GENERAC®
CORPORATION

PRODUCT INFORMATION BULLETINS,

PARTS UPDATE BULLETINS &

WARRANTY INFORMATION BULLETINS

EFFECTIVE DATE
MAY 1997

Bulletin SVE, 15679 / Printed in U.S.A. 5.97 / 87 pages

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REQUIRED PARTS FOR SERVICING

PRODUCT INFORMATION BULLETIN:

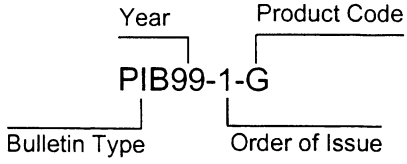
To keep our service dealers better informed, Generac Service has expanded the product code on PIB's (Product Information Bulletins) and SF's (Service Flashes).

The Service Flash will be used to inform service dealers of items that need immediate attention. In addition to that, we will issue product information bulletins which will keep dealers informed of product changes and service tips.

The bulletins will be coded to identify year and order of issue and a letter code to identify a specific product.

Please file in numerical order and by product code category.

A = Pressure Washer
B = Marine (Boat)
C = Air Compressors
D = Water Pumps
F = PTO (Farm)
G = General / All
I = Industrial Mobile
M = RV / Motorhome
O = Olympian
P = Portable
S = Standby
S = Transfer Switch
S = GT Trailer Mount
S = Pre-package / GENERAC II
V= VEM
W = Welders



Section 1 — Standby (S), Transfer Switch (S), GT Trailer Mount (S), Pre-package (S)

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Section 2 — Portables (P), Pressure Washers (A), Air Compressors (C), Water Pumps (D), Welders (W)

PIB88-3-P.....Bridge Rectifier and Voltage Regulator
PIB88-4-P.....Replacement of Voltage Regulator
PIB89-2-P.....Replacement of Bridge Rectifier or Voltage Regulator
PIB92-1-P.....Slow or No Voltage Pick-Up on Start-Up
PIB93-1-P.....3500XL and 2500XL Portable Generator Fuel Tank
PIB93-2-P.....Difficult Starting in Cold Weather
PIB94-1-A.....Engine Runs Rough, Stalls Out
PIB94-1-P.....Light Flicker on 3500XL Generators
PIB94-2-P,A,M .....Oil Pressure Switch
PIB94-3-P.....Cold Weather Operating (GN Engines)
PIB95-2-A,P .....Oil Filter Kit (GN190,GN191 and GN220)
PIB95-3-A,P .....Oil Filter Kit (GN320 and GN360)
PIB95-4-P.....Low A.C. Output After Rewiring Power Regulator Board
PIB95-5-A,P .....Oil Leak GN 191/220 Engine
PIB95-6-P.....Restoring Residual Magnetism/Field Flashing
PIB95-7-A.....Water Supply Quick Connector
PIB95-8-A.....Restricted Nozzle
PIB95-10-A.....Special Headbolts (Generac Pressure Washer Pump)
PIB95-11-A,I,M,P .....Push Rods
PIB95-14-A,I,M,P .....Oil Leak from Taper Plug
PIB95-15-A,P .....Low Oil Level Switch Mounting Screws
PIB95-16-A.....Length of Pressure Washer Head Assembly Mounting Bolts
PIB95-19-P,A .....Vapor Lock (Fuel Starvation)
PIB96-1-A,C,D,M,P,W .....High Altitude Jets
PIB96-2-P.....Battery Sizing for Electric Start Portable Generators
PIB96-3-P.....Diagnosing Idle Control Printed Circuit Board
PIB96-4-P.....Idle Control Stepper Motor Lever Position
PIB96-5-P.....Diagnosing Idle Control Stepper Motor
PIB96-6-A.....No High Pressure from Electric Pressure Washer
PIB96-7-A,M,P .....Low or No Oil Pressure on Generac GN Engines
PIB97-1-A.....Motor Gear on Electric Pressure Washers
PIB97-2-A,I,M,P .....Adjusting Valve Clearance
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Section 3 — Marine (B), RV/Motorhome (M)

PIB90-1-M .....Input Fuse Replacement (NP Series)
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PIB97-4-M .....CCRV Low Oil Pressure Shutdown
PIB98-1-M .....IMPACT 34, 36, NP30 Circuit Board

Section 4 — General/All (G), PTO (Farm) (F), Industrial Mobile (I), Olympian (All) (O), VEM (V)

Section 5 — Miscellaneous (PUB's and WIB's)

GENERAC
CORPORATION

REQUIRED PARTS FOR SERVICING

GENERAC / OLYMPIAN POWER SYSTEMS & GENERAC II UNITS

The following list of parts are those required to be on your service truck when making a service call. Additional travel needed to obtain any of these parts will not be covered under the warranty. When a part is no longer required, it may be returned through the Generac Parts Department.

POWER SYSTEMS FIELD SERVICE KIT, PART # PTS 78099 B

22668	Fuse AGC - 30	1 ea.
22676	Fuse AGC - 15	1 ea.
40587	Lamp #757 28V GTS Panel	1 ea.
55140	Oil Pressure Switch 8-12 PSI	2 ea.
55927	Fuse 14 Amp	1 ea.
*56739	Solenoid 12V Silver	1 ea.
57522	Water Level Sensor	1 ea.
*60108	Oil Pressure Switch 10 PSI	1 ea.
64217	PCB Assy. 7 day Ex 3D	1 ea.
65378	Fuse ENQ - 25	1 ea.
*65795	Battery Charge Rectifier	1 ea.
67626	PCB Assy. CPU Board	1 ea.
67629	Sense PCB Multivolt	1 ea.
*67680	Regulator PCB Assy.	1 ea.
*73590	Fuse BSS 2-A 600-V	4 ea.
73908	Fuse SC - 15	1 ea.
*74100	Circuit Control PCB (air cool)	1 ea.
*74935A	24VA 240/12V Transformer (kit)	1 ea.
*76009	PPS Circuit Board (liquid cool)	1 ea.
*77667	Oil Pressure Switch 4PSI	1 ea.
82130D	RPM Sensor Assy.	1 ea.
82495	Engine Control 12.24V Opr.	1 ea.
*83048	V/F Regulator 50/60 Hz	1 ea.
83089	12/24V C Opt. Controller	1 ea.
88019	GTS Control PCB	1 ea.
92743	In-Phase Monitor PCB	1 ea.

* These parts service the **Generac II** product in addition to the Generac / Olympian Power Systems. They may be ordered separately as **KIT # PTS 85897 A**.

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PRODUCT INFORMATION BULLETIN

SUBJECT: Coolant Contamination

Some of our field technician have observed the formation of a gel-like deposit, commonly known as "green slime," in the radiators of a few of their standby generators.

PROBLEM: We have researched and found this deposit to be a result of antifreeze manufacturers using a high level of silicates in their aluminum block antifreeze. We've also found other factors that can contribute to green slime formation.

1. Use of high silicate antifreeze boosters or additives.
2. Use of hard water when diluting antifreeze.
3. Use of rich antifreeze and water (60% antifreeze or greater) solution during makeup.

CORRECTIVE ACTION: Your Generac generators are shipped with CITGO Antifreeze (a low silicate formula) in a 50/50 mixture. When flushing the cooling system, and anytime you add antifreeze, use a low silicate formula antifreeze. Use soft water when adding water, and boosters if needed at about 300 hours -- not with a fresh fill. Following these guidelines, and regularly maintaining the cooling system, will effectively eliminate the chance of a build-up.

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PRODUCT INFORMATION BULLETIN

DATE: September 1989

SUBJECT: Possible block heater leaks.

CORRECTIVE ACTION: The manufacturer of the 1000 watt block heater (P.N. 66034A) and the 1500 watt block heater (P.N. 66034C) ha recommended that these heaters be retorqued during the startup procedure.

To retorque, perform the following procedure:

1) Start the generator and allow ten minutes for warm-up.
2) After the ten minute warm-up period, shut the generator down. Torque the bottom nut to 6 (six) foot-pounds. (See Figure 1 below).

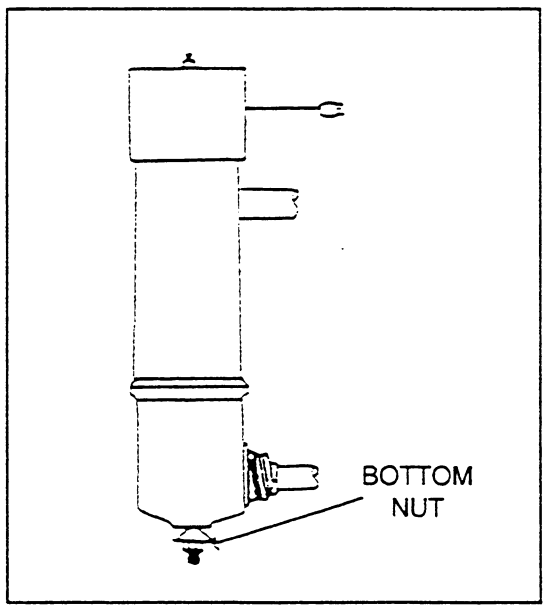

Figure 1

NOTE: A structured repair kit (P.N. 66034U) is available for the block heater models reference above.

NOTE: To minimize the loss of antifreeze during retorquing, wrap a rag around the inlet and outlet hoses of the block heater and pinch th wrapped area of the hoses with vice grips.

NOTE: If the unit is under warranty, Generac will grant a 2.5 hour allowance for this repair procedure.

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PRODUCT INFORMATION BULLETIN

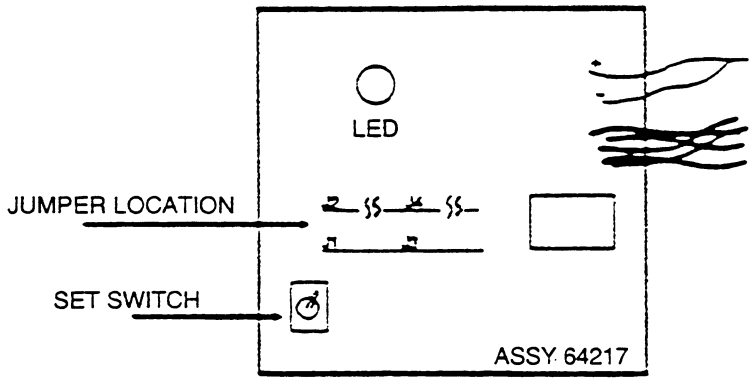
DATE: October 1989

SUBJECT: Abnormal or non-exercising cycle.

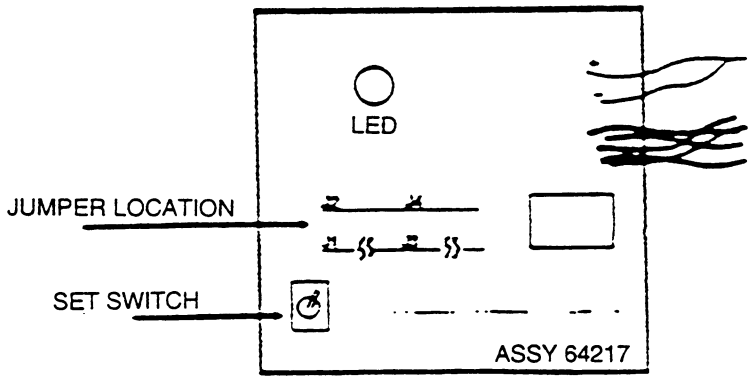
MODELS AFFECTED: 64217 Exerciser PCB (Standard)

The Standard Exerciser Board (Part No. 64217) is designed for 50 or 60 Hz. operation. When the board is shipped from the factory as a replacement part, it is not programmed for either frequency. When a new board is installed, perform the following:

1) For a 60 Hertz system, cut jumpers J2 and J4, as shown below.



2) For a 50 Hertz system, cut jumpers J1 and J3, as shown below.



NOTE: Failure to cut the appropriate jumpers will result in disruption or failure of the normal exercise cycle.

PIB90-3-S

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PRODUCT INFORMATION BULLETIN

DATE: October 1990

SUBJECT: Replacement of Coolant Temperature Gauge and Sender

MODELS AFFECTED: All liquid-cooled generators with temperature gauges.

If a generator manufactured prior to 10/90 requires service on a coolant temperature gauge or sender, you must replace both as a set.

When you order a replacement gauge or sender, a kit containing both parts will be shipped. Replace both the gauge and sender to avoid faulty coolant temperature readings.

Physical appearances of the parts have not changed.

	Sender		Gauge	
	Generac #	Vendor #	Generac #	Vendor #
Old Part No.	53667	TS1028	54406	GP0112
New Part No.	53667	TS1029	54406	GP0117

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PRODUCT INFORMATION BULLETIN

DATE: January 1991

SUBJECT: No battery charger output

MODELS AFFECTED: 10A (12 and 24V) Battery Chargers (Models 9275 - 9279)

Generac battery chargers are equipped with optional remote sensing. This option may be used if the battery and charger are not skid-mounted, and if the distance between them exceeds about 10 feet (see Owner's Manual for more information).

In typical installation, however, remote sensing is not necessary. If you are not using the remote sensing option, the following connections must be made:

1) Sensing + (34) to Battery + (13), and
2) Sensing — (35) to Battery — (0).

Refer to Fig. 1 for 12V chargers and Fig. 2 for 24V chargers.

Fig. 1

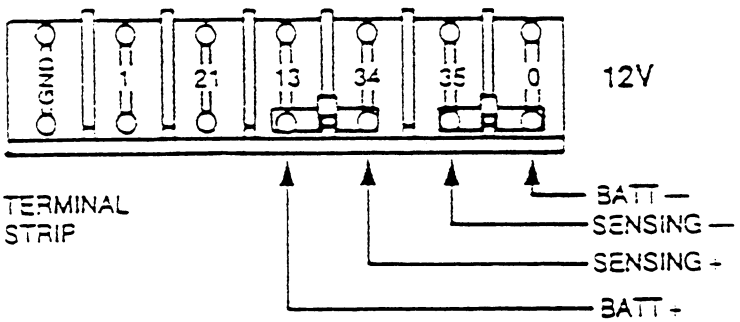
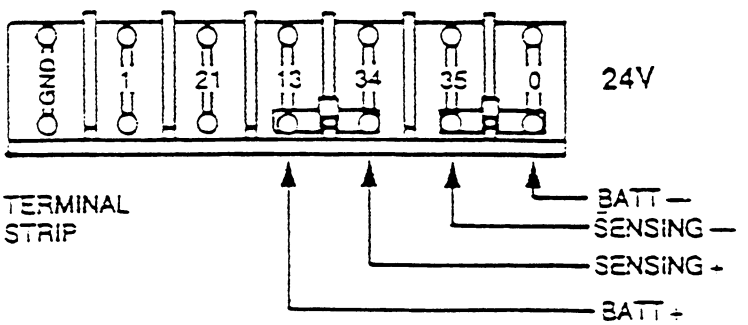


Fig. 2



NOTE: Some 24V battery chargers have Battery (—) located at ground terminal. On these models, relocate Batt (—) to (0), and make the connections shown in the diagram.

PIB91-2-S

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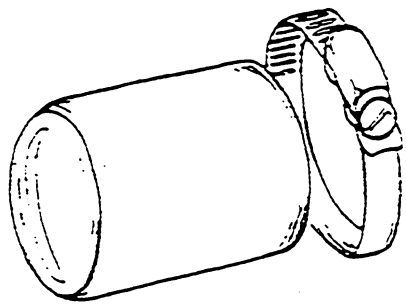
PRODUCT INFORMATION BULLETIN

DATE:	January 1991
SUBJECT:	Coolant outlet cap
MODELS AFFECTED:	Generac II (pre-packaged) standby generators with 1.0 and 1.2 Liter engines (not diesel)
PROBLEM:	Extreme temperature conditions or direct cunlight may reduce the life of the coolant outlet cap on these units. A neoprene cap (Part No. 69943) is now available from Generac for use in extreme conditions.
CORRECTIVE ACTION:	During next scheduled maintenance, please inspect the coolant outlet cap (located in the rear of the engine, just left of the intake manifold). If cap feels brittle, has fine surface cracks, or appears wet, replace it with Patr No. 69943.

Labor allowance for this procedure is .5 hour.



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PRODUCT INFORMATION BULLETIN

DATE:	May 1991
SUBJECT:	Retrofit Kit (P.N. 82787) for 4.3 Diesel Engines
MODELS AFFECTED:	All units with 4.3L Diesel Engines
PROBLEM:	We have changed the crankcase ventilation system on 4.3L diesel engines in order to minimize oil consumption.
CORRECTIVE ACTION:	A kit (#82787) is available at no charge to update any units in the field. Order kits through the Generac Parts Department. Please locate and uplift all units with the 4.3L diesel in your customer base. Also, perform this procedure on those units you are called upon to service.

Warranty allowance: A 1 hour warranty allowance (plus travel and mileage) ell be granted for installing the retrofit kit. As always, follow published warranty procedures to expedite the processing of your claim.

PIB91-6-S

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PRODUCT INFORMATION BULLETIN

DATE:	September 1991
SUBJECT:	Stub Shaft Kit (P.N. 82419) for 9277-0 IPS Trailer
MODELS AFFECTED:	All units with 9277-0 IPS Trailer
CORRECTIVE ACTION:	A change has been made to the stub shaft on the 9277-0 IPS Trailer to ensure a safe and reliable connection of the trailer ball coupling to the trailer attachment. Order the Stub Shaft Kit (#82419) at no charge from the Generac Parts Department to update any units in the field.

Warranty allowance: A.5 hour warranty allowance (plus travel and mileage) will be granted for installing the kit. As always, follow published warranty procedures to expidite the processing of your claim.

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PRODUCT INFORMATION BULLETIN

DATE: September 1991

SUBJECT: Terminal Lug Box Retrofit Kit (P.N. 83159)

MODELS AFFECTED: The following GT-32/GT-45 models:

9134-0	9135-0	9312-0	9313-0
9134-1	9135-1	9312-1	9313-1
9134-2	9135-2	9312-2	9313-2

CORRECTIVE ACTION: A change has been made to the terminal lug box door. The door has been extended to the bottom of the terminal box. This will prevent inadvertent operator contact with the main terminal lugs on the control panel while the generator is operating. Order Retrofit Kit (#83159) at not charge from the Generac Parts Department to update any units in the field.

Warranty allowance: A .7 hour warranty allowance (plus travel and mileage) will be granted for installing the kit. As always, follow published warranty procedures to expidite the processing of your claim.

PIB91-8-S

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PRODUCT INFORMATION BULLETIN

DATE:	September 1991
SUBJECT:	Revised oil requirements for 4.3L Diesel engines
MODELS AFFECTED:	All units with 4.3L Diesel engines
CORRECTIVE ACTION:	1) For ambient temperatures above 32º F., use SAE 50 API spec CC or CD. 2) For ambient temperatures below 32º F., use 20W-50 API spec CC or CD.

Units shipped from the factory will now contain SAE 50 API for ambient temperatures above 32º F.

Failure to follow these requirements could result in excessive engine wear.

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PRODUCT INFORMATION BULLETIN

DATE:	August 1992
SUBJECT:	Coolant drip at water pump weep hole.
MODELS AFFECTED:	3.0L, 4.3L, 5.0L, 5.7L, 7.4L Engines
CORRECTIVE ACTION:	If you receive a complaint of a water pump leak on a generator with one of the listed engines, you must first determine th extent of the leak. If you determine that the leak is only an occasional drip at the weep hole (1 to 10 drops a minute), it may not be necessary to replace the pump. These pumps employ a ceramic seal. If the seal is allowed to stand dry for some time or if the antifreeze is not mixed correctly (PIB87-4-S), there is a possibility that the seal faces may become contaminated. Contaminated seals may be refaced simply by running the engine. If tat is not possible, Generac Parts Department has cooling system seal tabs available, Part No. 86821 (GM No. 1#1051687). Add the tabs as instructed on the package and run the engine for 20 minutes. It may take a few exercise cycles to totally reface the seal.

Warranty allowance: 0.5 hours

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PRODUCT INFORMATION BULLETIN

DATE:	June 1994
SUBJECT:	Wire length not secured by a properly-located tie down.
MODELS AFFECTED:	CT60 & CT85 Olympian
PROBLEM:	Excessive wire length on exciter may cause short. The excessive wire may come in contact with the exciter stator.
CORRECTIVE ACTION:	Take off the control panel access cover, exposing the exciter. Check to make sure exciter leads are secure and cannot come in contact with the exciter stator. If they require additional ties, install one, making sure of your clearance.

Submit warranty claim for 15 minutes labor; reference PIB94-1-S on the warranty claim.

GENERAC
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PRODUCT INFORMATION BULLETIN

DATE:	June 1994
SUBJECT:	Tapered bolt hole can result in the nut losing proper tension.
MODELS AFFECTED:	CT60 & CT85 Olympian
PROBLEM:	Nuts holding rear bearing carrier can come loose.
CORRECTIVE ACTION:	Use a vise grip wrench to hold the bearing carrier bolt in place. Remove the nuts one at a time (4 in all), place the flat washer in place, and reinstall the nut. You can gain access through the access door in the control panel. Parts required: (4) Flat washers, part # 22132 (4) Lock washers, part # 43123

Submit warranty claim for parts and 1/2 labor; reference PIB94-2-S on the warranty claim.

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PRODUCT INFORMATION BULLETIN

DATE:	December 1994
SUBJECT:	Starter motor 4.3L engine
MODELS AFFECTED:	Units with 4.3L V-6 diesel
PROBLEM:	Starter shifts slightly during cranking which may cause damage to the flywheel and/or starter (units prior to September 1994 may have this problem).
CORRECTIVE ACTION:	Install starter mounting kit part # 95183. This will keep the starter from shifting.

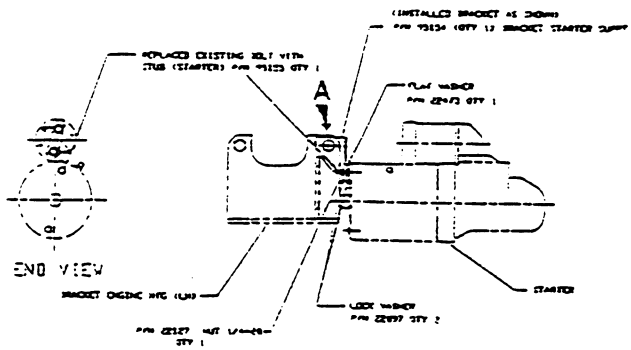
Installation Instructions

1. Remove starter from set.
2. Replace top stud with part number 95155 (see illustration).
3. Remove motor mount bolt "A". Warning: Before removing this motor mount bolt, you must support the engine. It may drop slightly if not supported.
4. Install bracket part number 95154 and re-install motor mount bolt "A".
5. Install 1 each. lock washer part number 22097 then 1 each. flat washer part number 22473 on new starter motor stud and re-install starter.
6. Put 1 each. lock washer part number 22097 on new starter stud and 1 each. nut part number 22127 and tighten. This will secure the back of the starter to the bracket/starter support.

