



**CRACK-VAC
WITH COMPRESSOR
MODEL 150D**

PART MANUAL - 26449

REV. 0

Created: 8/26/07

CRACK VAC MODEL 150D



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CRACK-VAC MODEL 150D

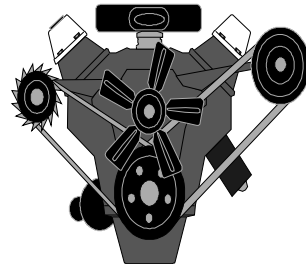
This manual is furnished with each new **CRAFCO CRACK-VAC MODEL 150D**. The manual will help your machine operators learn to run the melter properly and understand its mechanical functions for trouble-free operation.

Your **CRAFCO CRACK-VAC MODEL 150D** is designed to give excellent service and save maintenance expense. However, as with all specifically engineered equipment, you can get best results at minimum costs if:

- (1) You operate your machine as instructed in this manual, and
- (2) Maintain your machine regularly as stated in this manual.



WARNING: The engine exhaust from this product contains chemicals known to the State of California to cause cancer, birth defects or other reproductive harm. Operate in well ventilated area only. Engine exhaust is deadly.



SAFETY PRECAUTIONS

- High operating temperatures of engine and machine require protective clothing, hard soled shoes, and heat resistant gloves be worn by operator.



- Always wear eye protection.

- Observe all **CAUTION AND WARNING** signs posted on machine.

- Avoid the entrance of water into any part of the machine.



- Read Operator Manual thoroughly before operating machine.

- Make sure operator is familiar with machine operation.



- Do not operate in closed building or confined areas.

- Shut-down engine prior to refilling diesel tank.

- Keep hands, feet, and clothing away from all moving parts.

- Replace any hoses which show signs of wear, fraying, or splitting. Assure all fittings and joints are tight and leakproof.

- **Precaution is the best insurance against accidents.**

- **Tighten all bolts and screws after every 100 hours of operation.**

- CRAFCO, Inc assumes no liability for an accident or injury incurred through improper use of the machine.

- Refer to the Rotary Air Blower for operating procedures and safety precautions.

- The “Chamber-Absorption Silencer” will be hot to the touch. Do not touch hot surface.

- Avoid extended exposure in close proximity to machinery with high intensity noise levels. Noise level may require ear protection. Do not operate equipment without adequate silencing devices since high noise level may cause hearing damage.

- Do not operate without guards in place. Before performing any repairs, disconnect the power.

- Blower heat can cause burns if touched. Blower casing and associated piping or accessories may become hot enough to cause major skin burns on contact.

- Do not start the blower until you are sure oil has been put in the gear housing.

CRACK VAC MODEL 250 LIMITED WARRANTY

Crafco™, Inc., through its authorized distributor, will replace for the original purchaser free of charge any parts found upon examination by the factory at Mesa, Arizona, to be defective in material or workmanship. This warranty is for a period within 60 days of purchase date, but excludes engine or components, tires, and battery as these items are subject to warranties issued by their manufacturers.

After 60 days, Crafco™, Inc., warrants structural parts, excluding heating system, hydraulic components, material pump and hoses, hot oil pump, applicator valves, and electrical components for a period of (1) one year from date of delivery. Crafco™, Inc., shall not be liable for parts that have been damaged by accident, alteration, abuse, improper lubrication/maintenance, normal wear, or other cause beyond our control.

The warranty provided herein extends only to the repair and/or replacement of those components on the equipment covered above and does not cover **labor** costs. The warranty does not extend to incidental or consequential damages incurred as a result of any defect covered by this warranty.

All transportation and labor costs incurred by the purchaser in submitting or repairing covered components must be bore by the purchaser.

Crafco™, Inc. specifically disavows any other representation, warranty, or liability related to the condition or use of the product.



WARNING: Use of replacement parts other than genuine Crafco parts may impair the safety or reliability of your equipment and nullifies any warranty.

WARRANTY CLAIM INSTRUCTIONS

Please follow the instructions stated below when calling in a Warranty Claim. Failure to follow these procedures may be cause to void the warranty.

1. Call your local Crafcó™ Distributor. If you do not know who your local distributor is, call a Crafcó™ Customer Service Representative, (Toll Free 1-800-528-8242) for name, location, and telephone number.
2. On contacting the distributor, be prepared to identify the machine type, model number, and serial number, also, the date of purchase if available.
3. Should the cause of the malfunction be a defective part, the distributor will advise you of the procedure to follow for a replacement.
4. The warranty is valid only for parts, which have been supplied or recommended by Crafcó™, Inc.

If you have any additional questions regarding warranty repairs and parts, please do not hesitate to call toll free 1-800-528-8242.

CRAFCO, INCORPORATED
235 SOUTH HIBBERT DRIVE
MESA, AZ. 85210
480-655-8333
Toll Free 1-800-528-8242

SPECIFICATIONS

Holding Tank Capacity.....	150 Gallons Maximum
Tank Consturction.....	Heavy Duty Steel
Tank Opening Size.....	16" Full Opening
Engine-Lombardini..... Model 2204T	4 cylinder-2.199 liter disp. 59.3 HP @ 3000 rpm
Dry Weight.....	Approximately 2200 lbs
Filter- Pleated Pun Bonded Polyester Filter Element.....	10 Micron Filtration
Fuel Tank Capacity (diesel).....	23 gal (87 liter)
Hydraulic Tank Capacity.....	2.0 gal (7.6 liter)
Hydraulic Pump.....	DC Hydraulic Power System 12 volts pump/motor/reservoir Check Valve 4-way/3 position solenoid valve. Externally adjustable relief valve.
Air Compressor.....	Atlas Copco Model LE9
Blower.....	Positive displacement rotary air blower.
Blower Discharge Silencer.....	A multi-chamber containing a high frequency absorption device to reduce excessive noise energy.
LG 16" Pressure Manhole Access Door.....	14 psi max working pressure. Safety catch. Pull opening. 4 quick opening adjustable cam levers.

