MANUAL FOR BLASTRAC GPX 10-18

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Section 1

1.1 Safety Instructions

1.1 Safety Instructions

Note: Please read these instructions carefully and completely prior to operating this equipment.

1. All personnel in the vicinity of this machine must wear safety goggles and adequate ear protection while it is in operation.
2. Never perform maintenance on the machine while it is running.
3. When operating machine, keep hands away from all moving parts.
4. Do not wear loose fitting clothing or attempt to remove V-belt covers.
5. Do not stand to side of blast housing while machine is in operation due to the possibility of blade failure.
6. If an emergency should occur while machine is in operation, push the top of the throttle assembly down and turn ignition switch to the off position.
7. Do not operate this equipment on wet surface or in the vicinity of flammable liquids.
8. When repairing underside of machine, always use jack stands.
9. Before transporting machine, be sure dust is cleaned out of the dust collector. The extra weight will cause stress on the axles and may cause them to break.
10. In this manual, we have provided an operation/maintenance checklist. These items **must** be checked before each operation for the safety of the operator as well as the machine.

BEFORE STARTING MACHINE, BE SURE ALL V-BELTS ARE IN GOOD CONDITION!

Section 2

2.1 Operator Responsibilities

2.1 Operator Responsibilities

1. The operator shall provide personnel who have been trained by a Blastrac Technician for the operation and maintenance of Blastrac equipment.

2. The operator shall provide the necessary blasting media in accordance with the recommendations of a Blastrac technician so that the machine will operate at maximum efficiency.

3. The operator shall be responsible for the observance of all safety precautions expressed in this manual.

4. The operator shall perform all maintenance and basic repair functions as stated and described in this manual.

5. The operator shall maintain an inventory of "wear parts" as outlined in this manual.

6. The operator shall dispose of all dust collector refuse.

7. The operator shall provide the following tools & accessories:

Hammer	Screwdrivers
Wrench Set	VOM (meter)
5/16" Allen Wrench	Magnetic Broom
Buckets	

Section 3

3.1 Operator Awareness

The GPX 10-18 machine is designed to blast a concrete surface and reclaim all shot and dust. The machine can very easily destroy the concrete surface if not operated properly. The absence of Operator Awareness will create down time and can prove to be very costly. Read the following precautions carefully prior to operation.

1. When the shot valve is open, the machine is throwing shot! Therefore, you must **be sure the shot valve is closed prior to starting** as well as any time the machine comes to a stop.

2. **The speed of travel controls the depth of your cut**. You should run a test pattern to be sure you are not gouging the floor.

3. Due to variances in concrete, it is necessary to check the pattern every 10 feet as the concrete or coated surface may be softer in different areas.

4. The maintenance checklist is provided for blasting efficiency. This list should be completed after each day of blasting. You will save time and money by maintaining you shot blast machine.

5. **The dust collector must be dumped approximately every two hours. If the dust collector gets too full, you will lose all of your suction.** This will result in loss of all shot from the hopper. Check the dust collector after the first 30 minutes. Determine how long you can operate before dumping. All concrete surfaces are different.

6. The gap between the Blades and the Pinch Bar is very important. If you gap exceeds 1/8", you will begin to trail shot and eventually lose the whole load.

7. The Porta-Shot Blast machine is equipped with blast seals. These seals provide a seal for the suction required and they contain shot that would otherwise be thrown from the machine. If the seals are worn out, you will lose you seal and shot will fly out from the worn areas.

3.2 Operator Sequence

Refer to **Figure 1** for the location of switches and control identified in this procedure.

1. Complete the Operation/Maintenance check list.
2. Place the transmission control lever in the neutral (center) position.
3. Turn ignition switch to ON and start machine.
4. Pull throttle to the wide-open position. Tach should read between 3630 rpm to 3680 rpm.
5. Push the transmission lever forward to go forward and backward for reverse.

ALWAYS BLAST IN FORWARD DIRECTION

6. Adjust the height of the seals using the Housing Lift switch. Lower seals until they contact the surface. Then lower them an additional ¼ inch.
7. Start machine moving forward and slowly open the shot valve. The slower the machine travels while the blast wheel is engaged, the deeper the cut.
8. When coming to a stopping point, shut off the shot valve about 5 feet before stopping. (This will allow you to clear the housing of shot keeping you from blasting a hole when you come to a complete stop.) This distance will vary depending on the speed of travel (fast – more than 5 feet, slow – less than 5 feet).

3.3 Operation Adjustments

The GPX-10-18 is equipped with a few fine tune adjustments to make blasting easier.

1. **FRONT END LIFT**: This is used primarily for loading and unloading the machine. This feature may also be used to adjust your seals while operating machine, opposed to stopping machine and doing it manually.

2. **VACUUM ADJUST PLATE**: This plate is used to adjust the amount of vacuum pulled through the blast housing. It can be used to fine tune air flow to the specific application.

3. **PINCH BAR**: The pinch bar clearance must be checked before each operation. For best blasting results, rotate the pinch bar to allow 1/8" clearance for all applications.

IMPORTANT: AFTER ADJUSTING THE PINCH BAR TO BLADE GAP, ALWAYS SPIN BLAST WHEEL TO VERIFY CLEARANCE ON ALL BLADES.

Section 4

4.1 Blade Removal and Installation

Refer to **Figure 2** for the location of parts and equipment identified in this procedure.

Caution: All electric power must be disconnected and all rotation parts completely Stopped before attempting any maintenance procedure. Always observe Zero Motion Status before attempting any adjustments or maintenance.

Refer to Figure (4) for the location of parts and equipment identified in this procedure.

1. Remove the inspection plate below the blast wheel.
2. Rotate the blast wheel to bring the blade that is to be removed into reach.
3. Remove the two (2) cap screws and retainer plate at the end of the blade.
4. Blow dust and shot out of the threaded hole in the end of the blade.
5. Use a slide hammer to pull the blade out of the blast head.

   NOTE: Slide hammer is provided with all machines containing a pinch bar.

6. Clean dust and shot out of the slot for the blast head for proper installation of the blades.
7. Insert the new blade and replace the retainer plate and cap screws.
8. Inspect gap between blade and Pinch Bar for rotation or replacement of Pinch Bar.
9. Install inspection plate.

4.2 Pinch Bar Removal and Installation

Refer to **Figure 3** for the location of parts and equipment identified in this procedure.

Caution: All power must be disconnected and all rotation parts completely stopped before attempting any maintenance procedure. Always observe Zero Motion Status before attempting any adjustments or maintenance.

1. Remove the Pinch Bar retaining lug.
2. Insert a slide hammer into the threaded hole in the end of the Pinch Bar.

   NOTE: Slide hammer is provided with all Pinch Bar machines.
3. Withdraw the Pinch Bar from the blast head.
4. Insert the new Pinch Bar and tap into place with a hammer.
5. Reinstall the Pinch Bar lug bolt.

Caution: All power must be disconnected and all rotation parts completely stopped before attempting any maintenance procedure. Always observe Zero Motion Status before attempting any adjustments or maintenance.

1. Remove the Pinch Bar retaining lug.
2. Rotate the Pinch Bar clockwise one notch if it does not exceed 1/8 inch from blast wheel blades.
3. If Pinch Bar gap is larger than 1/8 inch, the Pinch Bar should be rotated two (2) notches clockwise.
4. Rotate Pinch Bar with a large adjustable wrench.
5. Reinstall the Pinch Bar lug bolt.

4.3 Blast Wheel Removal

Refer to **Figure 4** for the location of parts and equipment identified in this procedure.

1. **Belts**:
   a) Remove the seat for better access to the work area.

   b) Remove the lower portion of the belt guard and take the six belts off the blast wheel sheave using a flathead screwdriver.

2. **Taper Lock and Sheave Assembly**:
   a) Remove the two set screws from the taper lock.

   b) Install one set screw in the hole, which did not originally have a set screw.

   c) Tighten the set screw until you hear the taper lock "pop". If the taper lock does not pop, tap the outside of it lightly with a hammer.

   d) Slide the taper lock off the shaft. If the assembly does not slide off the shaft easily, insert a screwdriver in the slot and pull off.

      Note: Be careful not to pry open too far as the taper lock can split in half.

3. **Bearing Collar**:
   a) Remove the two Allen head set screws on each of the two bearing collars.

   b) Remove the bearing collars.

4. **Blast Wheel Bearing**:
   a) Remove the two bolts holding the outside bearing.

   b) Pry the outside bearing off of the shaft.

5. **Inspection Plate**:
   a) Remove the two bolts, which connect the inspection plate to the housing.

   b) Remove the inspection plate.

4.3 Cont'd

6. **Cover Plate:**
   a) Remove the four nuts, which connect the cover plate to the housing.

   b) Remove the cover plate.

7. **Blast Wheel:**
   1. Remove the blast wheel drum by pulling the drum shaft through the inside bearing.
      Note: If the drum shaft is resistant to come through the bearing, you may use a block of wood and a hammer to force it through.

4.4 Blast Wheel Installation

Refer to **Figure 4** for the location of parts and equipment identified in this procedure.

1. Reverse steps 1-7 under Blast Wheel removal

2. Locate the counter sink holes in the outside of the blast wheel shaft

3. The set screws on the outside blast wheel bearing should be set in these holes. This will align the blast wheel from side to side.

4. Before you tighten the blast wheel bearings, you must align the blades with the Pinch Bar. Refer to operation adjustments for proper setting.

5. When the blast wheel is aligned with the Pinch Bar, you can tighten the inside blast wheel bearing.

4.5 Top Liner Removal and Installation

Refer to **Figure 5** for the location of parts and equipment identified in this procedure.

Before attempting to remove the Top Liner, you must complete steps 1-7 under Blast Wheel Removal. If the Top Liner has completed more than 100 hours of

4.5 Cont'd

blasting, it will have expanded. To remove the expanded Top Liner, you may weld a turn buckle across the inside to return the liner to its natural position. If the liner is worn out, it will be much easier to cut it in half with a torch and then remove it.

1. Remove the two bolts located at the top of the blast housing. These bolts are accessible from the outside of the housing.

2. Loosen the one nut located at the bottom of the liner. This nut is protected by a piece of manganese that may also be used for a handle.

3. You must now rotate the liner at least 3 inches to the right to clear the mounting arms and remove the liner.

4. To install the Top Liner, reverse steps 1-3.

4.6 Dust Collector – General

This unit is equipped with an auto pulse dust collector that provides suction to separate the dust from the shot. There are two blowers on the dust collector; one provides suction for the separation and the other provides positive pressure to clean filters while you blast. The dust collector is equipped with six cam discs that are operated by a Delco wiper motor (cam motor). The cam has six flappers. One flapper will drop every two seconds. When a flapper drops, positive air flow is forced through that chamber and blows the dust from the filter. There are six cartridge filters. One filter is being cleaned while the other five are in operation. Refer to Figure 3 and 4 for the location of parts and equipment identified in this procedure.

Filters:

1. Open the back door of the dust collector.
2. Loosen wing nuts and remove the filters.

Note: Be careful not to damage filters when installing.

4.7 Flapper Removal and Installation

Removal:

1. Remove the bolts from the top of the air chamber cover.

2. Remove the cover.

3. Remove the two bolts that hold the hinge to the air chamber

4. Remove the Flapper.

Installation:

1. Reverse steps 1-4 of the removal procedure.
   Note: The flappers are connected to hinges that are bolted in and the flappers should
   move up and down freely.

4.8 Cam Disk Removal and Installation

Refer to **Figure 8** for the location of parts and equipment identified in this procedure.

The Cam Disks will rarely need any attention. The disks are made of a high grade plastic and may never need to be changed. However, there are a few items that need maintenance or adjustment.

1. Follow steps 1-2 under Flapper replacement.

2. After the air box is removed, you must remove the cam chamber cover by loosening the four bolts.

3. Remove the chain from the cam motor sprocket to free the shaft (not shown).

4. Loosen the set screws on each flange bearing.

5. Loosen the set screw on each cam disc.

6. Pull the cam shaft through to the cam disc you wish to remove.

4.8 Cont'd

7. After the shaft has been pulled through the disc, you can then remove it.

8. To install cam disks, reverse steps 1-7 under Cam Disc Removal (do not tighten the set screws yet).

4.9 Cam Disk Adjustment

1. To adjust the cam discs, the air box must be removed. Complete steps 1-2 under Flapper removal.
2. Remove cam cover plate.
3. Loosen the four nuts on each cam. The holes are slotted ¼" for adjustment.
4. Refer to Cam Disc Timing to adjust the discs.
5. If the disks are too far out of adjustment, you will have to loosen the set screw and turn the cam.

4.10 Timing Cam Disks

Cam Disk sequence is 1-6 starting from the cam motor side.

- Line a straight edge across the cam discs four inches from the edge on each side.
- **No 1 Cam Disc:** The short side of the opening should be 90 degrees up or directly in line with the straight edge.
- **No. 2 Cam Disc:** The long side of the opening should show 3/8" past the straight edge while No. 1 is in position.
- **No. 3 Cam Disc:** Turn the cam so that the short side of the opening on No. 2 Cam Disc is in line with the straight edge. Now adjust No. 3 so that the long side of the opening shows 3/8" past the straight edge.

4.10 Cont'd

- **No. 4 Cam Disc:** Turn the cam so that the short side of the opening on No. 3 Cam Disc is in line with the straight edge. Now adjust No. 4 so that the long side of the opening shows 3/8""past the straight edge.

- **No. 5 Cam Disc:** Turn the cam so that the short side of the opening on No. 4 Cam Disc is in line with the straight edge. Now adjust No. 5 so that the long side of the opening shows 3/8" past the straight edge.

- **No. 6 Cam Disc:** Turn the cam so that the short side of the opening on No. 5 Cam Disc is in line with the straight edge. Now adjust No. 6 so that the long side of the opening shows 3/8" past the straight edge.

Section 5

5.1 Maintenance Check List

5.2 Maintenance Log

5.1 Maintenance Check List

Operation/Maintenance Check List: The items on this check list **must** be checked before each operation to achieve maximum blasting efficiency and for the safety of the operator as well as the machine.

_____ Blast wheel	Check for balance and excessive wear
_____ Blades	Check for excessive wear
_____ Top liner & Lower liner	Check for excessive wear
_____ Pinch bar	Check clearance and for uneven wear
_____ Gap	To adjust the gap, see operation adjustments
_____ Blast wheel bearings	Check set screws and grease
_____ Shot valve	Check for leaks
_____ Filters	Make sure filters are not clogged or ripped
_____ Flappers	Make sure all flappers open and close
_____ Engine oil	Check level and change when dirty.
_____ Air cleaner	Change when dirty
_____ Transmission oil	Check for leaks and change when dirty
_____ Axle seals	Check for leaks
_____ Blast seals	Check for excessive wear
_____ Blower bearings	Check set screws and grease
_____ Steering assembly	Check chain tension
_____ Belts	Check quality and tension
_____ Idler assembly	Check bearings
_____ Dust collector latches	Make sure latch is firmly secured to door
_____ Cam motor	Make sure motor is on when blasting

5.2 Maintenance Log

maintenance log

Liners – Inspect for wear	Checked		OK		Change	
Blastwheel - Inspect for wear	Checked		OK		Change	
Filters – Inspect – clean or replace	Checked		OK		Change	
Blades- Inspect for wear	Checked		OK		Change	
Shot valve – Inspect	Checked		OK		Change	
Seals – Inspect for wear	Checked		OK		Change	
Bearings – Inspect set screws and grease	Checked		OK		Change	
Check oil levels -	Checked		OK		Change	
Pinch bar – Inspect for wear, Rotate ¼ turn every 8 hours	Checked		OK		Change	
Belts – Check quality and tension	Checked		OK		Change	
Flappers – Check all open, no obstructions	Checked		OK		Change	
Propane system – check valves for leaks	Checked		OK		Change	

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Section 6

6.1 Specifications

6.1 Specifications

The GPX-10-18 Porta-Shot Blast machine is powered by a CH-25 Kohler liquid propane engine. The 25HP machine is capable of cutting up to 1/8" of concrete in one pass. It is driven by a Peerless hydraulic system, controlled by lever arm action.

The GPX-10-18 has a 10" blast pattern using Nelco's patented blast wheel which reduces hot spots and groves. The blast wheel is a paddle wheel design that is pulley driven at a maximum speed of 5400 RPM continuously. Shot feeds through the shot valve to the blast wheel. The shot and debris rebound to the dust separator and the dust is removed to the dust collector. Clean shot falls back into the hopper for reuse. The machine recycles shot continuously until the machine is shut off. The auto pulse dust collector cleans the six cartridge filters while the machine is running. This machine is capable of cutting up to 1200 square feet per hour, while achieving a brush blast.

Specifications:

Drive Motor	25 HP Kohler
Propane System	Liquid
Motor RPM	3600 at max idle
Blasting Width	10"
Charging System	12 volt
Dust Collector	600 cfm suction/1400 cfm pulse pressure
Transmission	Eaton Mod. 700-002 CCW
Transaxle	Peerless Mod. ET-12677
Dimensions	L: 78.5" W: 32" H: 48"
Weight	1550 lbs

Section 7

7.1 Hazardous Materials Safety Warning

7.1 Hazardous Materials Safety Warning

Some floor or deck surfaces may be coated with or contaminated by **hazardous material**. Typical examples of hazardous materials include tile mastic which is likely to contain **asbestos**, stained areas near electrical equipment which may contain **PCB's**, old paint, which may contain **lead**, stained or surface contaminated floor areas in chemical or other industrial facilities that may contain **pesticides**, **cleaning fluids**, **solvents**, or other **harmful chemicals**.

During the normal operation of shot blasting equipment, surface material is removed and dust is created. When the surface material is contaminated, the dust may contain hazardous material.

It is very probable that dust will be released during the normal operation of U. S. Filter/Blastrac equipment. If this dust contains hazardous material, there is a danger that exposure to this dust may pose a health risk.

Before using U. S. Filter/Blastrac equipment on any surface, the area must be inspected for possible contamination.

U. S. Filter/Blastrac does not warrant its equipment to be suitable for, or approved for, removing hazardous materials.

Before beginning any project involving the removal of hazardous materials, it is the responsibility of the contractor to ensure that the work site and equipment to be used have been inspected and the proposed work has been approved by the proper authorities. It is also the responsibility of the contractor to notify workers of any potential health risks and ensure that workers are properly protected from exposure to hazardous materials and from the long term effects of such exposure.

U. S. Filter/Blastrac Portable Shot Blast Cleaning Systems are not designed for use to remove, clean, profile, or alter any surface coated with or otherwise contaminated by hazardous material. U. S. Filter/Blastrac expressly disclaims any liability for injury, illness, death, or damage that might occur or result from such use.

Section 5A
LPG Fuel System

⚠ WARNING: Explosive Fuel!

LPG is extremely flammable and is heavier than air and tends to settle in low areas where a spark or flame could ignite the gas. Do not start or operate this engine in a poorly ventilated area where leaking gas could accumulate and endanger the safety of persons in the area.

Proper service and repair of LPG fuel systems requires qualified technicians and special equipment. Many states require special licensing or certification for LPG repair shops and/or technicians. Check state and local regulations before attempting any adjustment, service, or repair of the LPG system or components. Faulty repairs by unqualified or underqualified personnel can have very serious ramifications. The information in this segment is for the exclusive use of qualified LPG service providers.