The repair is now complete.

WARRANTY: Kit part # 95183 will be provided at no charge. If the unit is under warranty, 2 hours will be allowed for the repair.

Reference PIB94-3-S on your warranty claim.



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PRODUCT INFORMATION BULLETIN

DATE:	April 1995
SUBJECT:	Hi-Temp Switch/Water
PROBLEM:	Switch (Part Number #35606) may have one or two terminals.
CORRECTIVE ACTION:	If switch has two terminals use terminal labeled "R" on switch (Fig. 1). If single use the single terminal (Fig. 2).

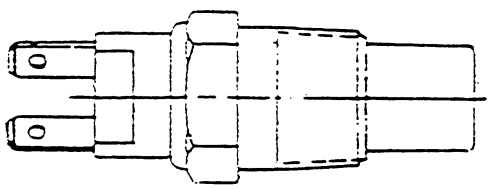

Fig. 1

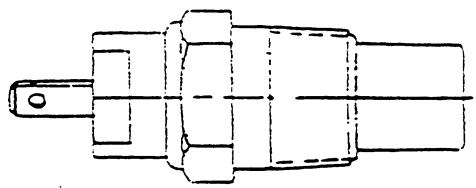

Fig. 2

**** This PIB is instructional only.**

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PRODUCT INFORMATION BULLETIN

DATE:	May 1995
SUBJECT:	Shorted ignition wire #18, hard starting, poor performance, popping, backfiring.
MODELS AFFECTED:	Generac made products with the V-twin vertical shaft engine (IM, NP & pre-package).
PROBLEM:	The ignition module wire must be tie-wrapped to the intake manifold (Fig A, Item 1 & 2). If not properly tie-wrapped it may cause the wire to make contact with the cylinder resulting in a melted coating of the wire and possibly shorting the wire causing no or intermediate spark from that module.
CORRECTIVE ACTION:	Repair or replace wire (shrink tubing can be used). Add tie-wrap (Fig. A, item 1 & 2) to wire #18 and manifold to prevent wire from contacting cylinder. If problem persists check ignition shorting diodes for short.

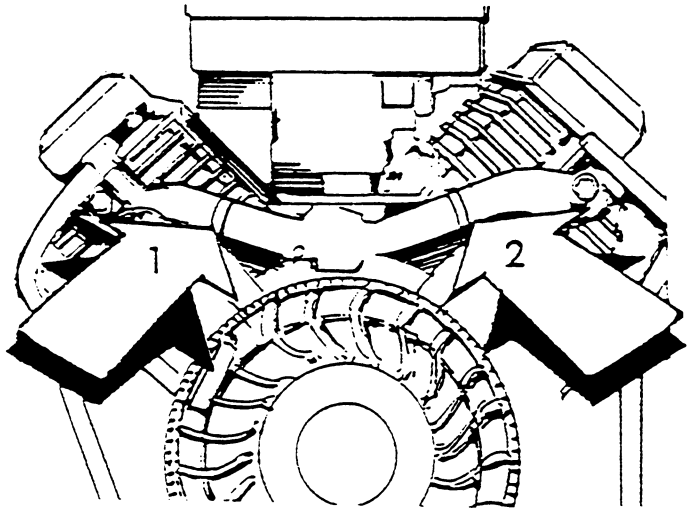

FIG. A

Warranty: If unit is under warranty Generac will allow 0.5 hours for repair If the unit is and "IM" or "NP" Gen Set 0.5 hours will be allowed for cover disassembly. Order parts through regular source of supply per model number.

*** Referance PIB95-12-I,M,S on your warranty claim.**

GENERAC
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PRODUCT INFORMATION BULLETIN

DATE: June 1995

SUBJECT: 50 AMP locking receptacles

MODELS AFFECTED: IPS and CT trailer mounted units manufactured between January and March 1995.

PROBLEM: There may be some 50 AMP receptacles in the field (Figure #1) which do not have a physical connection between the grounding plate on receptacle ("A") and ground of the generator ("B"). This connection is internal.

CAUTION: This condition could be dangerous if a shorted circuit to ground should occur, even though the generator is properly grounded.

CORRECTIVE ACTION: With a multi meter set on the RX1 scale make a continuity check between the plate on receptacle ("A") and the mounting screws for the receptacle (Generator ground). There should be a reading between the two. If there is no reading replace the receptacle immediately (Part # 79486) DO NOT ALLOW THE USAGE OF THE DAMAGED RECEPTACLE.

(B) GROUND

(MOUNTING TABS ARE GROUND AND "GREEN" WIRE CONNECTION)

(A) EXTERNAL GROUNDING PLATE

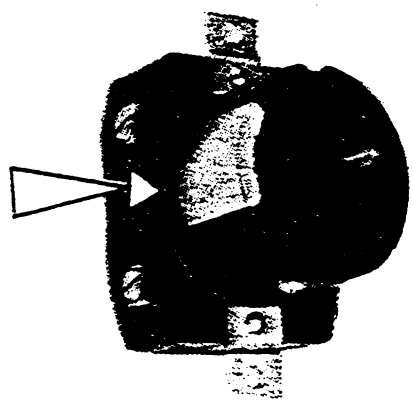

FIGURE 1

WARRANTY: If the receptacle(s) need to be replaced Generac will allow 2.5 hours for one or 3.0 hours for two receptacles.

Reference PIB95-13-S on you warranty claim.

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PRODUCT INFORMATION BULLETIN

DATE:	November 1995
SUBJECT:	Air-Cooled Generac II Oil Make-Up System
MODELS AFFECTED:	Generac models: 9067, 9282, 9231, 9428 Dayton models: 4W166, 4W167
PROBLEM:	Some units in the field may experience a malfunction of the oil make-up system resulting in an over filled crankcase condition.
SYMPTOMS:	High oil level in crankcase along with low oil level in make-up tank, oil saturated air filter element, excessive oil smoke in exhaust.
CORRECTIVE ACTION:	Through extensive testing it has been determined that the oil make-up system is not necessary. Oil consumption of this engine is mini mal during its 100 hour run time between scheduled oil changes using synthetic oil as stated in owners manual. The engine is also protected by the low oil pressure switch and high temp. switch. It is recommended to remove the oil make-up tank and close off the end of the oil hose.

NOTE: This procedure applies only to units that have exhibited this problem.

PROCEDURE:	Remove 3/8" oil hose from barbed elbow at top of make-up tank. Insert a 7/16" x 1/2" or 3/4" bolt into end of hose and reuse existing clamp on hose. Reroute hose and lay behind the engine. Remove the two (2) mounting bolts from the oil make-up tank, and carefully remove tank. Discard tank and mount bolts. If necessary, increase or decrease crankcase oil level to "FULL" mark. Also inspect air filter element for oil saturation.

WARRANTY: Generac will allow .5 hours for this procedure.

Reference PIB95-17-S on warranty claim.

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PRODUCT INFORMATION BULLETIN

DATE:	November 1995
SUBJECT:	Voltage Instability at 208 VAC
MODELS AFFECTED:	Liquid cooled stanby units with voltage codes "G" and "N" (3 phase parallel wye connected). **NOTE:** This does not apply to GT or CT trailer units.
PROBLEM:	Some units in the field may experience voltage instability that cannot be corrected by voltage regulator adjustments.
CORRECTIVE ACTION:	Remove sensing lead S16 from E3 terminal on main output circuit breaker, and reconnect to E2 terminal. Sensing lead S15 remains on E1 terminal. Adjust voltage regulator if necessary.

WARRANTY: .5 hours will be allowed for this procedure and adjustment.

Reference PIB95-18-S,O on warranty claim form.

GENERAC®
CORPORATION

PRODUCT INFORMATION BULLETIN

DATE: July 1996

SUBJECT: Control Panel Fault Light Test Function.

MODELS AFFECTED: All models with option "C" control panel built after June 1996.

The Fault Light test function has been revised for better protection on the 83089 Engine Control PCB.

When the Test/Reset button is pushed, the fault lights will light momentarily and automatically turn off, even if the Test/Reset button is held in continuously.

GENERAC®
CORPORATION

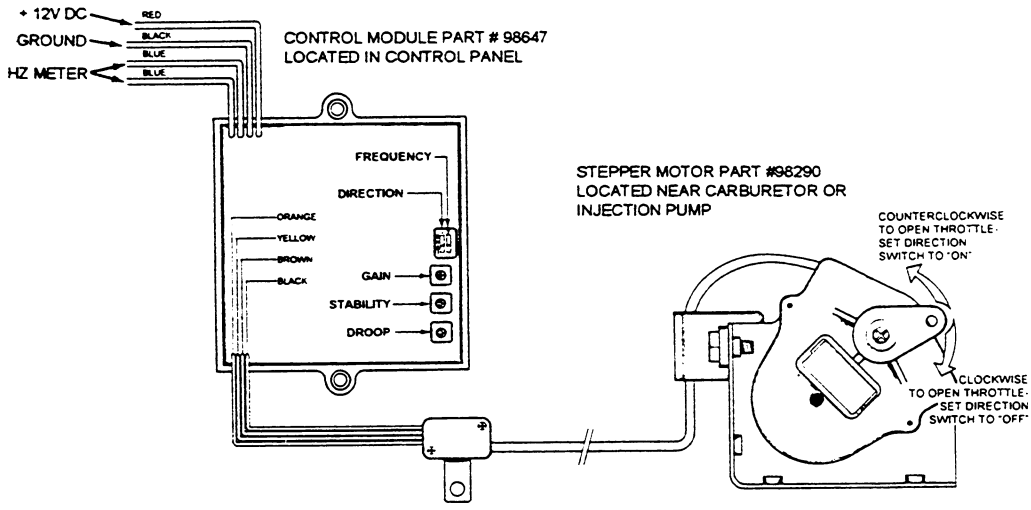
PRODUCT INFORMATION BULLETIN

DATE: August 1996

SUBJECT: New Generac Electronic Governor

MODELS AFFECTED: All units with 1.6 Gas and 2.4 Diesel engines, and other future gas engines.

The following is a brief description and adjustment procedure for the new electronic governor control module and stepper motor.



POT SETTINGS: Set GAIN, DROOP, and STABILITY pots to midpoint.

SWITCH SETTINGS: Set FREQUENCY to either 50 or 60 Hz.
- *Frequency switch set to "OFF" = 50 Hz.
- *Frequency switch set to "ON" = 60 Hz.

SET DIRECTION SWITCH:
Determine which direction the stepper motor lever needs to be set to open the throttle. Some units are set to open at the clockwise position, and some at the counterclockwise position.

If the lever is set to open at the clockwise position, then the direction switch should be set to the "OFF" position. If the lever is set to open at the counterclockwise position, the direction switch should be set to the "ON" position.

When switches and pots are set correctly, start engine. Adjust the gain pot if necessary to stabilize engine speed.
- * Apply load system - 25 to 50% rated is best. If system is unstable, reduce gain until it stabilizes.
- * Adjust droop pot so that the engine speed recovers to preselected speed. (50 or 60 Hz based on unit)
- * Observe performance of system when loads are applied and removed.
- * Increasing stability will decrease recovery time, but may result in damped oscillations (decreasing hertz around preset speed). Decreasing stability will soften the recovery and reduce transient hertz.

Frequency and direction switches are integrated only at engine start. Changing switch settings while engine is running will have no effect until engine is stopped and restarted.

GENERAC®
CORPORATION

PRODUCT INFORMATION BULLETIN

DATE: November 1997

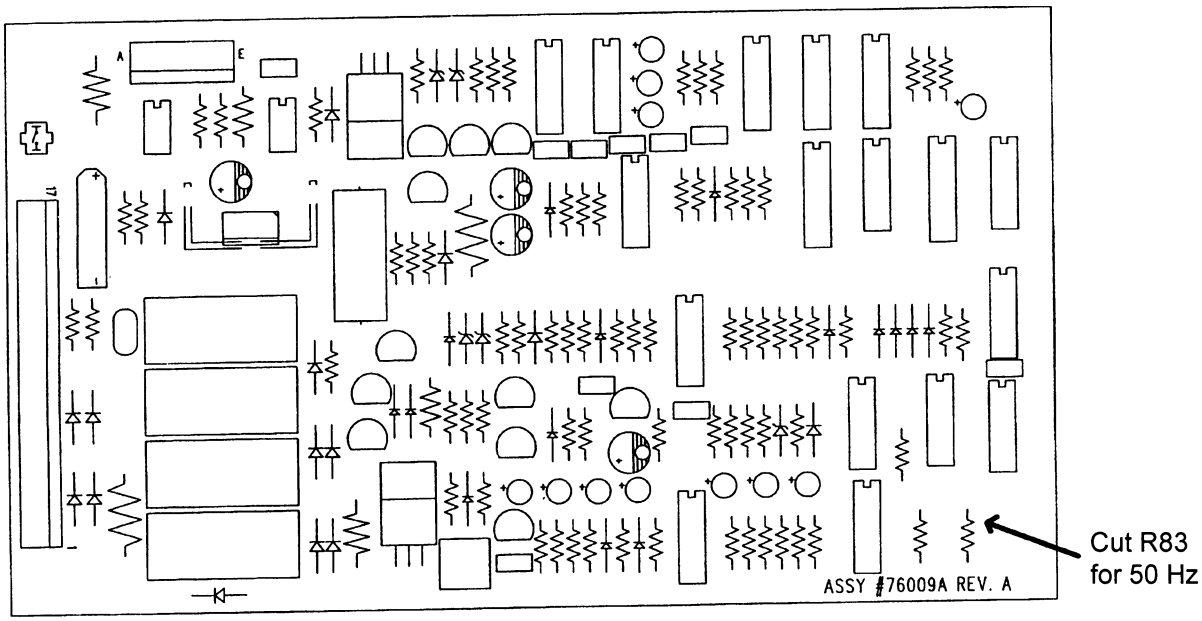
SUBJECT: New Liquid-Cooled Gen II Logic PCB, PN 76009A

MODELS AFFECTED: All liquid-cooled Gen II 10-25 kW generators, also some air-cooled Gen II units with remote annunciation.

The Logic PCB 76009 has been changed, and given a new part number: **76009A**

The new PCB was designed to be compatible with 60 Hz or 50 Hz applications. Because of this change, service replacement 76009A PCB's used in a 50 Hz application will need the R83 resistor cut for proper weekly exercise timer operation (see diagram below). For 60 Hz applications, the R83 resistor must be left intact.

Overspeed adjustment on service replacement PCB remains the same as the 76009.



PCB Part Number 76009A

This PIB is not a warranty item; it is instructional only.

GENERAC®
POWER SYSTEMS, INC.

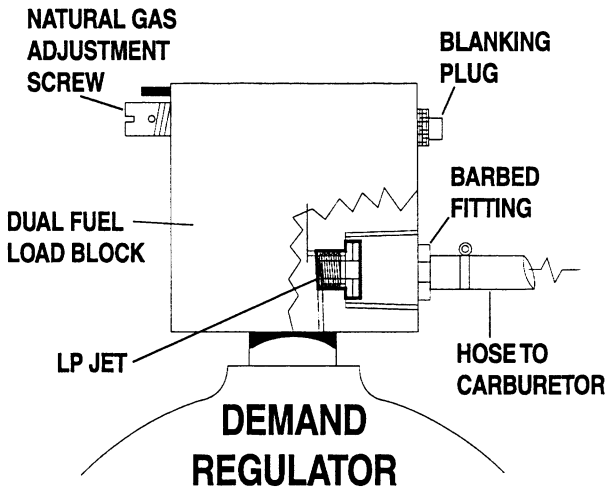
PRODUCT INFORMATION BULLETIN

DATE: September, 1998

MODELS AFFECTED: Generac Models 921-0,1 & Dayton Model 4LM41, Serial numbers preceding 3086550.

PROBLEM: Fuel load block may have an incorrect jet installed in the LP port.

SYMPTOMS: Hard starting, runs rough, and unable to carry load when running on LP fuel supply. **Units running on natural gas will not have this problem.**



CORRECTIVE ACTION: Replace the LP jet in the fuel load block. Order an LP Jet Kit, Part #A9083K through your normal source of Generac parts. The kit includes the jet and installation instructions.

NOTE: This jet replacement is not necessary on units fueled by natural gas.

WARRANTY: .75 hours will be allowed for this procedure plus travel as posted in the Warranty Policies & Procedures Manual. Please reference PIB98-2-S,G on the warranty claim.

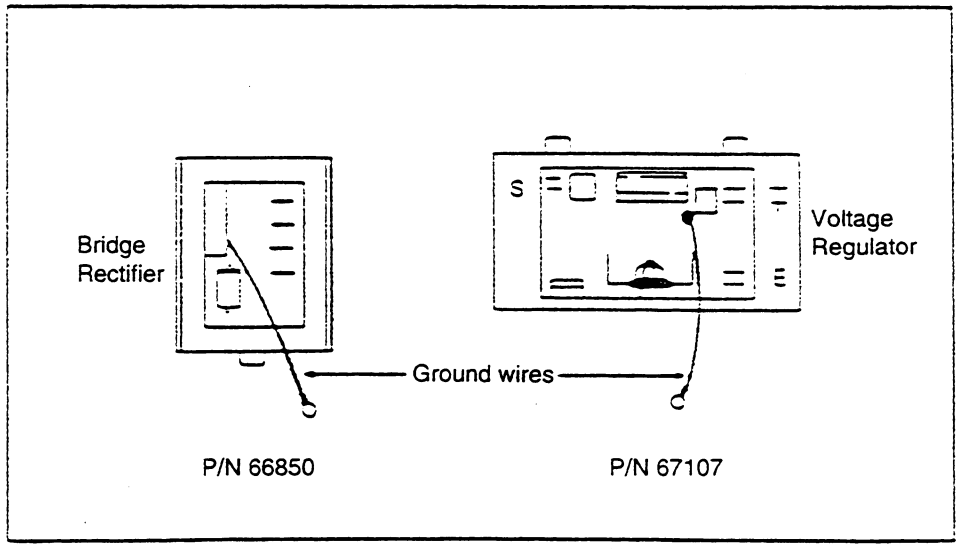
PIB88-3-P

GENERAC
CORPORATION

PRODUCT INFORMATION BULLETIN

SUBJECT: Bridge Rectifier P/N 66850 and Voltage Regulator P/N 67107

CORRECTIVE ACTION: These replacement parts have an additional wire that needs to be grounded if the generator utilizes a field boost circuit. If field boost is not used, this wire should be clipped at its base. When replacing one of these parts, simply wire in the new component to match the existing wiring.



Generac Corporation
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Waukesha, WI 53187

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Telex 201302
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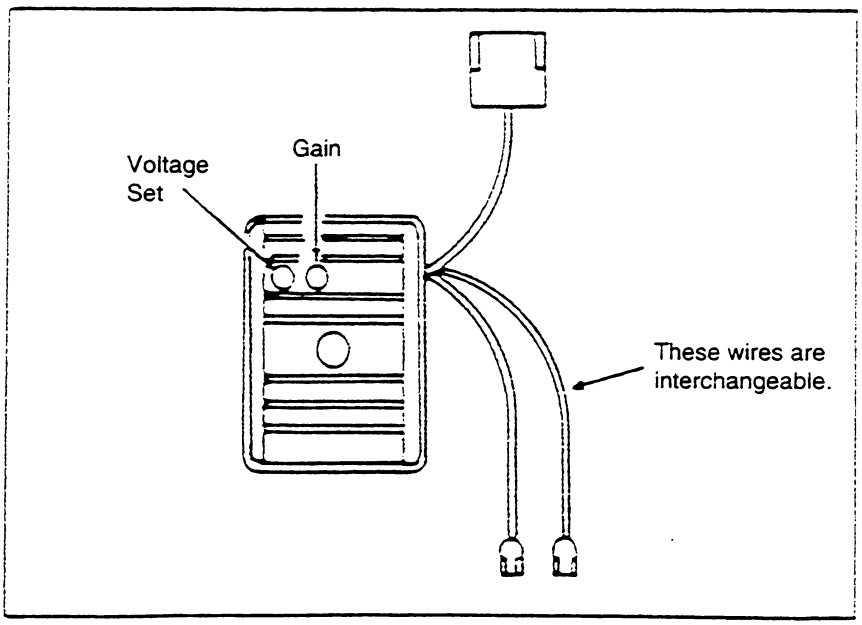
PIB88-4-P

GENERAC
CORPORATION

PRODUCT INFORMATION BULLETIN

SUBJECT: Replacement of Voltage Regulator P/N 53440

CORRECTIVE ACTION: New voltage regulators of this style now use color coding instead of numbers to identify wires. On P/N 53440, two wires are not part of the plug-in connector and are hanging loose. These wires, used for voltage sensing, replace the wires previously marked as # 11 and # 22. Polarity is not important because this is an AC signal.



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GENERAC
CORPORATION

PRODUCT INFORMATION BULLETIN

DATE: September 1989

SUBJECT: Replacement of a bridge rectifier or voltage regulator.

CAUTION: IF THE BRIDGE RECTIFIER OR VOLTAGE REGULATOR IS REPLACED WITH A FAULTY ROTOR, THE NEW BRIDGE OR REGULATOR MAY ALSO BECOME DAMAGED WITH USE.

Whenever a bridge rectifier or voltage regulator is found faulty, the rotor resistance must be tested to ensure that the rotor meets resistance specifications, as indicated on the enclosed chart. Resistance may vary +/- 10%.

NOTE: The rotor resistance should be read from slip ring to slip ring. If the reading is taken through the brushes, resistance may be 2 to 5 ohms higher.

PIB92-1-P

GENERAC
CORPORATION

PRODUCT INFORMATION BULLETIN

DATE:	September 1992
SUBJECT:	Slow or no voltage pick-up on start-up.
MODELS AFFECTED:	All 8 KW V-Twin Portables - Manual & Electric Start
CORRECTIVE ACTION:	There exists the possibility with some rotor, stator, and voltage regulator combinations that the residual voltage at start-up will be below the regulator turn-on voltage. In such an event, the engine will run normally but the generator will not have output. Flashing the field at this time will allow the field to build up and provide normal output. This annoying event can now be eliminated with the installation of 77244-A Field Boost Assembly. 77244-A is now available from the parts department. The assembly comes with installation instruction and can be installed in 0.5 hours or less.

Warranty allowance: 0.5 hours.

