POWER PACK

WARNING!!!!

It is the customers responsibility to see that the correct oil level is established and maintained upon start-up of the engine. **ENGINE HAS NOT BEEN STARTED OR RUN AT FACTORY.** Engine is shipped from the factory containing oil for priming purposes only. Engine must be drained to verify dipstick calibration, which must be done before putting the engine into service.

To calibrate dipstick:

1. Position engine to the installed angle.
2. Add four Quarts of oil to engine.
3. Note oil level on dipstick and mark dipstick to indicate the "ADD" mark at this level.
4. Add one additional quart of oil to engine.
5. Note oil level on dipstick and mark dipstick to indicate the "FULL" mark at this level.
6. Start and run the engine allowing oil to circulate.
7. Shut engine off and bring oil level to full mark on dipstick.

The capacity of the oil pan is five (5) quarts. At no time should the amount of oil in the oil pan exceed five (5) quarts. Failure to establish and maintain proper oil level may result in catastrophic engine failure not covered under warranty.

Engine has breakerless distributor installed at time of shipment. **TIMING HAS NOT BEEN SET AT THE TIME OF SHIPMENT.** Customer is responsible for ensuring that timing is set to 26° @ 4000 RPM. Failure to set timing to proper mark may result in catastrophic engine failure not covered under warranty.

Customer may not use the distributor from previous engine. The distributor installed in this engine is required in order for the engine to function properly. This engine is equipped with a roller cam which requires a distributor with a special hardened drive gear. The distributor installed in this engine is equipped with a hardened gear and has been selected to provide the proper spark advance for this engine. Failure to use the distributor that is installed in this engine may result in catastrophic engine failure not covered under warranty.

An external resistor has been provided with engine and must be used with the distributor that is installed in this engine. Installation diagram for this external resistor is enclosed. Failure to employ this resistor may result in catastrophic engine failure not covered under warranty.

Any marinization parts mounted on engine (i.e. exhaust manifolds, bracketing, etc.) that are defective or improper for use in this re-power application may result in catastrophic engine failure not covered under warranty. A parts list of common consumables, for a re-power build up, is enclosed.

ENGINE MUST BE STARTED AND RUN BEFORE INSTALLING TO ENSURE THAT THERE ARE NO PROBLEMS WITH OPERATION. This must be done as labor will not be paid to remove engine after initial installation.

CAUTIONS TO OBSERVE DURING INSTALLATION

This list of cautions is being provided to make you aware of some of the most common errors made during base engine replacement. This list is by no means a complete list of errors that can be made during the installation of a replacement base engine and should be considered as a basic check list only. The information in this list is believed to be true and correct at the time of publication. The publication of this list is for information purposes and does not constitute a guarantee or warranty or in any way change or modify the written warranty which attaches to our products at the time of sale. The knowledge of this list, the information revealed within or the possession of this list grants no license or authority to anyone to perform any action or make any statement or commitment in behalf of or in the name of Crusader Inc., beyond the specific instructions stated herein. Crusader's policy of continued improvement creates dated information and necessitates changes in design, components, procedures, specifications, and methods used in manufacturing, troubleshooting and repair. In the event you have any question regarding any of our products the most up to date information may be obtained by contacting our service department to insure that the published information in your possession has not been updated.

REMOTE OIL FILTER OR OIL COOLER

NOTE: Remote oil (filter or cooler) adapter plate must be equipped with a bypass. If remote filter and/or cooler is not installed properly, engine will lack proper lubrication at RPM's above idle.

EXHAUST MANIFOLDS

Suggestion: Carefully inspect and test existing exhaust manifolds, risers, and elbows if they are to be reused.

