

PARTS LIST MANUAL

J&M MODEL 760

EARTH AUGER

WITH MODEL 108 POWER UNIT

Serial Numbers: 600001 & Above



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OM-760-0599



PREFACE

This manual was prepared to acquaint the owner, operator and serviceman with the construction and servicing of the J&MModel 760 Earth Auger. We strongly suggest that this manual be studied carefully and understood by all personnel involved in operating or performing maintenance work on the auger. J&M equipment is engineered to provide reliable operation and a long service life under normal operating conditions. Equipment reliability and service life can be improved by following the maintenance procedures in this manual.



WARRANTY

J&M FOUNDATION EQUIPMENT STANDARD WARRANTY

J&M Foundation Equipment (J&M) warrants new products sold by it to be free from defects in material or workmanship for a period of 90 days after date of delivery to the first user and subject to the following conditions:

J&M's obligation and liability under this WARRANTY is expressly limited to repairing or replacing, at J&M's option, any parts which appear to J&M, upon inspection, to have been defective in material or workmanship. Such parts shall be provided at no cost to the user, at the business establishment of J&Mor the authorized J&M distributor of the product, during regular working hours. This WARRANTY shall not apply to component parts or accessories of products not manufactured by J&M and which may carry the warranty of the manufacturer thereof, or to normal maintenance (such as engine tune-up) or to normal maintenance parts (such as oil filters). Replacement or repair parts installed in the product covered by this WARRANTY are warranted only for the remainder of the warranty, as if such parts were original components of said product. J&M COMPANY MAKES NO OTHER WARRANTY, EXPRESS OR IMPLIED, AND MAKES NO WARRANTY OF MERCHANTABILITY OR FITNESS, FOR ANY PARTICULAR PURPOSE.

J&M's obligation under this WARRANTY shall not include any transportation charges, cost of installation, duty, taxes or any other charges whatsoever, or any liability for direct, indirect, incidental, or consequential damage of delay. If requested by J&M, products or parts for which a warranty claim is made are to be returned, transportation prepaid to J&M. Any improper use, including operation after discovery of defective of worn parts, operation beyond rated capacity, substitution of parts not approved by J&Mor any alteration or repair by others in such manner as in J&Ms judgment affects the product materially and adversely, shall void this WARRANTY.

NO EMPLOYEE OR REPRESENTATIVE IS AUTHORIZED TO CHANGE THIS WARRANTY IN ANY WAY OR GRANT ANY OTHER WARRANTY UNLESS SUCH CHANGE IS MADE IN WRITING AND SIGNED BY AN OFFICER OFJ&M.



SAFETY PRECAUTIONS

Safety is basically common sense. There are standard safety rules, but each situation has its own peculiarities which can not always be covered by rules. Therefore, your experience and common sense will be your best guide to safety. Be ever watchful for safety hazards and correct deficiencies promptly.

Use the following safety precautions as a general guide to safe operations:

- 1. Read this manual thoroughly before operating or working on the equipment.
- Read and follow any safety instructions in the CATERPILLAR engine operators manual.
- Only well trained and experienced personnel should attempt to operate or maintain this equipment.
- Never adjust, lubricate or repair the unit when it is in operation, or lifted above ground level.
- Never remove, paint over or cover warning or safety labels. If labels become damaged or unreadable, replace immediately.
- All personnel should wear approved safety clothing, including HARD HATS, SAFETY SHOES, SAFETY GLASSES and HEARING PROTECTION when in the vicinity of this machinery.
- Do not stand any closer to this equipment than necessary when it is in operation.
 Parts may loosen and fall. Dirt and rocks may fall from flighting. Parts may loosen and fall. Never stand under operating, or elevated, equipment.
- When maintaining or repairing the equipment, never substitute parts not supplied, or approved in writing, by J&M
- Do not weld, or flame cut, on this equipment.
- 10. Never use or store flammable liquids on or near the engine.
- Insure that all lifting equipment, including cranes, wire rope, slings, hooks, shackles, etc., are properly sized for the worst case loads anticipated during operations.
- If there are any questions about the weights, specifications, or performance of the unit, contact J&Mbefore handling or operating the equipment.
- If the equipment is to be used for anything other than drilling plumb holes, contact J&Mbefore using the unit.
- 14. Check wire rope clips for tightness, and check wire ropes for wear, daily.
- Insure that ground vibrations will not damage or collapse adjacent structures or excavations.
- Remove all tools, parts and electrical cords before starting the unit.
- When operating in an enclosed area, pipe exhaust fumes outside. Continued breathing of exhaust fumes may be fatal.
- 18. When servicing batteries, do not smoke or use open flames in the vicinity. Batteries generate explosive gas during charging. There must be proper ventilation when charging batteries.
- 19. When filling fuel tank, do not smoke or use open flame in the vicinity.
- If abnormal equipment operation is observed, discontinue use immediately and correct the problem. Do not leave the equipment control pendant (radio control) unattended.

SAFETY PRECAUTIONS (CONTINUED)

- 21. Store oily rags in approved containers, and away from engine exhaust system.
- 22. Make sure that the auger rotation switch is in NEUTRAL before starting the power unit engine.
- Do not adjust, or set, hydraulic pressures higher or lower than those specified in this manual.
- 24. Never operate this equipment with hydraulic hoses that are damaged or "kinked". Replace damaged hoses immediately.
- 25. Do not lift, or support, hydraulic hoses with wire rope slings.
- 26. Never attempt to connect quick disconnects when the power unit is running.
- 27. Do not pull on, or attempt to move equipment, with hydraulic hoses.
- 28. Do not attempt to locate hydraulic leaks with your hands. High pressure hydraulic leaks can penetrate the skin, causing severe damage, blood poisoning and infection. Do not attempt to repair leaks while the equipment is in operation.
- Do not attempt to tighten, or loosen, fittings or hoses when the machine is in operation.
- 30. Power unit must always be placed on level, stable, ground.
- Do not remove power unit heat shields, or operate power unit without heat shields. Severe fires may result.
- 32. A properly maintained fire extinguisher, suitable for oil fires, must be kept in the immediate vicinity of equipment operations.
- 33. When moving or transporting this equipment, insure that the vehicle or vessel is of sufficient capacity to handle the load, and that the equipment is properly tied down.
- 34. When moving or transporting this equipment, be sure that quick disconnect dust caps are tight, and that cap safety cables are in place. Be sure that all equipment parts are tight, or properly secured, before shipment. Unsecured parts may vibrate loose and fall, during transport, causing injury or property damage.
- 35. Keep crane boom, flighting, leads, wire rope and other equipment at least 15' (5M) from electrical power lines, transformers and other electrical equipment, or at such distance as required by applicable safety codes.
- 36. Rounded or damaged bolt heads or nuts should be replaced so that proper torque values may be obtained. Proper torque values are necessary to prevent parts on this equipment, leads and crane boom from loosening and falling. Refer to Torque Chart, in this manual, for proper values.
- 37. Make sure that the crane and leads have sufficient capacity to handle the auger, flighting and dirt expected on the job. High down pull forces can be generated if the flighting screws itself into the ground.
- Insure that the leads are adequately secured against rotation before starting drilling operations.
- When extracting flighting from ground, check crane load/radius tables to be sure crane capacity is adequate for maximum allowable extraction pull.
- 40. When extracting flighting, or any other drilling operations, always be sure that the crane line is aligned with the centerline of the flighting. Do not side load crane boom or auger. Dangerous crane boom, or auger, damage may result.



