

## **POLYPATCH 1 TON APPLICATOR**

**PART MANUAL - 26370** 

Revised: 5/99

## POLYPATCH 1 TON APPLICATOR



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#### POLYPATCH 1 TON APPLICATOR

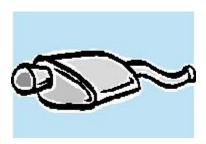
This manual is furnished with each new **CRAFCO POLYPATCH APPLICATOR**. The manual will help your machine operators learn to run the sealer properly and understand its mechanical functions for trouble-free operation.

Your **CRAFCO POLYPATCH 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.

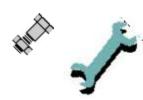




- Avoid the entrance of water into any part of the machine. Water will displace heat transfer oil or sealant, which could be hazardous to personnel surrounding the machine when it reaches operating temperatures.
- Avoid bodily contact with hot sealant material or heat transfer oil; serious burns may 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 LPG Tanks.
- 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.
- Calibrate temperature control prior to initial operation and each 50 hours of operation.

#### 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 applicator 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.

## POLYPATCH 1 TON 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, hot oil pump and electrical components for a period of one (1) 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 born 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 480-655-1712 (FAX) Toll Free 1-800-528-8242

## **SPECIFICATIONS**

Vat Capacity	1 U.S. Ton
Heat Transfer Oil Required	45 Gallons at 70° F
Tank Construction	Double Boiler Type
Tank Opening Size	.18" X 24"
Maximum Heat Input	Vapor Burner 250,000 BTU
Burner and Temperature Control	Automatic - Fail Safe
Engine - Kohler Model CH11 - Propane Fueled	Single Cylinder 11 BHP @ 3,600 rpm
Drive Mechanism	Hydraulic with infinite mixer speed control
Mixer	Full Sweep Mixer with 2 horizontal paddles - vertical risers
Axle (2)	3,500 lb.capacity each
Tires (4)	185R-14-8 ply rating (1850 lbs. capacity each)
Dry Weight	Approximately 3,400 lbs.
Propane Bottle (2)	100 lbs each

# POLYPATCH 1 TON APPLICATOR OPERATING INSTRUCTIONS INTRODUCTION

The Crafco PolyPatch Applicator was developed to melt Crafco Brand PolyPatch material.

**DO NOT** operate machine without following these instructions:

- 1. Fill propane tanks if necessary.
- 2. Check engine crankcase oil level (refer to Engine Operators Manual).
- 3. Check hydraulic fluid level, at ambient temperature. Add fluid if necessary to bring to correct level. Oil should be in middle of top sight gauge.
- 4. Check heat transfer oil level. At 70° F. oil should be touching the dipstick. **DO NOT** overfill or spillage may occur when oil is heated and expands.
- 5. Temperature thermostat set in "**OFF**" position.
- 6. Applicator and Gate valves should be in the closed position.
- 7. Remember that safe operation of this equipment is the operators responsibility.



#### **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 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-soled 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. Set temperature dial to "OFF".
- 3. Open both LPG tank and ball valves and ball valve located above burner control box.
- 4. Start engine by turning the ignition key to the start position. Engine should start. If engine does not start, try starting again. After engine starts, allow to warm up before using hydraulics.
- 5. Open burner control box. Turn temperature dial to desired temperature setting.



#### **CAUTION:**

If burner does not ignite the first time, turn temperature dial to "**OFF**". After 10 seconds turn temperature dial to desired setting. Burner should ignite. If burner still fails to ignite, determine cause of malfunction (see "Trouble Shooting Guide").

6. Allow the heating oil to heat. Fifteen minutes after hot oil reaches 500° F, engage the mixer by moving the mixer control handle forward or backward. If the mixer does not move, allow material to heat longer. Jamming of mixer shaft causes hydraulic oil to overheat and machine damage could occur. Set the mixer speed by moving the mixer control handle further from the neutral position. The further the handle engagement, the higher the mixer speed. It is best to have mixer speed approximately 10RPM.

#### APPLYING THE MATERIAL

<u>NOTE</u>: Hot materials can cause severe burns. Wear protective clothing, gloves, hard-soled shoes, and face shield or safety glasses when operating or filling the equipment. Read entire manual before operating.

- 7. When material is mixing freely and the correct application temperature (375° F.-410° F.) is reached, open drain valve (labeled) by removing locking pin (1) and lowering drain valve handle (2) (see Fig. 1). When drain valve handle is fully opened the locking pin should be replaced to maintain opened position.
- 8. Position machine over desired work area and remove locking pin (1) in applicator shoot (2) (see Fig. 2). Removing locking pin enables the shoot to rotate approximately 180° for easy access to the work area.
- 9. With shoot positioned over work area, slowly open applicator valve (labeled) (3) (see Fig. 2) by lifting valve handle and applying material as needed. If material fails to flow from the applicator valve, use hand torch supplied with applicator to heat valve and plumbing until material begins to flow. When the proper amount of material has been applied to the work area, firmly lower the applicator valve handle to stop material flow.
- 10. When transporting machine long distances with hot material in tank, always close and lock the drain valve. This will prevent product from plugging the pipe and applicator valve. Also, when transporting unit with hot material in tank, the mixer should be engaged until material temperature cools to 250° F or material separation will occur. Never leave burner turned on when transporting machine.

#### MACHINE START UP

#### APPLYING THE MATERIAL

- 11. Continue to monitor material (1) (see Fig. 3) for proper application temperature and adjust hot oil temperature as needed. **Hot Liquid Material Causes Severe Burns!**
- 12. When transporting applicator with hot material always close and lock drain valve. Closing the drain valve prevents excessive build-up in plumbing. Always keep mixer engaged when transporting applicator with hot liquid material to prevent material segregation.
- 13. Continue to monitor material for proper application temperature and make burner adjustments as needed.

#### 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 of material are fed in too quickly, jamming will result and it will slow down the melting process.

#### SHUTDOWN AND CLEAN-OUT PROCEDURE

- 1. Turn the temperature dial to "**OFF**".
- 2. Return mixer to "**OFF**" position (once applicator is stationary).
- 3. Turn engine to "**OFF**".
- 4. If drain valve is not closed due to transporting applicator, firmly close and replace locking pin.
- 5. Open applicator valve to drain remaining material from valve and plumbing. When finished draining firmly close applicator valve.
- 6. Clean material residual from applicator chute by heating the underside of chute with hand torch (see Fig. 2)
- 7. Return applicator chute to transport position and secure with locking pin.
- 8. Close LPG line ball valves and close LPG cylinder valve.

#### **OVERNIGHT HEATERS**

Overnight heaters may be used to maintain an overnight hot oil temperature of approximately 200-250°F (93.3°C).