LPG Fuel System Components

The typical "liquid withdrawal" LPG fuel system consists of the following components:

- LPG Fuel Tank (Liquid Withdrawal)
- Electric Lock-Off/Filter Assembly
- Vaporizer
- LPG Regulator (Combination Primary/Secondary/Vacuum Lock-Off)
- LPG Carburetor
- High Pressure Fuel Line(s)
- Vacuum Line

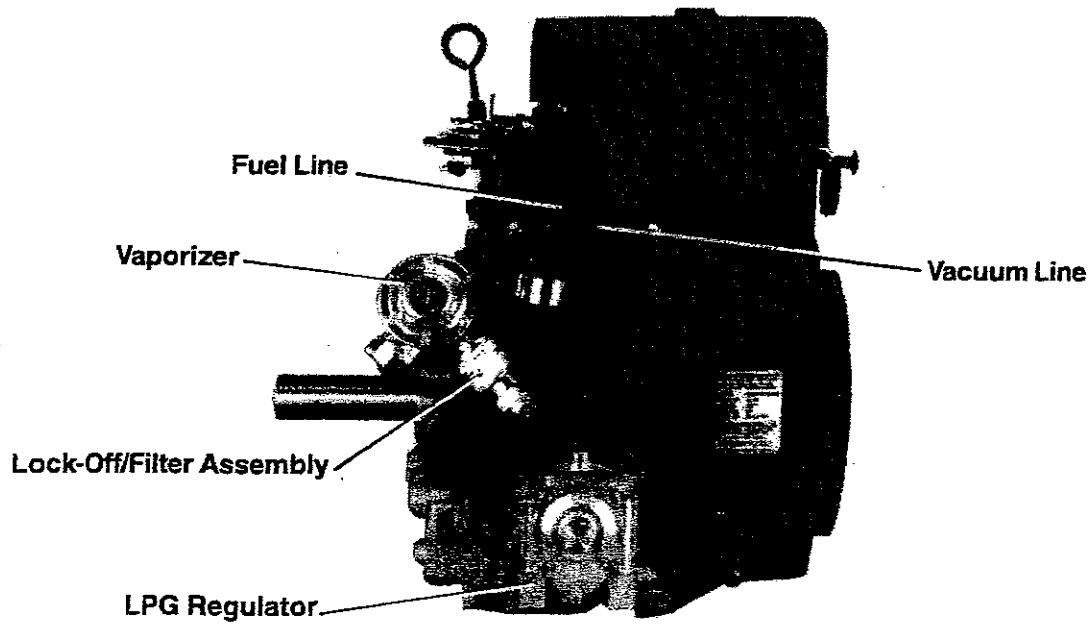


Figure 5A-1.

Section 5A
LPG Fuel System

Operation

In a liquid withdrawal system, the Liquefied Petroleum Gas (LPG) is released from the bottom of the supply tank under high pressure. Upon opening the shut-off valve on the tank, liquid fuel travels out through the high pressure line to the electric lock-off/filter assembly. The lock-off opens internally when the key switch is turned **"on,"** permitting filtered fuel to flow to the vaporizer. The vaporizer is mounted in the flow of the discharged cooling air. It absorbs heat from the cooling air and transfers it to the fuel, changing the liquefied petroleum to a vapor or gaseous state, while partially stepping down the fuel pressure. The gas/vapor flows under this decreased pressure to the regulator where it is further reduced to a usable, regulated pressure. The regulator, activated by intake manifold vacuum, controls fuel flow to the carburetor. In the venturi of the carburetor, the fuel vapor is mixed with incoming air from the air cleaner in the correct ratio for efficient combustion.

Troubleshooting Checklist

If the engine starts hard, runs roughly, or stalls, check the following areas.

- Make sure the LPG fuel tank is filled and shut-off valve is fully opened.
- Make sure fuel is reaching the carburetor.
- Make sure the air cleaner element and precleaner are clean and all components are fastened securely.
- Make sure the ignition, governor, exhaust, throttle, and choke control systems are all operating properly.
- Check compression.

If engine continues to start hard, run roughly, or stall after these checks have been made, use the following troubleshooting guide.

Engine cranks but will not start

1. LPG fuel tank closed, low, or empty.
2. Lock-off not opening electrically, preventing fuel flow to vaporizer.
3. Fuel filter (located inside lock-off) dirty or blocked.
4. Insufficient vacuum signal, regulator not opening.
   a. Vacuum line between carburetor and regulator cracked, leaking, or broken.
   b. Carburetor loose.
   c. Intake manifold loose or leaking.
   d. Excessive internal engine wear.
5. Faulty regulator
   a. Primary valve not opening
   b. Diaphragm spring adjustment incorrect.
   c. Idle adjustment screw incorrectly set.
   d. Vent(s) blocked/restricted.
6. Restricted/blocked fuel line.
7. Blocked carburetor fuel circuit

Hard starting, runs roughly, or stalls at idle speed

1. LPG fuel tank low.
2. Vacuum line between carburetor and regulator cracked, or leaking.
3. Carburetor idle speed set too low (should be at least 1200 RPM).
4. Carburetor idle circuit restricted.
5. Dirty/restricted air cleaner.
6. Dirty/restricted lock-off filter.
7. Frozen/malfunctioning regulator. Check/adjust primary pressure.
8. Excessive external load on engine.
9. Excessive internal wear.

Irregular or inconsistent idle

1. Improper operation/adjustment of regulator, idle adjustment screw, throttle opening, and/or engine governor.
2. Secondary valve in regulator not closing. Readjust idle screw (couterclockwise) so valve can close fully against seat.
3. Loose/leaking vacuum line.
4. Loose carburetor mounting and/or line connections.
5. Damaged diaphragm(s) within regulator.
6. Debris in regulator. Flush debris from drain plug or remove regulator from system, disassemble body and remove debris.
7. Dirt or debris in carburetor. Remove carburetor, disassemble and clean/service as required.

Engine stalls during operation

1. No fuel.
2. Faulty lock-off or blocked filter.
3. Improper governor setting.
4. Damaged diaphragm(s) within regulator.
5. Leaking/loose vacuum line.
6. Restricted fuel line.

Low power

1. Air cleaner or exhaust system dirty/restricted.
2. Low fuel.
3. Rich gas condition (flooding) through regulator.
   a. Dirty/restricted valves in regulator.
   b. Damaged primary diaphragm in regulator.
4. No fuel.
   a. Electric lock-off not opening, filter blocked, or restriction within fuel line.
   b. Leaking, loose, or cracked vacuum line from carburetor to regulator.
   c. Leaking, or loose intake system components.
   d. Regulator primary valve not opening.
   e. Secondary, or vacuum lock-off diaphragm within regulator leaking.
   f. Low pressure rubber hose kinked.
   g. Frozen regulator.
5. Improper ignition timing.

Engine runs lean

1. Electrical problem causing intermittent lock-off operation, or lock-off is faulty.
2. Filter in lock-off dirty or restricted.
3. Restriction in fuel system.
4. Idle holes plugged; dirt in fuel delivery channels.
5. Carburetor fuel circuit restriction.

High fuel consumption

1. Fuel leak. Check lines, connections, and system components for leaks with soapy water. Fix any leaks immediately.
2. Incorrectly set regulator, or leakage from valves in regulator. Readjust, service, or replace regulator as required.
3. Dirty air cleaner or precleaner.
4. Choke plate in carburetor not opening completely.

LPG Carburetor Adjustments

General

The LPG carburetor and regulator are designed to deliver the correct fuel-to-air mixture to the engine under all operating conditions. The high and low idle fuel mixture settings are preset at the factory, and cannot be adjusted.

High Altitude Operation

The standard carburetor calibration will provide proper operation at altitudes of **1500 m (5000 ft.)** and above. No internal changes or modifications are necessary or available.

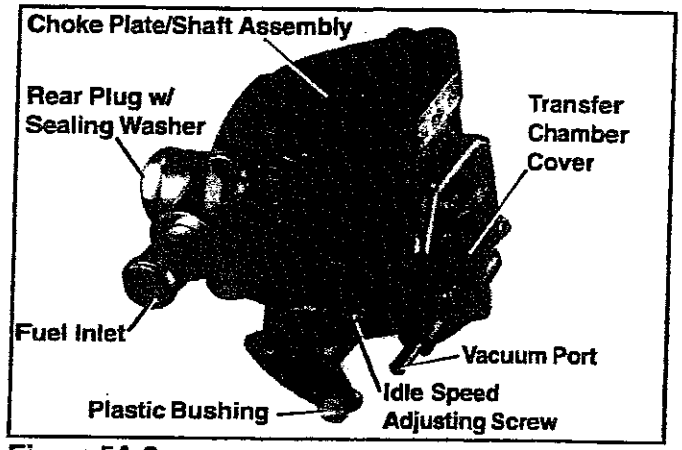


Figure 5A-2.

NOTE: Carburetor adjustments should be made only after the engine has warmed up.

Idle Speed Adjustment

1. Start the engine and run at half throttle for 5 to 10 minutes. Check that the throttle and choke plates can open fully.

2. Place the throttle control into the **"idle"** or **"slow"** position. Turn the low idle speed adjusting screw (see Figure 2) in or out, to obtain a low idle speed of **1200 RPM (± 75 RPM)**, or set to application specifications. Check the speed using a tachometer.

NOTE: The actual low idle speed (RPM) depends on the application. Refer to the equipment manufacturer's recommendations. The low idle speed for basic engines is **1200 RPM**.

LPG Fuel System Component Service

LPG Carburetor Cleaning

The carburetor may be cleaned if necessary. Removal from engine and limited disassembly will aid in cleaning.

1. Turn off fuel supply at tank.

2. Remove the air cleaner, breather hose, fuel line, vacuum hose, choke, and throttle linkages. Remove the nuts, carburetor, and gaskets from the engine. Discard the gaskets.

3. Remove the fuel transfer chamber cover by removing the three screws (see Figure 2). Carefully remove the cover and gasket. Discard the gasket.

4. The main jet is fixed and non-adjustable, but may be accessed for cleaning by removing the rear plug and sealing washer. Discard the washer.

5. In order to clean the off-idle transfer passages and carburetor thoroughly, use a good carburetor cleaner following the manufacturer's instructions. Blow clean compressed air through passages and make sure all are open before reassembling. **Do Not use wire or metal objects to clean passages or carburetor body.**

LPG Carburetor Inspection

1. Inspect the carburetor body for cracks, holes, and other wear or damage.

2. Check the throttle and choke shafts for wear and free movement. If considerable wear or damage is found on the shafts, or to the shaft bores in the carburetor body, the carburetor should be replaced. **Do not** attempt to remove the choke or throttle plates. The screws are staked to prevent loosening.

LPG Carburetor Reassembly

The transfer chamber cover gasket, sealing washer, and carburetor mounting gaskets are included in Carburetor Repair Kit, Kohler Part No. 24 757 29.

1. Reinstall the rear plug with new sealing washer. Tighten the plug securely.

2. Reinstall fuel transfer chamber cover with new gasket. Secure with the three screws.

3. Install new carburetor mounting gasket on manifold studs, followed by the carburetor and new air cleaner base gasket.

4. Reconnect the throttle and choke linkages, and the fuel and vacuum lines.

5. Reinstall the air cleaner base and breather tube. Secure base with two mounting nuts. Torque nuts to **9.9 N·m (88 in. lbs.)**. Install the rest of the air cleaner system.

7. Check to be sure all system connections are tight.

8. Reset idle RPM and recheck high idle (governed speed) after starting and allowing sufficient warm-up time.

Electric Lock-Off/Filter Assembly Functional Test

The electric lock-off can be easily tested to verify that it is functional. Remove it from the system for testing. Using a 12 volt power supply or battery, connect one wire lead to the positive (+) lead of power supply, and touch remaining wire lead to negative (-) lead of power supply. When connection is made, an audible "click" should be heard indicating the opening of the lock-off. While energized, blow compressed air through it to determine if it is blocked or restricted.

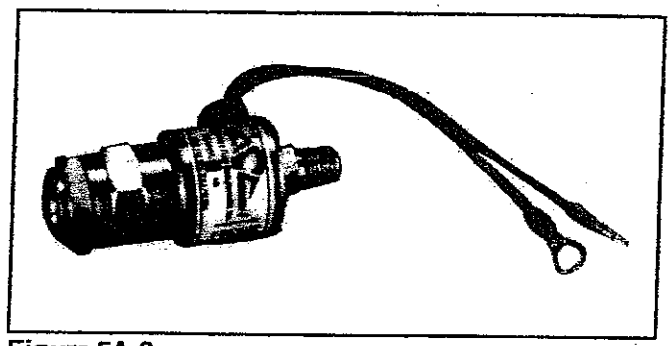


Figure 5A-3.

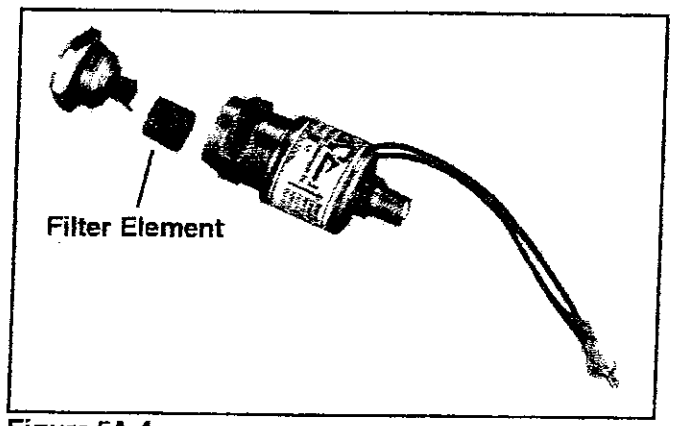


Figure 5A-4.

Electric Lock-Off/Filter Assembly Filter Service
The filter inside the lock-off assembly should be replaced **every 500 hours** of operation, or if it becomes blocked or restricted. The replacement filter is Kohler Part No. 24 050 04. **Cleaning of the filter element is not recommended.**

Vaporizer Assembly

No internal servicing of vaporizer is required. The outer surfaces of the vaporizer should be kept free of dirt and debris accumulation, which will cause a loss of vaporization efficiency. Visual inspection and necessary cleaning should be performed on a regular basis, more frequently under dusty or dirty conditions.

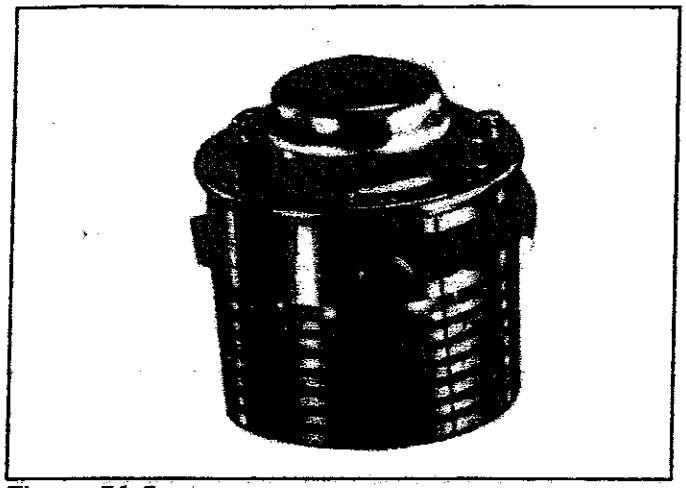


Figure 5A-5.

LPG Regulator

The regulator controls both the pressure and flow of fuel within the LP system. It is comprised of both a primary and secondary chamber, which are functionally interdependent. Following is an explanation of the function and the fuel flow through each chamber.

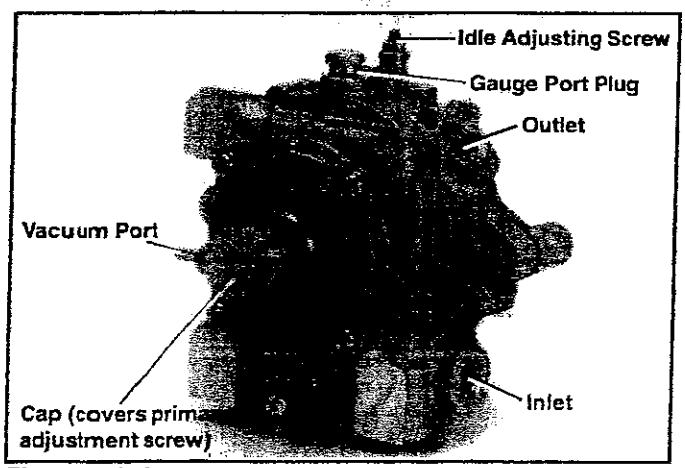


Figure 5A-6.

Primary Chamber (See Figure 5A-7.)
The primary chamber reduces the high pressure fuel flow from the tank and vaporizer down to approximately 4 psi. Fuel flowing from the vaporizer enters the inlet of the regulator under approximately **76 kPa (11 psi)** of pressure. There it is delivered to the primary chamber **(3)** through the clearance between the primary valve **(1)** and valve seat **(2)**. As fuel continues to flow and the primary chamber approaches **29 kPa (4 psi)**, the primary diaphragm **(4)** overcomes the tension of the diaphragm spring **(5)**. As the diaphragm **(4)** and contact button **(6)** move up, the primary lever spring **(8)** pushes the primary lever **(7)** up, in turn closing the primary valve **(1)** and stopping the flow of fuel. As fuel is consumed and the pressure in the primary chamber drops below **29 kPa (4 psi)**, the diaphragm spring **(5)** tension will be greater than the fuel pressure, causing the primary diaphragm **(4)** to be pushed down. This causes the contact button **(6)**, to push the primary lever **(7)** down, in turn opening the primary valve **(1)** and admitting more fuel. In this manner, the pressure within the primary chamber is maintained at a relatively constant **29 kPa (4 psi)**.

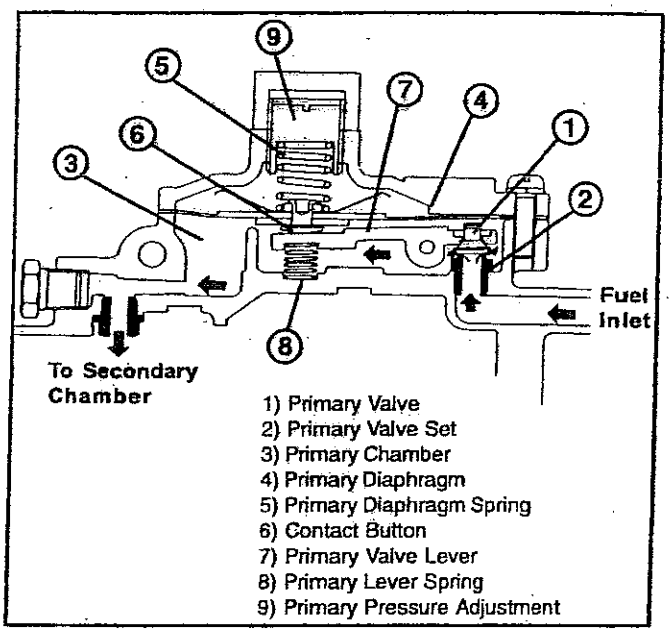
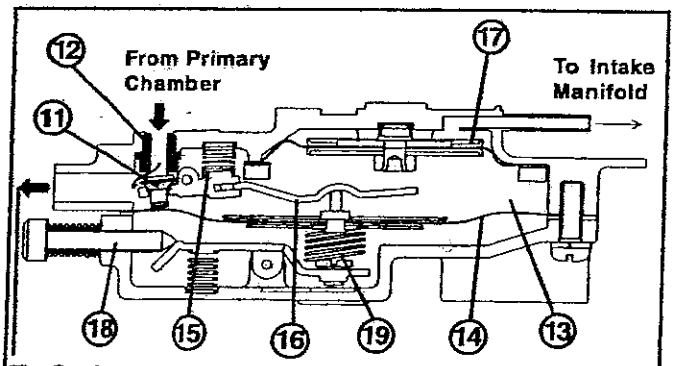


Figure 5A-7. Primary Chamber.

