OPERATING AND MAINTENANCE MANUAL

J&M MODEL 55AT

TOP DRIVE EARTH AUGER

WITH MODEL 315 POWER PACK

OM-55AT-315-1109



SPECIALIZING IN PILE DRIVING EQUIPMENT



ON ECOLUSION OF THE PARTY OF TH	MODEL 55AT TOP DRIVE EARTH AUGER



J&M MODEL 55AT TOP DRIVE EARTH AUGER WITH MODEL 315 POWER UNIT

PREFACE

This manual was prepared to acquaint the owner, operator and serviceman with the operation and maintenance of the top drive earth auger. We strongly suggest that this manual be carefully studied before operating or undertaking any maintenance work on the unit. It is not meant to be all inclusive as to content, and any questions and/or doubt should be directed to J&M before proceeding with any operation or maintenance.

Manual release date: 02-28-08

J&M reserves the right to update or revise this manual as required, check with J&M for current release date.



ON ECOLUSION OF THE PARTY OF TH	MODEL 55AT TOP DRIVE EARTH AUGER

WARRANTY

J&M FOUNDATION EQUIPMENT LLC. STANDARD WARRANTY

J&M Foundation Equipment LLC (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&M or 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 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&M or any alteration or repair by others in such manner as in J&M's judgement 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 OF J&M.



ON ECOLUSION OF THE PARTY OF TH	MODEL 55AT TOP DRIVE EARTH AUGER



TABLE OF CONTENTS

I.	GENERAL DESCRIPTION	<u>PAGE</u>
	 A. General B. Safety Precautions C. Connection of Hydraulic Hoses D. Filling Auger Forward and Reverse Hoses E. Filling Shift Hose 	I- 1 I- 1 I- 5 I- 5 I- 7
II.	CIRCUITRY A. Hydraulic Schematic B. Electrical Schematic	II- 1 II- 3
III.	GENERAL DATA	
	A. Abbreviations B. Screws and Bolts	III- 1 III- 3
IV.	ORDERING PARTS	
	 A. Procedure B. Fitting Description Key C. Fitting Style Selector Chart D. Hose Description Code E. Parts Identification Parts Lists and Drawings G. Recommended Tightening Torque 	IV- 1 IV- 2 IV- 3 IV- 4 IV- 5 IV-6 IV-29



ON ECOLUSION OF THE PARTY OF TH	MODEL 55AT TOP DRIVE EARTH AUGER



OPERATING INSTRUCTIONS

GENERAL DESCRIPTION

A. GENERAL



When unloading and unpacking the auger, use extreme care. For your protection, make a thorough inspection of the unit immediately on delivery. In case of any damage or shortage,

notify the transit agent at once and have the delivering carrier make a notation on the freight bill.

B. SAFETY PRECAUTIONS

Safety is very important and is everyone's responsibility that operates this equipment or services this equipment.

WARNING Use the following safety precautions as a general guide to safe operations, when in doubt consult J&M

before proceeding with any operation that may produce an unsafe result. These safety guidelines do not constitute all posible safety issues that may occur during operation or maintenance.

- 1. Read this manual thoroughly before operating or working on the equipment.
- 2. Read and follow any safety instructions in the CATERPILLAR engine operators manual.
- 3. Only well trained and experienced personnel should attempt to operate or maintain this equipment.
- 4. Never adjust, lubricate or repair the unit when it is in operation, or lifted above ground
- 5. Never remove, paint over or cover warning or safety labels. If labels become damaged or unreadable, replace immediately.
- 6. All personnel should wear approved safety clothing, including HARD HATS, SAFETY SHOES, SAFETY GLASSES and HEARING PROTECTION when in the vicinity of this machinery.
- 7. Do not stand any closer to this equipment than necessary when it is in operation. Parts may loosen and fall. Never stand under operating, or elevated, equipment.
- 8. When maintaining or repairing the equipment, never substitute parts not supplied, or approved in writing, by J&M.
- 9. Do not weld, or flame cut, on this equipment.
- 10. Never use or store flammable liquids on or near the engine.
- 11. Insure that all lifting equipment, including cranes, wire rope, slings, hooks, shackles, etc., are properly sized for the worst case loads anticipated during operations.
- 12. If there are any questions about the weights, specifications, or performance of the unit, contact J&M before handling or operating the equipment.
- 13. If the equipment is to be used for anything other than drilling plumb holes, contact J&M before using the unit.
- 14. Check wire rope clips for tightness, and check wire ropes for wear, daily.



OPERATING INSTRUCTIONS

I. PREPARATION FOR OPERATION

B. SAFETY PRECAUTIONS (CONTINUED)

- 15. Insure that ground vibrations will not damage or collapse adjacent structures or excavations.
- 16. Remove all tools, parts and electrical cords before starting the unit.
- 17. 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.
- 20. If abnormal equipment operation is observed, discontinue use immediately and correct the problem. Do not leave the equipment control pendant (radio control) unattended.
- 21. Store oily rags in approved containers, and away from engine exhaust system.
- 22. Make sure that the vibrator is OFF before starting the power unit engine.
- 23. 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.
- 29. 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.
- 31. 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, piles, 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.



OPERATING INSTRUCTIONS

I. PREPARATION FOR OPERATION

B. SAFETY PRECAUTIONS (CONTINUED)

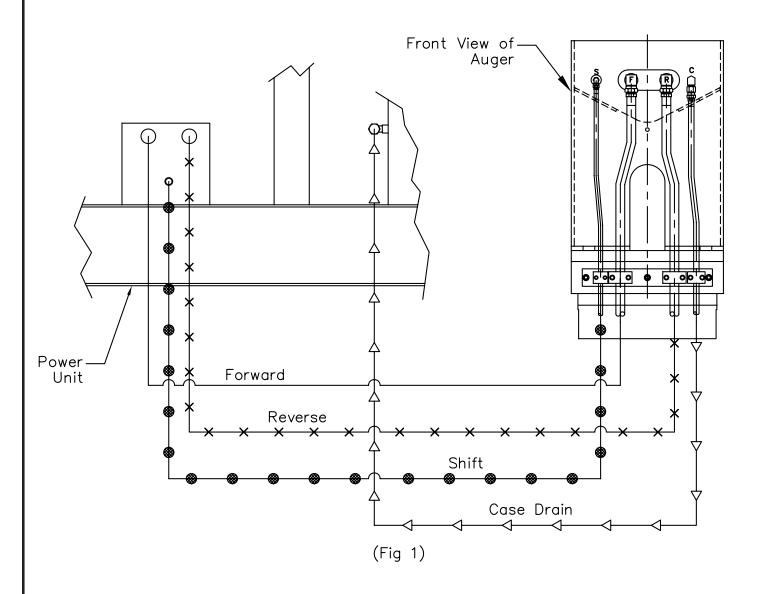
- 36. Rounded or damaged bolt heads or nuts should be replaced so that proper torque values may be obtained. Proper torque values are necessary to prevent parts on this equipment, leads and crane boom from loosening and falling. Refer to Torque Chart, in this manual, for proper values.
- 37. When extracting piles, always attach a safety line between pile and crane hook.
- 38. Keep hands away from swivel joint, output shaft and flighting.
- 39. Keep hands away from auger during operation. Clearances may change causing pinch points.
- 40. When drilling "batter" piles, insure that the leads, and crane boom, have sufficient bending strength to handle the worst case load. Consult J&M.