SAFETY PRECAUTIONS (CONTINUED)

- 41. When extracting flighting, do not exceed the rated capacity of the auger.
- 42. Keep hands away from rotating flighting, auger shaft and rotary joint.
- 43. Keep hands, feet and tools well clear of flighting guides.
- 44. API flighting connectors must be secured to prevent unscrewing during reverse (ccw) rotation. Flighting may fall.
- 45. Do not allow clothing, hoses, ropes, etc. to become entangled in, or wrap around, rotating flighting, auger shaft or rotary joint.
- 46. When drilling angled or horizontal holes, insure that the leads, and crane boom, have sufficient bending strength to handle the worst case load. ConsultJ&M.

REMEMBER, SAFETY IS EVERYONE'S BUSINESS.



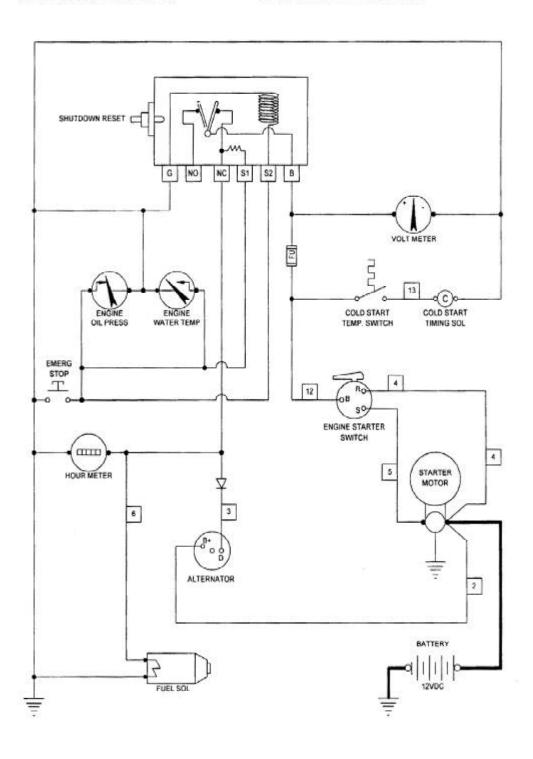
PARTS LIST

HYDRAULIC CIRCUITRY HYDRAULIC SCHEMATIC 1.25 Ø HOSE QD1 1.25¢ HOSE -QD2 4500 → GA1 .38 øHOSE -FILTER COOLER QD3 .75 øHOSE -QD4 300



ELECTRICAL CIRCUITRY

ELECTRICAL SCHEMATIC





GENERAL DATA

ABBREVIATIONS

The abbreviations shown below are used throughout the parts lists and various other parts of the manual.

ASM. Assembly

BHCS Button Head Cap Screw

Cyl. Cylinder DC Direct Current

FHCS Flat Head Cap Screw FLCS Flanged Head Cap Screw

Gr Grade HC High Collar

HHCS Hex Head Cap Screw HHPP Hex Head Pipe Plug HSSS Hex Socket Set Screw

Hyd. Hydraulic ID Inside Diameter

Lg. Long mm Millimeter Mtg. Mounting

NPT. National Pipe Thread OD Outside Diameter

PHMS Phillips Head Machine Screw

P/N Part Number Qty. Quantity

RHMS Round Head Machine Screw

Sch. Schedule

SHCS Socket Head (Allen) Cap Screw

SHPP Socket Head Pipe Plug SHSS Socket Head Shoulder Screw

S/N Serial Number Sol. Solenoid

UNF Unified National Fine thread UNC Unified National Course thread



PARTS LIST

VII. GENERAL DATA

SCREWS AND BOLTS

- Practically all connections on the unit are made with socket head (Allen) cap screws. These high-strength screws are available at most industrial supply houses.
- Screws and bolts are designated in the PARTS LIST in abbreviated form. (Refer to the previous page, for specific abbreviations). Listed below is a typical screw description:
 .50 - 13 UNC x 1.50 Lg SHCS

.50 = Diameter

13 UNC = Threads Per Inch

1.50 Lg = Length

SHCS = Screw Type Abbreviation

SERIAL NUMBER LOCATIONS

- 1. The following J&Munits are serial numbered separately:
 - a. Earth Auger
 - b. Power Unit
- In addition to the serial number plate itself, the serial number is stamped into each unit in one or more places as follows:
 - Earth Auger stamped twice on the motor mounting plate, on either side of the hydraulic motor.
 - Power unit stamed twice once on the upper side of the hydraulic oil reservoir below the control valve, once on sub-base near the battery.



ORDERING PARTS

PROCEDURE

- When ordering parts, be sure to include the model and serial number of the unit or component. Confirm all telephone orders immediately to avoid duplicating shipment.
- ORIGINAL EQUIPMENT; Where component serial numbers are given, these apply only to equipment and components originally furnished with the unit. Where equipment has been changed or upgraded these numbers may not be an adequate description.
- SHIPMENT; Specify shipping address, phone number, billing address and method of shipment. UPS and air express shipments must have street address for delivery. All shipments will be made freight collect unless instructed otherwise.
- 4. SHORTAGES; Claims for shortages, damage or errors should be made immediately upon receipt of parts. No responsibility will be assumed for delay, damage or loss of material while in transit. Broken, damaged or lost material should be refused or a full description made of damage or loss to the carrier agent on the freight or express bill.
- 5. RETURN OF PARTS; If for any reason you desire to return parts to the factory or to any distributor from whom these parts were obtained, you must first secure permission to return the parts. Shipping instructions will be given along with this permission. A fifteen percent handling charge must be assessed against the returned shipment unless an error is made by the factory or by the distributor when filling your order.

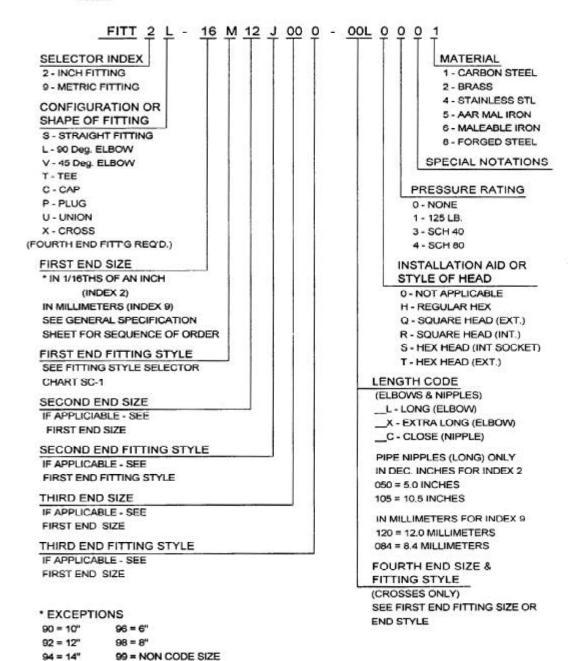


PARTS LIST

VIII. ORDERING PARTS

B. FITTING DESCRIPTION KEY

A Fitting Description code is used to describe all fittings in the Parts Identification section of this manual. The key below explains the structure of the code number in detail.





