

# 8500M

## INDUSTRIAL GASOLINE GENERATOR

### OPERATOR'S MANUAL



**WARNING**

IT IS EXTREMELY IMPORTANT TO READ AND UNDERSTAND THE ENTIRE CONTENTS OF THIS OPERATOR'S MANUAL BEFORE ATTEMPTING TO OPERATE THE PRODUCT. THIS EQUIPMENT IS POTENTIALLY HAZARDOUS AND COULD CAUSE PHYSICAL INJURY OR EVEN DEATH IF IMPROPERLY USED.

# ! WARNING !

**DO NOT OPERATE EQUIPMENT UNTIL READING & UNDERSTANDING OPERATOR'S MANUAL!**

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## IMPORTANT WARNING SYMBOLS



◆ Read Operator's Manual



Toxic Fumes



Store in Dry Place



Keep Dry



Ground Generator



Fire



Hot Surfaces






Proper Lifting



Ground Properly

The following signal words and meanings are intended to explain the level of risk associated with this product

	Indicates a hazard which, if not avoided WILL result in death or serious injury.
	Indicates a hazard which, if not avoided, could result in death or serious injury.
	Indicates a hazard which, if not avoided, could result in minor or moderate injury.

# IMPORTANT SAFETY INFORMATION

MANUFACTURER SHALL NOT BE RESPONSIBLE FOR ANY CONSEQUENCES RESULTING FROM IMPROPER USE OF THIS EQUIPMENT. THE OPERATOR IS REQUIRED TO READ THE ENTIRE CONTENTS OF THIS MANUAL BEFORE ATTEMPTING TO OPERATE THE UNIT. IF THE OPERATOR DOES NOT COMPLETELY UNDERSTAND THE INSTRUCTIONS AND ALL OF THE HAZARDS OF OPERATING THIS UNIT AFTER READING THIS MANUAL, OPERATOR MUST CALL THE FACTORY TO ANSWER THESE QUESTIONS TO OPERATOR'S COMPLETE SATISFACTION BEFORE PROCEEDING.

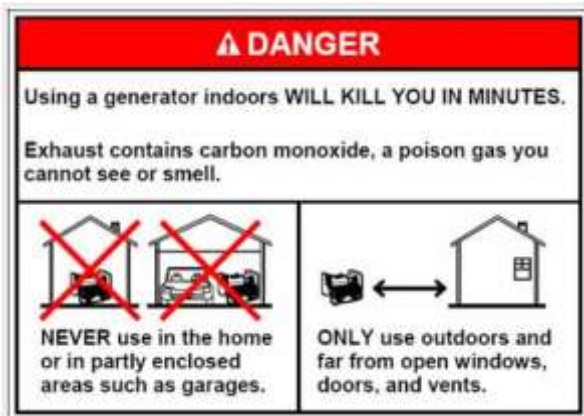
- READ AND COMPLETELY UNDERSTAND ENTIRE CONTENTS OF THIS OPERATOR'S MANUAL AND BECOME FAMILIAR WITH THE UNIT BEFORE ATTEMPTING TO START USING THIS EQUIPMENT! IT IS YOUR RESPONSIBILITY TO KNOW ITS APPLICATIONS, LIMITATIONS, AND HAZARDS! CALL THE FACTORY WITH ANY QUESTIONS.
- A MINIMUM OF THREE (3) FEET OF CLEARANCE ON ALL SIDES IS REQUIRED.
- THIS UNIT IS ONLY TO BE USED FOR ITS INTENDED PURPOSE, ANY OTHER APPLICATIONS COULD VOID WARRANTY.
- USER ACCEPTS RESPONSIBILITY FOR INJURIES AND/OR DAMAGE RESULTING FROM OTHER APPLICATIONS.
- INSPECT UNIT PRIOR TO USE FOR ANY UNSAFE CONDITIONS.
- FOLLOW ALL CODES FOR THE SAFE OPERATION OF THIS EQUIPMENT, BOTH LOCAL AND FEDERAL
- ONLY PEOPLE THAT ARE WELL ACQUAINTED WITH THE RULES OF SAFE OPERATION SHOULD USE THE GENERATOR.
- KEEP CHILDREN AWAY FROM THE UNIT.
- WEAR SAFETY GLASSES AND HEARING PROTECTION.
- DO NOT STAND ON THE UNIT OR ATTEMPT TO USE IT AS A HAND HOLD.
- REPLACE OR REPAIR ANY DEFECTIVE PARTS BEFORE USING.
- DO NOT FILL FUEL TANK IF ENGINE IS HOT.
- THE ENGINE GOVERNOR IS PRESET. DO NOT TAMPER WITH THE SETTING. EXCESSIVELY FAST SPEEDS WILL SEVERELY SHORTEN THE LIFE OF THE ENGINE AND MAY BE HAZARDOUS.

