

Crack Pro Gravity Flow/ Direct Fire

60, 125, 260 & SM-125

OWNERS MANUAL



SealMaster®

Pavement Products & Equipment

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

sealmaster.net

CRACK PRO GRAVITY FLOW

Owner's Manual

Version 3.7

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2.0	6/19	New Format and Updates	DS
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2.2	12/19	Updated Cover Art	JG
2.3	8/20	Added Tank Chart	JG
2.4	11/21	Control Box & Agitation	JG
2.5	12/21	Agitation Control Valve	JG
2.6	12/21	Digital Temperature Display	JG
2.7	1/22	Change Engine Oil – Note	JG
2.8	4/22	Added Paint Page	JG
2.9	5/22	Tire Change CP-260	JG
3.0	5/22	Breakaway Kit & Hyd. Valve	JG
3.1	7/22	Bleed Burner Fuel Pump	DS
3.2	7/22	Added Diesel Tank & Caps	JG
3.3	10/22	Added Sight Gauge & Ramp	JG
3.4	4/23	Control Box Items	JG
3.5	7/23	Added Fluid Specifications & Material Tank Buildup Note	JG
3.6	8/23	Added P74000C420 & Burner Items	JG
3.7	11/23	Pictures / List Sequence	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 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.

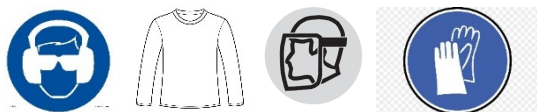
In an effort to continue to improve product quality, SealMaster reserves the right to change specifications without notice.

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

SAFETY PRECAUTIONS AND CAUTIONS

PRECAUTIONS

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



- Be aware of all **CAUTION, WARNING, DANGER** signs on the unit.
- Read all Owners Manuals that come with this unit.
- 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.
- Stop the Agitator when opening the lid for any reason.
- Never fill the fuel tank with a lit burner.
- **WARNING!** When checking oil levels, **never check when HOT!**

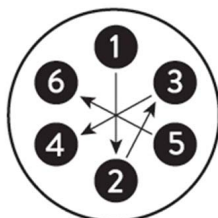
- **PRE-CHECK ALL LUG NUTS**

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

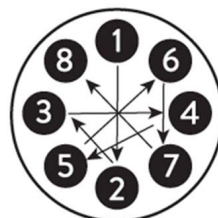
After every 100 Miles of Machine operation and each wheel removal, all wheel lug nuts are to be re-torqued to 110-foot lbs.



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

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

CRACK PRO® GRAVITY FLOW AND DIRECT FIRE MELTER

APPLIES TO ALL DIESEL FUEL BURNER & LP GAS BURNER

MANUAL COVERAGE

CRACK PRO® GRAVITY FLOW

This manual covers the oil jacketed **CRACK PRO®** model sizes 60,125 and 260 gals.

CRACK PRO® DIRECT FIRE MELTER

This manual also covers the non-oil jacketed **CRACK PRO®** model size 125 gallons. Because there is not an oil jacket, the burner reacts differently.

Upon turning on the temperature control, the burner blower motor will come on for a second and then shut off. The burner control is now sensing all parameters.

It will take upward of two minutes for this to happen, and once all parameters are met, the burner will fire, starting the heating cycle.

Every time the temperature control calls for heat, the burner will go thru this two-minute cycle.

CRACK PRO® GRAVITY FLOW AND DIRECT FIRE MELTER

APPLIES TO ALL DIESEL FUEL BURNERS

OPERATING INSTRUCTIONS - DIESEL FUEL BURNER

STARTUP

CHECKLIST

- Check engine oil level. Follow manufacturers' guidelines as to type and frequency of changes.
- Check hydraulic oil level. Use grade AW68 hydraulic oil.
- Check heat transfer oil level with oil dipstick #25. Use a good quality grade 68 turbine oil or heat transfer oil.

NEVER CHECK WHEN HOT!

- Fill fuel tank with gasoline for the engine.
- Fill fuel tank with diesel for the burner.

NEVER FILL FUEL TANK WITH A LIT BURNER!

- **NOTE:** Direct Fire Melter's do not have heat transfer oil or oil thermometer.

BEFORE STARTING THE ENGINE

Make sure the agitator control valve #23 is in the neutral position.

**23 AGITATOR
CONTROL VALVE**



CRACK PRO® GRAVITY FLOW AND DIRECT FIRE MELTER

APPLIES TO ALL DIESEL FUEL BURNERS

OPERATING INSTRUCTIONS - DIESEL FUEL BURNER

STARTUP



STARTING THE ENGINE

- Set the **fuel** shutoff and **choke** levers to the **on** position.
- Set the throttle lever at ½ open.
- Turn the **engine** switch to the start position.



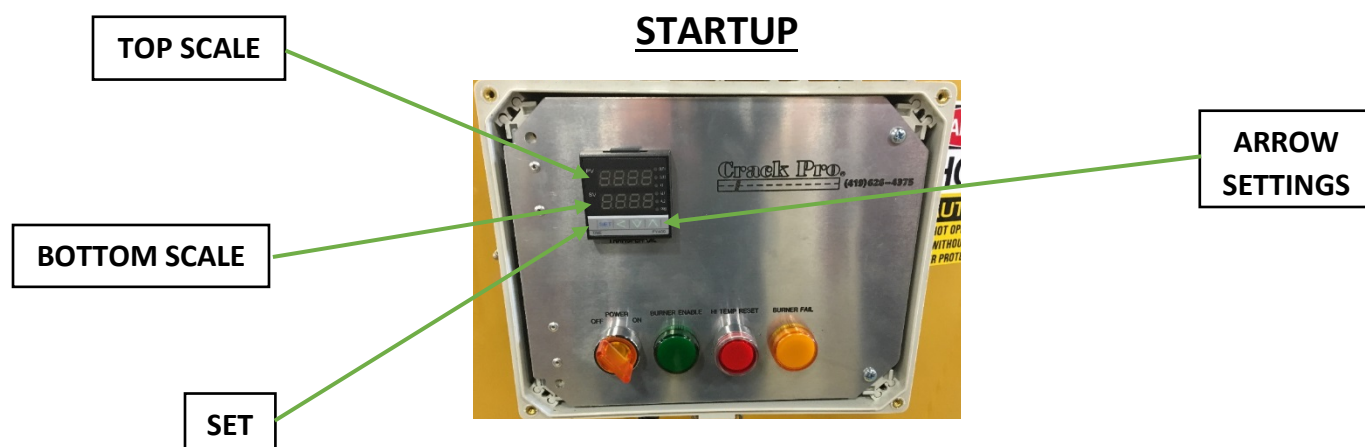
- It is important that when you are done running the engine that the **fuel** shutoff lever is turned to the **off** position. This keeps gasoline from mixing with oil as you are driving.

Refer to the engine manual.

CRACK PRO® GRAVITY FLOW AND DIRECT FIRE MELTER

APPLIES TO ALL DIESEL FUEL BURNERS

OPERATING INSTRUCTIONS - DIESEL FUEL BURNER



STARTING TEMPERATURE CONTROL

- The top scale is the **ambient temperature** of the heat transfer oil or material temperature for **SM-125**.
- The bottom scale is the **set temperature** that you want the oil to be heated to or material temperature for **SM-125**.
- **NOTE:** For **SM-125** Refer to recommend pouring temperature on the material box.
- The burner shuts off when your setting is exceeded by 10°.
- It comes back on when the temperature drops to 10° under your setting.
- The sequence for setting **475°** temperature is:
 - 1) Press the left arrow 3 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**.

NOTE: Factory set temperatures: CP Gravity Oil - 475° / SM-125 Material - 375°

CRACK PRO® GRAVITY FLOW AND DIRECT FIRE MELTER

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

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
60	10
125	25
250	30

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

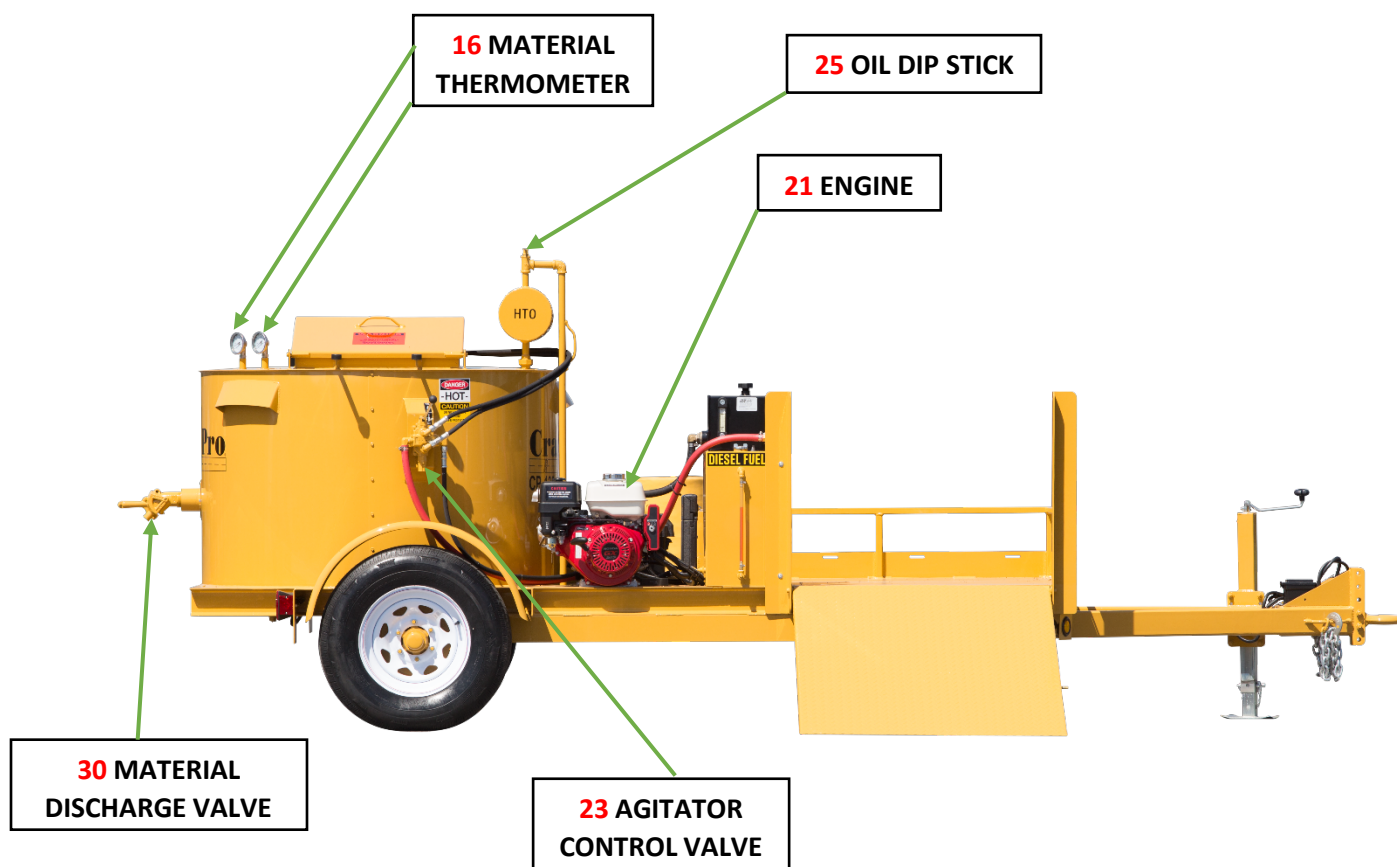
Factory-installed oil: Turbine XL 68 See enclosed MSDS

CRACK PRO® GRAVITY FLOW AND DIRECT FIRE MELTER

APPLIES TO ALL DIESEL FUEL BURNERS

OPERATING INSTRUCTIONS - DIESEL FUEL BURNER

ITEM #	PART#	QTY.	DESCRIPTION
16	P659A009	2	MATERIAL / OIL THERMOMETER CP-60 18" LG
25	P75000B028	1	OIL DIPSTICK
21	P458A050	1	HONDA ENGINE 8 HP GX240 CP-60 CP-125 CP-260
23	P472A028	1	AGITATOR CONTROL VALVE
30	P585B000	1	MATERIAL DISCHARGE VALVE



CRACK PRO® GRAVITY FLOW AND DIRECT FIRE MELTER

APPLIES TO ALL DIESEL FUEL BURNERS

OPERATING INSTRUCTIONS - DIESEL FUEL BURNER

ADDING MATERIAL

1. 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.

MATERIAL TEMPERATURE

1. When the material thermometer #16 and the oil thermometer reaches 300°, engage the agitator control valve #23 to the forward position. If the agitator will not turn, return the valve to the neutral position. Try again in a few minutes.

CAUTION: ALWAYS STOP THE AGITATOR WHEN OPENING THE LID FOR ANY REASON!

