



# TECHNICAL SERVICE BULLETIN

186-001  
286-001  
386-001

NO. \_\_\_\_\_

**SUBJECT:** TECHNICAL SERVICE BULLETIN LISTING

**AFFECTS:** 1985 TECHNICAL SERVICE BULLETINS

Listed on the back of this Bulletin is a list of all Technical Service Bulletins that were issued during 1985.

Should you be missing a Service Bulletin, please write your name and dealer number on this sheet, circle the bulletins you need, and mail to:

Mr. Lars Johnson  
Homelite-Extron  
P.O. Box 7047  
Charlotte, N.C. 28217

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

CONTINUED ON BACK

FORESTRY PRODUCTS

<u>BULLETIN #</u>	<u>UNITS AFFECTED</u>
185-001	ST-160, ST-180 String Trimmers
185-002	410-A0, DM-40, ST-200
185-003	EZ, EZ-A0, Super EZ-A0, 330
185-004	ST-80,100,120,160,160A,180,200,210,XL,XL-2,Super 2, etc.
185-005	Model 190 Chain Saw
185-006	All Two Cycle Homelite & Jacobsen Engines
185-007	410,450,550,Super 650,750,DM-40,DM-50,Super 1050-A0
185-008	All Models
185-009	All Chain Saws
185-010	HK-24, HK-33
185-011	ST-100,160A,200,XL,240,245,P100,ST-160,180,XL2,VIS2,ST-80
185-012	All Models
185-013	ST-200
185-014	ST-200, 210
185-015	SXL-A0,XL-12,DM-20
185-016	ST-160A,XL,Super 2,P-100
185-017	290 (UT #10661), 340 (UT #10660)
185-018	XL(Starting w/ Lot G225), Super 2(Starting w/ Lot G212)
185-019	290, 340 Chain Saws
185-020	290, 340 Chain Saws

CONSTRUCTION EQUIPMENT

<u>BULLETIN #</u>	<u>UNITS AFFECTED</u>
285-001	HG600, HG1400
285-002	AP Pumps
285-003	FP250 Pressure Pump
285-004	174A27,175A42,176A35,177D38,178A50,180A75,190HY50
285-005	174A27,176A35,178A50,180A75,190HY50-1A
285-006	DM20,DM40,DM50,XL98A
285-007	PCS 30

JACOBSEN

<u>BULLETIN #</u>	<u>UNITS AFFECTED</u>
385-001	Snoburst 51611, 51617, 35001, 35001A, 35002, 35002A
385-002	Superbagger Cast Deck Mowers
385-003	Snoburst UT #35011, #35012
385-004	All Two Cycle Homelite & Jacobsen Engines
385-005	Electric Start Compliance Mowers
385-006	All Units
385-007	RMX, LTX, GT
385-008	LK20, LK20P, SD20, SD20P
385-009	GT16H, GT14H, GT12H
385-010	All Units (Cross Reference Guide)

**SUBJECT:** HAIRLINE CRACKS IN INTAKE MANIFOLD**AFFECTS:** SXL-925 CHAINSAW  
XL-98A MULTI-PURPOSE SAW

When troubleshooting one of the subject units due to hot running or whenever rebuilding one of the subject units, the intake manifold A-67460-1 should be carefully inspected for hairline cracks.

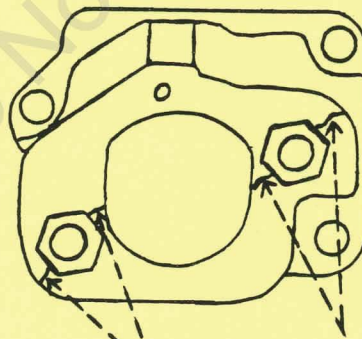
If the carburetor screws have been overtightened, the manifold may have hairline cracks radiating out from the threaded inserts (see diagram below). These cracks will result in an air leak at the intake and will cause lean, hot running.

Failure to replace the manifold, if cracked, may lead to lean running, increased operating temperatures, and possible engine seizure.

**SERVICE NOTE**

The proper torque on the carburetor mounting screws is 20-25 inch pound (2,2 - 2,8 Nm).

A-67460-1  
Intake Manifold



Hairline cracks  
radiating from threaded  
inserts.

*Peery Gibson*  
Peery Gibson  
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# TECHNICAL SERVICE BULLETIN

NO. 186-003

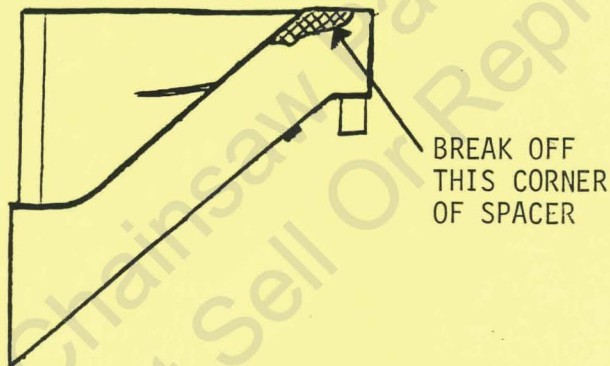
**SUBJECT:** MODIFYING CARBURETOR SPACER 97571 FOR USE WITH WALBRO CARBURETORS

**AFFECTS:** ST-160, ST-160A, ST-180, ST-200, ST-210  
165, 260, 310

Some reports have been received from dealers that WALBRO carburetors will not fit properly on service replacement 97571 carburetor spacers.

When using the service replacement carburetor spacer 97571 with a WALBRO carburetor on any of the subject model string trimmers, the top corner of the spacer may have to be broken off (see diagram below) using pliers.

97571  
CARBURETOR SPACER



Unless this corner is removed, the WALBRO carburetor will not set flat on the spacer and the gasket will not seal. The result will be a hard starting, lean running unit.

*Peery Gibson*

Peery Gibson  
Service Manager  
Forestry Products

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**SUBJECT:** 3-SHOE UNLINED CLUTCH ASSEMBLY

**AFFECTS:** XL, SUPER 2 (STARTING WITH LOT #G304)  
XL-2, VI SUPER 2 (SERVICE)

The one-piece "S" Clutch used on the subject model chain saws has been replaced by a three-shoe unlined clutch assembly A-97921. This three-shoe clutch should be used whenever replacing the "S" Clutch on the XL, XL-2, Super 2, and VI Super 2 chain saws.

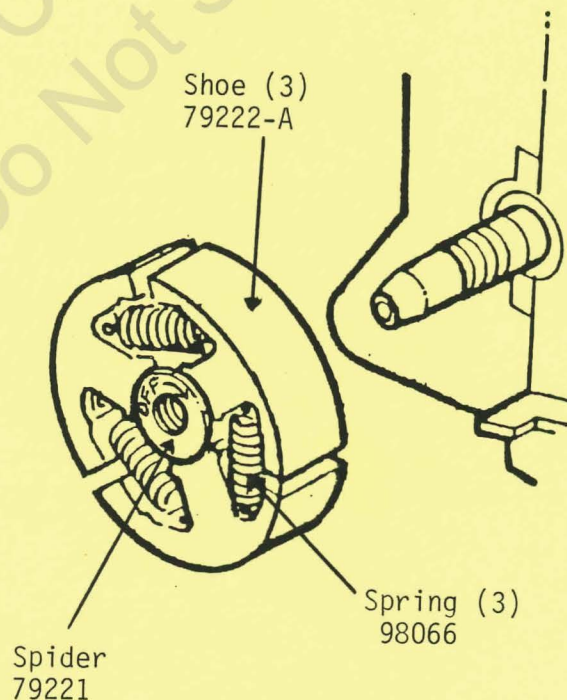
Use clutch spanner wrench A-17770-A to install and remove the 3-shoe clutch assembly.

### INSTALLATION NOTE

Install the clutch assembly (left hand thread) with the counter bore in the spider facing towards the crankshaft (Refer to Technical Service Bulletin 184-009, 9/84). Torque clutch to 125 in.lbs. (14.1 Nm).

Refer to the diagram below when ordering parts.

### A-97921 CLUTCH ASSEMBLY



CONTINUED ON BACK

The "S" clutch A-70351-A will remain available and must be used to service the ST-200 trimmer and ST-210 brushcutter.

