



BLOCK SPLITTER

PART MANUAL - 26364

BLOCK SPLITTER

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BLOCK SPLITTER

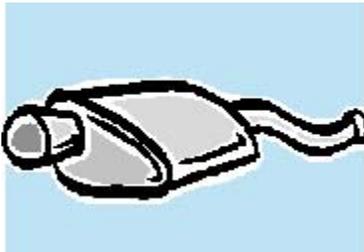
This manual is furnished with each new **CRAFCO BLOCK SPLITTER**. The manual will help your machine operators learn to run the sealer properly and understand its mechanical functions for trouble-free operation.

Your **CRAFCO BLOCK SPLITTER** 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 block splitter as instructed in this manual, and
2. Maintain your block splitter regularly as stated in this manual.
3. Your block splitter will be attached to a unit with an engine. The engine's hydraulic pump will power the block splitter.



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.

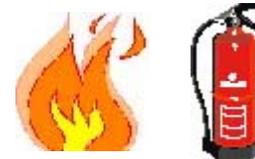
- Do not operate in closed building or confined areas.

- 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.

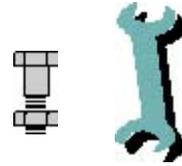
- **DO NOT** overfill heat transfer oil level. Expansion of oil during heat up could cause overflow. With machine in level position, check oil each day before starting burner, add oil to top mark on dipstick if required (at 70° F.) **Use only recommended heat transfer oil and change after 500 hours of 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.
- Crafcro, Inc. assumes no Liability for an accident or injury incurred through improper use of the machine.



BLOCK SPLITTER LIMITED WARRANTY

Crafcro, 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, Crafcro, 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. Crafcro, 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.

Crafcro, 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 Crafcro 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.....	Single Cylinder
Model CH11 - Propane Fueled	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

BLOCK SPLITTER OPERATING INSTRUCTIONS INTRODUCTION

The Crafcro Block Splitter was developed to split Crafcro 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

NOTE: 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 separate cord for each heater and make sure receptacles are rated for 1500 watts. It is advisable to use a separate fused circuit for each heater. Disconnect heaters when using machine burner system.

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 Crafcro distributor or directly from Crafcro, 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:

CRAFECO, 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:

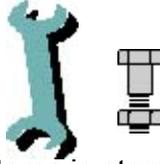
Lubricate tongue jack, using a good grade of bearing grease.

MAINTENANCE CHART

		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 "Recommended Fluids & Lubricants".				
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, 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