Attach each heater to a 120 volt outlet using power cords sufficient for 1500 watts. Use seperate cord for each heater and make sure receptacles are rated for 1500 watts. It is advisable to use a seperate fused circuit for each heater. Disconnect heaters when using machine burner system.

#### **INSIDE PIVOT GATE**

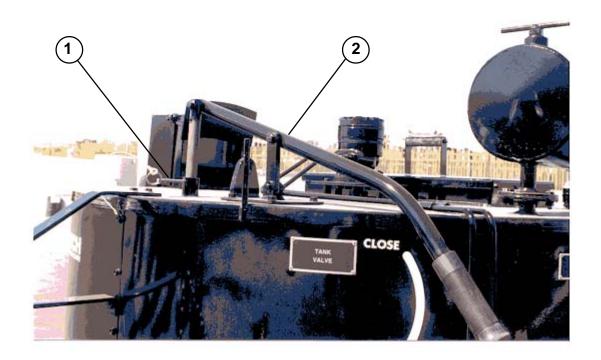


FIGURE 1

#### POLYPATCH MATERIAL TROUGH ASSEMBLY - 44680

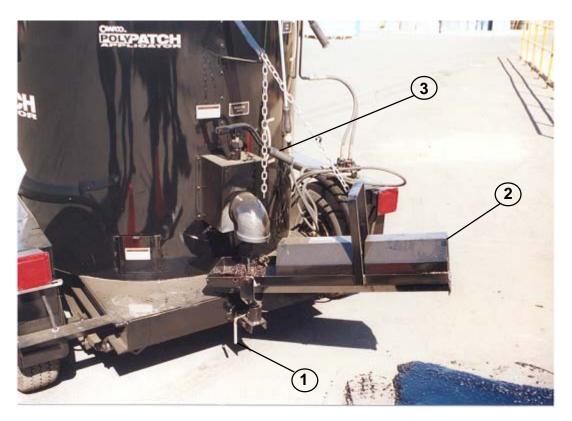


FIGURE 2

#### **POLYPATCH CONTROL BOX ASSEMBLY - 44690**



FIGURE 3

#### STORING MACHINE

The PolyPatch machine should be stored in an area where moisture cannot enter the heating system. Extended down time can cause moisture build up in heating oil tank.

If there is any suspicion that moisture may have collected in heat transfer oil, warm heat transfer fluid to 300° F. for 2 to 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
- 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

#### **MAINTENANCE INSTRUCTIONS**

#### **ENGINE**:

- •Check oil every 8 hours of operation. Change after the first 5 hours of operation and change every 25 hours thereafter.
- •See Engine Owners Manual for additional operating and maintenance instructions.

#### **HYDRAULIC SYSTEM:**

Check hydraulic fluid every 8 hours. Change hydraulic filter after first 10 hours of operating and every 250 hours thereafter. Change hydraulic fluid every 500 hours of operation.

#### **WHEEL BEARINGS**:

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

#### **TONGUE JACK:**

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

## **MAINTENANCE CHART**

			I	HOURS	
LOCATION	PROCEDURE	8	50	100	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	*			
	Change				*
Hydraulic oil filter	First change (10 hours).				
	Subsequent changes (250 hours).				
Hydraulic oil	Check oil	*			
	Change oil				*
	For proper oil, see "Recommened Fluids & Lubricants".				
Wheel bearings	Clean & re-pack using a good grade of bearing grease.				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.
  - the state of
- 2. Keep regular replacement items in stock for emergency repairs, 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.

#### **RECOMMENDED FLUIDS & LUBRICANTS**

APPLICATION	RECOMMENDED	FULL POINT
Engine Oil	Refer to Kohler owners manual	2 Qts.
LP G	Propane	100 Lbs.
Hydraulic Oil	Rondo oil - HD-68 Texaco	10 Gal.
Heat Transfer Oil	Regal R&O 68	45 Gal.

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

PRODUCER	PRODUCT NAME	PRODUCT NO.
Te xaco	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.	Thermia	C
Chevron Oil Co.	Chevron Heat Transfer Oil	-
Conoco	Heat Transfer Oil	R&O 68



#### **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.

## TROUBLE SHOOTING HYDRAULICS GUIDE

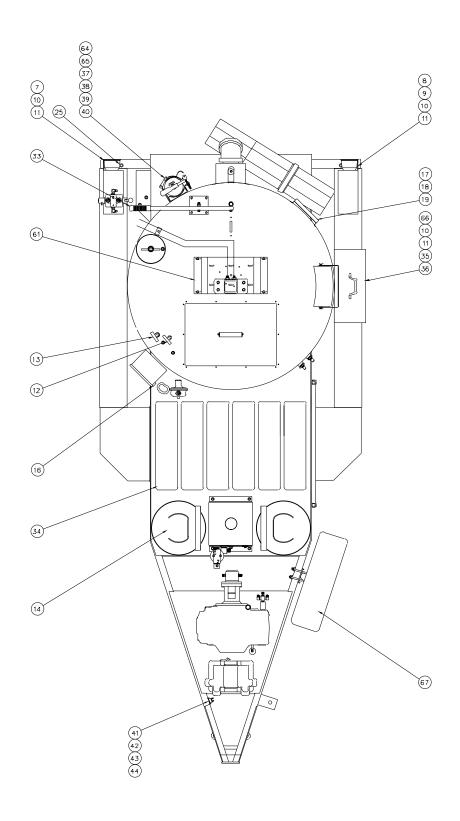
PROBLEM	CAUSE	REMEDY
	Sealant temperature too low.	Continue to heat material.
Mixer will not rotate.	Too many blocks placed at one time.	Continue to heat material.
Wilder Will Hot Potato.	Inadequate hydraulic flow/pressure.	Check hydraulic fluid level. Reset pressure/check flow if necessary.
	Build up of coked material on inside of material tank.	Allow machine to cool. Remove deposits and flush with solvent.
Slow heat up of sealant.	Burner not operating/low LPG pressure.	Repair/Adjust
	Low heating oil level.	Make sure fluid level is correct.
	Low heating oil temperature.	Set at recommended temperature.