REMEMBER, SAFETY IS EVERYONE'S BUSINESS.



OPERATING INSTRUCTIONS

I. PREPARATION FOR OPERATION





OPERATING INSTRUCTIONS

I. PREPARATION FOR OPERATION

C. CONNECTION OF HYDRAULIC HOSES

- 1. Connection of hoses at power unit.
 - a. The auger is connected to the power unit by four hydraulic hoses (Fig. 1) on the previous page.



The power unit must be shut down during connection of the hydraulic hoses.

- b. The hoses connect to the power unit with quick-disconnect couplers. Hose couplers are arranged to insure correct connections at the power unit. See the diagram (Fig. 1) for correct hose connection.
- c. Clean couplers with a lint-free cloth before making connections.



Do not use engine starting fluid to clean quick disconnects, this will damage the seals and result in an oil leak.

- d. Make sure that the couplers are fully run up, and hand tightened only, do not use wrenches to over tighten.
- 2. Connection of hoses at auger.
- a. The auger is usually shipped with the hoses attached to the auger. If the hoses have been shipped separately, they must be connected in the field. Fig. 1 shows the correct arrangement of the four hoses connecting the power unit to the auger.

D. FILLING AUGER FORWARD AND REVERSE HOSES

- 1. The auger is usually shipped with the hydraulic hoses full of fluid and the unit may be used immediately. However, if the pressure hoses have been removed from the auger, the hoses need to be filled with hydraulic fluid prior to full speed operation.
- 2. Start and warm up the diesel engine. Hold the auger in a vertical position.
- 3. With the engine warmed up and running at 1000 RPM, turn and hold the auger switch FORWARD. The hoses will fill in approximately 1 minute.
- 4. The output shaft wiil begin to rotate, this means the Forward pressure hose is full of hydraulic fluid. The Reverse pressure hose will fill directly as it is the hose that the hydrulic fluid is being returned to the power unit by.

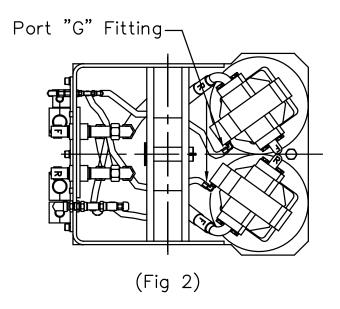


OPERATING INSTRUCTIONS



OPERATING INSTRUCTIONS

I. PREPARATION FOR OPERATION



E. FILLING SHIFT HOSE

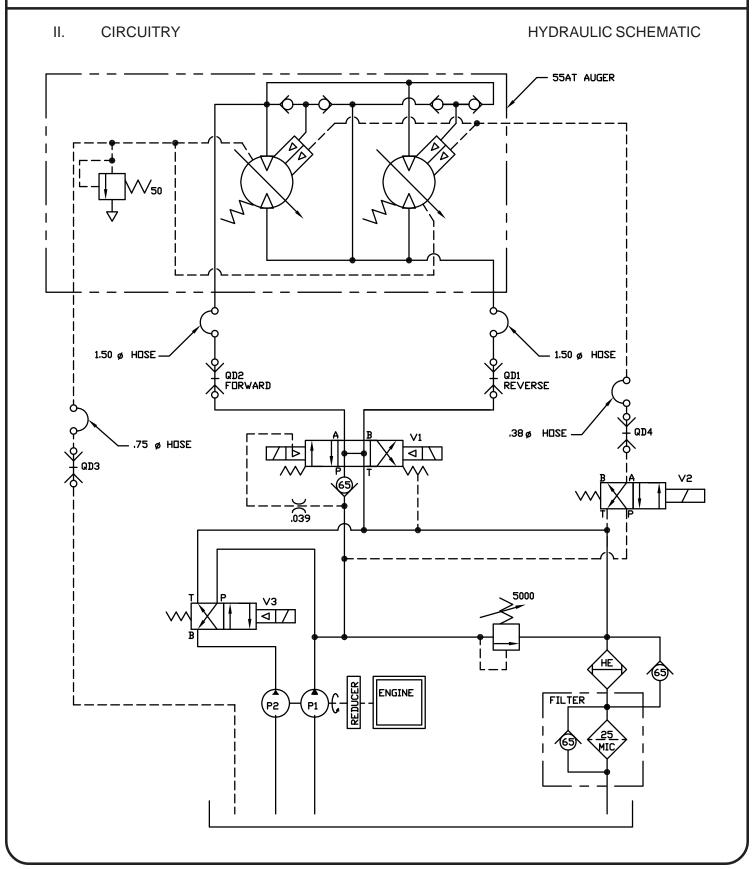
- 1. After the the Forward and Reverse hose have been filled.
- 2. With the engine warmed-up and running at 1000 RPM, loosen the hose Port "G" Fittings on each motor. Turn the AUTO-MAX-HALF switch to MAX. Wait until oil flows from the connections. When oil flows without air, tighten Port "G" Fittings and turn switch to Auto. Turn switch to Max and back to Auto five times. Turn switch to Max and loosen the hose Port "G" Fittings on each motor again till you see oil flowing with out air to confirm the air has been removed from the hoses tighten Port "G" Fittings. Turn switch back to Auto. See (Fig 2) above for the Port "G" Fittings.



