

E-Z POUR 200 MELTER WITH PUMP/APPLICATOR

This manual is furnished with each new CRAFCO E-Z POUR 200 MELTER. 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 200 MELTER is designed to give excellent service and save maintenance expense. However, as with all specially 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.

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SAFETY PRECAUTIONS

High operating temperatures of Sealant & Machine require protective clothing and gloves be worn by operator.

Always wear eye protection.

Observe all CAUTION & 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 & engine prior to refueling. DO NOT refuel when burner is lit.

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 50 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.

Calibrate temperature control prior to initial operation and each 50 hours of operation.

Replace any hoses which show signs of wear, fraying or splitting. Be sure all fittings and joints are tight and leakproof.

Precaution is the best insurance against accidents.

The E-Z Pour 200 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 200 MELTER 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 Chandler 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.

CRAFCO, INC.
WARRANTY CLAIM INSTRUCTIONS

Please follow the instructions stated below when calling in a Warranty Claim. Failure to follow these procedures will cause the Warranty Claim to be voided.

- (1) Indicate to CRAFCO's Customer Service Representative by telephone or letter that the order being placed is a WARRANTY CLAIM.
- (2) Indicate to CRAFCO Customer Service Representative the type of equipment under warranty, serial number and a brief description of the warranty defect. A replacement part will be shipped when ordered F.O.B. Chandler, Arizona, and invoiced. A "Return Authorization Number" must be issued for proper processing of claim.
- (3) Return the defective part to CRAFCO within fifteen (15) days of the date the claim was called in: Indicate on B.O.L. packing slip or by letter the model number and serial number of the machine from which the defect is being claimed along with the part being returned and return authorization number. If the defective part is not returned to CRAFCO within the fifteen (15) day period or if the defect is determined by CRAFCO, Inc. to be due to normal wear and tear or misuse, the claim will be voided. The customer will be notified within ten (10) days of disposition of the claim. If the failure was caused by a defect in material or workmanship, a credit will be issued.
- (4) CRAFCO will honor NO warranty if parts are not supplied or recommended by CRAFCO. If you have any additional questions regarding warranty repairs and parts, please do not hesitate to call toll free 1-800-528-8242

CRAFCO, INC.
6975 W. CRAFCO WAY
CHANDLER, AZ 85226
(602) 276-0406
Toll Free 1-800-528-8242

SPECIFICATIONS

Vat Capacity	200 Gallons
Melting Capacity	150 Gallons/Hour
Heat Transfer Oil Required	27 Gallons at 70°F
Tank Construction	Double Boiler Type
Tank Opening Size	16" x 24"
Maximum Heat Input	Vapor Burner 310,000 BTU's
Burner & Temperature Control	Automatic - Fail Safe
Engine - ONAN Model P-220	2 Cylinder 20 HP @ 3600 rpm
Drive Mechanism	All Hydraulic w/ infinite speed forward & reverse action
Mixer	Full sweep mixer w/ 2 blades
Axle (2)	3,500 lbs. Capacity each
Tires (4)	7:00x14 1,430 lbs. Capacity each
Dry Weight	Approx. 4,000 lbs.
Propane Bottles (2)	100 lbs. each

E-Z POUR 200 MELTER OPERATING INSTRUCTIONS

INTRODUCTION

The CRAFCO E-Z Pour 200 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 and being thoroughly familiar with controls, etc.

1. Fill engine fuel tank with non-leaded gasoline.
2. Fill propane storage tanks.
3. Check engine crank case oil (refer to Engine Operator Manual).
4. Check hydraulic fluid level, at ambient temperature. Add fluid if necessary to bring fluid to correct level.
5. Check heat transfer oil supply. Check level at ambient temperature, machine level. At 70°F, oil should be at the top mark. DO NOT overfill, or spillage may occur when machine reaches operating temperature.
6. All valves should be in closed position and temperature control box set at "OFF".
7. 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.
8. Check temperature control calibration.

OPERATION OF CRAFCO E-Z POUR 200 MELTER/APPLICATOR

MACHINE START UP

TO START

1. Fully open the Damper Vent.
2. Open L.P.G. cylinder valve, (pg. 28 item 54A.)
Open line valve at cylinder, (pg. 28 item 53.)
Set Temperature dial to "off", pg. (29 item 58.)
Open line valve at control box pg. (29 item 53.)
3. Turn temperature dial to desired temperature setting. Burner should ignite within 4 seconds.

CAUTION:

If burner does not ignite in 4 seconds, L.P.G. is automatically shut-off. To reset, turn temperature dial to off. Allow accumulated L.P.G. fumes to vent, (At least 4 minutes), before attempting to relight. To relight, turn temperature dial to desired setting. If burner still does not ignite, turn off L.P.G. at bottle and determine cause of malfunction. When heating oil reaches 225°F, start engine. When heating oil reaches 450°F start the agitator by moving the agitator lever either forward or backward. DO NOT allow heat transfer oil to exceed 525°F.

4. When sealant temperature reaches 350°F, open the main tank valve. (Pg. 37 item 119.)
5. Open recirculation valve, (pg. 37 item 10), and close applicator valve. (Pg. 37 item 12.)
6. Put sealant pump in reverse (Suction) for approximately two minutes. (Pg. 35 item 111.)
7. Reverse sealant pump direction (Discharge) and circulate sealant back into tank.

8. When sealant reaches 350° F in pump lines, pumping through applicator nozzle may begin. Thermometer located on top of material tank indicates material temperature. (Pg. 31 item 72). Thermometer located in 2" line, above the pump, indicates material temperature but only when material is flowing through lines. (Pg. 25 item 34). Remove hose (pg. 37 item 120) from heating chamber and place hand applicator in tank rear opening with hand applicator valve in "on" position. (See pg. 37 item 122, 124 & 125).
9. Adjust recirculation valve to allow desired flow through applicator wand. (See pg. 37 item 10).

CHECKING TEMPERATURE CONTROL CALIBRATION

The temperature control system is calibrated at the factory during testing; however, it is good practice to check the calibration when the machine is first put into operation. And also checked again periodically. (Each 50 hours of operation is recommended.) The gauge (pg. 31 item 71) registers the actual temperature of the heat transfer oil and it should coincide with the temperature control hand knob setting (pg. 29 item 58).

To check the calibration, the following procedure must be followed - at ambient temperature, check heat transfer oil level, using dipstick. Start up the burner. Set temperature control hand knob at about 250° F. Leave burners on until 200° F registers on the temperature gauge. Slowly turn the temperature control hand knob down until a click is heard and/or the burner shuts off. If the temperature control hand knob, at this point, reads differently than the temperature gauge, recalibration is required.

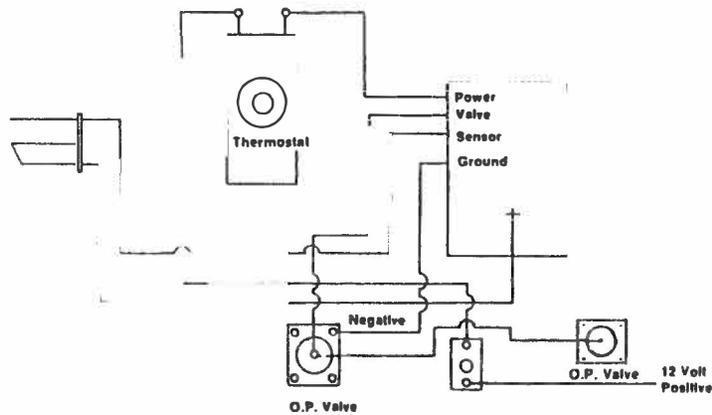
RECALIBRATING THE TEMPERATURE CONTROLS

To recalibrate the temperature control, set the temperature control knob to 200° F. When the burner shuts off, carefully pull the hand knob off the spindle. Be careful not to move the spindle during this operation. With a jeweler's screwdriver (or the flattened end of a paper clip) turn the adjusting screw inside the spindle COUNTERCLOCKWISE to increase temperature or CLOCKWISE to decrease temperature (1/8 turn will change the temperature 15° F to 20° F). Carefully replace hand knob. Both the hand knob and the temperature gauge should now read approximately 200° F.

