



**E-Z POUR 400 DIESEL MELTER
WITH PUMP/APPLICATOR
AND ELECTRIC HOSE**

**PART MANUAL - 26411
REV. 0**

Revised: 03/2007

**E-Z POUR 400 DIESEL MELTER
WITH PUMP/APPLICATOR**



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E-Z POUR 400 DIESEL MELTER WITH PUMP/APPLICATOR

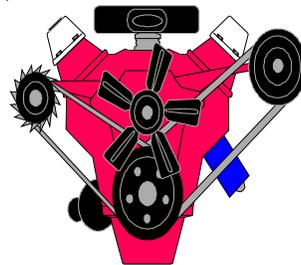
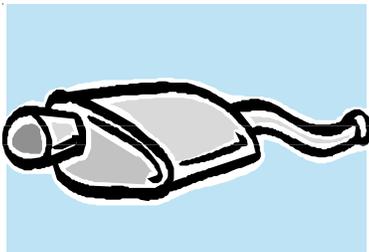
This manual is furnished with each new **CRAFCO E-Z POUR 400 DIESEL MELTER WITH PUMP/APPLICATOR**. The manual will help your machine operators learn to run the sealer properly and understand its mechanical functions for trouble-free operation.

Your **CRAFCO E-Z POUR 400 DIESEL MELTER WITH PUMP/APPLICATOR** is designed to give excellent service and save maintenance expense. However, as with all specifically engineered equipment, you can get best results at minimum costs if:

- (1) You operate your machine as instructed in this manual, and
- (2) Maintain your machine regularly as stated in this manual.



WARNING: The engine exhaust from this product contains chemicals known to the State of California to cause cancer, birth defects or other reproductive harm. Operate in well ventilated area only. Engine exhaust is deadly.



SAFETY PRECAUTIONS

- High operating temperatures of sealant and machine require protective clothing and gloves be worn by operator.



- Always wear eye protection.

- Observe all **CAUTION AND WARNING** signs posted on machine.



- Avoid the entrance of water into any part of the machine. Water will displace heat transfer oil or sealant, which could be hazardous to personnel surrounding the machine when it reaches operating temperatures.

- Avoid bodily contact with hot sealant material or heat transfer oil, serious burns may result.

- Read Operator Manual thoroughly before operating machine.

- Make sure operator is familiar with machine operation.

- Do not operate in closed building or confined areas.

- Shut-down burner and engine prior to refilling diesel tank.

- When adding solid material to sealant tank, stop mixer, lift lid, place material onto lid and close lid before restarting mixer. Hot material could splash and cause serious burns if this procedure is not followed.

- Keep hands, feet, and clothing away from all moving parts.

- Always keep a fire extinguisher near the unit. Maintain extinguisher properly and be familiar with its use.



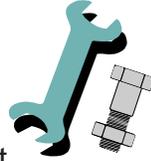
- **DO NOT** exceed 525° F. for heat transfer oil temperature.

- **DO NOT** overfill heat transfer oil level. Expansion of oil during heat up could cause overflow. With machine in level position, check oil each day before starting burner, add oil to top mark on dipstick if required (at 70° F.). **Use only recommended heat transfer oil and change after 500 hours of operation or one year, whichever occurs first.**

- Follow operating instructions for starting and shut-down of burner. Instructions are mounted on control box.

SAFETY PRECAUTIONS

- Replace any hoses which show signs of wear, fraying, or splitting. Be sure all fittings and joints are tight and leak-proof.
- Precaution is the best insurance against accidents.
- The E-Z Pour 400 Diesel Melter should not be left unattended with burner lit.
- Tighten all bolts and screws after every 100 hours of operation.
- CRAFCO, Inc. assumes no liability for an accident or injury incurred through improper use of the machine.



E-Z POUR 400 DIESEL MELTER WITH PUMP/APPLICATOR LIMITED WARRANTY

Crafco, Inc., through its authorized distributor, will replace for the original purchaser free of charge any parts found upon examination by the factory at Mesa, Arizona, to be defective in material or workmanship. This warranty is for a period within 60 days of purchase date, but excludes engine or components, tires, and battery as these items are subject to warranties issued by their manufacturers.

After 60 days, Crafco, Inc., warrants structural parts, excluding heating system, hydraulic components, material pump and hoses, hot oil pump, applicator valves, and electrical components for a period of (1) one year from date of delivery. Crafco, Inc., shall not be liable for parts that have been damaged by accident, alteration, abuse, improper lubrication/maintenance, normal wear, or other cause beyond our control.

The warranty provided herein extends only to the repair and/or replacement of those components on the equipment covered above and does not cover **labor** costs. The warranty does not extend to incidental or consequential damages incurred as a result of any defect covered by this warranty.

All transportation and labor costs incurred by the purchaser in submitting or repairing covered components must be borne by the purchaser.

Crafco, Inc. specifically disavows any other representation, warranty, or liability related to the condition or use of the product.



WARNING: Use of replacement parts other than genuine Crafco parts

may impair the safety or reliability of your equipment and nullifies any warranty.

WARRANTY CLAIM INSTRUCTIONS

Please follow the instructions stated below when calling in a Warranty Claim. Failure to follow these procedures may be cause to void the warranty.

1. Call your local CrafcO Distributor. If you do not know who your local distributor is, call a CrafcO Customer Service Representative, (Toll Free 1-800-528-8242) for name, location, and telephone number.
2. On contacting the distributor, be prepared to identify the machine type, model number, and serial number, also, the date of purchase if available.
3. Should the cause of the malfunction be a defective part, the distributor will advise you of the procedure to follow for a replacement.
4. The warranty is valid only for parts, which have been supplied or recommended by CrafcO, Inc.

If you have any additional questions regarding warranty repairs and parts, please do not hesitate to call toll free 1-800-528-8242.

CRAFCO, INCORPORATED
235 SOUTH HIBBERT DRIVE
MESA, AZ 85210
480-655-8333
Toll Free 1-800-528-8242

SPECIFICATIONS

| | |
|-------------------------------------|--|
| Vat Capacity..... | 400 Gallons |
| Melt Capacity..... | 250 Gallons/Hour |
| Heat Transfer Oil Required..... | 55 Gallons at 70° F |
| Tank Construction..... | Double Boiler Type |
| Tank Opening Size (2)..... | 16" X 24" |
| Maximum Heat Input..... | Diesel, Burner- 425,000 BTU |
| Burner and Temperature Control..... | Automatic-Digital |
| Engine - Isuzu..... | 3 Cylinder 25.4 HP @ 3000 rpm |
| Drive Mechanism..... | All hydraulic with infinite speed forward & reverse action. |
| Mixer..... | Full sweep mixer with 2 blades |
| Axle (2)..... | 6,000 lbs.capacity each |
| Tires (4)..... | LT 235/85 R16 LRE (3042lbs capacity) |
| Dry Weight..... | Approximately 5,400 lbs. |
| Diesel Tank..... | 30 Gallons |

OPERATING INSTRUCTIONS

INTRODUCTION

The CRAFCO E-Z Pour 400 Diesel Melter was developed to melt CRAFCO Brand Sealants. However, it will work equally well with all road asphalts and federal specification crack or joint sealants.

DO NOT operate machine without reading operator's manual, being thoroughly familiar with controls, and following these instructions:

1. Fill engine fuel tank with diesel fuel (use #1 in cold weather, #2 in warm weather).
2. Check engine crankcase oil (refer to Engine Operator's Manual).
3. Check hydraulic fluid level, at 70° F. Add fluid if necessary.
4. Check heat transfer oil level, at 70° F., the oil should be at the full mark on the dipstick at the top mark. **DO NOT** overfill, or spillage may occur when oil is heated and expands.
5. All valves should be in closed position and "POWER" switch "OFF". Temperature dials at minimum setting.
6. Applicator hose can be kept warm and ready for use by storing in heating chamber before using machine. Close heating doors after hose and wand have been coiled in chamber.
7. Remember that safe operation of this equipment is the operator's responsibility.

LOADING THE MACHINE

When loading solid material into the sealant tank, the mixer must be momentarily stopped, the lid lifted, the material placed on the lid and the lid closed again before the mixer is restarted. Following this procedure will prevent the hot material from splashing and causing serious burns to personnel.

The solid material must be added at intervals, which will allow the mixer to rotate without jamming. If blocks are fed too quickly, jamming will result and slow down the melting process.



CAUTION:

Extreme care must be used when operating this equipment. Safety is the result of being careful and paying attention to details. Remember the diesel flame is about 2,200° F. Certain exposed parts of this machine, when operating reach 500° F; the sealant as high as 400° F and the hydraulic fluid may reach 200° F. Always wear protective clothing, hard sole shoes, and eye protection. Be sure that all joints and fittings are tight and leak proof. Immediately replace any hose, which shows any signs of wear, fraying, or splitting. Tighten all bolts, nuts, and screws every 250 hours

MACHINE START UP

TO START BURNER

1. Fully open the damper vent.
2. Start engine per Engine Manual.
3. Turn "POWER" toggle switch at control box "ON"
4. Set hot oil temperature at 500F (Page 13 item H) and material temperature at manufacturesrecommended temperature. (Page 13, item F)



CAUTION:

If burner does not ignite the first time, turn temperature dial to off. Turn temperature dial to desired setting. Burner should ignite. If burner still does not ignite, determine cause of malfunction (see Trouble Shooting Guide).

5. Allow the heating oil to continue to heat. When sealant material reaches 275F, mixer may be engaged by moving the agitator level either forward or backward. If mixer does not move, allow material to heat longer. Jamming of mixer shaft causes hydraulic oil to over heat and machine damage could occur.
6. When the material temperature reaches approximately 275F. Adjust the temperature dial for the hose to 380F, or the manufactures recommended temperature for the sealant you are using.
7. When sealant reaches correct application temperature, open main tank valve (Page 12, item A), open recirculation valve (Page 12, item B) and close applicator valve (Page 12, item C). Put sealant pump in reverse (Suction) mode. When pump turns freely, reverse sealant pump flow (Discharge) (Page 12, item D). This circulates sealant back into tank.
8. Check the sealant temperature incontrol box. This indicates the temperature of sealant flowing through lines.
9. When application of sealant is desired. Attach hose to hand applicator. Be sure to hand tighten only. Place applicator in rear tank opening, with the hand wand valve in the **ON** position.
10. Open applicator valve (Page 12, item C).
11. Close the recirculation valve (Page 12, item B). **IMPORTANT:** Adjust the valve to get the desired amount of flow from the applicator wand given your applicator needs. You do not need to close the valve all the way for application. If material does not flow from wand, the hose may need to be warmed. Heat hose by increasing the hose temperature dial by 10 degrees to liquify sealant in hose, then repeat procedure.
12. Extreme care should be taken when changing or installing applicator tips. If the material is hot the material pump **must** be put in the "**SUCTION**" mode. This will insure against hot material pumped from wand. **Sealant material is hot and can cause skin burns.**
13. To apply sealant to joint, remove hand applicator from rear tank opening. **Make sure** the hand wand valve is closed. When applicator wand is over joint, open hand valve and apply sealant.
14. To prevent hose from cooling, place the applicator wand in the rear tank opening when not to be used for 2 minutes or more. Always close hand wand prior to inserting wand in tank opening. Open hand valve to recirculate back into tank and keep hose warm.

MACHINE START UP

IT IS STRONGLY RECOMMENDED THAT THE HOSE BE STORED IN THE CORRECT LOCKED POSITION WHEN NOT IN USE OR WHEN IN TRANSIT.

15. The heated hose supplied with the machine is Teflon lined with steel over braid. It has a heating element, which runs down the hose to heat the material within the hose. The hose is covered with high temperature, durable rubber hose.



G



H

F



J

RTD SENSOR - OHMS vs. TEMPERATURE

The following chart shows what the ohm reading would be for a given temperature. The following are the instructions for use.