OPERATING INSTRUCTIONS



OPERATING INSTRUCTIONS

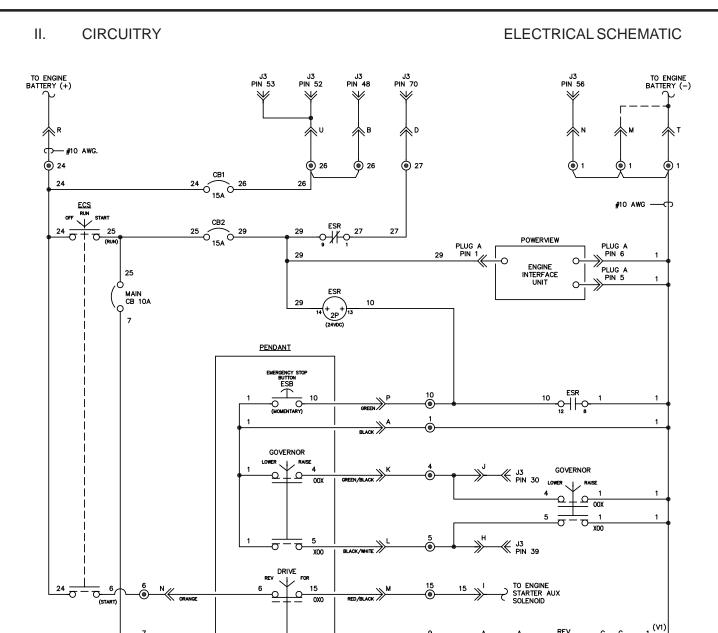




OPERATING INSTRUCTIONS



OPERATING INSTRUCTIONS



WHITE E

MODE SWITCH

RED 2 B RED 2 B

A GREEN A

RED 2 B RED 2 B

RED 2 B RED 2 B



OPERATING INSTRUCTIONS



PARTS LIST

III. GENERAL DATA

A. 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

III. GENERAL DATA

B. SCREWS AND BOLTS

- 1. 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.
- 2. 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

C. SERIAL NUMBER LOCATIONS

- 1. The following J&M units are serial numbered separately:
- a. Earth Auger
- b. Power Unit
- 2. In addition to the serial number plate itself, the serial number is stamped into each unit in one or more places as follows:
 - a. Earth Auger stamped twice once on the gear case cover between the planetary gear reducers, once on the gear case near the hose clamp plate.
 - b. Power unit stamped twice once on the hydraulic oil reservoir, once on sub-base near the heat exchanger.





PARTS LIST

IV. ORDERING PARTS

A. 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.
- 2. 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.
- 3. 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.



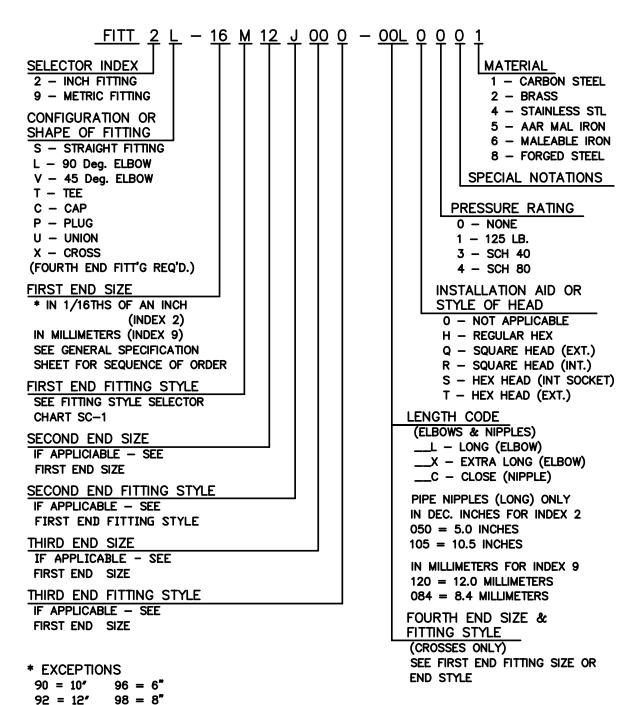
PARTS LIST

IV. ORDERING PARTS

94 = 14"

99 = NON CODE SIZE

B. <u>FITTING DESCRIPTION KEY</u>





PARTS LIST

IV. ORDERING PARTS

C. FITTING STYLE SELECTOR CHART

FOR END FITTING STYLE SELECTION

M	JIC MALE 37 Deg. FLARE
P	MALE PIPE NPT
R	S.A.E. MALE O-RING (& ADJUSTABLE)
B	JIC MALE 37 Deg. FLARE BULKHEAD
	MALE PIPE NPT SWIVEL
S	B.S.P. MALE PIPE
T	HOSE BARB

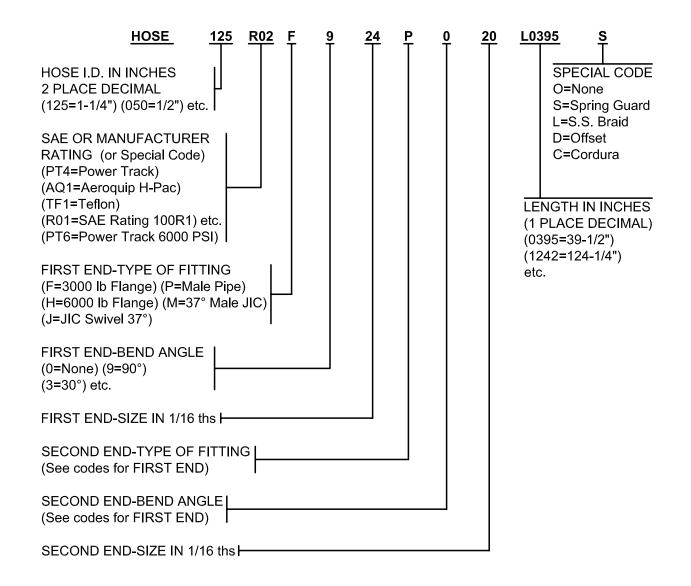
J	JIC FEMALE 37 Deg. FLARE (& SWIVEL)
Q	FEMALE PIPE NPTF
K	S.A.E. FEMALE O-RING
N	FEMALE PIPE NPSM-SWIVEL
F	SPLIT FLANGE 3000 PSI. CODE 61
Н	SPLIT FLANGE 6000 PSI. CODE 62



PARTS LIST

IV. ORDERING PARTS

D. HOSE DESCRIPTION CODE





PARTS LIST

IV. ORDERING PARTS

E. PARTS IDENTIFICATION

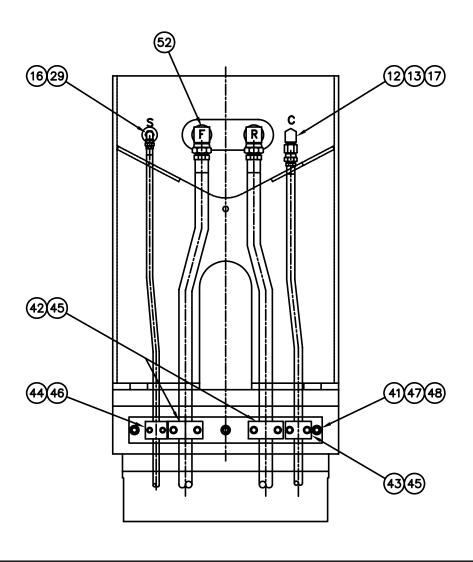
1. Parts lists and drawings are included on the following pages for the equipment components shown below:

a.	AUGER ASSEMBLY	800481
b.	GEAR BOX ASSEMBLY	810421
C.	HOSE ASSEMBLIES - INTERCONNECTING	800531
d.	PENDANTASSEMBLY	810933
e.	POWER UNIT ASSEMBLY	800437
f.	CONTROL MANIFOLD ASSEMBLY	810737
g.	CONTROL BOX ASSEMBLY	810935
h.	3" ROTARY JOINT ASSEMBLY	800363