Secondary Chamber (See Figure 5A-8.)
The secondary chamber further reduces the fuel pressure from the **29kPa(4 psi)** of the primary chamber to near **0kPa (0 psi)** pressure, to prevent excessive fuel flow to the carburetor. Fuel enters the secondary chamber **(13)** through the clearance between the secondary valve **(11)** and the valve seat **(12)**. While the engine is operating, and fuel is being drawn from the secondary chamber, the secondary diaphragm **(14)** is raised by atmospheric pressure, simultaneously lifting the secondary valve lever **(16)**, opening the secondary valve **(11)**, allowing fuel to flow. When the engine is running at idle, there may not be enough vacuum created in the carburetor venturi to overcome the tension of the secondary diaphragm spring **(15)**, and the secondary diaphragm cannot open the valve. Under those conditions, the idle adjusting screw **(18)**, and balance spring **(19)** are used to apply just enough pressure on the diaphragm **(14)** to maintain sufficient fuel flow for idle operation.

The vacuum lock-off mechanism is located in the secondary chamber. When the engine is running, manifold vacuum above the diaphragm **(17)** draws it up, so the secondary valve can function normally. When the engine is stopped, manifold vacuum is terminated, and the diaphragm relaxes and pushes down on the secondary valve lever, preventing any fuel flow or leakage through the regulator.



11) Secondary Valve
12) Secondary Valve Seat
13) Secondary Chamber
14) Secondary Diaphragm
15) Secondary Diaphragm Spring
16) Secondary Valve Lever
17) Vacuum Lock-Off Diaphragm
18) Idle Adjust Screw
19) Balance Spring

Figure 5A-8. Secondary Chamber

Preventative Maintenance
The regulator is preset at the factory and generally requires no further adjustment. However, fuel residue deposits can accumulate inside the regulator. **Annually or every 500 operating hours** the residue should be drained from the secondary chamber.

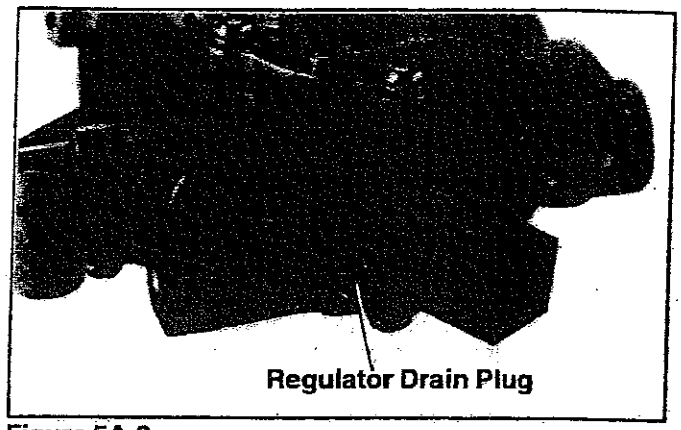


Figure 5A-9.

1. Turn supply valve off, run engine out of fuel, and turn off ignition switch.
2. Disconnect and ground the spark plug leads.
3. Remove the 1/8" pipe plug from bottom of regulator and drain any accumulated deposits. See Figure 5A-9
4. Reinstall plug using pipe sealant with Teflon® on threads and tighten securely. Do not use Teflon® tape. If required, a replacement plug is available as Kohler Part No. X-75-23.

Complete disassembly, cleaning, and resetting of regulator at regular **1500 hour** intervals is recommended. As all adjustments and settings must be reset using specific test equipment, this must be performed by qualified LP personnel only.

Regulator Service
NOTE: The following procedures may only be performed by qualified LPG service technicians. Check state and local regulations regarding special certification or licensing that may be required.

Servicing of the primary and secondary chambers is covered separately in the following text. If both chambers are to be disassembled at the same time, **keep the parts separated.** When the necessary service has been completed, reassemble the primary chamber first, followed by the secondary chamber.

Primary Chamber Service

1. With fuel supply shut off, remove the regulator from the system.

2. Pry off tamper-proof caps covering the primary adjustment screw and idle adjusting screw. Remove the primary pressure adjustment screw cap, screw, and diaphragm spring.

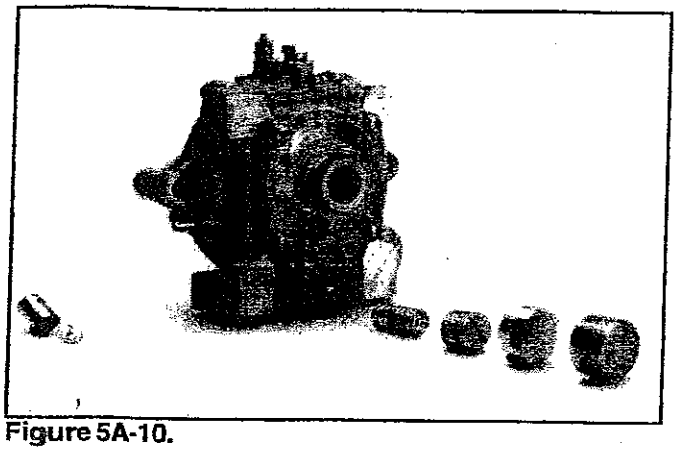


Figure 5A-10.

3. Remove the five screws securing the primary cover to the main body. Carefully lift and separate the two parts exposing the primary diaphragm.

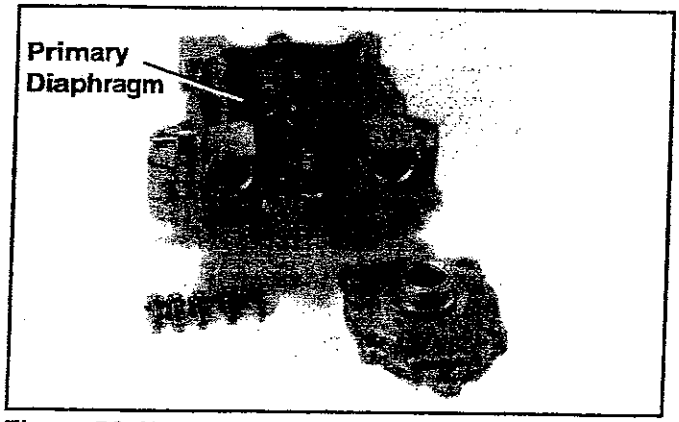


Figure 5A-11.

4. Inspect the diaphragm before removing it from regulator body. If it is in good condition, it can be reused, but use extra care to separate and remove it from the body. If cracked, deteriorated or damaged, the diaphragm must be replaced. New diaphragms are available in Diaphragm Kit, Kohler Part No. 24 757 26, which contains all three diaphragms (primary, secondary, and vacuum lock-off) used in the regulator.

5. Lay a straight edge across the surface of the housing and measure the gap between the lever and the bottom of the straight edge. A gap of **3.2 ± .5 mm. (.125 ± .020 in.)** should exist between the two.

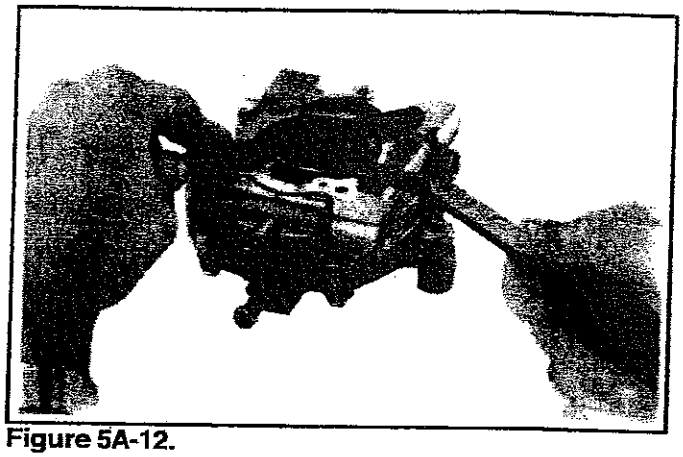


Figure 5A-12.

6. Remove the two screws securing the lever guide to the housing and lift out the primary lever assembly. Inspect the valve and seat for dirt accumulation, wear, or any scratches that would affect their sealing ability. If the lever setting (gap) was incorrect or scratches were noted, **do not** attempt to bend or reuse the arm. Use Primary Repair Kit, Kohler Part No. 24 757 24, which contains a new lever assembly, valve, valve seat, shim washers, and mounting hardware.

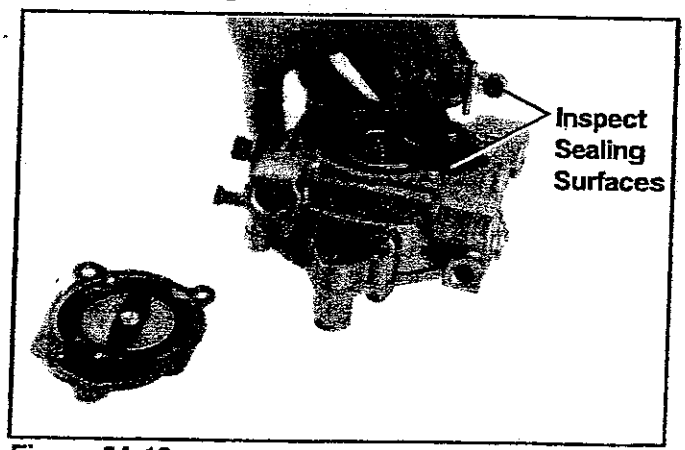


Figure 5A-13.

7. Remove the primary lever spring, noting the placement and quantity of shim washers used (if any). The washer(s) are used to establish proper spring pressure. The same number of washers **must** be reinstalled during reassembly.

Figure 5A-14.

8. The valve seat may be removed with a 10 mm socket or nut driver. Note the shim/sealing washer(s) between seat and housing. Examine parts for wear or damage.

Figure 5A-15.

9. Thoroughly clean housing and components using kerosene, cleaning solvent, or mineral spirits. When using any of these products for cleaning ALWAYS follow the manufacturer's instructions and safety precautions carefully. After cleaning, inspect the housing for wear, cracks, or other damage. If any condition is noted that one of the service kits will not correct, the regulator should be replaced. If any of the screws from the regulator are missing or damaged, Lever Repair Kit, Kohler Part No. 24 757 27, contains a complete set of replacement screws.

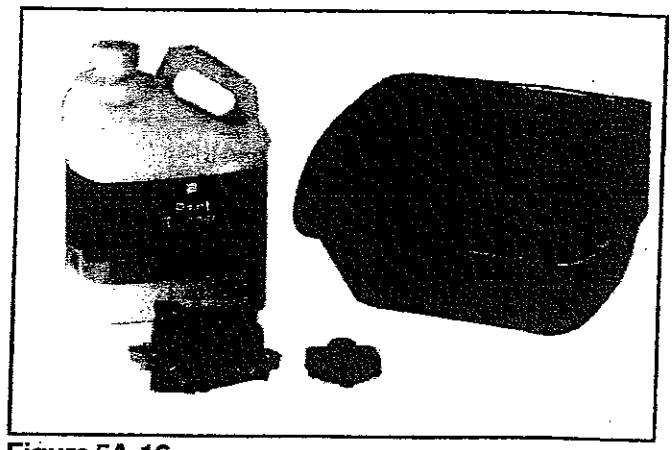


Figure 5A-16.

10. Install valve seat with one shim/sealing washer into housing. Torque to **2.9/4.8 N·m (26/43 in. lbs.).**

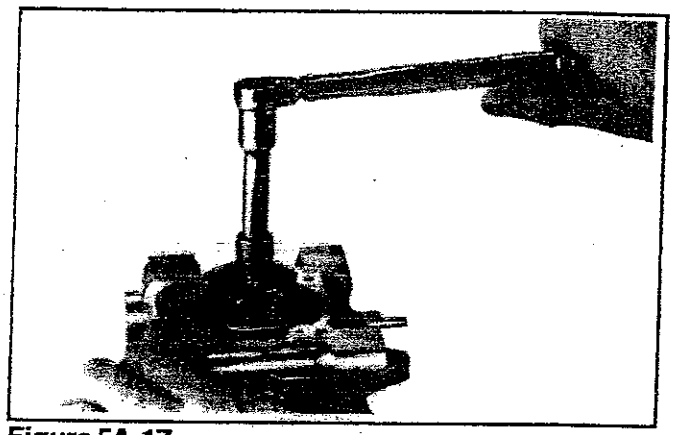


Figure 5A-17.

11. If any shims were removed in step 5, place an equal quantity back into housing recess, followed by the lever spring.

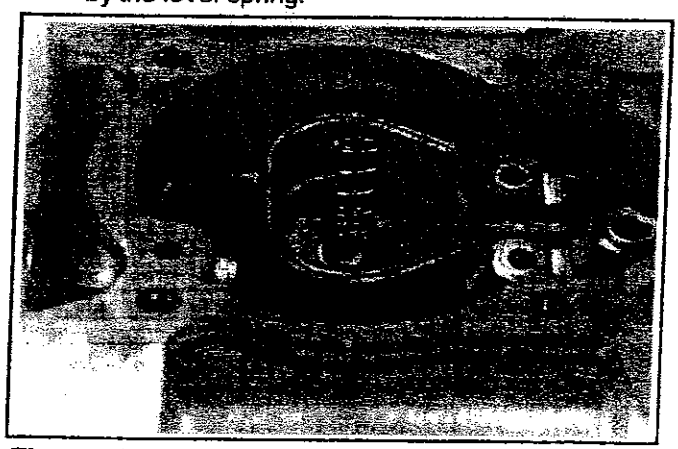


Figure 5A-18.

12. Slide pivot pin through lever and set lever in place with valve directly over seat and recess of tang catching the top of return spring. Secure lever assembly with the retainer and two screws. Torque screws to **2.9 N·m (26 in. lbs.)**.

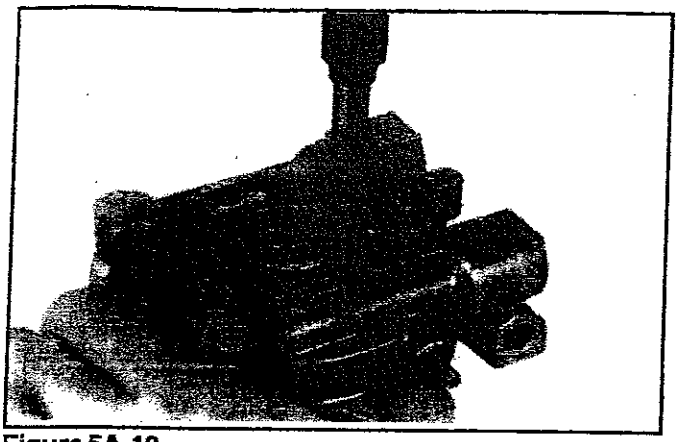


Figure 5A-19.

13. Lay a straight edge across the surface of the housing body and measure to the lever, as in step 5. A gap of **3.2 ± .5 mm (.125 ± .020")** should exist. If necessary add or remove shim/ sealing washers under valve seat to establish the proper lever setting. **Do not bend lever.**

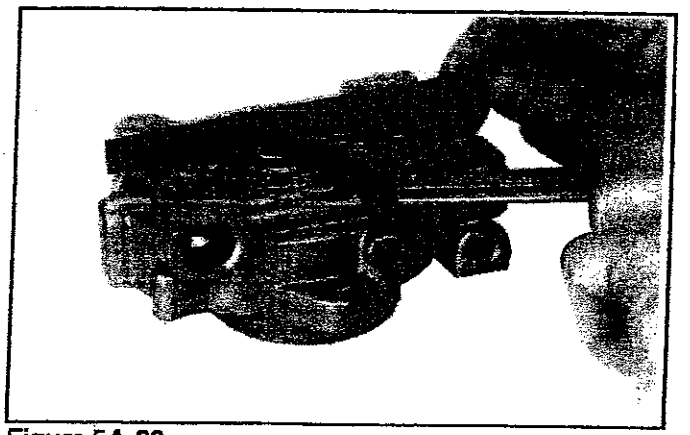


Figure 5A-20.

14. Check for leakage from valve and seat area by immersing in kerosene, cleaning solvent or mineral spirits (following the manufacturer's instructions and safety precautions carefully) and then pressurizing inlet with regulated air pressure of **43-45 psi.** Do not use soap. No leakage should exist. If leakage is noted, carefully rotate valve with pliers and retest until there is no leakage. Remove from liquid and blow dry.

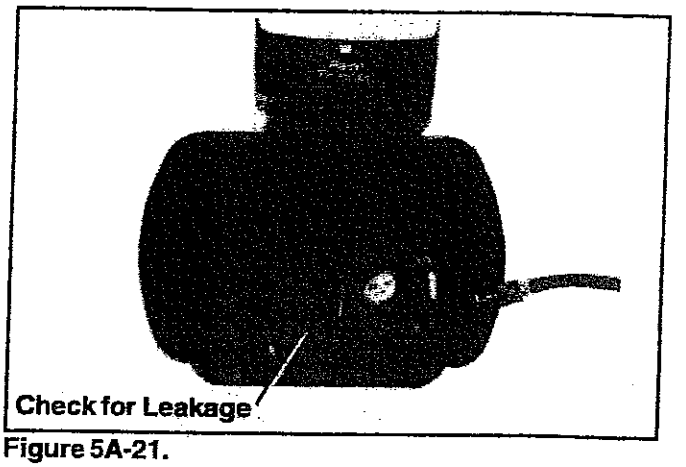


Figure 5A-21.

15. Install primary diaphragm with "solid" head of center rivet **down** against tang of primary lever. The gasket material should be **up** toward the cover.

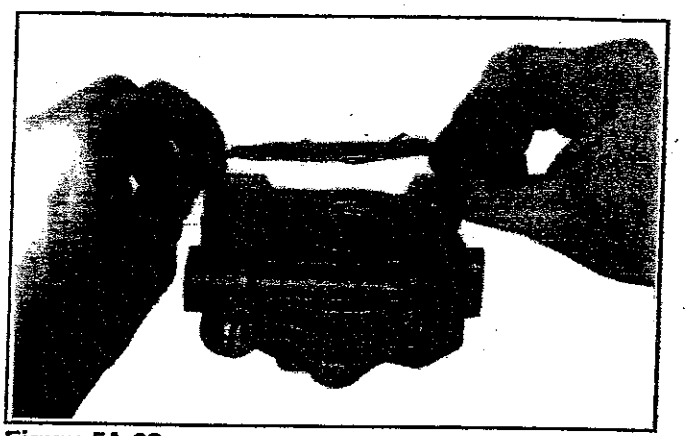


Figure 5A-22.