1. Measure the resistance (Ohms) of the sensor in question with an Ohm meter.
2. Find the reading in the chart.
3. Follow the row to the left and get the temperature in 10° increment, then follow the column up to get the 1° increment. Example: 1573 Ohms = 302°

| °F | 0 | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 |
|-----|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| 0 | 930.3 | 932.5 | 934.7 | 936.9 | 939.1 | 941.3 | 943.4 | 945.6 | 947.8 | 950.0 |
| 10 | 952.2 | 954.3 | 956.5 | 958.7 | 960.9 | 963.0 | 965.2 | 967.4 | 969.6 | 971.8 |
| 20 | 973.9 | 976.1 | 978.3 | 980.5 | 982.6 | 984.8 | 987.0 | 989.1 | 991.3 | 993.5 |
| 30 | 995.7 | 997.8 | 1000.0 | 1002.2 | 1004.3 | 1006.5 | 1008.7 | 1010.9 | 1013.0 | 1015.2 |
| 40 | 1017.4 | 1019.5 | 1021.7 | 1023.9 | 1026.0 | 1028.2 | 1030.4 | 1032.5 | 1034.7 | 1036.9 |
| 50 | 1039.0 | 1041.2 | 1043.4 | 1045.5 | 1047.7 | 1049.8 | 1052.0 | 1054.2 | 1056.3 | 1058.5 |
| 60 | 1060.7 | 1062.8 | 1065.0 | 1067.1 | 1069.3 | 1071.5 | 1073.6 | 1075.8 | 1077.9 | 1080.1 |
| 70 | 1082.2 | 1084.4 | 1086.6 | 1088.7 | 1090.9 | 1093.0 | 1095.2 | 1097.3 | 1099.5 | 1101.6 |
| 80 | 1103.8 | 1106.0 | 1108.1 | 1110.3 | 1112.4 | 1114.6 | 1116.7 | 1118.9 | 1121.0 | 1123.2 |
| 90 | 1125.3 | 1127.5 | 1129.6 | 1131.8 | 1133.9 | 1136.1 | 1138.2 | 1140.4 | 1142.5 | 1144.7 |
| 100 | 1146.8 | 1149.0 | 1151.1 | 1153.2 | 1155.4 | 1157.5 | 1159.7 | 1161.8 | 1164.0 | 1166.1 |
| 110 | 1168.3 | 1170.4 | 1172.5 | 1174.7 | 1176.9 | 1179.0 | 1181.1 | 1183.3 | 1185.4 | 1187.5 |
| 120 | 1189.7 | 1191.8 | 1194.0 | 1196.1 | 1198.2 | 1200.4 | 1202.5 | 1204.6 | 1206.8 | 1208.9 |
| 130 | 1211.0 | 1213.2 | 1215.3 | 1217.5 | 1219.6 | 1221.7 | 1223.9 | 1226.0 | 1228.1 | 1230.3 |
| 140 | 1232.4 | 1234.5 | 1236.7 | 1238.9 | 1240.9 | 1243.0 | 1245.2 | 1247.3 | 1249.4 | 1251.6 |
| 150 | 1253.7 | 1255.8 | 1258.0 | 1260.1 | 1262.2 | 1264.3 | 1266.5 | 1268.6 | 1270.7 | 1272.8 |
| 160 | 1275.0 | 1277.1 | 1279.2 | 1281.3 | 1283.5 | 1285.6 | 1287.7 | 1289.8 | 1292.0 | 1294.1 |
| 170 | 1296.2 | 1298.3 | 1300.4 | 1302.6 | 1304.7 | 1306.8 | 1308.9 | 1311.0 | 1313.2 | 1315.3 |
| 180 | 1317.4 | 1319.5 | 1321.6 | 1323.8 | 1325.9 | 1328.0 | 1330.1 | 1332.2 | 1334.3 | 1336.5 |
| 190 | 1338.6 | 1340.7 | 1342.8 | 1344.9 | 1347.0 | 1349.1 | 1351.2 | 1353.4 | 1355.5 | 1357.6 |
| 200 | 1359.7 | 1361.8 | 1363.9 | 1366.0 | 1368.1 | 1370.2 | 1372.4 | 1374.5 | 1376.6 | 1378.7 |
| 210 | 1380.8 | 1382.9 | 1385.0 | 1387.1 | 1389.2 | 1391.3 | 1393.4 | 1395.5 | 1397.6 | 1399.7 |
| 220 | 1401.8 | 1403.9 | 1406.0 | 1408.1 | 1410.3 | 1412.4 | 1414.5 | 1416.6 | 1418.7 | 1420.8 |
| 230 | 1422.9 | 1425.0 | 1427.1 | 1429.2 | 1431.3 | 1433.4 | 1435.5 | 1437.6 | 1439.6 | 1441.7 |
| 240 | 1443.8 | 1445.9 | 1448.0 | 1450.1 | 1452.2 | 1454.3 | 1456.4 | 1458.5 | 1460.6 | 1462.7 |
| 250 | 1464.8 | 1466.9 | 1469.0 | 1471.1 | 1473.2 | 1475.3 | 1477.3 | 1479.4 | 1481.5 | 1483.6 |
| 260 | 1485.7 | 1487.8 | 1489.9 | 1492.0 | 1494.1 | 1496.1 | 1498.2 | 1500.3 | 1502.4 | 1504.5 |
| 270 | 1506.6 | 1508.7 | 1510.8 | 1512.8 | 1514.9 | 1517.0 | 1519.1 | 1521.2 | 1523.3 | 1525.3 |
| 280 | 1527.4 | 1529.5 | 1531.6 | 1533.7 | 1535.7 | 1537.8 | 1539.9 | 1542.0 | 1544.1 | 1546.1 |
| 290 | 1548.2 | 1550.3 | 1552.4 | 1554.5 | 1556.5 | 1558.6 | 1560.7 | 1562.8 | 1564.8 | 1566.9 |
| 300 | 1569.0 | 1571.1 | 1573.1 | 1575.2 | 1577.3 | 1579.4 | 1581.4 | 1583.5 | 1585.6 | 1587.7 |
| 310 | 1589.7 | 1591.8 | 1593.9 | 1595.9 | 1598.0 | 1600.1 | 1602.2 | 1604.2 | 1606.3 | 1608.4 |
| 320 | 1610.4 | 1612.5 | 1614.6 | 1616.6 | 1618.7 | 1620.8 | 1622.8 | 1624.9 | 1627.0 | 1629.0 |
| 330 | 1631.1 | 1633.2 | 1635.2 | 1637.3 | 1639.3 | 1641.4 | 1643.5 | 1645.5 | 1647.6 | 1649.7 |
| 340 | 1651.7 | 1653.8 | 1655.8 | 1657.9 | 1660.0 | 1662.0 | 1664.1 | 1666.1 | 1668.2 | 1670.2 |
| 350 | 1672.3 | 1674.4 | 1676.4 | 1678.5 | 1680.5 | 1682.6 | 1684.6 | 1686.7 | 1688.7 | 1690.8 |
| 360 | 1692.9 | 1694.9 | 1697.0 | 1699.0 | 1701.1 | 1703.1 | 1705.2 | 1707.2 | 1709.3 | 1711.3 |
| 370 | 1713.4 | 1715.4 | 1717.5 | 1719.5 | 1721.6 | 1723.6 | 1725.7 | 1727.7 | 1729.8 | 1731.8 |
| 380 | 1733.9 | 1735.9 | 1737.9 | 1740.0 | 1742.0 | 1744.1 | 1746.1 | 1748.2 | 1750.2 | 1752.3 |
| 390 | 1754.3 | 1756.3 | 1758.4 | 1760.4 | 1762.5 | 1764.5 | 1766.6 | 1768.6 | 1770.6 | 1772.7 |
| 400 | 1774.7 | 1776.8 | 1778.8 | 1780.8 | 1782.9 | 1784.9 | 1786.9 | 1789.0 | 1791.0 | 1793.1 |
| 410 | 1795.1 | 1797.1 | 1799.2 | 1801.2 | 1803.2 | 1805.3 | 1807.3 | 1809.3 | 1811.4 | 1813.4 |
| 420 | 1815.4 | 1817.5 | 1819.5 | 1821.5 | 1823.6 | 1825.6 | 1827.6 | 1829.6 | 1831.7 | 1833.7 |
| 430 | 1835.7 | 1837.8 | 1839.8 | 1841.8 | 1843.8 | 1845.9 | 1847.9 | 1849.9 | 1851.9 | 1854.0 |
| 440 | 1856.0 | 1858.0 | 1860.0 | 1862.1 | 1864.1 | 1866.1 | 1868.1 | 1870.2 | 1872.2 | 1874.2 |
| 450 | 1876.2 | 1878.2 | 1880.3 | 1882.3 | 1884.3 | 1886.3 | 1888.3 | 1890.4 | 1892.4 | 1894.4 |
| 460 | 1896.4 | 1898.4 | 1900.5 | 1902.5 | 1904.5 | 1906.5 | 1908.5 | 1910.5 | 1912.6 | 1914.6 |
| 470 | 1916.6 | 1918.6 | 1920.6 | 1922.6 | 1924.6 | 1926.6 | 1928.7 | 1930.7 | 1932.7 | 1934.7 |
| 480 | 1936.7 | 1938.7 | 1940.7 | 1942.7 | 1944.7 | 1946.8 | 1948.8 | 1950.8 | 1952.8 | 1954.8 |
| 490 | 1956.8 | 1958.8 | 1960.8 | 1962.8 | 1964.8 | 1966.8 | 1968.8 | 1970.8 | 1972.8 | 1974.8 |
| 500 | 1976.8 | 1978.8 | 1980.8 | 1982.9 | 1984.9 | 1986.9 | 1988.9 | 1990.9 | 1992.9 | 1994.9 |
| 510 | 1996.9 | 1998.9 | 2000.9 | 2002.9 | 2004.9 | 2006.9 | 2008.8 | 2010.8 | 2012.8 | 2014.8 |
| 520 | 2016.8 | 2018.8 | 2020.8 | 2022.8 | 2024.8 | 2026.8 | 2028.8 | 2030.8 | 2032.8 | 2034.8 |
| 530 | 2036.8 | 2038.8 | 2040.8 | 2042.8 | 2044.7 | 2046.7 | 2048.7 | 2050.7 | 2052.7 | 2054.7 |
| 540 | 2056.7 | 2058.7 | 2060.7 | 2062.7 | 2064.6 | 2066.6 | 2068.6 | 2070.6 | 2072.6 | 2074.6 |
| 550 | 2076.6 | 2078.5 | 2080.5 | 2082.5 | 2084.5 | 2086.5 | 2088.5 | 2090.4 | 2092.4 | 2094.4 |

SHUTDOWN AND CLEAN-OUT PROCEDURE

1. Turn the "POWER" switch to "OFF"
2. Move mixer control valve to "**NEUTRAL**" position.
3. Close recirculation valve.
4. Put material pump in suction mode. With hand applicator valve open, disconnect wand and return hose ball valve to the heat chamber. Close applicator valve. Open recirculation valve. Close main tank valve.
5. Return material pump control valve to "**NEUTRAL**" position.
6. Shut the engine down by turning the key to the "OFF" position.
7. Return wand to heat chamber.

STORING MACHINE

The E-Z Pour 400D should be stored in an area to prevent moisture from entering machine. Extended down time can cause moisture build up in heating oil tank.



CAUTION:

If there is any suspicion that moisture may have collected in heat transfer oil, warm heat transfer oil to 300° F for 2 or 3 hours to evaporate any moisture.

INSTRUCTION FOR ORDERING PARTS

Parts may be ordered from your local CRAFCO distributor or directly from CRAFCO, Inc. if a distributor is not available in your area. When ordering parts, give the following information:

1. Part Number
2. Machine Model
3. Serial Number from Name Plate

Write, telephone, or fax:

CRAFCO, INC.
235 SOUTH HIBBERT
MESA, AZ 85210
480-655-8333
480-655-1712 fax
Toll Free: 1-800-528-8242



ELECTRIC HOSE CARE AND CAUTIONS



Twisting and kinking of the electric hose (used on LF, BAX, SS60, SS125, and SS250 Melter) is the number one cause of hose failure.

When this happens, the electric heating wires are shorted out to the metal hose cover and the hose stops heating.

This type of failure is not covered under the CrafcO warranty.

To help prevent twisting and kinking and the resulting hose damage, the operator should:

- a. Not move or use hose unless it has been turned on at least 30 minutes and set at a minimum temperature of 300°F.
- b. Make sure hose swivel between hose and wand moves freely.
- c. Avoid bending the hose over sharp edges such as the edge of the frame or tank.
- d. Avoid twisting.
- e. Do not exceed 400°F. on the hose or material temperature.
- f. Follow all instructions of the melter as well as those in the instruction manual.

