

TO: All Districts, Branches and Construction Equipment Dealers

SUBJECT: Wiring 4-wire 230V180 cycle power tools

DATE: 1/71

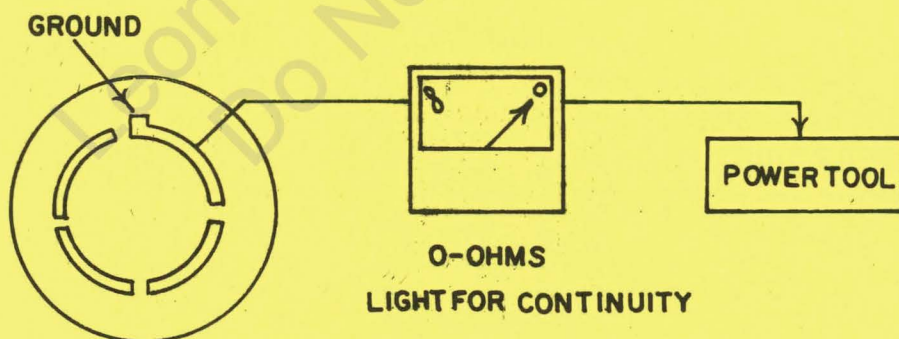
We have recently received reports that some users have received shocks when using some high cycle tools.

This can happen if the ground (green) wire at the generator is not grounded to the tool. If the ground wire should be attached to any one of three "hot" phases, the operator can be seriously shocked.

Before any high cycle tool is released from your shop regardless of what repair was made you must check the continuity of the green wire from the plug end to the body of the tool. Rentals must be checked each time they are sent out. The green wire must check out from the tool body to the ground prong of the cable end. The other three receptacle prongs should not be connected to the tool body.

The ground prong of older receptacles is marked "GR," the live prongs are marked X, Y and Z. Newer receptacles may only have the live prongs marked X, Y and Z with no marking on the ground prong. In all cases, the ground terminal is the bent tab prong.

This simple check can be made in a few seconds with an ohmmeter or battery operated continuity light and will save serious injury.



Robert S. Townsend

Robert S. Townsend
Service Manager



TO: All Districts, Branches and CE Dealers

SUBJECT: Change Effective Immediately in the Field -- all
10HY35-1A and 119HY35-2 Units Equipped with or
being Converted to Automatic Idle Control

DATE: 3/71

Units equipped with idle controls have a circuit that can produce a high voltage (500V) between an AC brush and DC brush. With carbon accumulation and arcing it is possible to burn a hole in the brush ring.

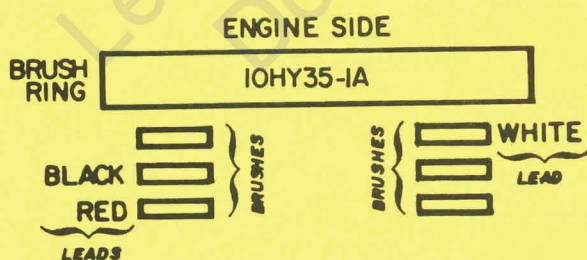
To correct this condition and maintain phase rotation (sequence) it is necessary to switch the three wires on the AC brushes. The procedure is as follows:

10HY35-1A

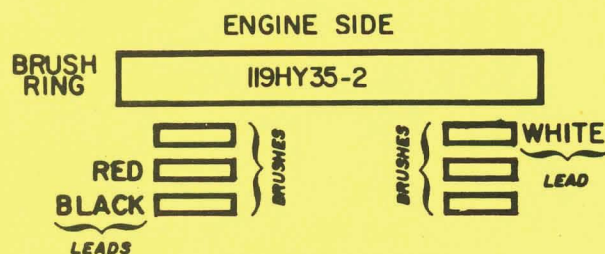
- 1) Remove the end covers.
- 2) Take a white wire from the center brush holder on the right side and connect it to the innermost brush holder.
- 3) Take the black wire from the outermost brush holder on the left side and attach it to the center brush holder.
- 4) Take the red wire from the innermost brush holder and attach it to the outermost brush holder.
- 5) Replace the end covers.

119HY35-2

- 1) Remove the end covers.
- 2) Take the white wire from the center brush holder on the right side and connect it to the innermost brush holder.
- 3) Take the red wire from the outermost brush holder on the left side and attach it to the center brush holder.
- 4) Take the black wire from the innermost brush holder and attach it to the outermost brush holder.
- 5) Replace the end covers.



YOUR UNIT SHOULD LOOK LIKE
THIS WHEN LEAD CHANGES
HAVE BEEN COMPLETED.



YOUR UNIT SHOULD LOOK LIKE
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HAVE BEEN COMPLETED.

Although this wiring change is necessary only for units with idle control, all 10HY35-1A and 119HY35-2 units will be so wired at the factory from now on.

Robert S. Townsend
Robert S. Townsend, Service Manager



TO: All Districts, Branches and Dealers

SUBJECT: Published Information - 1970

DATE: 3/71

Attached is a list of

1. Newsletters
2. Parts Books and Instruction Sheets
3. Service Memos

Make sure your files are complete. Order any parts books you are missing in the usual manner. Service Memos should be ordered from the Communications Department, Port Chester.

Robert S. Townsend
Service Manager

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Attach.

<u>DATE</u>	<u>PART NO.</u>	<u>DESCRIPTION</u>
1/70	24360, Rev.1	XL-113, 114, 122 Parts List
"	24364	Inst. 24364, Handle Bar Stop Kit
"	24353	Instructions for Fuel Tank Modification
"	24261	Instructions for Simplex Starting
"	24257	Comb.Instr. & Parts List Submersible Pumps
"	24265	123TP4 Instructions and Parts List
2/70	24363	XL-913, M Parts List
"	24418	1050 Automatic Parts List
"	24414	XL-MINI FP Parts List
"	24358	XL-104CD Ignition Conversion Kit
"	24436	XL-913FP Parts Sheet
"	24398	EZ, XL-MINI Test for Chain Oiler
3/70	24438	Super Wiz 80 Parts List
"	24388	XL-98 Parts List
"	24437	2000 & 2100 Series Tapping 1/4-20 holes
"	24398	EZ, XL-MINI Oil Trouble-Shooting
"	24415	Installing Fuel Line and Grommet - EZ, XL-MINI FP
"	24423	2100S Parts List
"	24444	3100G Parts List
4/70	24420	Handle Bar Conversion Kit Instructions A-68079
"	24410	XL-921, 923, 924 Parts List
"	24406	270 Engine Parts List
5/70	24446	XL-400 & XL-400 FP Parts List
"	24427	35A230/50-4A Parts List
"	24445	Instructions for Rectifier A-50547
"	24468	110SU1 1/2-1F, 111SU1 1/2-1F, 111SU2-1F Parts List
"	23942	111S2-1, 111SU2-1 Parts List and Instructions
6/70	24428	Model 10's Parts List
"	24461	XL-102 Automatic Parts List
"	24191	111DP3-1 Parts List & Instructions
7/70	24421	116A50-2L Parts List
"	24459	Inst. Choke Rod A-68428
"	24625-A	PB55, PB85 Operating Instructions
8/70	24462	XL-400 Special Instructions
"	24478	EZ-250 Automatic Parts List
"	24324-A	Carburetor Sheet HDC1-2-4
"	24464	Throttle Handle Inst. for Fuel Line and Grommet
"	24443	Drill & Taplock Instr. for A-57743-B, A-63177A Crkcase.
"	24479	Spec. Inst. EZ-250 Auto
"	24451	119HY Auto. Idle Control Kit Instructions
"	24457	113A25 Auto. Idle Control Kit Instructions
"	AD116	Pocket Price Insert for AD114
9/70	24457	113A25-1 Installation Instr. Idle Control Kit A-50644

