ON DEMAND WATER HEATER

OPERATIONS MANUAL

V 5.4



CANADIAN AIRMOTIVE 220 HUNT CLUB RD. OTTAWA - ONTARIO - CANADA K1V 1C1

INTRODUCTION & IMPORTANT SAFETY

All information in this manual is based on the latest product information available at the time of printing.

This machine is designed to heat water from a cold water supply. Maximum water flow is 5 GPM and maximum pressure is 60 PSI. Flow rate of 3 GPM will achieve an average temperature of about 180°F. Temperature is dependent on inlet water temperature and water flow rate.

We reserve the right to make changes at any time without incurring any obligation.

Owner/User Responsibility:

The owner and/or user must have an understanding of the manufacturer's operating instructions and warnings before using this hot water generator. Warning information should be emphasized and understood. If the operator is not fluent in English, the manufacturer's instructions and warnings shall be read to and discussed with the operator in the operator's native language by the purchaser/owner, making sure that the operator comprehends its contents.

Owner and/or user must study and maintain for future reference the manufacturers' instructions.

This manual should be considered a permanent part of the machine and should remain with it if machine is resold.

When ordering parts, please specify model and serial number

IMPORTANT SAFETY INFORMATION



CAUTION: To reduce the risk of injury, read operating instructions carefully before using.

1. Read the owner's manual thoroughly. Failure to follow instructions could cause malfunction of the machine and result in death, serious bodily injury and/or property damage.

2. All installations must comply with local codes. Contact your electrician, plumber, utility company or the selling distributor for specific details.

To comply with the National Electrical Code (NGPA 70) and provide additional

protection from risk of electric shock, this hot water generator is equipped with a UL approved ground fault circuit interrupter (GFCI) power cord.



WARNING: Flammable liquids can create fumes which can ignite causing property damage or severe injury.

WARNING: Do not spray flammable liquids. Operate only where an open torch is permitted.

- 3. This fuel burning machine shall be installed only in locations where combustible dusts and flammable gases or vapors are not present.
- 4. In these oil burning models, use only kerosene, NO.1 home heating fuel, or diesel fuel. See approved fuels decal.



WARNING: Keep water away from electric wiring or fatal electric shock may result.

Read warning tag on electrical cord

- 5. To help protect the operator from electrical shock, the machine must be grounded. It is the responsibility of the owner to connect this machine to a UL grounded receptacle of proper, voltage and amperage ratings. Do not spray water on or near electrical components. Do not touch machine with wet hands or while standing in water. Always disconnect power before servicing.
- 6. Water can reach boiling temperature. Adjust to safe temperature only.
- 7. Use caution when operating.
- 8. This machine is to be used only by qualified operators.
- 9. Never make adjustments on machine while it is in operation.





WARNING: Risk of asphyxiation - Use this product only in a well ventilated area.

10. When the machine is operating, do not cover or place in a closed space where ventilation is insufficient.

WARNING: Risk of fire - Do not add fuel when the machine is operating or still hot.

- 11. Check to make sure burner shuts off when hot water taps are closed.
- 12. Protect from freezing.
- 13. Make certain quick coupler on inlet hose has locked before using.
- 14. Do not allow acids, caustic or abrasive fluids to pass through the machine.
- 15. Inlet water must be from a cold water supply.
- 16. THIS MACHINE MUST BE ATTENDED DURING OPERATION.
- 17. The best insurance against an accident is precaution and knowledge of the machine.
- 18. Do not operate this product when fatigued or under the influence of alcohol or drugs. Keep operating area clear of all persons.
- 19. We will not be liable for any changes made to our standard machines, or any components not purchased from us.
- 20. Do not overreach or stand on unstable support. Keep good footing and balance at all times.
- 21. Follow the maintenance instructions specified in the manual.
- 22. When making repairs disconnect from electrical source.
- 23. Turn burner off and open hot water taps to allow water to flow and cool coil to 100°F before turning machine off.
- 24. Before disconnecting water supply hose from machine, open cold and hot outlet taps to relieve back pressure in hose.