CRACK-VAC MODEL 150D OPERATING INSTRUCTIONS

INTRODUCTION

Air quality, workers' safety, and the safety of the motoring public are most important in today's road maintenance operations. The CRAFCO CRACK-VAC was designed to thoroughly clean pavement cracks while maintaining a dust free environment. With a filter system that contains particulate matter down to 10 microns, the Crack-Vac complies with the strict PM 10 air quality standards in effect today. This new concept in crack sealing preparation limits worker exposure to dust and improves visibility problems that dust can cause for motoring traffic. The Crack-Vac is the future of crack cleaning operations.

DO NOT operate machine without following these instructions:

1. Fill the fuel tank with diesel fuel.
2. Check engine crankcase oil level (refer to Engine Operator's Manual).
3. Check hydraulic fluid level in the hydraulic pump (d. hyd. power system) at 70F. Add fluid if necessary.
4. Check positive displacement rotary air blower fluid level. At ambient temperature the oil should run out the plug on the housing side. (Refer to the Blower' Manual).
5. All toggle switches and keys should be turned to the "OFF" position before doing any work on the equipment. This will help prevent injuries.
6. Remember that safe operation of this equipment is the Operator's responsibility.



CAUTION:

Extreme care must be used when operating this equipment. Safety is the result of being careful and paying attention to details. Remember the diesel flame is about 2,200°F. Certain exposed parts of this machine, when operating reach 200°F and the hydraulic fluid may reach 200°F. Always wear protective clothing, hard sole shoes, and eye protection. Be sure that all joints and fittings are tight and leak proof. Immediately replace any hose, which shows any signs of wear, fraying, or splitting. Tighten all bolts, nuts, and screws every 250 hours.

MACHINE START UP

1. Clean the pleate spun bond polyester filter element defore starting the Crack-Vac. A clogged air filter can seriously affect the efficiency of the blower and cause over-heating and excessive oil usage.
2. Cleaning the filter element will help protect the life of the positive displacement rotary air blower. (See page 14 item B for element location).
3. Check to make sure that all the suction hoses are free from debris.
4. Check fluid levels on the positive displacement rotary air blower. (See Rotary Air Blower Manual). Proper oil level cannot be over-emphasized. A good maintenace program will add years of service to your blower. Oil reservoir capacity is 7.0 fluid ounces.
5. Dump all debris from the Storage Tank. This will allow the air to flow properly. (See page 14 item A for door opening)
6. Check the hydraulic fluid level in DC Hydraulic Power System located under the Stor age tank (See pg 15 item A for location of fluid level).
7. Check the pivot boom assembly to be sure the boom swivels properly.
8. Check diesel tank level to be sure it is full before you start (see pg 15 item B).
9. Check LG 16" pressure manhole access door to be sure it is properly locked in place on the storage holding tank.
10. Be sure intake piping is clean and free from all obstructions.
11. Keep hands and clothing away from rotating machinery, inlet , and discharge openings.
12. Start engine per Engine Manual. Adjust throttle for correct rpm (see page 13 item A and B)
13. Check for unusual noise or vibration in the air rotary blower.