VIII. ORDERING PARTS

B. FITTING DESCRIPTION KEY (CONTINUED)

FITTING STYLE SELECTOR CHART

SC-1

FOR END FITTING STYLE SELECTION

| М | | JIC MALE 37 Deg. FLARE |
|---|------|---|
| Р | 3 | MALE PIPE NPT |
| R | | S.A.E. MALE 0-RING (& ADJUSTABLE) |
| В | | JIC MALE 37 Deg. FLARE BULKHEAD |
| D | | MALE PIPE NPT SWIVEL |
| s | 3,00 | B.S.P. MALE PIPE |

| J | | JIC FEMALE 37 Deg. FLARE (& SWIVEL) |
|----|-------|---|
| Q | - 112 | FEMALE PIPE NPTF |
| K | | S.A.E. FEMALE O-RING |
| N | | FEMALE PIPE NPSM-SWIVEL |
| F | | SPLIT FLANGE 3000 PSI. CODE 61 |
| HE | | SPLIT FLANGE 6000 PSI. CODE 62 |

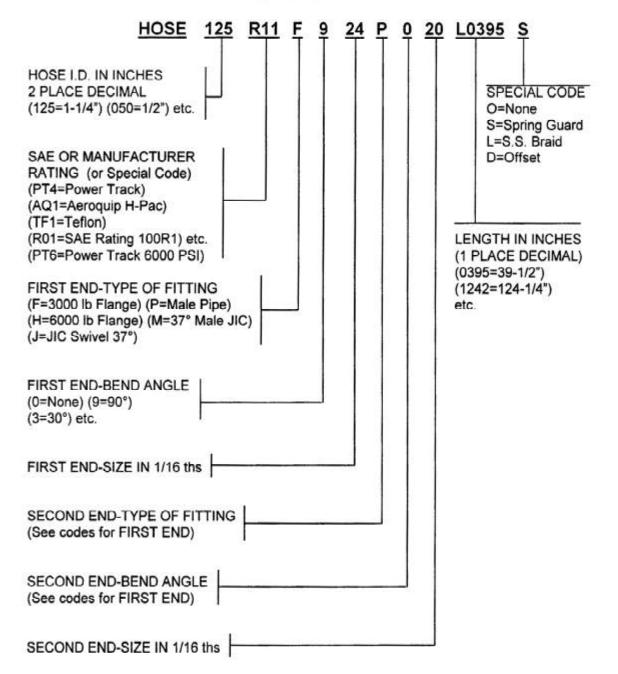


PARTS LIST

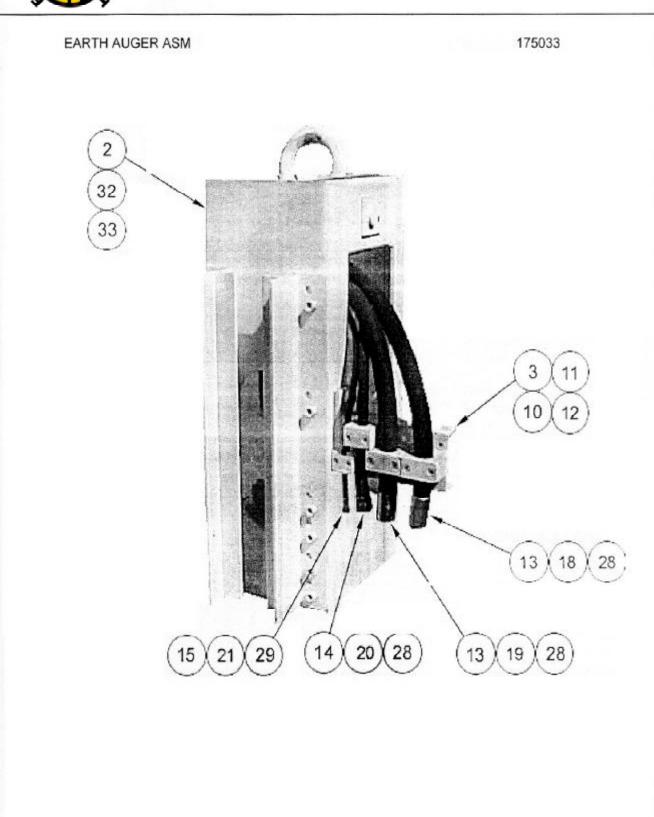
VIII. ORDERING PARTS

C. HOSE DESCRIPTION CODE

The HOSE DESCRIPTION CODE is a 24 digit number enabling easier and quicker identification whenever a hose replacement is desired. The key below explains the structure of the coded number in detail.