HOSE TRANSPORT INSTRUCTIONS

1. Leaving the hose in the boom, swing the boom clockwise towards the front of the machine and lock the boom into position with the latch provided.
2. Place the wand in the wand holder and lock the wand into position with the latch provided.

CAUTION:



Hose damage will occur if:

- a. Hose is bent or moved when cold.
- b. Hose is twisted or bent at sharp radius.
- c. Hose is moved prior to being turned on at least 35 minutes and set at 380° F.
- d. Operator crosses over or under hose causing hose to twist or wires between hose and wand connection to twist or wrap up.
- e. Swivel is cold and not free to move allowing hose to twist.
- f. Hose to wand wiring is pulled, stressed, or used to support the wand.

MAINTENANCE INSTRUCTIONS

ENGINE:

See engine owners manual for additional operating and maintenance instructions.

HYDRAULIC SYSTEM:

Check hydraulic fluid daily. Change hydraulic filter every 250 hours of operation. Change hydraulic fluid every 500 hours of operation.



HEAT TRANSFER OIL:

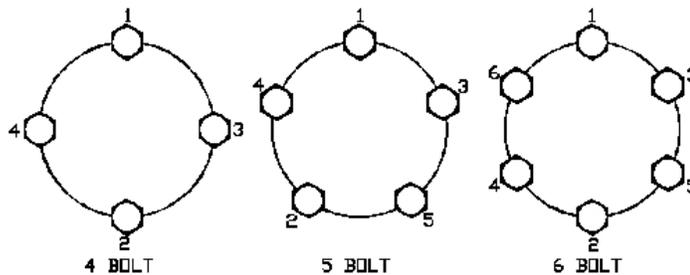
Check oil level every 8 hours of operation. Change oil every 500 hours of operation.

WHEEL BEARINGS:

Re-pack wheel bearings every 24,000 miles or every two years, using a good grade of bearing grease.

LUG NUTS:

Wheel nuts/bolts should be torqued before first road use and after each wheel removal. Check and retorqued after the first 10 miles, 25 miles, and again at 50 miles. Check periodically thereafter. Torque in stages. 1st stage 20-25 ft.lbs., 2nd stage 50-60 ft.lbs., 3rd stage 90-120 ft.lbs.



BRAKES:

Check brakes daily. Refer to DEXTER AXLE Operator Maintenance Service Manual located in the manual box.

TONGUE JACK:

Lubricate tongue jack, using a good grade of bearing grease.

SEALANT PUMP:

Adjust pump packing periodically. A slight drippage (several drops per minute) should be allowed. Refer to Pump Section for details.

TEMPERATURE CONTROL CALIBRATION:

Check control knob calibration weekly. Calibrate by aligning the line on the control knob with the calibration line on the scale plate (See Fig. 1).

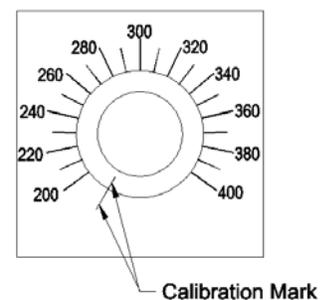


Fig. 1

MAINTENANCE CHART

| | | HOURS | | | |
|--------------------------|---|--|----|-----|-----|
| LOCATION | PROCEDURE | 8 | 50 | 250 | 500 |
| Engine check oil level | See Engine Instruction Manual. | * | | | |
| Other engine maintenance | See Engine Operating and Maintenance Instructions. | | | | |
| Battery | Check water level weekly. | | | | |
| Heat transfer oil | Check. | * | | | |
| Heat transfer oil | Change. | | | | * |
| Hydraulic oil filter | Change. | | | * | |
| Hydraulic oil | Check oil. | * | | | |
| Hydraulic oil | Change oil. | | | | * |
| Burner | Check burner box insulation. | | | | * |
| | Clean cad cell. | | | | * |
| | Check electrodes. | | | | * |
| | Check blower brushes. | | | | * |
| | Check nozzle pressure. | | | | * |
| Wheel bearings | Clean & re-pack using a good grade of bearing grease. | Every 24,000 miles or every two years. | | | |
| Tongue jack | Grease, using good grade of bearing grease. | Once a year. | | | |

SERVICE INSTRUCTIONS

1. Conduct a general inspection of your machine at least once a week. Replace all worn or damaged parts, make any necessary adjustments and tighten all loose nuts or screws.
2. Keep regular replacement items in stock for emergency repairs and to avoid costly "down" time.
3. Watch for leaks. Tighten fitting or repair as necessary.
4. Clean machine externally periodically. Check with sealant manufacturer for recommendation.
5. Follow recommended maintenance procedures on maintenance chart.

GENERAL MAINTENANCE ITEMS

| RECOMMENDED QUANTITY | DESCRIPTION | PART NO. |
|----------------------|-----------------------|----------|
| 1 Set | Packing, Sealant Pump | 29990 |
| 1 | Sealant Hose Assembly | 27009 |
| 1 | Engine Oil Filter | 45389 |
| 1 | Engine Fuel Filter | 41867 |
| 1 | Hydraulic Filter | 44805 |
| 1 | Air Filter | 45391 |

SERVICE INSTRUCTIONS

1. Conduct a general inspection of your machine at least once a week. Replace all worn or damaged parts, make any necessary adjustments and tighten all loose nuts or screws.



2. Keep regular replacement items in stock for emergency repairs, to avoid costly “down” time. Refer to General Maintenance Items.
3. Watch for leaks - tighten packing on pumps as necessary.
4. Clean machine externally periodically. Check with sealant manufacturer for recommendation.
5. Follow recommended maintenance procedures on maintenance chart.

RECOMMENDED FLUIDS & LUBRICANTS

| APPLICATION | RECOMMENDED | FULL POINT |
|-------------------|---|------------|
| Engine Oil | Refer to Isuzu Engine Operating Manual. | |
| Diesel | #1 Cold Climate #2 Warm Climate | 30 Gal. |
| Hydraulic Oil | RONDO OIL-HD-68 Texaco | 28 Gal. |
| Heat Transfer Oil | See below. | 55 Gal. |

The following is a list of suitable heat transfer oil to be used in CrafcO equipment.

| PRODUCER | PRODUCT NAME | PRODUCT NUMBER |
|---------------|---------------------------|----------------|
| Texaco | Regal | R&O 68 |
| Exxon | Caloria | HT 43 |
| Arco | Rubilene | -- |
| Citgo | Sentry | R&O 68 |
| Gulf Oil Co. | Security | R&O 68 |
| Shell Oil Co. | Therma | C |
| Chevron | Chevron Heat Transfer Oil | -- |
| Conoco | Heat Transfer Oil | R&O 68 |

TYPICAL SPECIFICATIONS

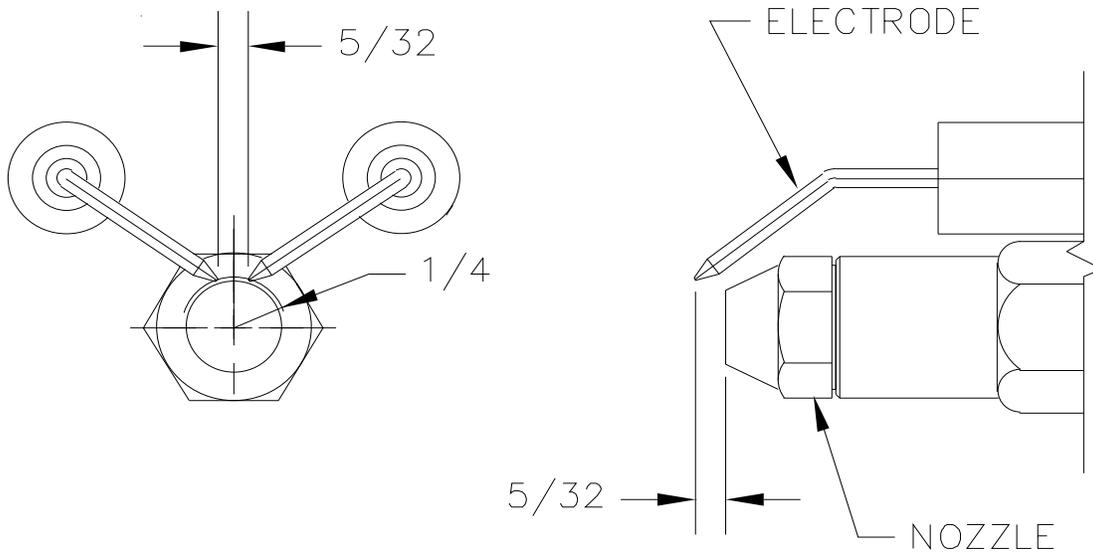
| | | | |
|-------------------------|---------|-----------------|--------|
| ISO | 68 | Viscosity Index | 95-100 |
| Flash Point, COC | 445° F. | Pour Point | 0° F. |
| Viscosity @ 100° F.-SUS | 325 | Carbon Residue | 1% |
| Viscosity @ 210° F.-SUS | 50 | | |



WARNING:

The Heat Transfer Oil in this machine is a grade that has been tested and recommended by CRAFCO, Inc. The addition of any grade of oil not specifically recommended by CRAFCO, Inc. shall be cause for the warranty to be void. All oils subjected to high temperatures deteriorate with time and lose many of their characteristics. Test conducted by CRAFCO, Inc. have determined that for best results and safety, the Heat Transfer Oil in this machine must be drained and replaced with CrafcO, Inc. recommended oil after five hundred (500) hours of operation or one (1) year, whichever occurs first.