CAUTION:

Extreme care must be used when operating this equipment. Safety is the result of being careful and paying attention to details. Remember the propane flame is about 2200°F. Certain exposed parts of this machine, when operating, reach 500°F; the sealant as high as 400°F and the hydraulic oil may reach 200°F. Always wear protective clothing and eye protection. Be sure that all joints and fittings are tight and leakproof. Immediately replace any hose which shows any signs of wear, fraying or splitting. Tighten all bolts on all flanges after 100 hours. Tighten ALL bolts, nuts and screws every 250 hours.

BURNER CONTROL WIRING DIAGRAM



IMPORTANT:

When hand applicator is not in use more than 2 minutes, place it into tank rear opening. Open hand applicator valve to keep hose warm and unobstructed.

LOADING 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 materials must be added at intervals which will allow the mixer to rotate without jamming. If blocks of material are fed in too quickly, jamming will result and slow down the melting process. Always try to maintain a melted material level at least 6" above the horizontal portions of the mixer.

SHUTDOWN AND CLEAN-OUT PROCEDURE

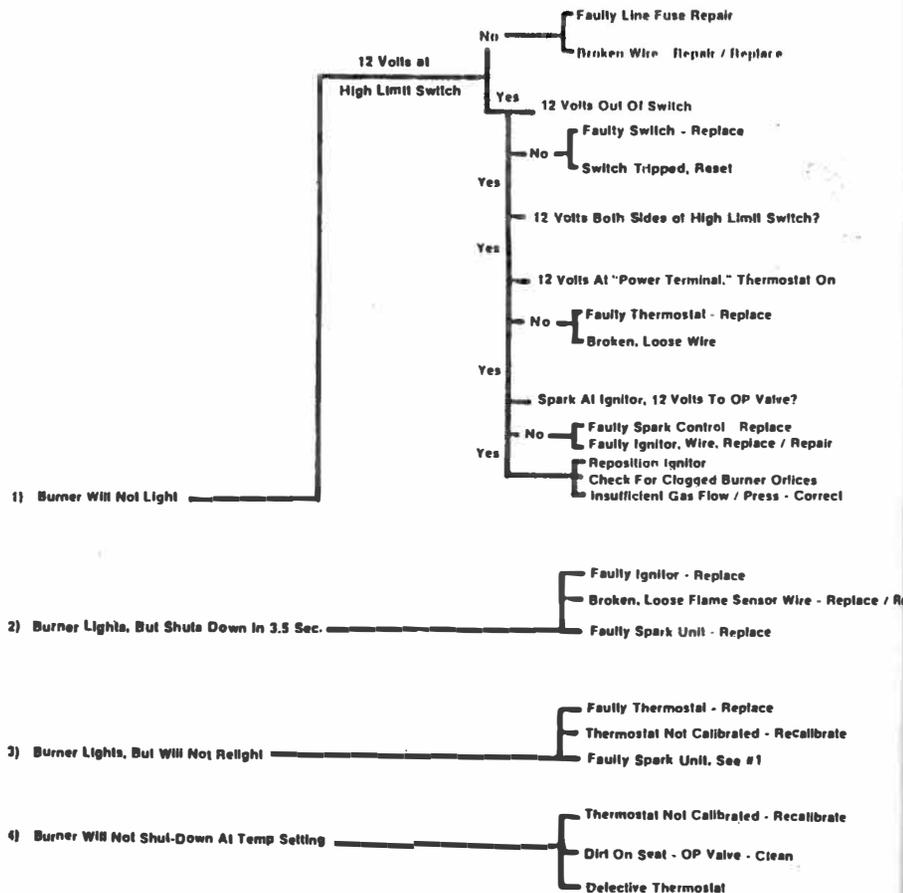
1. Close valves on L.P.G. cylinders. Wait for burner to flame out. (Approximately 1 minute). Then close line ball valve. Turn temperature dial to off. (See pg. 29 item 53).
2. Put material pump in suction mode. Leave pump in suction mode through Step 6.
3. Close recirculation valve.
4. With hand applicator valve open disconnect wand and return hose to heat chamber. Then return wand to heat chamber.
5. Close applicator valve open recirculation valve.
6. Close main tank valve return pump to off position.
7. Return mixer to off position.
8. Shut off engine.

STORING MACHINE

The E-Z POUR 200 should be stored with the trailer tongue in an elevated position. This will allow the moisture condensation to settle to the bottom rear of the heat transfer oil tank, above the drain plug. After extended periods of time, the water can be drained by removing the plug and replacing it when all water is displaced.

CAUTION: If there is any suspicion that moisture is still present after draining, warm heat transfer oil to 250°F to evaporate any moisture.

BURNER TROUBLE SHOOTING GUIDE



TROUBLE SHOOTING CHART

PROBLEM	CAUSE	REMEDY
Mixer will not rotate.	Sealant temp. <u>too low.</u>	Continue to heat material.
	Too many blocks placed at one <u>time.</u>	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.
	Hot oil not hot enough to melt material <u>in pump.</u>	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.	Material pump	Replace/Remove.
	Sealant material flows through recirculation valve but will not flow through application hand wand.	Open valve. Close valve or replace. Open or damaged internally. Hose/wand still cold. Leave in chamber until hot.

PROBLEM	CAUSE	REMEDY
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.
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 w/ solvent.
	Burner not operating/low LPG pressure.	Repair/Adjust.
	Low heating oil level.	Check level of Heat Transfer oil.
	Low Heating oil temperature.	Set at recommended temperature.

SERVICE AND PREVENTIVE MAINTENANCE 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, page 22.
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.

MAINTENANCE INSTRUCTIONS

ENGINE:

Check oil every 8 hours of operation. Change after the first 25 hours of operation and every 50 hours thereafter.

Change oil filter after every 100 hours. See engine maintenance manual for other maintenance.

HYDRAULIC SYSTEM:

Change oil after every 500 hours of operation. Change return filter after first 10 hours of operation. Every 250 hours thereafter. Check oil level every 8 hours.

WHEEL BEARINGS:

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

TONGUE JACK:

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

SEALANT PUMP:

Lubricate outboard bearings using a good grade of bearing grease. Adjust pump packing periodically. A slight drippage (several drops per minute) should be allowed. Refer to Pump Section for details. See pages 24 and 25.

INTERNAL VALVES:

Check bolts which clamp recirculation valve and sealant valves in place. Proper torque is 20-24 ft-lbs. Check after the first 8 hours of operation and again after every 500 hours of use. Watch for leaks. Replace gaskets if tightening does not stop leaks. (See pg. 23).

MAINTENANCE CHART

LOCATION	PROCEDURE	HOURS			
		8	50	100	500
Oil Level	See Engine Instruction Manual.		*		
Engine Maintenance	See Onan Operating and Maintenance Instructions.				
Oil Filter	See Onan Operating and Maintenance Instructions.				*
Packing	Tighten as required. Drip should be several drops per minute.				*
Outboard	Lubricate using a good grade of bearing grease.				*
Transfer Oil	Check Change			after 500 hours or 1 year	*
Hydraulic Oil	First change.		*		
On line filter	Subsequent changes.				*
Hydraulic Oil	Check Oil Change Oil		*		*
	For proper oil, see recommended fluids & lubricants, page .				
Bearings	Clean & repack - using 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.	

PUMP SECTION PACKING INSTRUCTIONS

Operate the pump under normal conditions and, after a short run-up 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 shaft or 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 tamped 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).

RECOMMENDED FLUIDS & LUBRICANTS

APPLICATION	RECOMMENDED	FULL POINT
Engine Oil	Refer to Onan Engine Operating Manual.	
LPG	Propane	200 LBS.
Hydraulic Oil	RONDO OIL-HD-68 Texaco	28 GAL.