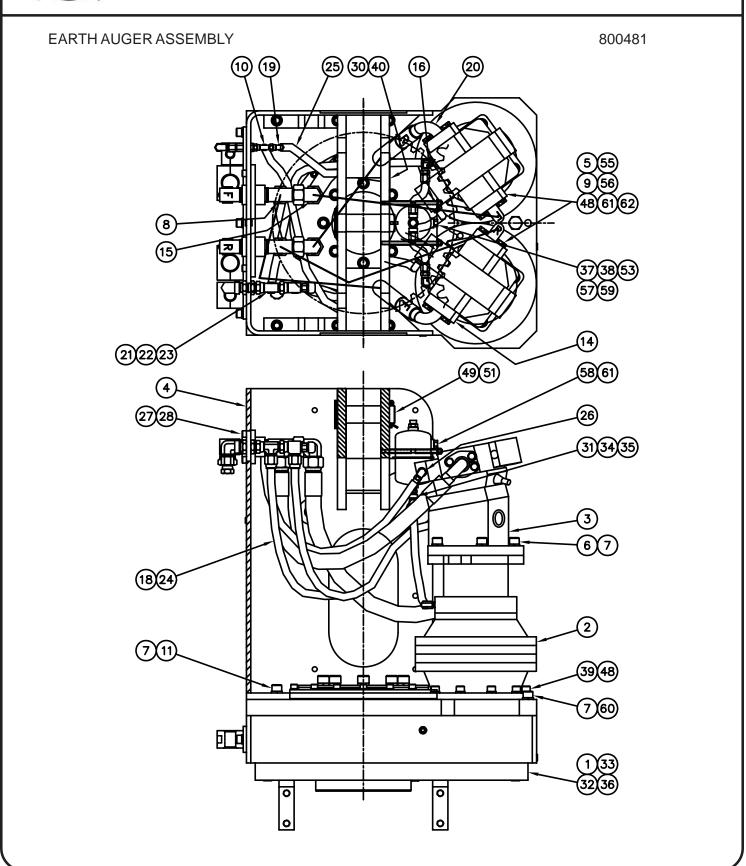


PARTS LIST

EARTH AUGER ASSEMBLY









EARTH	AUGER ASSEI	MBLY		800481
l <u>tem</u>	Part <u>Number</u>	Qty.	<u>Description</u>	
1	810421	1	5050 AUGER TRANSMISSION CASE	
2	400710	2	PLANTETARY GEAR REDUCER inDin	
3	400708	2	HYDRAULIC MOTOR AUTOTORQUE	
4	400541	1	LIFTING BALE	
5	100121	16	.50 LOCK WASHER MEDIUM	
6	100067	8	.75-10 X 2.5 LG SHCS LOC WEL	
7	100069	29	.75 LOCK WASHER MEDIUM	
8	100664	2	FITT2T-20P20M20M-0000001	
9	100037	4	2-222 O-RING 90 DURO	
10	400702	1	FITT2T-06J06M06M-000H001	
11	140111	16	.75-10 X 4.0 LG SHCS LW	
12	400773	1	FITT2L-12P12Q000-0000306	
13	100243	1	FITT2S-12Q12N000-000H001	
14	400712	1	HOSE125PT4J020H920L05200	
15	130043	2	FITT2L-20M20J000-000H001	
16	120525	3	FITT2L-06P06N000-00L000L	
17	100387	1	FITT2S-12P12B000-000H001	
18	400704	2	HOSE050R01J012J012L03500	
19	400411	1	FITT2L-06M06J000-000H001	
20	400706	1	HOSE125PT4J020H920L04800	
21	100032	1	RELIEF VALVE	
22	400700	1	FITT2T-12J12M12M-000H001	
23	810759	1	#12JIC SWIVEL 90 W/ .50NPT TAP	
24	100609	2	FITT2S-12M12R000-000H001	
25	110633	2	HOSE038R02J006J006L0370S	
26	130057	2	FITT2L-06M06R000-000H001	
27	400722	1	COUPLER PLATE	
28	100119	4	.5-13 X 1.25 LG SHCS LOC WEL	
29	110199	1	FITT2S-06Q06B000-000H001	
30	130381	4	RIVET	
31	400917	2	HOSE050R01P006P006L02000	
32	100298	1	APE / J&M YELLOW PAINT/GAL	
33	100299	1	PRIMER/GAL	
34	110794	1	FITT2S-06P06P000-000H001	
35	400751	1	FITT2T-06Q06Q06Q-0000001	
36	110444	2	TRANSMISSION OIL / GAL.	
37	100535	2	.375 -16 HEX NUT	
38	400149	2	.375 LOCK WASHER	
39	140227	20	.625-11 x 2.0 LG SHCS	
40	400749	1	S/N PLATE	



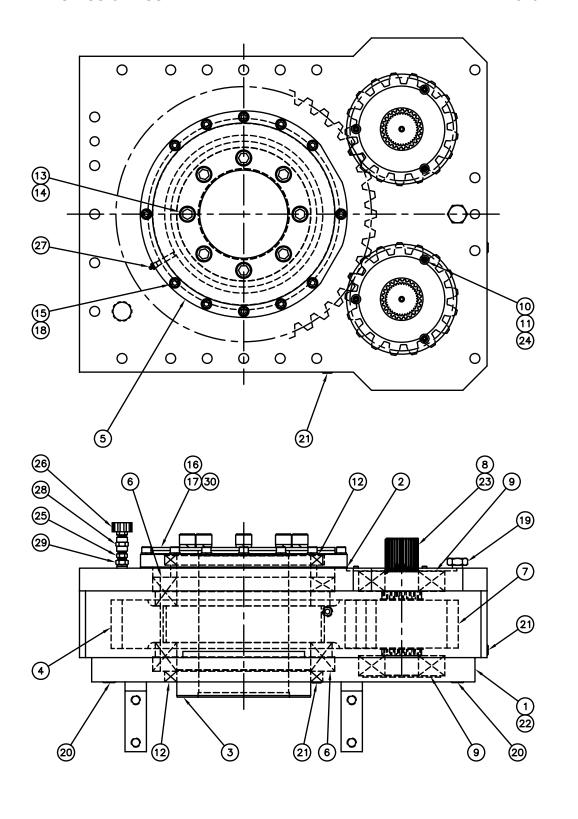
EARTH AUGER ASSEMBLY	800481
----------------------	--------

