



Owners Manual

Model RMP 14-6



This Owners Manual was written for RMP 14-6 and RMC 14-6 units
built in the 2007 model year.

Last Updated April 25, 2007

Congratulations on your purchase of the RigMaster Auxiliary Power Unit.

RigMaster is a totally self contained, stand-alone AC generator, Air Conditioner and Heater System. The only items that are shared with your Truck Systems are fuel and battery supply. The RigMaster unit also trickle charges the Truck batteries while in operation.

Superior design and performance have been incorporated into this product to give you trouble-free, economical operation. We are confident you will be satisfied with your new RigMaster Auxiliary Power Unit.

The following pages contain design features, principles of operation, preventative maintenance procedures and trouble shooting guides. Please review it carefully prior to starting and operating your RigMaster Unit.

Should you have any questions or concerns please contact you're nearest authorized RigMaster Power Dealer, or RigMaster Power Corporation Product Support Group at:

1-888-208-3101
(For technical support only)

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RigMaster On-Board Safety Systems:

ATTENTION: ZERO ENERGY STATE

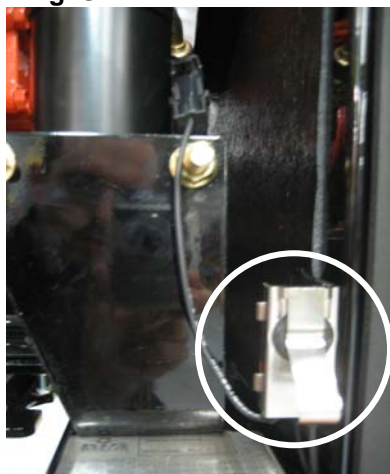
To perform service, maintenance and repairs you **must** disconnect the RigMaster from its battery source. In the recommended installation configuration the RigMaster shares the battery bank with the vehicles main engine. After disconnecting the battery cables, check the battery posts inside the engine cabinet to confirm there is no voltage to the APU.

1. Safety Cover Switch

ATTENTION: SAFETY COVER SWITCH

It is critical that this safety cover switch is never deactivated or bypassed; failure to comply may result in serious injury.

Fig. S-1



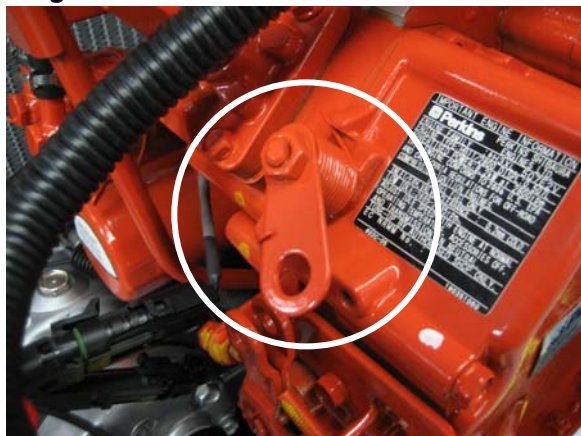
The safety cover switch (fig. S-1) is designed to prevent the RigMaster Power APU from starting when the engine cover is loose or has been removed. When the switch is closed the cover is down. When the switch is open the cover has been removed or is loose. The switch is located at the front of the engines enclosure in the lower right hand corner.

2. Perkins Engine Stop Switch

ATTENTION: ENGINE STOP SWITCH

This switch must be rotated clockwise and **held** until the motor has come to a complete stop.

Fig. S-2



Both the Perkins and CAT engines have a switch on them that is capable of shutting the engine off. The switch is located on the engines timing case next to the engine specifications sticker (fig. S-2). This switch is commonly referred to as a stop switch or kill switch. The switch works by disengaging the fuel solenoid and stopping the fuel injection pump. Use the cabin controller to stop the engine during normal operation of the APU.

3. AutoStart Automatic Start/Stop Feature

ATTENTION: AUTOSTART FEATURE

Remember that a properly functioning RigMaster is capable of starting independently of its operator. If the AutoStart feature is enabled, battery voltage, temperature, and time of day can all cause the RigMaster's engine to start. Please see the cabin controllers operating instructions for further information on the AutoStart feature. ***You must deactivate this feature prior to refueling.***

4. Engine Hoist Points

ATTENTION: ENGINE HOIST POINTS

The Perkins and CAT engine has hoist points attached to it that are useful for removal and reinstallation of the engine. ***Under no circumstances*** should the entire RigMaster APU assembly be lifted by the engine hoist points as they are not intended to hold the increased weight of the engine with fluids, frame and on-board equipment.

5. Starting Aids

WARNING

Do not use aerosol types of starting aids such as ether. Such use could result in an explosion and personal injury, and will render the warranty null and void.

6. Starting with the Cover Off

ATTENTION

Some installation or repair/diagnosis procedures require that the APU is started with the engine cover off. ***Do not deactivate or bypass the safety cover switch.*** Instead, have another individual assist by manually holding the safety cover switch down in the closed position for the duration of the procedure.

7. Inspection of the Safety Systems

The safety systems on the RigMaster APU should be examined/tested at 50 hour intervals to ensure that they are in good condition and proper working order

8. Contact Us

If you do not fully understand this safety information contact RigMaster's Technical Support Department toll free at (888) 208 – 3101 before proceeding with the operation or service of this APU.

HEATER, AIR CONDITIONER, 120V GENERATOR

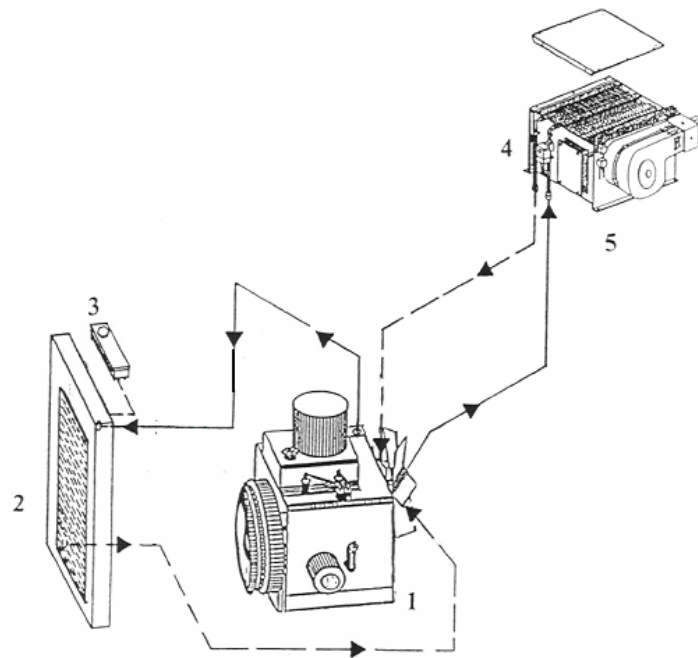
HEATER

The RigMaster heating system is fully automatic. A constant comfort zone is maintained with the temperature selector (see Climate Control Operation - Page 9). The bunk heating system has a capacity of 13,500 BTU's. This is a complete stand alone system that is not integrated into the vehicle's cooling system. When heat is selected, and the RigMaster is in operation, the hot coolant flows through the heater core (installed under the bunk see Figure 1).

The heater/air conditioner blower motor (fan) circulates the cab air through the heater core pushing warm air into the bunk area. The coolant is then re-circulated back to the RigMaster Unit.

NOTE: PLUGGING IN THE BLOCK HEATER PLACES A LOAD OF APPROXIMATELY 1,500 WATTS ON THE ENGINE, THIS LOAD ENABLES THE ENGINE TO HEAT THE COOLANT.

This system is designed to maximize the bunk heating efficiency.



HEATER - FIGURE 1

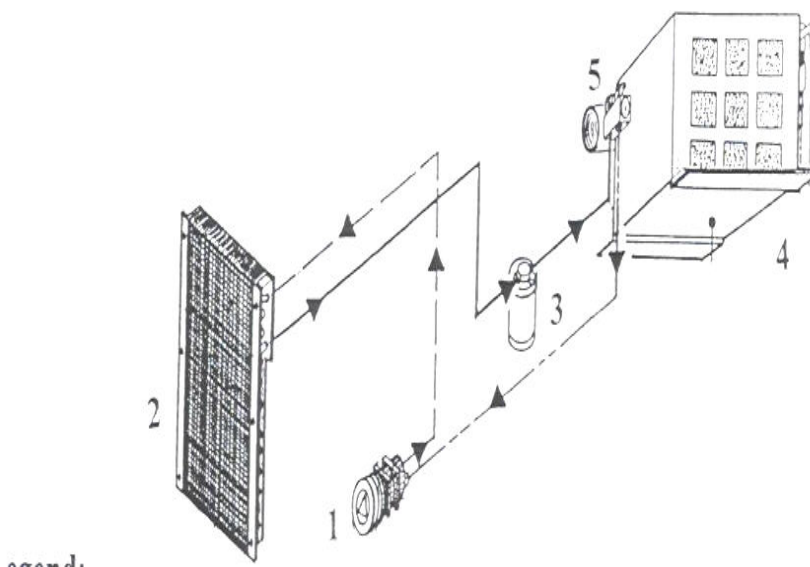
- Hot Coolant Supply
- Cold Coolant System
- 1) Engine
- 2) Radiator
- 3) Fill/Expansion Reservoir
- 4) Flow Control Valve
- 5) Heater/Air Conditioner Unit

AIR CONDITIONER

The RigMaster air conditioner is fully automatic. A constant comfort zone is maintained with the temperature selector setting (see Climate Control Operation - Page 9). The RigMaster air conditioner is a R134A system that is not integrated into the vehicle's existing air conditioning system.

WARNING: ONLY CERTIFIED AIR CONDITIONING TECHNICIANS SHOULD SERVICE THE AIR CONDITIONER

The compressor within the RigMaster unit pumps the refrigerant gas through the condenser that dissipates the heat and changes the refrigerant from a gas to a liquid. the liquid refrigerant passes through a filter (receiver dryer), and then through the evaporator core located in the bunk heater/air conditioner unit. The heater/air conditioner blower motor (fan) then activates and cool, dry air is then forced into the bunk area.