CAUTION: This machine produces hot water and must have insulated components attached to protect the operator



Installation

Place machine in a convenient location providing ample support, drainage and room for maintenance.

Location:

The location should protect the machine from damaging environmental conditions, such as; wind, rain, and freezing.

- 1. This machine should be run on a level surface where it is not readily influenced by outside sources such as strong winds, freezing temperatures, rain, etc. It should be located to allow accessibility for refilling of fuel, adjustments and maintenance. Normal precautions should be taken by the operator of the machine to prevent moisture from reaching the electrical controls.
- 2. Excess moisture reaching any electric components or electrical controls will reduce machine life and may cause electrical shorts.
- 3. During installation of the machine, beware of poorly ventilated locations or areas where exhaust fans may cause an insufficient supply of oxygen. Sufficient combustion can only be obtained when there is a sufficient supply of oxygen available for the amount of fuel being burned. If it is necessary to install a machine in a poorly ventilated area, outside fresh air may have to be piped to the burner and a fan installed to bring air into the machine.

Electrical:

This machine, when installed, must be electrically grounded in accordance to local codes. Check for proper power supply using a volt meter.

Placement:

Do not locate near any combustible material. Keep all flammable material at least 20 feet away. Allow enough space for servicing the machine.

Local code will require certain distances from floor and walls. (Two feet away from walls should be adequate.)

Water Source:

The water source for the water heater should be supplied by a minimum 5/8" 1.0 garden hose with a water pressure of not less than 30 PSI. If the water supply is inadequate, or if the garden hose is kinked, the burner will not fire.

Connection:

See Component Identification.

Venting:

Adding exhaust vent pipe to your oil fired burner is not recommended because restricted air flow causes carbon build-up, which affects the operation, and increases maintenance on the coil. If a stack must be used, refrain from using 90° bends. If the pipe can not go straight up then use only 45° bends and go to the next size pipe. The overall pipe length must not exceed 6 feet in length. The burner air adjustment must be performed after vent pipe is installed. Use a smoke tester for proper air setting.

OPERATING INSTRUCTIONS



STEP 1: Check fuel tank level, connect water supply to heater. CAUTION: Only use fresh water to this machine.



STEP 2: Turn water supply hose ON.



STEP 3: Connect the power cord into the proper electrical outlet, then push in the GFCI reset button.



STEP 4: For straight hot water, turn the machine burner switch to the ON position. Adjust thermostat to desired temperature setting. (The burner will light automatically when a hot water tap is opened.) For tempered water open Blue/Red tap to desired flow rate/output (water temperature is set at 110°F)

CLEANING TIPS

Heater can be cleaned with mild soap solution or a degreaser for the removal of dirt and fuel spills.

Recommendations:

• Electric power must be disconnected at the GFCI source.

CAUTION - Never use:

- Bleach, chlorine and other *corrosive* chemicals
- Liquids containing solvents (i.e., paint thinner, gasoline, oils)
- Trisodium phosphate products
- Ammonia products
- Acid-based products

These chemicals will harm the machine and will damage the surface being cleaned.

RINSING

- Do not rinse any electrical parts.
- Turn power OFF
- Rinse only with fresh water

SHUTTING DOWN AND CLEAN-UP

- STEP 1: Turn burner switch off and continue water flow, allowing the water to cool. After water has cooled to less than 100°F(see gauge on front panel).
- STEP 2: Turn water supply OFF. Open all taps to relieve remaining pressure.

STORAGE

CAUTION: Always store your water heater in a location where the temperature will not fall below 32°F (DOC). The pump in this machine is susceptible to permanent damage if frozen. FREEZE DAMAGE IS NOT COVERED BY WARRANTY.

- 1. Stop the water heater, open taps to release pressure.
- 2. Detach water supply hose.
- 3. Turn on the machine for a few seconds, until remaining water exits.
- 4. Store the machine and accessories in a room which does not reach freezing temperatures.

CAUTION: Failure to follow the above directions will result in damage to your water heater.

