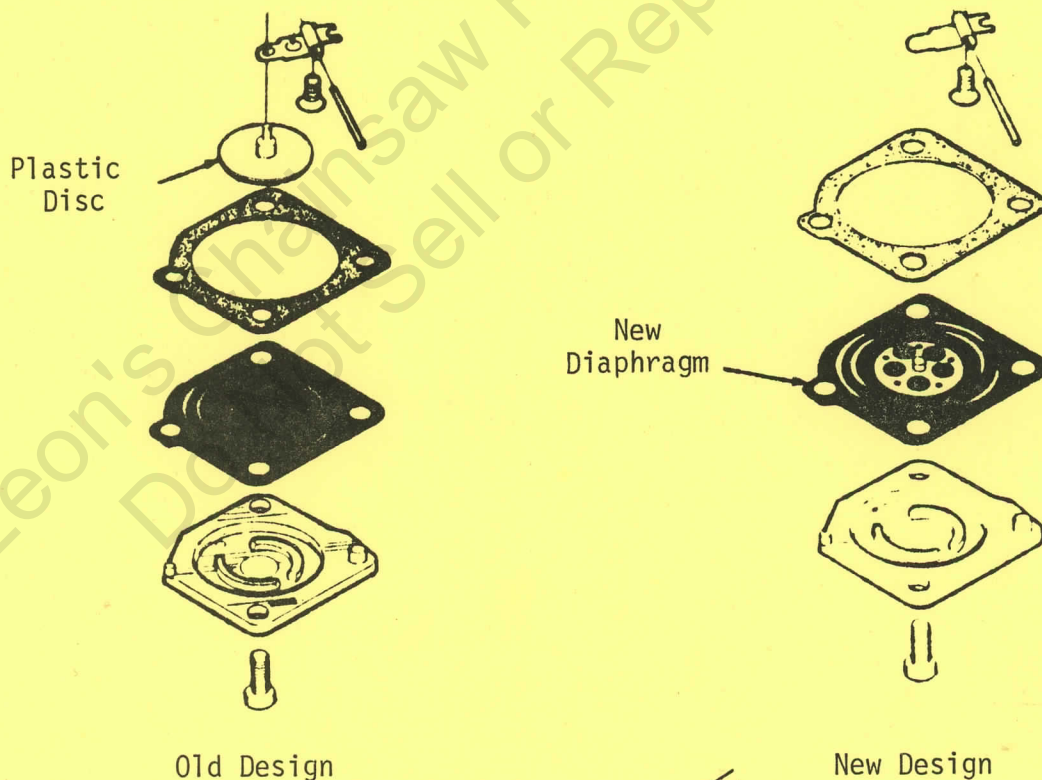


SUBJECT: WORN CARBURETOR INLET NEEDLE LEVERS**AFFECTS:** 240 CHAIN SAWS

Early Zama carburetors, used on the 240 chain saw, incorporated a plastic disc (see figure 1) underneath the main diaphragm to operate the fuel inlet needle. The 240 carburetor is mounted directly to the power head and the vibration causes the plastic disc to wear the lever.

The plastic disc has been replaced by a diaphragm with a riveted metal disc, in order to prevent this wear. See figure 2. This improved diaphragm is available in repair kit 96646-A and carburetor A-96352-A.

All 245 chain saws have the new diaphragm design.



Eddie Turner

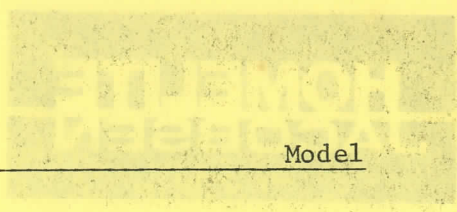
Eddie Turner
Service Manager
Forestry Products

SUBJECT: OBSOLETE UNITS LAST YEAR BUILT

AFFECTS: CHAIN SAWS, BRUSH CUTTERS, MULTI-PURPOSE SAWS, CIRCULAR SAW,
YARD TRACS, MISCELLANEOUS

Below is a list of unit model names and/or numbers that are no longer being built. The year indicates the last year that particular model was built.

Model	Year	Model	Year
Chain Saws			
Super-XL-12-Auto	70	VI-125	73
XL-101	70	VI-944-C	73
XL-102-Automatic	70	EZ	74
XL-870-CD	70	XL-923	74
XL-901	70	VI-944	74
XL903	70	VI-955HG	74
XL-913	70	Super-Wiz-80	74
XL-913-FP	70	XL-2F	75
XL-914	70	XL-123	75
Super-XP-1130-2-Auto	70	S2100-Auto	75
2100 (Auto)	70	350	76
Super-77	70	350HG	76
EZ-Automatic	71	350SL	76
EZ-250-Automatic	71	350B	76
XL-113	71	650	76
XL-114	71	650E	76
XL-122	71	Super-Wiz-55	76
XL-921	71	SXL-Mini-A0	77
XL-923-FP	71	VI-955	77
XL-923-RM	71	VI-955E	77
XL-924	71	Super-1050E	77
C-52	71	450SL	78
110 Electric	72	S650	78
XL-400-Automatic	72	S650E	78
XL-400-Automatic-FP	72	190	81
XL-924-W	72	450HG	81
1130-G-Automatic	72	450W	81
1050-Automatic	72	450A0	81
2100-S	72	Super-1130GAuto	82
3100-G	72	C-72	82
XL-Mini	73	XL-2W	82
XL-123-2	73	Super-Wiz-66	83
VI-123	73		
VI-123-2	73		



Year _____ Model _____ Year _____ Model _____

Year	Model	Year	Model
Brush Cutters		Yard Tracs	
XLBC-B	71	730-OL	70
XLBC-4	80	730-OLE	70
ST-400	82	730-OS	70
		526-1	71
		526-1E	71
Multi-Purpose Saws		730-1	71
		730-1E	71
XL-88	70		
XL-98	72		
EZ-10	72	Miscellaneous	
Chipper	73	XL-Bogue	70
		XLH-1	71
		XLWE-1	72
Circular Saws		2.6 CI Airplane Engine	79
XL-100-SW	70		
XL-120	71		
XL-100-G-1A	73		
XL-100-A	74		

Eddie Turner

Eddie Turner
Service Manager
Forestry Products

Leon's Chainsaw Parts & Repair
Do Not Sell Or Reproduce

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SUBJECT: CONSOLIDATING STRING HEAD ASSEMBLIES

AFFECTS: ALL GASOLINE MODEL STRING TRIMMERS
ST-80, ST-100, ST-120, ST-160, ST-180, ST-200

All gasoline trimmers produced in 1984 (designated by an "F" in the serial number) will use the same diameter string (.080") and the same diameter string spool (3"). The ST-80 string head and spool (3" diameter) has replaced the ST-100, ST-120 and the ST-200 (4½" diameter) spool and string head.

Parts will still be available to service all ST-100, ST-120 and ST-200 trimmers built previously with 4½" diameter spools. Below is a list of new part numbers available for servicing all string trimmers regardless of the production date.