## **BURNER TROUBLE SHOOTING GUIDE**

SEE BURNER MANUAL FOR ADJUSTMENTS AND INSTRUCTIONS					
PROBLEM	CAUSE	SOLUTION			
	Fuse is "blown", broken wire from battery.	Check for 12 volts at Thermostatic switch (side from battery).			
	Thermostat is bad.	Check for 12 volts at terminal out of thermostat.			
	Broken wire from thermostat to Spark Control Module.	Check for 12 volts at "Power" on Spark Control Module.			
Burner will not ignite.	Bad Spark Control Module.	Check for 12 volts at "Valve" terminal on Spark Control Module.			
	-Faulty ignitor or ignitor wireReposition ignitorCheck for clogged burner orificeInadequate gas flow/or pressureFaulty "ASCO" gas valve.	Faulty Spark Control Module.			
Burner lights but shuts down in 3.5 seconds.	-Faulty ignitorBroken or loose flame sensor wireFaulty spark control module.				
Make sure e	ngine is running so battery is	fully charged.			
Burner lights but will not re-light.	-Calibrate thermostatBlown fuseFaulty spark control moduleFaulty sensor.				
Burner will not shut off at temperature setting.	-Calibrate thermostatDirt in "ASCO" valve.				

### POLYPATCH 1 TON PROPANE MELTER ASSEMBLY-44600-1PB

(Parts shown in drawing are located on pages 24, 25, and 27.)



#### POLYPATCH 1 TON PROPANE MELTER ASSEMBLY-44600-1PB

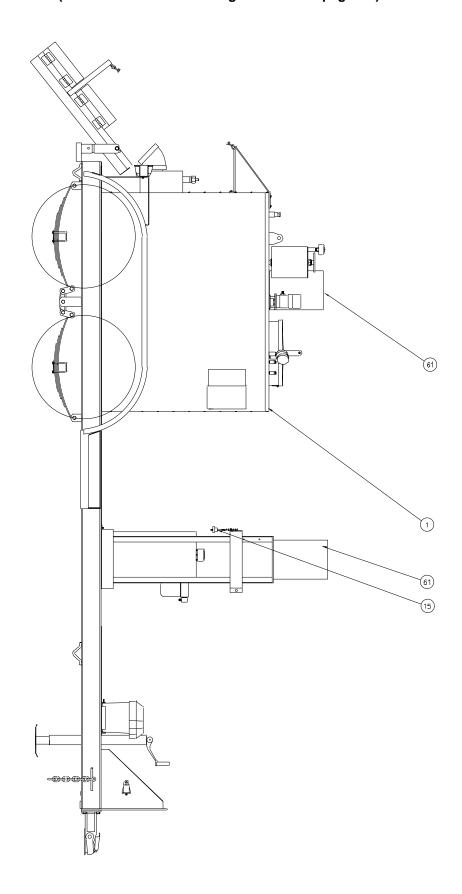
NUMBER	PART NUMBER	QTY	DESCRIPTION
1	44601	1	TANK AND FRAME ASSY.
2	28827	4	5/8-11 X 1-3/4 GR. 8 BOLT
3	28541	4	5/8-11 UPSET LOCK NUT
4	20130	2	48" SAFETY CHAIN
5	23117	1	BREAKAWAY SWITCH
6	24000	1	12V BATTERY
7	24022	1	TAIL LIGHT, R.H.
8	24023	1	TAIL LIGHT, L.H.
9	26099	1	LICENSE PLATE HOLDER
10	28500	8	1/4-20 HEX NUT
11	28645	8	1/4 LOCK WASHER
12	40078	1	12" MAT'L TEMP. GAUGE
13	41243	1	24" OIL TEMP. GAUGE
14	25118	2	100# PROPANE TANK
15	26032	2	1/2-13 KNOB
16	25268	2	CONTROL BOX CLAMP
17	25290	1	RECORD BOX BRACKET
18	25289	1	RECORD BOX
19	28990	52	1/8" RIVET
20	26009	14GL.	HYDRAULIC OIL
21	26010	50GL.	HEATING OIL
22	26071	10	WHITE WIRE TIE
23	26072	10	SMALL BLACK WIRE TIE
24	26073	10	LARGE BLACK WIRE TIE
25	26076	4	9/16" I.D. GROMMET

#### POLYPATCH 1 TON PROPANE MELTER ASSEMBLY-44600-1PB

NUMBER	PART NUMBER	QTY	DESCRIPTION
26	27520	0.5	RED GASKET SILICON
27	28992	2	3/16" RIVET
28	32501	6'	3/8" CONVOLUTED LOOM
29	32502	2'	1/2" CONVOLUTED LOOM
30	44602	1	DECAL KIT
31	51653	3	3/8" LOOM TEE
32	51654	7	3/8" LOOM END FITTING
33	32081	2	RUBBER HANDLE
34	44611	6	ANTISLIP STRIP
35	28670	8	1/4 FLAT WASHER
37	28716	4	5/16-18 X 1 BOLT
38	28671	4	5/16 FLAT WASHER
39	28646	4	5/16 LOCK WASHER
40	28501	4	5/16-18 HEX NUT
41	31512	1	30 AMP CIRCUIT BREAKER
42	28844	2	#10-32 X 3/4" RDHD SCREW
43	28554	2	#10-32 HEX NUT
44	28644	2	#10 LOCK WASHER

## POLYPATCH 1 TON PROPANE MELTER ASSEMBLY OPTIONAL COMPONENTS-44600-2PB

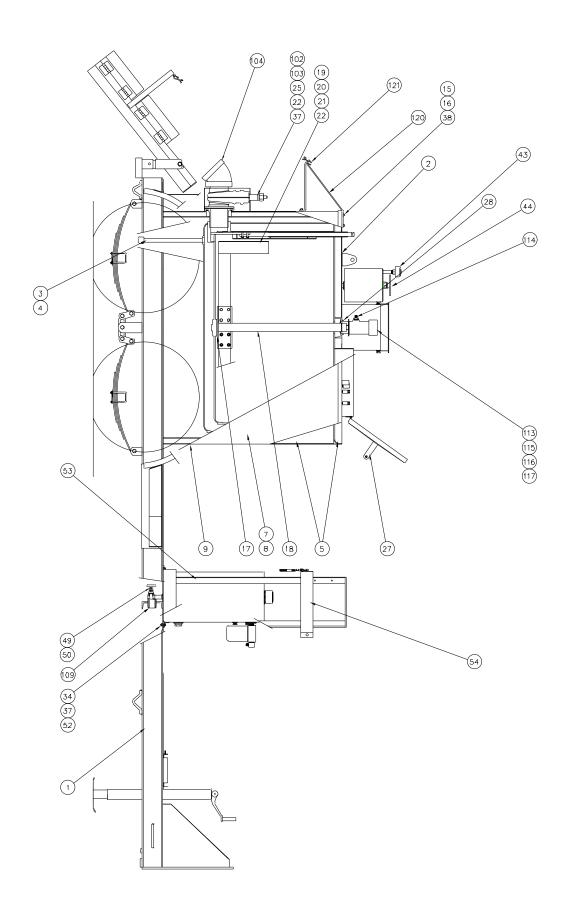
(Parts not shown in drawing are listed on page 27.)