16. Reinstall cover onto housing using the five screws removed in step 3. Torque screws to **4.8 N·m (43 in. lbs.)** in a criss-cross pattern.

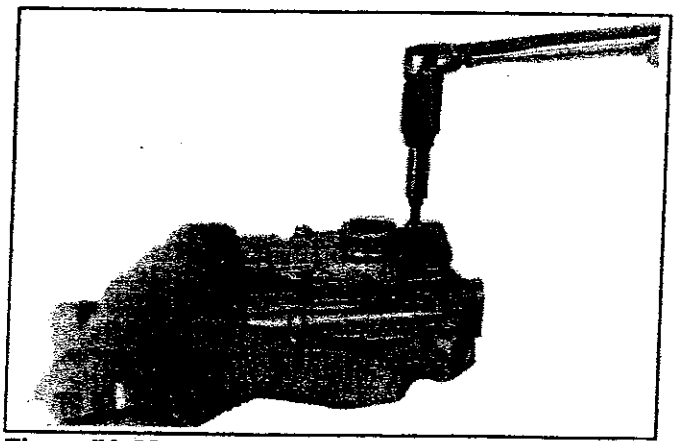


Figure 5A-23.

17. Install primary lever spring, followed by adjustment screw. Turn in approximately 1-1/2 turns, final adjustment will be made later.

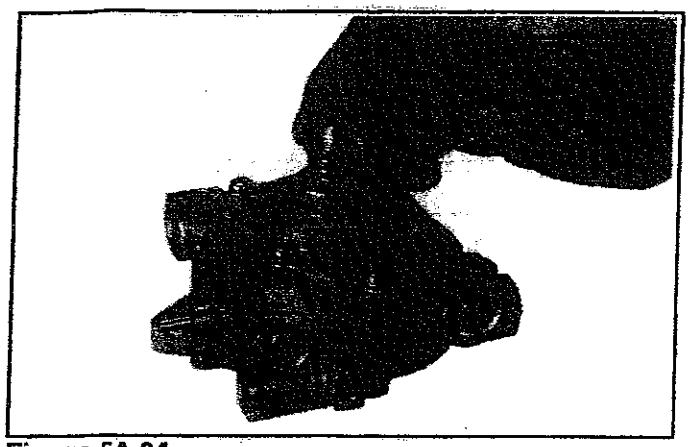


Figure 5A-24.

Secondary Chamber Service

1. Remove the five screws securing the secondary chamber cover to the regulator housing. Carefully lift and separate the cover from the housing, exposing the secondary diaphragm. Carefully inspect the diaphragm before removing it from the regulator body. If it is in good condition, it can be reused, but extra care is required to separate and remove it from the body. If cracks, deterioration or damage exist diaphragm must be replaced. A new diaphragm is available in Diaphragm Kit, Kohler Part No. 24 757 26.

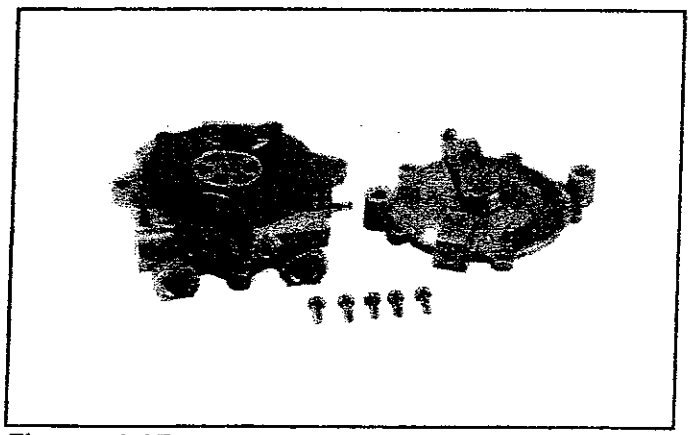


Figure 5A-25.

2. Before removing the secondary valve/lever, lay a straight edge across the top surface of the housing and check the position of the lever. The top edge of the lever should be even with or slightly above **(0.0/0.5 mm, 0.000/0.020 in.)** the plane of the housing surface.

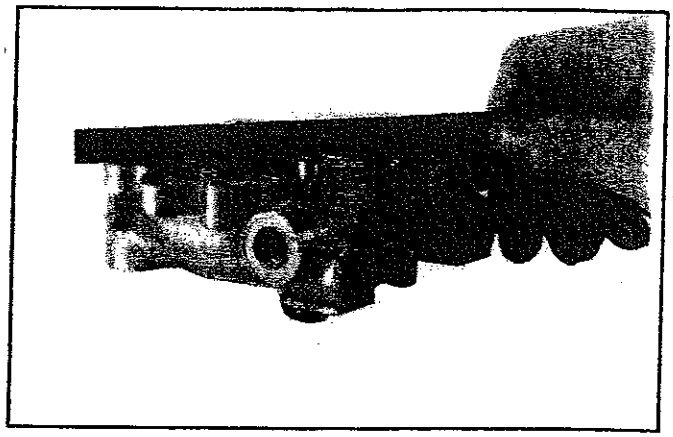


Figure 5A-26.

3. Remove the screws and lift out the lever/pin assembly and spring. Inspect the valve and seat for scratches, damage, or signs of leakage. If the lever position was incorrect (step 2), or the valve or seat show scratches or damage, order and install Repair Kit Kohler Part No. 24 757 25, which contains a new lever assembly, valve, valve seat, and mounting hardware.

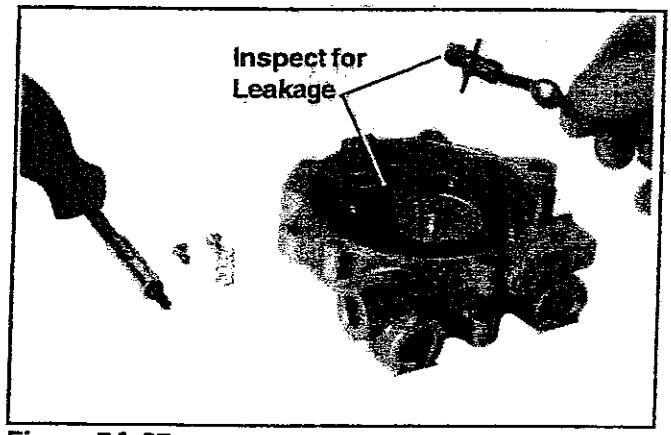


Figure 5A-27.

4. Carefully remove secondary valve seat from housing using an 8 mm nut driver or deep socket.

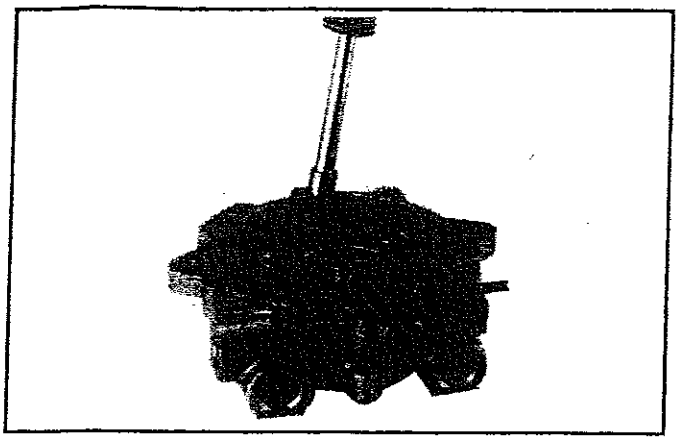


Figure 5A-28.

5. Remove the four screws securing the vacuum lock-off diaphragm retaining plate.

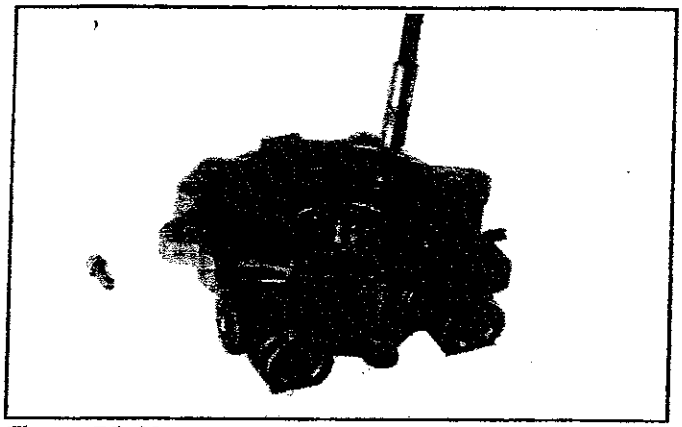


Figure 5A-29.

6. Lift out the retaining plate and diaphragm, with spring attached. Inspect diaphragm for deterioration, cracks and signs of leakage. If the condition is questionable, new diaphragm is available in Diaphragm Kit, Kohler Part No. 24 757 26. Save spring for reuse with new diaphragm.

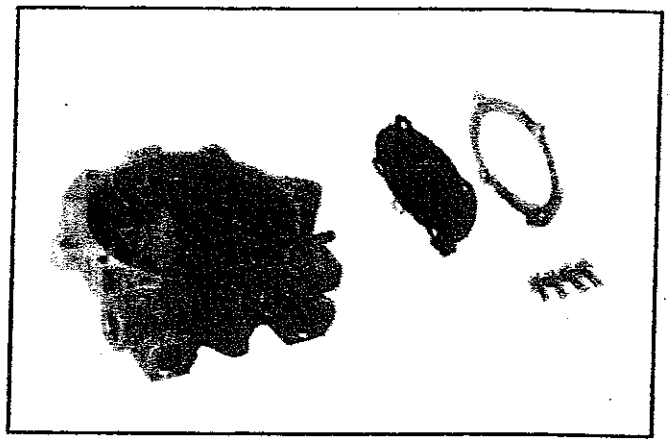


Figure 5A-30.

7. Thoroughly clean housing and parts using kerosene, cleaning solvent, or mineral spirits. Do not scratch or nick the valve seat area or diaphragm mounting surface when cleaning. Blow dry. Examine parts for damage or wear. If any condition is noted that the service kits will not correct, the regulator should be replaced.

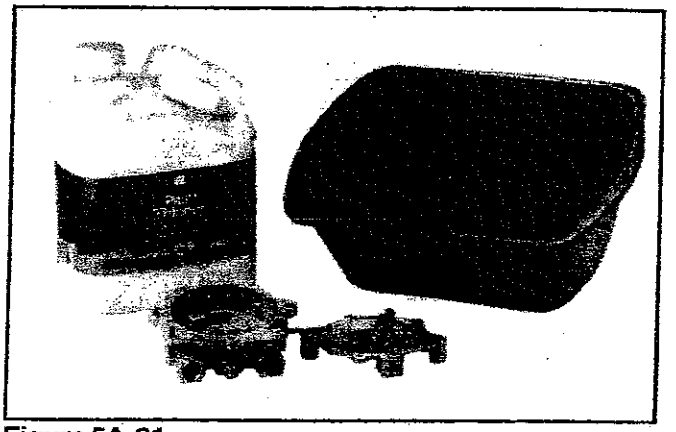


Figure 5A-31.

8. Install the secondary valve seat. Torque to **4.8 N·m (43 in. lbs.)**. See Figure 5A-32.

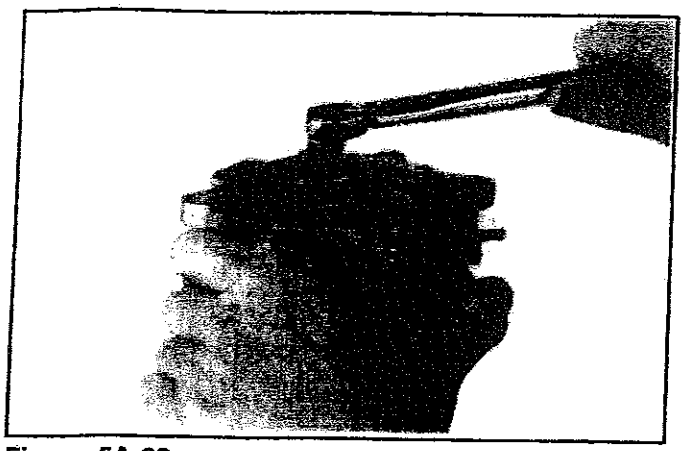


Figure 5A-32.

9. Install diaphragm spring onto lock-off diaphragm center stud. Position diaphragm in housing with spring **down** into recess. Gasket portion of diaphragm should be **up**.

Figure 5A-33.

10. Set the metal retainer in place on top of diaphragm, making sure the rounded edge of I.D. is **down** against the diaphragm. Install the four screws and lockwashers. Torque to **4.8 N·m (43 in. lbs.)**.

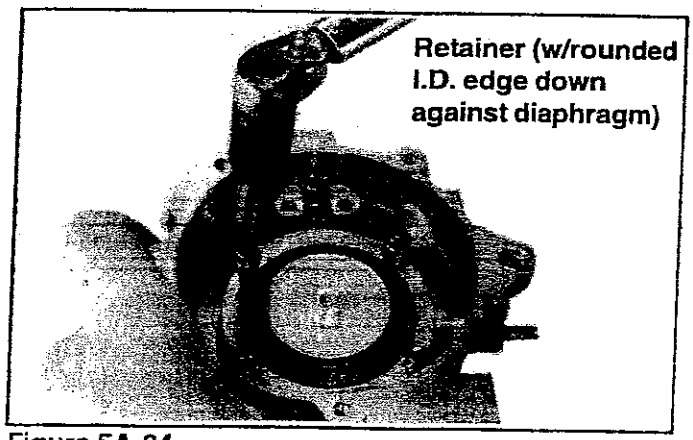


Figure 5A-34.

11. Test to ensure that no leakage exists by applying **4 psi** regulated air pressure to vacuum fitting and checking the sealing area with soapy water.

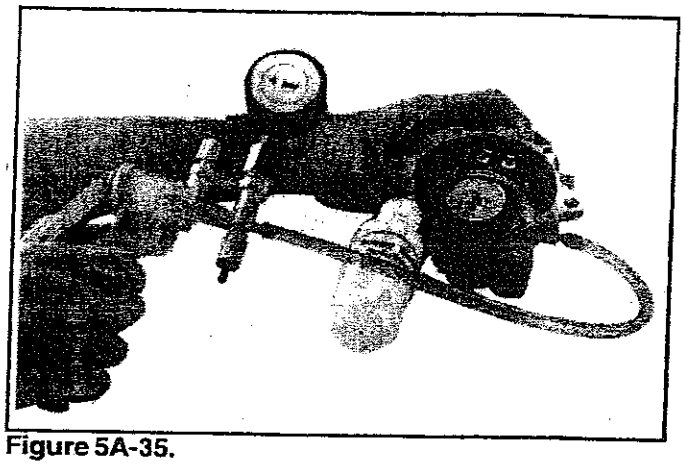


Figure 5A-35.

12. Set secondary lever spring into recess adjacent to valve seat. Slide the pivot pin into the secondary lever arm and set lever into position with spring held by boss under lever and pin seated in the grooves in the housing. Secure with the two flat head phillips machine screws. Torque screws to **2.9 N·m (26 in. lbs.)**.

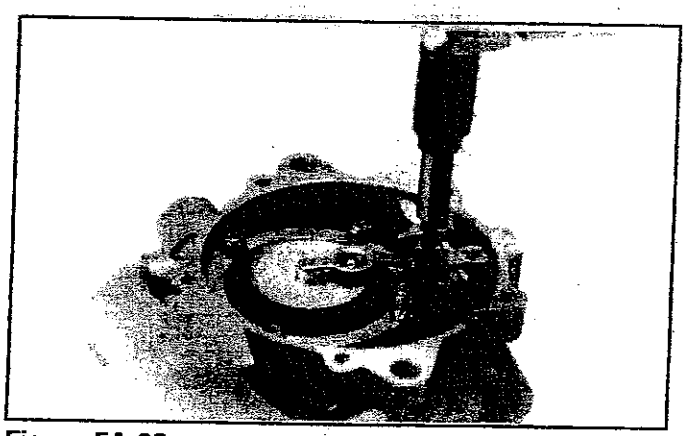


Figure 5A-36.

13. Check the secondary valve lever setting as in step 2. **Do not** apply force to the lever or exert pressure on the valve and seat. If adjustment is required, remove the lever from housing and bend it slightly at the top and bottom of the angled section. The valve end must remain parallel with the housing surface after adjustment is made.

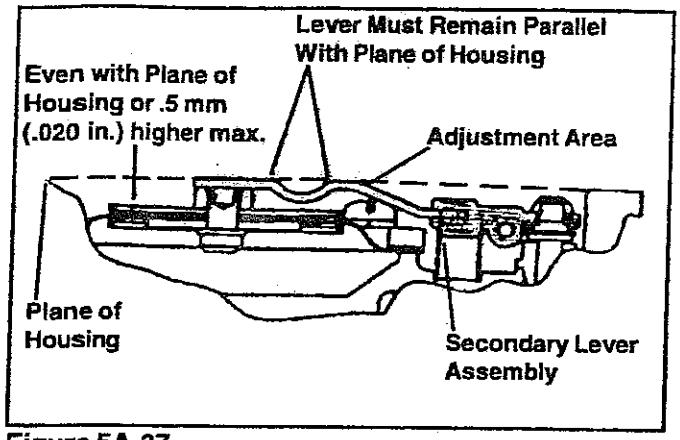


Figure 5A-37.

14. Check for leakage around secondary valve and seat.

    a. Plug inlet port with finger or pipe plug.

    b. Apply sufficient vacuum to fitting to draw the lock-off diaphragm down.

    c. Apply **4 psi** regulated air pressure to primary chamber check port and check for leakage between the secondary valve and seat using kerosene, cleaning solvent, or mineral spirits (following the manufacturer's instructions and safety precautions carefully). If any leakage is noted, it will be necessary to rotate the valve. If original lever is being reused, remove adhesive (see Figure 39) before attempting to rotate valve. Carefully rotate the valve with a pliers and retest until you find a position where there is no leakage.

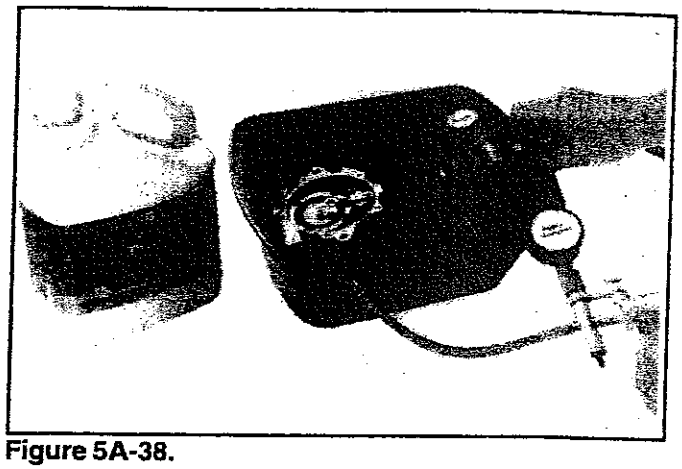


Figure 5A-38.