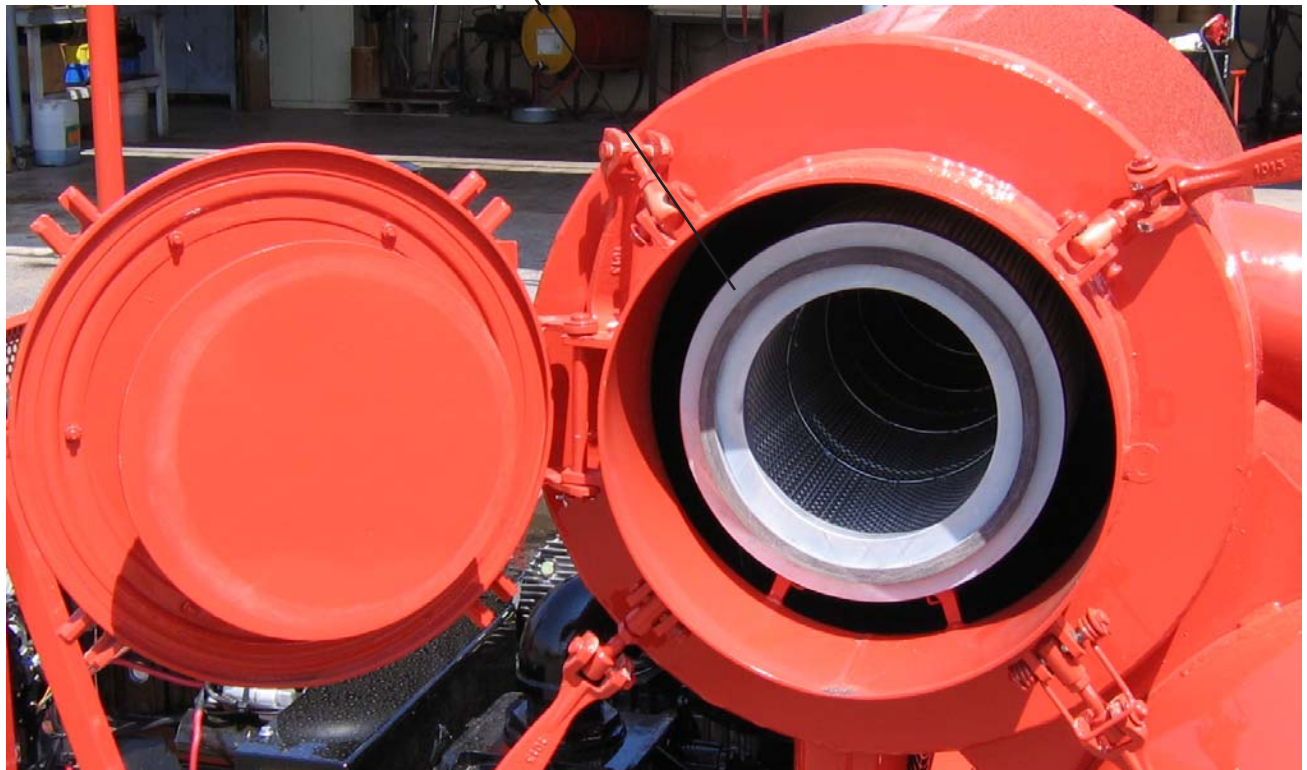
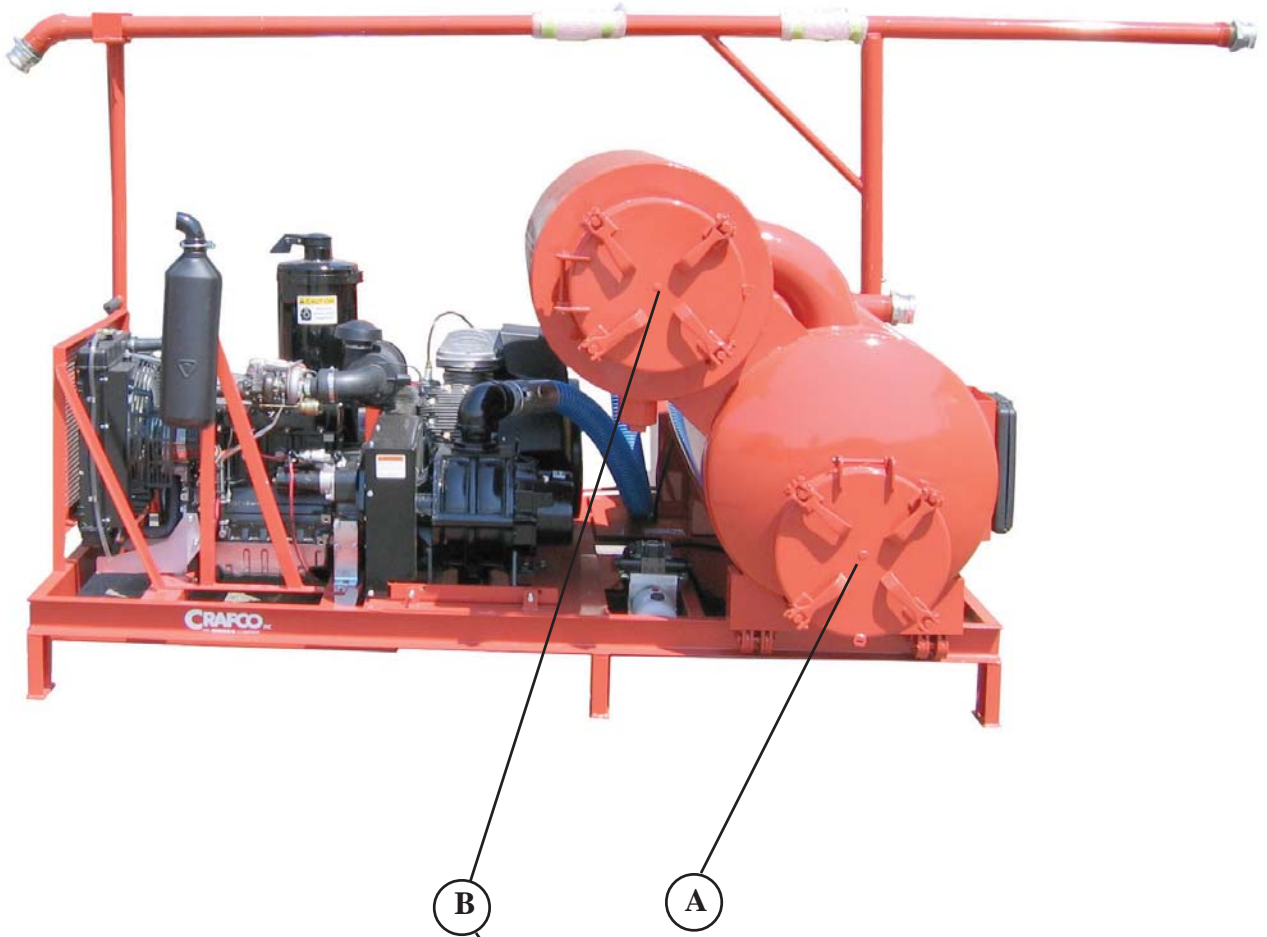
ENGINE START-UP PANEL AND THROTTLE



