

Crack Pro Mastic Machine

250 & 300

OWNERS MANUAL



SealMaster®

Pavement Products & Equipment

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

sealmaster.net

CRACK PRO® MASTIC MACHINE

Owner's Manual

Version 3.7

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Version	Date	Changes	Approval
1.0	8/20	Original Issue	DS
2.0	10/20	Control Box & Tool Box	JG
2.1	12/20	Oil Filter & Head with Gauge	JG
2.2	3/21	Beckett Info. & Tires	JG
2.3	12/21	Temperature Control Box	JG
2.4	1/22	Change Engine Oil – Note	JG
2.5	4/22	Added Paint Page	JG
2.6	5/22	Breakaway Kit Change	JG
2.7	6/22	Added P50137B018	JG
2.8	7/22	Bleed Burner Fuel Pump	DS
2.9	7/22	See Burner Chart	JG
3.0	9/22	Added Set Engine Speed	JG
3.1	4/23	Burner Box Items & Grease Note	JG
3.2	4/23	Control Box Items	JG
3.3	7/23	Material Tank Buildup Note	JG
3.4	10/23	Picture / List Sequence	JG
3.5	1/24	Added P693A040	JG
3.6	5/24	Item 48 Change P601A061	JG
3.7	3/25	Added P92000C226 & T1614	JG

Table of Contents

CORRESPONDENCE	5
SealMaster28® LIMITED WARRANTY	6
SAFETY PRECAUTIONS AND CAUTIONS	7
PRECAUTIONS	7
CAUTIONS	7
FIRST AID	8
CHECK IT OUT.....	9
KNOW YOUR MACHINE.....	9
FIRE PREVENTION	9
DRESS FOR SAFETY	10
LEARN TO BE SAFE	10
WALK AROUND INSPECTION.....	11
TRAFFIC CONTROL.....	11
PRE-OPERATION INSTRUCTIONS.....	12
CHECKLIST	12
CAUTIONS	13
CLOTHING	13
THINGS TO KNOW	14
FLUID SPECIFICATIONS.....	15
MACHINE MAINTENANCE	17
TROUBLE SHOOTING GUIDE	17
MAINTENANCE SCHEDULE.....	20
OPERATING INSTRUCTIONS - DIESEL FUEL BURNER.....	29
CHECKLIST	29
STARTING THE ENGINE	30
THE TEMPERATURE CONTROL	31
ADDING MATERIAL	32
MATERIAL TEMPERATURE	32
AUTOMATIC SAFETY INTERLOCKS.....	33
APPLICATION OF MATERIAL.....	34
TOOL HEATER BOX.....	34
SETTING TEMPERATURE CONTROL.....	35
POURING MATERIAL	36

WIRING DIAGRAMS.....	37
TEMPERATURE CONTROL BOX.....	37
MASTIC MACHINE CONNECTOR J1	39
ELECTRIC BRAKES AND RUNNING LIGHTS.....	40
TANK CAPACITY CHART	42
MATERIAL DEPTH AND GALLON VOLUME	42
MACHINE PICTURES AND PARTS LIST	43
PICTURE-1	43
PICTURE-2	45
PICTURE-3	48
PICTURE-4	50
PICTURE-5	52
PICTURE-6	54
PARTS LIST FOR TEMPERATURE CONTROL BOX.....	56
PICTURE-7	56
PICTURE-8	57
PARTS LIST FOR DIESEL BURNER	59
BURNER INFORMATION CHART	60
PARTS LIST FOR 602 DIESEL ENGINE	61
RECOMMENDED SPARE PARTS LIST.....	62
LIST FOR: DIESEL ENGINE	62
LIST FOR: CRACK PRO MASTIC MACHINE.....	62
GROSS WEIGHT LIST:.....	62
MAINTENANCE AND STORAGE	63
MAINTENANCE.....	63
STORAGE	63
CRACK FILLING EQUIPMENT	64

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



SealMaster28® 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 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 of 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.

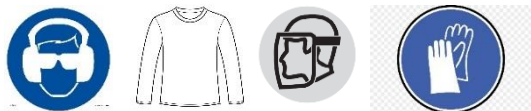
In an effort to continue to improve product quality, SealMaster reserves the right to change specifications without notice.

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

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 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

SAFETY PRECAUTIONS AND CAUTIONS

CHECK IT OUT

Know what protective devices your machine is equipped with and see that each item is securely in place and operating condition.

For example:

1. Warning Decals
2. Guards
3. Material hose connections and protective sleeve
4. Grounding wires

KNOW YOUR MACHINE

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 wipe up any spills immediately.
3. Batteries produce explosive gases, keep open flame or sparks away.
4. Remove all trash or debris from the machine, make sure that oily rags or 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, 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 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 OPERATORS MANUAL** and other pertinent information furnished with the equipment. Learn your machines 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.

REMEMBER:

ONLY YOU CAN PREVENT INJURY TO YOURSELF AND OTHERS!

SAFETY IS YOUR RESPONSIBILITY!

CRACK PRO® MASTIC MACHINE

PRE-OPERATION INSTRUCTIONS

CHECKLIST

THE ENTIRE UNIT SHOULD BE CHECKED

Even though your machine is ready for operation when you receive it, certain items should be checked before putting it to use.

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

The most important items to check are listed below:

- Check nuts, set screws, and bolts to assure that no loosening occurred during shipment.
- Check to be sure the HTO vent pipe is clear and open for venting. Located on the HTO expansion tank.
- Check wheel lug nuts, torque 100FT/LBS. after the first 100 miles of travel.
- Never operate machines unattended.
- Never exceed the heat transfer oil limit of 500°F when operating.
- Close tank lid before transporting.

CRACK PRO® MASTIC MACHINE

PRE-OPERATION INSTRUCTIONS

CAUTIONS

Caution should be used when loading blocks to prevent possible splashes of hot material. Set a 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 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® MASTIC MACHINE

PRE-OPERATION INSTRUCTIONS

THINGS TO KNOW

Everyone who uses or works on this machine should receive this information.

- Never apply these products when wet.
- The digital temperature control box houses 12 volts dc.

Important information for all Crack-Pro Mastic machine owners



Engine speed is set at 2500 RPM

These are instructions on how to set the Mastic Machine engine speed to 2,500 RPM. The picture shows the actual distance between the throttle arm and the black metal linkage mount. If your engine is not set the same as the photo, please loosen the linkage jam nuts with two - 7/16" wrenches and set the distance to match the photo. The actual distance should be **4 - 7/8"** from the black metal mount to the outside tip of the aluminum-colored turnbuckle.

If you have any questions please call, nearest SealMaster™ location.

CRACK PRO® MASTIC 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.
- The 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® MASTIC MACHINE

OPERATING INSTRUCTIONS

FLUID SPECIFICATIONS

Heat Transfer Oil:

Heat transfer oil is specially formulated to withstand high temperatures 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 dipstick, there is a mark on the dipstick 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 dipstick.

Heat Transfer Oil Gallons per Tank:

Tank Size	Gallons
250	30
300	37

DO NOT OVERFILL, FILL 4" FROM TOP. 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 >392°F

Auto-ignition temp. >500°F

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

CRACK PRO® MASTIC MACHINE

MACHINE MAINTENANCE

TROUBLE SHOOTING GUIDE

PROBLEM	POSSIBLE CAUSES/SOLUTIONS
DIESEL BURNER HAS LOW OPERATING PSI	PUMP WORN / CHECK AND REPLACE
	FUEL LINE PLUGGED / CLEAN OR REPLACE
	PUMP COUPLER BROKEN / REPLACE COUPLER
	BURNER MOTOR WORN / REPLACE MOTOR
BURNER DOES NOT LIGHT	AIR IN PUMP / BLEED THE BURNER FUEL PUMP- SEE BURNER PAGE
	ELECTRODES WORN AT TIPS / REPLACE ELECTRODES
	ELECTRODES SPACING INCORRECT/ RESET SPACING
	CAD CELL DIRTY / CLEAN GLASS LENS
	WATER IN FUEL / REPLACE FUEL & FILTER
	BURNER IN LOCKOUT / REMOVE NEGATIVE CABLE & REATTACH
	FUEL NOZZLE PLUGGED / REFER TO OWNER'S MANUAL
	AIR SHUTTER MOVED / REFER TO OWNER'S MANUAL
	FUEL FILTER PLUGGED / CLEAN AS NEEDED
	TRANSFORMER WORN / REPLACE TRANSFORMER
	PRIMARY CONTROL FAILED / REPLACE PRIMARY CONTROL
	FUEL SOLENOID FAILED / REPLACE SOLENOID
	NO POWER FROM CONTROLLER / TRACE WIRES
	HI-TEMP LIGHT IS ON / PUSH RESET

See oil burner trouble shooting guide for step by step instructions

CRACK PRO® MASTIC MACHINE

MACHINE MAINTENANCE

TROUBLE SHOOTING GUIDE

PROBLEM	POSSIBLE CAUSES/SOLUTIONS
ENGINE 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
(HTO) HEATED TRANSFER OIL COMING OUT OF VENT PIPE	OVERHEATED HTO / CHECK TEMPERATURE CONTROL
	MOISTURE IN HTO TANK / DRAIN AND REPLACE
	HTO PAST OPERATING LIFE / DRAIN AND REPLACE
HYDRAULIC SYSTEM 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 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

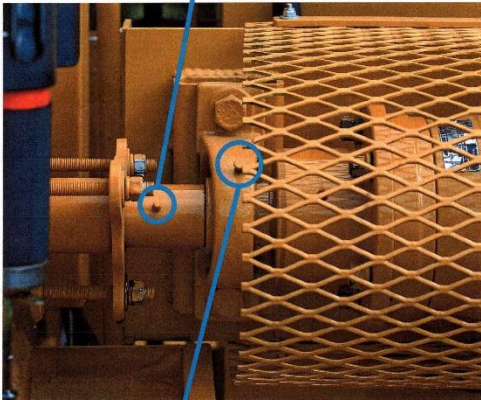
CRACK PRO® MASTIC MACHINE

MACHINE MAINTENANCE

MAINTENANCE SCHEDULE

IMPORTANT

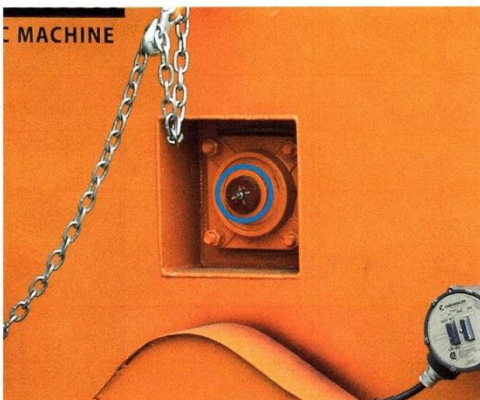
Grease this shaft Daily with 5 pumps of high-temp 625° rated NLGI #2 Grease



The bearing is to be greased every 600 hrs with 3 pumps of the high-temp grease.

IMPORTANT

Grease this shaft Daily with 5 pumps of high-temp 625° rated NLGI #2 Grease



CRACK PRO® MASTIC MACHINE

MACHINE MAINTENANCE

MAINTENANCE SCHEDULE

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

MAINTAIN	8 HRS	1 WEEK	1 MONTH	6 MONTHS	1 YEAR	2 YEARS
CHECK ENGINE OIL LEVELS	✓					
CHECK HYDRAULIC OIL LEVELS	✓					
CHECK DIESEL FUEL LEVELS	✓					
CHECK HTO LEVELS		✓				
CHECK IGNITORS						✓
CHECK HITCH BOLTS				✓		
CHECK BRAKES						✓
CHECK LUG NUTS				✓		
CHANGE ENGINE OIL *1						
CHANGE HTO					✓	
CHANGE HYDRAULIC OIL *2						✓
CHANGE HYDRAULIC OIL FILTER					✓	
CHANGE DIESEL FILTER					✓	
CHANGE PRIMARY CONTROL					✓	
CHANGE SOLENOID					✓	
CHANGE NOZZLE					✓	
DRAIN WATER FROM DIESEL FILTER			✓			
CHECK BREAKAWAY BOX BATTERY	✓					
CHECK TIRE PRESSURE				✓		
PACK WHEEL BEARINGS						✓
INSPECT ALL HOSES	✓					

***1 CHANGE ENGINE OIL- OIL SPECIFICATIONS** / REFER TO ENGINE MANUAL

602 Kubota Recommends 50hrs Initial Start / every 100hrs After

***2** 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.

Indol[®] and Indol[®] (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.

