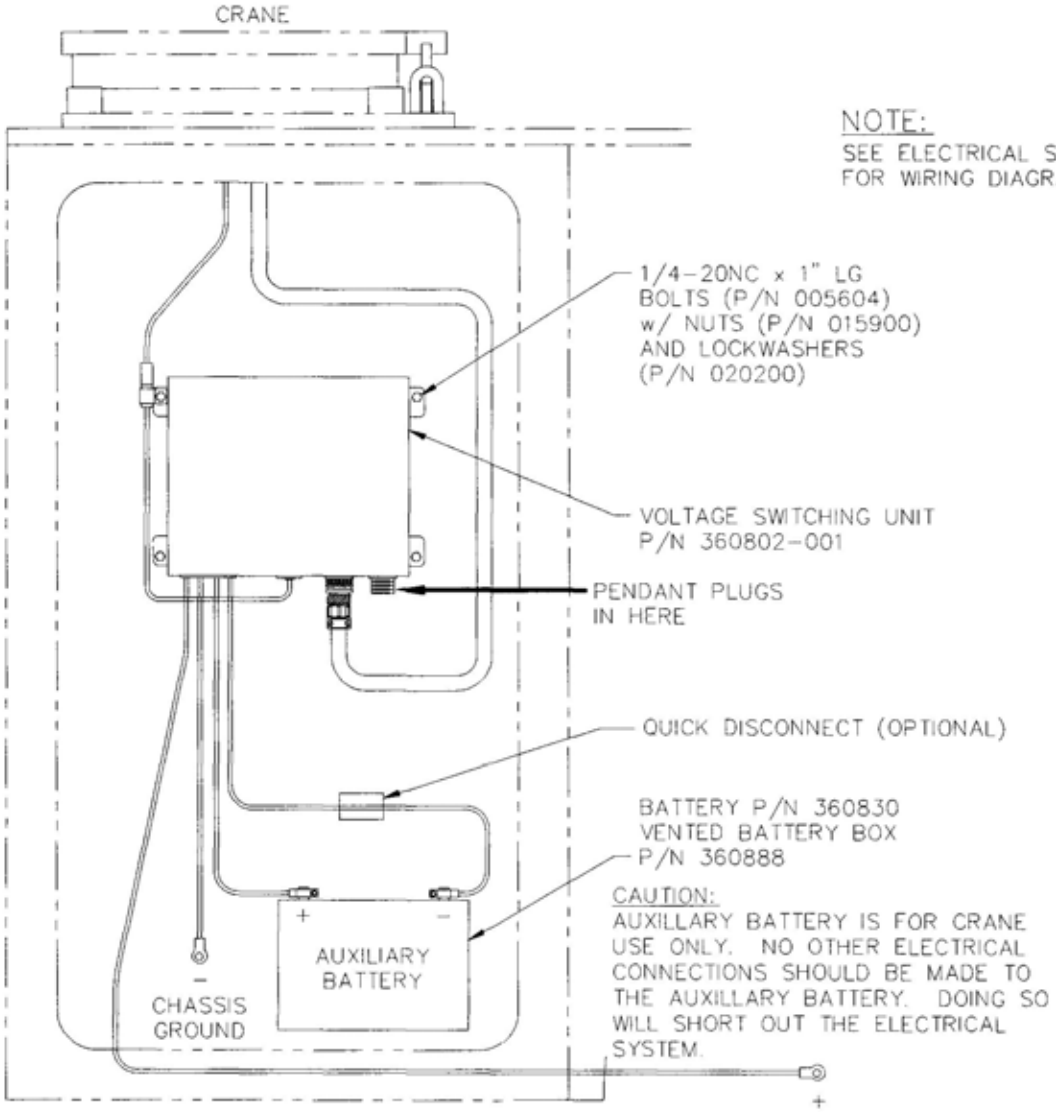
IT IS THE FURTHER RESPONSIBILITY OF THE INSTALLER OF THE CRANE TO COMPLY WITH THE OSHA TRUCK CRANE STABILITY REQUIREMENTS AS SPECIFIED BY 29 CFR PART 1910.180 (C) (1).

MOUNTING AND INSTALLATION
6006EH

CAUTION:
BOOM MUST BE PROPERLY SECURED IN PLACE, ON A BOOM SUPPORT BRACKET, WHEN CRANE IS NOT IN USE. (TO PREVENT GEAR DAMAGE)

1. DRILL 13/16 DIAMETER HOLE IN COMPARTMENT FLOOR OR BACK WALL. INSTALL CABLE AND BUSHING (No.BB-50 FURNISHED ON CABLE) AS SHOWN. WRAP ELECTRICAL TAPE AROUND CABLE TO GIVE THE WIRE A SNUG FIT IN BUSHING.
2. RUN CABLE INSIDE CHASSIS FRAME TO STARTER SOLENOID BATTERY CONNECTION. LOCATE CABLE SO THAT IT WILL BE PROTECTED. AVOID SHARP EDGES. INSTALL THE NO.838 FRAME CLIPS TO HOLD CABLE SECURELY IN PLACE. IF SURPLUS CABLE EXISTS, THE CABLE CAN BE CUT OFF, AND EXTRA TERMINAL FURNISHED WITH CABLE INSTALLED.
3. REMOVE NUT ON SOLENOID BATTERY TERMINAL POST. INSTALL CRANE POWER CABLE, REPLACE NUT AND TIGHTEN.
4. IF THE BATTERY IS GROUNDED TO THE ENGINE, IT MAY BE NECESSARY TO ADD AN ADDITIONAL GROUND CABLE FROM THE ENGINE TO THE CHASSIS FRAME IN ORDER TO OBTAIN MAXIMUM POWER AT THE CRANE. THE CRANE SHOULD BE GROUNDED TO THE CHASSIS FRAME. THIS IS USUALLY ACCOMPLISHED THROUGH THE BODY MOUNTING BRACKET.

MOUNTING AND INSTALLATION
6006EH



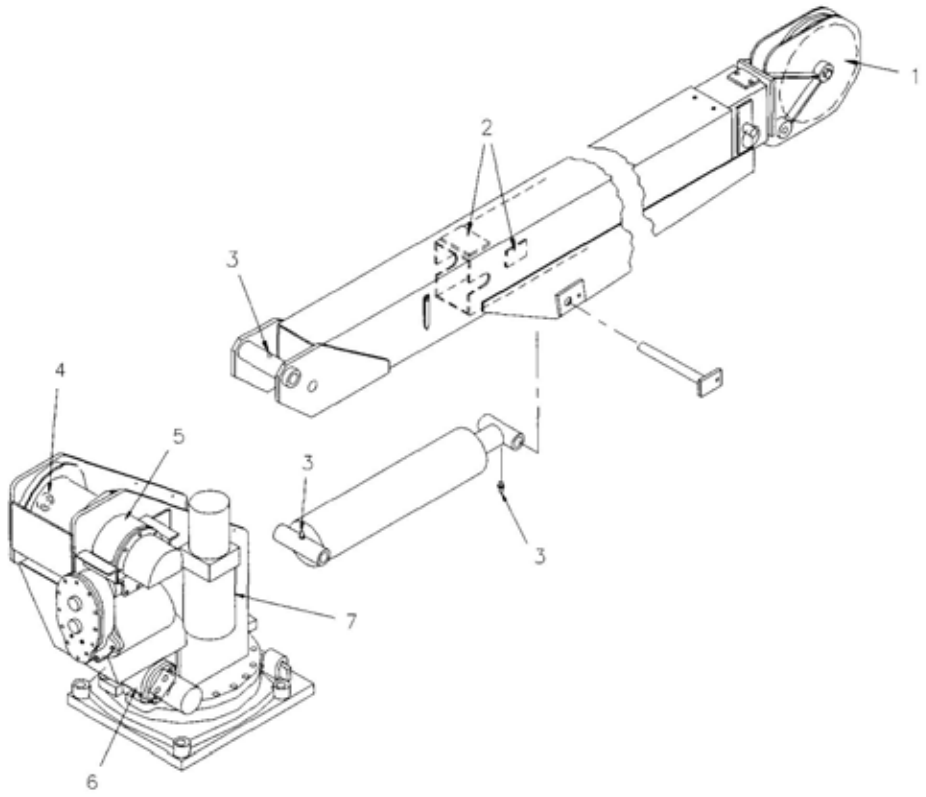
NOTICE:

WE RECOMMEND REPLACING ANY NO-MAINTENANCE TRUCK BATTERY WITH A MAINTENANCE TYPE TRUCK BATTERY

LUBRICATION & MAINTENANCE SCHEDULE
6006EH

HOIST / BOOM CABLE	X					CHECK FOR FLATTENING, KINKS, & BROKEN STRANDS, SEE MANUAL
HYD. HOSES	X					VISUAL INSPECTION
HYD. FLUID	X					CHECK FLUID LEVEL
MOUNTING BOLTS		X				CHECK-TORQUE TO 440 FT-LBS (DRY) AS REQUIIRED
ROTATION RING GEAR		X				LUBE WITH MOBILETAC LL, OR LUBRIPLATE P/N 15263, OR EQUAL
SHEAVE BEARINGS		X				SEALED BEARING, REPLACE IF ROUGH OR LOOSE
ALL OTHER BOLTS		X				CHECK-TIGHTEN AS REQUIRED
BOOM CYLINDER		X				CHECK AROUND CYLINDER ROD FOR EXCESS FLUID LEAKAGE
BOOM CYLINDER PINS		X				GREASE WITH MOBILEPLEX EP-2 OR EQUIVALENT @ ZERKS
EXTENSION DETENT PIN		X				LUBE DETENT SPRING & BALL WITH WD-40 OR EQUIVALENT
ROTATION BEARING			X			GREASE WITH MOBILEPLEX EP-2 OR EQUIVALENT @ ZERKS
ROTATION BEARING BOLTS			X			CHECK TORQUE TO 150 FT-LBS (DRY) AS REQUIRED
ROTATION GEAR BOX			X			CHECK TORQUE TO 85 FT-LBS (DRY) AS REQUIRED
ROTATION GEAR BOX				X		EP GEAR LUBE SAE 80-90
HYDRAULIC FLUID					X	DRAIN, FLUSH, AND REFILL WITH SUN 2105 HYD. OIL, SAE 5W-20
BOOM SLIDE PADS	PADS GREASED WHEN REPLACED					
FOR ADDITIONAL INFORMATION SEE:	1) OWNER'S MANUAL 2) OSHA SECTION 1910.180 3) ANSI B30.5-1989					

LUBRICATION & MAINTENANCE SCHEDULE 6006EH



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.

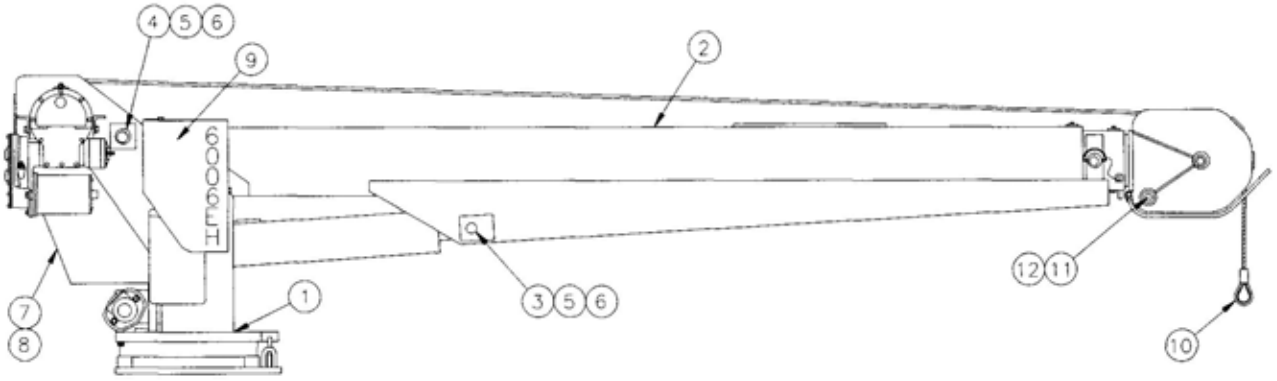
7. HYDRAULIC FLUID:
   USE DTE-13 OR EQUIVALENT. RESERVOIR SHOULD BE FLUSHED AND NEW FLUID ADDED ONCE A YEAR, OR IF A HYDRAULIC FAILURE OCCURS.