<u>DATE</u>	<u>PART NO.</u>	<u>DESCRIPTION</u>
"	24473	Instr. Fuel Tank Bracket 250 - 270
"	24483	HD65 - HD85 Heaters Parts List
"	24485	Safety Precautions Paving Breakers
"	24455	1971 Yard Trac Owners Manual
"	24482	Terra-Tamp Parts List & Instr.
"	24354	119HY35-2 Parts List
"	24421	119A35-1L, 2L Parts List
"	24486	H-265 Heater Parts List and Instructions
"	24414-1	XL-MINI FP Parts List
"	24449	Inst. Wet Cutting Kit 98 - 88
"	24469	XL-123 Parts List
10/70	24489	DH-HC-2 Parts List and Instructions
"	NPN	XL-400 FP Handle Bar Bracket Instr.
"	24488	DH-HC-2 Instr. & Safety
"	24484	HD65 & 85 Maintenance Instructions
"	24541	Snow Plow Instructions and Installation
11/70	24456	1971 Yard Trac Parts List
"	24500	Carburetor Sheet A-68407
"	24411	Carburetor Sheet A-67887-A
12/70	23881, Rev.2	ETP2-1 Parts List, Instr. & Safety Precautions
"	24465	Alternator Manual & Parts List
"	23827	XLS 1 1/2 Owners Manual
"	24498	Caution Slip - Breaker Point Cleaning
"	24487	PB55, 85-B Parts List and Service Instructions
"	24470	Carburetor Sheet A-68402 and A-68492
"	23621-A, Rev.1	Carburetor Sheet A-58102

Leon's Chain & Sprocket Repair
Do Not Sell

SERVICE MEMOS - 1970

<u>BSM#</u>	<u>DSM#</u>	<u>DESCRIPTION</u>	<u>DATE</u>
754-SMB	443	Snowmobile - Fuel Mixture, etc.	12/69
755-SMB	444	Fuel Tank Venting, Chain Case Lub.	1/70
756-CS		Chain Saw Packaging Questionnaire	2/70
757-CS	445	All Fuel Filters	3/70
758-CS	446	Handle Bar Stop Kit	3/70
759-CS	447	C.D. Magneto Systems	3/70
760-CS	448	Replacement Pins for Clutch Spanner	3/70
761-SMB	449	Improved Engine Shock Mounting	3/70
762-CS	450	23855-3 Shop Service Manual	4/70
763-CS	451	EZ and EZ Automatic Oiler	4/70
763a-CS	451a	Unit Identification	6/70
764-CS	452	A-59930-D and A-65561-A Drivecases	5/70
765-SMB	453	Preparation of Snowmobiles for Summer Storage	5/70
766-SMB	454	Idler Shaft Assembly	5/70
767-CS	455	Oil Reservoir Cover 59649-4	5/70
768	456	Blade Control Decal	5/70
769	457	Model 250 Engine	7/70
770	458	Part #66817-B 30" Blade	7/70
771	459	Part #A-54725-B and C Rear Crankcase Half Part #71106 Sealing Gasket	7/70
772-CS	460	CD" Ignition-Loose Coil and Cores	8/70
773	461	A-66966-1 Belt Keeper	8/70
774-CS	462	Clutch Springs	10/70
775-CS	463	Replacement of Connector Bracket on XL-400 FP	10/70
776-CS	464	SOFTONE Muffler	11/70
777	465	Battery Warranty	12/70



TO: All Districts, Branches & Chain Saw Dealers

SUBJECT: Crankcase - Fuel Tank Cover

DATE: 6/71

Units Affected: XL-101, XL-102, XL-103, XL-104, XL-113, XL-114, XL-122

Effective with Serial No. 3411704 (XL-113) the threaded insert type guide bar studs have been eliminated for the above model series. In addition the guide bar pad area and oil slot have been improved.

These changes required modifications to existing die equipment which will make it impossible to supply fuel tank covers Part No. A64786-1A for XL-101 and Part No. A65576-A for XL-102, XL-103, XL-104, XL-113, XL-114, XL-122 after present supply is exhausted. When supplies of tank covers are exhausted it will be necessary to install the complete tank crankcase.

To provide this continuity of service we will supersede crankcase A64796-D with crankcase A68042 (XL-101) also crankcase A64797-D is superseded by A68038 (XL-102, XL-103, XL-104, XL-113, XL-114 and XL-122) when present supplies are exhausted.

To service fuel tank covers on Model XL-113, XL-114, XL-122 above Serial No. 3411704 or XL-102, XL-103, XL-104 where new type crankcase A68038 has been installed use cover Part No. A68040 and gasket 65364-A to service fuel tank covers on XL-101 where new crankcase A68042 has been installed use fuel tank cover A68043-1 and gasket 65364-A.

Fuel tank covers A68040 and A68043-1 use two guide bar bolts 67193 which are pressed into the fuel tank cover from the inside. When replacing guide bar bolts coat the shank of the bolt from under the head down 3/8" with aviation permatex or sealant #22788 (EZ847) before pressing into place.

Fuel tank covers A68040 and A68043-1 require new guide bar plates; 67300 inner and 67299 outer.

The complete tank-crankcase assemblies will include inner and outer guide plates, also a vented fuel cap A65283-A (the fuel tank is no longer vented into the air box).

A handwritten signature in cursive script that reads "Robert S. Townsend".

Robert S. Townsend
Service Manager



BRANCH SERVICE MEMO NO. 782CE

DEALER SERVICE MEMO NO. 470

TO: All Districts, Branches & Construction Equipment Dealers

SUBJECT: XLS1 1/2-4

DATE: 6/71

All Model XLS1 1/2 pumps between Serial Nos. 11187081 and 11187430 were manufactured as -4, however, the serial number plate was erroneously marked XLS1 1/2-1A.

The cartons are marked -4 and the units are visibly -4's with auxiliary tank. We do not believe this will cause any inconvenience, however, would suggest that you make note of these serial numbers so that the customers can be supplied with proper parts.

Robert S. Townsend

Robert S. Townsend
Service Manager

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TO: All Districts, Branches & Chain Saw Dealers

SUBJECT: Changes XL-923 - XL-924W

DATE: 6/71

We have made several changes to the subject units. The attached pages can be inserted in your XL-923 - 924 parts book as a part number reference until parts books are revised.

Part No. A68025-B throttle handle with both cushion grips replaces A68025-A throttle handle for Model XL-921, 923 and 924. We will still supply throttle handle cover A65882-A for repair of units built prior to the use of cushion grips.

Model XL-923 units are equipped with cushion grip flush cut handle bar Part No. A68762-2. This cushion grip handle bar (flush cut) can be used in place of the vinyl coated wrap-around handle bar on the Model XL-924W. This installation will require the use of bracket 68766-2 and spacer 68765 plus parts listed for standard XL-924 handle bar mounting. The cushion grip handle bar cannot be used without the shock mount and grommets.

Cylinder Part No. A68853 is standard equipment on all XL-924W's above S/N 10831047 and will be supplied for service of all XL-923 and XL-924 models in place of A68771. The cylinder bore on this cylinder is finished in such a manner that small oil reservoirs are provided in the surface. These reservoirs provide: a good oil supply at all times, good break-in, reduced wear, maintaining good compression and power while extending cylinder life.

Carburetor A68251 (HS103A) replaces A67887-A (HS92B) and A67880 (HDC27) on Model XL-924W. This carburetor has improved acceleration from part throttle and has no high speed limit valve. Carburetor A67887-B (HS92C) replaces A67887-A on all XL-921, 923's. It has improved acceleration from part throttle and has a high speed limit valve.

Oil pump A68265 with increased flow rate has been incorporated in Model XL-923 - 924's above S/N 10401894.

Robert S. Townsend
Service Manager

<u>Description</u>	<u>Part No.</u>	<u>XL-923</u>	<u>XL-924</u>	<u>XL-924W</u>	<u>Remarks</u>
Handle, Throttle	A68025-B	X	X	X	Supersedes A68025-A
Includes: Cover, Throttle Handle (for grips)	A68806	X	X	X	Units without rubber grips
Grip, Cover Rubber	68768	X	X	X	use A65882-A
Grip, Handle	68767	X	X	X	
Cylinder (Wear Guard*)	A68853	X	X	§	Supersedes A68771 - Prod
Body, Muffler	A63535-2	X	X	X	on 924W only S/N 10831047
Screw, 12-24 x 5/8	80978 (3)	X	X	X	
Cap, Muffler	63520-3	X	X	X	
Screw, Shoulder	63855-A (3)	X	X	X	
Baffle, Muffler - 88 holes	63521-A	X	X		Quieter than 924 baffle
Baffle, Muffler - 149 holes	65633	(optional)		X	
Arrestor, Spark	A63540-B	(optional)		X	
Oil Pump - increased capacity	A68265	X	X	X	Above S/N 10401894
Carburetor (HS-103A) above S/N 10470709	A68251			X	No speed limiter - no flat
Body, Muffler	A63535-2	X	X	X	spot - replaces A67887-A--
Screw	80978 (3)	X	X	X	A67880 on XL-924
Cap, Muffler	A68911-1	X	X	X	"Down Draft"† muffler used in 924W built after June 1, 1971
Stud	68874 (3)	X	X	X	
Nut	81109-2 (3)	X	X	X	
Baffle, Muffler	65633	X	X	X	
Arrestor, Spark	A63540-B	X	X	X	