	Part		
l <u>tem</u>	<u>Number</u>	Qty.	<u>Description</u>
41	400557	1	HOSE CLAMP PLATE
42	100009	2	HOSE CLAMP
43	100013	1	HOSE CLAMP
44	100015	1	HOSE CLAMP
45	100011	14	.50-13 UNC X 2.00 LG SHCS
46	100017	2	.375-16 X 2.0 LG SHCS LOC WEL
47	100575	3	.625-11 x 1.25 LG SHCS
48	100007	20	.625 LOCK WASHER MEDIUM
49	400831	1	LIFTING PIN
50	400833	1	2in FLAT WASHER
51	300375	1	.312 x 5 LG COTTER PIN
52	400019	2	FITT2L-20P20N000-000H001
53	400151	2	.375 FLAT WASHER
54	150083	8	.437-14 X 2.5 SHCS W/LW
55	110986	8	#20 PH SPLIT FLANGE HALF
56	400739	16	.5-13 UNC X 2 LG HHCS
57	400923	2	.375-16 UNC X 7in LG ALLTHREAD
58	400915	1	EXPANSION TANK ASSEMBLY
59	400919	2	4in U-CLAMP
60	400045	5	.75-10 x 3.5 LG SHCS
61	140853	2	FITT2L-20H20M000-0000001
62	400656	2	HOSE125PT4J020J020L04900



PARTS LIST

AUGER TRANSMISSION ASSEMBLY





PARTS LIST

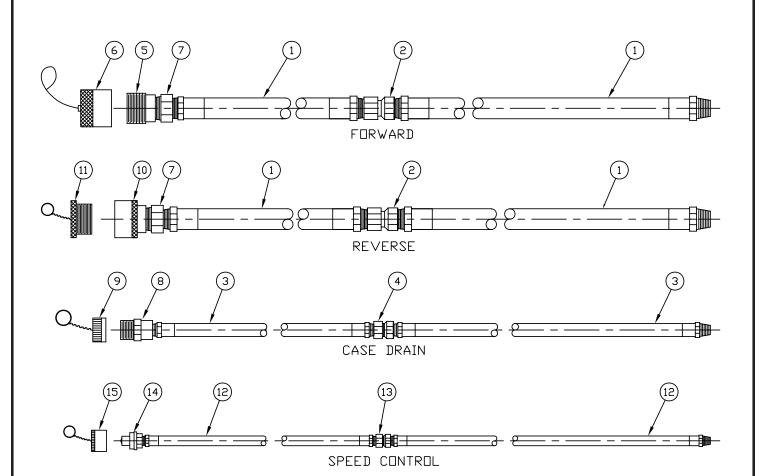
AUGER TRANSMISSION ASSEMBLY

	Part		
l <u>tem</u>	Number	Qty.	<u>Description</u>
1	810419	1	GEAR BOX PIN ASSEMBLY
2	400529	1	SHIM PACK
3	400521	1	OUTPUT SHAFT
4	400519	1	GEAR
5	400525	1	RETAINER RING
6	400631	2	TAPERED BEARINGS
7	400527	2	PINION GEAR
8	400523	2	PINION SHAFT
9	150017	4	ROLLER BEARING
10	100576	6	.25-20 x .625 LG SHCS
11	100597	6	.25 FLAT WASHER
12	400635	2	SEAL
13	400913	8	.875-9 X 1.5 LG SHCS
14	400911	8	.875 HI COLLAR LOCK WASHER
15	400043	12	.5-13 x 2.25LG SHCS
16	400766	1	POLY-RING
17	400889	1	GROUT SHIELD
18	100121	12	.50 LOCK WASHER MEDIUM
19	400657	1	DIP STICK
20	100183	2	FITT2P-12P000000-000S007
21	100423	3	FITT2P-08P000000-000S007
22	110444	6	TRANSMISSION OIL / GAL.
23	400691	4	RETAINING RING
24	100559	6	.25 LOCK WASHER
25	130203	1	FITT2S-06P06P000-0300401
26	400845	1	BREATHER
27	100229	1	GREASE FITTING
28	110143	1	FITT2S-06Q06Q000-000H001
29	400357	1	FITT2S-08P06Q000-000H001
30	400965	1	SHIELD GASKET



PARTS LIST

INTERCONNECTING HOSE ASSEMBLY



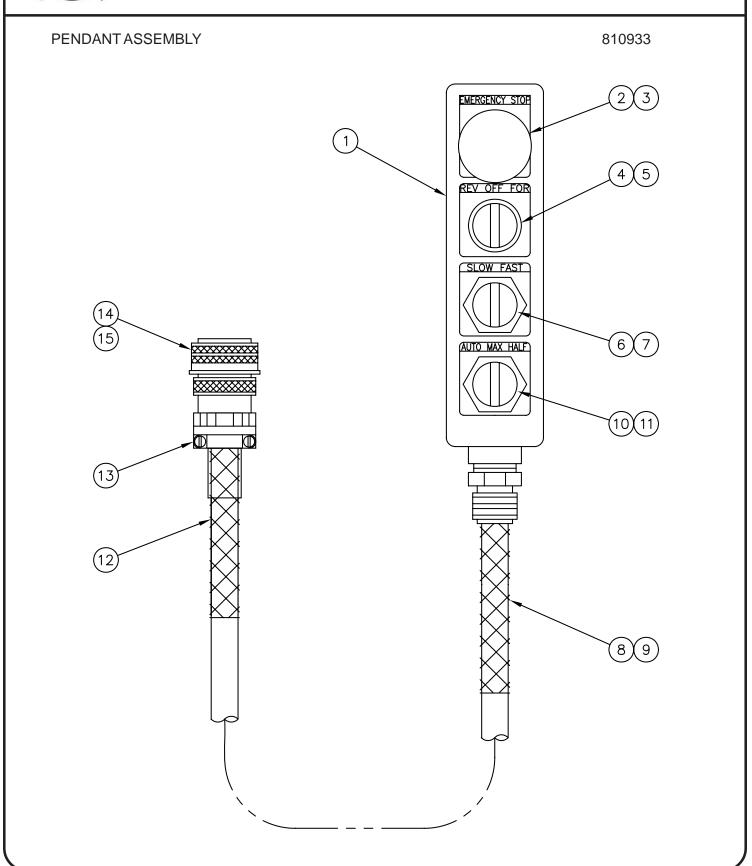


PARTS LIST

INTERCONNECTING HOSE ASSEMBLY

	Part		
l <u>tem</u>	<u>Number</u>	Qty.	<u>Description</u>
1	100233	4	HOSE125PT4P020P020L60000
2	100235	2	FITT2S-20Q20N000-000H001
3	100241	2	HOSE075R09P012P012L62000
4	100243	1	FITT2S-12Q12N000-000H001
5	110690	1	1.50 MALE DISCONNECT
6	110955	1	1.50 DUST CAP
7	400159	2	FITT2S-24P20Q000-000H001
8	400251	1	.75 MALE DISCONNECT
9	400253	1	.75 DUST CAP
10	110692	1	1.50 FEMALE DISCONNECT
11	110957	1	1.50 DUST PLUG
12	100247	2	HOSE038R02P006P006L62000
13	100249	1	FITT2S-06Q06N000-000H001
14	100245	1	.375 MALE DISCONNECT
15	100257	1	.375 DUST CAP
16	130243	10	RUBBER TIE DOWN