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

NOTES:

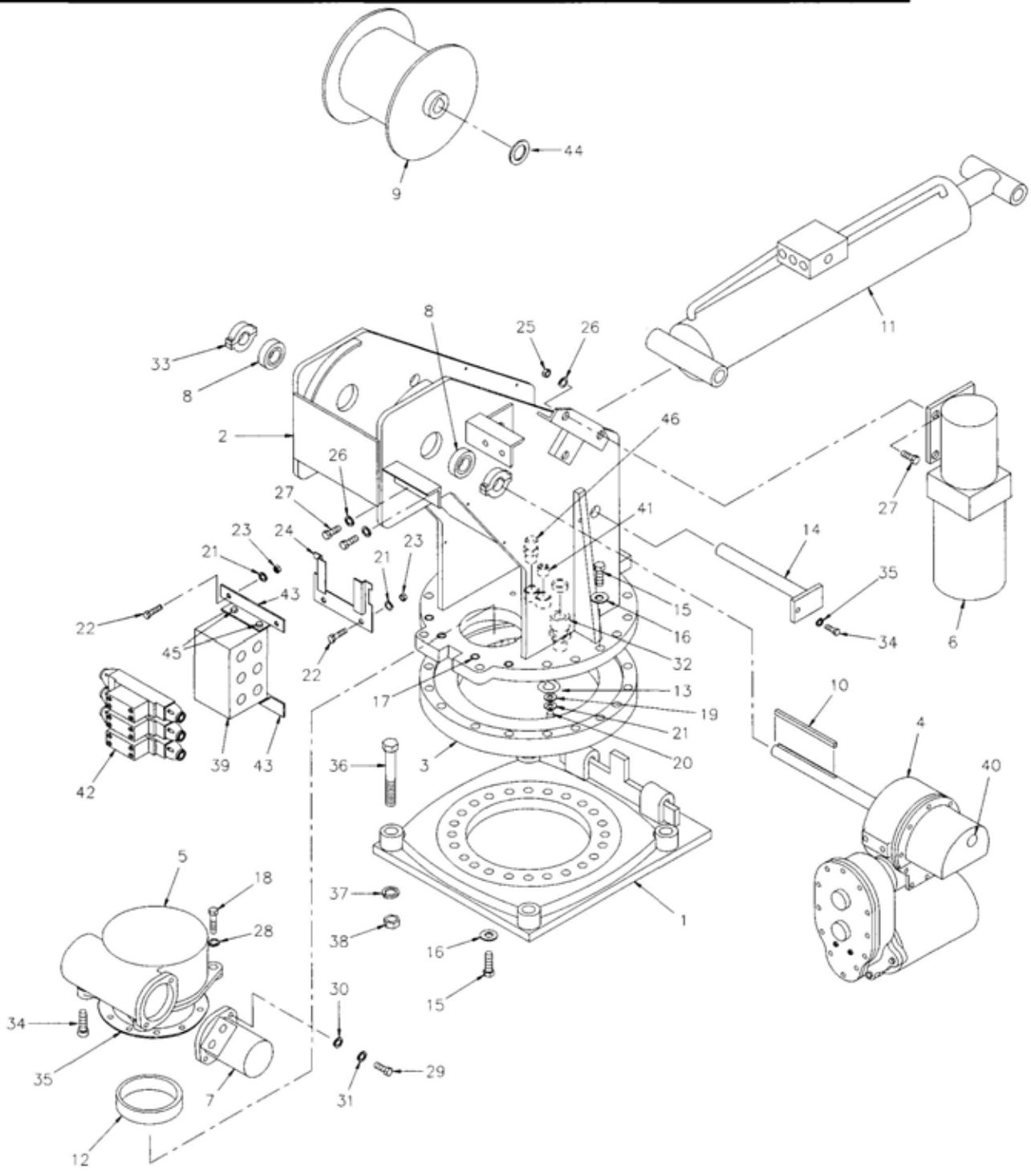
1. Use only authorized parts. Any damage or malfunction caused by the use of unauthorized parts is not covered by Warranty or Product Liability
2. Once a bolt has been torqued to its rated capacity and then removed; the bolt should be replaced with a new one.
3. Auto Crane Company recommends that this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

GENERAL ASSEMBLY
6006EH, P/N366820-900



ITEM NO.	QTY.	PART NO.	DESCRIPTION
1	1	366801	UNIT LESS BOOM
2	1	480584	BOOM ASSEMBLY
3	1	366189	PIN, LOWER BOOM CYL
4	1	366192	PIN, LOWER BOOM PIVOT
5	2	366158	SCW, HX HD, 3/8 NC X 3/4 LG GR8
6	2	021100	WASHER, SP LK 3/8
7	1	360544	COVER, VALVE
8	6	008401	SCW, HX HD, 3/8 NC X 1/2 LG GR5
9	1	360835	COVER INSTALLATION, POWER UNIT
10	1	480031	ROPE ASSY 3/8
11	1	360125	PIN, CROWN
12	1	360124	HITCH PIN (HAIR PIN)