----- WARNING! -----

DO NOT USE the 3-shoe clutch on the ST-200 and ST-210 as it will result in lowered clutch engagement speeds. When used with the brushcutter attachment, the blade may continue to rotate at idle speed.

*Peery Gibson*

Peery Gibson  
Service Manager  
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# TECHNICAL SERVICE BULLETIN

NO. 186-005

**SUBJECT:** NEW CRANKCASE WITH SERIES 5 BAR PAD

**AFFECTS:** 360-AO CHAINSAW (STARTING WITH LOT #G276)

The crankcase on Model 360-AO Chainsaw has been changed from a series 3 bar pad to a series 5 bar pad (see Figure 1 below). The series 5 bar pad **REQUIRES** inner guide bar shim 97959. This shim will be supplied with all new service crankcase assemblies A-12251-E and **MUST BE INSTALLED** when replacing the crankcase.

This revised bar pad design allows the chain oil to enter the guide bar directly through the round oiler hole rather than up through the square adjusting pin hole.

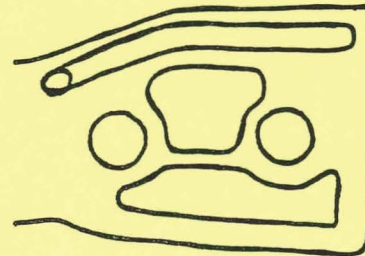
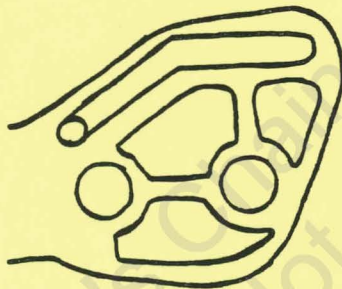
FIGURE 1

NEW

OLD

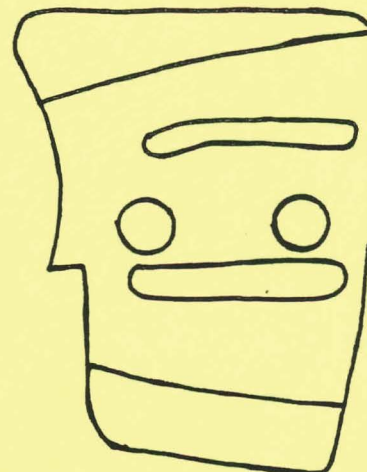
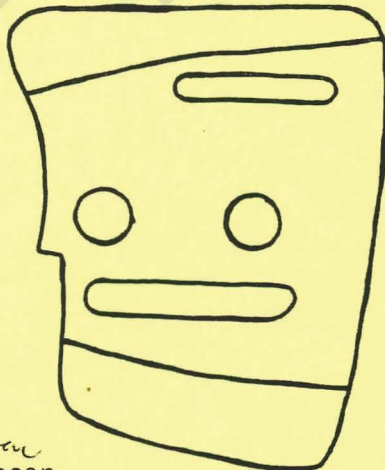
A-12251-E Crankcase  
(series 5 bar pad)

A-12251-D Crankcase  
(series 3 bar pad)



97959  
inner shim

70397  
inner shim



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Service Manager  
Forestry Products  
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**SUBJECT:** 1) THREE PIECE OIL LINE ASSEMBLY (A-98084)  
2) THREADED INSERT KIT FOR GUIDE BAR STUDS (A-70370-A)

**AFFECTS:** 1) 330 CHAIN SAW (STARTING WITH LOT #G305)  
2) SXL-AO CHAIN SAW

- 1) A more flexible, three piece inlet oil line assembly A-98084 has superseded the one piece, extruded oil line 70309-26 in the Model 330 oil tank. This new oil line will assure that the chain continues to get oil when the saw is used in the nose down position.

To install the A-98084 oil line in units built prior to Lot #G305, remove the existing oil line (70309-26) and drill out the oil tank hole to .2420" using a size "C" drill bit (see Figure 1). Thoroughly clean the oil tank after drilling. Install the new oil line assembly as shown in Figure 2.

FIGURE 1

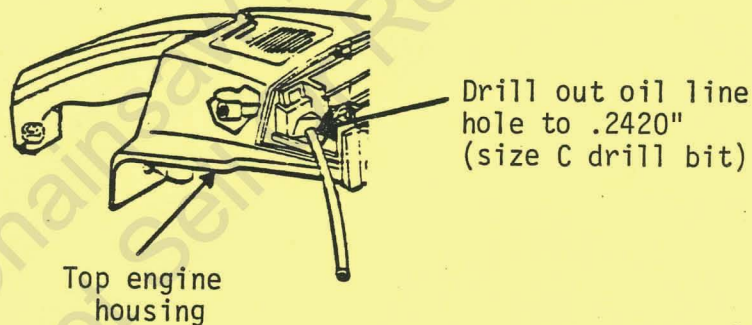
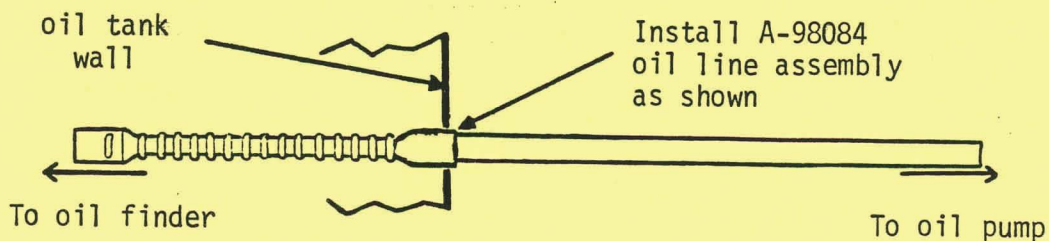


FIGURE 2



CONTINUED ON BACK!

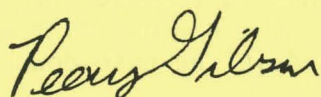


- 2) A threaded insert kit A-70370-A is available to repair SXL-A0 guide bar studs that have pulled out. This kit consists of two oversize threaded inserts and an instruction sheet.

Special tools required to install the oversize inserts are:

37/64 diameter BOTTOM drill

5/8-18 UNF-2B BOTTOM tap



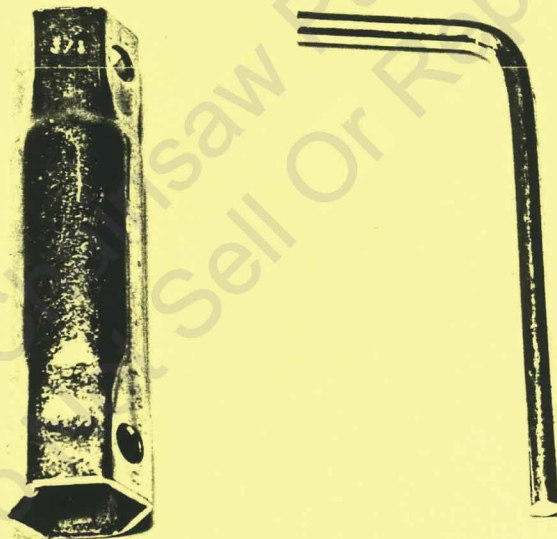
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Service Manager  
Forestry Products

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**SUBJECT:** SPARK PLUG WRENCH**AFFECTS:** TOOLS

We have a surplus quantity of JA-54723-3 Spark Plug Wrench available. This wrench will accommodate 13/16 and 3/4 inch hex spark plugs and comes with a handle. These wrenches make excellent promotional items and will be available for \$.50 while supply lasts.



*Bill Borachok*  
Bill Borachok  
Service Manager  
Lawn & Garden

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# TECHNICAL SERVICE BULLETIN

NO. 186-008  
286-006

**SUBJECT:** WARRANTY FORM NOT SHIPPED WITH UNITS

**AFFECTS:** HK18, HK24, HK33 AND HG2000

Some of the units listed above were shipped without the Homelite Consumer Products Limited Warranty form (Part #17703-B). In order to obtain the form, please write to:

Homelite Division of Textron  
14401 Carowinds Blvd.  
Charlotte, N.C. 29715

ATTN: Service Department

Please state the quantity that you need. Don't forget to give the address where the form(s) should be mailed.