<u>UNIT</u>	<u>PREWOUND SPOOL & PARTS*</u>	<u>*PARTS INCLUDED</u>	<u>LINE ONLY</u>
ST-100 Pre '84	DA-93954-B: 50 Ft. of .080" Diameter line prewound on 4½" diameter spool	Weldnot Tube, Sliders	DA-97703: 100 Ft. of .080" Diameter Line.
ST-120 Pre '84			
ST-200 Pre '84			
ST-100 '84 On	DA-97728: 25 Ft. of .080" Diameter line prewound on 3" diameter spool	Weldnot Tube, Sliders, Extra 25 Ft. of .080" Diameter line	
ST-120 '84 On			
ST-200 '84 On			
ST-160 A11			
ST-180 A11			
ST-80 A11			
ST-20 A11	DA-95159-B: 25 Ft. of .065" Diameter line prewound on spool	Springs & Sliders Preassembled on spool	DA-92707: 50 Ft. of .065" Diameter Line.
ST-40 A11	DA-95916-A: 50 Ft. of .065" Diameter line prewound on spool		
ST-60 A11			

Eddie Turner
Eddie Turner
Service Manager
Forestry Products

SUBJECT: NEW FUEL AND OIL CAPS**AFFECTS:** 410 CHAIN SAW

Currently both the fuel cap and the oil cap on the 410 are black in color. This is sometimes confusing when refueling the saw. To eliminate this confusion in the future the fuel cap will be colored red.

The new fuel and oil cap part numbers are:

A-97799 Fuel Cap (Red)
A-97798 Oil Cap (Black)

It is important to reflect this change in your parts list.



Bob Donahey
Manager Technical Service

ph

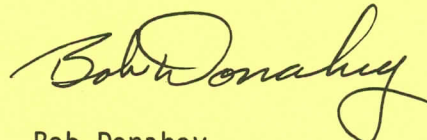
SUBJECT: NEW FUEL AND OIL CAPS**AFFECTS:** 410 CHAIN SAW

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Bob Donahey
Manager Technical Service

ph

SUBJECT: REPLACEMENT CARBURETOR**AFFECTS:** XL-100 SERIES CHAIN SAWS
(XL-101 thru 104, XL-123)

A replacement carburetor A-79202 (Walbro SDC-81) is available to service the models of chain saws in the old XL-100 series. This carburetor incorporates a diaphragm accelerator pump and a governor valve.

The following parts will service the A-79202 carburetor.

67020	Repair Kit
70811	Diaphragm/gasket kit
67188	Accelerator pump diaphragm (not supplied in 67020 or 70811)
64229	Inlet needle
93910-A	Main nozzle check valve kit



Peery Gibson
Service Manager
Forestry Products

ph

SUBJECT: 1) Slider & Spring Kits
2) Trimmer Kit for ST-210

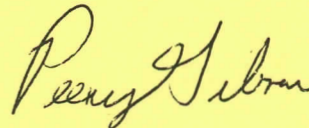
AFFECTS: All Gasoline String Trimmers

- 1) Refer to the list below when ordering or installing slider/spring kits on gasoline string trimmers.

<u>Model #</u>	<u>Slider/Spring Kit #</u>
ST-80 w/3" string head	A-97582 (A-96199-A will be no longer supplied when exhausted)
ST-100, 120 w/3" or 4" string head	A-97582
ST-160, 180 w/3" string head	A-97822
ST-200, 210 Trimmer Kit w/3" string head	A-97582
w/4" string head	A-95689-A

- 2) String trimmer kit part number A-95418-F is available for the ST-210 brushcutter. This kit consists of the complete lower string trimmer assembly which is standard production on the ST-200.

Please mark your parts list accordingly.



Peery Gibson
Service Manager
Forestry Products

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SUBJECT: DIAPHRAGM CARBURETORS RETURNED UNDER WARRANTY**AFFECTS:** ALL UNITS

A high percentage of the carburetors returned under warranty have been tested and found to perform properly. Listed below are the reasons these carburetors were declared non-defective or repairable.

A) Adjustments were made to one or both mixture needles and idle speed screw	49%
B) No adjustments or repairs required.	29%
C) Thoroughly cleaned and mixture needles/idle speed screw adjusted	3%
D) Renewable parts (diaphragms, gaskets, inlet valve) were replaced, metering lever adjusted, and mixture needles/idle speed screw adjusted	3%
E) Internal parts <u>properly</u> installed and mixture needles/idle speed screw adjusted	1.5%
TOTAL	85.5%

12.5% of the carburetors were received with missing or corroded parts, or foreign material inside them. Only 2% of the carburetors returned were found to be defective (vendor quality).

This high percentage of non-defective carburetors indicates that other problems may have existed with the units from which they were removed or otherwise unknown problems were corrected in the process of replacing the carburetors.

When troubleshooting a fuel related problem, the entire fuel system should be checked using a systematic series of tests and inspections.