PEDESTAL ASSEMBLY
6006EH, P/N 366801



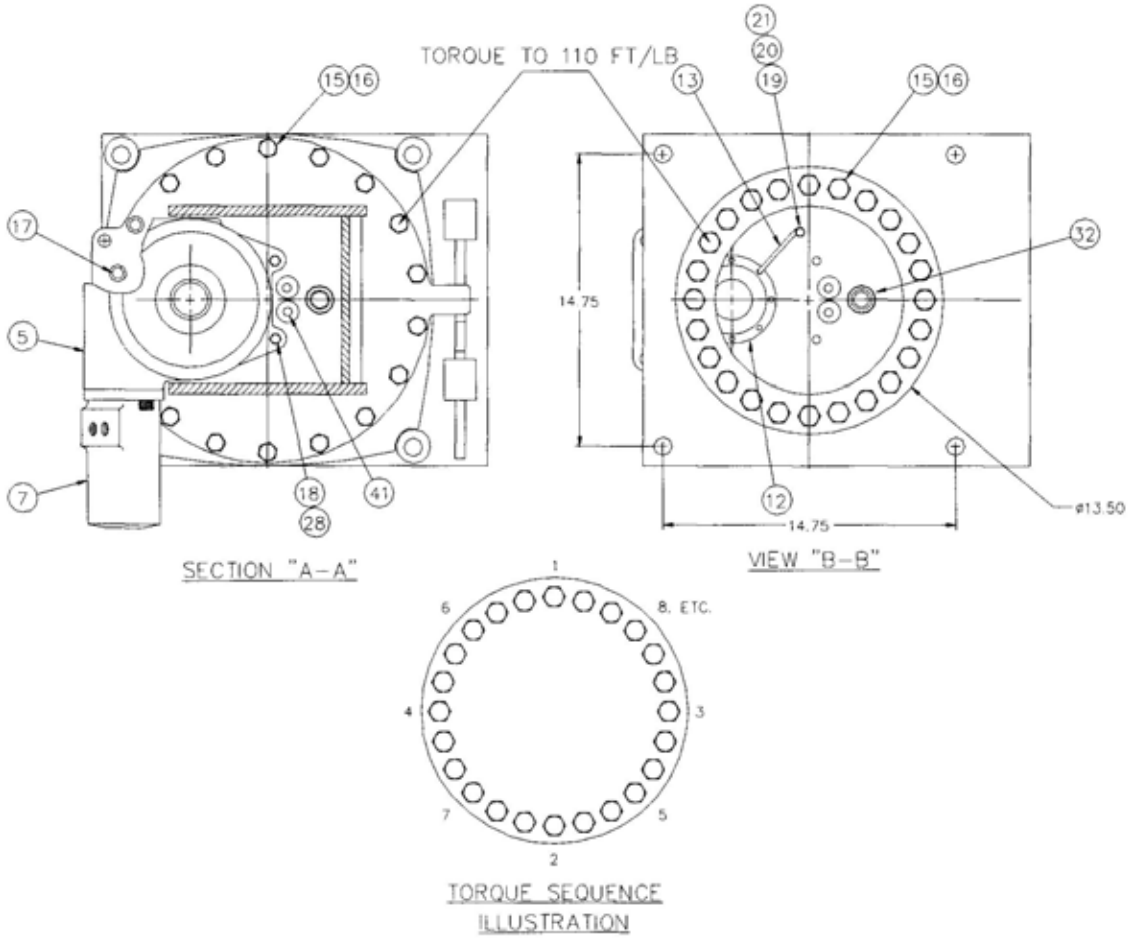
CYLINDER SEAL KIT: P/N 366805100
COUNTERBALANCE CARTRIDGE: 480188000

PEDESTAL ASSEMBLY
6006EH, P/N 366801

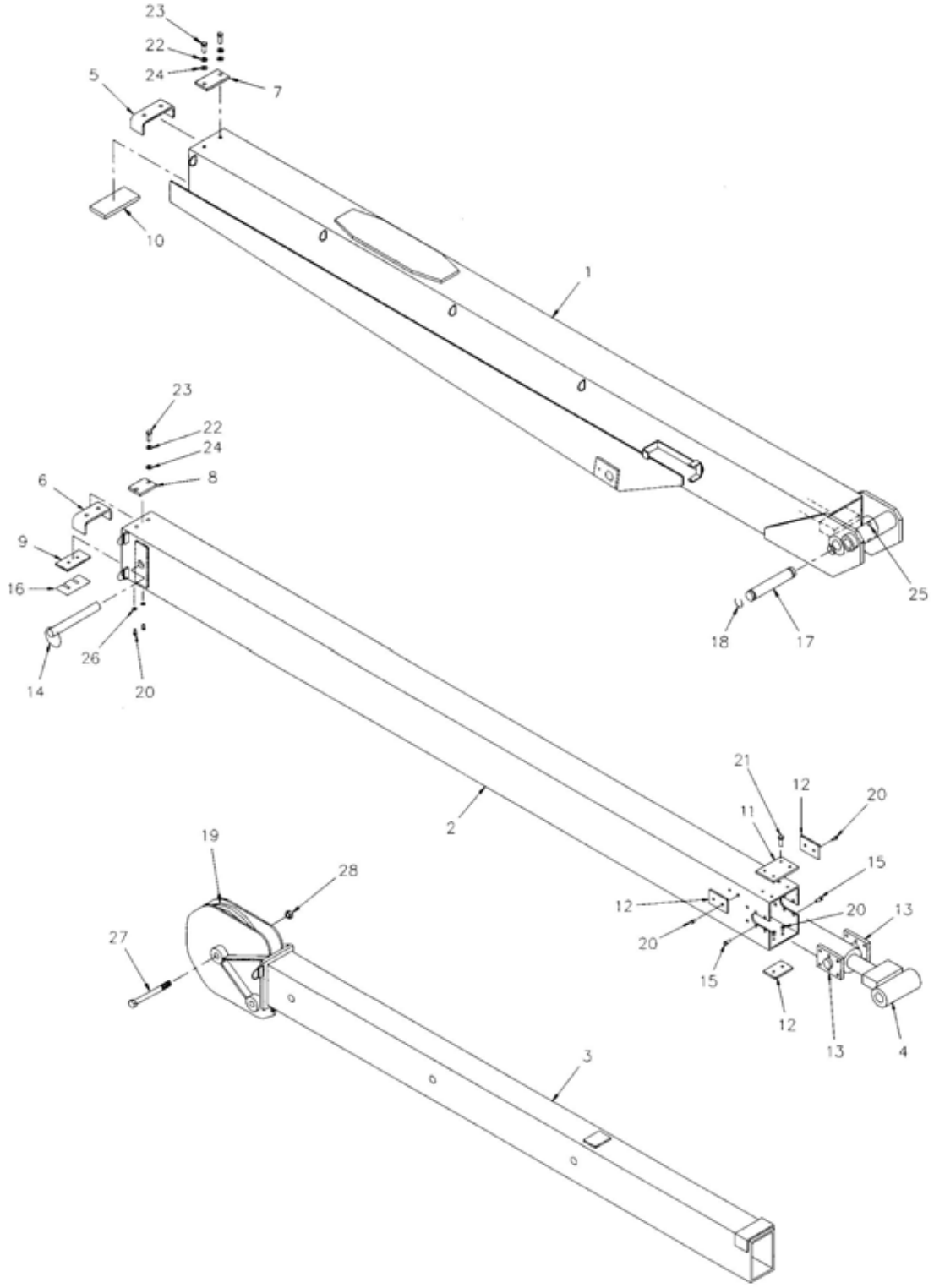
ITEM NO.	QTY.	PART NO.	DESCRIPTION
1	1	360536	BASE PLATE WELD
2	1	366810	PEDESTAL WELDMENT
3	1	480023-002	ROTATION BEARING
4	1	160370	WINCH, DCSG24-246R
5	1	160407	ROTATION GEAR BOX
6	1	360798	POWER UNIT (HYD PUMP AND RESIVOIR)
7	1	480027	MOTOR, HYD (ROTATION)
8	2	400500	BEARING
9	1	366802	DRUM, HOIST
10	1	360557	KEY, 5/16
11	1	366805	CYLINDER, BOOM UP
12	1	360162	RING, ECCENTRIC
13	1	360207	RETAINER, ECCENTRIC RING
14	1	366191	PIN, PEDESTAL/CYLINDER
15	38	012198	SCW HX HD 5/8 NC X 1 3/4 G8
16	38	023902	WASHER FL 5/8 HARDENED
17	4	006205	SCW HX HD 5/8 NC X 1 1/4 G8
18	2	011608	SCW HX HD 1/2 NC X 2 G5
19	1	020901	WASHER FL 5/16
20	1	007807	SCW HX HD 5/16 NC X 3/4 G5
21	7	020600	WASHER SP LK, 5/16
22	6	007811	SCW HX HD 5/16 NC X 1
23	6	016500	NUT, HEX, 5/16 NC
24	1	366987	RETAINER, RELAY BOX
25	3	330372	NUT, HEX, 3/8 NC
26	7	021100	WASHER SP LK, 3/8
27	7	330371	SCW HX HD 3/8 NC X 7/8 G5
28	2	021500	WASHER SP LK, 1/2
29	2	012197	SCW SOC HD 1/2 NC X 1 1/2 G5
30	2	021502	WASHER SP LK, 1/2 (HI-COLLAR)
31	2	021601	WASHER SP FL, 1/2 (SPECIAL)
32	1	370433	CABLE CONNECTOR
33	2	330468	COLLAR, SPLIT-LOCK
34	2	009118	SCW SOC HD 1/2 NC X 2 G5
35	1	480011	SEAL, ROTATION
36	4	015104	SCW HX HD 7/8 NC X 5 G8
37	4	022200	LOCK WASHER, 7/8 ID
38	4	018900	NUT, HEX 7/8 NF
39	1	202710	MANIFOLD
40	1	360848	PLUG, PLASTIC 1" DIA

PEDESTAL ASSEMBLY
6006EH, P/N 366801

ITEM NO.	QTY.	PART NO.	DESCRIPTION
41	1	750477	PLUG, PIPE 1/2
42	3	300204	DIRECTIONAL VALVE ASSEMBLY
43	2	320392	BRACKET, MANIFOLD
44	2	480073	SPACER, WINCH SHAFT
45	4	002614	SCW HX HD 5/16 NC X 5/8 STAINLESS
46	1	642908	CORD, CONNECTOR



BOOM ASSEMBLY
6006EH, P/N 480584



EXTENSION CYLINDER SEAL KIT: 404006100

BOOM ASSEMBLY
6006EH, P/N 480584

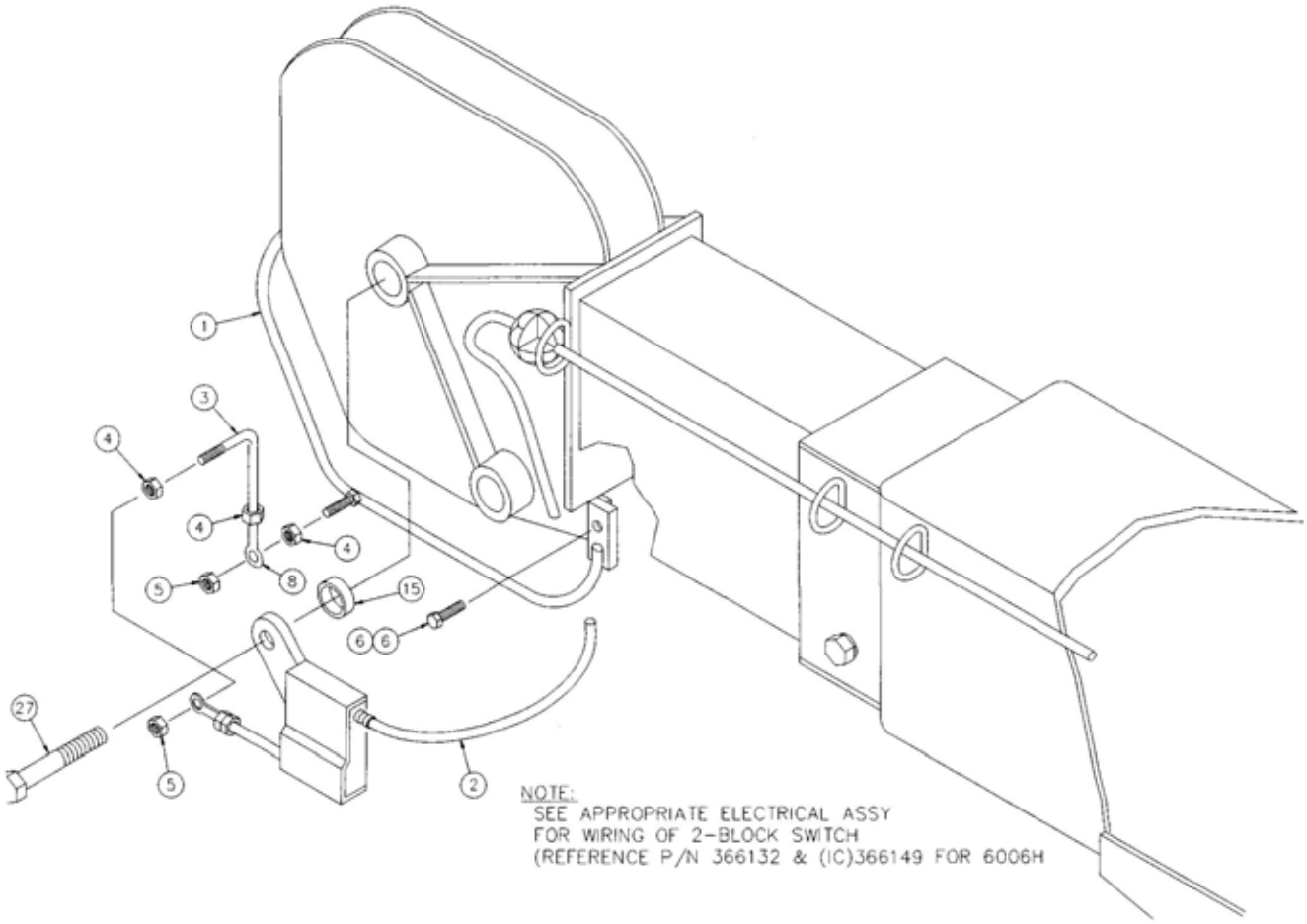
ITEM NO.	QTY.	PART NO.	DESCRIPTION	
1	1	480581	BOOM, LOWER	
2	1	366080	BOOM, CENTER	
3	1	366110	BOOM, MANUAL	
4	1	366162	CYLINDER, BOOM EXTENSION	
5	1	366183	STOP, CENTER BOOM	
6	1	366112	STOP, UPPER BOOM	
7	1	366201	PAD, BOTTOM TOP	
8	1	366202	PAD, BOOM TOP	
9	1	366199	PAD, BOOM TOP	
10	1	366187	PAD, RETAINER LOWER	
11	1	366185	PAD, BOOM TOP (CENTER BOOM)	
12	3	366186	PAD, BOOM (CENTER BOOM)	
13	2	366184	RETAINER, EXTENSION CYLINDER	
14	1	366190	PIN, ASSEMBLY WITH LANYARD	
15	12	008400	SCW HX HD, 3/8 NC X 3/4	
16	AR	480037	SHIM	
17	1	366193	PIN, EXTENSION CYLINDER	
18	2	480029	RING, RETAINING	
19	1	366198	SHEAVE ASSEMBLY	
20	8	007808	SCW HX HD, 5/16 NC X 1/2	
21	4	005406	SCW HX HD, 1/4 NF X 1/2	
22	5	021100	WASHER, SP LK, 3/8 SAE	
23	4	008800	SCW HX HD, 3/8 NF X 1	
24	6	021200	WASHER FL 3/8	
25	1	239000	GREASE ZERK	
26	2	020600	WASHER, SP LK, 5/16	
27	2	014304	SCW HX HD, 3/4 NF X 6" GR5	
28	2	018600	NUT, HEX LOCK, 3/4 NF	