AIR CONDITIONER - FIGURE 2

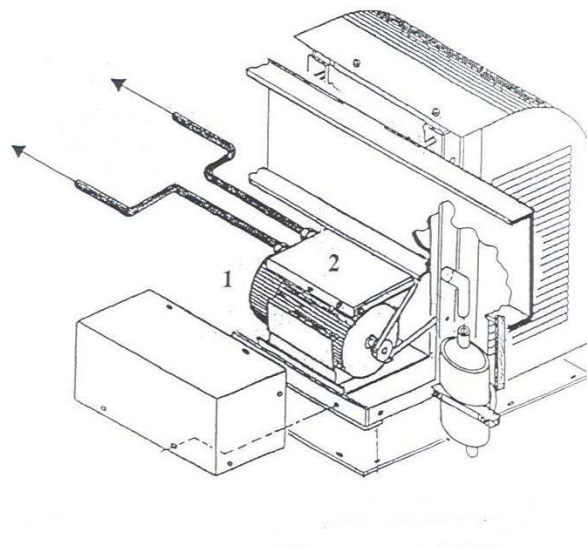
Legend

---- High Pressure Gas
—— High Pressure Liquid
- - - Low Pressure Gas

1) Refrigerant Compressor
2) Condenser
3) Receiver Dryer
4) Heater / Air Conditioner Unit
5) Expansion Valve

120-VOLT GENERATOR

The 6kW heavy-duty generator is located at the rear of the RigMaster unit and is belt driven at 3600 RPM. The generator has two (2) factory supplied cords. One (1) block heater cord (complete with a plug), allows the generator to be plugged into the vehicle's block heater. This ensures that the vehicle's main engine will be warm when starting in cold weather. This provides a load on the RigMaster engine that allows the unit to run more efficiently and prolong the RigMaster's service life. The block heater connection uses one (1) – 20 AMP breaker. **It is recommended that the RigMaster remain plugged into the vehicle's block heater throughout the winter months and unplugged for the spring and summer months.** A second 20 AMP supply of 120V power is supplied for the owner/operator convenience. A multiple outlet cord is supplied and can be installed in the bunk area of the vehicle to provide power for 120V appliances.



GENERATOR - FIGURE 3

NOTE: Each 20 Amp Breaker has a capacity of 2400 Watts

Legend

- 1) 6KW VAC Generator
- 2) Junction Box comes with 2 -20AMP-Breakers: 1 for the Block Heater 1 for the Bunk cord.

PRE-START INSPECTION

WITH THE RIGMASTER TURNED OFF

- 1) Remove the cover.
- 2) Visually inspect the unit for evidence of oil or coolant leakage.
- 3) Check the oil and add oil if necessary.
- 4) Check the tension and wear of all belts.
- 5) Check the mounting bolts and tighten if necessary.
- 6) Check for broken, corroded, or loose connectors and/or wires.
- 7) Check the physical condition and tightness of all hoses and hose clamps.
- 8) Replace and secure the cover.

ELECTRONIC CONTROL OPERATING INSTRUCTIONS

Before beginning the start-up procedure it is necessary to know how to operate the cabin controller.



Controls

The Cabin Controller consists of two sections:

1. LCD (Liquid Crystal Display) with basic control buttons.
2. Advanced control buttons

The LCD and basic control buttons are always visible to the user. The advanced control buttons are concealed behind semi-circular cover.

The controller also contains a LED indicator. When the LED is green, the system is active, if it glows red then the system is detecting a problem and an error message will scroll across the bottom of the LCD screen. The LED is turned off in low power mode.

1. Basic Controls and Functions

Basic controls contain the following buttons:

1. Start system
2. Stop system
3. Up arrow (Red triangular button)
4. Down arrow (Blue triangular button)

If the unit is in advanced mode, pressing any of the basic control buttons will return the unit to basic mode. Alternately, the control panel will return to basic mode after two minutes of inactivity.

If the unit shows the current temperature, pressing either the up or down button will show the set point temperature without changing it. Once the set point is indicated, pressing up or down buttons will adjust the set point. The new set point takes effect only when display is returned to show internal temperature.

2. Advanced Controls and Functions

The advanced controls are as follows:

1. **Power** button controls whether the module is active. In inactive mode all system functions including

engine start, climate control and AutoStart are disabled. You can still see the temperature reading, current time and use the alarm clock function.

2. **Fan** button is used to change fan setting. Pressing the button cycles between auto, high, med, low and off settings.
3. **Clear** button will take you back to the main screen without saving any information.
4. **Clock** button is used to set the time/date/day menu features.
5. **Alarm** button is used to set the alarm menu features.
6. **AutoStart** button is used to access and set AutoStart menu features.
7. **Mode** button is used to activate the different operational modes. Pressing the mode button will back you out of a menu mode, but does not save the information just entered.
8. **Ext. Temp** button will display the external temperature on the LCD when pressed.
9. **Optg. Hours** button will display the total hours of use.
10. **Select** button enters the data and advances the program to the next menu step. Pressing the select button will save the information when entering operational data.
11. Left scroll button (with ◀ symbol)
12. Right scroll button (with ▶ symbol)

The left and right arrow buttons are used to locate the desired data and/or adjust those values.

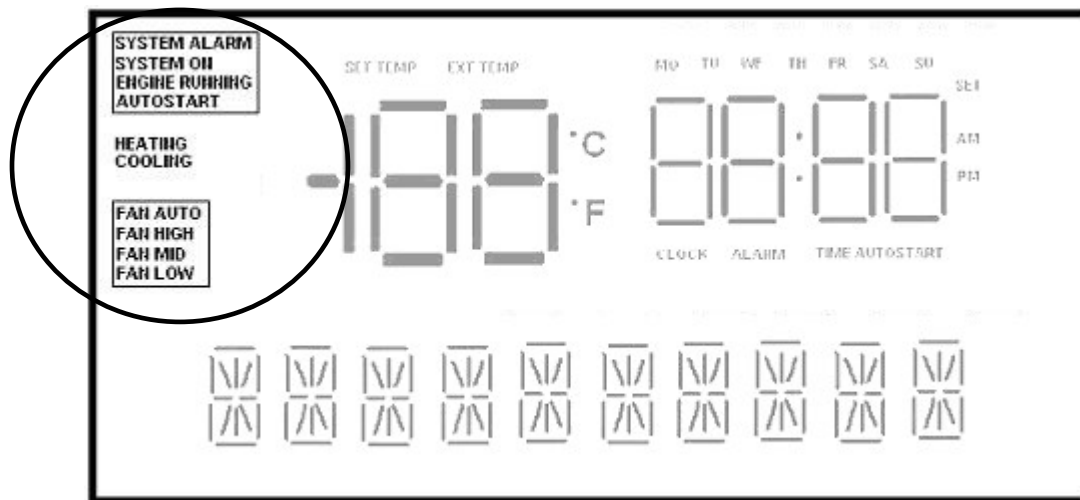
Cabin Controller LCD Display

The Cabin Controller LCD has a white backlight that turns on each time a user presses a button and will remain on for 2 minutes after the last button that has been pushed. The backlight will turn red when there is an alarm condition. A fault code will be displayed if the unit shuts down or fails to start.

The LCD displays 4 groups of information:

1. System information
2. Temperature information
3. Clock, day and alarm information
4. Alphanumeric display for additional information

1. System Information:



SYSTEM ALARM symbol will flash if an alarm condition has occurred. The alphanumeric display along the bottom of the display screen will show more information about the alarm. Red status LED will be on. **SYSTEM ON** symbol will display if the unit is in ON mode. (Green status LED will be on.)

ENGINE RUNNING symbol will display when the engine is running.

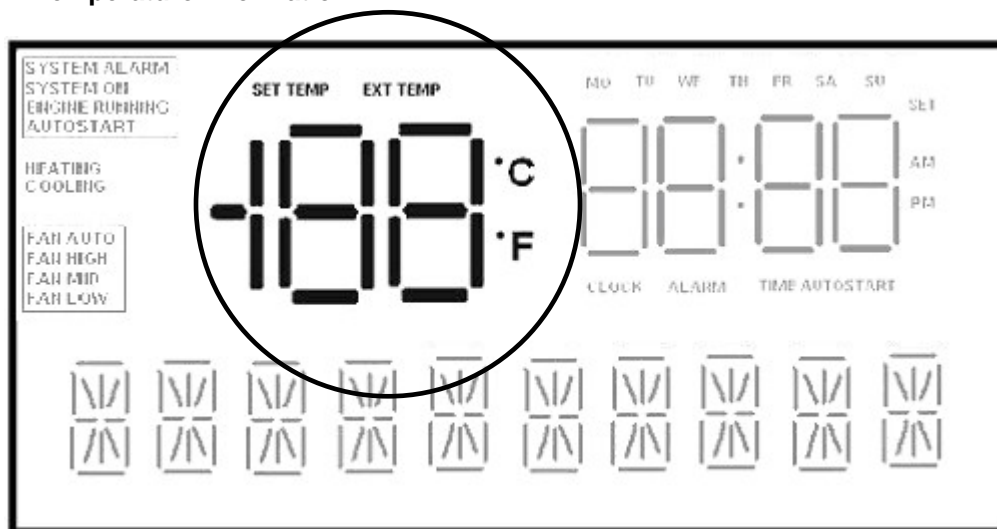
AUTOSTART symbol will display and flash if temperature AutoStart is enabled (when engine is off). If the engine has been started through AutoStart, this symbol is constantly on while the engine is running.

HEATING symbol will display when the system is in heating mode.

COOLING symbol will display when the system is in cooling mode.

FAN AUTO, FAN HIGH, FAN MED, or FAN LOW symbol will display depending on which setting has been selected. Nothing will display in this area if the fan is set to off.

2. Temperature Information:



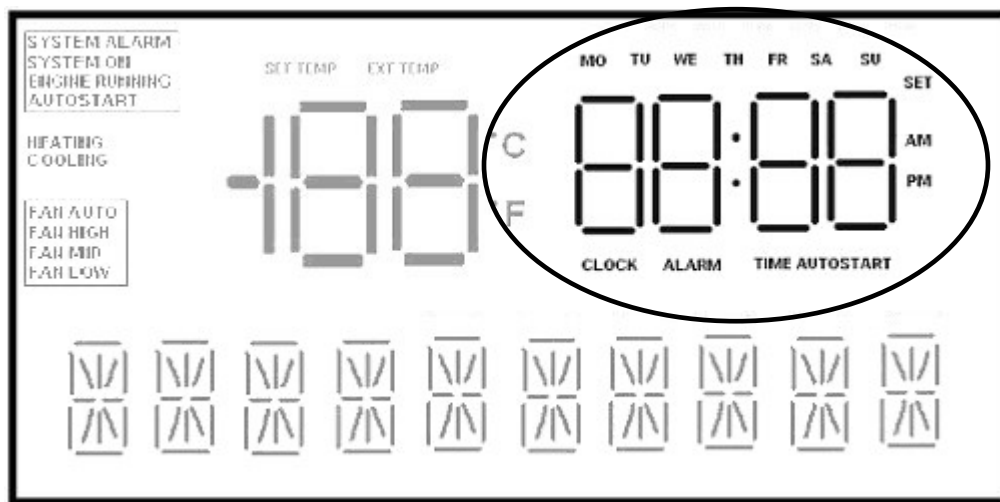
This area indicates the internal (or external) temperature and can be programmed to display in either "Celsius" or "Fahrenheit"

Internal temperature is shown if **EXT TEMP** and **SET TEMP** symbols are not illuminated. Pressing the **Ext. Temp** button will momentarily display the outside temperature. After 5 seconds, the display will default back to showing the internal temperature.

EXT TEMP symbol will flash when showing external temperature. After a few seconds the display returns to show internal temperature.