* Wear Guard a Homelite trademark

§ XL-924W built without compression release use Wear Guard cylinder Part No. A68913-1

† Down Draft Cap A68911-1 can be used on early XL-923 - 924 - 924W models - use 68874 studs & 81109-2 nuts

Description	Part No.	XL-923	XL-924	XL-924W	Remarks
Handle Bar - Flush (rubber covered)	A68762-2	X		‡	Must be used if flush cut cushion grip handle bar is used on 924W
Requires: Bracket, Handle Bar	68766-2	X		‡	
Spacer, Handle Bar (rubber)	68765	X		‡	
Plate, Handle Bar	65599	X		‡	
Screw, Soc. Hd. 1/4 - 20 x 1	80428 (1)	X			
Plate, Handle Bar Bracket	65598	X			
Handle Bar - Flush (vinyl coated)	A65860-1		X		Must be used to mount flush cut cushion grip handle bar on 924W
Requires: Bracket, Handle Bar	65607-3		X		
Spacer, Handle Bar	65542		X		
Plate, Handle Bar	65599		X	‡	
Screw, Shoulder	65520 (2)		X	‡	
Mount, Shock	65509 (1)		X	‡	
Screw, Shoulder (bracket to c'case)	65521 (2)		X	‡	
Grommet, Handle Bar Bracket	65519 (2)		X	‡	
Grommet, Handle Bar	65518 (2)		X	‡	
Plate, Handle Bar Bracket	65598		X	‡	
Handle Bar - Wrap-around (vinyl coated)	A67626-3			X	Bracket to c'case
Requires: Bracket, Handle Bar	63011-5			X	
Plate, Handle Bar	65599			X	
Screw, 12/24 x 3/4	80867 (2)			X	
Screw, soc. hd. 1/4 - 20 x 1	80428 (3)			X	
Guard, Chain	68078-1			X	
Plate, Handle Bar Bracket	65598			X	
Handle Bar - rubber covered (full wrap)	A68899-1			X	Bar to tank
Requires: Bracket, Handle Bar	68766-4			X	
Bar to Bracket	80428 (1)			X	
Spacer, Handle Bar	68898-1			X	
Plate, Handle Bar	65599			X	
Screw, Shoulder	80954 (2)			X	
Mount, Shock	65509			X	
Screw, Shoulder (bracket to c'case)	65521 (2)			X	
Grommet, Handle Bar Bracket	65519 (2)			X	
Chain Guard	68078-1			X	
Plate, Handle Bar Bracket	65598			X	Same chain guard

above S/N 3436419

‡ Use these parts to convert XL-924W from wrap-around to flush cut cushion grip.



BRANCH SERVICE MEMO NO. 784

DEALER SERVICE MEMO NO. 472

TO: All District & Branch Managers & Yard Trac Dealers

SUBJECT: 1971 Yard Tracs - All Models

DATE: 6/71

We have received three reports that the four 82167, 5/16 - 24 x 1, bolts which fasten the brake drum and sprocket to the differential assembly have been found loose. If the unit is operated with these bolts loose, serious and costly damage will result.

To prevent damage and dissatisfied customers check these bolts and lock nuts for tightness before delivering the unit.

If you find loose assemblies it will be necessary to remove the left rear wheel, all axle cotter pins, except the two which position the right rear wheel. Lower the sprocket shaft so the drive chain can be removed. Slide the entire rear end assembly (right hand wheel, axle and differential) to the right to expose the bolt heads in the brake drum.

If these fasteners require tightening we will accept warranty labor charge of \$3.75 - .75 hours (45 minutes) for this correction.

A handwritten signature in cursive script that reads 'Robert S. Townsend'.

Robert S. Townsend
Service Manager

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TO: All District and Branch Managers and Chain Saw Dealers

SUBJECT: Discontinuance of Stack Type Mufflers

DATE: 6/71

Effective with receipt of this memo do not ship any new units with stack type mufflers.

You may have a few C-52 models built prior to March 24th (S/N 10600504) with stack muffler Part No. 58184-1 factory installed. Replace prior to shipment or delivery Part No. 58184-1 stack muffler with Muffler Kit Part No. A59652.

The "stack" type muffler for service, shown below, will no longer be supplied.

<u>Model</u>	<u>Stack Type</u>		<u>Can Type</u>
C-52, C-51	58184-1	Replace with kit	A59652
XL12, XL15, SXL12	58584-2	Replace with kit	A59052-A
E-Z, XL-Mini	A68490	Replace with kit	A68254 or A68491
	65058		
	65059-1		
XL101	64131 or -1	Replace with kit	A68893
	64132		

Any existing orders or backorders for stack mufflers will automatically be filled with the quieter can type muffler.

Attached is a list of parts used to make up each kit.

Robert S. Townsend
Service Manager

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A59652 Muffler Kit

Includes:	58639	Deflector, Air	1
	A58419	Body, Muffler	1
	58423-A	Baffle, Muffler	1
	59337	Stud, Muffler	2
	58425-A	Cap, Muffler	1
	80837	Screw, Hex Hd. 12-24 x 3/8	2

A59052-A Muffler Kit

Includes:	A59049-A	Body, Muffler	1
	59050	Baffle, Muffler	1
	59065-B	Stud, Muffler	2
	A63246	Cap, Muffler	1
	80825	Screw, Hex Hd. 10-32 x 9/16	2
	80963	Screw, Pan Hd. 12-24 x 1/2	1

A68254 Muffler Kit

Includes:	A65152-2	Body, Muffler	1
	80870	Screw, Hex Hd. 10-32 x 3/8	3
	68253-1	Cap, Muffler	1
	64133-A	Screw, Shoulder	2

A68491 Muffler Kit

Includes:	A68433-1	Body, Muffler	1
	68431-1	Cap, Muffler	1
	80870	Screw, Hex Hd. Spinlock 10-32x3/8	5

A68893 Muffler Kit

Includes:	A64130	Body, Muffler	1
	80821	Screw, Hex Hd 12-24 x 1/2	3
	64126	Baffle, Muffler	1
	64125	Cap, Muffler	1
	64133-A	Screw, Shoulder	2



BRANCH SERVICE MEMO NO. 786 CS

DEALER SERVICE MEMO NO. 474

TO: All District & Branch Managers & Chain Saw Dealers

SUBJECT: 150 Rotor Nut

DATE: 6/71

We know you are curious about the construction of the 150 engine. You will be taking these units apart to see what makes them tick.

CAUTION!!!

The crankshaft has left hand threads on both ends. The rotor nut must be turned clockwise to loosen and counterclockwise to tighten.

If you don't turn it clockwise to loosen you will break the end of the crankshaft.

Please caution all your shop and sales personnel that we cannot accept crankshafts broken in this manner under warranty.

Robert S. Townsend

Robert S. Townsend
Service Manager

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TO: All Districts, Branches & Chain Saw Dealers

SUBJECT: One-Piece Extruded Fuel Line

DATE: 6/71

Units Affected: XL-921, 923, 924

A new one-piece extruded fuel line is now being used in the production of the above units. Our tests have shown the new fuel line to be superior to the molded fuel line in many ways --

- Greater resistance to today's fuels
- Greater flexibility at lower temperatures
- Less distortion at high temperatures
- Uniform wall thickness
- Eliminates any rubber mold flashing to restrict fuel flow.

NEW PART NUMBERS

One-piece Fuel Line Kit #A68446 replaces 65593 and 65718 Fuel Line in XL-921, XL-923 and 924 Units.

A68446 Fuel Line Kit includes:

- 1 68442 Fuel Line
- 1 68445 Bushing
- 1 68046 Grommet
- 1 24464 Instruction Sheet

Part No. A68025-B Throttle Handle Assembly supersedes A68025 and A68025-A Throttle Handles. The fuel line hole is smaller in the new assembly so the new line can be used without bushing 68445.

A68025-B Throttle Handle Assembly includes:

- 1 68442 Fuel Line
- 1 68046 Grommet
- 1 24464 Instruction Sheet *

* INSTRUCTIONS

We have attached a copy of the Part No. 24464 instruction for your service manuals. Proper installation is important - please read attached instructions carefully.