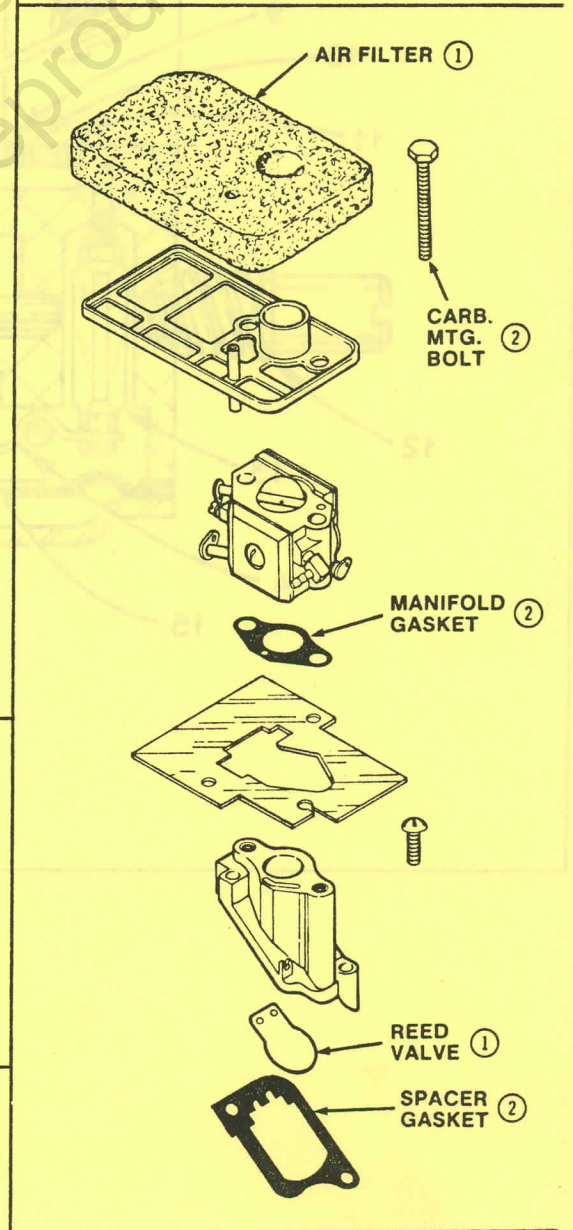
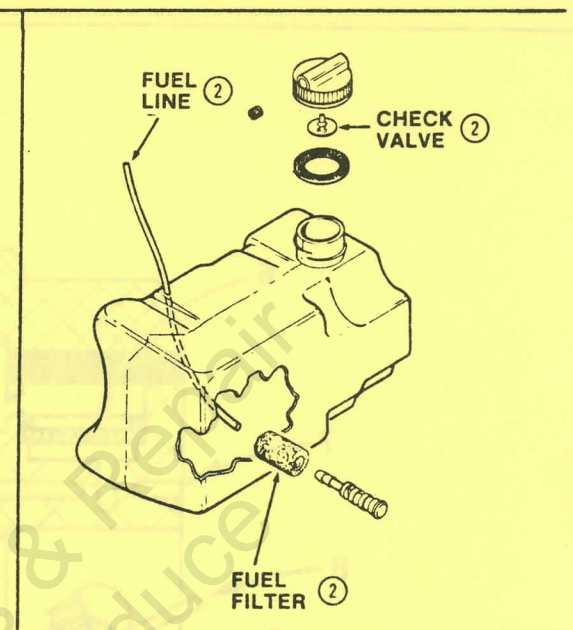
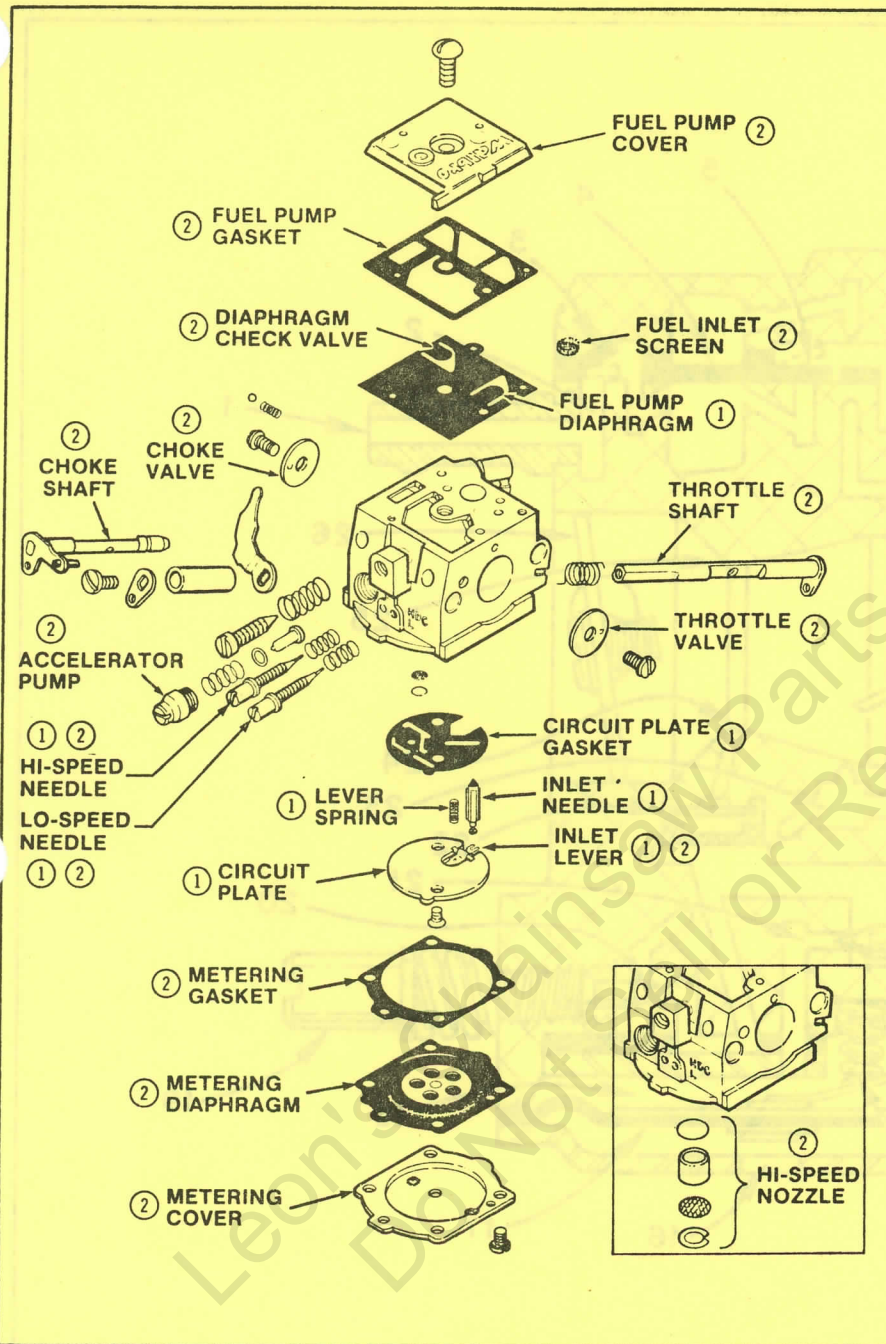
Areas often overlooked within the fuel system include the air filter, fuel cap and vent, fuel filter, fuel line, loose carburetor screws, torn gaskets, and the condition or installation of the manifold assembly (gaskets, reeds, spacer).

The crankcase and cylinder should also be pressure tested (5-6 p.s.i.) to determine if any air leaks exist.

Attached is a fuel system troubleshooting guide to aid you in servicing carburetor assemblies. Particular attention should be paid to the carburetor adjustment section (over 75% of the returned carburetors were corrected with little or no adjustments to the needles). Also refer to this guide during repair, inspection, and reassembly of diaphragm carburetors. The Walbro Model HDC carburetor is used for illustrative purposes.

(CONTINUED)