Rick Mason  
Service Manager  
Construction Equipment

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cut along dotted line and mail in

DEALER NUMBER

QUANTITY OF FORM(S)

\_\_\_\_\_

\_\_\_\_\_

Return Address: Name: \_\_\_\_\_

Address: \_\_\_\_\_

City: \_\_\_\_\_ State: \_\_\_\_\_ Zip: \_\_\_\_\_

**SUBJECT:** SERVICING RAKER III SAW CHAIN**AFFECTS:** ALL CHAIN SAWS

Homelite supplies the following tools and accessories required to service, sharpen, and maintain the series Raker III saw chain.

<u>Chain Series &amp; Recommended Maintenance</u>	<u>Tool Description</u>	<u>Tool Part #</u>
R37ME50 Raker III XL, XL-2, Super 2, VI Super 2, XEL, 240, some 245		
Round file diameter (New) Full length cutter	5/32" (4mm)	D-92604 -A
(Used) After half the cutter is filed away	1/8" (3,2mm)	92605
File Guide with File	5/32" (4mm)	DA-92617-A
Depth Gauge Setting (all cutting)	.020" (0,5mm)	D-92630-B
 32ME50 Raker III 245, some 240		
Round file diameter (New) Full length cutter	3/16" (4,8mm)	92603
(Used) After half the cutter is filed away	5/32" (4mm)	D-92604 -A
File Guide with File	3/16" (4,8mm)	A-92611
Depth Gauge Setting (all cutting)	.025" (0,6mm)	D-92631-C

CONTINUED!

Chain Series &  
Recommended Maintenance

Tool  
Description

Tool  
Part #

38ME50 or 38LE50 Raker III  
150, Super EZ, 290, 330,  
340, 360, XL-12, SXL-A0,  
410, 550, SXL-925, 750

Round file diameter  
(New) Full length cutter  
(Used) After half the cutter is  
filed away

7/32" (5,5mm)

D-92601-A

3/16" (4,8mm)

92603

File Guide with File

7/32" (5,5mm)

DA-92615-A

Depth Gauge Setting

General duty, mixed hard &  
soft wood

.030" (0,8mm)

D-92632-A

Strictly softwood

.035" (0,9mm)

92633-B

Chain Breaking and Mending Equipment

Bench Chain Breaker

includes: Anvil (for use with Raker III and  
Non-Raker III saw chain)

A-17189

17190-C

Bench Rivet Spinner

A-17163

Pocket Chain Breaker (Raker III and Non-Raker III saw chain)

92645-B

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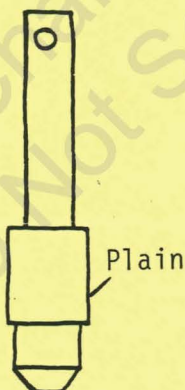
**SUBJECT:** REVISED CYLINDER ASSEMBLY (A-70489-C) WITH COMPRESSION RELEASE VALVE**AFFECTS:** 750 (STARTING WITH LOT #H027)

The cylinder assembly on the Model 750 Chain Saw has been revised in the area of the compression release valve. The revision was made to eliminate the valve pounding the seat resulting in cylinder bore and piston damage. Due to the compression release hole in the bore of the cylinder being made smaller, the new cylinder assembly (A-70489-C) requires and includes a revised compression release valve assembly (A-98521).

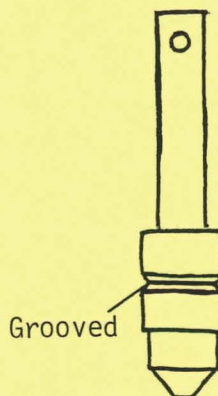
In order to insure proper seating, the new compression release valve (A-98521) must be used with the new cylinder (A-70489-C). The new valve can be identified by a "V" groove as shown in Figure 1 below.

**FIGURE 1**OLD

A-12712  
Use Only With  
Cylinder  
A-70489-B

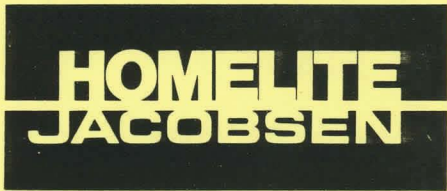
NEW

A-98521  
Use Only With  
Cylinder  
A-70489-C

*Peery Gibson*

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Service Manager  
Forestry Products

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# TECHNICAL SERVICE BULLETIN

NO. 186-011

**SUBJECT:** 1) CRANKSHAFT 67168-3  
2) DEALER SERVICE GUIDES

**AFFECTS:** 1) SXL-925 CHAIN SAW  
2) VARIOUS UNITS

1) The SXL-925 chain saw parts list (24831 Rev. 3) incorrectly identifies the crankshaft as 67168-1 (page 4, figure 2, item #9). The correct crankshaft part number is 67168-3. Please reflect this change in your parts list.

The 67168-1 crankshaft is no longer available and was used on earlier Model 900 Series saws with breaker point ignition systems.

2) The following Dealer Service Guides are available for selected Homelite products and can be obtained as a regular part.

<u>PART #</u>	<u>DESCRIPTION</u>
<u>Chain Saws</u>	
17213-A	Repair Manual XEL
17767	Service Guide XL, XL-2, Super 2
17782	Service Guide 240, 245
17880	Service Guide 290, 340
<u>Trimmers/Brushcutters</u>	
17852	Service Guide ST160, 160A, 180, 200, 210
17889	Service Guide HK-18, 24, 33
<u>Blowers</u>	
17806	Service Guide HB-280, 480, 680
<u>Pumps</u>	
17768	Service Guide P-100-1 (Waterbug)
<u>Generators</u>	
17843	Service Guide HG600 (Lightning Bug)

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Peery Gibson  
Service Manager  
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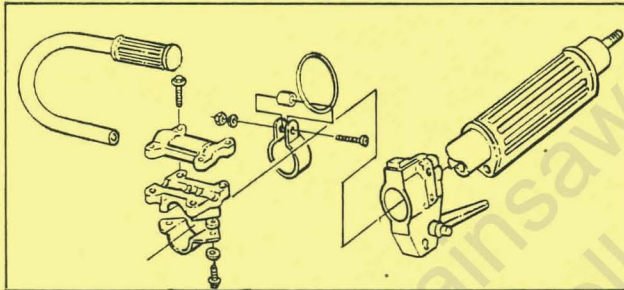
## SUBJECT: CHANGES MADE ON STRING TRIMMERS FROM 1985 to 1986 UNITS

### AFFECTS: HK-24, HK-33

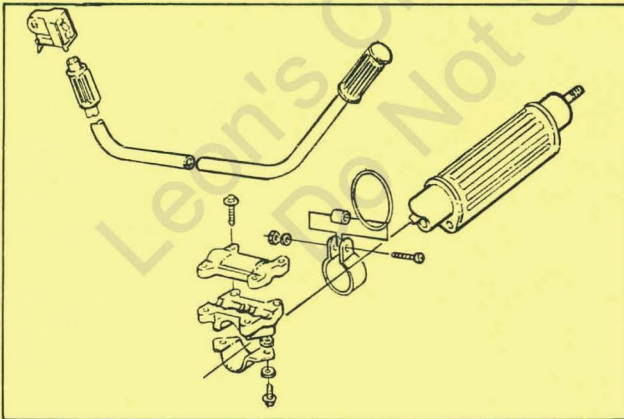
The HK-24 and HK-33 for 1986 have the same model numbers and UT numbers as the 1985 units but there are many parts on the two units that are different. It is very important to know which unit you have and order parts from the proper parts list.

Listed below are a few ways to recognize the 1986 units:

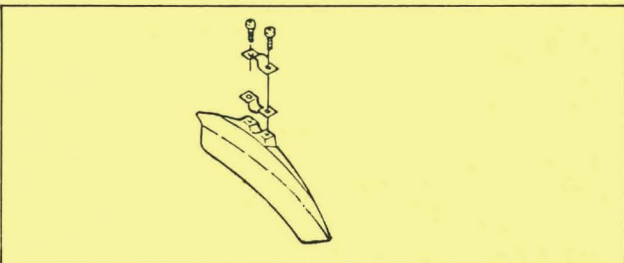
1. The air filter housing and the muffler cover are painted black.
2. The wire stand mounts to the fan housing.
3. The throttle lever/kill switch mounts on the shaft housing on the HK-24.