15. Dry the area thoroughly, being careful not to disturb the valve position. Secure the valve in position by applying new epoxy adhesive.

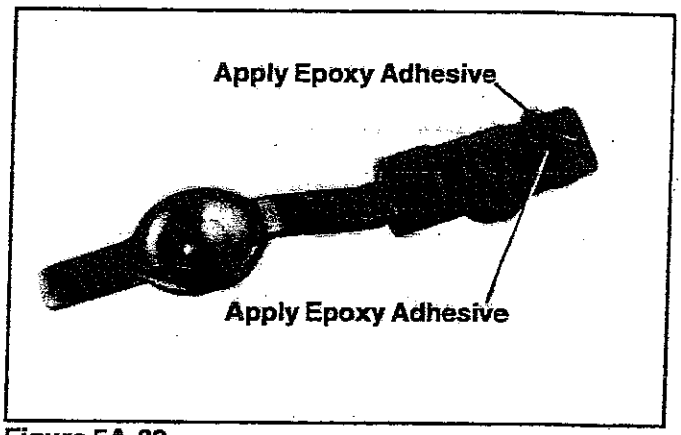


Figure 5A-39.

16. After adhesive has dried, repeat the leakage test. **Do not** proceed until you are certain there is no leakage past the secondary valve.

17. Inspect for cleanliness and free movement of the idle adjustment screw, tension spring, and lever arm in cover. Clean as required.

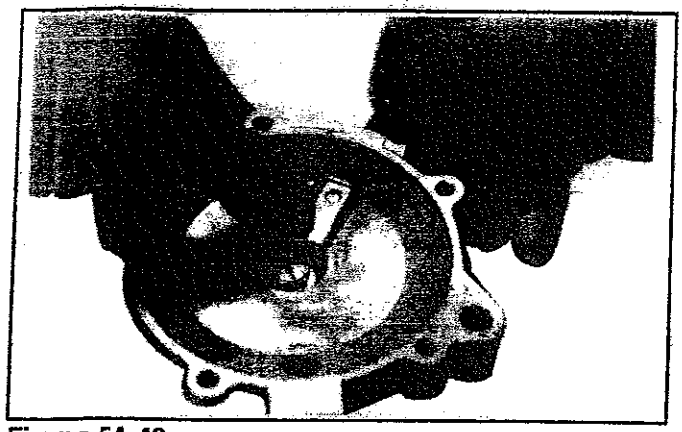


Figure 5A-40.

18. Install secondary diaphragm in regulator housing. Protruding stud must go **down** with stud positioned into the recess of secondary lever. Gasket portion of the diaphragm should be **up** toward cover. See Figure 5A-41.

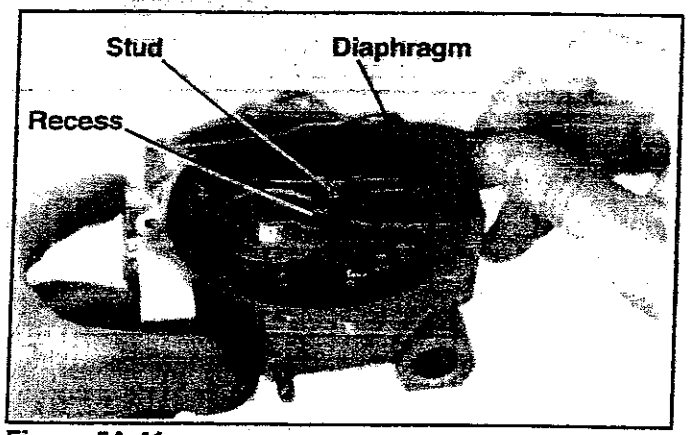


Figure 5A-41.

19. Install the secondary cover and secure with the five screws removed in step 1. Torque screws to **4.8 N-m (43 in. lbs.)** in a criss-cross pattern.

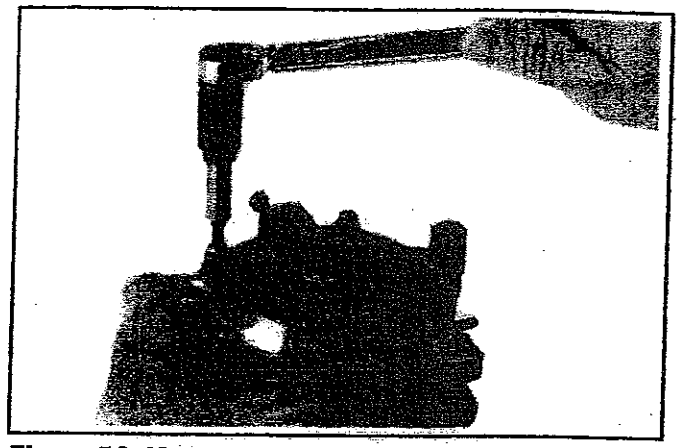


Figure 5A-42.

Regulator Testing and Adjustment

1. Install a low pressure (0-25 psi) gauge into the primary chamber check port.

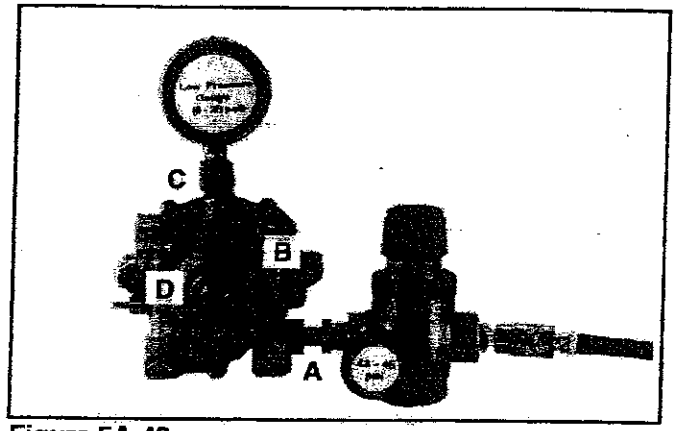


Figure 5A-43.

2. Apply regulated air pressure of **43-45 psi** to inlet and check for leakage using soapy water at: (A) inlet fitting, (B) primary cover sealing surface, (C) primary chamber check port, and (D) primary pressure adjusting screw (minor leakage may exist here until primary chamber pressure is set).

3. Turn the primary adjustment screw in (clockwise) slowly until a primary chamber pressure of **5 ± .5 psi** is indicated on the low pressure gauge. If the prescribed primary pressure is accidentally exceeded, back the adjustment screw off (turn counterclockwise) and apply vacuum to lock-off vacuum fitting to relieve the primary chamber pressure. Turning the adjustment screw counterclockwise only, will not relieve chamber pressure. Repeat the adjustment procedure. When adjustment is complete, install the brass cap, torque it to **17 N·m (150 in. lbs.)**, and recheck for leakage (see Figure 43, step 2D).

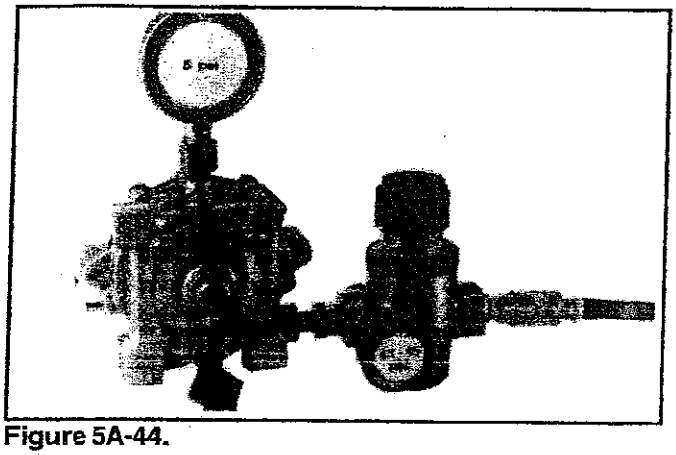


Figure 5A-44.

4. With low pressure gauge and regulated air supply still connected, apply vacuum to port fitting of lock-off chamber. Turn the idle screw in (clockwise) until primary chamber pressure drops to **4 psi or less.** Turn idle screw out (counterclockwise) and stop when primary chamber pressure reaches **5 psi.** Disconnect the vacuum hose and observe the low pressure gauge. Primary chamber pressure should be approximately **4.5-5.5 psi.** If there is greater pressure, internal leakage is occurring that must be located and corrected before proceeding.

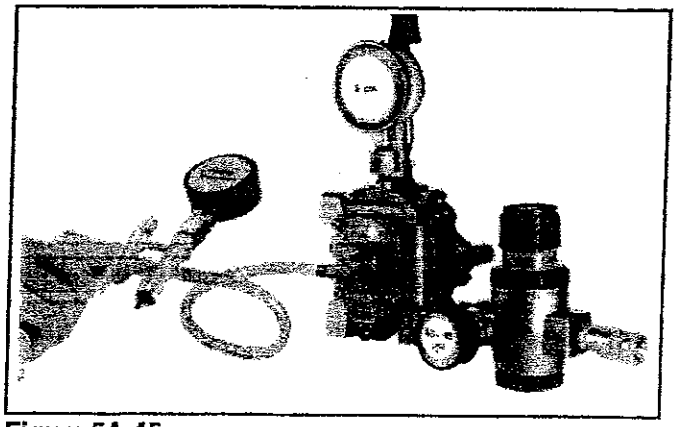


Figure 5A-45.

5. Turn off the regulated air supply and remove the low pressure gauge from primary chamber pressure check port. Apply pipe sealant with Teflon® (not Teflon® tape) to threads of original plug, reinstall plug in regulator, and torque to **9.3 N·m (82 in. lbs.)**. Turn air supply back on and check plug for leakage with soap solution.

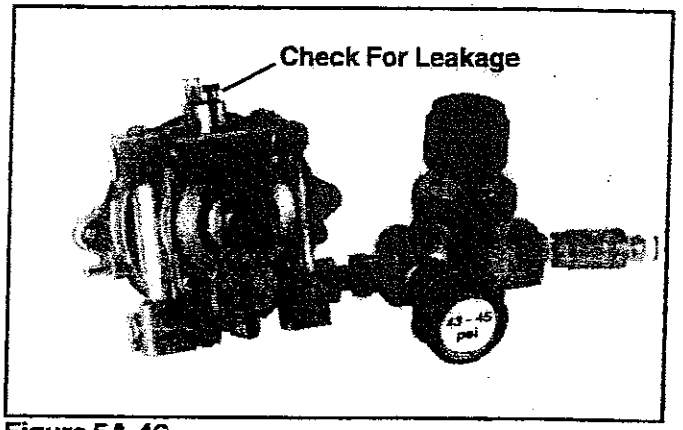


Figure 5A-46.

6. Apply regulated air pressure of **1.5-2.0 psi** to regulator outlet and check for leakage along secondary cover sealing surface using soap solution.

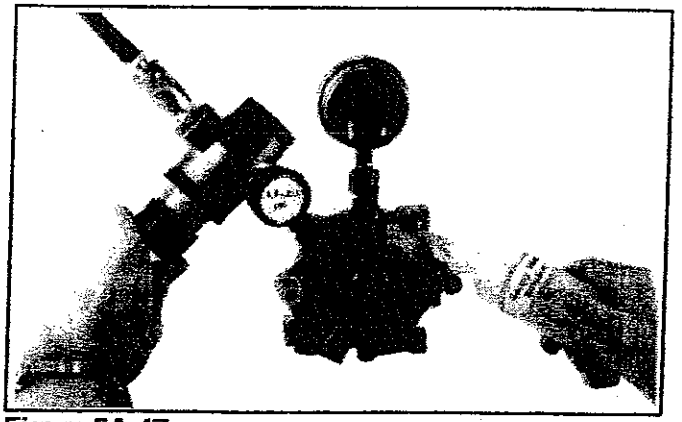


Figure 5A-47.

Final Testing and Adjustment

1. Reinstall the regulator, but leave the vacuum line disconnected and do not connect the fuel supply line to the tank.

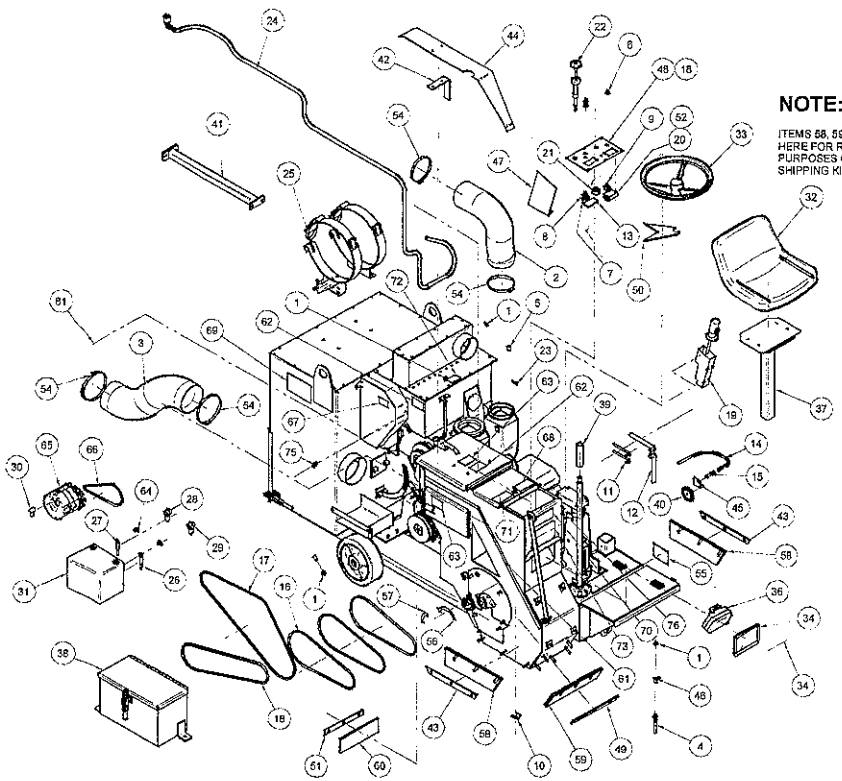
2. Apply regulated air pressure **43-45 psi** to the supply line tank valve fitting, apply vacuum to the lock-off chamber port fitting, and turn the key switch to the **"on"** position. Using soap solution, check all fuel line connections. Correct any leakage.

3. Disconnect air supply and applied vacuum lines, turn off key switch. Connect original vacuum line and connect fuel supply line to tank.

4. Start engine and warm up for 5-10 minutes. With throttle control in the idle/slow position, back the idle adjusting screw out (couterclockwise) until the engine begins to slow down or falter (lean fuel condition). Turn the screw back in just enough to restore smooth operation.

5. Replace the tamper-resistant caps on the primary and idle adjusting screws.

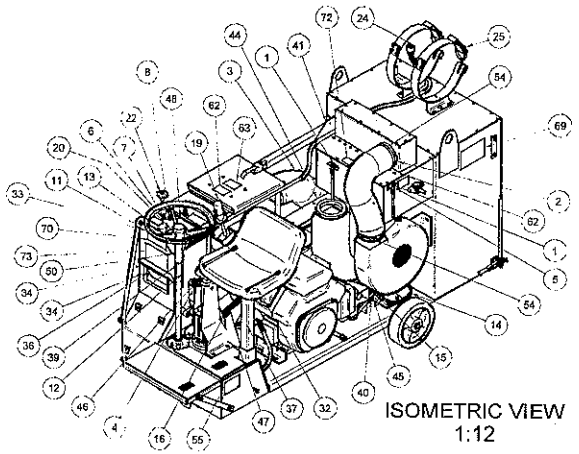
24 173 04	Anti-Tamper Cap (Primary Screw)
24 173 05	Anti-Tamper Cap (Idle Adj. Screw)



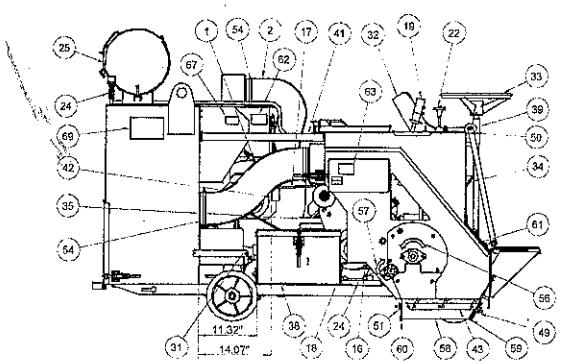
EXPLODED ISOMETRIC VIEW
1:12

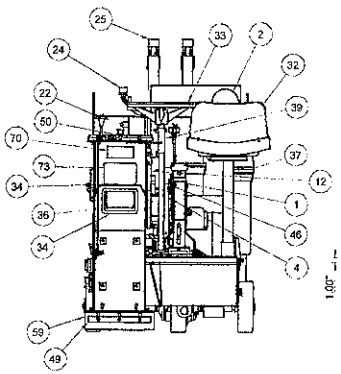
NOTE:

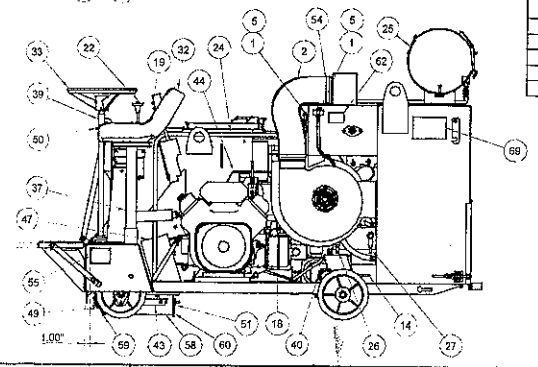
ITEMS 58, 59 & 60 ARE SHOWN HERE FOR REPLACEMENT PURPOSES ONLY. SEE SHIPPING KIT.



