

# Crack Pro Heated Hose 125, 200, 260 & 400 & Double Pumper 260 & 400

## OWNERS MANUAL



**SealMaster®**  
  
Pavement Products & Equipment

PO Box 2277 • Sandusky, Ohio 44870 • 419-626-4375

[sealmaster.net](http://sealmaster.net)

# CRACK PRO HEATED HOSE

## Owner's Manual

### Version 3.9

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|---------|-------|--|----------|
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| 2.0     | 8/19  | New Format and Updates                       | DS       |
| 2.1     | 8/20  | Added Tank Chart                             | JG       |
| 2.2     | 6/21  | Control Box – Metal                          | JG       |
| 2.3     | 10/21 | Motors & Agitation                           | JG       |
| 2.4     | 11/21 | Material Pump                                | JG       |
| 2.5     | 12/21 | Wiring Diagram & Oil Cooler                  | JG       |
| 2.6     | 1/22  | Change Engine Oil – Note                     | JG       |
| 2.7     | 4/22  | Added Paint Page                             | JG       |
| 2.8     | 5/22  | Breakaway Kit & DP Valve                     | JG       |
| 2.9     | 7/22  | Bleed Burner Fuel Pump                       | JG       |
| 3.0     | 8/22  | Heater Hose 19' & 23'                        | JG       |
| 3.1     | 11/22 | Burner Box Items                             | JG       |
| 3.2     | 4/23  | Control Box Items                            | JG       |
| 3.3     | 6/23  | Added Dip Sticks Items                       | JG       |
| 3.4     | 7/23  | Added Material Tank Buildup Note & Hyd. Pump | JG       |
| 3.5     | 10/23 | Added P74000K008                             | JG       |
| 3.6     | 12/23 | New Cover Art and added items                | JG       |
| 3.7     | 1/24  | Updated Beckett parts list                   | JG       |
| 3.8     | 7/24  | Added P74000P005                             | JG       |
| 3.9     | 9/24  | Added Wire Extension                         | JG       |

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# ThorWorks Industries, Inc.

Purchased by \_\_\_\_\_ Model NO. \_\_\_\_\_  
Company Name \_\_\_\_\_ Serial NO. \_\_\_\_\_  
Address \_\_\_\_\_ Acceptance Date \_\_\_\_\_  
City \_\_\_\_\_ State \_\_\_\_\_ Zip \_\_\_\_\_

## CORRESPONDENCE

All Correspondence regarding this equipment, as well as general correspondence should be addressed to:

ThorWorks Industries, Inc.

PO Box 2277

Sandusky, OH 44870

In referring to the equipment, kindly state the Model Number, Serial Number and any part number involved



## SealMaster® LIMITED WARRANTY

SealMaster warrants that its products are of quality material and workmanship. SealMaster agrees to replace, within a period of one (1) year from the date of delivery, or at its option, repair, without charge, any part of their manufacture which proved defective. The repair or replacement will be free of charge F.O.B. Sandusky, Ohio, providing the damaged part or parts are returned, freight prepaid, to SealMaster and investigation shows such repair or replacement is made necessary by an inherent defect of material or workmanship.

It is hereby understood that engines, motors, pumps, or other components purchased by SealMaster for use on its equipment are not warranted by SealMaster and are sold only with the standard warranty of the manufacturer of that component.

SealMaster will make no allowances for repairs or alterations completed by outside sources unless authorization is in writing and approved by an authorized SealMaster representative.

Any claims for defective material or workmanship must be made prior to the expiration of thirty (30) days from the date failure occurs, and in all cases prior to the expiration of the warranty period of one (1) year. It is the intent of this paragraph to limit SealMaster's liability solely to the cost of replacement parts, F.O.B. factory, or at the option of SealMaster to repair the defective part or parts. No allowances for damages, lost time, or any other claim will be recognized.

This warranty is null and void if other than genuine SealMaster parts are used.

SealMaster is constantly striving to improve their products. Changes in design and improvement will be made whenever the manufacturer believes the efficiency of the product will be improved, without incurring any obligation to incorporate such improvements in any machines which have been shipped or are in service.

In an effort to continue to improve product quality, SealMaster reserves the right to change specifications without notice.

Any modification or alteration of this machine without prior approval of the manufacturer may void this warranty.

# CRACK PRO® HEATED HOSE MACHINE

**APPLIES TO ALL DIESEL FUEL BURNER**

## INTRODUCTION

### CRACK PRO® HEATED HOSE

Congratulations on purchasing your new CRACK PRO® HEATED HOSE joint sealing machine. This machine is manufactured with the quality commitment CRACK PRO® is known for. It is designed for the high-speed melting of joint sealing material and the shortest melting time for all hot pour materials.

This manual will assist you in maintaining and operating your joint sealing machine for many years.

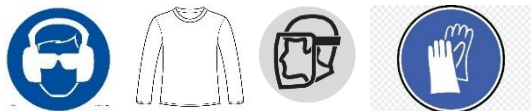
This manual covers the oil-jacketed **CRACK PRO®** models 125, 200, 260 & 400 – gallons.

Also, the oil jacketed Double Pumper **CRACK PRO®** models 260 & 400- gallons.

## SAFETY PRECAUTIONS AND CAUTIONS

### PRECAUTIONS

- **Always** wear **eye** and **ear** protection, **long sleeve shirt**, **face shield** and **gloves**.



- Be aware of all **CAUTION, WARNING, and DANGER** signs on the unit.
- The high operating temperatures of your joint sealing machine and materials require special training and maintenance of your equipment.
- Read and follow these operating instructions to every detail.
- Make sure the operator is familiar with the units' operation.

### CAUTIONS

- Keep hands, feet, and clothing away from moving parts.
- Do not operate the machine without all guards in place.
- Never fill the fuel tank with a lit burner.
- **WARNING!** When checking oil levels, **never check when HOT!**
- **WARNING!** When the burner is on DO NOT exceed 10 mph while towing, or damage to the burner or machine may occur.



# SAFETY PRECAUTIONS AND CAUTIONS

## FIRST AID

### FIRST AID FOR MOLTEN ASPHALT CEMENT BURNS

#### In the event of a MOLTEN ASPHALT CEMENT BURN:

COOL the asphalt cement and affected parts of the body immediately.

Methods of cooling (in order of preference):

1. Completely submerge affected area in ice water;
2. Completely submerge affected area in tap water;
3. Place affected area under running water.

### DO NOT DELAY

Use any available water, cooler than body temperature, while arranging for better cooling.

**CAUTION: DO NOT** apply ice directly to affected area.

LEAVE cooled asphalt cement on affected area.

Proceed with the following:

**MINOR ASPHALT CEMENT BURNS**—at first opportunity get victim to physician.

Includes:

Injury to small areas of fairly insensitive flesh involving a small quantity of asphalt cement.



**SERIOUS ASPHALT CEMENT BURNS**—as soon as possible get victim to:

Hospital  
Clinic  
Physician's Office

Includes:

Injury to the head, face, or extremities;  
Injury when large amounts of asphalt cement are involved;  
Evidence of nausea or faintness.



#### TREATMENT FOR SHOCK

In the event shock occurs, do the following:

1. Keep victim lying down and quiet.
2. Keep victim covered with a blanket or something similar to keep body temperature at normal, 98°F (37°C).
3. Keep victim's head lower than feet to promote blood supply to head and chest.

#### DO NOT ATTEMPT TO REMOVE THE ASPHALT CEMENT

with products containing solvents or ammonia.

Natural separation will occur in about 48-72 hours.

If necessary, for early removal, soak bandage in mineral oil and place over affected area for 2 to 3 hours.



#### NATIONAL ASPHALT PAVEMENT ASSOCIATION

5100 Forbes Boulevard, Lanham, MD 20706-4407

Phone: (301)731-4748 • Toll-free: 888-468-6499 • Fax: (301)731-4621

[www.hotmix.org](http://www.hotmix.org)

## **SAFETY PRECAUTIONS AND CAUTIONS**

### **CHECK IT OUT**

Check that each item is securely in place and operating condition.

For example:

1. Warning Decals
2. Guards
3. Hoses, connections, and protective sleeves
4. Grounding wires

### **KNOW YOUR MACHINE**

Know what protective devices your machine is equipped with.

Have all of the repairs been made that you reported? The most minor malfunction could be the result of more serious trouble.

### **FIRE PREVENTION**

Avoid fire hazards such as:

1. Always stop the engine when refueling. Do not refuel while smoking or when near an open flame or sparks.
2. Always clean spills immediately.
3. Batteries produce explosive gases. Keep open flame and sparks away.
4. Remove all trash and debris from the machine. Ensure oily rags and other flammable materials are not stored in or on the machine.
5. Check for fuel, engine oil, and hydraulic leaks. Replace worn or damaged hoses.
6. Inspect electrical wiring for worn or damaged insulation, and replace as needed.

### **WARNING: LETHAL FUMES!**

Engine and burner exhaust gases contain carbon monoxide. Carbon monoxide is odorless, colorless and can cause death if inhaled. Avoid inhaling exhaust fumes, and never run the burner or engine in an enclosed building or confined area. Symptoms of poisoning are:

1. Dizziness
2. Headache
3. Weakness, Sleepiness and Vomiting

## SAFETY PRECAUTIONS AND CAUTIONS

### DRESS FOR SAFETY

When operating your Crack Pro equipment always wear the following:

1. Long pants
2. Long sleeved shirt
3. Heat resistant gloves
4. Eye protection (face shield is preferred)
5. Work shoes
6. Safety Vest

### **WARNING: MOVING PARTS**

- Keep hands, feet, hair, and clothing away from all moving parts.
- Never operate the machine with covers, shrouds, or guards removed.
- Do not wear loose or dangling clothing or jewelry near the equipment. It could become caught and possibly cause serious injury or death.

### LEARN TO BE SAFE

1. **STUDY THE OPERATOR'S MANUAL** and other pertinent information furnished with the equipment. Learn your machine's operating and maintenance characteristics, capacities, and limitations.
2. Learn the location and function of all controls, indicators, and warning devices.
3. Be familiar with the safety devices on your machine.
4. Learn to recognize the machines warning and safety signals, they will alert you to conditions that may make it hazardous to continue operating.
5. Carefully read and follow all safety signs and instructions on the machine.
6. Keep safety signs and instructions in good condition, replace missing or damaged signs immediately.
7. Do not open the tank lid and put your head directly over the opening. Besides not being good to breathe, there may be enough oxygen introduced into the tank to cause the sealant to self-ignite.

## SAFETY PRECAUTIONS AND CAUTIONS

### WALK AROUND INSPECTION

Before each day, walk around the machine and inspect for leaks, loose or missing parts, damaged parts, or parts out of adjustment. Perform all recommended daily maintenance.

### TRAFFIC CONTROL

Proper traffic control is your responsibility. Never place sealant in an uncontrolled area. Protect vehicles and pedestrians from the workplace until the sealant has thoroughly cooled (100°F or the pavement surface temperature)

### REMEMBER:

**ONLY YOU CAN PREVENT INJURY TO YOURSELF AND OTHERS!**

**SAFETY IS YOUR RESPONSIBILITY!**

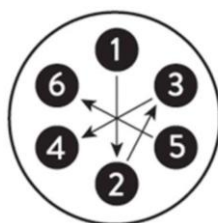
### PRE-CHECK ALL LUG NUTS

Pre-Check all lug nuts, and fasteners to ensure they remain tight after transit.

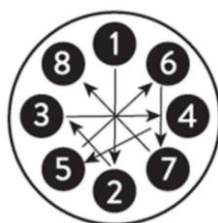
**After every 100 Miles of Machine operation and each wheel removal, all wheel lug nuts are to be re-torqued to 110-foot lbs.**



Lug nuts are recommended to be installed in an alternating pattern, commonly referred to as a star pattern, which ensures a uniform distribution of load across the wheel mounting surface.



**6** Lug Nut Wheel



**8** Lug Nut Wheel

# **CRACK PRO® HEATED HOSE MACHINE**

## **PRE-OPERATION INSTRUCTIONS**

### **CHECKLIST**

#### **THE ENTIRE UNIT SHOULD BE CHECKED**

Even though your Crack Pro joint sealing machine is ready for operation when you receive it, certain items should be checked before being used.

If you have any questions about the operation of this machine, stop the operation and call the manufacturer immediately.  
(419-626-4375)

The most important items to check are listed below:

- Check nuts, set screws, and bolts to ensure that no loosening occurred during shipment.
- Check the tightness of all heat transfer oil HTO hoses. (steel braided hoses)
- Check to be sure the HTO vent pipe is clear and open for venting, located on the HTO expansion tank.
- Never leave the machine unattended.
- Never exceed the heat transfer oil limit of 500°F when operating.
- Do not expose material hose to direct flame.
- Close the tank lid before transporting.

# CRACK PRO® HEATED HOSE MACHINE

## PRE-OPERATION INSTRUCTIONS

### CAUTIONS

Caution should be used when loading blocks to prevent possible splash of hot material. Set material block (one at a time) on the lid. Close the lid allowing the block to drop into the material tank.

- Do not breathe joint sealing material fumes.
- Do not load more than four boxes of material into the machine at one time.
- Do not exceed 10 mph when towing with the burner on.
- Do not operate the machine in the rain.
- Do not pressure wash the burner area in front of the machine.
- Do not work on the machine while it is in operation.
- Do not work on the machine when heat transfer oil has been heated over 90°F.

**Never expose the material tank to an open flame.**

### CLOTHING

Proper clothing should be worn at **all** times.

- long sleeve shirt
- face shield
- high-temperature gloves
- long pants

# CRACK PRO® HEATED HOSE MACHINE

## PRE-OPERATION INSTRUCTIONS

### THINGS TO KNOW

The heated hose on this machine operates at 90 - 110 volts ac. Every caution has been taken to ensure a safe operating the machine.

The information listed here needs to be told to anybody who uses or works on this machine.

- Never operate when conditions are wet. Allow the machine to dry completely before using.
- The digital temperature control box houses both 120 volts ac and 12 volts dc.
- While they are separated, anybody doing diagnostic testing needs to be made aware of the dual voltages.

### **DO NOT MOVE THE HOSE WHEN IT IS COLD!**

Doing so may kink the inner tube resulting in a hose that will be destroyed, and will have to be replaced. It will not be covered by the machines standard warranty.

Should the protective sleeve become cut or damaged in any way, do not use. Electrical wires are wound around the inner hose, any exposed wires are an electrocution hazard. Replace the hose immediately.

# CRACK PRO® HEATED HOSE MACHINE

## OPERATING INSTRUCTIONS

### FLUID SPECIFICATIONS

#### Diesel engine crankcase oil:

The break-in oil should be changed after the first 50 hours of operation.

Oil change intervals:

| Temperature          | Oil type         | Interval              |
|----------------------|------------------|-----------------------|
| Above 77°F           | SAE 30 or 10w-30 | with filter 100 hours |
| Between 32°F to 77°F | SAE 20 or 10w-30 | with filter 100 hours |
| 32°F or below        | SAE 10 or 10w-30 | with filter 100 hours |

#### Hydraulic oil:

- The hydraulic system should be drained, cleaned, and refilled every two years.
- If the oil becomes contaminated at any time, flush the system immediately. The oil filter should be changed yearly.
- System capacity is 30 gallons.

Change the hydraulic oil filter after the first 20 hours of operation.

The factory installed oil meets the following specifications:

#### Grade 68

**Viscosity @ 100°F SUS 306**

**Approximate SAE grade 20W**

**Factory installed oil: COMMERCIAL AW Hydraulic Oil**

**See enclosed MSDS**



# CRACK PRO® HEATED HOSE MACHINE

## OPERATING INSTRUCTIONS

### FLUID SPECIFICATIONS

#### Heat Transfer Oil:

Heat transfer oil is specially formulated to withstand high temperature and many heating and cooling cycles. The normal life cycle is one to two years, depending on how much the machine is used.

**Never leave the oil in the machine for more than two years.**

The procedure for checking the oil level is to **ALWAYS CHECK IT COLD**.

Located on the expansion tank is an oil level dip stick, there is a mark on the dip stick to designate the full point. When adding oil, it is necessary to remove the oil thermometer from the top rear curbside corner. Install a funnel here, and check with the dip stick.

#### Heat Transfer Oil Gallons per Tank:

| Tank Size | Gallons |
|-----------|---------|
| 125       | 25      |
| 200       | 28      |
| 260       | 30      |
| 400       | 45      |

**DO NOT OVERFILL, OVER FILLING WILL CAUSE OIL TO COME OUT THE OVERFLOW VENT PIPE AND ONTO THE GROUND WHEN THE MACHINE IS BEING HEATED**

Oil coming out of the vent pipe means one of two reasons, overfilling or moisture is present in the oil jacket.

**Immediately shut off the burner** if this happens. Let the machine cool completely.

**Water in the oil is extremely dangerous.** Never heat the machine if water is present. Drain and replace.

The factory installed oil meets the following specifications:

**Name** Industrial turbine oil

**Flashpoint** >390°F

**Auto-ignition temp.** >500°F

**Factory installed oil:** Turbine XL 68      **See enclosed MSDS**

# CRACK PRO® HEATED HOSE MACHINE

## OPERATING INSTRUCTIONS BEFORE 2017

### SERVICE TIP FOR ENGINE START PUSHBUTTON

#### A. ENGINE START-UP

Red pushbutton on panel must be held in the depressed position while starting engine until running oil pressure is established to open **SWICHGAGE** contacts. NBMNBNB

**(1) 518-APH pushbutton should remain in the depressed position during normal running.**

**If pushbutton fails to remain in the depressed position:**

- (A) Visually check wiring for loose connections, frayed wiring, etc., on all terminals and switch loop circuit.
- (B) Check 14amp fuse connected to “B” terminal.
- (C) Check for good ground on “G” terminal.
- (D) Disconnect switch loop circuit from SW1 and SW2 terminals. Place temporary jumper between SW1 and SW2 and restart engine. If pushbutton stays in with engine running, 518-APH switch is not the problem. This indicates either an open circuit, unwanted ground, or too high resistance in switch loop circuit wiring, between SW1 and SW2.
- (E) Continuity checks power removed from “B” terminal.
  - (1) With ohmmeter or continuity light, check for good continuity through switch loop circuit. If good continuity is indicated, proceed to step (2).
  - (2) Unwanted ground in loop circuit. With **SWICHGAGE** contact adjusted away from pointer, check continuity between one end of loop circuit and ground. Good continuity” indicates an unwanted ground in loop circuit such as a terminal rotated against mounting panel. Remove ground, restore loop circuit connections to SW1 and SW2, power to (B), restart engine.
  - (3) Too high resistance in switch wiring
 

With ohmmeter, check resistance between one end of the loop circuit to the other. Resistance should exceed 25 ohms. If resistance is too high, recheck for loose connections in loop circuit. Otherwise select larger size wire for loop circuit.

#### B. ENGINE SHUT DOWN

(A) Engine fails to shut down when contacts close on one wire to ground **SWICHGAGE** controls.

- (1) With engine running, jumper SW1 to “G” terminal. If switch trips and engine shuts down, trouble is failure of **SWICHGAGE** contacts to make contact or lack of good case ground on **SWICHGAGE**. Adjust contacts back and forth to give a wiping and cleaning action on contacts. Check switch mounting for good ground.

# CRACK PRO® HEATED HOSE MACHINE

## MACHINE MAINTENANCE

### TROUBLE SHOOTING GUIDE

| PROBLEM                                | POSSIBLE CAUSES/SOLUTIONS   |
|--|---|
| MATERIAL PUMP<br>LEAKING               | LEAKING AROUND <b>SHAFT</b> / TIGHTEN & REPLACE PACKING SET<br><b>HIGH TEMPERATURE</b> P906A001 OR <b>EXTENDED LIFE</b> P906A005  |
| HOSE<br>NO PRESSURE                    | <b>PUMP GEARS</b> WORN / REPLACE PUMP GEARS<br>PUMP GEAR <b>LEFT</b> HAND P905A013 & PUMP GEAR <b>RIGHT</b> HAND P904A009<br><b>HYDRAULIC MOTOR</b> WORN / REPLACE HYDRAULIC MOTOR P474A089<br><b>PUMP SHAFT</b> NOT TURNING / CHECK WIRING – FUSE P595A012   |
| DIESEL BURNER<br>HAS LOW OPERATING PSI | <b>PUMP</b> WORN / CHECK AND REPLACE P662A051<br><b>FUEL LINE</b> PLUGGED / CLEAN OR REPLACE P662A019<br><b>PUMP COUPLER</b> BROKEN / REPLACE COUPLER P662A016<br><b>BURNER MOTOR</b> WORN / REPLACE MOTOR P662A044   |
| DIESEL BURNER<br>DOES NOT LIGHT        | <b>AIR IN PUMP</b> / <b>BLEED THE BURNER FUEL PUMP</b> - SEE BURNER PAGE<br><b>ELECTRODES</b> WORN AT TIPS / REPLACE ELECTRODES P662A018<br><b>ELECTRODES</b> SPACING INCORRECT/ RESET SPACING - SEE BURNER PAGE<br><b>CAD CELL</b> WORN / REPLACE P662A014<br>WATER IN <b>FUEL</b> / REPLACE FUEL & FILTER P458B254<br><b>BURNER</b> IN LOCKOUT / REMOVE NEGATIVE CABLE & REATTACH<br><b>FUEL NOZZLE</b> PLUGGED / REFER TO OWNER'S MANUAL<br><b>AIR SHUTTER</b> MOVED / REFER TO OWNER'S MANUAL<br><b>FUEL FILTER</b> PLUGGED / CLEAN OR REPLACE P458B254<br><b>TRANSFORMER</b> WORN / REPLACE TRANSFORMER P662A015<br><b>PRIMARY CONTROL</b> FAILED / REPLACE PRIMARY CONTROL P662A010<br><b>12 VOLT COIL</b> FAILED / REPLACE COIL P662A043<br>NO POWER FROM <b>CONTROLLER</b> / TRACE WIRES<br><b>HI-TEMP LIGHT</b> IS ON / PUSH RESET |

See oil burner trouble shooting guide for step-by-step instructions

# CRACK PRO® HEATED HOSE MACHINE

## MACHINE MAINTENANCE

### TROUBLE SHOOTING GUIDE

| PROBLEM  | POSSIBLE CAUSES/SOLUTIONS                         |
|--|---|
| ENGINE *<br>ISSUES                                   | OIL SPECIFICATIONS / REFER TO OWNER'S MANUAL      |
|  | OPERATING INSTRUCTIONS / REFER TO OWNER'S MANUAL  |
|  | DEAD BATTERY / REPLACE BATTERY                    |
|  | LOW ON FUEL / FILL FUEL TANK                      |
|  | PLUGGED FUEL LINE / CLEAN FUEL SYSTEM             |
|  | PLUGGED FILTER / CHANGE FILTER                    |
|  | P458B032 1505 ENGINE / P458B032 902 & 602 ENGINES |
| (HTO) HEATED TRANSFER OIL<br>COMING OUT OF VENT PIPE | OVER HEATED HTO / CHECK TEMPERATURE CONTROL       |
|  | MOISTURE IN HTO TANK / DRAIN AND REPLACE          |
|  | HTO PAST OPERATING LIFE / DRAIN AND REPLACE       |
| HYDRAULIC SYSTEM<br>NOT WORKING                      | LOW OIL LEVEL / CHECK LEVEL AND FILL              |
|  | HYDRAULIC PUMP WORN / REPLACE PUMP                |
|  | FILTER PLUGGED / REPLACE FILTER                   |
|  | TANK VALVE CLOSED / OPEN VALVE                    |
|  | KINKED HOSE / REPLACE HOSE                        |
| AGITATOR<br>DOES NOT ROTATE                          | NO POWER AT 12V VDC COIL / CHECK WIRING & FUSE    |
|  | BROKEN DRIVE COUPLER / REPLACE COUPLER            |
|  | BROKEN DRIVE MOTOR / REPLACE MOTOR                |
|  | NOT WORKING LID SWITCH / CHECK LID SWITCH         |
|  | HYDRAULIC CARTRIDGE / REPAIR OR REPLACE           |

ENGINE\* – **NOTE: ENGINE SERIAL NUMBER WILL BE NEEDED TO RESOLVE ANY ISSUES**

# CRACK PRO® HEATED HOSE MACHINE

## MACHINE MAINTENANCE

### MAINTENANCE SCHEDULE

Follow the maintenance procedures listed in the **engine** and **burner** manuals.

| MAINTAIN   | 8<br>HRS | 1<br>WEEK | 1<br>MONTH | 6<br>MONTHS    | 1<br>YEAR | 2<br>YEARS |
|--|----------|-----------|------------|----------------|-----------|------------|
| CHECK <b>ENGINE OIL</b> LEVELS                           | ✓        |           |            |                |           |            |
| CHECK <b>HYDRAULIC OIL</b> LEVELS                        | ✓        |           |            |                |           |            |
| CHECK <b>DIESEL FUEL</b> LEVELS                          | ✓        |           |            |                |           |            |
| CHECK <b>HTO FUEL</b> LEVELS                             |          | ✓         |            |                |           |            |
| CHECK <b>IGNITORS</b>                                    |          |           |            |                |           | ✓          |
| CHECK <b>HITCH BOLTS</b>                                 |          |           |            | ✓              |           |            |
| CHECK <b>BRAKES</b>                                      |          |           |            |                |           | ✓          |
| CHECK <b>LUG NUTS</b>                                    |          |           |            | ✓              |           |            |
| CHANGE <b>HTO OIL</b>                                    |          |           |            |                | ✓         |            |
| CHANGE <b>HYDRAULIC OIL *1</b>                           |          |           |            |                |           | ✓          |
| CHANGE <b>HYDRAULIC OIL FILTER</b><br><b>P908A003</b>    |          |           |            |                | ✓         |            |
| CHANGE <b>DIESEL IN LINE FILTER</b><br><b>P458B203</b>   |          |           |            |                | ✓         |            |
| CHANGE <b>PRIMARY CONTROL</b><br><b>P662A010</b>         |          |           |            |                | ✓         |            |
| CHANGE <b>ENGINE OIL*2</b>                               |          |           |            |                |           |            |
| CHANGE <b>NOZZLE P662A017</b>                            |          |           |            |                | ✓         |            |
| DRAIN WATER FROM <b>DIESEL FILTER</b>                    |          |           | ✓          |                |           |            |
| CHECK <b>BREAKAWAY BOX BATTERY</b>                       | ✓        |           |            |                |           |            |
| CHECK <b>TIRE</b> PRESSURE<br>CHECK <b>TIRE</b> LUG NUTS |          |           | ✓          | ✓<br>100 Miles |           |            |
| TIGHTEN <b>PUMP FLANGES</b>                              |          |           | ✓          |                |           |            |
| PACK <b>WHEEL BEARINGS</b>                               |          |           |            |                |           | ✓          |
| INSPECT ALL <b>HOSES</b>                                 | ✓        |           |            |                |           |            |

\*1 Use a good quality AW68 hydraulic oil with a rating of 352 SUS @100 F. Do not use a 150 rated hydraulic oil as it is too light.