Indol[®] and Indol[®] (Ultra Clean*)



Anti-Wear Hydraulic Oil

General Description

Indol[®] 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[®] (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[®] 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.			
Relevant identified uses of the substance or mixture and uses advised against			
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.		
Precautionary statements			
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_{oc}) : 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**Revised Section(s)** : 1, 2, 16.**Supersedes** : 11/15/2013**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 logo for CHS, consisting of the letters "CHS" in a stylized, serif font, with a horizontal line passing through the middle of the letters.

CRACK PRO® MASTIC MACHINE

OPERATING INSTRUCTIONS - DIESEL FUEL BURNER

STARTUP

CHECK LIST

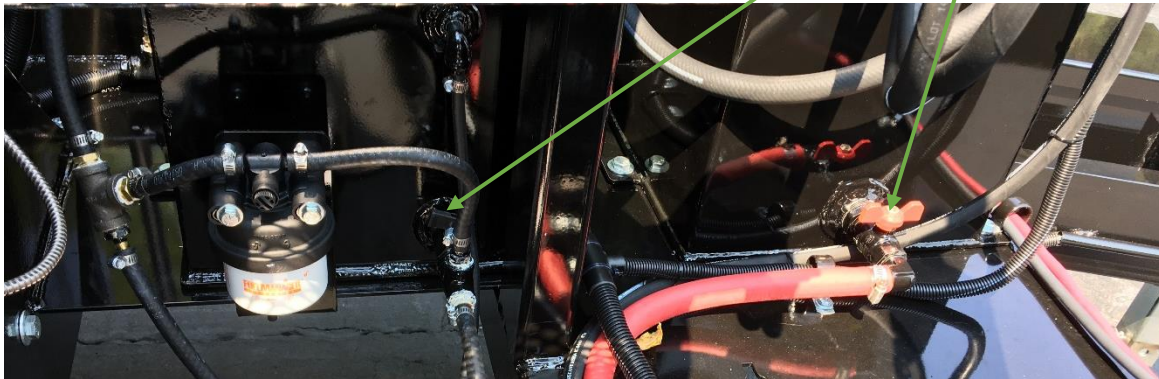
1. Check engine oil level. Follow manufacturers' guidelines as to type and frequency of changes.
2. Check hydraulic oil level. Use grade AW68 hydraulic oil.
3. Check heat transfer oil level with oil dipstick. Use a good quality grade 68 turbine oil or heat transfer oil. The heat transfer oil level must always be checked when it is **COLD**. Never attempt to check it when the oil is hot, or severe injury could occur. **NEVER CHECK WHEN HOT!**
4. Fill burner fuel tank with diesel.
5. Completely read and understand all owner's manuals before trying to operate this machine.

CRACK PRO® MASTIC MACHINE

OPERATING INSTRUCTIONS - DIESEL FUEL BURNER

STARTUP

STARTING THE ENGINE



- Set the diesel **fuel** & motor **hydraulic** valves to the **on** position.
- 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.

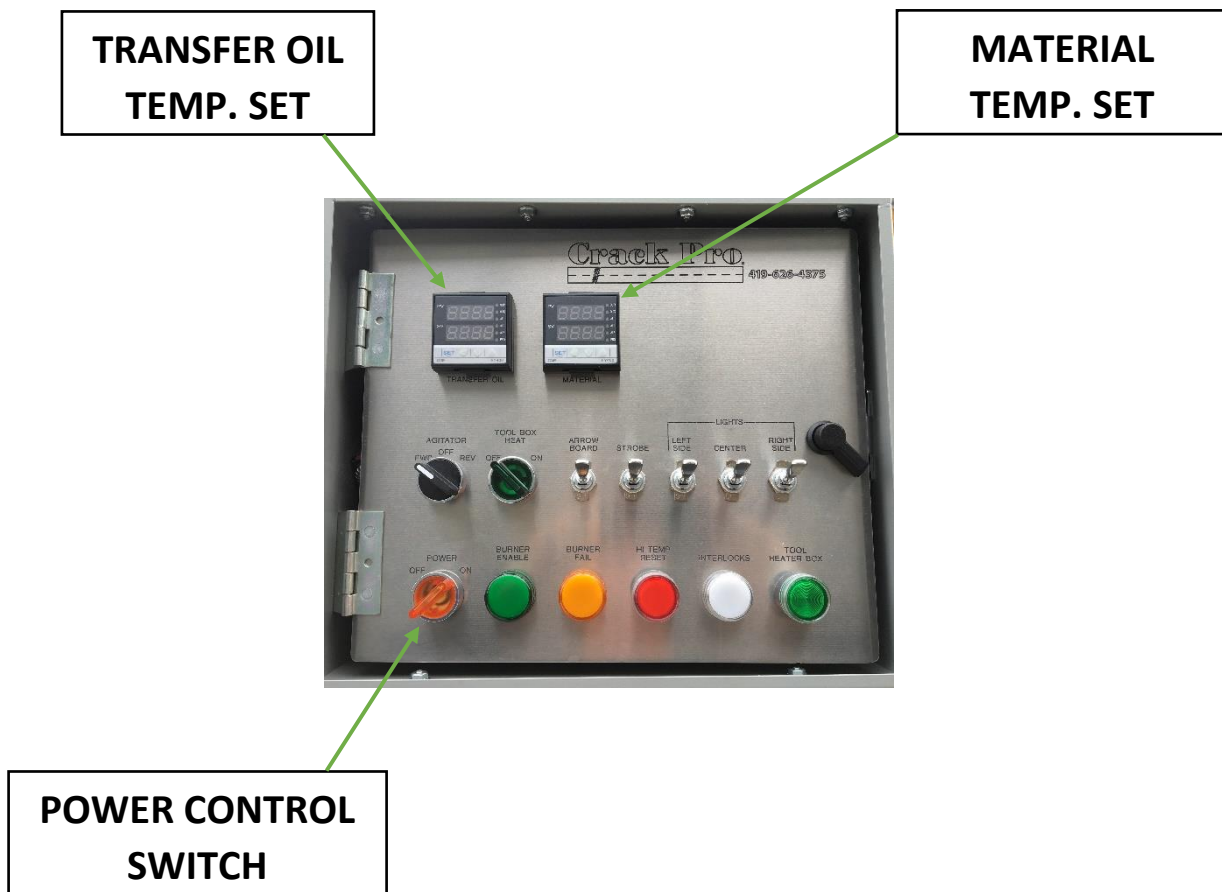
CRACK PRO® MASTIC MACHINE

OPERATING INSTRUCTIONS - DIESEL FUEL BURNER

THE TEMPERATURE CONTROL

After starting the engine:

1. Turn **on** the burner with power control switch located on the front of the digital temperature controller. The digital controllers monitor the heat transfer oil temperature, and the material temperature.
2. 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® MASTIC MACHINE

OPERATING INSTRUCTIONS - DIESEL FUEL BURNER

ADDING MATERIAL

3. Starting **COLD**, put 10 to 15 blocks. If the machine is **EMPTY**, throw in 15 to 25 boxes. Wait approximately 30 minutes after oil temperature hits 500° deg. You should see the blocks melted about 50%. Add 10 boxes every 7-10 minutes until you reach approximately 90-100 boxes. This will be considered a full load depending on the specific product.
4. Be sure to empty the machine to 1/3 or lower when shutting down for the night. Leaving too much material in the machine will result in slower heat-up time the next day.

MATERIAL TEMPERATURE

5. On the top rear Driver side, is the thermometer for Heat Transfer oil and Material. The thermometer 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® MASTIC MACHINE

OPERATING INSTRUCTIONS

AUTOMATIC SAFETY INTERLOCKS

There are automatic safety interlocks that control the digital controllers for material and heat transfer temperatures. The agitator will not work until the material has reached a pre-programmed temperature on the respective digital controllers.

Once the material controller reaches the programmed temperature settings the white interlock light comes on, then the agitator will automatically start turning when engaged. Opening the lid turns off the agitator.

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

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

CRACK PRO® MASTIC MACHINE

OPERATING INSTRUCTIONS

APPLICATION OF MATERIAL

7. Once the material in the tank is completely melted and the desired application temperature is reached, it is time to fill cracks.
8. The transfer oil temperature controller should be set for 500°F.
9. The material temperature controller should be set for 300°F - 400°F Depending on material. Factory set 375°

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

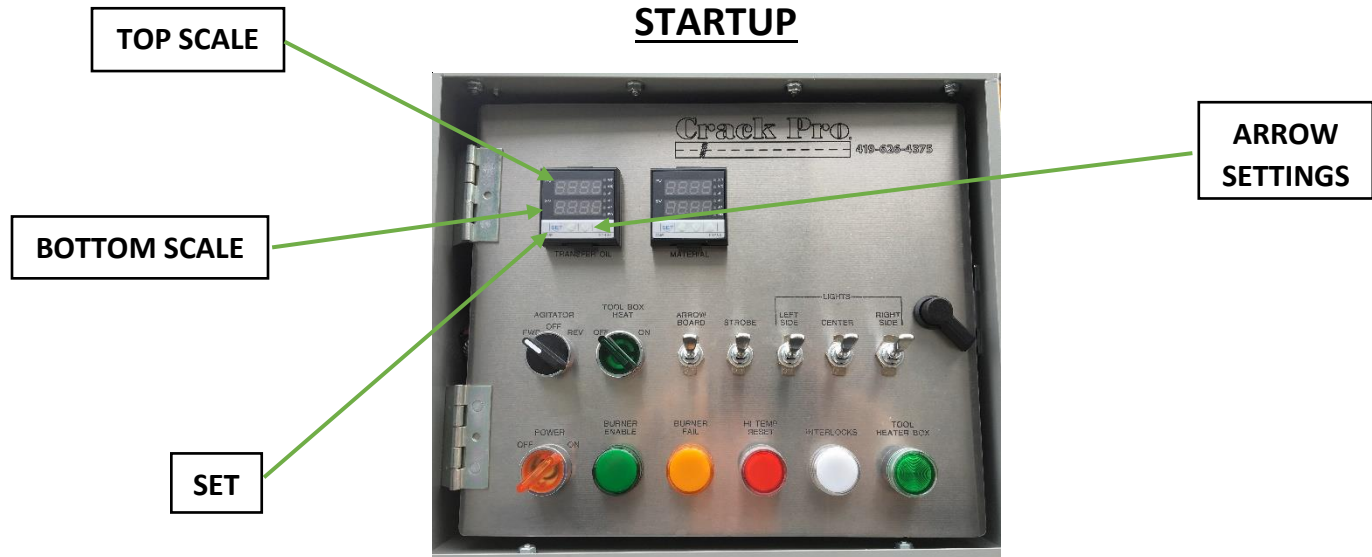
TOOL HEATER BOX

10. The Tool Heater Box, is equipped with a 5min. auto off timer so you don't forget to turn it off while working.
11. It also has a full on timer for the jobs that require all day tool heating.

CRACK PRO® MASTIC 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® MASTIC MACHINE