## POLYPATCH 1 TON PROPANE MELTER ASSEMBLY OPTIONAL COMPONENTS-44600-2PB

OPTIONAL COMPONENTS-44600-2PB				
NUMBER	PART NUMBER	QTY	DESCRIPTION	
51	20017	1	2" BALL HITCH	
	20013	1	4 POS. PINTLE HITCH	
	20014	1	3" PINTLE	
	20015	1	PIN HITCH	
	20016	1	2 1/2" PINTLE	
	20018	1	2 5/16" BALL HITCH	
52	20140	1	28" HITCH EXTENSION	
	20150	1	39" HITCH EXTENSION	
53	23097C	1	JACK CASTER WHEEL	
54	23119	1	TRUCK BREAK CONTROLLER	
55	24002	1	BATTERYBOX	
	24086	1	LOCKABLE BATTERY BOX	
56	24068	1	4 WIRE TRAILER CONNECTOR	
	24184	1	5 WIRE TRAILER CONNECTOR	
	24074	1	6 WIRE TRAILER CONNECTOR	
	24084	1	7 WIRE TRAILER CONNECTOR	
57	24069	1	4 WIRE TRUCK CONNECTOR	
	24075	1	6 WIRE TRUCK CONNECTOR	
58	24085	1	SPRING GUARD FOR 24084	
59	24095K	1	STROBE LIGHT KIT	
60	24096K	1	FLASH BAR KIT	
61	44644	1	FLASH LIGHT BRACKET	
62				
63				
64	26058	1	FIRE EXTINGUISHER W/COVER	
65	26059	1	EXTINGUISHER BRACKET	
66	26098	1	TOOLBOX	
67	44610	1	SPARE TIRE MOUNTING KIT	

#### POLYPATCH 1 TON PROPANE TANK AND FRAME ASSY-44601-1PB



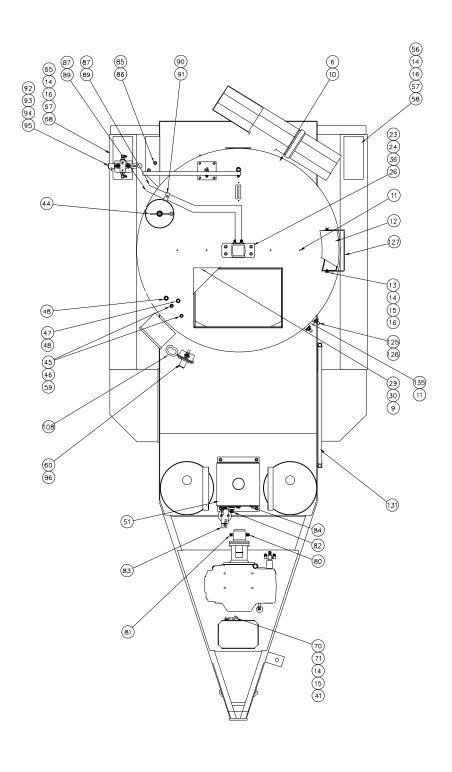
#### POLYPATCH 1 TON PROPANE TANK AND FRAME ASSY-44601-1PB

NUMBER	PART NUMBER	QTY	DESCRIPTION
1	44605	1	FRAME ASSEMBLY
2	44625	1	MELTING TANK ASSEMBLY
3	28174	1	1" X 15" NIPPLE
4	28270	1	1" PIPE CAP
5	40068	2	1" KAOWOOL INSULATION
6	44618	1	TOP COVER
7	44619	1	SKIN WRAPPER, L.H.
8	44620	1	SKIN WRAPPER, R.H.
9	28985	20	1/4" SELF-TAPPING SCREW
10	28993	8	3/16" DIA. RIVET
11	28990	26	1/8" DIA. RIVET
12	41183	1	VENT COVER ASSEMBLY
13	28619	2	5/16-18 WING NUT
14	28671	12	5/16 FLAT WASHER
15			
16			
17	28682	1	WASHER
18	41190	1	AGITATOR SHAFT
19	41070	2	PADDLE ASSEMBLY
20	28984	8	3/8-16 X 1 1/2 GR.8 BOLT
21	28641	16	3/8 FLAT HARDENED WASHER
22	28538	16	3/8-16 UPSET LOCK NUT
23	44614	1	AGIT. MOTOR MOUNT. PLATE
24	40030	4	PIPE SPACER
25	28731	14	3/8-16 X 1 BOLT

#### POLYPATCH 1 TON PROPANE TANK AND FRAME ASSY-44601-1PB

NUMBER	PART NUMBER	QTY	DESCRIPTION
26	28647	10	3/8 LOCK WASHER
27	41195	1	INTAKE LID ASSEMBLY
28	41757	1	TUBE RING
29	26104	2	1/4" X 2 1/2" LOCK PIN
30	44157	3	PIN ATTACHMENT CABLE
31	51158	1	HANDLE BAR
32	44664	1	ROCKER
33	44665	1	LEVER BASE ASSEMBLY
34	28733	5	3/8-16 X 1 1/2 BOLT
35	28735	1	3/8-16 X 2 BOLT
36	28736	5	3/8-16 X 2 1/2 BOLT
37	28672	18	3/8 FLAT WASHER
38	28608	7	5/16-18 THREADED INSERT
39			
40			
41			
42	43355	1	OVERFLOW TANK ASSEMBLY
43	26025	1	AIR BREATHER
44	43673	1	DIPSTICK
45	28177	2	3/8" PIPE COUPLING
46	25203	2	STUFFING BOX
47	28345	1	3/8 X 1/2 NPT BUSHING
48	28178	2	1/2 PIPE COUPLING
49	28018	1	1/2 X 2" PIPE NIPPLE
50	29213	1	1/2" BALL VALVE

#### POLYPATCH 1 TON PROPANE TANK AND FRAME ASSY-44601-2PB



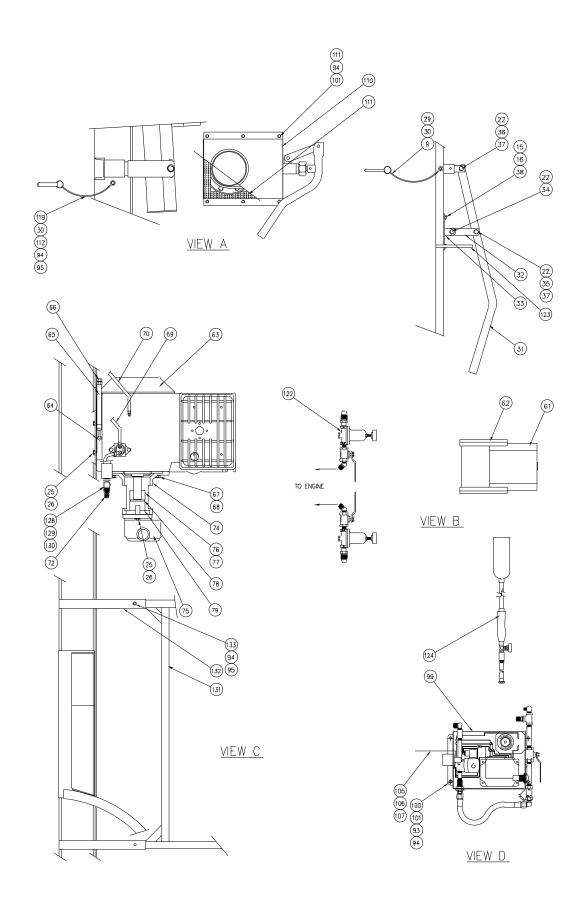
#### POLYPATCH 1 TON PROPANE TANK AND FRAME ASSY-44601-2PB