2. 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.

CRACK PRO® GRAVITY FLOW AND DIRECT FIRE MELTER

APPLIES TO ALL DIESEL FUEL BURNERS

OPERATING INSTRUCTIONS - DIESEL FUEL BURNER

POURING MATERIAL

3. 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!

4. Fill the crack filler pour pot to the desired level and pour into cracks. Follow with a V-shaped squeegee if desired.
5. To stop for the day, perform the following steps:
 - Turn the burner control switch to the **off** position, at least a 1/2 hour before completing work.
 - Put agitator control valve #23 in neutral.
 - Shut off the engine #21.

**BURNER CONTROL
SWITCH**

**TEMPERATURE
CONTROL BOX**



CRACK PRO® GRAVITY FLOW AND DIRECT FIRE MELTER

APPLIES TO ALL LP GAS BURNERS

OPERATING INSTRUCTIONS - LP GAS BURNER

STARTUP

CHECKLIST

- Check engine oil level. Follow manufacturers' guidelines as to type and frequency of changes.
- Check hydraulic oil level. Use grade AW68 hydraulic oil.
- Check heat transfer oil level with oil dipstick #25. Use a good quality grade 68 turbine oil or heat transfer oil.

NEVER CHECK WHEN HOT!

- Fill fuel tank with gasoline.

NEVER FILL FUEL TANK WITH A LIT BURNER!

- Check if the agitator control valve is in the neutral position.
- **NOTE:** Direct Fire Melter does not have heat transfer oil or oil thermometer.

BEFORE STARTING THE ENGINE

Make sure the agitator control valve #23 is in the neutral position.

**23 AGITATOR
CONTROL VALVE**

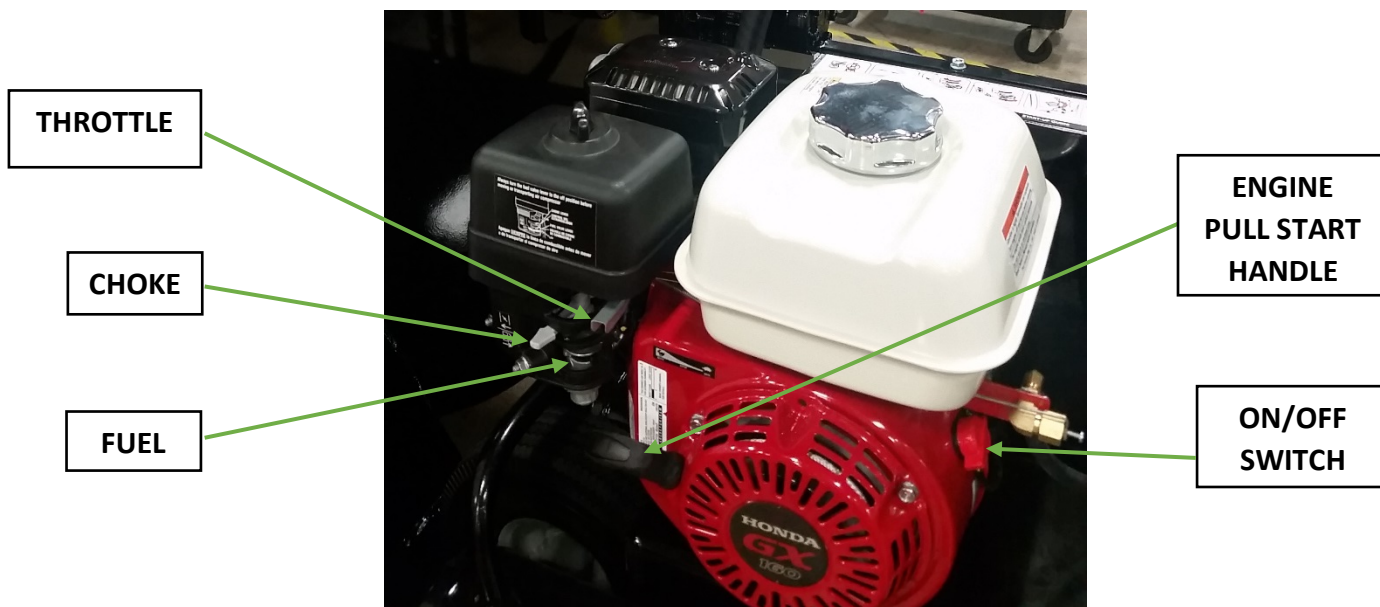


CRACK PRO® GRAVITY FLOW AND DIRECT FIRE MELTER

APPLIES TO ALL LP GAS BURNERS

OPERATING INSTRUCTIONS - LP GAS BURNER

STARTUP



STARTING THE ENGINE

- Set the **fuel** shutoff and **choke** levers to the **on** position.
- Set the throttle lever at ½ open.
- Set the engine **on/off** switch to **on** position.
- Pull start the **engine**.



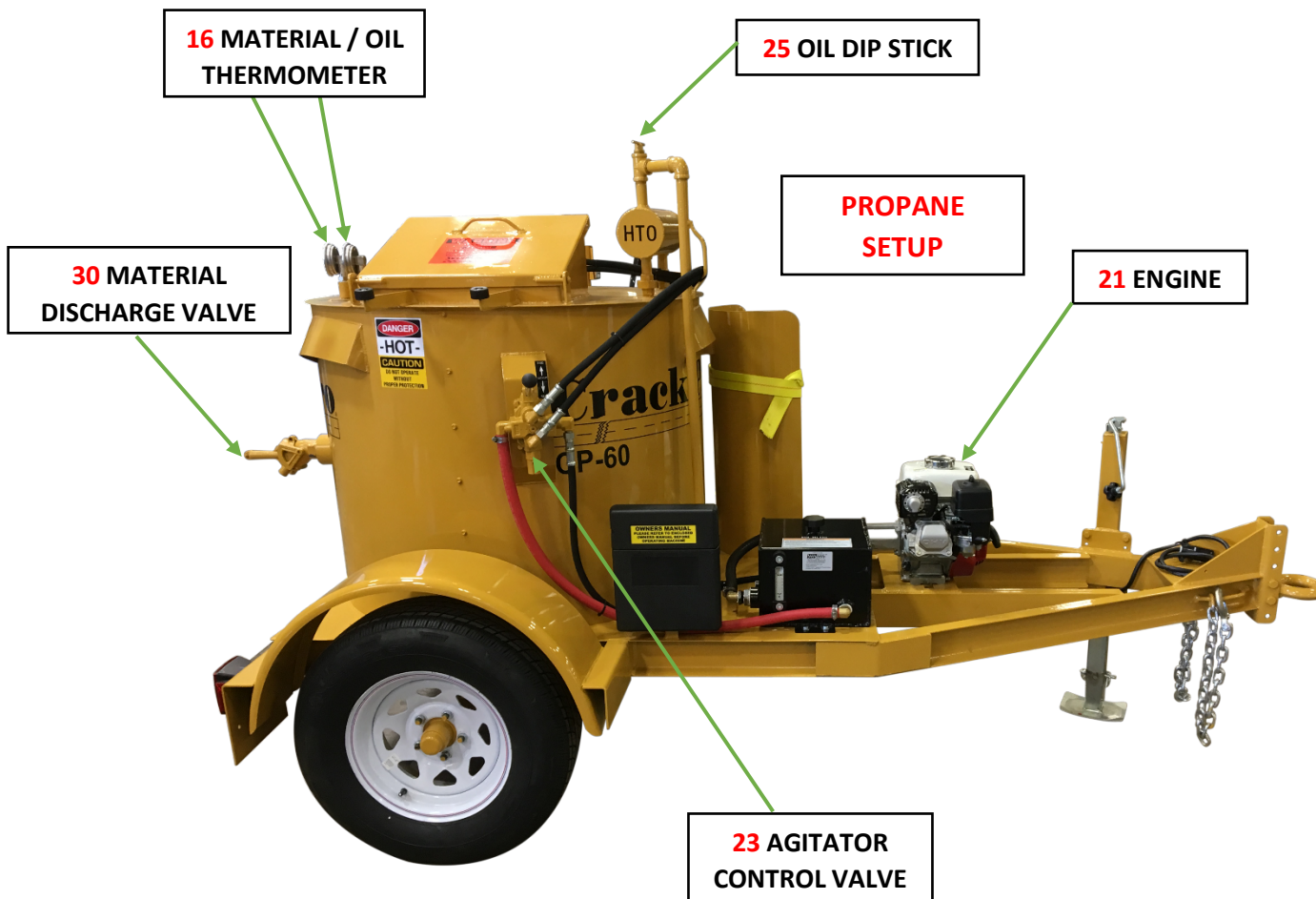
- It is important that when you are done running the engine that the **fuel** shutoff lever is turned to the **off** position. This keeps gasoline from mixing with oil as you are driving.

Refer to the engine manual.

CRACK PRO® GRAVITY FLOW AND DIRECT FIRE MELTER

APPLIES TO ALL LP GAS BURNERS

OPERATING INSTRUCTIONS - LP GAS BURNER

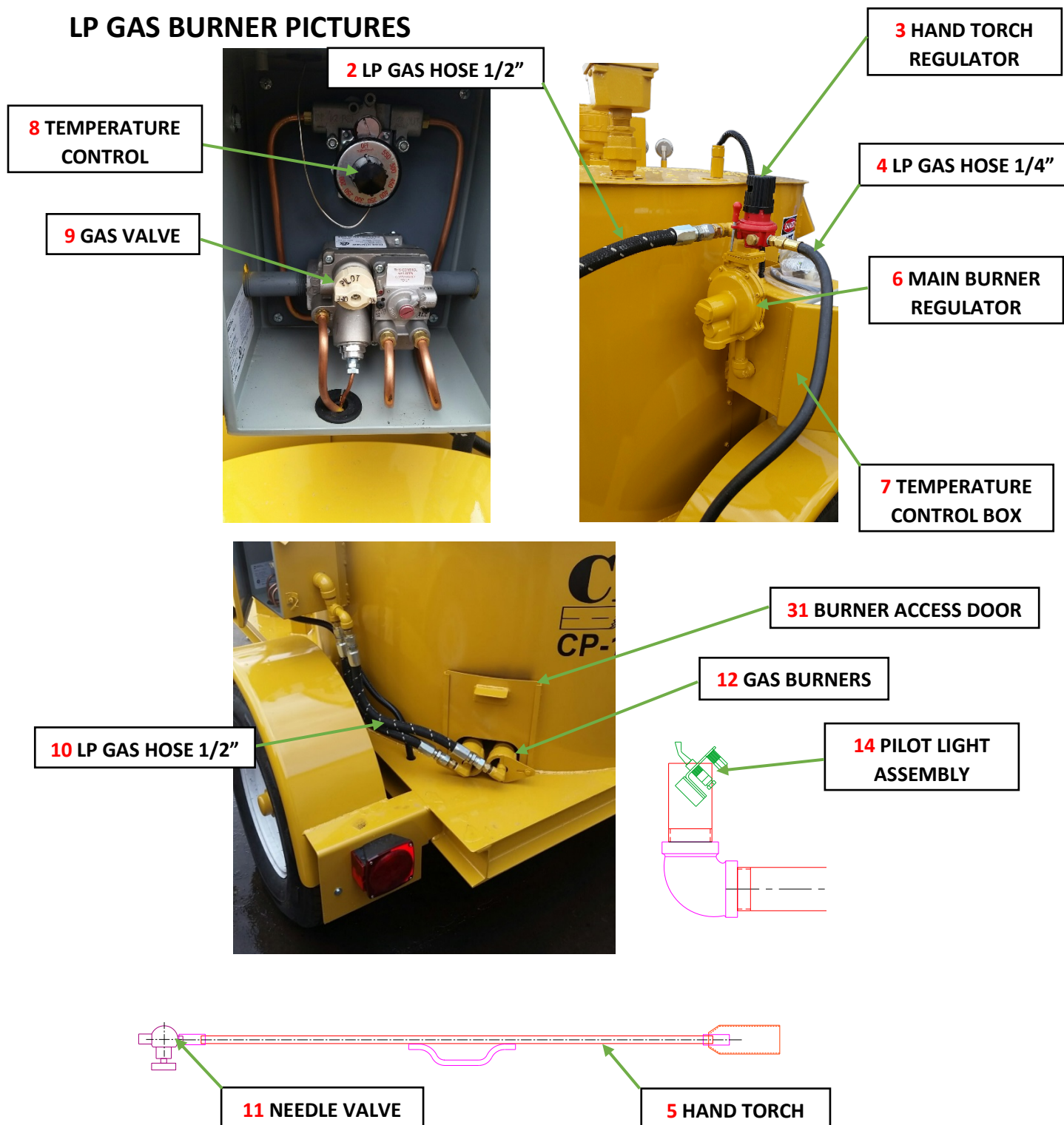


ITEM #	PART#	QTY.	DESCRIPTION
16	P659A009	2	MATERIAL / OIL THERMOMETER CP-60 18" LG
25	P75000B028	1	OIL DIPSTICK
21	P458A022	1	HONDA ENGINE HONDA ENGINE 5 HP GX160 CP-60 PROPANE SETUP
23	P472A028	1	AGITATOR CONTROL VALVE
30	P585B000	1	MATERIAL DISCHARGE VALVE