GENERAC CORPORATION

PRODUCT INFORMATION BULLETIN

DATE:	January 1993
SUBJECT:	3500XL and 2500XL Portable Generator Fuel Tank.
MODELS AFFECTED:	All 3500XL and 2500XL units manufactured prior to November 9, 1992 with serial dates between 1135637 and 1203018.
PROBLEM:	Over insertion of the fuel shut-off valve into the rubber grommet can cause elongation of the fuel outlet on the tank. The fuel shut-off valve has a stop built into it, but we have seen the fuel shut-off valve pushed beyond the stop (Figure 1).
CORRECTIVE ACTION:	If you encounter this situation on any unit, a new tank assembly (88325) should be installed. Order the parts through your regular source of supply (Figure 2 shows properly installed fuel shut-off valve).

Warranty: This repair can be completed in 30 minutes or less. The tank assembly should be punctured, then held until warranty reimbursement is received. The fuel shut-off valve and rubber grommet must be returned with the claim.

Reference PIB93-1-P on your warranty claim.

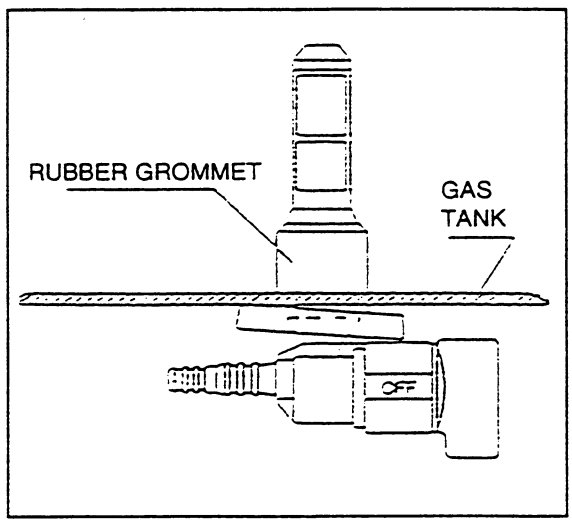


FIGURE 1

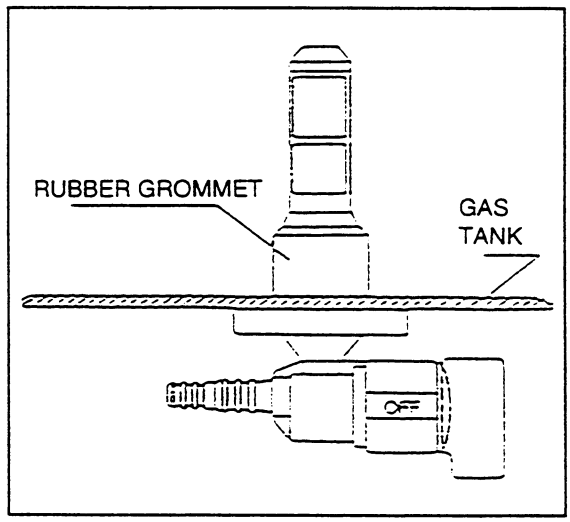


FIGURE 2

PIB93-2-P

GENERAC
CORPORATION

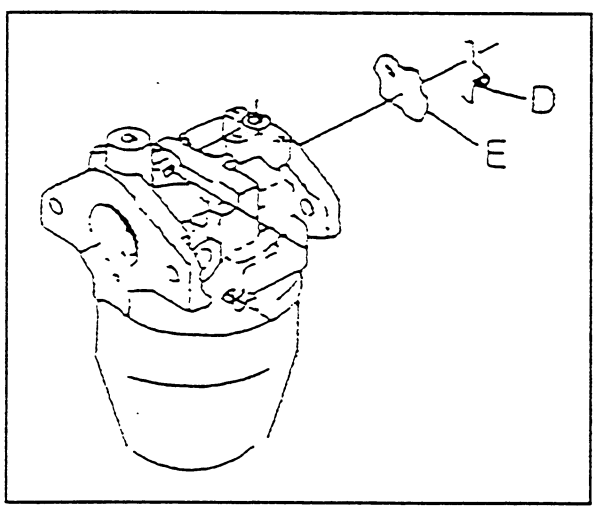
PRODUCT INFORMATION BULLETIN

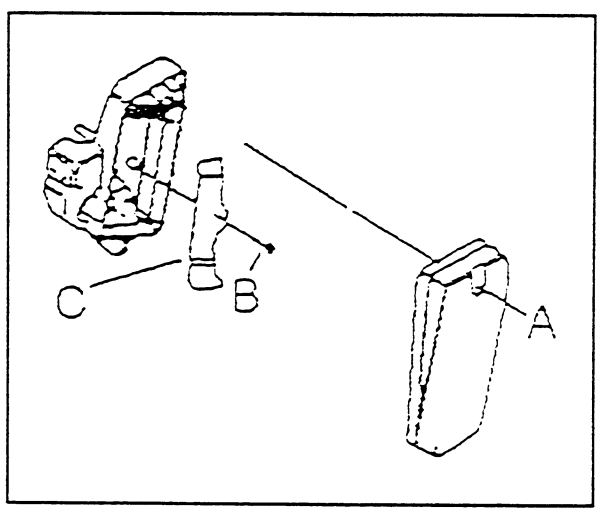
DATE:	February 8, 1993
SUBJECT:	Difficult starting in cold weather
MODELS AFFECTED:	9441-_ and 9547-_ ; 3500XL and 2500XL
PROBLEM:	If you receive a customer complaint of hard starting in cold weather (35 degrees or less) and you have eliminated all other possibilities such as ignition, choke adj., fuel, etc., it may be necessary to replace the choke plate.
CORRECTIVE ACTION:	A recalibrated choke plate, part number 88768, is now available from your normal Generac parts supplier. This part will eliminate hard starting problems by providing a more rich mixture at full choke. Installation time is less than 15 minutes.

Installation Instructions

1. Remove air cleaner cover (A).
2. Remove the screw holding the breather cover (B). Use 1/4" nut driver.
3. Remove breather cover (C).
4. With needle nose pliers, carefully remove the choke plate spring retainer (D).
5. Remove choke plate (E).

Reassemble in reverse order.
CAUTION! DO NOT OVERTIGHTEN BREATHER COVER SCREW.





GENERAC CORPORATION

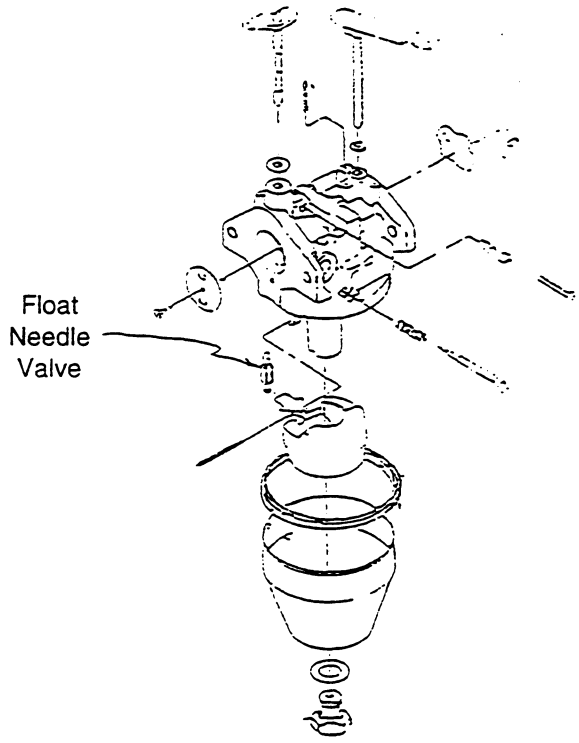
PRODUCT INFORMATION BULLETIN

DATE:	November 1994
SUBJECT:	Engine runs rough, emits black smoke, stalls out
MODELS AFFECTED:	GENERAC 6600CP and TROY-BILT 6000CP pressure washers wit GN190/GN191 engine and carburetor P/N 92966
PROBLEM:	Vibration is causing float needle to unseat while unit is running.
CORRECTIVE ACTION:	Replace standard float needle valve with spring-loaded needle valve P/N 95387.

Warranty: This repair typically can be completed in 1 hour. The standard needle valve must be returned with the claim.

Reference PIB94-1-A on your warranty claim.

Exploded view of carburetor



GENERAC
CORPORATION

PRODUCT INFORMATION BULLETIN

DATE:	October 1994
SUBJECT:	Light flicker on 3500XL generators
MODELS AFFECTED:	9441-0, 9441-1, 9441-2
PROBLEM:	In some cases, and under various load conditions, it is possible to induce light flicker in customer's load. If you verify light flicker using your test equipment, and all other possible causes have been eliminated, such as engine instability, loose connection, poor brushes, etc., then suspect the control board assembly.
CORRECTIVE ACTION:	Part. No. 83970 control board assembly has been improved to be less sensitive of nonlinear loads. Order control board 83970 through your regular source of supply.

Warranty allowance for repair and adj. is 1 hour.

Reference PIB94-1-P on your warranty claim.

GENERAC
CORPORATION

PRODUCT INFORMATION BULLETIN

DATE:	November 1994
SUBJECT:	Oil Pressure Switch
MODELS AFFECTED:	GENERAC/TROY-BILT pressure washers, generators, R.V.'s using the GN190/GN191/GN220 engines
PROBLEM:	Oil pressure switch picks up pulsing of pressure release valve and causes the engine to run poorly and or shut off.
CORRECTIVE ACTION:	Replace oil pressure switch 60108 (gold) with oil pressure switch 77667 (silver).

Warranty: If the unit is under warranty, Generac will allow 0.5 hour for the repair.

Reference PIB94-2-P/A/M on your warranty claim.

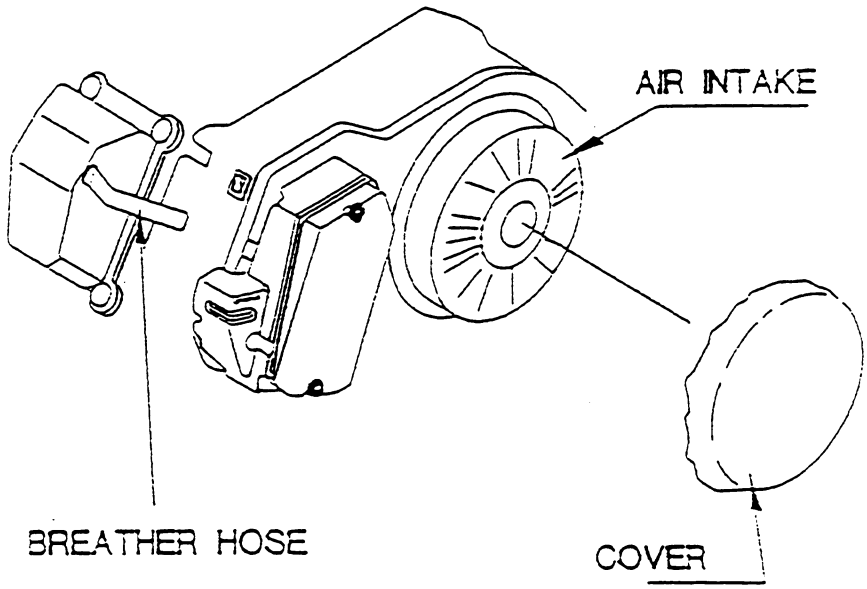
GENERAC
CORPORATION

PRODUCT INFORMATION BULLETIN

DATE:	November 1994
SUBJECT:	Cold weather operating of the GN engines
MODELS AFFECTED:	All GN powered portable units
PROBLEM:	If unit is operated at below freezing temperatures (32ºF, 0ºC), the breather hose may become blocked with ice, resulting in increased crankcase pressure which can force oil past seals and gaskets. Most occurrences are at temperatures below 10ºF (-12ºC).
CORRECTIVE ACTION:	Detachable cover part number 92766 should be ordered. The cover fits all Generac single cylinder motors GN190, GN191, GN220, GN320, and GN360.

Warranty: This is not a warranty item.

Caution: Always remove cover in ambient temperatures above 32ºF (0ºC) to avoid engine overheating.



GENERAC
CORPORATION

PRODUCT INFORMATION BULLETIN

DATE: February 1995

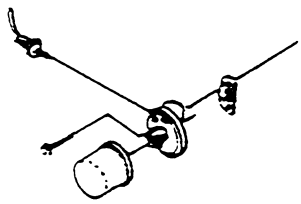
SUBJECT: Oil Filter Kit

MODELS AFFECTED: Portable Generators and Pressure Washers with Generac GN190, GN191, GN220 engines with NO oil filter. (*see note)

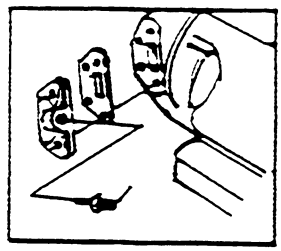
The oil filter kit part number #96226 can be added to the listed engines that have the * standard oil filter by-pass.

The kit contains:

1 ea. Oil Filter Gasket	#91848
2 ea. M6-10 x 20mm Screw	#92978
1 ea. Oil Filter Adapter	#84982
1 ea. Oil Filter	#70185



OPTIONAL OIL FILTER



STANDARD OIL FILTER BY-PASS

* Dependent on whom the unit was manufactured for will determine if it has an oil filter by-pass or not. This upgrade is not a warranty item.

PIB95-3-A/P

GENERAC
CORPORATION

PRODUCT INFORMATION BULLETIN

DATE: March 1995

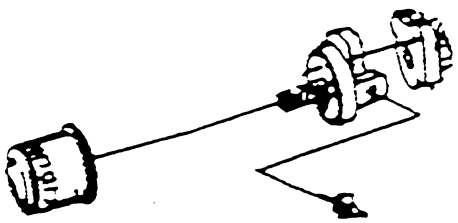
SUBJECT: Oil Filter Kit

MODELS AFFECTED: Portable Generators and Pressure Washers with Generac GN320 and GN360 Engines with **NO** oil Filter (*see note)

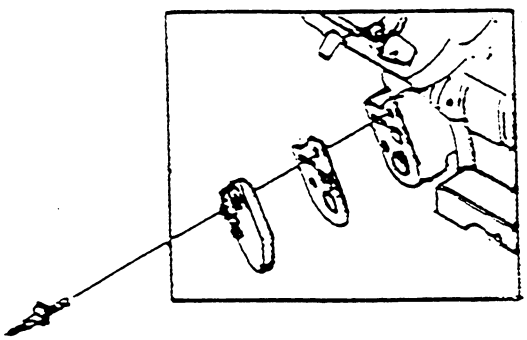
The oil filter kit Part Number # 93637 can be added to the listed engines that have the * standard oil filter by-pass.

This kit contains:

1	ea. Oil Filter Gasket	#86999
2	ea. M8-1.25 x 30mm Screw	#49821
1	ea. Oil Filter Adapter	#94683
1	ea. Oil Filter	#70185



OPTIONAL OIL FILTER



STANDARD OIL FILTER BY-PASS

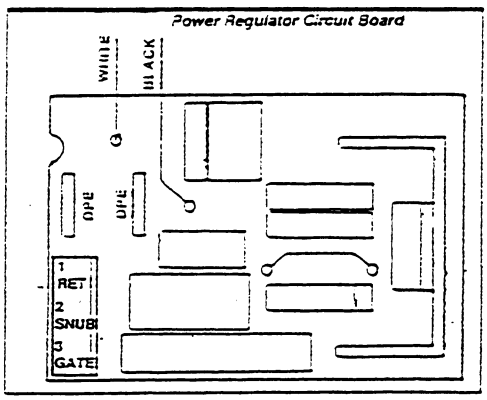
* Dependent on whom the unit was manufactured for will determine if it has an oil filter by-pass or not.

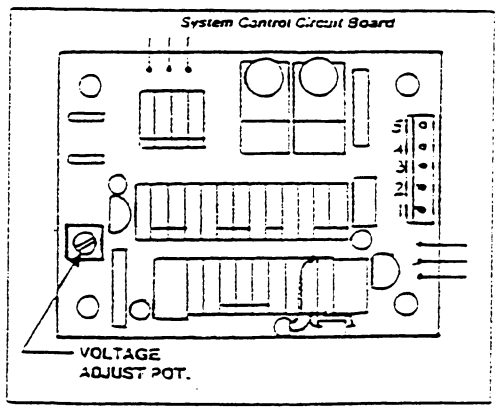
This upgrade is not a warranty item.

GENERAC CORPORATION

PRODUCT INFORMATION BULLETIN

DATE:	March 1995
SUBJECT:	Low A.C. Output After Rewiring Power Regulator Board Part Number #84132
MODELS AFFECTED:	Any XL / EXL or MC Generator with two board regulation.
PROBLEM:	The A.C. output may be low (50 - 70 V.A.C.) after rewiring the power regulator board and attempting adjustment to the system control board voltage pot.
CORRECTIVE ACTION:	To correct this problem switch D.P.E. wires (2 & 6) or (RED AND BLUE) on power regulator board.





This P.I.B. is not a warranty item and is only instructional.

PIB95-5-A/P

GENERAC
CORPORATION

PRODUCT INFORMATION BULLETIN

DATE:	March 1995
SUBJECT:	Oil Leak GN191/220 Engine
MODELS AFFECTED:	Any protable generator or pressure washer with the generac GN191 or GN220 engine with a plastic or metal oil fill cover.
PROBLEM:	Oil may leak from around the plastic/metal oil fill cover.
CORRECTIVE ACTION:	Replace cover with expansion plug Part # 94820.

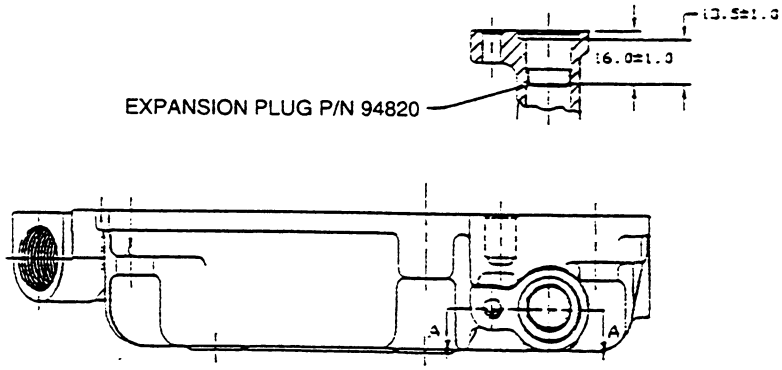
DIRECTIONS

(IF UNIT HAS OVERHEAD TANK, IF NOT SKIP TO STP # 3)

1. Turn "OFF" fuel valve and disconnect fuel line at valve.
2. Remove four capscrews that hold fuel tank, remove tank and heat shield.
3. Remove plastic/metal oil fill cover and discard screw and cover.
4. Carefully tap expansion plug into the oil fill hole to a depth of no more than 16.0mm.

WARNING: DO NOT EXCEED MAXIMUM DEPTH, PLUG MAY ENTER CRANKCASE.

(DISCARD)



Warranty: If the unit is under warranty, generac will allow 1.0 hour for unit with overhead tank and 0.5 hour for unit without overhead tank.

Reference PIB95-5-A/P on your warranty claim.

GENERAC
CORPORATION

PRODUCT INFORMATION BULLETIN

DATE: March 1995

SUBJECT: Restoring Residual Magnetism/Field Flashing

MODELS AFFECTED: Units with brush/rectfier combination. Part No. 91825.

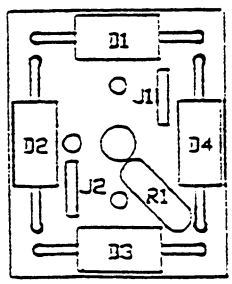
CORRECTIVE ACTION: (WITH ENGINE NOT RUNNING)

1) Remove alternator end plate to gain access to rectifier/brush assembly.
2) Remove D.P.E. leads (A.C. / #2-#6 or RED - BLUE) from J1 and J2 on rectifier board.
3) With engine running momentarily apply 12 volts D.C. across terminals J1 and J2 (POLARITY DOES NOT MATTER).

CAUTION: TAKE CARE NOT TO MAKE CONTACT WITH D.P.E. LEADS. THEY WILL PRODUCE VOLTAGE!!!

4) STOP engine, reconnect D.P.E. leads to the rectifier/brush assembly.
5) START engine and check for proper A.C. output.
6) If A.C. is proper, install alternator end plate back on unit.
7) If A.C. voltage does not pick up, check rotor and stator for proper OHM's values if proper, change rectifier/brush assembly part # 91825.

CIRCUIT BOARD
COMBINATION
BRIDGE RECTIFIER
BRUSH ASSEMBLY



This is not a warranty item and is for instructional purposes only.

GENERAC CORPORATION

PRODUCT INFORMATION BULLETIN

DATE: April 1995

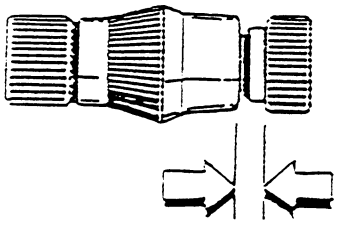
SUBJECT: Water Supply Quick Connector (supplied with some pressure washers)

PROBLEM: If connector is not fully engaged, it may cause damage to pump due to lack of water flow.

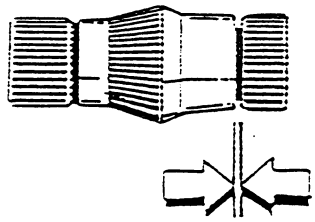
CORRECTIVE ACTION: Make sure quick connect is fully engaged.

The water supply quick connect is equiped with a valve built into the female end that allows the water supply hose to be removed without turning off the water supply. If the quick connect is not properly mated this valve will not allow water flow.

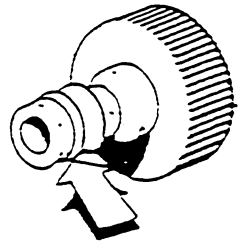
IMPORTANT: The quick connector must be correctly installed onto the supply hose and pressure washer to function properly. (Refer to owners manual).



*NOT PROPERLY MATED



*PROPERLY MATED



*NOTE: A SMALL AMOUNT OF PETROLEUM JELLY APPLIED TO THE O'RING ON THE MALE CONNECTOR WILL EASE ENGAGEMENT OF CONNECTOR.

*Before each use the pressure washer should be purged of air and contaminants from the pump, hose and gun.

TO PURGE UNIT:
1) Set up as per owners manual.
2) Remove wand from gun.
3) Pull trigger on gun and hold until water supply is steady and constant.
4) Reattach the wand.
5) Start pump and use.

**THIS PIB IS INSTRUCTIONAL ONLY.

GENERAC
CORPORATION

PRODUCT INFORMATION BULLETIN

DATE: April 1995

SUBJECT: Restricted Nozzle

PROBLEM: A clogged nozzle may cause excessive pump pressure. A partially clogged nozzle can cause pulsating or poor performance.