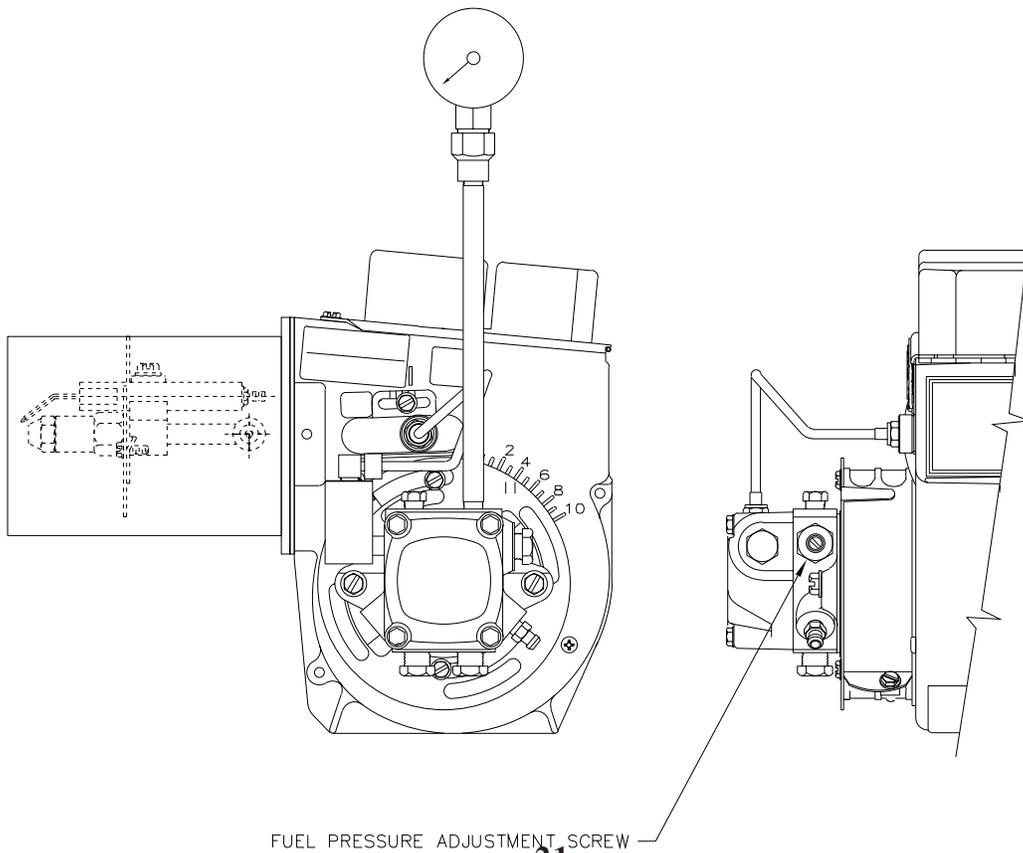
DIESEL BURNER ELECTRODE ADJUSTMENTS



DIESEL BURNER SETTINGS

Air Shutter = 3
Air Band = 5
Fuel Pressure = 140 PSI

Use fuel and hydraulic pressure kit p/n 29960



TROUBLE SHOOTING GUIDE

| PROBLEM | CAUSE | REMEDY |
|---|---|---|
| Mixer will not rotate. | Sealant temperature too low. | Continue to heat material. |
| | Too many blocks placed at one time. | Continue to heat material & try reversing mixer. |
| | Inadequate hydraulic flow/pressure. | Check hydraulic fluid level. Reset pressure/check flow if necessary. |
| Material pump will not turn. | Material in tank not to operating temperature. | Continue heating material. |
| | Inadequate hydraulic, flow/pressure. | Check hydraulic fluid level. Reset pressure/check flow as necessary. |
| | Material pump damaged or foreign object lodged in pump. | Replace/Remove. |
| Sealant will not recirculate back into tank through recirculation valve. | Material in tank not to correct temperature. | Continue heating material. |
| | Drain valve closed. | Open valve. |
| | Material still cold in suction line. Recirculation valve closed. | Make sure compartment temperature is adequate to melt material. Open valve. |
| Sealant material flows through recirculation valve but will not flow through application hand wand. | Application valve not open. | Open valve. |
| | Recirculation valve still open or damaged internally. | Close valve or replace. |
| | Hose/wand still cold. | Leave in chamber until hot. |
| When applying sealant it stops flowing from applicator wand. | Hand applicator valve was left in off position too long. | Heat hose by placing in heat chamber to liquify sealant. |
| | Too many blocks of material added to tank. Cold material entered pump & stopped flow. | Heat hose by placing in heating chamber to liquify sealant. |
| | Tank fluid level too low for material to flow into pump. | Continue heating material until more liquid material is available. |
| Pump rotates, but will not pump material. | Material pump worn or damaged. | Replace/Repair. |
| | Pump rotating in wrong direction. | Reverse control lever. |
| | Foreign object lodged in inlet line to pump. | Dislodge by reversing pump or disassemble inlet line. |
| | Material cold, inlet still solid. | Continue to heat material. |
| | Block of sealant over drain. | Dislodge by reversing mixer and pump. |
| Slow heat up of sealant. | Build up of coked or crystallized material on inside of material tank. | Allow machine to cool. Remove deposits and flush with solvent. |
| | Burner not operating. | See Burner Trouble Shooting Guide. |
| | Low heating oil level. | Make sure fluid level is correct. |
| | Low heating oil temperature. | Set at recommended temperature. |
| | Heating oil old or has crystallized. | Replace it as recommended every 500 hours. |

BURNER TROUBLE SHOOTING

BURNER WILL NOT IGNITE

Step 1: Check for 12 volts at "POWER" toggle switch.

No: Engine key "OFF"

Toggle switch "OFF"

Blown fuse

Broken wire

YES: 12 volts at terminal #4 on "MATERIAL" Pak-Stat

NO: Bad Pak-Stat

Faulty sensor

YES: Check for 12 volts at terminal #7 on "OIL" Pak-Stat

NO: Bad Pak-Stat

Faulty sensor

YES: Check for 12 volts at solenoid (frame).

NO: Bad solenoid

Bad connection at battery

Faulty circuit breaker

Broken or loose wire

YES: Faulty DC Controller, poor ground / loose wire

Faulty or dirty flame

Faulty igniter transformer, cracked electrode
(ceramic)

Incorrect igniter gap

Faulty fuel solenoid

Bleed fuel pump / check fuel pump coupling

Fuse under DC Controller

Blower motor relay

Faulty blower motor

Alternator charging @ 14 volts

Faulty 12 volt battery



BURNER LIGHTS BUT SHUTS DOWN AFTER 15 SEC.

Faulty flame eye

Broken, loose flame eye sensor wires, receptacle

Faulty DC Controller

Bleed fuel system if white or blue smoke appears through exhaust stack

BURNER LIGHTS BUT WILL NOT RELIGHT

Bad connection at battery

Broken or loose wires

Faulty DC Controller

Alternator charging at 14 volts

Faulty 12 volt battery

EXCESSIVE SMOKE FROM BURNER EXHAUST

Air vent incorrectly set - set at 3-5

Blower motor not turning at correct speed

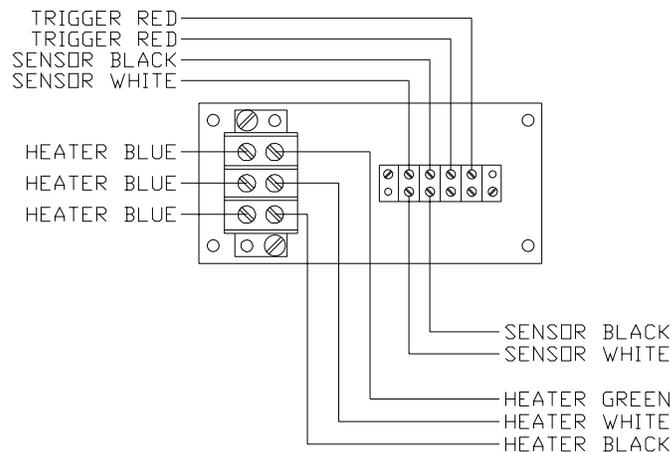
Alternator charging at 14 volts

Faulty 12 volt battery

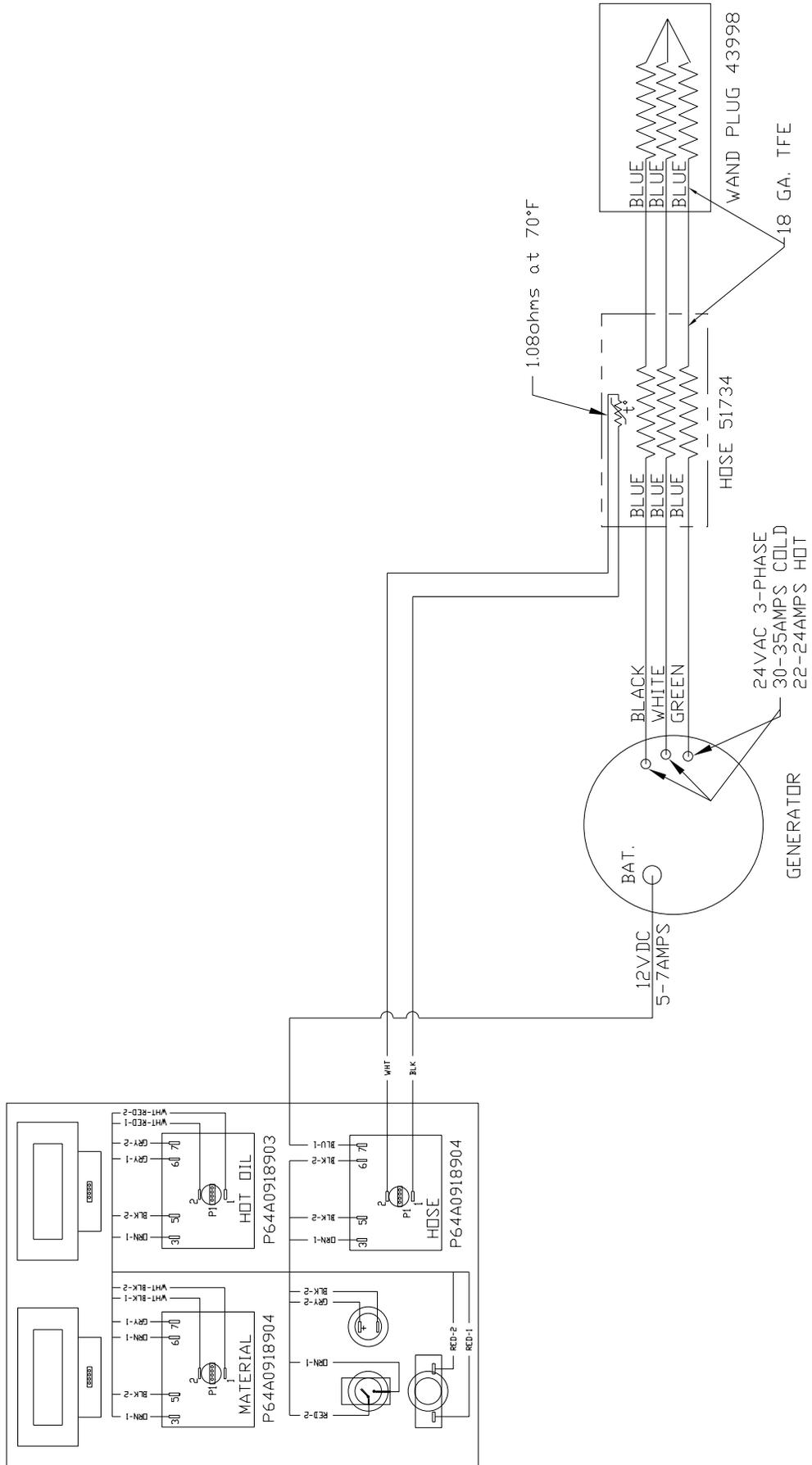
HOSE TROUBLE SHOOTING

HOSE DOES NOT HEAT

- Step 1:** Check for tripped circuit breaker in front panel.
YES: Reset circuit breaker.
NO: Remove front panel and check for 12 volts on both orange wires terminal #3 and #6 of the Hose Pak-Stat.
YES: Go to step 2a.
NO: Check for 12 volts at red wire main power switch of the control box.
- Step 2a:** Check for 12 volts at #7 terminal (blue wire) when Hose Pak-Stat is on.
YES: Go to step 3.
NO: Check the ohms between black and white wires at terminals #1 and #2.
(NOTE: One of the sensor wires must be disconnected to check resistance) See page 14 for the corresponding temperature reading. Temperature reading should match LCD readout.
YES: Replace Pak-Stat.
NO: Replace hose.
- Step 3:** Check for 12 volts at "BATT" terminal on generator.
YES: Go to step 4.
NO: Replace blue wire from the Hose Pak-Stat terminal #7 to "BATT" terminal on the generator.
- Step 4:** Check for 30-35 AMPS on the three blue wires in the junction box, with a clamp-on amp meter.
YES on all three: Hose should be heating.
YES on 1-2 wires: Check continuity on the hose from one end to the other. First disconnect both ends of the hose, then check for continuity between three blue wire from the junction box and the plug end marked "D", "E" and "A".
Zero on any wires: Replace generator.



HOSE TROUBLE SHOOTING



PUMP SECTION PACKING INSTRUCTIONS

Operate the pump under normal conditions and, after a short run-in period, examine packing for leakage. If leakage is excessive tighten locknuts evenly until there is only slight leakage from the packing rings. This slight leakage is a necessary and normal condition for packing and allows for expansion and proper seating.