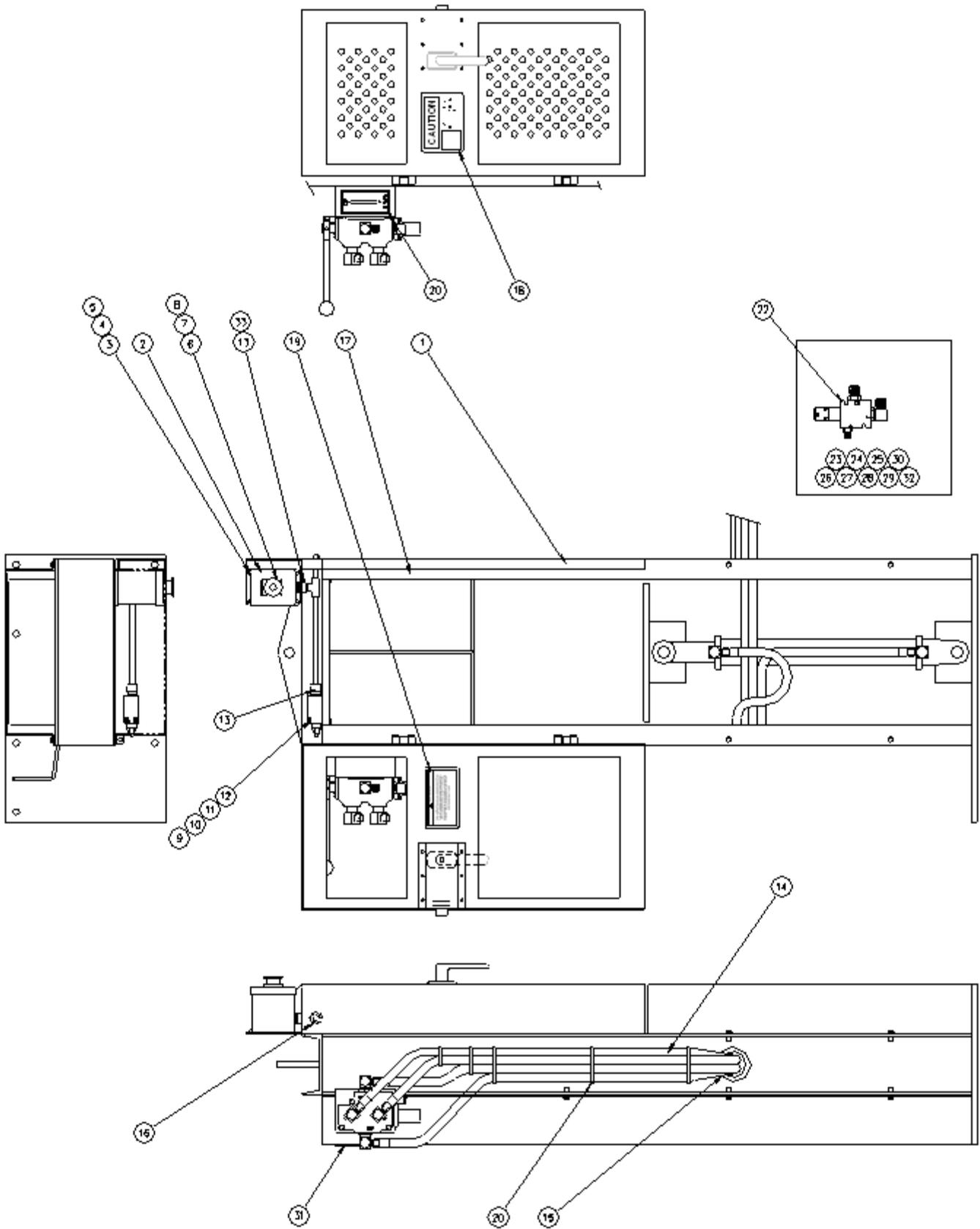
APPLICATION	RECOMMENDED	FULL POINT
Hydraulic Oil	Rondo oil - HD-68 Texaco	10 Gal.