CORRECTIVE ACTION: If the nozzle becomes clogged, immediately clean the nozzle.

1) Shut unit off, disconnect the power supply (electric) and water supply.
2) Separate the wand from the gun.
3) Remove the nozzle using a 5/64 or 2mm hex key. (Fig. 1)
4) Use a wire (paper clip works great) to free any foreign materials clogging the nozzle (Fig. 2).
5) Use water supply to backflush the wand. (Fig. 3)
6) Reinstall nozzle into gun.
7) Reconnect wand to the gun.
8) Reconnect water supply.
9) Operate unit, if pulsing persists repeat steps 1 through 8.

FIG. 1

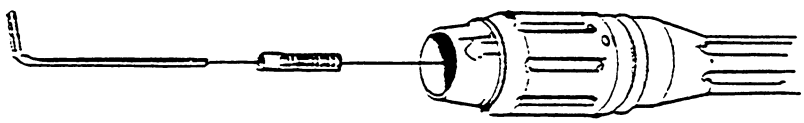
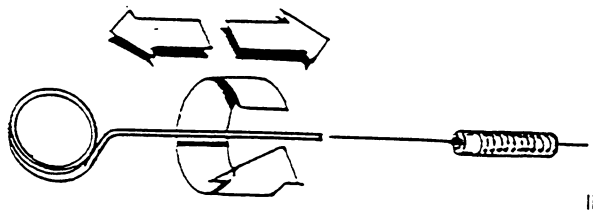
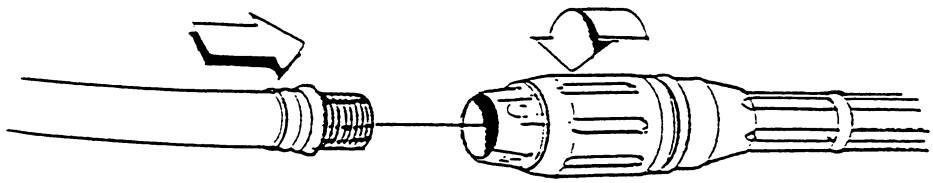


FIG. 2



INSERT WIRE INTO NOZZLE AND TURN BACK AND FORTH TO CLEAR OBSTRUCTION.

FIG. 3



HOLD WATER SUPPLY AGAINST NOZZLE AND BACKFLUSH 30 SEC. TO 1 MIN. TURN NOZZLE TO STREAM SPRAY POSITION AND MOVE FROM LOW TO HIGH PRESSURE WHILE FLUSHING.

** THIS PIB IS INSTRUCTIONAL ONLY.

PIB95-10-A

GENERAC CORPORATION

PRODUCT INFORMATION BULLETIN

DATE:	April 1995
SUBJECT:	Special Headbolts For Generac Pressure Washer Pump (Brass Head)
MODELS AFFECTED:	9897-0 (Sears 75165), 9898-0 (Sears 75178)
PROBLEM:	The first 600 Generac pump pressure washers utilize 2 bolts (70mm long) that are 5mm shorter than the other 4 bolts (75mm long).
CORRECTIVE ACTION:	These bolts cannot be interchanged, this <u>will</u> cause damage to the pump. Utilizing Fig. 1 and Fig. 2 below ensure that the bolts are replaced correctly. The 2 - 70mm headbolts go into position #1 and #2, the other 4-75mm headbolts go int position #3 - #4 - #5 - #6. Torque to 18 ft. lbs.

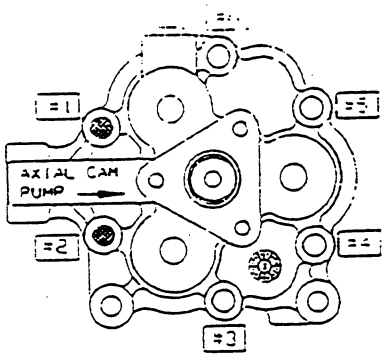
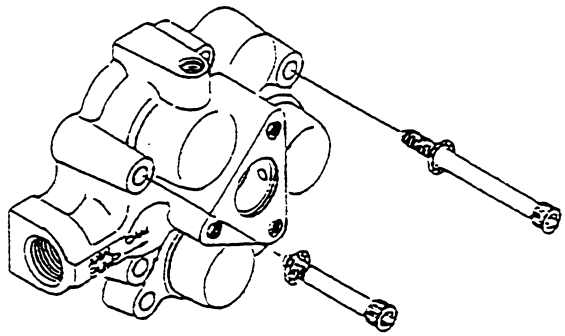


FIG. 1

#3, #4, #5, #6-75MM LONG



#1 & #2-70MM LONG

FIG. 2

NOTE: After the initial 600 units, or if replacing the head, or pump, the bolts will be the samve size.

**** This P.I.B. is instructional only.**

GENERAC
CORPORATION

PRODUCT INFORMATION BULLETIN

DATE: May 1995

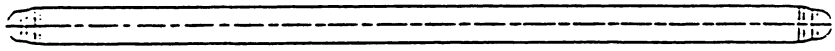
SUBJECT: Push Rods

MODELS AFFECTED: Any Generac made product with a GN190, GN191, GN220, GN320 and GN360 gaseous fuel engine.

PROBLEM: There may be some push rods in the field with "soft" tips that wear prematurely causing hard starting, poor performance, excessive valve lash/play, no compression release, broken valve retainers.

CORRECTIVE ACTION: Replace push rods that appear to be prematurely worn. Part # 88396A for GN190, 191, 220. Part # 88396B for GN320, 360.

A) Pull push rods out and examine the tips for wear (both ends should appear the same).



B) Replace rod or rods if needed and adjust valve lash:
   1) Piston at TDC of compression stroke (both valve fully closed)
   2) Jam nut must be loose. (Fig. 1)
   3) Use an allen wrench (8mm for GN190, GN191 and GN220; and 10mm for GN320 and GN360) to turn the pivot ball stud while checking clearance between rocker arm and valve stem with a feeler gauge. (The proper clearance is 0.05 - 0.1 mm for all models).
   4) When the clearance is correct hold pivot stud with the allen wrench and tighten jam nut (Fig. 2) to (6.3 ft. lbs. for the GN190, GN191, and GN220) or (14.5 ft. lbs. for the GN320 and GN360).
   5) After tightening jam nut recheck valve clearance to make sure it did not change.

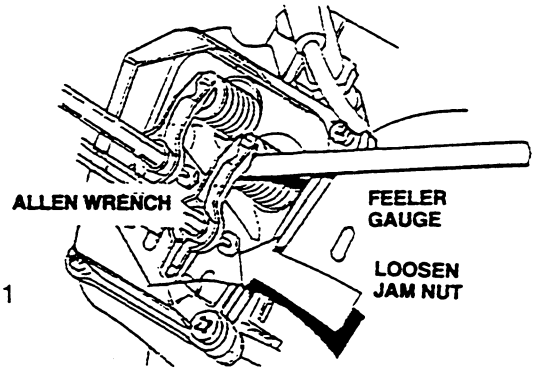


FIG. 1

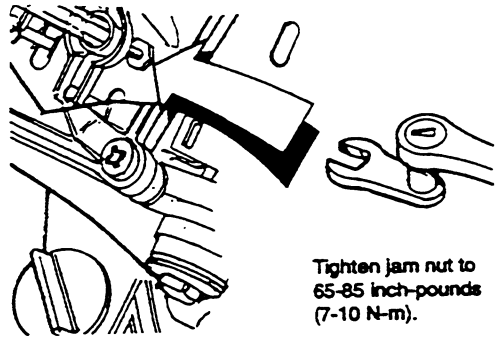


FIG. 2

If unit is under warranty 0.5 hours will be allowed for the repair. If R & R of the unit is required (IM or RV) 2 additional hours will be allowed. Order parts through regular source of supply.

*** Reference PIB95-11-A,I,M,P on your warranty claim.**

GENERAC
CORPORATION

PRODUCT INFORMATION BULLETIN

DATE: June 1995

SUBJECT: Oil leak from taper plug.

MODELS AFFECTED: Any Generac made product with a GN320 or GN360 gaseous fuel engine.

PROBLEM: Oil may leak from around the taper plug on the engine (See Fig. #2 - "A") The plug is located on the flywheel side of engine (Fig. #1).

CORRECTIVE ACTION:

1) Remove recoil / blower housing.
2) Remove recoil cup / flywheel.
3) Remove blower housing backplate.
4) Using a center punch **LIGHTLY TAP** the taper plug in the center straight on **(DO NOT FORCE)**.
5) Reverse steps 3 through 1.
6) Run unit and observe for oil leak. If oil leak persists repeat steps 1 through 6. (If oil leak continues please consult factory).

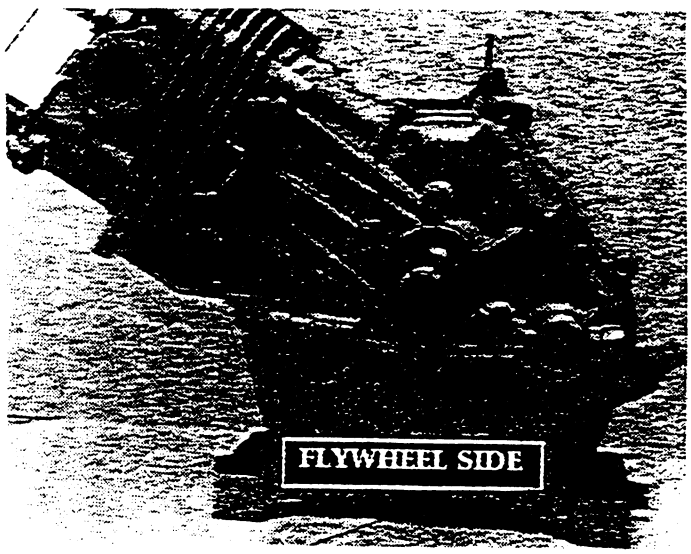


FIGURE #1

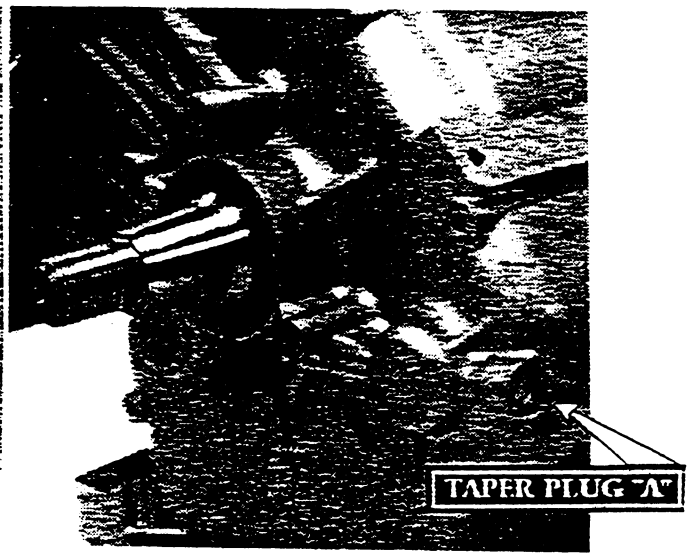


FIGURE #2

WARRANTY: If the unit is under warranty Generac will allow 1.75 hours for the repair. (If the unit is an IM or RV product an additional 2.0 hours will be allowed for R&R or unit).

Reference PIB95-14-A,I,M,P on your warranty claim.

GENERAC CORPORATION

PRODUCT INFORMATION BULLETIN

DATE:	July 1995
SUBJECT:	Low oil level switch mounting screws.
MODELS AFFECTED:	Any Generac made pressure washer or generator with a B&S* 5 HP, 8 HP, or 10 HP, engine equipped with low oil level shutdown. (Manufactured from May 1994 to May 1995)
PROBLEM:	The taptite screws used to hold the LOS module to the engine may strip causing loss of oil due to improper sealing.
CORRECTIVE ACTION:	Replace the original taptite (See figure 1 item "A") Part # 32713 #10-32 x 5/8" with part # 24679 # 10-32 x 3/4".

A) Remove one taptite (Fig. 1 Item "A") and replace. Remove other taptite and replace it. (Torque screws 35 to 45 in. Lbs.)

B) Fill oil to correct "Full" level. (Make sure it is full)

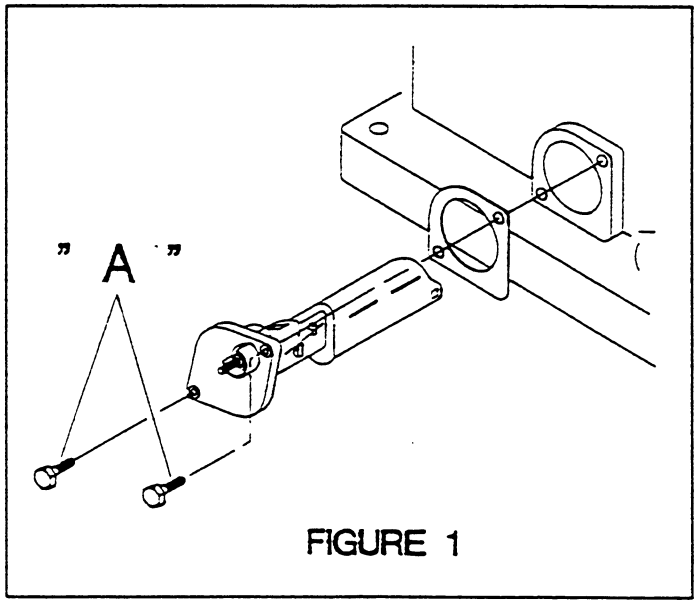


FIGURE 1

If unit is under warranty 0.5 hours will be allowed for the repair. Reference PIB95-15-A,P on your warranty claim.

*** B&S is a registered trademark of Briggs and Stratton.**

GENERAC
CORPORATION

PRODUCT INFORMATION BULLETIN

DATE:	July 1995
SUBJECT:	Length of pressure washer head assembly mounting bolts.
MODELS AFFECTED:	Sears pressure washers. Models: 580.751500 / 580.751650 580.751651 / 580.751780 / 580.751781. (These units utilize the Generac pump)
PROBLEM:	After installation and torquing the stainless steel head bolts (Fig. 1, Item "A") some were found to have stretched slightly.
CORRECTIVE ACTION:	Units in the field will not be affected by this unless repairs are need ed to the head assembly area. If these bolts are removed measure them to confirm length of 75mm. If the bolt is longer replace with part number #93874 M8-1.25 x 75mm which will be grade 8 steel (Metric 10.9) and torque to 18ft. LBS in a criss-cross pattern.

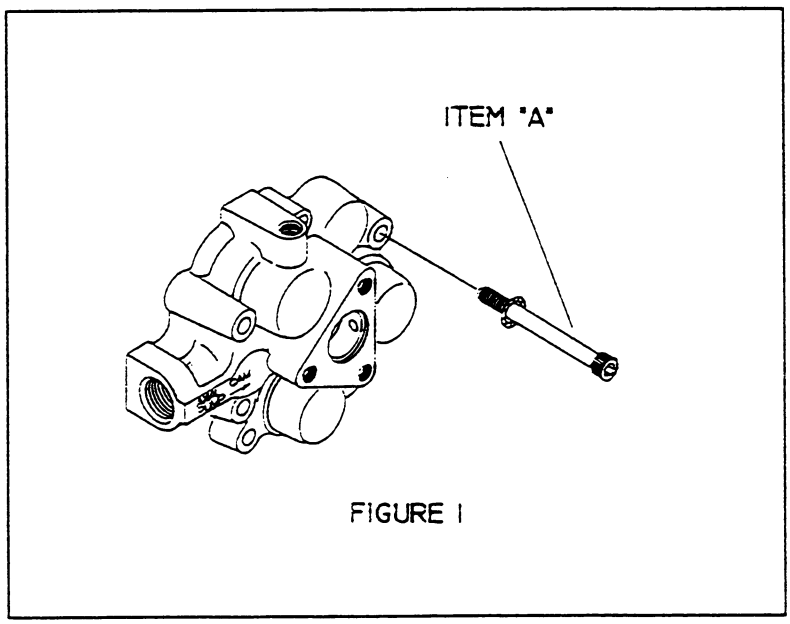


FIGURE 1

If warranty work is being performed reference PIB95-16-A on your warranty claim.

GENERAC
CORPORATION

PRODUCT INFORMATION BULLETIN

DATE:	November 1995
SUBJECT:	Vapor Lock (Fuel Starvation)
MODELS AFFECTED:	9780-0, 9800, 9886, 9807-0, 9807-1, Sears - 580.327070, 580.328390, Dayton - 1N168
PROBLEM:	During operation the generator will lose power and stop running due to fuel starvation caused by a fuel vapor lock in the inline fuel filter.
CORRECTIVE ACTION:	Remove the inline fuel filter and replace it with a 1/4" barbed fitting Part No. 32204. The tank mounted fuel valve has a built in filter to protect the generator from fuel contaminants.
PROCEDURE:	1. Turn fuel valve to "OFF" position. 2. Remove fuel filter from fuel line, leaving hose clamps in place. 3. Install barbed fitting Part No. 32204 in place of the fuel filter, reposition hose clamps. 4. Turn fuel valve to "ON" position. 5. Test run unit till warm, inspect fitting for leaks.

WARRANTY: .5 hours will be allowed for this procedure.

Reference PIB95-19-P,A on your warranty claim form.

GENERAC
CORPORATION

PRODUCT INFORMATION BULLETIN

DATE: February 1996

SUBJECT: High altitude jets for Generac/Nagano Engines

MODELS AFFECTED: Any Generac made product with a Nagano GN190, GN191, GN220, GN320, and GN360 gasoline engine.

CORRECTIVE ACTION: If unit is to be run at an altitude above 5000 ft. we recommend a high altitude jet. Use the chart below to order the correct jet.

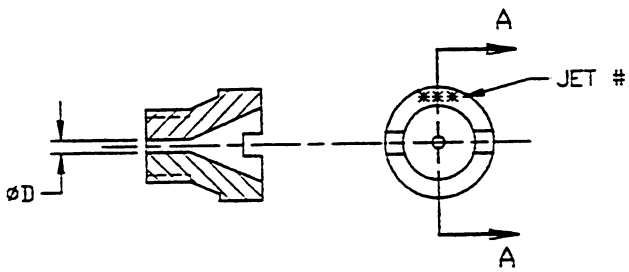
*HS - Horizontal shaft * RV - Vertical shaft

* This will not be applicable to early model engines with adjustable jets. The unit can be adjusted for altitude.

NOTE: If unit is to be run at 10,000 - 15,000 ft. use that portion of chart.

Warranty: This is not a warranty item.

MAIN FUEL JET



NOTE: To call out a specific JET use P/N 96213 with the appropriate JET P/N suffix.

(A) **EXAMPLE:**
#84 Main Fuel Jet = P/N 96213C

(A) SECTION A - A
JET # IS APPROX. EQUAL TO ØD.

			ALTITUDE RANGE 5,000 - 10,000 FT.		ALTITUDE RANGE 10,000 - 15,000 FT.	
ENG. MODEL	CARB P/N	ORIG. JET	NEW JET	JET P/N	NEW JET	JET P/N
GN190HS	83666	ADJUSTABLE	N/A	—	N/A	—
GN190RV	86707	ADJUSTABLE	N/A	—	N/A	—
GN191HS	92966A	#86	#82	B	#78	H
GN191HS	95948	#88	#84	C	#80	A
GN191HS	96751	#86	#82	B	#78	H
GN191HS	98469	#88	#84	C	#80	A
GN220HS	90876	#88	#84	C	#80	A
GN220HS	93861	#88	#84	C	#80	A
GN220HS	95984	#88	#84	C	#80	A
GN220HS	97747	#88	#84	C	#80	A
GN220RV	90881A	#88	#84	C	#80	A
GN220LP	93392A	#360	#340	J	#330	K
GN320HS	93302A	#100	#96	F	#92	I
GN360HS	91187A	#100	#96	F	#92	I
GN360RV	91188A	#90	#86	D	#82	B
GN360LP	93576	#350	#330	K	#320	L

GENERAC
CORPORATION

PRODUCT INFORMATION BULLETIN

DATE:	February 1996
SUBJECT:	Battery sizing for electric start portable generators.
MODELS AFFECTED:	All electric start portable generators with the Generac Nagano Engine. This includes Generac, Craftsman, Dayton, and Master Contractor.
PROBLEM:	Incorrect battery size information in the owners manual possibly causing interference with the wheel kit, or not fitting in the battery tray.
CORRECTIVE ACTION:	Use the correct battery size according to the chart below.

All 8KW and 10 KW generators: (motorcycle type battery)	Y50-N18L-A3
All 5500 and 6500 generators:	U1-109

This P.I.B. is not a warranty item and is only instructional.

GENERAC
CORPORATION

PRODUCT INFORMATION BULLETIN

DATE: April 1996

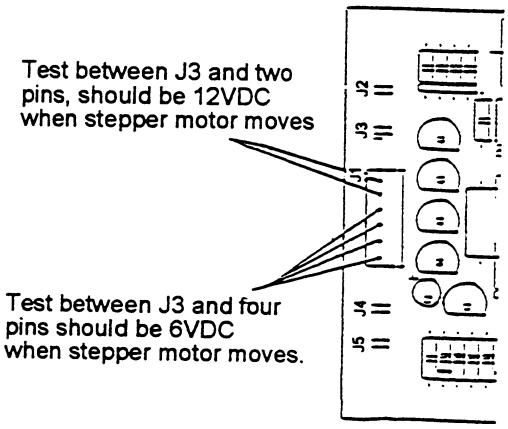
SUBJECT: Diagnosing idle control printed circuit board on 8000 and 10000 watt portable generators.

MODELS AFFECTED: All 8000 and 10000 watt generators with stepper motor idle contol.

PROBLEM: Information only.

TEST PROCEDURE:

1. Using a digital volt-ohm-milliammeter (VOM) set it to the "DC Volts" scale.
2. Connect the positive test lead to pin J2 on the Idle Control circuit board. Connect the negative test lead to J3 on the Idle control circuit board. Pin J3 is the ground terminal of the board.
   A. With the generator running the reading should be 12VDC.
   B. If no voltage is present check for AC output of the generator. The unit must produce AC for the idle control system to function.
   C. If the unit does produce AC, but DC voltage is not present at pins J2 and J3, check for a failure in the battery charge circuit of the generator.



3. If 12VDC is present in step 2-A., connect the negative test lead to pin J3 on the Idle Control PCB. Connect the positive test lead as follows;
   A. Test individually to the two pins in connector J1 on the Idle Control PCB closest to pin J3. Approximately 12VDC should be measured WHEN THE STEPPER MOTOR IS MOVING IN EITHER DIRECTION. NOTE: The pin in connector J1 closest to pin J3 is not used in the stepper motor harness!
   B. Test individually to the four pins in connector J1 closest to pin J4 on the Idle Control PCB. Approximately 6VDC should be measured WHEN THE STEPPER MOTOR IS MOVING IN EITHER DIRECTION.