SET TEMP symbol appears (and the numeric temperature value will flash) whenever adjusting temperature set point. A few seconds after adjusting the temperature, the display returns to show internal temperature.

3. Clock and Alarm:



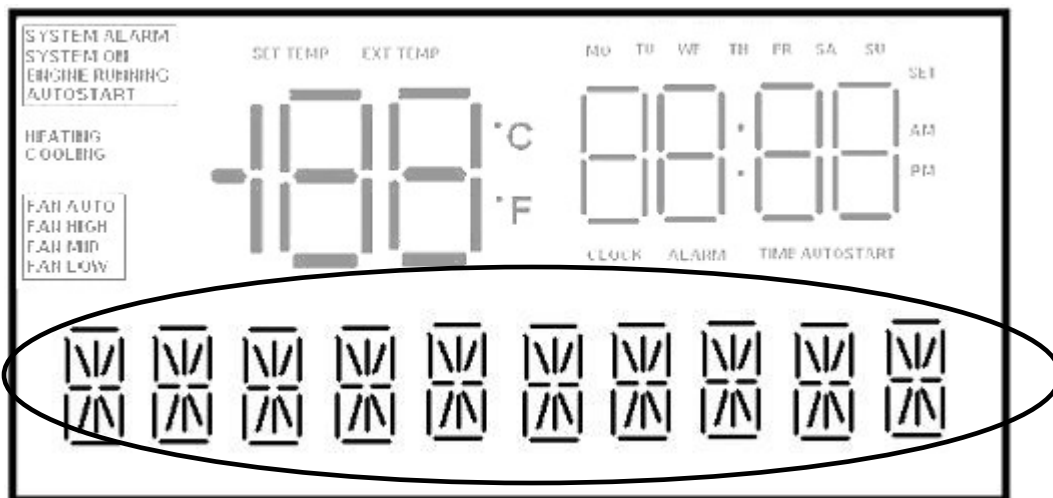
This is a 12:00 hour clock system with **AM/PM** symbols and 7 symbols indicating day of the week: **MO, TU, WE, TH, FR, SA, SU**.

CLOCK symbol appears when the current time is showing.

ALARM symbol appears to indicate that the alarm setting is showing. Pressing the alarm button allows you to set the alarm. The alarm symbol flashes when the alarm has been set.

TIME AUTOSTART symbol appears if the display shows time AutoStart setting. It flashes if time AutoStart is set.

4. Additional Information/Message Area:



This line is used to show extra information in the basic mode, error messages to provide interface when going through menus in advanced mode. Longer text lines are scrolled to the left on the display.

Operation of the Cabin Controller (Functions)

To Turn Power On

Press the **POWER** button to activate the system. When the power switch is activated the LCD display will light and **SYSTEM ON** symbol will turn on (active mode). Press **POWER** button again for 2 seconds to switch the unit back to low power mode.

Engine Start

Press **START** button.

The control panel will display the status of the operation as it occurs: *Glow Plug* and a countdown will display on the screen. Once the countdown is complete the display will read *Cranking* as the RigMaster starts up and the **ENGINE RUNNING** symbol will blink. Once started the control will display *Engine Running* for 5 seconds (and **ENGINE RUNNING** symbol will turn on).

Engine Stop

Press **STOP** button.

The screen will initially display *Stopping* and then change to *Stopped* once the operation is complete. The **Engine Running** symbol will turn off.

Temperature Control

Press UP or DOWN (red/blue) buttons to adjust temperature set point on the display. When editing the set point, the LCD display will show the set point instead of internal cabin temperature. The set point is stored without a need to press any other buttons.

NOTE

The manual temperature control ranges from 59°F-90°F (15°C to 32°C).
The system will remember the last set temperature when the RigMaster is turned on. If the system is already running, the change will take effect a few seconds after the last UP or DOWN key is pressed and the display will switch back from set point to internal cabin temperature.

Clock & Date Set Up

It is necessary to enter the time and date programming mode if the module has never been programmed or a different time zone is required. (**SET** symbol is flashing and **CLOCK** symbol is turned on during clock setup)
Press **CLOCK** button:

The display will read *Set Clock*. Press **SELECT** button to continue, **MODE** to exit.

Clock hour will start flashing.

Press LEFT or RIGHT scroll button to adjust *Clock hour*.

Press **SELECT** button: *Clock hour* will stop flashing and *Clock minutes* will start flashing.

Press LEFT or RIGHT scroll button to adjust *Clock minutes*.

Press **SELECT** button: *Clock minutes* will stop flashing and *am/pm* will start flashing.

Press LEFT or RIGHT scroll button to change.

Press **SELECT** button: *am/pm* will stop flashing and *day of week* will start flashing.

Press LEFT or RIGHT scroll button to change.

Press **SELECT** button: *day of week* stop flashing and *Month* will start flashing.

Press LEFT or RIGHT scroll button to change.

Press **SELECT** button: *Month* stop flashing and *Date* will start flashing.

Set Alarm Clock

Press **ALARM** button:

The display will read *Set Alarm*. Press **SELECT** button to continue, **MODE** to exit.

Alarm Clock hour will start flashing.

Press LEFT or RIGHT scroll button to adjust *Alarm Clock hour*.

Press **SELECT** button: *Alarm Clock hour* will stop flashing and *Alarm Clock minutes* will start flashing.

Press LEFT or RIGHT scroll button to adjust *Alarm Clock minutes*.

Press **SELECT** button: *Alarm Clock minutes* will stop flashing and *am/pm* will start flashing.

Press LEFT or RIGHT scroll button to change.

Press **SELECT** button

Press LEFT or RIGHT scroll button to turn Alarm clock on/off.

Press **SELECT** button to save settings and return to menu or press **MODE** to return to menu without saving.

When enabled, **ALARM** symbol is flashing.

Fan Speed Control

Press **FAN** button to adjust fan speed:

Press the **FAN** button to cycle through fan settings: *AUTO OFF*, *AUTO ON*, *FAN LOW*, *FAN MEDIUM*, *FAN HIGH*, *FAN OFF*. There is no need to press any other buttons to confirm. *AUTO OFF* is for heating efficiency during winter operation. *AUTO ON* is for air conditioning efficiency during summer operation.

NOTE

The air conditioning/heating system will only operate when the fan speed is in a setting other than *OFF*. To stop the operation of the air conditioning/heating system, the fan speed must be set to *OFF*. If the system was stopped by another method, the air conditioning/heating will start immediately when the system is restarted.

AutoStart Features and Operation

- **AutoStart Time/Day Programming** –allows you to program a day and time for the RigMaster for the start automatically up to 7 days in advance. This feature will run for three hours and shut down. At the end of the AutoStart program the cabin controller will display the error code #10, “Run Timeout”; this is normal.

Set AutoStart Timer

The user can adjust the time and day for the next timed AutoStart event. (**SET** symbol is flashing and **TIME AUTOSTART** symbol is turned on during alarm setup)

Press **AUTOSTART** button:

Time AutoStart will scroll across the screen.

Press **SELECT** button to continue, **MODE** to exit.

Press LEFT or RIGHT scroll button to adjust *AutoStart hour* as required.

Press **SELECT** button

Continue to set the *AutoStart Minutes* and *am/pm* as you would set the clock.

Press **SELECT** button after each entry.

Press LEFT or RIGHT scroll button to adjust *AutoStart Day* as required.

Press **SELECT** button

Press LEFT or RIGHT scroll button to locate *On/Off*.

Press **SELECT** button to save settings or press **MODE** button to return to menu without saving.

NOTE: When enabled, **Time AutoStart** symbol will be flashing.

- **Automatic Temperature Control Start Up/Shut Down**–will start and stop the RigMaster to regulate the temperature giving you further fuel savings on extended absences from the cab.

Set AutoStart Temperature Start-Up

Press **AUTOSTART** button twice: *Temp AutoStart* will scroll across the screen.

Press **SELECT** button to continue, **MODE** to exit.

Press LEFT or RIGHT scroll button to select mode of temperature control. Mode options include *OFF*, *AUTO*, *HEAT* or *COOL* only.

Press **SELECT** button to continue, **MODE** to exit.

Press LEFT or RIGHT scroll button to select AutoStart temperature setpoint if *HEAT* or *COOL* have been selected.

NOTE

The AutoStart temperature range is between 32°F and 95°F.

Press **SELECT** button to save settings or press **MODE** to return to menu without saving.

When enabled, the **AutoStart** symbol will flash. AutoStart temperature start-up will engage when the inside temperature is more than 5°F lower or more than 5°F higher than the temperature control setting (in auto mode). It also engages at least 1 minute after enabling AutoStart temperature.

- **Low Battery Start Up**-automatically starts up the RigMaster to charge the truck battery if it gets low. This option is always enabled in active mode. The voltage sensitivity of the low battery AutoStart feature can be adjusted, however, this is a dealer programmable feature and must be performed at a RigMaster licensed facility.

Set AutoStart Low Battery Start-Up

Low Battery AutoStart does not require that it be set by the user in the same way as the time/date and temperature based AutoStart. All that is necessary to ensure that low battery AutoStart functions is to leave the RigMaster engine OFF and the cabin controller powered on (active mode).

Version Display

Press **MODE** button.

Current version of the Power Module software will appear on the screen

Press **MODE** or **SELECT** to return.

Electronic Control Operation and Fault Codes

The RigMaster's electronic control will display fault codes on the LCD display if the unit fails to start or shuts down. The following table contains fault codes and information on the cause and/or remedy. These fault codes will display one time only; if the code is cleared (by pressing select) the failure will have to reoccur for the code to be displayed again.