## !!! FOR OUTDOOR USE ONLY !!!

NEVER USE THIS UNIT INSIDE OF ANY BUILDING, ENCLOSURE OR A RECREATION VEHICLE (RV). NO MODIFICATIONS WILL ELIMINATE THE DANGER OF POSSIBLE CARBON MONOXIDE POISONING, FIRE OR EXPLOSION.

## !!! WARNINGS AND CAUTIONS !!!

IN THIS MANUAL AND OR DECALS AND TAGS ON THE UNIT ARE NOT ALL INCLUSIVE. IT WOULD BE IMPOSSIBLE TO ANTICIPATE EVERY CIRCUMSTANCE THAT MIGHT INVOLVE A HAZARD HANDLING.



### ! WARNING !

#### CALIFORNIA PROPOSITION 65 WARNING:

Engine exhaust from this product contains chemicals known to the state of California to cause cancer, birth defects and other reproductive harm

### ! WARNING !

#### CALIFORNIA PROPOSITION 65 WARNING:

Battery posts, terminals and related accessories are known to the state of California to cause cancer, birth defects and other reproductive harm.

## !!!! REVIEW THIS MANUAL THOROUGHLY !!!

FOLLOW ALL INSTRUCTIONS PROVIDED WITHIN THIS MANUAL. THIS EQUIPMENT CAN CAUSE SERIOUS INJURY TO PEOPLE AND ANIMALS AND SEVERE DAMAGE TO PROPERTY IF OPERATED NEGLIGENTLY OR INCORRECTLY. PAY PARTICULAR ATTENTION TO ALL SAFETY INSTRUCTIONS, WARNINGS AND NOTICES.

# EQUIPMENT SPECIFIC WARNINGS



## **⚠️ WARNING**

Read the ENTIRE IMPORTANT SAFETY INFORMATION section at the beginning of this manual before set up or use of this product

### **TO PREVENT SERIOUS INJURY FROM ACCIDENTAL OPERATION:**

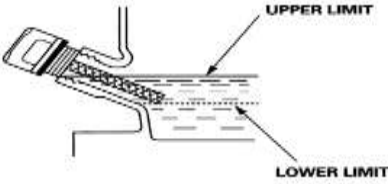
Turn the UNIT OFF AND DISCONNECT THE BATTERY to prevent accidental starting.