When the water heater is not being operated or is being stored for more than one month, follow these instructions:

- 1. Cover the water heater and store in a clean, dry place that is well ventilated away from open flame or sparks. NOTE: the use of a fuel additive such as STA-BIL, or an equivalent, will minimize the formulation of fuel deposits during storage. Such additives may be added to the gasoline in the fuel tank, or the gasoline in a storage container.
- 2. It is recommended to follow winterizing procedure, filling heater with plumber anti freeze any time heater goes in storage to prevent corrosion in system or accidental freezing.

After Extended Storage

CAUTION: Prior to restarting connect to fresh water supply, open cold and hot water taps to flush the system

INUUDLESHUIING

PROBLEM	POSSIBLE CAUSE	SOLUTION	
BURNER WILL NOT	Disconnected or short in electrical	All wire contacts should be clean and tight. No	
LIGHT	wiring	breaks in wire.	
	Burner motor thermal protector	If tripped, check voltage, connections and	
	tripped	extensions for cause. Check fuel pump shaft rotation for binding, causing motor to	
	ON/OFF switch defective	Check continuity through burner switch.	
	Heavy sooting on coil and burner,	Clean as required.	
	can cause interruption of air flow and		
	shorting of electrodes		
	Improper electrode setting	Clean and test according to diagram in	
		operator's manual.	
	Fuel not reaching combustion chamber	Check fuel pump for proper flow. Check solenoid flow switch on by opening hot water taps	
	Fuel solenoid malfunction	Check by placing screwdriver inside coil then turn machine on, open hot water tap and check for magnetic pull	
	Clogged burner nozzle	Replace.	
	Water not turned on	Turn on water to activate burner flow switch.	
	Flow switch malfunction	Remove, test for continuity and replace as	
		Drain tank and rankes contaminated fuel	
MACHINE SMORES	Low fuel pressure	Adjust fuel pump pressure to	
	Air leaks in fuel lines	Check fuel lines for leaks or air bubbles	
		Tighten or replace as needed.	
	Plugged or dirty burner nozzle	Replace.	
	Faulty burner nozzle spray pattern	Replace nozzle.	
	Heavy accumulation of soot on coils	Remove coils and burner assembly. Clean	
	and burner assembly	thoroughly.	
	Misaligned electrode	Realign electrodes to specifications.	
	Fuel filter partially clogged	Replace as needed.	
	Obstruction in smoke stack	Check for insulation blockage or other foreign objects.	
	Soot build-up on coils	Clean coils with soot remover.	
	Lime build-up in coils	Clean inside of coils using coil cleaner.	

TROUBLESHOTING

PROBLEM	POSSIBLE CAUSE	SOLUTION	
LOW WATER	Improper fuel or water in fuel	Drain fuel tank and replace with proper fuel.	
TEMPERATURE			
	Low fuel pressure	Increase fuel pressure.	
	Weak fuel pump	Check fuel pump temperature. Replace	
		pump if needed.	
	Fuel filter partially clogged	Replace as needed.	
	Soot build up on coils	Clean coils with soot remover.	
	Lime build up on coils	Clean inside of coils using coil cleaner.	
	Improper burner nozzle	See specifications.	
WATER	Incoming water to machine warm or	Lower incoming water temperature.	
TEMPERATURE	hot		
тоо нот			
	Fuel pump pressure too high	Lower fuel pressure.	
	Fuel pump defective	Replace fuel pump.	
	Defective high limit switch	Poplage	
	(thermostat)	Replace.	
	Incorrect fuel nozzle size	See Burner Nozzle section.	
	Insufficient water supplied	Check GPM to machine.	
	Restricted water flow	Check nozzle for obstruction, proper size.	