Heat Transfer Oil

The following is a list of suitable Heat Transfer Oils to be used in CrafcO equipment.

Exxon Oil Co.	Caloria	HT 43
ARCO	Ruilene	S-315
Texaco, Inc.	Regal	68
Cities Service Co.	Citgo Pacemaker	68
Gulf Oil Co.	Security	68
Shell Oil Co.	Thermia	"C"
Standard Oil Co.	Chevron Heat Transfer Oil	-
Phillips Petroleum	Magnus	315

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 voidance of all warranties.

All oils subjected to high temperatures deteriorate with time and lose many of their characteristics. Tests 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.

GENERAL MAINTENANCE ITEMS

RECOMMENDED QUANTITY	DESCRIPTION	PART NO.
1 Set	Packing, Sealant Pump	29990
1	Sealant Hose Assembly	27009
1	Engine Oil Filter	32122
1	Ignitor	25277
1	Engine Fuel Filter	22073
1	Hydraulic Filter	22071
1	Air Filter	32096
1	Air Filter Pre-Cleaner	32128

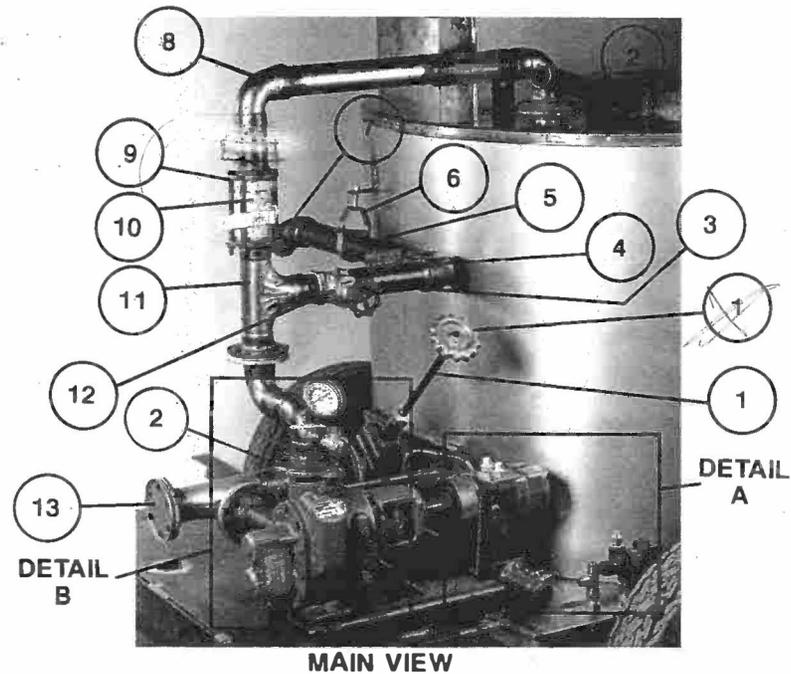
INSTRUCTIONS FOR ORDERING PARTS

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

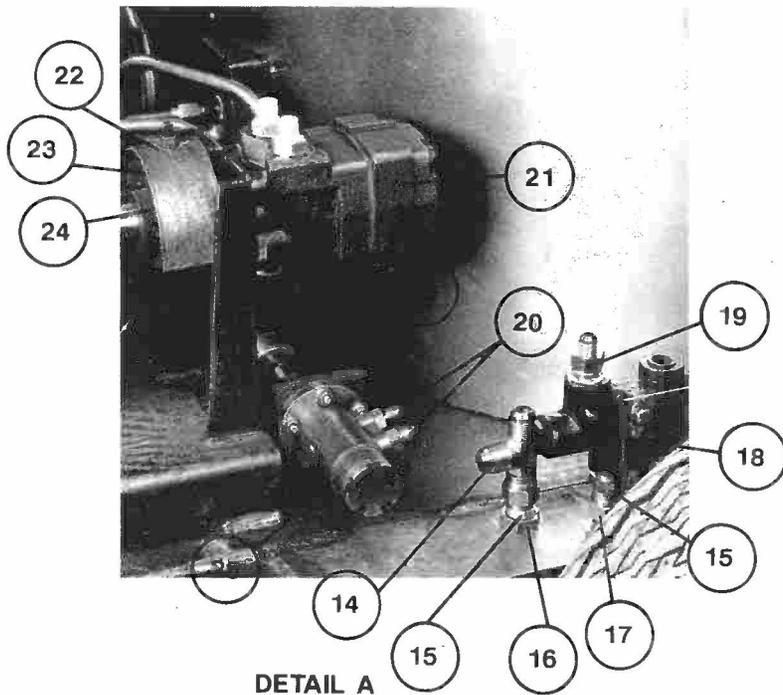
Write or telephone:

CRAFCO, Inc.
 6975 W. Crafcow Way
 Chandler, AZ 85226
 Phone: (602)276-0406 or 800-528-8242



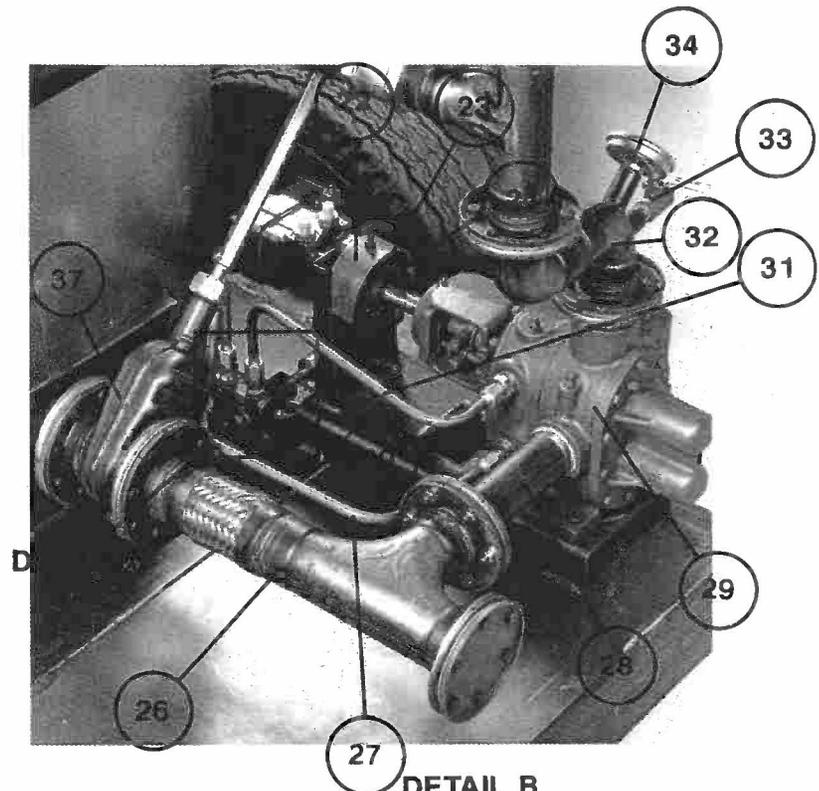
41268

1.	41267	Tank Valve Extended Handle
2.	22030	Flanged Nipple Assembly
3.	28110	2" x 8-1/2" Pipe
4.	28213	2" 90° Pipe Elbow
5.	41291	Cross Feed Pipe
6.	26078	2" Clevis Hanger
7.	28213	2" 90° Pipe Elbow
8.	41136	Pipe Assembly, Upper
9.	28744	3/8"-16 x 6-1/2" Bolt
10.	41246	2" Ball Valve (recirculating)
11.	41135	Flanged Tee
12.	29270	2" Gate Valve (applicator)
13.	29161	2-1/2" Blind Flange