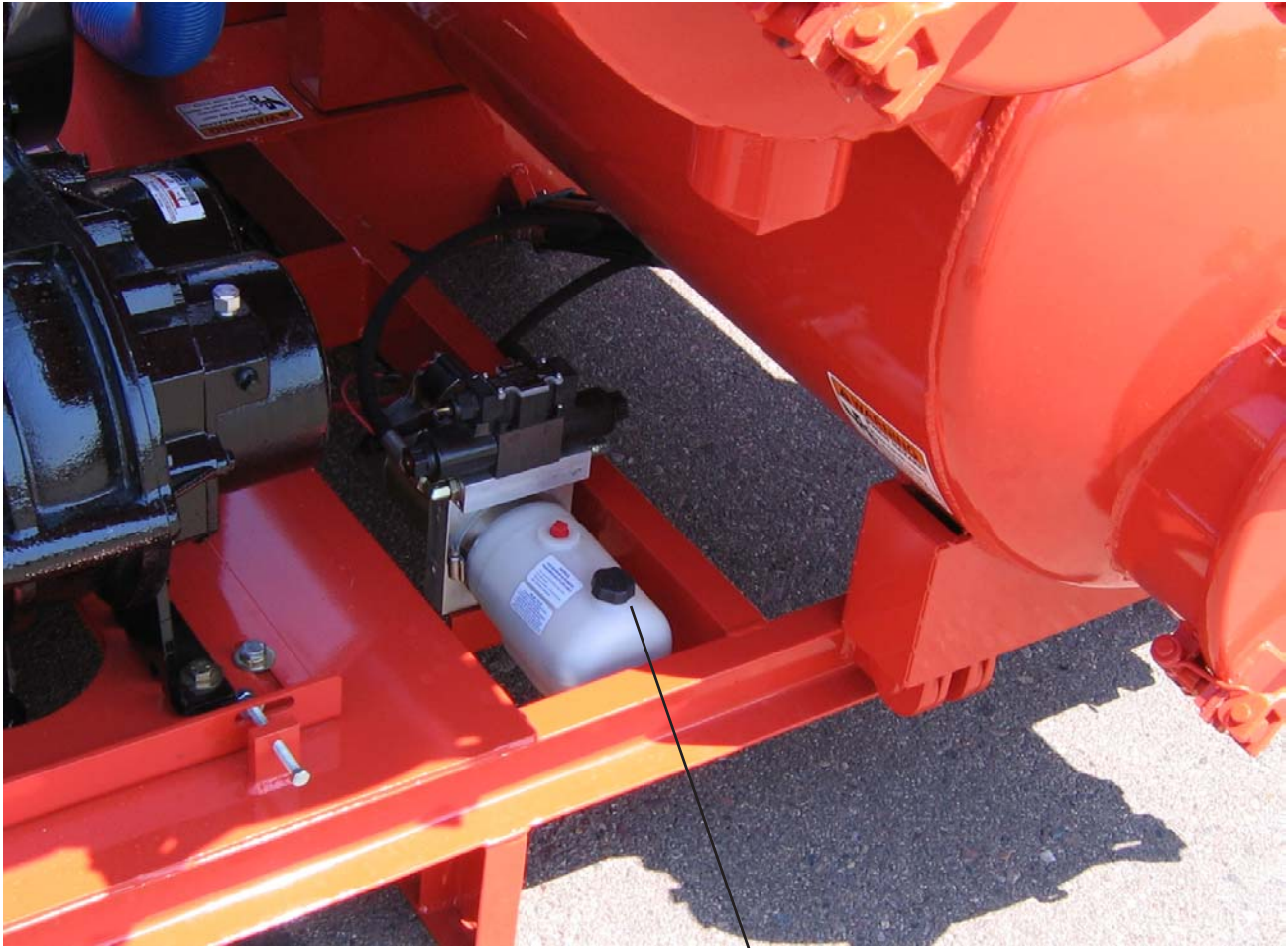
A

B

DEBRIS CLEANOUT AND FILTER REMOVAL



DIESEL FUEL AND HYDRAULIC OIL FILL LOCATION



B

A



UNLOADING THE DEBRIS HOLDING TANK

When unloading the debris holding tank, make sure the engine is stopped. This will help prevent damage to the blower. Unlatch the LG 16" manhole cover safety catches very slowly to relieve the pressure in the holding tank. Unlatch the three (3) cam levers first before unlatching the cam lever with the safety catch protective wire. The safety catch protective wire will help keep the LG 16" manhole cover from opening too quickly (see pg 14 item A). Once the LG 16" manhole cover is opened, raise the storage holding tank. Use the toggle switch mounted in support frame. Lifting the toggle switch up will raise the storage tank. This will allow th dirt, rocks, mud and other debris to fall out. After the tank is dumped, move the toggle switch down to lower the unit into place. Use caution not to pinch any part of the body. Latch the LG 16" manhole cover using the cam lever. Do not slam your fingers under the cam levers.

SHUTDOWN AND CLEAN-OUT PROCEDURE

Crafco recommends cleaning the 150 gal debris tank after each use. This will make it easier to clean the tank and the material will not lodge inside the tank. Crafco recommends cleaning the pleated spun bond ployester filter element and the bag house after every use. It is essential to keep the filter element and the storage tank clean to help protec the rotary air blower.

1. Remove filter element from bag house. Make sure tank is not raised (See pg 14 item B).
2. Gently blow compressed air through the pleates on the filter element.
3. Wash the filter element gently with water.
4. Let the filter element dry for 10 hours before using it again.
5. Store filter in a safe place to prevent damage.
6. Install the other filter provided in the bag house. This will insure that the Crack-Vac is ready for use.
7. Filtration efficiency and pressure drop performance is very dependent on cleaning the filter element.
8. Check the rotary air blower oil capacity. Fill if necessary. Grease the rotary air blower as recommended.
9. Be sure intake piping is clean and free of all obstructions.

STORING THE MACHINE

The Crack-Vac should be stored in an area where moisture cannot enter the machine. Taking proper care of the Crack-Vac will add years to the life of the equipment. The Crack-Vac has been built to exacting standards and if properly maintained will give you many years of reliable service. We urge you to take the time to read and follow every step of the instructions for installing and maintaining your Crack-Vac. The buyer shall have no claim whatsoever and no product or part shall be deemed to be defective by reason of failure to resist erosive or corrosive action. Problems resulting from build-up of material within the unit or problems due to incompatibility with the materials of construction will not be reason for a claim.

INSTRUCTION FOR ORDERING PARTS

Parts may be ordered from your local CRAFCO distributor or directly from CRAFCO, Inc. if a distributor is not available in your area. When ordering parts, give the following information:

1. Part Number
2. Machine Model
3. Serial Number from Name Plate

Write or telephone:

CRAFCO, INC.
235 SOUTH HIBBERT
MESA, AZ 85210
480-655-8333
Toll Free: 1-800-528-8242

MAINTENANCE INSTRUCTIONS

ENGINE

See Engine Owner's Manual for operating and maintenance instructions.