PREVENTATIVE MAINTENANCE

	MAINTENANCE SCHEDULE	
Machine	Clean	Daily
Water Lines	Check	Daily
Fittings	Check	Daily
Fuel Filter	Clean	Weekly
Inlet Strainer	Clean	Weekly
Fuel Nozzle	Clean	Weekly
Fuel Tank	Clean	Weekly
Electrodes	Adjust	Monthly
Fuel Pump Strainer	Clean	Monthly
Electrode Wires	Check	Monthly

PREVENTATIVE MAINTENANCE

- 1. Use clean fuel kerosene, No. 1 home heating fuel or diesel. Clean or replace fuel filter every 100 hours of operation. Avoid water contaminated fuel as it will seize up the fuel pump. De-soot coils monthly. Use an additive if diesel is being used.
- 2. Follow winterizing instructions to prevent freeze damage to pump and coils.
- 3. If water is known to be high in mineral content, use a water softener on your water system, or descale as needed.
- 4. Do not allow acidic, caustic or abrasive fluids to be pumped through system.
- 5. Always use high grade quality cleaning products.
- 6. Never run pump dry for extended periods of time.
- 7. If machine is operated with smoky or eye burning exhaust, coils will soot up, not letting water reach maximum operating temperature. (See section on Maintenance and Service).
- 8. Delime coils as per instructions. It is advisable, periodically, to visually inspect the burner. Check air inlet to make sure it is not clogged or blocked. Wipe off any oil spills and keep equipment clean and dry. The areas around the machine should be kept clean and free of combustible materials, gasoline and other flammable vapors and liquids. The flow of ventilating air to the burner. must not be blocked or obstructed in any manner.

MAINTENANCE AND SERVICE

Winterizing Procedure:

Damage due to freezing is not covered by warranty. Adhere to the following cold weather procedures whenever the washer must be stored or operated outdoors under freezing conditions.

During winter months, when temperatures drop below 32°F, protecting your machine against freezing is necessary.

Store the machine in a heated room. If this is not possible use either compressed air blowing into main water intake port and opening all taps, blowing out all water out of the system, or run plumbers anti-freeze through the system by inserting the intake hose in a gallon of plumbers anti freeze turn ON the master switch and open each tap until anti freeze flows. Close taps to retain anti freeze

Rupture Disk:

For safety, each machine is equipped with a rupture disk. In the event the pressure of the water should exceed 8000 PSI, the rupture disk will release pressure and water on to the ground.

When the disk ruptures, it will need to be replaced. **NOTE: Turn burner switch off. Then establish water flow to cool** heating coil or rupture disk will burst over • time.

Adjustable Thermostat:

The adjustable thermostat can be set between 100°F to 225°F (37.8° *to* 108°C). The temperature is dependent on water flow and ambient water temperature.

Cleaning of Coils:

In alkaline water areas, lime deposits can accumulate rapidly inside the coil pipes. This growth is increased by the extreme heat build up in the coil. The best prevention for liming conditions is to use high quality cleaning detergents. In areas where alkaline water is an extreme problem, periodic use of Deliming Powder will remove lime and other deposits before coil becomes plugged.

Deliming Coils:

Periodic flushing of coils is recommended.

Step 1 Fill a 5 gallon bucket with 4 gallons of water, then add 1 lb. of deliming powder. Mix thoroughly.

Step 2 Attach a short section (3-5 ft.) of garden hose to the intake port to pump solution from the bucket. Allow solution to be pumped through coils and back into the bucket. Solution should be allowed to circulate 2-4 hours.

Step 3 After circulating solution flush entire system with fresh water.

Removal of Soot In Heating Coil:

In the heating process fuel residue, in the form of soot deposits, may develop between the heating coil pipes and block air flow which affects burner combustion. When soot has been detected on visual observation, the soot on the coil must be cleaned off.

Fuel:

Use clean fuel oil that is not contaminated with water and debris. Replace fuel filter and drain tank every 100 hours of operation. Use Kerosene NO.1 or NO.2 Heating Fuel (ASTM 0306) or diesel only. NEVER use gasoline

in your burner tank. Gasoline is more serious explosion. NEVER use machine malfunction could result from



combustible than fuel oil and could result in a crankcase or waste oil in your burner. Fuel contamination.

SideView

Ignition Circuit:

Periodically inspect wires, spring contact and electrodes for condition, security and proper spacing. (CAUTION: 10,000 VOLTS)

Electrode Setting:

(See illustration below) Electrodes Check: Periodically check wiring connections. If necessary to adjust electrodes, use diagram.