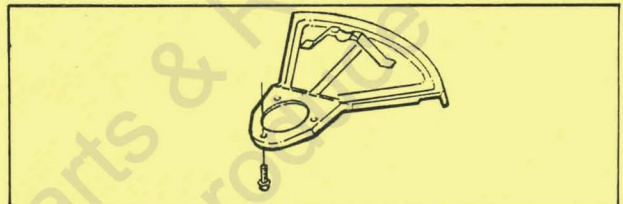
4. The throttle lever/kill switch mounts on the end of the handle bar on the HK-33.



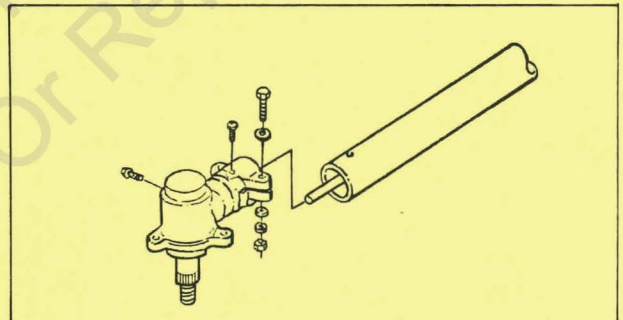
5. The shield is plastic on the HK-24.



6. The shield on the HK-33 mounts to the gear case.



7. The gear case has a threaded stud which the string assembly and blade bolt to.



There are more changes in the 1986 units but these are major changes that will allow you to know which units you are servicing. **BE SURE TO ORDER PARTS FOR THE 1986 UNITS FROM PARTS LIST 17897 WHICH STATES "FOR MODELS RELEASED AFTER JAN. 1, 1986".**

**Do not discard parts list 17844. You must use this parts list for 1985 units.**

Rick Mason  
Service Manager  
Construction Equipment





# TECHNICAL SERVICE BULLETIN

NO. 186-013

**SUBJECT:** TESTING SOLID STATE AND CAPACITOR DISCHARGE IGNITION SYSTEMS

**AFFECTS:** ALL UNITS

Several dealers have requested specific information about testing procedures for ignition systems used on Homelite chain saws, string trimmers, and blowers.

The quickest way of determining if the ignition system is operating properly is to use a surface gap test plug (Homelite P/N JA-31316-4). If the spark jumps the wide gap, the ignition system is good and should be capable of firing the spark plug under compression.

Testing the two-piece CD Ignition System used on the Models 360, 550, 750 and DM-50 was covered with Technical Service Bulletin 183-012 (8/83). The one-piece solid state ignition test procedures were discussed in Technical Service Bulletin 184-015 (11/84). Copies of either of these bulletins can be obtained by contacting your District Sales and Service Office.

Ignition testing is also discussed in each of the Dealer Service Guides covering specific models. A list of the Service Guides currently available can be found in Technical Service Bulletin 186-011 (5/86).

Ignition analyzers can also be used to test one and two-piece ignition systems. Two analyzers are the Merc-0-Tronic Model 79 and the SIC 2000.

The Model 79 can be used to check the internal coil windings as well as the other internal components after the ignition system is removed from the unit. The SIC 2000 has the capability of testing one-piece ignition systems only while still installed on the unit. If the ignition system has been removed it will test only the coil windings, not the rest of the internal circuitry.

These testers can be ordered directly from one of the following suppliers:

Model 79 & SIC 2000

BURCO, Inc.  
Hwy. 49, Plantation Square  
Lake Wylie, S.C. 29710  
(803) 831-2222

Model 79

Merc-0-Tronic Instruments Corp.  
215 Branch St.  
Almont, MI 48003  
(313) 798-8555

SIC 2000

KADCO, U.S.A.  
9 Granger Ave.  
Saratoga Springs, N.Y. 12866  
(518) 587-2224

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Peery Gibson  
Service Manager  
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**HOMELITE TEXTRON**

Homelite Division of Textron Inc.

DATE 6/86



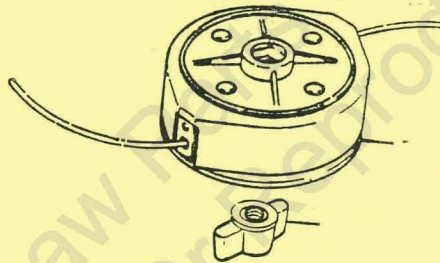
# TECHNICAL SERVICE BULLETIN

NO. 186-014

**SUBJECT:** STRINGHEAD ASSEMBLY

**AFFECTS:** HK-18, HK-24, HK-33 - 1985 AND 1986 MODELS

The stringhead assemblies for the above units are now being supplied under Part #A-98551-39. This assembly will include the 98551-26 stringhead and 98062-62 knob (see illustration). This will allow you to stock one stringhead assembly to fit the 1985 and 1986 HK units. The 98062-54 and the A-98551-36 now shown for the '85 and '86 units will no longer be supplied. Please mark your parts books and records accordingly.



The adapter bolt that holds the stringhead assembly to the gearbox will be supplied separately. Make sure you order the proper adapter that fits either the 1985 or 1986 units as shown below.



98062-53 (For 1985 Units)



98551-25 (For 1986 Units)

*Rick Mason*

Rick Mason  
Service Manager  
Construction Equipment

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**SUBJECT:** 1) NEW, STRONGER 32ME SERIES (.325) SAW CHAIN  
2) MODIFYING GUIDE BAR ADJUSTING PIN 69254-1A

**AFFECTS:** 245 CHAINSAW

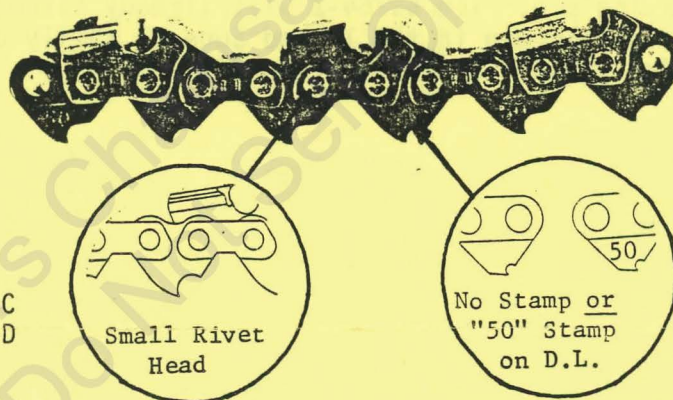
- 1) The 32ME Series (.325) saw chain has been made stronger by increasing the diameter and length of the rivet. This improvement required larger holes in the drive links, tie straps, and cutters, therefore the repair and joining kits SHOULD NOT BE interchanged.

CAUTION

Using the older service kits in the new chain will adversely affect the strength of the chain which could result in injury.

The new, stronger chain can be identified by larger rivet heads and "0" stamped on the drive link. Refer to FIGURE 1 (OLD CHAIN) and FIGURE 2 (NEW CHAIN) below when identifying saw chain and ordering service kits.

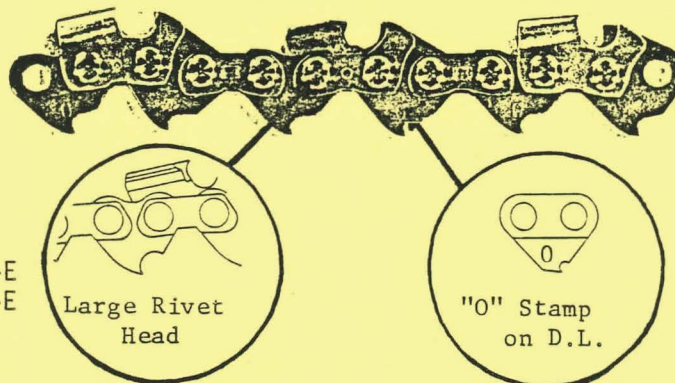
FIGURE 1  
OLD .325 CHAIN



USE

REPAIR KIT D1-92007-C  
JOINING KIT D1-92008-D

FIGURE 2  
NEW .325 CHAIN

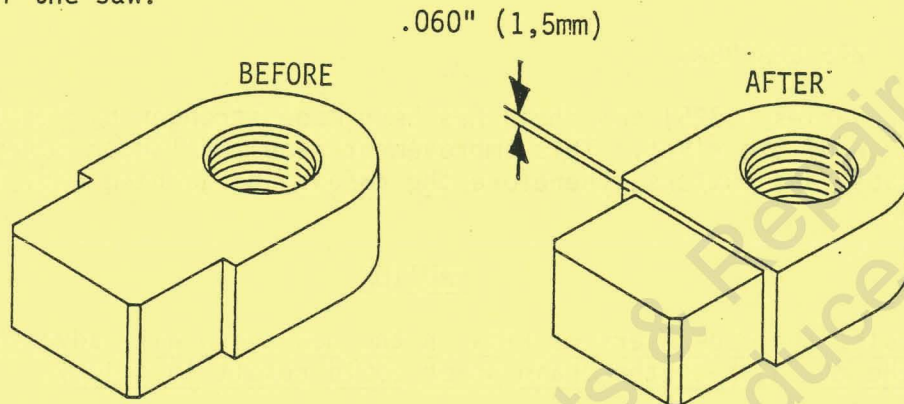


USE

REPAIR KIT D1-92007-E  
JOINING KIT D1-92008-E

CONTINUED ON BACK!