- GENERATORS PRODUCE A VERY POWERFUL VOLTAGE THAT CAN CAUSE EXTREMELY DANGEROUS ELECTRICAL SHOCK. AVOID CONTACT WITH BARE WIRES, TERMINALS, ETC. NEVER PERMIT AN UNQUALIFIED PERSON TO OPERATE OR SERVICE THE GENERATOR.
  - NEVER HANDLE ANY KIND OF ELECTRICAL CORD OR DEVICE WHILE STANDING IN WATER, WHILE BAREFOOT, WITH WET HANDS OR WHEN FEET ARE WET. DANGEROUS ELECTRICAL SHOCK COULD RESULT.
  - THE NATIONAL ELECTRIC CODE REQUIRES THAT THE FRAME AND EXTERNAL CONDUCTIVE PARTS BE PROPERLY CONNECTED TO AN APPROVED EARTH GROUND. LOCAL ELECTRICAL CODES MAY VARY. CHECK WITH AN ELECTRICIAN FOR LOCAL GROUNDING REQUIREMENTS.
  - USE A GROUND FAULT CIRCUIT INTERRUPTER IN ANY DAMP OR HIGHLY CONDUCTIVE AREA SUCH AS METAL DECKING OR STEEL WORK.
  - DO NOT USE WORN, BARE, FRAYED OR OTHERWISE DAMAGED ELECTRICAL CORDS OR WIRING WITH THE GENERATOR. A DEFECTIVE CORD MAY RESULT IN ELECTRICAL SHOCK OR MAY CAUSE DAMAGE TO EQUIPMENT.
  - DO NOT EXPOSE UNIT TO EXCESSIVE MOISTURE, DIRT OR CORROSIVE VAPORS. UNIT MUST BE OPERATED ON A LEVEL SURFACE
  - ONLY OPERATE THIS UNIT OUTSIDE WITH ADEQUATE VENTILATION. THIS GENERATOR'S EXHAUST PRODUCES CARBON MONOXIDE GAS THAT CAN CAUSE UNCONSCIOUSNESS OR EVEN DEATH.
  - NEVER STORE A GENERATOR WITH FUEL IN THE TANK WHERE FUEL VAPORS COULD BE IGNITED BY A FLAME, SPARK, OR PILOT LIGHT FROM AN APPLIANCE SUCH AS A FURNACE, WATER HEATER, OR CLOTHES DRYER.
  - ALWAYS ALLOW A MINIMUM OF 3 FEET OF CLEARANCE ON ALL SIDES FOR VENTILATION WHILE UNIT IS OPERATING. ALLOW 3 FEET OF CLEARANCE FROM ALL COMBUSTIBLES.
  - GENERATOR MUST ALWAYS BE STOPPED OR STARTED WITH ALL LOADS DISCONNECTED. START THE ENGINE AND LET IT STABILIZE BEFORE CONNECTING ANY LOADS. DISCONNECT ALL LOADS BEFORE SHUTTING DOWN THE GENERATOR.
  - NEVER INSERT ANY OBJECT THROUGH THE COOLING SLOTS OF THE ENGINE. YOU COULD DAMAGE THE UNIT OR CAUSE INJURY.
- NEVER OPERATE THE GENERATOR:**
- **IN WET OR RAINY CONDITIONS**
  - **IN AN ENCLOSED COMPARTMENT**
  - **IF CONNECTED DEVICES OVERHEAT**

## WATTAGE REFERENCE GUIDE

Air Conditioning Unit (12,000 btu)	<b>1700</b>	Impact Wrench	<b>500</b>
Battery Charger	<b>500</b>	*Jet Pump	<b>800</b>
Belt Sander	<b>100</b>	Lawn Mower	<b>1200</b>
Chain Saw	<b>1200</b>	Light Bulb	<b>100</b>
Coffee Maker	<b>900</b>	Microwave Oven	<b>700</b>
Air Compressor (1HP)	<b>2000</b>	*Milk Cooler	<b>1100</b>
Air Compressor (3/4HP)	<b>1800</b>	Oil Burner on Furnace	<b>300</b>
Air Compressor (1/2HP)	<b>1400</b>	Oil Fired Space heater (140,000 BTU)	<b>400</b>
Curling iron	<b>700</b>	Oil Fired Space heater (85,000 BTU)	<b>225</b>
Freezer	<b>700</b>	Oil Fired Space heater (30,000 BTU)	<b>150</b>
Disc Sander	<b>1200</b>	*Airless Paint Sprayer (1/3 HP)	<b>600</b>
Edge Trimmer	<b>500</b>	Handheld airless Paint Sprayer	<b>150</b>
Electric nail gun	<b>1200</b>	Radio	<b>50</b>
Electric Range	<b>1600</b>	Slow Cooker	<b>200</b>
Furnace Fan (1/3HP)	<b>1200</b>	*Submersible Pump (1-1/2 HP)	<b>2800</b>
Hair Dryer	<b>1200</b>	*Submersible Pump (1 HP)	<b>2000</b>
Hand Drill	<b>1200</b>	*Submersible Pump (1/2 HP)	<b>1500</b>
Television	<b>500</b>	Sump Pump	<b>600</b>