OPERATING INSTRUCTIONS - DIESEL FUEL BURNER

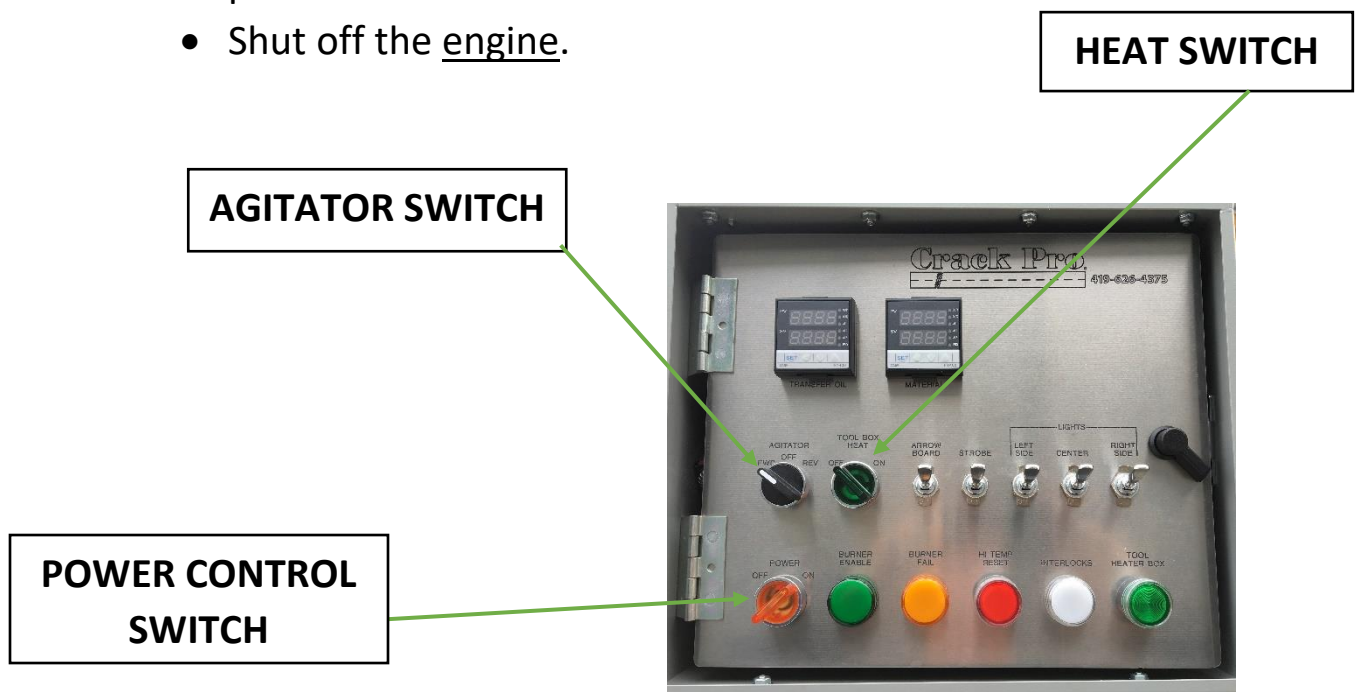
POURING MATERIAL

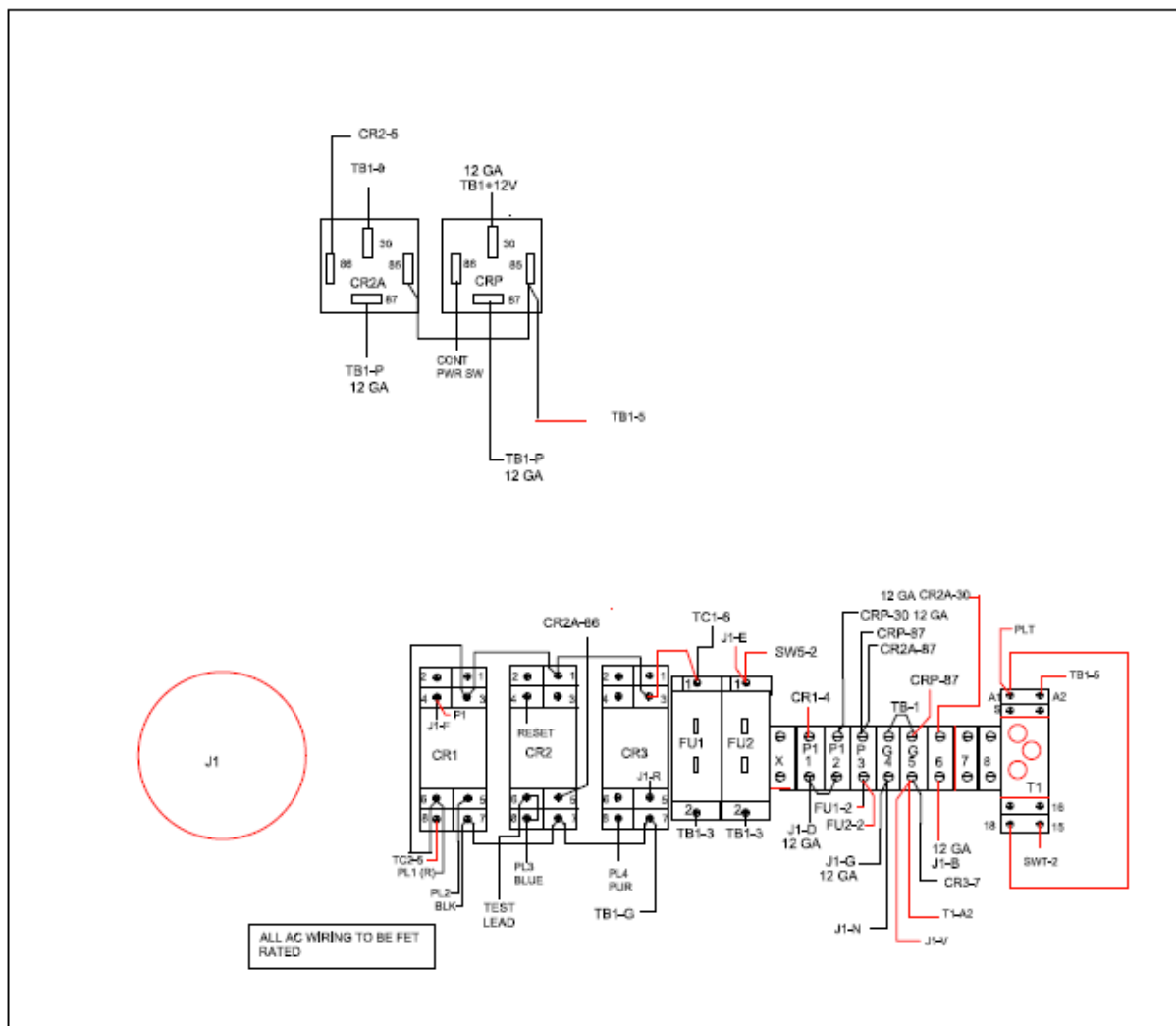
12. To open Material Discharge Valve, push down on handle, lift to close. Swing the Chute Assembly into position.

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

13. Fill the cracks with appropriate tools.
14. To stop for the day, perform the following steps:

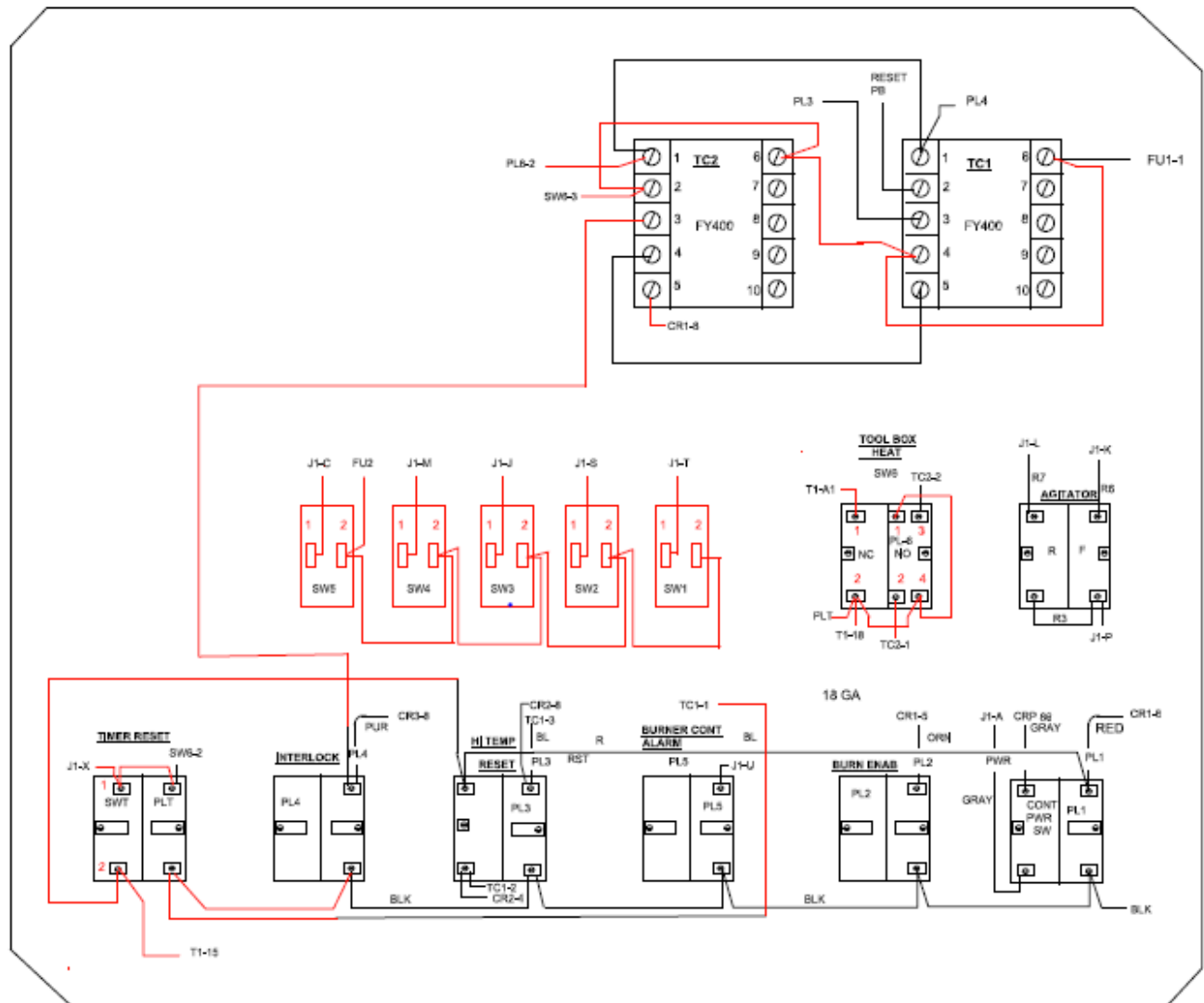
- Leave the agitator switch on the forward position.
- Turn the power control switch & heat switch to the **off** position.
- Shut off the engine.