Motor -

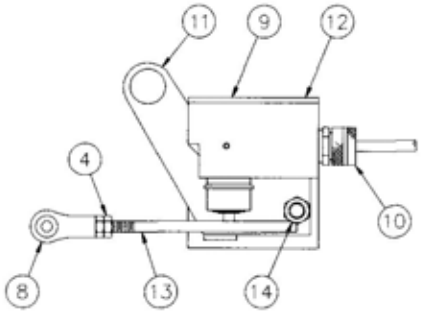
360808-002

for 340798 Haldex power unit

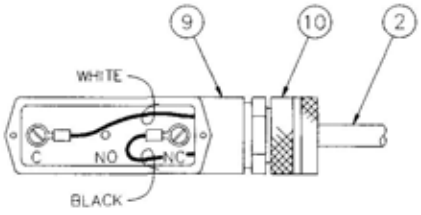
ANTI 2-BLOCK INSTL
6006EH



NOTE:
SEE APPROPRIATE ELECTRICAL ASSY
FOR WIRING OF 2-BLOCK SWITCH
(REFERENCE P/N 366132 & (IC)366149 FOR 6006H



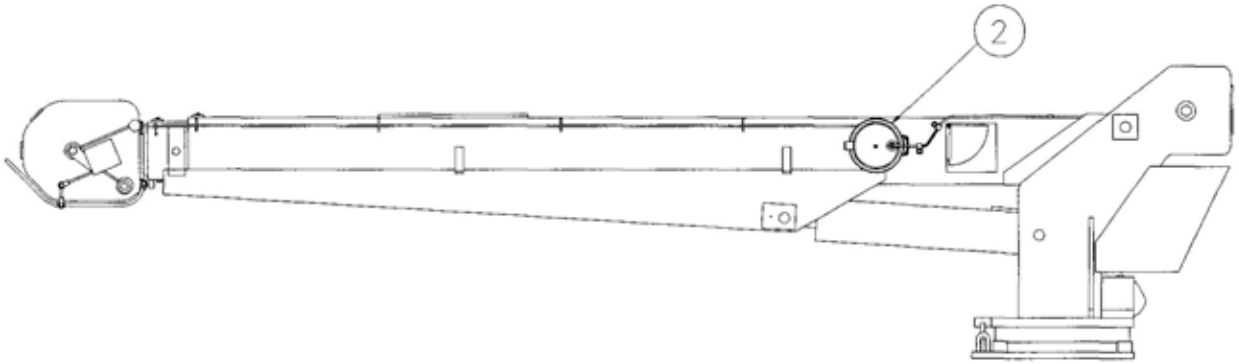
SWITCH ASS'Y DT'L



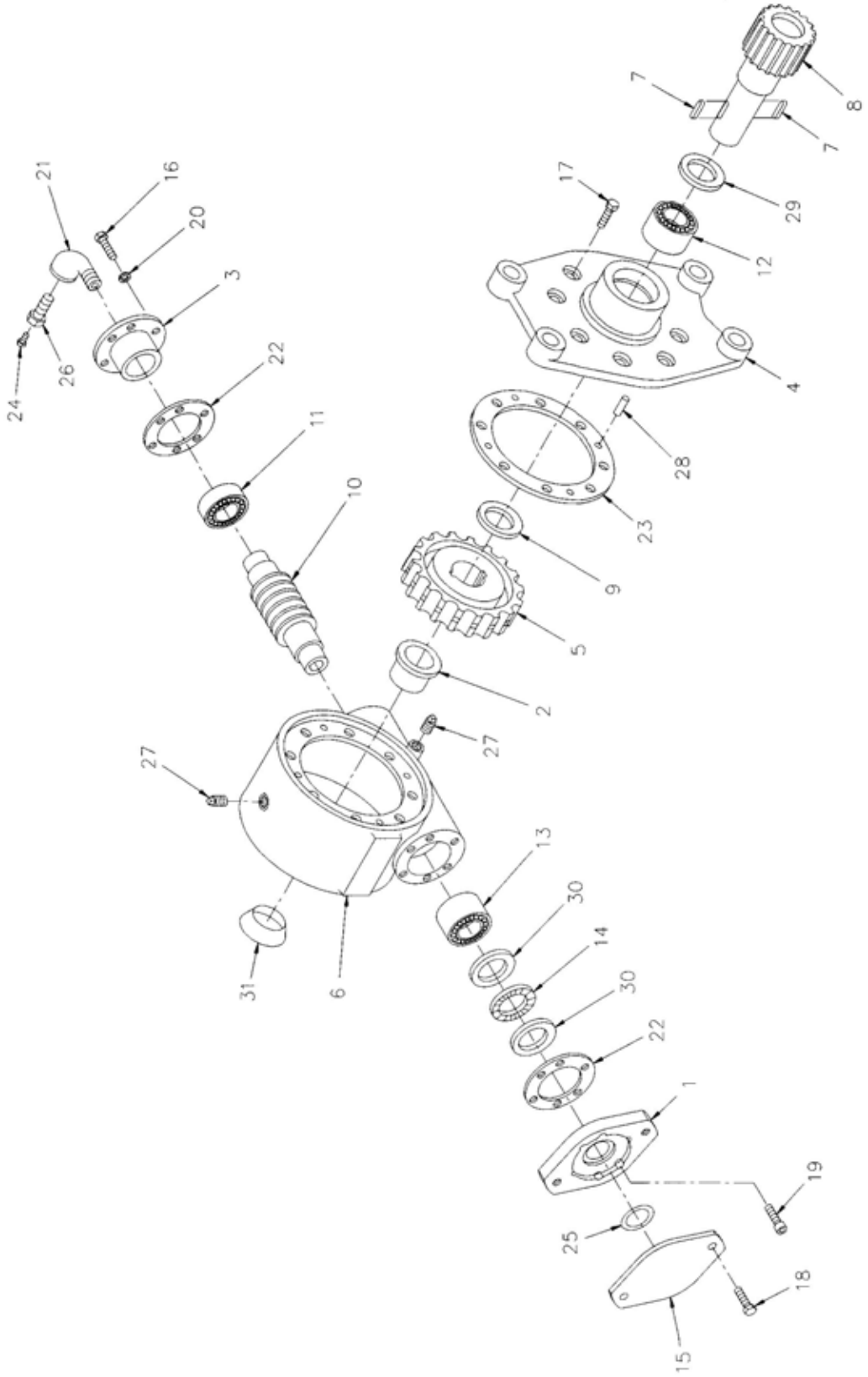
REFERENCE-SWITCH WIRING

ANTI 2-BLOCK INSTL
6006EH

ITEM NO.	QTY.	PART NO.	DESCRIPTION
1	1	360823	BAIL 2-BLOCK CROWN BRACKET
2	1	366973-001	CORD REEL ASSY
3	1	366196	2 BLOCK ARM
4	5	016100	NUT, HX HD, 1/4-28 NF
5	2	016200	NUT, HX HD, SLF-LK 1/4-28 NF
6	1	007803	SCREW, HX HD, 5/16-18 NC X 3 1/2 LG
7	1	016801	NUT, HX HD, SLF-LK 5/16-18 NC
8	2	363006	BEARING, ROD END
9	1	646900	SWITCH
10	1	642918	CORD CONNECTOR
11	1	363013-001	MOUNTING PLATE ASSEMBLY
12	1	363004	COVER, SWITCH
13	1	363005	LINKAGE WELDMENT ROD
14	1	017301	NUT, HX HD, SLF-LK 3/8-16 NC, CP
15	1	480009	SPACER, 1 1/8 X .120W X 3/8 LG



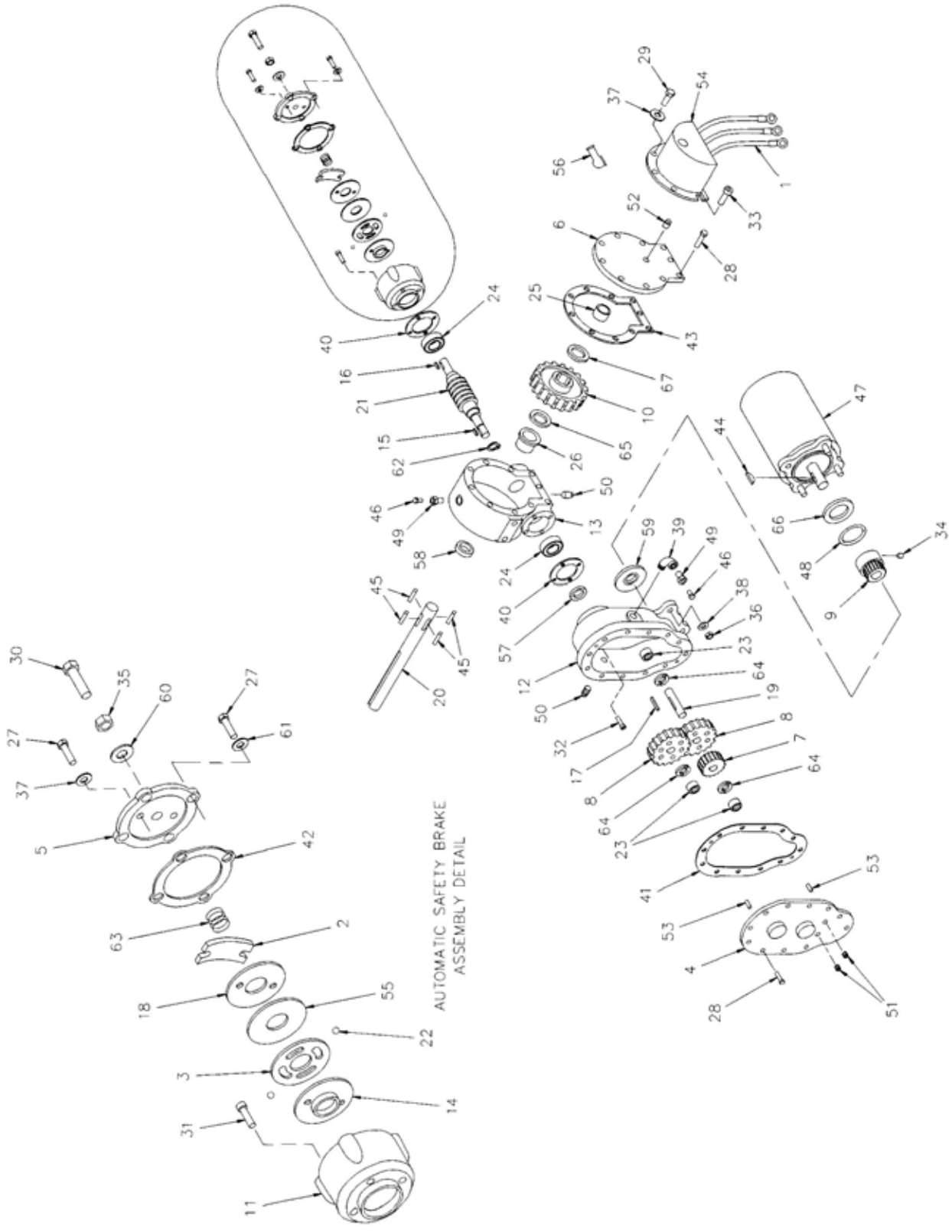
ROTATION GEAR BOX
P/N: 160407



ROTATION GEAR BOX
P/N: 160407

ITEM	QTY	PART NO.	DESCRIPTION
1	1	480240000	ADAPTER
2	1	480241000	BUSHING
3	1	480242000	CAP BEARING
4	1	480243000	COVER
5	1	480244000	GEAR R.H.
6	1	480237000	HOUSING GEAR
7	2	480246000	KEY
8	1	480247000	SHAFT OUTPUT
9	1	480248000	WASHER THRUST
10	1	480249000	WORM R.H.
11	1	480251000	BEARING BALL
12	1	480252000	BEARING NEEDLE
13	1	480253000	BEARING NEEDLE
14	1	480254000	BEARING THRUST
15	1	480255000	COVER
16	6	007400000	SCREW HX HD 5/16 NC X 1
17	8	480238000	SCREW HX HD 5/16 NC X 1 1/4 (NYLOK HVY PATCH)
18	2	011508000	SCREW HX HD 1/2 NC X 3/4
19	6	480256000	SCREW SOC HD 5/16 NC X 1
20	6	480258000	WASHER LK 5/16 MED SECT
21	1	480259000	ELL 90 DEG
22	2	480260000	GASKET
23	1	480250000	GASKET
24	1	480262000	FITTING RELIEF
25	1	480239000	O-RING
26	1	480263000	REDUCER
27	2	480264000	PLUG PIPE
28	4	480265000	PIN DOWEL
29	1	480266000	SEAL OIL
30	2	480268000	WASER THRUST
31	1	480269000	PLUG, EXPANSION