**ENGINE – NOTE: ENGINE SERIAL NUMBER WILL BE NEEDED TO RESOLVE ANY ISSUES.**

**CHANGE ENGINE OIL\*2** 602 & 902 Kubota Recommends 50hrs Initial Start / every 100hrs After

1505 Kubota Recommends 50hrs Initial Start / every 200hrs After



# Indol<sup>®</sup> and Indol<sup>®</sup> (Ultra Clean\*)

## Anti-Wear Hydraulic Oil

### Typical Application/ Recommendations

- Denison HF-0, HF-1, HF-2
- Cincinnati Lamb P-68, P-69, P-70
- Eaton Vickers I-286-S, M2950-S (35VQ25)
- Rexroth, Parker Hannifin
- Marzocchi, Racine S
- DIN 51524-2, GM LS-2, AFNOR 48-603
- U.S. Steel 126, 127, 136
- ASTM D-665, Rust Test A&B: Pass
- ASTM D-943 Oxidation Test: 6,000+Hrs

### Typical Customer

#### Owners and operators of:

- Mobile/Industrial Hydraulic Systems
- Electric Utility Maintenance Equipment
- Enclosed Gear Sets
- Circulating Systems
- Air Compressors and Vacuum Pumps
- Injection Molding Machines
- General Lubrication

### Typical Properties

| ISO Viscosity Grade        | MV-32     | 22        | 32        | 46        | 68        | 100      | 150       | 220       | 460      |
|----------------------------|-----------|-----------|-----------|-----------|-----------|----------|-----------|-----------|----------|
| Approximate SAE Grade      | (5W-20)   | (5W)      | (10W)     | (20W)     | (20)      | (30)     | (40)      | (50)      | —        |
| Viscosity @ 100°C, cSt     | 6.6       | 4.4       | 5.5       | 6.9       | 8.8       | 11.4     | 15.6      | 19.3      | 30.5     |
| SUS                        | 46.5      | 40.6      | 44.3      | 48.5      | 55.1      | 63.2     | 76.4      | 93.0      | 145      |
| @ 40°C, cSt                | 33.3      | 22.1      | 32.4      | 46.5      | 69.0      | 101.1    | 152.3     | 220.2     | 461.3    |
| SUS                        | 156       | 106       | 150       | 215       | 313       | 456      | 686       | 992       | 2136     |
| Viscosity Index            | 158       | 108       | 106       | 104       | 100       | 99       | 105       | 99        | 95       |
| Pour Point, °C / °F        | -48/-54   | -42/-44   | -42/-44   | -39/-38   | -36/-33   | -27/-17  | -30 /-22  | -21/-6    | -3/27    |
| API Gravity / lbs./gal.    | 32.3/7.19 | 33.4/7.15 | 32.1 /7.2 | 31.2/7.24 | 30.6/7.27 | 30.1/7.2 | 29.5/7.32 | 28.8/7.35 | 25.7/7.5 |
| Flash Point, °F            | 400       | 400       | 420       | 440       | 460       | 480      | 500       | 540       | 560      |
| Dielectric Strength, KV    | 40*       | 40*       | 40*       | 40*       | 40*       |          |           |           |          |
| Indol (Ultra Clean) series | Yes*      | Yes*      | Yes*      | Yes*      | Yes*      |          |           |           |          |

\*This Dielectric Strength and Ultra clean specification are only found in the above products that are in new sealed drums, totes, and 2½-gallon containers from CHS Lube manufacturing plants. The drums and totes will have the ultra clean logo on them.

The typical properties listed reflect the general characteristics of the product, and are not manufacturing specifications. Normal batch-to-batch variations should be expected.

### Health & Safety

A complete safety data sheet is available by calling 1-651-355-8438 or visit [www.cenex.com](http://www.cenex.com).



# Indol<sup>®</sup> and Indol<sup>®</sup> (Ultra Clean\*)



## Anti-Wear Hydraulic Oil

### General Description

Indol<sup>®</sup> Premium Anti-wear Hydraulic Oil is exceptional quality zinc containing anti-wear hydraulic oil designed to exceed the performance requirements of major pump manufacturers.

Indol oils are specially formulated with the highest quality HCG-2 base oils having outstanding stability. The addition of a uniquely balanced additive system provides total anti-wear, oxidation, thermal, hydrolytic stability, anti-rust, demulsibility, and anti-foam performance.

The zinc anti-wear agent used in Indol oils helps minimize wear in high speed, high pressure vane and gear pumps while meeting the lubrication and requirements of the axial piston pumps having bronze and steel metallurgy. Indol oils are highly stable under thermal or oxidative stress and are exceptionally stable when in the presence of moisture.

Indol<sup>®</sup> (Ultra Clean\*) series goes through a special fine filtering process during the manufacturing of selected ISO grades. This ensures an ultra clean oil to prevent excess wear under high pressure and close manufacturing tolerances.

Indol<sup>®</sup> MV is a multi-viscosity oil formulated with an extremely shear stable viscosity modifier. It provides exceptional low temperature properties enabling performance over a wide range of start-up and operating temperatures.

### Features and Benefits

- **Oxidation Control:** Excellent oxidation and thermal stability reduces sludge and varnish providing protection of critical components while extending oil and equipment life.
- **Wear Protection:** The premium anti-wear technology provides protection that passes major hydraulic equipment manufacturers pump tests resulting in longer life.
- **Filterability:** Superior hydrolytic stability with quick water separation provides protection against filter plugging and deposits.
- **Rust and Corrosion Protection:** Reduced maintenance due to outstanding rust and corrosion prevention capabilities when moisture is present.
- **Foam Control:** A special anti-foam agent promotes the rapid break up of foam and reduces air entertainment.
- **High Viscosity Index:** The shear stability of Indol MV provides exceptional viscosity stability, resulting in consistent operation throughout wide temperature ranges and drain intervals.
- **Ultra Clean:** Indol (Ultra Clean\*) series only. Additional filtering provides ultra clean oils in selected viscosity grades for maximum system protection.
- **Reserve Quality:** Indol Premium AW hydraulic oils have the ability to maintain their high level of performance under the toughest operating and extended drain conditions.





## SAFETY DATA SHEET

### Section 1. Identification

|  |                                     |                  |                |
|--|-------------------------------------|------------------|----------------|
| CHS Inc.   | Transportation Emergency (CHEMTREC) | :                | 1-800-424-9300 |
| P.O. Box 64089   | Technical Information               | :                | 1-651-355-8443 |
| Mail station 525   | SDS Information                     | :                | 1-651-355-8445 |
| St. Paul, MN 55164-0089  |                                     |                  |                |
| Product name   | : Turbine XL 22, 32, 46, 68, 100    | SDS no.          | : 0190-093809  |
| Common name  | : Industrial turbine oil            | Revision date    | : 05/07/2015   |
| Chemical name  | : Lubricating oil.                  | Chemical formula | : Mixture      |
| Chemical family  | : Hydrocarbon.                      |                  |                |
| <u>Relevant identified uses of the substance or mixture and uses advised against</u> |                                     |                  |                |
| Lubricant.   |                                     |                  |                |

### Section 2. Hazards identification

|  |  |   |                |                        |
|--|--|---|----------------|------------------------|
| OSHA/HCS status                                | : While this material is not considered hazardous by the OSHA Hazard Communication Standard (29 CFR 1910.1200), this SDS contains valuable information critical to the safe handling and proper use of the product. This SDS should be retained and available for employees and other users of this product. |   |                |                        |
| Classification of the substance or mixture     | : Not classified.  |   |                |                        |
| <u>GHS label elements</u>                      |  |   |                |                        |
| Signal word                                    | : No signal word.  |   |                |                        |
| Hazard statements                              | : No known significant effects or critical hazards.  |   |                |                        |
| <u>Precautionary statements</u>                |  |   |                |                        |
| General  | : Read label before use. Keep out of reach of children. If medical advice is needed, have product container or label at hand.  |   |                |                        |
| Prevention                                     | : Not applicable.  |   |                |                        |
| Response                                       | : Not applicable.  |   |                |                        |
| Storage  | : Not applicable.  |   |                |                        |
| Disposal                                       | : Not applicable.  |   |                |                        |
| Hazards not otherwise classified (HNOC)        | : None known.  |   |                |                        |
| Hazardous Material Information System (U.S.A.) | Health :   | 0 | Flammability : | 1 Physical hazards : 0 |
| National Fire Protection Association (U.S.A.)  | Health :   | 0 | Flammability : | 1 Instability : 0      |

### Section 3. Composition/information on ingredients

|                               |                          |
|-------------------------------|--------------------------|
| Substance/mixture             | : Mixture                |
| Chemical name                 | : Lubricating oil.       |
| Other means of identification | : Industrial turbine oil |

Any concentration shown as a range is to protect confidentiality or is due to batch variation.

There are no ingredients present which, within the current knowledge of the supplier and in the concentrations applicable, are classified as hazardous to health or the environment and hence require reporting in this section.

Occupational exposure limits, if available, are listed in Section 8.

## Section 4. First aid measures

### Description of necessary first aid measures

- |              |  |
|--------------|--|
| Eye contact  | : If material comes in contact with the eyes, immediately wash the eyes with large amounts of water for 15 minutes, occasionally lifting the lower and upper lids. Get medical attention.  |
| Inhalation   | : If person breathes in large amounts of material, move the exposed person to fresh air at once. If breathing has stopped, perform artificial respiration. Keep the person warm and at rest. Get medical attention as soon as possible.  |
| Skin contact | : If the material comes in contact with the skin, wash the contaminated skin with soap and water promptly. If the material penetrates through clothing, remove the clothing and wash the skin with soap and water promptly. If irritation persists after washing, get medical attention immediately. |
| Ingestion    | : If material has been swallowed, do not induce vomiting. Get medical attention immediately.   |

### Most important symptoms/effects, acute and delayed

#### Potential acute health effects

- |              |   |
|--------------|---|
| Eye contact  | : No known significant effects or critical hazards. |
| Inhalation   | : No known significant effects or critical hazards. |
| Skin contact | : No known significant effects or critical hazards. |
| Ingestion    | : No known significant effects or critical hazards. |

#### Over-exposure signs/symptoms

- |              |   |
|--------------|---|
| Eye contact  | : Adverse symptoms may include the following: pain or irritation, watering, redness.  |
| Inhalation   | : Adverse symptoms may include the following: respiratory tract irritation, coughing. |
| Skin contact | : Adverse symptoms may include the following: irritation, redness.                    |
| Ingestion    | : No known significant effects or critical hazards.                                   |

### Indication of immediate medical attention and special treatment needed, if necessary

- |                            |   |
|----------------------------|---|
| Notes to physician         | : Treat symptomatically. Contact poison treatment specialist immediately if large quantities have been ingested or inhaled. |
| Specific treatments        | : No specific treatment.  |
| Protection of first-aiders | : No action shall be taken involving any personal risk or without suitable training.  |

See toxicological information (Section 11)

## Section 5. Fire-fighting measures

### Extinguishing media

- |  |   |
|--|---|
| Suitable extinguishing media                   | : Use water spray to cool fire exposed surfaces and to protect personnel. Foam, dry chemical or water spray (fog) to extinguish fire.       |
| Unsuitable extinguishing media                 | : None known.   |
| Specific hazards arising from the chemical     | : Toxic fumes gases or vapors may evolve on burning.  |
| Hazardous thermal decomposition products       | : No specific data.   |
| Special protective actions for fire-fighters   | : When fighting fires wear full turnout gear and self contained breathing apparatus. Water may cause splattering. Material floats on water. |
| Special protective equipment for fire-fighters | : Not applicable.   |

## Section 6. Accidental release measures

### Personal precautions, protective equipment and emergency procedures

- |                             |  |
|-----------------------------|--|
| For non-emergency personnel | : Keep unnecessary and unprotected personnel from entering. Avoid breathing vapor or mist. Provide adequate ventilation. Wear appropriate respirator when ventilation is inadequate. Put on appropriate personal protective equipment. |
|-----------------------------|--|

### Methods and materials for containment and cleaning up

- |       |  |
|-------|--|
| Spill | : Contain with dikes or absorbent to prevent migration to sewers/streams. Take up small spill with dry chemical absorbent; large spills may require pump or vacuum prior to absorbent. May require excavation of severely contaminated soil. |
|-------|--|

## Section 7. Handling and storage

### Precautions for safe handling

- |  |   |
|--|---|
| Protective measures                    | : Put on appropriate personal protective equipment (see Section 8). Do not get in eyes or on skin or clothing. Do not breathe vapor or mist. Do not ingest. Use only with adequate ventilation. Wear appropriate respirator when ventilation is inadequate. |
| Advice on general occupational hygiene | : Eating, drinking and smoking should be prohibited in areas where this material is handled, stored and processed. Workers should wash hands and face before eating, drinking and smoking.  |

Turbine XL 22, 32, 46, 68, 100

Conditions for safe storage,  
including any incompatibilities

: Do not store above the following temperature: 113°C (235.4°F). Odorous and toxic fumes may form from the decomposition of this product if stored at excessive temperatures for extended periods of time. Store in accordance with local regulations. Store in a dry, cool and well-ventilated area, away from incompatible materials (see Section 10). Use appropriate containment to avoid environmental contamination.

## Section 8. Exposure controls/personal protection

### Control parameters

#### Occupational exposure limits

None.

Appropriate engineering controls : Use only with adequate ventilation.

Environmental exposure controls : Emissions from ventilation or work process equipment should be checked to ensure they comply with the requirements of environmental protection legislation.

### Individual protection measures

#### Hygiene measures

: Wash hands, forearms and face thoroughly after handling chemical products, before eating, smoking and using the lavatory and at the end of the working period. Ensure that eyewash stations and safety showers are close to the workstation location.

#### Eye/face protection

: Recommended: Splash goggles and a face shield, where splash hazard exists.

#### Skin protection

#### Hand protection

: 4 - 8 hours (breakthrough time): Nitrile gloves.

#### Body protection

: Recommended: Long sleeved coveralls.

#### Other skin protection

: Recommended: Impervious boots.

#### Respiratory protection

: If ventilation is inadequate, use a NIOSH-certified respirator with an organic vapor cartridge and P95 particulate filter.

## Section 9. Physical and chemical properties

### Appearance

Physical state : Liquid.

Color : Amber.

Odor : Mild.

Odor threshold : Not available.

pH : Not available.

Melting point : Not available.

Boiling point : Not available.

Flash point : Closed cup: >200°C (>392°F)

Flammability : Not available.

Lower and upper  
explosive (flammable)  
limits : Not available.

Relative density : 0.86 to 0.88

Evaporation rate : <1 (Butyl acetate = 1)

Solubility : Insoluble in the following materials: cold water and hot water.

Solubility in water : Insoluble

Partition coefficient: n-  
octanol/water : Not available.

Auto-ignition  
temperature : >260°C (>500°F)

Decomposition  
temperature : Not available.

SADT : Not available.

Viscosity : Not available.

Vapor pressure : <0.13 kPa (<1 mm Hg) (68°F)

Vapor density : Not available.

## Section 10. Stability and reactivity

Reactivity : No specific test data related to reactivity available for this product or its ingredients.

Chemical stability : The product is stable.

Possibility of hazardous reactions : Under normal conditions of storage and use, hazardous reactions will not occur.

Conditions to avoid : No specific data.

Incompatible materials : Reactive or incompatible with the following materials: oxidizing materials.

Hazardous decomposition products : Under normal conditions of storage and use, hazardous decomposition products should not be produced.

Turbine XL 22, 32, 46, 68, 100

## Section 11. Toxicological information

### Information on toxicological effects

#### Acute toxicity

There is no data available.

#### Irritation/Corrosion

Skin : There is no data available.

Eyes : There is no data available.

Respiratory : There is no data available.

#### Sensitization

Skin : There is no data available.

Respiratory : There is no data available.

#### Mutagenicity

There is no data available.

#### Carcinogenicity

There is no data available.

#### Reproductive toxicity

There is no data available.

#### Teratogenicity

There is no data available.

#### Specific target organ toxicity (single exposure)

There is no data available.

#### Specific target organ toxicity (repeated exposure)

There is no data available.

#### Aspiration hazard

There is no data available.

Information on the likely routes of exposure : Dermal contact. Eye contact. Inhalation. Ingestion.

## Section 12. Ecological information

### Toxicity

There is no data available.

### Persistence and degradability

There is no data available.

### Bioaccumulative potential

There is no data available.

### Mobility in soil

Soil/water partition coefficient (K<sub>oc</sub>) : There is no data available.

Other adverse effects : No known significant effects or critical hazards.

## Section 13. Disposal considerations

Disposal methods : Disposal of this product, solutions and any by-products should comply with the requirements of environmental protection and waste disposal legislation and any regional local authority requirements.



Turbine XL 22, 32, 46, 68, 100

**Section 14. Transport information**

DOT IDENTIFICATION NUMBER Not applicable. DOT proper shipping name Not applicable.

DOT Hazard Class(es) Not applicable. PG Not applicable. DOT EMER. RESPONSE GUIDE NO. Not applicable

**Section 15. Regulatory information**

U.S. Federal regulations : TSCA 4(a) final test rules: 2-Butenedioic acid (E)-, di-C8-18-alkyl esters  
 TSCA 8(a) PAIR: 2-Butenedioic acid (E)-, di-C8-18-alkyl esters; Diphenylamine  
 TSCA 8(a) CDR Exempt/Partial exemption: Not determined  
 United States inventory (TSCA 8b): All components are listed or exempted.  
 Clean Water Act (CWA) 311: Vinyl acetate

Clean Air Act Section 602 Class I Substances : Not listed      DEA List I Chemicals (Precursor Chemicals) : Not listed  
 Clean Air Act Section 602 Class II Substances : Not listed      DEA List II Chemicals (Essential Chemicals) : Not listed  
 Clean Air Act Section 112(b) Hazardous Air Pollutants (HAPs) : Not listed

**SARA 302/304****Composition/information on ingredients**

| Name          | %       | EHS  | SARA 302 TPQ |           | SARA 304 RQ |           |
|---------------|---------|------|--------------|-----------|-------------|-----------|
|               |         |      | (lbs)        | (gallons) | (lbs)       | (gallons) |
| Vinyl acetate | 0 - 0.1 | Yes. | 1000         | 129       | 5000        | 644.8     |

SARA 304 RQ : 111111111.1 lbs / 50444444.4 kg [153172556.3 gal / 579821200.5 L]

**SARA 311/312**

Hazard classifications : Not applicable.

**Composition/information on ingredients**

No products were found.

**SARA 313** : This product (does/not) contain toxic chemicals subject to the reporting requirements of SARA Section 313 of the Emergency Planning and Community Right-To-Know Act of 1986 and of 40 CFR 372.

| Product name    | CAS number | % |
|-----------------|------------|---|
| Not applicable. |            |   |

SARA 313 notifications must not be detached from the SDS and any copying and redistribution of the SDS shall include copying and redistribution of the notice attached to copies of the SDS subsequently redistributed.

**State regulations**

Massachusetts : None of the components are listed.  
 New York : None of the components are listed.  
 New Jersey : The following components are listed: Distillates (petroleum), hydrotreated heavy paraffinic  
 Pennsylvania : None of the components are listed.  
 California Prop. 65 : **WARNING:** This product contains less than 0.1% of a chemical known to the State of California to cause cancer.

| Ingredient name | Cancer | Reproductive | No significant risk level | Maximum acceptable dosage level |
|-----------------|--------|--------------|---------------------------|---------------------------------|
| Vinyl acetate   | Yes.   | No.          | No.                       | No.                             |
| Ethyl acrylate  | Yes.   | No.          | No.                       | No.                             |

Turbine XL 22, 32, 46, 68, 100

**Section 16. Other information****Revision date** : 05/07/2015**Supersedes** : 11/15/2013**Revised Section(s)** : 1, 2, 16.**Prepared by** : KMK Regulatory Services Inc.Notice to reader

THE INFORMATION CONTAINED IN THIS SDS RELATES ONLY TO THE SPECIFIC MATERIAL IDENTIFIED. IT DOES NOT COVER USE OF THAT MATERIAL IN COMBINATION WITH ANY OTHER MATERIAL OR IN ANY PARTICULAR PROCESS. IN COMPLIANCE WITH 29 C.F.R. 1910.1200(g), CHS HAS PREPARED THIS SDS IN SEGMENTS, WITH THE INTENT THAT THOSE SEGMENTS BE READ TOGETHER AS A WHOLE WITHOUT TEXTUAL OMISSIONS OR ALTERATIONS. CHS BELIEVES THE INFORMATION CONTAINED HEREIN TO BE ACCURATE, BUT MAKES NO REPRESENTATION, GUARANTEE, OR WARRANTY, EXPRESS OR IMPLIED, ABOUT THE ACCURACY, RELIABILITY, OR COMPLETENESS OF THE INFORMATION OR ABOUT THE FITNESS OF CONTENTS HEREIN FOR EITHER GENERAL OR PARTICULAR PURPOSES. PERSONS REVIEWING THIS SDS SHOULD MAKE THEIR OWN DETERMINATION AS TO THE MATERIAL'S SUITABILITY AND COMPLETENESS FOR USE IN THEIR PARTICULAR APPLICATIONS.



OUR ENERGY COMES THROUGH®

A BRAND OF The CHS logo features the letters 'CHS' in a stylized, bold, serif font, with a horizontal line passing through the middle of the letters.

# CRACK PRO® HEATED HOSE MACHINE

## OPERATING INSTRUCTIONS - DIESEL FUEL BURNER

### STARTUP

#### CHECK LIST

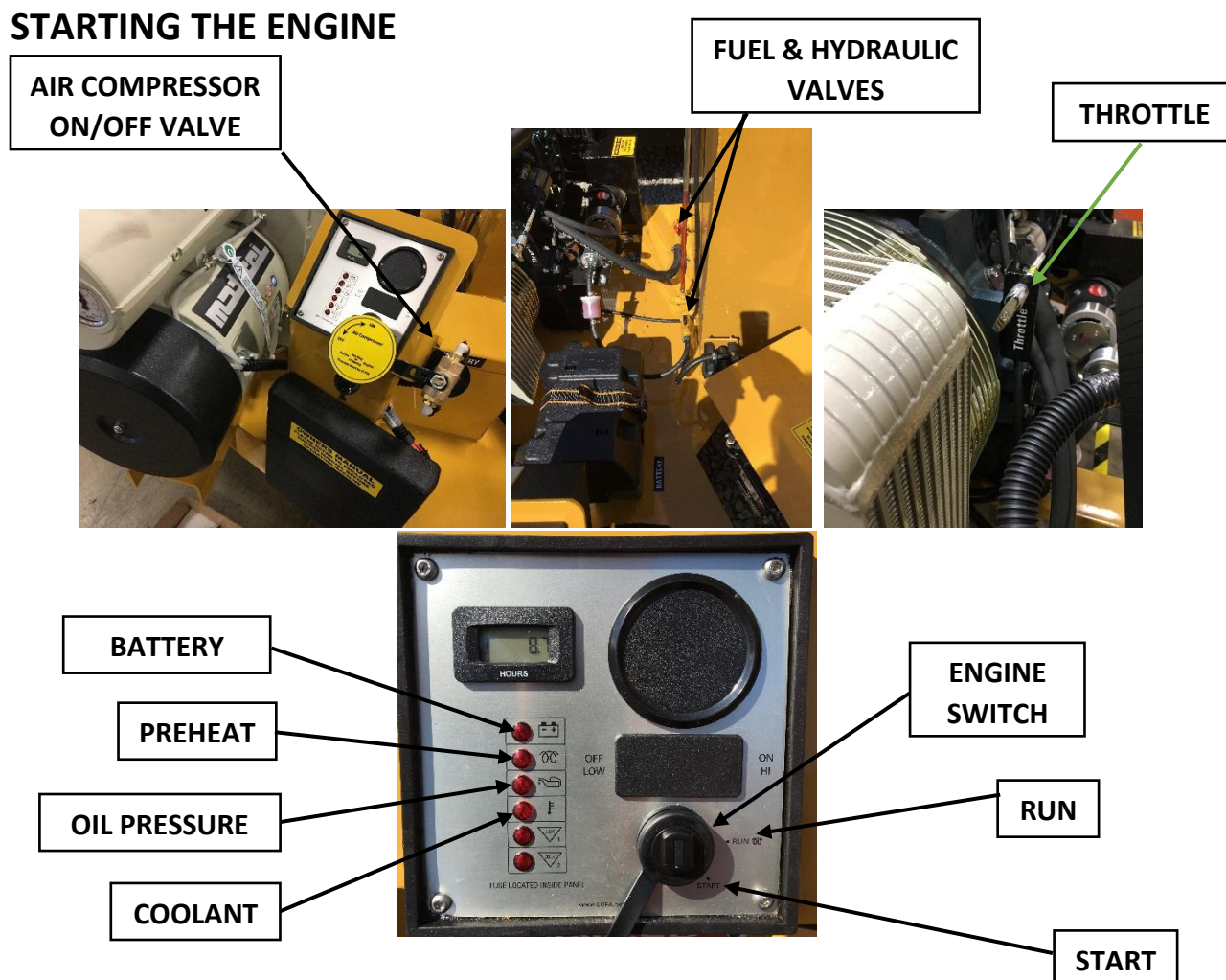
1. Check engine oil level. Follow manufacturers' guidelines as to type and frequency of changes.
2. Check hydraulic oil level. Use grade AW68 hydraulic oil.
3. Check heat transfer oil level with oil dipstick #25. Use a good quality grade 68 turbine oil or heat transfer oil. The heat transfer oil level must always be checked when it is **COLD**. Never attempt to check when the oil is hot, or severe injury could occur. **NEVER CHECK WHEN HOT!**
4. Fill burner fuel tank with diesel.
5. Check heated hose. The heated hose is an electrical device. Extreme care must be taken in how it is used and treated. It must be inspected daily for damage to the outer cover.
6. Completely read and understand all owner's manuals before trying to operate this machine.