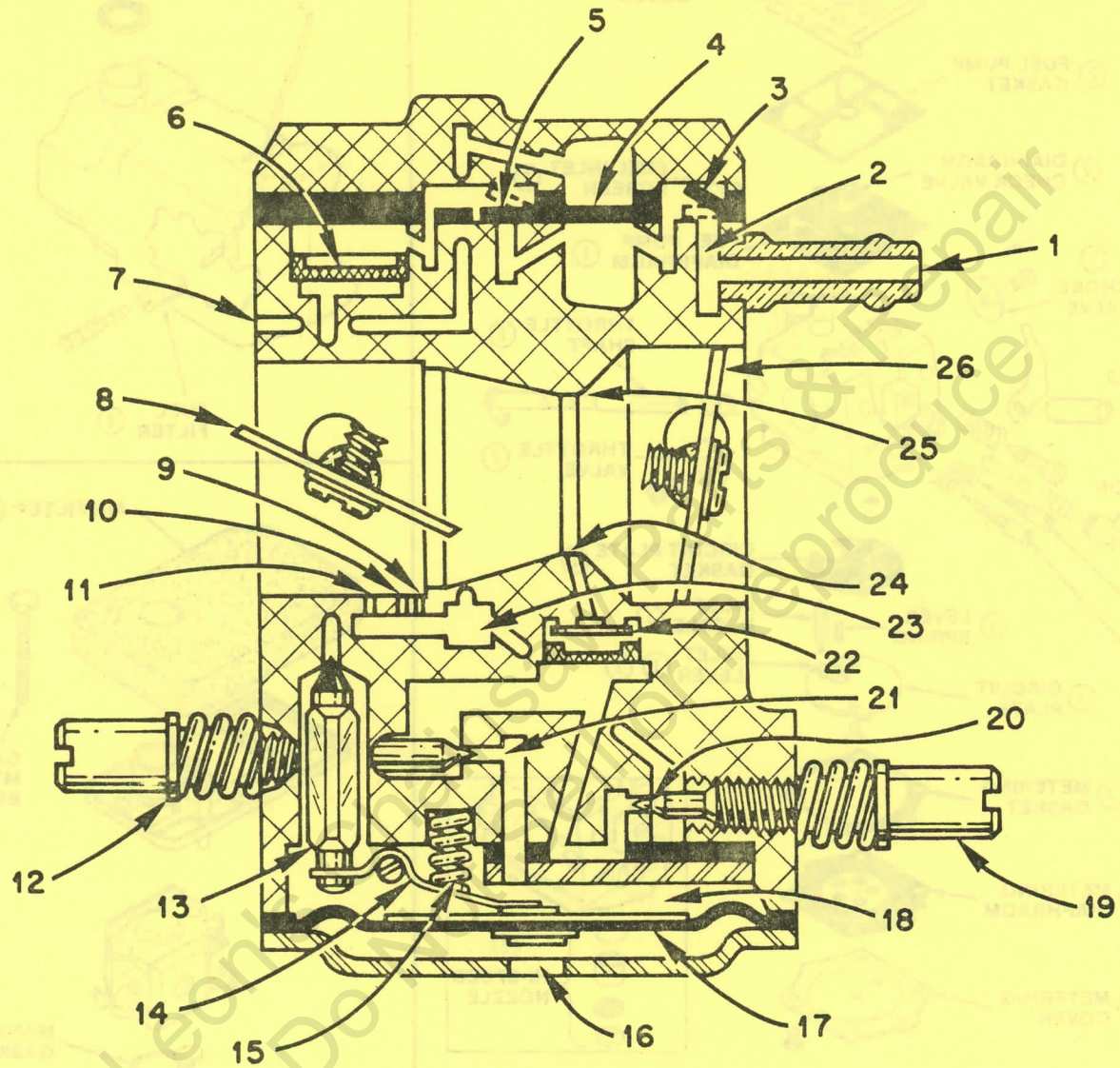
FUEL SYSTEM TROUBLE SHOOTING CHART



LEGEND

- (1) POSSIBLE SOURCE OF FLOODING OR RICH RUNNING
- (2) POSSIBLE SOURCE OF LEAN RUNNING

HDC CARBURETOR SCHEMATIC



LEGEND

CARBURETOR SERVICE TIPS
(Refer to HDC Carburetor Schematic)

1. FUEL INLET FITTING
Pressure test for air leaks press fit - should be tight.
2. SURGE CHAMBER
Should be clean, check for debris or metal chips.
3. INLET CHECK VALVE
Should lie flat on carburetor body - look for tears or wrinkles.
4. FUEL PUMP DIAPHRAGM
Should be flexible - not stiff or stretched. Replace if diaphragm is porous.
5. OUTLET CHECK VALVE
Should lie flat on carburetor body - look for tears or wrinkles.
6. FILTER SCREEN
Check for dirt or debris. Debris on screen indicates possible problem with fuel filter or fuel line.
7. ENGINE PULSE PASSAGE
Make sure carburetor pump cover and carburetor body are drilled for pulse. Make sure mounting gasket & pulse passage align with manifold.
8. THROTTLE VALVE
Check for proper alignment in venturi. Check throttle shaft for wear-source of air leaks.
- 9,10,11. IDLE PORT HOLES
Check for dirt & debris, clean with compressed air only.
12. HI-SPEED NEEDLE
Remove & inspect needle & seat for damage.
13. INLET NEEDLE VALVE
Inspect rubber tip for wear. If needle seat is damaged - replace carburetor.
14. METERING LEVER
Check for wear at metering diaphragm contact point. It must turn freely on fulcrum pin. Check for proper adjustment.
15. METERING LEVER SPRING
Check proper position. Check for distortion or stretching.
16. ATMOSPHERIC VENT
Must be clean & clear of any debris. Diaphragm will not work properly if vent is not open.
17. METERING DIAPHRAGM
Should be flexible - not stiff or stretched. Check for porosity. Metal plate should be tight on diaphragm.
18. METERING CHAMBER/CIRCUIT PLATE
Check circuit plate fuel take-off holes. Make sure the circuit plate & gasket is the correct type for this carburetor.
19. LO SPEED NEEDLE
Remove & inspect needle & seat for damage. Replace spring if needle will not stay adjusted.
20. IDLE TAKE-OFF
Check for dirt or debris.
21. NOZZLE WELL
Check for dirt or debris.
22. NOZZLE CHECK VALVE
Make sure filter screen is clean. Perform check valve disc test.
23. IDLE PORT
Check for dirt or debris.
24. HI-SPEED NOZZLE
Remove check valve & look for dirt or debris.
25. VENTURI
Check for dirt or sawdust. Indicates worn or improperly sealed air filter.
26. CHOKE VALVE
Examine valve for proper orientation in venturi. Check choke shaft for wear-source of air leaks.

CARBURETOR ADJUSTMENT PROCEDURE

Initial Adjustments

1. Carefully turn the Hi and Lo speed needles all the way in until they seat (Do Not Force Them).
2. Turn the Hi-speed and the Lo-speed needles open one turn.
Note: If unit does not have a Hi-speed needle the carburetor is equipped with a non-adjustable fixed Hi-speed jet or circuit plate.

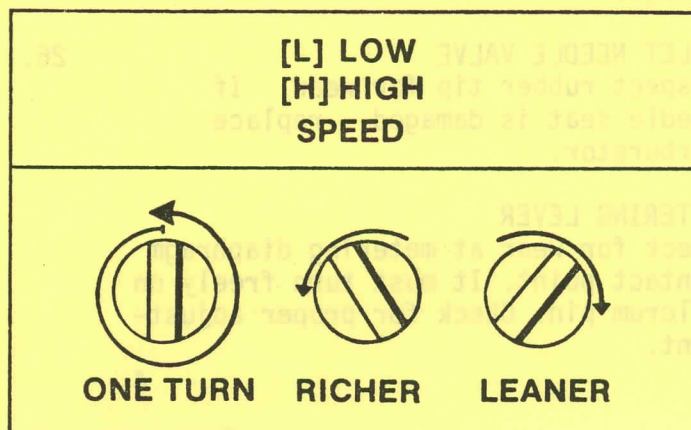
Lo-Speed Adjustment

1. Start engine and allow it to warm up.
2. Adjust the idle speed screw so the engine idles just below clutch engagement.
Note: For gasoline string trimmers without clutches (ST-80, 100, 120, 160 180) set idle speed screw so the unit idles at 2900-3200 rpm.
3. Slowly turn the Lo-speed needle clockwise (lean) until the engine speed decreases. Stop turning the needle and note its position.
4. Slowly turn the Lo-speed needle counterclockwise (rich) until the engine speed decreases. Stop turning the needle and note its position.
5. Set the Lo-speed needle midway between the needle positions in steps 3 and 4.
6. Readjust the idle speed screw to correct engine speed (step #2).
7. Check for smooth acceleration. If unit hesitates when accelerated, richen Lo-speed mixture needle slightly and readjust idle speed.

Hi-Speed Adjustment

1. Start with the Hi-speed needle one turn open.
2. With throttle wide open and under no-load, turn the Hi-speed needle clockwise (lean) until the engine runs smoothly (two-cycling).
3. Turn the Hi-speed needle counterclockwise (rich) until a slight four-cycling sound is heard.
4. Recheck acceleration and idle speed.