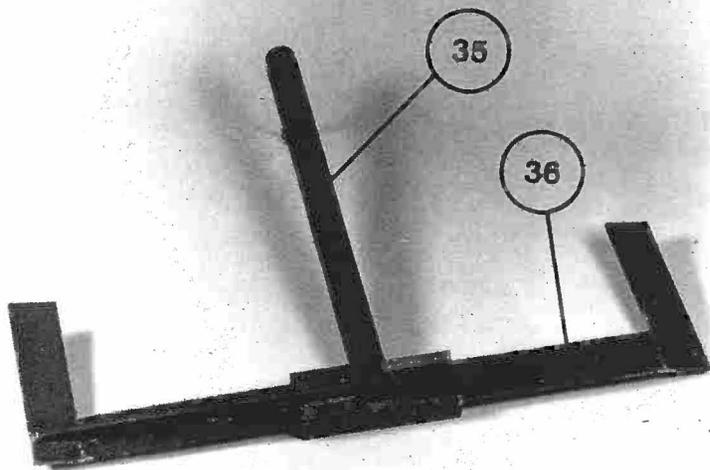
DETAIL A

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|-----|-------|--|
| 14. | 29811 | 5/8" Tee with Swivel |
| 15. | 29805 | 5/8" Tube Bulkhead Connector |
| 16. | 29807 | 7/8" - 14 Bulkhead Locknut |
| 17. | 29815 | 5/8" Tube x 1/2" Pipe Swivel Connector |
| 18. | 41192 | Flow Divider |
| 19. | 29834 | 6MJ x 6MP JIC Straight Adapter |
| 20. | 40311 | Straight Thread Adapter |
| 21. | 22027 | Hydraulic Motor (to Material Pump) |
| 22. | 41140 | Chain Guard with Hole |
| 23. | 26016 | Dual Sprocket Chain |
| 24. | 26002 | Chain Sprocket |
| 25. | 41091 | Hydraulic Motor for Hot Oil Pump |
| 39. | 41095 | Hot Oil Circulating Pump (Roper) |
| | 41280 | Hot Oil Circulating Pump (Viking) |

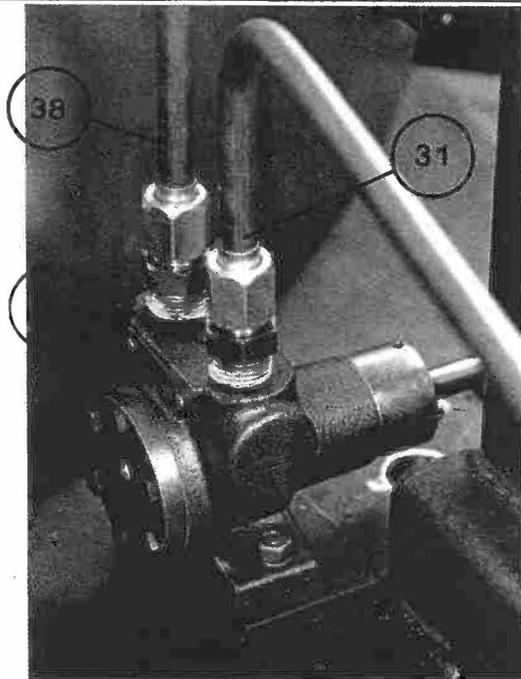


DETAIL B
(REAR VIEW)

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|-----|-------|--|
| 22. | 41140 | Chain Guard with Hole |
| 23. | 26016 | Dual Sprocket Chain |
| 24. | 26002 | Chain Sprocket |
| 26. | 41131 | Material Suction Pipe Assembly |
| 27. | 41062 | Hot Oil Tank/Material Pump Tube Assembly |
| 28. | 41133 | Material Pump Suction Line |
| 29. | 41101 | Jacketed Material Pump |
| 30. | 40316 | Male Adapter |
| 31. | 41061 | Hot Oil Material Pump Tube Assembly |
| 32. | 41134 | Double Elbow Pipe Assembly |
| 33. | 29202 | 3/8" Bronze Ball Valve |
| 34. | 25050 | 2-1/2" Temperature Gauge (Material Line) |
| 37. | 29292 | 3" Flanged Gate Valve (Main Tank Valve) |

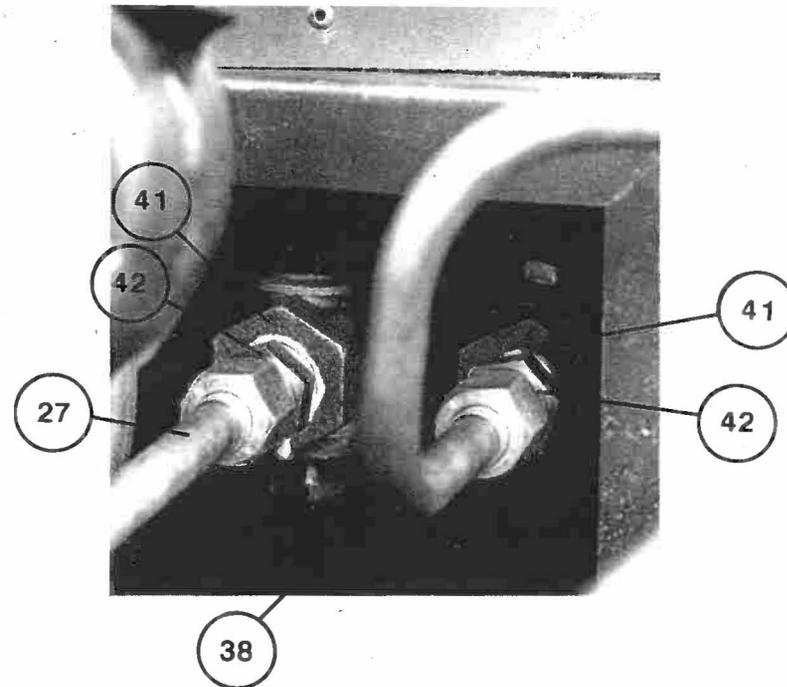


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|-----|-------|-----------------------------------|
| 35. | 41065 | Mixer Agitator Shaft/Less Paddles |
| 36. | 41070 | Paddle Assembly (2) |

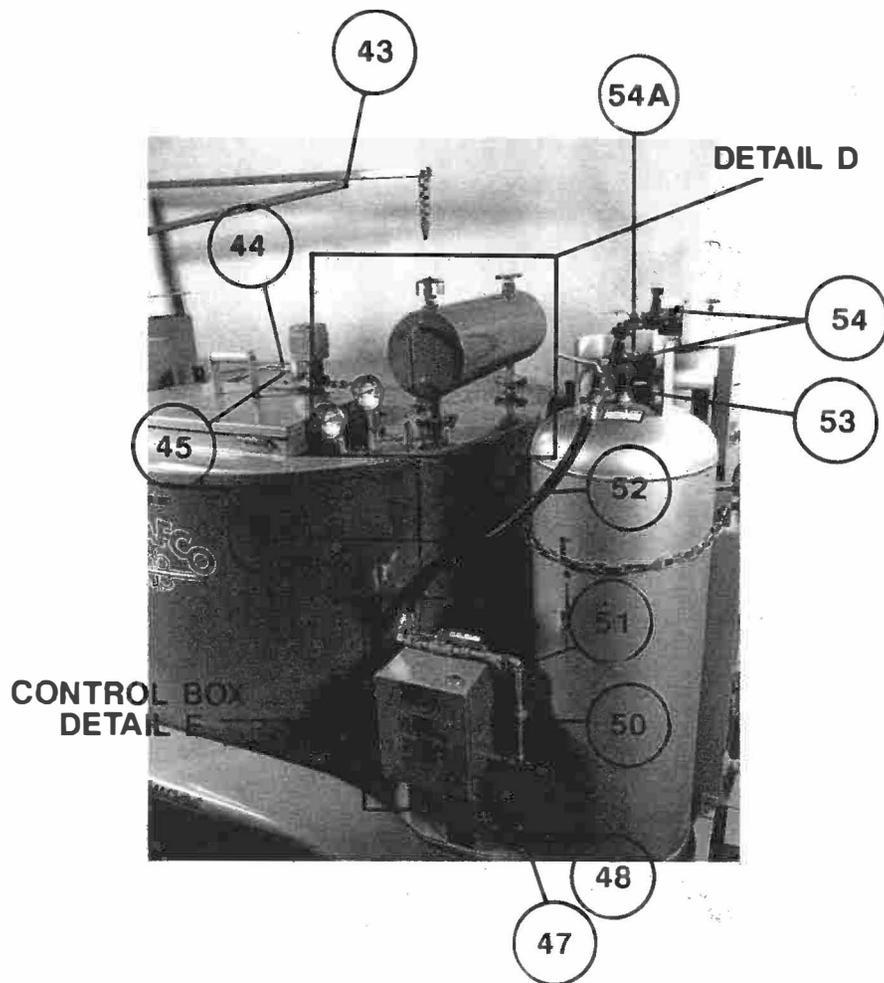


DETAIL C (39)