ISOMETRIC VIEW
1:12







ITEM	QUANTITY	CATALOG NUMBER	DRAWING NUMBER	DESCRIPTION	WIDTH	LENGTH
52	2	08300121	220-0138	SPACER/TINY TACH	--	--
53	1	08900001	--	OVERLAY/INSTRUMENT PANEL	--	--
54	4	176038	--	CLAMP/HOSE ADJUST S.S. 3"-6"	--	--
55	1	P000818	--	PLATE/SERIAL NUMBER - USF/BLASTRAC	3.00	4.00
56	1	P000921	--	DECAL/WHEEL ROTATION	--	--
57	1	P000922	--	DECAL/PINCH BAR ROTATION	--	--
58	2	SL023506	220-0256	SEAL-KIT/SIDE		
59	1	SL023507	220-0257	SEAL-KIT/FRONT		
60	1	WP163711	220-0282	SEAL/DRAG-BRUSH	--	10.50
61	1	P000923	--	STRIPE/WHITE REFLECTIVE	--	36.00
62	3	P000984	--	SIGN/CAUTION - DO NOT WORK	--	--
63	2	P000985	--	SIGN/CAUTION - DO NOT OPEN	--	--
64	2	07530020	--	BOLT/BATTERY TERMINAL	--	0.38
65	1	07530019	--	ALTERNATOR #321 39		
66	1	06100002	--	V-BELT 3VX-280	--	--
67	1	494044	--	DECAL/WARNING - DO NOT OPERATE	--	--
68	1	680181	--	DECAL/WARNING - DUST	--	--
69	3	P000008	--	DECAL/IDENTITY - USF/BLASTRAC	--	--
70	1	P000009	--	DECAL/IDENTITY - GPX10-18	--	--
71	1	P001419	--	DECAL/CAUTION - EYE AND EAR	--	--
72	1	P001420	--	DECAL/MADE IN USA - SMALL	--	--
73	1	P001421	--	DECAL/MADE IN USA - LARGE	--	--
75	1	06520001	--	LINK/MASTER ASA#35	--	--
76	1	05310003	--	WIRE-LOOM 5/8"	--	16.00
81	1	06500001	--	CHAIN/ ROLLER ASA #35	--	--

ITEM	QUANTITY	CATALOG NUMBER	DRAWING NUMBER	DESCRIPTION	WIDTH	LENGTH
1	3	02230003	--	FITTING/GREASE ZERK 1/8"NPT 90 DEG.		
2	1	04510004	--	HOSE/DUCT NEOPRENE 5"ID	--	28.00
3	1	04510005	--	HOSE/DUCT NEOPRENE 6"	--	24.00
4	1	04540001	--	HOSE/GREASE 1/4"NPT SWIVEL X 3/16"NR703 X 1/4"NPT X 20"OAL	--	--
5	3	04900022	--	COUPLING/PIPE 1/8" NPT	--	--
6	3	05100001	--	RUBBER BOOT/SWITCH	--	--
7	1	05100002	--	SWITCH/ 1 POLE 1 THRW (HEAD LIGHT)	--	--
8	1	05100003	--	SWITCH/ 1 POLE 2 THRW (FUEL)	--	--
9	1	05100006	--	SWITCH/ 2 POLE 2 THRW (MACHINE LIFT)	--	--
10	1	05200001	--	CLAMP/CONDUIT 1/2"	--	--
11	1	05310004	--	WIRE-LOOM/ 1/4"	--	168.00
12	1	P001181	220-0287	WIRING HARNESS ASSEMBLY **LP ONLY**		
13	1	05730005	--	READOUT/DIGITAL (FOOT PER MINUTE)	--	--
14	1	05730007	--	CABLE/PROXIMITY SENSOR	--	--
15	1	05730008	--	PROXIMITY SENSOR		
16	3	06100005	--	V-BELT/ 3VX-425	--	--
17	1	06100015	--	V-BELT/ 3VX-710	--	--
18	1	06120005	--	BELT/ACCULINK A25	--	53.00
19	1	06910001	--	TRANSMISSION LEVER/COMPLETE		
20	1	07100007	--	TACHOMETER/TINY TACH		
21	1	07150007	--	SWITCH/IGNITION		
22	1	07300001	--	CABLE/THROTTLE - VERNIER STYLE W/RELEASE		
23	1	07300003	--	PLAIN FITTING KIT/CONTROL CABLE 3/8"DIA. BODY	--	0.75
24	1	P001687	--	KIT/PROPANE - KOHLER 25HP **LP ONLY**		
25	1	07510005	--	BRACKET/PROPANE TANK		
26	1	07530010	--	CABLE/BATTERY - POSITIVE (46" RED) W/ LEAD (14" WHITE)	--	46.00
27	1	07530011	--	CABLE/BATTERY - NEGATIVE (12" BLACK)	--	12.00
28	1	07530012	--	COVER/BATTERY TERMINAL (BLACK)	--	--
29	1	07530013	--	COVER/BATTERY TERMINAL (RED)	--	--
30	1	07530018	--	COVER/ALTERNATOR TERMINAL (RED)	--	--
31	1	07530022	--	BATTERY/12V WILLARD		
32	1	08000001	--	SEAT/COMMANDER MODEL #350	--	--
33	1	08000002	--	STEERING WHEEL	--	--
34	1	08000005	--	EDGING/DOOR 1/8"ID	--	32.00
36	1	08000025	--	HEADLIGHT/ 12V RECTANGULAR W/CLEAR LENS		
37	1	08300001	220-0018	SEAT SUPPORT ASSEMBLY		
38	1	P001681	220-0290	TOOL BOX		
39	1	08300023	220-0046	BUSHING/FRONT STEERING SHAFT		
40	1	08300028	220-0045	WHEEL/SPEED SENSOR PICKUP		
41	1	08300033	220-0050	BRACE/STIFFENER		
42	1	08300034	220-0051	BRACKET/REAR BELT-GUARD MOUNTING	--	--
43	2	08300035	220-0052	RETAINER/SIDE SEAL	--	--
44	1	08300036	220-0053	GUARD/REAR BELT	--	--
45	1	08300037	220-0054	BRACKET/SPEED PICKUP SENSOR	--	--
46	1	08300038	220-0055	ADAPTER/GREASE FITTING 1/8"NPT		
47	1	P001183	220-0288	GUARD/BELT - FRONT **LP ONLY**		
48	1	08300055	220-0072	PANEL/INSTRUMENT	--	--
49	1	08300059	220-0076	RETAINER/FRONT SEAL	--	--
50	1	08300062	220-0079	BRACKET/STEERING COLUMN	--	--
51	1	08300063	220-0080	RETAINER/REAR SEAL	--	--

REV	ZONE	DESCRIPTION	DATE	BY
		REVISION		

NEXT ASSY	GPX10-18LP	DWG	10180005
		NEXT HI	10180005LP

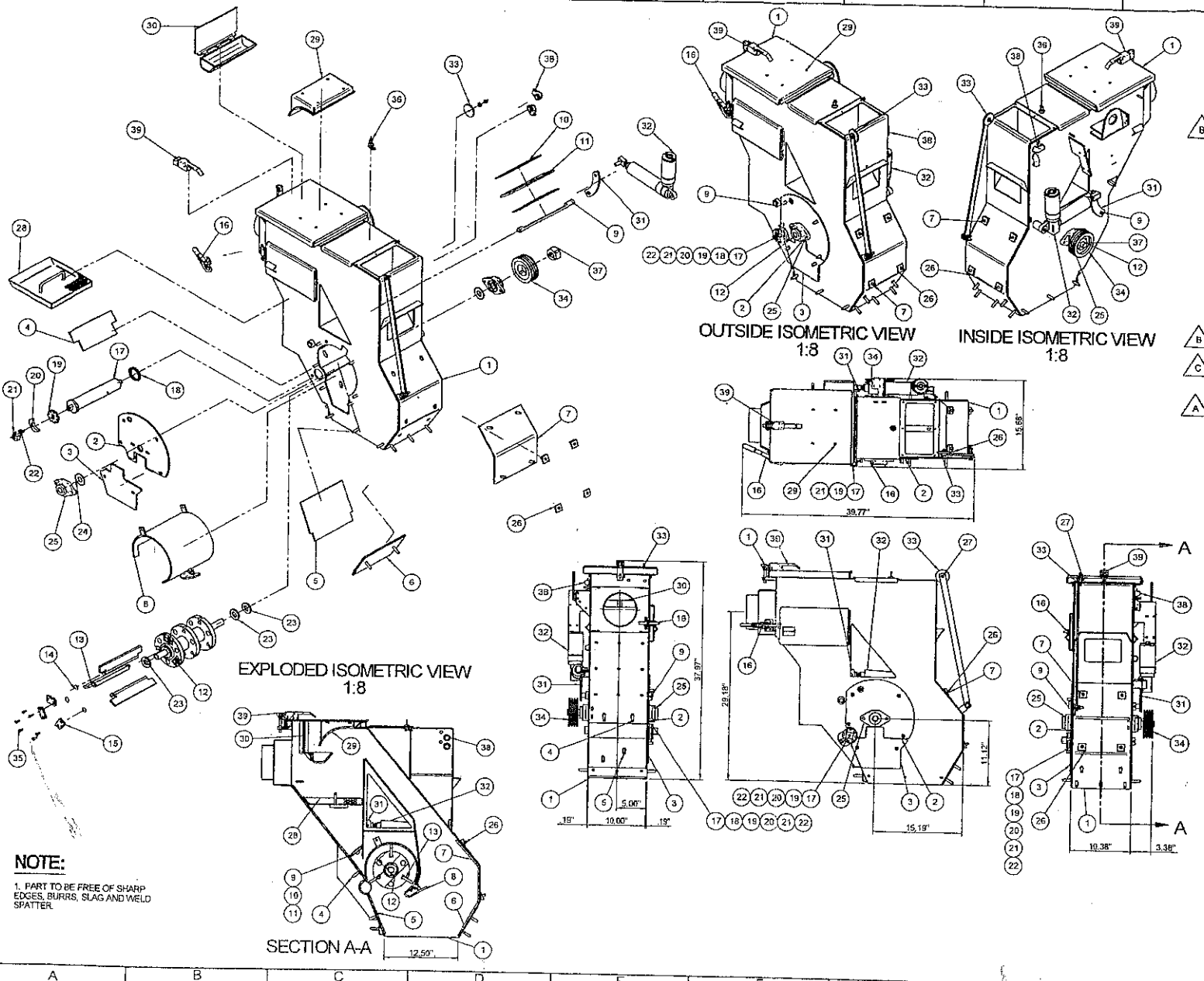
TOLERANCE UNLESS SPECIFIED
ANGLES ± .500°
1 PL DEC ± .060
2 PL DEC ± .010
3 PL DEC ± .005

U.S. FILTER BLASTRAC
6215 ACOMA VALLEY DRIVE
OKLAHOMA CITY, OK 73121
U.S.A.

FINAL ASSEMBLY COMPONENTS **LP ONLY**
GPX10-18LP BLAST UNIT

SCALE 1:12 | DRWN SCS | DATE 5/15/00 | SHT 1 OF 1

220-0292



ITEM	QUANTITY	CATALOG NUMBER	DRAWING NUMBER	DESCRIPTION
1	1	P000524	220-0013	HOUSING/BLAST - WELDMENT
2	1	P000525	220-0014	COVER-PLATE/BLAST HOUSING
3	1	P000526	220-0015	INSPECTION COVER/BLAST HOUSING
4	1	WP103710	220-0260	LINER/PINCH BAR SLL
5	1	WP103713	220-0210	LINER/GPX10-18 PINCH BAR BLAST HOUSING LOWER BACK WALL
6	1	WP043710	220-0254	LINER/LOWER FRONT - SLL
7	1	WP043703	220-0255	LINER/UPPER FRONT SLL
8	1	WP113721	220-0238	LINER/TOP CURVED SLL
9	1	WP203710	220-0246	SHAFT/ABRASIVE CONTROL VALVE
10	2	WP183709	220-0244	RETAINER/ABRASIVE CONTROL VALVE SEAL
11	1	WP193708	220-0245	SEAL/ABRASIVE CONTROL VALVE
12	1	WP123716	220-0007	BLASTWHEEL/DOVETAIL
13	1	WP013714	220-0002	BLADE-SET/DOVETAIL 10"
14	3	08300172	220-0189	SEAL/BLADE KEEPER
15	3	WP123714	--	RETAINER/BLADE
16	1	03600003	--	CLAMP/DE-STA-CO #351
17	1	WP033710	220-0261	PINCH BAR
18	1	08300173	220-0190	SEAL/PINCH BAR
19	1	08300042	220-0059	INDEXER/PINCH BAR
20	1	08300043	220-0060	RETAINER/INNER PINCH BAR
21	1	08300093	220-0110	RETAINER/PINCH BAR INDEXER
22	1	08300044	220-0061	RETAINER/OUTER PINCH BAR
23	3	20000001	220-0267	PROTECTOR RING
24	2	08300170	220-0266	SEAL/SHAFT - 1.000" BEARING
25	2	P001083	--	BRG/FG2 DODGE DL 1.000"B 205 D-LOK
26	4	03500001	--	WASHER/CHANNEL 3/8"
28	1	08300107	220-0124	SCREEN/SHOT HOPPER
29	1	08300131	220-0146	HALF-PIPE WELDMENT
30	1	08300100	220-0117	TRAY/SHOT
31	1	08300030	220-0047	ARM/ABRASIVE CONTROL VALVE
32	1	06300065	--	ACTUATOR/600# W/WELDED STUD
33	1	01920007	220-0268	POINTER/ALIGNMENT BAR
34	1	06150031	--	SHEAVE/TAPERLOCK 3V3V4.75-1610 DODGE #112205
35	6	03110010	--	SCREW/CAP FLAT HEX SOCKET 1/4"-20UNC
36	1	03250001	--	KEY LOCK W/NUT
37	1	06300024	--	BUSHING/TAPERLOCK 1610 X 1.000B DODGE #117159
38	2	06200016	--	CONNECTOR/CONDUIT 3/8" X 90 DEG
39	1	03600007	--	DRAW-LATCH/OVER-CENTER W/TOGGLE ACTION

NOTE:

1. PART TO BE FREE OF SHARP EDGES, BURRS, SLAG AND WELD SPATTER.

REV	ZONE	DESCRIPTION	DATE	BY
C		ITEM 25 WAS 02110002	1/22/99	SCS
B		CORRECTED ITEM 7 - WAS WP043709; ITEM 23 QTY. WAS 2	10/5/98	SCS
A		CORRECTED ITEM 30 - WAS 08300133	9/25/99	SCS

REVISION

MDT ASSY	GPX10-18
REF DWG	--
PART NO	10180003

TOLERANCE UNLESS SPECIFIED
ANGLES ± .500°
1 PL DEC ± .060
2 PL DEC ± .010
3 PL DEC ± .005

U.S. FILTER
BLASTRAC
9215 ALDINE VALLEY DRIVE
OKLAHOMA CITY, OK 73121
U.S.A.

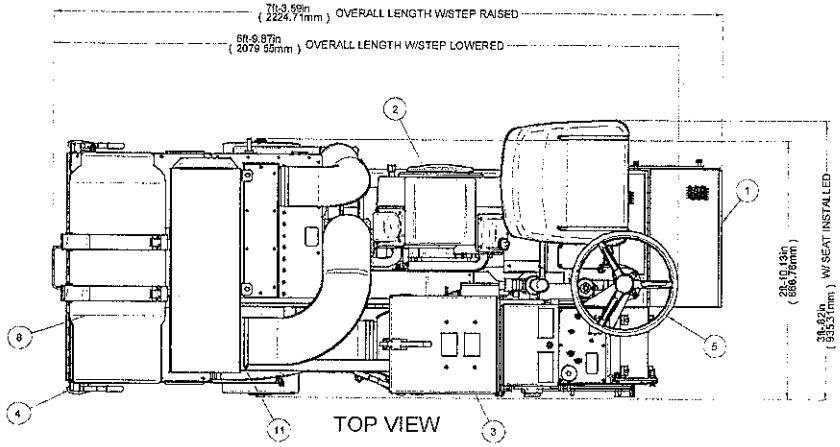
BLAST HEAD ASSEMBLY
GPX10-18 BLAST UNIT

SCALE 1:8 | DRAWN SCS | DATE 9/3/99 | SHT 1 OF 1

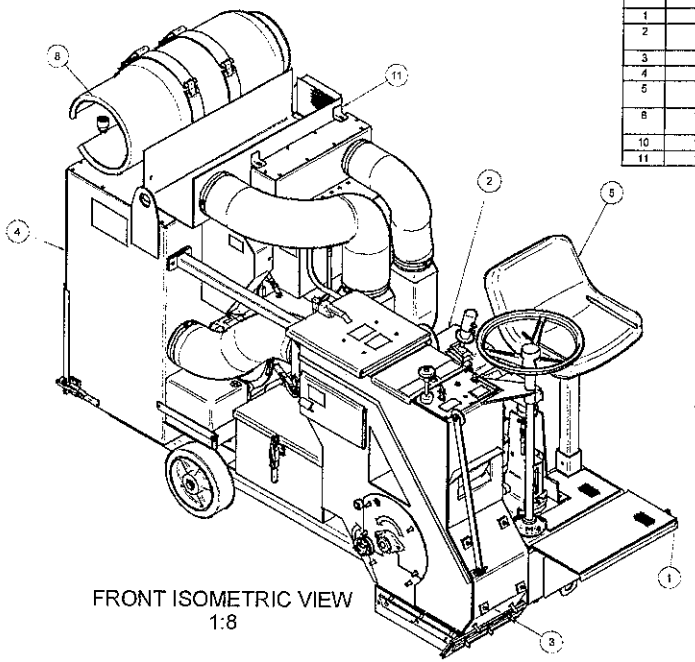
220-0270

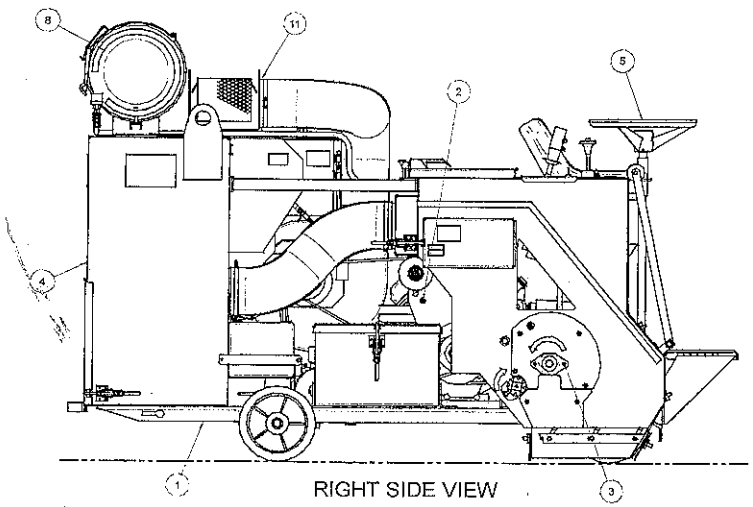
APPROVED NOV 2 2 1999

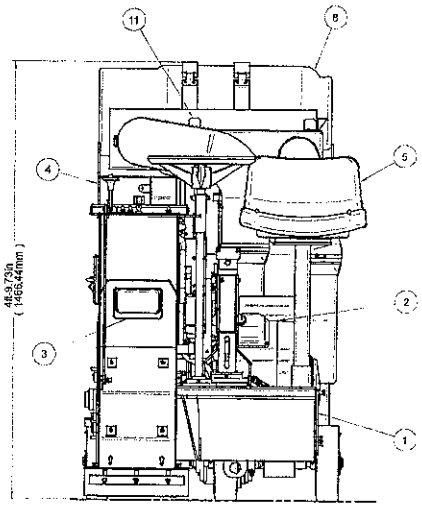
ITEM	QUANTITY	CATALOG NUMBER	DRAWING NUMBER	DESCRIPTION
1	1	10180001	220-0017	DECK ASSEMBLY
2	1	10180002LP	220-0291	ENGINE ASSEMBLY - KOHLER 25 HP **LP ONLY**
3	1	10180003	220-0270	BLASTHEAD ASSEMBLY - 10"
4	1	10180004	220-0258	DUST COLLECTOR ASSEMBLY
5	1	10180005LP	220-0292	FINAL ASSEMBLY COMPONENTS **LP ONLY**
6	1	10180006LP	--	PAINT AND SHIPPING KIT **LP ONLY**
10	1	10180010	--	DUST BIN KIT
11	1	10180011	--	SILENCER BOX KIT