- 2) When installing the new, stronger 32ME50-67 (67 drive link) chain with the PT-16321-G4 guide bar on the Model 245 (or 240 with .325) it may be necessary to file .060" (1,5mm) off that section of the adjusting pin which fits into the guide bar. Refer to Figure 3 below. Reinstall the adjusting pin into the drivecase cover with the step (the side which was filed) facing TOWARD THE FRONT of the saw.\*



If this modification is not made, the adjusting pin may not drop into the slot in the bar when installing a new, out of the box, chain.

\*SERVICE NOTE

The current 69254-1A adjusting pin will be superseded by a universal 69254-2 adjusting pin. The 69254-2 will already have the .060" step. When installing this pin in the XL and Super 2 family chain saws, put the step facing TOWARD THE REAR of the saw.

*Peery Gibson*  
Peery Gibson  
Service Manager  
Forestry Products

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**SUBJECT:** PINION SHAFTS FOR BRUSHCUTTER ATTACHMENT

**AFFECTS:** ST-200 WITH BRUSHCUTTER KIT, UT-20501-C (Starting With LOT #H108)  
A-94479-D BRUSHCUTTER KIT (Starting With LOT #H140)

A one-piece pinion shaft and cut gear has replaced the two-piece pinion shaft assembly in the ST-200 brushcutter attachment.

Service will supply two pinion shaft assemblies (see FIGURE 1 below) to service both the NEW and OLD brushcutter kits.

A-98676 Pinion shaft with two ball bearings to service brushcutter kits built AFTER the LOT dates shown above.

A-98672 (supersedes A-94468) pinion shaft with one ball bearing and inner race to service older brushcutter kits.

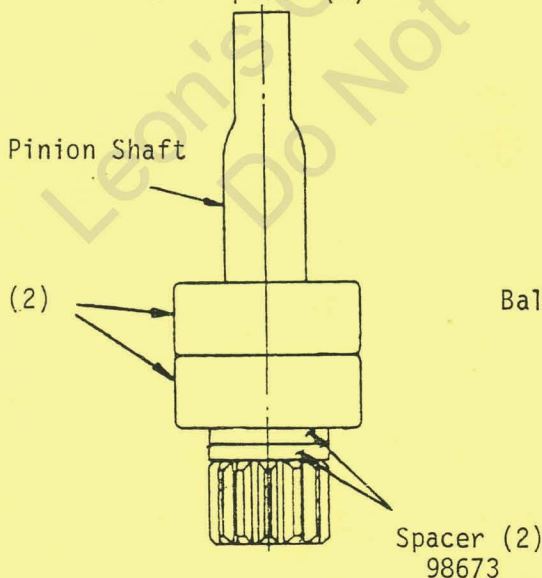
Gear head housing A-98692 (which includes the new pinion shaft assembly A-98676) supersedes gear head housing 94415-2C.

FIGURE 1

A-98676  
(Current Production)

INCLUDES:

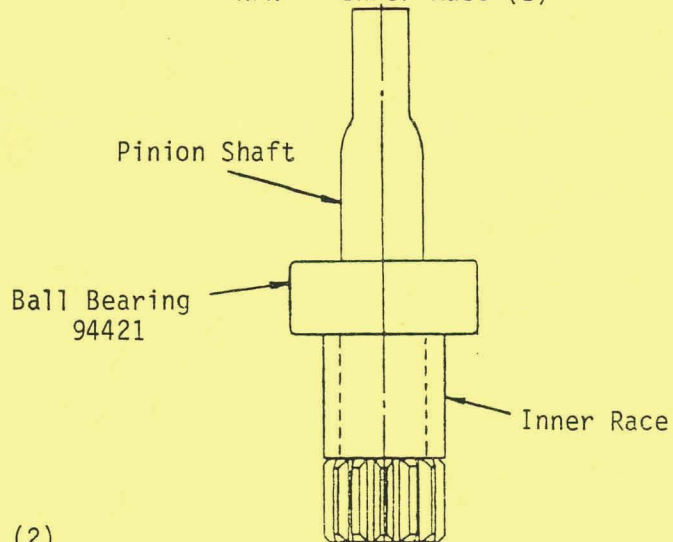
94421 Ball Bearing (2)  
98673 Spacer (2)



A-98672  
(supersedes A-94468)

INCLUDES:

94421 Ball Bearing (1)  
NPN Inner Race (1)



*Peery Gibson*

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Service Manager  
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**SUBJECT:** MODIFYING REWIND SPRING (A-93370-A) TO FIT STARTER PULLEY A-97990

**AFFECTS:** 410 CHAIN SAW  
DM-40 MULTI-PURPOSE SAW

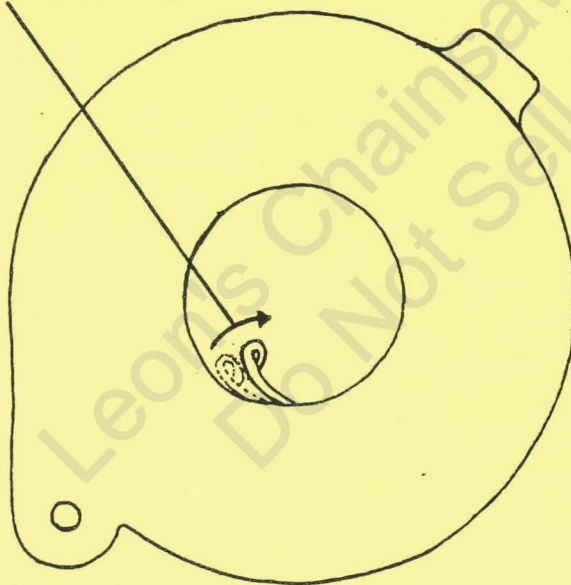
A revised starter pulley (A-97990) is now being used on the subject model units. This pulley is the first part in a series of improvements being incorporated into the starter system. Prior to the availability of a revised rewind spring, the current rewind spring (A-93370-A) should be modified to work with the new pulley A-97990.

To use pulley A-97990 with rewind spring A-93370-A, the spring hook must be bent slightly (towards the center of the retainer) in order to engage the revised pulley (see Figure 1 below).

The new pulley A-97990 can be identified by a redesigned spring lock and rope hole with metal eyelet. Refer to Figure 2 below.