*W.O.T. = Wide Open Throttle



SUBJECT: ROPE BUSHING AND GUIDE KIT (A-97796)

AFFECTS: ST-80, 100, 120 STRING TRIMMERS
(After Lot # F136)

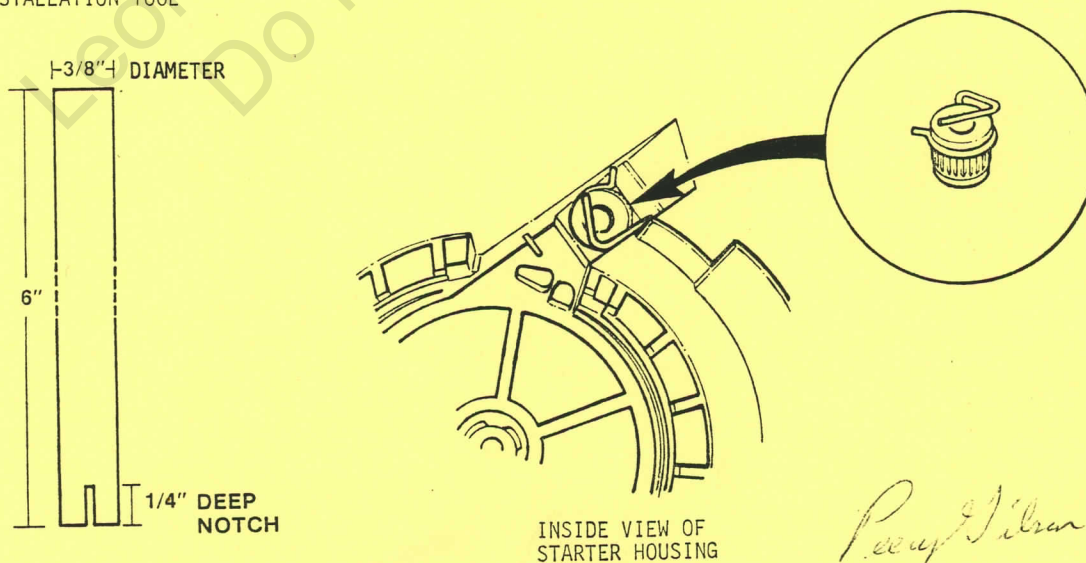
A rope bushing and guide kit (A-97796) is available to service the models ST-80, 100, 120 starter housings. This rope guide (retained by the bushing) will prevent the rope from slipping out of the pulley groove and being cut by the starter pawls during recoil.

When exhausted, plain bushing 96981-1A will supersede to the bushing and guide kit (A-97796). When installing the rope bushing on any other applicable unit other than those mentioned above, discard the rope guide.

To install the bushing and guide kit in older string trimmer starter housings containing the small brass or steel bushing, drill through the existing bushing with a 3/8" (9,5mm) drill bit. Apply a quick set adhesive (Homelite part number 70627) to the bushing (with rope guide) and press it into the housing from the inside. Allow the adhesive to dry. This repair should not be made if the rope has worn a deep groove into the starter housing. In this case, replace the starter housing.

Refer to the diagram below for the proper assembly sequence and location of the bushing and rope guide. Assemble the rope guide onto the bushing (as shown in inset drawing) before installation in the starter housing. An installation tool (see diagram) can be made by using a 6" X 3/8" steel rod, bolt, or wooden dowel and cutting a 1/4" deep notch in one end.

INSTALLATION TOOL



Peep Wilson

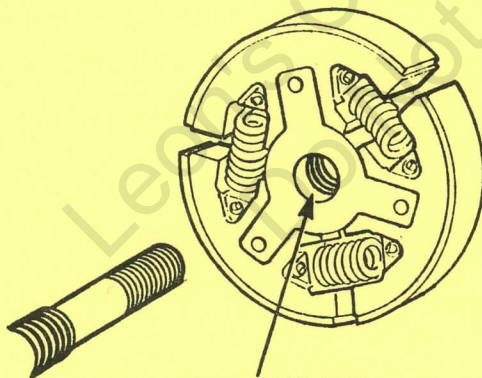
SUBJECT: PROPER CLUTCH INSTALLATION**AFFECTS:** 330
XL-12, SXL-A0
240, 245
XL, XL-2, Super 2, VI-Super 2
ST-200

When installing a clutch assembly on any of the above units, the location of the counterbore (unthreaded portion of the center mounting hole) should be noted. Always install the clutch (left hand thread) with the counterbore facing towards the crankshaft (see diagram below*). If the clutch is installed backwards, crankshaft fatigue and failure could occur. Sprocket drum tolerances and saw chain alignment could also be affected.

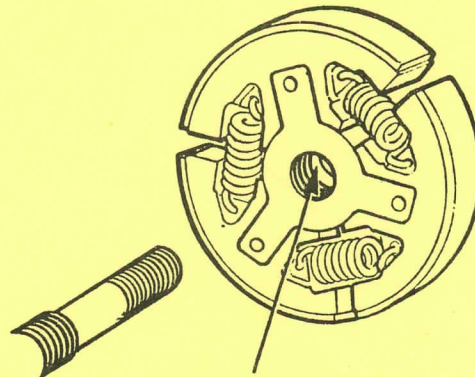
Use the correct clutch tool (refer to unit parts list) and securely torque clutch to:

250 in.lbs. (28.2 Nm) - 330, XL-12, SXL-A0
125 in.lbs. (14.1 Nm) - XL, XL-2, Super-2, VI Super-2, ST-200

*3-shoe lined clutch assembly shown for illustration only.

CORRECT

COUNTERBORE
TOWARDS CRANKSHAFT

INCORRECT

COUNTERBORE
AWAY FROM CRANKSHAFT

Peery Gibson

Peery Gibson
Service Manager
Forestry Products

SUBJECT: SPECIAL CARBURETOR ADJUSTMENT PROCEDURE**AFFECTS:** ST-160, ST-180 STRING TRIMMERS

The carburetor p/n A-97383 (Walbro Model HDC-70B) used on the subject model string trimmers incorporates an accelerator pump (diaphragm) located behind the brass plug on the side of the carburetor body.

NOTE: This is not a governed carburetor.

This carburetor is calibrated so that when the unit is running at wide open throttle 80% of the fuel is drawn through the idle holes while only 20% of the fuel is drawn through the main jet orifice.

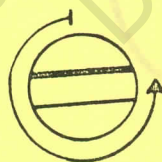
Proper unit operation - The unit should idle steadily and not exceed 4000 rpm with 3" of string protruding from the head. Acceleration response should be sharp. Unit should run in an intermittent 4-cycle at wide open throttle with the maximum 6½" (17" cutting circle) of string protruding from the head.

Proper carburetor adjustment procedures are as follows:

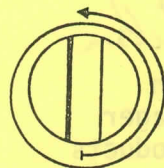
Initial adjustment:

1. Carefully turn hi and lo speed mixture needles all the way in until they just seat (Do Not Force Them).
2. Turn the hi speed needle open counterclockwise 3/4 turn. Turn the lo-speed needle open counterclockwise 1½ turns.