CRACK PRO® GRAVITY FLOW AND DIRECT FIRE MELTER

APPLIES TO ALL LP GAS BURNER

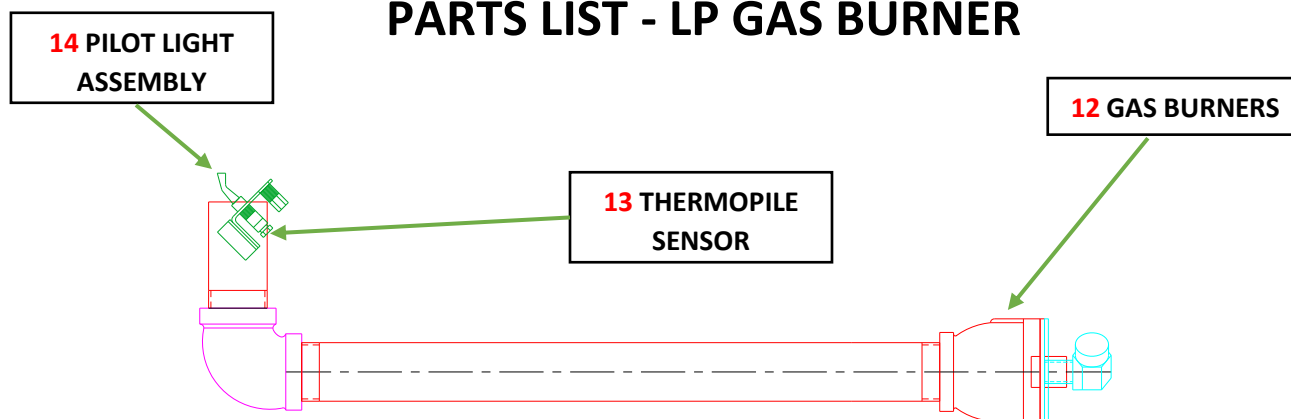
LP GAS BURNER PICTURES



CRACK PRO® GRAVITY FLOW AND DIRECT FIRE MELTER

APPLIES TO ALL LP GAS BURNER

PARTS LIST - LP GAS BURNER



PARTS LIST – LP GAS BURNER

ITEM #	PART#	QTY.	DESCRIPTION
*	P75000B036	1	GAS CONTROL BOX ASSEMBLY
1	P933A001	1	TANK CONNECTOR
2	P669B007	1	1/2" LP GAS HOSE
3	P735A015	1	HAND TORCH REGULATOR
4	P669A005	1	1/4" LP GAS HOSE
5	P75000B010	1	HAND TORCH
6	P735A034	1	MAIN BURNER REGULATOR
7	P941A014	1	TEMPERATURE CONTROL BOX
8	P735A035	1	TEMPERATURE CONTROL
9	P735A036	1	GAS VALVE
10	P669B009	2	1/2" LP GAS HOSE
11	P666A001	1	NEEDLE VALVE
12	P662B030	1	GAS BURNER CP-60
	P662B032	2	GAS BURNER CP-125
13	P679A006	1	THERMOPILE SENSOR
14	P735A037	1	PILOT LIGHT ASSEMBLY

CRACK PRO® GRAVITY FLOW AND DIRECT FIRE MELTER

APPLIES TO ALL LP GAS BURNERS

OPERATING INSTRUCTIONS - LP GAS BURNER

STARTUP

1. Open the temperature control box #7, and turn the temperature control knob #8 all the way clockwise to its lowest setting. This will prevent the burners from lighting prematurely. Remove burner access door #31.
2. Open the LP gas tank valve.
3. Turn the pilot knob on the gas valve #9 to the pilot position. Light the hand torch #5 and place it in the burner opening. Position it by the pilot light assembly #14, depress the pilot knob and remove the hand torch when you see that the pilot flame is lit. Hold the pilot knob in for at least 30 seconds. Release the knob and turn it to the **ON** position.
4. Turn the thermostat control to its 500° setting, the burner will now light. Replace the burner access door #31.

ADDING MATERIAL

5. Open the material tank lid and place three boxes of material inside. Close the lid.

MATERIAL TEMPERATURE

6. When the material thermometer #16 reaches 300°, start the engine and engage the agitator control valve #23 to the forward position. If the agitator will not turn, return the valve to the neutral position. Try again in a few minutes.
7. **NOTE:** When there are a few inches of liquid material in the tank, you can add more blocks.

CAUTION: ALWAYS STOP THE AGITATOR WHEN OPENING THE LID FOR ANY REASON!

CRACK PRO® GRAVITY FLOW AND DIRECT FIRE MELTER

APPLIES TO ALL LP GAS BURNERS

OPERATING INSTRUCTIONS - LP GAS BURNER

8. As the material temperature gets close to the recommended pouring temperature, you need to turn the temperature control #8 down. When constantly adding blocks of material, the temperature control should be set about 50° higher than the material pouring temperature.
9. 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.

POURING MATERIAL

10. 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!

11. Fill the crack filler pour pot to the desired level and pour into cracks. Follow with a V-shaped squeegee if desired.
12. To stop for the day, perform the following steps:
 - Turn the temperature control #8 knob to its lowest setting, at least a 1/2 hour before completing work.
 - Put agitator control valve #23 in neutral.
 - Shut off the engine #21.
 - Turn off the propane tank.

CRACK PRO® GRAVITY FLOW AND DIRECT FIRE MELTER

APPLIES TO ALL DIESEL FUEL BURNER & LP GAS BURNER

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		✓				
CHANGE HTO					✓	
CHANGE ENGINE OIL *1						
CHANGE HYDRAULIC OIL *2						✓
CHANGE HYDRAULIC OIL FILTER					✓	
CHANGE DIESEL FILTER					✓	
DRAIN WATER FROM DIESEL FILTER			✓			
CLEAN HYDRAULIC SUCTION STRAINER					✓	
CHECK BREAKAWAY BOX BATTERY	✓					
CHECK TIRE PRESSURE CHECK TIRE LUG NUTS			✓	✓ 100 Miles		
INSPECT ALL HOSES	✓					

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

Honda Recommends 20hrs Initial Start / every 100hrs or 6 mons. 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.

CRACK PRO® GRAVITY FLOW AND DIRECT FIRE MELTER

APPLIES TO ALL **DIESEL FUEL** BURNER

TROUBLESHOOTING **DIESEL FUEL** BURNER

PROBLEM	POSSIBLE CAUSES/SOLUTIONS
AGITATOR DOES NOT ROTATE	SHUTOFF VALVE IS CLOSED / OPEN VALVE
	HYDRAULIC OIL LOW / FILL OIL LEVEL 4" FROM TOP OF TANK
	SPLINED COUPLER WORN / REPLACE COUPLER
	HYDRAULIC MOTOR / REPLACE AGITATOR MOTOR
	HYDRAULIC PUMP / HAVE TESTED OR REPLACED
ENGINE ISSUES	OIL SPECIFICATIONS / REFER TO ENGINE OWNER'S MANUAL
	OPERATING INSTRUCTIONS / REFER TO ENGINE OWNER'S MANUAL
	FUEL IN OIL CRANKCASE / FUEL SHUT-OFF VALVE IN OFF POSITION WHEN FINISHED
EXPANSION TANK ISSUES	OIL COMING OUT OF HTO PIPE / LEVEL TOO HIGH – DRAIN
	OIL COMING OUT OF HTO PIPE / WATER IN TANK – DRAIN REFILL WITH HTO
BURNER DOES NOT LIGHT	AIR IN PUMP / BLEED THE BURNER FUEL PUMP- SEE BURNER PAGE
	BATTERY LOW / REPLACE THE BATTERY
	BLOWER MOTOR SLOW / CHECK BLOWER WIRING FOR POWER
	CAD CELL DIRTY / CLEAN GLASS LENS
	COUPLER DAMAGED / REPLACE THE COUPLER
	BURNER IN LOCKOUT / REMOVE NEGATIVE CABLE & REATTACH
	FUEL NOZZLE PLUGGED / REFER TO BURNER OWNER'S MANUAL
	AIR SHUTTER MOVED / REFER TO BURNER OWNER'S MANUAL
	FUEL FILTER PLUGGED / CLEAN AS NEEDED
	BLOWER FAN / CHECK FOR OBSTRUCTIONS
	GREEN LIGHT ON / CHECK ALL OF THE ABOVE
	OIL IS AT HIGH LIMIT / LOWER SETTING TO 475°
HIGH TEMPERATURE LIGHT ON	
TEMPERATURE CONTROL DISPLAYS ERROR	SETUP CYCLE WILL RUN/ MAY CAUSE ERROR
	IN1E MEANS INCORRECT WIRING / CHECK FOR BROKEN WIRES
	UUU1 MEANS SETTING CHANGE / CHECK THERMOCOUPLE
	NNN1 MEANS SETTING CHANGE / CALL FOR INSTRUCTIONS

CRACK PRO® GRAVITY FLOW AND DIRECT FIRE MELTER

APPLIES TO ALL **LP GAS** BURNERS

MACHINE MAINTENANCE

TROUBLESHOOTING **LP GAS BURNER**

PROBLEM	POSSIBLE CAUSES/SOLUTIONS
AGITATOR DOES NOT ROTATE	SHUTOFF VALVE IS CLOSED / OPEN VALVE
	HYDRAULIC OIL LOW / FILL OIL LEVEL 4" FROM TOP OF TANK
	SPLINED COUPLER WORN / REPLACE COUPLER
	HYDRAULIC MOTOR / REPLACE AGITATOR MOTOR
	HYDRAULIC PUMP / HAVE TESTED OR REPLACED
ENGINE ISSUES	OIL SPECIFICATIONS / REFER TO ENGINE OWNER'S MANUAL
	OPERATING INSTRUCTIONS / REFER TO ENGINE OWNER'S MANUAL
	FUEL IN OIL CRANKCASE / FUEL SHUT-OFF VALVE IN OFF POSITION WHEN FINISHED
EXPANSION TANK ISSUES	OIL COMING OUT OF HTO PIPE / LEVEL TOO HIGH – DRAIN
	OIL COMING OUT OF HTO PIPE / WATER IN TANK – DRAIN REFILL WITH HTO
TEMPERATURE CONTROL DOES NOT LIGHT	TEMPERATURE DIAL WORN / REPLACE TEMPERATURE CONTROL
	COPPER TUBES LEAK / DO LEAK TEST THAT CONNECT TO GAS VALVE
TEMPERATURE CONTROL DOES NOT SHUT-OFF	TEMPERATURE PROBE BROKE / REPLACE TEMPERATURE PROBE
	COPPER TUBES LEAK / DO LEAK TEST THAT CONNECT TO GAS VALVE
LP GAS BURNER BURNER WILL NOT STAY LIT	THERMOPILE / NEEDS REPLACED
	GAS VALVE / NEEDS REPLACED
LP GAS BURNER FLAME IS SMALLER	OBSTRUCTION IN HOSE / CLEAN OUT HOSE
	BURNER ORIFICE BLOCKED/ CLEAN ORIFICE

HYDRAULIC OIL SHEET

INDOL and INDOL (Ultra Clean*) Premium 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 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 entrainment.

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.

INDOL Premium 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: 6000+ 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 SUS	6.20 46.5	4.35 40.6	5.50 44.3	6.80 48.5	8.80 55.1	11.1 63.2	14.6 76.4	18.7 93.0	30.5 145
@ 40°C, cSt SUS	33.1 156	21.9 106	31.9 150	46.1 215	67.5 313	98.4 456	148 686	214 992	461 2136
Viscosity Index	140	103	105	101	100	98	96	95	95
Pour Point, °F	-50	-40	-40	-25	-20	-10	10	10	20
API Gravity/Lbs gallon	32.8/7.2	33.1/7.2	32.3/7.2	31.0/7.2	30.1/7.2	30.1/7.2	28.9/7.3	28.0/7.4	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 material safety data sheet is available upon request. Used oil contains by-products, which may be harmful. Avoid prolonged or repeated skin contact. Wash clothing and exposed areas with soap and water. Don't pollute - return used oil to a collection center.