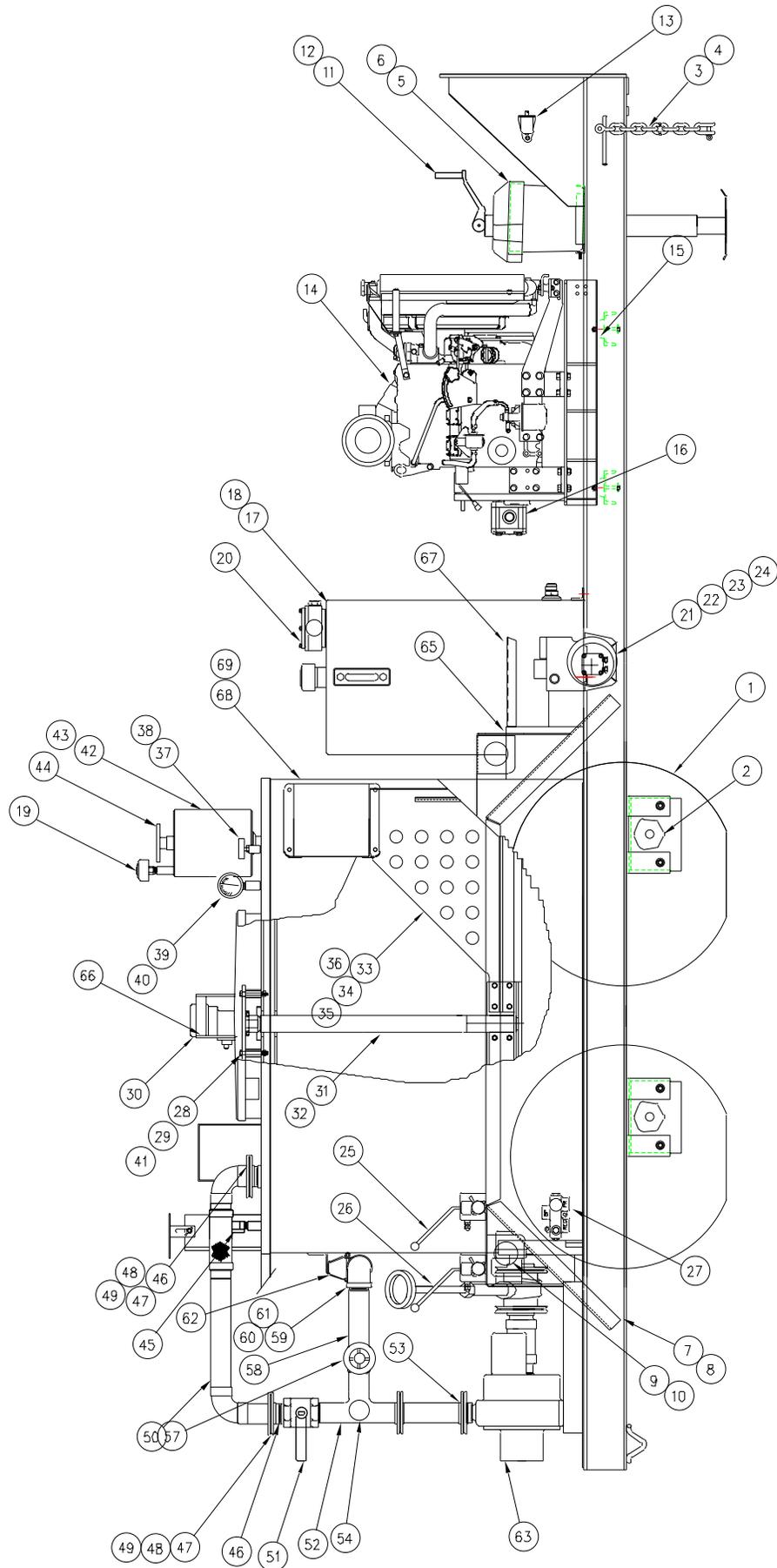
NOTE:

WHERE LIQUID IS BEING HANDLED, THAT IS HAZARDOUS OR VOLATILE, FULL PRECAUTIONS SHOULD BE TAKEN DURING THE RUN-UP PERIOD.

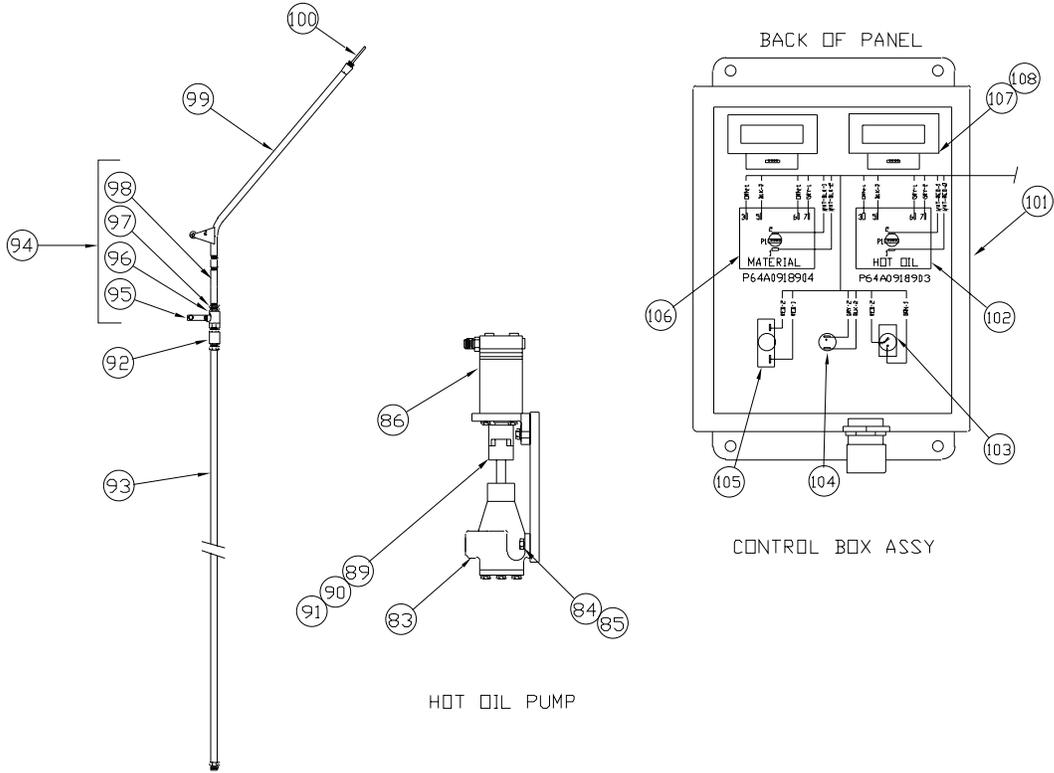
To replace packing remove key, two nuts and clips, packing gland and packing rings. (Packing hooks are commercially available to assist in removing the packing rings). Clean the shaft and adjacent parts. Examine the shaft, if it is excessively worn or scored, replacement of pump may be necessary.

Insert packing rings, making sure the joints are staggered 180 degrees. Use split ring bushings to seat each ring before adding the next ring. The rings must not be taped or seated in place too tightly. When the packing box is sufficiently full to allow entry of the packing gland (about 1/4") reassemble the packing gland, clips and nuts. Draw up evenly on the packing gland to assure proper seating of the packing, and then loosen nuts about 1/2 turn. Do not cock the packing gland. (This could cause binding or heating of the shaft).

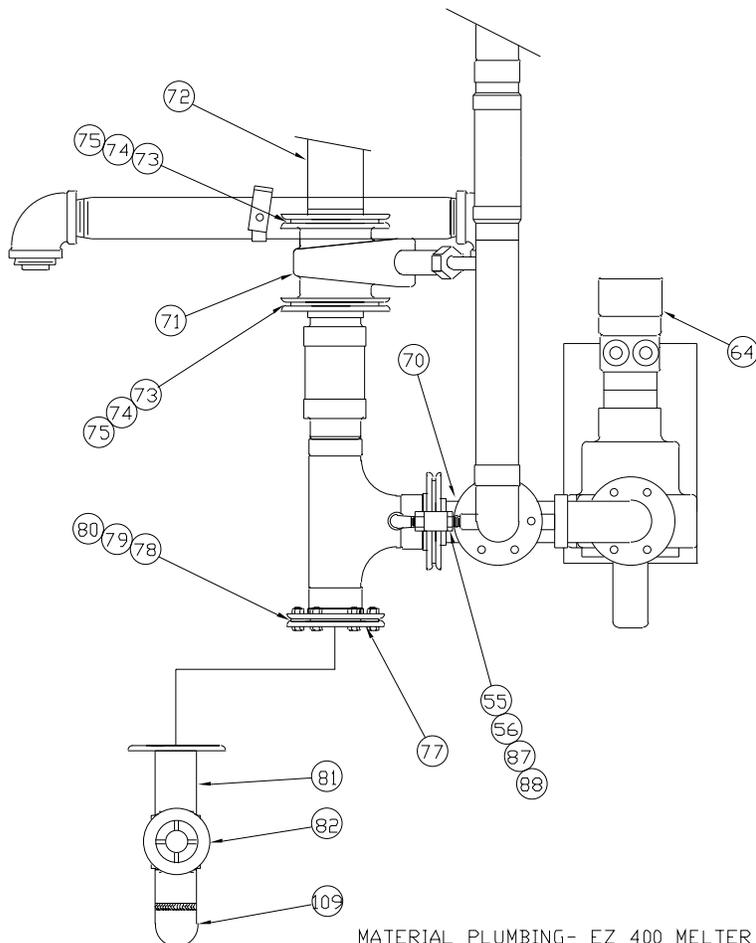
E-Z 400 DIESEL MELTER W/PUMP APPLICATOR



E-Z 400 DIESEL MELTER W/PUMP APPLICATOR



MATERIAL HOSE AND WAND ASSY



MATERIAL PLUMBING- EZ 400 MELTER

PARTS LIST FOR E-Z 400 DIESEL MELTER W/PUMP APPLICATOR

| NUMBER | PART NUMBER | QTY | DESCRIPTION |
|---------------|--------------------|------------|-------------------------------------|
| 1 | 90100 | 4 | 16" TIRE AND RIM |
| 2 | 45704 | 2 | 6000# TORSIONAL AXLE |
| 3 | 20130 | 2 | 3/8 x 48" SAFETY CHAIN |
| 4 | 20132 | 2 | 9/16 SHACKLE CONNECTOR |
| 5 | 24000 | 1 | 12 VOLT BATTERY (GROUP 24) |
| 6 | 24002 | 1 | ENCLOSED BATTERY BOX |
| 7 | 45720 | 1 | FENDER ASSEMBLY |
| 8 | 45720 | 1 | FENDER ASSEMBLY |
| 9 | 44771,44772 | 2 | LIGHT(4"STOP)---LIGHT (2 1/2" SIDE) |
| 10 | 44769 | 4 | 2 1/2" YELLOW CLEARANCE LIGHT |
| 11 | 23082 | 1 | TONGUE JACK SIDE MOUNT |
| 12 | 23095 | 1 | JACK SWIVEL BUSHING |
| 13 | 23117 | 1 | BREAKAWAY SWITCH UNIT |
| 14 | 45750 | 1 | 23 HP DIESEL ENGINE |
| 15 | 29399 | 4 | ISOMOUNT 3/8-16 THREAD INSERT |
| 16 | 41193 | 1 | P315A SINGLE HYDRAULIC PUMP |
| 17 | 43591 | 1 | 32 GAL DIESEL TANK ASSEMBLY |
| 18 | 43590 | 1 | 32 GAL HYDRAULIC TANK ASSEMBLY |
| 19 | 26025 | 1 | AIR BREATHER & ELEMENT 1/2"L R-A |
| 20 | 44805 | 1 | FILTER ELEMENT (REPLACEMENT) |
| 21 | 41891 | 1 | ADC 14 VOLT BURNER |
| 22 | 44785 | 1 | BURNER NOZZLE |
| 23 | 41890 | 1 | 14 V BLOWER MOTOR (SERVICE) |
| 24 | 41888 | 1 | BURNER FUEL SOLENOID(SERVICE) |
| 25 | 41093 | 1 | AGITATOR CONTROL VALVE |