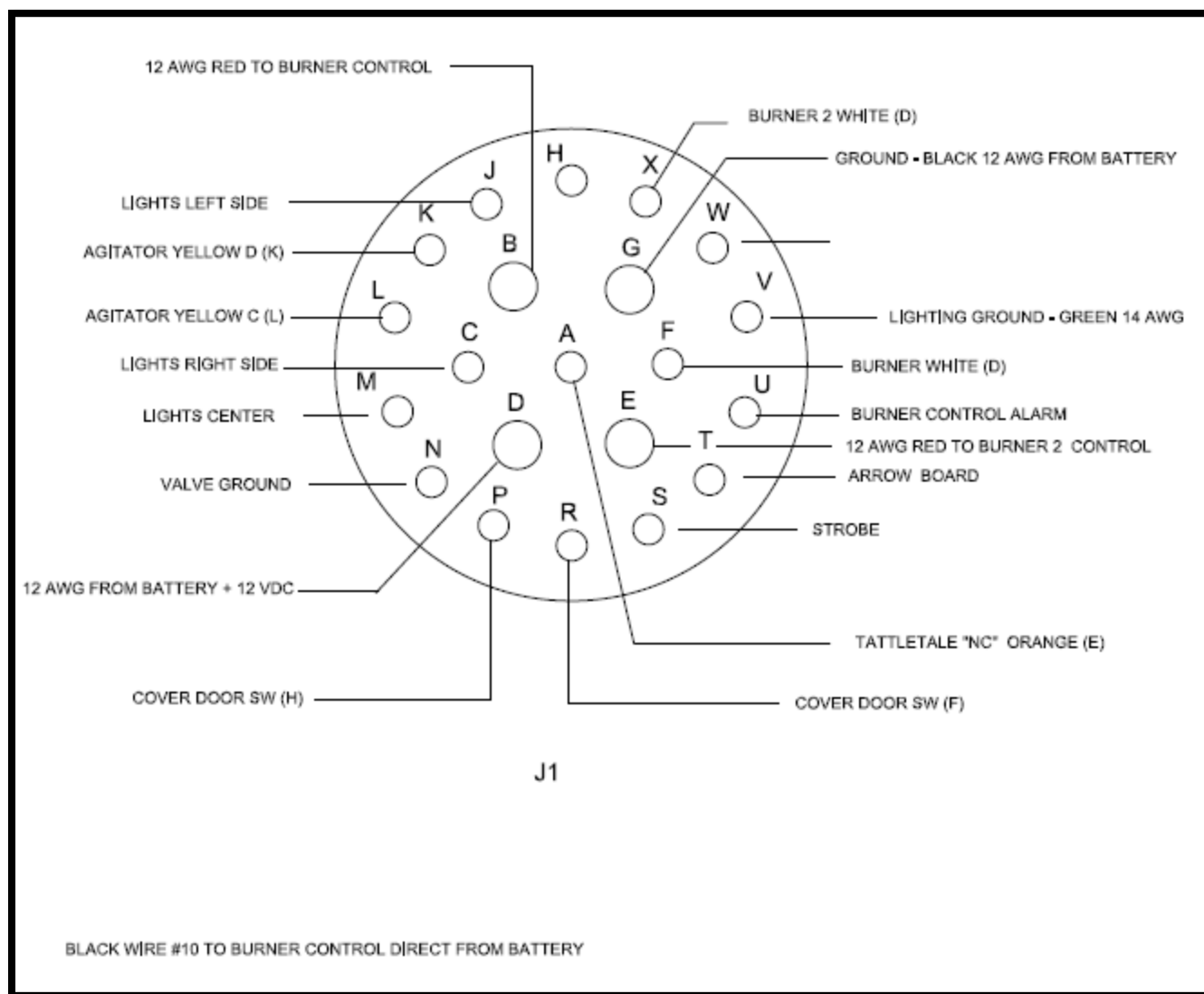


WIRING DIAGRAMS

TEMPERATURE CONTROL BOX

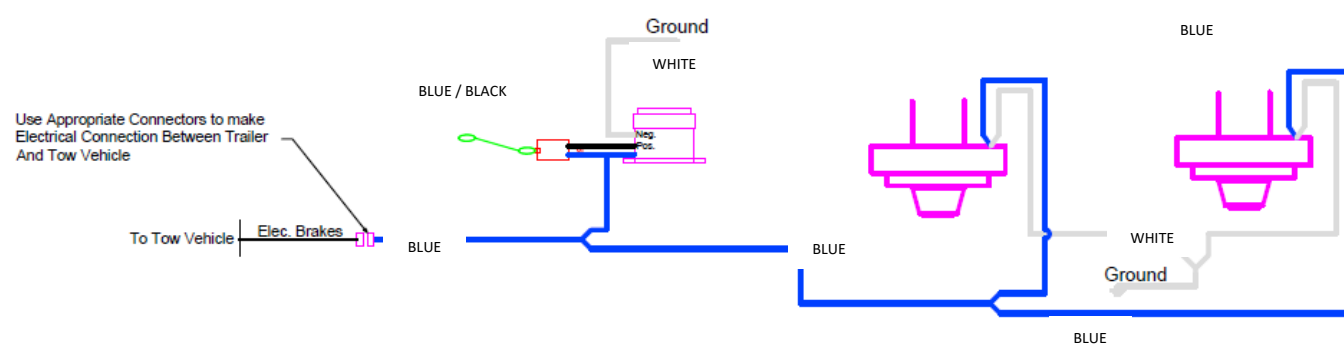


MASTIC MACHINE CONNECTOR J1

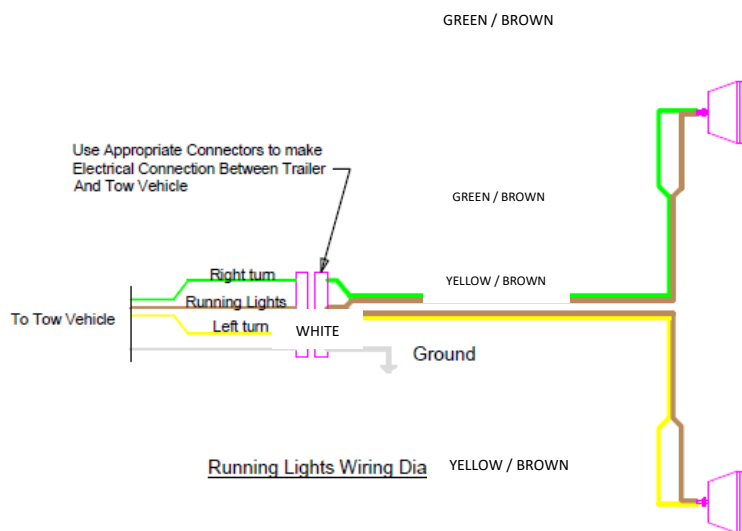


WIRING DIAGRAMS

ELECTRIC BRAKES AND RUNNING LIGHTS

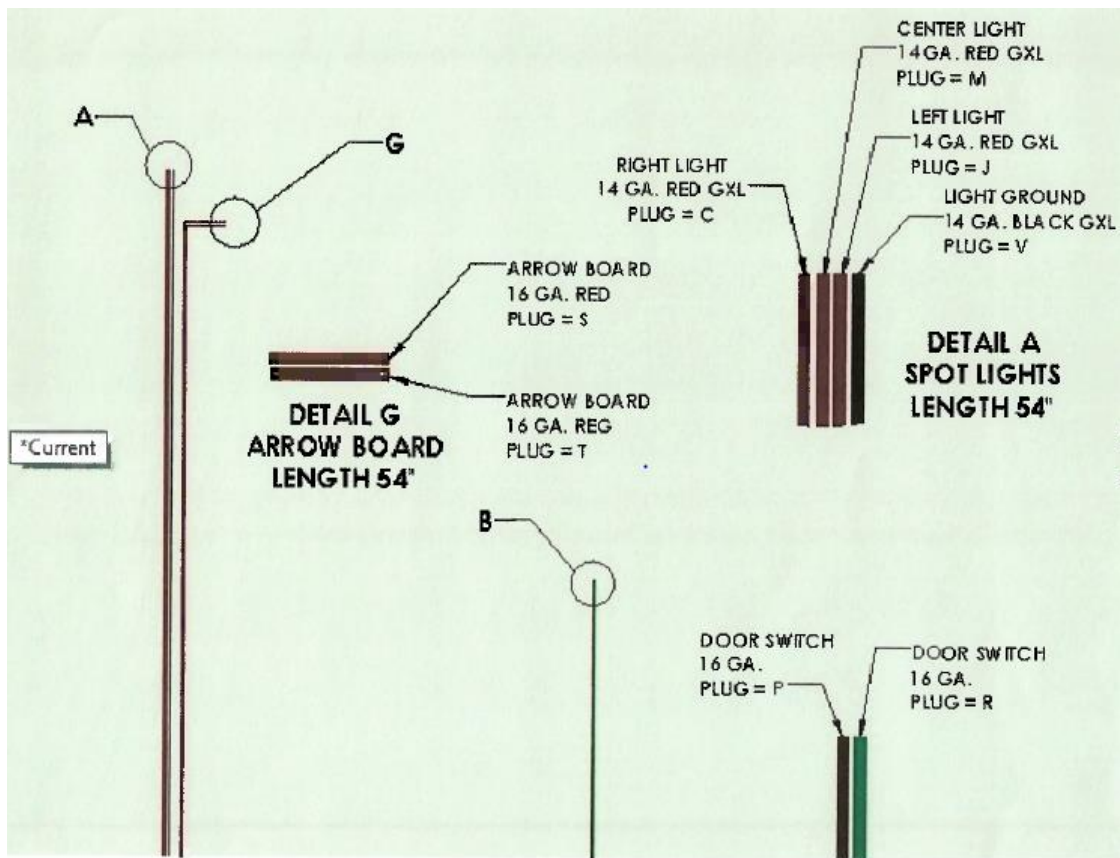


Electric Brakes Wiring Diagram



Running Lights Wiring Dia

WIRING DIAGRAMS



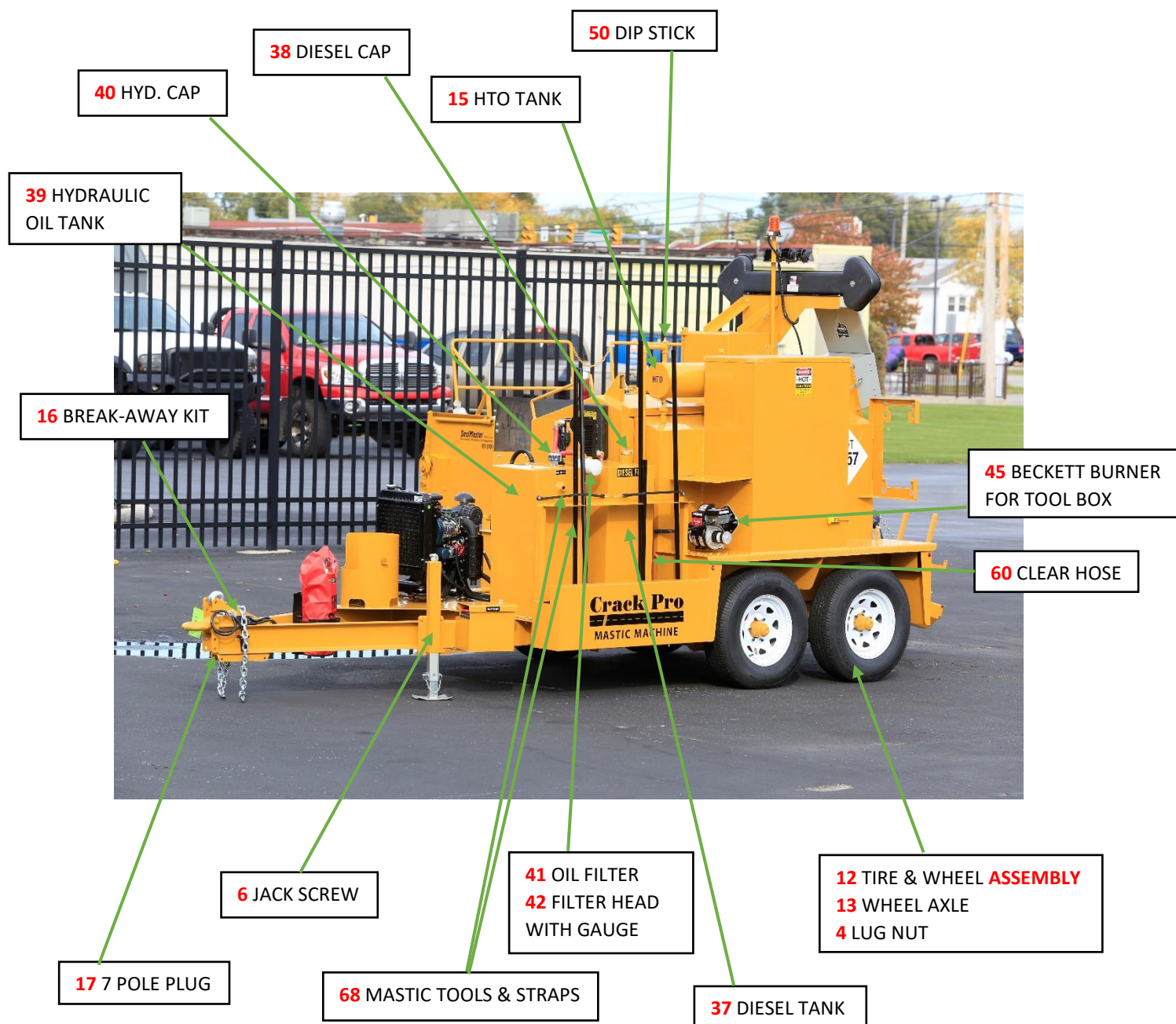
ALL THE WIRING COMES OUT OF THE CONTROL BOX TO THE LIGHTS

TANK CAPACITY CHART					
GALLONS ARE APPROXIMATE AND MAY VARY SLIGHTLY TANK TO TANK					
MATERIAL DEPTH AND GALLON VOLUME					
DEPTH FROM TOP TO MATERIAL		250 GALLONS		300 GALLONS	
INCHES		GALLONS		GALLONS	
1		242		290	
2		233		279	
3		224		269	
4		215		258	
5		206		248	
6		197		237	
7		189		226	
8		180		216	
9		171		205	
10		162		195	
11		153		184	
12		144		173	
13		136		163	
14		127		152	
15		118		142	
16		109		131	
17		100		120	
18		92		110	
19		83		100	
20		74		89	
21		66		79	
22		58		70	
23		50		60	
24		42		51	
25		35		42	
26		28		34	
27		22		26	
28		16		19	
29		10		12	
30		6		7	
31		2		2	
32		0		0	

