

Distribution: List Nos. 5 & 8

TO: All Branches and Chain Saw Dealers

SUBJECT: Replacement Cylinders with Bushings

**DATE:** 1/18/62

UNITS AFFECTED: 900D & G, 909D & G

We are now supplying four bushings Part Number 58168 with replacement cylinders for Model 900 and 909 series saws. These bushings will allow the use of the latest type cylinders (those with large mounting holes) on units still equipped with 1/4" cylinder studs.

Our Parts Department will fill your orders with Cylinder Assemblies Part Number A-56874-C or A-56874-CM depending on which part number may be available at the time. Both part numbers will include four bushings, Part Number 58168.

Please adjust your parts lists as follows:

Cylinder A-56874-C or A-56874-CM supersedes

A-56874-A, A-56874-AT & A-56874-B

Add bushing 58168 for future reference.

Robert S. Townsend

Ass't. Service Manager



Distribution: List Nos. 5 & 8

TO: All Homelite Branches and Chain Saw Dealers

SUBJECT: Replacement Carburetor

**DATE:** 1/19/62

UNITS AFFECTED: 5-20, 6-22, 7-19, 7-21, EZ-6, 700D, 700G, 707D, 707G

Effective immediately we will supply carburetor #A-58102 in place of A-57798-B. Assembly #A-58102 is composed of one #A-57798-B carburetor and one #75756 throttle opening spring. This carburetor may be used to service those units designated above which are not equipped with a governor by the addition of the throttle opening spring. This spring may be "threaded" over the throttle lever.

Carburetor #A-58102 is a Tillotson HL-117-C and is improved over earlier HL-117-A and HL-117-B carburetors. This is an internally vented carburetor, and contains one piece steel adjusting needles.

We will continue to supply carburetor #A-57440 (HL-104A) for service of those units not included above (17, 4-20, EZ, WIZ, ZIP).

Repair Kit #57987 and Gasket Set #57919 are assigned for use with carburetor #A-58102.

Please adjust your parts records accordingly.

Robert S. Townsend

Ass't. Service Manager

## INTERNAL VENT CARBURETORS

We have been asked many questions regarding the internally vented carburetor used on the 707 and 909 saws. The questions -- Why? What? How? -- are the most frequent.

Perhaps, to fully under stand Why, What and How, we should review one of the principals of the diaphragm carburetor -- fuel inlet. The integral fuel pump keeps a constant supply of fuel available at the inlet needle. This fuel only passes the needle when the button on the main diaphragm is in contact with the inlet lever with sufficient pressure to overcome the pre-set tension of the inlet lever tension spring.

As you know, atmospheric pressure is always present on the air or dry side of the diaphragm. This pressure remains constant at the pressure for any geographical area. The higher you go in altitude the less this constant pressure will be.

During the crankcase intake or up stroke of the piston, a low pressure (vacuum or suction) area is created in the carburetor barrel. This low pressure acts on the intake orifice and thru the orifice on the fuel or wet side of the main or metering diaphragm, causing it to move upwards or contact the control lever. This allows more fuel to enter the diaphragm chamber.

The lower pressure created also remains pretty much constant. So you see, that for each up stroke of the piston, a metered amount of fuel is inducted into the venturi for mixture with a pre-determined amount of air.

It is also easy to see what will now happen if the main filter plugs and the amount of mixing air is cut down. With constant atmospheric pressure and vacuum, the engine will run richer and richer.

A method of relating the amount of pressure on the dry side of the metering diaphragm to the amount of mixture air has been developed. Instead of venting the dry side of the metering diaphragm completely to atmosphere, it is vented to the barrel of the carburetor between the air filter and main orifice.

As the air filter becomes plugged (less and less air flows through), this allows less and less pressure to act on the metering diaphragm, causing less fuel to be available for mixture in the venturi.

This means that, with this type metering system (internal or back vent), as the air filter becomes plugged instead of going richer the engine mixture remains in the same proportion by being leaned out.

To guard against a <u>too</u> lean mixture, a small hole vents the dry side to outside atmosphere also, so that, as the filter plugs, the small hole takes over preventing too lean operation.