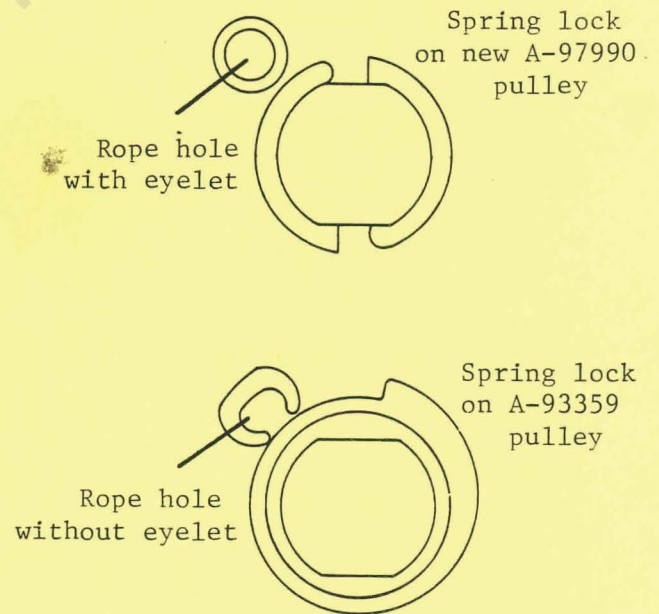
FIGURE 1

Bend spring hook slightly  
to engage pulley



A-93370-A  
Spring & Container

FIGURE 2



Spring lock  
on new A-97990  
pulley

Rope hole  
with eyelet

Spring lock  
on A-93359  
pulley

Rope hole  
without eyelet

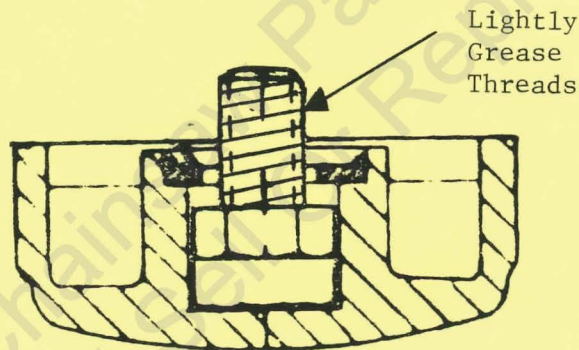
*Peery Gibson*  
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Service Manager  
Forestry Products

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**SUBJECT:** GREASING SPOOL RETAINER BOLT**AFFECTS:** 165, 260, 310  
ST-160A

Whenever the spool retainer is removed in the subject string trimmers, the THREADS of the retainer bolt should be LIGHTLY GREASED PRIOR TO REASSEMBLY using a multi-purpose grease (Homelite P/N 17193). The customer should also be reminded of this procedure which is covered in the owner's manual on page 8.

This will prevent the threads of the retainer bolt from seizing to the threads of the lower shaft making future removal of the retainer cap difficult.



SPOOL RETAINER AND  
BOLT ASSEMBLY

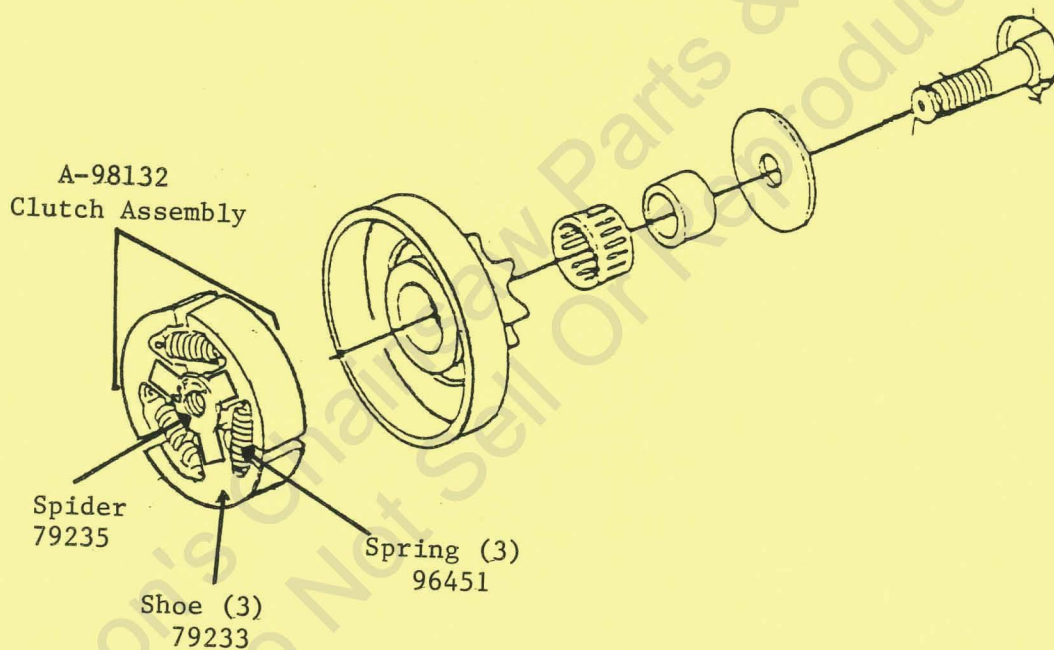
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**SUBJECT:** THREE-SHOE UNLINED CLUTCH A-98132**AFFECTS:** SEZ-AO  
150

A three-shoe unlined clutch assembly A-98132 has superseded the one-piece S-clutch 68362-7 used on the subject model chain saws. Refer to the diagram below when ordering parts for this new clutch assembly.



Use clutch tool A-24060 to install the clutch onto the crankshaft.

SERVICE NOTE

Install clutch assembly A-98132 with the "OFF→" facing out.  
Torque clutch assembly to 250 - 300 in.lbs. (28.2 - 33.9 Nm).

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**SUBJECT:** DOUBLE-WRAP STARTER PULLEY 97768 AS A REPLACEMENT FOR PULLEY 69158-A

**AFFECTS:** XL, XL-2, SUPER 2, VI-SUPER 2 (SERVICE)  
240, 245 (SERVICE)  
SEZ-A0 (SERVICE - PLASTIC STARTER HOUSING ONLY)  
ST-80, 100, 120 (SERVICE)  
ST-160, 180, 200, 210 (SERVICE)  
P-100 (SERVICE)

The double-wrap starter pulley 97768 has superseded starter pulley 69158-A. This double-wrap pulley can be used as a substitute in all starter housings originally manufactured with pulley 69158-A.

For smoothest recoil operation, it is recommended that the #4 white rope 96648-1 be used. The only disadvantage in using the white rope (96648-1) is slightly shorter rope life which we feel is preferred over the sluggish recoil operation that might occur if the #4 black rope A-93874-A is used.

In some cases, when using the double wrap pulley on older units which have the tall starter pawls, it may be necessary to either file off the pawl to make it shorter or replace the starter pawls with shorter ones which are contained in kit A-70285-D. This modification to the starter pawls may be required on some units due to the assembly stack-up of the wider, double-wrap pulley, starter housing, and flywheel.

#### SERVICE NOTE

If the unit was originally manufactured with the double-wrap pulley (see Technical Service Bulletins 185-018 and 185-011 for effective Lot numbers) or has been converted with a starter housing kit (see Technical Bulletin 185-018), the #3 1/2 rope (97899) should be used as a replacement.



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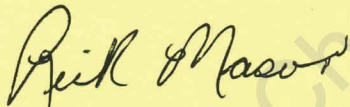
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**SUBJECT:** NEW CYLINDER A-48807-A AND USING ONE PISTON RING**AFFECTS:** XL-98A

The bridged port cylinder, P/N A-48807 (see Technical Bulletin 284-001) has not proved to be 100% satisfactory. We have a new cylinder available (P/N A048807-A) with an oval exhaust port and a machined "taper" or chamfer on the piston side of the port. This taper allows the piston ring to move in and out over the port without catching the edge of the ring.

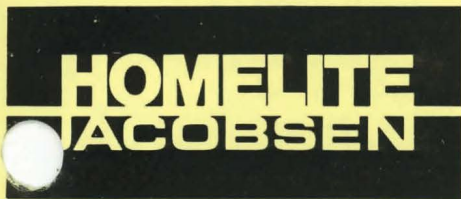
In addition, by using only the top piston ring, it will also decrease the chance of ring clipping. Be sure to use only the A-67989 piston which includes the 55537 piston rings. Remove the bottom ring from the piston assembly. Running the unit without a ring in the bottom groove will not effect the performance or durability of the saw. Piston P/N A-49314 will be produced for the XL-98A with only one ring groove in it and will supersede A-67989 when it becomes available.

Units starting with Serial Number TG147001 and above will be equipped with pistons with only one ring and chamfered cylinder.



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# TECHNICAL SERVICE BULLETIN

NO. 286-003

**SUBJECT:** ADJUSTING CARBURETORS ON NEW UNITS

**AFFECTS:** HT-23, HT-18, HK-18, HK-24, HK-33

The high speed adjustment screw on the above reference models of hedge and string trimmers are set at about one and a half turns at the factory. On some new units you may find this setting to be too lean. It may be necessary on these units to set this adjustment as much as two and a half turns open, for best performance and acceleration.