# OPERATION

CHECK AND FILL OIL	CHECK AND FILL FUEL	CHECK/REPLACE FILTER
<p><b>CAUTION</b> DO NOT ATTEMPT TO START THE ENGINE BEFORE CHECKING OIL</p> <ol style="list-style-type: none"> <li>1. Place generator on a level surface.</li> <li>2. Clean area around oil fill opening.</li> <li>3. Remove the dipstick.</li> <li>4. Wipe the dipstick clean.</li> <li>5. Reinsert dipstick and check oil level.</li> <li>6. <b>DO NOT OVERFILL</b></li> <li>6. <b>CLOSE OIL CAP.</b></li> <li>7. Change oil as published</li> </ol> 	<p><b>WARNING</b> DO NOT OVERFILL! LEAVE ROOM FOR FUEL EXPANSION. NEVER FILL FUEL INDOORS. NEVER FILL FUEL WHEN ENGINE IS HOT OR RUNNING. DONOTSMOKEORFILL</p> <ol style="list-style-type: none"> <li><b>1. Fill with gasoline fuel only</b></li> <li>2. Clean area around fuel cap.</li> <li>3. Remove fuel cap.</li> <li>4. Add fuel to fuel tank.</li> <li>5. <b>DO NOT</b> overfill. Do not fill above the red plug inside the fuel tank filter (this allows for fuel expansion)</li> <li>6. Replace fuel cap.</li> <li>7. Wipe up any spilled fuel.</li> </ol>	<p><b>CAUTION</b> DO NOT CLEAN AIR FILTER WITH ANY TYPE OF DETERGENT.</p> <ol style="list-style-type: none"> <li>1. Remove cover panel.</li> <li>2. Loosen screw and remove air filter cover</li> <li>3. Never wash air cleaner with any kind of detergent or cleaning solvent.</li> <li>4. Air filter should be changed if engine performance decreases or color of exhaust changes.</li> <li>5. Never run engine without air filter. This will cause rapid engine wear.</li> </ol>

## STARTING THE ENGINE

**MANUAL START**

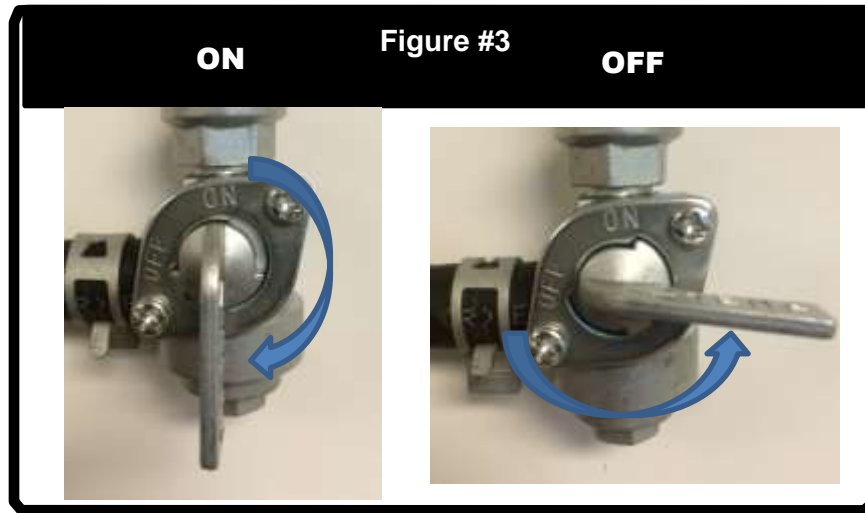
- BE SURE UNIT IS AT A LEVEL, IN A WELL VENTILATED AREA.
- CHECK OIL AND GAS FOR PROPER LEVELS
- TURN FUEL VALVE TO THE ON POSITION (FIGURE #3)
- TURN IGNITION SWITCH (ON/OFF SWITCH) TO THE ON POSITION
- PLACE CHOKE LEVER TO THE START POSITION
- GRIP RECOIL STARTER AND PULL BRISKLY
- ONCE STARTED RETURN CHOKE LEVER TO THE RUN POSITION.
- LET ENGINE STABILIZE BEFORE HOOKING UP ANY ELECTRICAL APPLIANCES

## STOPPING THE ENGINE

- TURN OFF ALL ELECTRICAL DEVICES CONNECTED TO THE GENERATOR.
- **WARNING: DO NOT START OR STOP GENERATOR WITH ELECTRICAL DEVICES PLUGGED IN.**
- ALLOW THE GENERATOR ENGINE TO RUN AT A 'NO LOAD' CONDITION FOR SEVERAL MINUTES TO STABILIZE INTERNAL ENGINE TEMPERATURE BEFORE STOPPING.
- TURN THE KEY ON THE CONTROL PANEL TO THE "OFF" POSITION.
- TURN FUEL VALVE TO THE "OFF" POSITION.
- KEEP THE GENERATOR CLEAN AND DRY. USE A DAMP CLOTH TO CLEAN EXTERIOR SURFACES. REMOVE CAKED ON DIRT WITH A SOFT BRUSH.
- **N E V E R S P R A Y W I T H W A T E R . W A T E R W I L L C A U S E E L E C T R I C A L S H O R T S I N T H E E L E C T R I C A L S Y S T E M**

**⚠ DANGER**

Fuel tank should never be filled indoors. Avoid spilling fuel on hot engine and allow engine to cool completely before fueling. Never fill fuel tank when engine is running or when hot. Do not light a cigarette or smoke when filling the fuel tank. Gasoline vapors are highly explosive.