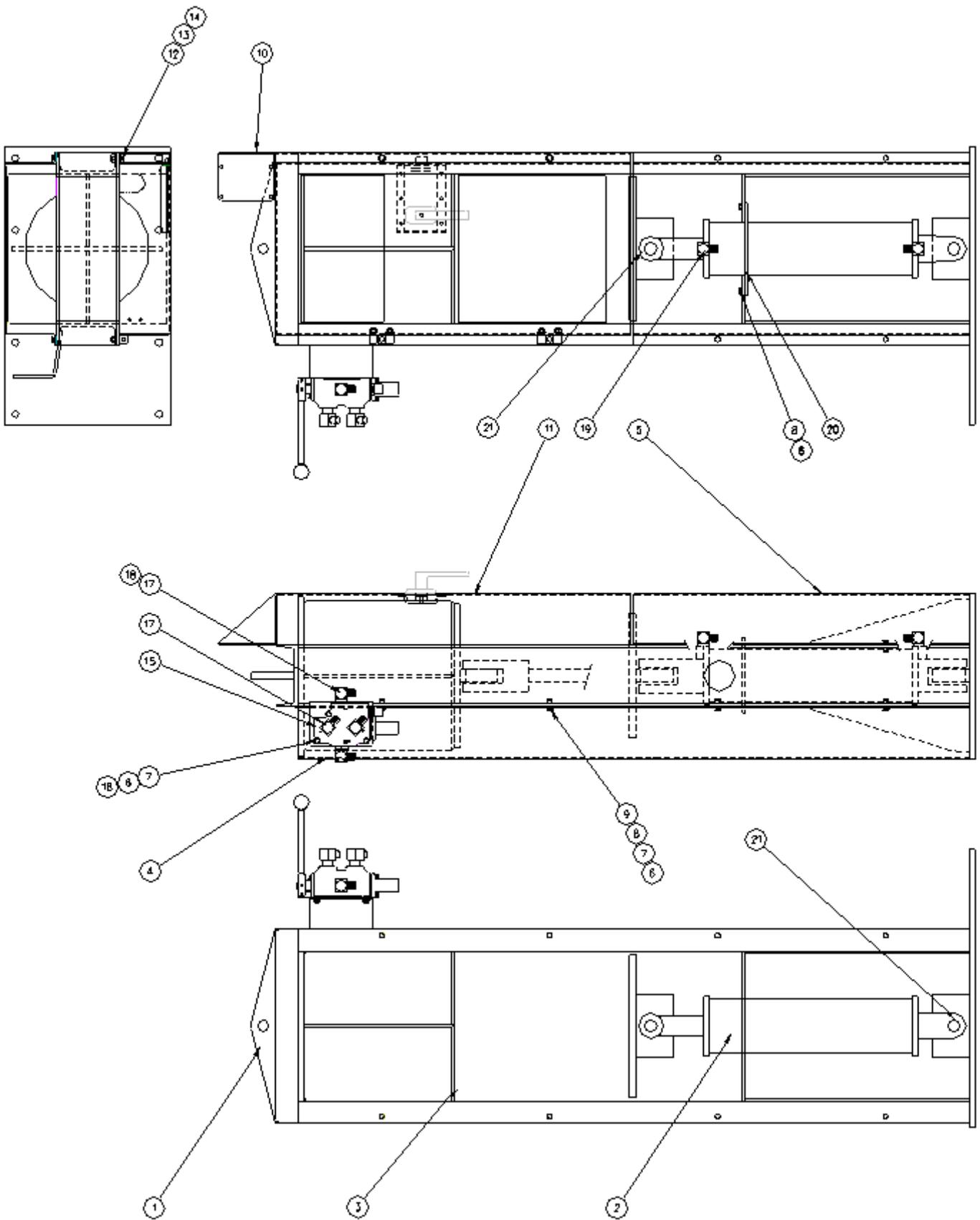
TROUBLE SHOOTING HYDRAULICS GUIDE

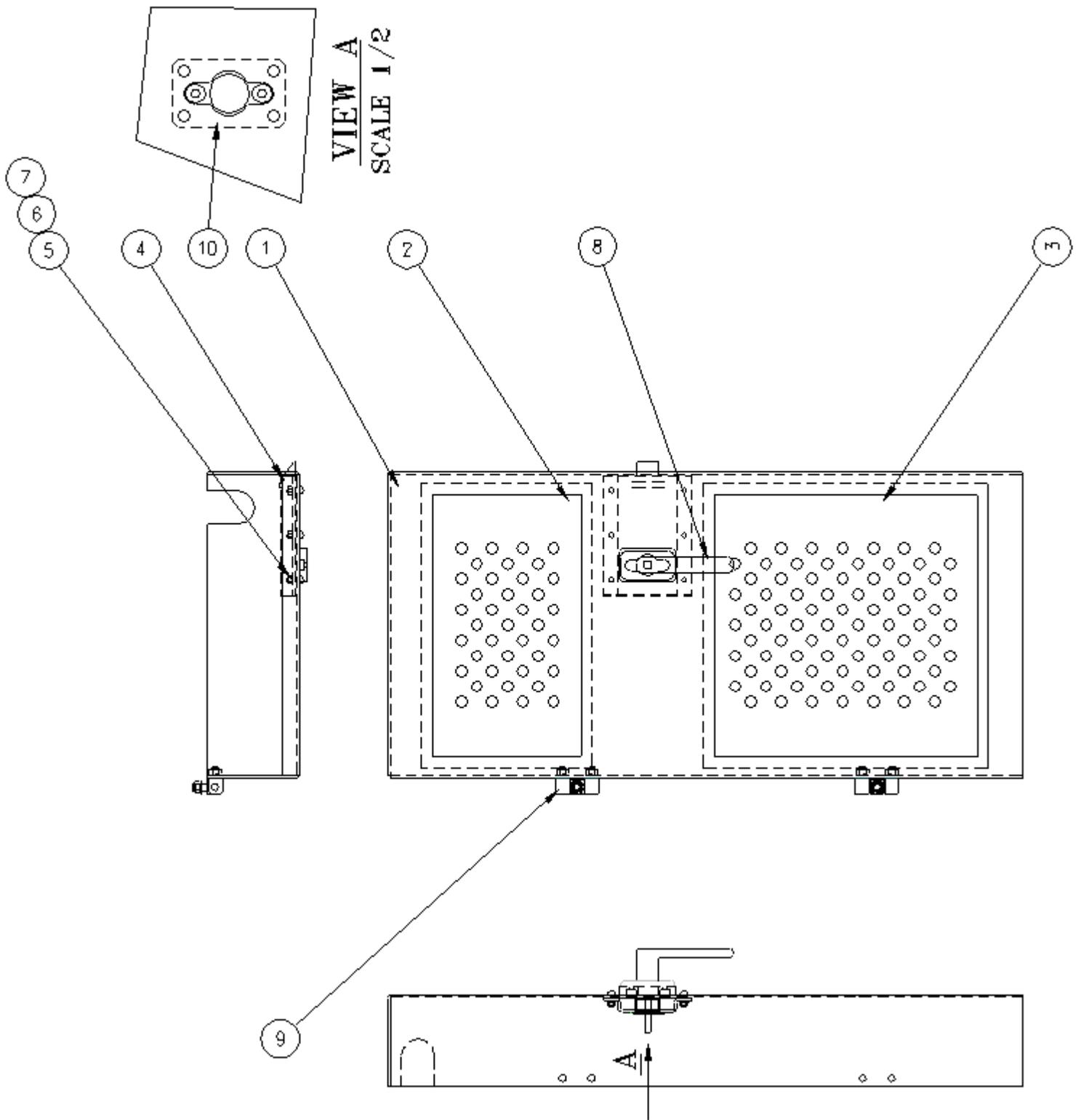
PROBLEM	CAUSE	REMEDY
Mixer will not rotate.	Sealant temperature too low.	Continue to heat material.
	Too many blocks placed at one time.	Continue to heat material.
	Inadequate hydraulic flow/pressure.	Check hydraulic fluid level. Reset pressure/check flow if necessary.
Slow heat up of sealant.	Build up of coked material on inside of material tank.	Allow machine to cool. Remove deposits and flush with solvent.
	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.