SAFETY DATA SHEET



SAFETY DATA SHEET

Section 1. Identification

CHS Inc. P.O. Box 64089 Mail station 525 St. Paul, MN 55164-0089		Transportation Emergency (CHEMTREC):	1-800-424-9300 CCN23163
		Technical Information	: 1-651-355-8443
		SDS Information	: 1-651-355-8445
Product name	: TURBINE OIL XL 32, 46, 68, 100	SDS no.	: 0190-061520
Common name	: TURBINE OIL XL 32, 46, 68, 100	Revision date	: 07/27/2020
Chemical name	: Lubricating oil.	Chemical formula	: Mixture
Chemical family	: Hydrocarbon.		
<u>Relevant identified uses of the substance or mixture and uses advised against</u>			
Lubricating oil.			

Section 2. Hazards identification

OSHA/HCS status	: This product is not considered hazardous by the 2012 OSHA Hazard Communication Standard (29 CFR 1910.1200).
Classification of the substance or mixture	: Not a dangerous substance or mixture according to the Globally Harmonized System (GHS).
<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.

Section 3. Composition/information on ingredients

Substance/mixture	: Mixture	
Chemical name	: Lubricating oil.	
Other means of identification	: TURBINE OIL XL 32, 46, 68, 100	
Chemical Name	CAS No	Weight %
Distillates, petroleum, hydrotreated, heavy, paraffinic	64742-64-7	60 - 100
Proprietary Additives	PROPRIETARY	0.5 - 1.5

The specific identity and exact concentration of any included proprietary additive(s) is withheld as a trade secret.

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	: This product is not classified as an eye irritant.
Inhalation	: This product is not classified as acutely toxic by inhalation.
Skin contact	: This product is not classified as acutely toxic by the dermal route.
Ingestion	: This product is not classified as acutely toxic by the oral route.

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.
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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.
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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 32, 46, 68, 100

Conditions for safe storage, including any incompatibilities : Do not store above the following temperature: 80°C (175°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. Do not store at temperatures exceeding 113°F (45°C). 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

Exposure guidelines Exposure limits for purified mineral oil as mist: US-ACGIH reports: TWA-5 mg/m³ and STEL-10 mg/m³; US-OSHA PEL 5 mg/m³.

Chemical Name	ACGIH TLV	OSHA PEL	NIOSH IDLH
Distillates, petroleum, hydrotreated heavy paraffinic 64742-54-7	5 mg/m ³ (As oil mist) STEL: 10 mg/m ³ as Oil Mist		

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		Relative density	: 0.89 to 0.91
Physical state	: Liquid.	Evaporation rate	: <1 (Butyl acetate = 1)
Color	: Amber.	Solubility	: Insoluble in the following materials: cold water and hot water.
Odor	: Mild.	Solubility in water	: Insoluble
Odor threshold	: Not available.	Partition coefficient: n-octanol/water	: Not available.
pH	: Not available.	Auto-ignition temperature	: >260°C (>500°F)
Melting point	: Not available.	Decomposition temperature	: Not available.
Boiling point	: Not available.	SADT	: Not available.
Flash point	: Closed cup: >205°C (>401°F)	Viscosity	: Not available.
Flammability	: Not available.	Vapor pressure	: <0.13 kPa (<1 mm Hg) (68°F)
Lower and upper explosive (flammable) limits	: Not available.	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 32, 46, 68, 100

Section 11. Toxicological information**Information on toxicological effects**Acute toxicity

Product/Ingredient name	Result	Species	Dose	Exposure
There is no data available	-	-	-	-

Irritation/Corrosion

Product/Ingredient name	Result	Species	Score	Exposure	Observation
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 informationToxicity

There is no data available.

Persistence and degradability

There is no data available.

Bioaccumulative potential

Product/Ingredient name	LogP _{ow}	BCF	Potential
There is no data available	-	-	-

Mobility in soilSoil/water partition coefficient (K_{oc}) : There is no data available.

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

Turbine XL 32, 46, 68, 100

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.

Section 14. Transport information

DOT IDENTIFICATIONNUMBER Not applicable. **DOT proper shippingname** 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: Not applicable
 TSCA 8(a) PAIR: Not applicable
 TSCA 8(a) CDR Exempt/Partial exemption: Not determined
 United States Inventory (TSCA 8b): All components are listed or exempted.
 Clean Water Act (CWA) 307: Not applicable
 Clean Water Act (CWA) 311: Not applicable

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	Concentration in product, % or parts per million	CAS Number	SARA 302 TPQ		SARA 304 RQ	
			(lbs)	(kilograms)	(lbs)	(kilograms)
Vinyl acrylate	< 0.5 ppm	108-05-4	1000	454	-	-
1-octene	< 0.5 ppm	111-66-0	-	-	100	45

SARA 311/312 Hazard Categories

Acute Health Hazard No
 Chronic Health Hazard No
 Fire Hazard No
 Sudden release of pressure hazard No
 Reactive Hazard No

Composition/Information on Ingredients

Name	%	Fire hazard	Sudden release of pressure	Reactive	Immediate (acute) health hazard	Delayed (chronic) health hazard
-	-	-	-	-	-	-

SARA 313 : This product contains 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	%
Diphenyl amine	122-39-3	0.00935

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, alkyl esters/copolymers
Pennsylvania : The following components are listed: Distillates (petroleum), hydrotreated heavy paraffinic, alkyl esters/copolymers
California Prop. 65:

Turbine XL 32, 46, 68, 100

⚠ WARNING: This product can expose you to chemicals including ethyl acrylate (< 4 ppm) which is known to the State of California to cause cancer.

Ingredient Name	Cancer	Reproductive	No Significant Risk Level	Maximum acceptable dosage level
1,4 Dioxane	Yes	No	Yes	6.4 µg/day (ingestion) 13 µg/day (inhalation)
Ethyl acrylate	Yes	No	No	N.A.
Propylene oxide	Yes	No	No	N.A.
Ethylene oxide	Yes	No	Yes	2 µg/day

Section 16. Other information

NFPA

Health hazards 0

Flammability 1

Instability 0

Physical and chemical
properties -

Personal Protection B

HMIS

Health hazards 0

Flammability 1

Physical hazards 0

Issue date
Revision date
Revision note
Not applicable
Disclaimer

15-JUN-2020
27-JUL-2020

The information provided in this Safety Data Sheet is correct to the best of our knowledge, information and belief at the date of its publication. The information given is designed only as a guidance for safe handling, use, processing, storage, transportation, disposal and release and is not to be considered a warranty or quality specification. The information relates only to the specific material designated and may not be valid for such material used in combination with any other materials or in any process, unless specified in the text.

End of Safety Data Sheet



OUR ENERGY COMES THROUGH

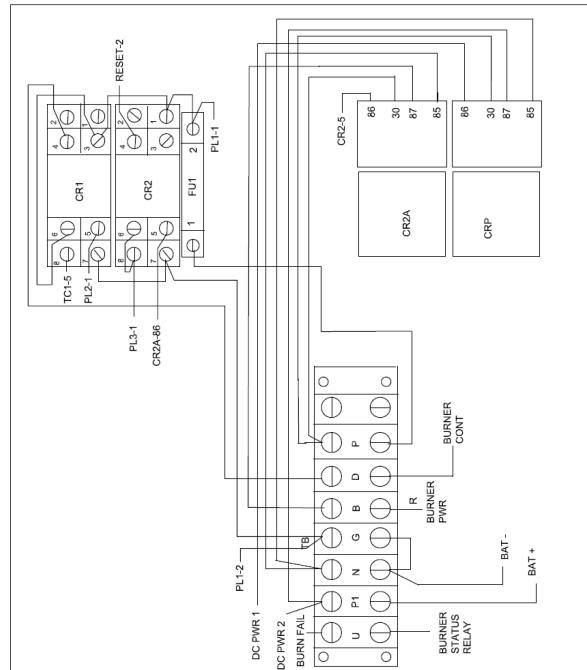
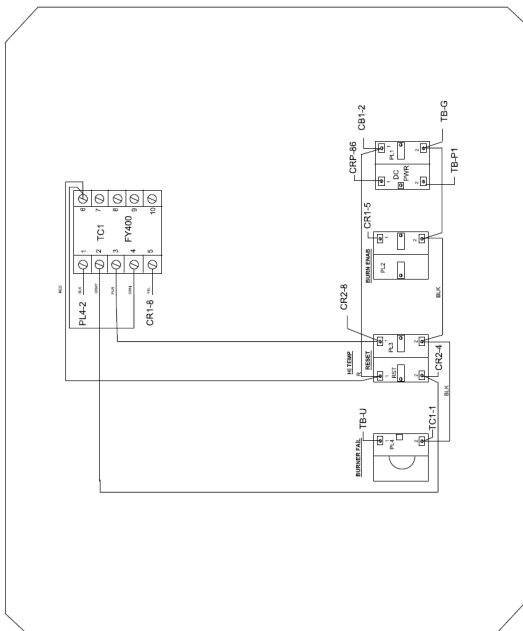
A BRAND OF 

CRACK PRO® GRAVITY FLOW AND DIRECT FIRE MELTER

APPLIES TO ALL DIESEL FUEL BURNER

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

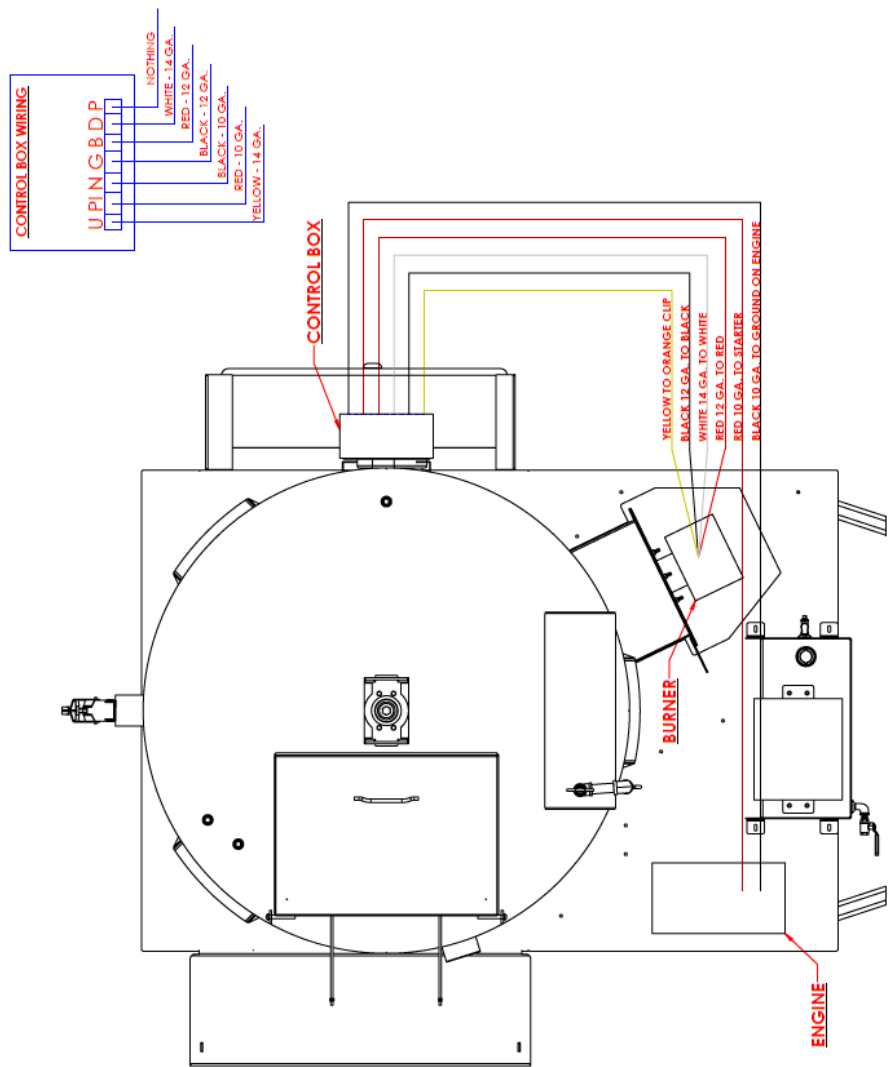
D – WHITE 14 GA. TO BURNER

NOTE: RUN BATTERY – DIRECTLY TO BURNER

CRACK PRO® GRAVITY FLOW AND DIRECT FIRE MELTER

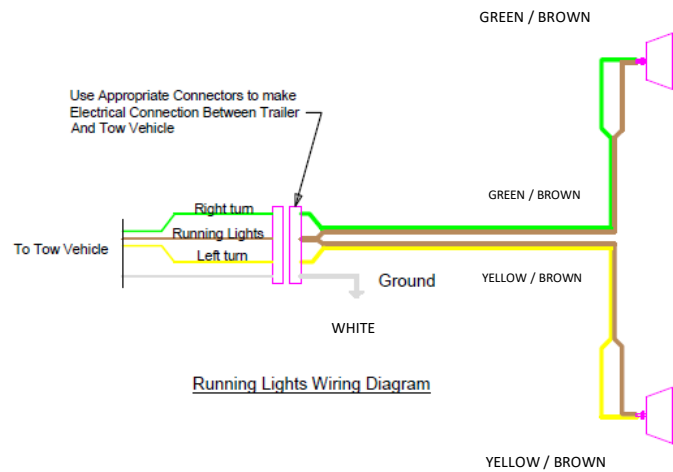
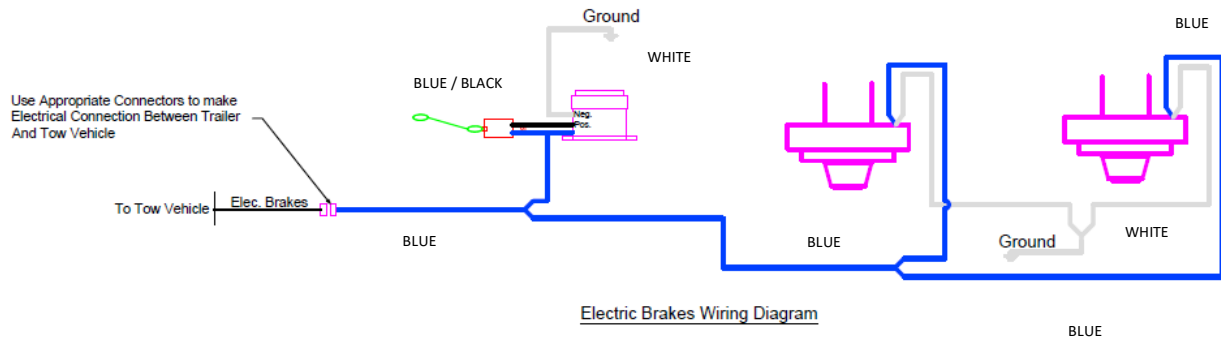
APPLIES TO ALL DIESEL FUEL BURNER