| CODE | REMEDY/CAUSE | REMEDY/COMMENT |
|------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Error Code 1 Safety Cover Open | Engine cover of RigMaster unit is open. APU will not start or run until the cover is closed | <ul style="list-style-type: none"> • Cover not seated • Damaged wiring • Failed cover switch • Switch out of adjustment |
| Error Code 2 Low Oil Pressure | Low oil pressure | <ul style="list-style-type: none"> • Low oil level • Wiring damaged • Faulty switch • Dirty Oil Filter |
| Error Code 3 Battery Low Voltage | Low battery voltage Start system immediately | <ul style="list-style-type: none"> • Damaged or broken battery cables • Excessive load on batteries • Bad battery • Faulty charging system |
| Error Code 4 Engine Run Failure | Engine started but did not run properly. Manual start attempts can occur. | <ul style="list-style-type: none"> • Speed sensor adjustment • Damaged speed sensor wiring • Failed speed sensor |
| Error Code 5 Low Coolant/ Engine Overheated | <ul style="list-style-type: none"> • Engine will not run until temperature becomes normal • Engine will not run until coolant level is full | <ul style="list-style-type: none"> • Low coolant • High Engine Temperature • Failed Temperature or Coolant Level Switch • Damaged Wiring |
| Error Code 6 Module Failure | Power Module is not responding | <ul style="list-style-type: none"> • Failed Power Module |
| Error Code 7 Engine Start Failure | Engine did not start. Automatic start is disabled until operator presses select button | <ul style="list-style-type: none"> • Bad glow plug relay • Bad starter relay • Failed glow plug • Lack of fuel |

| CODE | REMEDY/CAUSE | REMEDY/COMMENT |
|------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Error Code 8 No Communication Error | Communication between control panel and power module is lost. Engine will not run until communication is re-established | <ul style="list-style-type: none"> • Communication Cable Damaged • Poor Connectivity at the terminals |
| Error Code 9 Main Engine Running | Truck engine is running. RigMaster will not run if the main engine is already running | <ul style="list-style-type: none"> • Optional engine wire is connected to DC voltage supply at the power module |
| Error Code 10 Run Timeout | The RigMaster has shut down as the maximum run time has been exceeded in the AutoStart Time/Day Setting | <ul style="list-style-type: none"> • Engine will only run 3 hours max when set on AutoStart Time/Day |
| Error Code 11 Check Power Module Fuse | Very low battery voltage detected at the power module | <ul style="list-style-type: none"> • Check 20 Amp fuse at the power module (Located under the bunk on the HVAC unit) |
| Error Code 12 Battery Charging Failure | Battery voltage still low two minutes after cranking. Auto and manual starts can occur | <ul style="list-style-type: none"> • Faulty charging system • Bad batteries • Engine harness ground wires disconnected at the HVAC |
| Error Code 13 Battery Discharge | Alarm, system will enter low power mode. Auto and manual starts can not occur | <ul style="list-style-type: none"> • Bad batteries |
| Error Code 14 Check External Temperature Sensor | External temperature sensor disconnected from the power module | <ul style="list-style-type: none"> • External Temperature Sensor Disconnected • Connection loose or damaged |
| Error Code 15 External Temp Disable Limit | Engine shut down since the external temperature is outside the programmed range. Set default to OFF from factory. | The RigMaster has been programmed not to start when the external temperature is outside a preprogrammed range. |
| Error Code 16 Module Reset – Set Clock | Power to the cabin controller has been lost. | <ul style="list-style-type: none"> • Reset clock |

WARNING

Do not use aerosol types of starting aids such as ether. Such use could result in an explosion and personal injury, and will render the warranty null and void.

FUEL SYSTEM

The RigMaster incorporates a low/high pressure system. In order to prevent the vehicle engine from drawing the fuel from the RigMaster's fuel supply line, an in-line check valve is mounted at the point of connection on the vehicle's suction fitting.

The RigMaster fuel supply line is connected to the Perkins engine feed pump, which in turn supplies fuel to the filter/sediment bowl assembly and then in turn to the injection pump.

NOTE: THIS TYPE OF FUEL SYSTEM DOES NOT DE-AIRATE ITSELF.

All air must be bled from all of the hoses and components. There are air bleed screws located in the fuel filter head assembly.

BLEEDING PROCEDURES

Low Pressure System

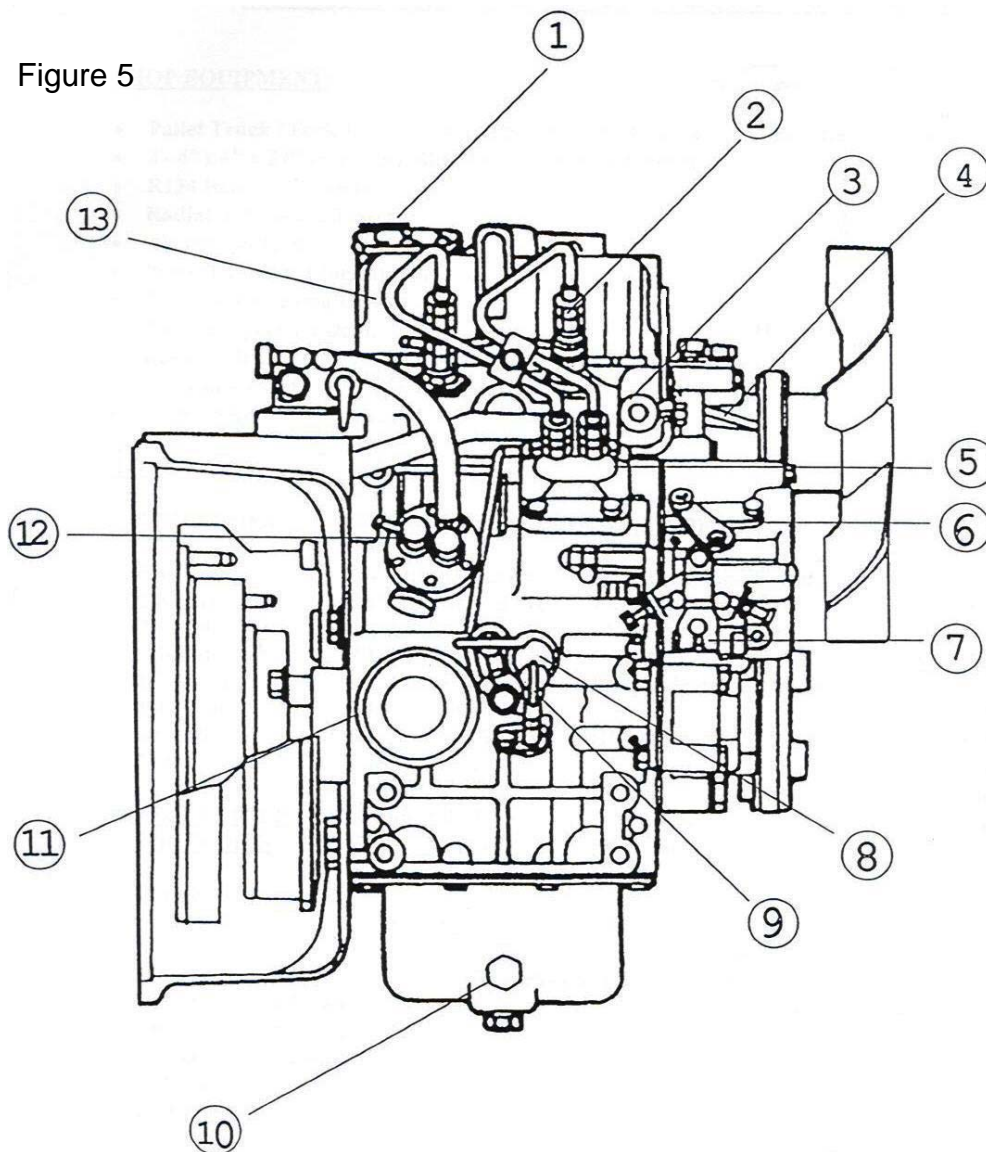
TOOLS REQUIRED

Philips screwdriver #3

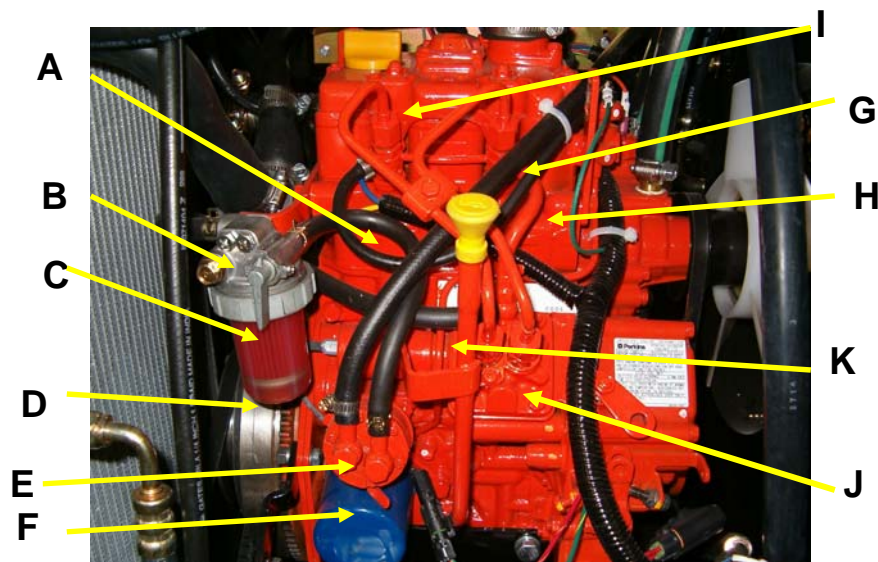
NOTE: THE LOW PRESSURE SYSTEM MUST BE COMPLETELY FREE OF AIR BEFORE THE HIGH PRESSURE SYSTEM CAN BE BLED PROPERLY.

- a) Position a container or shop wiper under the fuel sediment bowl in order to contain any spillage of fuel.
- b) Using a Philips screwdriver, loosen the right hand bleed screw located in the fuel filter head (Location B).
- c) Prime the fuel system using the manual primer pump lever located on the fuel feed pump (Location F).
- d) Continue to pump until the sediment bowl is full and clear flow of fuel is present at the bleed screw.
- e) Tighten the bleed screw in the fuel filter head (Location B).
- f) Bleeding low pressure system is complete

Figure 5



| # | DESCRIPTION | # | DESCRIPTION |
|---|-----------------------------------------------------------------|----|----------------------------------------|
| 1 | OIL FILTER CAP | 7 | THROTTLE LEVER C/W ADJUSTMENT SCREWS |
| 2 | ATOMIZER | 8 | COOLANT DRAIN TAP |
| 3 | OIL PRESSURE SWITCH | 9 | DIP STICK |
| 4 | AIR BLEED (FUEL SYSTEM) | 10 | OIL DRAIN PLUG (ALSO ON BOTTOM OF PAN) |
| 5 | FUEL INJECTION PUMP | 11 | OIL FILTER |
| 6 | MECHANICAL STOP LEVER (ELECTRICAL STOP CONTROL AT REAR OF PUMP) | 12 | FUEL LIFT PUMP C/W HAND PRIMER LEVER |



FUEL SYSTEM - FIGURE 6

| LEGEND | |
|--------|-----------------------------------------------|
| A | Filter Feed Hose |
| B | Air Bleed Screw (Filter Housing) |
| C | Shut-Off Valve |
| D | Fuel Filter Element and Fuel Bowl |
| E | Fuel Supply Pump – Feed Pump |
| F | Manual Primer Pump Lever – (Fuel Supply Pump) |
| G | Fuel Supply Hose |
| H | Fuel Return Hose (Injector Bleed-Off) |
| I | Fuel Injector Nozzles |
| J | Fuel Injection Pump |
| K | Injector Pump Feed Line |

BLEEDING PROCEDURES

High Pressure System-Injectors (see Figure 5 and 6)

TOOLS REQUIRED

17mm Wrench

NOTE: THE LOW PRESSURE SYSTEM MUST BE COMPLETELY FREE OF AIR BEFORE THE HIGH PRESSURE SYSTEM CAN BE BLED PROPERLY.