NEEDLE SETTINGS

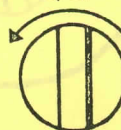


Hi-3/4 Turn



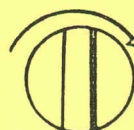
Lo-1½ Turns

NEEDLE ADJUSTMENTS

Hi-Lo
open

Richer

close



Leaner

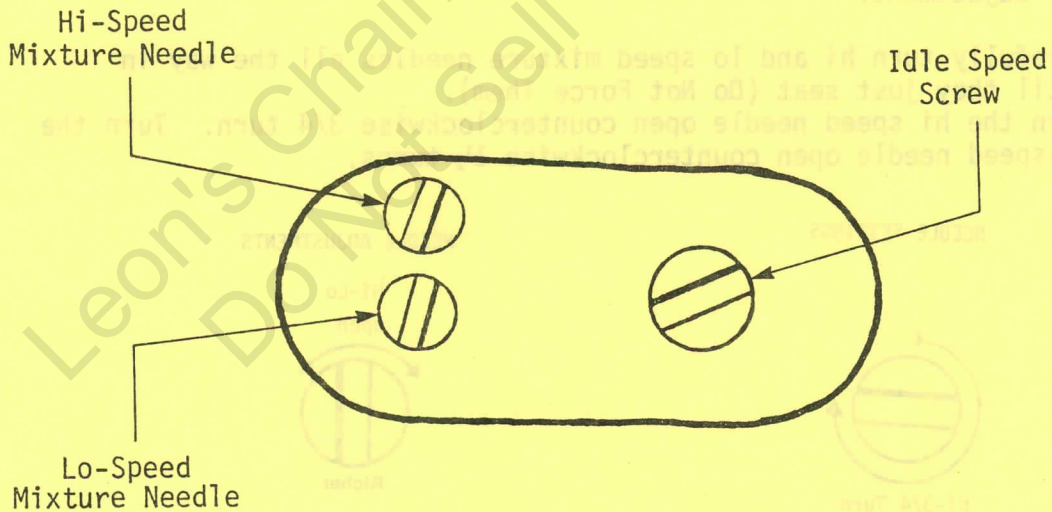
Lo-Speed Mixture Adjustment:

1. Start engine and allow it to warm up (2 - 3 minutes) - Do not try to adjust carburetor until unit operating temperatures are reached.
2. Adjust idle speed screw so unit idles at 2900-3200 rpm with full swath (17" cutting circle) of string.
3. Slowly turn the lo-speed needle clockwise (lean) until the engine speed starts to decrease.
4. Then turn lo-speed needle out counterclockwise (rich) until fastest idle is obtained.
5. Turn the lo-speed needle counterclockwise another 1/16 - 1/8 turn past this setting (step 4).
6. Check acceleration response.

Hi-Speed Mixture Adjustment:

1. Start with hi-speed needle 3/4 turn open.
2. With throttle wide open and 6 1/2" (17" cutting circle) of string protruding from head, slowly turn the hi-speed needle clockwise (lean) until the engine fluctuates between 4-cycling and 2-cycling.
3. NOTE: Anytime the lo-speed mixture needle is adjusted, always check the hi-speed performance and reset the hi-speed needle if necessary.
4. Recheck acceleration and idle response.

LOCATION OF CARBURETOR
ADJUSTMENT NEEDLES



Peery Gibson
Peery Gibson
Service Manager
Forestry Products

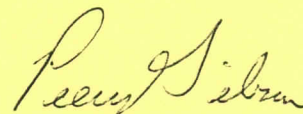
SUBJECT: CERAMIC FUEL FILTER (96639) EXAMINATION**AFFECTS:** ST-160, 180, 200 STRING TRIMMERS

Whenever the carburetor on the subject model string trimmers is replaced or removed for cleaning or repair, the ceramic fuel filter (96639) in the fuel tank should be inspected.

The fuel filter should be removed and examined for:

- 1) wear, breakage, or deterioration
- 2) loose fuel line fitting
- 3) blockage inside the fitting (will not pass fuel)

Before a carburetor is replaced as defective, it should be inspected for dirt or contamination on the fuel pump inlet screen. If this screen is found to be contaminated, the carburetor and fuel line should be thoroughly cleaned and the filter examined and replaced as required.



Peery Gibson
Service Manager
Forestry Products

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SUBJECT: HARD STARTING WHEN COLD**AFFECTS:** ST-160, 180 STRING TRIMMERS

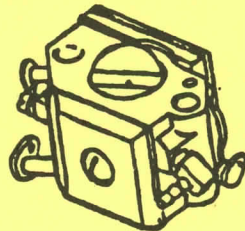
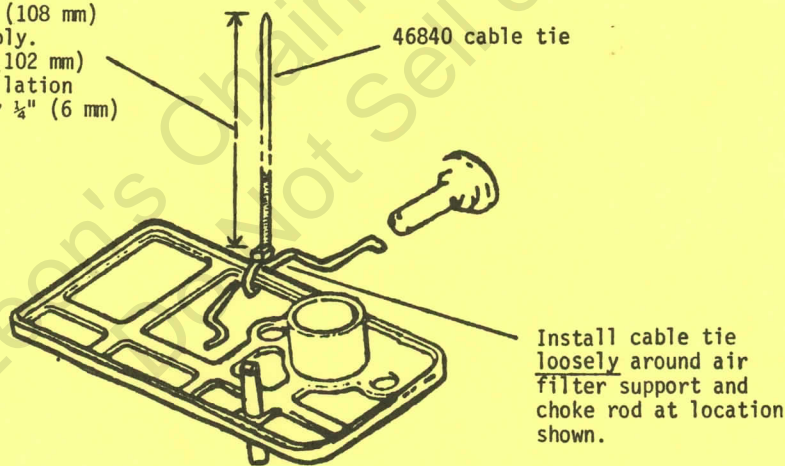
Reports have been received concerning some units of the subject model string trimmers being hard to start when cold. If this is the case, suspect the choke plate not closing completely.

This can be determined by removing the air filter and cover and inspecting the choke plate action. Should the choke close completely only when the choke knob is twisted slightly counterclockwise, improved choke action can be obtained by installing a cable tie (46840) loosely around the air filter support and choke rod (see diagram below).

This "field fix" will prevent the choke rod from falling down causing the linkage to bind, improving the action of the choke plate.

Follow the instructions below when installing the cable tie (46840).

Excess length of cable tie should measure $4\frac{1}{2}$ " (108 mm) after assembly. Cut off 4" (102 mm) after installation so that only $\frac{1}{4}$ " (6 mm) extends.



Peery Gibson

Peery Gibson
Service Manager
Forestry Products

SUBJECT: Incorrect Non-Captive Metering Diaphragm

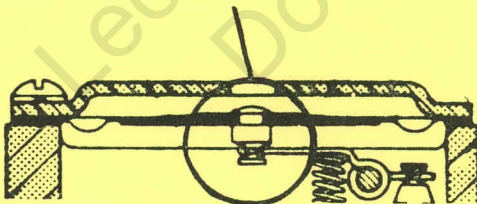
AFFECTS: Tillotson HS Model Carburetors Used On
XL-98A, DM-20 Multi-Purpose Saws
SXL-925 Chain Saw
SXL-A0 Chain Saw (UT-10602-A Asplundh Unit Only)

Any of the subject units built in early to mid 1984 (denoted by the letter "F" in the serial number) may be suspect of having an incorrect metering diaphragm in the carburetor. This non-captive diaphragm (see diagram) results in lower pop-off pressures for the inlet needle causing units to exhibit one or all of the following symptoms:

- 1) Dies out rich in the cut after unit gets hot.
- 2) Will not idle or accelerate when hot (dies out rich).
- 3) Idle and acceleration immediately improves when the fuel cap is loosened.
- 4) Floods out easily when starting - fuel leaks from the carburetor venturi and puddles in the carburetor chamber (until the fuel cap is loosened).