WIRING CONTROL BOX TO BURNER & ENGINE



<u>GRAVITY CONTROL BOX HARNESS WIRES</u>
YELLOW - 14 GA, 6 FT
BLACK - 12 GA, 6 FT
BLACK - 10 GA, 8-1/2 FT
WHITE - 14 GA, 6 FT
RED - 12 GA, 6 FT
RED - 10 GA, 8-1/2 FT

ELECTRIC BRAKES AND RUNNING LIGHTS



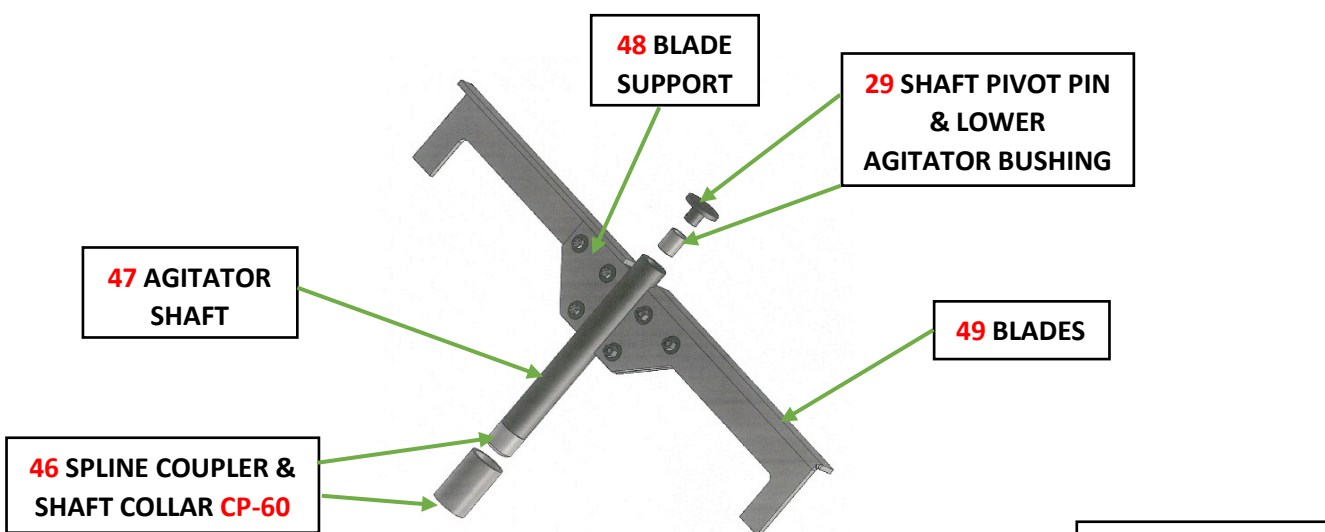
TANK CAPACITY CHART					
GALLONS ARE APPROXIMATE AND MAY VARY SLIGHTLY TANK TO TANK					
MATERIAL DEPTH AND GALLON VOLUME					
MATERIAL DEPTH	400 GALLONS 60"x34"	260 GALLONS 60"x21"	200 GALLONS 46"x30"	125 GALLONS 46"x19"	60 GALLONS 33"x17"
INCHES	GALLONS	GALLONS	GALLONS	GALLONS	GALLONS
1	12	12	7	7	4
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 tank, reverse inch amount.

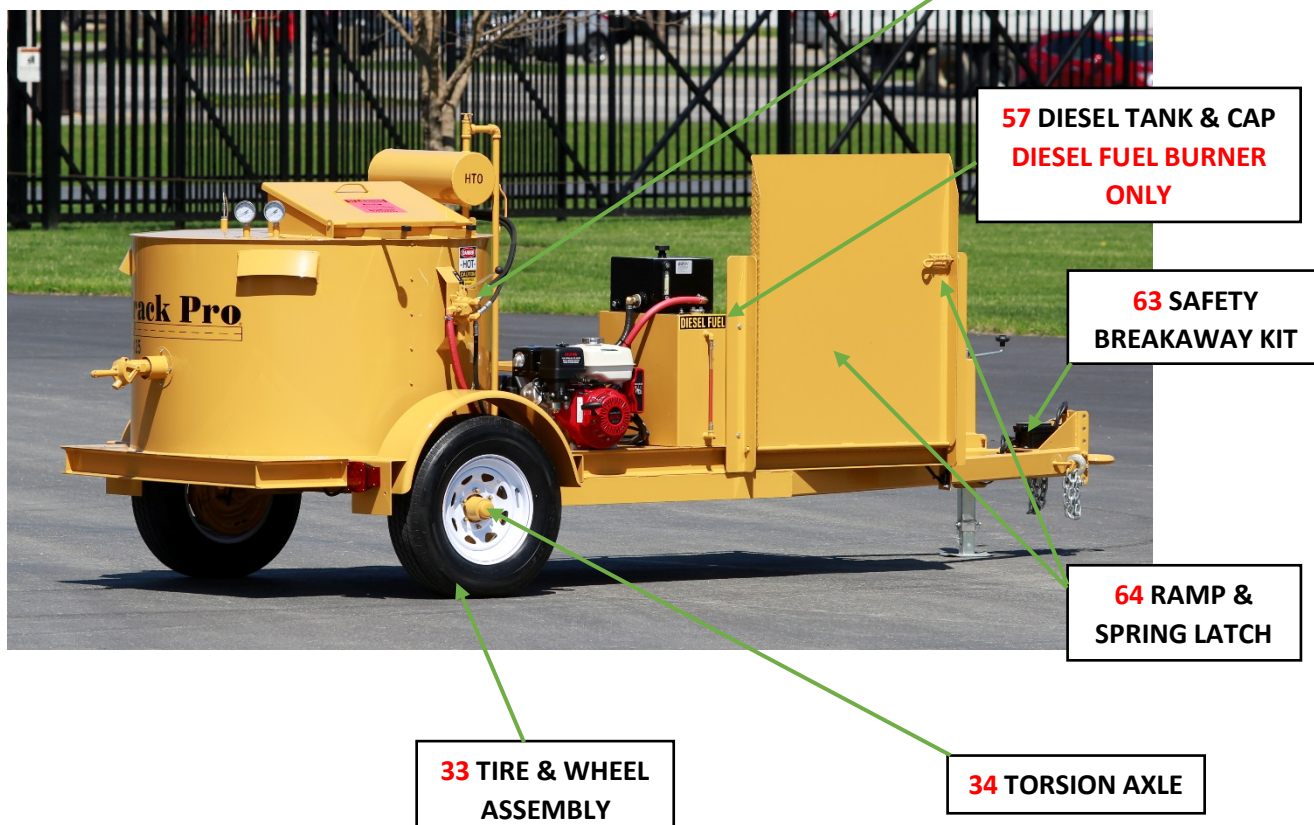
CRACK PRO® GRAVITY FLOW AND DIRECT FIRE MELTER

APPLIES TO ALL DIESEL FUEL BURNER & LP GAS BURNER

MACHINE PICTURES AND PARTS LIST



PICTURE-1



CRACK PRO® GRAVITY FLOW AND DIRECT FIRE MELTER

APPLIES TO ALL DIESEL FUEL BURNER & LP GAS BURNER

PARTS LIST

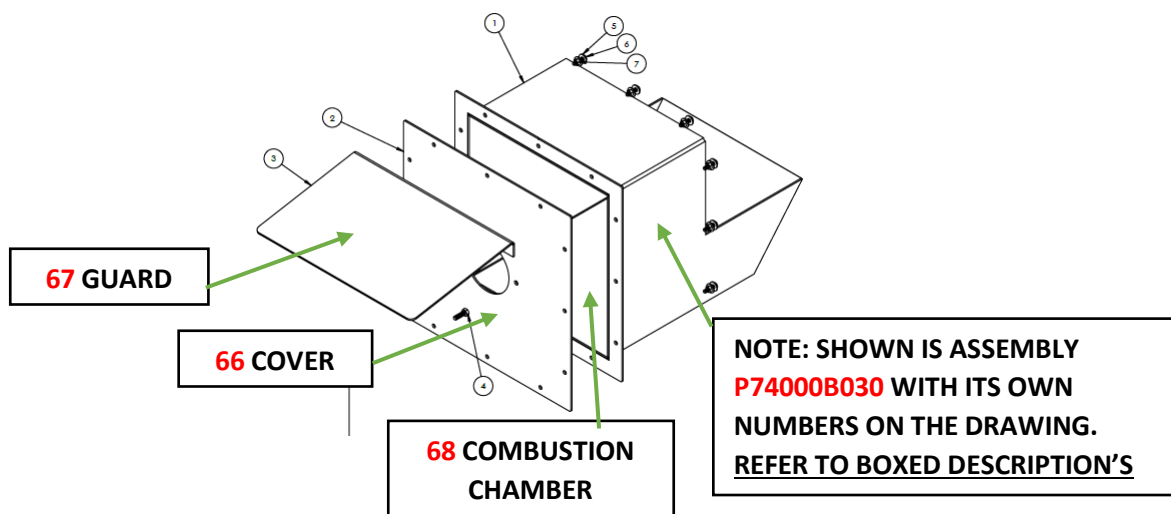
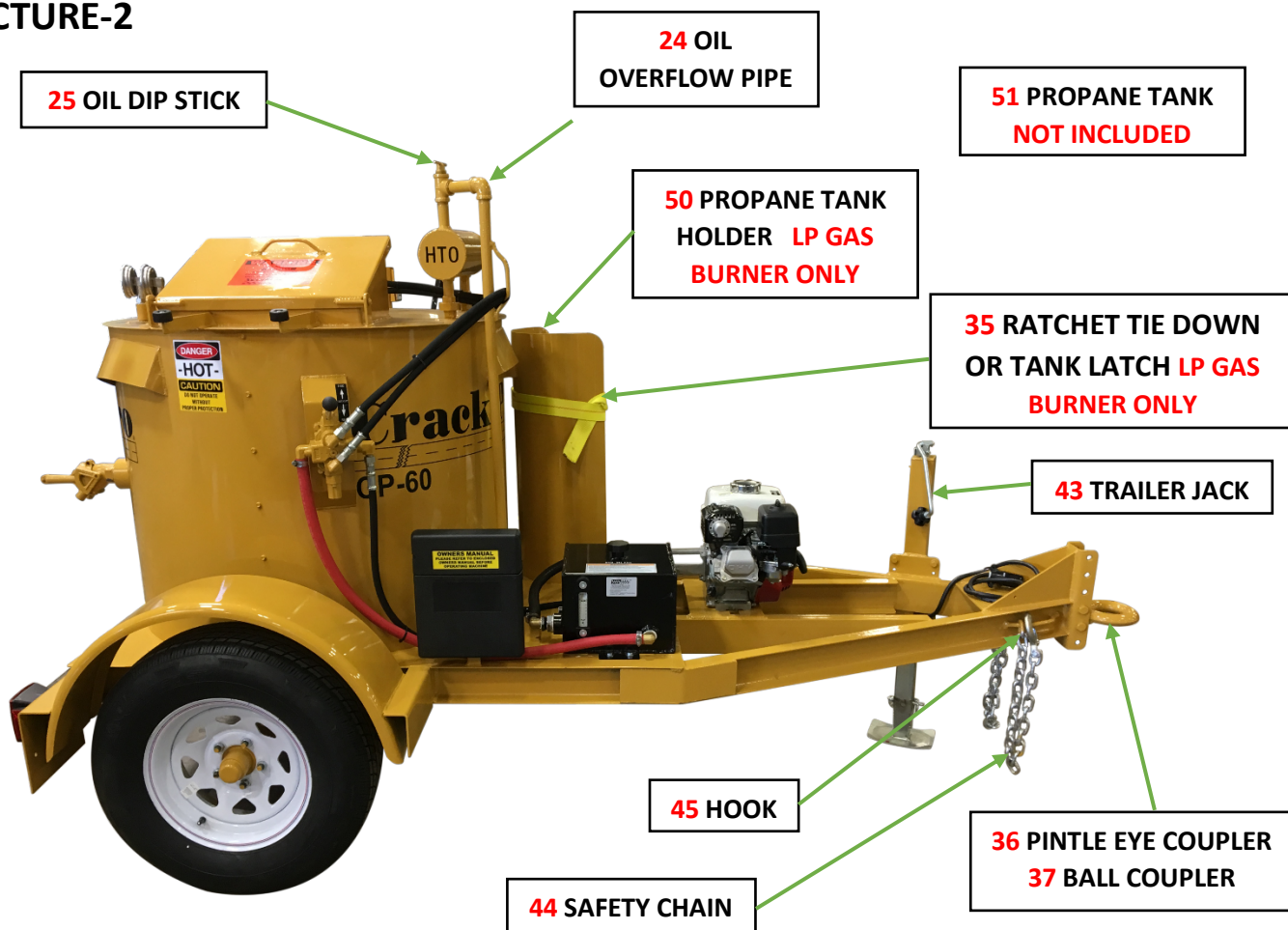
PARTS LIST PICTURE-1