HOIST ASSEMBLY
P/N 160370



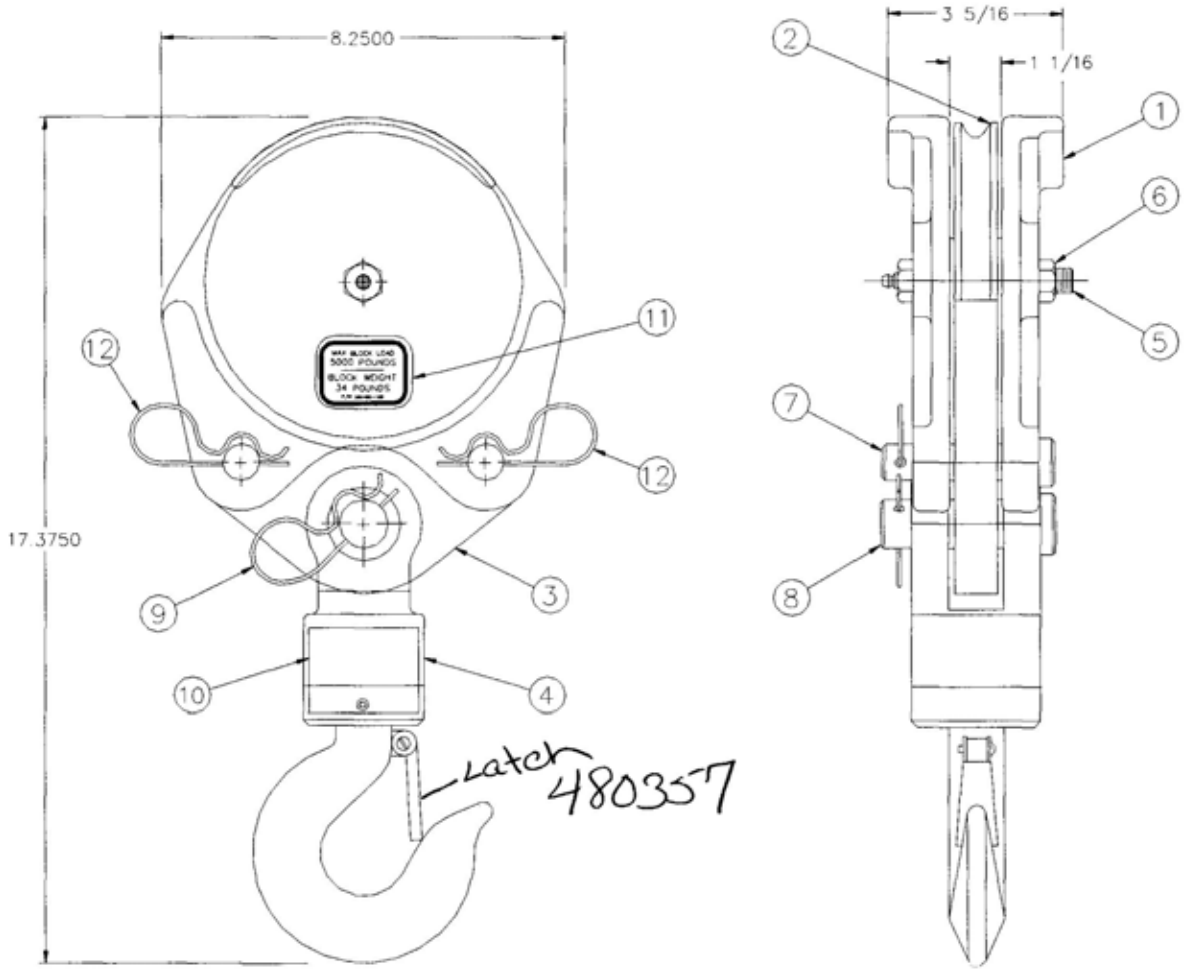
HOIST ASSEMBLY
P/N 160370

ITEM NO.	QTY.	PART NO.	DESCRIPTION
1	1	360467	SOLENOID ASSEMBLY, 12V
2	1	360367	SPRING, FLAT
3	1	360331	PLATE, CAM
4	1	300042	COVER, SPUR GEAR HOUSING
5	1	360450	COVER, BRAKE
6	1	360458	COVER, WORM GEAR HOUSING
7	1	300043	GEAR, IDLER
8	2	300044	GEAR, SPUR
9	1	300046	GEAR, PINION
10	1	300060	GEAR, WORM, RH
11	1	360336	HOUSING, BRAKE
12	1	300047	HOUSING, SPUR GEAR
13	1	360461	HOUSING, GEAR
14	1	360339	HUB, BRAKE
15	1	300049	KEY, SQ. END
16	1	360341	KEY, RD. END
17	1	300050	KEY, SQ. END
18	1	360342	PLATE, RETAINER
19	1	300053	SHAFT, SPUR
20	1	360556	SHAFT, OUTPUT
21	1	360558	WORM, RH 46:1
22	2	360345	BALL
23	3	300056	BEARING, NEEDLE
24	2	300057	BEARING, BALL
25	1	360462	BUSHING, COVER
26	1	360348	BUSHING, HOUSING
27	6	360453	SCREW, 1/4-20 X 1", HEX HD, ZINC PL, GR5, NYLOK HVY
28	17	005500	SCREW, 1/4-20 X 3/4", HEX HD, GR5
29	3	005604	SCREW, 1/4-20 X 1", HEX HD, ZINC PL, GR5
30	1	360456	SCREW, 3/8-16 X 1 1/2", HEX HD, ZINC PL, GR5, ALL-THD
31	4	360463	SCREW, 1/4-20 X 7/8", HEX-SOC, BUTTON HD
32	4	320310	SCREW, 1/4-20 X 1", HEX-SOC, LOC-WEL
33	2	005610	SCREW, 1/4-20 X 3/4", SOC HD, ZP
34	1	300061	SET SCREW
35	1	360353	NUT, JAM, 3/8-16

HOIST ASSEMBLY
P/N 160370

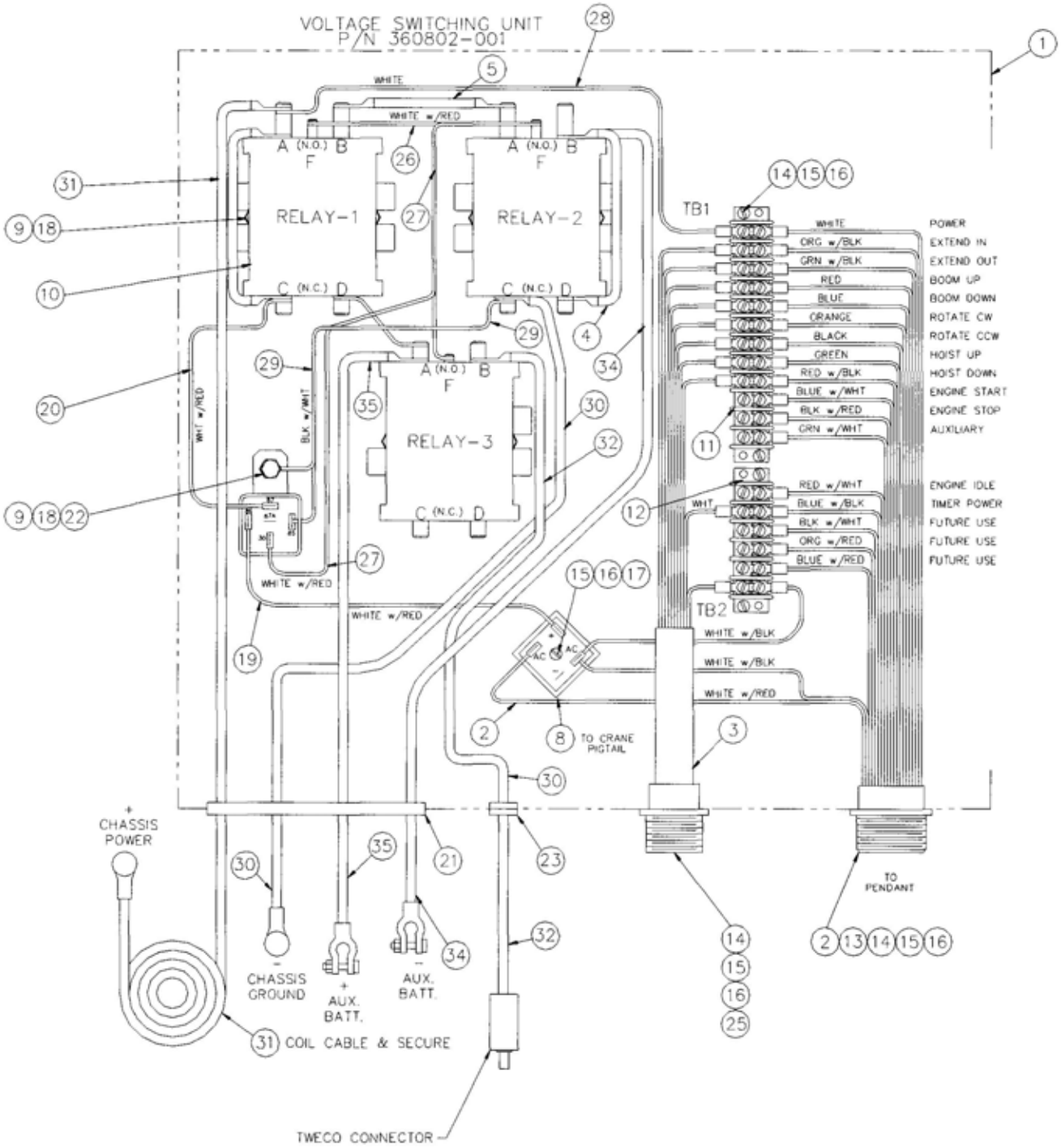
ITEM NO.	QTY.	PART NO.	DESCRIPTION
36	3	071012	NUT, 3/8-24, HEX REG, ZP
37	5	360455	WASHER, 1/4 FLAT ALUM
38	3	021100	LOCK WASHER
39	1	320314	ELBOW, 90 DEG
40	2	300062	GASKET
41	1	300063	GASKET
42	1	360359	GASKET
43	1	360459	GASKET
44	1	360065	KEY, WOODRUFF
45	4	360454	KEY, BARTH
46	2	300066	FITTING, RELIEF
47	1	360807-005	MOTOR, 24V
48	1	300068	O-RING
49	2	300069	REDUCER
50	2	360362	PLUG, PIPE, SQ-HD
51	2	320382	PLUG, PIPE, SOC-HD
52	1	300073	PLUG, PIPE, SOC-HD
53	2	300075	PIN
54	1	360468	COVER, SOLENOID
55	1	360364	PLATE, THRUST
56	1	360469	BOOT, RUBBER
57	1	300076	SEAL, OIL
58	1	300077	SEAL, OIL
59	1	300078	SEAL, OIL
60	1	360371	SEAL, THREAD
61	4	360465	SEAL, THREAD
62	1	300079	SNAP RING
63	1	360368	SPRING
64	3	300080	WASHER, THRUST
65	1	300081	WASHER, THRUST
66	1	300082	WASHER, FIBER
67	1	360466	WASHER, THRUST

TRAVELING BLOCK ASSEMBLY P/N 360480

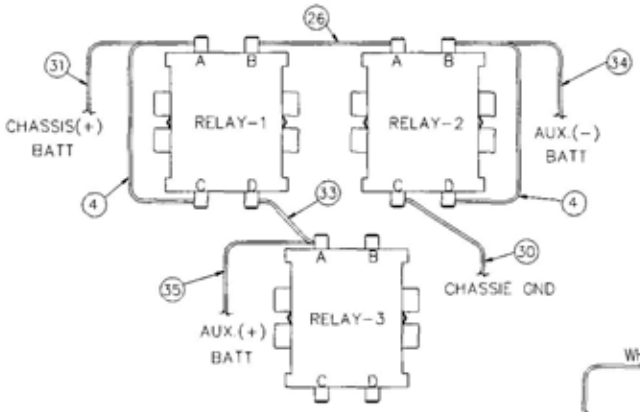


ITEM	QTY	PART NO.	DESCRIPTION
1	2	480362	SIDE PLATE, TRVLG BLOCK, MACHINED
2	1	480130	SHEAVE ASSEMBLY
3	1	480364	TACKLE, LOWER
4	1	480371	HOOK, SWIVEL, 3 TON
5	1	480372	BOLT, SHEAVE W/ZERK
6	1	017800	NUT, HEX, LOCK, 1/2-20 NF
7	2	480367	PIN, BLOCK
8	1	480368	PIN, SWIVEL HOOK
9	3	360124	PIN, HITCH HAIR PIN
10	2	040518	DECAL, DANGER STAY CLEAR/LOAD
11	2	360480-100	DECAL, MAX LOAD
12	2	366813	PIN, HITCH CLIP