Lars Johnson
Service Department
al

CAUTION: To avoid damaging the fuel line - do not use pliers for assembly.

INSTRUCTIONS 24464 Rev.1

For Installing Fuel Line 68442 and Grommet 68046 from Fuel Tank to Carburetor Inlet

MODEL SERIES: XL-921, XL-923, XL-924

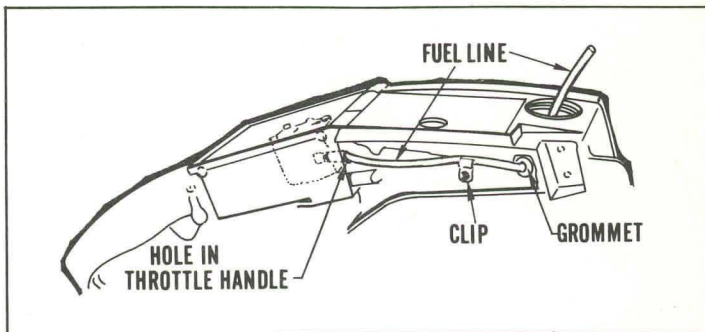
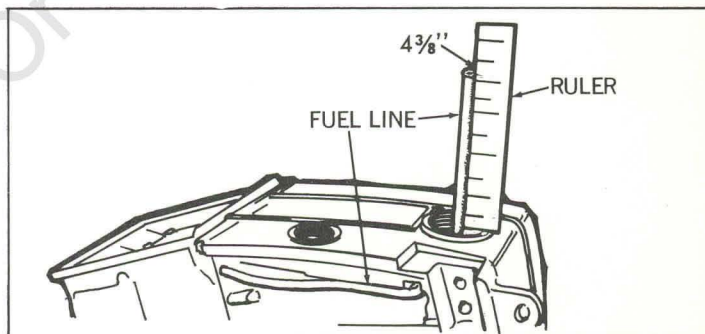
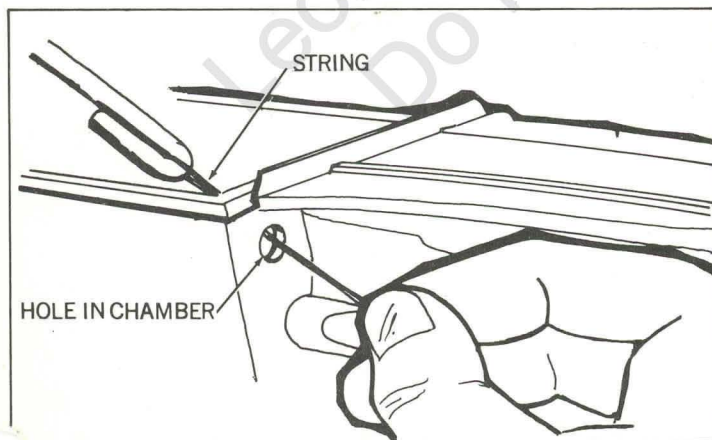
EXPLANATION OF CHANGE:

Units have been improved by substitution of a one-piece fuel line which runs from the fuel filter at its fuel tank end to the carburetor inlet fitting.

NOTE: For easier installation of the one-piece fuel line, first remove the carburetor.

1. Remove the old fuel line and filter. Remove any burrs from the fuel outlet hole in the fuel tank.
2. Oil one end of the new fuel line and slip it onto the fuel inlet elbow of the carburetor.
 - a) Units with the large diameter fuel line hole in the carburetor chamber will require Bushing 68445 to seal the hole around the fuel line.
 - b) Oil the fuel line and slide the bushing onto and up the line until it meets the elbow on the carburetor.
3. Units with the small diameter fuel line hole in the carburetor chamber should use the "String" method for feeding the new line through the hole.
 - a) Double a piece of strong, thin string and thread the loose ends through the hole from inside the carburetor chamber.
 - b) Push about one inch of fuel line through the string loop and bend it back on itself, oil the bend in the fuel line and pull the string and fuel line through the hole.
 - c) Pull until the carburetor seats against the manifold.
4. Oil grommet 68046 and push it into place in the outlet hole in the fuel tank. Double a piece of strong, thin string and thread the loose ends through the grommet and into the fuel tank. Grab the loose ends and bring them out through the fuel cap opening. Using the "string" method as described before, pull the fuel line into the tank and out the fuel filler opening.
5. Pull until the line measures 4-3/8" from the top of the opening to the end of the line.

NOTE: The fuel line should be free of any sharp bends or kinks that would restrict fuel flow. This would especially occur at the grommets.



6. Attach the fuel line clip. Reassemble the fuel filter to the end of the new line and drop it back in the tank.

HOMELITE®

Textron
DIVISION

PORT CHESTER, N.Y. U.S.A.



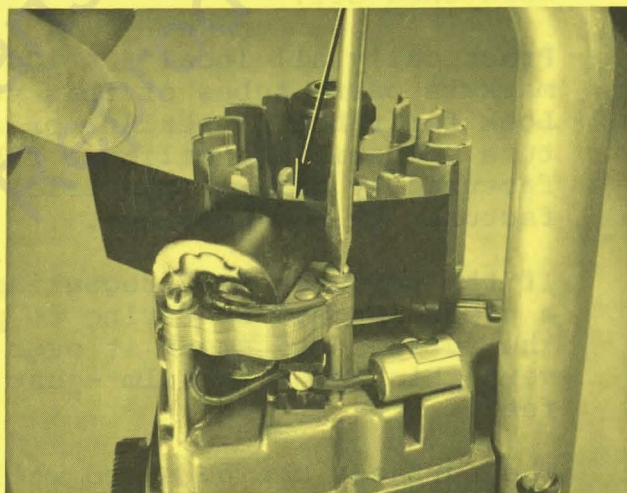
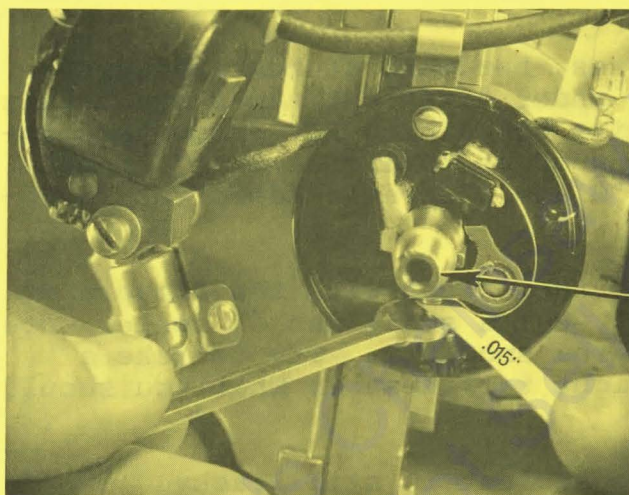
Distribution:

TO: All Districts, Branches and Chain Saw Dealers

SUBJECT: 1) Magneto Air Gap
2) Crankcase to Cylinder Mating Surface Preparation

DATE: 7/71

Units Affected: 150 Automatic



1. On all reciprocating engines the crankshaft is forced in the direction of the piston downstroke during the power and compression portion of the stroke. This takes up all play between the crankshaft, main bearings and shaft supports in the direction of the downstroke.

In order to set the spark timing correctly and because the Model 150 coil is mounted on the crankcase side of the shaft, it is important to take up the play in the downstroke direction while the contact point and coil core-to-rotor air gaps are being set. This is done by pushing and holding the shaft toward the bottom leg of the core during the adjustment; otherwise the gap settings will be much too narrow on the compression and power stroke.

If you are curious as to why this needn't be done when setting the air gaps on other engines, such as the XL-12, recall that these other Homelites have the coil on the cylinder side of the shaft.

The pictures show the gaps being set and the arrows show the direction to push. The desired air gap settings for the 150 are:

Coil core-to-rotor	---	.012" (make with #24306 shim)
Breaker gap	---	.015" (make with 7/32" wrench and #22486 feeler gauge)

2. Crankcase to Cylinder Mating Surface Preparation

A substance called "RTV Silicone Rubber" is rubbed onto the mating surfaces of the crankcase and the cylinder before a Model 150 engine is assembled at the factory. This extremely thin film of uncured silicone rubber seals the surfaces together. The short block can be disassembled and serviced at least once without need to recoat the mating surfaces, unless the film has been picked or scratched off.