PARTS LIST

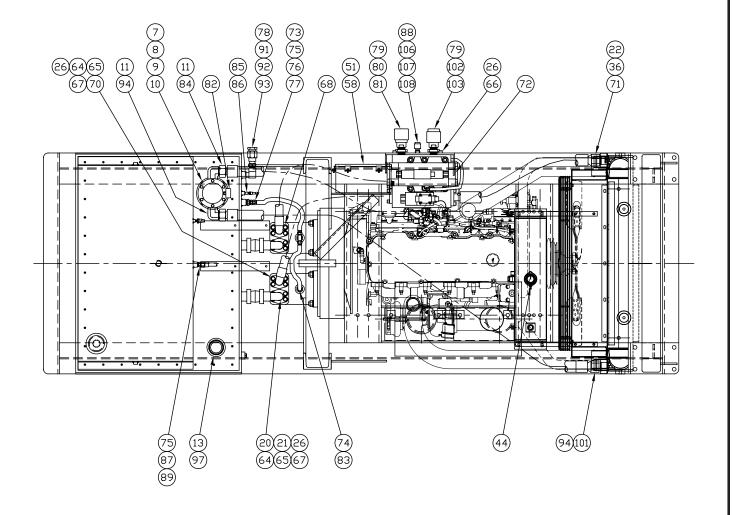
PENDANTASSEMBLY 810933

	Part		
l <u>tem</u>	<u>Number</u>	Qty.	<u>Description</u>
1	130153	1	PENDANT ENCLOSURE
2	130509	1	EMERGENCY STOP LABEL
3	130507	1	EMERGENCY STOP BUTTON
4	100864	1	REV-OFF-FOR NAMEPLATE
5	130155	1	SWITCH
6	100562	1	SLOW-FAST NAMEPLATE
7	100566	1	SWITCH
8	110603	1	1.0 STRAIN RELIEF
9	100560	50	PENDANT CABLE/FT
10	400720	1	AUTO-MAX-HALF LABEL
11	400718	1	SWITCH 3 POSITION
12	170839	1	CORD GRIP PLUG END
13	170897	1	RECEPTACLE CLAMP
14	170895	1	PENDANT RECEPTACLE
15	170899	1	PENDANT RECEPTACLE COVER



PARTS LIST

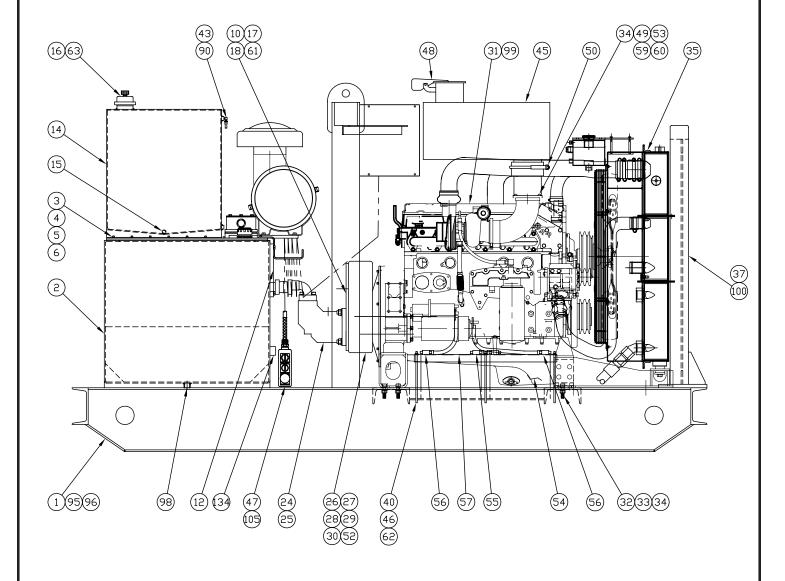
POWER UNIT ASSEMBLY 800437





PARTS LIST

POWER UNIT ASSEMBLY 800437





POWER UNIT ASSEMBLY	800437
---------------------	--------

l <u>tem</u>	Part <u>Number</u>	Qty.	<u>Description</u>
1	400752	1	315 Skid Subbase
2	400754	1	315 Hyd Reservoir
3	400958	1	Reservior Cover
4	400956	1	Reservoir Cover Gasket
5	100595	39	.25-20 X 1.25 Lg SHCS
6	100559	38	.25 Lock Washer
7	400085	1	Return Filter Asm.
8	810119	2	K25 Element Assembly
9	100143	6	.375-16 X 1.25 Lg Shcs Loc Wel
10	400149	15	.375 Lock Washer
11	100588	2	FITT2L-24M24P000-0000001
12	400916	1	Sight Gage
13	300563	1	Breather/Filler
14	400914	1	Fuel Tank
15	100423	2	FITT2P-08P000000-000S007
16	100417	1	FITT2C-48Q000000-0000306
17	100700	2	.375-16 UNC X 1.25 HHCS
18	400724	1	Pump Pad Cover
19	100631	1	.25-20 X 2.00 Lg SHCS
20	100458	2	90 Deg. Flanged Adapter 20ph
21	100454	2 1	2"Tube Flex Master
22 23	170768	1	FITT2S-24M24R000-0000001
23 24	110244 100406	2	Tube
2 4 25	100400	8	Main Pump(F12-110) .75-10 Flange Nut
26	100762	27	.5 Lock Washer Medium
27	100121	1	Multi-Pump Adapter
28	100312	12	.437-14 UNC X 1.25 Lg HHCS
29	100443	12	.437 Lock Washer
30	100445	8	.5-13 X 1.00 Lg Shcs Loc Wel
31	170907	1	C9 Diesel Engine
32	100085	6	.625-11 X 2.25 Lg SHCS
33	100086	6	.625-11 Esna Nut
34	100007	10	.625 Lock Washer-Medium
35	170925	1	Triple Core Cooler
36	170766	1	FITT2L-24J24M000-0000001
37	400755	1	Radiator Guard
38	400900	8	.312-18 UNC X 1.50 Lg HHCS
39	100289	22	.312-18 Hex Nut
40	100293	33	.312 Flat Washer