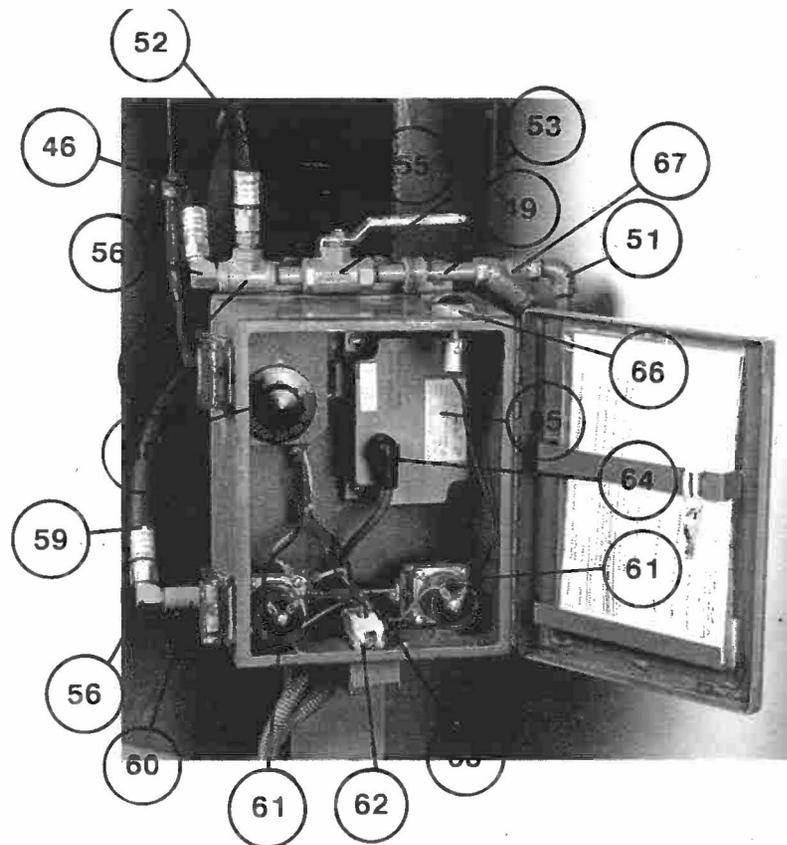
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|-----|-------|--|
| 31. | 41061 | Hot Oil Material Pump Tube Assembly |
| 38. | 41060 | Hot Oil Pump Suction Tube Assembly |
| 39. | 41095 | Hot Oil Circulating Pump (Roper) |
| | 41280 | Hot Oil Circulating Pump (Viking) |
| 40. | 29803 | 3/8" Connector Pipe to 1/2" Tube (Roper) |
| | 29844 | 8MJ x 8MP JIC Adapter (Viking) |



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|-----|-------|--|
| 27. | 41062 | Hot Oil Tank/Material Pump Tube Assembly |
| 38. | 41060 | Hot Oil Pump Suction Tube Assembly |
| 41. | 41271 | Hot Oil Shut Off Valve |
| 42. | 29844 | 8MJ x 8MP JIC Adapter |



43.	27020	Hose Support Jib Assembly
44.	41155	Mixer Motor L.H. Tube Assembly
45.	41156	Mixer Motor R.H. Tube Assembly
46.	25141	3/8" x 44" Hose Assembly
47.	29839	6MS x 4MP Straight Adapter
48.	28206	1/4" 90° Pipe Elbow
50.	25137	LPG Hose 3/8" x 12"
51.	29871	6MS x 4MP SAE 90 Elbow
52.	25142	3/8" x 31" Hose Assembly
53.	29195	1/4" Bronze Ball Valve
54.	25066	Pressure Regulator for L.P.G.
54A.	-	L.P.G. Cylinder Valve

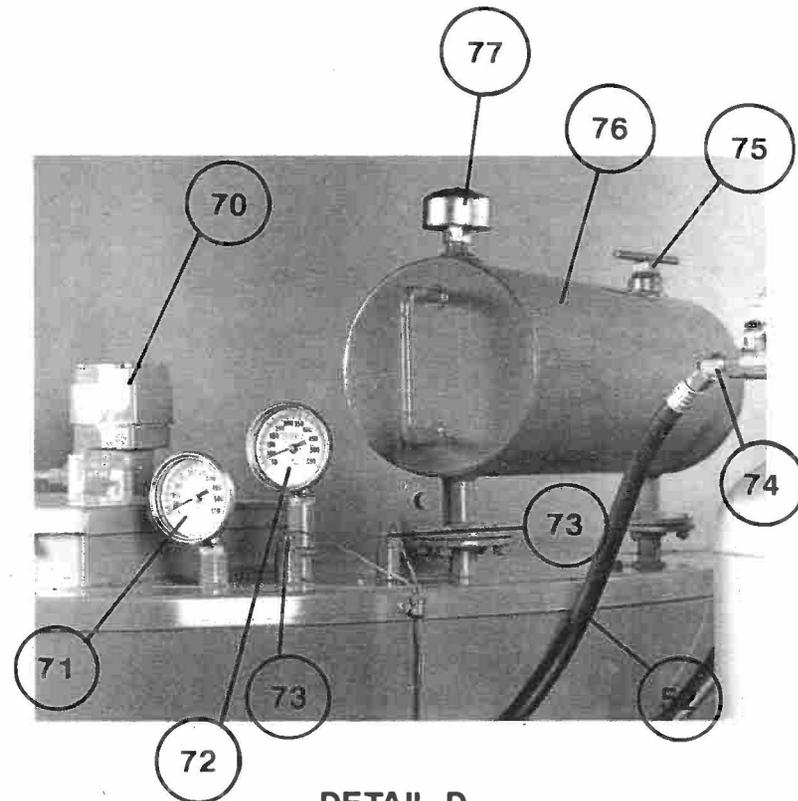


CONTROL BOX DETAIL E

46.	25141	Material Pressure Tube Assembly
49.	28035	1/4" x 4" Pipe Nipple
51.	29871	6MS x 4MP SAE 90° Elbow
52.	25142	3/8" x 31" Hose Assembly
53.	29195	1/4" Bronze Ball Valve
55.	29839	6MS x 4MP Straight Adapter
56.	29871	6MS x 4MP SAE 90° Elbow
57.	28251	1/4" Bronze Ball Valve
58.	25276	550 Electric Thermostat
59.	25146	3/8" x 23" Hose Assembly
60.	28176	1/4" Pipe Coupling
61.	25235	Electrical OP Valve
62.	25240	Manual Reset Temperature Probe (hi-limit switch)
63.	28036	1/4" x 3-1/2" Pipe Nipple
64.	41600	Ignitor Wiring Harness
65.	25278	Spark Control Module (gray box)
66.	24140	Indicator Light
67.	25208	Strainer for L.P.G.