NUMBER	PART NUMBER	QTY	DESCRIPTION
51	44030	1	HYDRAULIC TANK ASSEMBLY
52	28526	4	3/8-16 ESNA LOCK NUT
53	41259	2	LP TANK BRACKET
54	25085	2	UPPER RETAINING BAND
55	41171	1	R.H. FENDER ASSEMBLY
56	41170	1	L.H. FENDER ASSEMBLY
57	28525	8	5/16-18 ESNA LOCK NUT
58	28681	8	5/16 FENDER WASHER
59	28342	2	1/4 X 3/8 NPT BUSHING
60	41082	1	GAS REGULATOR
61	40006	1	SLIDING DOOR
62	40009	2	DOOR SLIDE BRACKET
63	43480	1	11 HP KOHLER ENGINE
64	29834	1	3/8 NPT X 3/8 JIC ADAPTOR
65	SEE DESC.	1	AX6-6MP-6FJ9-8 HOSE
66	28267	1	3/8 PIPE CAP
67	28648	4	7/16 LOCK WASHER
68	28747	4	7/16-14 X 1 1/4 BOLT
69	24015	1	POSITIVE BATTERY CABLE
70	37038	1	NEGATIVE BATTERY CABLE
71	32602	1	NEGATIVE BATTERY CABLE
72	29839	2	3/8 JIC X 1/4 NPT ADAPTOR
73	29870	1	1/4 JIC X 1/4 NPT ELBOW
74	41583	1	HYD. PUMP ADAPTOR
75	41094	1	HYDRAULIC PUMP

#### POLYPATCH 1 TON PROPANE TANK AND FRAME ASSY-44601-2PB

NUMBER	PART NUMBER	QTY	DESCRIPTION
76	42695	1	1" BORE COUPLING
77	27017	1	SHAFT KEY
78	42696	1	COUPLING SPIDER
79	41167	1	5/8" BORE COUPLING
80	29819	1	3/4 JIC X 3/4 O'R ADAPTOR
81	29812	1	5/8 JIC X 5/8 O'R ADAPTOR
82	40921	1	1 JIC X 1 NPT ADAPTOR
83	29945	1	5/8 JIC X 1 NPT ELBOW
84	28281	1	1/4 PIPE PLUG
85	29809	2	3/8 X 5/8 TUBE REDUCER
86	29810	2	5/8 TUBE NUT
87	41155	1	L.H. TUBE ASSEMBLY
88	41156	1	R.H. TUBE ASSEMBLY
89	29808	2	3/8 TUBE ADAPTOR
90	41236	1	TUBE CLAMP
91	28998	1	#10 X 1 PAN HEAD SCREW
92	41093	1	HYDRAULIC VALVE ASSY.
93	28704	4	1/4-20 X 1 1/2 BOLT
94	28645	16	1/4 LOCK WASHER
95	28500	6	1/4-20 HEX NUT
96	29832	1	3/8 JIC X 1/2 NPT ADAPTOR
97	26560	1	HYD. KIT AND SCHEMATICS
98	26561	1	LPG KIT AND DIAGRAM
99	44690	1	CONTROL BOX ASSEMBLY
100	50074	4	CONTROL BOX SPACER

#### POLYPATCH 1 TON PROPANE TANK AND FRAME ASSY-44601-3PB



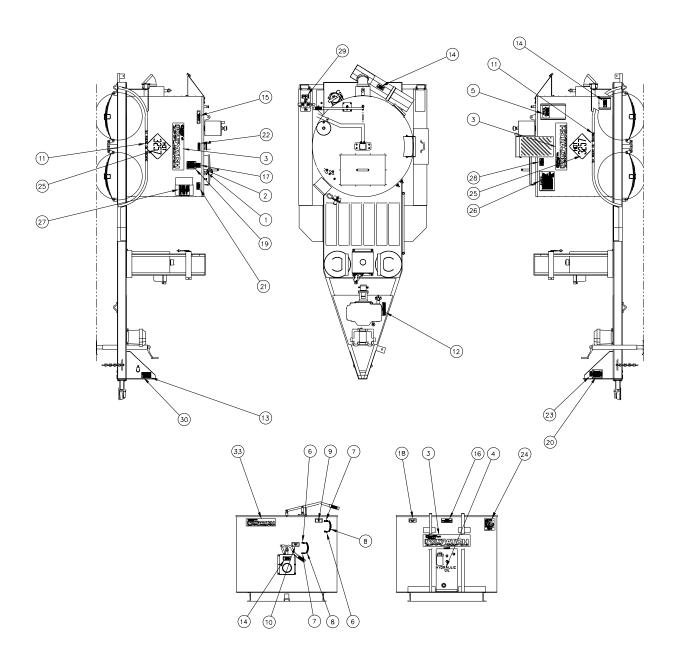
#### POLYPATCH 1 TON PROPANE TANK AND FRAME ASSY-44601-3PB

NUMBER	PART NUMBER	QTY	DESCRIPTION
101	28606	6	1/4-20 THREADED INSERT
102	44622	1	4" GATE VALVE
103	44621	1	4" FLANGE GASKET
104	28202	1	4" 45° ELBOW
105	24034	1	#8-14GA. FORK TERMINAL
106	24150	12'	14 GA. AUTOM. WIRE, RED
107	24215	1	5/16-14GA. RING TERMINAL
108	44662	1	2 1/8" ID GROMMET
109	43446	1	3" HOSE PROTECTOR
110	44670	1	VALVE COVER ASSEMBLY
111	41137	0.5	SHEET INSULATION (YELLOW)
112	28701	5	1/4-20 X 3/4 BOLT
113	42574	1	HYDRAULIC MOTOR
114	22029	2	3/8 JIC X 5/8 O'R ADAPTOR
115	28763	4	1/2-13 X 1 3/4 BOLT
116	28649	4	1/2 LOCK WASHER
117	28504	4	1/2-13 HEX NUT
118	44680	1	MATERIAL TROUGH ASSY.
119	28692	1	1/2" X 2 1/2" LOCK PIN
120	44683	1	CHAIN BRACKET
121	27022	1	CHAIN HOOK
122	25073	2	SPUD AND REGULATOR ASSY.
123	21051	1	HANDLE ROD
124	25016	1	HAND TORCH ASSEMBLY
125	24190	2	OVERNIGHT HEATER ROD