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Leon's Chainsaw Parts & Repair  
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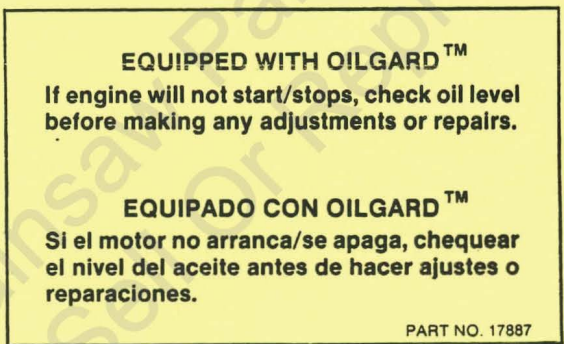


**SUBJECT:** OILGARD DECAL - PART NUMBER 17887

**AFFECTS:** UNITS WITH OILGARD SYSTEMS

We have found that users of units with Oilgard systems are trying to make unnecessary repairs and adjustments to the engine when it stops running for no apparent reason. This failure to run may be due to low oil level in the crankcase which will prevent the engine from starting.

We have available a decal (shown below) that can be placed in plain view on the unit as a reminder of this system. This decal can be ordered through service parts under part number 17887.



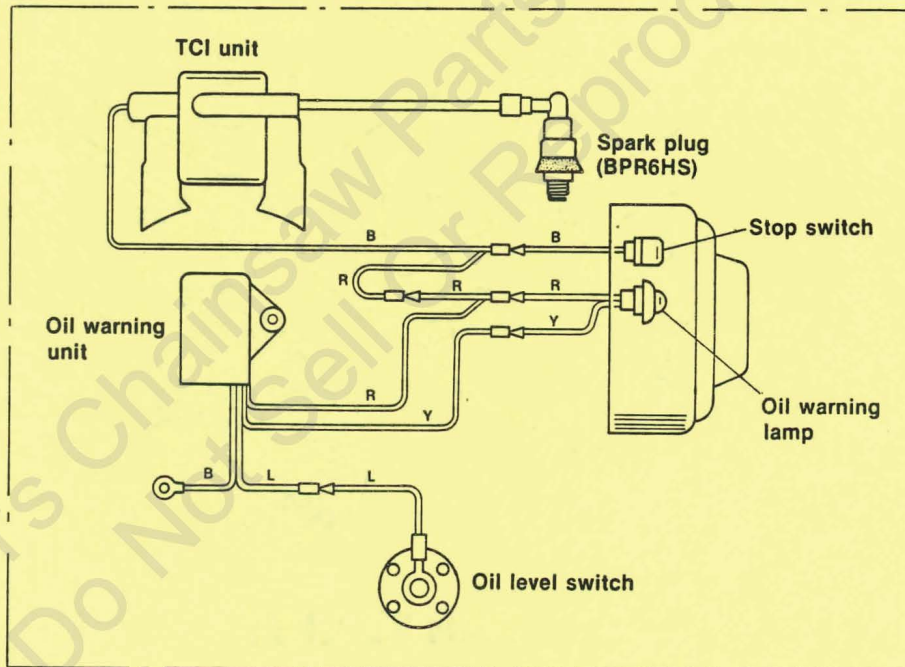
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**SUBJECT:** NEW SOLID STATE IGNITION

**AFFECTS:** HG1400 FROM SERIAL NUMBER 7H6405450

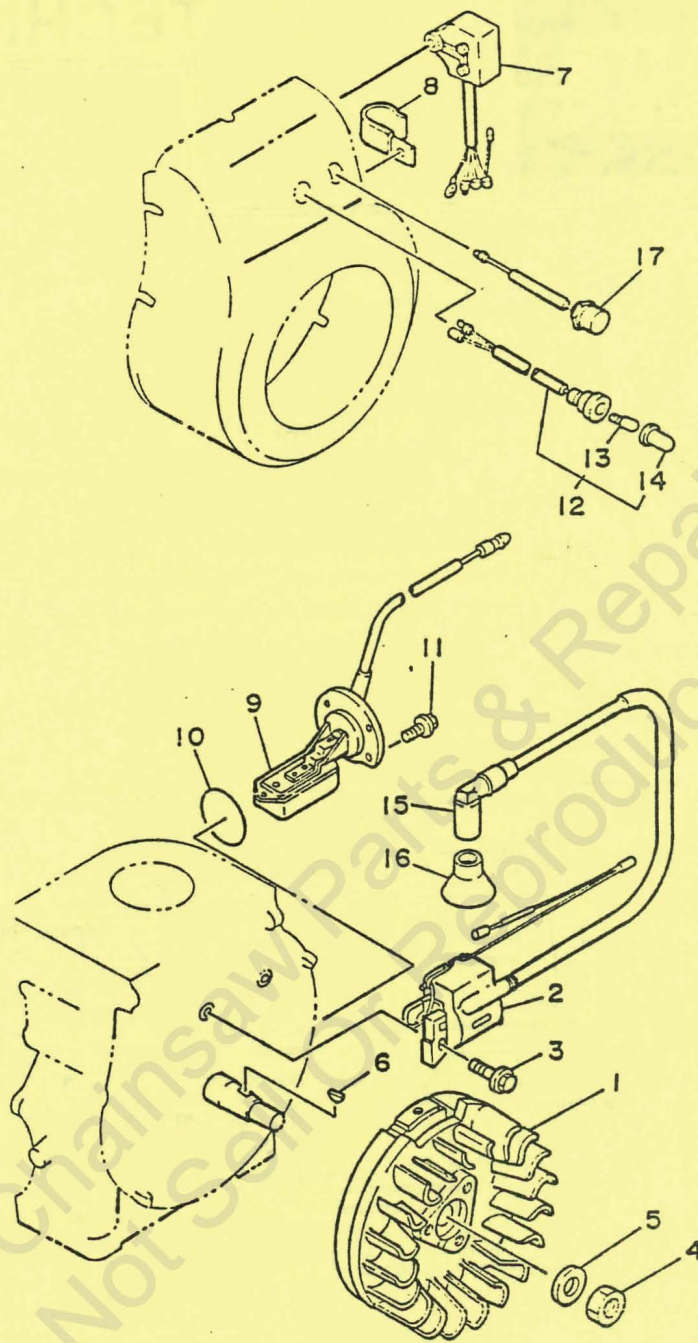
The HG1400's are now equipped with solid state ignition systems starting with Serial Number 7H6405450 and above. Below is a list of parts and part numbers for the components that make up this system and the wiring diagram.



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CONTINUED ON BACK

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## PARTS LIST

NO.	DESCRIPTION	PART NO.	QTY.
1	Rotor Assy.	49029-74	1
2	T.C.I. Unit Assy.	49029-73	1
3	BOLT-Washer Based	49029-75	2
4	NUT	49027-92	1
5	WASHER	49028-85	1
6	KEY, Woodruff	49028-05	1
7	OIL WARNING UNIT	49029-77	1
8	CLAMP	49029-78	1
9	OIL LEVEL GAUGE ASSY.	49029-76	1
10	O-RING	49028-47	1
11	BOLT	49027-79	4
12	OIL PILOT LIGHT ASSY. Includes #13 & #14	A-49029-79	1
13	BULB-Pilot	49024-15	1
14	LENS-Pilot Light	49029-80	1
15	PLUG CAP ASSY.	49029-81	1
16	SEAL-Plug Cap	49029-82	1
17	STOP SWITCH ASSY.	49029-83	1
	CRANKCASE	49029-65	1



# TECHNICAL SERVICE BULLETIN

NO. 186-008  
286-006

**SUBJECT:** WARRANTY FORM NOT SHIPPED WITH UNITS

**AFFECTS:** HK18, HK24, HK33 AND HG2000

Some of the units listed above were shipped without the Homelite Consumer Products Limited Warranty form (Part #17703-B). In order to obtain the form, please write to:

Homelite Division of Textron  
14401 Carowinds Blvd.  
Charlotte, N.C. 29715

ATTN: Service Department

Please state the quantity that you need. Don't forget to give the address where the form(s) should be mailed.