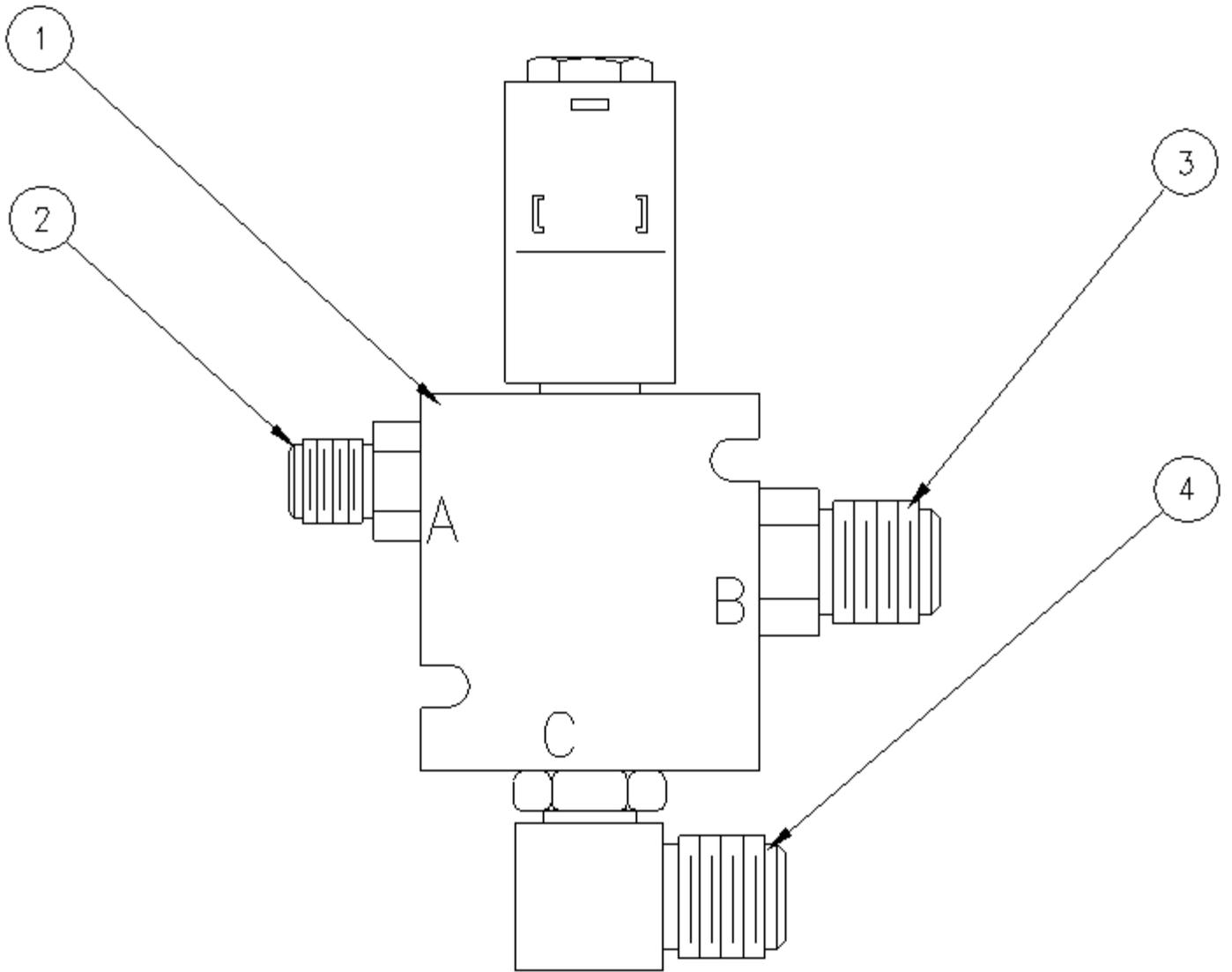
BURNER TROUBLE SHOOTING GUIDE

SEE BURNER MANUAL FOR ADJUSTMENTS AND INSTRUCTIONS		
PROBLEM	CAUSE	SOLUTION
Burner will not ignite.	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.
	Bad Spark Control Module.	Check for 12 volts at "Valve" terminal on Spark Control Module.
	-Faulty ignitor or ignitor wire. -Reposition ignitor. -Check for clogged burner orifice. -Inadequate gas flow/or pressure. -Faulty "ASCO" gas valve.	Faulty Spark Control Module.
Burner lights but shuts down in 3.5 seconds.	-Faulty ignitor. -Broken or loose flame sensor wire. -Faulty spark control module.	
Make sure engine is running so battery is fully charged.		
Burner lights but will not re-light.	-Calibrate thermostat. -Blown fuse. -Faulty spark control module. -Faulty sensor.	
Burner will not shut off at temperature setting.	-Calibrate thermostat. -Dirt in "ASCO" valve.	