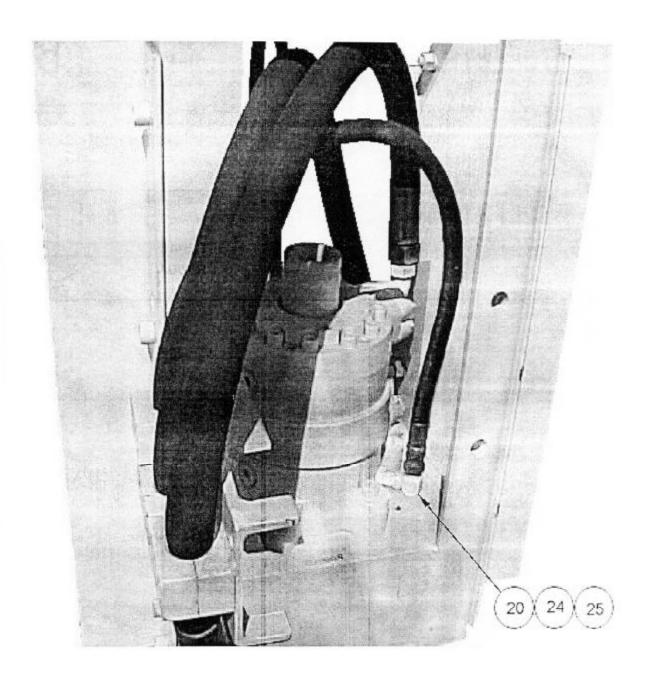




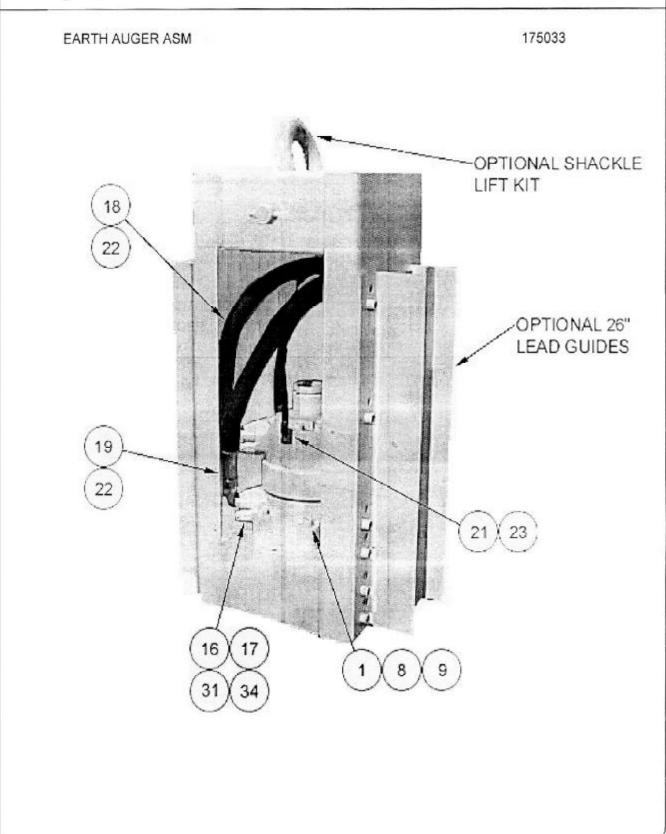


PARTS LIST

EARTH AUGER ASM



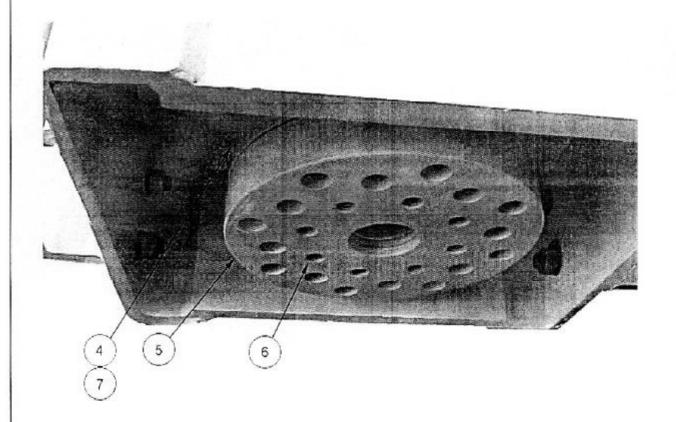






PARTS LIST

EARTH AUGER ASM





EARTH AUGER ASM

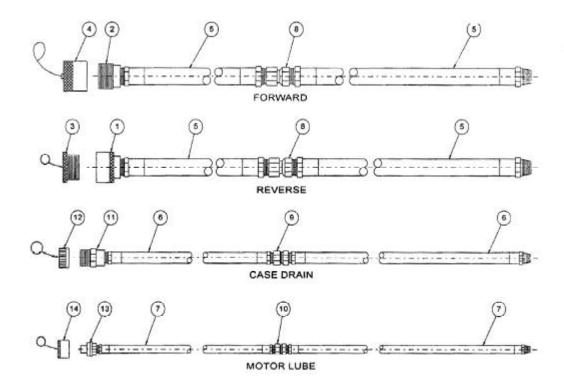
175033

| | Part | | |
|------|--------|------------------|-----------------------------------|
| Item | Number | Qty. | Description |
| 1 | 170503 | 1 | Motor Hollow Shaft |
| 2 | 170305 | 1 | Frame |
| 3 | 170317 | 1 | Hose Bracket |
| 4 | 170319 | 1 | Flange - Splined |
| 5 | 170321 | 1 | Flange - Threaded |
| 6 | 170505 | 8 | .75-10UNC X 1.00 Set Screw (Note) |
| 7 | 170325 | 1 | Flange Seal |
| 8 | 120171 | 6 | .75-10 X 4.5 Lg SHCS |
| 9 | 100782 | 6 | .75-10 Flange Nut |
| 10 | 100213 | | 1.0-8 X 2.50 Lg SHCS Loc Wel |
| 11 | 400051 | 2 | 1.0-8 Hex Nut |
| 12 | 100209 | 2 | 1.00 Lock Washer Medium |
| 13 | 100009 | 2 2 2 2 | Hose Clamp |
| 14 | 100013 | 1 | Hose Clamp |
| 15 | 100015 | 1 | Hose Clamp |
| 16 | 110243 | 4 | #24 Split Flange Half 6000 |
| 17 | 170489 | 8 | .63-11 UNC X 2.00 Lg HHCS |
| 18 | 170491 | 1 | HOSE125PT4J020P020L05700 |
| 19 | 170493 | 1 | HOSE125PT4J020P020L06100 |
| 20 | 170495 | 1 | HOSE075R01J012P012L05000 |
| 21 | 170497 | 1 | HOSE038R02J006J006L05200 |
| 22 | 110245 | 2 | FITT2L-24H20M000-000H001 |
| 23 | 170499 | 1 | FITT2L-08R06M000-0000001 |
| 24 | 170501 | 1 | FITT2S-08R12M000-0000001 |
| 25 | 100769 | 1 | FITT2L-12M12J000-000H001 |
| 26 | 170395 | 8 | .88-9 UNC X 5.50 Lg SHCS |
| 27 | 400911 | 8 | .875 Hi Collar Lock Washer |
| 28 | 100011 | 6 | .50-13 X 2.0 Lg SHCS |
| 29 | 100143 | 2 | .375-16 X 1.25 Lg SHCS Loc Wel |
| 30 | 400273 | 1 | Gasket |
| 31 | 100007 | 8 | .625 Lock Washer Medium |
| 32 | 100299 | 1 | Primer/Gal |
| 33 | 100298 | 1 | J&M Green Paint |
| 34 | 100037 | 2 | 2-222 O-Ring 90 Duro |

Note: Torque Item 6 - .75-10UNC X 1.00 Lg. Set Screw to 166 Ft-Lbs. (22.9 Kg-M).



HOSE ASSEMBLIES - INTERCONNECTING





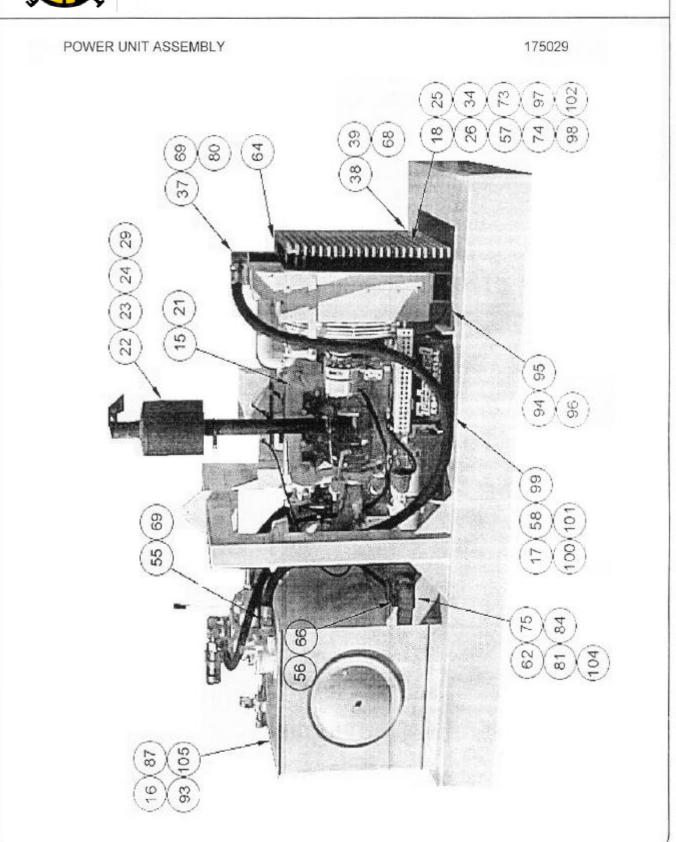
PARTS LIST

HOSE ASSEMBLIES - INTERCONNECTING

| 88 | Part | 52.65 | 529 T 12 |
|------|--------|-------|--------------------------|
| Item | Number | Qty. | Description |
| 1 | 170413 | 1 | 1.25 Female Disconnect |
| 2 | 170415 | 1 | 1.25 Male Disconnect |
| 3 | 170417 | 1 | 1.25 Dust Plug |
| 4 | 170419 | 1 | 1.25 Dust Cap |
| 5 | 100233 | 4 | HOSE125PT4P020P020L60000 |
| 6 | 140685 | 2 | HOSE100PT4P016P016L62000 |
| 7 | 100247 | 2 | HOSE038R02P006P006L62000 |
| 8 | 100235 | 2 | FITT2S-20Q20N000-000H001 |
| 9 | 140357 | 1 | FITT2S-16Q16N000-000H001 |
| 10 | 100249 | 1 | FITT2S-06Q06N000-000H001 |
| 11 | 120023 | 1 | 1" Male Disconnect |
| 12 | 120029 | 1 | 1" Dust Cap |
| 13 | 100245 | 1 | .375 Male Disconnect |
| 14 | 100257 | 1 | .375 Dust Cap |