# CRACK PRO® HEATED HOSE MACHINE

## OPERATING INSTRUCTIONS - DIESEL FUEL BURNER

### STARTUP

#### STARTING THE ENGINE



- Set the diesel **fuel** & motor **hydraulic** valves to the **on** position.
- Set the throttle lever at ½ open. **Air unit only.**
- Turn the **engine switch** key to **run**, 3 indicator lights will come on:
- Battery --- Preheat ---- Oil Pressure
- Wait until the preheat plug is ready, indicator light will turn **off**, then turn **engine** switch key to **start** up position.
- **NOTE:** It is important that when you are running the engine at an extended amount of time, turn **on** the compressor for 15 minutes



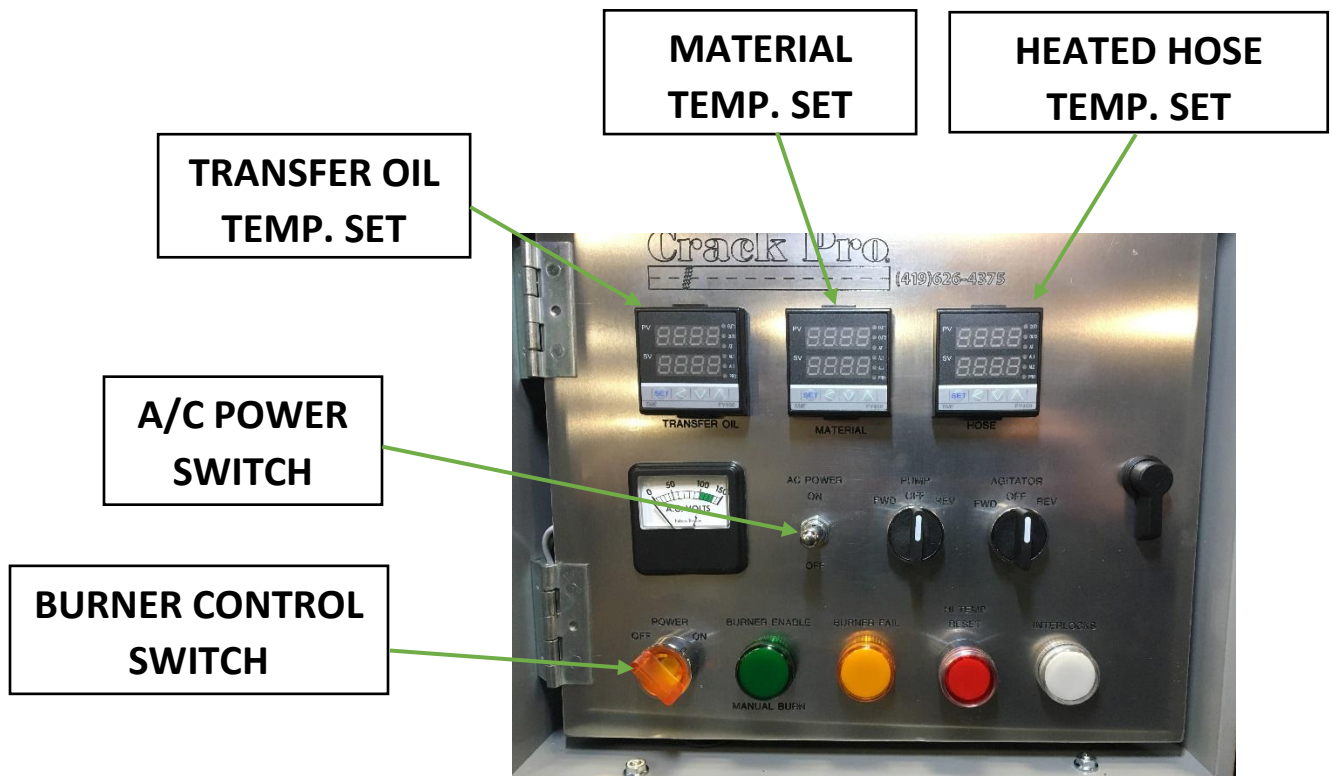
# CRACK PRO® HEATED HOSE MACHINE

## OPERATING INSTRUCTIONS - DIESEL FUEL BURNER

### THE TEMPERATURE CONTROL

After starting the engine:

1. Turn **on** the burner with power on-off switch located on the front of the digital temperature controller. The digital controllers monitor the heat transfer oil temperature, and the material temperature, along with the heated hose.
2. Turn **on** the a/c power switch. The controller will cycle the burner off and on as the temperature of the heat transfer oil increases and decreases. The heat from the transfer oil will be absorbed by the material in the tank.



# **CRACK PRO® HEATED HOSE MACHINE**

## **APPLIES TO ALL DIESEL FUEL BURNER**

### **OPERATING INSTRUCTIONS - DIESEL FUEL BURNER**

#### **ADDING MATERIAL**

3. Open the material tank lid and place inside three boxes of material. Caution should be used when loading blocks to prevent possible splash of hot material. Set material block (one at a time) on the lid. Close lid allowing the block to drop into the material tank.
4. For first time use or an empty tank, lay as many blocks as possible on the tank floor. Put the blocks in with the widest part touching the floor. This promotes faster melt times.

#### **MATERIAL TEMPERATURE**

5. On the top rear curbside corner are two thermometers. One is for the heat transfer oil on the right and the other is for the material tank on the left. Both thermometers will correspond with the digital readouts on the control box.
6. If the material temperature starts to climb over the recommended pouring temperature, open the lid and add more blocks. Leaving the lid open will also help drop the temperature, or lower the temperature setting on the oil controller.

# CRACK PRO® HEATED HOSE MACHINE

## OPERATING INSTRUCTIONS

### AUTOMATIC SAFETY INTERLOCKS

There are automatic safety interlocks that control the heated hose, material pump, and agitation systems. The agitator and pump will not work until the material has reached a pre-programmed temperature on the respective digital controllers. The heated hose must also be up to temperature before the pump can operate.

Once the 3 controllers reach the programmed temperature settings the white interlock light comes on, then the agitator will automatically start turning. Opening the lid turns off the agitator.

When adding material, open the lid and place a single block on and push it closed. Do not add more than 4 boxes of material at a time.

A squealing noise indicates the blocks of material are not melted enough to agitate. Turn off the agitator control switch, wait 15 minutes and try again.

### NOTE:

- Due to the fact that there is not a valve on the end of the hose, the material may continue to flow out even with the applicator switch not engaged.
- Place the applicator up in its holder for extended periods of non-use.
- For momentary non-use, the pump switch on the controller box can be placed in the reverse position.

# CRACK PRO® HEATED HOSE MACHINE

## OPERATING INSTRUCTIONS

### APPLICATION OF MATERIAL

**DO NOT MOVE THE HOSE** UNTIL IT IS AT APPLICATION TEMPERATURE

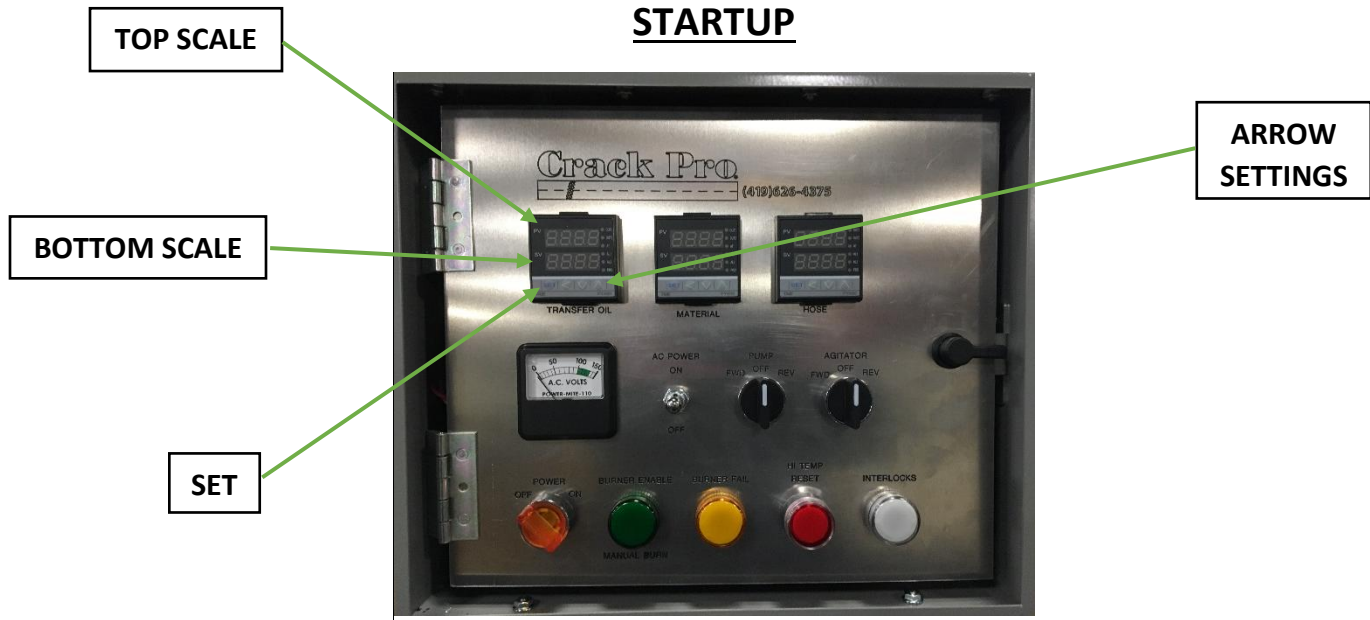
7. Once the material in the tank is completely melted and the desired application temperature is reached, it is time to fill cracks.
8. Detach the hose from its storage holder, swing the boom into position. Under no circumstances must the hose be bent or kinked; this will destroy the hose.
9. Check to see that the pump switch located on the temperature control box is in the forward position, place the wand applicator head over the crack, and press the pump activation switch on the wand. If no material comes out after 10 seconds, possibly the end of the applicator is plugged and may need cleaning.
10. Depress the pump activation switch for as long as necessary to keep the applicator full without overflowing it. With some experience you will know how far the material in the applicator head will go.
11. The speed of both the agitator and material pump motors can be fine-tuned by adjusting the speed control knobs on the electro-hydraulic solenoid valve block.
12. The oil temperature controller should be set for 475°F.
13. The material temperature controller should be set for 380°F a mid-range of the recommended pouring temperature on your products container.
14. The hose temperature controller should be set for 350°F.
15. Keep the voltmeter at 90-100 volts while operating the hose. **This is achieved by the engine throttle, on the air unit only.**
16. On an extremely cold and or windy day, all of the temperature settings may have to be increased to make up for heat losses.

**See the temperature control page for instructions on how to set the controllers.**

# CRACK PRO® HEATED HOSE MACHINE

## OPERATING INSTRUCTIONS

### STARTUP



### SETTING TEMPERATURE CONTROL

- The top scale is the **ambient temperature** of the heat transfer oil.
- The bottom scale is the **set temperature** that you want the oil to be heated to.
- The burner shuts off when your setting is exceeded by 10°.
- It comes back on when the oil drops to 10° under your setting.
- The sequence for setting **475°** temperature is:
  - 1) Press the left arrow 4 times, then up or down for the **4**.
  - 2) Press the left arrow again, then up or down for the **7**.
  - 3) Press the left arrow again, then up or down for the **5**.
  - 4) Press **SET**.

# CRACK PRO® HEATED HOSE MACHINE

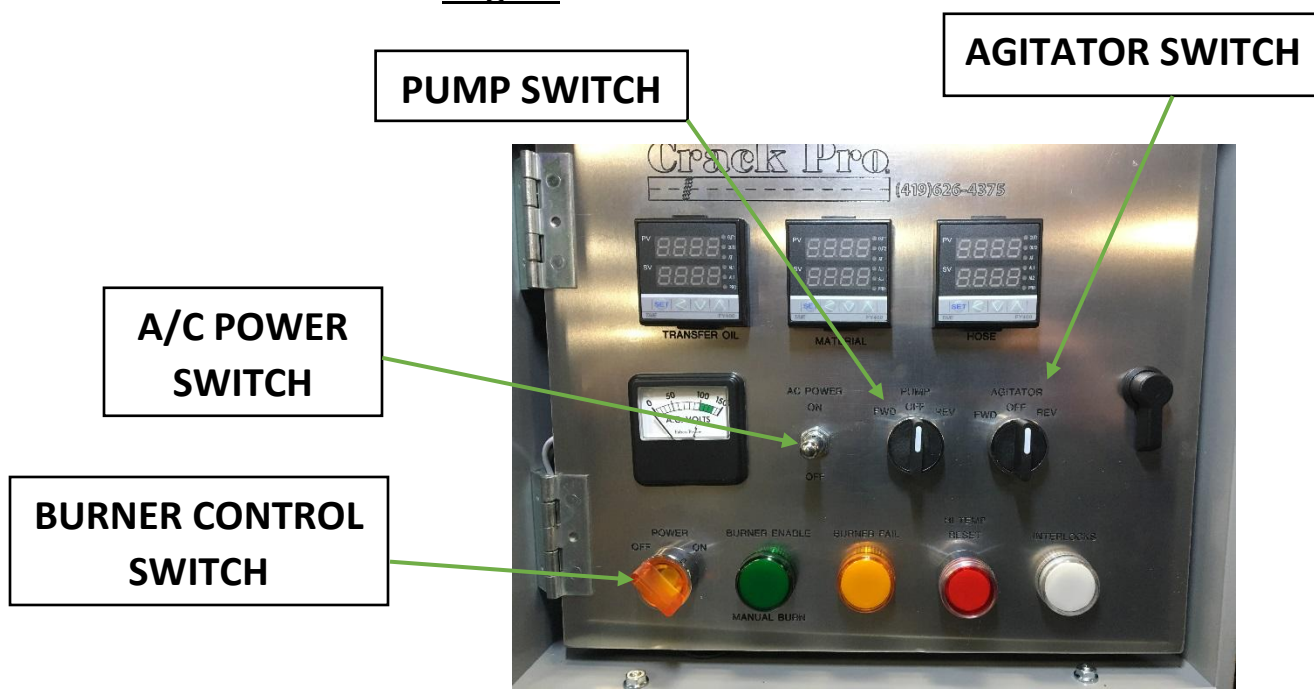
## OPERATING INSTRUCTIONS - DIESEL FUEL BURNER

### POURING MATERIAL

17. Set pour pot or applicator under the material discharge valve #30 and raise the handle to open.

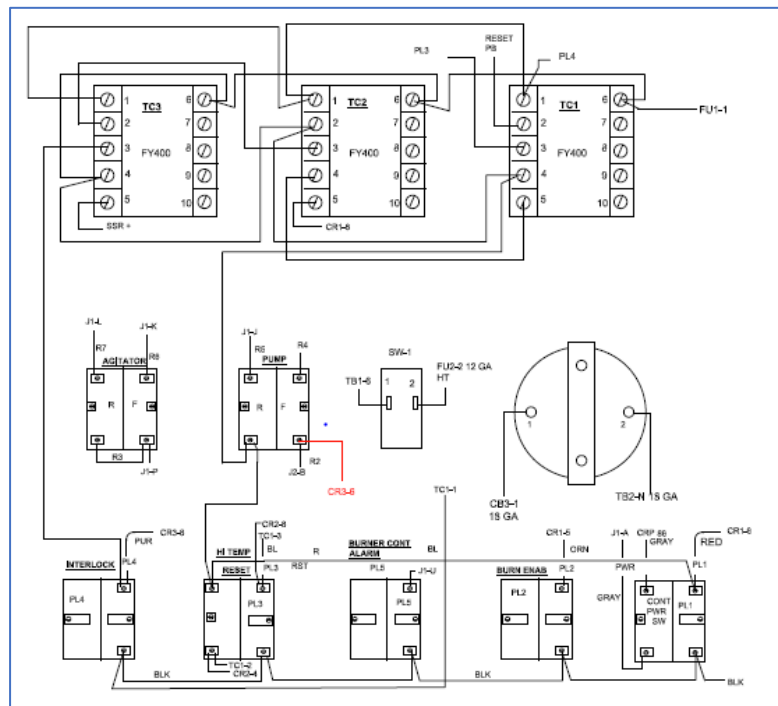
**CAUTION: ALWAYS WEAR LONG SLEEVE SHIRT, GLOVES, AND A FACE SHIELD WHEN PERFORMING THIS OPERATION!**

18. Fill the crack filler pour pot to the desired level and pour into cracks. Follow with a V-shaped squeegee if desired.
19. To stop for the day, perform the following steps:
- Turn the a/c power switch to the **off** position.
  - Turn the pump switch to reverse for 30 seconds, then turn to the **off** position.
  - Leave the agitator switch on the forward position.
  - Turn the burner control switch to the **off** position.
  - Shut off the engine.



# WIRING DIAGRAMS

## TEMPERATURE CONTROL BOX



### TERMINALS:

U – YELLOW 14 GA. TO BURNER

P1 – RED 10 GA. TO MOTOR

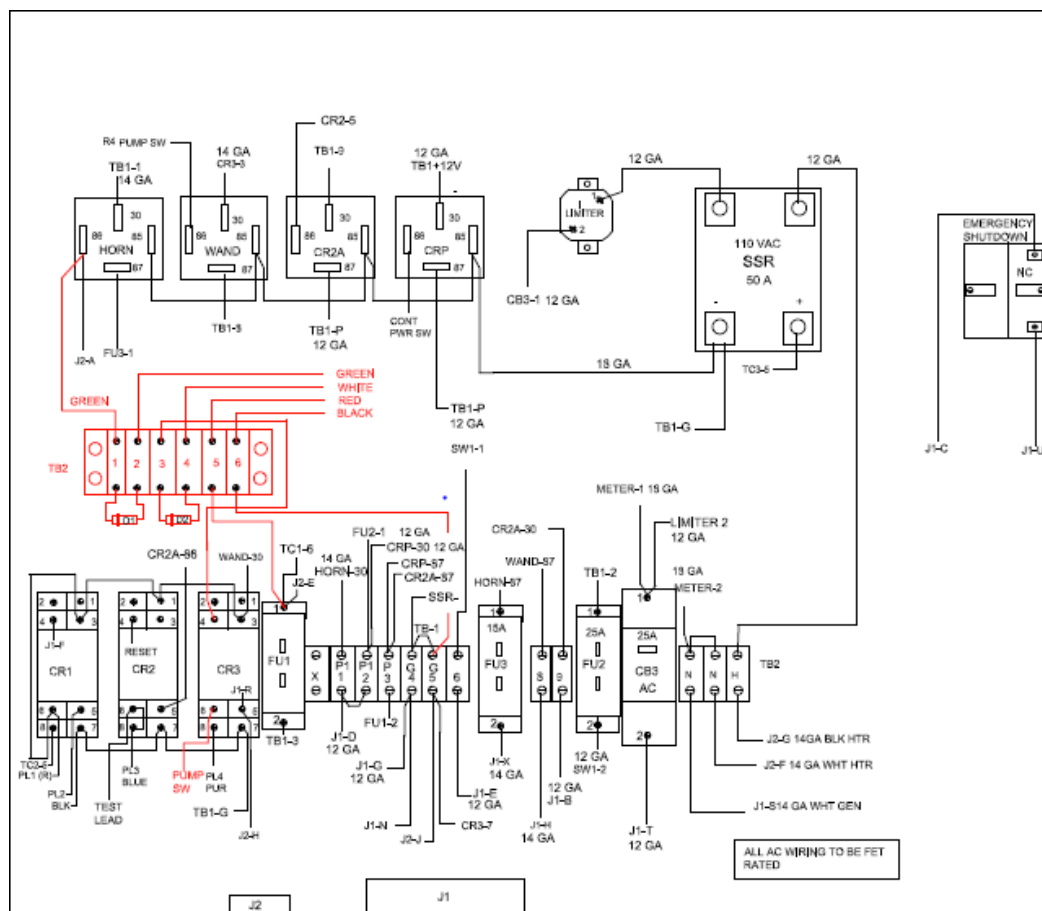
N – BLACK 10 GA. TO MOTOR

G – BLACK 12 GA. TO BURNER

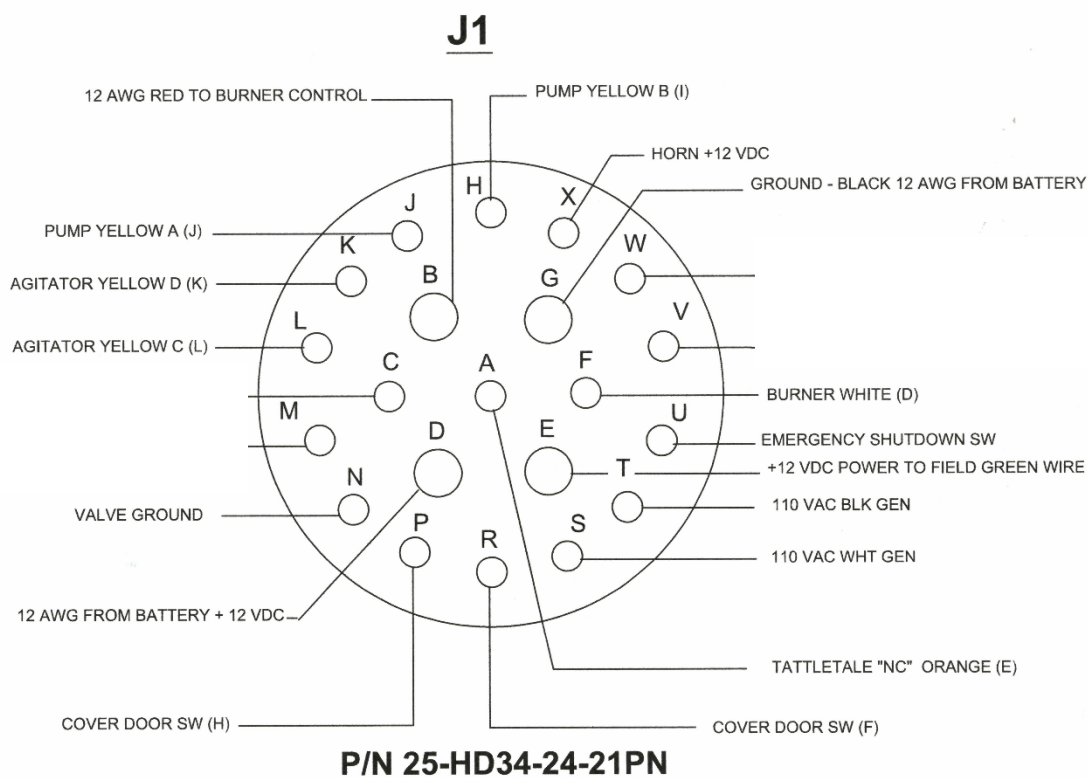
B – RED 12 GA. TO BURNER

D – WHITE 14 GA. TO BURNER

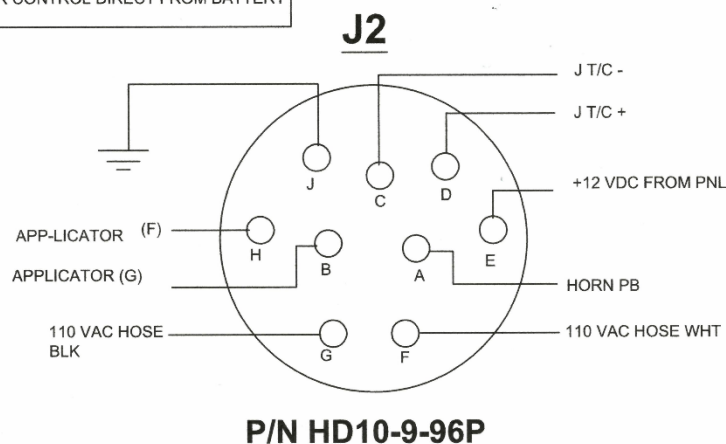
NOTE: RUN BATTERY – DIRECTLY TO BURNER



## HEATED HOSE MAIN CONNECTOR J1 AND HEATED HOSE J2



BLACK WIRE #10 TO BURNER CONTROL DIRECT FROM BATTERY

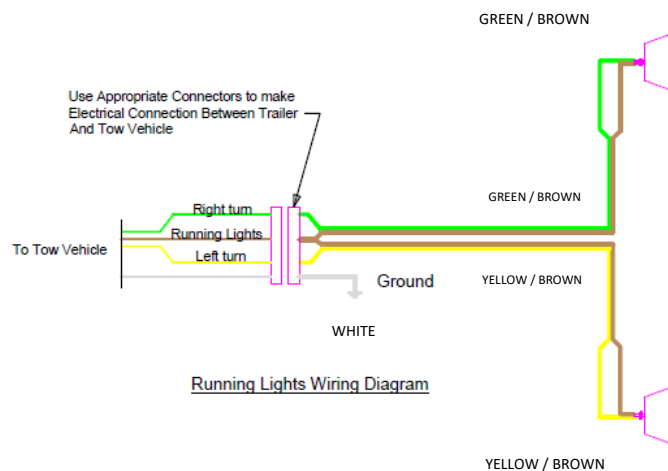
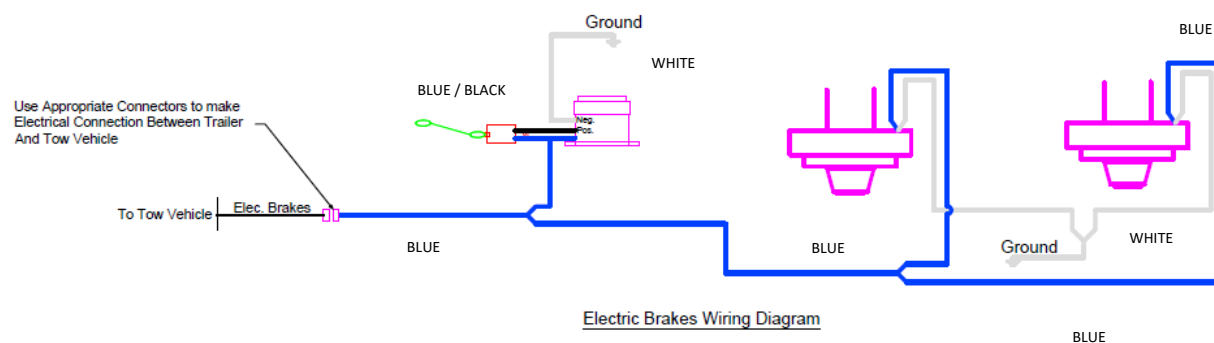