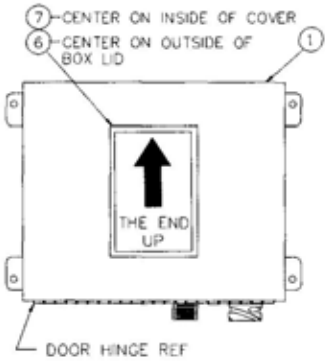
ELECTRICAL SCHEMATIC
6006EH

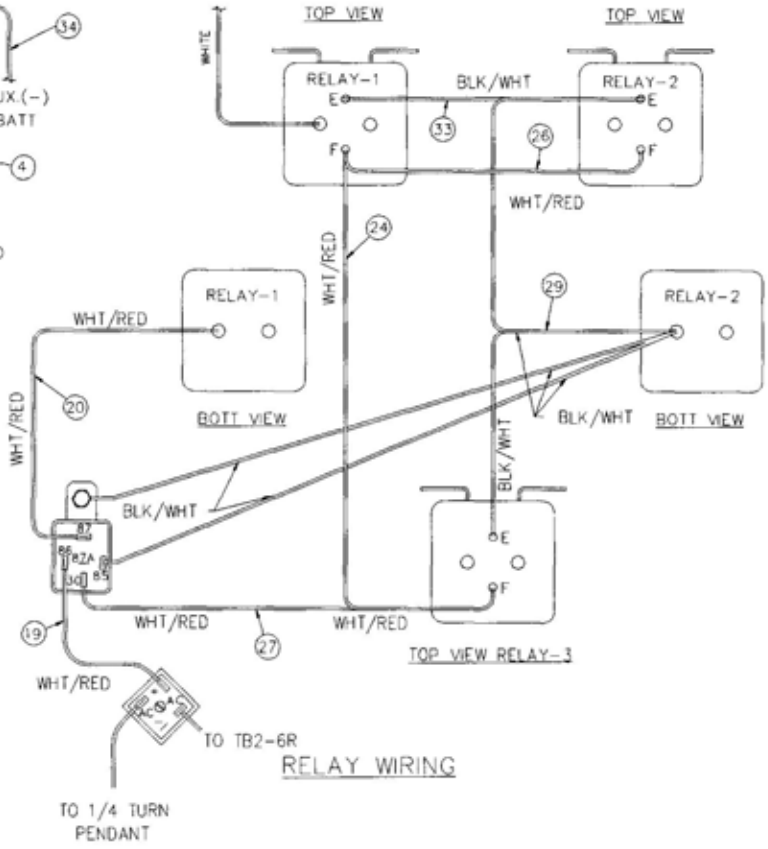


ELECTRICAL SCHEMATIC
6006EH



POWER WIRING

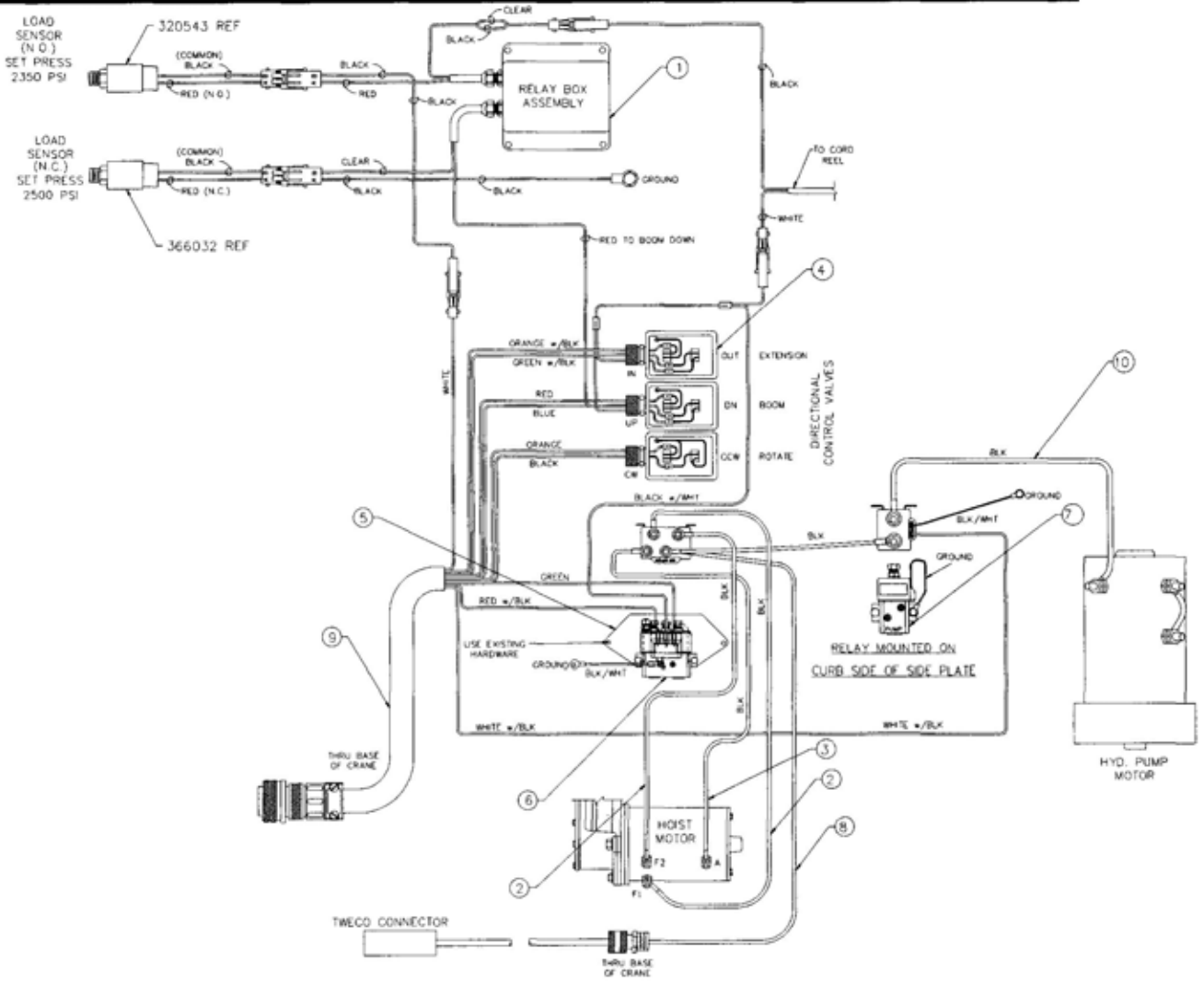




ELECTRICAL SCHEMATIC
6006EH

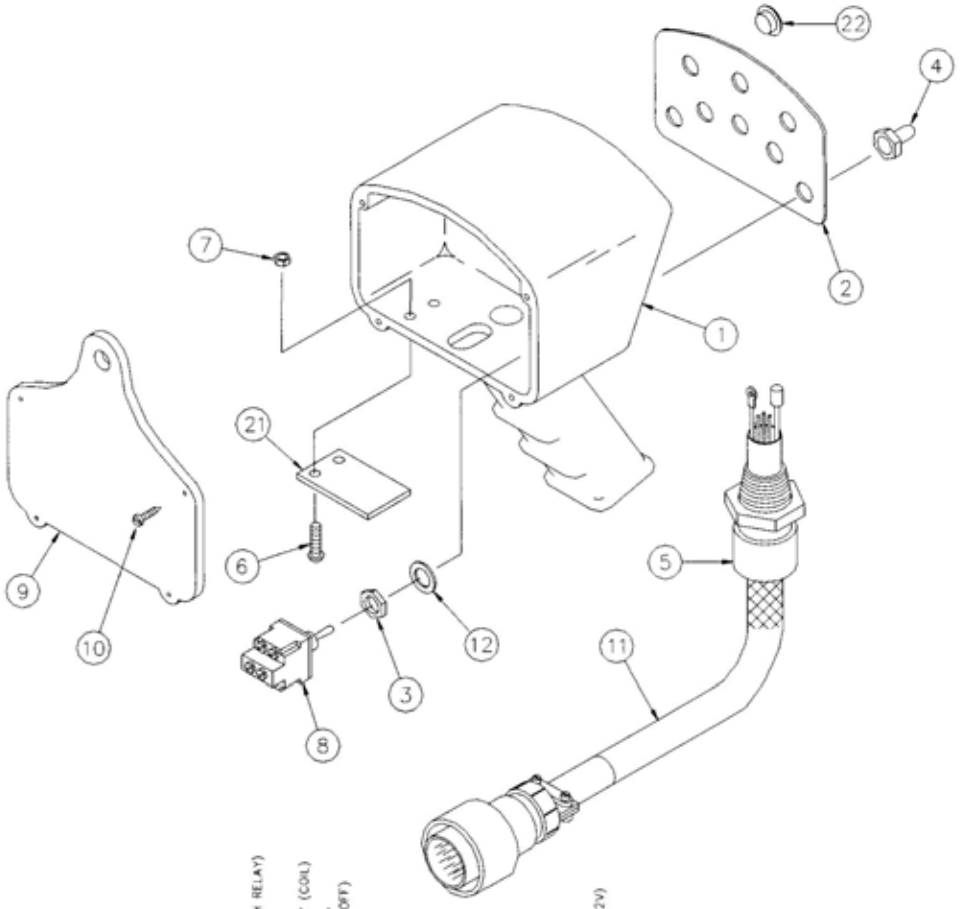
ITEM NO.	QTY.	PART NO.	DESCRIPTION
1	1	360832	ENCLOSURE ASSY W/MODIFICATIONS
2	1	680081	RECEPTACLE ASSY, BAYONET
3	1	360834	POWER CABLE RECEPTACLE ASSY
4	3	360859-001	COND CABLE ASSY, 4 3/4 IN
5	1	360859-002	COND CABLE ASSY, 5 3/4 IN
6	1	367242-001	DECAL, THIS END UP
7	1	360837	DECAL, VSU WIRING DIAGRAM
8	1	751138	RECTIFIER BRIDGE, 25 AMP
9	7	736272	NUT-INSERT 1/4-20
10	3	404167	SOLENOID, SEALED
11	1	635200	TERM BLOCK, 12 STATION
12	1	635203	TERM BLOCK, 6 STATION
13	1	366097	CAP, RECEPTACLE
14	8	000404	SCREW, RS HD, #6-32 X 5/8
15	9	015400	NUT, HEX, #6-32
16	9	019600	WASHER, SP LK #6
17	1	000602	SCREW, RD HD, #6-32 X 1/2
18	7	360493	WHEZ SCREW, HX HD, 1/4-20 X 1/2
19	1	360868	COND CABLE ASSY, 9 IN
20	1	360871	COND CABLE ASSY, 6 IN
21	1	750282	GROMMET
22	1	320355	RELAY DROP PUT
23	1	750169	GROMMET
24	1	360873-001	COND CABLE ASSY, 8 IN
25	1	360879	CAP PLUG, 10 PIN RECEPTACLE
26	1	360873	COND CABLE ASSY, 6 IN
27	1	360841	COND CABLE ASSY, 7 1/2 IN
28	1	360877	COND CABLE ASSY, 11 IN
29	2	360876	COND CABLE ASSY, 6 IN
30	1	360859	COND CABLE ASSY, 8 FEET 8 IN
31	1	360858	COND CABLE ASSY, 26 FEET
32	1	360844-002	COND CABLE ASSY, W/MALE TWECO
33	1	360845	COND CABLE ASSY, 6 IN
34	2	360853	BATTERY CABLE (NEG)
35	1	360853-001	BATTERY CABLE (POS)