CORRECTIVE ACTION: If any reading other than listed in step 3 is noted, and idle control switch is operating correctly, replace the stepper motor printed circuit board assembly.

GENERAC
CORPORATION

PRODUCT INFORMATION BULLETIN

DATE: April 1996

SUBJECT: Idle control stepper motor lever position.

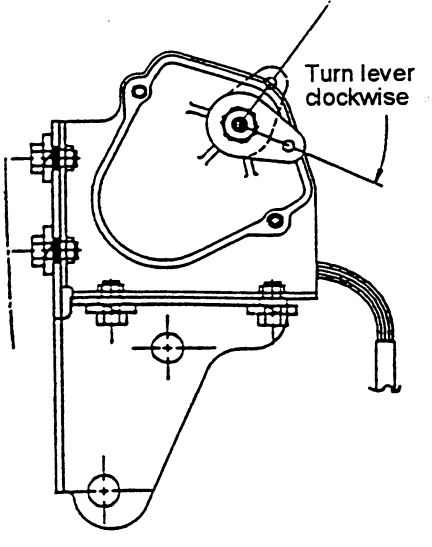
MODELS AFFECTED: All 8000 and 10000 watt generators with stepper motor idle control.

PROBLEM: Incorrect position of the lever on stepper motor causing unit not to come up to full speed or carry a load and maintain correct frequency.

CORRECTIVE ACTION: When servicing a unit that applies, or when replacing a stepper motor, note the position of the lever on the idle control stepper motor. On some units the lever may be out of adjustment. With the generator running and the idle control switch turned off, the position of the lever on the stepper motor should be in the eight o'clock posi tion when viewing from the top of the stepper motor. If it is not, proceed as follows:

A. Remove the stepper motor.
B. While holding the stepper motor with the lever facing up, turn the lever clockwise all the way until it stops. DO NOT FORCE!
C. In this position the lever should be in the four o'clock position with the stepper motor orientated as shown in figure 1.
D. If the lever is not in the four o'clock position, remove the screw and reposition the lever in the four o'clock position as shown in figure 1.
E. Reinstall the stepper motor, start the generator and readjust engine speeds as follows:
    1. No-load idle control off; 62Hz or 3720 RPM
    2. No-load idle control on; 40-43 Hz or 2400-2580 RPM

Figure 1



GENERAC
CORPORATION

PRODUCT INFORMATION BULLETIN

DATE: April 1996

SUBJECT: Diagnosing idle control stepper motor on 8000 and 10000 portable watt generators.

MODELS AFFECTED: All 8000 and 10000 watt generators with stepper motor idle control.

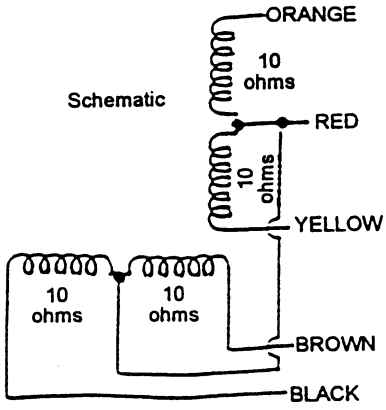
PROBLEM: Information only.

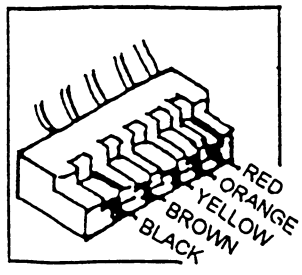
TEST PROCEDURE:

1. Disconnect the stepper motor harness from the idle control board.
2. Set a volt-ohm-milliammeter (VOM) to its "Rx1" scale and zero the meter.
3. Connect one VOM text probe to the connector pin on the stepper motor harness which the RED wire attaches. Connect the other VOM test probe as follows:
   A. To the ORANGE wire connector pin. Approximately 10 ohms.
   B. To the YELLOW wire connector pin. Approximately 10 ohms.
   C. To the BROWN wire connector pin. Approximately 10 ohms.
   D. To the BLACK wire connector pin. Approximately 10 ohms.
4. Connecting the VOM test leads to any combination of connector pins NOT INCLUDING THE RED WIRE, approximately 20 ohms.
5. Connecting the VOM to any pin in the stepper motor harness and the stepper motor housing, (ground), the VOM should read "infinity".

CORRECTIVE ACTION: If any reading other than listed is noted, replace the stepper motor and harness as an assembly.

This P.I.B. is a warranty item only during the initial warranty period.





GENERAC
CORPORATION

PRODUCT INFORMATION BULLETIN

DATE: June 1996

SUBJECT: An electric pressure washer will not supply high pressure during normal use.

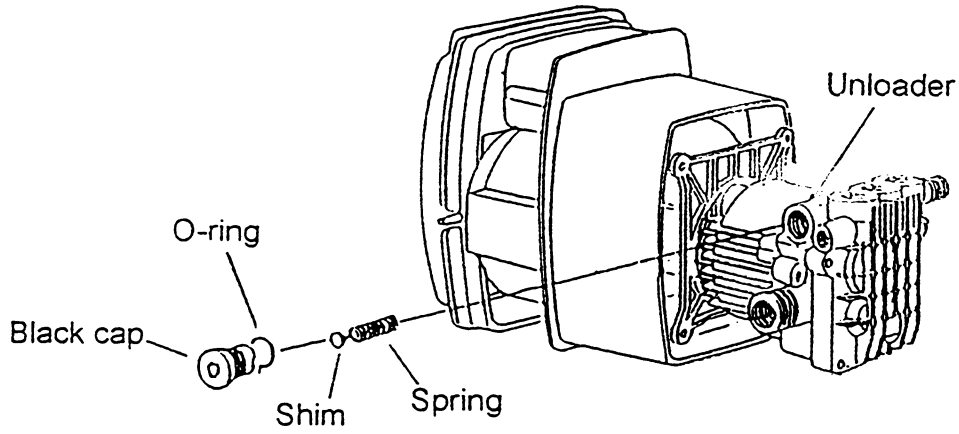
MODELS AFFECTED: Generac electric pressure washer model number 0580-0.

PROBLEM: The pressure washer will operate normally on initial start-up. If the trigger is released during use and then squeezed again the pressure washer will not supply high pressure. This is the result of an unusually high household outlet voltage. If outlet voltage is more than 125 volts the motor runs at a higher rpm increasing the water flow. The increased water flow holds the bypass valve spring in the open position.

CORRECTIVE ACTION: To correct this problem a shim is needed under the bypass spring. Install the shim as follows:

1. Remove the pressure washer cover. A torx T15 bit and a Phillips screwdriver are needed to remover the cover screws.
2. Remove the small black cap above the water inlet with a 12mm Allen wrench. See diagrams.
3. Underneath the cap is the bypass spring. Set the shim on top of the bypass spring and reassemble the pump.

The installation of the bypass spring shim is covered under the Generac warranty with .5 hours being allowed for the repair. Shims are available through Generac service. All questions or parts requests should be directed to Generac service at (414) 544-4811 ext. 351; Monday through Friday, 8am to 5pm central time.



GENERAC
CORPORATION

PRODUCT INFORMATION BULLETIN

DATE: June 1996

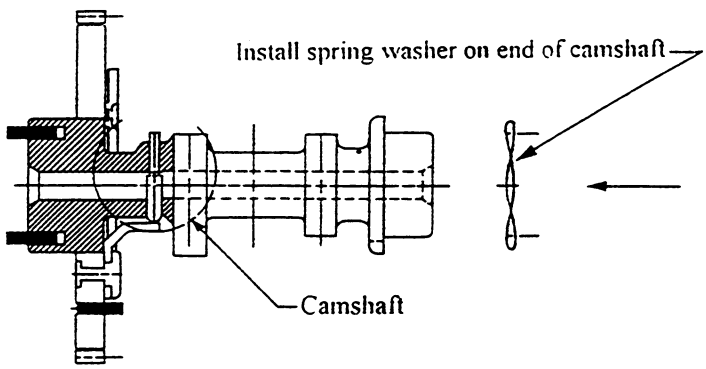
SUBJECT: Low or no oil pressure on Generac 190, 191, and 220 engines.

MODELS AFFECTED: All generators and pressure washers using the GN190, 191, or 220 engine.

PROBLEM: On generators or pressure washers using the GN190, 191, or 220 engines a shutdown may occur from the oil pressure safety shut down. This may be caused from a lack of oil pressure. If the stack height of the camshaft and oil pump is to great, the oil may bleed off from around the sump cover and oil pump gear.

CORRECTIVE ACTION: Before condemning the oil pressure switch, remove the oil pressure switch and install an automotive type oil pressure gauge and verify that oil pressure is being produced by the engine oil pump. If oil pressure is present and stable, and the engine runs with the oil pressure switch disconnected, then replace the switch, part #77667. If oil pressure is not present, unstable or falls below 12-15 psi after running, the problem may be in the stack height of the camshaft and oil pump. After checking for an obvious failure, IE., broken oil pressure relief spring, dirt on the check ball. etc., the camshaft should be replaced with a pare #83335 along with a spring washer part #99922. The spring washer gets installed on the end of the camshaft to pre-load the camshaft and keep the oil pump fully seated in the sump cover. See Figure 1.

Figure 1



GENERAC®
CORPORATION

PRODUCT INFORMATION BULLETIN

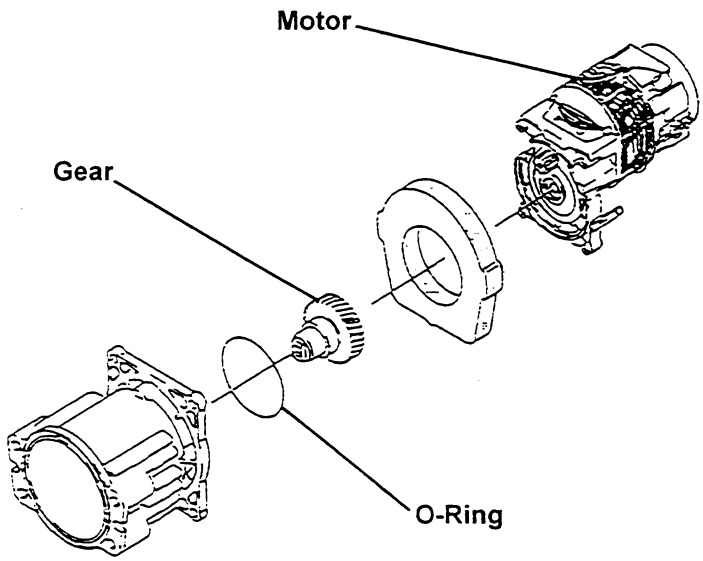
DATE: April 8, 1997

SUBJECT: Motor gear on electric pressure washers.

MODELS AFFECTED: 580.751300, 580.751330, 580.751400, 580.751410, 580.751710, and 71-676120.

PROBLEM: Original straight gears were updated to a Worm type gear. The Worm type gears were used on models 580.75140 and 580.75141, having serial numbers 015837 or greater. These Worm gears are not interchangeable with the original straight gears.

CORRECTIVE ACTION: When ordering either a 94312 motor, or a 94313 gear, substitute whichever part number you are ordering with a SRV 94312 which will include a new motor (Part #94312), gear (Part #94313), and O-ring (Part #94314). Also order a #95385 Service Manual which will include assembly and disassembly instructions.



GENERAC®
CORPORATION

PRODUCT INFORMATION BULLETIN

DATE: April 8, 1997

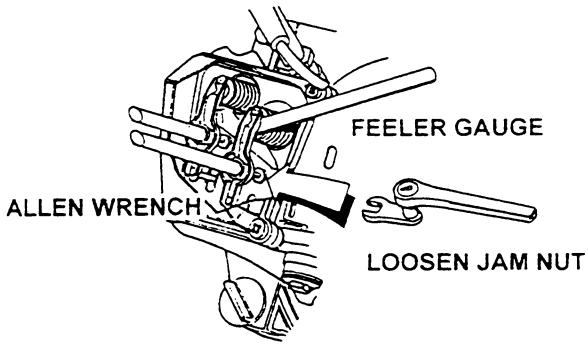
SUBJECT: Adjusting valve clearance.

MODELS AFFECTED: Models using a 190, 191, 220, 320, 360, or 410 GN engine.

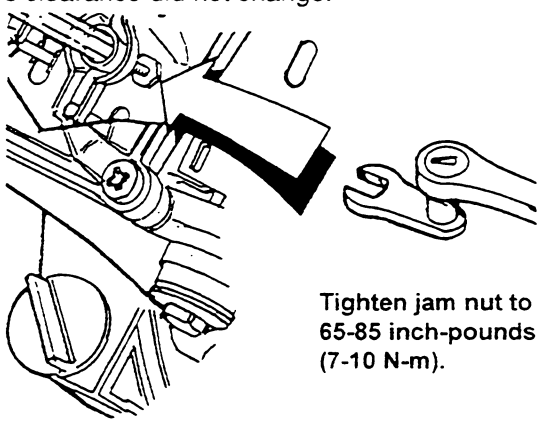
PROBLEM: After the first 50 hours of operation, you should adjust the valve clearance.

CORRECTIVE ACTION: When adjusting the valve clearance, the engine should be at room temperature and the piston should be at top dead center of it's compression stroke (both valves closed). Correct clearance is 0.05 - 0.1mm. Replacement of head gaskets is suggested. The GN190 takes a #77167, the 191, and 220 engines take a #88397; 320, 360, and 410 engines take a #71987 head gasket. Adjust the valve as follows:

1. Loosen the rocker arm jam nut. Use an allen wrench to turn the pivot ball stud while checking the clearance between the rocker arm and the valve stem with a feeler gauge.



2. When the valve clearance is correct, hold the pivot ball stud with the allen wrench (8mm or 10mm depending on the engine) and tighten the rocker arm jam nut with a 10mm crows foot. Tighten the jam nut to 65-85 inch lbs. torque. After tightening the jam nut, recheck the valve clearance to make sure clearance did not change.



GENERAC®
CORPORATION

PRODUCT INFORMATION BULLETIN

DATE: July 1997

SUBJECT: Hard starting or pulsations in a unit.

MODELS AFFECTED: 778-0, 799-0

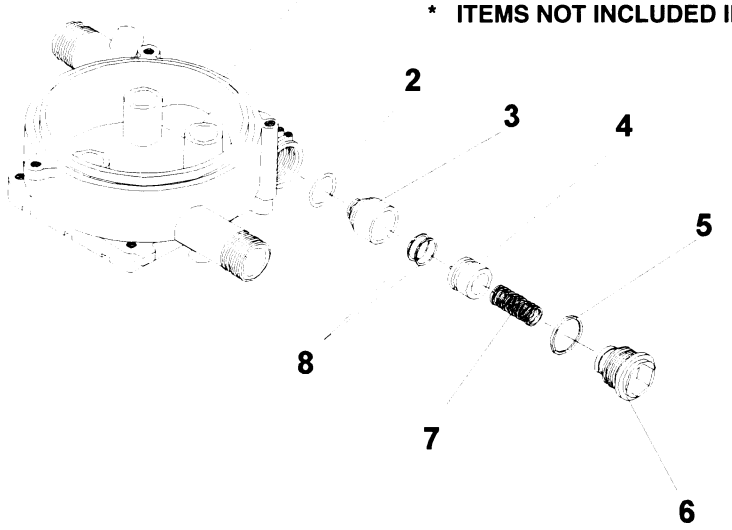
PROBLEM: On startup, extra effort may be required to pull the recoil. A pulsation may also be felt while the unit is running. A failed unloader assembly may cause this.

CORRECTIVE ACTION: An updated unloader assembly is available to replace the unloader piston, unloader cap, and unloader spring. For the following steps refer to manual part **#A4453:**

1. Obtain kit **#B1669.**
2. Using a 12mm allen, or 15/16 wrench, remove the unloader cap.
3. Discard the unloader cap, unloader spring, unloader piston and seals.
4. Install a new unloader piston and seals, unloader spring, and unloader cap. Torque unloader cap to 7 -10 ft.-lb.

ITEM	PART NO.	DESCRIPTION	QTY.
1		Housing, Piston	0*
2		"O" Ring, Venturi	0*
3		Seat, Unloader	0*
4	B1253	Piston, Unloader	1
5	97847	"O" Ring, Cap	1
6	A2730	Cap, Unloader	1
7	A2731	Spring, Unloader	1
8	97845	Seal, Unloader	2

* **ITEMS NOT INCLUDED IN THE KIT**



Warranty: If the unit is under warranty. Generac will allow 0.7 hour for the repair. Reference PIB97-3-A on your warranty claim.

GENERAC®
CORPORATION

PRODUCT INFORMATION BULLETIN

DATE: October 1997

SUBJECT: Unloader Replacement

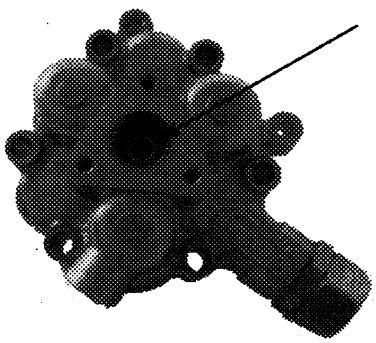
MODELS AFFECTED: 00651-0, 00501-0, 00502-0, 00503-0, 00503-1, 00504-0, 00504-1, 00597-0, 00602-0, 00602-1, 00615-0, 00765-1, 00774-0, 09898-2, 09897-1

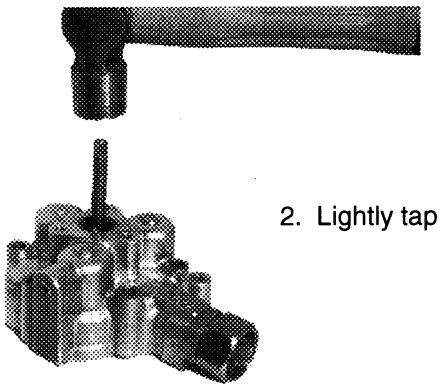
PROBLEM: The new EZ-START unloader Part #'s SRV21447 or SRV21746 will not bolt on to pump head.

TOOLS REQUIRED: 1/4 inch 'EZ-OUT', hammer, and small pliers

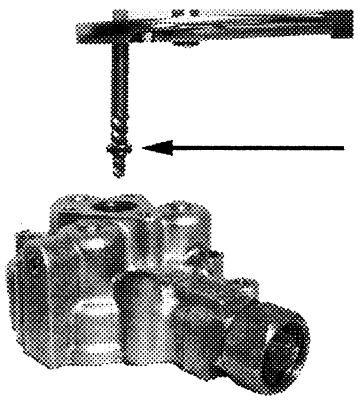
CORRECTIVE ACTION:

1. Remove old unloader, (Note location of seat).

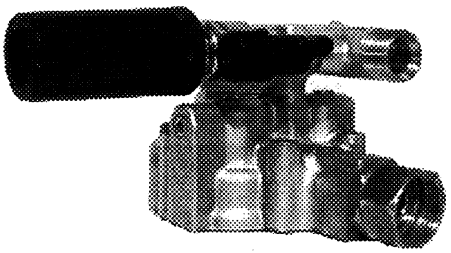




2. Lightly tap 'EZ-OUT' into seat.



3. Use pliers to extract 'EZ-OUT' and seat.
4. Remove any burs and/or debris.



5. Using bolts Part #46580 and lockwasher Part #93873, bolt on new EZ-START unloader assembly.
6. Run unit to ensure proper operation and no water leaks.

GENERAC®
POWER SYSTEMS, INC.

PRODUCT INFORMATION BULLETIN

DATE: April 1999

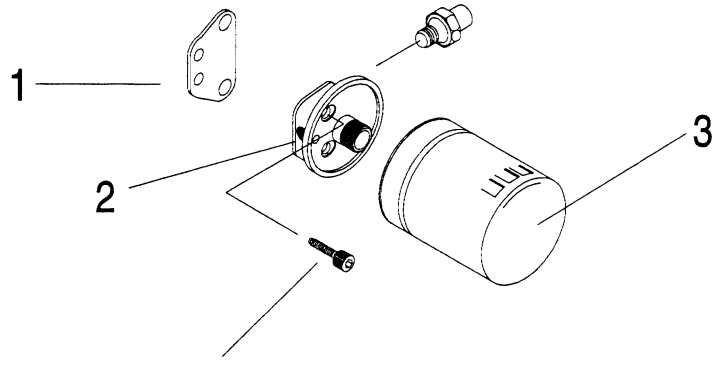
SUBJECT: Oil Filter Adapter Kit Part #96226

MODELS AFFECTED: GN 191/220 Engines

PROBLEM: Incorrect screws in kit

CORRECTIVE ACTION: Remove and discard screws from the kit (Item #4*). **Use original screws from the old block off plate to attach oil filter kit adapter.** This will be standard procedure as the screws will no longer be included in the kit.

Kit 96226 Contains:	Item	Part No.	Description	Qty.
	1	91848	Gasket, Oil Pad	1
	2	84982	Adapter, Oil Filter	1
	3	70185	Filter, Oil	1
	4*			2



Please remove the screws from all oil filter adapter kits you have in stock before they are sold.

NOTE: This PIB is informational in nature, and is not a warranty item.

GENERAC
CORPORATION

PRODUCT INFORMATION BULLETIN

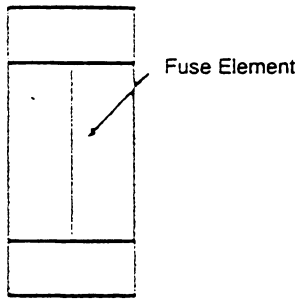
DATE: May 1990

SUBJECT: Input Fuse Replacement on NP-Series Air-cooled RV Generators

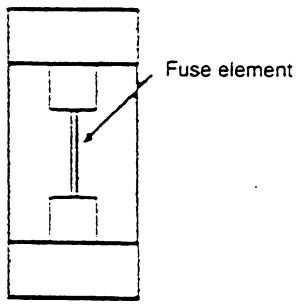
MODELS AFFECTED: NP45G, NP55G, NP65G

CORRECTIVE ACTION: If one of the above units is brought in for service, check the 15A input fuse on the control panel. There is a possibility that this fuse may be too short for the fuse holder. If this fuse is inscribed with "Fuji/15A," replace it with an AGC 15A fuse, Generac part no. 73908.