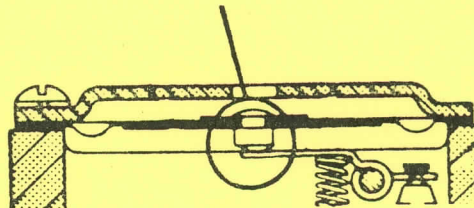
CORRECT

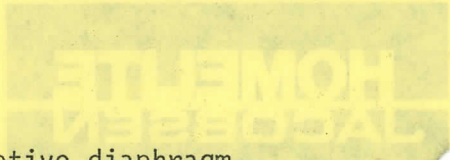
Diaphragm hooks
into inlet lever
(Captive)



INCORRECT

Diaphragm button rests
on top of inlet lever
(Non-Captive)





The non-captive diaphragm should be replaced with a captive diaphragm (p/n 58988). Replacing the diaphragm only will be allowed under warranty by using the special warranty codes shown below:

<u>Failure Code</u>	<u>Job #</u>	<u>Time</u>
V104	V13	.5 hr.

Any non-captive diaphragm removed should be stapled to the warranty claim and mailed* to:

Homelite-Extron
P.O. Box 7644
Charlotte, NC 28217

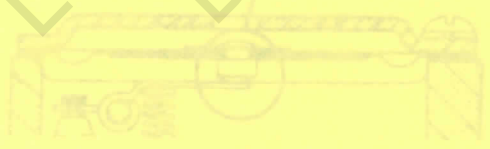
ATTN: Peery Gibson

*NOTE: Any warranty claim received without the diaphragm will be rejected and returned to the dealer.

Peery Gibson
 Peery Gibson
 Service Manager
 Forestry Products

ph

Leon's Chainsaw Parts & Repair
Do Not Sell

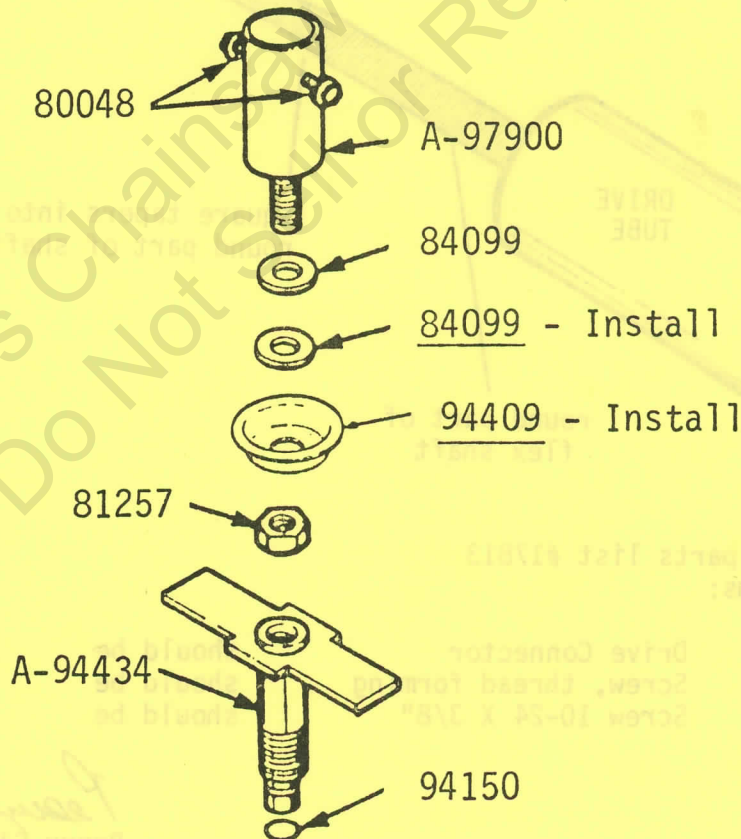


SUBJECT: 1) ADDITION OF SHIELD (94409) AND WASHER (84099) TO LOWER HEAD HOUSING ASSEMBLY
2) DRIVE SHAFT TUBE LENGTH
3) PARTS LIST CORRECTIONS

AFFECTS: ST-160, ST-180 STRING TRIMMERS

- 1) Whenever the lower head housing assembly (A-97900) is replaced on the subject model string trimmers, shield (94409) and a second flat washer (84099) should be added to the assembly (see diagram below). Addition of these two parts will prevent grass from wrapping around the shaft resulting in premature bearing failure. Without the above modification, early bearing failure can be expected to occur.

Use shaft holder tool (94482) to aid in the removal and installation of the drive connector and jam nut. Turn drive connector and jam nut clockwise (left hand thread) to remove.

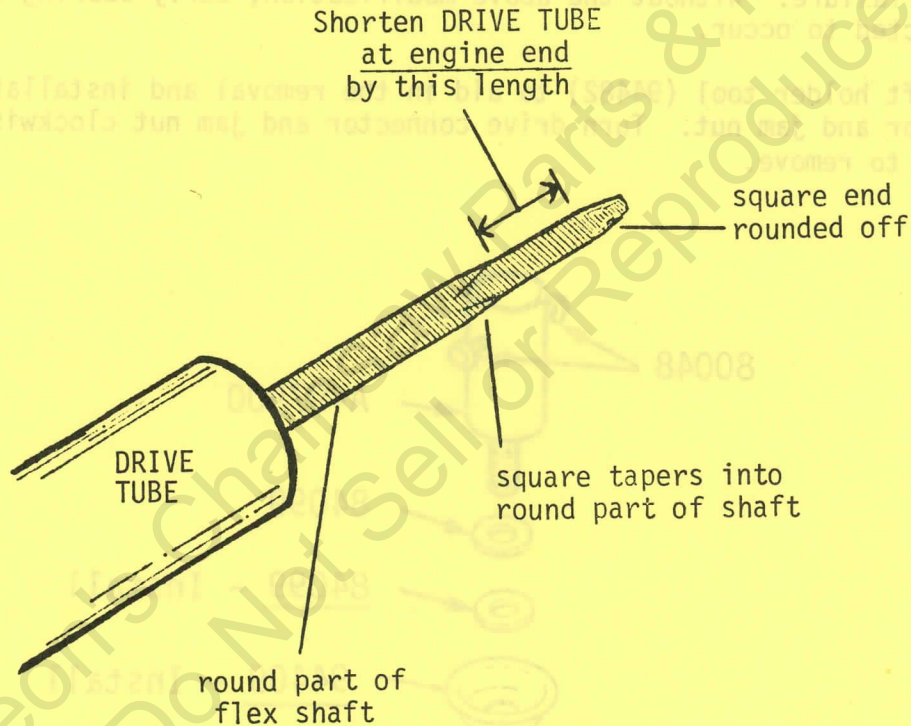


- 2) It has been reported that some drive tubes must be shortened to prevent the end of the flexible drive shaft from rounding off due to lack of full engagement in the square adapter. When this type of failure is encountered, the drive tube should be shortened (at the engine end) before reassembly with a new flex shaft or a similar failure will occur.

The length of the rounded off portion of the flex shaft indicates how much the shaft was engaging the adapter. The remaining, undamaged (not rounded off) length of the square determines how much the drive tube should be shortened to assure full engagement in the adapter.