HYDRAULIC SYSTEM

Check hydraulic fluid level weekly. Change hydraulic fluid every 100 hours of operation or twice a year. Set up a hydraulic maintenance schedule and follow it diligently. Do not return to the system any fluid which has leaked out. Use clean containers, hoses, and funnels when filling the reservoir. Make sure that all clean-out holes, filler caps, and breather cap filters on the reservoir are properly fastened. Make certain that the fluid used in the system is of a type recommended by the manufacturers of the system of components. Use Dextron II transmission fluid in the power pack. The best trouble shooting tip is to learn how the circuit or component functions.

ROTARY AIR BLOWER

*Lubricate every 40 hours with good quality, high temperature grease.

*Do not start the blower until you are sure oil has been put in the gear housing.

*Do not inject grease too fast to avoid blowing out the drive shaft seal. Using a pressure gun, force new grease into each bearing until traces of clean grease come out of the relief fitting.

*Drain and refill after the first 100 hours of operation and thereafter every 200 hours of operation under normal service and more frequently depending on the type of oil and oil operating temperature. Use a good grade industrial type, anti-rust, oxidation and foam inhibited, non-detergent oil.

*A good maintenance program will add years of service to your blower.

*Oil capacity for model Number 4007 is 0.21 liter (.055 gal). If the blower is stored outdoors be sure to protect it from weather and corrosion.

SUCTION HOSES

Be sure hoses are free of debris for efficient blower operation and damage to blower. Inspect all hoses for damage. Replace any damaged section of the hose. Any blockage of the hose prevents the vacuum from operating correctly.

MAINTENANCE CHART

LOCATION	PROCEDURE	HOURS					
		8	50	100	400	500	600
Engine check oil level. Check coolant level. Check alt. drive belt. Check engine for leaks or damage - correct if necessary	See Lambordini Instruction Manual	*					
Other Engine Maintenance	See Lambordini Instruction Manual	*					
Drain water from fuel filter				*			
Change fuel filter (200 hrs.) Check alt. belt for wear					*		
Change alt. belt							*
Clean air cleaner element (earlier check may be necessary).				*			
Replace air cleaner element.					*		
Change coolant							*
Hydraulic Oil (Dextron II) Transmission Fluid	First change (10 hours)						
Hydraulic Oil (Dextron II) Transmission Fluid	Check oil level	*					
Hydraulic Oil (Dextron II) Transmission Fluid	Change oil			*			
Rotary Air Blower (Tuthill #6008 RHC)	Change oil after first 100 hours			*			
Rotary Air Blower (Tuthill #6008 RHC)	Every 1000 hours under normal service. More frequent if severe (See Tuthill Manual)						

GENERAL MAINTENANCE ITEMS

RECOMMENDED QUANTITY	DESCRIPTION	PART NO.
1	Vacuum Air Filter	60113
1	Engine Oil Filter	60490
1	Engine Fuel Filter	60489
1	Engine Air Filter	60491
1	Air Compressor Filter	43086
3	V-belts	60457
3	V-belts	60458

SERVICE INSTRUCTIONS

1. Conduct a general inspection of your machine at least once a week. Replace all worn or damaged parts, make any necessary adjustments and tighten all loose nuts or screws.