NOTE:  
ALL POWER MUST BE OFF BEFORE PLUGGING AND  
UNPLUGGING THE  
MAIN CONNECTOR



# WIRING DIAGRAMS

## ELECTRIC BRAKES AND RUNNING LIGHTS



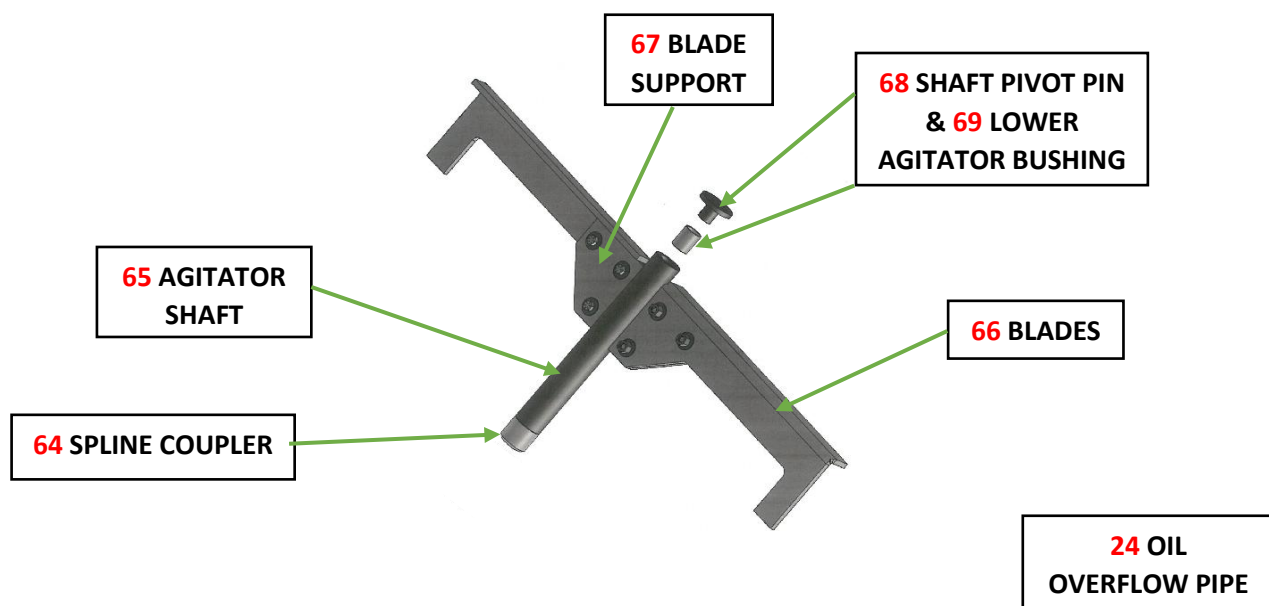
| <b>TANK CAPACITY CHART</b>                                 |                        |                        |                        |                        |                       |
|--|------------------------|------------------------|------------------------|------------------------|-----------------------|
| GALLONS ARE APPROXIMATE AND MAY VARY SLIGHTLY TANK TO TANK |                        |                        |                        |                        |                       |
| <b>MATERIAL DEPTH AND GALLON VOLUME</b>                    |                        |                        |                        |                        |                       |
| MATERIAL DEPTH   | 400 GALLONS<br>60"x34" | 260 GALLONS<br>60"x21" | 200 GALLONS<br>46"x30" | 125 GALLONS<br>46"x19" | 60 GALLONS<br>33"x17" |
| INCHES   | GALLONS                | GALLONS                | GALLONS                | GALLONS                | GALLONS               |
| 1  | 12                     | 12                     | 7                      | 7                      | 4                     |
| 2  | 24                     | 24                     | 14                     | 14                     | 7                     |
| 3  | 37                     | 37                     | 22                     | 22                     | 11                    |
| 4  | 49                     | 49                     | 29                     | 29                     | 15                    |
| 5  | 61                     | 61                     | 36                     | 36                     | 19                    |
| 6  | 73                     | 73                     | 43                     | 43                     | 22                    |
| 7  | 86                     | 86                     | 50                     | 50                     | 26                    |
| 8  | 98                     | 98                     | 58                     | 58                     | 30                    |
| 9  | 110                    | 110                    | 65                     | 65                     | 33                    |
| 10   | 122                    | 122                    | 72                     | 72                     | 37                    |
| 11   | 135                    | 135                    | 79                     | 79                     | 41                    |
| 12   | 147                    | 147                    | 86                     | 86                     | 44                    |
| 13   | 159                    | 159                    | 94                     | 94                     | 48                    |
| 14   | 171                    | 171                    | 101                    | 101                    | 52                    |
| 15   | 184                    | 184                    | 108                    | 108                    | 56                    |
| 16   | 196                    | 196                    | 115                    | 115                    | 59                    |
| 17   | 208                    | 208                    | 122                    | 122                    | 63                    |
| 18   | 220                    | 220                    | 129                    | 129                    |                       |
| 19   | 233                    | 233                    | 137                    | 137                    |                       |
| 20   | 245                    | 245                    | 144                    |                        |                       |
| 21   | 257                    | 257                    | 151                    |                        |                       |
| 22   | 269                    |                        | 158                    |                        |                       |
| 23   | 282                    |                        | 165                    |                        |                       |
| 24   | 294                    |                        | 173                    |                        |                       |
| 25   | 306                    |                        | 180                    |                        |                       |
| 26   | 318                    |                        | 187                    |                        |                       |
| 27   | 330                    |                        | 194                    |                        |                       |
| 28   | 343                    |                        | 201                    |                        |                       |
| 29   | 355                    |                        | 209                    |                        |                       |
| 30   | 367                    |                        | 216                    |                        |                       |
| 31   | 379                    |                        |                        |                        |                       |
| 32   | 392                    |                        |                        |                        |                       |
| 33   | 404                    |                        |                        |                        |                       |
| 34   | 416                    |                        |                        |                        |                       |

Note: To see how much material is in the tank, reverse the inch amount.

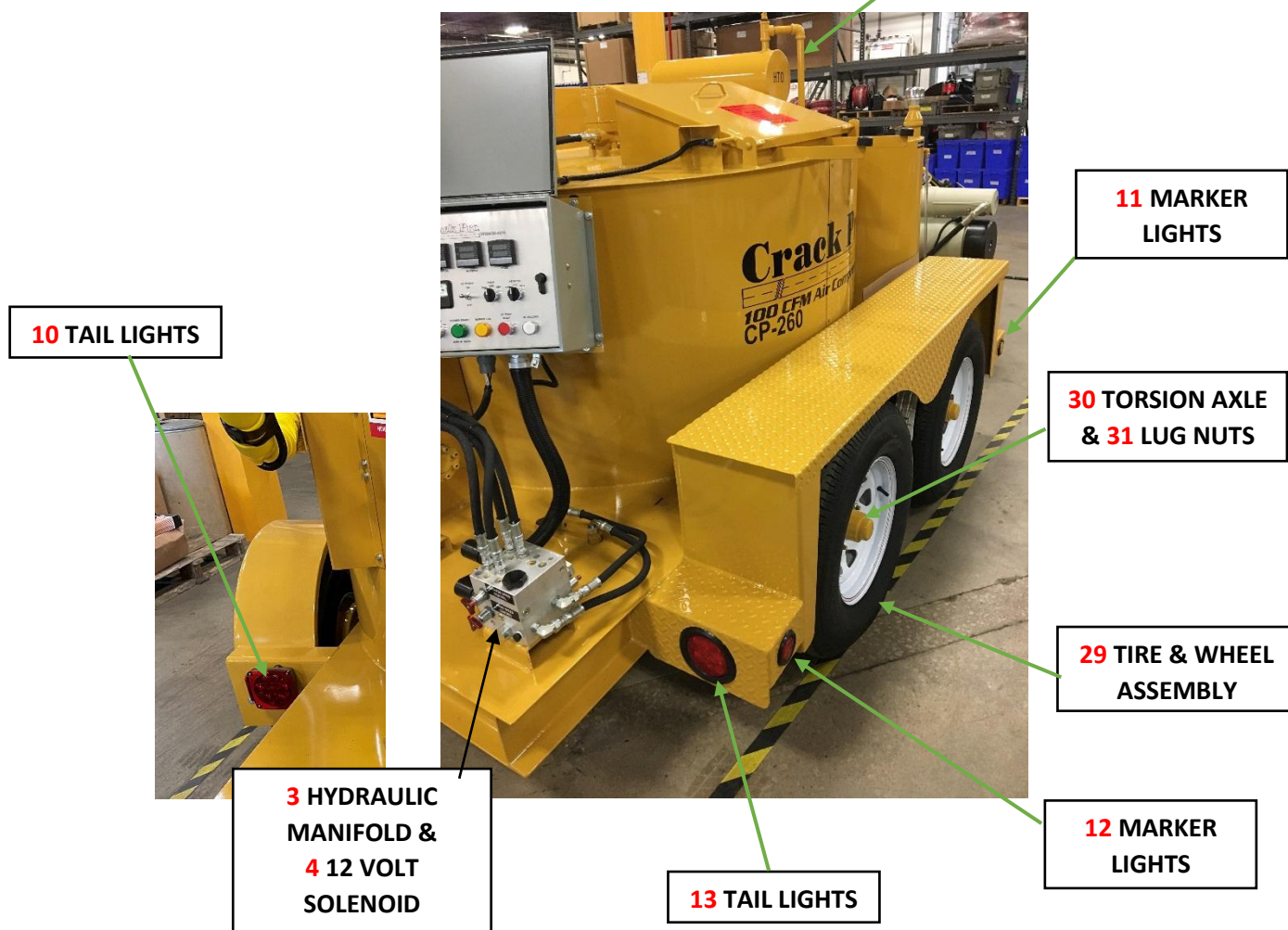


# CRACK PRO® HEATED HOSE MACHINE

## MACHINE PICTURES AND PARTS LIST



PICTURE-1



# CRACK PRO® HEATED HOSE MACHINE

## MACHINE PICTURES AND PARTS LIST

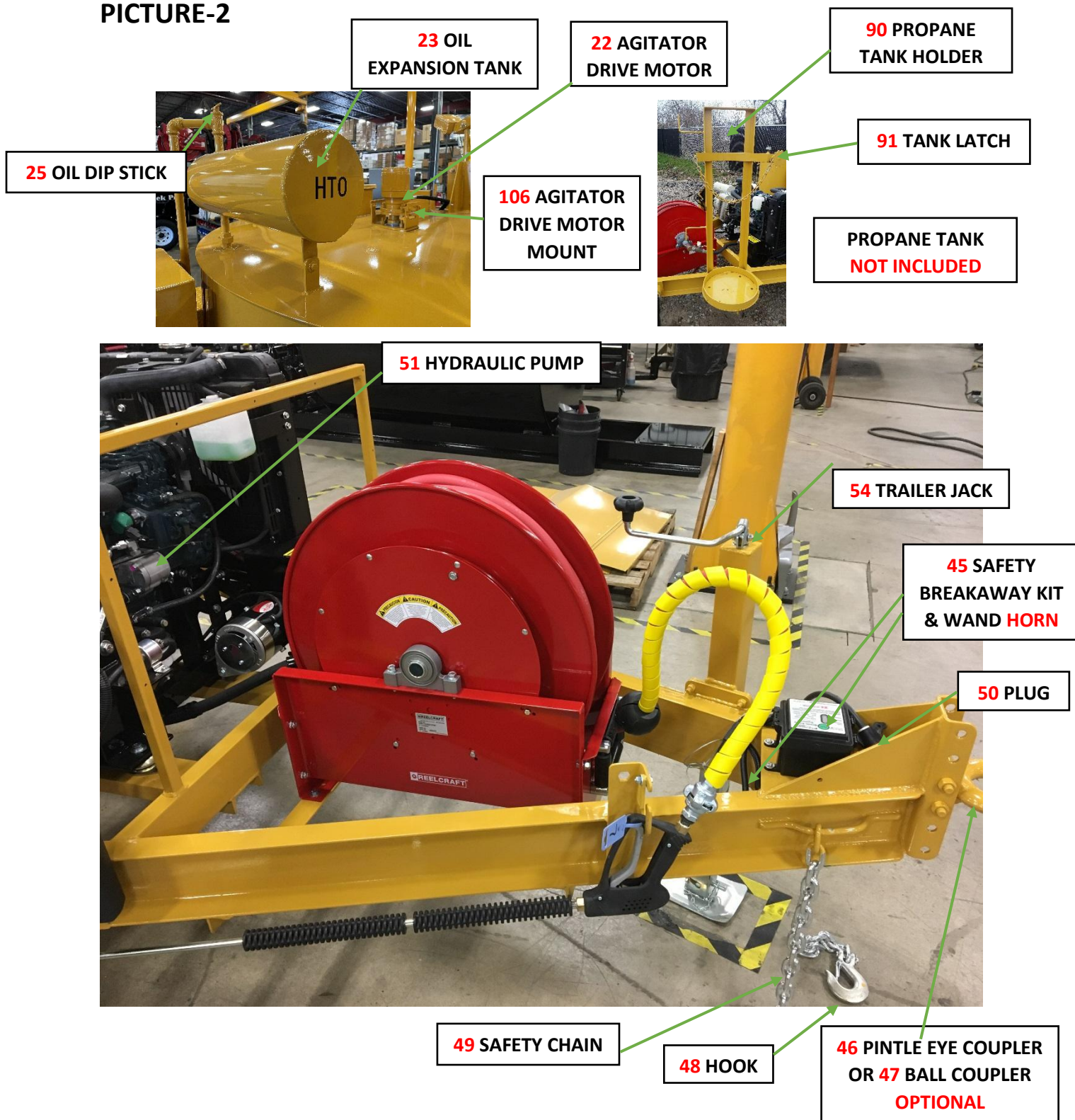
### PARTS LIST PICTURE-1

| ITEM # | PART#          | QTY.  | DESCRIPTION  |
|--------|----------------|-------|--|
| 3      | P693A010       | 1     | HYDRAULIC MANIFOLD   |
| 4      | P694A006       | 4     | 12 VOLT SOLENOID   |
| 11     | P467A016       | 2/4   | 2" LED MARKER AMBER CP-125 CP-260 CP-400                       |
| 12     | P467A017       | 2     | 2" LED MARKER – RED CP-260 CP-400                              |
| 13     | P467A020       | 2     | 4" ROUND LIGHT – RED CP-260 CP-400                             |
| 10     | P516A025       | 1     | TAIL LIGHT – LEFT CP-125                                       |
|        | P516A024       | 1     | TAIL LIGHT – RIGHT CP-125                                      |
| 24     | P75000B006     | 1     | OIL OVERFLOW PIPE  |
| 29     | P514A017       | 2     | TIRE & WHEEL ASSEMBLY CP-125                                   |
|        | P514A017       | 4     | TIRE & WHEEL ASSEMBLY CP-260 / CP-400                          |
| 30     | P511A032       | 1     | TORSION AXLE CP-125  |
|        | P511A017       | 2     | TORSION AXLE CP-260 CP-400                                     |
| 31     | P579A003       | 12/24 | LUG NUT  |
| 64     | P630A043       | 1     | SPLINE COUPLER CP-125  |
|        | P630A047       | 1     | SPLINE COUPLER CP-260 CP-400                                   |
| 65     | P74000D062-001 | 1     | AGITATOR SHAFT CP-125  |
|        | P74000H062-001 | 1     | AGITATOR SHAFT CP-260  |
|        | P74000G062-001 | 1     | AGITATOR SHAFT CP-400  |
| 66     | P74000B008B    | 2     | BLADE CP-125   |
|        | P74000B013-001 | 2/4   | BLADE CP-260 / CP-400  |
| 67     | P74000B014     | 2/4   | BLADE SUPPORT CP-125 CP-260 CP-400                             |
| 68     | P74000B015     | 1     | SHAFT PIVOT PIN  |
| 69     | P439A004       | 1     | LOWER AGITATOR BUSHING   |
|        | P74000Q062     | 1     | REPLACEMENT AGITATION SHAFT ASSEMBLY BEFORE 10/2021 CP-125/260 |
|        | P74000P062     | 1     | REPLACEMENT AGITATION SHAFT ASSEMBLY BEFORE 10/2021 CP-400     |

# CRACK PRO® HEATED HOSE MACHINE

## MACHINE PICTURES AND PARTS LIST

PICTURE-2



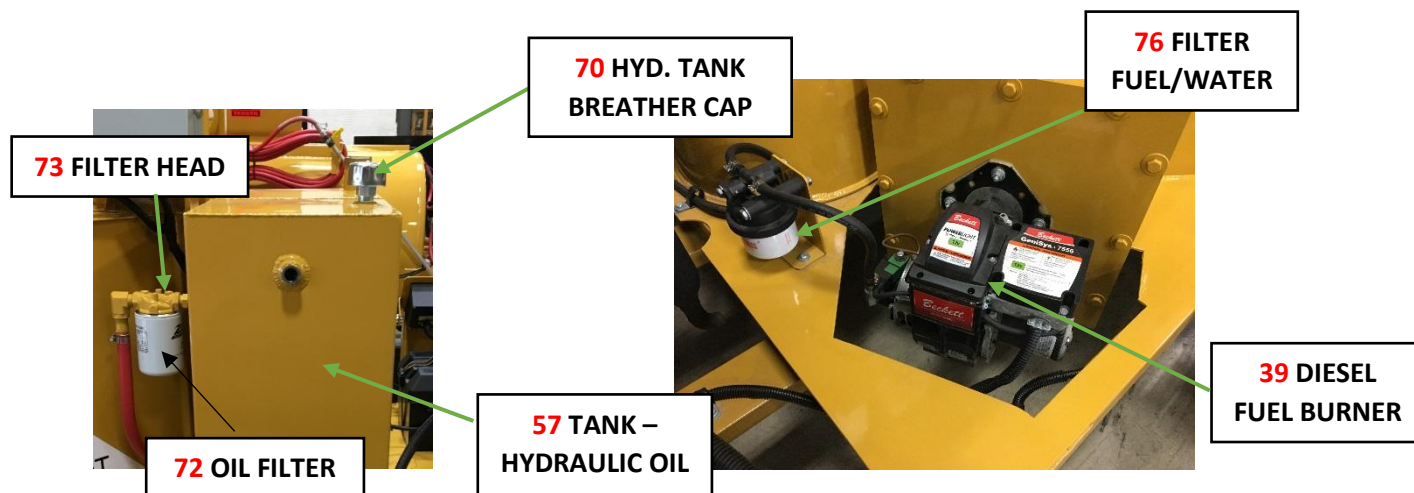


# CRACK PRO® HEATED HOSE MACHINE

## MACHINE PICTURES AND PARTS LIST

### PARTS LIST PICTURE-2

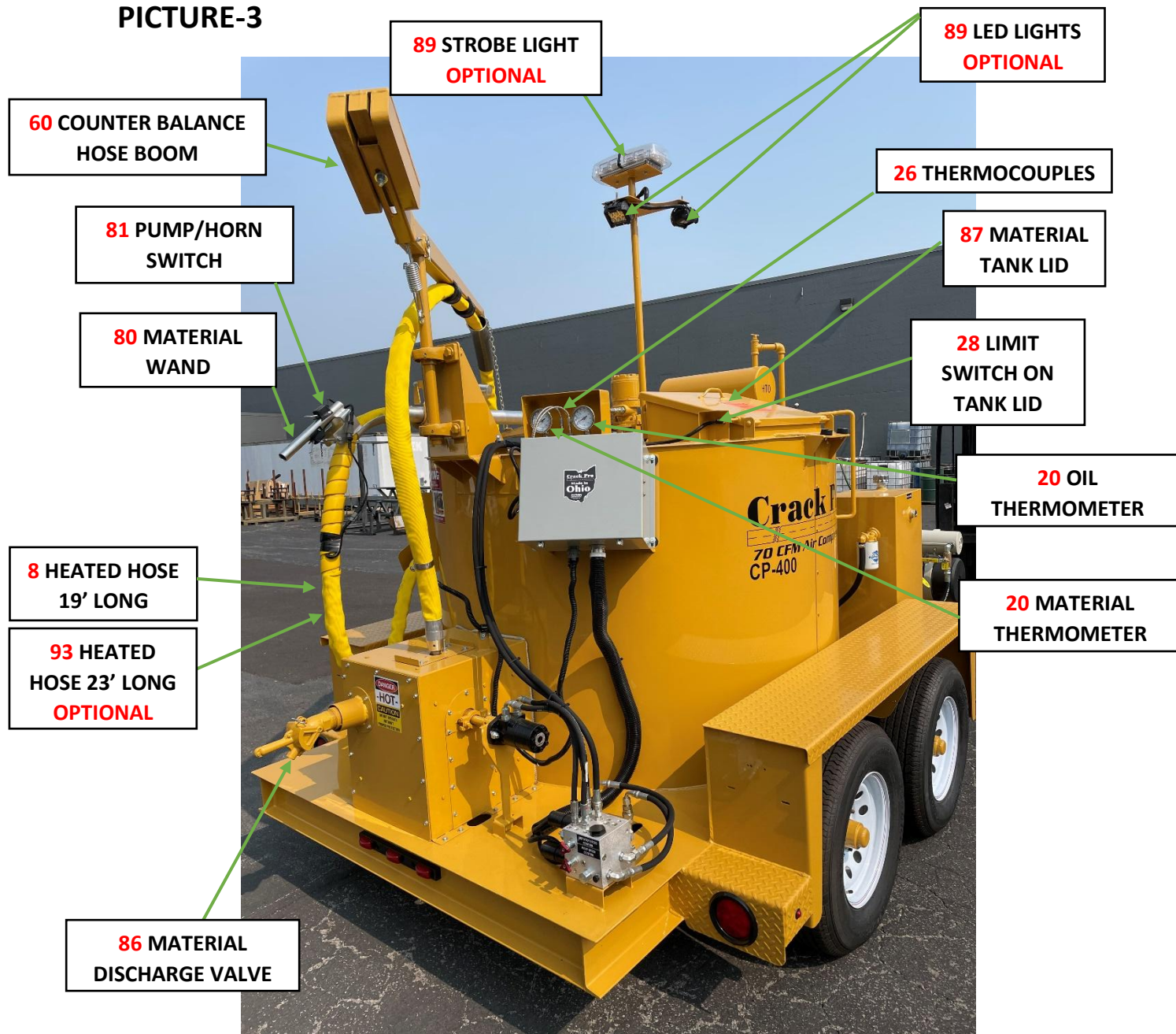
| ITEM # | PART#      | QTY. | DESCRIPTION  |
|--------|------------|------|--|
| 22     | P474A037   | 1    | AGITATOR DRIVE MOTOR <b>CP-125</b>                     |
|        | P474A049   | 1    | AGITATOR DRIVE MOTOR <b>CP-260 CP-400</b>              |
| 106    | P74000C420 | 1    | AGITATOR DRIVE MOTOR MOUNT                             |
| 23     | P74000B017 | 1    | OIL EXPANSION TANK <b>CP-125/260 CP-400</b>            |
| 25     | P74000G019 | 1    | OIL DIPSTICK <b>CP-60</b>                              |
|        | P74000B019 | 1    | OIL DIPSTICK <b>CP-125</b>                             |
|        | P74000F019 | 1    | OIL DIPSTICK <b>CP-260 CP-400</b>                      |
| 39     | P662A009   | 1    | DIESEL FUEL BURNER                                     |
| 45     | P518A008   | 1    | BREAKAWAY KIT-4 BOLT                                   |
|        | P518A009   | 1    | BREAKAWAY KIT- REPLACEMENT PIN & CABLE <b>OPTIONAL</b> |
|        | P448A003   | 1    | HORN   |
| 46     | P646A003   | 1    | PINTLE EYE COUPLER                                     |
| 47     | P553A008   | 1    | 2-5/16" BALL COUPLER - <b>OPTIONAL</b>                 |
| 48     | P517A002   | 2    | HOOK (PART OF SAFETY CHAIN)                            |
| 49     | P531A004   | 2    | SAFETY CHAIN   |
| 50     | P519A007   | 1    | TRAILER PLUG   |
| 51     | P601A053   | 1    | HYDRAULIC PUMP - AIR                                   |
|        | P601A042   | 1    | HYDRAULIC PUMP – NON AIR                               |
| 54     | P551A008   | 1    | TRAILER JACK   |
| 57     | P74000G005 | 1    | TANK - <b>HYDRAULIC OIL</b>                            |
| 70     | P1050A006  | 1    | HYDRAULIC TANK BREATHER/CAP                            |
| 72     | P908A003   | 1    | FILTER – OIL   |
| 73     | P909A002   | 1    | FILTER HEAD (SMALL)                                    |
| 76     | P458B254   | 1    | FILTER - FUEL/WATER                                    |
| 90     | P74002     | 1    | <b>PROPANE</b> TANK STAND - <b>OPTIONAL</b>            |
| 91     | P422A002   | 1    | <b>PROPANE</b> TANK LATCH - <b>OPTIONAL</b>            |