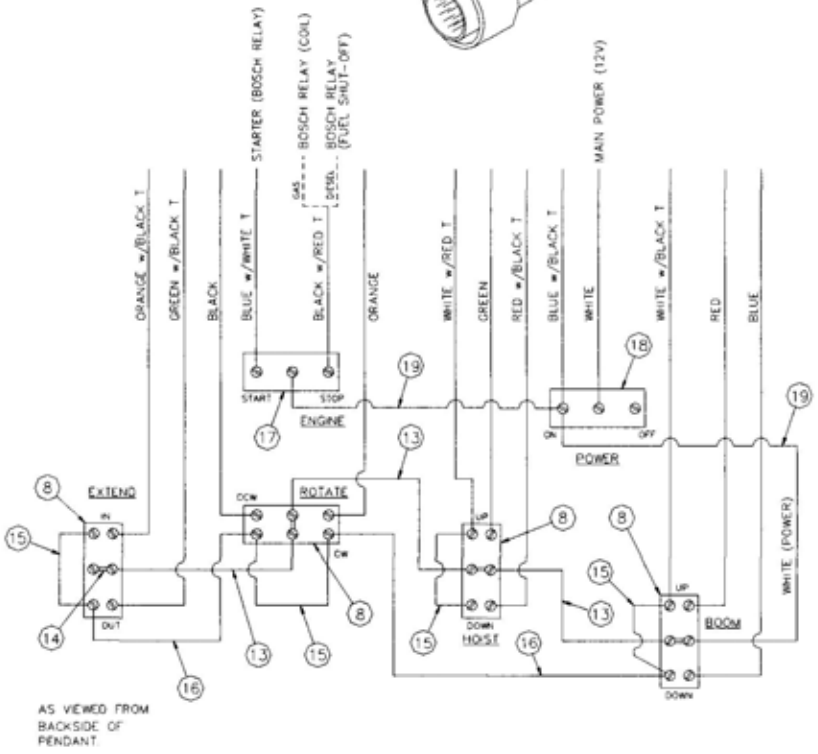
ELECTRICAL SCHEMATIC
6006EH



ITEM NO.	QTY	PART NO	DESCRIPTION
1	1	366999	RELAY BOX ASSEMBLY
2	2	360859-006	CABLE ASSY, 4 GA, BLACK
3	1	360859-007	CABLE ASSY, 4 GA, BLACK
4	3	300204	DIRECTIONAL CONTROL VALVE
5	1	360471-001	BRACKET, RELAY
6	1	320589	RELAY, DOUBLE SEALED
7	1	320584	RELAY, SINGLE SEALED
8	1	360844-001	CONDUCTOR ASSY, W/TWECO
9	1	360857	POWER CABLE PLUG ASSY
10	1	360859-005	CABLE ASSY, 4 GA, BLACK

PENDANT ASSEMBLY
P/N 680050

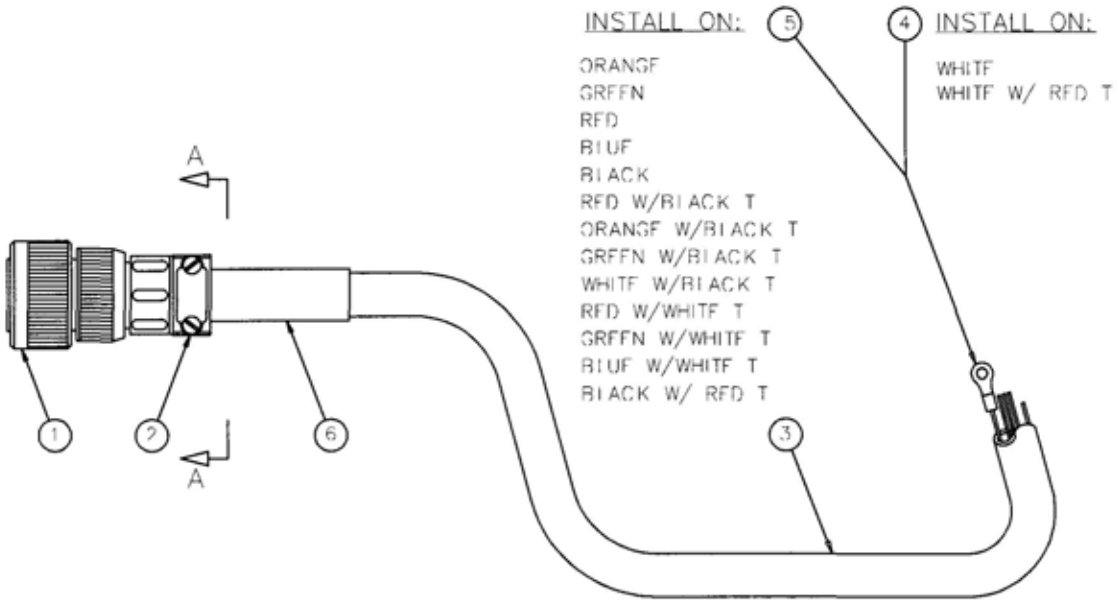




PENDANT ASSEMBLY
P/N 680050

ITEM NO.	QTY.	PART NO.	DESCRIPTION
1	1	480501	HOUSING, PROP. PEND MACH
2	1	480518	DECAL/COVER PLATE
3	6	REF	NUT (SWITCH)
4	6	640300	BOOT, TOGGLE
5	1	480567	CORD GRIP, HUBBEL CONNECTOR
6	2	002607	SCREW, HX HD #10-24 NC X 3/4 LG
7	2	015801	NUT, HEX, LOCKING, #10-24 NC
8	4	634200	SWITCH, TOGGLE DPDT
9	1	480504	BACK PLATE, HOUSING
10	4	001004	SCREW, PAN HD, #6-32 X 3/4 LG
11	1	680041	CABLE ASSEMBLY, BAYONET
12	8	REF	WASHER, LOCK (INCLUDED WITH SWITCH)
13	3	660302	CONDUCTOR ASSEMBLY
14	4	636600	JUMPER
15	4	622346	CONDUCTOR ASSEMBLY
16	3	622347	CONDUCTOR ASSEMBLY
17	1	622000	SWITCH, TOGGLE SPDT
18	1	750090	SWITCH, TOGGLE ON/OFF
19	1	480526	CONDUCTOR ASSEMBLY
20	2	750737	TIE, CABLE
21	1	480598	COVER, TRIGGER OPENING
22	2	360847	PLUG, PLASTIC 1/2"

PENDANT CABLE ASSEMBLY
P/N 680041



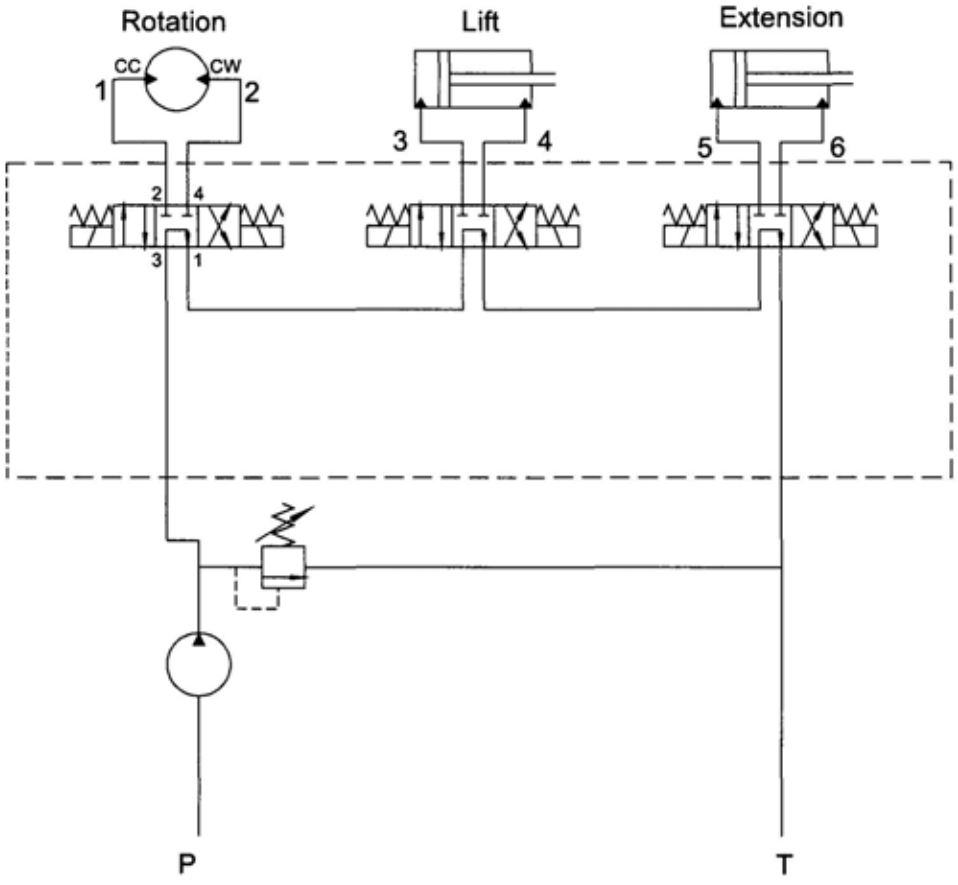
VIEW A–A

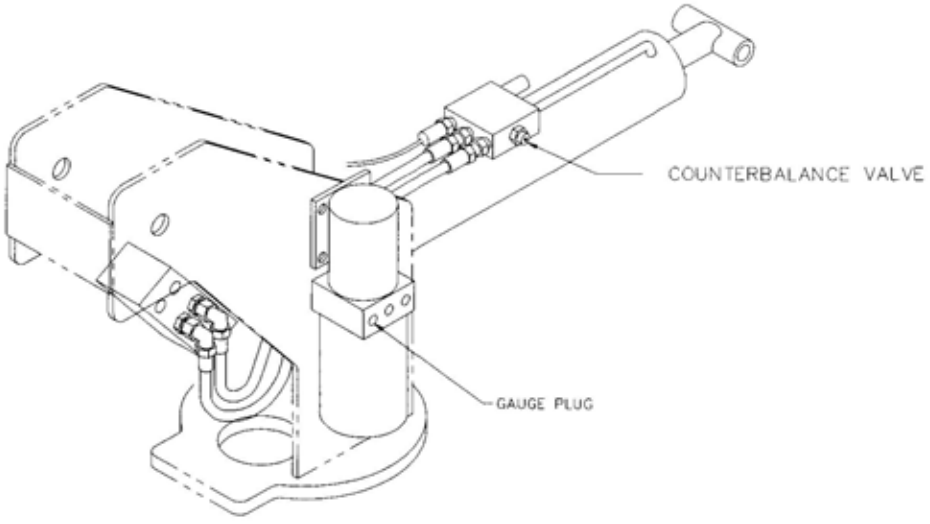
WIRING GUIDE

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
I–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	PART NO.	DESCRIPTION
1	1	366098	PLUG, CONNECTOR
2	1	480515	CLAMP, CABLE
3	30'	480594	CABLE, CONDUCTOR (19 COND)
4	2	000101	TERMINAL RING #6 / 14-16 GA
5	13	002012	TERMINAL RING #6 / 18-22 GA
6	6"	490243	TUBING, HEAT SHRINK

HYDRAULICS
6006EH





HYDRAULICS
6006EH

Counterbalance Valve Adjustment

- **With the pump system disengaged and boom properly supported, remove the gauge plug on the hydraulic pump. Install a pressure gauge (0-2500 PSI) into the port.**
- **With no load on boom, boom up to an angle of 70 degrees. Boom down and note pressure. If pressure reading is not approximately 1050 PSI, the counterbalance valve requires adjustment.**
  - **To increase the CB valve setting, loosen nut and turn Allen head screw counter clockwise.**
  - **To reduce the CB valve setting, loosen nut and turn Allen head screw clockwise.**
- **Tighten nut on adjustment screw and repeat procedure if needed to obtain the proper pressure setting.**
- **Disengage pump system, remove the pressure gauge and install plug. Crane is now ready for operation.**

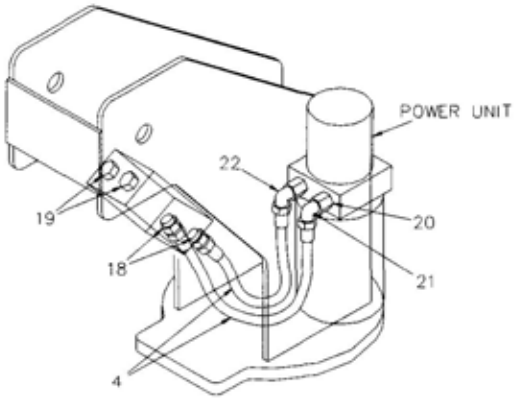
Notice:

- **In an EMERGENCY situation when it becomes necessary to lower the boom without flow present, the CB valve adjustment can be turned in until the boom begins to descend. Make sure the boom will lower onto a proper support. Loosen the lock nut and carefully turn adjustment screw clockwise! Count the number of turns. *Turn slowly until the boom just begins to lower, and remove hand/arm/fingers from cranes while boom is lowering.***
- **Turning adjustment screw too far will cause valve to come apart on the inside. This condition is not repairable**
- **After boom is lowered, turn adjustment screw counter clockwise the approximate number of turns made during lowering procedure. After the problem is corrected, readjust the counterbalance valve using the procedure in this manual.**

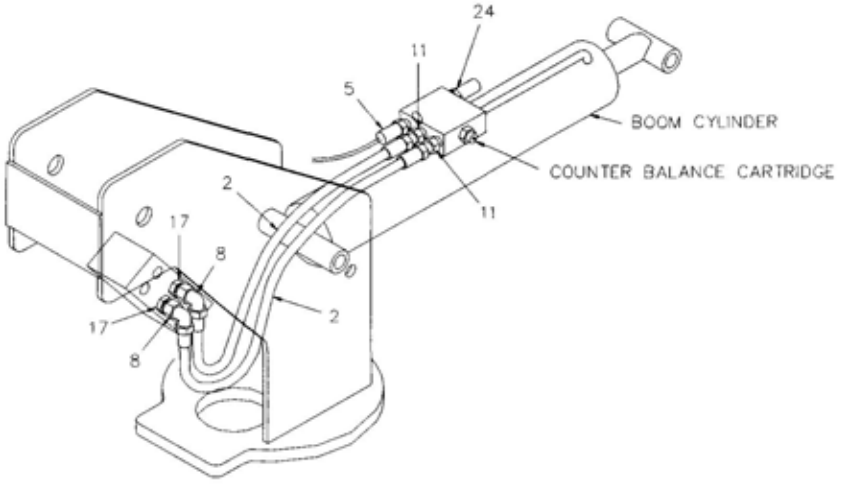
WARNING:

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

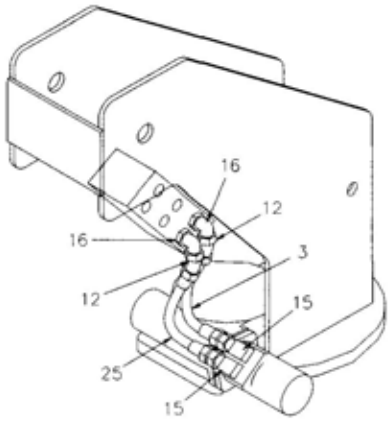
HYDRAULIC ASSEMBLY
6006EH



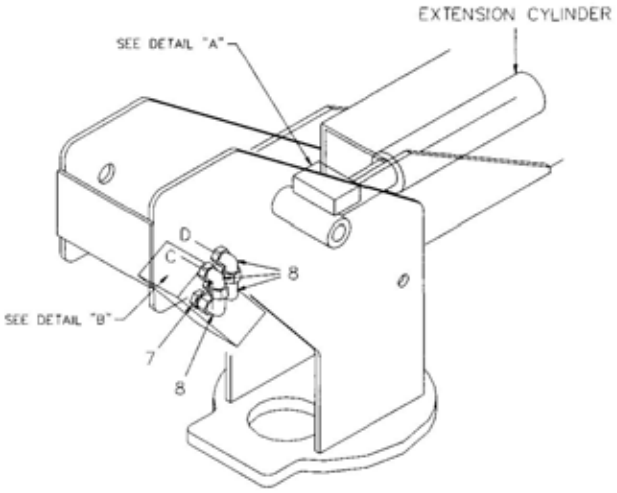
POWER UNIT



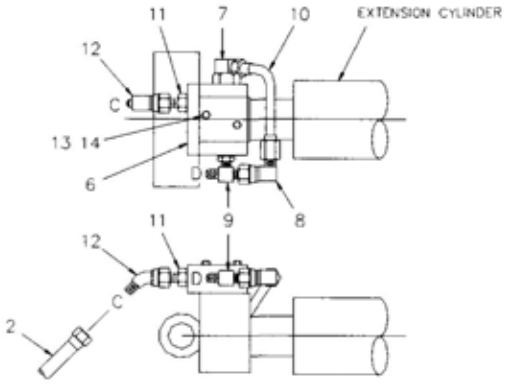
BOOM UP
(MIDDLE SPOOL)



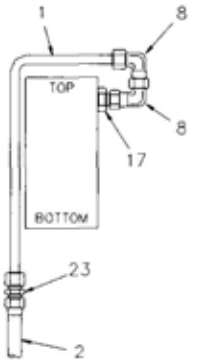
ROTATION
(BOTTOM SPOOL)



EXTENSION
(TOP SPOOL)



DETAIL "A"

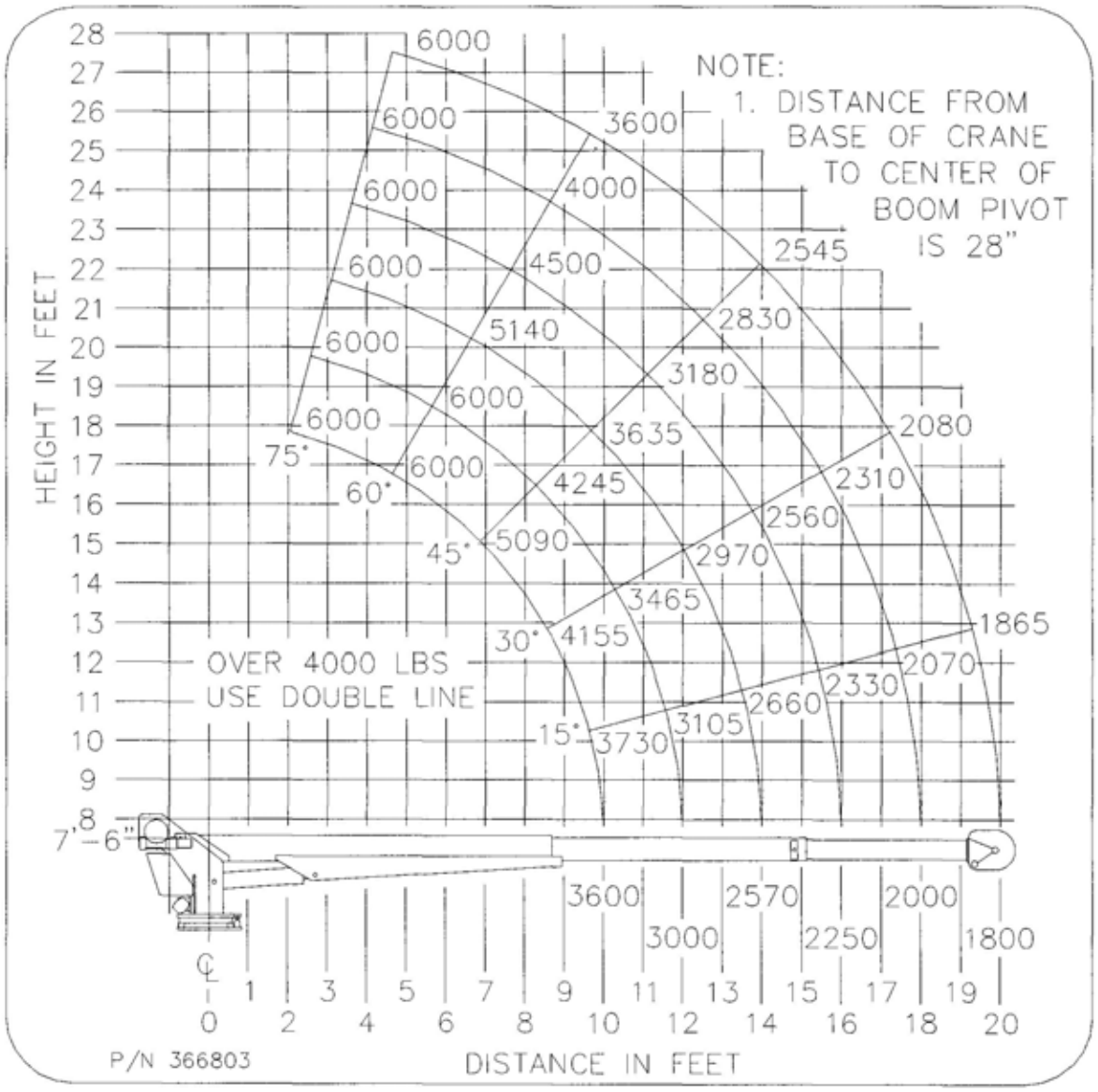


DETAIL "B"

HYDRAULIC ASSEMBLY
6006EH

ITEM NO.	QTY.	PART NO.	DESCRIPTION
1	2	320489	TUBE ASSEMBLY
2	2	480208	HOSE ASSEMBLY
3	1	812203-013	HOSE ASSEMBLY
4	2	360573	HOSE ASSEMBLY
5	1	320543	LOAD SENSOR (2350 N.O.)
6	1	330412	VALVE, COUNTERBALANCE
7	1	200892	ELL, 90°, -6 NPT/-6 JIC
8	7	480194	ELL, 90°, -6 JIC SWIVEL/-6 JIC
9	1	241168	TEE, -6 ORB/-6 JIC RUN
10	1	480212	TUBE ASSEMBLY
11	3	200876	ADAPTER, -6 ORB/-6 JIC
12	3	330647	ELL, 45°, -6 JIC SWIVEL
13	2	005810	SCREW, HEX HD, 1/4 NC X 1 3/4
14	2	020200	WASHER, SP LK, 1/4
15	2	202759	ELL, 90°, -8 NPT/-6 JIC
16	2	330272	ELL, 90°, -8 ORB/-6 JIC
17	4	202756	ADAPTER, -8 ORB/-6 JIC
18	2	202755	ADAPTER, -10 ORB/-6 JIC
19	2	330072	PLUG, HEX HD, -10 ORB
20	1	320336-002	RETURN PORT PLUG
21	1	241175	ELL, 90°, -6 ORB/-6 JIC
22	1	330645	ELL, 90°, -6 ORB/-6 JIC, EXTRA LONG
23	2	241170	UNION, -6 JIC
24	1	366032	LOAD SENSOR (2500 N.C.)
25	1	812203-014	HOSE ASSEMBLY

LOAD CHART
6006EH



P.O. Box 580697 * Tulsa, OK 74158-0697
4707 N. Mingo Rd. * Phone (918) 836-0463

LIMITED WARRANTY
1 YEAR PARTS AND LABOR

Auto Crane will warranty to the consumer for a period of (1) year parts and labor from the date of purchase. Each new Auto Crane unit they sell 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, date of sale of product as substantiated by Distributor Delivery Report, or a Bill of Sale. Which must be submitted with warranty claim.

The obligation of Auto Crane under this warranty is limited to the replacement or repair of parts that appear to the manufacturer after review and/or inspection to be defective and paid flat rate labor for replacing defective parts. This warranty does not obligate Auto Crane to bear the travel time 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 these 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, it being subject to the warranties of their respective manufacturers.

If field service, at the request of the distributor, is rendered and fault is found not to be with Auto Crane's product, the distributor shall pay the time and expense of the field representative.

Claims for service labor or other expenses that have incurred by the buyer without approval or authorization or Auto Crane will not be accepted.

When applying for warranty, claims may be handled by contacting your nearest authorized Auto Crane Distributor. All claims are to be filed in writing on an Auto Crane Warranty Claim Form.

AUTO CRANE COMPANY IS UNDER NO OLIGATION TO EXTEND THIS WARRANTY TO ANY CUSTOMER FOR WHICH AN AUTO CRANE DELIVERY REPORT FORM HAS NOT BEEN COMPLETED AND ON FILE WITH AUTO CRANE COMPANY