POWER UNIT ASSEMBLY	800437

l <u>tem</u>	Part <u>Number</u>	Qty.	Description		
41	100287	22	.312 Lock Washer		
42	100051	6	.375-16 X 1.0 Lg SHCS Loc Wel		
43	100145	1	FITT2L-04M04P000-0000001		
44	100726	7	Antifreeze/Gal		
45	170762	1	Muffler		
46	100831	3	.312 Wing Nut		
47	810933	1	315 Pendant Asm w/ Plug		
48	140411	1	5.0 Rain Cap		
49	400892	1	Exhaust Adapter		
50	140369	3	5 In. U-Clamp		
51	810935	1	315 Engine Junction Box		
52	110444	2	Transmission Oil / Gal.		
53	110225	4	.625-11 X 1.50 Lg BHCS		
54	400890	2	Battery		
55	110653	1	Battery Cable-6		
56	100537	2	Battery Cable-24"		
57	400888	1	Battery Holddown		
58	110229	3	S/O Cord 6' Lg		
59	100273	4	.625-11 Hex Nut		
60	400886	1	Exhaust Adapter Gasket		
61	400151	8	.375 Flat Washer		
62	400231	3	Hold Down Stud		
63	400845	1	Breather		
64	110986	8	#20 Ph Split Flange Half		
65	100037	4	2-222 O-Ring 90 Duro		
66	100119	3	.5-13 X 1.25 Lg Shcs Loc Wel		
67	400739	16	.5-13 UNC X 2.00 Lg HHCS		
68	400734	1	HOSE100PT4H920F020L03200		
69 70	150179	6 1	.312-18 X .75 HHCS		
70 71	400736		HOSE100PT4H920F020L03800		
71 72	400726	1	HOSE150R01J024F02406100 315 Control Manifold Asm		
72 73	810737	1 1	FITT2S-12P08Q000-000H001		
73 74	400409 110265	1	HOSE050R01J008J008L02400		
7 4 75	110203	1	FITT2S-08M08P000-000H001		
75 76	140757	1	FITT2T-08M08M08J-000H001		
70 77	100486	1	HOSE050R01J008J008L01450		
7 <i>1</i> 78	120049	1	FITT2S-12P12P000-000H001		
79	110037	2	FITT2S-121 121 000-00011001		
80	110690	1	1.50 Male Disconnect		
00	110000		1.00 Maio Discomined		



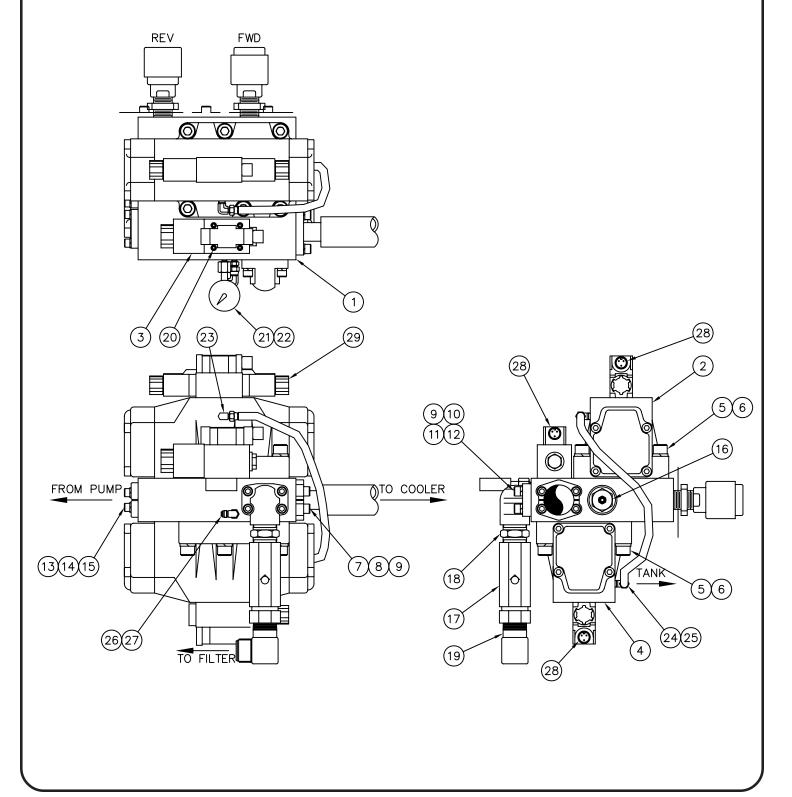


l <u>tem</u>	Part <u>Number</u>	Qty.	<u>Description</u>				
81	110955	1	1.50 Dust Cap				
82	100436	1	Gage (0-60 Psi.)				
83	110325	2	FITT2S-12R08M000-000H001				
84	100482	1	HOSE150R02J024J024L07200				
85	110203	1	FITT2S-04M04P000-000H001				
86	110805	1	HOSE019R01J004J004L05500				
87	100787	1	FITT2L-08M08R000-000H001				
88	400728	1	HOSE038R01J006J006L01900				
89	400854	1	HOSE050R01J008J008L12000				
90	100319	1	HOSE025R02J004J004L16000				
91	400773	1	FITT2L-12P12Q000-0000306				
92	400095	1	.75 Female Disconnect				
93	400121	1	.75 Dust Plug				
94	100500	1	HOSE150R01J024J024L11800				
95	100299	2	Primer/Gal				
96	100298	2	APE / J&M Yellow Paint/Gal				
97	140415	232	Hydraulic Fluid/Gal				
98	100183	1	FITT2P-12P000000-000S007				
99	400247	28	Engine Oil/Quart				
100	400760	1	Radiator Grate				
101	170764	1	FITT2V-24M24R000-000H001				
102	110692	1	1.50 Female Disconnect				
103	110957	1	1.50 Dust Plug				
104	100422	2	.25-20 UNC Esna Nut				
105	400732	1	Pendant Wire Hanger				
106	100383	1	FITT2S-06P06B000-000H001				
107	100777	1	.375 Female Disconnect				
108	100737	1	.375 Dust Plug				