Now, if the vent tube becomes plugged for any reason or the safety hole to atmosphere is closed off, dangerous lean operation will result. If the air cleaner plugs too quickly, as with the paper filter, this system becomes a liability rather than an asset. With the use of the new Phenolic Filter, this problem no longer exists.

Operators should be cautioned not to automatically or arbitrarily lean out the carburetor as they think the filter is plugging. This will almost always result in engine seizure or too lean operation.

Should there be any questions not covered by the above explanation, please address them to the undersigned -- they will be answered.

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Robert S. Townsend

Ass't. Service Manager



Distribution: List Nos. 5 & 8

TO: All Branches and Chain Saw Dealers

SUBJECT: Heavy Duty Wide Clutch

DATE: 1/22/62

UNITS AFFECTED: 9-26, 900G, 909G

We are now able to supply an improved Clutch Assembly for the above units. The new clutch uses 3/4" wide clutch shoes. Field tests of these components have proven very satisfactory.

The new shoes require changes in the drive gear and drum, clutch spider and clutch cover. These parts are being supplied as an option, at present, for those customers that desire a Heavy Duty Clutch.

Please make a note in your Parts Books in accordance with the following:

When Heavy Duty Clutch is required, use:

Gear & Drum (2.84:1)	A-58031	in place of	A-56574
Gear & Drum (3, 57:1)	A-58030	in place of	A-56587-A
Spider	58027	in place of	55075-3
Shoes	A-58028	in place of	A-55692-A
Cover	58023	in place of	55126-A
Spring	No Chai	nge in this Part	

Robert S. Townsend 200

Ass't. Service Manager



Distribution:

List Nos. 5 & 8

TO: All Branches and Chain Saw Dealers

SUBJECT: Ignition, Breaker Points

DATE: 2/2/62

UNITS AFFECTED: 707D & G, 909D & G, A 500, A-ZIP, A-600

We will no longer supply Breaker Point Set #A-57745 (these were black in color and the pivot post was self contained).

We are now supplying #A-58165 Breaker Point Sets (laminated fibre, yellow in color, pivot post also included). We will soon include with Point Set #A-58165 the felt wick #55984.

This wick should always be replaced when new points are installed. The wick should be installed so that slight contact is made between the wick and the crankshaft, to insure proper lubrication at the actuating arm of the moveable contact.

Please adjust your parts lists as follows:

Set of Points #A-58165

supersedes

#A-57745

Robert S. Townsend

Assit. Service Manager



Distribution:

List Nos. 5 & 8

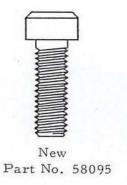
TO: All Branches and Chain Saw Dealers

SUBJECT: New Connecting Rod Screw

DATE: 3/5/62

A new 10 - 32 connecting rod screw part #58095, replaces screw part #80806 in all usage.

The new screw has a low, tapered head. The old part #80806 screw must not be used to service any rods which are factory assembled with the new screws.





Part No. 80806

Please mark your parts lists accordingly.

Walter N. Herold Service Manager



Distribution: List Nos. 5 & 8

TO:

All Branches and Chain Saw Dealers

SUBJECT:

Service Cylinder

DATE: 4/3/62

UNITS AFFECTED: 900D & G, 909D & G, 990D & G

Moly coated cylinder P/N A-58306, assigned for service of the 990D & G units, is available from parts stock.

This cylinder assembly will also replace all previous cylinders supplied for service of 900 and 909 series saws.

Please mark the above parts lists in accordance with the following:

A-58306 supersedes

A-56974C; A-56874-CM; A-56874-A;

A-56874-AT; A-56874-B; A-56874-Y.

Robert S. Townsend

Ass't. Service Manager

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Distribution: List Nos. 5 & 8

TO: All Branches and Chain Saw Dealers

SUBJECT: Main Diaphragm and Gasket

**DATE:** 4/16/62

UNITS AFFECTED: All HL Carburetors

The main diaphragm and diaphragm gasket used in the internally vented carburetors have an extra hole in them to provide a passage for the vent tube. Carburetors of the internal vent type (HL-117A, B & C; HL-119A) have been returned to us as non-operational. Inspection has shown that either or both the main diaphragm and main diaphragm gasket had been replaced with a diaphragm and/or gasket that did not have the internal vent passage.