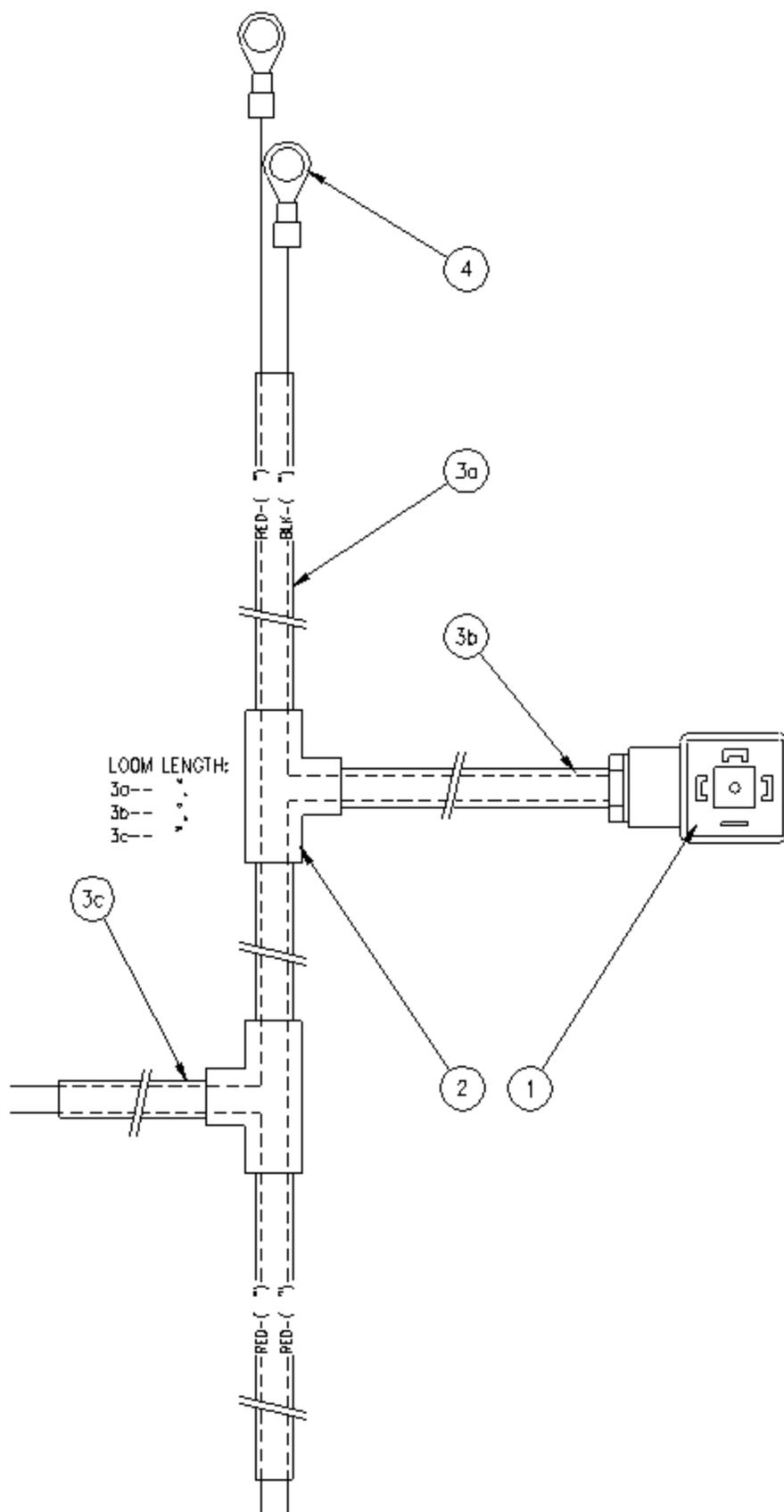








NUMBER	PART NUMBER	QTY	DESCRIPTION
1	28001	1	1/4" CLOSE NIPPLE
2	28004	2	3/4 CLOSE NIPPLE
3	28068	1	1/4" X 6.0 NIPPLE
4	28071	2	3/4" X 6" PIPE NIPPLE
5	28101	1	1" X 8" PIPE NIPPLE