Practically all local "5 & 10¢" stores, hardware stores and supermarkets carry tubes of this sealer under different names and labels. Look for tubes of sealant or adhesive containing RTV (room temperature vulcanizing) silicone rubber, such as "Silicone Seal" (manufactured by General Electric) and "Glass & Ceramic Adhesive" (manufactured by Dow Corning).

If the surfaces need recoating, rub them clean with the fingers or a cloth instead of trying to patch. Put a small dab of sealer onto the surface and smear it over the area smoothly. Try to make a very thin and even film--just a slight tackiness is what you should feel.

The surfaces can be mated while the sealant is still tacky.



Robert S. Townsend
Service Manager

las



TO: Districts, Branches & Chain Saw Dealers

SUBJECT: Gasket Set - Repair Kits

DATE: 7/71

Units Affected: All Tillotson HS Series Carburetors

The following parts are released new:

- Gasket Set 67866 (Tillotson GS-1 HS)
- Repair Kit 67869 (Tillotson RK-1 HS)
- Repair Kit 50590 (Tillotson RK-2 HS)
- Repair Kit 67870 (Tillotson RK-3 HS)
- Repair Kit 67981 (Tillotson RK-4 HS)

The above new gasket set and repair kits, used to service the Tillotson model HS series carburetors, have been released by Tillotson and will supersede all present gasket sets and repair kits as present stocks are exhausted.

The new gasket set (67866) includes the gaskets necessary for the repair of all Model HS series carburetors. The new repair kits, (67869, 50590, 67870, 67981) consist of items formerly included in the kits with the exception of the following:

- Idle Mixture Screw
- High Speed Mixture Screw
- Inlet Needle, Seat and Gasket

These particular items must now be ordered separately.

Following is a list of the new gasket set and repair kits indicating which part numbers they supersede and the carburetors affected:

<u>NEW KIT</u>	<u>SUPERSEDES</u>	<u>CARBURETORS AFFECTED</u>
Gasket Set 67866 (Tillotson GS-1 HS)	58971, 65895	A58767-C (HS-4D), A59535-B (HS-5C), A59887 (HS-13A), A63448 (HS-26A), A54264-2 (HS-35B), A54617-B (HS-45C), A64465 (HS-46A), (HS-67A), A65578-A (HS-73A), A67819-A (HS-86B), A67887-B (HS-92C), A67887-C (HS-92D), A67887-A (HS-92B), A-68363 (HS-96A), A68251-A (HS-103B), A-50670 (HS-109A)

NEW KIT

SUPERSEDES

CARBURETORS AFFECTED

Repair Kit 67869
(Tillotson RK-1 HS)

58972, 63679, 54751
64758, 54988, 54988-A

A58767-C (HS-4D), A59535-B (HS-5C),
A63448 (HS-26A), A54617-B (HS-45C),
A64465 (HS-46A), A68363 (HS-96A),
A50670 (HS-109A)

Repair Kit 50590
(Tillotson RK-2HS)

54446, 54446-A

A54264-2 (HS-35B)

Repair Kit 67870
(Tillotson RK-3 HS)

65896

(HS-67A), A65578-A (HS-73A),
A67819-A (HS-86B), A67887-A (HS-92B),
A67887-B (HS-92C), A67887-C (HS-92D),
A68251-A (HS-103B)

Repair Kit 67981
(Tillotson RK-4 HS)

63026, 54568, 54800

A59887 (HS-13A), Gov't.



Robert S. Townsend
Service Manager

BRANCH SERVICE MEMO NO. 791 CSDEALER SERVICE MEMO NO. 479

TO: Districts, Branches & Chain Saw Dealers

SUBJECT: Gasket Sets - Repair Kits

DATE: 7/71

Units Affected: All Tillotson HL Series Carburetors

The following parts are released new:

Gasket Set #68656	(Tillotson GS- 1HL)
Gasket Set #68657	(Tillotson GS- 2HL)
Repair Kit #68661	(Tillotson RK-21HL)
Repair Kit #68663	(Tillotson RK-23HL)
Repair Kit #68664	(Tillotson RK-24HL)
Repair Kit #68659	(Tillotson RK-17HL)
Repair Kit #68662	(Tillotson RK-22HL)
Repair Kit #68660	(Tillotson RK-20HL)
Repair Kit #68658	(Tillotson RK-12HL)

The above new gasket sets and repair kits used to service the Tillotson Model HL series carburetors have been released by Tillotson and supersede all present gasket sets and repair kits as present stocks are exhausted.

The new gasket sets (68656 and 68657) include all the gaskets necessary for the repair of all Model HL carburetors. The new repair kits (68661, 68663, 68664, 68659, 68662, 68660, 68658) include items formerly included in the kits with the exception of the following:

Idle Mixture Screw
High Speed Mixture Screw
Inlet Needle, Seat and Gasket

These particular items must now be ordered separately.

Cont'd.

The following is a list of the new gasket sets and repair kits indicating the part numbers superseded and the carburetors affected.

<u>NEW KIT</u>	<u>SUPERSEDES</u>	<u>CARBURETORS AFFECTED</u>
Gasket Set 68657 (Tillotson GS-2HL)	64629, 63880, 58534	A57130 (HL273A), A65717 (HL261A), A63585 (HL222A), A59427A (HL141D)
Gasket Set 68656 (Tillotson GS-1HL)	55836, 57964, 57919 58386	A56760 (HL82A), A57440 (HL104A and HL105A), A57806 (HL119A), A58102 (HL117C), HL204A, HL142A)
Repair Kit 68658 (Tillotson RK-12HL)	77392	A56760 (HL82A)
Repair Kit 68661 (Tillotson RK-21HL)	58191, 77343, 56649 57920, 57987, 59503	A57440 (HL104A & HL105A), A57806 (HL119A), A58102 (HL117C), HL142A
Repair Kit 68659 (Tillotson RK-17HL)	57843	HL204A
Repair Kit 68662 (Tillotson RK-22HL)	58681, 58535	A59427-A (HL141D)
Repair Kit 68663 (Tillotson RK-23HL)	65606, 64630, 67524	A65717 (HL261A), A67130 (HL273A)
Repair Kit 68664 (Tillotson RK-24HL)	63789	A63585 (HL222A)



Robert S. Townsend
Service Manager

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TO: All Districts, Branches and Chain Saw Dealers

SUBJECT: Clutch Shoes

DATE: July 28, 1971

Units affected: XL-400 Auto and XL-400 Auto FP

A six shoe spider type clutch is now incorporated in the production of the above specified model units starting with S/N 10960564.

This clutch assembly consists of the following parts:

1	58927-2	Spider
6	58928-1	Shoe
2	55123-C	Spring
1	58751-1	Clutch Cover

Bill Patella
Ass't. Service Manager

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



TO: All Districts, Branches & Chain Saw Dealers

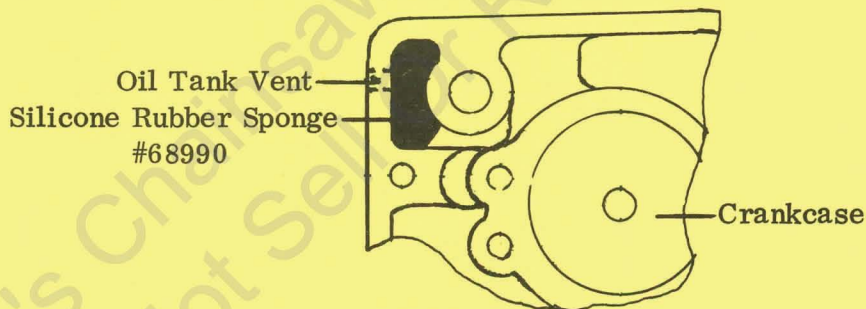
SUBJECT: Oil Leakage Oil Tank Vent

DATE: 8/71

Unit Affected: Model 150 Automatic Chain Saw

You may find that some Model 150 saws leak oil from the oil tank vent when the unit is stored, especially when some pressure exists in the tank.

In these cases, the felt vent filter (Part No. 68640) acts like a wick which allows the leakage. Replace vent filter Part No. 68640 with Part No. 68990 made from soft silicone rubber sponge. This filter will not "wick" but rather acts like a check valve when pressure exists in the oil tank.