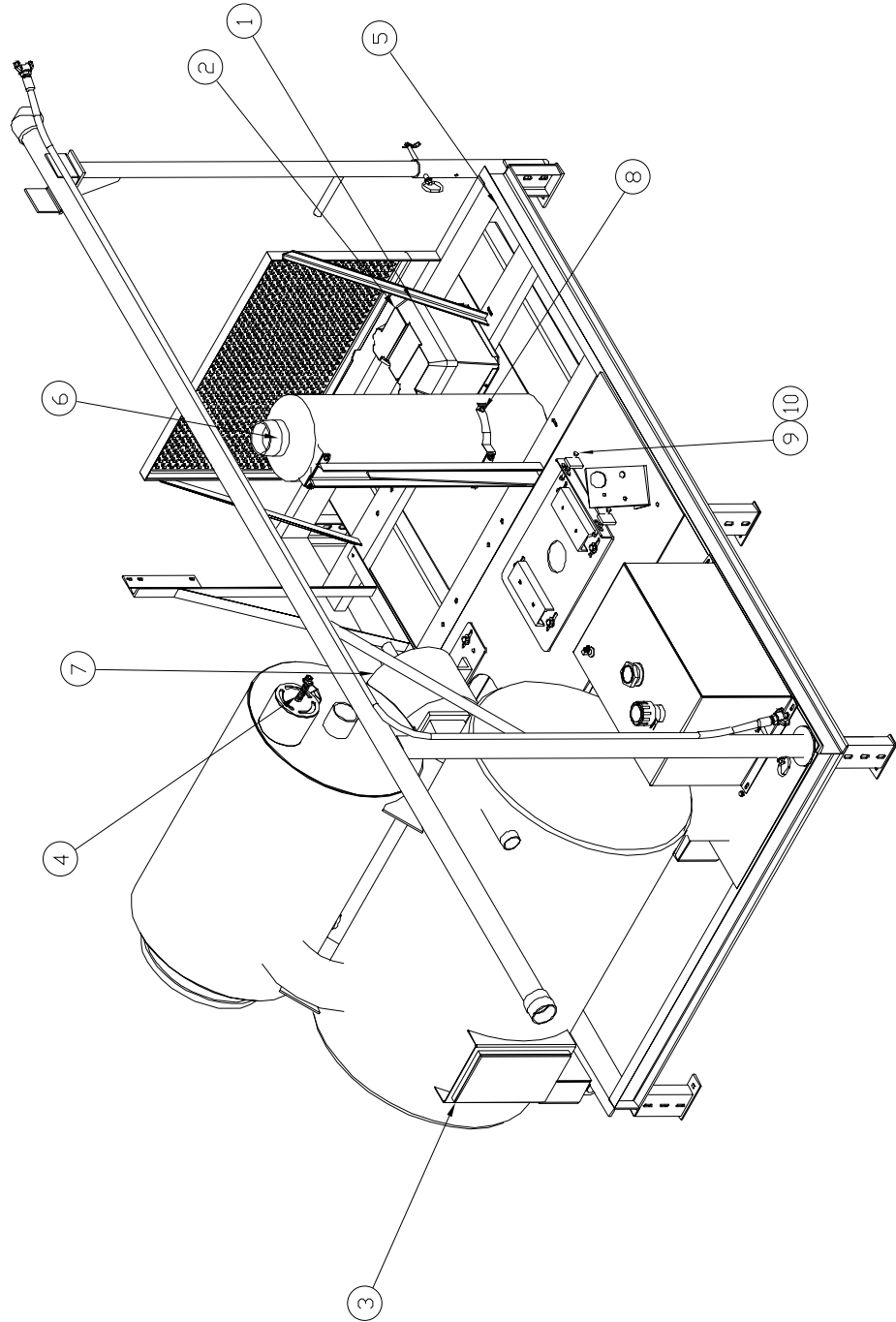


2. Keep regular replacement items in stock for emergency repairs, to avoid costly "down" time.
3. Watch for leaks - tighten fittings or repair as necessary.
4. Clean machine externally periodically.
5. Follow recommended maintenance procedures on maintenance chart.

RECOMMENDED FLUIDS & LUBRICANTS

APPLICATION	RECOMMENDED	FULL POINT
Engine Oil	Refer to Lombardini Owners Manual.	6.4 Qts.
Diesel	#1 Cold Climate #2 Warm Climate	23 Gal.
Hydraulic Oil (Dextron)	Dextron II- Transmission Oil	20.7 ml 0.7 Ounces
Oil Reservoir Capacity (Air Rotary Blower)	Oil Grade SAE 50 (Oil Viscosity Range SSU 1000- 1200)	16.9 ounces (500 ml)
Air Compressor Oil	SAE 30 Detergent engine oil	Refer to compressor manual