PolyPatch Block Splitter Installation

- * Disconnect negative battery cable
- * Drain hydraulic oil from the reservoir and hydraulic lines
- * Remove the front bottom guard from the Block Splitter
- * Drill (8) 9/16" holes on the frame at the driver side end of the catwalk. Refer to Fig.1 for dimensions. Verify that at least (5) holes are located at the structural members of the frame
- * Mount Block Splitter on the frame, using 1/2" bolts, nuts, and washers provided.
- * Drill (2) 1/4" holes in the rear of the engine mounting plate as shown on Fig.2. The holes are predrilled on later models. Mount supplied three-way solenoid valve using 1/4" bolts, nuts, and washers provided.
- * Install hydraulic components in following manner:
- * Route supplied 3/8 x 93" hose from block splitter hydraulic valve "IN" port to three-way solenoid valve "A" port (port on the driver side)
- * Disconnect the existing hose from the hydraulic filter on the reservoir and install supplied 5/8" swivel nut run tee with the side port towards the driver side
- * Attach previously disconnected hose to the bottom port of the tee
- * Route supplied 1/2 x 95" hose from block splitter "OUT" port to the tee side port
- * Disconnect the pump pressure hose (on the curb side of the hydraulic pump) from the pump and attach it to the three-way solenoid valve "B" port (port on the curb side)
- * Route supplied 1/2 x 27" hose from the pump pressure port to the three-way solenoid valve "C" port (port on the bottom)
- * Proper hydraulic hose routing is shown on the Fig.3. Verify that all the hydraulic connections are tight and secure
- * Electrical connections:
- * Attach the DIN plug to the three-way solenoid valve and secure with a screw
- * Attach red and black wires to the positive and negative battery cables, respectively
- * Attach negative battery cable to the battery terminal
- * Verify that electrical connections are tight and secure
- * Braid hoses and cables with supplied wire ties
- * Refill the hydraulic reservoir with hydraulic oil