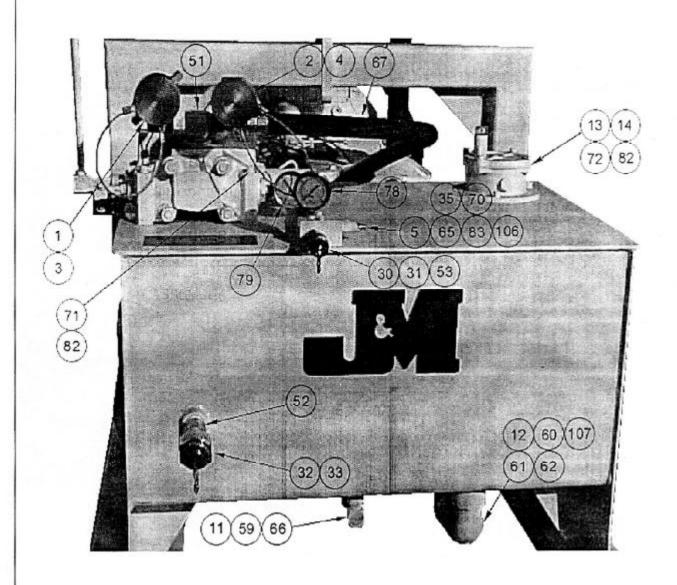


PARTS LIST



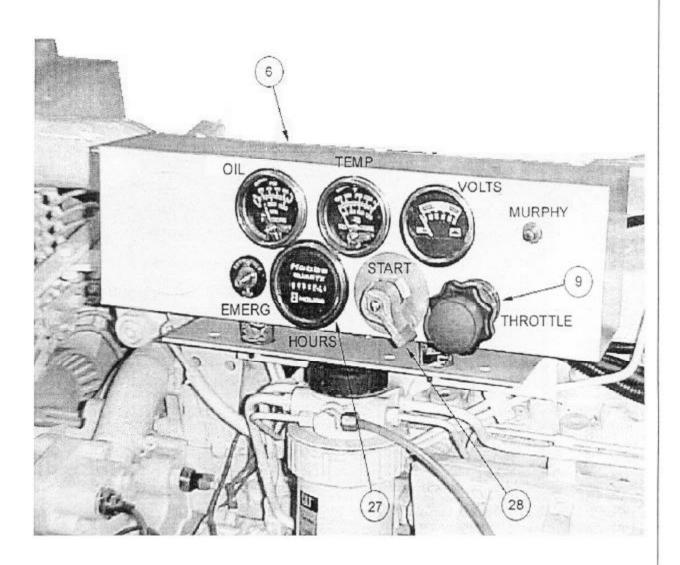


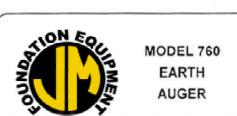
POWER UNIT ASSEMBLY



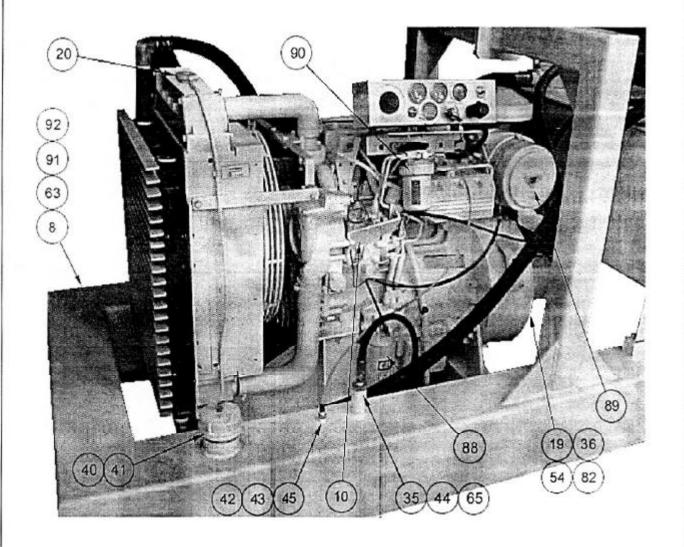


POWER UNIT ASSEMBLY



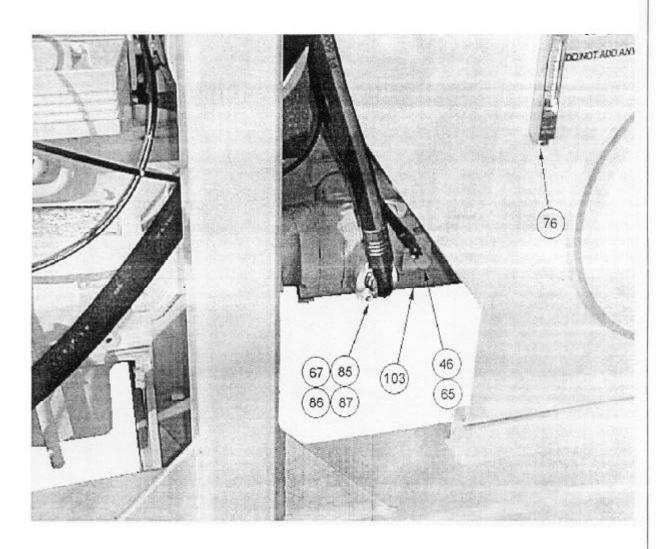


POWER UNIT ASSEMBLY



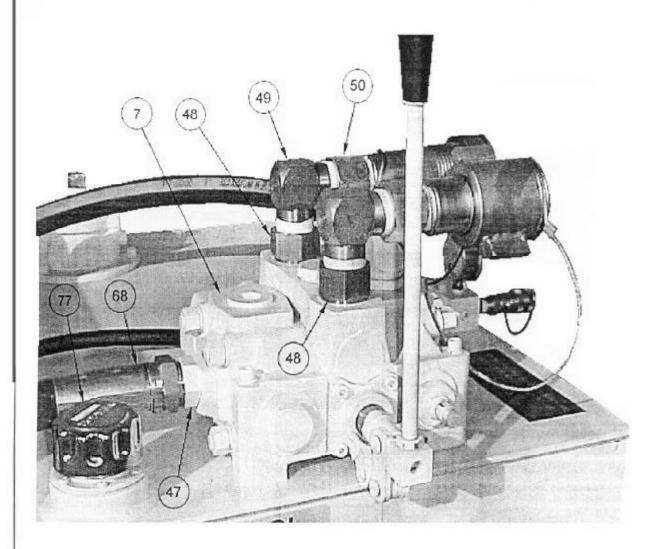


POWER UNIT ASSEMBLY





POWER UNIT ASSEMBLY





POWER UNIT ASSEMBLY

| | Part | | |
|------|--------|------|--------------------------------|
| Item | Number | Qty. | Description |
| 104 | | | |
| 1 | 170413 | 1 | 1.25 Female Disconnect |
| 2 | 170415 | 1 | 1.25 Male Disconnect |
| | 170417 | 1 | 1.25 Dust Plug |
| 4 | 170419 | 1 | 1.25 Dust Cap |
| 5 | 170421 | 1 | Relief Valve |
| 6 | 170425 | 1 | Gage Panel |
| 7 | 170423 | 1 | Manual Control Valve |
| 8 | 173009 | 1 | Sub-Base Asm |
| 9 | 170429 | 1 | Throttle Cable Asm |
| 10 | 170431 | 1 | Cable Bracket |
| 11 | 170433 | 1 | .75 Ball Valve |
| 12 | 170435 | 1 | 2.00 Ball Valve |
| 13 | 170437 | 1 | Filter Asm |
| 14 | 170439 | 1 | Filter Element |
| 15 | 400247 | 16 | Engine Oil/Quart |
| 16 | 140415 | 60 | Hydraulic Fluid / Gal |
| 17 | 400890 | 1 | Battery |
| 18 | 170441 | 1 | Heat Exchanger |
| 19 | 400259 | 1 | Pump Adapter |
| 20 | 100726 | 10 | Antifreeze / Gal |
| 21 | 170443 | 1 | Engine 3054 Dit |
| 22 | 170445 | 1 | Muffler |
| 23 | 170447 | 1 | Exhaust Pipe |
| 24 | 170449 | 1 | 2.50" Rain Cap |
| 25 | 170337 | 1 | Left Cooler Bracket |
| 26 | 170339 | 1 | Right Cooler Bracket |
| 27 | 100343 | 1 | Hourmeter |
| 28 | 130259 | i | Start Switch |
| 29 | 170451 | 1 | 2.50" Muffler Clamp |
| 30 | 100777 | 1 | .375 Female Disconnect |
| 31 | 100737 | i | .375 Dust Plug |
| 32 | 120025 | 1 | 1" Female Disconnect |
| 33 | 120027 | 4 | 1" Dust Plug |
| 34 | 170377 | i | Cooler Guard |
| 35 | 400203 | 2 | FITT2S-06M06P000-000H001 |
| 36 | 100143 | 12 | .375-16 X 1.25 Lg SHCS Loc Wel |
| 37 | 170453 | 1 | FITT2L-20M20Q000-0000001 |
| 38 | 400221 | 1 | FITT2L-20M20Q000-0000001 |
| 39 | | 1 | |
| | 130043 | 1 | FITT2L-20M20J000-000H001 |