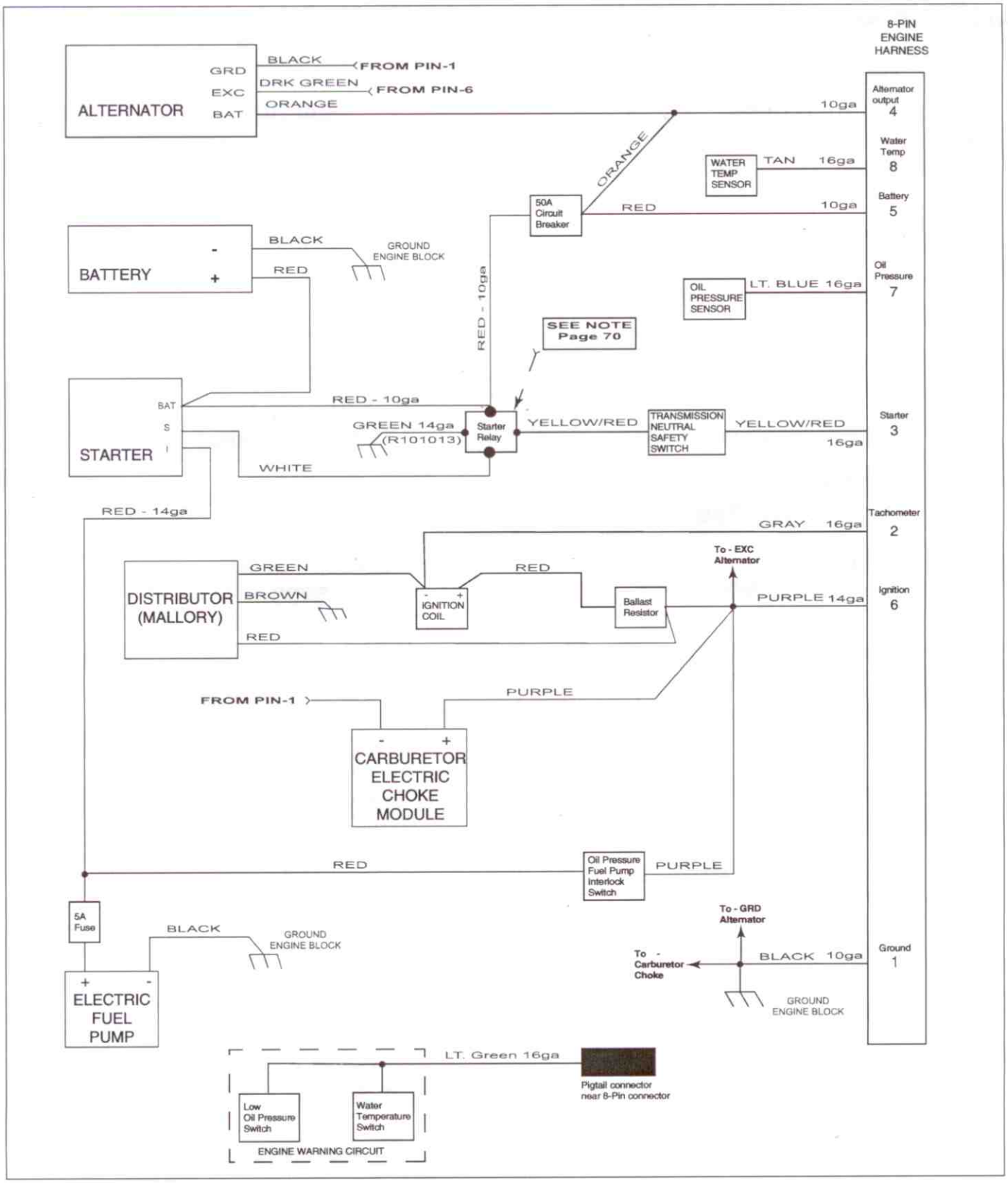
DISTRIBUTOR AND / OR FUEL

Damage resulting from detonation or pre-ignition is possible when replacing older engines with current base engines. Detonation may be caused by several different factors which are not controllable by Crusader, therefore, no warranty will apply to any failure of this type. The following are some of the common causes of detonation.

A. Poor quality fuel (low octane, clogged filter, water contamination, etc.)
B. Overload of engine (improper gear and/or propeller selection).
C. Improper spark plug selection.
D. Engine overheating.
E. Excessive exhaust back pressure.
F. Improper initial timing.
G. Excessive total advance. Total advance should never exceed 26°.
H. Use of a distributor and/or ignition system other than that which comes on the engine.
I. Lean fuel mixture caused by vacuum leaks or improper carburetor calibration for the base engine.
J. Cross-firing caused by improper spark plug wire routing.

ENGINE SPECIFICATIONS - 5.7L CARBURETOR POWER PACK

MODEL (Horsepower)	5.7L (300 HP)
Displacement	5.7L (350 CID)
Bore	4.0 in. (101.6 mm)
Stroke	3.48 in. (88.3 mm)
Compression Ratio	9.4:1
Compression Pressure	130 - 215 psi (896 - 1103 kPa)
Spark Plug P/N Spark Plug Gap	R030010 0.060 in.
WOT Operating RPM Preferred WOT RPM	4800 - 5200 5000
Cruising RPM (Max)	4000
Idle RPM (In Gear)	750
Oil Pressure @ 2000 RPM	25 - 60 psi (172 - 414 kPa)
Minimum Oil Pressure	10 psi (69 kPa) at Idle
Main Bearings	2-Bolt (Cast Iron)
Engine Rotation	LH or RH
Firing Order	1-8-4-3-6-5-7-2 (LH) 1-2-7-5-6-3-4-8 (RH)
Ignition Timing	26° BTDC Max. @ 4000 RPM
Engine Oil Type	15W-40
Engine Oil Pan Capacity	5 Quarts



Typical Engine Wiring w/Mallory Ignition