Burner Nozzle:

Keep the tip free of surface deposits by wiping it with a clean, solvent-saturated cloth, being careful not to plug or enlarge the nozzle. For maximum efficiency, replace the nozzle each season. Select nozzle size based on the water flow you will be using:

Nozzle	GPM
1.50	2 - 3
1.75	3 - 4
2.00 - 2.25	4 – 5

All nozzles should be 45° W Fuel Control System:

The machine utilizes a fuel solenoid valve located on the fuel pump to control the flow of fuel to the combustion chamber. This solenoid, which is normally closed, is activated by a flow switch when water is flowing through it. When an operator closes the hot water taps, the flow of water through the flow switch stops, turning off the current to the fuel solenoid. The solenoid then closes, shutting off the supply of fuel to the combustion chamber. Controlling the flow of fuel in this way gives an instantaneous burn or no burn situation, thereby eliminating high and low water temperatures, and combustion. Periodic inspection is recommended to insure that the fuel solenoid valve functions properly. This can be done by operating the machine and checking to see that when the hot water

taps are in the OFF position, the burner is not firing.

Fuel Pressure Adjustment:

To adjust fuel pressure, turn the adjusting screw with a 5/32" allen wrench (located on the fuel pump) clockwise to increase, counterclockwise to decrease. Do not exceed 200 PSI.

FIELD REPAIR INSTRUCTIONS

Fuel Pump:

- 1. Remove the screws 10/32" Allen Head from the machine hood.
- 2. Remove louvered hood.
- 3. With a 9/16" wrench, loosen (DO NOT REMOVE) the two 3/8" x 3/4" HH NC serrated flange bolts that secure the front panel.
- 4. With a 2.5 mm hex head wrench (Allen Wrench), loosen the three set screws that hold the fuel pump in the blower motor housing located on Idromatic Boiler Assembly.
- 5. Carefully remove the fuel pump (Item #53) from the blower motor, leaving the flexible zinc fuel line connected, carefully bend the fuel line and fuel pump away from the blower motor.
- 6. Locate the fuel pump/fan motor coupling.
- 7. Inspect the coupling for damage. The inside diameter of fuel pump coupling requires flat on one side to engage fuel pump, and the outside diameter requires two male notches to engage the blower motor.
- 8. Perform a check to see if the fuel pump is turning freely. Use an open end 7mm wrench or small adjustable wrench on fuel pump shaft.
- 9. Spin the fuel pump over in both directions using the wrench for leverage. When the fuel pump is turning freely (almost to the point you could turn it by hand) it is ready to reinstall.
- 10. Align fuel pump coupler on pump shaft/fan motor. Slide pump into fan motor. Secure pump with the three set screws.
- 11. Test machine (make sure):
- o Blower motor spins
- o Fuel is on
- o Machine has power to it
- o Switch is on
- o Flow of water through machine
- o Thermostat is turned up
- o Flow switch is adjusted properly
- 12. When unit is operating properly, turn machine off, tighten front panel, and install hood and 13 self tapping screws with recess washers.





11.