| 40 | 100419 | 3 | Petcock |



POWER UNIT ASSEMBLY

| | Part | | |
|------|--------|-------------|-------------------------------|
| Item | Number | Qty. | Description |
| 41 | 100417 | 1 | FITT2C-48Q000000-0000306 |
| 42 | 110369 | 4 | FITT2S-06P04Q000-000H001 |
| 43 | 100337 | 1 | FITT2S-04P04E000-000H002 |
| 44 | 100715 | i | FITT2S-16P06Q000-000H001 |
| 45 | 110415 | 3 | .250 Oil Pressure Tube/Ft |
| 46 | 170455 | 1 | FITT2L-06M08R000-0000001 |
| 47 | 170457 | i | FITT2S-20M20R000-000001 |
| 48 | 170459 | | FITT2S-20M20R000-000001 |
| 49 | 170461 | 2 2 | FITT2L-20P20P000-0000001 |
| 50 | 170463 | 2 | FITT2S-20P20Q000-0000001 |
| 51 | 170465 | 1 | FITT2L-20M20R000-0000001 |
| 52 | 100449 | i | FITT2S-16P16P000-000H001 |
| 53 | 110794 | i | FITT2S-06P06P000-000H001 |
| 54 | 130933 | 8 | .38-24UNF X 1.00 Lg SHCS |
| 55 | 400185 | 1 | FITT2S-20M20P000-000H001 |
| 56 | 100590 | i | FITT2L-12M12R000-000H001 |
| 57 | | 12 | .312 Flat Washer |
| 58 | 100293 | | |
| 59 | 110755 | 2 1 | Battery Cable-15 |
| | 170475 | 1 | FITT2L-12P12P000-0000001 |
| 60 | 170477 | 2 | Flex Master 2" Pipe |
| 61 | 170467 | 2 | FITT2S-32P000000-0650301 |
| 62 | 100549 | | FITT2L-32P32Q000-0000406 |
| 63 | 100423 | 2 | FITT2P-08P000000-000S007 |
| 64 | 110055 | 100 | FITT2P-20P000000-000S007 |
| 65 | 170399 | 2 | HOSE038R02J006J006L05000 |
| 66 | 170401 | | HOSE075R01P012J012L01700 |
| 67 | 170403 | 1 | HOSE100PT4J020F920L06400 |
| 68 | 170405 | 1 | HOSE125R01J020J020L07200 |
| 69 | 170407 | 1 | HOSE125R01J020J020L09600 |
| 70 | 140773 | 2 3 3 | .25-20UNC X 2.38 Lg SHCS |
| 71 | 130131 | 3 | .375-16 X 4.50 Lg SHCS |
| 72 | 100051 | 3 | .375-16 X 1.0 Lg SHCS Loc Wel |
| 73 | 100105 | 8 | .312-18 X 1.0 Lg SHCS Loc Wel |
| 74 | 100396 | 4 | .312-18UNC x 1.50 Lg SHCS |
| 75 | 100011 | 4 | .5-13 X 2.0 Lg SHCS |
| 76 | 170409 | 1 | Sight Gage W/ Thermometer |
| 77 | 170411 | 1 | Filler Cap / Breather |
| 78 | 400856 | 1 | Gage (0-600) |
| 79 | 400850 | 1 | Gage (0-6000PSI) |
| 80 | 300459 | 1 | FITT2S-20P20P000-0800301 |