**GASOLINE GENERATOR ENGINES REQUIRE  
10W/30 TYPE API SJ or HIGHER**

<b>MAINTENANCE SCHEDULE</b>					
		<b>DAILY</b>	<b>MONTHLY</b>	<b>3 MONTHS</b>	<b>6 MONTHS</b>
<b>Check Air Filter</b>		x			
<b>Check For Oil Leaks</b>		x	x		
<b>Replace Air Filter</b>					x
<b>Change Oil</b>				x	

**CHANGING THE OIL**

- Remove the oil cap or dipstick
- Place a container underneath the drain bolt
- Unscrew the oil drainage bolt
- Allow oil to drain completely
- Reinstall the drainage bolt and tighten securely.
- Refill the oil per the check and fill instructions above.
- **32-38** ounce oil capacity in the crankcase depending on the amount of oil drained.
- Reinstall the dipstick.

**NOTE:** Used oil must be disposed of properly. Take used motor oil to an approved recycling center.

\*First oil change should be after 5 hours. After initial break-in period change oil every (30) hours.

**SPARK PLUG MAINTENANCE**

The spark plug must be properly gapped and free of deposits in order to ensure proper engine operation.

- Remove the spark plug cap
- Clean area around the base
- Remove the spark plug
- Inspect the spark plug for damage and clean with a wire brush. If there is any damage, the plug should be replaced. If you replace the plug, use the recommended spark plug or equivalent: **NGK-BPR6ES** or Champion **RN9YC**.
- The gap between the electrodes is **.027"-.030"** SEE ENGINE MANUAL.
- Thread the spark plug in by hand to prevent cross threading.
- If using a **NEW** plug, once the plug seats by hand, tighten the plug 1/2 rotation with a wrench to compress the washer.
- If reusing the old plug, once the plug seats by hand tighten the plug 1/8-1/4 rotation with a wrench to compress the washer.

## TROUBLESHOOTING

Problem	Cause	Solution
Engine is running but no power output is available.	<ol style="list-style-type: none"> <li>1. Circuit breaker is open.</li> <li>2. Poor connection or defective cord set.</li> <li>3. Connected device is bad.</li> <li>4. Fault in generator.</li> </ol>	<ol style="list-style-type: none"> <li>1. Reset the circuit breaker.</li> <li>2. Check &amp; repair.</li> <li>3. Connect another device that is in good condition.</li> <li>4. Contact service center.</li> </ol>
Engine runs good until loads are connected, then bogs down.	<ol style="list-style-type: none"> <li>1. Short circuit in a connected load.</li> <li>2. Overloaded generator.</li> <li>3. Engine speed is too slow.</li> <li>4. Short in generator circuit.</li> </ol>	<ol style="list-style-type: none"> <li>1. Disconnect shorted load.</li> <li>2. See 'Connecting electrical loads' section of manual.</li> <li>3. Contact service center.</li> <li>4. Contact service center.</li> </ol>
Engine will not start or engine starts but runs rough.	<ol style="list-style-type: none"> <li>1. Ignition Switch is turned 'OFF'.</li> <li>2. Battery is dead</li> <li>3. Dirty air cleaner.</li> <li>4. Out of fuel.</li> <li>5. Stale fuel.</li> <li>6. Not enough speed or force is used for recoil start.</li> <li>7. Water in fuel.</li> <li>8. Speed control is not set to "Run".</li> <li>9. Low Oil Level.</li> <li>10. Engine has lost compression.</li> <li>11. Fouled spark plug</li> </ol>	<ol style="list-style-type: none"> <li>1. Press the Ignition Switch to 'On'.</li> <li>2. Charge or replace battery.</li> <li>3. Clean air filter</li> <li>4. Fill fuel tank.</li> <li>5. Drain fuel tank and refill.</li> <li>6. Read and follow directions.</li> <li>7. Drain and refill tank.</li> <li>8. Move speed control to "Run" position.</li> <li>9. Add oil to proper level.</li> <li>10. Contact service center 1-800-845-4141</li> <li>11. Replace spark plug per engine manual specification.</li> </ol>
Engine shuts down during Operation.	<ol style="list-style-type: none"> <li>1. Out of fuel.</li> <li>2. Fault in engine.</li> <li>3. Low oil level.</li> </ol>	<ol style="list-style-type: none"> <li>1. Fill fuel tank.</li> <li>2. Contact service center.</li> <li>3. Add oil to proper level.</li> </ol>
Engine lacks power	<ol style="list-style-type: none"> <li>1. Load is too high.</li> <li>2. Dirty air filter.</li> <li>3. Engine needs to be serviced.</li> </ol>	<ol style="list-style-type: none"> <li>1. See 'Connecting electrical loads' section of manual.</li> <li>2. Replace the air filter.</li> <li>3. Contact service center.</li> </ol>