NOTE: IT IS RECOMMENDED THAT A SECOND PERSON ASSIST IN THE PERFORMANCE OF STEPS #1, #2, #3, #6 AND #7. NEVER DISABLE OR BY-PASS THE SAFETY DEVICE.

- 1) Have a helper hold down the safety cover switch located on the unit.
- 2) Loosen both high-pressure line nuts located at the injectors using a 17mm wrench (Location I).
- 3) Start system using method described on Page 11.

NOTE: This procedure is only meant to remove air bubbles. Unit will not start with nuts loosened.

- 4) If the air bubbles are still present after 30 seconds of cranking, reactivate the starter with nuts loose.
- 5) Tighten the left injector line nut using a 17mm wrench (Location I).
- 6) If the unit fails to start, Repeat steps 1 - 5
- 7) As a final measure, it is recommended to bleed the fuel system with the engine running.
- 8) Slowly loosen one injector nut using a 17mm wrench (left nut first -Location I) at a time and retighten quickly when engine speed drops. This will remove any remaining air. Be sure to tighten the first injector nut (left nut) using a 17mm wrench before continuing to the next injector nut (right nut).

PREVENTATIVE MAINTENANCE

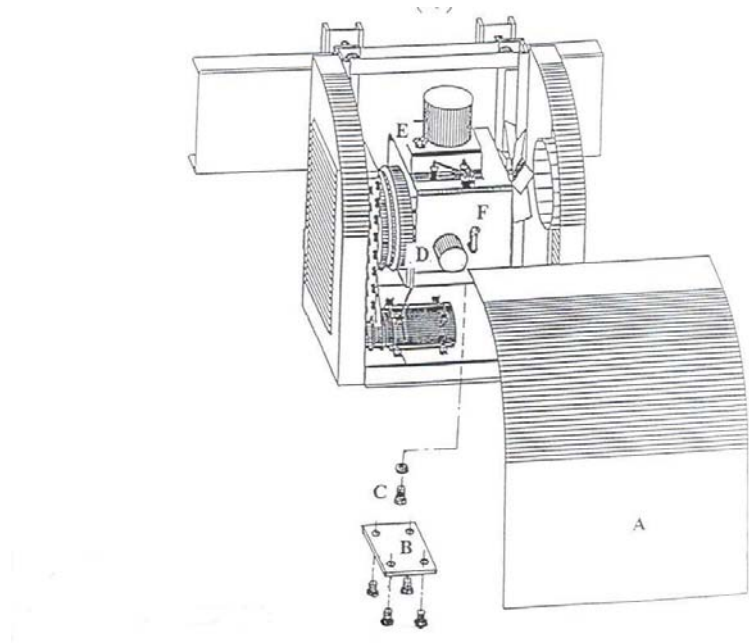
The first oil change must be performed at **50 hours** of service and at 500/1000 hour intervals there after. Please read the following chart for detailed information.

Maintenance schedules listed below are for **NORMAL** road conditions and the specific hour intervals must be adhered to. For **SEVERE** conditions perform the scheduled maintenance(s) earlier.

| SCHEDULED INTERVALS IN HOURS | | | | MAINTENANCE ITEMS |
|------------------------------|----------|----------|----------|-------------------------------------------------------------------------------------------------------------------------------------------|
| 50 | 250 | 500 | 1000 | |
| X | | | | Check coolant level |
| X | | | | Check engine lubrication oil level (first oil change) |
| | X | | | Check/adjust drive belts, and inspect for wear |
| | | X | | Check all fasteners for tightness |
| | | X | X | Change engine lubricating oil (500hrs 2 liter/2 qt.) (1000hrs 3 liter/3 qt.) <u>fill slowly</u> . See Section 2.1.0 for more information. |
| | | X | X | Change oil filter (500hrs 2 liter/2 qt.) (1000hrs 3 liter/3 qt.) See Section 2.1.0 for more information. |
| | | | X | Clean generator |
| | | | X | Check HVAC unit filter, clean if necessary |
| | | | X | Clean engine compartment, condenser, radiator. Use compressed air or liquid degreaser |
| | | | X | Check engine air filter, change if necessary |
| | | | X | Check fuel filter, change if necessary |
| | | | X | Change drive belts* |
| | | | X | Check coolant concentration, renew if necessary, |
| X | | | | Check/Repair auxiliary power unit for any leaks or damage |

***The use of conditioner may extend the service life of belts; consult the belt manufacturer for more information on belt maintenance.**

| OIL FILTER | | AIR FILTER | |
|-----------------------|-----------------|----------------------|------------------|
| <u>BRAND</u> | <u>PART No.</u> | <u>BRAND</u> | <u>PART No.</u> |
| AC Delco | PF1233 | RigMaster/Mann | 00-C1140 |
| Perkins | 140516250 | | |
| Wix | 51396 | | |
| K-Mart Motorvator | K014477 | | |
| Fram | PH4386 | ASSEMBLY | |
| Baldwin | B37 | RigMaster | 103002 |
| FUEL FILTER | | FAN BELT | |
| <u>BRAND</u> | <u>PART No.</u> | <u>BRAND</u> | <u>PART No.</u> |
| Wix | 33262 | RigMaster | RP8-009 |
| NAPA | 3262 | Bando | 2310 9.5 X 790LA |
| Perkins | 130366040 | Perkins | 080109049 |
| Fram | C7516 | | |
| Baldwin | PF937 | | |
| AC Delco | GF771 | | |
| COMPRESSOR DRIVE BELT | | GENERATOR DRIVE BELT | |
| <u>BRAND</u> | <u>PART No.</u> | <u>BRAND</u> | <u>PART No.</u> |
| Gates | 13A0875 | RigMaster | RP8-006 |
| Dayco | 51009 | | |
| GLOW PLUGS | | RECEIVER-DRIER | |
| <u>BRAND</u> | <u>PART No.</u> | <u>BRAND</u> | <u>PART No.</u> |
| Perkins | 185366220 | RigMaster (IPS) | RP9-027 |
| | | Four Seasons | 34334 |
| | | Everco (UAP) | A78239 |



OIL CHANGE - FIGURE 6

TOOLS REQUIRED

3/8 Ratchet
17mm Socket
7/16 Socket

PROCEDURE:

- 1) Remove front cover (A).
- 2) Remove drain plug access cover (B) using a 7/16 socket.
- 3) Remove drain plug (C) using a 17mm socket.
- 4) Remove oil filter (D).
- 5) Install new oil filter.
- 6) Inspect drain plug gasket and replace if needed
- 7) Install and tighten drain plug using a 17mm socket.
- 8) Refill engine with (2 liters 2 US qts.) Or (3 liters / 3 US qt.) of new engine oil (E)**

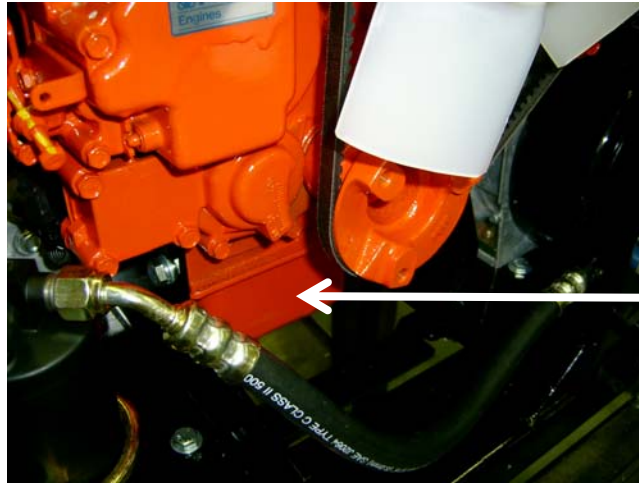
NOTE: See page 30 for the size of the oil pan. This will tell you how much oil your engine takes.

- 9) Check oil level with dipstick (F).
- 10) Run the RigMaster.
- 11) Recheck the oil Level and Add Oil if necessary. Note: make sure you don't overfill the oil, if over filled make sure the oil is drained to the proper level

****NOTE:** Use only good quality lubricating oil which meets (and not exceeds) any of the following specifications - API CC/CD/CE/CF/CF-4/CG-4 - ACEA E1/E2/E3

Recommended Viscosity Grades: 10W30 & 15W40 are most commonly used.

This oil pan holds 2 ltr./2 US qt. This engine oil pan is mounted flush with the engine block. Do not go by the color of the engine. The first oil change must be performed at 50 hours of service and at 500 hour intervals there after.

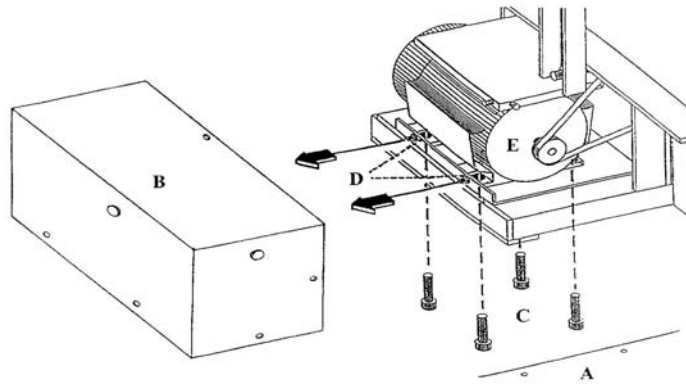


2 qt. Oil Pan

This oil pan holds 3ltr./3US qt. This engine oil pan is mounted out from the engine block. Do not go by the color of the engine. The first oil change must be performed at 50 hours of service and 1000 hour intervals there after.



3 qt. Oil Pan



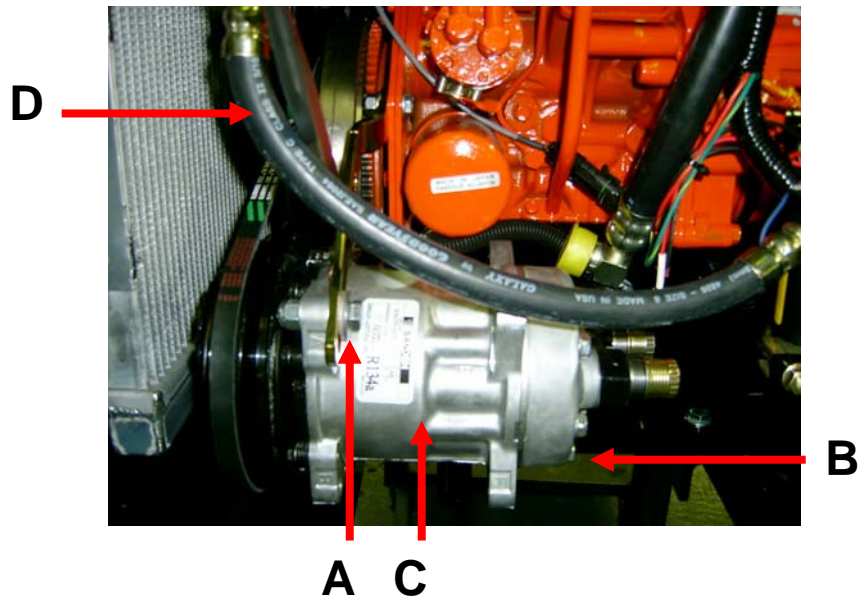
GENERATOR BELT REMOVAL / ADJUSTMENT - FIGURE 7

TOOLS REQUIRED

7/16 Wrench
9/16 Wrench
9/16 Socket
7/16 Socket
3/8 Ratchet

PROCEDURE:

- 1) Remove bottom panel (A) using a 7/16 socket.
- 2) Remove generator cover (B) using a 7/16 socket.
- 3) To replace the generator belt, first - loosen and remove the compressor belt (see figure 8 for details).
- 4) LOOSEN, but DO NOT REMOVE, the four (4) generator mounting bolts (C) using a 9/16 socket.
- 5) Using the two eye bolts (D) using a 7/16 wrench, gently pull the generator (E) outward and evenly in the direction of the arrows until the belt deflection is less than 12 mm.(1/2").
- 6) Tighten the four generator bolts (C) using a 9/16 wrench and a 14mm socket, replace and adjust the compressor belt (see figure 8 for details).
- 7) Replace the generator cover (B) using a 7/16 socket and the bottom panel (A) using a 7/16 socket.