PARTS LIST FOR E-Z 400 DIESEL MELTER W/PUMP APPLICATOR

| NUMBER | PART NUMBER | QTY | DESCRIPTION |
|---------------|--------------------|------------|-----------------------------------|
| 26 | 41092 | 1 | MATERIAL PUMP CONTROL VALVE |
| 27 | 41573 | 1 | FLOW DIVIDER PRIORITY |
| 28 | 42573 | 1 | MIXER MOTOR MOUNT |
| 29 | 40030 | 4 | PIPE SPACER (HYDRAULIC MOTOR) |
| 30 | 45706 | 1 | MIXER MOTOR |
| 31 | 42780 | 1 | AGITATOR SHAFT ASSEMBLY 400G |
| 32 | 45739 | 1 | PIVOT PIN WEAR PLATE |
| 33 | 45713 | 2 | PADDLE ASSEMBLY |
| 34 | 28734 | 8 | 3/8" - 16 THREAD X 1-3/4" BOLT |
| 35 | 28641 | 8 | 3/8" FLAT HARDEN WASHER |
| 36 | 28538 | 8 | 3/8" - 16 STOVER C-TOP NUT |
| 37 | 43465 | 1 | RTD SENSOR |
| 38 | 28342 | 2 | 3/8 X 1/4 BUSHING |
| 39 | 40078 | 1 | 12" TEMPERATURE GAUGE BTM MOUNT |
| 40 | 28177 | 2 | 3/8 PIPE COUPLING |
| 41 | 28736 | 4 | 3/8 x 2 1/2 BOLT |
| 42 | 43355 | 1 | OVER-FLOW TANK ASSEMBLY |
| 43 | 43763 | 1 | AIR RELIEF ASSEMBLY |
| 44 | 44141 | 1 | DIPSTICK ASSEMBLY HO TANK |
| 45 | 25057 | 1 | 9" TEMPERATURE GAUGE BOTTOM MOUNT |
| 46 | 22030 | 3 | FLANGED NIPPLE ASSEMBLY |
| 47 | 29050 | 4 | 2" FLANGE GASKET - 6 HOLE |
| 48 | 28731 | 24 | 3/8" - 16 THREAD X 1" BOLT |
| 49 | 28538 | 24 | 3/8 LOCKNUT |
| 50 | 41678 | 1 | PIPE ASSEMBLY UPPER 200 |

PARTS LIST FOR E-Z 400 DIESEL MELTER W/PUMP APPLICATOR

| NUMBER | PART NUMBER | QTY | DESCRIPTION |
|---------------|--------------------|------------|---------------------------------|
| 51 | 41246 | 1 | RECIRCULATION VALVE |
| 52 | 42785 | 1 | FLANGE TEE |
| 53 | 42555 | 1 | PIPE ASSEMBLY DOUBLE ELBOW |
| 54 | 55120 | 1 | SENSOR |
| 55 | 28237 | 1 | 3/8 X 90 DEGREE STREET ELBOW |
| 56 | 28282 | 1 | 3/8" PIPE PLUG |
| 57 | 29270 | 1 | BRONZE GATE VALVE - 2" |
| 58 | 28110 | 1 | 2" X 8" PIPE NIPPLE |
| 59 | 28213 | 2 | PIPE ELBOW 2" 90 DEGREE |
| 60 | 41291 | 1 | CROSS FEED PIPE |
| 61 | 28358 | 1 | 2 X 1 HEX HEAD REDUCING BUSHING |
| 62 | 26078 | 1 | 2" CLEVIS HANGER (260) |
| 63 | 43140 | 1 | MATERIAL PUMP (JACKETED) |
| 64 | 22027 | 1 | HYDRAULIC MOTOR |
| 65 | 45710 | 1 | EXTENDED BURNER BOX |
| 66 | 45708 | 2 | LID ASSEMBLY |
| 67 | 43114 | 1 | BURNER COVER |
| 68 | 42794 | 2 | OUTER TANK WRAP |
| 69 | 41813 | 1.5 | INSULATION-2" KAOWOOL |
| 70 | 42529 | 1 | MATERIAL PUMP SUCTION |
| 71 | 29292 | 1 | FLANGED GATE VALVE - 3" |
| 72 | 41039 | 1 | DRAIN PIPE EXT. ASSEMBLY |
| 73 | 29060 | 2 | GASKET - 3" CIRC FLANGE 8 HOLE |
| 74 | 28731 | 16 | 3/8"-16 THREAD X 1" BOLT |
| 75 | 28538 | 16 | 3/8"-16 STOVER C-TOP NUT |

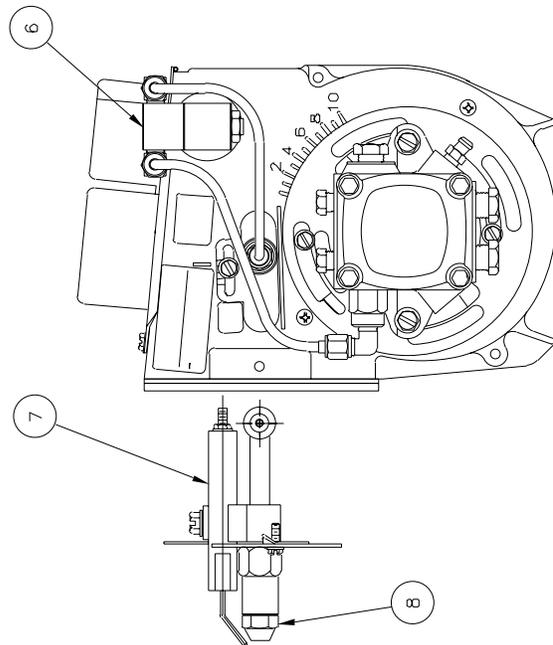
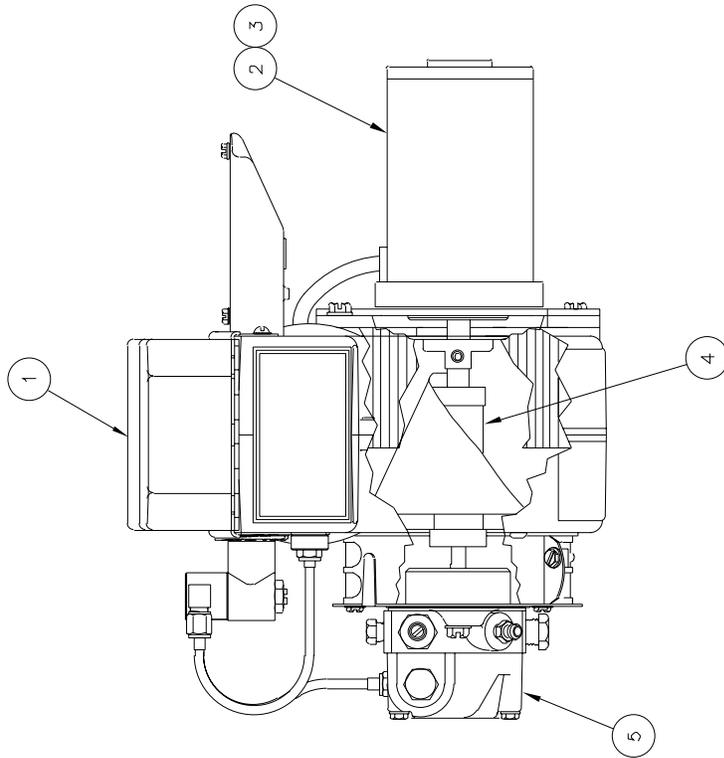
PARTS LIST FOR E-Z 400 DIESEL MELTER W/PUMP APPLICATOR

| NUMBER | PART NUMBER | QTY | DESCRIPTION |
|--------|-------------|-----|--------------------------------|
| 76 | 41268 | 1 | VALVE HANDLE EXTENSION |
| 77 | 29161 | 1 | 2-1/2 BLIND FLANGE |
| 78 | 41043 | 2 | 2.94" FLANGE GASKET |
| 79 | 28731 | 12 | 3/8"-16 THREAD X 1" BOLT |
| 80 | 28538 | 12 | 3/8"-16 STOVER C-TOP NUT |
| 81 | 41929 | 1 | 2-1/2 FLANGE ADAPTER |
| 82 | 29270 | 1 | BRONZE GATE VALVE - 2" |
| 83 | 41280 | 1 | HOT OIL CIRCULATING PUMP |
| 84 | 28714 | 2 | 1/4 - 20 X 3-1/2 BOLT |
| 85 | 28646 | 2 | 5/16" LOCK WASHER |
| 86 | 22302 | 1 | HYDRAULIC MOTOR |
| 87 | 29202 | 1 | BRONZE BALL VALVE- 3/8" |
| 88 | 28002 | 1 | CLOSE NIPPLE-XL-BLK 3/8" |
| 89 | 41180 | 1 | 1/2 BORE COUPLING HALF |
| 90 | 41695 | 1 | COUPLING HALF 5/8" BORE |
| 91 | 41182 | 1 | SPIDER FOR 070 COUPLING |
| 92 | 27048 | 1 | SWIVEL-MALE/FEMALE |
| 93 | 27009 | 1 | 20' SEALANT HOSE |
| 94 | 41208 | 1 | HANDLE ASSEMBLY W/VALVE |
| 95 | 27080 | 1 | HAND GUN VALVE HANDLE ASSEMBLY |
| 96 | 29240 | 1 | BRONZE BALL VALVE - 1" |
| 97 | 28351 | 1 | 1 X 3/4 HEX HEAD PIPE BUSHING |
| 98 | 28100 | 1 | 3/4" X 8" NIPPLE |
| 99 | 41629 | 1 | HAND WAND ASSEMBLY |
| 100 | 27171 | 1 | SEALING TIP ASSEMBLY |

PARTS LIST FOR E-Z 400 DIESEL MELTER W/PUMP APPLICATOR

| NUMBER | PART NUMBER | QTY | DESCRIPTION |
|------------------------------|--------------------|------------|----------------------------|
| 101 | 45740 | 1 | DIGITAL CONTROL BOX ASSY |
| 102 | 43391 | 1 | PAKSTAT 150-550 |
| 103 | 20719 | 1 | TOGGLE SWITCH |
| 104 | 51651 | 1 | PILOT LIGHT 12VDC |
| 105 | 51665 | 1 | 15 AMP CIRCUIT BREAKER |
| 106 | 43397 | 1 | PAKSTAT 200-400 |
| 107 | 50251 | 2 | DIGITAL READOUT |
| 108 | 51698 | 2 | CABLE, RIBBON 5" |
| 109 | 40125 | 1 | SPOUT ASSEMBLY |
| PARTS NOT ILLUSTRATED | | | |
| | 24002 | 1 | BATTERY BOX COVER |
| | 24054 | 1 | BATTERY CABLE 20" |
| | 31512 | 1 | CIRCUIT BREAKER |
| | 32602 | 1 | 20" CRESCENT BATTERY CABLE |
| | 24076 | 1 | HOUR METER |