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cut along dotted line and mail in

DEALER NUMBER

QUANTITY OF FORM(S)

Return Address: Name: \_\_\_\_\_

Address: \_\_\_\_\_

City: \_\_\_\_\_ State: \_\_\_\_\_ Zip: \_\_\_\_\_

**HOMELITE TEXTRON**

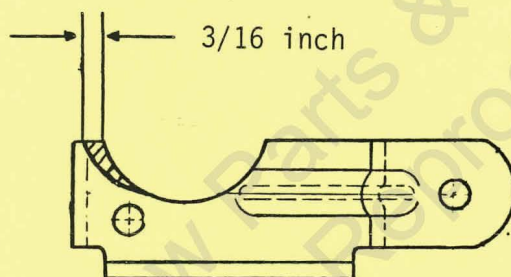
Homelite Division of Textron Inc.

DATE 4/86

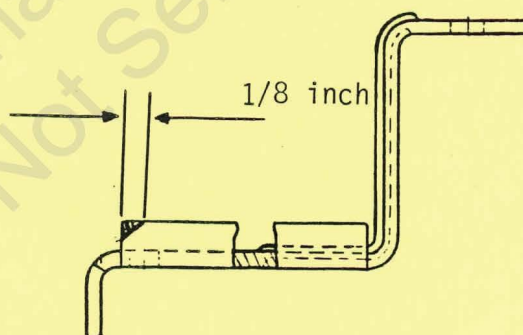
**SUBJECT:** ELECTROMAGNET BRACKET**AFFECTS:** CONTRACTOR LINE GENERATORS

Briggs & Stratton will be changing their intake manifolds from plastic to cast aluminum. Because of this change, it will be necessary to modify the electromagnet bracket. This change can be made with a file.

About 3/16 of an inch needs to be filed away on the bracket where it contacts the intake manifold. This should be filed as shown below.



It may be necessary to file about 1/8 of an inch from the corner of the bracket to provide clearance between the bracket and muffler.

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**SUBJECT:** INSTALLING SEALS**AFFECTS:** 62713-2 SEAL (MAINLY USED ON 3" TRASH PUMPS)

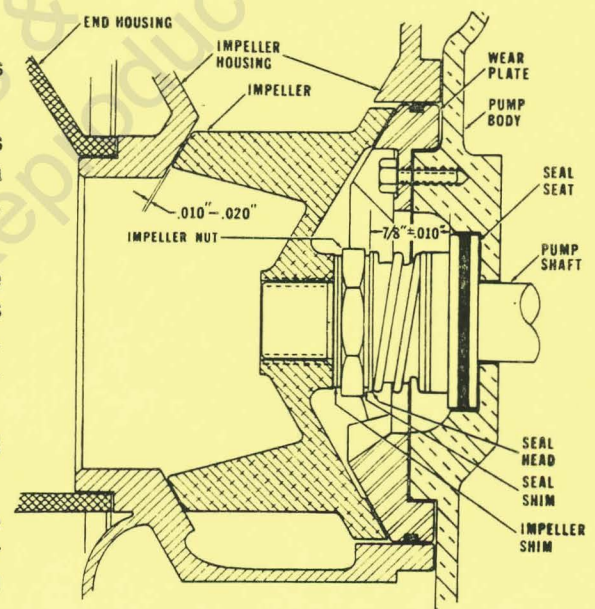
It is very important to shim the spring pressure of the seal properly when installing new seals. If the seal is not properly shimmed, it will leak and the priming ability of the pump will be very poor. Some seals have an additional shim packed with them which is normally needed for proper spring pressure.

**SEAL AND IMPELLER SPACING INSTRUCTIONS**

1. Install the seal shims and thread the nut onto the shaft as far as it will go, hand tight.
2. Measure the distance between the seal head and seat as shown. Add or subtract shims as necessary to obtain a dimension of  $\frac{7}{8}$ " ( $\pm .010$ " ), to correctly set spring pressure. Tighten the nut to 50 foot pounds torque.
3. Place impeller shims against the nut and thread on the impeller. Add or subtract shims until the impeller just strikes the impeller housing when the housing is held in place. Remove one .015" shim to set correct impeller clearance. Complete reassembly of the unit.

**TURN THE ENGINE OVER BY HAND AND LISTEN FOR SCRAPING NOISES BEFORE RUNNING THE UNIT.**

If scraping noises are heard, additional shims will have to be removed to obtain proper impeller housing to impeller clearance. Remove one .015" impeller shim, reassemble and check that there is no scraping noise.



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**SUBJECT:** OPTIONAL LONG LIFE SEALS**AFFECTS:** VARIOUS PUMPS (2", 3" AND 4")

We have special priced the Long Life Seals in order to reduce our inventory. Listed below are the seals, prices and units which the seals will fit.

<u>MODEL</u>	<u>PART NUMBERS</u>	<u>SHAFT SEAL DESCRIPTION</u>	<u>LIST PRICE</u>	<u>SPECIAL PRICE</u>
160TP4-1B	47683	Tungsten	\$572.10	\$ 85.81
160TP4-1C	47684	Sealide	542.40	81.36
	47682	Silicon	206.40	29.78
DTP4-1	47495	Tungsten	\$575.10	\$ 99.60
DTP4-1A	47494	Sealide	492.15	68.52
	47496	Silicon	198.45	28.41
DTP3-1, 9TP3-1B	47476	Tungsten	\$483.45	\$107.21
120S3-1, 120S3-1A	47497	Sealide	419.15	61.65
120TP3-1A, 120TP3-1B, 121TP2-1, 121TP2-1A	47498	Silicon	174.60	25.90

The Long Life Seals are for use in abrasive situations such as pumping cooling tower water, river water with sand, raw sewage and mine water.

The Tungsten, Sealide, and Silicon seals have a different level of resistance to wear. The Tungsten has the highest, the Sealide is slightly less, and the Silicon has the least resistance. However, all three have more resistance to wear than the standard seals.

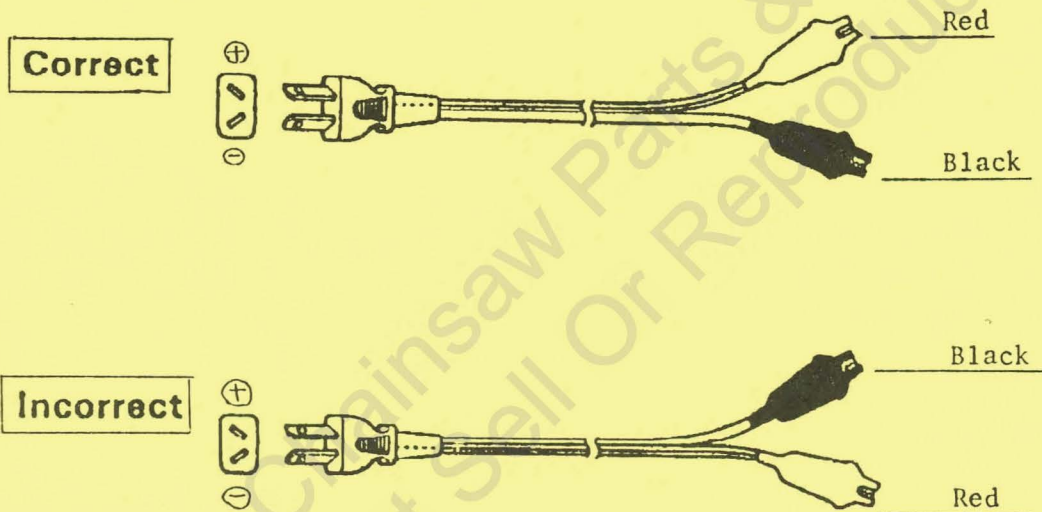


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**SUBJECT:** POLARITY OF BATTERY CHARGING CORD (PART NUMBER 49024-35)**AFFECTS:** HG2000 SERIAL NUMBER 7FF-000701 to 7FF-001100

The battery charging cord (#49024-35) in units with serial numbers 7FF-000701 to 7FF-001100 may be reversed in polarity. If the charging cord you have is reversed, it will be necessary to remove and reinstall the red and black vinyl clip covers to the proper lead wire. This labor time can be covered by Warranty for 0.2 hr. per unit.



If the leads are used in reverse, the DC Circuit Breaker will trip and the DC Rectifier and Stator Coil could be damaged.

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