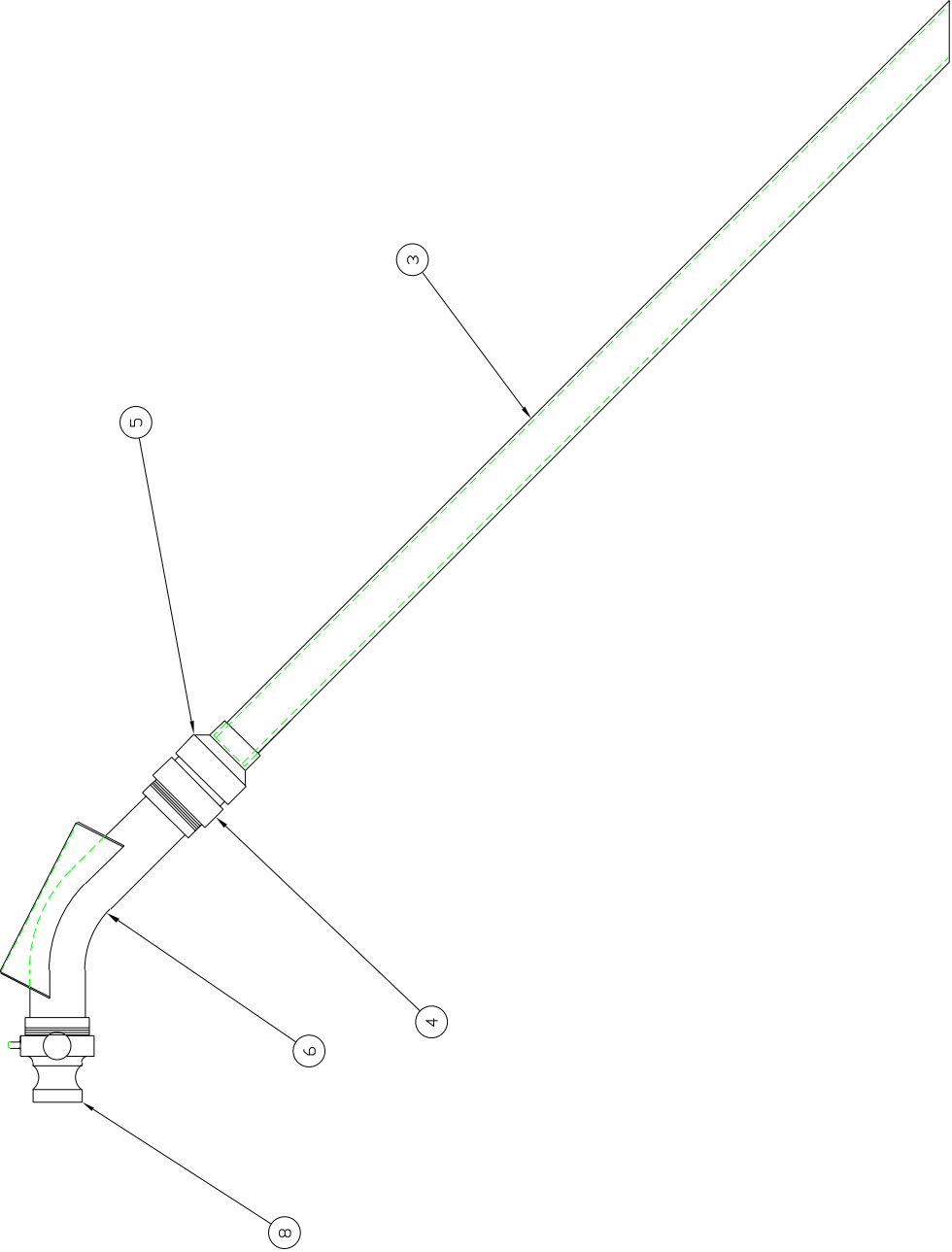
CRACK-VAC SELF CONTAINED P/N 60400



CRACK-VAC SELF CONTAINED P/N 60400

NUMBER	PART NUMBER	QTY	DESCRIPTION
1	24000	1	12 VOLT BATTERY GROUP 24
2	24002	1	BATTERY BOX
3	25289	1	RECORD BOX
4	60168	1	RELIEF VALVE SPRING
5	60440	1	VAC- TANK AND FRAME ASSY
6	90691	1	SILENCER
7	90691	1	JET AIR II BLOWER
8	91708	2	MOUNTING RING CLAMP
9	90885	4	3/8-16 X 4" HX HD BOLT
10	28526	4	NUT, 3/8-16 HX HD
NOT SHOWN	60439	1	DIESEL ENGINE
NOT SHOWN	42699	1	AIR COMPRESSOR
NOT SHOWN	60457	3	3VX560 SUPER HC V- BELT
NOT SHOWN	60458	3	3VX630 SUPER HC V-BELT
NOT SHOWN	60425	1	BELT GUARD
NOT SHOWN	60118	1	HYD LIFT CYLINDER
NOT SHOWN	44237	1	AIR TANK/MANIFOLD ASSY
NOT SHOWN	60117	1	HYD POWER PACK UNIT
NOT SHOWN	91046	1	THROTTLE CABLE
NOT SHOWN	60520	1	CRACK VAC WAND
NOT SHOWN	60439	1	6' HOSE FILTER TO BLOWER
NOT SHOWN	91510	1	FUEL TANK ASSY
NOT SHOWN	60182	1	9' ABRASIVE HOSE
NOT SHOWN	60183	1	16' ABRASIVE HOSE
NOT SHOWN	60184	1	25' ABRASIVE HOSE

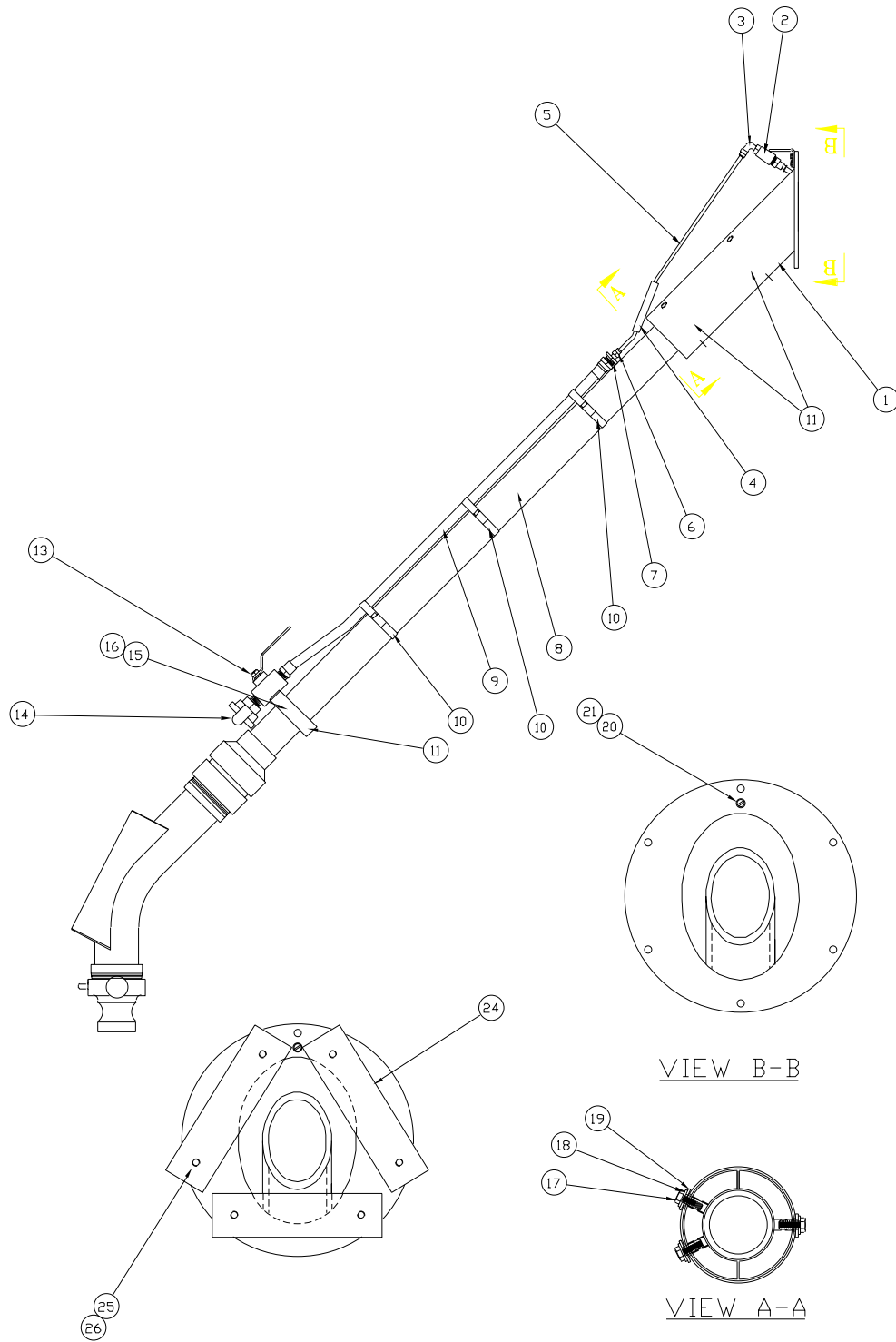
WAND ASSEMBLY- P/N 60199



WAND ASSEMBLY- P/N 60199

NUMBER	PART NUMBER	QTY	DESCRIPTION
1	NA	-	NOT USED
2	NA	-	NOT USED
3	60201	1	2" VACUUM PICK-UP TUBE
4	60263	1	3ABS M THRD X FEX SLIP
5	60264	1	3 ABS FEM SLP J X 2 SLP
6	60265	1	3" BOX ELBOW ASSY
7	NA	-	NOT USED
8	60238	1	CAM & GROOVE ASSY