# CRACK PRO® HEATED HOSE MACHINE

## MACHINE PICTURES AND PARTS LIST

PICTURE-3

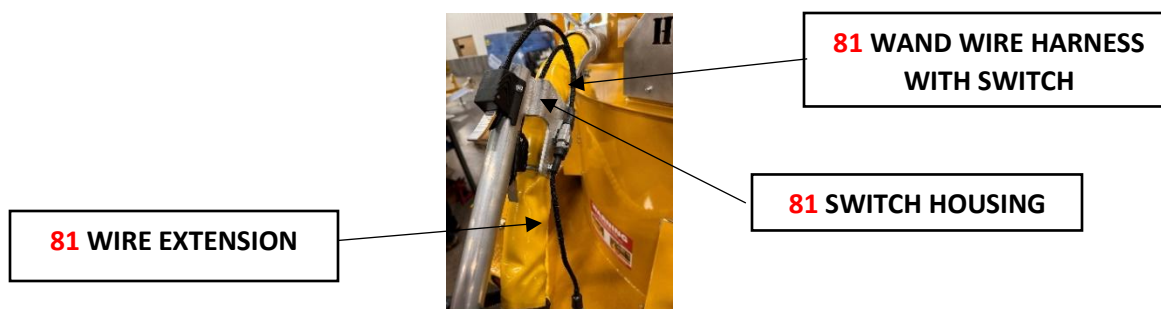


89 ARROW BOARD OPTIONAL



# CRACK PRO® HEATED HOSE MACHINE

## MACHINE PICTURES AND PARTS LIST



### PARTS LIST PICTURE-3

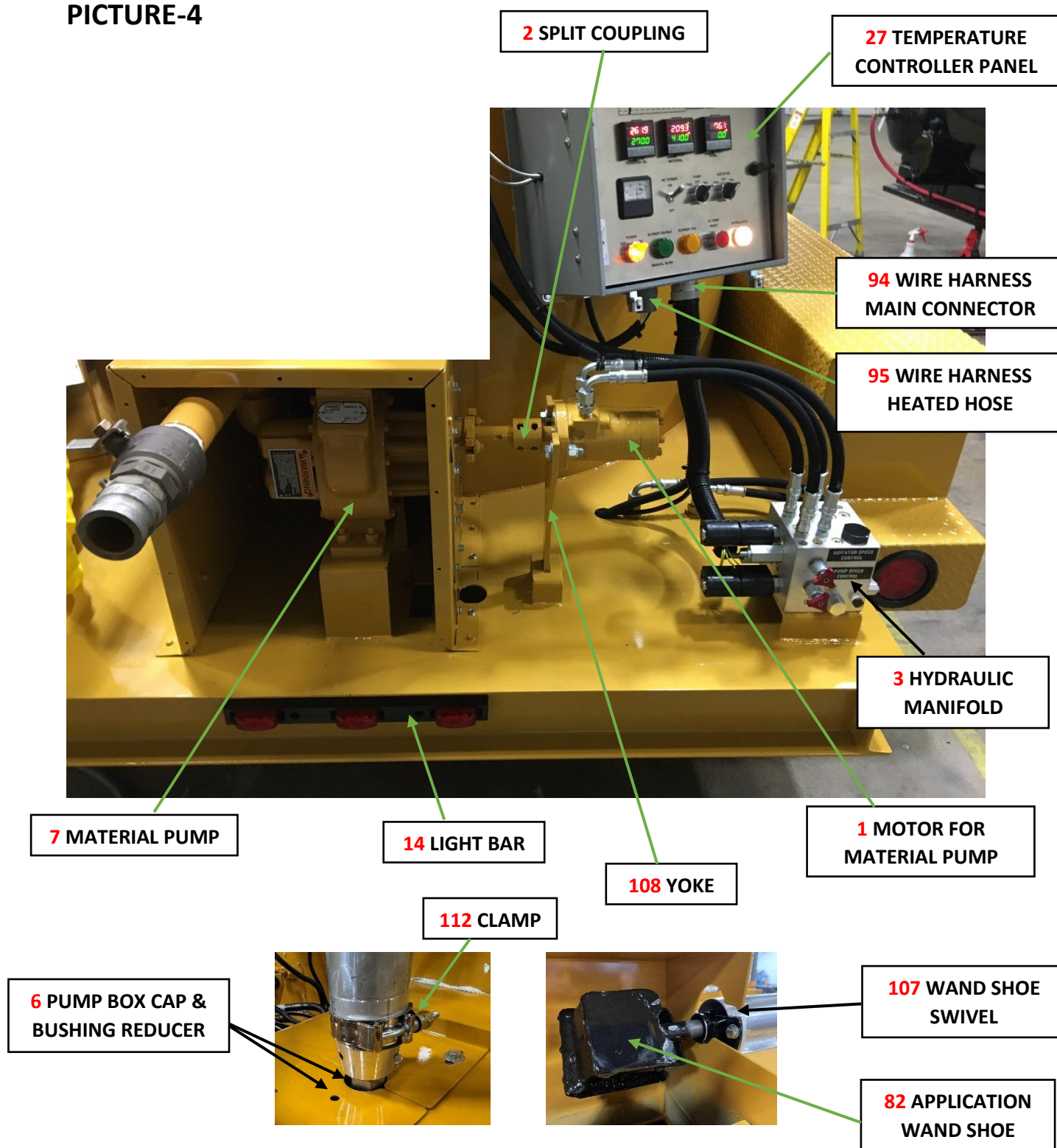
| ITEM # | PART#      | QTY. | DESCRIPTION                             |
|--------|------------|------|---|
| 8      | P17582B019 | 1    | HEATED HOSE 19' (After 8/22*)           |
| 20     | P659A009   | 1    | MATERIAL / OIL THERMOMETER 18" CP-125   |
|        | P659A008   | 1    | MATERIAL / OIL THERMOMETER 24" CP-260   |
|        | P659A008   | 1    | OIL THERMOMETER 24" CP-400              |
|        | P659A005   | 1    | MATERIAL THERMOMETER 36" CP-400         |
| 26     | P679A008   | 2    | THERMOCOUPLE 18" CP-125                 |
|        | P679A015   | 2    | THERMOCOUPLE 30" CP-200                 |
|        | P679A014   | 1    | OIL THERMOCOUPLE 24" CP-260 CP-400      |
|        | P679A017   | 1    | MATERIAL THERMOCOUPLE 23" CP-260 CP-400 |
| 28     | P442A010   | 1    | LIMIT SWITCH - LID                      |
| 60     | P74000J007 | 1    | COUNTERBALANCE HOSE BOOM                |
| 80     | P74000C000 | 1    | MATERIAL WAND                           |
| 81     | P443A009   | 2    | PUMP/HORN SWITCH                        |
|        | P443B008   | 2    | SWITCH HOUSING                          |
|        | P519D001   | 1    | WIRE EXTENSION                          |
|        | P519B003   | 1    | WAND WIRE HARNESS WITH SWITCH           |
| 86     | P585B000   | 1    | MATERIAL DISCHARGE VALVE                |
| 87     | P74000C226 | 1    | MATERIAL TANK LID CP-125/260 CP-400     |
| 89     | P516A033   | 1    | ARROW BOARD - OPTIONAL                  |
|        | P516A035   | 1    | LIGHT – STROBE - OPTIONAL               |
|        | P516A032   | 2    | LED LIGHTS - OPTIONAL                   |
| 92     | P443B001   | 1    | WIRELESS WAND – N/A                     |
| 93     | P17582B023 | 1    | HEATED HOSE 23'- OPTIONAL               |
|        | P17582B023 | 1    | HEATED HOSE 23'- CP-400 (After 8/22*)   |
|        | P17582K    | 1    | CP125 HEATED HOSE CONVERSION KIT        |
|        | P17582K2   | 1    | CP260/400 HEATED HOSE CONVERSION KIT    |

**\*MACHINES MADE BEFORE 8/22 WILL NEED CONVERSION KIT WITH NEW HOSE**

# CRACK PRO® HEATED HOSE MACHINE

## MACHINE PICTURES AND PARTS LIST

PICTURE-4



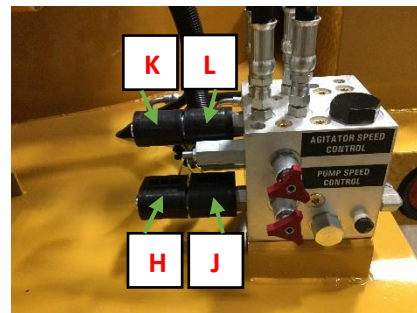
# CRACK PRO® HEATED HOSE MACHINE

## MACHINE PICTURES AND PARTS LIST

PICTURE-4

**43 ENGINE COVER**

**62 TOOL BOX**



**4 12 VOLT  
ELECTRIC COILS**

**97 REGULATOR**

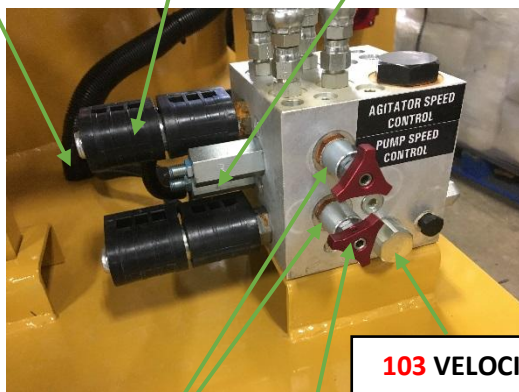
**101 FILTER HEAD**

**102 FILTER CARTRIDGE**

SHOWING WIRE LOCATIONS  
TO **J1** MAIN HARNESS  
**NOTE: ONE WIRE FROM EACH  
COIL TO N FOR GROUND**

**96 CARTRIDGE**

**NOTE: SEE HEATED HOSE MAIN CONNECTOR J1 AND HEATED HOSE J2 DIAGRAM**



**99 FLOW CONTROL  
CARTRIDGE VALVE**

**103 VELOCITY  
FUSE**

**104 RELIEF VALVE**

**100 KNOB**

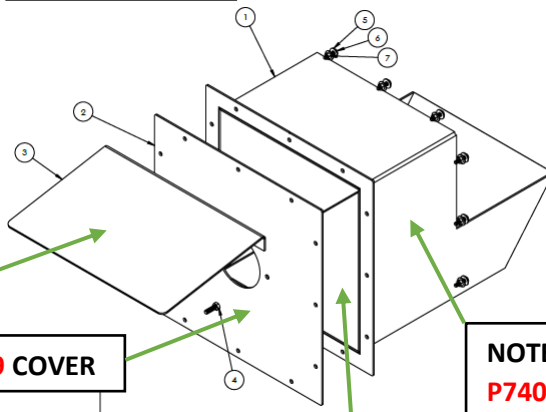
**98 COMPENSATOR  
CARTRIDGE**

**110 GUARD**

**109 COVER**

**111 COMBUSTION  
CHAMBER**

**NOTE: SHOWN IS ASSEMBLY  
P74000B030 WITH ITS OWN  
NUMBERS ON THE DRAWING.  
REFER TO BOXED DESCRIPTION'S**



# CRACK PRO® HEATED HOSE MACHINE

## MACHINE PICTURES AND PARTS LIST

### PARTS LIST PICTURE-4

| ITEM # | PART#       | QTY. | DESCRIPTION                             |
|--------|-------------|------|---|
| 1      | P474A089    | 1    | MOTOR FOR MATERIAL PUMP                 |
| 2      | P498A002    | 1    | SPLIT COUPLER                           |
| 3      | P693A010    | 1    | HYDRAULIC MANIFOLD                      |
| 4      | P694A006    | 4    | 12 VOLT ELECTRIC COILS                  |
| 6      | P74000B331  | 2    | PUMP BOX CAP                            |
|        | P1010A017   | 1    | BUSHING REDUCER                         |
| 112    | P1023A014   | 1    | CLAMP                                   |
| 7      | P640A067    | 1    | MATERIAL PUMP ROPE 2"                   |
| 14     | P467A019    | 1    | LIGHT BAR 3 PC. / TRAILER CP-260 CP-400 |
| 27     | P735A061    | 1    | TEMPERATURE CONTROLLER PANEL            |
| 43     | P74000D231  | 1    | ENGINE COVER - OPTIONAL AIR             |
|        | P74000B231  | 1    | ENGINE COVER - OPTIONAL NON AIR         |
| 62     | P74000B004  | 1    | TOOL BOX - OPTIONAL                     |
| 94     | P519C004    | 1    | WIRE HARNESS - MAIN CONNECTOR           |
| 95     | P519C002    | 1    | WIRE HARNESS - HEATED HOSE              |
| 96     | P693A020    | 4    | CARTRIDGE                               |
| 97     | P693A021    | 2    | VALVE - REGULATOR                       |
| 98     | P693A022    | 1    | COMPENSATOR CARTRIDGE                   |
| 99     | P693A024    | 2    | FLOW CONTROL CARTRIDGE VALVE            |
| 100    | P693A025    | 2    | KNOB                                    |
| 101    | P693A026    | 1    | FILTER HEAD                             |
| 102    | P693A027    | 1    | FILTER CARTRIDGE                        |
| 103    | P693A028    | 1    | VELOCITY FUSE                           |
| 104    | P693A029    | 1    | RELIEF VALVE                            |
| 82     | P163A012    | 1    | APPLICATION WAND SHOE                   |
| 107    | P470C005    | 1    | WAND SHOE SWIVEL ASSEMBLY               |
| 108    | P72000G027  | 1    | YOKE CP-125                             |
|        | P72000M027  | 1    | YOKE CP-260                             |
|        | P72000H027  | 1    | YOKE CP-400                             |
| 109    | P74000B030D | 1    | COVER – BURNER BOX                      |
| 110    | P74000B030E | 1    | GUARD – BURNER BOX                      |
| 111    | P671A000    | 1    | COMBUSTION CHAMBER                      |



# CRACK PRO® HEATED HOSE MACHINE

## MACHINE PICTURES AND PARTS LIST

PICTURE-5

**36** AIR COMPRESSOR &  
T-HANDLE THROTTLE

**51** HYDRAULIC PUMP

**84** V-BELT

**83** GENERATOR

**41** ENGINE KEYS &  
IGNITION SWITCH  
& ON/OFF VALVE

**113** IN LINE FUEL FILTER

**71** DIESEL  
TANK CAP

**32** FUEL TANK  
DIESEL

**42** VIBRATION  
ISOLATION MOUNTS

**41** ENGINE

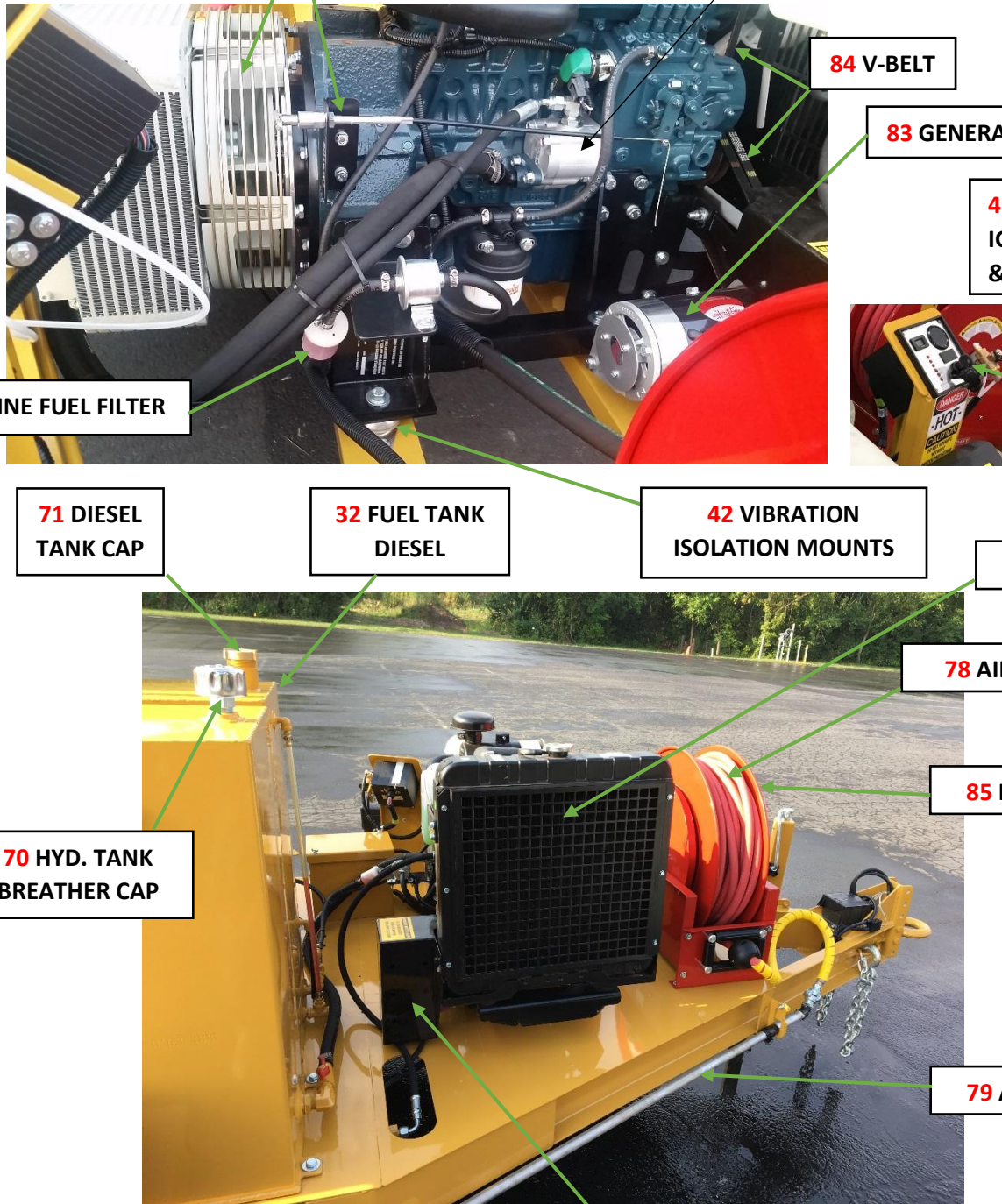
**78** AIR HOSE

**85** HOSE REEL

**70** HYD. TANK  
BREATHING CAP

**79** AIR WAND

**105** GENERATOR GUARD



# CRACK PRO® HEATED HOSE MACHINE

## MACHINE PICTURES AND PARTS LIST

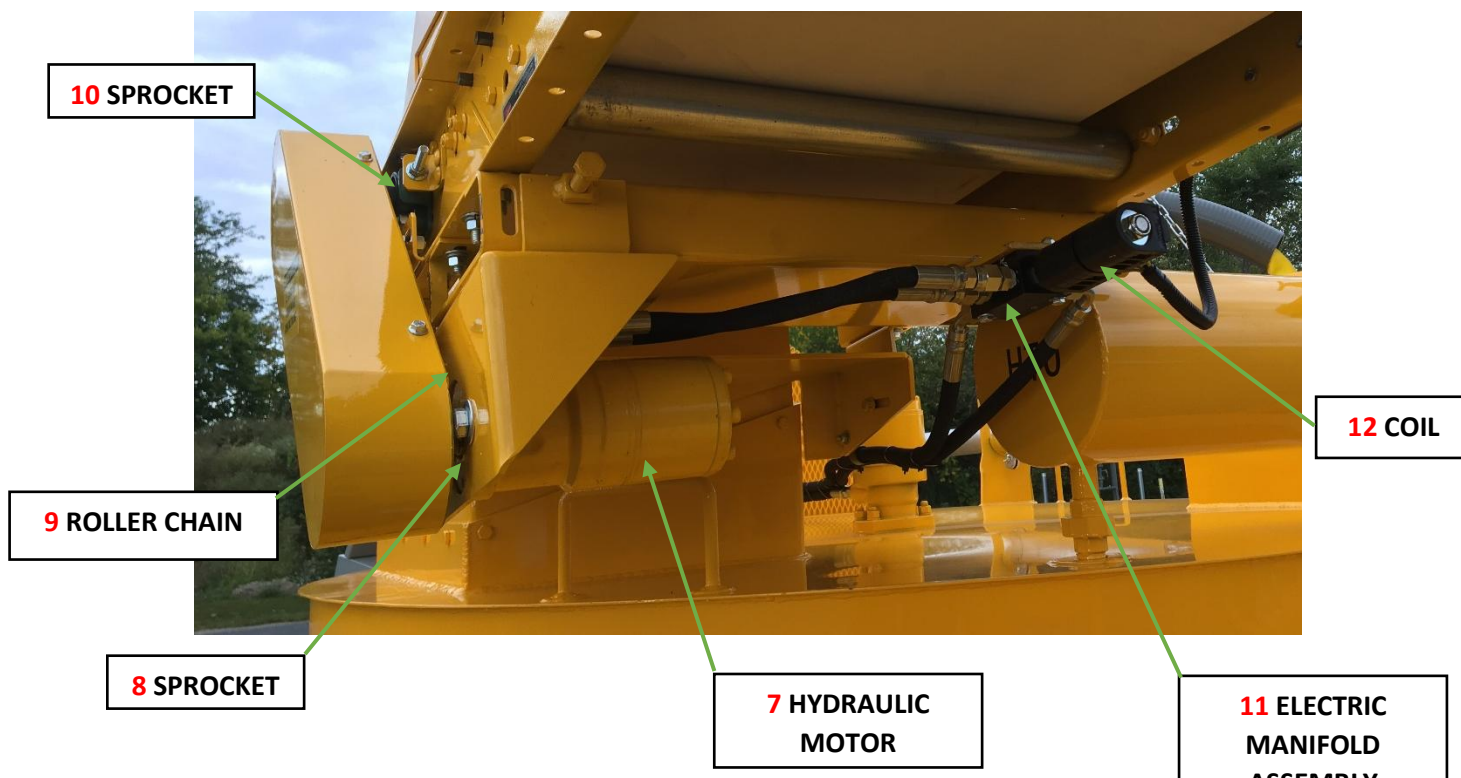
### PARTS LIST PICTURE-5

| ITEM # | PART#      | QTY. | DESCRIPTION                                     |
|--------|------------|------|---|
| 32     | P74000G016 | 1    | FUEL TANK <b>DIESEL</b>                         |
| 36     | P458A083   | 1    | AIR COMPRESSOR                                  |
|        | P488TA     | 1    | T-HANDLE LOCKING THROTTLE                       |
| 41     | P458A053   | 1    | DIESEL ENGINE – <b>602</b>                      |
|        | P458A054   | 1    | DIESEL ENGINE – <b>902</b>                      |
|        | P458A081   | 1    | DIESEL ENGINE – <b>1505</b>                     |
|        | P458B303   | 1    | ENGINE IGNITION PANEL                           |
|        | P458B354   | 1    | IGNITION SWITCH-LOFA                            |
|        | P458B311   | 2    | ENGINE KEYS                                     |
|        | P74000E170 | 1    | AIR COMPRESSOR ON/OFF VALVE                     |
| 42     | P458B153   | 4    | VIBRATION ISOLATION MOUNT <b>602</b>            |
|        | P458B151   | 4    | VIBRATION ISOLATION MOUNT <b>902</b>            |
|        | P458B150   | 4    | VIBRATION ISOLATION MOUNT <b>1505</b>           |
| 51     | P601A042   | 1    | HYDRAULIC PUMP – NON-AIR                        |
|        | P601A053   | 1    | HYDRAULIC PUMP - AIR                            |
| 70     | P1050A006  | 1    | HYDRAULIC TANK BREATHER/CAP                     |
| 71     | P464A003   | 1    | DIESEL TANK CAP                                 |
| 78     | P717A007   | 1    | 5/8" X 100' AIR HOSE                            |
| 79     | P632D000   | 1    | AIR WAND  |
| 83     | P695A005   | 1    | GENERATOR                                       |
| 84     | P660A041   | 2    | V-BELT - GENERATOR <b>NON-AIR 602 &amp; 902</b> |
|        | P660A049   | 2    | V-BELT - GENERATOR <b>AIR 1505</b>              |
|        | P458B159   | 1    | V-BELT - FAN <b>NON-AIR 602 &amp; 902</b>       |
|        | P660A047   | 1    | V-BELT - FAN <b>AIR 1505</b>                    |
| 85     | P901A056   | 1    | HOSE REEL                                       |
| 85     | P901B056   | 1    | HOSE REEL KIT CONSISTS OF BRACKETS & NUTS       |
|        | P901B042   | 2    | RETROFIT BRACKET                                |
|        | P1021A043  | 8    | 1/2 -13 RIVET NUT                               |
| 105    | P74000B169 | 1    | GENERATOR GUARD W/AIR                           |
|        | P74000C169 | 1    | GENERATOR GUARD                                 |
| 113    | P458B203   | 1    | IN LINE FUEL FILTER                             |