INCORRECT FUSE
(Fuji 15A)



REPLACE WITH:
(AGC 15/Generac P.N. 73908)



GENERAC
CORPORATION

PRODUCT INFORMATION BULLETIN

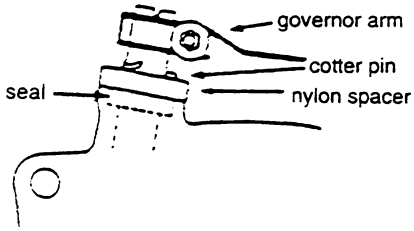
DATE: April 1991

SUBJECT: Oil Seepage at Governor Shaft

MODELS AFFECTED: All units with V-twin Air-cooled Vertical Shaft engines (including NP45 through NP72, Generac II)

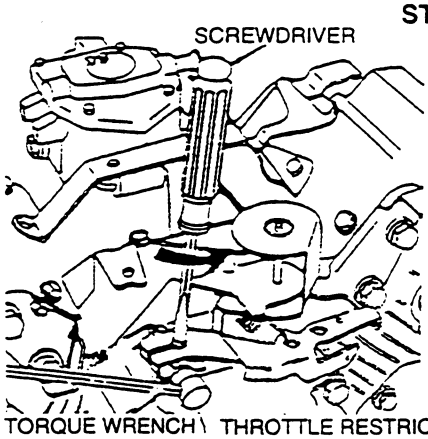
PROBLEM: If you notice or receive a customer complaint of oil stain on sheet metal in the area under the carburetor, the governor shaft seal may have been damaged during installation. If inspection indicates that seal replacement is called for, order seal kit # 68554A. The kit will include seal and cotter pin.

SEAL REPLACEMENT INSTRUCTIONS



1) Locate and remove governor arm, remove and discard cotter pin, and remove nylon spacer.
2) The seal may now be removed, using a small seal puller or screwdriver. Taking care not to scratch the governor shaft, slowly roc the seal out of the cylinder block.
3) When installing the new seal, take care not to cut it on the sharp edge of the shaftl If necessary, chamfer end of shaft with a file to prevent seal damage.
4) After reassembly, you must perform static governor adjustment as follows:

STATIC GOVERNOR ADJUSTMENT



1) ALL LINKAGE MUST BE INSTALLED TO MAKE THIS ADJUSTMENT.
2) Loosen the governor arm bolt and nut.
3) Push on the governorarm until throttle is wide open. DO NOT BEND GOVERNOR LINK.
4) Hold the governor arm in "wide-open throttle" position and rotate the governor shaft counterclockwise (CCW) as far as it will go.
5) Hold the shaft in the fully countercolckwise position and tighten the governor arm bolt and nut to 8 N-m (70 inch-pounds).

Warranty allowance: A .7 hour warranty allowance will be granted for this procedure.

GENERAC
CORPORATION

PRODUCT INFORMATION BULLETIN

DATE:	November 1994
SUBJECT:	Oil Pressure Switch
MODELS AFFECTED:	GENERAC/TROY-BILT pressure washers, generators, R.V.'s using the GN190/GN191/GN220 engines
PROBLEM:	Oil pressure switch picks up pulsing of pressure release valve and causes the engine to run poorly and or shut off.
CORRECTIVE ACTION:	Replace oil pressure switch 60108 (gold) with oil pressure switch 77667 (silver).

Warranty: If the unit is under warranty, Generac will allow 0.5 hour for the repair.

Reference PIB94-2-P/A/M on your warranty claim.

GENERAC
CORPORATION

PRODUCT INFORMATION BULLETIN

DATE: January 1995

SUBJECT: Oil leak

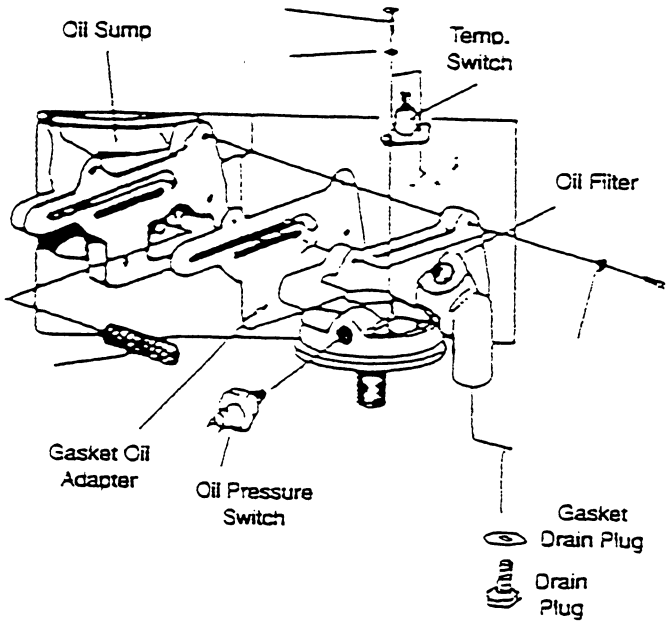
MODELS AFFECTED: CCRV NP30/NP40

PROBLEM: Oil leaks from the oil filter adapter.

CORRECTIVE ACTION:

1) Remove unit from application.
2) Remove the existing adapter and gasket.
3) Replace with a new adapter P/N 86675A and a new gasket P/N 87478.
4) Mount casting new fasteners M6 x 25 long taptites P/N 92079 and lockwashers P/N 22097 (Torque taptites to 120 inch lbs.)
5) Install new oil drain plug P/N 52617 and aluminum gasket/washer P/N 94643.
6) Check to make sure unit has silver oil pressure switch P/N 94090 (If greenish/brown replace)
7) If replacement screws are needed to mount temp. switch use screw P/N 74027 and lockwasher P/N 43182.

PARTS LIST



— Required —

Name	Qty.	P/N
Adapter, oil filter	1	86675A
Gasket, adapter	1	87478
M6-1.0 x 26 taptite	4	92079
M6 lockwasher	4	22097
M12-1.75 drain plug	1	52617
Gasket, oil drain	1	94643

— Possible —

Name	Qty.	P/N
Oil pressure switch	1	77667
Oil temperature switch	1	94090
M3 x 5mm screw	2	74027
M3 lockwasher	2	43182

Warranty: If unit is under warranty Generac will allow 2 hours for R & R of unit and 2 hours for repair. If oil pres. switch and oil temp. switch is required .5 hours will be allowed.

GENERAC
CORPORATION

PRODUCT INFORMATION BULLETIN

DATE: May 1995

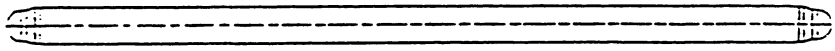
SUBJECT: Push Rods

MODELS AFFECTED: Any Generac made product with a GN190, GN191, GN220, GN320 and GN360 gaseous fuel engine.

PROBLEM: There may be some push rods in the field with "soft" tips that wear prematurely causing hard starting, poor performance, excessive valve lash/play, no compression release, broken valve retainers.

CORRECTIVE ACTION: Replace push rods that appear to be prematurely worn. Part # 88396A for GN190, 191, 220. Part # 88396B for GN320, 360.

A) Pull push rods out and examine the tips for wear (both ends should appear the same).



B) Replace rod or rods if needed and adjust valve lash:
   1) Piston at TDC of compression stroke (both valve fully closed)
   2) Jam nut must be loose. (Fig. 1)
   3) Use an allen wrench (8mm for GN190, GN191 and GN220; and 10mm for GN320 and GN360) to turn the pivot ball stud while checking clearance between rocker arm and valve stem with a feeler gauge. (The proper clearance is 0.05 - 0.1 mm for all models).
   4) When the clearance is correct hold pivot stud with the allen wrench and tighten jam nut (Fig. 2) to (6.3 ft. lbs. for the GN190, GN191, and GN220) or (14.5 ft. lbs. for the GN320 and GN360).
   5) After tightening jam nut recheck valve clearance to make sure it did not change.

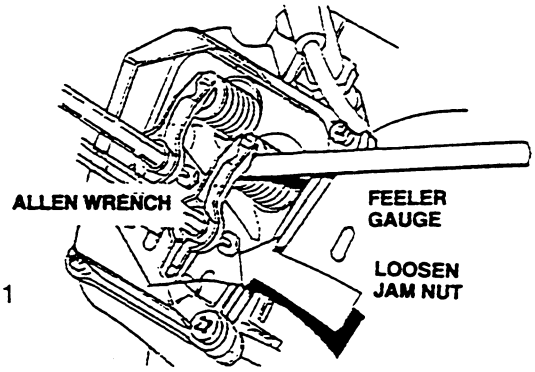


FIG. 1

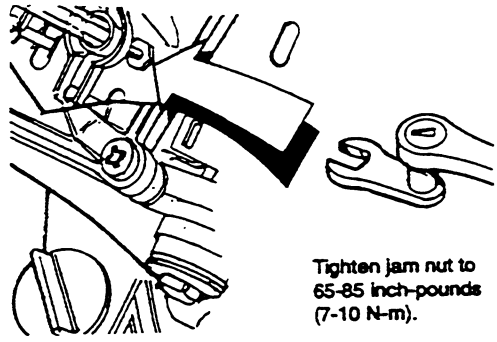


FIG. 2

If unit is under warranty 0.5 hours will be allowed for the repair. If R & R of the unit is required (IM or RV) 2 additional hours will be allowed. Order parts through regular source of supply.

*** Reference PIB95-11-A,I,M,P on your warranty claim.**

GENERAC
CORPORATION

PRODUCT INFORMATION BULLETIN

DATE:	May 1995
SUBJECT:	Shorted ignition wire #18, hard starting, poor performance, popping, backfiring.
MODELS AFFECTED:	Generac made products with the V-twin vertical shaft engine (IM, NP & pre-package).
PROBLEM:	The ignition module wire must be tie-wrapped to the intake manifold (Fig A, Item 1 & 2). If not properly tie-wrapped it may cause the wire to make contact with the cylinder resulting in a melted coating of the wire and possibly shorting the wire causing no or intermediate spark from that module.
CORRECTIVE ACTION:	Repair or replace wire (shrink tubing can be used). Add tie-wrap (Fig. A, item 1 & 2) to wire #18 and manifold to prevent wire from contacting cylinder. If problem persists check ignition shorting diodes for short.

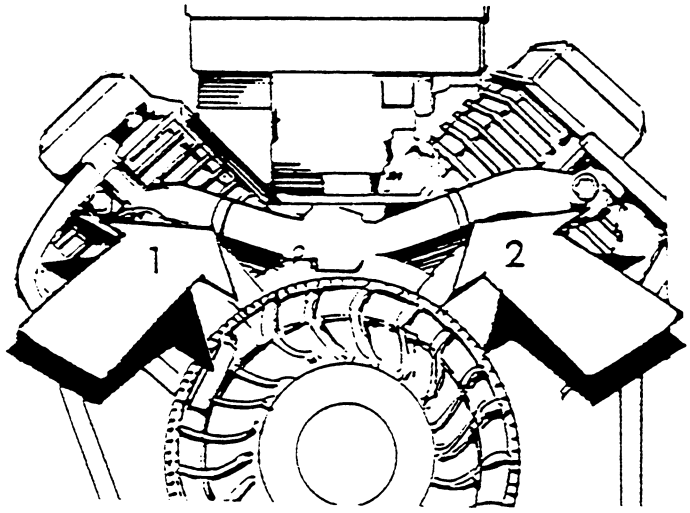


FIG. A

Warranty: If unit is under warranty Generac will allow 0.5 hours for repair If the unit is and "IM" or "NP" Gen Set 0.5 hours will be allowed for cover disassembly. Order parts through regular source of supply per model number.

*** Referance PIB95-12-I,M,S on your warranty claim.**

GENERAC
CORPORATION

PRODUCT INFORMATION BULLETIN

DATE: June 1995

SUBJECT: Oil leak from taper plug.

MODELS AFFECTED: Any Generac made product with a GN320 or GN360 gaseous fuel engine.

PROBLEM: Oil may leak from around the taper plug on the engine (See Fig. #2 - "A") The plug is located on the flywheel side of engine (Fig. #1).

CORRECTIVE ACTION:

1) Remove recoil / blower housing.
2) Remove recoil cup / flywheel.
3) Remove blower housing backplate.
4) Using a center punch **LIGHTLY TAP** the taper plug in the center straight on **(DO NOT FORCE)**.
5) Reverse steps 3 through 1.
6) Run unit and observe for oil leak. If oil leak persists repeat steps 1 through 6. (If oil leak continues please consult factory).

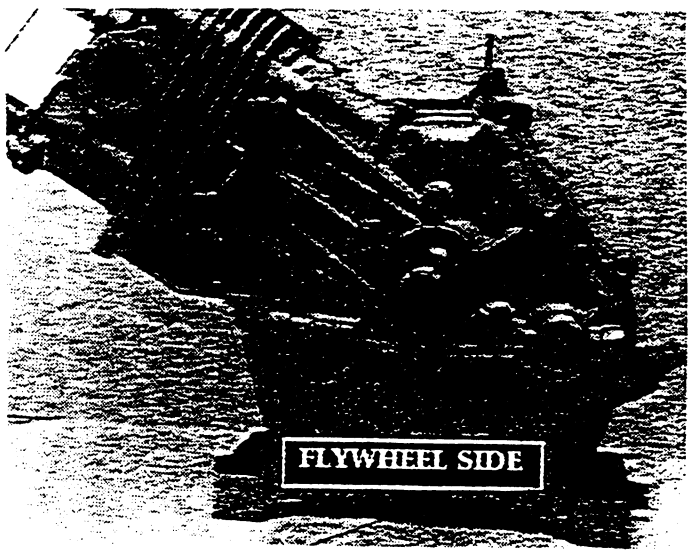


FIGURE #1

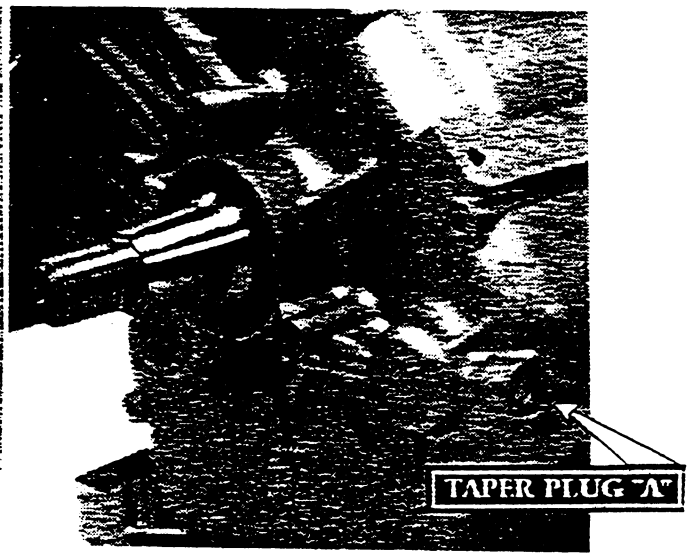


FIGURE #2

WARRANTY: If the unit is under warranty Generac will allow 1.75 hours for the repair. (If the unit is an IM or RV product an additional 2.0 hours will be allowed for R&R or unit).

Reference PIB95-14-A,I,M,P on your warranty claim.

GENERAC
CORPORATION

PRODUCT INFORMATION BULLETIN

DATE: February 1996

SUBJECT: High altitude jets for Generac/Nagano Engines

MODELS AFFECTED: Any Generac made product with a Nagano GN190, GN191, GN220, GN320, and GN360 gasoline engine.

CORRECTIVE ACTION: If unit is to be run at an altitude above 5000 ft. we recommend a high altitude jet. Use the chart below to order the correct jet.

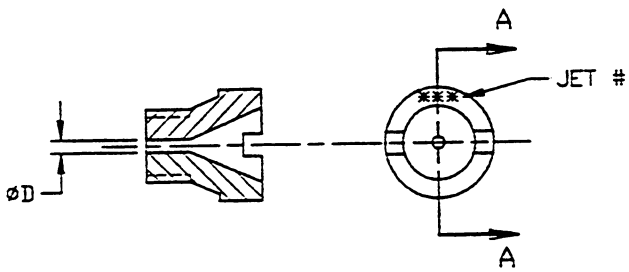
*HS - Horizontal shaft * RV - Vertical shaft

* This will not be applicable to early model engines with adjustable jets. The unit can be adjusted for altitude.

NOTE: If unit is to be run at 10,000 - 15,000 ft. use that portion of chart.

Warranty: This is not a warranty item.

MAIN FUEL JET



NOTE: To call out a specific JET use P/N 96213 with the appropriate JET P/N suffix.

(A) **EXAMPLE:**
#84 Main Fuel Jet = P/N 96213C

(A) SECTION A - A
JET # IS APPROX. EQUAL TO ØD.

			ALTITUDE RANGE 5,000 - 10,000 FT.		ALTITUDE RANGE 10,000 - 15,000 FT.	
ENG. MODEL	CARB P/N	ORIG. JET	NEW JET	JET P/N	NEW JET	JET P/N
GN190HS	83666	ADJUSTABLE	N/A	—	N/A	—
GN190RV	86707	ADJUSTABLE	N/A	—	N/A	—
GN191HS	92966A	#86	#82	B	#78	H
GN191HS	95948	#88	#84	C	#80	A
GN191HS	96751	#86	#82	B	#78	H
GN191HS	98469	#88	#84	C	#80	A
GN220HS	90876	#88	#84	C	#80	A
GN220HS	93861	#88	#84	C	#80	A
GN220HS	95984	#88	#84	C	#80	A
GN220HS	97747	#88	#84	C	#80	A
GN220RV	90881A	#88	#84	C	#80	A
GN220LP	93392A	#360	#340	J	#330	K
GN320HS	93302A	#100	#96	F	#92	I
GN360HS	91187A	#100	#96	F	#92	I
GN360RV	91188A	#90	#86	D	#82	B
GN360LP	93576	#350	#330	K	#320	L

GENERAC
CORPORATION

PRODUCT INFORMATION BULLETIN

DATE: April 1996

SUBJECT: Testing the ignition system on computer controlled variable speed generators.

MODELS AFFECTED: NP30 and NP40 Recreational Vehicle generators.

TEST PROCEDURE: TESTING POWER SUPPLY

1. Inside the generator control panel, locate and disconnect the 3-pin connector that interconnects the Ignition Module and the Ignition Sensor.
2. Set a volt-ohm-milliammeter (VOM) to its dc volts scale and zero the meter.
3. Connect the positive test lead to the female pin of the red wire in the 3-pin connector.
4. Connect the negative test lead to ground.
5. While cranking the engine measure the voltage.
   A. If 12vdc is measured proceed to BYPASSING THE IGNITION SENSOR.
   B. If no voltage is measured, connect the positive test lead to the 4-terminal connector in the control panel that wire #14 connects to.
   C. While cranking the engine, measure the voltage on wire #14:
      1. If no voltage is measured the failure is in the wiring or the engine control board.
      2. If voltage is present at the 4-pin connector but not in step 5 above replace the ignition module.

BY-PASSING THE IGNITION SENSOR

1. Locate the ignition module inside the generator control panel.
2. Disconnect the three pin connector between the ignition module and ignition sensor. See Figure 1 on page 2.
3. Remove the spark plug. With the coil wire installed on the spark plug, ground the spark plug.
4. Apply 12vdc to the single red wire (wire #14) which is the input to the ignition module.
5. Intermittently ground the green wire in the ignition module 3-pin connector while observing the spark plug.
   A. If spark is present; Ignition module, coil, and spark plug are good. Replace the ignition sensor.
   B. If spark is not present proceed to testing the ignition coil.

(Continued on page 2)

TESTING THE IGNITION COIL

1. Unplug the two halves of the 2-pin connector plug from the Ignition Coil. The red and white wires are the primary coil leads. See Figure 2.
2. To measure PRIMARY resistance:
   A. Set a volt-ohm-milliameter (VOM) to its "Rx1" scale and zero the meter.
   B. Connect the VOM test leads across the two male pins of the 2-pin connector. Primary resistance should measure about 0.5 to 1.5 ohms.
3. To measure SECONDARY resistance.:
   A. Set the VOM to its Rx10,000 or Rx1K scale and zero the meter.
   B. Unplug the high tension lead from the spark plug.
   C. Connect one VOM test lead to the white wire connector pin.
   D. Connect the other VOM test lead into the spark plug rubber boot so it contacts the leads metal terminal end. The VOM should measure 16,000-17,000 ohms. (16.0-17.0 k-ohms).
4. If readings are within specs and no spark occurred in BY-PASSING THE IGNITION SENSOR above, the ignition module is defective.

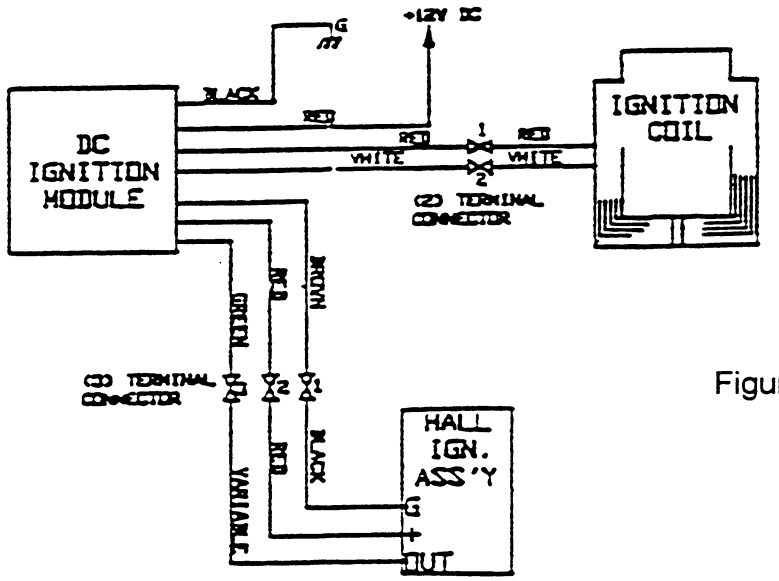
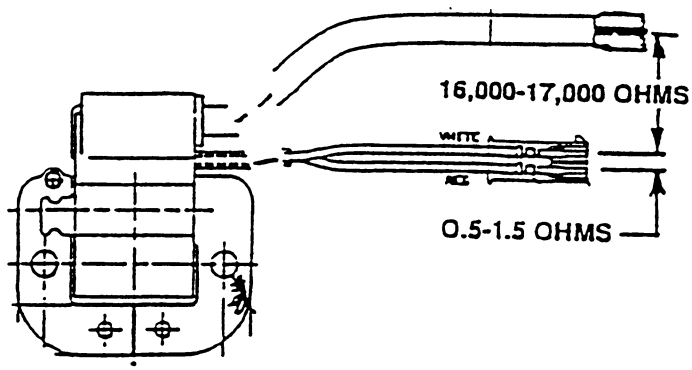


Figure 1

Testing Ignition Coil

Figure 2



GENERAC
CORPORATION

PRODUCT INFORMATION BULLETIN

DATE: April 1996

SUBJECT: Normal voltages, and engine speeds for CCRV gensets.