Robert S. Townsend

Robert S. Townsend
Service Manager

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BRANCH SERVICE MEMO NO. 794CS

DEALER SERVICE MEMO NO. 482

TO: All Districts, Branches & Chain Saw Dealers

SUBJECT: O-Ring for Cylinder Shield

DATE: 8/71

Units Affected: 2100S, 3100G

To eliminate cracking of cylinder shield, from vibration place #68891 O-Ring between cylinder shield mounting screw and cylinder shield to provide a resilient cushion.

This O-Ring is incorporated in 2100S starting with Serial No. 10841014.

A handwritten signature in black ink that reads "Bill Patella".

Bill Patella
Ass't. Service Manager

al



TO: All Districts, Branches & Chain Saw Dealers

SUBJECT: Rotor & Starter Fingers

DATE: 8/71

Units Affected: All Chain Saws and Construction Equipment
using XL style Engines.

Starting immediately, the shoulder studs for the starter fingers
are to be loctite to the rotor, using Loctite Part No. 23488-B.

Shoulder studs with 12-24 thread - assembling torque 80 to 90 inch lbs.

Shoulder studs with 10-32 thread - assembling torque 60 to 70 inch lbs.

A handwritten signature in black ink that reads "Bill Patella".

Bill Patella
Ass't. Service Manager

al



TO: All Districts, Branches & Chain Saw Dealers

SUBJECT: Rewind Starter Assembly

DATE: 8/71

Units Affected: 2100S, 3100G, C-72, 1050 AO, 1130G

Starter Assembly Part No. A64178-3A for units shown above now contains a new nylon bushing 64443-1 assembled to starter post, similar to the XL-12 arrangement.

This starter is incorporated in units beginning with:

1050AO S/N 11090682

1130G S/N 11160013

2100S S/N 10841014

A64178-3A starter cover supersedes A64178-3.

Bill Patella
Ass't. Service Manager

al



BRANCH SERVICE MEMO NO. 797CS

DEALER SERVICE MEMO NO. 485

TO: All Districts, Branches & Chain Saw Dealers

SUBJECT: Muffler Caps with Shield

DATE: 8/71

Units Affected: XL-Mini Auto FP, Super Mini FP, Super EZ Auto,
EZ-250 Auto, EZ, EZ Auto

The new quieter diffuser muffler cap with a shield to direct exhaust gases downward is now available for the above listed units.

A68949-1 EZ

A68950-1 Super Mini FP, XL-Mini Auto FP, Super EZ Auto,
EZ-250 Auto, EZ Auto

New cap incorporated in Super Mini FP starting with Serial No. 12242201 and Super EZ Auto with Serial No. 12000742.

A handwritten signature in black ink that reads "Bill Patella".

Bill Patella
Ass't. Service Manager

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TO: All Districts, Branches & Chain Saw Dealers

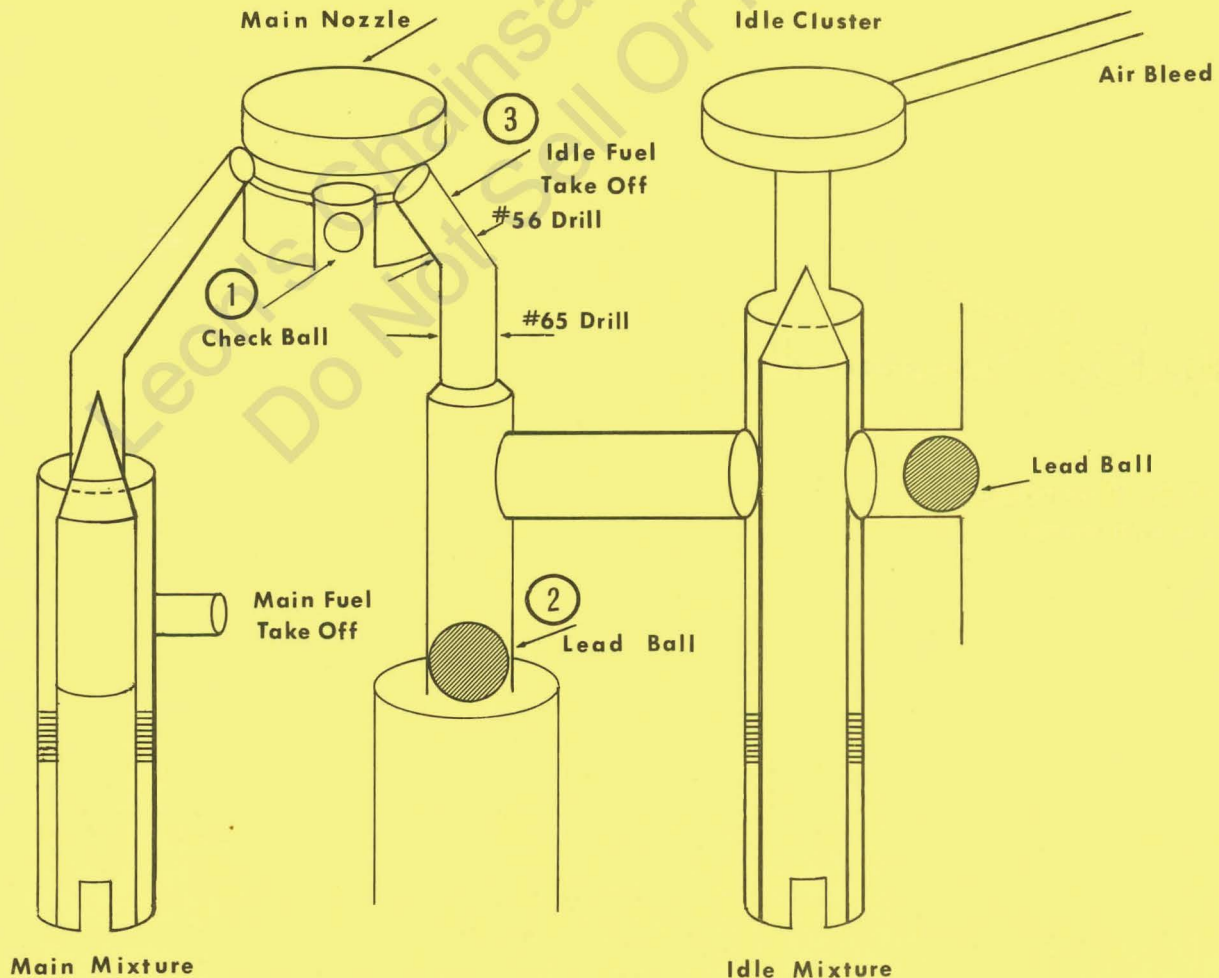
SUBJECT: XL-923-924 with Tillotson Carburetor HS92C and HS103A

DATE: 8/71

We have received reports that some 923's and 924's are hard to start when new.

If you encounter hard starting check the following as possible causes on new units only:

- 1) Main nozzle check ball (Part No. 54444) may be stuck in closed position both in new units and new replacement carburetors.
- 2) Lead shot between HI and LO needles left out.
- 3) The idle fuel take off hole not drilled or not drilled completely from main nozzle check valve bore.

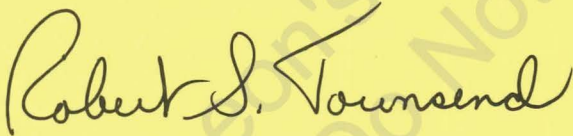


We have just received from Tillotson a new disc type main nozzle check valve Part No. 68284. This assembly is less susceptible to sticking. Check Valve Part No. 68284 can be used interchangeably with Part No. 54444 in all applications.

Sticking main nozzle check valves can in most cases be freed by using a bent paper clip to move the ball.

The main nozzle check ball can also be unseated by air or hydraulic pressure applied through the high speed adjusting needle opening, but the main diaphragm must be removed first. In most cases, just the force required to knock the valve out of the body is enough to jar the ball loose.

NOTE: Tillotson models HS-92D Part No. A67887-C (XL-923, XL-924) and HS103 B Part No. A68251-A (XL-924W) will have disc type main nozzle check valve installed at time of manufacture.