# CRACK PRO® HEATED HOSE MACHINE

## MACHINE PICTURES AND PARTS LIST

### CONVEYOR ASSEMBLY **OPTIONAL**





# CRACK PRO® HEATED HOSE MACHINE

## MACHINE PICTURES AND PARTS LIST

### CONVEYOR ASSEMBLY **OPTIONAL**



**5 MATERIAL  
BLOCK CONVEYOR  
OPTIONAL**

**13 HYDRAULIC  
SPEED CONTROL**



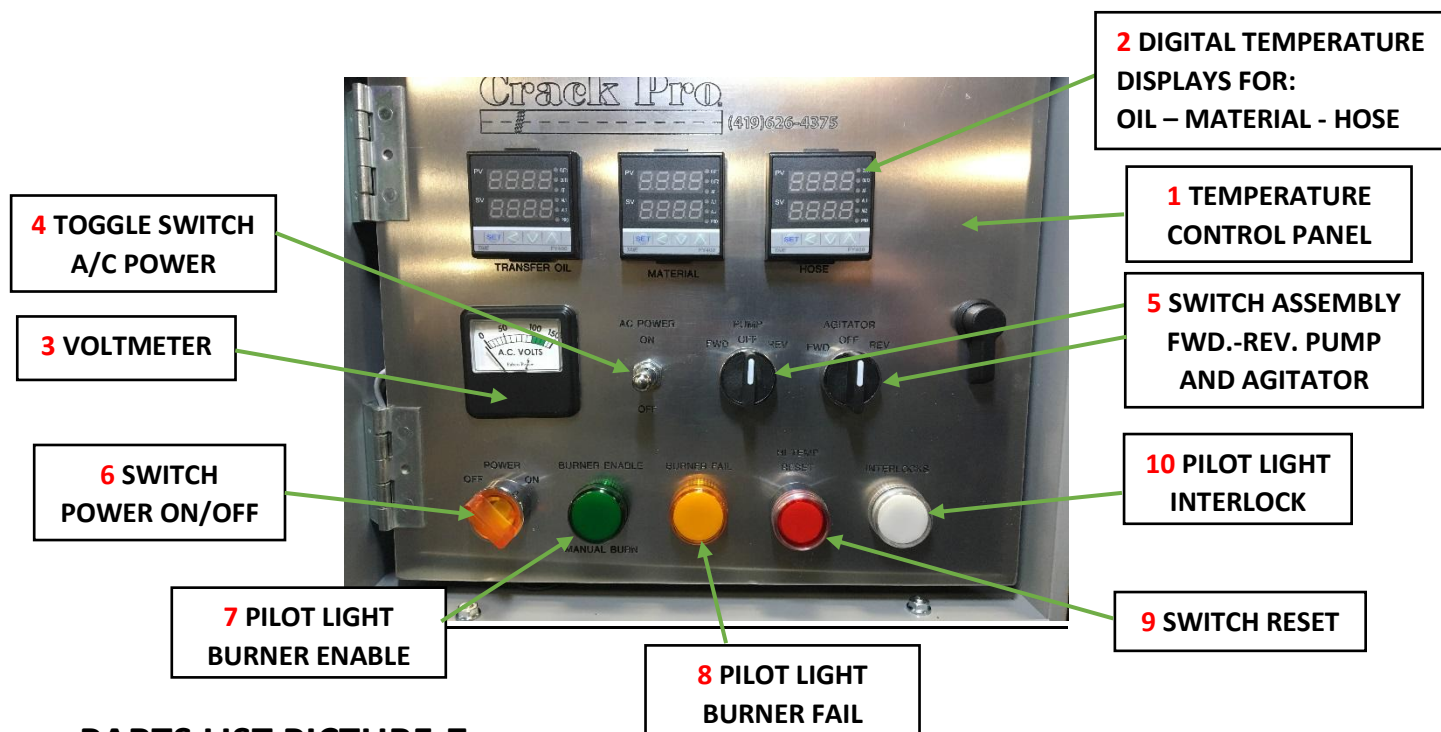
### PARTS LIST PICTURE-6

| ITEM # | PART#     | QTY. | DESCRIPTION                                     |
|--------|-----------|------|---|
|        | P552A001  | 1    | MATERIAL BLOCK CONVEYOR - <b>OPTIONAL</b>       |
|        |           |      |   |
| 1      | P443A005  | 1    | EMERGENCY STOP SWITCH                           |
| 2      | P443A006  | 2    | MOMENTARY ON SWITCH                             |
| 3      | P941A012  | 4    | ELECTRICAL BOX                                  |
| 4      | P443A007  | 1    | FORWARD / REVERSE SELECTOR                      |
| 5      | P552A001  | 1    | MATERIAL BLOCK CONVEYOR <b>ASSEMBLY</b>         |
| 6      | P552A002  | 1    | CONVEYOR BELT                                   |
| 7      | P474A088  | 1    | HYDRAULIC MOTOR                                 |
| 8      | P427A001  | 1    | SPROCKET  |
| 9      | P1039A000 | 1    | ROLLER CHAIN 44.5" LONG <b>SOLD BY THE FOOT</b> |
| 10     | P427A013  | 1    | SPROCKET  |
| 11     | P694A005  | 1    | ELECTRIC MANIFOLD ASSEMBLY                      |
| 12     | P694A006  | 1    | COIL ONLY                                       |
| 13     | P472A003  | 1    | HYDRAULIC SPEED CONTROL VALVE                   |

# CRACK PRO® HEATED HOSE MACHINE

## MACHINE PICTURES AND PARTS LIST

### PARTS LIST FOR TEMPERATURE CONTROL BOX



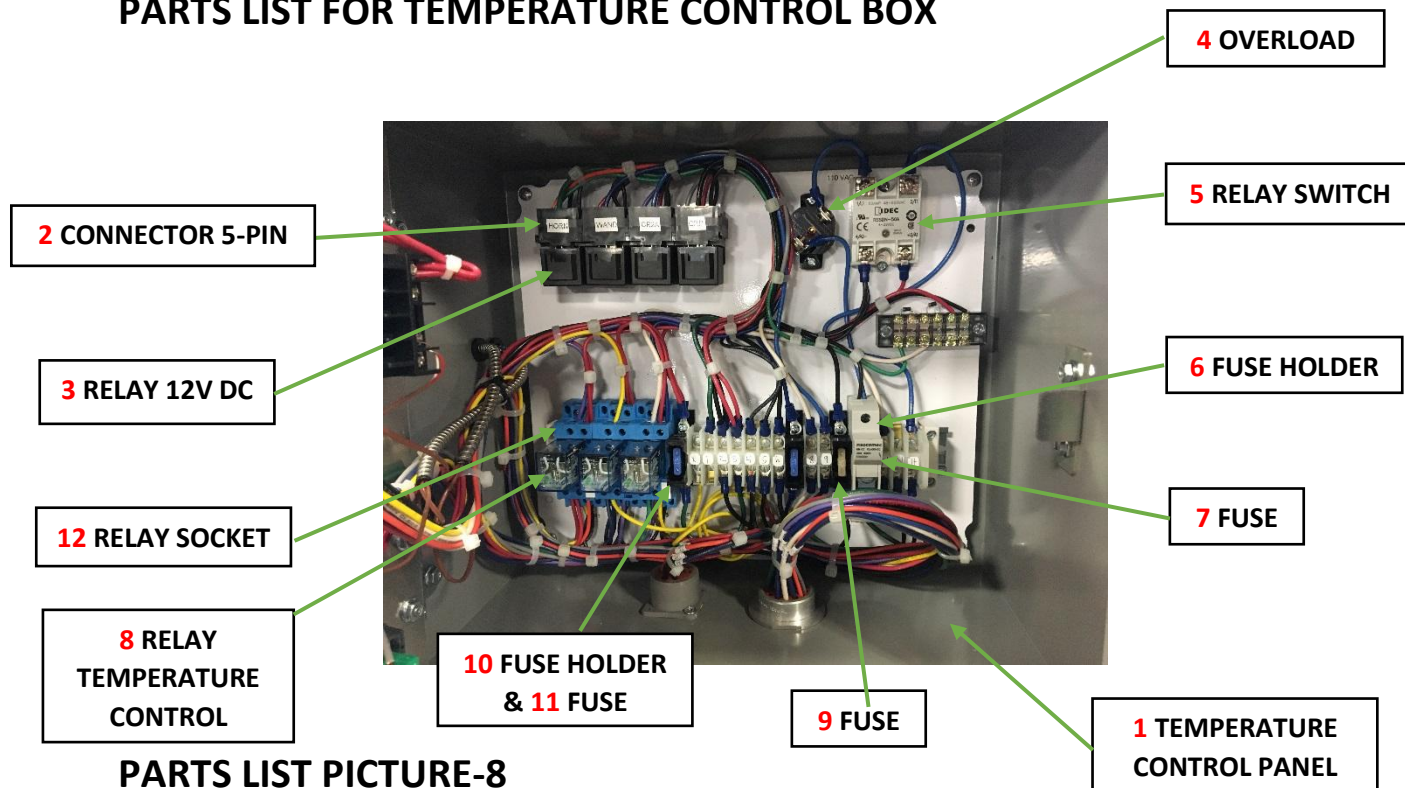
### PARTS LIST PICTURE-7

| ITEM # | PART#    | QTY. | DESCRIPTION                            |
|--------|----------|------|--|
| 1      | P735A061 | 1    | TEMPERATURE CONTROL PANEL              |
| 2      | P735O018 | 1    | DIGITAL TEMPERATURE DISPLAY - OIL      |
|        | P735M018 | 1    | DIGITAL TEMPERATURE DISPLAY - MATERIAL |
|        | P735H018 | 1    | DIGITAL TEMPERATURE DISPLAY - HOSE     |
| 3      | P440A002 | 1    | VOLTMETER 0-150                        |
| 4      | P443A011 | 1    | SWITCH – TOGGLE                        |
| 5      | P735B021 | 2    | SWITCH – ASSEMBLY                      |
|        | P735B022 | 4    | CONTACT BLOCK-GREEN                    |
| 6      | P735B013 | 1    | SWITCH – ASSEMBLY AMBER                |
|        | P735B022 | 1    | CONTACT BLOCK-GREEN                    |
| 7      | P735B012 | 1    | PILOT LIGHT- GREEN                     |
| 8      | P735B073 | 1    | PILOT LIGHT- YELLOW                    |
| 9      | P735B072 | 1    | SWITCH – RED                           |
|        | P735B023 | 1    | CONTACT BLOCK-RED                      |
| 10     | P735B025 | 1    | PILOT LIGHT – WHITE                    |

# CRACK PRO® HEATED HOSE MACHINE

## MACHINE PICTURES AND PARTS LIST

### PARTS LIST FOR TEMPERATURE CONTROL BOX



### PARTS LIST PICTURE-8

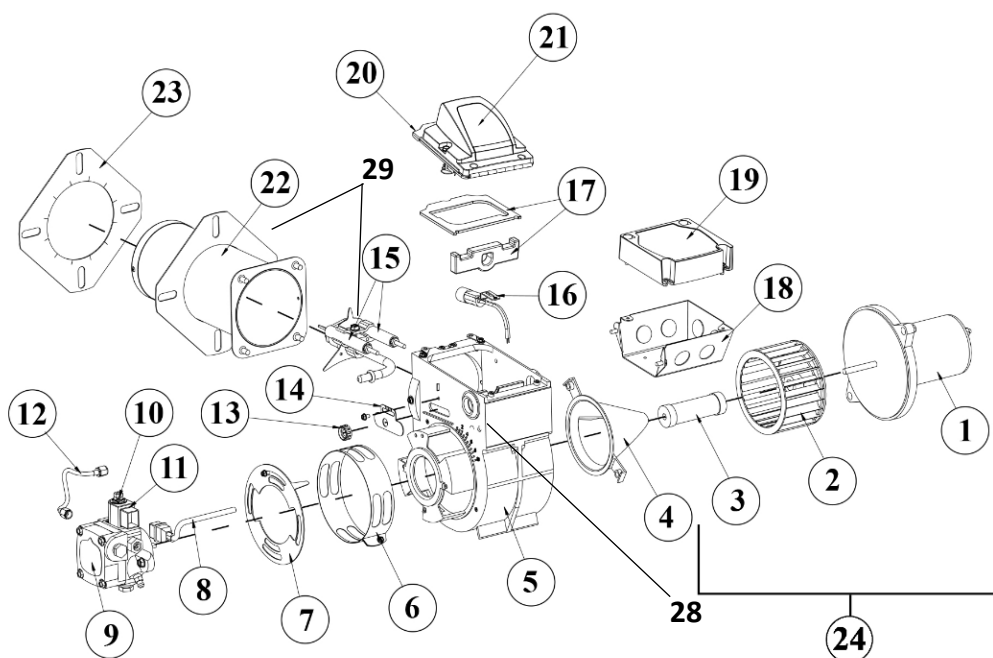
| ITEM # | PART#    | QTY. | DESCRIPTION                |
|--------|----------|------|----------------------------|
| 1      | P735A061 | 1    | TEMPERATURE CONTROL PANEL  |
| 2      | P735B075 | 4    | CONNECTOR 5-PIN            |
| 3      | P735B015 | 4    | RELAY – 12V DC 40AMP       |
| 4      | P695B002 | 1    | OVERLOAD                   |
| 5      | P735B020 | 1    | RELAY – SWITCH 50AMP       |
| 6      | P735B084 | 1    | FUSE HOLDER                |
| 7      | P595A023 | 1    | FUSE 20-AMP                |
| 8      | P735B009 | 3    | RELAY- TEMPERATURE CONTROL |
| 9      | P595A017 | 1    | FUSE 25AMP                 |
| 10     | P735B036 | 3    | FUSE HOLDER                |
| 11     | P595A012 | 2    | FUSE 15-AMP                |
| 12     | P735B010 | 3    | RELAY SOCKETS              |

# CRACK PRO® HEATED HOSE MACHINE

**APPLIES TO ALL DIESEL FUEL BURNERS**

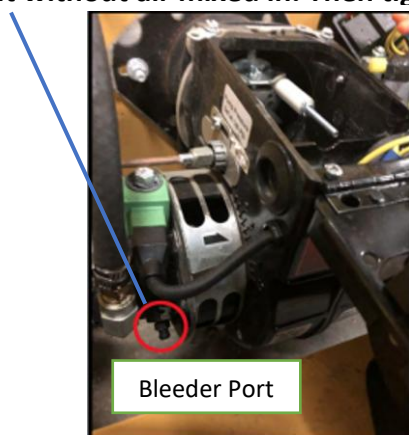
## PARTS LIST

### PICTURE – DIESEL BURNER



### NOTE FOR TROUBLESHOOTING WHEN BURNER DOES NOT LIGHT

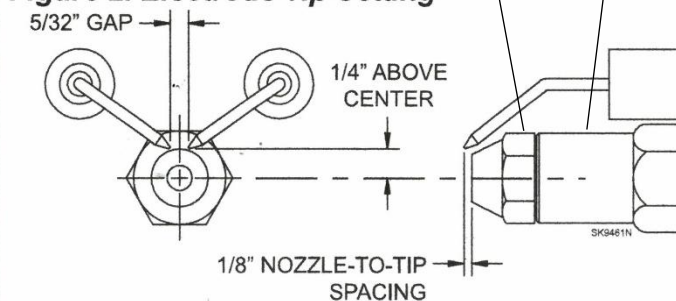
Using a 3/8" wrench, loosen the bleeder valve slightly until fuel comes out without air mixed in. Then tighten the bleeder valve.



27 USE TOOL Z-GUAGE

25 NOZZLE  
25 HEAD

**Figure 2. Electrode Tip Setting**



**CAUTION: DO NOT TOUCH NOZZLE**

# CRACK PRO® HEATED HOSE MACHINE

**APPLIES TO ALL DIESEL FUEL BURNERS**

## PARTS LIST

### PARTS LIST FOR DIESEL BURNER

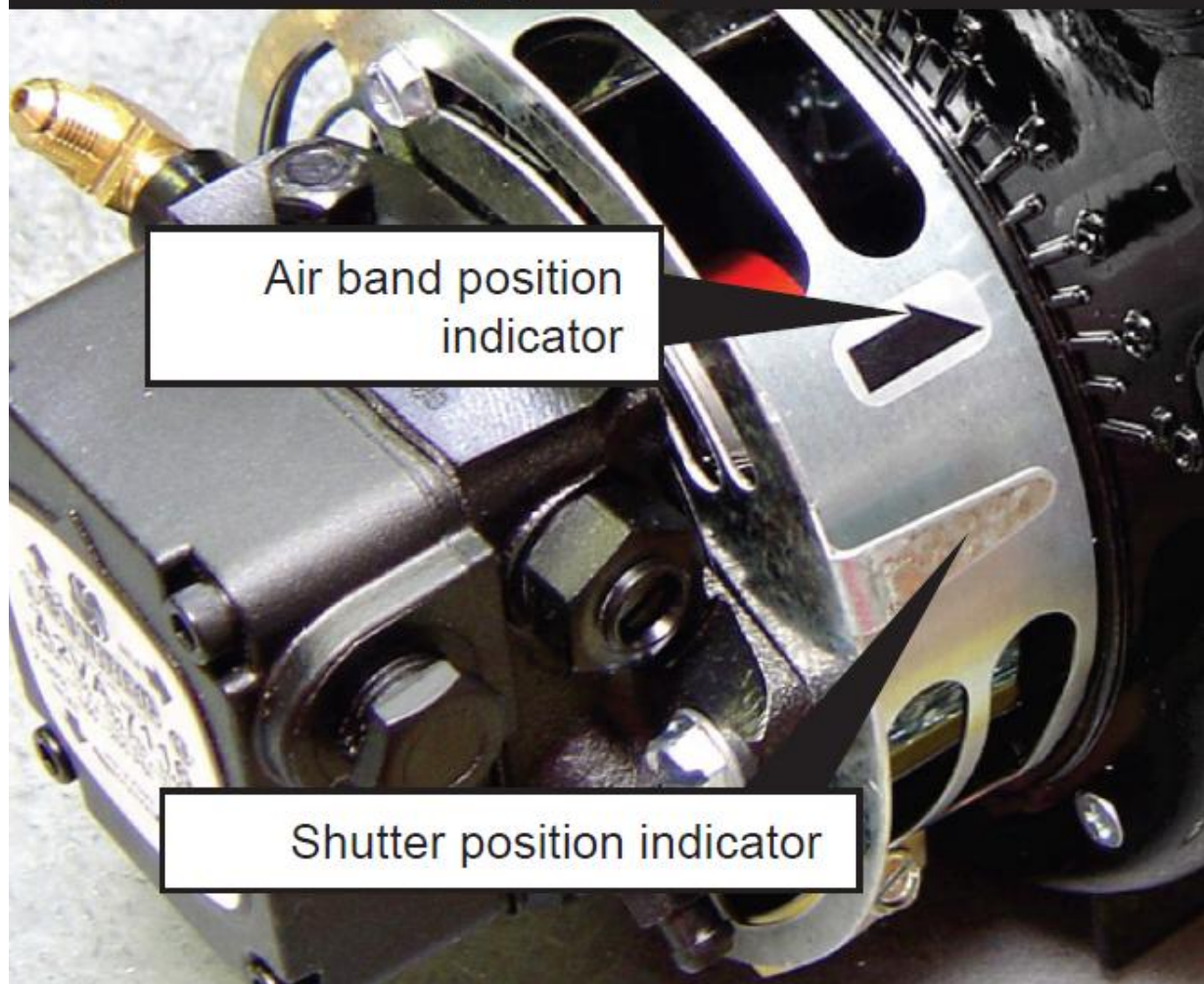
| ITEM # | PART#    | QTY. | DESCRIPTION                                |
|--------|----------|------|--|
|        | P662A009 | 1    | COMPLETE BURNER                            |
| 1      |          | 1    | SEE ITEM 24                                |
| 2      | P662A046 | 1    | BLOWER WHEEL                               |
| 3      | P662A016 | 1    | COUPLING                                   |
| 4      | P662A022 | 1    | AIR GUIDE                                  |
| 5      | P662A048 | 1    | BURNER HOUSING                             |
| 6      | P662A047 | 1    | AIR BAND                                   |
| 7      | P662A049 | 1    | AIR SHUTTER – 8 SLOTS                      |
| 8      | P662A050 | 1    | CORD SET                                   |
| 9      | P662A051 | 1    | BURNER PUMP                                |
| 10     | P662A052 | 1    | VALVE STEM                                 |
| 11     | P662A043 | 1    | 12 VOLT COIL                               |
| 12     | P662A019 | 1    | 8" COPPER TUBING                           |
| 13     | P662A053 | 1    | SPINE NUT                                  |
| 14     | P662A054 | 1    | PLATE                                      |
| 15     | P662A018 | 1    | ELECTRODE KIT / AIR TUBE COMBINATION       |
| 16     | P662A014 | 1    | CAD CELL DETECTOR                          |
| 17     | P662A056 | 1    | IGNITER GASKET KIT                         |
| 18     |          |      | N/A  |
| 19     | P662A010 | 1    | BURNER PRIMARY CONTROL                     |
| 20     | P662A015 | 1    | IGNITOR TRANSFORMER <b>ASSEMBLY</b>        |
| 21     | P662A066 | 1    | IGNITER ONLY                               |
| 22     | P662A021 | 1    | FLANGE MOUNTING GASKET – FOR AIR TUBE      |
| 23     | P662A037 | 1    | FLANGE MOUNTING GASKET                     |
| 24     | P662A044 | 1    | MOTOR KIT W/BLOWER WHEEL & COUPLING        |
| 25     | P662A017 | 1    | NOZZLE FOR BURNER – (STD) SEE BURNER CHART |
|        | P662A024 | 1    | HEAD FOR NOZZLE – (STD) SEE BURNER CHART   |
| 27     | P662A078 | 1    | Z-GAUGE                                    |
| 28     | P662A057 | 1    | PLUG – FOR BURNER HOUSING                  |
| 29     | P662A055 | 1    | AIR TUBE COMBO W/WELDED FLANGE AND GASKETS |



# CRACK PRO® HEATED HOSE MACHINE

## BURNER INFORMATION CHART

**Figure 9. – Air supply components**



## BECKETT BURNER INFORMATION CHART

| MACHINE UNIT | HEAD TYPE | GPH  | NOZZLE SIZE | NOZZLE #<br>HEAD # | AIR BAND POSITION | SHUTTER POSITION |
|--------------|-----------|------|-------------|--------------------|-------------------|------------------|
| CP125HH      | F220      | 2.25 | 90B         | P662A017 / 024     | 5                 | 7                |
| CP200HH      | F220      | 2.25 | 90B         | P662A017 / 024     | 5                 | 7                |
| CP260HH      | F220      | 2.25 | 90B         | P662A017 / 024     | 5                 | 7                |
| CP400HH      | F220      | 2.25 | 90B         | P662A017 / 024     | 5                 | 7                |
| CP260DP      | F220      | 2.25 | 90B         | P662A017 / 024     | 5                 | 7                |
| CP400DP      | F220      | 2.25 | 90B         | P662A017 / 024     | 5                 | 7                |

# CRACK PRO® HEATED HOSE MACHINE

## AIR COMPRESSOR PARTS LIST



### PARTS LIST FOR AIR COMPRESSOR

| ITEM # | PART#    | QTY. | DESCRIPTION   |
|--------|----------|------|---|
| 1      | P458A083 | 1    | AIR COMPRESSOR  |
|        |          |      |   |
|        | P458E009 |      | OIL 1 GAL. CONTAINER COMPRESSOR   |
|        | P458E011 |      | FILTER - AIR  |
|        | P458E014 |      | COVER-PLASTIC BLACK   |
|        | P458E020 |      | REBUILD KIT   |
|        | P458E029 |      | KIT "A" 2500 HOURS- <b>INCLUDES:</b> AIR FILTER, OIL RETURN VALVES, O-RINGS AND SEALS |
|        | P458E038 |      | KIT "B" 5000 HOURS - <b>INCLUDES:</b> OIL FILTER, THERMO BULB, O-RINGS AND SEALS      |
|        | P458E031 |      | KIT "C" 10000 HOURS- <b>INCLUDES:</b> SEPARATOR, OIL RETURN VALVES, O-RINGS AND SEALS |
|        | P458E032 |      | FILTER - OIL  |
|        | P458E035 |      | THERMOSTAT - 110 DEG. C   |
|        | P458E037 |      | N/O SWITCH –TEMP. NORMAL  |
|        | P458E001 |      | BANJO FITTING   |
|        | P458E002 |      | WASHER  |
|        | P458E003 |      | SCREEN  |



# CRACK PRO® HEATED HOSE MACHINE

## MACHINE PICTURES AND PARTS LIST

### ROPER 2" PUMP 3611 HFZ

#### PARTS LIST FOR ROPER 2" PUMP

| ITEM | DESCRIPTION                    | S/M PART #      | QTY.     |
|------|--------------------------------|-----------------|----------|
|      | <b>PUMP - ROPER 2"</b>         | <b>P640A067</b> | <b>1</b> |
|      |                                |                 |          |
| 1    | WASH. HD. CAP SCREW            | P904A013        | 4        |
| 2    | HEX HD. CAP SCREW              | P904A014        | 16       |
| 6    | BACK PLATE ASSEMBLY            | P905A001        | 1        |
|      | BEARING LONG BRONZE            | P904A003        | 1        |
|      | BEARING SHORT BRONZE           | P904A012        | 1        |
| 7    | GASKET, CASE - ALUMINUM        | P904A004        | 2        |
| 8    | DOWEL PIN, HOLLOW              | P904A016        | 4        |
| 9    | LOCK NUT                       | P904A017        | 2        |
| 10   | CLIP, PACKING GLAND            | P905A005        | 2        |
| 11   | PACKING GLAND                  | P904A002        | 1        |
| 12   | SQ. HEAD BOLT                  | P904A018        | 2        |
| 13   | CLIP, SPRING                   | P906A018        | 1        |
| 14   | PACKING SET – HIGH TEMPERATURE | P906A001        | 1        |
|      | PACKING SET – EXTEND LIFE      | P906A005        | 1        |
| 15   | WASHER – PACKING               | P905A008        | 1        |
| 22   | PIPE PLUG                      | P904A020        | 4        |
| 24   | HEX HD. CAP SCREW              | P905A021        | 8        |
| 25-1 | FLANGE                         | P905A020        | 1        |
| 25-2 | FLANGE                         | P74000M174      | 1        |
| 26   | FLANGE GASKET                  | P905A019        | 2        |
| 28   | CASE                           | P905A025        | 1        |
| 29   | IDLER SHAFT                    | P904A007        | 1        |
| 30   | KEY                            | P904A021        | 3        |
| 31   | DRIVE SHAFT                    | P905A011        | 1        |
| 32   | GEAR LEFT HAND                 | P905A013        | 1        |
| 33   | GEAR RIGHT HAND                | P904A009        | 1        |
| 34   | FACEPLATE ASSEMBLY             | P905A015        | 1        |
|      | BEARING LONG BRONZE            | P904A003        | 2        |