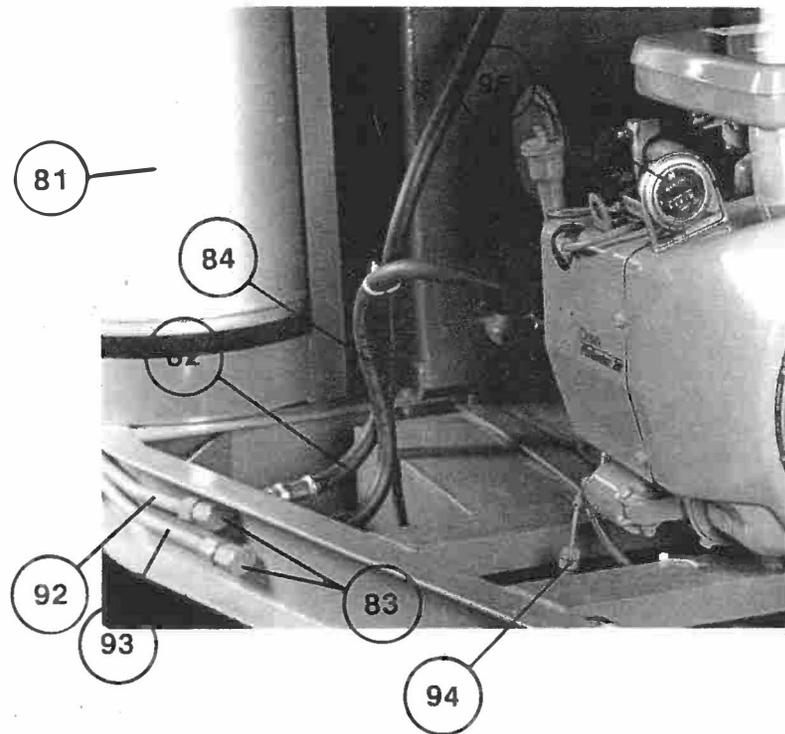
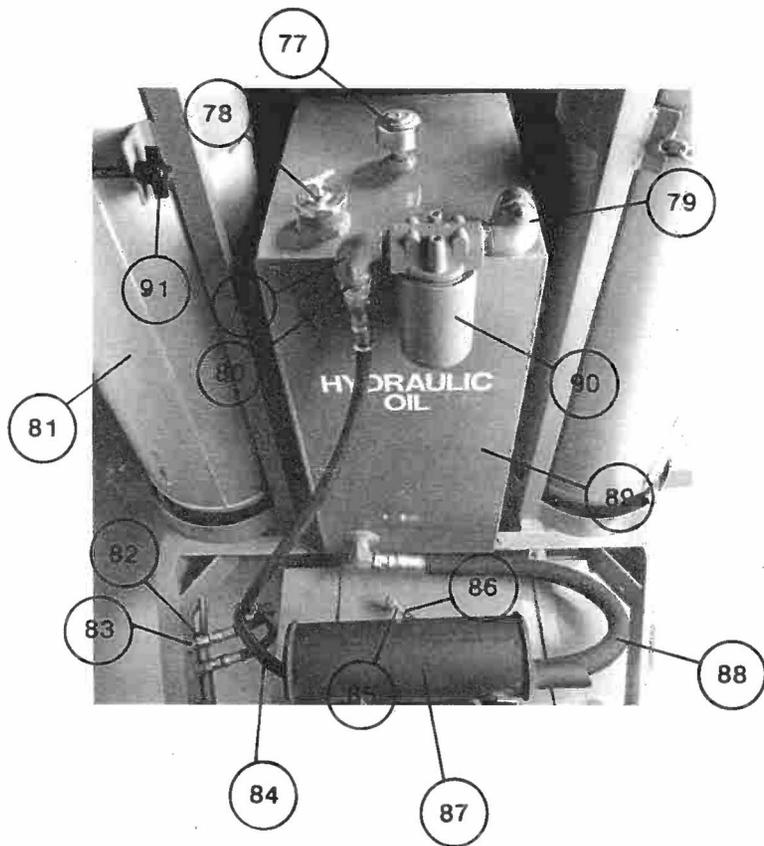


- 68. 28345 1/2"-3/8" Bushing
- 69. 41082 Gas Regulator - Secondary at Frame



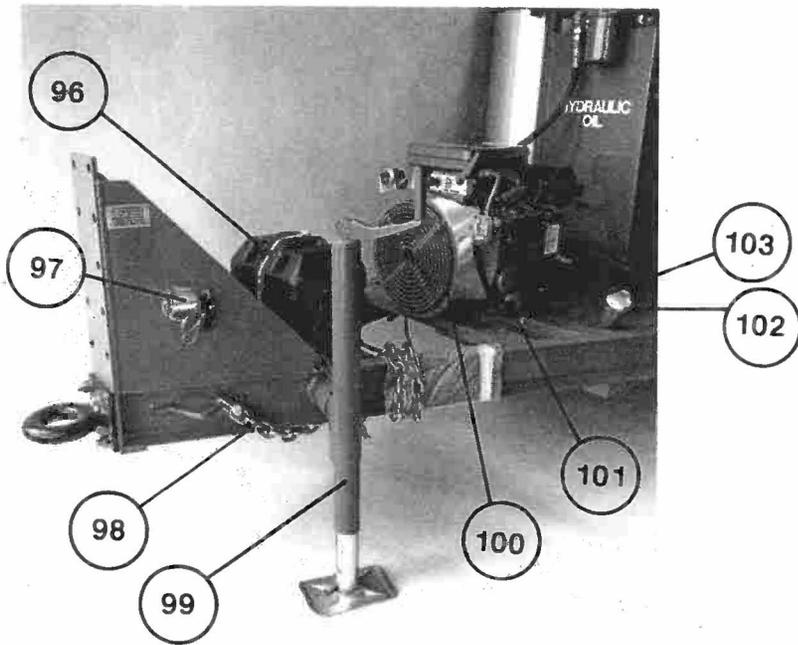
DETAIL D

- | | | |
|-----|-------|---|
| 52. | 25142 | 3/8" x 31" Hose Assembly |
| 70. | 41102 | Hydraulic Motor (Mixer) |
| 71. | 41243 | 24" Temperature Gauge (Heat Transfer Oil) |
| 72. | 40078 | 12" Temperature Gauge (Material Gauge) |
| 73. | 25203 | Stuffing Box |
| 74. | 29857 | 6MS x 4MP SAE 45 Elbow |
| 75. | 41199 | Hot Oil Tank Dipstick Assembly |
| 76. | 41002 | Overflow Tank Assembly |
| 77. | 26025 | 1/2" Air Breather and Element |