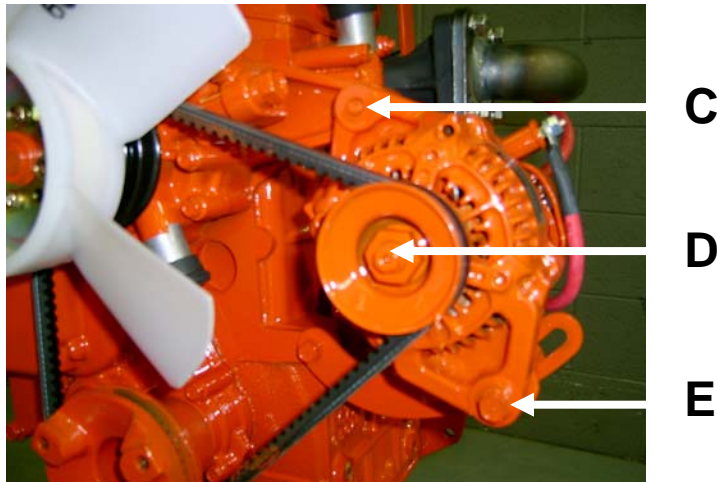
COMPRESSOR BELT REMOVAL / ADJUSTMENT - FIGURE 8

TOOLS REQUIRED

| |
|-----------------|
| 9/16 Wrench |
| 3/8 Ratchet |
| 9/16 Socket |
| 16 Inch pry bar |

PROCEDURE:

- 1) Remove the front cover.
- 2) Loosen the adjustment bolt (A) using a 9/16 socket and a 9/16 wrench and the Pivot Bolt (B) using a 9/16 socket.
- 3) Rotate the compressor (C) towards you using a 16 inch pry bar (D) until the belt deflection is less than 6 mm. (1/4").
- 4) **Note:** When using the pry bar, put the pry bar between the top left ear on the compressor & the flywheel and push the compressor downwards.
- 5) When the belt is sufficiently tight, tighten the adjustment bolt (A) using a 9/16 socket and a 9/16 wrench, and then tighten the pivot bolt (B) using a 9/16 socket.



FAN BELT REMOVAL / ADJUSTMENT - FIGURE 9

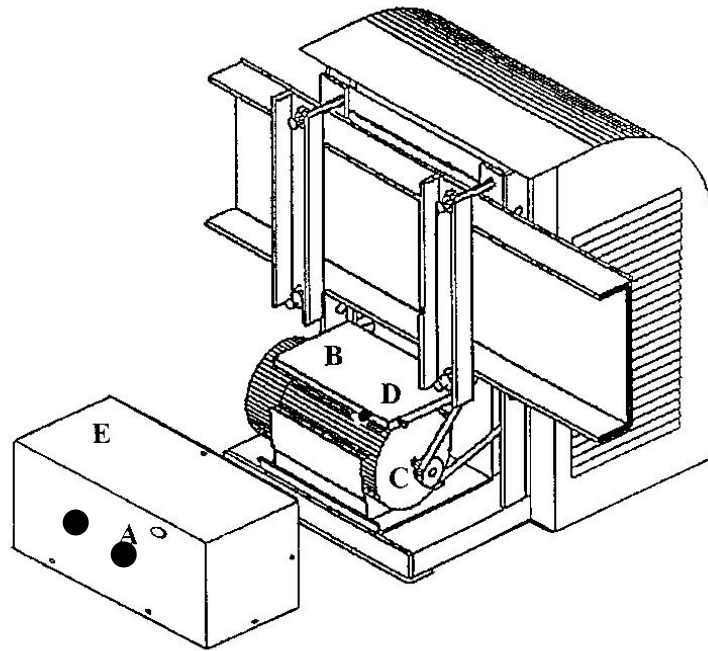
TOOLS REQUIRED

12mm Wrench
3/8 Ratchet
12mm Socket
7/16 Socket
16 inch pry bar

PROCEDURE:

- 1) Remove the one piece fan side chamber using a 7/16 socket.
- 2) Loosen, but **DO NOT REMOVE**, the adjustment bolt (C) using a 12mm wrench & a 12mm socket. Then loosen the pivot bolt (D) using a 12mm socket.
- 3) To remove the fan belt, slide the alternator (E) down towards the back of the engine & remove the fan belt.
- 4) Install the new fan belt and slide the alternator (E) up towards the top of the engine using a 16 inch pry bar until the belt deflection is less than 6 mm. (1/4").
- 5) When the fan belt is tight, tighten the adjustment bolt (C) using a 12mm wrench & 12mm socket. Then tighten the pivot bolt (D) using a 12mm socket.
- 6) Reinstall the one piece fan side chamber using a 7/16 socket. Make sure the ring on the one piece side chamber does not touch the engine fan blade.

NOTE: Inspect the fan blade for broken blades or worn tips; if the blade is damaged check the engine mounts and bottom stiffeners. (loose bolts or worn engine mounts).



RESETTING THE 20 AMP BREAKERS - FIGURE 10

NOTE: The cover is shown removed for clarity purposes only.

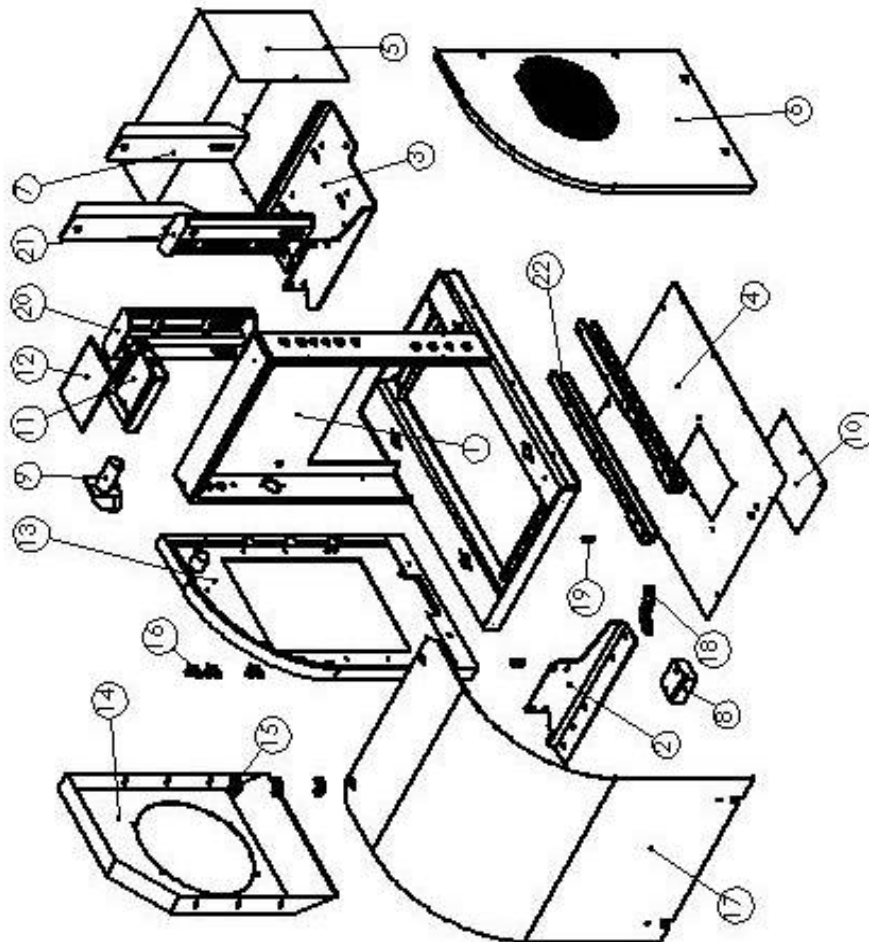
WARNING: CORRECT THE ELECTRICAL OVERLOAD PRIOR TO THE RESETTING OF EITHER BREAKER.

TOOLS REQUIRED

Flat head Screwdriver

PROCEDURE:

- 1) Remove the Rubber Plugs (A) from the Generator Cover (E) using a flat head screwdriver.
- 2) Locate the Breakers (D) located on the front of the Electrical Connection Box (B) mounted on top of the Generator (C).
- 3) Insert the screwdriver and depress the Buttons (D), which protrudes from the Electrical Connection Box (B) to reset the breakers.