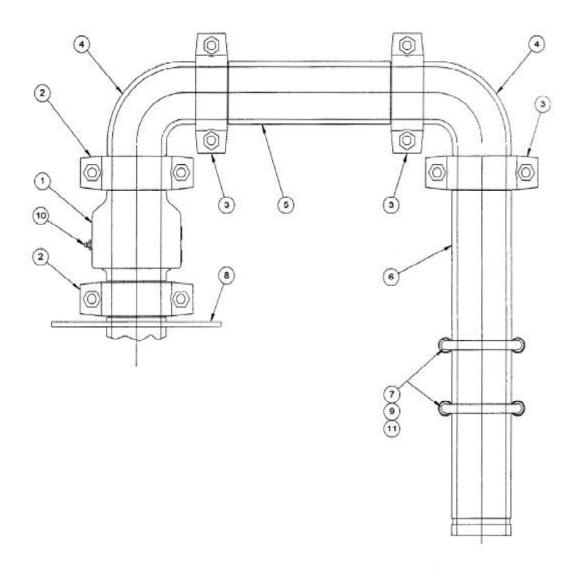


POWER UNIT ASSEMBLY

| | Part | | |
|------|--------|------|-------------------------------|
| Item | Number | Qty. | Description |
| 81 | 100027 | 4 | .50 Hi-Collar Lock Washer |
| 82 | 400149 | 26 | .375 Lock Washer |
| 83 | 100559 | 2 | .25 Lock Washer |
| 84 | 140233 | 1 | 2-228 O-Ring 90 Duro |
| 85 | 100037 | 1 | 2-222 O-Ring 90 Duro |
| 86 | 100045 | 2 | #20 PA Split Flange Half |
| 87 | 100119 | 8 | .50-13 X 1.25 Lg SHCS Loc Wel |
| 88 | 170481 | 1 | Oil Filter |
| 89 | 170483 | 1 | Air Filter |
| 90 | 170485 | 1 | Fuel Filter |
| 91 | 100299 | 3 | Primer/Gal |
| 92 | 100298 | 3 | J&M Green Paint |
| 93 | 173007 | 1 | Reservoir Asm |
| 94 | 100067 | 4 | .75-10 X 2.50 Lg SHCS Loc Wel |
| 95 | 100069 | 4 | .75 Lock Washer Medium |
| 96 | 160315 | 4 | .75-10UNC Esna Nut |
| 97 | 100398 | 4 | Saddle Clip |
| 98 | 100287 | 12 | .312 Lock Washer |
| 99 | 400231 | 2 | Hold Down Stud |
| 100 | 100831 | 2 | .312 Wing Nut |
| 101 | 170487 | 1 | Battery Holddown |
| 102 | 100289 | 4 | .312-18 Hex Nut |
| 103 | 170427 | 1 | Pump |
| 104 | 400109 | 1 | 2.0 Solid Flange |
| 105 | 100121 | 4 | .50 Lock Washer Medium |
| 106 | 170507 | 1 | FITT2S-06P06P000-1000301 |
| 107 | 170509 | 1 | FITT2S-32P32P000-02000301 |



3" ROTARY JOINT ASSEMBLY

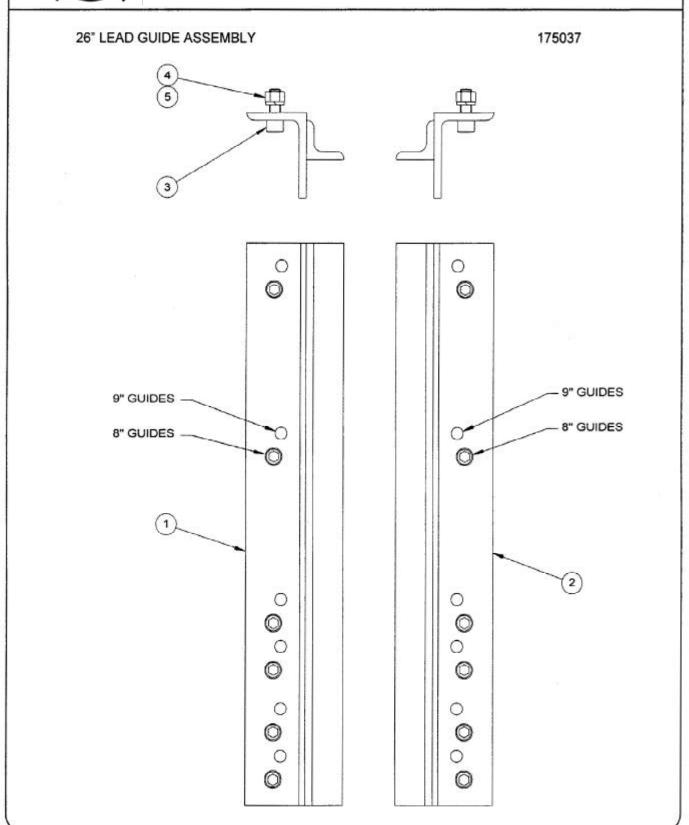




3" ROTARY JOINT ASSEMBLY

| Item | Part Number | Qty. | Description |
|------|----------------|------|---------------------------|
| | | | |
| 1 | 810551 | 1 | 3" Swivel Joint Asm.(J&M) |
| 2 | 400477 | 2 | 3" Victaulic Coupling |
| 3 | 400881 | 3 | 3" 75 Coupling |
| 4 | 400877 | 2 | 3-90 Elbow |
| 5 | 170329 | 1 | Short Pipe |
| 6 | 170331 | 1 | Long Pipe |
| 7 | 170511 | 2 | 3" Pipe U-Bolt |
| 8 | 170327 | 1 | Slinger |
| 9 | 100485 | 4 | .50-13 Hex Nut |
| 10 | 100229 | 1 | Grease Fitting |
| 11 | 100121 | 4 | .50 Lock Washer Medium |



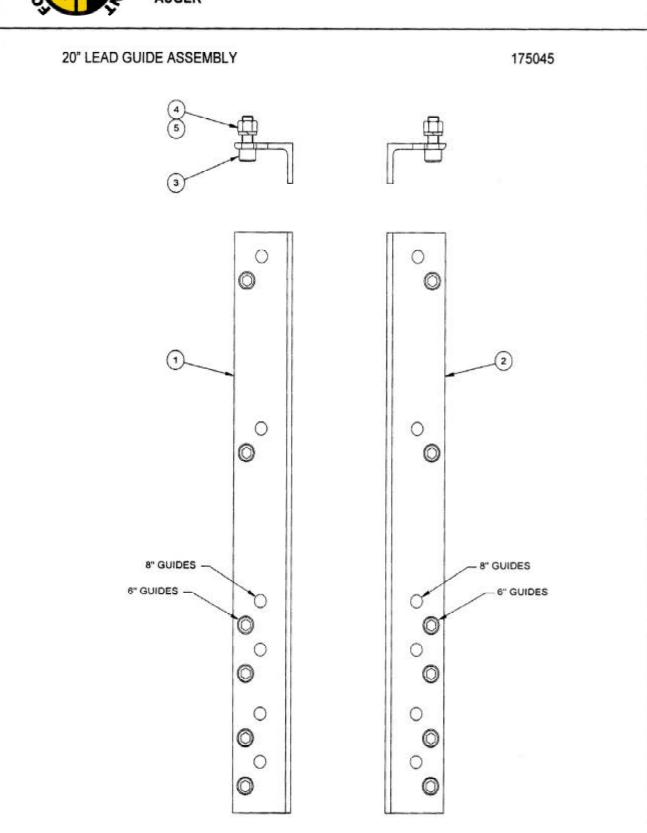




26" LEAD GUIDE ASSEMBLY

| | Part | | | |
|-------------|--------|------|------------------------|--|
| <u>Item</u> | Number | Qty. | Description | |
| 1 | 170313 | 2 | 26" Guide Left Hand | |
| 2 | 170315 | 2 | 26" Guide Right Hand | |
| 3 | 400069 | 24 | .75-10 x 2.0 Lg SHCS | |
| 4 | 100587 | 24 | .75-10 Hex Nut | |
| 5 | 100069 | 24 | .75 Lock Washer Medium | |





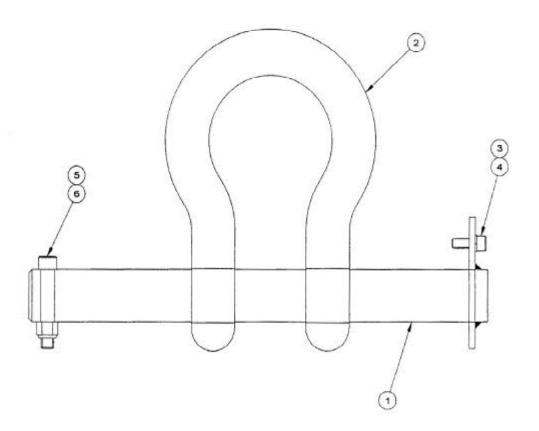


20" LEAD GUIDE ASSEMBLY

| | Part | | |
|------|--------|------|------------------------|
| Item | Number | Qty. | Description |
| 1 | 170519 | 2 | 20" Guide Left Hand |
| 2 | 170521 | 2 | 20" Guide Right Hand |
| 3 | 400069 | 24 | .75-10 x 2.0 Lg SHCS |
| 4 | 100587 | 24 | .75-10 Hex Nut |
| 5 | 100069 | 24 | .75 Lock Washer Medium |