TOP VIEW


FRONT ISOMETRIC VIEW
1:8


RIGHT SIDE VIEW



FRONT VIEW

REV	ZONE	DESCRIPTION	DATE	BY
		REVISION		

NEXT ASSY	REV DWG	PART NO
GPX10-18LP	GPXP1018	GPXP1018LP

TOLERANCE UNLESS SPECIFIED
ANGLES ± .500°
1 PL DEC ± .000
2 PL DEC ± .010
3 PL DEC ± .005

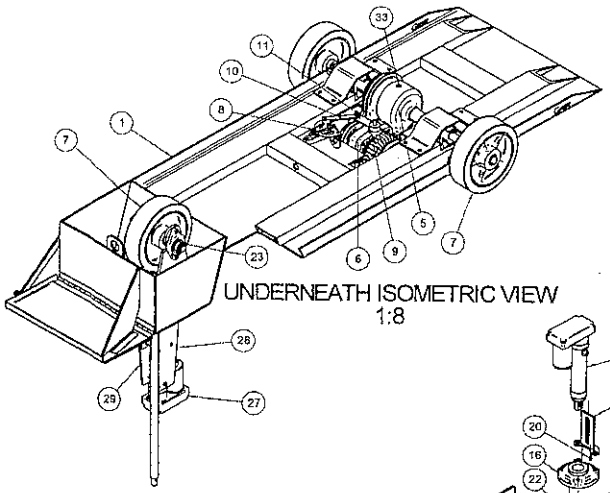
U.S. FILTER BLASTRAC

6215 FLUMER VALLEY DRIVE
OKLAHOMA CITY, OK 73121
U.S.A.

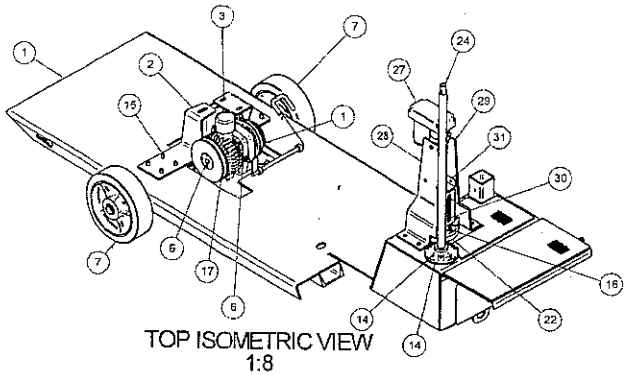
GENERAL ARRANGEMENT **LP ONLY**
GPX10-18LP BLAST UNIT

SCALE 1:8 | DRWN SCS | DATE 5/15/00 | SHT 1 OF 1

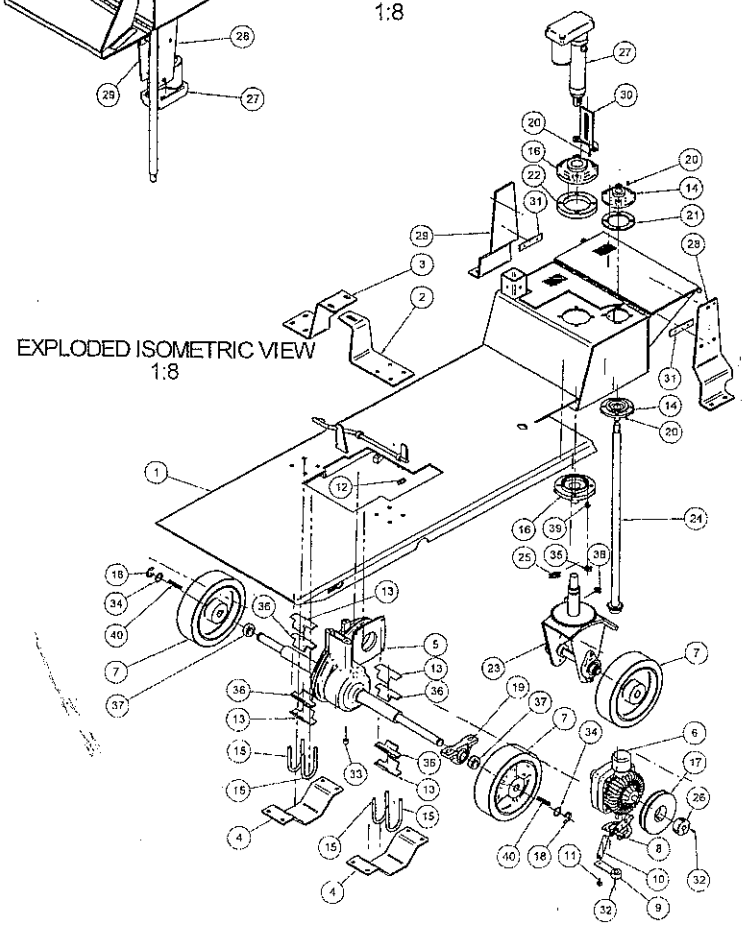
220-0293



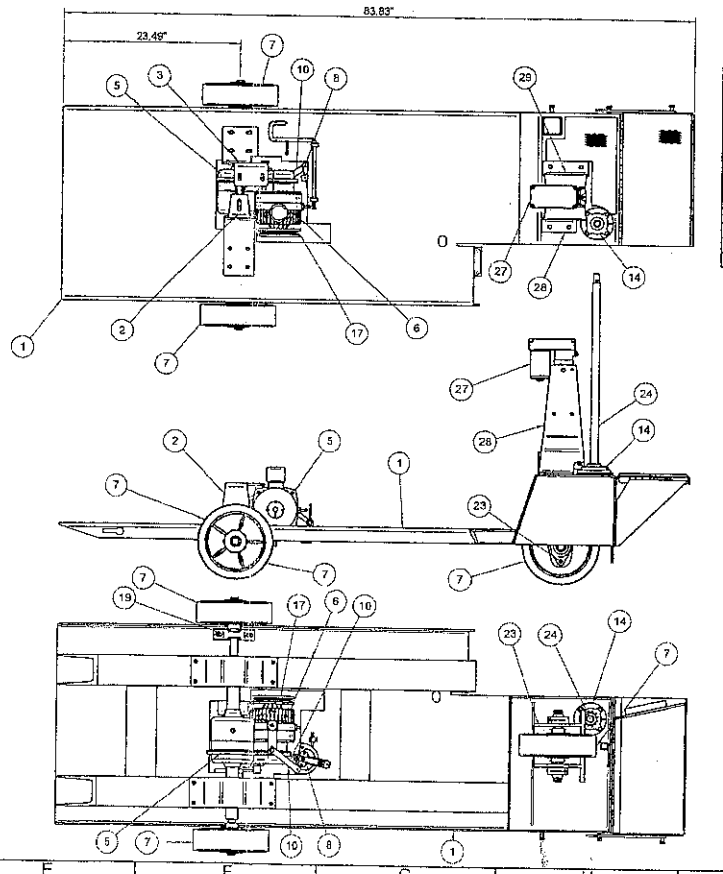
UNDERNEATH ISOMETRIC VIEW
1:8



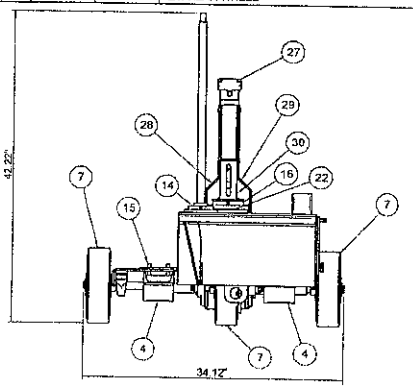
TOP ISOMETRIC VIEW
1:8



EXPLODED ISOMETRIC VIEW
1:8



ITEM	QUANTITY	CATALOG NUMBER	DRAWING NUMBER	DESCRIPTION
1	1	P000510	220-0012	DECK WELDMENT
2	1	P000874	220-0216	BRACKET/ TRANSAXLE MOUNTING - L.H.
3	1	P000873	220-0215	BRACKET/ TRANSAXLE TOP RIGHT
4	2	P000872	220-0214	BRACKET/ LOWER TRANSAXLE
5	1	06800001	--	TRANSAXLE ASSEMBLY/ MODEL #ET-12677
6	1	06800001	--	PUMP/ TRANSAXLE CCW ROTATION #700-002
7	3	06430030	--	CASTER/ 10" X 3" W/GREY TREAD 1.000" B & STD. KWY.
8	1	06900001	--	TENSIONER/ CABLE #C72111
9	1	08300077	220-0094	LINKAGE/ TRANSAXLE SHIFTER
10	1	08300079	220-0096	ROD/ TENSIONER LINKAGE
11	1	08300135	220-0077	ADAPTER/ TRANSAXLE CABLE
12	1	07300010	--	CABLE/ TRANSAXLE #173 - LTG - 2 - 71
13	4	08300071	220-0088	SUPPORT/ TRANSAXLE
14	2	02110025	--	BRG/ PILOT FG4 RFC 1.000"B FAFNIR
15	4	03130002	--	U-BOLT 3/8" X 2" X 5"
16	2	02110026	--	BRG/ PILOT FG4 RFC 1.500"B FAFNIR
17	1	06150002	--	SHEAVE/ 1A5.2B5.6-1610 X 17MM T/L
18	2	03400013	--	E-CLIP/ 1" ID X 0.050" THICK
19	1	02150002	--	BRG/PB2 DODGE SC 1.000"B
20	3	02230004	--	FITTING/ GREASE - ZERK 1/8"NPT X STRT #1610-BL
21	1	08300070	220-0087	SPACER/ STEERING SHAFT BEARING
22	1	08300069	220-0086	SPACER/ WHEEL SHAFT BEARING
23	1	08300007	220-0024	FRONT FORK ASSEMBLY
24	1	08300137	220-0154	SHAFT-ASM STEERING
25	1	06500002	--	CHAIN/ ROLLER ASA#40 - 1/2" PITCH X 36" LG
26	1	06300030	--	BUSHING/ TAPERLOCK #1610 X 17MM
27	1	06300064	--	ACTUATOR / 1500LB 12V #5704114
28	1	P000875	220-0217	BRACKET/ ACTUATOR - R.H.
29	1	P000876	220-0218	BRACKET/ ACTUATOR L.H.
30	1	P000878	220-0219	GUIDE/ ACTUATOR
31	2	08300115	220-0132	SPACER/ FRONT LIFT ACTUATOR
32	2	03300001	--	KEY/ WOODRUFF 1/8" X 1/2"
33	1	06900007	--	PLUG/ TRANSAXLE - MAGNETIC
34	2	03500004	--	WASHER/ THRUST
35	1	06530002	--	LINK/ OFFSET ASA#40 1/2" PITCH
36	4	08300143	220-0265	TRANSAXLE SUPPORTS (URETHANE)
37	2	02200006	--	COLLAR/SHAFT 1.000"B
38	1	06520002	--	LINK/ MASTER ASA#40 1/2" PITCH W/CLIP
39	1	02230003	--	FITTING/GREASE ZERK 1/8"NPT 90 DEG
40	2	08300075	220-0092	KEY/ REAR WHEEL



REV	ZONE	DESCRIPTION	DATE	BY
		REVISION		

THIS DRAWING AND THE DESIGN SHOWN THEREIN IS THE PROPERTY OF U.S. FILTER WHEELABRATOR AND USE OR COPIES THEREOF CANNOT BE MADE WITHOUT WRITTEN CONSENT.

NEXT ASSY	REF DWG	PART NO
GPXP1018	GPXP1018	10180001

TOLERANCE UNLESS SPECIFIED
ANGLES ±.500°
1 PL DEC±.000
2 PL DEC±.010
3 PL DEC±.005

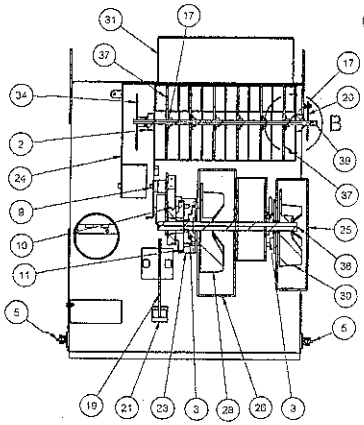
U.S. FILTER BLASTRAC
6215 ACUMA VALLEY DRIVE
OKLAHOMA CITY, OK 73121
U.S.A.

DECK ASSEMBLY
GPX 10-18

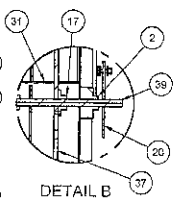
SCALE 1:6 | DRWN MJP | DATE 10/10/99 | SHT 1 OF 1

220-0017

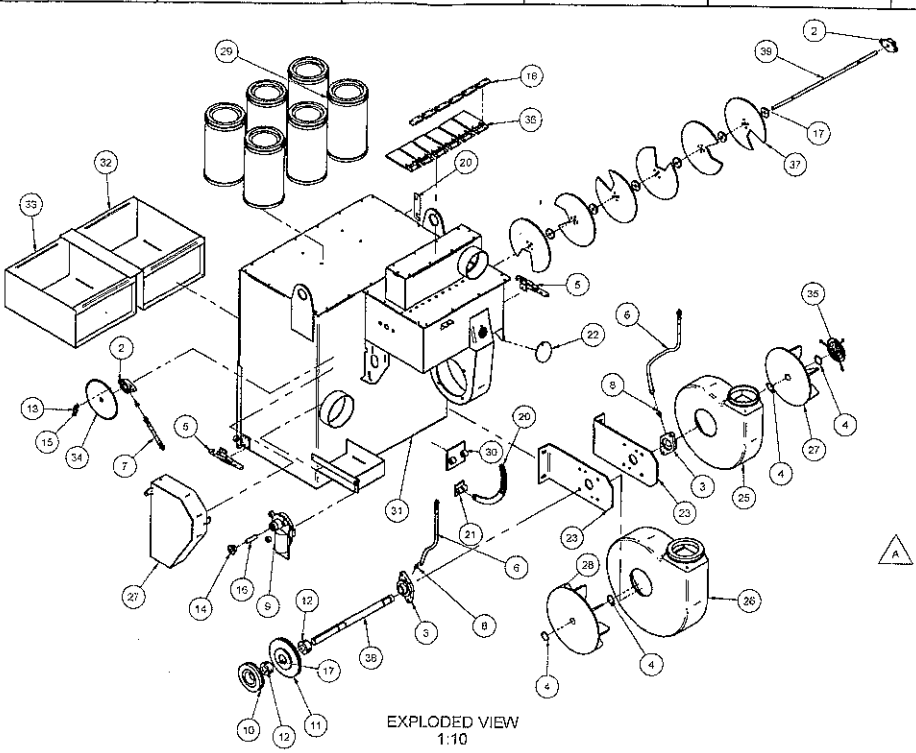
APPROVED OCT 15 1999



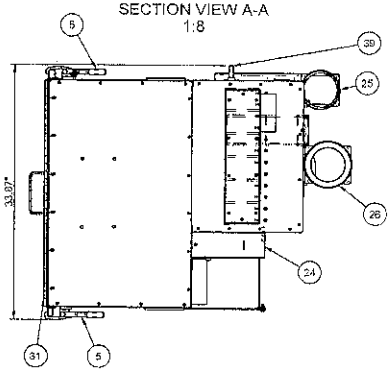
SECTION VIEW A-A
1:8

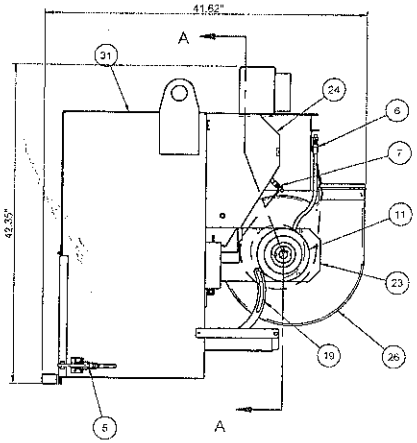


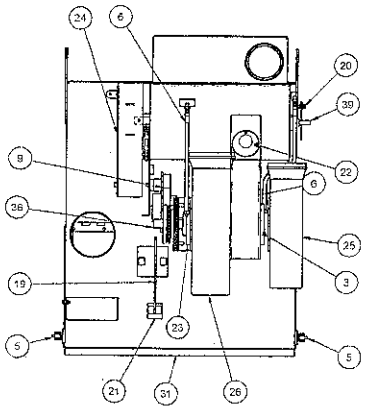
DETAIL B
1:4

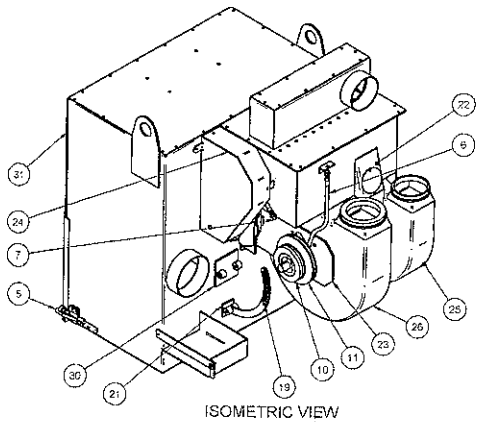


EXPLODED VIEW
1:10









ISOMETRIC VIEW
1:8

ITEM	QUANTITY	CATALOG NUMBER	DRAWING NUMBER	DESCRIPTION
1"	1	01930004	--	SPONGE/ OPEN CELL 1/4" X 1"
2	2	02110001	--	BRG/FG2 DODGE BALL SC 1/2"B
3	2	02110003	--	BRG/ 2 BOLT FLANGE 1-1/8"
4	4	03400001	--	RING/SNAP 1-7/16" DIA. SHAFT
5	2	03800003	--	CLAMP/DE-STA-CO #351
6	2	04540001	--	HOSE/GREASE 1/4"NPT SWIVEL X 3/16"NR703 X 1/4"NPT X 20"OAL
7	1	04540003	--	HOSE/GREASE 1/4"NPT SWIVEL X 3/16"NR703 X 1/4"NPT X 5-1/2"OAL
8	3	04900021	--	ADAPTER/BEARING GREASE FITTING X 1/8"NPT
9	1	05910001	--	MOTOR/ WIPER
10	1	06150003	--	SHEAVE 1GR3V 5.0-1610 T/L
11	1	06150007	--	SHEAVE 1GR3V 6.9-1610 X 1-1/8" T/L
12	2	06300025	--	BUSHING/1610 x 1.125" DIA. T/L
13	1	06500001	--	CHAIN/ ROLLER ASA #35
14	1	06510007	--	SPROCKET 35BS12 X 5/8"
15*	1	06520001	--	LINK/MASTER ASA#35
16	1	08300017	220-0034	ADAPTER/WIPER MOTOR
17	6	08300082	220-0099	CAM DISK HUB
18	6	08300083	220-0100	SPACER/ FLAPPER
19	1	08300085	220-0102	BRACKET/ ARM ALTERNATOR
20	1	08300086	220-0103	LATCH/ DUST COLLECTOR DOOR
21	1	08300088	220-0105	BRACKET/ ALTENATOR ADJUSTING ARM
22	1	08300089	220-0106	PLATE / DAMPER
23	2	08300092	220-0109	BRACKET/ BLOWER HOUSING
24	1	08300169	220-0232	GUARD/ WIPER MOTOR CHAIN
25	1	09100001	--	PB-10 CCW HOUSING
26	1	09100002	--	PB-12 CCW HOUSING
27	1	09200001	--	BLOWER-WHEEL #PB-10 CAST-ALUMINUM 10.375"DIA. X 2.75" WIDE W/ 1.125"B & STDKWY (2) SET SCREWS 120 DEG APART (1) OVER KWY
28	1	09200003	--	BLOWER/ WHEEL PB-14
29	6	09420001	--	ELEMENT/FILTER
30	1	10250002	220-0230	BRACKET/ ALTERNATOR MOUNTING
31	1	P000881	220-0222	DUST COLLECTOR WELDMENT
32	1	P000883	220-0224	DUST TRAY - LH
33	1	P000884	220-0225	DUST TRAY - RH
34	1	P000909	220-0235	SPROCKET ADAPTER/ CAM BOX
35	1	P001022	--	SCREEN/ INLET FOR PB-10
36	1	WP213701	220-0227	FLAPPER KIT (SET OF 6)
37	6	WP223702	220-0228	CAM DISK
38	1	WP233705	220-0272	SHAFT/BLOWER
39	1	WP253703	220-0253	SHAFT/ CAM