CRACK PRO® MASTIC MACHINE

MACHINE PICTURES AND PARTS LIST

PICTURE-1



CRACK PRO® MASTIC MACHINE

MACHINE PARTS LIST

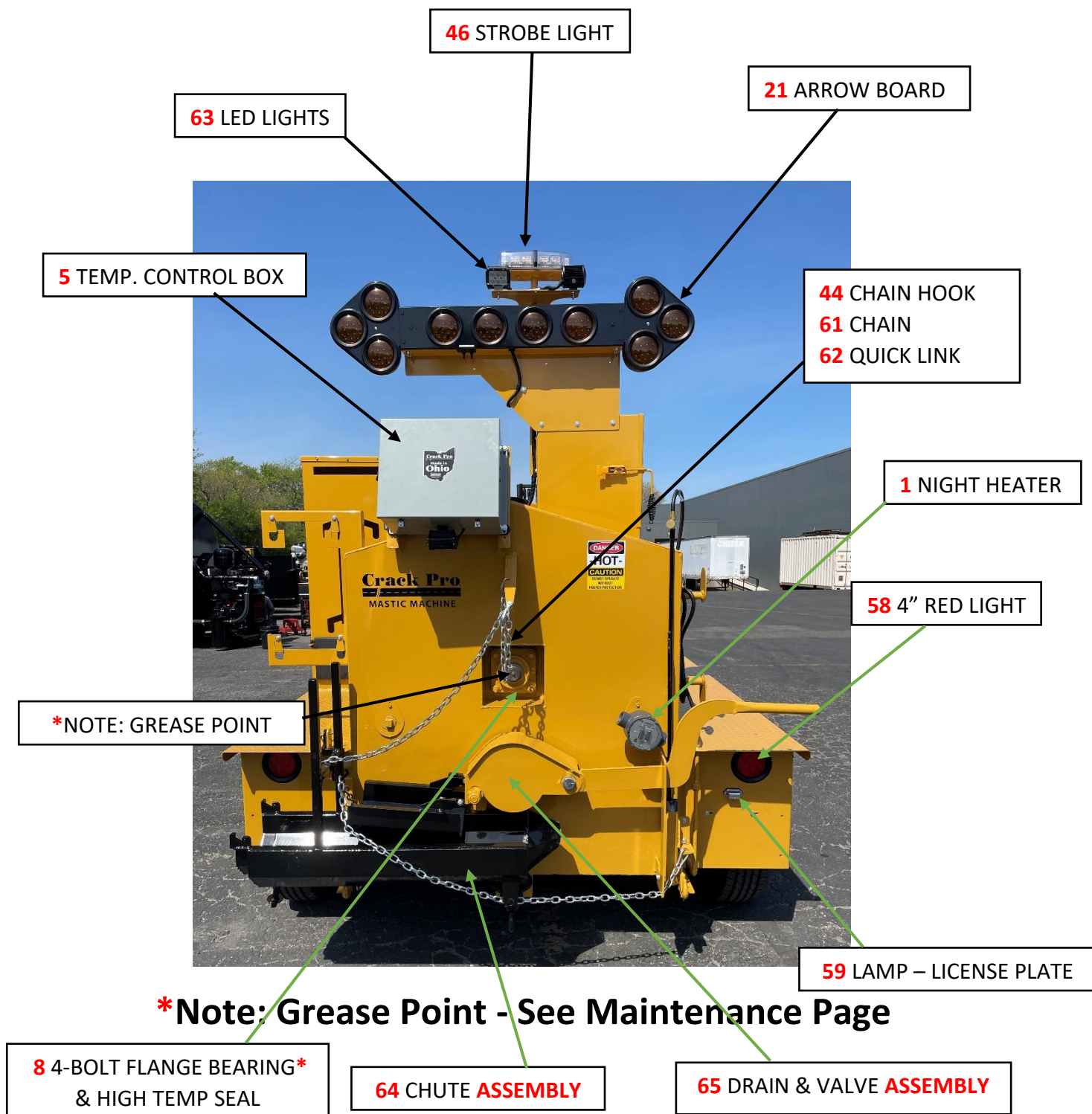
PICTURE-1

ITEM #	PART#	QTY.	DESCRIPTION
4	P579A003	24	LUG NUT
6	P551A008	1	JACK SCREW
12	P514A022	4	TIRE & WHEEL ASSEMBLY - 300
	P514A017	4	TIRE & WHEEL ASSEMBLY - 250
13	P511A044	2	WHEEL AXLE
15	P74000B017	1	HTO TANK
16	P518A008	1	BREAK-AWAY KIT- 4BOLT
	P518A004	1	BREAK-AWAY KIT BEFORE 10/2019
17	P519A007	1	7 POLE PLUG
37	P92000G016	1	DIESEL TANK
38	P464A003	1	DIESEL CAP
39	P92000G005	1	HYDRAULIC TANK
40	P1050A006	1	HYDRAULIC CAP
41	P908A008	1	OIL FILTER
42	P909A010	1	FILTER – HEAD SMALL
	P735A067	1	GAUGE – CLOGGING INDICATOR
45	P662A009	1	BECKETT BURNER ASSEMBLY - TOOLBOX
50	P74000B019	1	DIP STICK
60	P709A024	1	HOSE – CLEAR 24” LONG
68	T1603-T1604	2	MASTIC TOOLS
	T1606-T1607	2	MASTIC TOOLS
	T1608-T1614	2	MASTIC TOOLS
	P422A001	2	STRAPS

CRACK PRO® MASTIC MACHINE

MACHINE PICTURES AND PARTS LIST

PICTURE-2



CRACK PRO® MASTIC MACHINE

MACHINE PARTS LIST

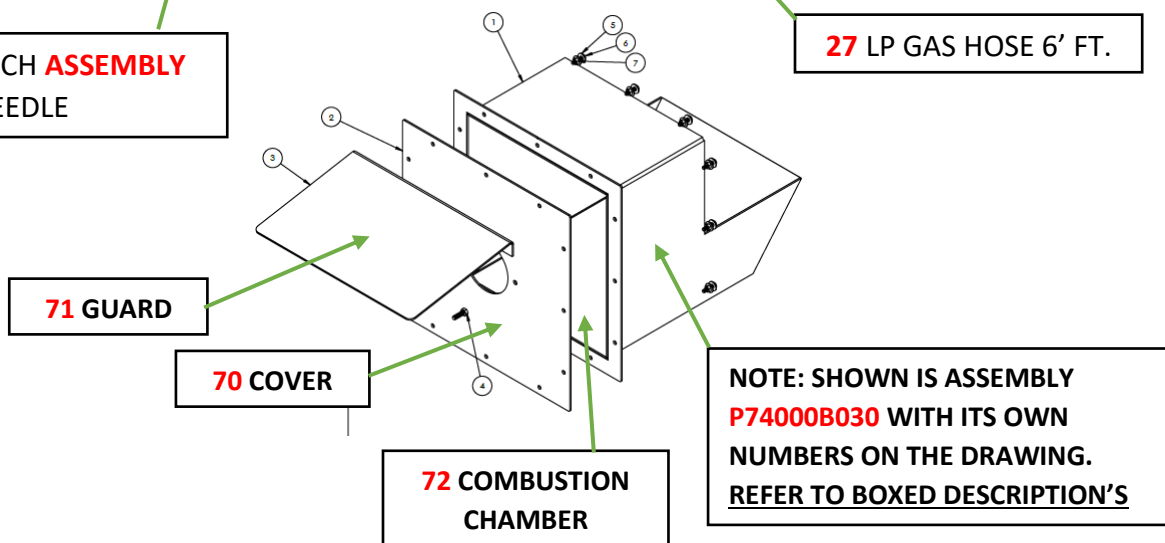
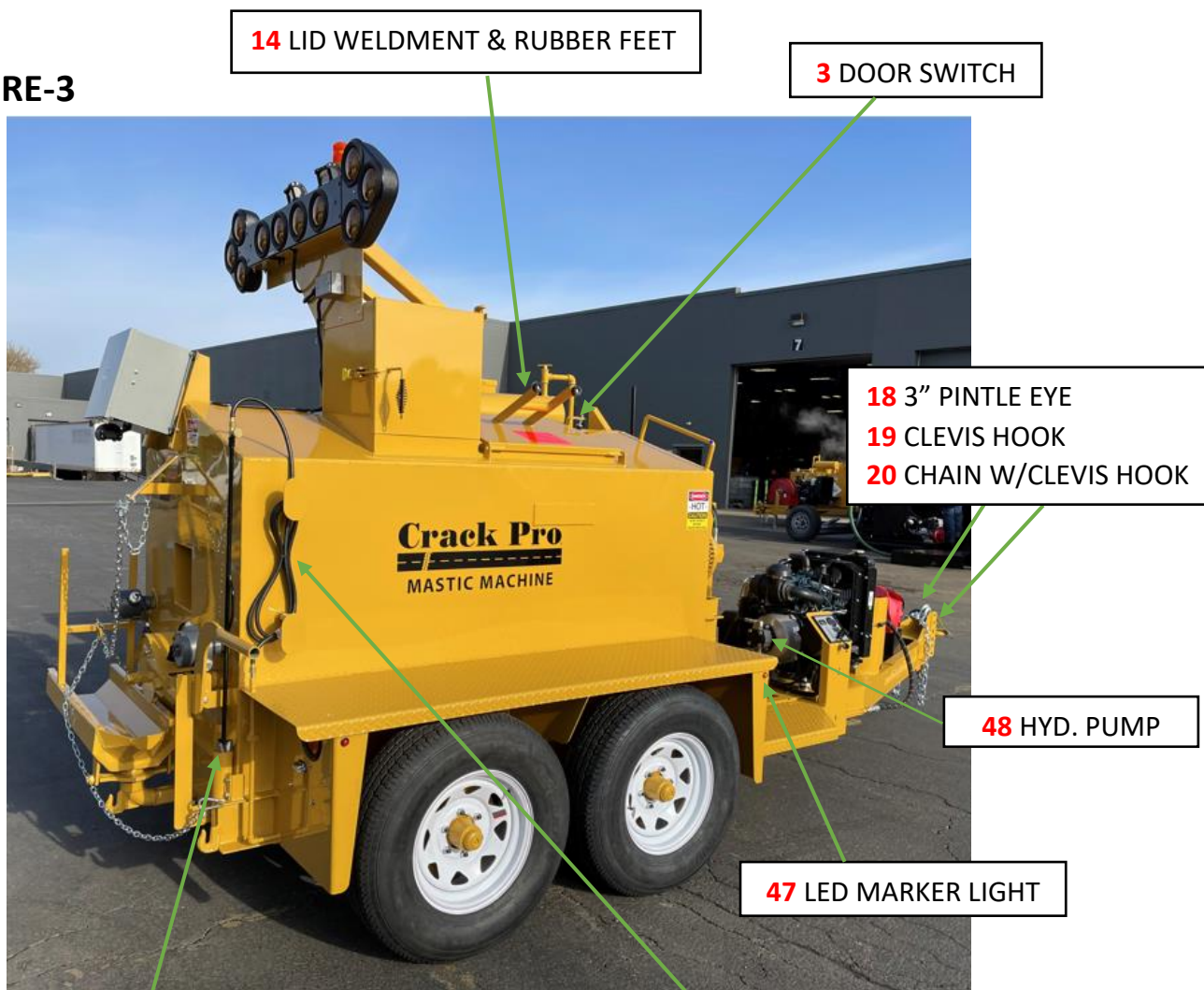
PICTURE-2

ITEM #	PART#	QTY.	DESCRIPTION
1	P929A048	2	NIGHT HEATER
5	P735A065	1	TEMPERATURE CONTROL BOX
8	P434A009	1	4-BOLT FLANGE BEARING – SMART LUBE
	P50137B018	1	2" BORE SEAL - SILICONE HIGH TEMP FOR FLANGE BRG.
21	P516A033	1	ARROW BOARD
44	P517A004	1	1/4 " CHAIN HOOK
46	P516A035	1	LIGHT –STROBE
58	P467A020	2	4" ROUND LIGHT - RED
59	P467A010	1	LAMP – LICENSE PLATE
61	P531A002	1	CHAIN 40" LONG
62	P915A003	2	3/16" QUICK LINK
63	P516A032	4	LED LIGHT
64	P92000C400	1	CHUTE ASSEMBLY
65	P92000C020	1	DRAIN & VALVE ASSEMBLY

CRACK PRO® MASTIC MACHINE

MACHINE PICTURES AND PARTS LIST

PICTURE-3



CRACK PRO® MASTIC MACHINE

MACHINE PARTS LIST

PICTURE-3

ITEM #	PART#	QTY.	DESCRIPTION
3	P442A011	1	DOOR SWITCH
14	P92000C226	1	LID WELDMENT
	P92000C034	1	RUBBER FEET
18	P646A003	1	3" PINTLE EYE
19	P517A002	2	CLEVIS HOOK
20	P531A004	2	CHAIN W/CLEVIS HOOK
27	P669B005	1	GAS HOSE ASSEMBLY 6' FEET
31	P75000B010	1	HAND TORCH ASSEMBLY
32	P666A001	1	VALVE – NEEDLE LP GAS 1/4"
47	P467A024	4	3/4" AMBER LED MARKING LIGHT
48	P601A061	1	PUMP – HYDRAULIC
70	P74000B030D	1	COVER – BURNER BOX
71	P74000B030E	1	GUARD – BURNER BOX
72	P671A000	1	COMBUSTION CHAMBER