#### POLYPATCH 1 TON PROPANE TANK AND FRAME ASSY-44601-3PB

NUMBER	PART NUMBER	QTY	DESCRIPTION
126	28350	2	1/2" X 1" BUSHING
127	44014	1	VENT GUARD
128	29871	2	3/8 JIC X 1/4 NPT ELBOW
129	28262	1	1/4" PIPE CROSS
130	28001	1	1/4" CLOSE NIPPLE
131	41579	1	FRAME ASSEMBLY
132	44645	2	HOLDER TUBE
133	28706	2	1/4-20 X 2" BOLT
134	21292	1	HANDLE
135	44646	1	COVER PLATE, OIN HEATERS

## POLYPATCH 1 TON PROPANE DECAL KIT-44602PB



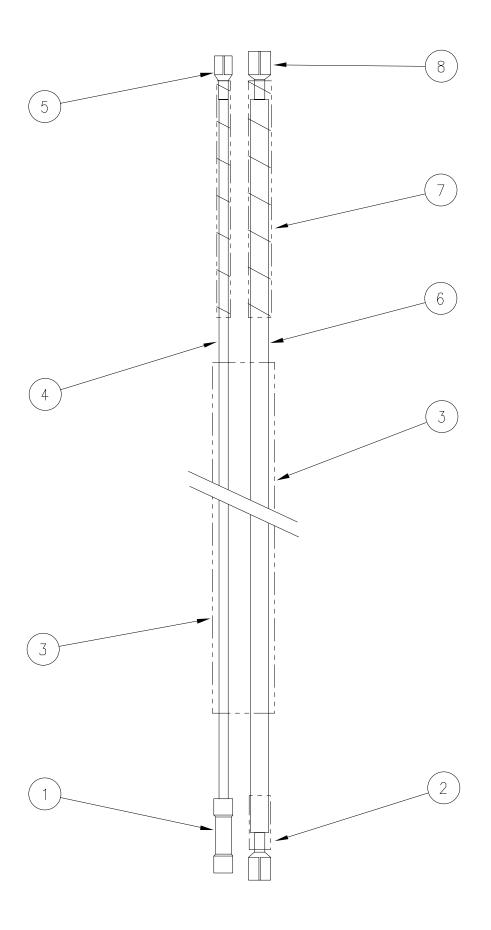
## POLYPATCH 1 TON PROPANE DECAL KIT-44602PB

NUMBER	PART NUMBER	QTY	DESCRIPTION
1	26065	1	"HOT OIL" DECAL
2	26066	1	"MATERIAL" DECAL
3	26371	3	"POLYPATCH" DECAL, LARGE
4	26152	1	"HYD. OIL DECAL"
5	26274	1	MANUAL BOX DECAL
6	26153	2	"OPEN" DECAL
7	26154	2	"CLOSE" DECAL
8	26155	2	RADIUS DECAL
9	26181	1	"TANK VALVE" PLATE
10	26183	1	"APPLICATOR VALVE" PLATE
11	26156	2	"NO RIDERS" DECAL
12	26157	1	"EXHAUST WARNING" DECAL
13	26164	1	"HITCH BOLT" DECAL
14	26175	3	"WARNING HOT" PLATE
15	26176	1	"READ INSTRUCTIONS" PLATE
16	26177	1	"DO NOT OPEN LID" PLATE
17	26178	1	"HEAT TRANSFER OIL" DECAL
18	26188	1	"VAPOR DRAW" PLATE
19	26268	1	"HEAT OIL CAUTION" DECAL
20	26269	1	"GENERAL CAUTIONS" DECAL
21	26270	1	"CALIBRATION" DECAL
22	26271	1	"KEEP FEET CLEAR" DECAL
23	41143	1	"HITCH WARNING" PLATE
24	26273	1	"VEHICLE I.D." DECAL
25	26276	2	"HOT" PLACARD

## POLYPATCH 1 TON PROPANE DECAL KIT-44602PB

NUMBER	PART NUMBER	QTY	DESCRIPTION
26	26298	1	"WARNING" DECAL
27	41144	1	"BURNER INSTRUCT." PLATE
28	41147	1	"VENT DAMPER" PLATE
29	41149	1	"MIXER DIRECTION" PLATE
30	41179	1	"TOWING WARNING" PLATE
31	26221	1	SAFETY MANUAL
32	26370	1	OPERATING MANUAL
33	26372	1	"POLYPATCH" DECAL, SMALL

## **IGNITION CABLE ASSY-44638PB**



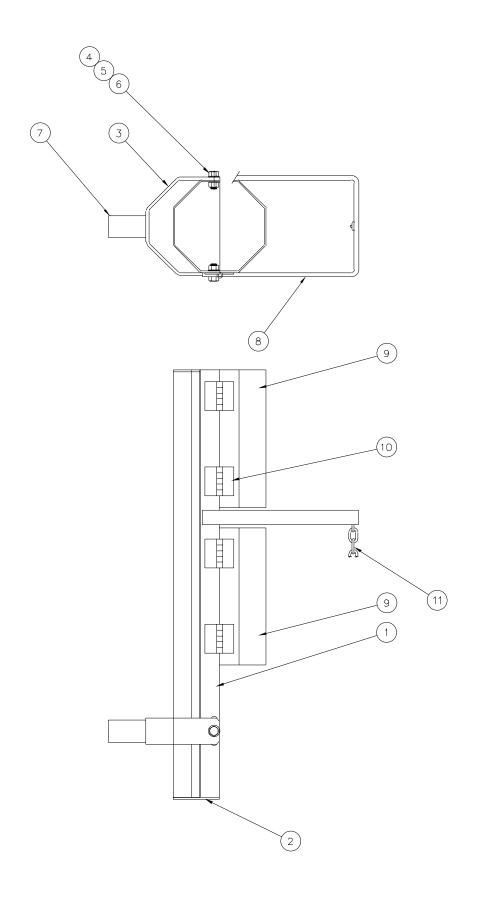
## **IGNITION CABLE ASSY-44638PB**

NUMBER	PART NUMBER	QTY	DESCRIPTION
1	24029	1	14GA. BUTT CONNECTOR
2	24072	1	(3X1") 1/4 HEAT SHRINK (3 PLACES)
3	32501	1	(36") 3/8 CONVOLUTED LOOM
4	24158	1	(82") HI-TEM P. SENSOR WIRE
5	51627	1	3/16-14 GA. NON-INS. PUSH-ON TERMINAL
6	24189	1	(82") IGNITION WIRE
7	50529	1	FIBERGLASS TAPE WRAP AROUND WIRES 14" LENGTH (2 PLACES)
8	51628	2	1/4-18GA. NON-INS. PUSH-ON TERMINAL