EXPLODED VIEW PARTS LIST

ITEM	PART NO.	DESCRIPTION	QTY	ITEM	PART NO.	DESCRIPTION	QTY
1	90-2020	Nut, Cage, 3/8" x 12 Gauge	4	21	11-0110	Label, Control Panel	1
2	90-1996	Screw, 3/8" x 3/4" Whiz Loc	4	22	10-02025A	Label, Hot/Caliente, w/Arrows	1
3	4-0303	Wheel & Tire, 6" Steel Rim	2	23	10-09004	Decal, Discharge	1
4	4-05089	Thermostat, Adjustable, 240°F	- 1	24	10-09003	Decal, Inlet	1
F	6 01062	GFCI, 120V 15A, w/36' 12-3		25	11-015	Label (HR)	1
Э	6-01062	Cord	1	26	90-20061	Nut, <i>5/16",</i> Eng	2
6	6-020240	Switch, Rocker, Carling		27	90-19710	Screw 1/4" x 3/4" HH NC	4
		wlGreen Lens				0010W, 7/4 X 0/4 HH, NO	
				28	95-07200122	Bracket, Fuel Tank, Left	1
7	6-05152	Strain Relief, Strt, LQ Tite 323	1				
		Small	1	29	90-2018	Nut, Cage, 10/32" x 16 Gauge 13	
	6-05181A	• Locknut 1/2"	1	30	4-0204509	Hose, 3/8" x 9',2 Wire, 3/8" SW	
						x 3/8" SOL	1
8	90-16	Screw 8/32" x 3/4" BHSOC	2				
				31	90-1991	Screw. 10/32" x 112"	13
9	90-20041	Collar, 5/8" Bore Shaft 3010	2				
	95-07102225	•. Axle	1	32	10-08018	Label, Warning, Service Cord	1
	90-4005	•. Washer, 5/8"	2	33	2-01103	Grip, 1" Square Handle	2
10	95-07200124	Bracket, Fuel Tank, Right	1	34	10-08021	Label, Disconnect Pwr Supply 1	
11	95-07200125	Frame Assy	1	35	2-0155	Fastener, Ratchet, Black	2
12	95-07290069	Hood, Cover	1	36	6-05040	Block, Terminal, 8 Pole	1
13	95-07200121	Panel, Front	1		6-0505	Bar Jumper	2
	11-1042	Label, Ground	1	37	90-100461	Screw, 1/4" 1/2" Hex, Black	1
14	95-07102287	Strap, Fuel Tank	2	38	90-200490	Nut, 8/32", Keps	2
15	2-01015	Bumber, Rubber 1" wlBolt,		39	90-200012	Nut, 1/4" Flange	4
		<i>5/16"</i> x 1-1/4"	2	40	90-1004	Bolt, 1/4" x 1-1/2"	2
16	11-0101	Label, Warning, Pictorial	1	41	90-4000	Washer, 1/4" Flat	2
17	95-07200120	Panel, Back	1	42	90-19711	Screw, 1/4" x 1/2" HH, NC	4
18	2-2007	Nipple, 3/8" x 3/8" NPT ST		43	90-200012	Nut. 1/4" Flange	6
		Male		10	00 2000 12		
				44	90-40125	Washer, 3/8" x 1" Steel	2
19	2-2002	Coupler, 3/8" Female, Brass					
20	2-0031	Elbow, 3/8" Street		45	2-0103	Grommet, Rubber, Nozzle	
						Holder	2
				46	9.800-018.0	Label, Tipover Hazard	1
				47	90-017	Nut, 10/32" Keps	4
				48	9.800-049.0	Label, Cleaning Solution	1