CRACK PRO® MASTIC MACHINE

MACHINE PICTURES AND PARTS LIST

PICTURE-4

7 HYD. OIL COOLER

29 DIESEL ENGINE

49 WIRE HARNESS

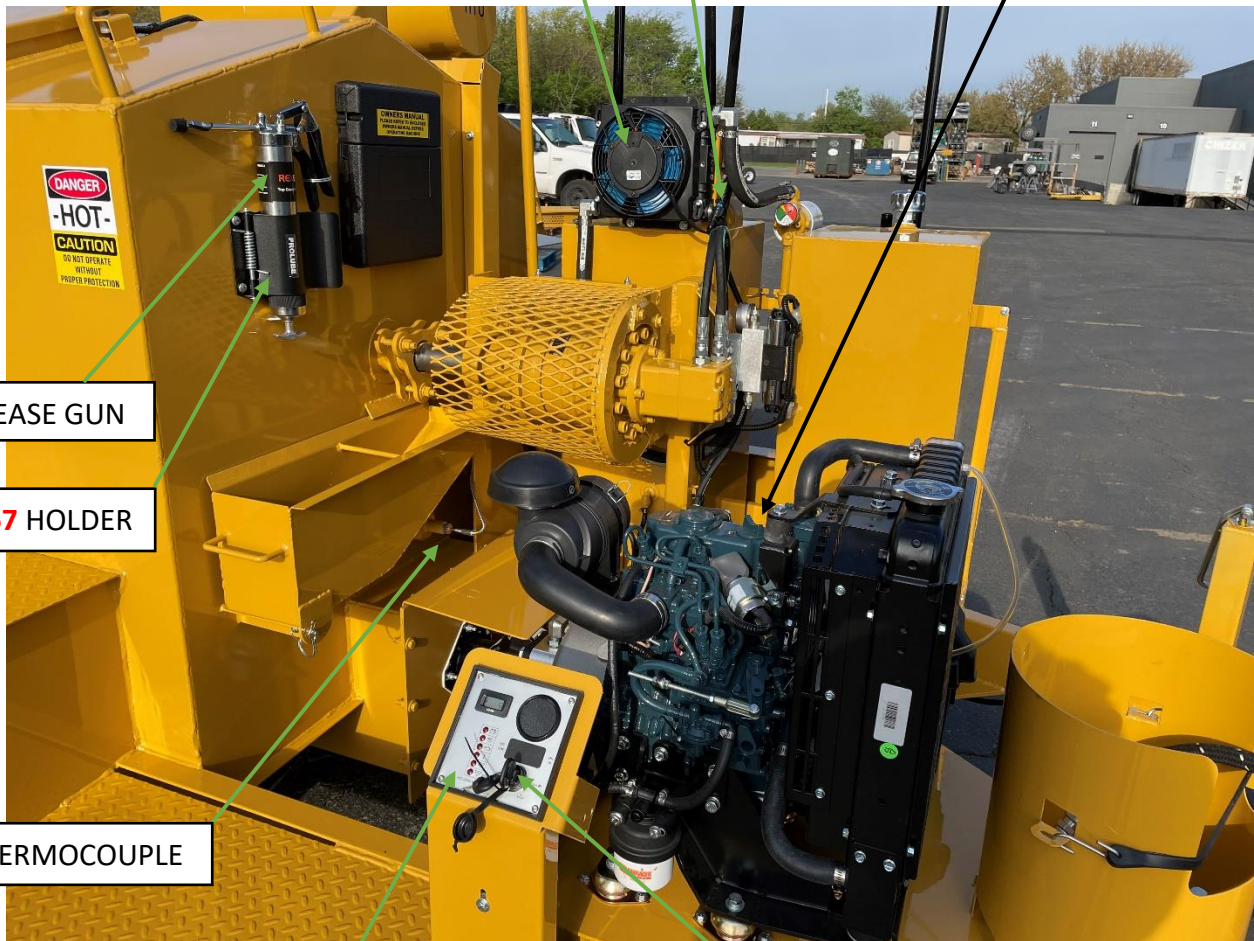
66 GREASE GUN

67 HOLDER

69 THERMOCOUPLE

34 ENGINE
CONTROL PANEL

35 IGNITION KEY
36 IGNITION



CRACK PRO® MASTIC MACHINE

MACHINE PARTS LIST

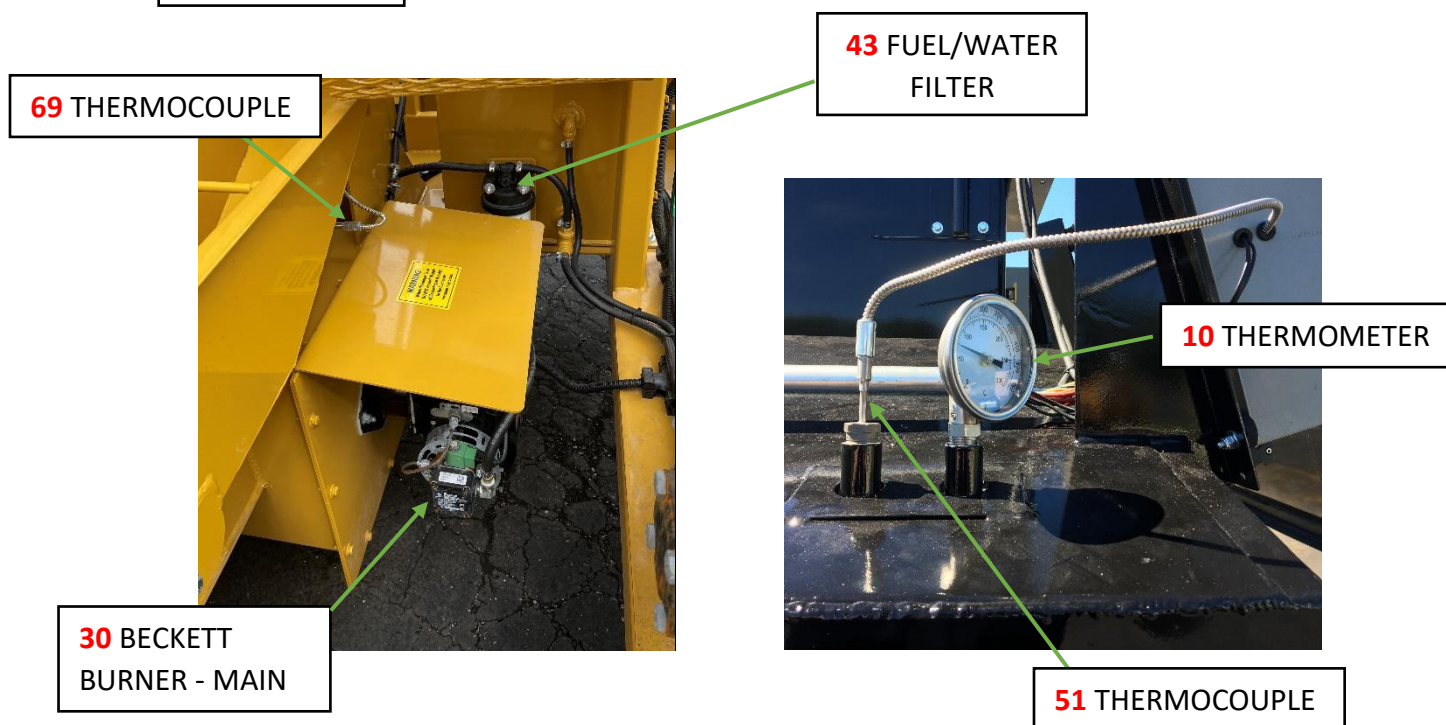
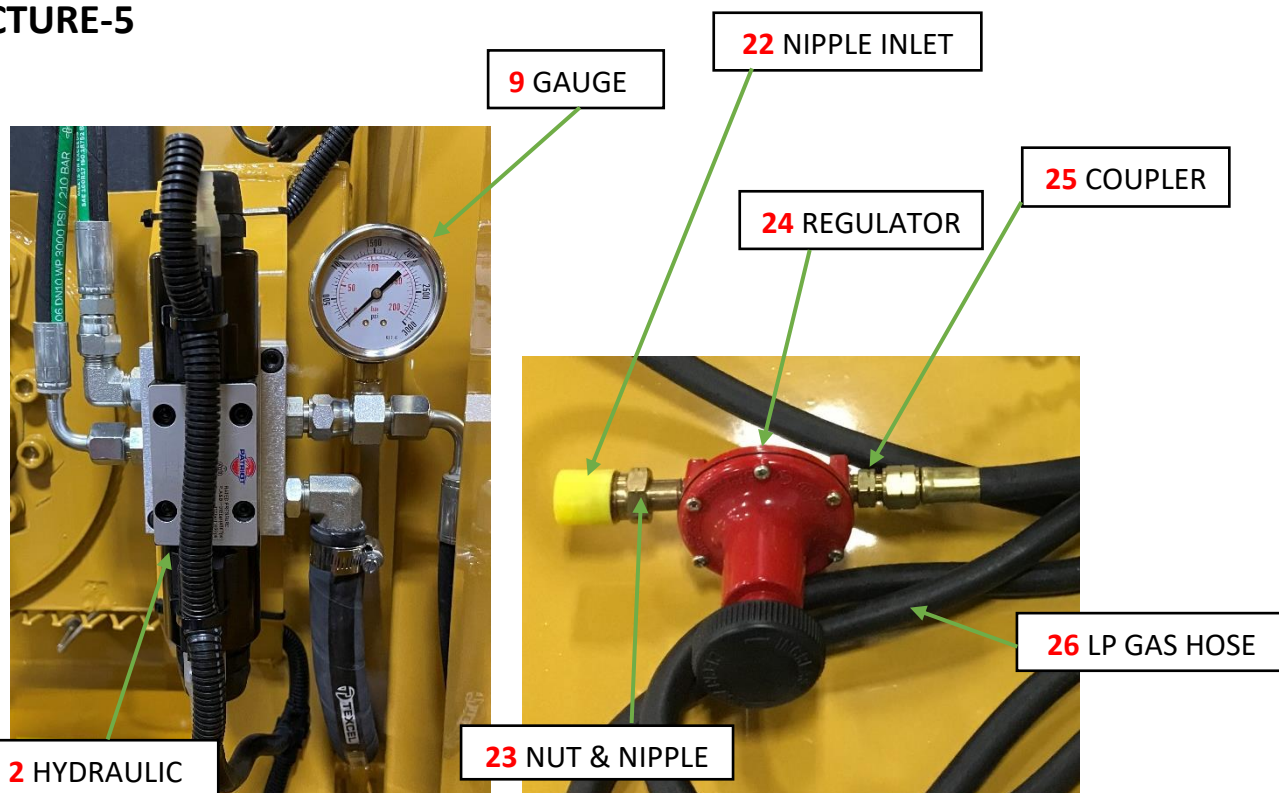
PICTURE-4

ITEM #	PART#	QTY.	DESCRIPTION
7	P716A009	1	HYDRAULIC OIL COOLER
29	P458A053	1	ENGINE DIESEL 15HP KUBOTA
34	P458B303	1	ENGINE CONTROL PANEL
35	P458B311	1	CONTROL PANEL – KEY
36	P458B354	1	IGNITION SWITCH
49	P519B007	1	WIRE –HARNESS
66	P167A001	1	GREASE GUN 400CC
67	P167A002	1	HOLDER-GREASE GUN
69	P679A020	1	THERMOCOUPLE 8” LONG

CRACK PRO® MASTIC MACHINE

MACHINE PICTURES AND PARTS LIST

PICTURE-5

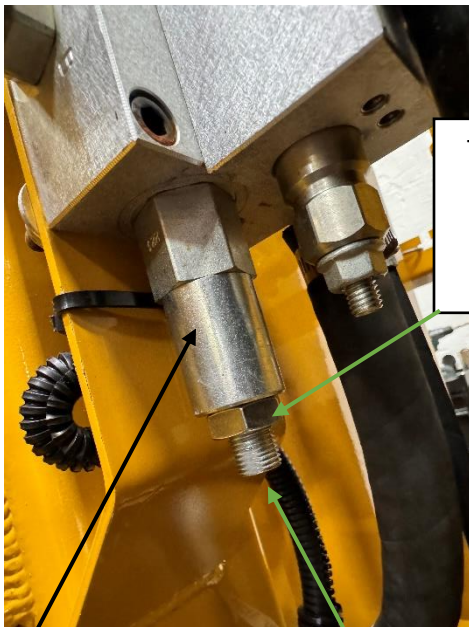


CRACK PRO® MASTIC MACHINE

MACHINE PARTS LIST

PICTURE-5

ITEM #	PART#	QTY.	DESCRIPTION
2	P92000K001	1	HYDRAULIC PARTS ASSEMBLY
9	P711A008	1	GAUGE- PRESSURE 0-3000
73	P693A040	1	RELIEF VALVE - DIRECT ACTING
10	P659A008	1	THERMOMETER -24" STEM
22	P932A001	1	NIPPLE – INLET
23	P933A001	1	NUT & NIPPLE
24	P735A015	1	REGULATOR – HAND TORCH
25	P935A001	2	COUPLER - LP
26	P669A005	1	GAS HOSE ASSEMBLY 10' FEET
30	P662A009	1	BECKETT BURNER ASSEMBLY - MAIN
43	P458B254	1	FUEL/WATER FILTER
51	P679A017	1	THERMOCOUPLE 23" LONG
69	P679A020	1	THERMOCOUPLE 8" LONG