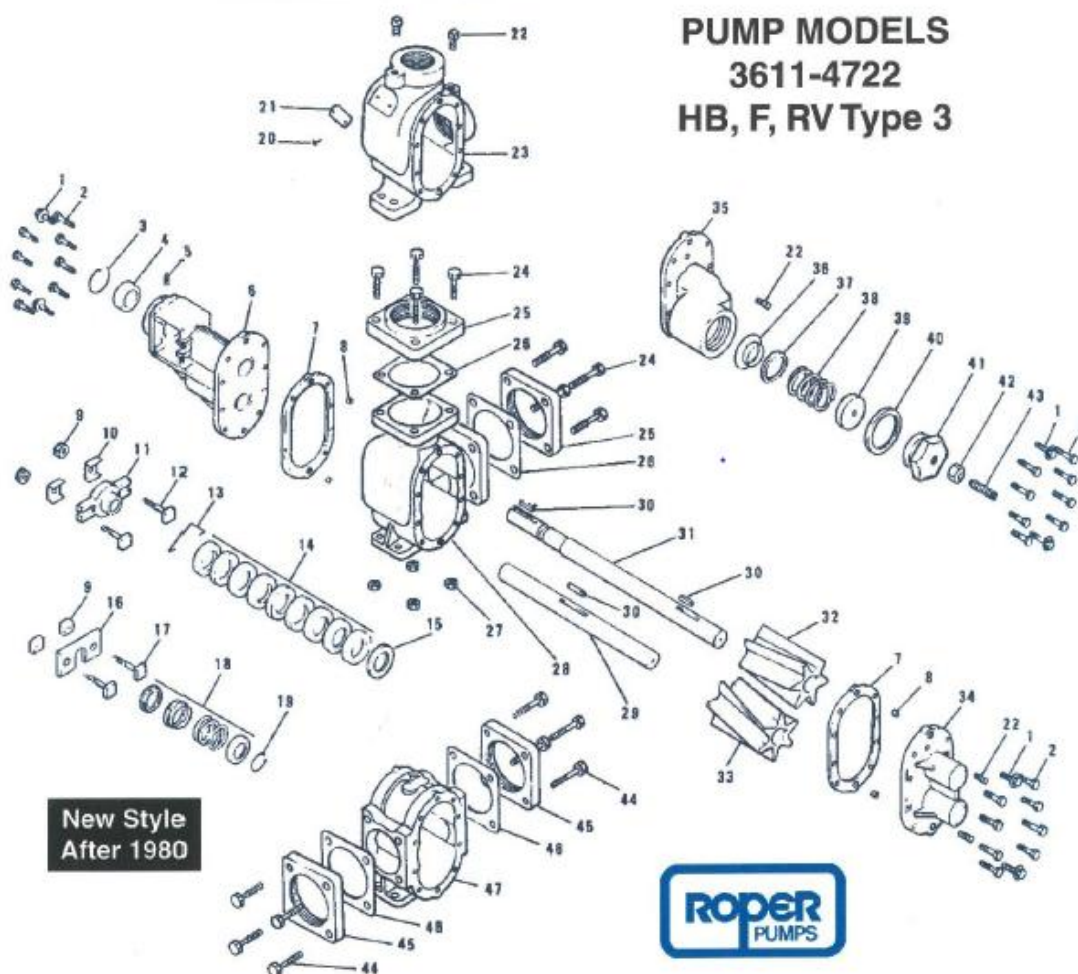
**WEARABLE PARTS –HIGHLIGHTED IN YELLOW**

# CRACK PRO® HEATED HOSE MACHINE

## MACHINE PICTURES AND PARTS LIST

### ROPER 2" PUMP 3611 HFZ

#### PUMP DIAGRAM



# CRACK PRO® HEATED HOSE MACHINE

## DIESEL ENGINE PARTS LIST

### PARTS LIST FOR 1505 DIESEL ENGINE

| ITEM # | PART#    | QTY. | DESCRIPTION                      |
|--------|----------|------|----------------------------------|
| 1      | P458A081 | 1    | KUBOTA 1505 DIESEL ENGINE        |
|        |          |      |                                  |
|        | P458B178 |      | RADIATOR                         |
|        | P458B032 |      | FILTER-OIL                       |
|        | P458B034 |      | FILTER-AIR                       |
|        | P458B264 |      | FILTER – WATER SEPARATOR ELEMENT |
|        | P458B203 |      | FILTER-FUEL IN LINE              |
|        | P458B254 |      | FUEL / WATER FILTER <b>ASSY.</b> |
|        | P458B206 |      | MUFFLER                          |
|        | P458B215 |      | ALTERNATOR                       |
|        | P458B132 |      | FUEL PUMP                        |
|        | P458B230 |      | SWITCH -TEMPERATURE              |
|        | P458B216 |      | STARTER                          |
|        | P458B343 |      | AIR FILTER COMPLETE              |
|        | P458B041 |      | SENSOR -TEMPERATURE              |
|        | P660A049 |      | BELT- GENERATOR AIR              |
|        | P458B082 |      | SWITCH - OIL PRESSURE            |
|        | P458B133 |      | SOLENOID – STOP                  |
|        | P660A047 |      | V-BELT AIR                       |
|        | P458B179 |      | FAN                              |

### USED ON MODELS:

CP-125 DA WITH AIR E2747 HH

CP-260 DA WITH AIR E2765 HH

# CRACK PRO® HEATED HOSE MACHINE

## DIESEL ENGINE PARTS LIST

### PARTS LIST FOR 902 DIESEL ENGINE

|   |          |   |                                  |
|---|----------|---|----------------------------------|
| 1 | P458A054 | 1 | KUBOTA 902 DIESEL ENGINE         |
|   |          |   |                                  |
|   | P458B244 |   | RADIATOR                         |
|   | P458B147 |   | FILTER-OIL                       |
|   | P458B148 |   | FILTER-AIR                       |
|   | P458B358 |   | FILTER-FUEL -INSIDE              |
|   | P458B240 |   | FILTER-FUEL ASSEMBLY COMP.       |
|   | P458B264 |   | FILTER – WATER SEPARATOR ELEMENT |
|   | P458B203 |   | FUEL FILTER-IN LINE              |
|   | P458B254 |   | FUEL / WATER FILTER ASSY.        |
|   | P458B168 |   | MUFFLER                          |
|   | P902A022 |   | MUFFLER- AFTER 2015              |
|   | P458B288 |   | ALTERNATOR                       |
|   | P458B351 |   | FUEL PUMP                        |
|   | P458B230 |   | SWITCH -TEMPERATURE              |
|   | P458B224 |   | STARTER SOLENOID                 |
|   | P458B356 |   | AIR FILTER COMPLETE              |
|   | P458B041 |   | SENSOR -TEMPERATURE              |
|   | P660A041 |   | BELT- GENERATOR NON-AIR          |
|   | P458B082 |   | SWITCH - OIL PRESSURE            |
|   | P458B228 |   | SOLENOID – STOP ... “NEW” 3 WIRE |
|   | P458B263 |   | SOLENOID – STOP ... “OLD” 1 WIRE |
|   | P458B159 |   | FAN V-BELT NON-AIR               |
|   | P458B245 |   | FAN                              |
|   | P458B336 |   | STARTER                          |

#### USED ON MODELS:

CP-260 D WITH-OUT AIR E2755 HH

CP-260 DP DOUBLE PUMPER E2755 DPH

CP-400 DP DOUBLE PUMPER E2770 DPH

# CRACK PRO® HEATED HOSE MACHINE

## KUBOTA DIESEL ENGINE PARTS LIST

### PARTS LIST FOR 602 DIESEL ENGINE

| ITEM # | PART#    | QTY. | DESCRIPTION                             |
|--------|----------|------|---|
| 1      | P458A053 | 1    | KUBOTA 602 DIESEL ENGINE                |
|        |          |      |   |
|        | P458B244 |      | RADIATOR                                |
|        | P458B147 |      | FILTER-OIL                              |
|        | P458B148 |      | FILTER-AIR                              |
|        | P458B358 |      | FILTER-FUEL                             |
|        | P458B264 |      | FILTER – WATER SEPARATOR ELEMENT        |
|        | P458B203 |      | FUEL FILTER -IN LINE                    |
|        | P458B254 |      | FUEL / WATER FILTER <b>ASSEMBLY</b>     |
|        | P458B232 |      | MUFFLER                                 |
|        | P902A022 |      | MUFFLER- AFTER 2015                     |
|        | P458B288 |      | ALTERNATOR                              |
|        | P458B351 |      | FUEL PUMP                               |
|        | P458B230 |      | SWITCH -TEMPERATURE                     |
|        | P458B224 |      | STARTER SOLENOID                        |
|        | P458B356 |      | AIR FILTER COMPLETE                     |
|        | P458B041 |      | SENSOR -TEMPERATURE                     |
|        | P660A041 |      | BELT- GENERATOR NON-AIR                 |
|        | P458B082 |      | SWITCH - OIL PRESSURE                   |
|        | P458B228 |      | SOLENOID – STOP ... <b>“NEW” 3 WIRE</b> |
|        | P458B263 |      | SOLENOID – STOP ... <b>“OLD” 1 WIRE</b> |
|        | P458B159 |      | FAN V-BELT NON-AIR                      |
|        | P458B245 |      | FAN                                     |
|        | P458B336 |      | STARTER                                 |

**USED ON MODEL:**

**CP-125 D WITH-OUT AIR E2745 HH**

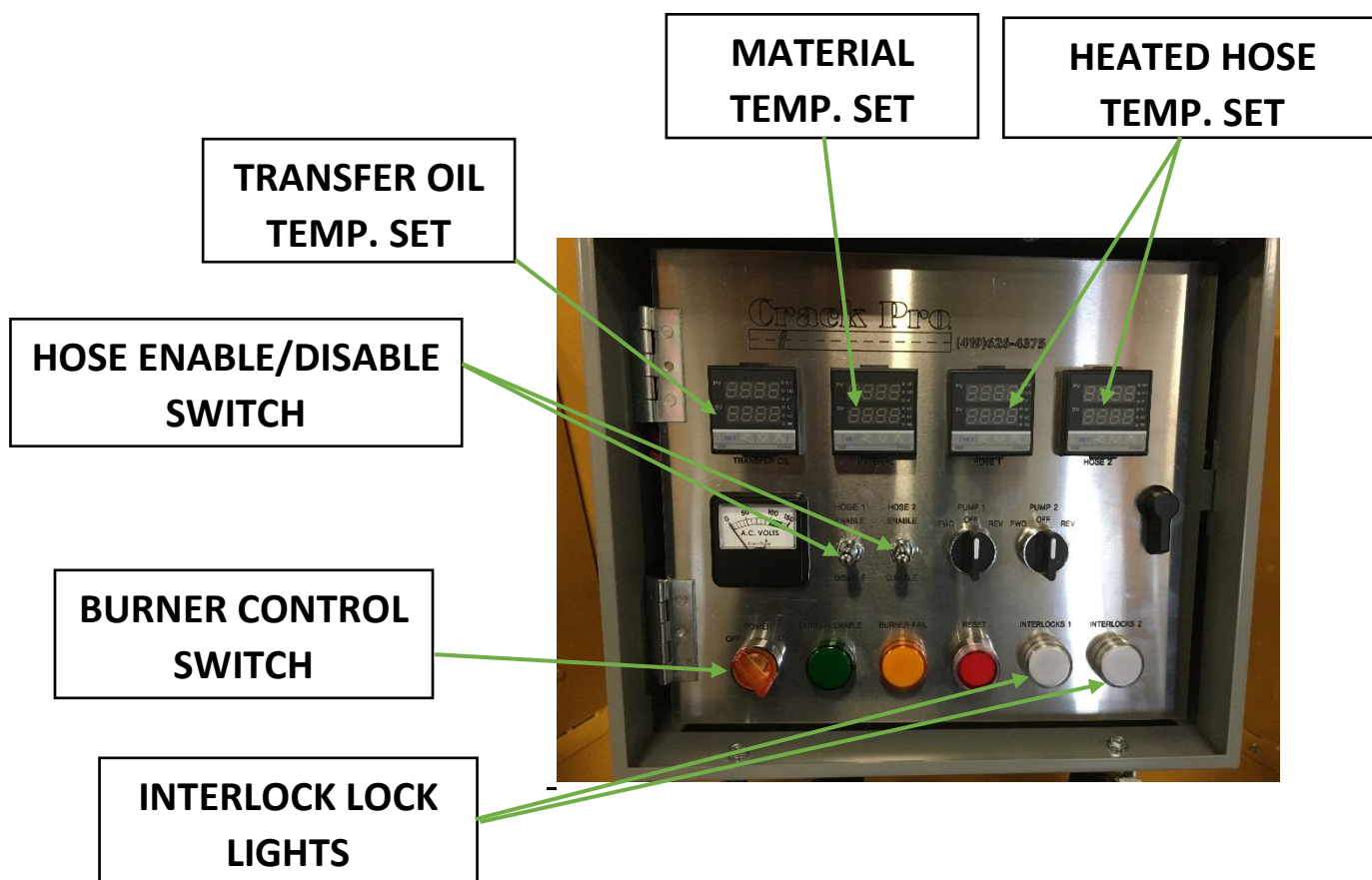
# CRACK PRO® HEATED HOSE MACHINE

## OPERATING INSTRUCTIONS – DOUBLE PUMPER

### TEMPERATURE CONTROL

After starting the engine:

1. Turn **on** the burner with power **on-off** switch located on the front of the digital temperature controller. The digital controllers monitor the heat transfer oil temperature, and the material temperature, along with the heated hoses.
2. Turn **on** the hose enable/disable switch(s). The controller will cycle the burner off and on as the temperature of the heat transfer oil increases and decreases. The heat from the transfer oil will be absorbed by the material in the tank.
3. Once interlock lights turn **on**, then turn **on** the manual agitator control valve.



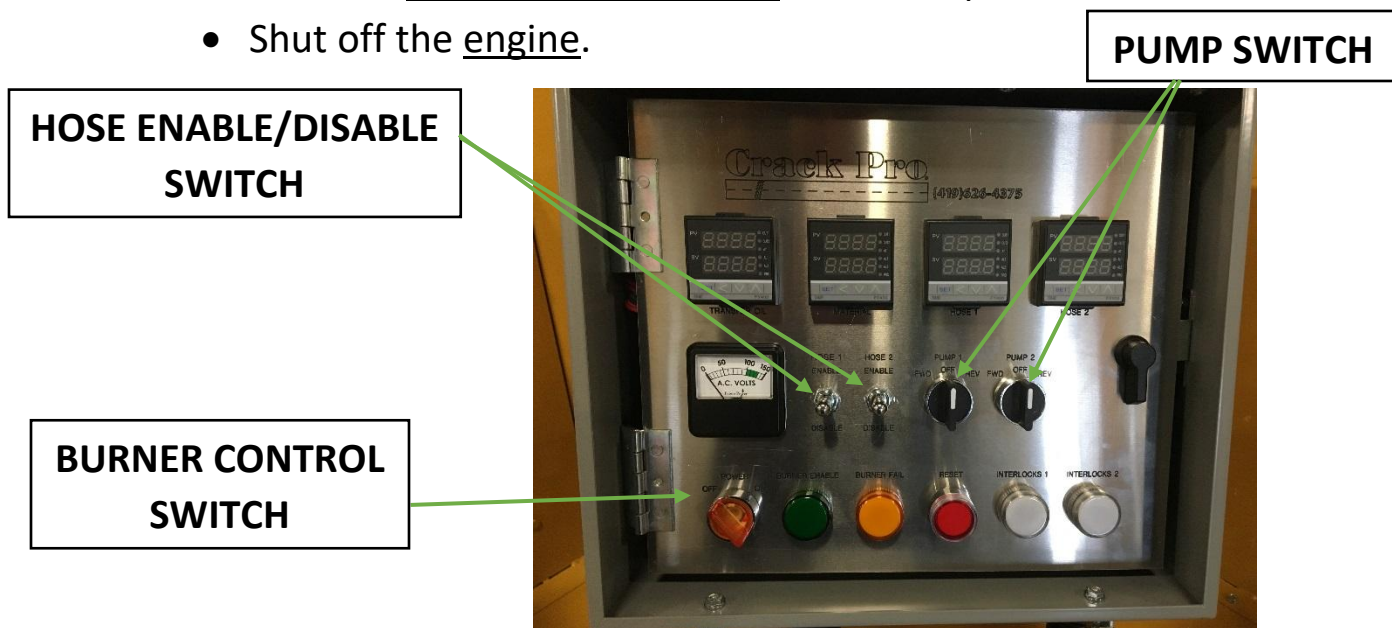
# CRACK PRO® HEATED HOSE MACHINE

## OPERATING INSTRUCTIONS – DOUBLE PUMPER

### THE TEMPERATURE CONTROL

4. To stop for the day, perform the following steps:

- Shut off the agitator control valve.
- Set the hose enable/disable switch(s) to the **disable** position.
- Turn the pump switch(s) to reverse for 30 seconds, then turn to the **off** position.
- Turn the burner control switch to the **off** position.
- Shut off the engine.

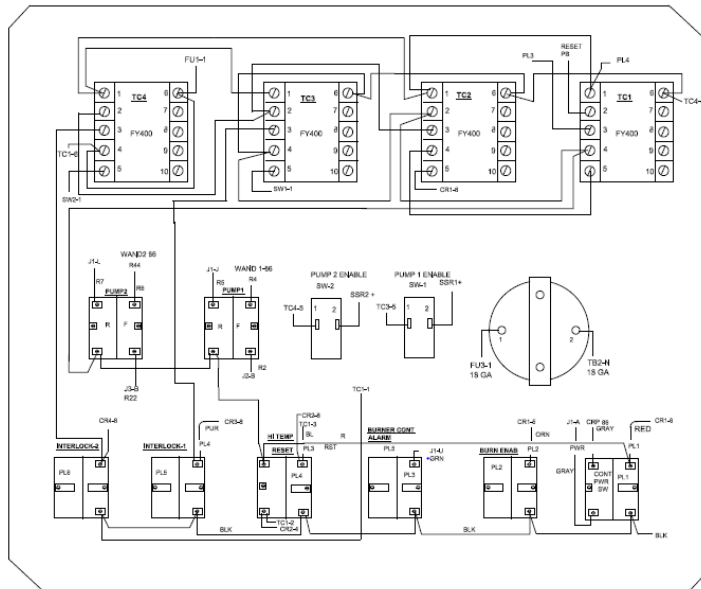


**AUTOMATIC SAFETY INTERLOCKS:** There are automatic safety interlocks that control the heated hose, material pump, and agitation systems. The agitator and pump **will not** work until the material has reached a pre-programmed temperature on the respective digital controllers. The heated hose must also be up to temperature before the pump can operate.

Once the 3 controllers reach the programmed temperature settings the white interlock light comes on, **the agitator control valve will need to be started manually.**