Not Shown



BURNER ASSEMBLY PARTS LIST

ITEN	I PART NO.	DESCRIPTION	QTY	ITEN	I PART NO.	DESCRIPTION	QTY
1	91-010170	Coil, Lavorwash	1	33	90-2001	Nut, 5/16" ESNA	4
2	7-46140112	Clamp, Electrode	1	34	2-0036	Tee, 1/2" Female, Steel Pipe	1
3	7-46140004	Electrode	2	35	2-0046	Tee, 1/2", Street	1
4	7-31000017	Elbow	1	36	2-0054	Elbow, 1/2" JIC x 1/2" Male	1
5	7-30990015	Ring, Locking	1	37	4-02100003	Fuel Line, 1/4" Push-on,	
6	7-46080002	Slide	1			Green	6"
7	7-46050001	Flange, Burner	1	38	70-121603	Hose Barb	2
8	7-31040009	Nozzle, Burner 1.50, 60°	1	39	2-3409	Disk, Rupture Assy, 7000 PSI	1
9	7-56110098	Cable, High Tension	2	40	2-9040	Clamp, Hose, UNI, .4654	6
10	7-34050003	Board, Terminal	1	41	4-02047714	Hose, 3⁄8″ x 14", 2 Wire, Pressure Loop	2
11	7-56130147		1				
		Cover, Tank External, SS		42	2-011507	Tank, Encore, 5 Gallon Fuel	1
12	7-56100105	Deflector	1				
				43	6-021730	Switch, Flow, MV60	1
13 7-56130133	Cover, Burner	1					
			44	90-20040	Nut, 3/8" Whiz Loc	4	
14	7-46040021	Coil Lligh 500	1				
				45	2-0053	Elbow, 1/2" JIC x 3/8",90°	1
15	7-56130039	Heater Body	1				
		Healer Body		46	2-00602	Elbow, 1/2" JIC x 1/2" Fem, 90	° 1
16	7-31000015	Connector 1/2 m	1				
				47	6-021740	Reed, Replacement, MV60	1
17	7-35510013	Pump Fuel	1				
		Fump, Fuer		48	2-0006	Nipple 2/0" x 2/0" Hey Steel	1
18	7-34140011	Coil Solonoid	1				
				49	2-11039	Connector, 3/8" Anchor	2
19	7-30990012	Coupling Plactic	1				
		Coupling, Flastic		50	90-19961	Screw, 3/8" x 1-3/4" HH, NC	4
20	7-33000013	Motor 11 OV 60 Cycle	1			Elbow 3/8" Female	
				51	2-1019	LIDOW, 3/0 Female	1
21	7-30990028	Fan	1				
				52	4-05088	Thormostat Adjustable 202°E	1
22	7-34100004	Box Electric 70 x 70 x 20	1			memiosiai, Aujusiable, 302 F	I
		DOX, Electric 70 x 70 x 30		53	2-0053	Elbow, 1/2" JIC, 3/8", 90°	1
23	7-46080193	Pofracton	1				
		Nonaciony		54	95-07290082	Coil, Mount Plate	1
24	7-46070006	Strip Coil Fixing	1				
		Salp, Coll Fixing		55	90-1006	Bolt, 5/16" x 3/4"	4
25	7-46080162	Rope, Insulating	1				

				56	2-01167	Cap, Fuel Tank, 5 Gallon امیا	1
26	7-56130026	Base, Heater	1	57	2-1084	Hose Barb, 1/4" Barb x	
27	7-46060013	Nut, Coil Fixing	2			1/8" Pipe	
28	7-30040015	Washer, 22x39	2	58	2-99031	Filter, Diesel, Fuel, Disposable	
29	7-56090023	Guard, Fan	1	59	2-010061	Grommet, Fuel Tank	
30	7-34000017	Transformer, 11 OV 60 Cycle	1	60	7-80320	Valve, Fuel Tank Shut-Off	
31	7-46160005	Tube, Copper	1	61	4-02100003	Fuel Line, 1/4" Push-On,	
32	90-4001	Washer, 5/16" Flat	8			Green	36"
				62	4-02100000	Fuel Line, 1/4" Push-on, Black	46"
						A Not Shown	

LIMITED MINIMUM 90 DAY WARRANTY

- We warrant the original consumer that each new part and accessory sold by CAM will be free from manufacturing defects in material or workmanship in normal service for the duration specified by the original component manufacturer with a 90 day minimum from date of purchase, provided it is installed properly and maintained in accordance with the manufacturers' instructions and manuals.
- EXCLUSIONS: This warranty does not apply to defects caused by casualty or unreasonable use, including faulty repairs by others and failure to provide reasonable and necessary maintenance.

WARRANTY PROVIDED BY OTHER MANUFACTURERS:

- Motors, generators, and engines, which are warranted by their respective manufacturers, are serviced through these manufacturers' local authorized service centers. CAM is not authorized and has no responsibility to provide warranty service for such components.
- PUMPS: Legacy, General, Comet, AIR, Cat pump Limited Warranty, offer a "one and five" limited warranty on ceramic plunger type pumps, from date of purchase, for parts only (No Labor). The manifold and oil end of the pump parts only (No Labor) is warranted for 5 years on Legacy, and General (Interpump), 2 years on AIR and Cat pump and 1 year Comet from date of purchase against manufacturer defects. The water end of the pump parts (No Labor), plungers, valves, packings and "o"rings are warranted for 90 days from date of purchase against manufacturer defects, this does not include normal wear from usage. NOTE - Over Heated or Run Dry Pumps void all warranties. BURNERS AND COILS: One Year Limited Warranty for manufacturing defects on, parts only (No Labor) for Becket or Wayne Burners and coils supplied on CAM Machines. This Limited Warranty includes, but not limited to, all burner electronics and mechanical parts, blower motor, flow switches, pressure switches, pop off valves, thermostats, fuel nozzles, fuel pumps, blowers, transformers, igniters, control box and switches and heater coils. NOTE - Allowing any water flow portion of the machine to freeze Voids all Warranties.
- ACCESSORY PARTS: Three month Limited Warranty for manufacture defects on, parts only (No Labor) including, but not limited to; unloader valve, thermal relief valve, reels, swivels, easy start valve, chemical injector, rotating nozzles, spray tips, spray guns, wand extensions, telescoping wands, ball valves, sand injectors, quick couplers, high pressure hose, sewer hose, foot pedals, tanks, fillers, jumper hose, ground fault interrupter, vacuum switches, all electrical switches, flat surface cleaners, sandblast kits, clothing, tools, tubing, clamps and roller and diaphragm pumps.
- One year Limited Warranty for manufacture defects on, parts only (No Labor) including but not limited to: machine carts, machine frames, wheels, coil skins, fuel tanks.

L1MITATJON OF LIABILITY

- All CAM warranties are not transferable. CAM's liability for special, incidental, or consequential damages is expressly disclaimed. In no event shall any liability exceed the purchase price of the product(s) In question. Our obligation under this warranty is expressly limited as to the replacement or repair, at our option, for such part or parts as inspection shall disclose to have been defective. CAM makes every effort to ensure that all illustrations and specifications are correct, however, these do not imply warranty that the product is merchantable or fit for a particular purpose, or that the product will actually conform to the illustrations and specifications. The warranty contained herein is in lieu of all other warranties express or implied, including any implied warranty of fitness for a particular purpose are expressly limited to the duration of this warranty. This warranty gives you specific legal rights and you may also have other rights which vary from state to state. All freight charges incurred on warranty situations are the responsibility of the customer. Specifications, warranties and pricing are subject to change without notice.
- 'Refund does not include shipping/handling fees. Customer is responsible for lost or misdirected packages. It is recommended that the customer insure the package for its full retail value. This warranty does not cover or include any damage which is out of our control, improper installation, alteration, negligence or abuse.

RETURNED GOODS POLICY

Damage or Loss in Transit: Immediately upon receipt of a shipment unpack and inspect it for shortage or damage. Do not accept damaged shipments until the carrier acknowledges a damage notation on your delivery receipt or freight bill. Notify the carrier and CAM of damage including concealed damage within 48 hours. Retain all packing materials after inspection. Damaged machines will be returned to: Canadian Airmotive 220 Hunt Club Rd.-Ottawa-Ontario-K1V 1C1. All parts will be returned to CAM.

Product Related Problems: Contact the CAM customer service center within 3 days. Our personnel will act to resolve the situation promptly.

Return Authorization: A return authorization (RGA) number must be obtained from our Customer Service department prior to returning any goods. Reference this number on all shipping labels. Returns must be made within 45 days of the issuance of the return authorization number. Returns made without an authorization number will be returned 'collect' to the customer. Any denied product will be held for 30 days after notification, then returned freight collect or scrapped.

Returns are subject to a minimum of a 20% restocking charge. Incurrence of this charge will depend on the particular circumstances. Special order parts are non-refundable *I* non-returnable. Products refused by the customer upon delivery are subject to a 25% restocking fee and all shipping charges.

Returns Which Cannot Be Authorized

Special non-stock items, which mayor may not have a CAM catalogue number but are not stocked by CAM. These items
active and if the upped on the seture for full and it

may be returned if the vendor will accept the return for full credit.

- Items not purchased from CAM
- Products without useful shelf life
- Sealed products or detergents which have been opened
- · Products modified or mutilated from improper repairs or application of special identification labels or name plates
- Discontinued or obsolete products

RETURN OF HAZARDOUS MATERIAL

Hazardous materials must be packed, marked, labeled and shipped in accordance with transport regulations governing transport of hazardous materials. Opened or leaking, or damaged containers cannot be returned.