ITEM #	PART#	QTY.	DESCRIPTION
23	P472A028	1	AGITATOR CONTROL VALVE
29	P439A004	1	LOWER AGITATOR BUSHING
	P74000B015	1	SHAFT PIVOT PIN
33	P514A015	2	TIRE AND WHEEL ASSEMBLY CP-60
	P514A017	2	TIRE AND WHEEL ASSEMBLY CP-125 / SM-125
	P514A022	2	TIRE AND WHEEL ASSEMBLY CP-260
	P514A017	4	TIRE AND WHEEL ASSEMBLY CP-260 XD
34	P511A022	1	TORSION AXLE CP-60
	P511A032	1	TORSION AXLE CP-125 / SM-125
	P511A017	1	TORSION AXLE CP-260
	P511A017	2	TORSION AXLE CP-260 XD
46	P630A043	1	SPLINE COUPLER CP-60 CP-125 / SM-125
	P630A047	1	SPLINE COUPLER CP-260
	P74000E062-001	1	SHAFT COLLAR CP-60
47	P75000B012-001	1	AGITATOR SHAFT CP-60
	P74000D062-001	1	AGITATOR SHAFT CP-125 / SM-125
	P75000H012-001	1	AGITATOR SHAFT CP-260
48	P74000B014	2	BLADE SUPPORT
49	P75000B011A	2	BLADE CP-60
	P74000B008B	2	BLADE CP-125 / SM-125
	P74000B013-001	2	BLADE CP-260
	P74000Q062	1	REPLACEMENT AGITATION SHAFT ASSEMBLY BEFORE 10/2021 CP-125/260
57	P50211K	1	DIESEL FUEL TANK CP-60 / CP-125 / SM-125
	P50211H	1	DIESEL FUEL TANK CP-260
	P464A002	1	DIESEL FUEL TANK CAP
63	P518A008	1	BREAKAWAY KIT-4 BOLT
	P518A004	1	BREAKAWAY KIT BEFORE 10/2019
64	P72000D073	1	RAMP
	P953A008	1	SPRING LATCH

CRACK PRO® GRAVITY FLOW AND DIRECT FIRE MELTER

APPLIES TO ALL DIESEL FUEL BURNER & LP GAS BURNER

PICTURE-2



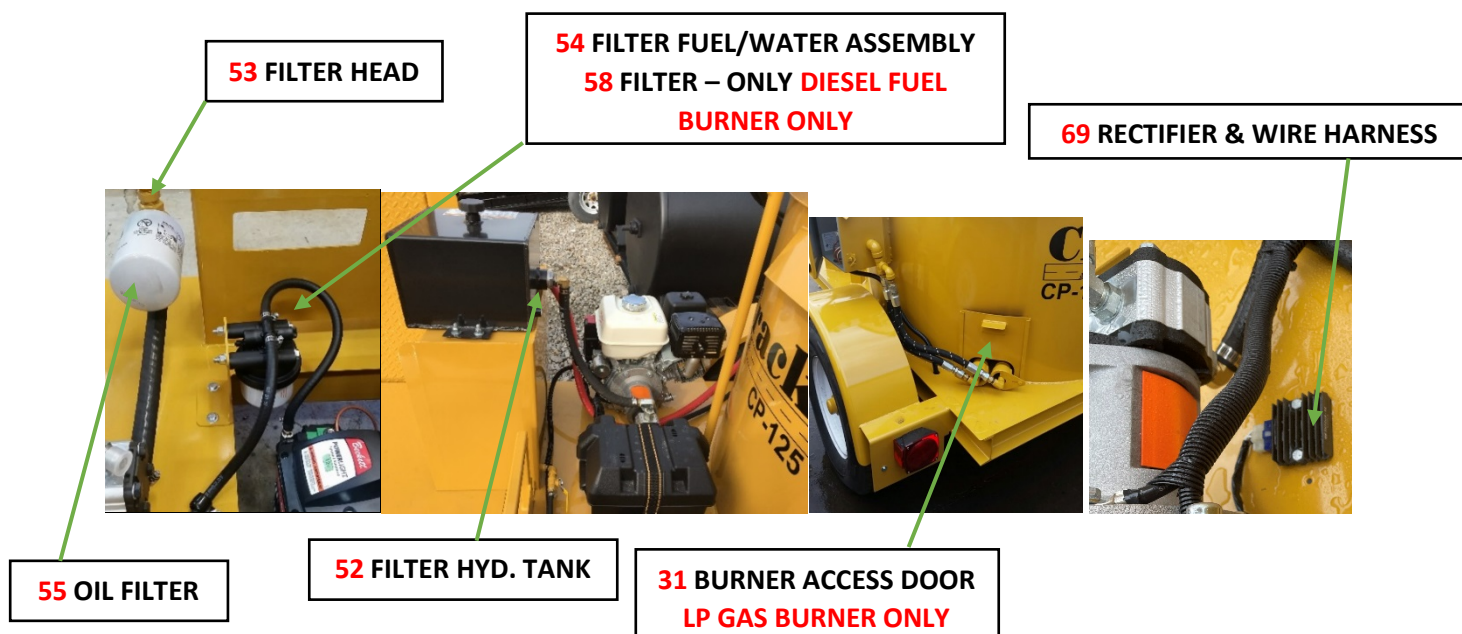
CRACK PRO® GRAVITY FLOW AND DIRECT FIRE MELTER

APPLIES TO ALL DIESEL FUEL BURNER & LP GAS BURNER

PARTS LIST PICTURE-2

ITEM #	PART#	QTY.	DESCRIPTION
24	P75000B006	1	OIL OVERFLOW PIPE
25	P75000B028	1	OIL DIPSTICK
31	P75000B020	1	PROPANE BURNER ACCESS DOOR FOR CP-60
	P75000C020	1	PROPANE BURNER ACCESS DOOR FOR CP-125
35	P422A003	1	RATCHET TIE DOWN
36	P646A003	*	PINTLE EYE COUPLER
37	P553A008	*	2-5/16" BALL COUPLER
43	P551A008	1	TRAILER JACK
44	P531A004	2	SAFETY CHAIN
45	P517A002	2	HOOK (PART OF SAFETY CHAIN)
50	P75000B027	1	PROPANE TANK HOLDER
51	N/A	1	PROPANE TANK – NOT INCLUDED
52	P408A004	1	SUCTION STRAINER (HYD. TANK)
53	P909A002	1	FILTER HEAD (SMALL)
54	P458B254	1	FILTER - FUEL/WATER ASSEMBLY
55	P908A003	1	FILTER – HYD. OIL
58	P458B264	1	FILTER - ONLY
65	P662A009	1	COMPLETE BURNER
66	P74000B030D	1	COVER – BURNER BOX
67	P74000B030E	1	GUARD – BURNER BOX
68	P671A000	1	COMBUSTION CHAMBER
69	P458B252	1	RECTIFIER - 8 HP HONDA
	P458B253	1	WIRE HARNESS - 8 HP HONDA