MODELS INCLUDED: NP-30G, NP-30G/LP, NP-40G, NP-40G/LP.

Listed below are notmal running voltages load voltages, and engine speeds. Frequency should stay between 57 Hz to 63 Hz changing depending on load change.

NP-30G

APPLIED LOAD-AMPS	VOLTAGES	ENGINE SPEEDS (RPM)
0	113-121	2400-2800
10	113-121	2700-3300
25	115-124	3300-4000

NP-30G/LP

APPLIED LOAD-AMPS	VOLTAGES	ENGINE SPEEDS (rpm)
0	116-122	2250-2800
10	188-122	2800-3300
25	115-124	3500-3910

NP-40G

APPLIED LOAD-AMPS	VOLTAGES	ENGINE SPEEDS (rpm)
0	113-121	2400-2800
10	113-121	2750-3300
20	117-121	3150-3750
30	109-124	3500-4000

NP-40G/LP

APPLIED LOAD-AMPS	VOLTAGES	ENGINE SPEEDS (rpm)
0	115-122	2200-2600
10	116-122	2600-3100
20	118-122	3050-3600
30	106-124	3250-3910

****NOTE**** — For information use only. Units have been preset at factory to match these specs.

GENERAC
CORPORATION

PRODUCT INFORMATION BULLETIN

DATE: June 1996

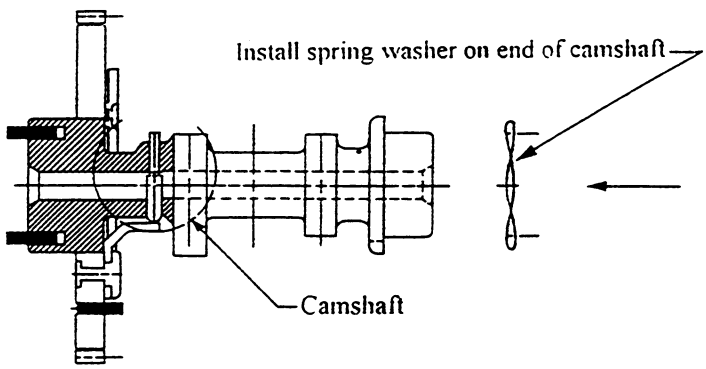
SUBJECT: Low or no oil pressure on Generac 190, 191, and 220 engines.

MODELS AFFECTED: All generators and pressure washers using the GN190, 191, or 220 engine.

PROBLEM: On generators or pressure washers using the GN190, 191, or 220 engines a shutdown may occur from the oil pressure safety shut down. This may be caused from a lack of oil pressure. If the stack height of the camshaft and oil pump is to great, the oil may bleed off from around the sump cover and oil pump gear.

CORRECTIVE ACTION: Before condemning the oil pressure switch, remove the oil pressure switch and install an automotive type oil pressure gauge and verify that oil pressure is being produced by the engine oil pump. If oil pressure is present and stable, and the engine runs with the oil pressure switch disconnected, then replace the switch, part #77667. If oil pressure is not present, unstable or falls below 12-15 psi after running, the problem may be in the stack height of the camshaft and oil pump. After checking for an obvious failure, IE., broken oil pressure relief spring, dirt on the check ball. etc., the camshaft should be replaced with a pare #83335 along with a spring washer part #99922. The spring washer gets installed on the end of the camshaft to pre-load the camshaft and keep the oil pump fully seated in the sump cover. See Figure 1.

Figure 1



GENERAC®
CORPORATION

PRODUCT INFORMATION BULLETIN

DATE: April 8, 1997

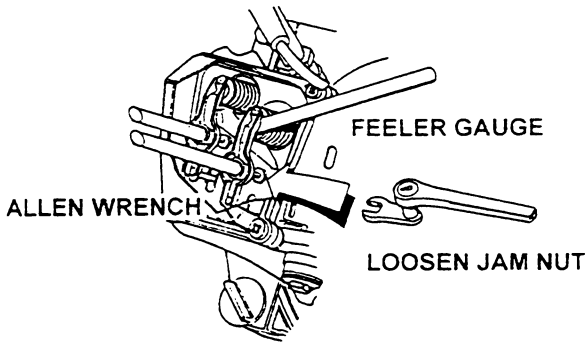
SUBJECT: Adjusting valve clearance.

MODELS AFFECTED: Models using a 190, 191, 220, 320, 360, or 410 GN engine.

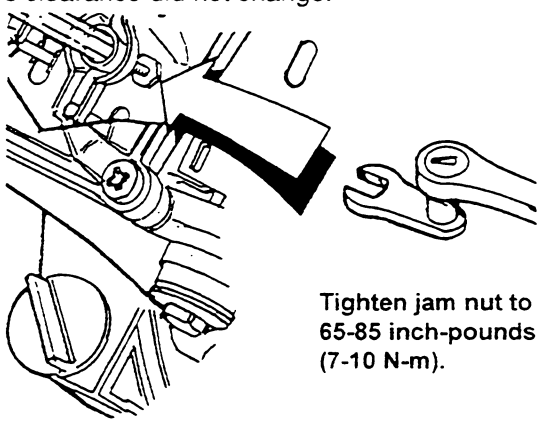
PROBLEM: After the first 50 hours of operation, you should adjust the valve clearance.

CORRECTIVE ACTION: When adjusting the valve clearance, the engine should be at room temperature and the piston should be at top dead center of it's compression stroke (both valves closed). Correct clearance is 0.05 - 0.1mm. Replacement of head gaskets is suggested. The GN190 takes a #77167, the 191, and 220 engines take a #88397; 320, 360, and 410 engines take a #71987 head gasket. Adjust the valve as follows:

1. Loosen the rocker arm jam nut. Use an allen wrench to turn the pivot ball stud while checking the clearance between the rocker arm and the valve stem with a feeler gauge.



2. When the valve clearance is correct, hold the pivot ball stud with the allen wrench (8mm or 10mm depending on the engine) and tighten the rocker arm jam nut with a 10mm crows foot. Tighten the jam nut to 65-85 inch lbs. torque. After tightening the jam nut, recheck the valve clearance to make sure clearance did not change.



GENERAC®
CORPORATION

PRODUCT INFORMATION BULLETIN

DATE: October 1997

SUBJECT: CCRV Low Oil Pressure Shutdown

MODELS AFFECTED:

9557 (all)	0661-0, 1, 2
9629 (all)	0802-0, 1
9847 (all)	0803-0, 1
9848 (all)	

PROBLEM: Rapid change in oil pressure may cause intermittent shutdown on some variable speed RV generators.

SYMPTOM: Intermittent engine shutdown with no apparent engine or AC output problems, most noticeable during load change/engine RPM change, and more prevalent on LP fueled units.

CORRECTIVE ACTION: Verify this condition by disabling the low oil pressure switch. Locate the purple wire #85 in the harness that runs behind the air cleaner box and disconnect the red bullet connector. If shutdown is eliminated, install a **Part #A5677** time delay filter assembly. This part is supplied at no-charge direct from the factory. **To order, please contact the Generac Parts and Service Department at (414) 544-4811, ext. 350 or ext. 351.**

WARRANTY: .5 hours will be allowed for installation of this part. **Please reference PIB97-4-M on warranty claim form.**

Note: Installation of this part applies only to the models mentioned above, and only if problem exists. Future models with higher dash numbers will have an updated engine control PCB with LOP time delay filter circuit built in.

GENERAC®
POWER SYSTEMS, INC.

PRODUCT INFORMATION BULLETIN

DATE: July, 1998

SUBJECT: IMPACT 34, 36, NP30 Circuit Board Part Number A3369.

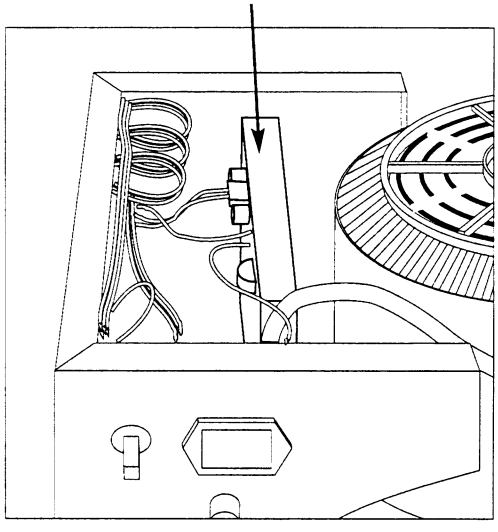
MODELS AFFECTED: Models 661-4, 802-2, 803-3 within serial number range 3041398 through 3065363. Circuit board date code 9752 through 9807.

PROBLEM: Units may experience a drop in speed and shutdown.

SYMPTOM: Sudden drop in engine speed resulting in a low voltage condition, followed by engine shutdown. The predominant symptom is a problem with starting and running the coach roof air conditioner.

VERIFYING A DEFECTIVE BOARD: If a unit is one of the three models within the serial number range listed above, check the date code printed in white on the edge of the circuit board. **The affected date code range is 9752 through 9807.**

CCG Control Circuit Board



NOTE: Date Code may not appear on top edge of circuit board on all units. Check bottom edge and sides.

CORRECTIVE ACTION: If the circuit board code is within the affected range, it must be replaced. If the replacement circuit board is from your current stock, ensure that its date code is not within the affected range.

WARRANTY: 2 hours will be allowed for the replacement of this part. **Please reference PIB98-1-M on warranty claim form.**

GENERAC
CORPORATION

PRODUCT INFORMATION BULLETIN

DATE: May 1995

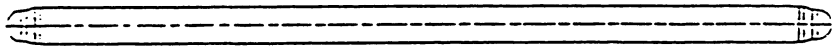
SUBJECT: Push Rods

MODELS AFFECTED: Any Generac made product with a GN190, GN191, GN220, GN320 and GN360 gaseous fuel engine.

PROBLEM: There may be some push rods in the field with "soft" tips that wear prematurely causing hard starting, poor performance, excessive valve lash/play, no compression release, broken valve retainers.

CORRECTIVE ACTION: Replace push rods that appear to be prematurely worn. Part # 88396A for GN190, 191, 220. Part # 88396B for GN320, 360.

A) Pull push rods out and examine the tips for wear (both ends should appear the same).



B) Replace rod or rods if needed and adjust valve lash:
   1) Piston at TDC of compression stroke (both valve fully closed)
   2) Jam nut must be loose. (Fig. 1)
   3) Use an allen wrench (8mm for GN190, GN191 and GN220; and 10mm for GN320 and GN360) to turn the pivot ball stud while checking clearance between rocker arm and valve stem with a feeler gauge. (The proper clearance is 0.05 - 0.1 mm for all models).
   4) When the clearance is correct hold pivot stud with the allen wrench and tighten jam nut (Fig. 2) to (6.3 ft. lbs. for the GN190, GN191, and GN220) or (14.5 ft. lbs. for the GN320 and GN360).
   5) After tightening jam nut recheck valve clearance to make sure it did not change.

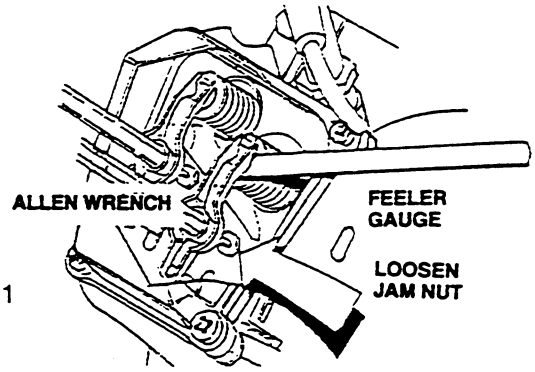


FIG. 1

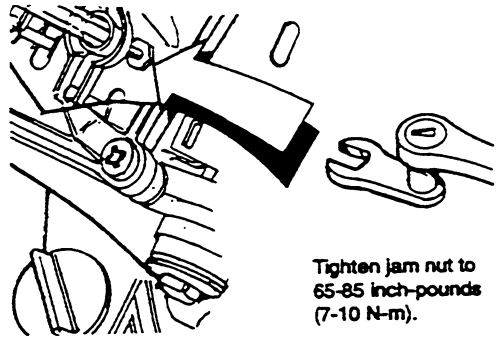


FIG. 2

If unit is under warranty 0.5 hours will be allowed for the repair. If R & R of the unit is required (IM or RV) 2 additional hours will be allowed. Order parts through regular source of supply.

*** Reference PIB95-11-A,I,M,P on your warranty claim.**

GENERAC
CORPORATION

PRODUCT INFORMATION BULLETIN

DATE:	May 1995
SUBJECT:	Shorted ignition wire #18, hard starting, poor performance, popping, backfiring.
MODELS AFFECTED:	Generac made products with the V-twin vertical shaft engine (IM, NP & pre-package).
PROBLEM:	The ignition module wire must be tie-wrapped to the intake manifold (Fig A, Item 1 & 2). If not properly tie-wrapped it may cause the wire to make contact with the cylinder resulting in a melted coating of the wire and possibly shorting the wire causing no or intermediate spark from that module.
CORRECTIVE ACTION:	Repair or replace wire (shrink tubing can be used). Add tie-wrap (Fig. A, item 1 & 2) to wire #18 and manifold to prevent wire from contacting cylinder. If problem persists check ignition shorting diodes for short.

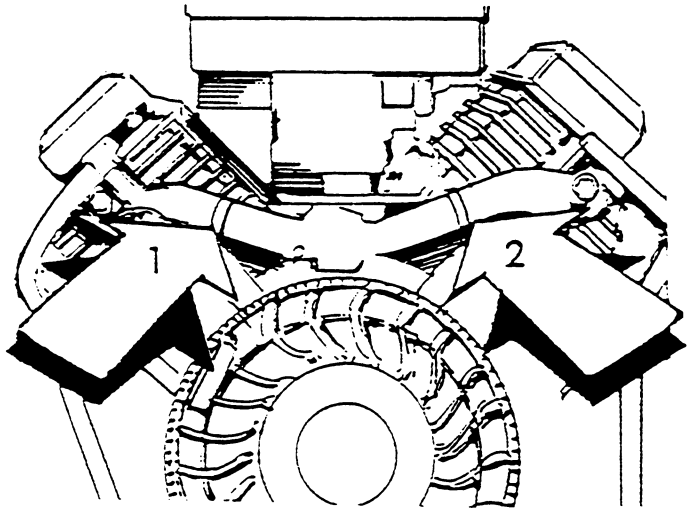


FIG. A

Warranty: If unit is under warranty Generac will allow 0.5 hours for repair If the unit is and "IM" or "NP" Gen Set 0.5 hours will be allowed for cover disassembly. Order parts through regular source of supply per model number.

*** Referance PIB95-12-I,M,S on your warranty claim.**

GENERAC
CORPORATION

PRODUCT INFORMATION BULLETIN

DATE: June 1995

SUBJECT: Oil leak from taper plug.

MODELS AFFECTED: Any Generac made product with a GN320 or GN360 gaseous fuel engine.

PROBLEM: Oil may leak from around the taper plug on the engine (See Fig. #2 - "A") The plug is located on the flywheel side of engine (Fig. #1).

CORRECTIVE ACTION:

1) Remove recoil / blower housing.
2) Remove recoil cup / flywheel.
3) Remove blower housing backplate.
4) Using a center punch **LIGHTLY TAP** the taper plug in the center straight on **(DO NOT FORCE)**.
5) Reverse steps 3 through 1.
6) Run unit and observe for oil leak. If oil leak persists repeat steps 1 through 6. (If oil leak continues please consult factory).

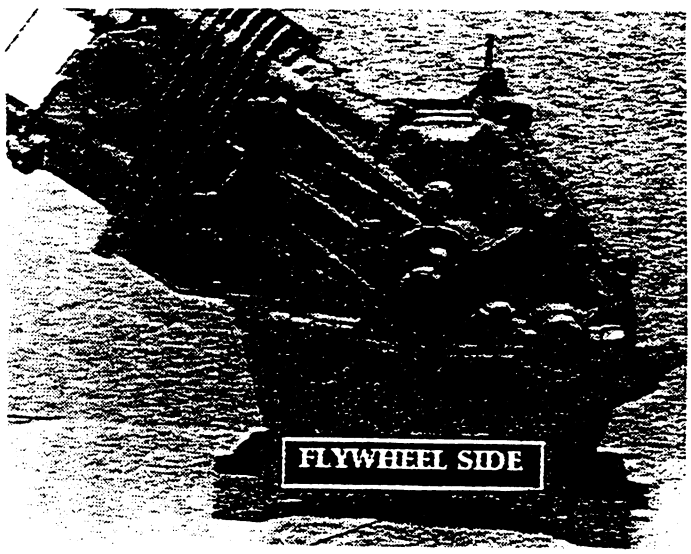


FIGURE #1

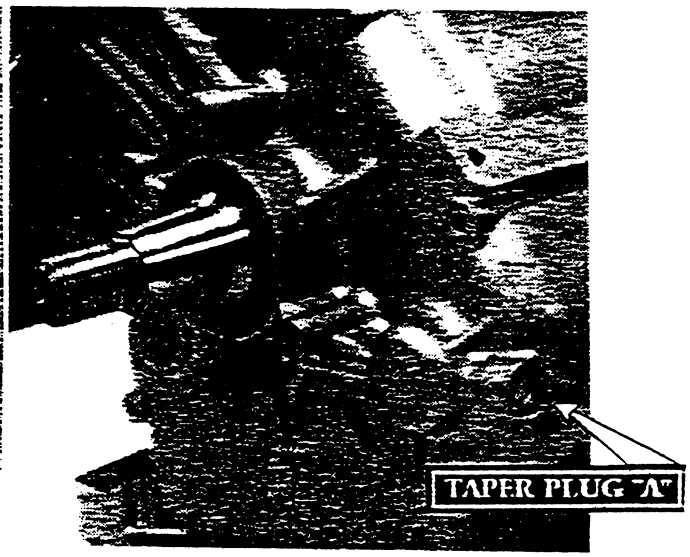


FIGURE #2

WARRANTY: If the unit is under warranty Generac will allow 1.75 hours for the repair. (If the unit is an IM or RV product an additional 2.0 hours will be allowed for R&R or unit).

Reference PIB95-14-A,I,M,P on your warranty claim.

GENERAC
CORPORATION

PRODUCT INFORMATION BULLETIN

DATE:	November 1995
SUBJECT:	Voltage Instability at 208 VAC
MODELS AFFECTED:	Liquid cooled stanby units with voltage codes "G" and "N" (3 phase parallel wye connected). **NOTE:** This does not apply to GT or CT trailer units.
PROBLEM:	Some units in the field may experience voltage instability that cannot be corrected by voltage regulator adjustments.
CORRECTIVE ACTION:	Remove sensing lead S16 from E3 terminal on main output circuit breaker, and reconnect to E2 terminal. Sensing lead S15 remains on E1 terminal. Adjust voltage regulator if necessary.

WARRANTY: .5 hours will be allowed for this procedure and adjustment.

Reference PIB95-18-S,O on warranty claim form.

GENERAC®
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PRODUCT INFORMATION BULLETIN

DATE: July 1996

SUBJECT: Control Panel Fault Light Test Function.

MODELS AFFECTED: All models with option "C" control panel built after June 1996.

The Fault Light test function has been revised for better protection on the 83089 Engine Control PCB.

When the Test/Reset button is pushed, the fault lights will light momentarily and automatically turn off, even if the Test/Reset button is held in continuously.

GENERAC®
CORPORATION

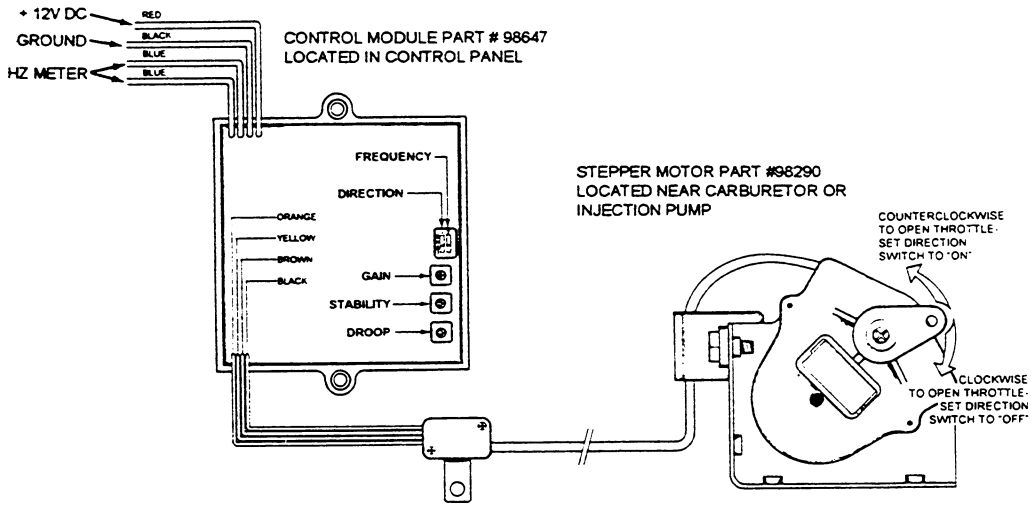
PRODUCT INFORMATION BULLETIN

DATE: August 1996

SUBJECT: New Generac Electronic Governor

MODELS AFFECTED: All units with 1.6 Gas and 2.4 Diesel engines, and other future gas engines.

The following is a brief description and adjustment procedure for the new electronic governor control module and stepper motor.



POT SETTINGS: Set GAIN, DROOP, and STABILITY pots to midpoint.

SWITCH SETTINGS: Set FREQUENCY to either 50 or 60 Hz.
- *Frequency switch set to "OFF" = 50 Hz.
- *Frequency switch set to "ON" = 60 Hz.

SET DIRECTION SWITCH:
Determine which direction the stepper motor lever needs to be set to open the throttle. Some units are set to open at the clockwise position, and some at the counterclockwise position.

If the lever is set to open at the clockwise position, then the direction switch should be set to the "OFF" position. If the lever is set to open at the counterclockwise position, the direction switch should be set to the "ON" position.

When switches and pots are set correctly, start engine. Adjust the gain pot if necessary to stabilize engine speed.
- * Apply load system - 25 to 50% rated is best. If system is unstable, reduce gain until it stabilizes.
- * Adjust droop pot so that the engine speed recovers to preselected speed. (50 or 60 Hz based on unit)
- * Observe performance of system when loads are applied and removed.
- * Increasing stability will decrease recovery time, but may result in damped oscillations (decreasing hertz around preset speed). Decreasing stability will soften the recovery and reduce transient hertz.

Frequency and direction switches are integrated only at engine start. Changing switch settings while engine is running will have no effect until engine is stopped and restarted.