## WIRING DIAGRAM DOUBLE PUMPER



### TERMINALS:

U – YELLOW 14 GA. TO BURNER

P1 – RED 10 GA. TO MOTOR

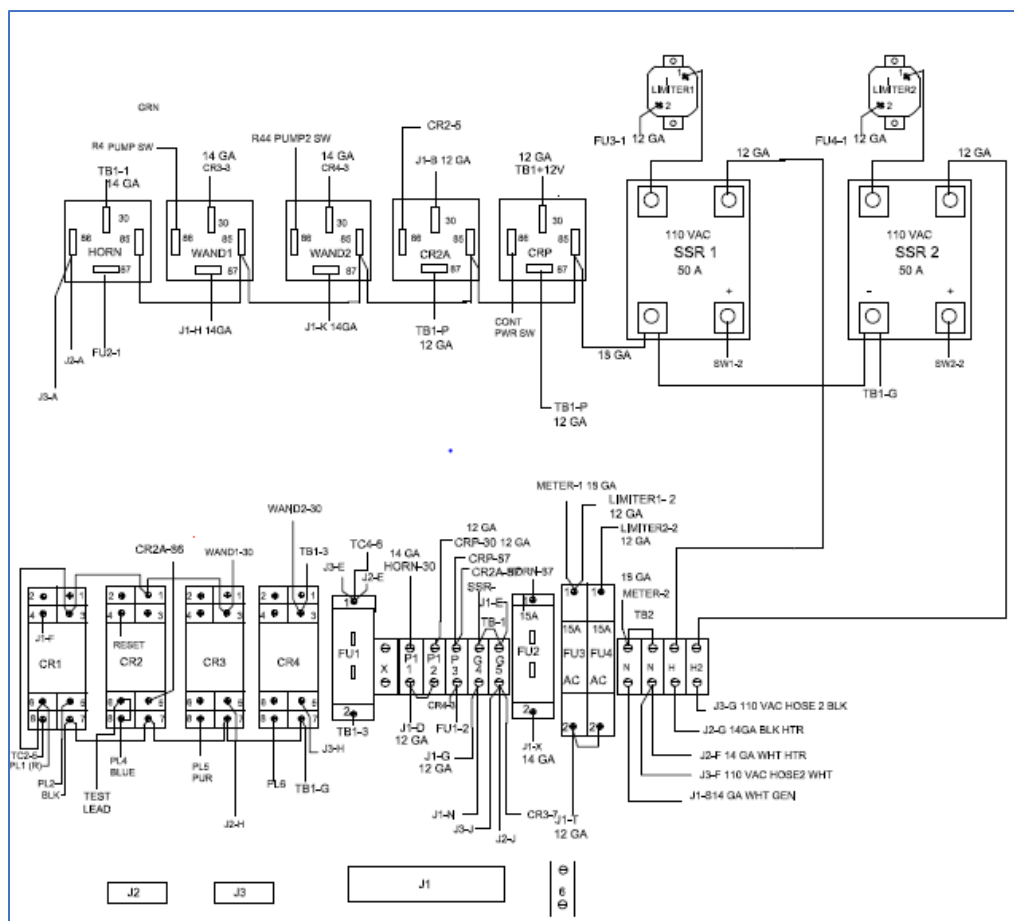
N – BLACK 10 GA. TO MOTOR

G – BLACK 12 GA. TO BURNER

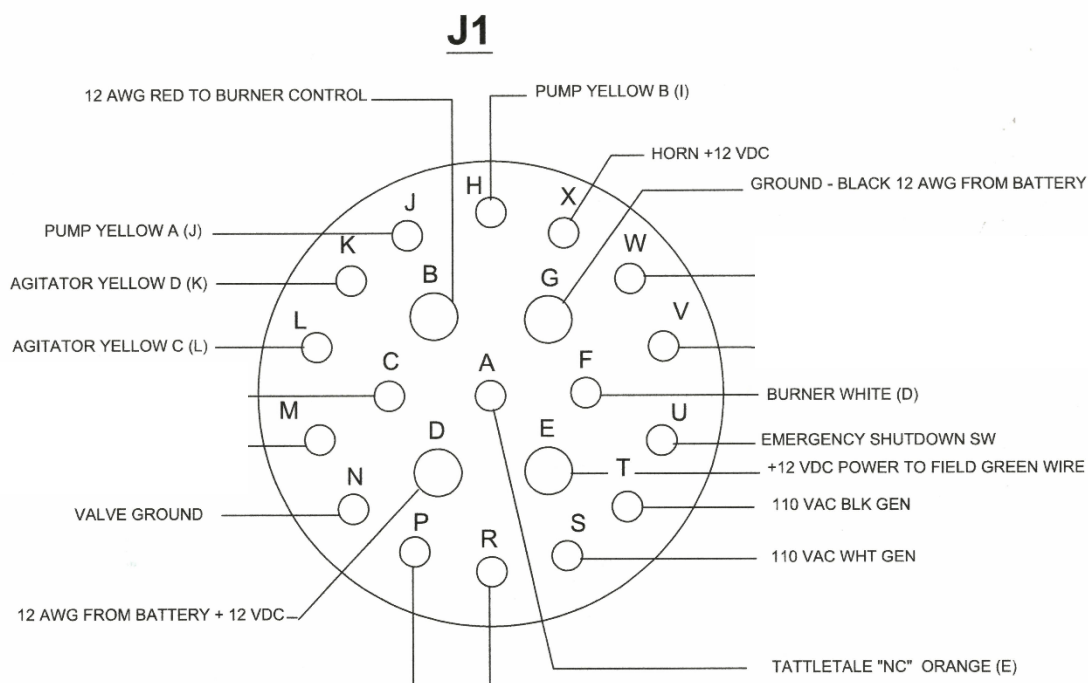
B – RED 12 GA. TO BURNER

D – WHITE 14 GA. TO BURNER

NOTE: RUN BATTERY – DIRECTLY TO BURNER

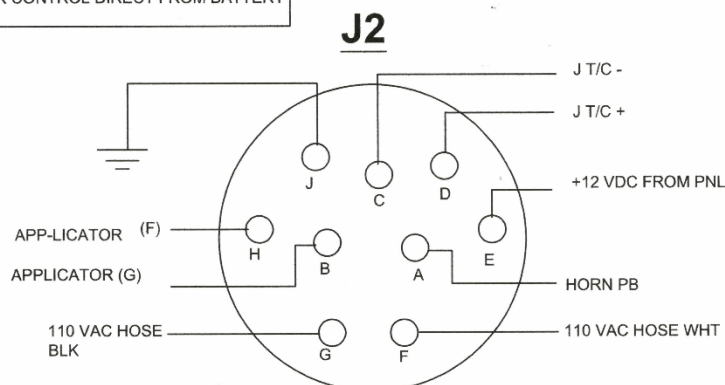


## HEATED HOSE MAIN CONNECTOR J1 AND HEATED HOSE (J2-TIMES 2) CP 260 DOUBLE PUMPER



**P/N 25-HD34-24-21PN**

BLACK WIRE #10 TO BURNER CONTROL DIRECT FROM BATTERY



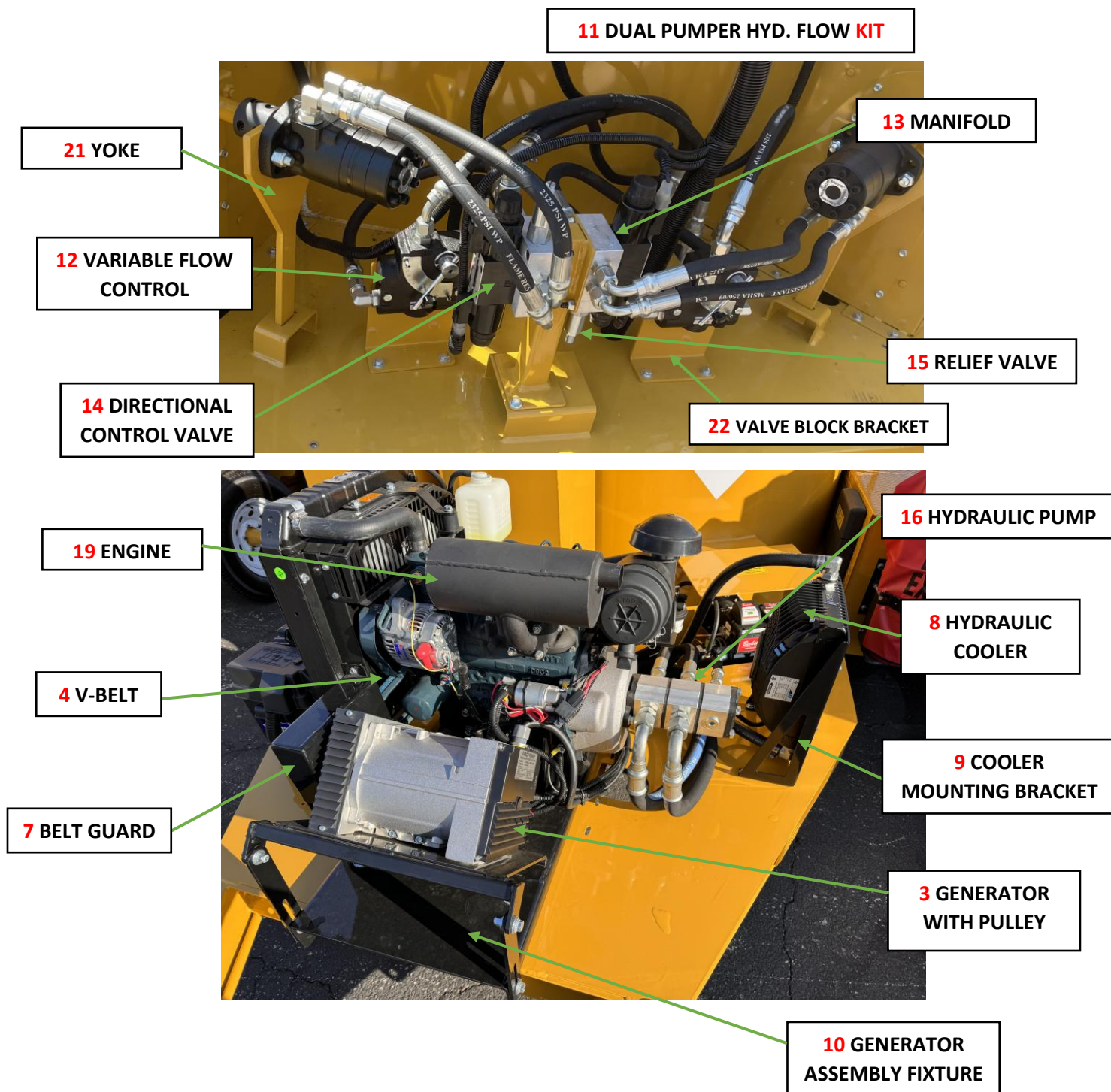
**P/N HD10-9-96P**

NOTE:  
ALL POWER MUST BE OFF BEFORE PLUGGING AND  
UNPLUGGING THE  
MAIN CONNECTOR

# CRACK PRO® HEATED HOSE MACHINE

## MACHINE PICTURES AND PARTS LIST DOUBLE PUMPER

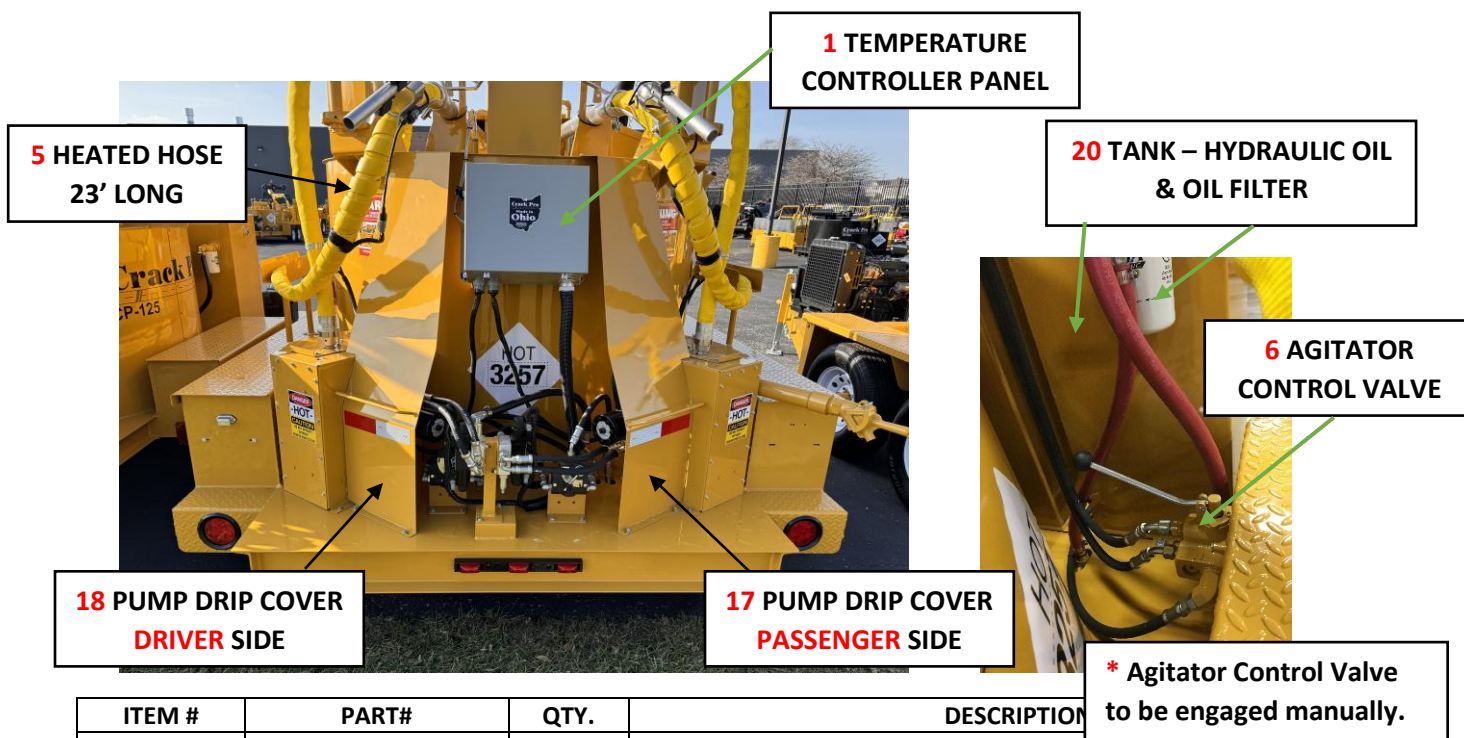
### PARTS LIST PICTURE-10



# CRACK PRO® HEATED HOSE MACHINE

## MACHINE PICTURES AND PARTS LIST DOUBLE PUMPER

### PARTS LIST PICTURE-10



| ITEM # | PART#       | QTY. | DESCRIPTION                              |
|--------|-------------|------|--|
| 1      | P735A054    | 1    | TEMPERATURE CONTROLLER PANEL             |
| 3      | P695A006    | 1    | GENERATOR WITH PULLEY - DP-260 / DP-400  |
|        | P661A060    | 1    | PULLEY - DP-260 / DP-400                 |
|        | P695B009    | 1    | 40 UF CAPACITOR                          |
| 4      | P660A052    | 2    | GENERATOR V-BELT - DP-260 / DP-400       |
| 5      | P17582B023  | 1    | HEATED HOSE 23' - DP-260 / DP-400        |
| 6      | P472A028 *  | 1    | AGITATOR CONTROL VALVE - DP-260 / DP-400 |
| 7      | P74000B351  | 1    | BELT GUARD                               |
| 8      | P716A005    | 1    | HYDRAULIC COOLER WITH BYPASS             |
| 9      | P95000A033  | 1    | COOLER MOUNT BRACKET                     |
| 10     | P74000C350  | 1    | GENERATOR ASSEMBLY FIXTURE               |
| 17     | P74000B346A | 1    | PUMP DRIP COVER PASSENGER SIDE           |
| 18     | P74000B346B | 1    | PUMP DRIP COVER DRIVER SIDE              |
| 11     | P74000K008  | 1    | DUAL PUMPER HYD. FLOW KIT                |
| 12     | P472A031    | 2    | VARIABLE FLOW CONTROL (SPEED CONTROL)    |
| 13     | P693A039    | 2    | MANIFOLD-ALUMINUM                        |
| 14     | P472A030    | 2    | DIRECTIONAL CONTROL VALVE                |
| 15     | P693A038    | 2    | RELIEF VALVE-DIRECT ACTING               |
| 16     | P601A060    | 1    | HYDRAULIC PUMP - DP-260 / DP-400         |
| 19     | P458A054    | 1    | DIESEL ENGINE – 902                      |
| 20     | P74000P005  | 1    | TANK - HYDRAULIC OIL - DP-260 / DP-400   |
|        | P908A003    | 1    | FILTER – OIL                             |
| 21     | P72000H027  | 2    | YOKE DP-260 / DP-400                     |
| 22     | P74000B477  | 2    | VALVE BLOCK BRACKET - DP-260 / DP-400    |

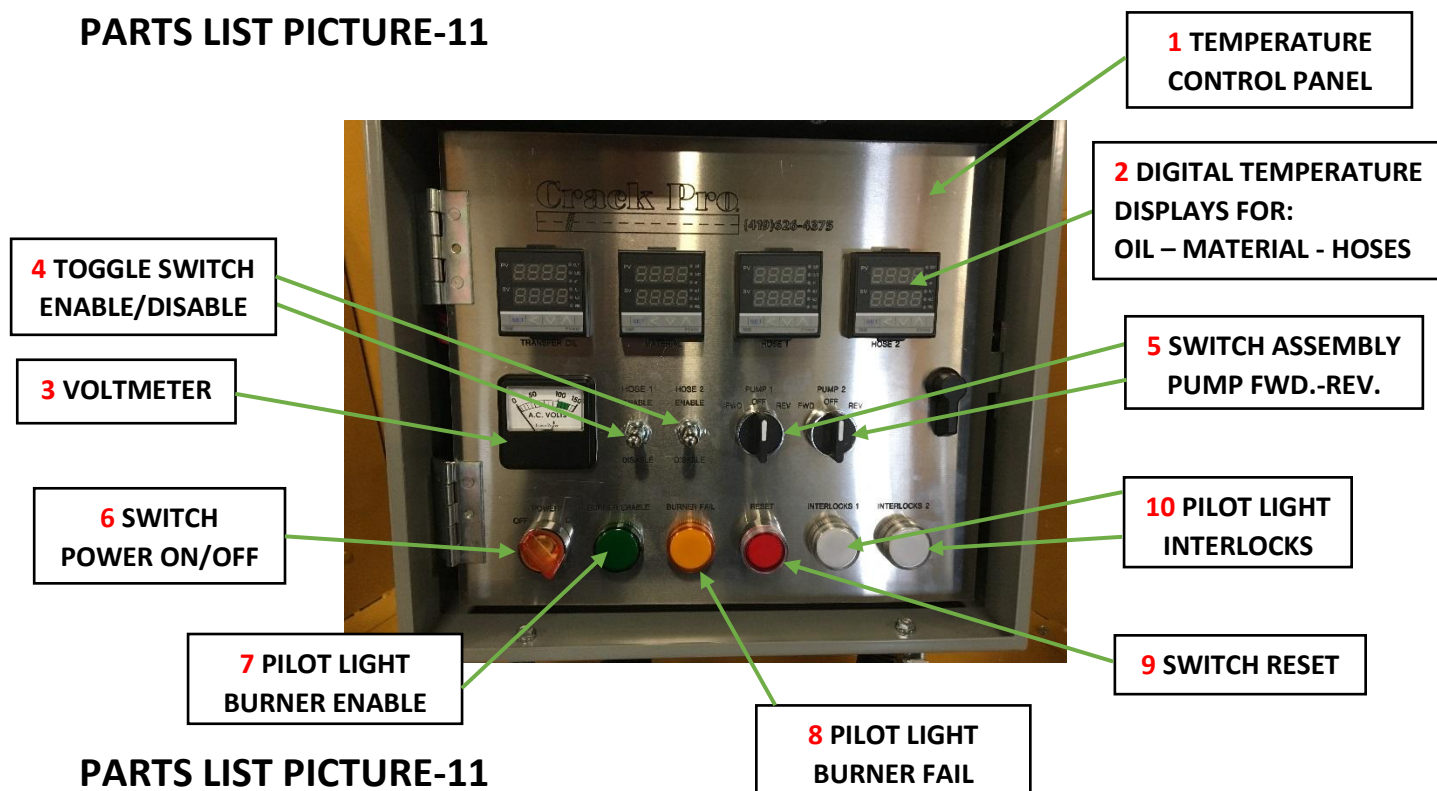


# CRACK PRO® HEATED HOSE MACHINE

## MACHINE PICTURES AND PARTS LIST

### DOUBLE PUMPER CONTROL BOX

PARTS LIST PICTURE-11



PARTS LIST PICTURE-11

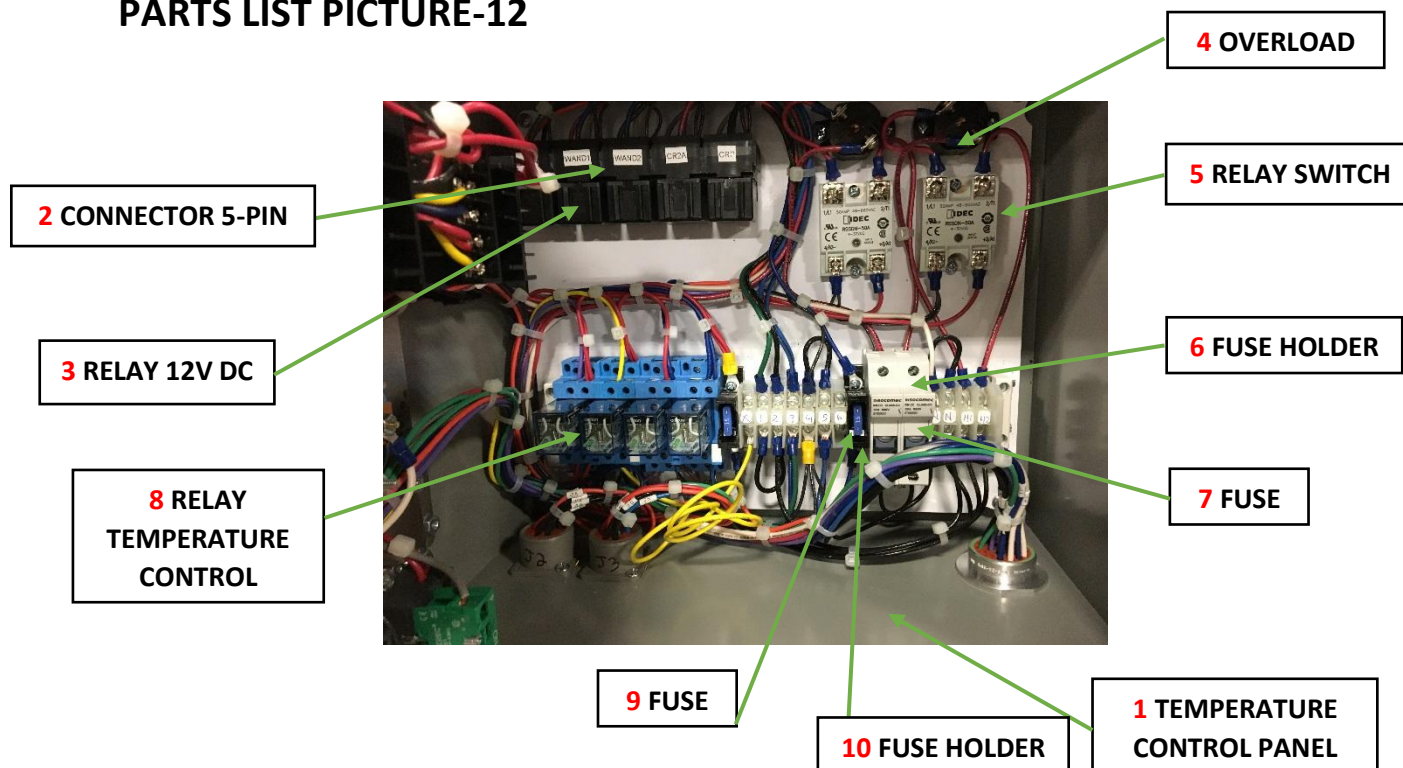
| ITEM # | PART#             | QTY. | DESCRIPTION                                   |
|--------|-------------------|------|---|
| 1      | P735A054          | 1    | TEMPERATURE CONTROL PANEL - <b>DP-260</b>     |
| 2      | P735 <b>O</b> 018 | 1    | DIGITAL TEMPERATURE DISPLAY - <b>OIL</b>      |
|        | P735 <b>M</b> 018 | 1    | DIGITAL TEMPERATURE DISPLAY - <b>MATERIAL</b> |
|        | P735 <b>H</b> 018 | 2    | DIGITAL TEMPERATURE DISPLAY - <b>HOSES</b>    |
| 3      | P440A002          | 1    | VOLTMETER 0-150                               |
| 4      | P443A011          | 2    | SWITCH – TOGGLE                               |
| 5      | P735B021          | 2    | SWITCH – ASSEMBLY                             |
| 6      | P735B013          | 1    | SWITCH – ASSEMBLY AMBER                       |
| 7      | P735B012          | 1    | PILOT LIGHT- GREEN                            |
| 8      | P735B073          | 1    | PILOT LIGHT- YELLOW                           |
| 9      | P735B072          | 1    | SWITCH – RED                                  |
| 10     | P735B025          | 2    | PILOT LIGHT – WHITE                           |

# CRACK PRO® HEATED HOSE MACHINE

## MACHINE PICTURES AND PARTS LIST

### DOUBLE PUMPER CONTROL BOX

PARTS LIST PICTURE-12



PARTS LIST PICTURE-12

| ITEM # | PART#    | QTY. | DESCRIPTION                               |
|--------|----------|------|---|
| 1      | P735A054 | 1    | TEMPERATURE CONTROL PANEL - <b>DP-260</b> |
| 2      | P735B075 | 5    | CONNECTOR 5-PIN                           |
| 3      | P735B015 | 5    | RELAY – 12V DC 40AMP                      |
| 4      | P695B002 | 2    | OVERLOAD                                  |
| 5      | P735B020 | 2    | RELAY – SWITCH 50AMP                      |
| 6      | P735B084 | 2    | FUSE HOLDER                               |
| 7      | P595A023 | 2    | FUSE 20AMP                                |
| 8      | P735B009 | 4    | RELAY- TEMPERATURE CONTROL                |
| 9      | P595A012 | 2    | FUSE 15AMP                                |
| 10     | P735B036 | 2    | FUSE HOLDER                               |

## CRACK PRO® HEATED HOSE MACHINE

### RECOMMENDED SPARE PARTS LIST

#### LIST FOR: DIESEL ENGINE

| PART#    | QTY. | DESCRIPTION                             |
|----------|------|---|
| P458B147 | 1    | <b>FILTER</b> -OIL - 602/902            |
| P458B032 | 1    | <b>FILTER</b> -OIL - 1505               |
| P458B148 | 1    | <b>FILTER</b> -AIR - 602/902            |
| P458B034 | 1    | <b>FILTER</b> -AIR - 1505               |
| P458B264 | 1    | <b>FILTER</b> – WATER SEPARATOR ELEMENT |
| P458B203 | 1    | FUEL <b>FILTER</b> -IN LINE             |
| P458B254 | 1    | FUEL / WATER <b>FILTER ASSEMBLY</b>     |

#### LIST FOR: CRACK PRO HEATED HOSE

| PART#             | QTY. | DESCRIPTION                                   |
|-------------------|------|---|
| P74000K001        |      | SPARE PARTS <b>KIT - 125</b>                  |
| P662A017          | 1    | BURNER NOZZLE                                 |
| P735B015          | 1    | 40 AMP RELAY                                  |
| P662A016          | 1    | BURNER COUPLER                                |
| P662A010          | 1    | BURNER PRIMARY CONTROL                        |
| P443A009          | 2    | PUMP/HORN SWITCH                              |
| P458B203          | 1    | FUEL <b>FILTER</b> -IN LINE                   |
| P595A012          | 2    | 15 AMP ATC FUSE (FLAT)                        |
| P595A017          | 2    | 25 AMP ATC FUSE (FLAT)                        |
| P595A023          | 1    | 20 AMP TIME DELAY FUSE                        |
| P735B009          | 1    | RELAY- TEMPERATURE CONTROL                    |
| P735 <b>M</b> 018 | 1    | DIGITAL TEMPERATURE DISPLAY - <b>MATERIAL</b> |
| P693A022          | 1    | PRESSURE COMPENSATOR                          |
| P662A014          | 1    | CAD CELL DETECTOR                             |
| P679A008          | 1    | 18" THERMOCOUPLE - <b>125</b>                 |
| P603A006          | 1    | AMMO CAN <b>KIT</b>                           |
| P679A017          | 1    | 23" THERMOCOUPLE - <b>260</b>                 |
| P163A012          | 1    | APPLICATION WAND SHOE                         |
| P17582B019        | 1    | HEATED HOSE 19'                               |
| P17582B023        | 1    | HEATED HOSE 23'                               |
| P458E011          | 1    | FILTER - AIR                                  |
| P514A017          | 1    | TIRE & WHEEL ASSEMBLY                         |
| P442A010          | 1    | LIMIT SWITCH – LID                            |
| P448A003          | 1    | HORN  |
| P163A010          | 1    | AIR WAND TIP                                  |
| P735 <b>O</b> 018 | 1    | DIGITAL TEMPERATURE DISPLAY - <b>OIL</b>      |
| P735 <b>H</b> 018 | 1    | DIGITAL TEMPERATURE DISPLAY - <b>HOSE</b>     |
| P906A001          | 1    | HIGH TEMPERATURE PACKING                      |



## MAINTENANCE AND STORAGE

### MAINTENANCE

During the lubrication stop, inspect all operating parts. Should any damage or excessive wear be evident, replace parts immediately. Straighten any parts as soon as possible. Clean and re-paint all exposed parts using touch-up kit P3020B034 **yellow** paint or touch-up kit P3020B033 **black** paint.

### STORAGE

Perform all required maintenance and lubrication procedures.

Coat all shafts with grease. Clean and re-paint all exposed parts using touch-up kit P3020B034 **yellow** paint or touch-up kit P3020B033 **black** paint.

### Each touch-up kit includes:

1-pint paint can --- 1 pair of gloves --- 1 touch-up paintbrush

## MAINTENANCE AND STORAGE

### MAINTENANCE

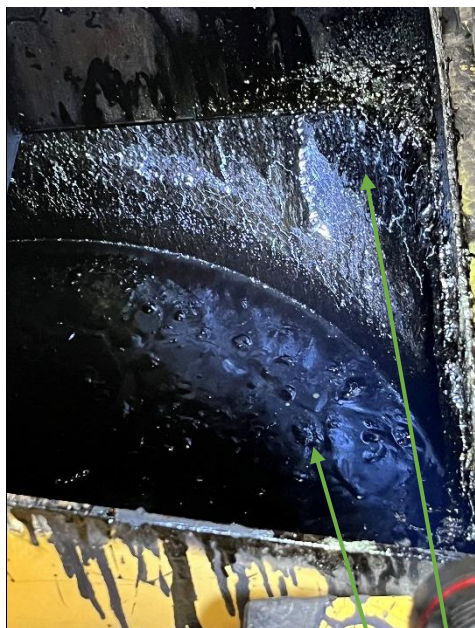
#### CRACK FILLING EQUIPMENT

### Material Tank Buildup

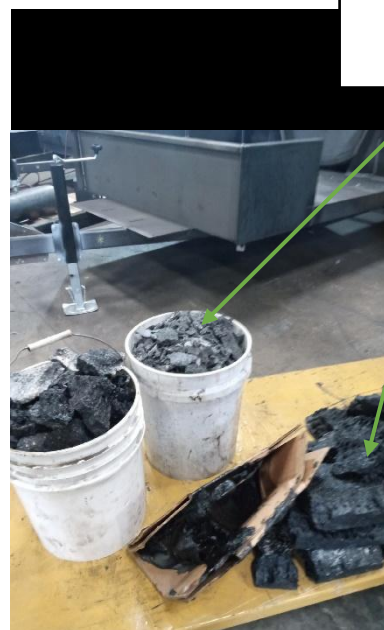
Occasionally crack filling equipment will build up with burnt material around the walls and ceiling of the material tank. The buildup will be brittle and look shiny black.

If too much buildup occurs chunks can flake off and **clog your pump or hose** causing **downtime** and unnecessary **expenses**. This layer of burnt material also insulates the walls **slowing** the **heat-up time** on the material and **decreasing your production**.

The inside of all hot pour Crack filling tanks should be **inspected** while performing **yearly service**. If you have more than  $\frac{1}{4}$ " to  $\frac{1}{2}$ " build-up of material on the walls or ceiling it should be chipped out with an air chisel. The best time for cleaning is the **coolest** time of year.



FLAKES IN MATERIAL  
FROM BUILDUP



CHIPPED OUT  
MATERIAL FROM  
BUILDUP