Measure the undamaged length* of the square end as shown in the diagram below.

*NOTE: The length measured will vary from one flex shaft to another depending on the extra length of each drive tube.



- 3) ST-160, 180 parts list #17813
Page 5, items:

#1	Drive Connector	should be	A-94434
#6	Screw, thread forming	should be	95198
#11	Screw 10-24 X 3/8"	should be	88048

Peery Gibson
Peery Gibson
Service Manager
Forestry Products

SUBJECT: IGNITION MODULES RETURNED UNDER WARRANTY**AFFECTS:** ALL UNITS

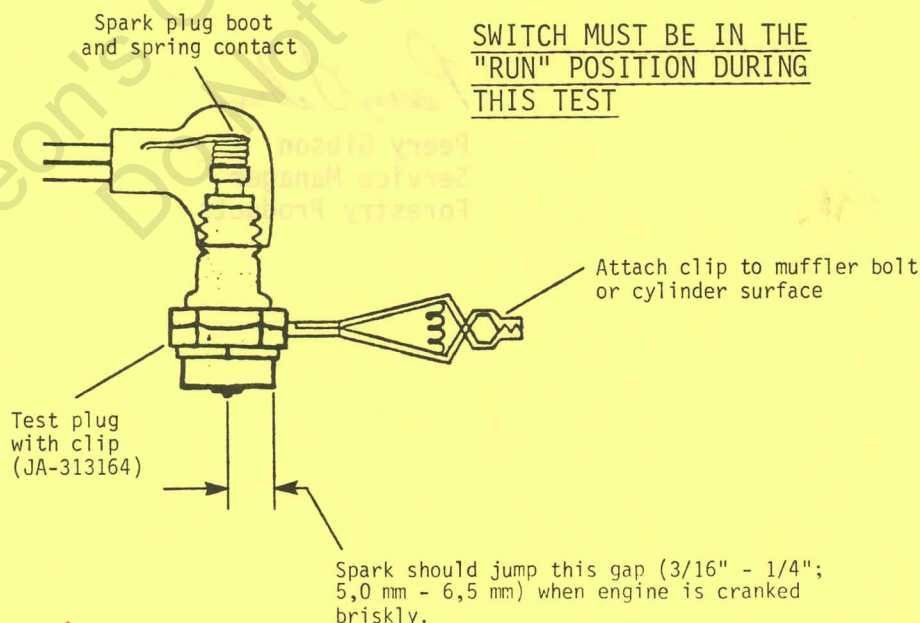
A high percentage of ignition modules returned under warranty has been tested and found to produce good output. Analysis has revealed the following:

- | | |
|---|-----|
| A) No spark | 52% |
| B) Intermittent spark,
No spark when hot, etc. | 10% |
| C) Good spark | 38% |

Spark plugs are often overlooked as the cause for ignition problems. Before testing an ignition system for spark, check the condition, electrode gap - .025" (0.65 mm) and heat range of the installed spark plug. Remember, a spark plug which fires in open air may not fire under compression.

Homelite recommends use of the surface gap spark plug tester (p/n JA-313164) when checking ignition modules for spark (see diagram below)*.

Solid state ignition modules produce an orange "pin-like" spark best seen in low light. The engine must be cranked briskly when checking for spark (remove the spark plug from the cylinder during this test).



TECHNICAL SERVICE BULLETIN

*NOTE: Refer to Technical Bulletin 183-012 (8-83) when testing the two-piece (module-transformer) ignition systems used on the Models 360, 550, 750, DM-50.

SUBJECT: IGNITION MODULES RETURNED UNDER WARRANTY

SERVICE NOTE

Should an ignition module not pass the spark test as described, each component and connection in the ignition system should be checked before replacing the module as defective. Refer to the troubleshooting list below:

- 1) Spark plug boot and contact spring - no tears or holes, proper installation.
- 2) Hi-tension lead - good insulation, proper routing, tight connection at module.
- 3) Connections and terminals - should be tight and inspected for corrosion or poor contact.
- 4) Wiring - check for good continuity and condition of insulation - no tears, fraying or bare wires.
- 5) Grounding switch - check for proper operation (open circuit when "run", closed circuit when "stop").
- 6) Module to rotor air gap - should be .008" to .012" (0,2 - 0,3 mm)
- 7) Ignition module - should be tested for spark across 3/16" - 1/4" (5,0 - 6,5 mm) gap.

Returned ignition modules will continue to be monitored as samples are received for warranty.

When filling out warranty claim, please be specific concerning the type of failure (no spark, no spark when hot, intermittent spark, etc.)

Peery Gibson

Peery Gibson
Service Manager
Forestry Products

ph

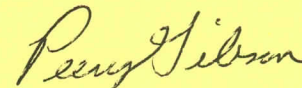


SUBJECT: 1) Carburetor Repair Tool Kit (17789)
2) Replacement Grinding Wheels for K-245 Grinders

AFFECTS: Tools & Accessories

- 1) Carburetor repair tool kit (p/n 17789) is available to aid the dealer in the repair and rebuilding of diaphragm carburetors. This kit contains tools to remove and install welch plugs and main nozzle assemblies and a special plate to check and adjust metering levers. An instruction sheet is also included showing how each tool is used.
- 2) Replacement grinding wheels for the Model K-245 chain grinder (p/n 95675) are available from service parts. Part numbers and descriptions are listed below:

<u>Part Number</u>	<u>Description</u>
97964	1/8" grinding wheel
97965	3/16" grinding wheel
97966	1/4" grinding wheel
97967	7/32" grinding wheel
97968	Depth gauge wheel



Peery Gibson
Service Manager
Forestry Products

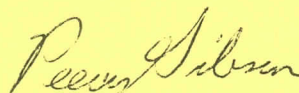
ph

- SUBJECT:** 1) Cylinder Nut (96212) and Lockwasher (83061)
2) Service Bulletin Revision (184-005)
3) Parts List Correction (17368-A)
4) Parts List Correction (24831 Rev. 3)

AFFECTS: Various Units

- 1) a. A smaller 1/4 - 28 X 3/8" hex nut is being used for cylinder retention on the Models SEZ-A0, XL-12, SXL-A0, SXL-925, and XL-98A saws. This nut (p/n 96212) can be easily tightened with a 3/8" box or open end wrench.
- b. For improved retention, lockwasher (p/n 83061) is being used under the cylinder nuts on the Model Super EZ-A0 chain saw.
- 2) Technical Service Bulletin 184-005 (5/84). Use 69751 hi-lo grommet (from SXL-925) when installing the A-79202 carburetor on XL-100 series chain saw.
- 3) Correction to 150-A0 parts list #17368-A, page 4, item: #2 Cap, muffler should be 68956-1.
- 4) Correction to SXL-925 parts list #24831 Rev. 3, page 4, items:
#26 Filter, fuel should be A-97700
#27 Filter, felt should be 59253-1A

Please note these changes and additions in your parts lists.



Peery Gibson
Service Manager
Forestry Products

ph

SUBJECT: CORRECTION TO PARTS LIST 24760 REV. 2**AFFECTS:** XL98A MULTI-PURPOSE SAW

When ordering a crankshaft for the above model, please order part number 67168-4.

On page 3 of the parts list, the part number is listed incorrectly. Please adjust your parts book accordingly.



Rick Mason
Service Manager
Construction Equipment

ph