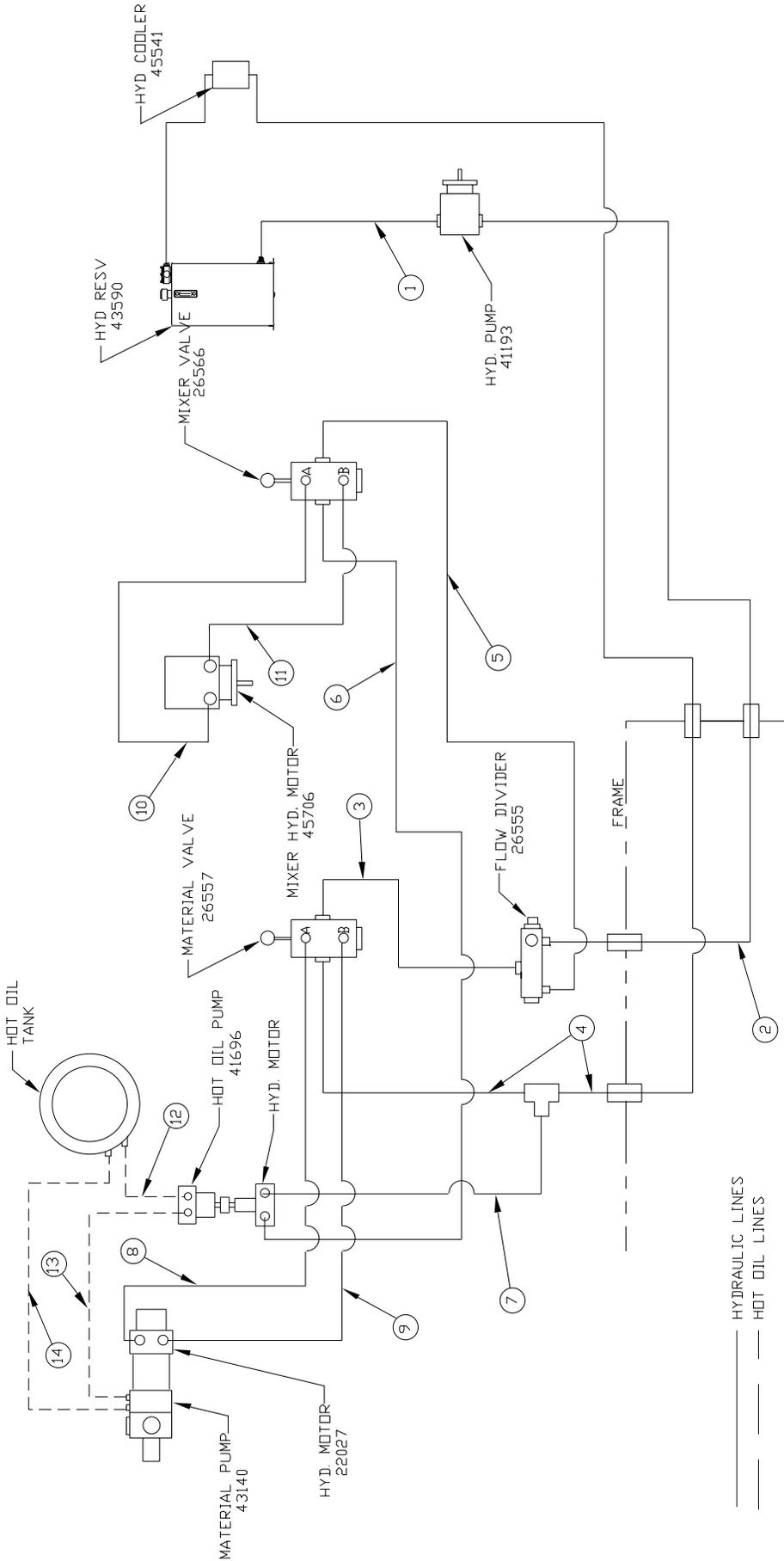
DIESEL BURNER



DIESEL BURNER

| ITEM | PART NUMBER | QTY | DESCRIPTION |
|------|-------------|-----|--|
| 1 | 41949 | - | IGNITION TRANSFORMER |
| 2 | 41890 | - | BLOWER MOTOR |
| 3 | 41934 | - | BRUSH KIT - MOTOR |
| 4 | 41970 | - | COUPLING - FUEL PUMP |
| 5 | 41979 | - | PUMP - FUEL |
| 6 | 41888 | - | SOLENOID - FUEL |
| 7 | 41993 | - | ELECTRODE |
| 8a | 41883 | - | NOZZLE (SS125D, SS125DC, SS125DCRC) |
| 8b | 41881 | - | NOZZLE (SS250D, SS250DC, SS250DRC) |
| 8c | 42559 | - | NOZZLE (350D, 400D) |
| 8d | 44785 | - | NOZZLE (EZ400) (AFTER 2005) |
| | 41870 | - | CAD EYE (NOT SHOWN) |
| | 42335 | - | DC CONTROLLER (NOT SHOWN) |
| | 44786 | - | BURNER FLAME RETAINER (NOT SHOWN) USE WITH 44785 NOZZLE |

HYDRAULIC PIPING DIAGRAM



HYDRAULIC PIPING PARTS LIST

| 1. HYDRAULIC RESERVOIR TO HYDRAULIC PUMP (SUCTION) | | |
|--|--------------------|-------------------------------|
| 1 | 29814 | 90° ELBOW ADAPTOR |
| 1 | C16-16FJ-16FJ-36 | HYDRAULIC HOSE ASSEMBLY |
| 1 | 29820 | 90° ELBOW ADAPTOR - "O" RING |
| 2. HYDRAULIC PUMP PRESSURE TO FLOW DIVIDER VALVE "IN" PORT | | |
| 1 | 29842 | STRAIGHT ADAPTOR - "O" RING |
| 1 | AX8-10FJ-10FJ-48 | HYDRAULIC HOSE ASSEMBLY |
| 1 | 29805 | BULKHEAD CONNECTOR |
| 1 | 29807 | BULKHEAD LOCKNUT |
| 1 | 42519 | TUBE ASSEMBLY |
| 1 | 29805 | BULKHEAD CONNECTOR |
| 1 | 29807 | BULKHEAD LOCKNUT |
| 1 | 29815 | TUBE TO PIPE SWIVEL CONNECTOR |
| 1 | 28348 | REDUCING BUSHING 3/4 X 1/2 |
| 3. FLOW DIVIDER VALVE ("PB" PORT) TO MATERIAL VALVE ("IN" PORT) | | |
| 1 | 28348 | REDUCING BUSHING 3/4 X 1/2 |
| 1 | 29876 | ELBOW ADAPTOR |
| 1 | AX6-6FJ-6FJ-18 | HYDRAULIC HOSE ASSEMBLY |
| 1 | 29876 | 90° ELBOW ADAPTOR |
| 1 | 28348 | REDUCING BUSHING 3/4 X 1/2 |
| 4. MATERIAL VALVE ("OUT" PORT) TO HYDRAULIC FILTER ("IN" PORT) RETURN | | |
| 1 | 29813 | ELBOW ADAPTOR |
| 1 | AX8-10FJ-10FJ-21 | HYDRAULIC HOSE ASSEMBLY |
| 1 | 29811 | SWIVEL RUN TEE |
| 1 | 29805 | BULKHEAD CONNECTOR |
| 1 | 29807 | BULKHEAD LOCKNUT |
| 1 | 42519 | TUBE ASSEMBLY |
| 1 | 29805 | BULKHEAD CONNECTOR |
| 1 | 29807 | BULKHEAD LOCKNUT |
| 1 | AX8-10FJ-12FJ9-79 | HYDRAULIC HOSE ASSEMBLY |
| 1 | 29916 | 90 DEGREE ELBOW ADAPTER |
| 1 | 45541 | HYD OIL COOLER |
| 1 | 29916 | 90 DEGREE ORING ADAPTER |
| 1 | AX12-12FJ-12FJ9-47 | HYDRAULIC HOSE ASSEMBLY |

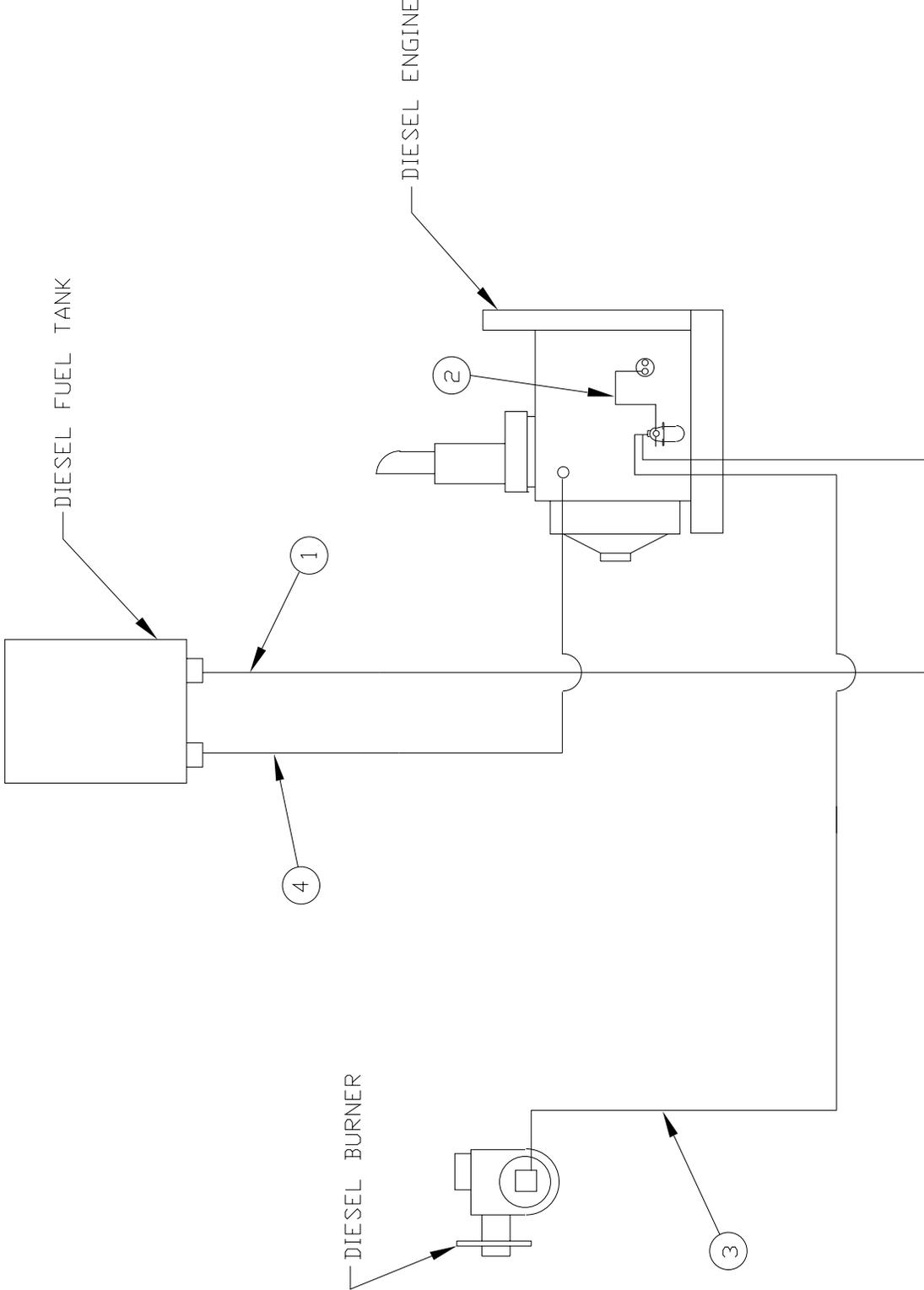
HYDRAULIC PIPING PARTS LIST

| | | |
|---|----------------|-----------------------------|
| 5. FLOW DIVIDER VALVE ("REG" PORT) TO MIXER VALVE ("IN" PORT) | | |
| 1 | 28347 | REDUCING BUSHING 3/4 X 3/8 |
| 1 | 29872 | 90° ELBOW ADAPTOR |
| 1 | AX6-6FJ-6FJ-18 | HYDRAULIC HOSE ASSEMBLY |
| 1 | 29872 | 90° ELBOW ADAPTOR |
| 1 | 28347 | REDUCING BUSHING 3/4 X 3/8 |
| 6. MIXER VALVE ("OUT" PORT) TO HYDRAULIC MOTOR FOR HOT OIL PUMP (REAR PORT) | | |
| 1 | 28347 | REDUCING BUSHING 3/4 X 3/8 |
| 1 | 29872 | 90° ELBOW ADAPTOR |
| 1 | AX6-6FJ-6FJ-18 | HYDRAULIC HOSE ASSEMBLY |
| 1 | 40311 | STRAIGHT ADAPTOR "O" RING |
| 7. HYDRAULIC MOTOR FOR HOT OIL PUMP (FRONT PORT) TO TEE IN LINE 4. | | |
| 1 | 40311 | STRAIGHT ADAPTOR "O" RING |
| 1 | AX6-6FJ-6FJ-18 | HYDRAULIC HOSE ASSEMBLY |
| 1 | 29809 | REDUCER 5/8 TO 3/8 TUBE |
| 1 | 29810 | TUBE NUT |
| 8. MATERIAL VALVE ("INBOARD" PORT) TO HYDRAULIC MOTOR FOR MATERIAL PUMP ("INBOARD PORT") | | |
| 1 | 29841 | STRAIGHT ADAPTOR |
| 1 | AX6-6FJ-6FJ-24 | HYDRAULIC HOSE ASSEMBLY |
| 1 | 22029 | STRAIGHT ADAPTOR - "O" RING |
| 9. MATERIAL VALVE ("OUTBOARD" PORT) TO HYDRAULIC MOTOR FOR MATERIAL PUMP ("OUTBOARD" PORT) | | |
| 1 | 29841 | STRAIGHT ADAPTOR |
| 1 | AX6-6FJ-6FJ-24 | HYDRAULIC HOSE ASSEMBLY |
| 1 | 22029 | STRAIGHT ADAPTOR - "O" RING |
| 10. MIXER VALVE ("INBOARD" PORT) TO HYDRAULIC MOTOR FOR MIXER (L.H. PORT) | | |
| 1 | 29841 | STRAIGHT ADAPTOR |
| 1 | AX6-6FJ-6FJ-34 | HYDRAULIC HOSE ASSEMBLY |
| 1 | 29808 | TUBE UNION |
| 1 | 42550 | TUBE ASSEMBLY |
| 1 | 22029 | STRAIGHT ADAPTOR - "O" RING |
| 11. MIXER VALVE ("OUTBOARD" PORT) TO HYDRAULIC MOTOR FOR MIXER (R.H. PORT) | | |
| 1 | 29841 | STRAIGHT ADAPTOR |
| 1 | AX6-6FJ-6FJ-34 | HYDRAULIC HOSE ASSEMBLY |
| 1 | 29808 | TUBE UNION |
| 1 | 42551 | TUBE ASSEMBLY |
| 1 | 22029 | STRAIGHT ADAPTOR - "O" RING |