73 RELIEF VALVE

USE 1/4" HEX KEY TOOL AND TURN TO
ADJUST THE **9** GAUGE TO 3000 PSI

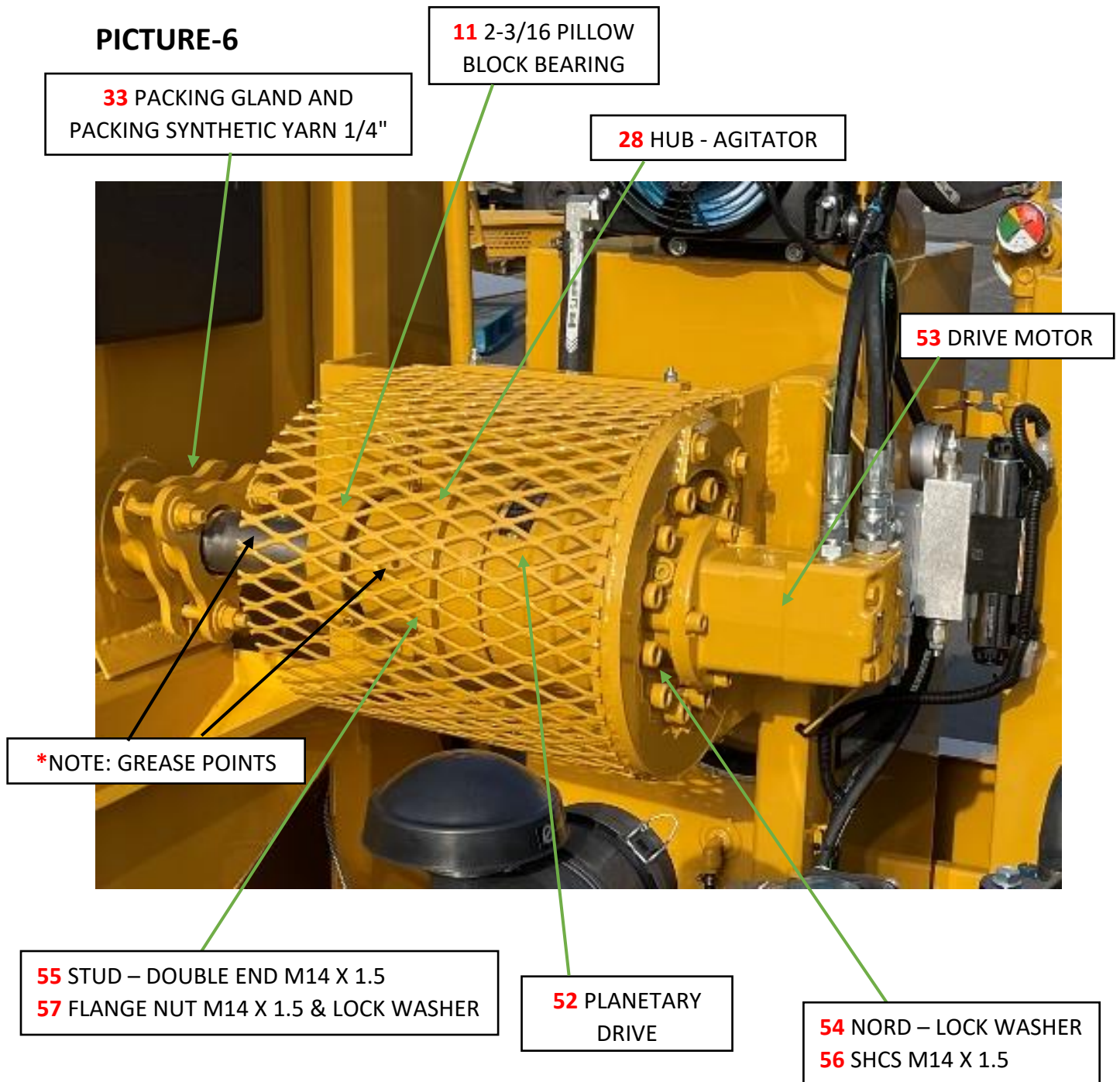


9 GAUGE

CRACK PRO® MASTIC MACHINE

MACHINE PICTURES AND PARTS LIST

PICTURE-6



***Note: Grease Points - See Maintenance Page**

CRACK PRO® MASTIC MACHINE

MACHINE PARTS LIST

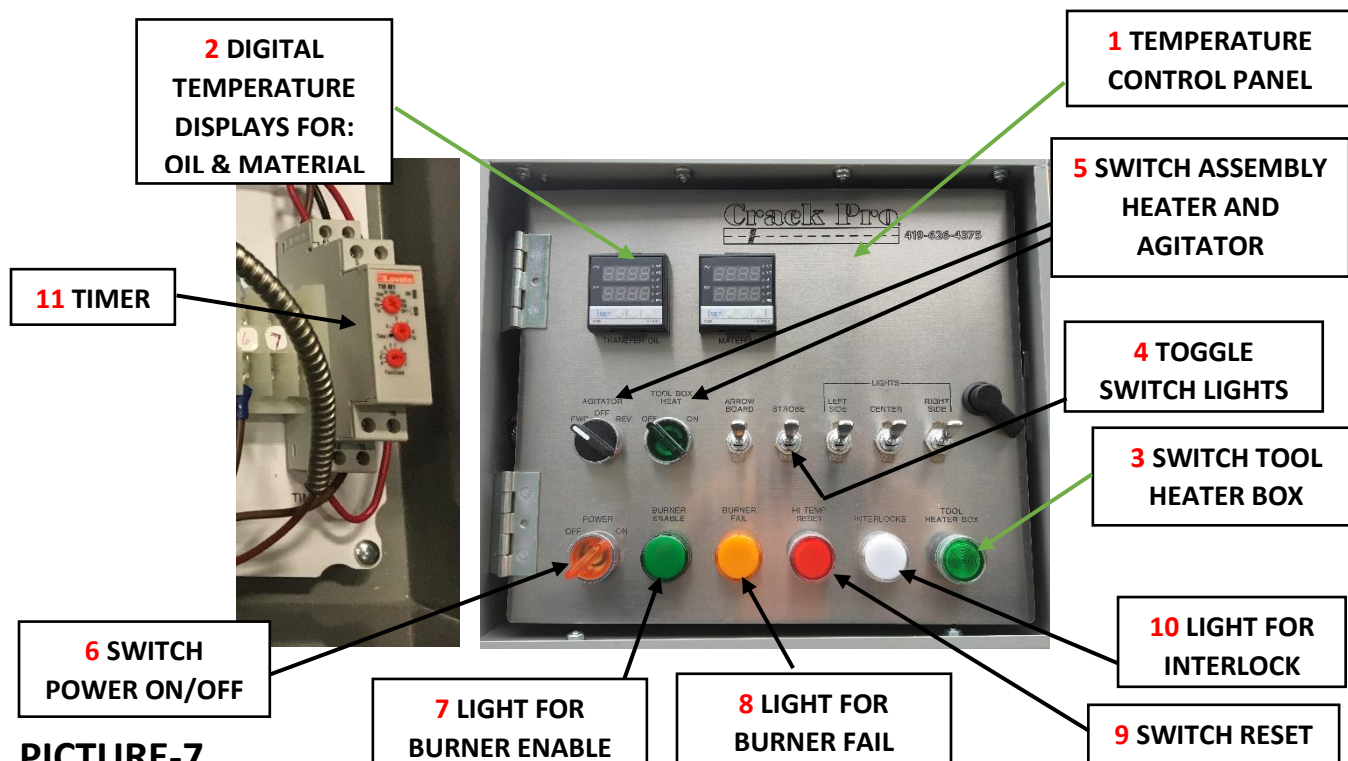
PICTURE-6

ITEM #	PART#	QTY.	DESCRIPTION
11	P435A014	1	PILLOW BLOCK BEARING 2-3/16" BORE
28	P92000H002	1	HUB – AGITATOR
33	P50138M	1	PACKING GLAND
	P638A006	N/A	PACKING SYNTHETIC YARN 1/4"
52	P474A066	1	WHEEL DRIVE – NO BRAKE
53	P474A090	1	DRIVE MOTOR
54	P1018A017	12	NORD-LOCK WASHER
55	P513A056	5	STUD – DOUBLE END M14 X 1.5
56	P1015A018	12	SOCKET HD. CAP SCREW M14 X 1.5
57	P474B019	5	FLANGE NUT M14 X 1.5

CRACK PRO® MASTIC MACHINE

MACHINE PICTURES AND PARTS LIST

PARTS LIST FOR TEMPERATURE CONTROL BOX



PICTURE-7

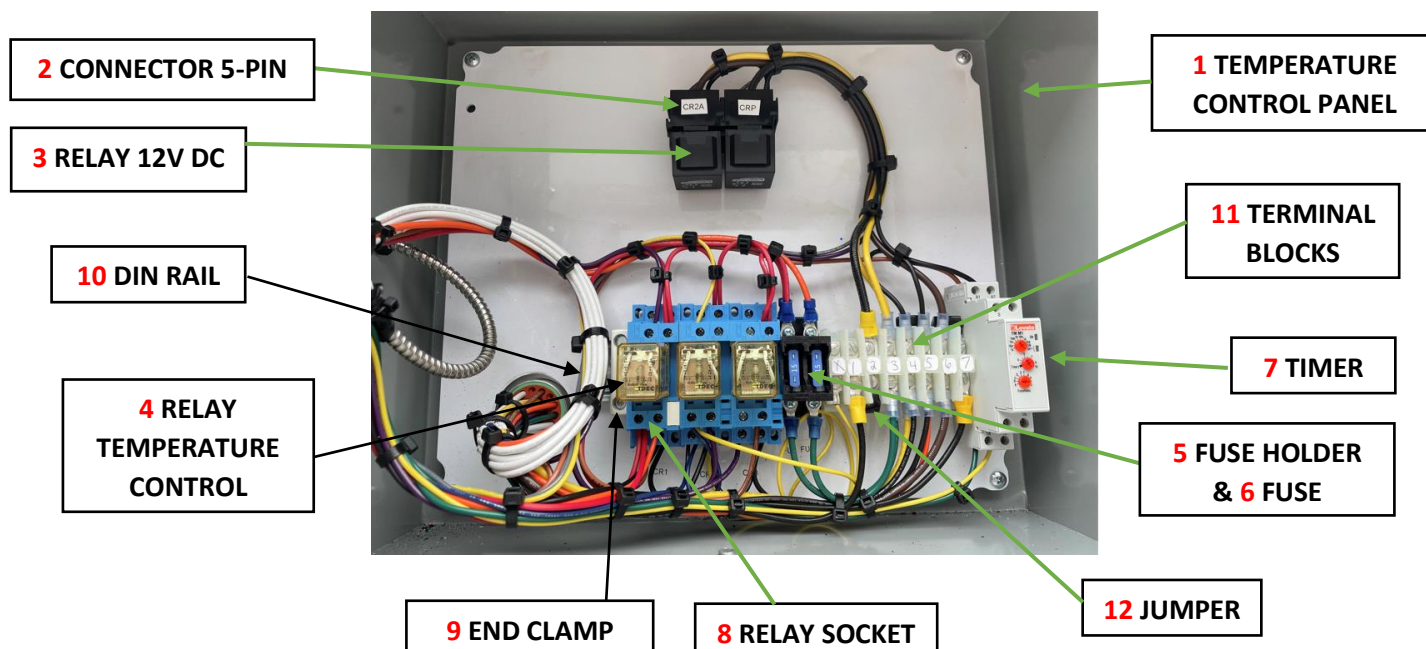
ITEM #	PART#	QTY.	DESCRIPTION
1	P735A065	1	TEMPERATURE CONTROL PANEL
2	P735OM018	1	DIGITAL TEMPERATURE DISPLAYS - OIL
	P735MM018	1	DIGITAL TEMPERATURE DISPLAYS - MATERIAL
3	P735B083	1	SWITCH - TOOL HEATER BOX - GREEN
	P735B022	1	CONTACT BLOCK OPEN-GREEN
4	P443A001	5	TOGGLE SWITCH - LIGHTS
5	P735B021	2	SWITCH – ASSEMBLY
6	P735B013	1	SWITCH – ASSEMBLY
7	P735B012	1	LIGHT- GREEN
8	P735B073	1	LIGHT- AMBER
9	P735B072	1	SWITCH – RED
	P735B023	1	CONTACT BLOCK CLOSED-RED
10	P735B025	1	LIGHT – WHITE
11	P735B082	1	TIMER