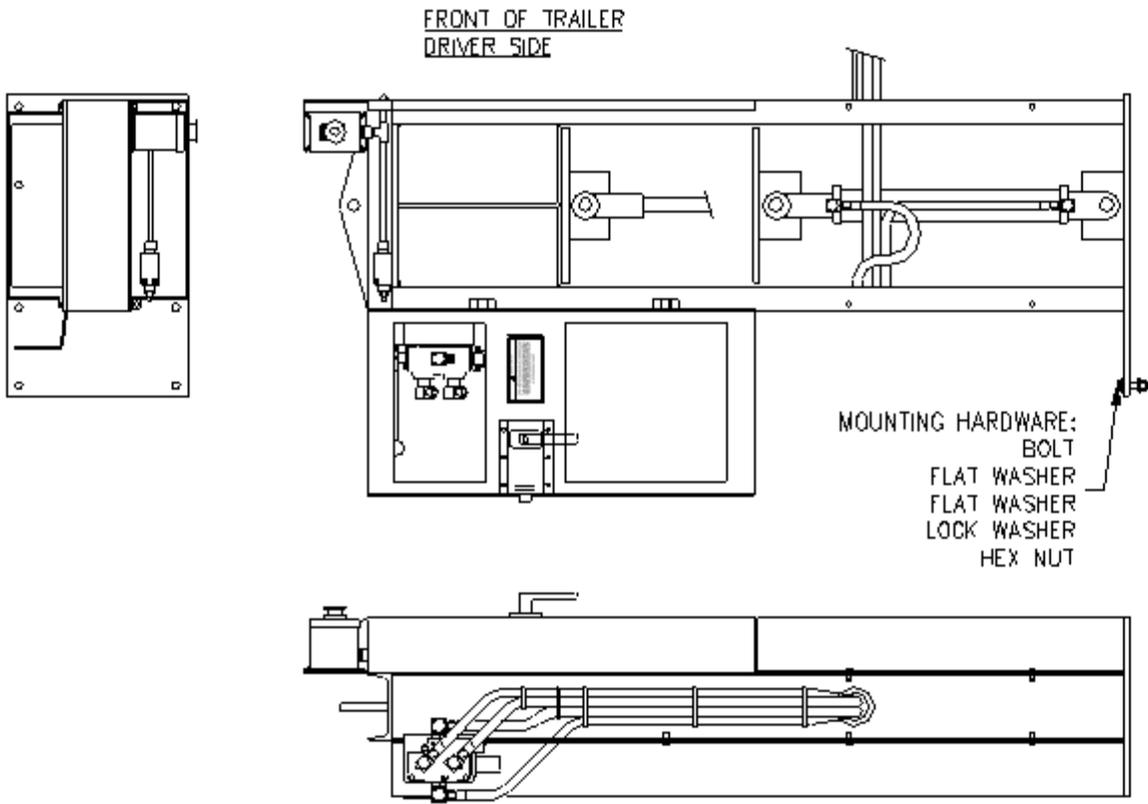


FIG.3

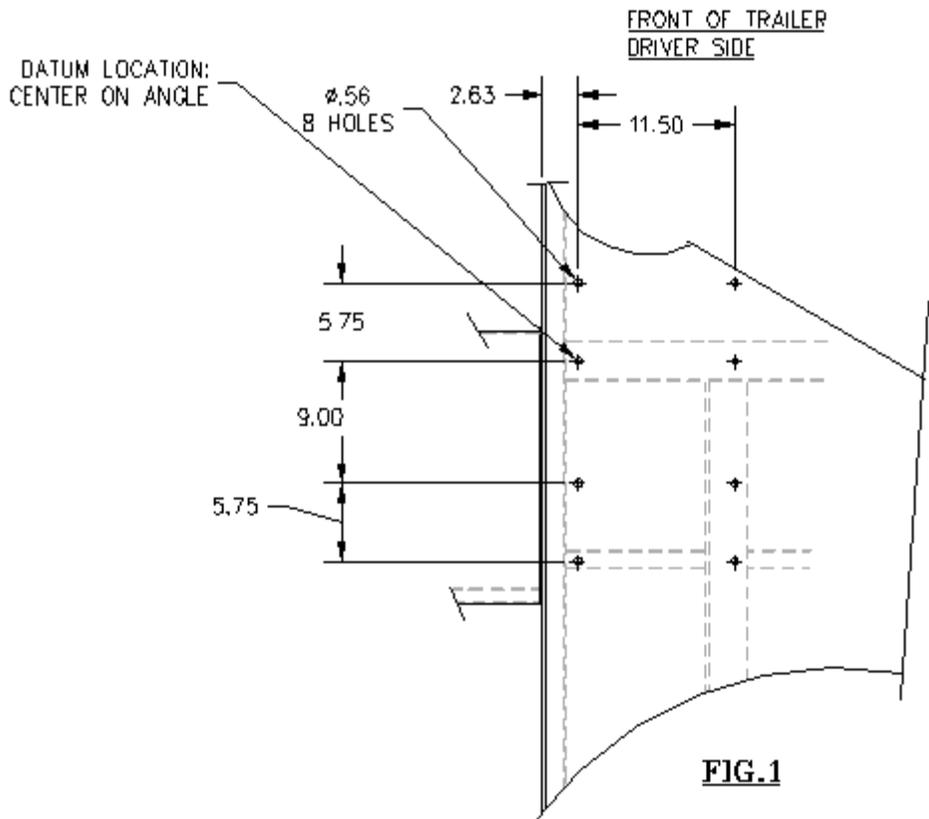


FIG.1

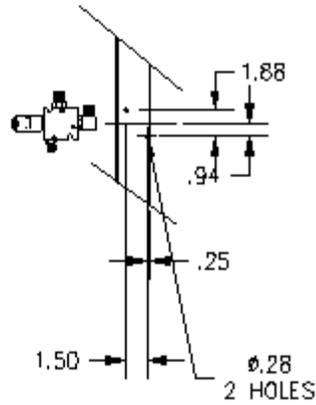


FIG.2

**Pioneering Leadership and
Innovation in Quality
Pavement Maintenance
Materials.**



**235 South Hibbert • Mesa, Arizona 85210
480-655-8333 • Watts 1-800-528-8242
Fax 480-655-1712**

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