HYDRAULIC PIPING PARTS LIST
HOT OIL PIPING

| 12. HOT OIL TANK (R.H. PORT) TO HOT OIL PUMP (FRONT PORT) SUCTION | | |
|--|-------|--|
| 1 | 41499 | HOT OIL VALVE |
| 1 | 29845 | 90° ELBOW ADAPTOR |
| 1 | 41404 | HOSE ASSEMBLY S.S. COVER (1/2 X 22-1/2 LONG) |
| 1 | 29844 | STRAIGHT ADAPTOR |
| 13. HOT OIL PUMP (REAR PORT) TO MATERIAL PUMP (TOP PORT) | | |
| 1 | 29844 | STRAIGHT ADAPTOR |
| 1 | 41404 | HOSE ASSEMBLY S.S. COVER (1/2 X 22-1/2 LONG) |
| 1 | 40316 | STRAIGHT ADAPTOR |
| 14. MATERIAL PUMP (BOTTOM PORT) TO HOT OIL TANK (L.H. PORT) | | |
| 1 | 40316 | STRAIGHT ADAPTOR |
| 1 | 41404 | HOSE ASSEMBLY S.S. COVER (1/2 X 22-1/2 LONG) |
| 1 | 29844 | STRAIGHT ADAPTOR |
| 1 | 41499 | HOT OIL VALVE |

DIESEL PIPING DIAGRAM

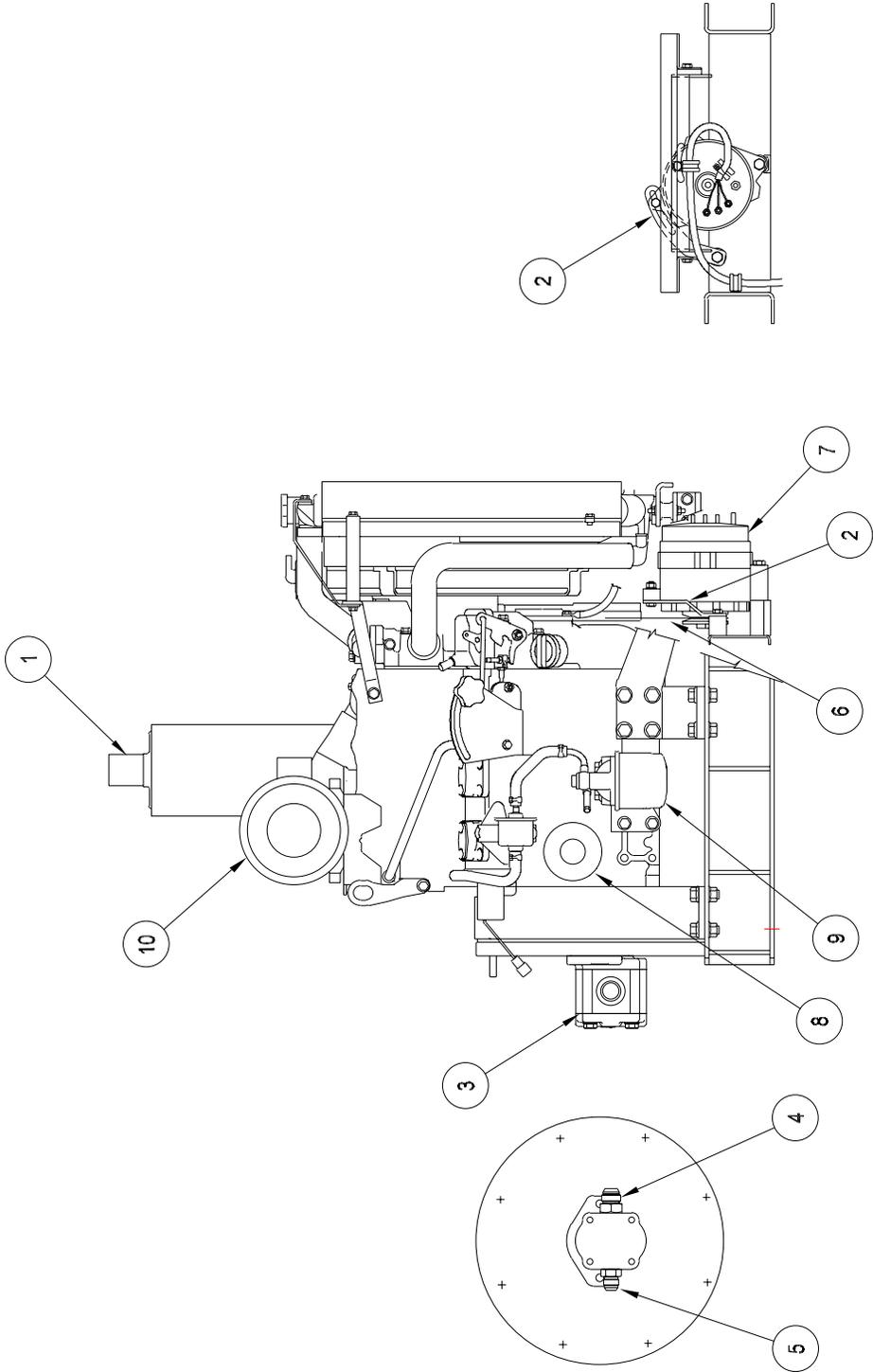


DIESEL PIPING PARTS LIST

| 1. DIESEL FUEL TANK TO FUEL FILTER | | |
|--|-------|---------------------------|
| 1 | 26782 | HOSE PUSH ON MALE 90 |
| 1 | 26767 | PUSH ON SWIVEL |
| 1 | 29591 | FUEL HOSE 5/16 X 96" LONG |
| 2 | 26080 | GEAR CLAMP |
| 2. DIESEL FUEL PUMP TO FUEL FILTER (SUPPLIED WITH ENGINE) | | |
| 3. FUEL FILTER TO DIESEL BURNER | | |
| 1 | 29580 | FUEL HOSE 5/16 X 80" LONG |
| 2 | 26080 | GEAR CLAMP |
| 1 | 26782 | PUSH ON FITTING MALE 90 |
| 1 | 26767 | HOSE PUSH ON SWIVEL |
| 4. DIESEL ENGINE TO TANK (RETURN) | | |
| 1 | 29591 | FUEL 3/16 X 96" LONG |
| 2 | 26080 | GEAR CLAMP |
| 1 | 26782 | HOSE PUSH-ON MALE 90 |
| 1 | 29767 | HOSE PUSH ON SWIVEL |

ENGINE ASSEMBLY

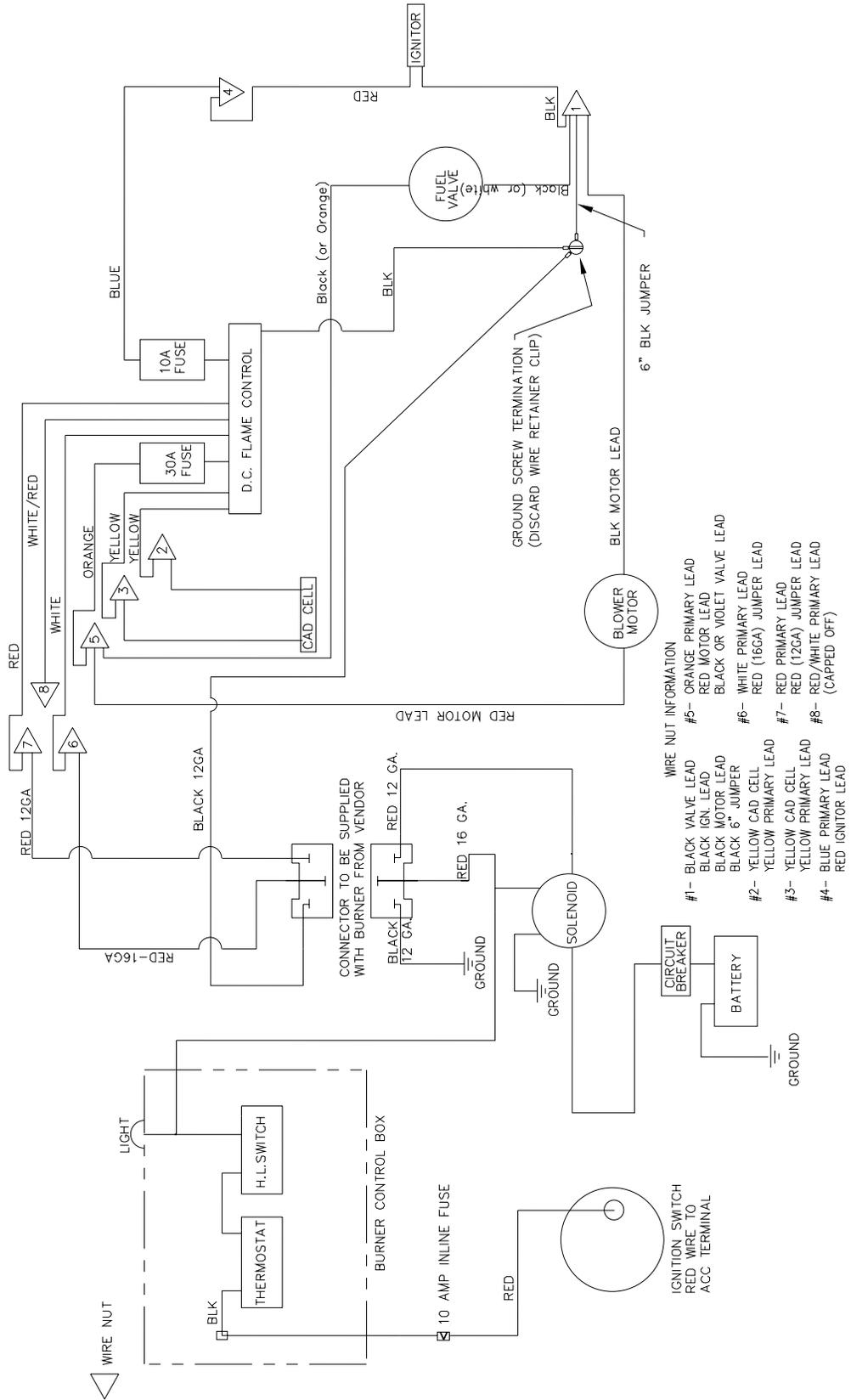
PRESET ENGINE SPEED = 2400 RPM
HOSE GENERATOR OUTPUT = 30-35 AMPS COLD
24 VAC 3-PHASE



ENGINE ASSEMBLY

| NUMBER | PART NUMBER | QTY. | DESCRIPTION |
|--------|-------------|------|-------------------------------------|
| 1 | 45745 | 1 | ENGINE, 23 HP |
| 2 | 43899 | 1 | ADJUSTMENT BRACKET, GENERATOR |
| 3 | 41193 | 1 | HYDRAULIC PUMP |
| 4 | 29820 | 1 | 3/4 TUBE X 1 1/16-12 O-RING ADAPTOR |
| 5 | 29842 | 1 | 5/8 TUBE X 7/8-14 O-RING ADAPTOR |
| 6 | 43613 | 1 | DRIVE BELT - GENERATOR |
| 7 | 43612 | 1 | GENERATOR, 24VAC |
| 8 | 45389 | - | OIL FILTER |
| 9 | 41867 | - | FUEL FILTER |
| 10 | 45391 | - | AIR FILTER ELEMENT |
| 11 | 45248 | - | HYDRAULIC FILTER ONLY (NOT SHOWN) |

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