GENERAC®
CORPORATION

PRODUCT INFORMATION BULLETIN

DATE: April 8, 1997

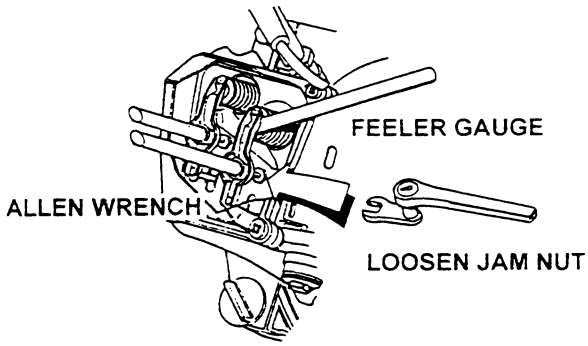
SUBJECT: Adjusting valve clearance.

MODELS AFFECTED: Models using a 190, 191, 220, 320, 360, or 410 GN engine.

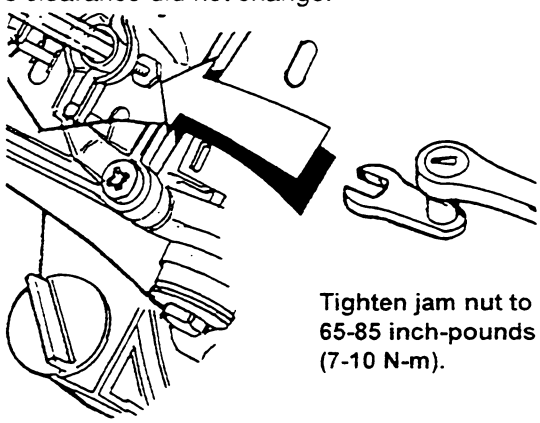
PROBLEM: After the first 50 hours of operation, you should adjust the valve clearance.

CORRECTIVE ACTION: When adjusting the valve clearance, the engine should be at room temperature and the piston should be at top dead center of it's compression stroke (both valves closed). Correct clearance is 0.05 - 0.1mm. Replacement of head gaskets is suggested. The GN190 takes a #77167, the 191, and 220 engines take a #88397; 320, 360, and 410 engines take a #71987 head gasket. Adjust the valve as follows:

1. Loosen the rocker arm jam nut. Use an allen wrench to turn the pivot ball stud while checking the clearance between the rocker arm and the valve stem with a feeler gauge.



2. When the valve clearance is correct, hold the pivot ball stud with the allen wrench (8mm or 10mm depending on the engine) and tighten the rocker arm jam nut with a 10mm crows foot. Tighten the jam nut to 65-85 inch lbs. torque. After tightening the jam nut, recheck the valve clearance to make sure clearance did not change.



GENERAC®
CORPORATION

PRODUCT INFORMATION BULLETIN

DATE: November 1997

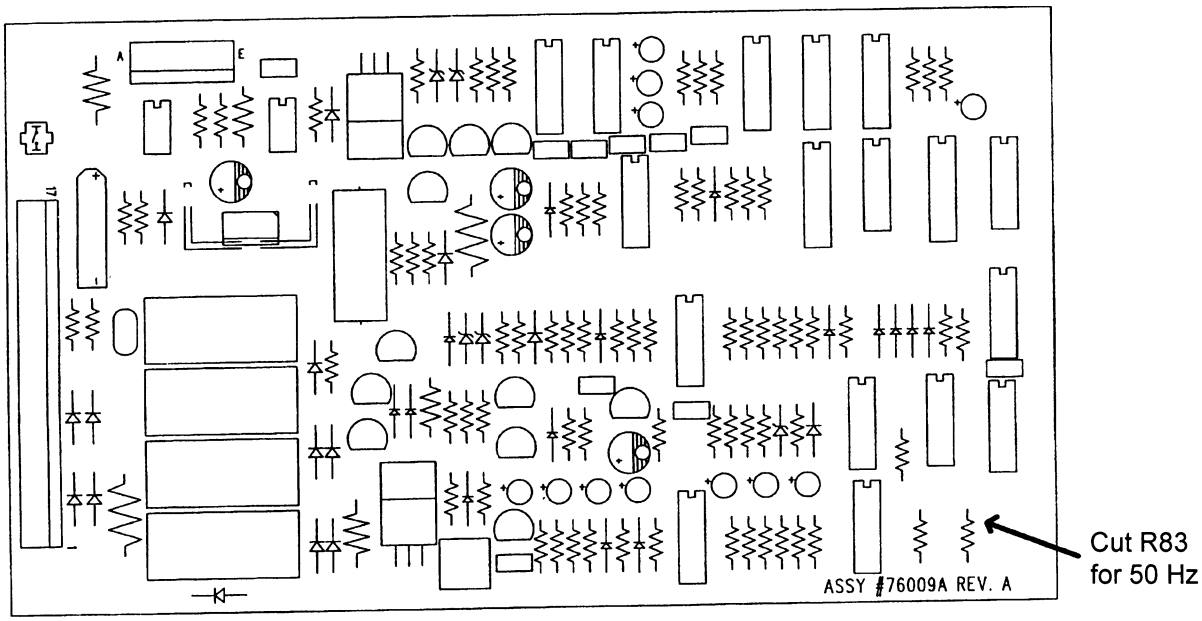
SUBJECT: New Liquid-Cooled Gen II Logic PCB, PN 76009A

MODELS AFFECTED: All liquid-cooled Gen II 10-25 kW generators, also some air-cooled Gen II units with remote annunciation.

The Logic PCB 76009 has been changed, and given a new part number: **76009A**

The new PCB was designed to be compatible with 60 Hz or 50 Hz applications. Because of this change, service replacement 76009A PCB's used in a 50 Hz application will need the R83 resistor cut for proper weekly exercise timer operation (see diagram below). For 60 Hz applications, the R83 resistor must be left intact.

Overspeed adjustment on service replacement PCB remains the same as the 76009.



PCB Part Number 76009A

This PIB is not a warranty item; it is instructional only.

GENERAC®
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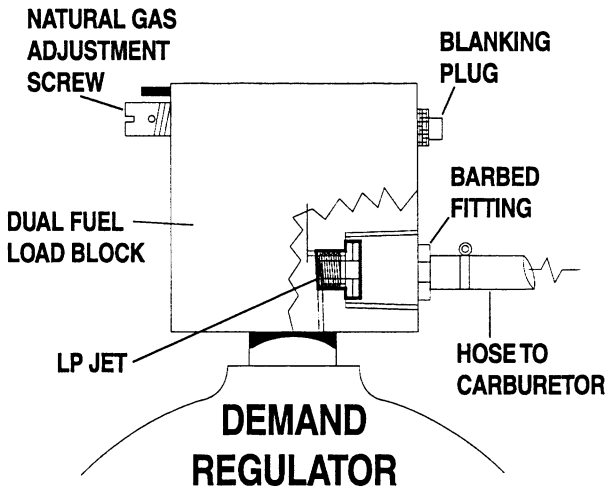
PRODUCT INFORMATION BULLETIN

DATE: September, 1998

MODELS AFFECTED: Generac Models 921-0,1 & Dayton Model 4LM41, Serial numbers preceding 3086550.

PROBLEM: Fuel load block may have an incorrect jet installed in the LP port.

SYMPTOMS: Hard starting, runs rough, and unable to carry load when running on LP fuel supply. **Units running on natural gas will not have this problem.**



CORRECTIVE ACTION: Replace the LP jet in the fuel load block. Order an LP Jet Kit, Part #A9083K through your normal source of Generac parts. The kit includes the jet and installation instructions.

NOTE: This jet replacement is not necessary on units fueled by natural gas.

WARRANTY: .75 hours will be allowed for this procedure plus travel as posted in the Warranty Policies & Procedures Manual. Please reference PIB98-2-S,G on the warranty claim.

GENERAC
CORPORATION

PRODUCT UPDATE BULLETIN

DATE: May 17, 1993

SUBJECT: Radiator Hoses - Standby Application

MODELS AFFECTED: Units with 4.3L V-6 diesel

PROBLEM: Our Engineering Department has changed radiator hoses for all Standby units. In the past we used a straight hose and bent it. The new design is a performed hose which is both better and more cost efficient.

CORRECTIVE ACTION: Attached is a chart that you should refer to when replacing radiator hoses on standby units rather than referring to your Standby Microfiche (P/N 41310C). Please note that you must look at both the engine size and KW for each application in order to send out the correct part.

NEW HOSE	OLD HOSE	WHERE USED	KW
84136 84137	73205 TOP 81036, 78909 BOTTOM	5.0 & 5.7L 5.0 & 5.7L	25 - 50 KW
84138 84139	73909 TOP 81092, 81036 BOTTOM	5.7L G.B. 5.7L G.B.	75 -80 KW
84143 84144	73909 TOP 81029, 81036 BOTTOM	7.4L G.B. 7.4L G.B.	60 - 70 KW
84147 84148	73205 TOP 81037, 81036 BOTTOM	7.4L 7.4L	100KW
84417 84418	73205 TOP 73206 BOTTOM	4.0L 4.0L	40 - 70 KW
84419 84422	73206 TOP	6.4L	80 - 175 KW

PUB94-1-P

GENERAC
CORPORATION

PRODUCT UPDATE BULLETIN

DATE: May 1994

SUBJECT: Incorrect parts list information in Owner's Manual for hose and gun replacement.

MODELS AFFECTED: 9584-0, 9585-1, 9617-1 Pressure Washer

CORRECTIVE ACTION:

Female Hose/ Male Gun

88053 hose use 90610 hose
90610 25ft. hose, black 1/4" female connector, 3/8" I.D. hose
88055 50ft. hose (accessory purchase)
88253 1/4" male NPT fitting on gun

Male Hose/Female Gun

91630 25ft. hose, black 3/8" NPT male
91628 gun, 3/8" NPT female
89634 50ft. hose (accessory purchase)

The customer will have to identify the hose and gun before a replacement can be sent. The changes were made without a model change.

GENERAC
CORPORATION

PRODUCT UPDATE BULLETIN

DATE: January 17, 1996

SUBJECT: Removal of trapped air in the coolant system.

MODELS AFFECTED: Model 00589-0 Serial Numbers 2023694 to 2023734, 2023895 to 2023694 — Model 00519-0 Serial Numbers 2023659 to 2023664, 2023905 to 2023935.

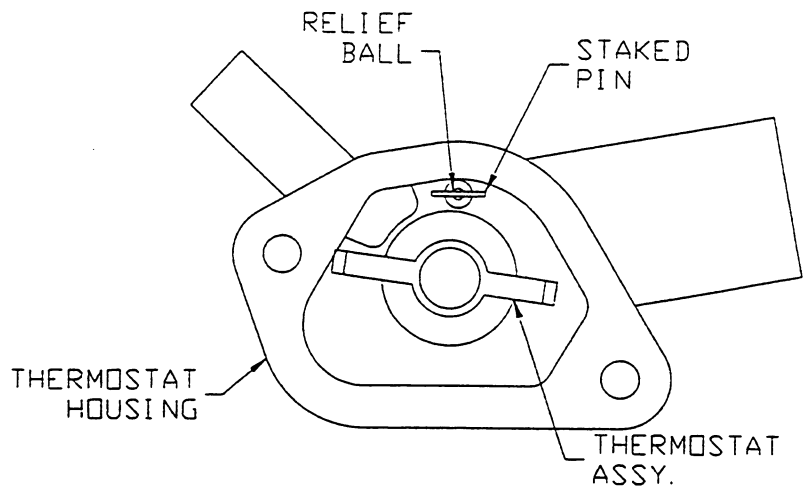
PROBLEM: Air may become trapped in the cylinder head water jacket, due to a malfunctioning check valve. This condition may cause the engine to overheat and fail prematurely.

CORRECTIVE ACTION: To ensure complete removal of air from the coolant system, the check ball must be removed from the thermostat housing on all 1.6 liter Fiat engines installed in generator Models 0589-0 and 0591-0 shipped prior to 1-17-96.

RECOMMENDED PROCEDURE:

1. Drain engine coolant.
2. Remove thermostat housing bolts.
3. Remove thermostat housing.
4. Remove staked pin (Figure 1). Do not damage the thermostat or thermostat housing.
5. Remove check ball (located behind the staked pin).
6. Clean all gasket surfaces.
7. Re-install the thermostat, thermostat housing and bolts using (2) two new gaskets (98907) and RTV sealant.

FIGURE 1



Submit warranty claim for parts and one hour labor, reference PUB96-1-S.

GENERAC
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PRODUCT INFORMATION BULLETIN

DATE: February 1996

SUBJECT: Source 580 - Pressure Washers: Diagnosing water leaks on Generac pressure washer pumps.

MODELS AFFECTED: 580.75150, 580.751650, 580.751651, 580.751780, 580.751781, 580.751782

PROBLEM: Difficulty in diagnosing the cause of water leaks between the pump head and pump case.

CORRECTIVE ACTION: There are a number of possible causes for water leaks at the pump case. Proper diagnosis is critical to making the correct repair. The possible causes for water leaks are:

1. Proper functioning of the thermal relief valve. All Generac pressure washer pumps are equipped with a thermal relief valve this valve will open and close during times when the pressure washer is running, but the trigger on the gun is in the off position. The thermal relief valve protects the pump from over heating during normal operation. If water temperature reaches 140°F inside the pump the valve opens allowing water to leak from the pump, as the warm water in the pump is replaced with cooler intake water the valve will close. A leak caused by normal thermal relief will be an intermittent leak.

2. Improper operation of the thermal relief valve. If the thermal relief valve malfunctions the leak will be constant. The thermal relief valve can be viewed through an opening between the spacer plate and the pump case. The opening is located just to the right of the drain plug when viewing the pump from the front. Use a mirror and flashlight to look into the opening while the pump is running. (The parts breakdown in the service manual shows the location of the valve in the pump case).

3. High and low pressure seals. If the water leak is not caused by the thermal relief valve the water leak can usually be traced to either the high or low pressure seals (it is a good idea to replace these seals together). When replacing the high and low pressure seals always inspect the pistons for rust or pitting. If the pistons are damaged in any way they must be replaced along with the high and low pressure seals. The procedure for removal and installation of pump components is outlined in service manual part number 97492.

When ordering service parts always refer to the source 580 model number on the piece of equipment. Use service kit #95217K when replacing the pump pistons. Service kit #95217K contains 3-94284K piston and retainer, 1-93790 o'ring, 1-93645 head gasket, 1-93723 o'ring, 3-93680 oil seal, 3-93667 low pressure seal, 3-96053 high pressure seal, and 3-96015 bearing seal ring.

PUB96-3-P

GENERAC®
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PRODUCT UPDATE BULLETIN

DATE: August 21, 1996

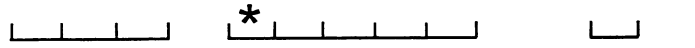
SUBJECT: Generac Part Number Restructuring

Effective September 4, 1996 Generac Corporation will be enhancing their part numbering system. The new system will place an alpha character in the first place of our base number.

OLD SYSTEM

(PREFIX)	(BASE NUMERIC)	(SUFFIX)
Alpha/Numeric	Numeric 5 Digit	Alpha 1 Digit
3 Digit		

NEW SYSTEM



(PREFIX)	(BASE 5 DIGIT)	(SUFFIX)
Alpha.Numeric	*Alpha (1st Field ONLY)	Alpha 1 Digit
3 Digit	Numeric Fld 2,3,4,5	

These new numbers will probably start hitting the field around October/November.

PUB96-4-M

GENERAC®
CORPORATION

PARTS UPDATE BULLETIN

DATE: September 1996

SUBJECT: CCRV Stators

PARTS AFFECTED: 94009, 92940 and 86822

Due to a change in our manufacturing procedure, when replacing the above stators you must also order part numbers: ***86692 — Stator Adaptor and 80934 — Stator Retaining Ring.***

These parts are necessary to make the stators fit properly.

GENERAC
CORPORATION

WARRANTY INFORMATION BULLETIN

DATE: September 1992

SUBJECT: NP Warranty

Some of our Service Facilities have inquired about clarification of the "Generac Three Year Limited Warranty for Recreational Vehicle NP Generators".

The warranty is stated in its entirety in both the owner's manuals and the Policies, Procedures, and Flat Rate Manual. Following is the three year schedule itself with detail of the third year provided. All future literature will include this third year detail.

THREE YEAR SCHEDULE

1) All NP Generators used in a recreational vehicle shall be warranted for a period of three (3) years or 2000 hour of operation, whichever comes first. All parts, labor, removal, and reinstallation shall be covered for the first two (2) years. Parts and labor on selected generator and engine parts shall be covered during the third year or until completion of 2000 hours of operation, whichever comes first.

> These selected parts are limited to: the main Rotor and Stator with regard to the generator; the Cylinder Block, Cylinder Head, Crankshaft, Piston, Valve, Valve Lifter, and Manifolds with regard to the engine.

2) The drive train, belt, and pulleys on NP air-cooled generators used in recreational vehicles shall be warranted against failure due to defect material or normal usage for the life of the generator. For the original owner this drive train warranty shall include parts and labor plus $50.00 payment upon return of the failed belt or pulley by the original owner. For succeeding owners, this power train warranty shall cover belt or pulley parts only.

3) Rental units, demonstrators, prime power, or commercial applications such as construction or utility, are warranted for one (1) year or 2000 hours of operation, whickever comes first.

GENERAC
CORPORATION

WARRANTY INFORMATION BULLETIN

DATE: October 3, 1994

SUBJECT: Policy Change
Returning of Warranty Parts

It has always been Generac's policy that defective parts be returned with a Warranty Claim.

This policy has been changed in the following manner:

> Any defective part with a LIST PRICE GREATER THAN $100 is to be RETURNED with the warranty claim. Those items which are LESS THAN $100 LIST are to be RETAINED at the service facility until payment/credit is received on the warranty claim.

The Warranty Department does and will continue to require the return of specific items, which may be less than $100 list, for factory analysis. In this case, the Service Facility will be contacted by phone or mail, requesting the return of such items. Payment on that specific claim will be made pending return of the part.

As always, Generac pays for the return freight of defective parts. This cost can be claimed on the Warranty Form in the "freight" section.

Questions regarding this policy change should be directed to the Warranty Department at 414-544-4811.

GENERAC®
CORPORATION

WARRANTY INFORMATION BULLETIN

DATE: February 24, 1997

SUBJECT: Warranty Parts Return Procedure

EFFECTIVE: May 1, 1997

EXPIRATION: UNTIL FURTHER NOTICE

Generac has established a new Portable Power Products Division in Jefferson, WI, which as of May 1, 1997 will be responsible for the administration of all Engine Powered Tools Warranty Claims. In order to accommodate this transition and expedite prompt payment to your dealership we ask that you please refrain form returning any defective Warranty Replacement Parts for the following Generac Engine Powered Tools;

Portable Generators
Gas & Electric Pressure Washers
Air Compressors
Welders

The Generac Warranty Department will continue to request on an individual basis that specific defective items be returned for evaluation. Failure to provide the requested items could result in a denied Warranty claim. Pleas hold all defective parts until either the claim has been settled or a request for the specific item is initiated.

All Warranty claims or written correspondences for the product listed above should be mailed to:

Generac Corporation
P.O. Box 239
Jefferson, WI 53549

GENERAC®
POWER SYSTEMS, INC.

Warranty Information Bulletin

DATE: July 13, 1998

SUBJECT: Policy Change - Recreational Vehicle Generator Warranty

EFFECTIVE DATE: January 1, 1998

Generac Power Systems, Inc., has made a policy change with regard to the Recreational Vehicle Generator 3 Year Limited Warranty.

As of **January 1, 1998**, all NP, Q, Impact & Quietpact Series Recreational Vehicle Generators, purchased as new by the original owner, shall have a 3 Year Transferable Limited Warranty.

This transferable Limited Warranty is in effect only, when the original owner has properly submitted a Warranty Registration Form to Generac Power Systems. For subsequent owners, the 3 year Limited Warranty begins at the date of purchase by the original owner and submittal of an additional Warranty Registration Form to Generac Power Systems, Inc.

The Warranty Schedule under the 3 Year Limited Warranty for Recreational Vehicle Series generators has not changed.

Note: This policy change does not apply to rental units, demonstrators, prime power or commercial applications, such as utility or construction.

JJG 9/3/98

GENERAC®
POWER SYSTEMS, INC.

Warranty Information Bulletin

DATE: September 3, 1998

SUBJECT: Policy Change - Required Parts List

EFFECTIVE DATE: November 1, 1998

Generac Power Systems, Inc., has made a policy change with regard to the Required Parts List for Liquid Cooled & Air Cooled Generac II Power Systems. The following list of parts, are required field stock for servicing the Generac Power Systems. Additional travel to obtain a replacement part listed below, is not covered under the Warranty guidelines.

GENERAC POWER SYSTEMS FIELD SERVICE PARTS KIT

PART # PTS 78099B

*22676	Fuse AGC - 15	2 ea
*73590	Fuse 600V - 2A	4 ea
28578	Fuse AGC - 10	2 ea
*63617	12V10A DPDT Relay	1 ea
82130D	RPM Sensor 72"	1 ea
*A8584	Low Oil Pressure Switch	1 ea
*99236	Low Oil Pressure Switch	1 ea
*56739	Start Solenoid	1 ea
57522	Low Water Level Sensor	1 ea
67680	Voltage Regulator	1 ea
*74100	Air Cooled Logic PCB	1 ea
*76009	Logic PCB Gen II / Liquid Cooled	1 ea
82495	B Option 12/24 Control PCB	1 ea
*83048	Voltage Regulator	1 ea
83089	C Option 12/24 Control PCB	1 ea
*98647 K	Governor Control PCB	1 ea
64217	Deluxe Exercise PCB	1 ea
67626	CPU assy PCB	1 ea
67629	Sensing PCB Multivolt	1 ea
92734	In - Phase Monitor PCB	1 ea

* These replacement parts service the Air Cooled & Liquid Cooled **Generac II** Power Systems and may be ordered as a Kit, **Part # PTS 85897A.**

JJG 9/3/98

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POWER SYSTEMS, INC.

WARRANTY INFORMATION BULLETIN

DATE: December, 1998

MODELS AFFECTED: GN Engines Warranty (GN191, GN220, GN320, GN360, GN410)

All warranty claims on small frame GN191 and GN220 engines which carry an engine serial number higher than **7074872** can be submitted to Generac Power Systems, Inc. on either an ESA 157 or Generac warranty claim.

All warranty claims on large frame GN320, GN360 or GN410 engines which carry an engine serial number higher than **7067664** can be submitted to Generac Power Systems, Inc. on either an ESA 157 or Generac warranty claim.

Generac Power Systems, Inc.
Hwy. 59 & Hillside Road
P.O. Box 8
Waukesha, WI 53187
Attn.: Warranty Department