CRACK PRO® MASTIC MACHINE

MACHINE PICTURES AND PARTS LIST

PARTS LIST FOR TEMPERATURE CONTROL BOX

PICTURE-8



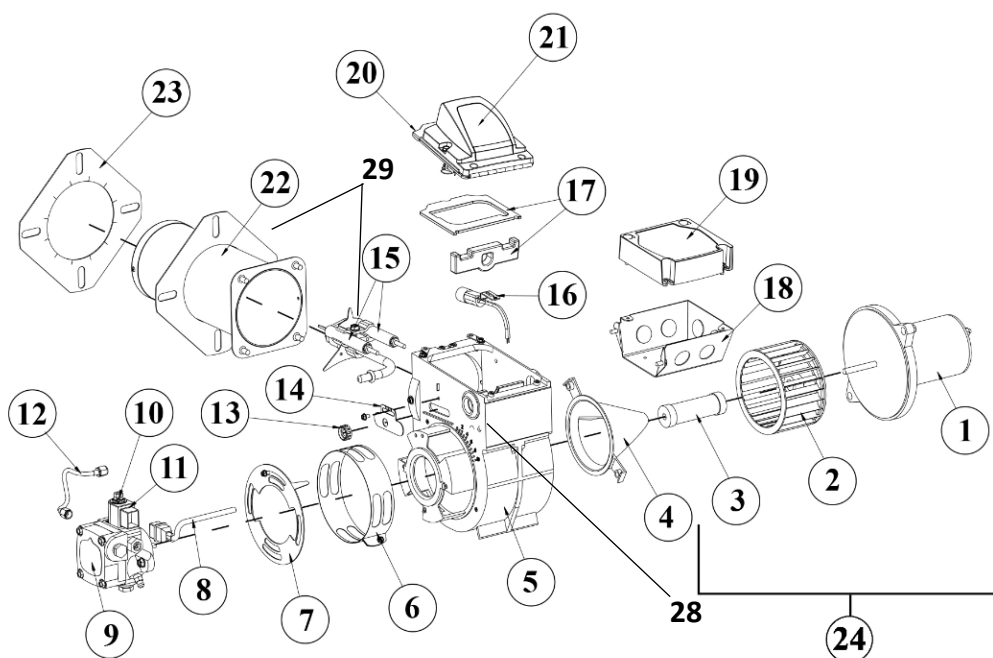
ITEM #	PART#	QTY.	DESCRIPTION
1	P735A065	1	TEMPERATURE CONTROL PANEL
2	P735B075	2	CONNECTOR 5-PIN
3	P735B015	2	RELAY – 12V DC 40AMP
4	P735B009	3	RELAY- TEMPERATURE CONTROL
5	P735B036	2	FUSE HOLDER
6	P595A012	2	FUSE 15-AMP
7	P735B082	1	TIMER
8	P735B010	2	RELAY SOCKET - DIN RAIL SNAP
9	P735B027	2	END CLAMPS
10	P735B062	1	DIN RAIL 35MM
11	P735B079	8	TERMINAL BLOCKS
12	P735B054	1	JUMPER 6-POLE

CRACK PRO® MASTIC MACHINE

APPLIES TO ALL DIESEL FUEL BURNERS

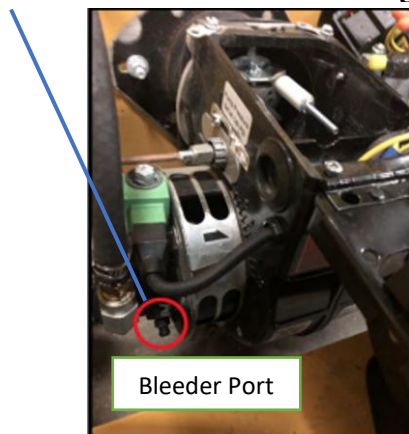
PARTS LIST

PICTURE – DIESEL BURNER



NOTE FOR TROUBLESHOOTING WHEN BURNER DOES NOT LIGHT

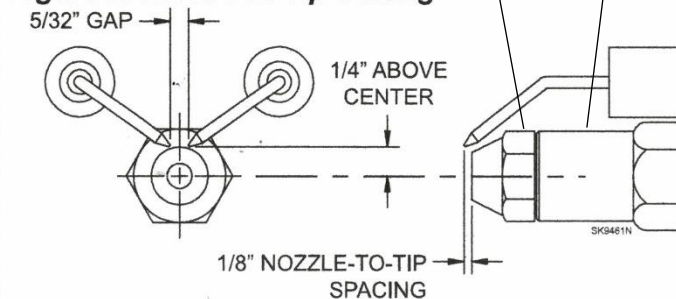
Using a 3/8" wrench, loosen the bleeder valve slightly until fuel comes out without air mixed in. Then tighten the bleeder valve.



27 USE TOOL Z-GUAGE

25 NOZZLE
25 HEAD

Figure 2. Electrode Tip Setting



CAUTION: DO NOT TOUCH NOZZLE

CRACK PRO® MASTIC MACHINE

PARTS LIST

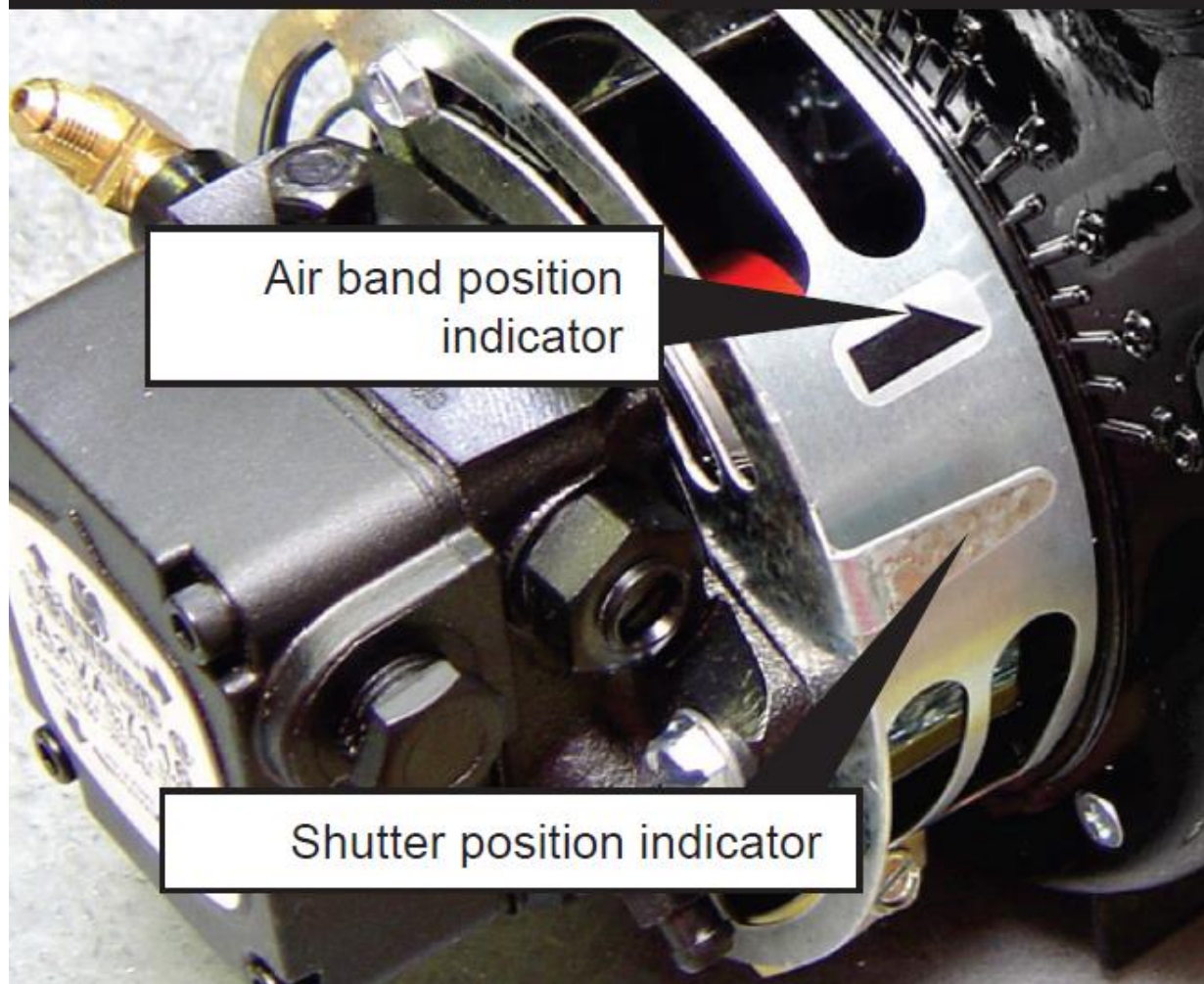
PARTS LIST FOR DIESEL BURNER

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 ASSEMBLY
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	P662A082	1	NOZZLE FOR BURNER ON TOOL BOX
	P662A075	1	HEAD FOR NOZZLE ON TOOL BOX
	P662A074	1	NOZZLE FOR BURNER ON MAIN
	P662A024	1	HEAD FOR NOZZLE ON MAIN
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® MASTIC MACHINE

BURNER INFORMATION CHART

Figure 9. – Air supply components



BECKETT BURNER INFORMATION CHART

MACHINE UNIT	HEAD TYPE	GPH	NOZZLE SIZE	NOZZLE # HEAD #	AIR BAND POSITION	SHUTTER POSITION
MM250 & 300 TOOL BOX	F0	.6	80A	P662A082 / 075	0	0
MM250 MAIN BURNER	STANDARD	1.65	90B	P662A073 / 024	5	7
MM300 MAIN BURNER	STANDARD	1.75	90B	P662A074 / 024	5	7

CRACK PRO® MASTIC 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 -INSIDE
	P458B264		FILTER REPLACEMENT
	P458B203		FUEL FILTER -IN LINE
	P458B254		FUEL / WATER FILTER ASSEMBLY
	P902A021		MUFFLER
	P458B288		ALTERNATOR
	P458B351		FUEL PUMP
	P458B230		SWITCH -TEMPERATURE
	P458B224		STARTER SOLENOID
	P458B356		AIR FILTER COMPLETE
	P458B041		SENSOR -TEMPERATURE
	P458B082		SWITCH - OIL PRESSURE
	P458B228		SOLENOID STOP
	P458B159		FAN V-BELT
	P458B245		FAN
	P458B336		STARTER

CRACK PRO® MASTIC MACHINE

RECOMMENDED SPARE PARTS LIST

LIST FOR: DIESEL ENGINE

PART#	QTY.	DESCRIPTION
P458B147	1	FILTER-OIL
P458B148	1	FILTER-AIR
P458B264	1	FILTER REPLACEMENT
P458B203	1	FUEL FILTER -IN LINE
P458B254	1	FUEL / WATER FILTER ASSEMBLY

LIST FOR: CRACK PRO MASTIC MACHINE

PART#	QTY.	DESCRIPTION
P74000K002		SPARE PARTS KIT
P662A074	1	1.75 X 90B NOZZLE TIP
P662A082	1	.6 X 80A NOZZLE TIP
P735B015	1	RELAY – 12V DC 40 AMP
P662A016	1	BURNER COUPLER
P662A010	1	BURNER PRIMARY CONTROL
P458B203	1	FUEL FILTER -IN LINE
P595A012	2	15 AMP ATC FUSE (FLAT)
P735B009	1	RELAY- TEMPERATURE CONTROL
P735MM018	1	DIGITAL TEMP. CONTROLLER
P662A014	1	CAD CELL DETECTOR
P679A017	1	23" THERMOCOUPLE
P603A007	1	AMMO CAN KIT
P679A020	1	8" THERMOCOUPLE

GROSS WEIGHT LIST:

UNIT		GROSS WEIGHT LBS.
250		5660
300		6160

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

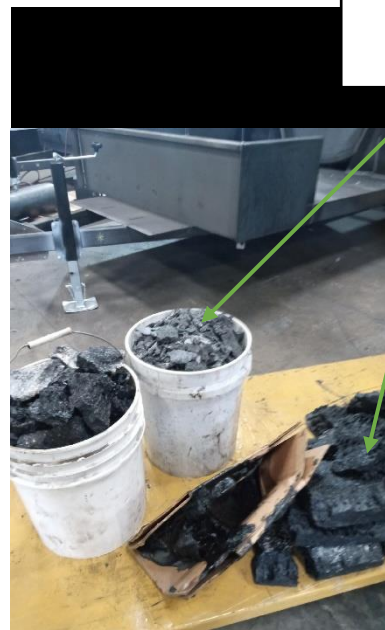
Occasionally crack filling equipment will build up with burnt material around the walls and ceiling of the material tank. The buildup will be brittle and look shiny black.

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