### POLYPATCH MATERIAL TROUGH ASSEMBLY - 44680PB



# POLYPATCH MATERIAL TROUGH ASSY. - 44680PB



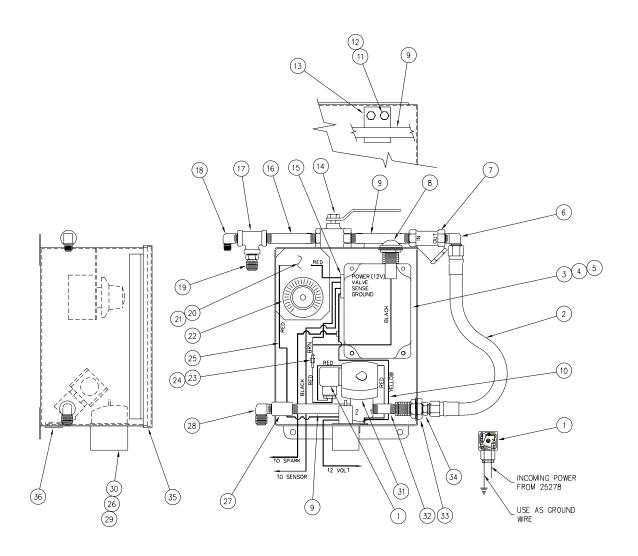
## POLYPATCH MATERIAL TROUGH ASSY. - 44680PB

NUMBER	PART NUMBER	QTY	DESCRIPTION
1	44681	1	TROUGH BOTTOM
2	44686	1	TROUGH END PLATE
3	44685	1	TROUGH SUPPORT BRACKET
4	28761	2	1/2-13 X 1 1/4" BOLT
5	28674	4	1/2 FLAT WASHER
6	28540	2	1/2-13 UPSET LOCK NUT
7	44687	1	TROUGH SWIVELTUBE
8	44684	1	TROUGH HANDLE
9	44682	2	TROUGH TOP
10	41107	4	HINGE
11	44688	1	TROUGH CHAIN

## POLYPATCH CONTROL BOX ASSEMBLY - 44690PB



### POLYPATCH CONTROL BOX ASSEMBLY - 44690PB



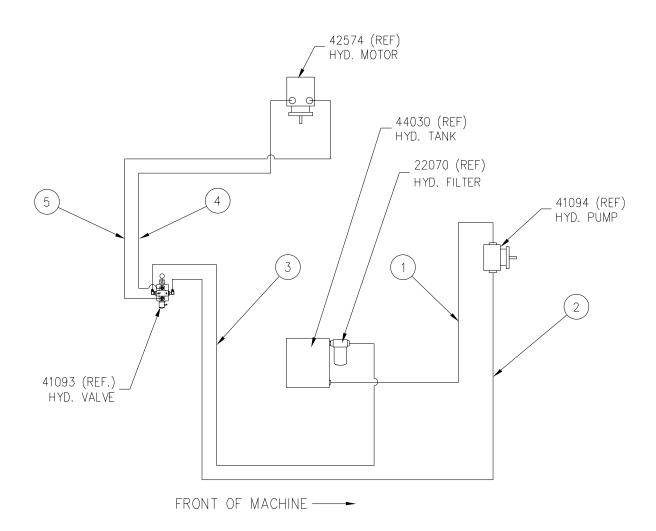
## POLYPATCH CONTROL BOX ASSY. - 44690PB

NUMBER	PART NUMBER	QTY	DESCRIPTION
1	43474	1	DIN PLUG, 12VDC
2	LP6-12	1	3/8" X 37" HOSE
3	25278	1	SPARK CONTROL MODULE
4	28833	4	#8-32 X 1 SCREW
5	28835	4	#8-32 HEX NUT
6	29871	2	ELBOW-90 DEG SAE MP 6 MS-4MPRA
7	25208	1	STRAINER
8	24140	1	INDICATOR LIGHT
9	28035	3	NIPPLE 1/4 X 4" STD. BLK
10	24027	1	TERMINAL #8
11	28536	2	1/4-20 LOCKNUT
12	28701	2	1/4-20 X 3/4 BOLT
13	40540	1	BRKT, PIPE MTG.
14	29195	1	BRONZE BALL VALVE - 1/4"
15	25272	1	WIRING HARNESS ASCO VALVE
16	28036	1	1/4" X 3 1/2" NIPPLE
17	28251	1	1/4" PIPE TEE
18	29870	1	JIX X 1/4 NPT ELBOW
19	29839	1	ADAPTER - STRAIGHT 6MS-4MP
20	25276	1	ELECTRIC THERMOSTAT-550 DEG
21	28832	2	#6-32 X 3/8 SCREW
22	25220	1	TEMPERATURE INDICATOR DIAL
23	24228	1	MALE TAB INSULATED
24	24229	1	FEMALE INSULATED
25	25270	1	WIRE, SWITCH TO TEMP REGULATOR

## POLYPATCH CONTROL BOX ASSY. - 44690PB

NUMBER	PART NUMBER	QTY	DESCRIPTION
26	28838	1	#6-32 X 1/2 SCREEN
27	28176	1	PIPE COUPLING 1/4"
28	29871	1	ELBOW - 90 DEG. SAE MP 6MS-4MPRA
29	28839	1	#6-32 NUT
30	25240	1	MANUAL RESET TEMPERATURE PROBE
31	25236	1	BURNER SERVO CONT. VALVE
32	28043	1	NIPPLE 1/4 X 2" BLK.
33	29830	1	BULKHEAD COUPLING
34	29839	1	ADAPTER - STRAIGHT 6MS-4MP
35	25250	1	REWORK, CONTROL BOX
36	26075	1	RUBBER GROMMENT GR 34-14