Disconnect spark plus wire from spark plug. Keep the wire away from the spark plug.

NEVER cover the generator while engine and exhaust areas are warm.



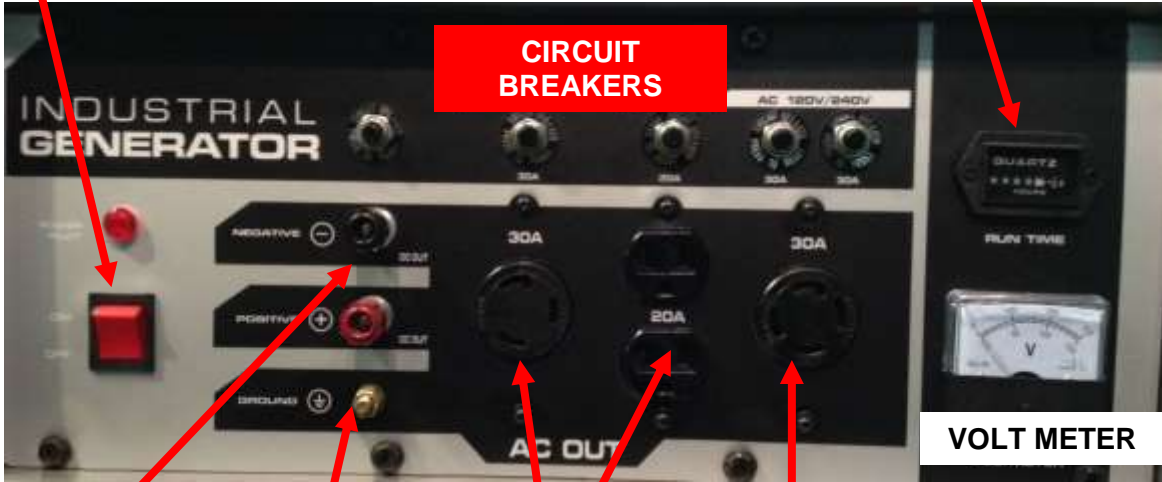
Hot oil may cause burns. Allow engine to cool before draining oil. Avoid prolonged or repeated skin exposure with used oil. Thoroughly wash exposed areas with soap.



# CONTROL PANEL

IGNITION  
(ON-OFF)  
SWITCH

HOUR METER



CIRCUIT  
BREAKERS

VOLT METER

DC  
OUTPUT

GROUND

120 VOLT  
RECEPTACLES

240 VOLT  
RECEPTACLE

## LIMITED WARRANTY

American Fab equipment is warranted to be free from defects in material and workmanship for a period of ONE year after date of purchase. The engine is warranted for a period of two years. See engine manual for details.



## SPECIFICATIONS

**Max Output 8400 watts**

**120v 20 amp**

**Receptacle**

**1- L5-30 Receptacle**

**1- L14-30 Receptacle**

**Circuit Breaker Protection**

**74 Db. @ 10'**

**Manual Recoil 414cc Gasoline  
Engine**

**Steel Sleeve Cylinder**

**5 Gallon Fuel Tank**

**Approx. Run Time 10 hrs. @ 50%  
Load**

**Rpm: 3600**

**Copper Windings**

**Single Phase 60Hz**

**Low Oil Shut Down**

**12v DC Connector**

**Size: L-32" W-28" H-26"**

**Net Weight: 220 lbs.**

**One year equipment warranty**

**Two year engine warranty**

Manufactured by:

**American Fab Inc.**

**P.O. Box 1027**

**Travelers Rest, SC 29690**

**Customer Service: 1-800-845-4141**

**2/28/2014**