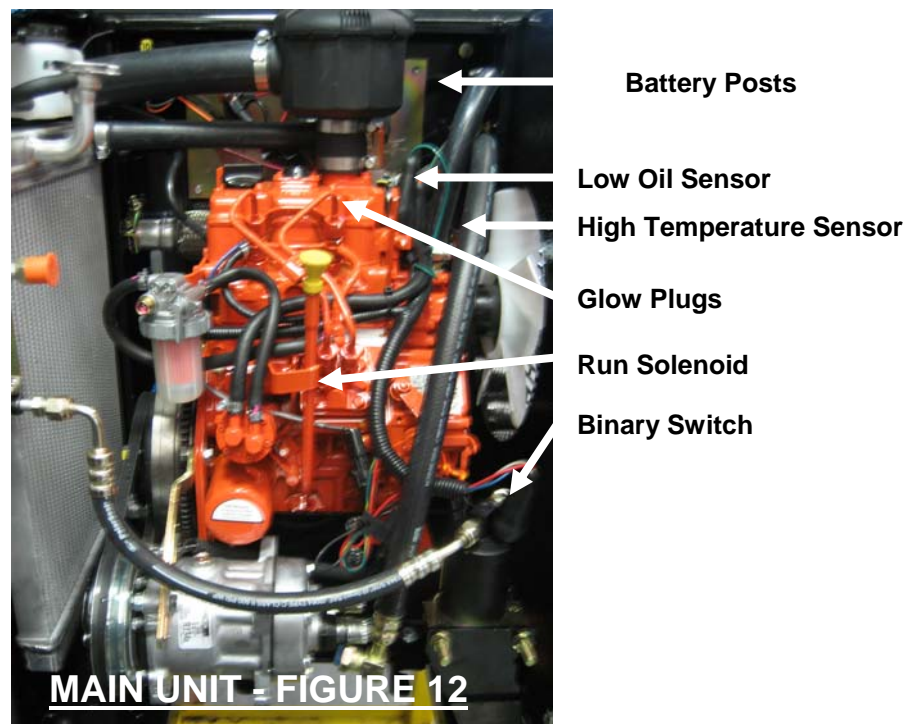
| ITEM NO. | PART NUMBER | DESCRIPTION | QTY. |
|----------|---------------|------------------------|------|
| 1 | RP10-001-1 | Frame Assembly | 1 |
| 2 | RP10-001-09 | Mount Plate, Front | 1 |
| 3 | RP10-001-10 | Mount Plate, Rear | 1 |
| 4 | RP10-001-05 | Bottom Cover | 1 |
| 5 | RP10-001-23 | Rear Generator Cover | 1 |
| 6 | RP10-001-48 | Right Side Chamber | 1 |
| 7 | RP10-001-08 | Frame Clamping Bracket | 2 |
| 8 | RP10-001-52 | Alum. Block | 1 |
| 9 | RP10-001-30 | Exhaust Tube | 1 |
| 10 | RP10-001-32 | Bottom Access Cover | 1 |
| 11 | RP10-001-24 | ALT. Junction Box | 1 |
| 12 | RP10-001-25 | Junction Box | 1 |
| 13 | RP10-001-50 | LH side chamber | 1 |
| 14 | RP10-001-43 | Fan shroud | 1 |
| 15 | RP10-001-44 | Fan shroud bracket | 3 |
| 16 | RP10-001-45 | Fan shroud bracket | 3 |
| 17 | RP10-001-18 | Cover | 1 |
| 18 | RP10-001-53 | Compressor Bracket | 1 |
| 19 | RP10-001-11 | Pull Handle Spacer | 2 |
| 20 | RP10-001-57HD | "S" bracket | 1 |
| 21 | RP10-001-56HD | "S" bracket | 1 |
| 22 | RP10-001-02 | Bottom Stiffener | 2 |

CLEANING INSTRUCTIONS

The RigMaster Auxiliary Power Unit should be periodically inspected and any accumulation of road contaminants (such as: paper; plastic; dirt; oil; etc.) must be removed. Three main components, as outlined below, must be kept clean and free of contaminants and/or debris. Refer to Figure 12 for location of components.

MAIN UNIT GENERAL CLEANING (See Figure 12)

- a) Using a power spray wand, wash down the exterior of the main unit especially all louver panels (air intake / exhaust openings).
- b) Remove the front cover and wash down the interior of the main unit, holding the spray wand no closer than twenty four inches (24") away from any component.
- c) Before replacing the front cover you will have to spray all electrical connections & sensors to prevent the connections & sensors from corroding. Make sure the engine compartment is dry first. Using battery sealant, spray the positive & negative post, glow plugs, run solenoid. (see below for areas to spray with battery sealant). **NOTE:** The following parts are not shown in the picture, but make sure that the green wire to the starter solenoid & the positive post on the alternator & starter is sprayed with battery spray. For the low oil sensor, high temperature sensor & the binary switch spray them with dielectric grease. **Note:** Make sure the boots are installed back on to the sensors.



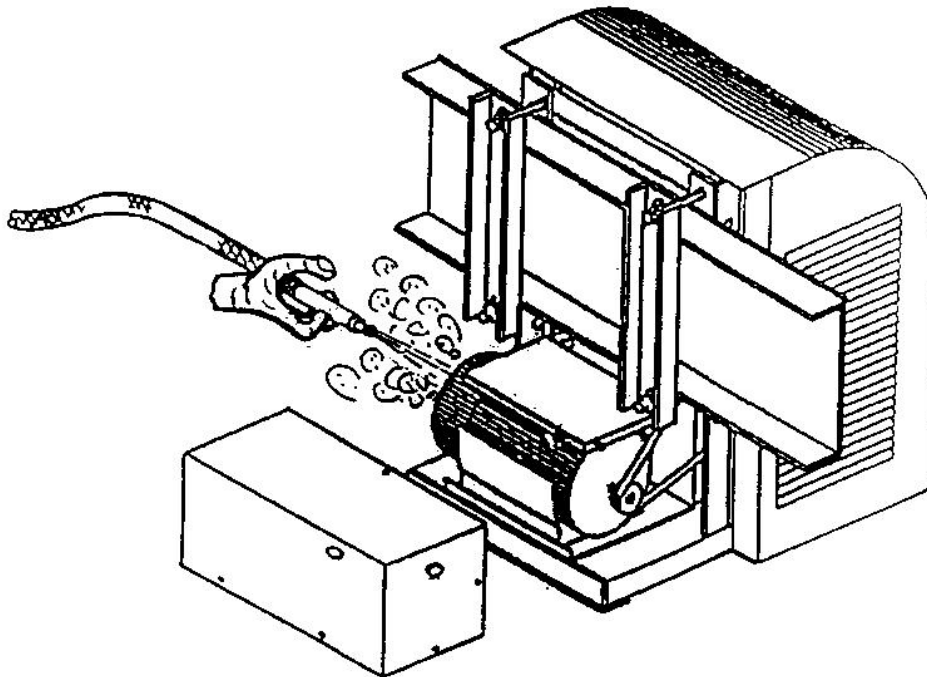
GENERATOR CLEANING (See Figure 13)

TOOLS REQUIRED

7/16 SOCKET

PROCEDURE:

1. Remove the Generator Cover using a 7/16 socket and inspect for any accumulation of dirt or oil especially at the generator air inlet and outlet openings.
2. Using a compressed air line and nozzle, blow out the generator compartment.
3. Using a clean cloth, soak up any oil or other liquids.
4. Replace the Generator Cover and secure using a 7/16 socket.



GENERATOR - FIGURE 13

HEATER / AIR CONDITIONING UNIT (See Figure 14)

1. Unscrew the two thumb nuts (A) and remove the air filter out of the HVAC box.
2. Wash the air filter using soapy water and hang dry or blow clean with compressed air.
3. Insert the dry air filter into the filter cover and tighten down the two thumb nuts.



A

HEATER / AIR CONDITIONER UNIT - FIGURE 14

RigMaster Troubleshooting Guide

ENGINE

| SYMPTOM | PROBABLE CAUSE | REMEDY/COMMENT |
|----------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Engine does not crank | <ol style="list-style-type: none"> 1. Starter relay 2. Starter motor faulty 3. Broken engine ground strap 4. Battery connections loose 5. Low battery voltage | <ol style="list-style-type: none"> 1. Check for power at relay during starting sequence 2. Check for power at starter solenoid 3. Replace strap 4. Tighten connections 5. Charge batteries |
| Engine cranks but does not start | <ol style="list-style-type: none"> 1. Air filter 2. Speed sensor 3. Glow plug or Glow plug relay 4. Fuel 5. Run solenoid not operating 6. Governor assembly (spring) | <ol style="list-style-type: none"> 1. Check air filter 2. Check speed sensor gap: 0.025", Ohms: 625 +/- 75 3. Check for power @ the glow plug relay 4. Check if the fuel bowl is full & that the filter is clean 5. Check 12v at run solenoid 6. See Perkins manual |
| Engine hard to start | <ol style="list-style-type: none"> 1. Air filter 2. Fuel 3. Glow plugs | <ol style="list-style-type: none"> 1. Check air filter 2. Check if the fuel bowl is full & that the filter is clean 3. Check for power at the glow plug relay |
| Engine Cranks Slowly | <ol style="list-style-type: none"> 1. Damaged / corroded battery connections 2. Faulty starter 3. Faulty A/C Compressor 4. Faulty generator | <ol style="list-style-type: none"> 1. Replace or clean the battery connections 2. Check connections at the starter 3. Compressor seized 4. Generator seized |

| | | |
|------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Engine Starts & Stalls | <ol style="list-style-type: none"> 1. Speed sensor 2. Clogged fuel filter 3. Excessive load on the motor; generator, a/c compressor 4. Damaged or loose wiring connections | <ol style="list-style-type: none"> 1. Check speed sensor Gap: 0.025", Ohms: 625 +/- 75 2. Replace filter 3. Unplug the block heater when using the a/c compressor 4. Inspect wiring connection & connectors |
| Engine Shuts Down | <ol style="list-style-type: none"> 1. Air filter 2. Fuel filter 3. Blown fuses 4. Damaged or loose wiring | <ol style="list-style-type: none"> 1. Check air filter 2. Check fuel filter 3. Replace fuse 4. Inspect condition of wiring and wiring connections |
| White or blue smoke | <ol style="list-style-type: none"> 1. Excess engine oil 2. Coolant in combustion chamber | <ol style="list-style-type: none"> 1. Inspect & correct oil level 2. Check for blown head gasket |
| Dark grey/black smoke | <ol style="list-style-type: none"> 1. Over loading 2. Clogged air filter | <ol style="list-style-type: none"> 1. Unplug 120 volt appliances & block heater 2. Check air filter |
| Engine runs rough | <ol style="list-style-type: none"> 1. Air filter c 2. Fuel filter 3. Fuel leak 4. Worn/contaminated fuel injectors 5. Engine in poor condition | <ol style="list-style-type: none"> 1. Check air filter 2. check fuel filter 3. Inspect all hoses & clamps 4. Inspect Injectors 5. Replace or rebuild the engine |
| Loss of engine oil | <ol style="list-style-type: none"> 1. Oil seals leaking 2. Leaking drain plug 3. Pinched or clogged breather tube 4. Engine worn or in poor condition | <ol style="list-style-type: none"> 1. Replace crankshaft seals (seals leaking is do to having too much oil in the system) 2. Replace oil pan plug gasket 3. Repair or replace the tube 4. Replace or rebuild the engine |

CHARGING SYSTEM

| SYMPTOM | PROBABLE CAUSE | REMEDY/COMMENT |
|------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Batteries not charging | <ol style="list-style-type: none">1. Loose or broken belt2. Damaged or loose battery connections3. Faulty alternator4. Battery in poor condition | <ol style="list-style-type: none">1. Tighten or replace belt2. Inspect wiring3. Check alternator4. Test batteries |
| Batteries overcharging | <ol style="list-style-type: none">1. Faulty Alternator | <ol style="list-style-type: none">1. Check Alternator output |

FUEL

| SYMPTOM | PROBABLE CAUSE |
|----------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Fuel odor/leak | <ol style="list-style-type: none">1. Loose fuel fittings2. Damaged fuel line or fuel filter bowl3. Fuel injection pump leak |