#### POLYPATCH 1 TON PROPANE HYDRAULIC SCHEMATICS - 26560PB



#### POLYPATCH 1 TON PROPANE HYDRAULIC SCHEMATICS - 26560PB

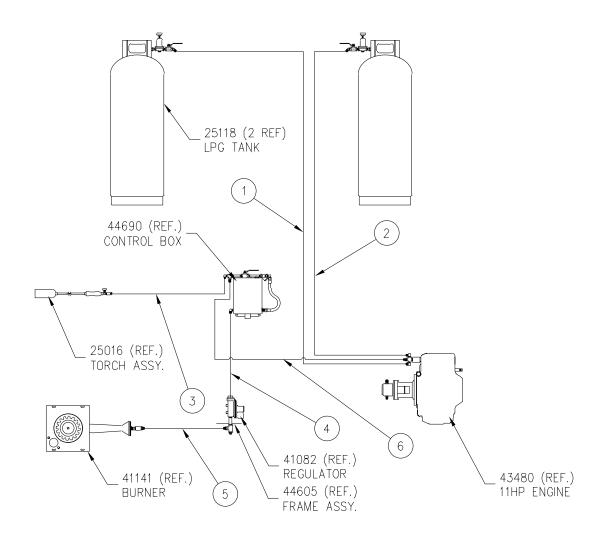
4	4 HVDDAHLIC DECERVOIR TO HVDDAHLIC BURB (CHOTTON) DOCT					
1.		RAULIC RESERVOIR TO HYDRAULIC PUMP (SUCTION) PORT				
	1	40921	1" TUBE X 1" NPT ADAPTOR			
	1	C 12-16FJ-12FJ9-31	HYD. HOSE ASSY., 3/4 X 31"			
	1	29819	3/4 TUBE X 3/4 O-RING ADAPTOR			
2.	. HYDRAULIC PUMP PRESSURE TO HYD. VALVE "IN" PORT					
	1	29812	5/8 TUBE X 5/8 O-RING ADAPTOR			
	1	22110	HYD . HOSE ASSY., 1/2 X 27"			
	1	29806	5/8 TUBE BULKHEAD UNION ELBOW			
	1	29807	5/8 BULKHEAD NUT			
	1	44660	PRESSURE TUBE ASSY.			
	1	29807	5/8 BULKHEAD NUT			
	1	29805	5/8 TUBE BULKHEAD UNION			
	1	29809	3/8 X 5/8 TUBE REDUCER			
	1	29810	5/8 TUBE NUT			
	1	40012	HYD . HOSE ASSY., 3/8 X 24"			
	1	29828	3/8 TUBE X 5/8 O-RING ELBOW			
3.	HYDRA	ULIC VALVE "OUT" POR	T TO HYD. RESERVIOR			
	1	29828	3/8 TUBE X 5/8 O-RING ELBOW			
	1	40012	HYD . HOSE ASSY., 3/8 X 24"			
	1	29810	5/8 TUBE NUT			
	1	29809	3/8 X 5/8 TUBE REDUCER			
	1	29805	5/8 TUBE BULKHEAD UNION			
	1	29807	5/8 BULKHEAD NUT			
	1	44659	RETURN TUBE ASSY.			
	1	29807	5/8 BULKHEAD NUT			
	1	29806	5/8 TUBE BULKHEAD UNION ELBOW			
	1	29502	HYD . HOSE ASSY., 1/2 X 43"			
	1	29945	5/8 TUBE X 1" NPT ELBOW			
4.	HYDRA	ULIC VALVE "A" PORT T	O HYD. MOTOR L.H. PORT			
	1	22029	3/8 TUBE X 5/8 O-RING ADAPTOR			
	1	40012	HYD.HOSE ASSY., 3/8 X 24"			
	1	29808	3/8 TUBE X 3/8 TUBE AD APTOR			
	1	41155	L.H. TUBE ASSY.			
	1	22029	3/8 TUBE X 5/8 O-RING ADAPTOR			
5.	5. HYDRAULIC VALVE "B" PORT TO HYD. MOTOR R.H. PORT					
	1	22029	3/8 TUBE X 5/8 O-RING ADAPTOR			
	1	40012	HYD. HOSE ASSY., 3/8 X 24"			
	1	29808	3/8 TUBE X 3/8 TUBE ADAPTOR			
	1	41156	R.H. TUBE ASSY.			
	1	22029	3/8 TUBE X 5/8 O-RING ADAPTOR			
NOTES	٦.					

NOTES:

<sup>1.</sup> HYDRAULIC PUMP SPEED @ NO LOAD 2300 RPM

<sup>2.</sup> HYDRAULIC PRESSURE SET TO 2500 P.S.I.

#### POLYPATCH 1 TON PROPANE LPG PIPING DIAGRAM - 26561PB



### POLYPATCH 1 TON PROPANE LPG PIPING DIAGRAM - 26561PB

1. CURB SIDE L.P.G. TANK TO ENGINE			
1	25073	SPUD AND REGULATOR ASSY., CONTAINS:	
1	25123	TANK SPUD	
1	25066	REGULATOR	
1	28001	1/4 CLOSE	
1	29 195	1/4 BALL VALVE	
1	29857	3/8 TUBE X 1/4 NPT 45° ELBOW	
1	25131	LPG HOSE ASSY., 3/8 X 60"	
1	29871	3/8 TUBE X 1/4 NPT ELBOW	
2. ROAD	SIDE L.P.G. TANK TO ENG	GINE	
1	25073	SPUD AND REGULATOR ASSY., SEE ABOVE FOR ASSEMBLY COMPONENTS	
1	25131	LPG HOSE ASSY., 3/8 X 60"	
1	29871	3/8 TUBE X 1/4 NPT ELBOW	
3. CONT	ROL BOX TO HAND TORG	Н	
1	29870	1/4 TUBE X 1/4 NPT ELBOW	
1	25016	HAND TORCH ASSY.	
1	25130	HOSE ASSY., 1/4 X 144"	
1	28 176	1/4 PIPE COUPLING	
4. CONT	ROL BOX TO REGULATO	R	
1	29871	3/8 TUBE X 1/4 NPT ELBOW	
1	25 142	LPG HOSE ASSY., 3/8 X 31"	
1	29832	3/8 TUBE X 1/2 NPT ADAPTOR	
5. REGU	LATOR TO BURNER		
1	28026	1/2 X 3" PIPE NIPPLE	
1	28263	1/2 X 1/2 X 3/8 PIPE TEE	
1	28283	1/2 PIPE PLUG	
1	29840	3/8 TUBE X 3/8 NPT AD APTOR	
1	25148	LPG HOSE ASSY., 3/8 X 23"	
1	29832	3/8 TUBE X 1/2 NPT ADAPTOR	
6. ENGIN	E TO CONTROL BOX		
1	29839	3/8 TUBE X 1/4 NPT ADAPTOR	
1	25139	LPG HOSE ASSY., 3/8 X 120"	
1	29839	3/8 TUBE X 1/4 NPT ADAPTOR	

#### NOTES:

- 1. USE TEFLON SEALANT TAPE ON PIPE CONNECTIONS.
- 2. BURNER GAS PRESSURE 13" W.C.

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