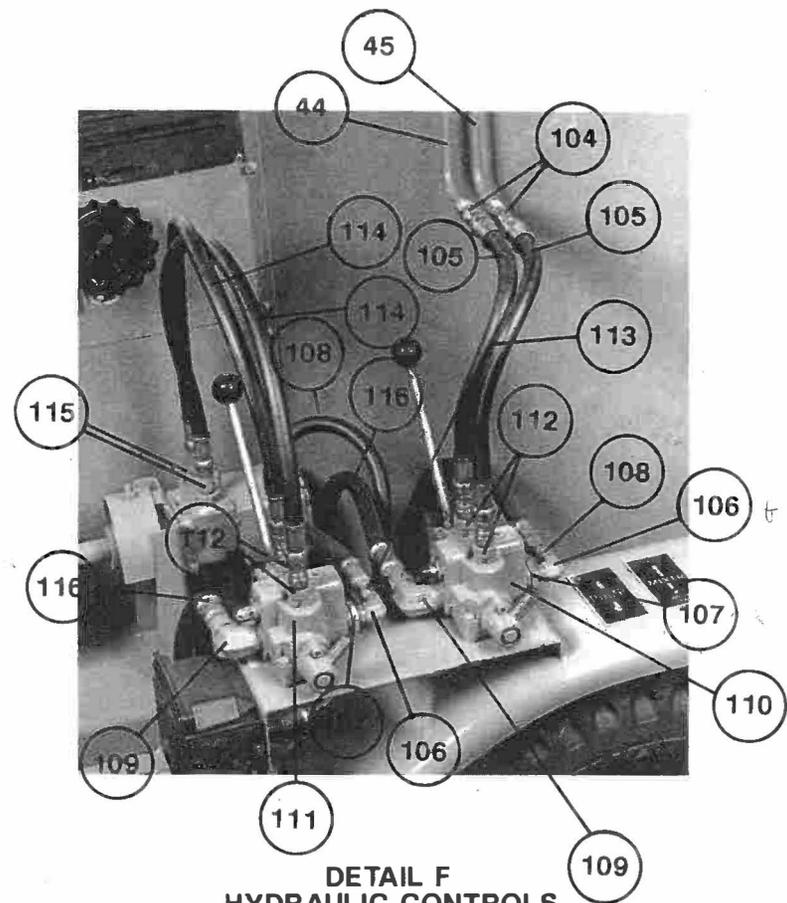


77.	26025	1/2" Air Breather and Element
78.	41162	Hydraulic Dipstick Assembly
79.	28240	1" 90° Street Elbow
80.	40314	Straight Thread Reducer
81.	25118	LPG Storage Tank
82.	29567	Return Hose Assembly
83.	29806	5/8" Tube Bulkhead Elbow
84.	22110	Hydraulic Hose, Hydraulic Pump to Tube
85.	29891	4MJ x 4FP 90° JIC Adapter Elbow
86.	26761	#4 Push On Hose
87.	22009	Single Horizontal Muffler
88.	29572	1" x 36" Suction Hose
89.	41045	Hydraulic Tank Assembly
90.	22071	Hydraulic Filter Element Only
91.	26032	1/2"-13" Black Knob

81.	25118	LPG Storage Tank
82.	29567	Return Hose Assembly
83.	29806	5/8" Tube Bulkhead Elbow
84.	22110	Hydraulic Hose, Hydraulic Pump to Tube
92.	41090	Return Tube Assembly
93.	41123	Material Pressure Tube Assembly
94.	31511	Modified In Line Fuse
95.	24076	Engine Hour Meter

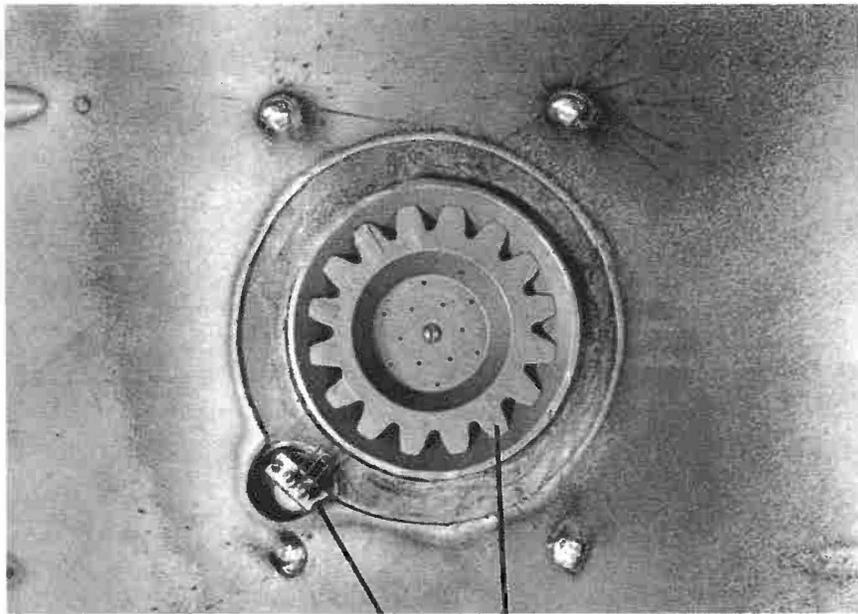


96.	24002	Battery Box Cover
97.	23117	Breakaway Switch Unit
98.	20130	48" Safety Chain Assembly
99.	23097	Tongue Jack Side Mount
100.	22005	20 HP Engine
101.	29586	#4 Fuel Hose
102.	26020	Gas Tank Cap
103.	22153	Gas Tank



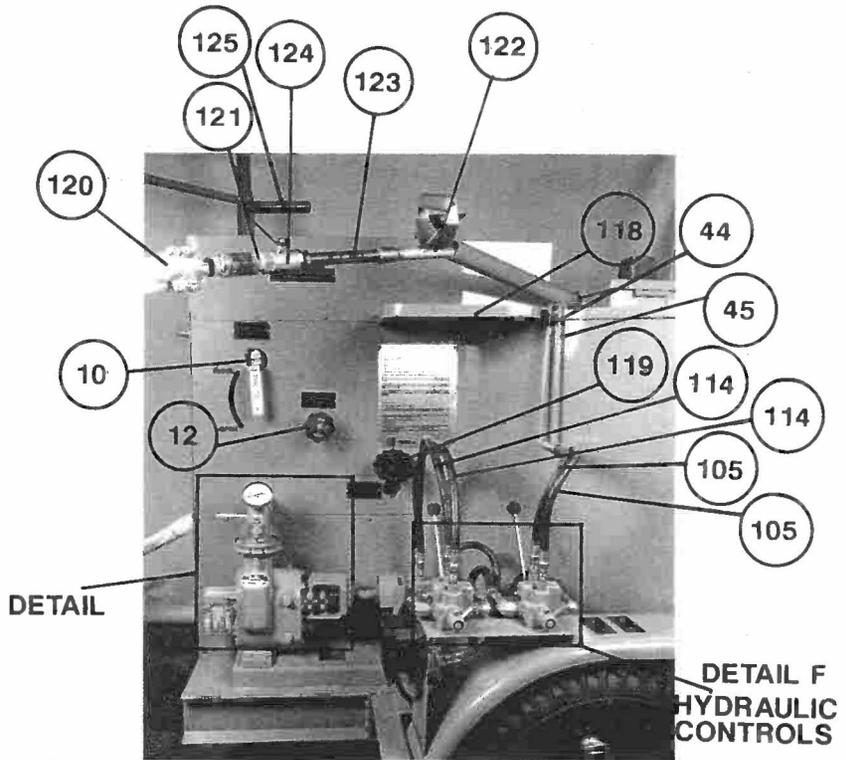
DETAIL F
HYDRAULIC CONTROLS

44.	41155	Mixer Motor L.H. Tube Assembly
45.	41156	Mixer Motor R.H. Tube Assembly
104.	29808	3/8" Flare Tube Connector
105.	40187	Hydraulic Hose Assembly
106.	29872	06MJ x 06MP 90° Male Fitting
107.	28347	3/4" x 3/8" Pipe Bushing
108.	40012	Valve to Hydraulic Motor Hose
109.	29813	90° Elbow Adapter
110.	41093	Agitator Control Valve
111.	41092	Material Pump Control Valve
112.	29841	06MJ x 08MP Straight Male Fitting
113.	40187	Hydraulic Hose Assembly
114.	29570	Material Motor to Valve Hose Assembly
115.	22029	6 x 10 Straight Thread Adapter
116.	29566	Valve Return Hose Assembly