SHACKLE LIFT KIT





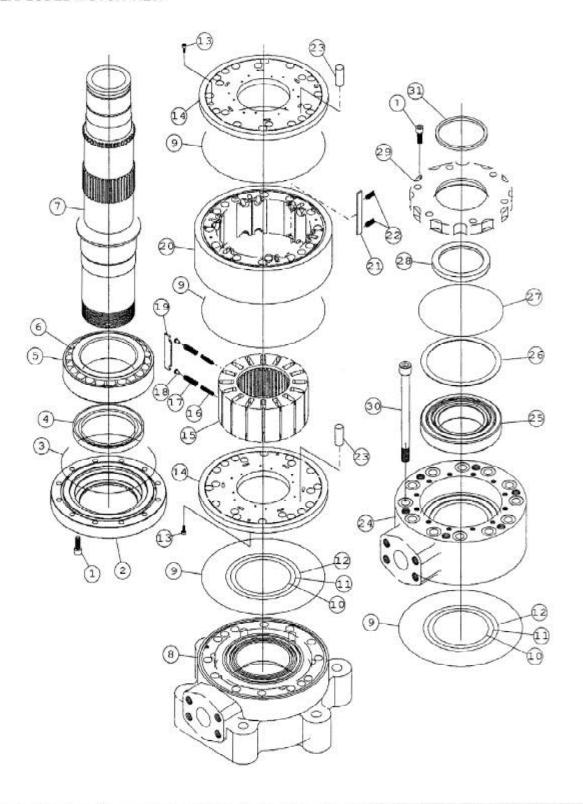
PARTS LIST

SHACKLE LIFT KIT

| | Part | | |
|------|--------|------|-------------------------------|
| Item | Number | Qty. | Description |
| 1 | 170323 | 1 | Yoke Pin |
| 2 | 170513 | 1 | 1.75 Shackle |
| 3 | 100051 | 1 | .375-16 X 1.0 Lg SHCS Loc Wel |
| 4 | 400149 | 1 | .375 Lock Washer |
| 5 | 130235 | 1 | .50-13 X 3.0 Lg SHCS |
| 6 | 130049 | 1 | .50-13 Esna Nut |



EXPLODED MOTOR VIEW





PARTS LIST

MOTOR BILL OF MATERIAL

| Item | Qty. | Description |
|-------------|----------------------------|----------------------------------|
| 1 | 18 | Bolt, Seal Plate |
| 2 | 1 | Seal Plate, Code 62 |
| 3 | 1 | O-Ring, Seal Plate, Code 62 |
| 4 | 1 | Seal, TCN, 4.25 |
| 5 6 7 | 1 | Bearing Cup |
| 6 | 1 | Bearing Cone |
| 7 | 1 | Shaft, Code 62, Drill Motor |
| 8 | 1 | Front Housing, A,PC, Code 62 |
| 9 | 4 | O-Ring, Main |
| 10 | 2 | O-Ring, Thermal, Inner |
| 11 | 2 | O-Ring, Thermal, Middle |
| 12 | 4 2 2 2 4 2 | O-Ring, Thermal, Outer |
| 13 | 4 | Plate Screw |
| 14 | 2 | Plate, Timing, PC |
| 15 | 1 | Rotor |
| 16 | 32 | Spring, Inner Rotor |
| 17 | 32 | Spring Outer Rotor |
| 18 | 32 | Spring Button |
| 19 | 16 | Vane, Rotor |
| | 16 | Vane, Rotor |
| 20 | 1 | Stator |
| 21 | 6 | Stator Vane |
| 22 | 12 | Spring, Stator Vane |
| 23 | 4 | Dowel Pin, .63 X 2.00 Lg. |
| 24 | 1 | Rear Housing, A, PC, Code 62 |
| 25 | 1 | Bearing Set |
| 26 | Varied | Shim (Fitted) |
| 27 | 1 | O-Ring, Seal Plate |
| 28 | 1 | Seal, Shaft, TCN 3.50 |
| 29 | 1 | Seal Plate, Rear, Thru |
| 30 | 12 | Bolt, .63-11UNC X 10.00 Lg, Main |
| 31 | 1 | Dust Seal, RR Seal PLate |
| | | |

RECOMMENDED TIGHTENING TORQUE

| Nominal Screw Size | Nomina Socket Size | Tightening Torque Ft-Lbs. (Kg-M) | Nominal Screw Size | Nomina Socket Size | Tightening Torque Ft-Lbs. (Kg-M) |
|--------------------------|--------------------------|--|--------------------------|--------------------------|--|
| #10-24 | 5/32 | 6 Ft-Lbs. (.83 Kg-M) | #10-32 | 5/32 | 6 Ft-Lbs. (.83 Kg-M) |
| 1/4-20 | 3/16 | 13 Ft-Lbs. (1.8 Kg-M) | 1/4-28 | 3/16 | 15 Ft-Lbs. (2.1 Kg-M) |
| 5/16-18 | 1/4 | 27 Ft-Lbs. (3.7 Kg-M) | 5/16-24 | 1/4 | 30 Ft-Lbs. (4.2 Kg-M) |
| 3/8-16 | 5/16 | 48 Ft-Lbs. (6.6 Kg-M) | 3/8-24 | 5/16 | 55 Ft-Lbs. (7.6 Kg-M) |
| 7/16-14 | 3/8 | 77 Ft-Lbs. (10.6 Kg-M) | 7/16-20 | 3/8 | 86 Ft-Lbs. (11.9 Kg-M) |
| 1/2-13 | 3/8 | 119 Ft-Lbs. (16.4 Kg-M) | 1/2-20 | 3/8 | 133 Ft-Lbs. (18.4 Kg-M) |
| 5/8-11 | 1/2 | 234 Ft-Lbs. (32.3 Kg-M) | 5/8-18 | 1/2 | 267 Ft-Lbs. (36.9 Kg-M) |
| 3/4-10 | 5/8 | 417 Ft-Lbs. (57.6 Kg-M) | 3/4-16 | 5/8 | 467 Ft-Lbs. (64.5 Kg-M) |
| 7/8-9 | 3/4 | 676 Ft-Lbs. (93.4 Kg-M) | 7/8-14 | 3/4 | 742 Ft-Lbs. (102.5 Kg-M |
| 1-8 | 3/4 | 1,009 Ft-Lbs. (139.4 Kg-M) | 1-12 | 3/4 | 1,126 Ft-Lbs. (155.6 Kg-M |
| 1-1/4-7 | 7/8 | 1,600 Ft-Lbs. (221.1 Kg-M) | 1-1/4-12 | 7/8 | 1,800 Ft-Lbs. (248.8 Kg-M |
| 1-1/2-6 | 1 | 2,800 Ft-Lbs. (387 Kg-M) | 1-1/2-12 | 1 | 3,000 Ft-Lbs. (414.6 Kg-M |

NOTE: These values are for Socket head cap screws only. Button heads, Flat heads and Set screws have different values. Check the Allen Hand Book for correct torque specifications.