Robert S. Townsend
Service Manager

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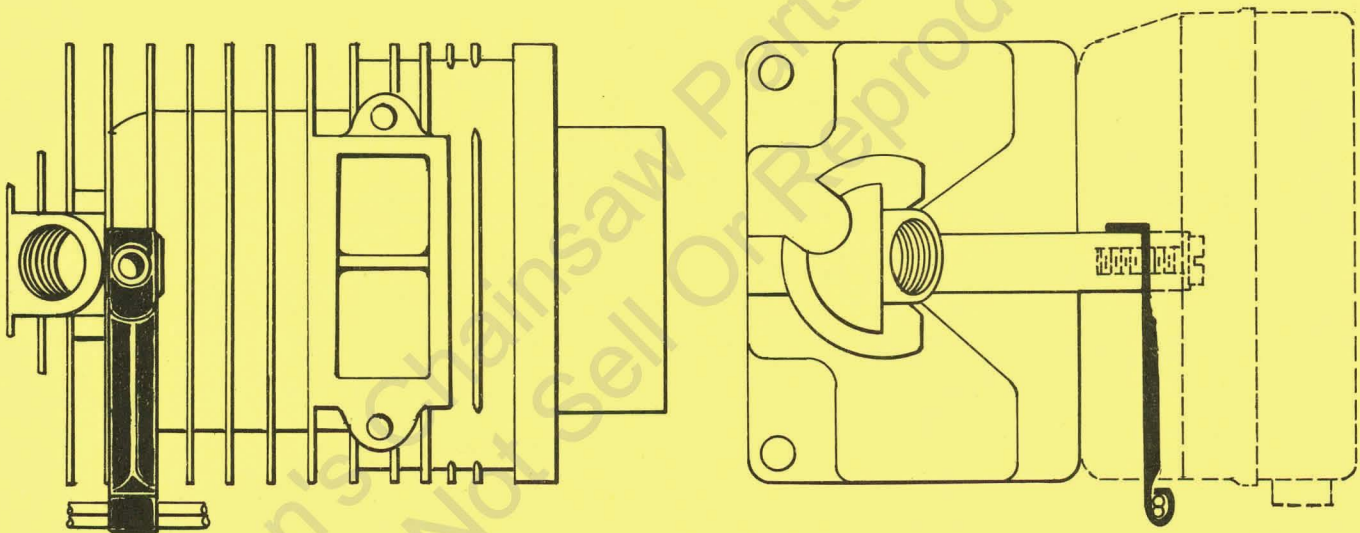
TO: All Districts, Branches & Chain Saw Dealers

SUBJECT: Oil Line Breakage XL-400

DATE: 8/71

Oil housing castings are being changed to provide an area where the oil lines can be clamped to restrict movement due to vibration.

Clamp, (Part No. 68965) is available as a field fix for existing units if you encounter this problem. It is installed as shown below.



1. Remove approximately .030 (0,8 mm) from top muffler mounting boss and form clamp to fit boss.
2. Place oil lines in clamp, and squeeze clamps tight with pliers.

Robert S. Townsend

Robert S. Townsend
Service Manager



TO: All Districts, Branches & Chain Saw & Construction Equipment Dealers
SUBJECT: Rubber Cement for C.D. Ignition **DATE:** 8/71

To prevent shorting between ignition module and back plate C.D. magneto systems on the XL-924W, XL-98, XL-88, XL-924, add Dow Corning #502 Silastic around the module terminals of the back plate assembly. The #502 Silastic is applied after the back plate assembly has been electrically inspected 100%.

Secondary substitutes for Dow Corning #502 are RTV Silicon Rubber Cement or Dow Corning Bath tub caulking compound.

On the XL-98 and XL-88 units, metal dust may adhere to the ignition components and short them out. Once the ignition system is wiped clean and is once again functional, the above listed rubber cements should be sprayed on the ignition terminals to protect them.

Bill Patella
Ass't. Service Manager

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BRANCH SERVICE MEMO NO. 800-ACS

DEALER SERVICE MEMO NO. 488-A

TO: All Districts, Branches, Chain Saw & CE Dealers

SUBJECT: Rubber Cement for C.D. Ignition

DATE: 12/71

The word "sprayed" in the last paragraph should be "spread".

Please correct SM800CS dated 8/71.

Bill Patella

Bill Patella
Ass't. Service Manager

al



BRANCH SERVICE MEMO NO. 801 CS

DEALER SERVICE MEMO NO. 489

TO: All Districts, Branches & Chain Saw Dealers

SUBJECT: Testing & Repairing Model 150 Chain Oil Systems

DATE: 9/71

The owners manual tells you to close the feed rate adjustment needle all the way in direction of the arrow on saw tank either to prevent the oil from leaking out when the saw is lying idle, or whenever you need maximum flow of oil to the chain. An inoperative pump may fool you into believing that the system works contrary to the instructions.

When the pump is not working, and the oil tank is fairly full, oil will seep out of the discharge hole if the feed rate needle valve is open, the oil flowing by gravity through the open valve and right on out the discharge hole. It will not seep out when the valve is closed.

Pressure testing and oil pump repairs are completely discussed in the "Model 150 Pictorial Service Guide" part number 24539 which will be available in September.

In the meantime, the attached sheet will explain the operation of the oil system (See Figures 1 and 2), and tell you how to test it, clean it, diagnose trouble and fix it.

Rod Ferguson, Supervisor
Technical Publications Dept.

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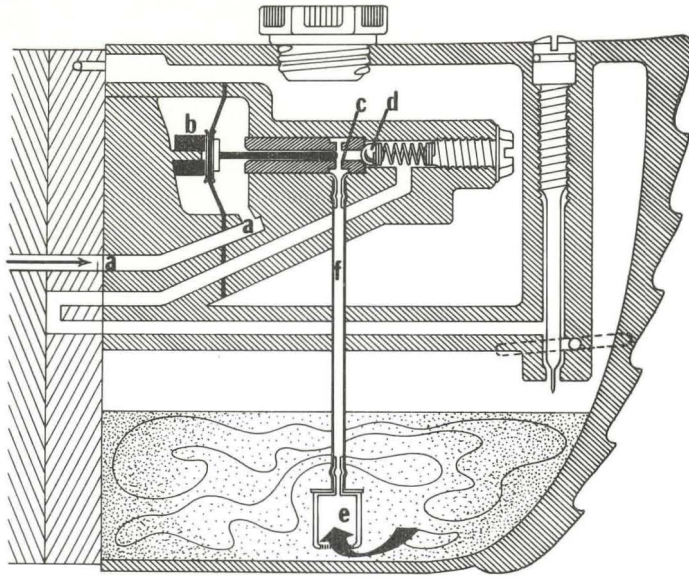


FIGURE 1

INTAKE STROKE:

On the engine downstroke, positive pulse pressure applied to the plunger diaphragm through pulse channel a) moves the diaphragm in direction of the bumper b) creating low pressure in pump cavity c). Check ball d) remains seated, preserving a low pressure condition inside cavity c). Oil drawn in through the pick-up screen e) flows through pick-up tube f) into pump inlet chamber c).

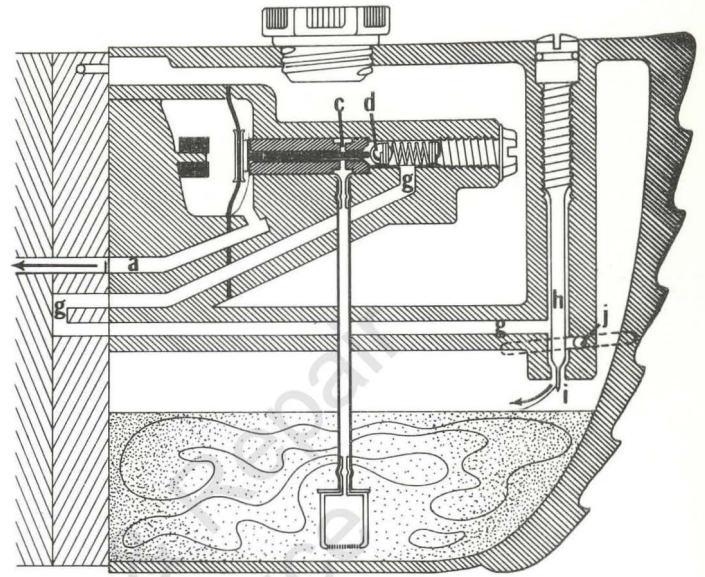


FIGURE 2

DISCHARGE STROKE:

On the engine upstroke, negative pulse applied to the diaphragm through pulse channel a) moves the diaphragm and plunger toward discharge check ball d). The plunger moves past the intake port at c) blocking the intake. Pressure unseats the check ball d) and oil is pumped into the discharge route through channels marked g) into the oil flow needle valve chamber h). When valve is open, some of the oil is returned through the by-pass at i), otherwise all of the oil pumped is discharged to guide bar through hole j) in guide bar mounting pad.