REV	ZONE	DESCRIPTION	DATE	BY
A		REVISED ASSEMBLY AND BOM; REMOVED ALT - 07530019 & BELT - 06100002; ADDED DUST TRAYS - P000883& P000884	2/7/00	SCS

REVISION

NEXT ASSY: GPXP1018 | USED ON: GPXP1018 | PART NO: 10180004

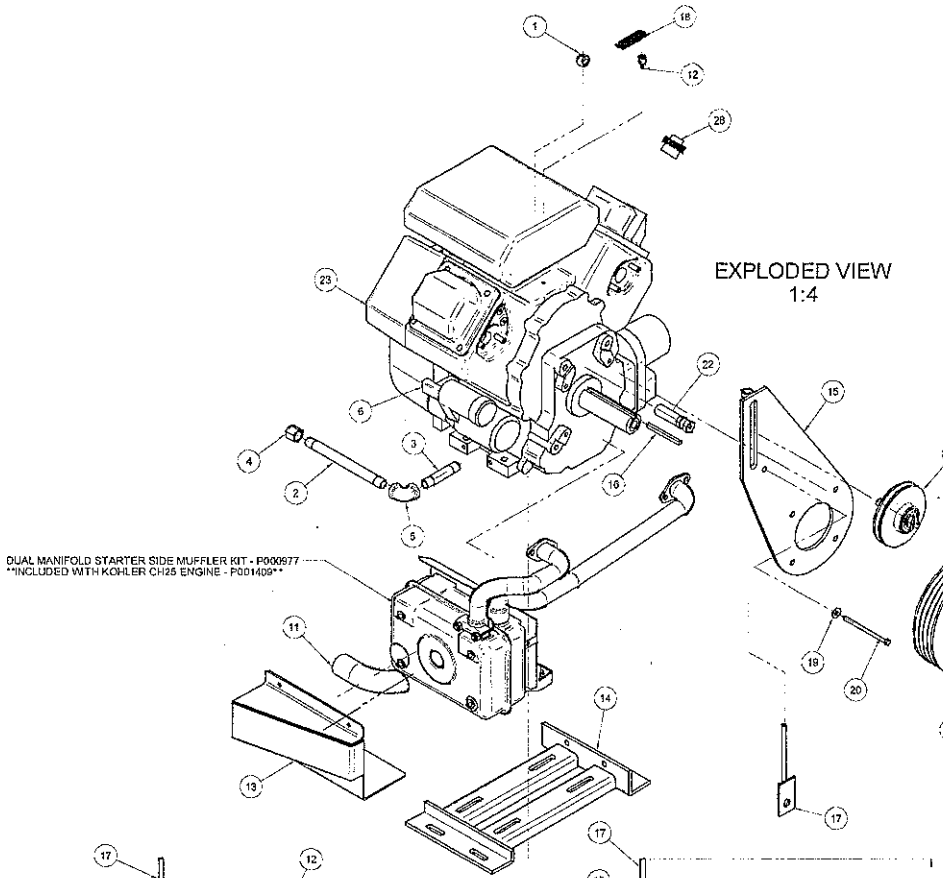
TOLERANCE UNLESS SPECIFIED
ANGLES ±.500°
1 PL DEC ±.060
2 PL DEC ±.010
3 PL DEC ±.005

U.S. FILTER BLASTRAC
0215 MOUNA VALLEY DRIVE OKLAHOMA CITY, OK 73121 U.S.A.

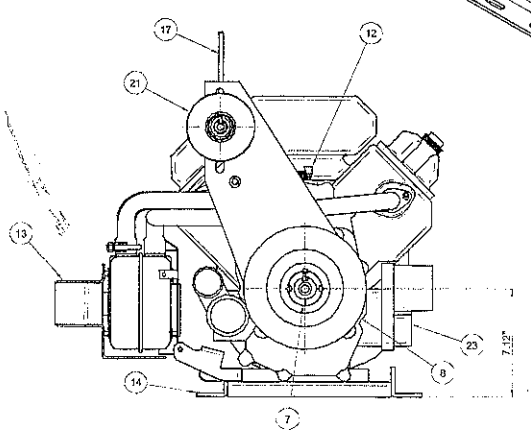
DUST COLLECTOR ASSEMBLY
GPX 10-18

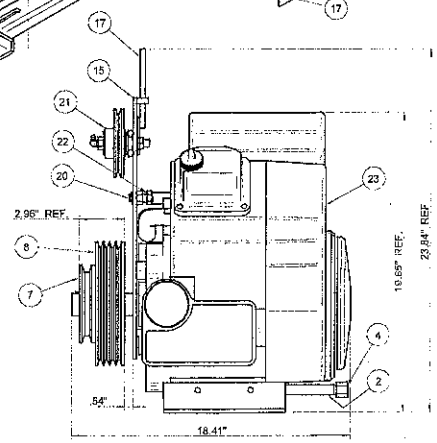
SCALE 1:8 | DRWN MJP | CHK'D | APP'D
DATE 11/2/98 | SHT 1 OF 1

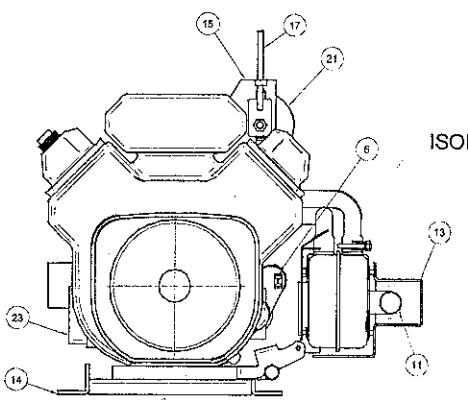
220-0258

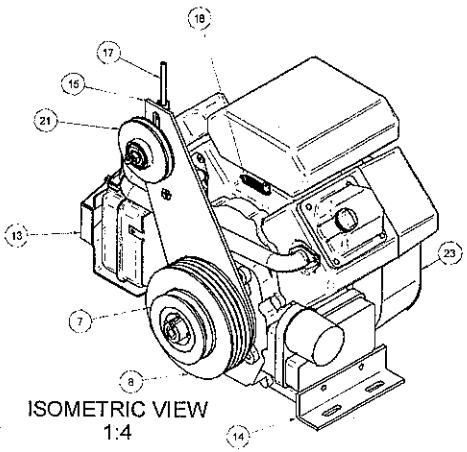


ITEM	QUANTITY	CATALOG NUMBER	DRAWING NUMBER	DESCRIPTION	WIDTH	LENGTH
1	1	02200005	--	COLLAR/SHAFT 3/8"	--	--
2	1	04970014	--	NIPPLE/PIPE 3/8" X 7"	--	7.00
3	1	04970016	--	NIPPLE/PIPE 3/8" X 3"	--	3.00
4	1	04980002	--	CAP/PIPE HEX 3/8"	--	--
5	1	04980079	--	ELBOW/PIPE 3/8" X 90DEG.	--	--
6	1	05110004	--	FUSE BLOCK/ 12V x 30 AMP	--	--
7	1	06150001	--	SHEAVE/MOTOR 1A 4.6"DIA	--	--
8	1	06150045	--	SHEAVE/MOTOR 8.0" 4GR 3V T/L	--	--
9	1	06300025	--	BUSHING/1610 x 1.125" DIA. T/L	--	--
10	1	06300052	--	BUSHING/2517 x 1.125" DIA T/L	--	--
11	1	07100030	220-0280	MUFFLER-TIP	--	--
12	1	07100031	--	FITTING/THROTTLE CABLE 26HP	--	--
13	1	07100035	220-0269	GUARD/MUFFLER - CH25	--	--
14	1	07100036	220-0276	BRACKET/MOTOR MOUNTING	--	--
15	1	07100037	220.0274	BRACKET/IDLER PULLEY 25 HP	--	--
16	1	08300076	220-0093	STEP SUPPORT STOP	--	--
17	1	08300158	220-0276	BRACKET/IDLER PULLEY ADJUSTMENT	--	--
18	1	08600001	--	SPRING/CHOKE TRIGGER	--	3.00"
19	1	500102	--	WASHER/FLAT 1/4"	--	--
20	1	502868	--	SCREW/CAP HEX M6-1.0	--	100mm
21	1	P000882	220-0223	IDLER ASSEMBLY	--	--
22	1	P001179	220-0285	SPACER/ADJUSTABLE - IDLER BRACKET		
23	1	P001409	--	ENGINE KOHLER 25 HP**LP ONLY**	--	--





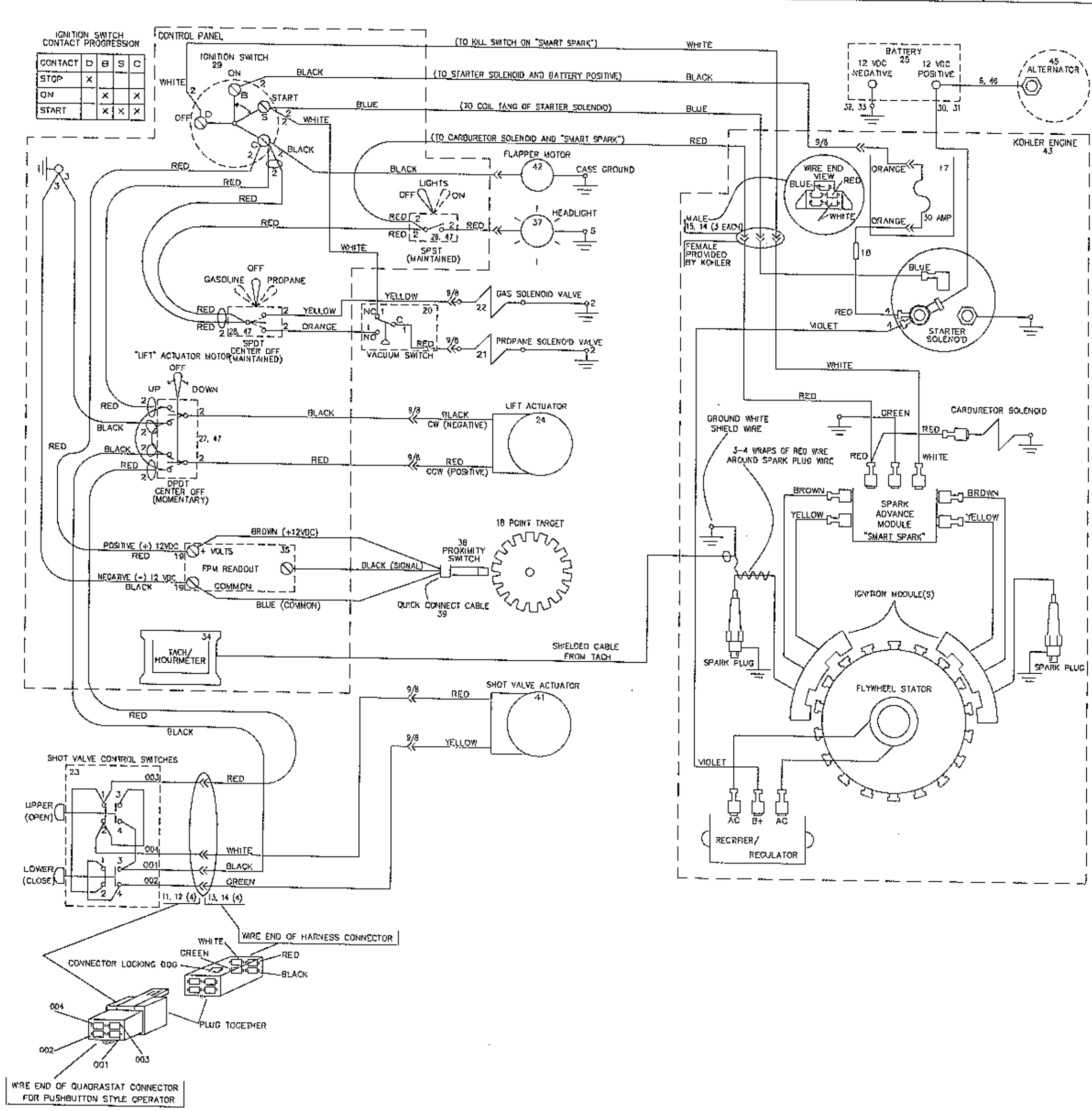




REV	ZONE	DESCRIPTION	DATE	BY
		REVISION		

NEXT ASSY	GPX10-18LP	SIZE DWG.	10180002	PART NO.	10180002LP

TOLERANCE UNLESS SPECIFIED	U.S. FILTER BLASTRAC	8215 ALDMA VALLEY DRIVE OKLAHOMA CITY, OK 73121 U.S.A.
ANGLES ± .500°	ENGINE-KIT/KOHLER 25HP **LP ONLY**	
1 PL DEC ± .000	GPX10-18LP BLAST UNIT	
2 PL DEC ± .010	SCALE 1:4 DRWN SCS	SIZE REV 220-0291
3 PL DEC ± .005	DATE 5/9/00 SHT 1 OF 1	



MATERIAL LIST

ITEM NO.	USF PN	QUANITY REQD	DESCRIPTION
1		3	RING TERMINAL, 16-14 AWG, 6 STUD, INSULATED
2		21	RING TERMINAL, 16-14 AWG, 10 STUD, INSULATED
3		2	RING TERMINAL, 16-14 AWG, 1/4 STUD, INSULATED
4		2	RING TERMINAL, 16-14 AWG, 5/16 STUD, INSULATED
5		1	RING TERMINAL, 16-14 AWG, 3/8 STUD, INSULATED
6		1	RING TERMINAL, 12-10 AWG, 1/4 STUD, INSULATED
7		1	RING TERMINAL, 12-10 AWG, 5/16 STUD, INSULATED
8		9	BULLET CONNECTOR, MALE, 16-14 AWG, INSULATED
9		9	BULLET CONNECTOR, FEMALE, 16-14 AWG, INSULATED
10		1	SPADE TERMINAL,.25", FEMALE, 16-14 AWG, TOTALLY INSULATED
11		1	4 POLE TERMINAL HOUSING FOR FEMALE CONNECTORS
12		4	FEMALE LOCKING TAB TERMINAL FOR MULTI-POLE CONNECTORS
13		1	4 POLE TERMINAL HOUSING FOR MALE CONNECTORS
14		7	MALE LOCKING TAB TERMINAL FOR MULTI-POLE CONNECTORS
15		1	5 POLE TERMINAL HOUSING FOR FEMALE CONNECTORS
16		2	3/8" NYLON GROMMET
17	05110004	1	30 AMP FUSE BLOCK W/ LEADS
18		1	BUTT CONNECTOR, 16-14 AWG, INSULATED
19		2	FORK TERMINAL, 16-14 AWG, 8 STUD, INSULATED
20	07530003	1	BEAM VACUUM SWITCH, 1501L, 12 VDC
21	07530002	1	ADVANCED FLUID COMPONENTS, AFC-418, 12 VDC, PROPANE SOLENOID VALVE
22	07530004	1	GAS SOLENOID VALVE, PN 2543
23	06910001	1	QUADRASTAT, PN C81032, FWD/REV OPERATOR W/ SHOT FEED SWITCHS
24	06300064	1	THOMPSON SAGINAW, PN 5704114 RAISE/LOWER ACTUATOR
25	07530022	1	WILLARD BATTERY, PN 70/60
26	05100002	1	MCGILL SWITCH, PN 3190-0001, SPST, MAINTAINED, LIGHT SWITCH "OFF/ON"
27	05100006	1	MCGILL SWITCH, PN 0121-0004, DPDT, CENTER OFF, MOMENTARY, "LIFT UP/DOWN"
28	05100003	1	MCGILL SWITCH, PN 0091-0001, SPDT, CENTER OFF, MAINTAINED, "GAS-PROPANE"
29	07150007	1	IGNITION SWITCH, PN YC78D
30	07530010	1	SPECTRO, 46" RED BATTERY CABLE W/ 14" PIGTAIL
31	07530013	1	RED BATTERY CABLE INSULATOR
32	07530011	1	SPECTRO, 14" BLACK BATTERY CABLE
33	07530012	1	BLACK BATTERY CABLE INSULATOR
34	07100007	1	DESIGN TECHNOLOGY, TACHOMETER/HOURMETER, PN TT226NR 2C
35	05730005	1	FOOT PER MINUTE METER, RED LION, PN CUB50020
36	08900001	1	PANEL OVERLAY
37	08000025	1	HEADLIGHT, XAPHL-2
38	05730008	1	CARLO GRAVAZZI, PROXIMITY SWITCH, PN EI1202NPOSS-1
39	05730007	1	CARLO GRAVAZZI, EUROFAST CORDSET, PN CONH10-5S
40	05600009	1	HARNESS WIRING ASSEMBLY
41	06300065	1	DAYTON, PN 4Z841, 500 LB ACTUATOR, 12 VDC
42	05910001	1	DELCO, PN 022049815, FLAPPER MOTOR, 12 VDC
43	10180002	1	KOHLER, MOTOR KIT
44	05200016	2	APPLETON, PN 7380V, 3/8 X 1/2" 90 DEGREE CONNECTOR
45	07530019	1	ALTERNATOR
46	07530018	1	RED TERMINAL INSULATOR
47	05100001	3	WEATHER-PROOF BOOTS FOR TOGGLE SWITCHES
48			
49	08300055	1	INSTRUMENT PANEL
50	05200001		1/2" CONDUIT CLAMP

REV.	ZONE	DESCRIPTION	DATE	BY

REVISIONS

FIRST USED | REF. DWG. 220-0247 | PART NO.

TOLERANCE UNLESS OTHERWISE SPECIFIED
ANGLES ± 1°
FRACTIONS ± 1/16
2 PL DEC ±.05
3 PL DEC ±.005

U.S. FILTER BLASTRAC — OKLAHOMA CITY OK 73121 U.S.A.

GPX 1018 BLAST UNIT
PUSHBUTTON SHOT CONTROL

SCALE NTS | DRWN DS | DATE 7/30/99 | SHT 1 OF 1