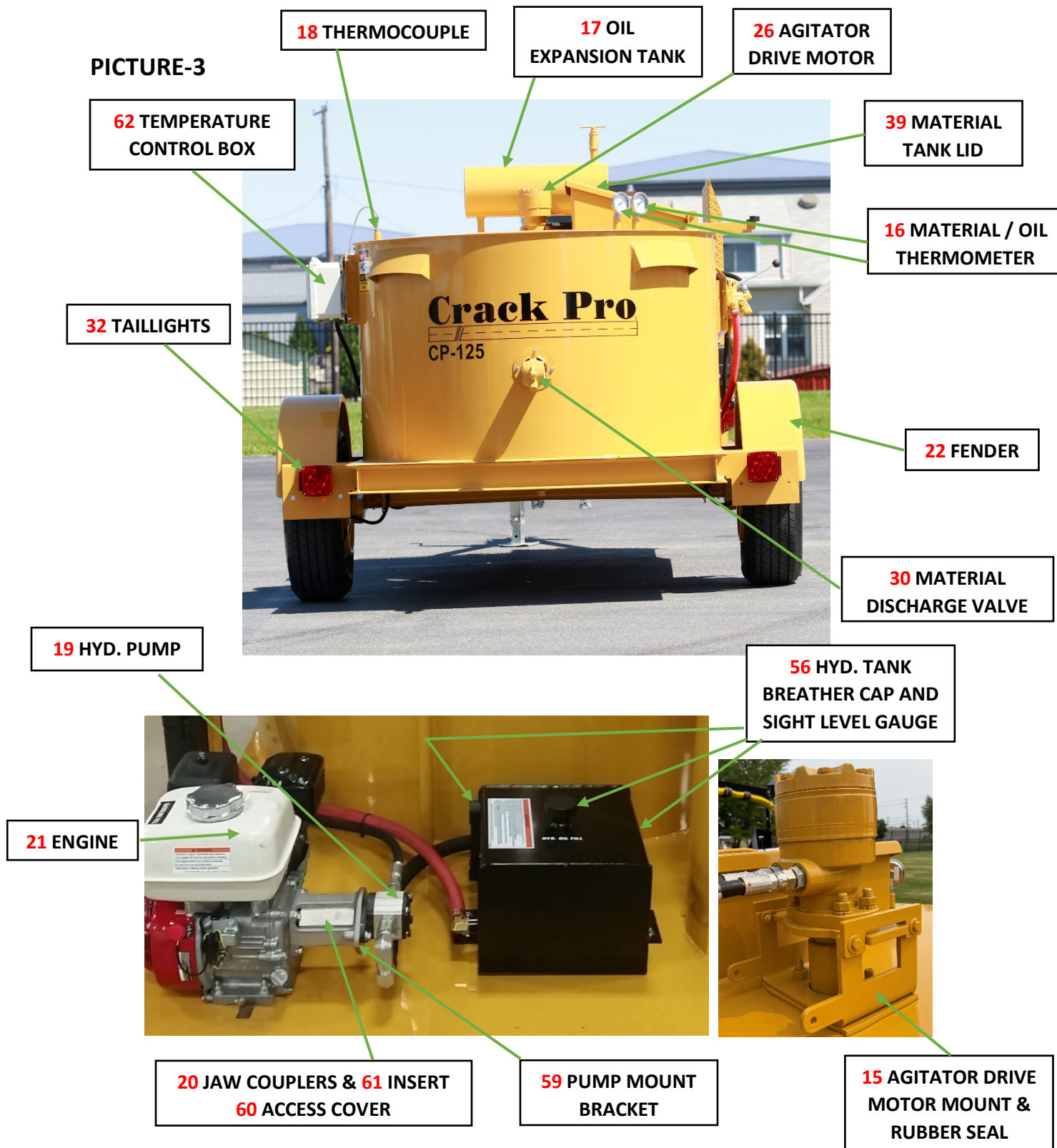
* DENOTES YOUR CHOICE



CRACK PRO® GRAVITY FLOW AND DIRECT FIRE MELTER

APPLIES TO ALL DIESEL FUEL BURNER

PICTURE-3



CRACK PRO® GRAVITY FLOW AND DIRECT FIRE MELTER

APPLIES TO ALL DIESEL FUEL BURNER & LP GAS BURNER

PARTS LIST PICTURE-3

ITEM #	PART#	QTY.	DESCRIPTION
15	P74000C420	1	AGITATOR DRIVE - MOTOR MOUNT
	P74000B425	1	AGITATOR DRIVE - SEAL
16	P659A009	2	MATERIAL / OIL THERMOMETER CP-60 / CP-125 18" LONG
	P659A008	2	MATERIAL / OIL THERMOMETER CP-260 24" LONG
17	P75000B005	1	OIL EXPANSION TANK CP-60
	P74000B017	1	OIL EXPANSION TANK CP-125/260
18	P679A008	1	THERMOCOUPLE 18" CP-60 / CP-125
	P679A014	1	THERMOCOUPLE 24" CP-260
56	P599A003	1	HYDRAULIC OIL TANK CP-60 / CP-125 PROPANE
	P599A003	1	HYDRAULIC OIL TANK CP-60 DIESEL
	P599A003	1	HYDRAULIC OIL TANK CP-125 DIESEL / SM-125
	P599C001	1	HYDRAULIC BREATHER CAP
	P599C002	1	SIGHT LEVEL GAUGE
	P50211D	1	HYDRAULIC OIL TANK CP-260 DIESEL
	P464A002	1	HYDRAULIC OIL TANK CAP
21	P458A050	1	HONDA ENGINE 8 HP GX240 – CP-260
20	P630A032	1	JAW COUPLER-1"
	P630A031	1	JAW COUPLER-5/8" DIESEL SETUP
19	P601A014	1	HYDRAULIC PUMP
59	P604A010	1	HYDRAULIC PUMP BRACKET
61	P631A005	1	JAW COUPLER INSERT
60	P604A008	1	ACCESS COVER
21	P458A050	1	HONDA ENGINE 8 HP GX240 CP-60 / CP-125
20	P630A032	1	JAW COUPLER-1"
	P630A045	1	JAW COUPLER-1/2" DIESEL SETUP
61	P631A005	1	JAW COUPLER INSERT
19	P601A041	1	HYDRAULIC PUMP
59	P604A003	1	HYDRAULIC PUMP BRACKET
60	P604A004	1	ACCESS COVER
21	P458A022	1	HONDA ENGINE 5 HP GX160 CP-60
20	P630A035	1	JAW COUPLER-3/4"
	P630A045	1	JAW COUPLER-1/2" PROPANE SETUP
61	P631A005	1	JAW COUPLER INSERT
19	P601A041	1	HYDRAULIC PUMP
59	P604A018	1	HYDRAULIC PUMP BRACKET
22	P549A001	2	FENDER CP-60 / CP-125
	P549A002	2	FENDER CP-260
26	P474A042	1	AGITATOR DRIVE MOTOR CP-60
	P474A037	1	AGITATOR DRIVE MOTOR CP-125
	P474A049	1	AGITATOR DRIVE MOTOR CP-260
30	P585B000	1	MATERIAL DISCHARGE VALVE
32	P516A025	1	TAILLIGHT – LEFT CP-125 / CP-260
	P516A024	1	TAILLIGHT – RIGHT CP-125 / CP-260
39	P75000B021	1	MATERIAL TANK LID CP-60
	P74000C226	1	MATERIAL TANK LID CP-125/260
62	P735A043	1	TEMPERATURE CONTROL BOX

CRACK PRO® GRAVITY FLOW AND DIRECT FIRE MELTER

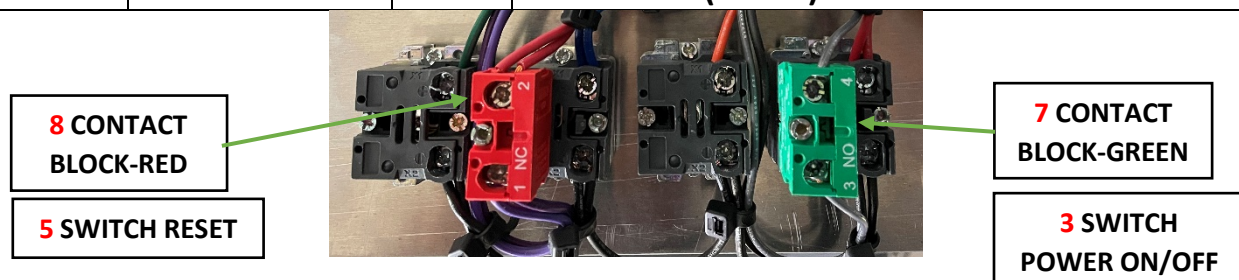
APPLIES TO ALL DIESEL FUEL BURNERS

PARTS LIST FOR TEMPERATURE CONTROL BOX



PARTS LIST PICTURE-4

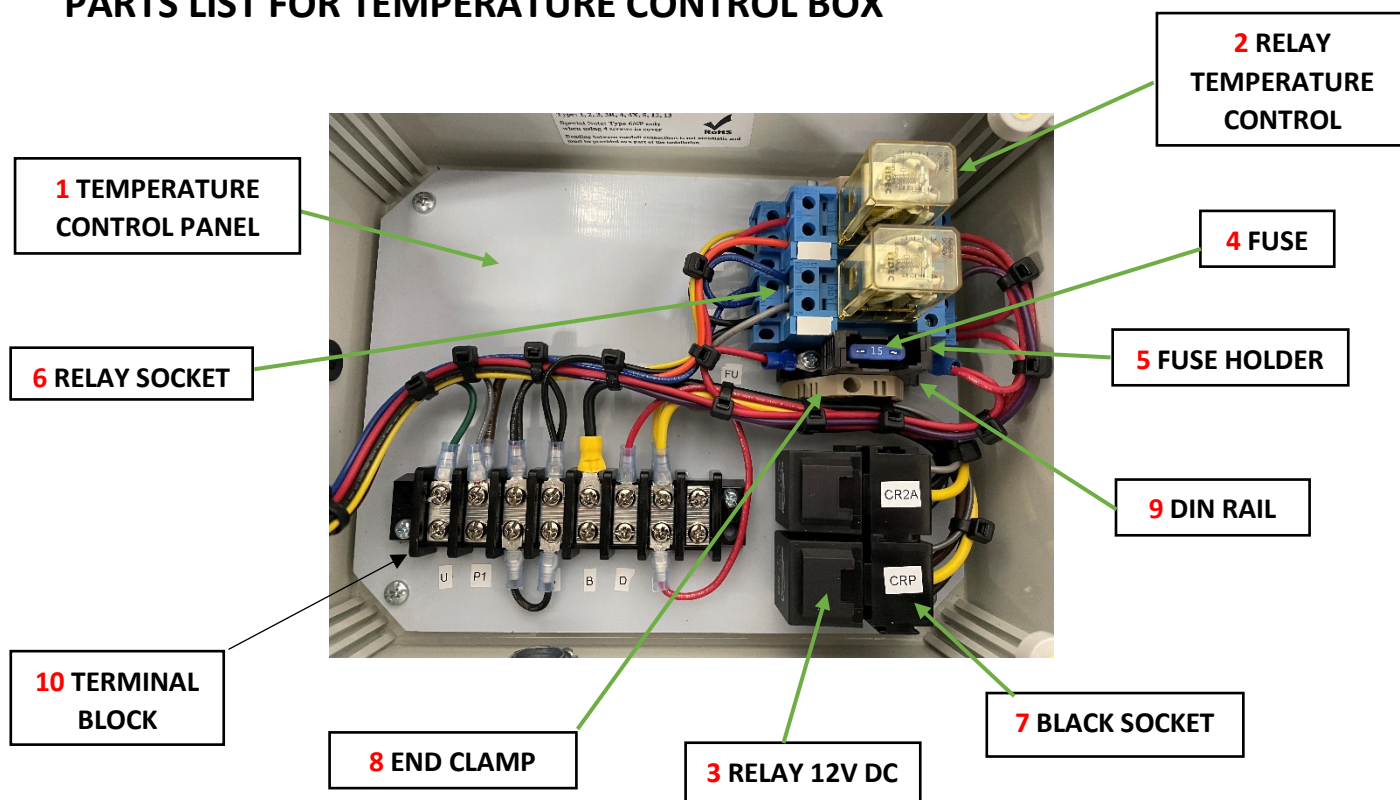
ITEM #	PART#	QTY.	DESCRIPTION
1	P735A043	1	TEMPERATURE CONTROL PANEL
2	P735O018	1	DIGITAL TEMP. DISPLAY - OIL
	P735S018	1	DIGITAL TEMP. DISPLAY - MAT'L SM-125 ONLY
3	P735B013	1	SWITCH – ASSEMBLY AMBER
4	P735B012	1	PILOT LIGHT- GREEN
5	P735B072	1	SWITCH – RED
6	P735B073	1	PILOT LIGHT- YELLOW
7	P735B022	1	CONTACT BLOCK-GREEN
8	P735B023	1	CONTACT BLOCK-RED
9	P941A036	1	HINGED OPAQUE COVER
10	P941B005	2	CLAMP LID (2-PAK)



CRACK PRO® GRAVITY FLOW AND DIRECT FIRE MELTER

APPLIES TO ALL DIESEL FUEL BURNERS

PARTS LIST FOR TEMPERATURE CONTROL BOX



PARTS LIST PICTURE-5

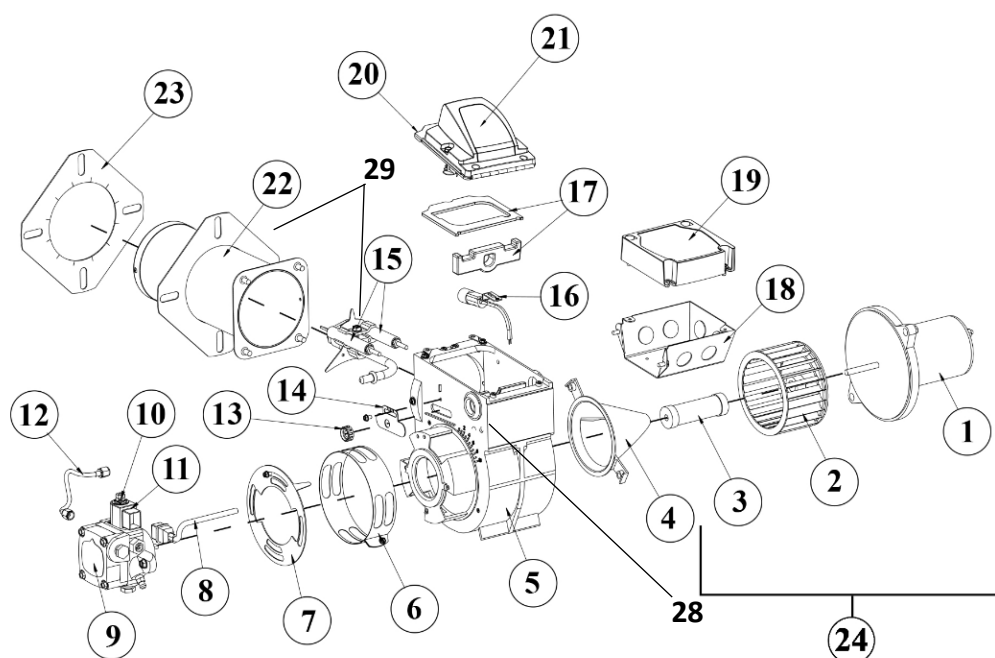
ITEM #	PART#	QTY.	DESCRIPTION
1	P735A043	1	TEMPERATURE CONTROL PANEL
2	P735B009	2	RELAY- TEMPERATURE CONTROL
3	P735B015	2	RELAY – 12V DC 40AMP
4	P595A012	1	FUSE 15AMP – ATC
5	P735B036	1	FUSE HOLDER
6	P735B010	2	RELAY SOCKET - DIN RAIL SNAP
7	P735B075	2	BLACK SOCKET
8	P735B027	2	END CLAMPS
9	P735B062	1	DIN RAIL 35MM
10	P735B096	1	TERMINAL BLOCK

CRACK PRO® GRAVITY FLOW AND DIRECT FIRE MELTER

APPLIES TO ALL DIESEL FUEL BURNERS

PARTS LIST

PICTURE – 6 DIESEL BURNER



NOTE FOR TROUBLESHOOTING WHEN BURNER DOES NOT LIGHT

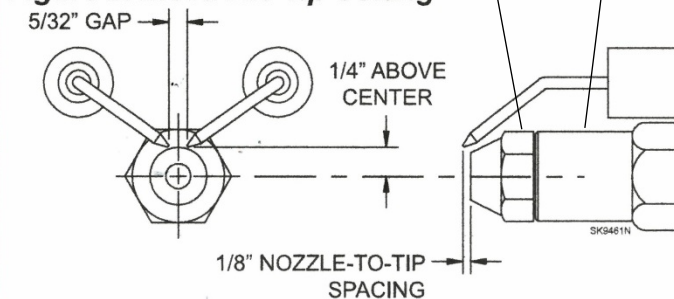
Using a 3/8" wrench, loosen the bleeder valve slightly until fuel comes out without air mixed in. Then tighten the bleeder valve.