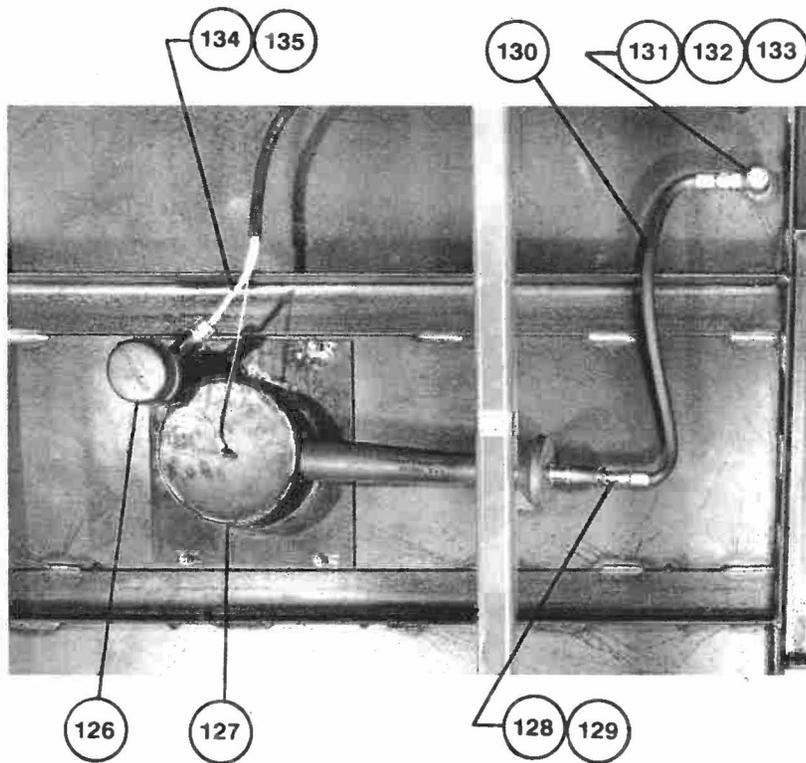


117. 25277 Ignitor
136. 41210 Burner Assembly

117. 25277 Ignitor
136. 41210 Burner Assembly



10.	41246	2" Ball Valve (recirculating)
12.	29270	2" Gate Valve (applicator)
44.	41155	Mixer Motor L.H. Tube Assembly
45.	41156	Mixer Motor R.H. Tube Assembly
105.	40187	Hydraulic Hose Assembly
114.	29570	Hydraulic Hose Assembly
118.	41238	Drip Pan
119.	41268	Valve Handle Extension
120.	27009	20' Hose with Cover and Fittings
121.	27048	Male/Female Swivel
122.	41207	Hand Wand Assembly
123.	28100	3/4" x 8" Nipple
124.	29240	1" Bronze Ball Valve
125.	27080	Hand Gun Valve Handle Assembly



126.	28274	2-1/2" Cap
127.	41174	Burner Chamber
128.	28178	1/2" Coupling
129.	29832	3/8" Tube x 1/2" Pipe
130.	25146	Hose, 3/8" x 23" long
131.	28263	"T" -1/2" x 1/2" x 3/8"
132.	29840	Fitting - 6 x 6 Straight Connector
133.	28283	1/2" Pipe Plug
134.	41600	Ignitor Wiring Harness Assembly
135.	24021	Cord Connector

COMPLETE PARTS LIST

1.	41267	Tank Valve Extended Handle
2.	22030	Flanged Nipple Assembly
3.	28110	2" x 8-1/2" Pipe
4.	28213	2" 90° Pipe Elbow
5.	41291	Cross Feed Pipe
6.	26078	2" Clevis Hanger
7.	28213	2" 90° Pipe Elbow
8.	41136	Pipe Assembly, Upper
9.	28744	3/8"-16" x 6-1/2" Bolt
10.	41246	2" Ball Valve (recirculating)
11.	41135	Flanged Tee
12.	29270	2" Gate Valve (applicator)
13.	29161	2-1/2" Blind Flange
14.	29811	5/8" Tee with Swivel
15.	29805	5/8" Tube Bulkhead Connector
16.	29807	7/8" - 14 Bulkhead Locknut
17.	29815	5/8" Tube x 1/2" Pipe Swivel Connector
18.	41192	Flow Divider
19.	29834	6MJ x 6MP JIC Straight Adapter
20.	40311	Straight Thread Adapter
21.	22027	Hydraulic Motor (to Material Pump)
22.	41140	Chain Guard with Hole
23.	26016	Dual Sprocket Chain
24.	26002	Chain Sprocket
25.	41091	Hydraulic Motor for Hot Oil Pump
26.	41131	Material Suction Pipe Assembly
27.	41062	Hot Oil Tank/Material Pump Tube Assembly
28.	41133	Material Pump Suction Line
29.	41101	Jacketed Material Pump
30.	40316	Male Adapter
31.	41061	Hot Oil Material Pump Tube Assembly
32.	41134	Double Elbow Pipe Assembly
33.	29202	3/8" Bronze Ball Valve
34.	25050	2-1/2" Temperature Gauge (Material Line)
35.	41065	Mixer Agitator Shaft/Less Paddles
36.	41070	Paddle Assembly (2)
37.	29292	3" Flanged Gate Valve (Main Tank Valve)
38.	41060	Hot Oil Pump Suction Tube Assembly
39.	41095	Hot Oil Circulating Pump (Roper)
	41280	Hot Oil Circulating Pump (Viking)
40.	29803	3/8" Connector Pipe to 1/2" Tube (Roper)
	29844	8MJ x 8MP JIC Adapter (Viking)

41.	41271	Hot Oil Shut Off Valve
42.	29844	8MJ x 8MP JIC Adapter
43.	27020	Hose Support Jib Assembly
44.	41155	Mixer Motor L.H. Tube Assembly
45.	41156	Mixer Motor R.H. Tube Assembly
46.	25141	3/8" x 44" Hose Assembly
47.	29839	6MS x 4MP Straight Adapter
48.	28206	1/4" 90° Pipe Elbow
49.	28035	1/4" x 4" Pipe Nipple
50.	25137	LPG Hose 3/8" x 12"
51.	29871	6MS x 4MP SAE 90° Elbow
52.	25142	3/8" x 31" Hose Assembly
53.	29195	1/4" Bronze Ball Valve
54.	25066	Pressure Regulator for L.P.G.
54A.	-	L.P.G. Cylinder Valve
55.	29839	6MS x 4MP Straight Adapter
56.	29871	6MS x 4MP SAE 90° Elbow
57.	28251	1/4" Standard Black Pipe Tee
58.	25276	550 Electric Thermostat
59.	25146	3/8" x 23" Hose Assembly
60.	28176	1/4" Pipe Coupling
61.	25235	Electrical OP Valve
62.	25240	Manual Reset Temperature Probe (hi-limit switch)
63.	28036	1/4" x 3-1/2" Pipe Nipple
64.	41600	Ignitor Wiring Harness
65.	25278	Spark Control Module (gray box)
66.	24140	Indicator Light
67.	25208	Strainer for L.P.G.
68.	28345	1/2"-3/8" Bushing
69.	41082	Gas Regulator - Secondary at Frame
70.	41102	Hydraulic Motor (Mixer)
71.	41243	24" Temperature Gauge (Heat Transfer Oil)
72.	40078	12" Temperature Gauge (Material Gauge)
73.	25203	Stuffing Box
74.	29857	6MS x 4MP SAE 45° Elbow
75.	41199	Hot Oil Tank Dipstick Assembly
76.	41002	Overflow Tank Assembly
77.	26025	1/2" Air Breather and Element
78.	41162	Hydraulic Dipstick Assembly
79.	28240	1" 90° Street Elbow

80.	40314	Straight Thread Reducer
81.	25118	LPG Storage Tank
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114.	29570	Hydraulic Hose Assembly
115.	22029	6 x 10 Straight Thread Adapter
116.	29566	Valve Return Hose Assembly
117.	25277	Ignitor
118.	41238	Drip Pan
119.	41268	Valve Handle Extension
120.	27009	20' Hose with Cover and Fittings
121.	27048	Male/Female Swivel
122.	41207	Hand Wand Assembly

123. 28100 3/4" x 8" Nipple
124. 29240 1" Bronze Ball Valve
125. 27080 Hand Gun Valve Handle Assembly
126. 28274 2-1/2" Cap
127. 41174 Burner Chamber
128. 28178 1/2" Coupling
129. 29832 3/8" Tube x 1/2" Pipe
130. 25146 Hose, 3/8" x 23" long
131. 28263 "T" - 1/2" x 1/2" x 3/8"
132. 29840 Fitting - Straight Connector
133. 28283 1/2" Pipe Plug
134. 41600 Ignitor Wiring Harness Assembly
135. 24021 Cord Connector
136. 41210 Burner Assembly