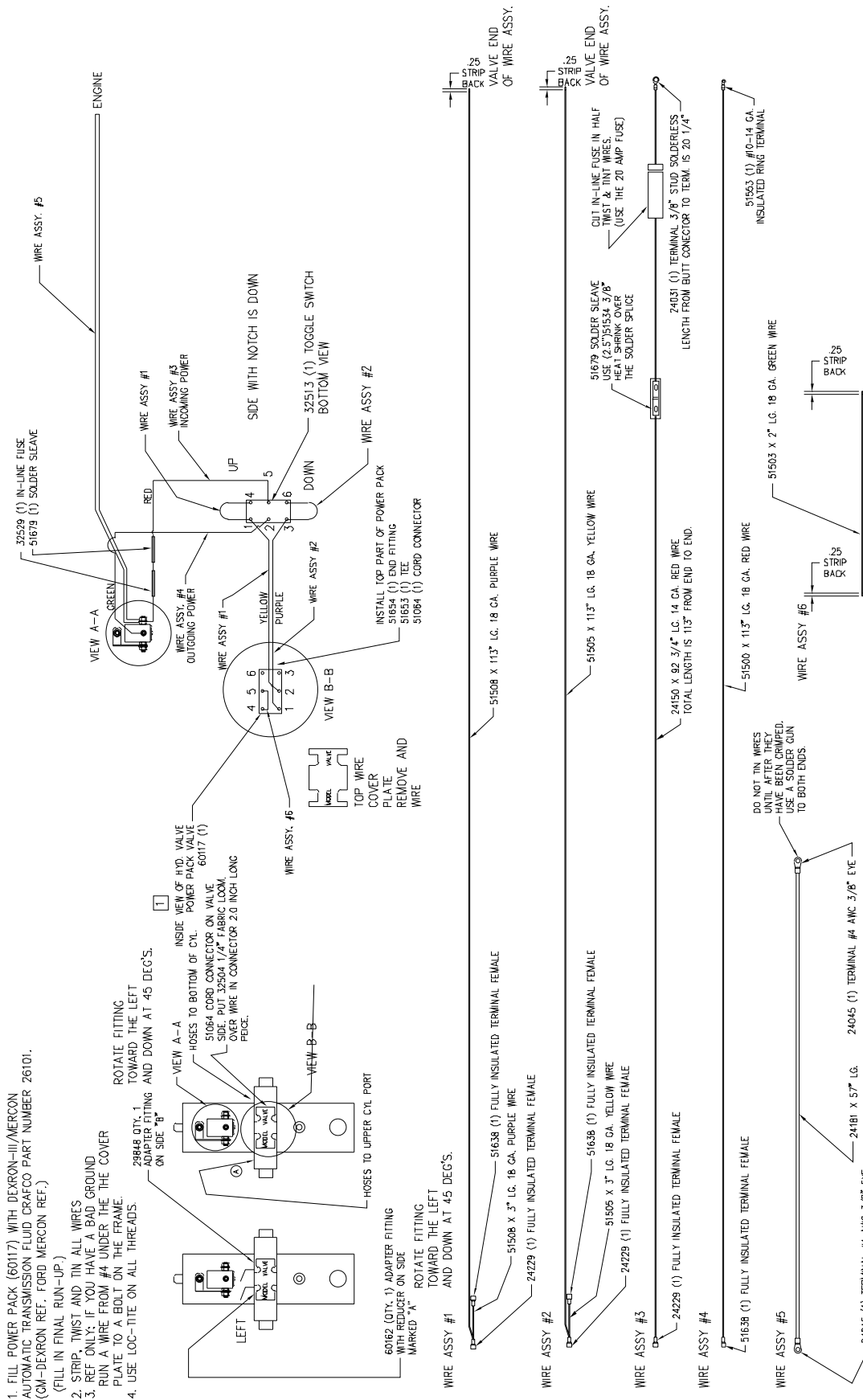
VACUUM WAND ASSY COMPLETE P/N 60226



WAND ASSEMBLY- P/N 60199

NUMBER	PART NUMBER	QTY	DESCRIPTION
1	60211	1	BOTTOM SUCTION TUBE ASSY
2	60217	1	AIR INLET BRACKET
3	60233	1	1/4" 90 PLASTIC TUBE FIT
4	60236	1	1/4 X 5" PUSH-ON HOSE
5	60235	1	AIR LINE PLASTIC TUBE
6	60234	1	1/4" MALE PLASTIC TUBE FIT
7	28344	1	1/4" X 1/2" BUSHING
8	60199	1	PLASTIC TUBE WAND ASSY
9	60212	1	COPPER TUBE ASSY
10	43438	3	HOSE CLAMP
11	60209	3	NYLON COLLAR
12	NA	-	NOT USED
13	29214	1	1/2" BALL VALVE
14	42643	1	AIR HOSE FITTING
15	50509	1	HANDLE
16	28981	1	3/8" SET SCREW
17	27920	3	3/8" X 3/4" BOLT
18	28647	3	3/8" LOCK WASHER
19	28634	3	3/8" FLAT WASHER
20	28828	1	#10-24 X 3/4" FLAT HD BOLT
21	28829	1	#10-24 ESNA NUT
22	NA	-	NOT USED
23	NA	-	NOT USED
24	60288	3	PLASTIC FEET- WAND TAPPED
25	28701	6	1/4" X 3/4" BOLT
26	28670	6	1/4" LOCK WASHER

ELECTRICAL SCHEMATIC- P/N 60140



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Innovation in Quality
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