GROUP A PROCEDURE: Always trouble-shoot prior to taking the oil tank off when low output, no discharge at all, or excessive engine smoke is reported.

1. REMOVE THE BAR AND CHAIN: See that there is oil in the tank, then idle the engine for at least 5 minutes with the oil feed rate needle valve (h) closed tightly clockwise (to the right).
2. If pump has good output, drain most of the oil and repeat step 1, as a check against a leak in the inlet line. If oiler does not pump, check inlet line and fitting for leaks.
3. If the output is greater with needle valve open than with the valve closed, the pump is not working. With the valve open, there will be a gravity flow through the valve and out the discharge hole as shown in Fig. 3.

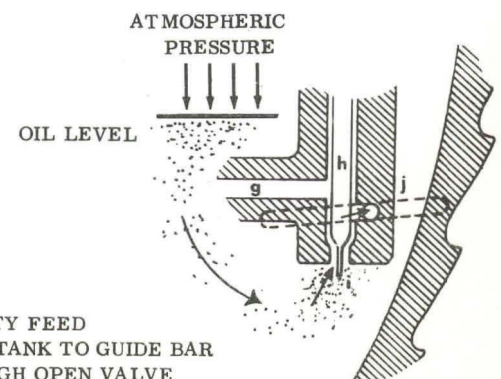


FIGURE 3

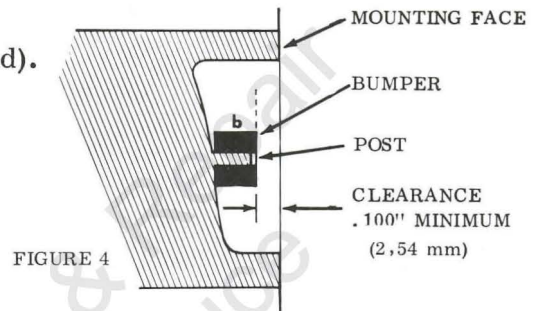
GRAVITY FEED
FROM TANK TO GUIDE BAR
THROUGH OPEN VALVE

4. After 5 minutes of operation, if you look in the tank and see bubbles, or the oil being discharged is emulsified with air, there is an air leak in the pump assembly.
5. Excessive smoke may be a sign of chain oil leaking back into the engine.
6. Low output will also result from the following conditions:
 - a) Excessive leakage between pump cylinder and pump plunger.
 - b) Improper press fit of cylinder in pump body.
 - c) Porosity of the pump castings.
 - d) Leaking diaphragm or gaskets.
 - e) Poor outlet check valve seating.

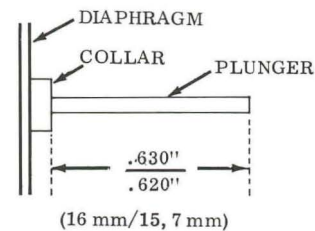
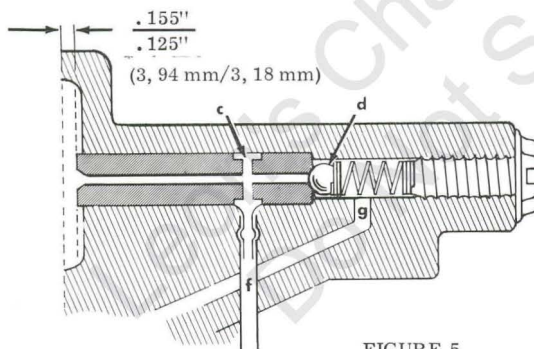
See the Pictorial Service Guide for detailed chain oiler service procedures.

GROUP B PROCEDURE (After Tank Has Been Removed).

1. **LOOK FOR OBSTRUCTIONS:** These include dirt, metal chips in the pump, and sometimes incorrectly drilled and unconnected passages; also small pieces of the silicone rubber sealant used in sealing the crankcase to the cylinder.



2. Examine the oil pick-up screen and the flexible tube. A leak here shows up as low or foamy output.
3. REMOVE PUMP BODY SCREWS AND DISASSEMBLE THE PUMP.
4. Use "Inhibisol" or another non-toxic spray can type solvent and medium pressure (not over 30 psi) compressed air to clean oil, dirt and chips out of the pump passages.
5. Check that the rubber bumper is all the way "home" on the post on the crankcase, but not below the post surface. Measure the clearances between mounting flange face and both bumper and post (see Fig. 4).



6. Measure clearance between outer end of pump cylinder and mounting flange of pump body (see Fig. 5).
7. Check that the pump plunger slides freely in the cylinder and that it lifts the outlet check valve. Also discard the plunger if the length from collar to end is not within the measurements called out in Figure 6. If too short, it can't open the ball check valve; if too long it extends into the intake chamber, blocking intake.
8. Inspect diaphragm for holes or excessive wear around the mounting holes. If observed, replace assembly.
9. The diaphragm and plates must be tight in the collar and plunger. If any looseness is observed, the diaphragm-plunger assembly should be replaced.



TO: All District, Branches & Chain Saw Dealers

SUBJECT: Heli-Coil Kits and Insert

DATE: 10/71

We have received many requests from the field for a listing of Heli-Coil Kits and Inserts. The following are available:

- A- 22921 Heli-coil Tool Kit consists of pressure plate and T handle
A- 22923 Heli-coil Pack 5/16 - 18 x 15/32, 24 inserts, tap and inserting tool
A- 22924 Heli-coil Pack 3/8 - 16 x 9/16, 18 inserts, tap and inserting tool
A- 23073 Heli-coil Pack 10/24 x 3/8, 30 inserts, tap and inserting tool
A- 23723 Heli-coil Pack, 12/24 x .324, 30 inserts, tap and inserting tool
A- 23523 Heli-coil Kit consists of:
 A- 22922 Heli-coil Pack, 1/4-20 x 3/8, 30 inserts, tap and inserting tool
 A- 23072 Heli-coil Pack, 8/32 x 1/4, 30 inserts, tap and inserting tool
 A- 23519 Heli-coil Pack, 10/32 x 9/32, 30 inserts, tap and inserting tool
 These packs are also available separately.
- 23060 Insert, 8/32 x 1/4
23063 Insert, 10/32 x 9/32
23529 Insert, 6/32 x .207
41510 Insert, 1/4 - 20 x 3/8
41740 Insert, 5/16 - 18 x 15/32
41741 Insert, 3/8 - 16 x 9/16
56604 Insert, 12-24 x .324
61208 Insert, 1/4 - 20 x 1/4
67910 Insert, 10-24 x 3/8
72122 Insert, 14MM - 1.25 MM
73062 Insert, 5/16 - 18 x 5/16
73610 Insert, 10 - 24 x 3/8

Bill Patella
Ass't. Service Manager



HOMELITE

a division of Textron Inc.

BRANCH SERVICE MEMO NO. 802CS

DEALER SERVICE MEMO NO. 490

TO: Homelite Branches & Construction Equipment Dealers

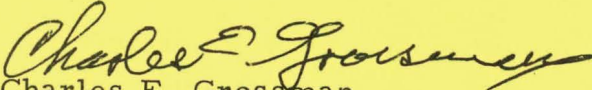
SUBJECT: Parts Lists for Homelite Space Heaters - 1971 - 1972
Season

DATE: 9/71

Enclosed is one copy each of the following parts lists:

<u>Heater Model</u>	<u>Parts List No.</u>
HD- 65-F & HD- 85-F	24483-1
HD-125-F & HD-225-P	24392-1
HV-265-P	24486-1

Those with AD-118 or AD-119 Construction Equipment Dealer Manuals, insert these parts lists in back of the heater parts lists behind Tab 11, Section I under MISCELLANEOUS. Also, add the new model numbers to the present ones at Tab 11 (Section I) on the MISCELLANEOUS index page.


Charles E. Grossman
Service Department

al/enc.



BRANCH SERVICE MEMO NO. 803-A CS

DEALER SERVICE MEMO NO. 491-A

TO: All Districts, Branches & Chain Saw Dealers

SUBJECT: A-22921 Heli-Coil Tool Kit Containing Pressure Plate
and T Handle

DATE: 12/71

We have exhausted our supply of A-22921 and have been informed by the vendor that they will no longer be supplied.

Bill Patella
Ass't. Service Manager

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