PARTS LIST

CONTROL MANIFOLD ASSEMBLY





PARTS LIST

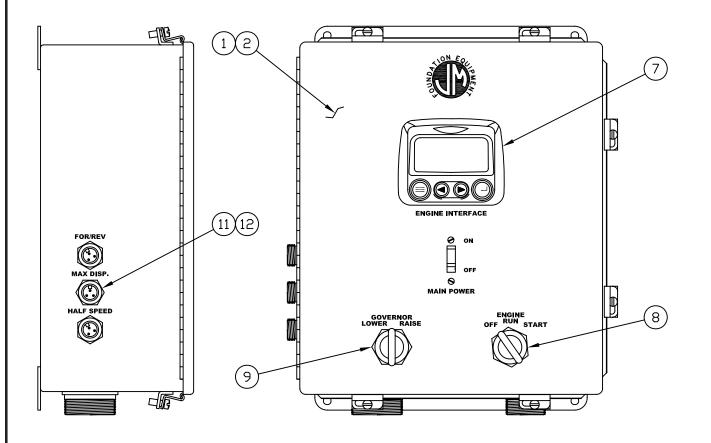
CONTROL MANIFOLD ASSEMBLY

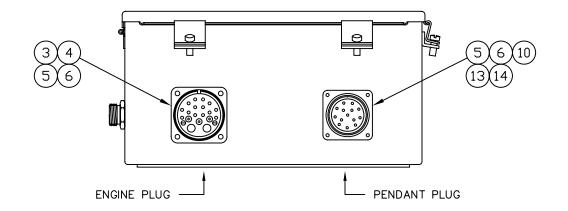
l <u>tem</u>	Part <u>Number</u>	Qty.	Description
1	400756	1	DRIVE MANIFOLD
2	400786	1	4-WAY VALVE - 24V
3	400738	1	SOLENNOID VALVE
4	400740	1	SEQUENTIAL VALVE
5	110690	12	.75-10UNC X 2.75 LG SHCS
6	100069	12	.75 LOCK WASHER MEDIUM
7	100596	2	#24 SPLIT FLANGE HALF
8	100119	4	.5-13 X 1.25 LG SHCS LOC WEL
9	110119	2	2-225 O-RING
10	160461	1	#24-90 SOLID FLANGE
11	100163	4	.5-13 X 1.75 LG SHCS LOC WEL
12	100027	4	.5 HI-COLLAR LOCK WASHER
13	100045	4	#20 PA SPLIT FLANGE HALF
14	100037	2	2-222 O-RING 90 DURO
15	100851	8	.438-14 X 1.25 LG SHCS
16	400742	1	RELIEF VALVE
17	130339	1	1.5 CHECK VALVE
18	110037	1	FITT2S-24P24P000-000H001
19	100588	1	FITT2L-24M24P000-0000001
20	110260	4	.25-20 x 2.75 SHCS
21	100825	1	FITT2S-04Q02P000-000H001
22	400850	1	0-6000 PSI GAGE
23	100145	1	FITT2L-04M04P000-0000001
24	100719	1	HOSE025R02J004J004L03000
25	130229	1	FITT2T-04M04M04P-0000001
26	140385	1	FITT2S-06M02P000-000H001
27	400411	1	FITT2L-06M06J000-000H001
28	110237	3	STR S/O CORD ADAPTER
29	110618		SOLENOID FOR 400786 IT 2



PARTS LIST

CONTROL PANEL ASSEMBLY





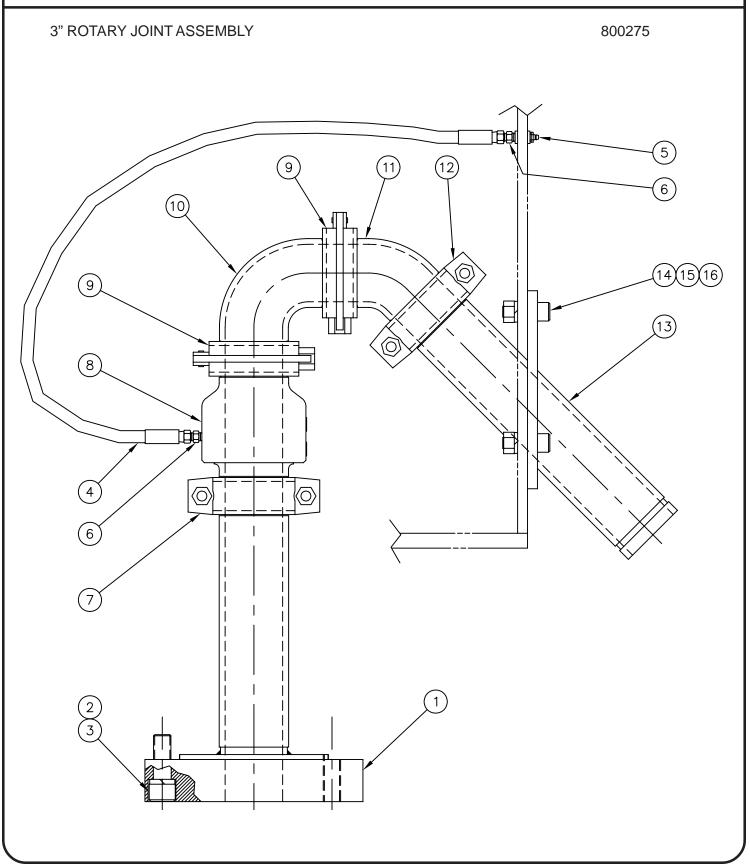


PARTS LIST

CONTROL PANEL ASSEMBLY 810935

	Part		
l <u>tem</u>	<u>Number</u>	Qty.	<u>Description</u>
1	170900	1	ENCLOSURE
2	170898	1	FACEPLATE LABEL
3	170845	1	ENGINE RECEPTACLE
4	170847	1	ENGINE RECEPTACLE GASKET
5	110754	8	#6-32 X 0.375 LG RHMS
6	110696	8	#6 LOCK WASHER
7	170896	1	ENGINE INTERFACE PANEL
8	110615	1	ENGINE CONTROL SWITCH
9	100566	1	GOVERNOR RAISE / LOWER SWITCH
10	170861	1	PENDANT RECEPTACLE COVER
11	170849	3	S/O CORD RECEPTACLE
12	110843	3	0.50 LOCK NUT
13	170857	1	PENDANT RECEPTACLE
14	170859	1	PENDANT RECEPTACLE GASKET







PARTS LIST

3" ROTARY JOINT ASSEMBLY

ltom	Part Number	Otv	Description
l <u>tem</u>	<u>INUITIDEI</u>	<u>Qty.</u>	<u>Description</u>
1	400871	1	3" ADAPTER
2	400909	8	.875-9 X 2.5 LG SHCS
3	400911	8	.875 HI COLLAR LOCK WASHER
4	100719	1	HOSE025R02J004J004L03000
5	100229	1	GREASE FITTING
6	140267	2	FITT2S-04M02P000-000H001
7	400477	1	3" VICTAULIC COUPLING
8	810551	1	3" SWIVEL JOINT ASM.(J&M)
9	400875	2	3" 78 COUPLING
10	400877	1	3-90 ELBOW
11	400879	1	3-45 ELBOW
12	400881	1	3" 75 COUPLING
13	400867	1	3" GROUT PIPE W/SUPPORT
14	100005	4	.625-11 X 1.75 LG SHCS LOC WELL
15	100273	4	.625-11 HEX NUT
16	100007	4	.625 LOCK WASHER MEDIUM
_		•	





PARTS LIST

F. RECOMMENDED TIGHTENING TORQUE

Nominal Screw Size	Nominal Socket Size	Tightening Torque Ft-Lbs. (Kg-M)	Nominal Screw Size	Nominal 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 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 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.