COOLING SYSTEM

| SYMPTOM | PROBABLE CAUSE | REMEDY/COMMENT |
|--------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Engine overheating | <ol style="list-style-type: none"> 1. Coolant level low 2. Engine fan belts loose 3. Radiator fins blocked (external) 4. Elec fan 5. Faulty engine thermostat 6. Faulty by-pass valve 7. Overloading the engine | <ol style="list-style-type: none"> 1. Add coolant 2. Tighten or replace 3. Clean radiator fins 4. The elec fan only engages when the compressor clutch engages. 5. Clean the radiator 6. Replace the by-pass thermostat valve 7. Reduce 110v load (eg. Block heater) |
| Engine overcooling | <ol style="list-style-type: none"> 1. Block heater not plugged in and/or functioning 2. Faulty by-pass valve 3. Faulty thermostat | <ol style="list-style-type: none"> 1. Plug in block heater 2. Check the by-pass valve 3. Check the thermostat |
| Coolant loss | <ol style="list-style-type: none"> 1. Coolant system over filled 2. External coolant leak 3. Internal coolant leak 4. Blown head gasket | <ol style="list-style-type: none"> 1. Check coolant level regularly 2. Check coolant hoses from RigMaster to the HVac system 3. Check internal coolant hoses inside the engine compartment 4. Replace the head gasket Note: the cylinder head should be machined |
| Poor circulation | <ol style="list-style-type: none"> 1. Water pump not operating properly 2. Cooling system restricted | <ol style="list-style-type: none"> 1. Check the belt tension 2. Check for kinks in the coolant hoses |

| SYMPTOM | PROBABLE CAUSE | REMEDY/COMMENT |
|-----------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Poor air flow | <ol style="list-style-type: none"> 1. HVAC filter 2. HVAC air intake obstructed eg. Cloths or plastic bag 3. Excessive duct hose 4. Poor placement of vent 5. Faulty blower motor 6. Ducted through trucks ventilation system | <ol style="list-style-type: none"> 1. Clean filter 2. Remove obstruction & tell the drive to keep the filter clear 3. Reduce the hose by extending the hose to maximum length 4. Relocate the vent 5. Check for power & ground 6. See install manual for ducking the vents |
| Little or no hot air | <ol style="list-style-type: none"> 1. Engine overcooling 2. Water valve Faulty 3. Airlock in coolant or low in coolant 4. Faulty coolant by-pass valve 5. Cooling system blocked | <ol style="list-style-type: none"> 1. Main engine block heater not plugged in 2. Check water valve operation 3. Bleed system & fill coolant 4. Replace the by-pass valve 5. Flush complete cooling system |
| Little or no cold air | <ol style="list-style-type: none"> 1. Compressor not working 2. Compressor drive belt loose or damaged 3. Condenser or radiator fins blocked 4. A/C system leak 5. Elec fan not operating 6. Evaporator core frozen | <ol style="list-style-type: none"> 1. Check the compressor clutch fuse 2. Tighten or replace the drive belts 3. Clean radiator/condenser using compressed air 4. Check pressures using gages 5. Check the fuse 6. Check the temperature switch & the location of the probe |

120 VOLT ELECTRICAL SYSTEMS

| SYMPTOM | PROBABLE CAUSE | REMEDY/COMMENT |
|----------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| No power to receptacles (Bunk and block heater) | <ol style="list-style-type: none"> 1. Breakers tripped 2. Generator drive belt loose or damaged 3. Wiring damaged 4. Internal damage to generator | <ol style="list-style-type: none"> 1. Reset the breakers. 2. Check the belt 3. Check all connections 4. Check the generator out put (61 Hertz with no load) |
| Generator continually trips | <ol style="list-style-type: none"> 1. Circuit overloaded (20A or 2400 W max) 2. Short circuit | <ol style="list-style-type: none"> 1. Check power rating of appliances |

THE LIMITED WARRANTY

This limited warranty applies to the RigMaster® Auxiliary Power unit ("APU") which consists of the following components:

- 1) The generator set
- 2) The generator set control panel
- 3) The combination heater/air conditioner unit

24 MONTH WARRANTY COVERAGE

RigMaster Power Corp. warrants that, under normal service and use, the RigMaster® ("APU") will be free from defects in material and workmanship for twenty four(24) months from the date of installation, subject to all terms and conditions, limitations and provisions of this limited warranty. This limited warranty is governed by the laws of the Province of Ontario, Canada, and any claims or disputes arising out of this limited warranty shall be governed by the laws of the Province of Ontario, Canada.

WARRANTY OBLIGATION

During the warranty period, RigMaster Power Corp. will repair or replace, at its option, the RigMaster® APU components, which consist of the generator, the control panel, or the combination heater/air conditioner. Repair or replacement will be completed at an authorized dealer or company owned facility, upon presentation of proof of purchase and determination by RigMaster Power Corp. or its authorized dealer that a component is defective or has failed under normal service and use, at no charge to the owner of the RigMaster® APU, within the first 12 month warranty period package or the 24 month /4000 hour whichever comes first warranty period package.

DISCLAIMER OF OTHER WARRANTIES

RIGMASTER POWER CORP., INCLUDING ITS AGENTS AND AUTHORIZED DEALERS, MAKES NO OTHER WARRANTIES AND EXPRESSLY DISCLAIMS ALL OTHER WARRANTIES, EXPRESSED OR IMPLIED, INCLUDING ALL WARRANTIES OF MERCHANTABILITY AND FITNESS FOR A PARTICULAR PURPOSE. No person, firm, or representative is authorized to assume any obligation or make any warranty on behalf of RigMaster Power Corp. other than the limited warranty as stated herein.

MAINTENANCE

The RigMaster® owner's manual lists all maintenance functions required to validate this limited warranty. **PLEASE NOTE THAT FAILED COMPONENTS DUE TO POOR OR IMPROPER MAINTENANCE WILL NOT BE COVERED BY THIS LIMITED WARRANTY.** Where a dispute arises regarding proper maintenance, the manufacturer reserves the right to request proof in the form of receipts for maintenance, and any other records of service to establish that proper maintenance has been performed, as per the maintenance manual and/or dealer communications.

INSTALLATION

It is the responsibility of the installer and the owner to ensure that all RigMaster® APU components are in proper working order at the time of installation. The manufacturer is not responsible for failed components that are a result of improper installation.

In order to validate your RigMaster warranty, the unit must be either installed by an authorized RigMaster dealer or must be inspected and certified by an authorized RigMaster dealer within 30 days of purchase. A RigMaster Installation Check List/Warranty Registration Form must be completed and registered at www.rigmasterpower.com to certify the installation. Cost to certify is at the owner's expense. For units not installed by an authorized dealer the warranty, if validated, will be from the date of purchase, not the date of certification.

WARRANTY VOIDED OR TERMINATED

Any modification to the RigMaster® without the written authorization from the manufacturer will void this limited warranty. Repair, replacement, or maintenance, using other than approved parts, will be cause to terminate this limited warranty.

EXCLUSIONS FOR LIMITED WARRANTY

The costs of normal maintenance such as, but not limited to tune-ups, adjustments, and inspections, tightening of clamps, fasteners, hoses, the replacement of belts, fuel, air, oil and filters are excluded from this limited warranty.

LIMITATION OF REMEDIES

The remedy of repair or replacement as set forth herein is the sole exclusive remedy available to the purchaser or user of the RigMaster®. RigMaster Power Corp. disclaims and shall not be liable or responsible to the owner or user of the RigMaster® APU or any other person for incidental, consequential, direct, indirect, special or general damages of any kind arising out of or in any way related to the use of the RigMaster® APU including, but not limited to towing charges, accident repairs, road calls, traveling expenses, loss of revenue profits, loss of truck use or damage to persons or property. No claim of any kind asserted against RigMaster® APU, whether asserted under legal theories of negligence, strict liability, warranty, or any other common law or statutory basis, shall be greater in amount than the purchase price of the RigMaster® with respect to which damages are claimed.

INDEMNITY

The user and owner of the RigMaster® APU agree to indemnify and hold RigMaster Power Corp. harmless from any and all claims, expenses, suits or liability of any nature whatsoever asserted against RigMaster Power Corp. arising out of or in any way related to negligence on the part of the user or owner of the RigMaster® APU.

WARRANTY CLAIMS

Failed or defective parts must be inspected and their replacement installed by an authorized RigMaster® dealer. The manufacturer reserves the right to inspect failed or defective parts prior to a decision on any claim under this limited warranty. It is the owner's responsibility to act promptly in submitting any such claim.

TRANSFER OF WARRANTY

Where the vehicle with the RigMaster® APU has been sold by the first owner to a second owner and the RigMaster® has not been removed, this limited warranty is transferable from the original owner to a second owner with whatever portion of the limited warranty that remains from the date of sale to the first owner. Where the RigMaster® APU has been removed from the vehicle in which it was originally installed, and sold by the first owner to a second, re-installation is required to be completed by an authorized dealer in order to validate the remaining portion of this limited warranty. Where the original owner transfers the RigMaster® to a new vehicle, the installation must be completed by an authorized dealer to validate whatever is remaining of this limited warranty.

WARRANTY POLICY

RigMaster Power Corp. (RIGMASTER POWER CORP.) warrants that, under normal service and use, the RigMaster Power® ("APU") will be free from defects in material and workmanship as stated.

During the warranty period RIGMASTER POWER CORP. will provide the exclusive remedy of ensuring the repair or replacement of those parts which are demonstrated to be defective in material or workmanship.

The purpose of the warranty is to provide the owner with free repair and replacement of defective parts in the manner outlined in the following policy. This remedy does not apply to normal wear of service parts, improper installation, deterioration, modification or economic loss.

Customer Assistance Procedure

To obtain warranty repairs you must request the needed repairs within the warranty period from An authorized RigMaster dealer.

A reasonable time must be allowed to perform the warranty repair after taken the unit to an authorized dealer location. Repairs will be performed during normal business hours.

To ensure your complete satisfaction the following procedures must be followed in the event You have a problem.

1- Contact the nearest (most convenient) RigMaster dealer to schedule a warranty service appointment. Prior to contact have the following information available

- Unit serial number
- Hour meter reading
- In service (Purchase) date
- Nature of problem

2- Deliver unit to dealer for service. Upon completion of repairs review and sign the dealer work order, keeping a copy for reference.

3- Frequently, customer concerns are a result of a breakdown in communications and can be quickly resolved at the dealer level.

4- If you are still not satisfied, present the entire matter in writing to:

**RigMaster Warranty Administration
11 Diesel Drive
Toronto, Ontario
Canada, M8W-4Z7
Fax: (416) 201-7532**

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| <p>CALIFORNIA Proposition 65 Warning Diesel engine exhaust and some of its constituents are known by the State of California to cause cancer, birth defects and other reproductive harm.</p> |
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NOTES



RigMaster Power Corp.

11 Diesel Drive, Toronto, Ontario,
Canada, M8W 4Z7

Tel: (416) 201 0040

Toll Free: 1-888-208-3101

Fax: (416) 201-7532

www.rigmasterpower.com