27 USE TOOL Z-GUAGE

25 NOZZLE
25 HEAD

Figure 2. Electrode Tip Setting



CAUTION: DO NOT TOUCH NOZZLE

CRACK PRO® GRAVITY FLOW AND DIRECT FIRE MELTER

APPLIES TO ALL DIESEL FUEL BURNERS

PARTS LIST

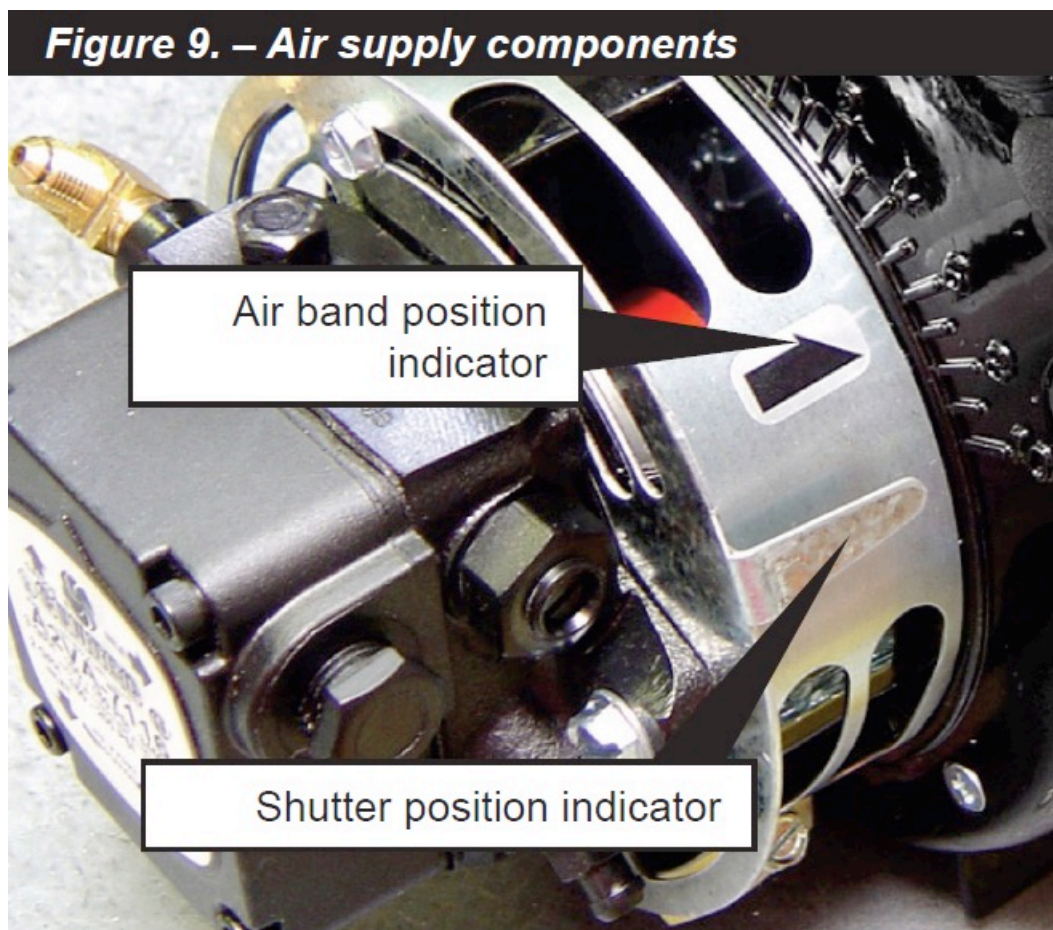
PARTS LIST PICTURE-6

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	P662A017	1	NOZZLE FOR BURNER CP-125 - CP-260
	P662A024	1	HEAD FOR NOZZLE CP-125 - CP-260
	P662A060	1	NOZZLE FOR BURNER CP-60
	P662A059	1	HEAD FOR NOZZLE CP-60
	P662A069	1	NOZZLE FOR BURNER SM-125
	P662A070	1	HEAD FOR NOZZLE SM-125
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® GRAVITY FLOW AND DIRECT FIRE MELTER

BECKETT BURNER INFORMATION CHART

PARTS LIST PICTURE-7



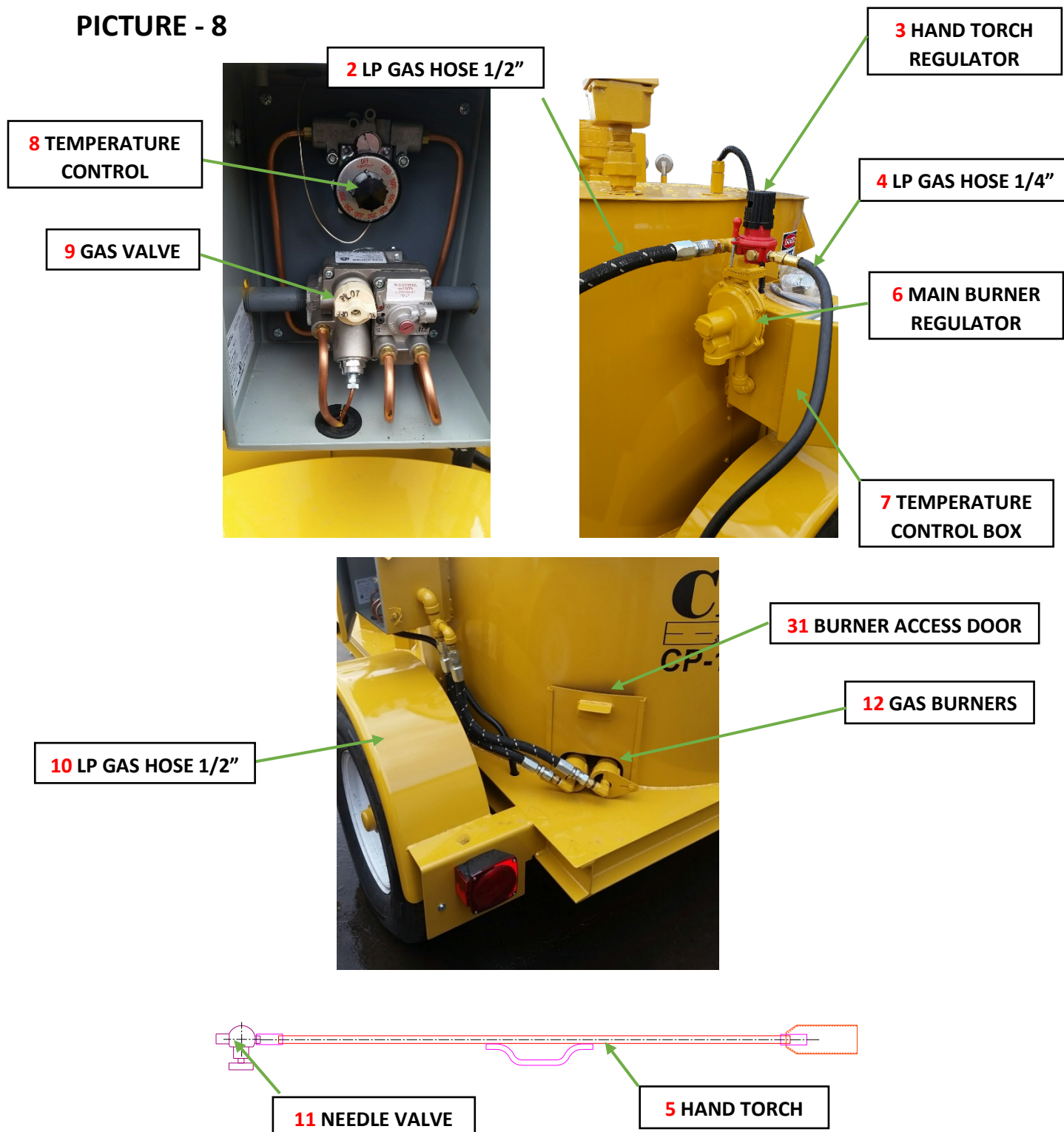
BECKETT BURNER INFORMATION CHART

MACHINE UNIT	HEAD TYPE	GPH	NOZZLE SIZE	NOZZLE # HEAD #	AIR BAND POSITION	SHUTTER POSITION
CP60GD	F6	1.25	80A	P662A060 / 059	5	7
SM125	F3	1.00	80B	P662A069 / 070	1-1/2	2
CP125GD	F220	2.25	90B	P662A017 / 024	5	7
CP260GD	F220	2.25	90B	P662A017 / 024	5	7

CRACK PRO® GRAVITY FLOW AND DIRECT FIRE MELTER

APPLIES TO ALL LP GAS BURNER

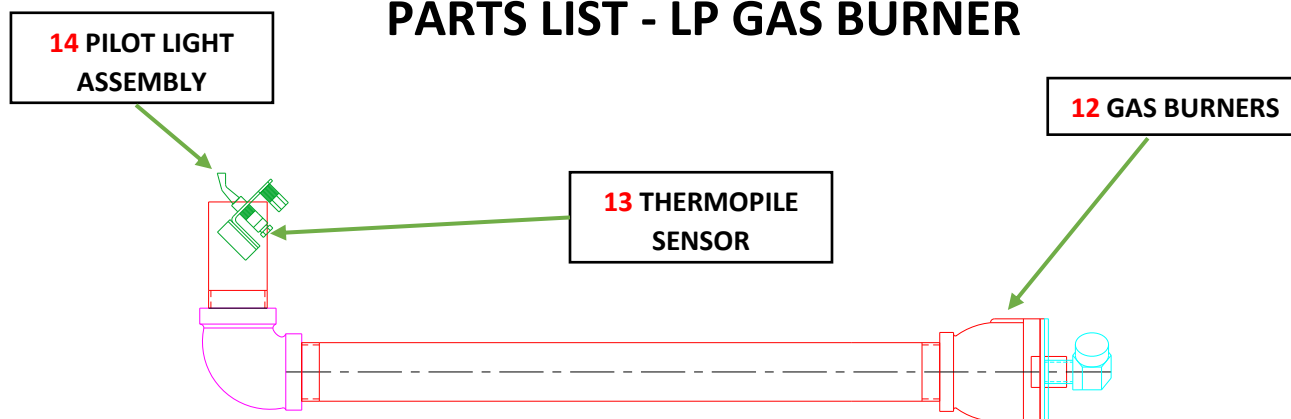
PICTURE - 8



CRACK PRO® GRAVITY FLOW AND DIRECT FIRE MELTER

APPLIES TO ALL LP GAS BURNER

PARTS LIST - LP GAS BURNER



PARTS LIST PICTURE-8

ITEM #	PART#	QTY.	DESCRIPTION
*	P75000B036	1	GAS CONTROL BOX ASSEMBLY
1	P933A001	1	TANK CONNECTOR
2	P669B007	1	1/2" LP GAS HOSE
3	P735A015	1	HAND TORCH REGULATOR
4	P669A005	1	1/4" LP GAS HOSE
5	P75000B010	1	HAND TORCH
6	P735A034	1	MAIN BURNER REGULATOR
7	P941A014	1	TEMPERATURE CONTROL BOX
8	P735A035	1	TEMPERATURE CONTROL
9	P735A036	1	GAS VALVE
10	P669B009	2	1/2" LP GAS HOSE
11	P666A001	1	NEEDLE VALVE
12	P662B030	1	GAS BURNER CP-60
	P662B032	2	GAS BURNER CP-125
13	P679A006	1	THERMOPILE SENSOR
14	P735A037	1	PILOT LIGHT ASSEMBLY

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

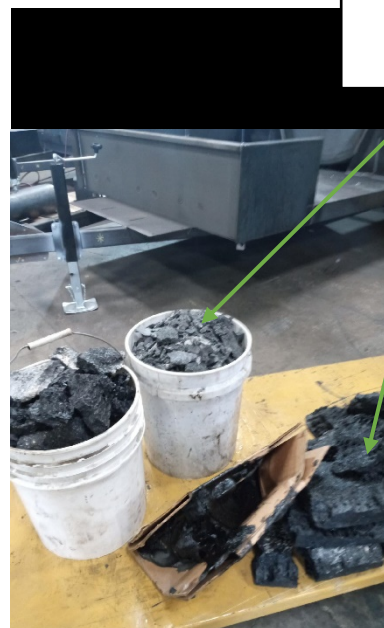
Occasionally crack filling equipment will build up with burnt material around the walls and ceiling of the material tank. The buildup will be brittle and look shiny black.

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