When the "vent" passage is closed off, the engine may be hard to start. The carburetor will malfunction and may supply either too much fuel or not enough.

The main diaphragm, P/N 57829 and main diaphragm gasket, P/N 57824 <u>may be used to repair all HL model</u> Tillotson carburetors. These two parts <u>must be used to repair all internally vented carburetors</u> (HL-117A, B & C; HL-119A).

We will supply diaphragm #57829 and gasket 57824 within the assembly of all replacement HL model carburetors presently supplied. We will also use main diaphragm #57829 and gasket #57824 in all gasket sets and spare parts stock. This change-over will be gradual.

These parts can be readily identified by the arrangement of the holes in each. Main diaphragms and gaskets for internal vent carburetors have 12 holes around the edge; these parts for non-vent carburetors have one less (see figures 1 & 2).

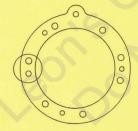


Figure #1

Figure #2

Arrangement of Holes

Main diaphragm #57829 and gasket #57824 may be used on all HL model carburetors.

Arrangement of Holes

Main diaphragm A-55760 and gasket #55754 use only on HL model carburetors which are <u>NOT</u> internally vented.

Change Carburetor sheets #A-56484, A-57012, A-56760, A-56800, A-57440 and A-57877 in accordance with the above information.

Robert S. Townsend

Ass't. Service Manager



Distribution: List Nos. 5 & 8

TO: All Branches and Chain Saw Dealers

SUBJECT: Rear Guide Bar Stud -- Model 770G and DATE: 5/15/62

Super WIZ Chain Saws

On the above listed models, and on some Service Parts crankcases as well, we have started to use the new large rear guide bar studs which are pinned with a solid dowel pin.

We have just been informed that some dowel pins have come loose and have damaged several sets of gears.

We are taking immediate steps to guard against this failure and will rework all units in our stock. Reworked units will be identified with the steel stamp "R" near the head of the outer guide bar stud.

As a temporary and immediate stop gap measure, we recommend that you remove the gear case cover, clutch drum and gear and driven gear from those saws which are now in the field. Use a flat pin punch, 1/8" to 3/16" in diameter, to peen the slot in the guide bar bolt head in such a way that it prevents the dowel pin from working out.

It should also be mentioned that the difficulty seems to occur primarily when the threads on the stude are damaged or deformed in such a way that it becomes difficult to turn the guide bar lock nut.

Walter N. Herold Service Manager



Distribution: List Nos. 5, 8 & 9

TO: All Homelite Branches and Dealers

SUBJECT: Parts for Obsolete Units

DATE: 5/30/62

On April 24, 1959 we issued original Service Memo #242-O which listed those units which, back in 1959, were considered so old that service parts would no longer be supplied for them. These were all construction equipment units designated by letters such as the Models S, G, R, C, HR, HRA, HTRA, etc.

It also applied to Models 19, 21, 22, 25, the old Homelite 4" pumps as well as the Model 5P pump and the Model 24B4A and government surplus units.

We are now adding the Model 20MCS to this list. Those parts which fit the Model 20MCS only will be eliminated from our price lists and will not be supplied in the future.

Walter N. Herold

Service Manager

Walter N. Heron

## PARTS EXCLUSIVELY FOR 20 MCS eliminated from our Inventory

26304	Stud
30262	Coil Protector
32873	Set of Points
A-6033	Governor
71052-B	Valve Plate
71126-A	Intake Manifold
71127 - A	Carb. Swivel Flange
71140-B	Drive Case Cover
71143-B	Sprocket Pulley
71145-B	Sprocket Shaft
71149-A	Grip, Starter Cable
71157	Cylinder Shield
71187-A	Spacer
71190	Pin
71191-A	Screw
71243	Spiked Bumper
71256	Carb. Guard
A-71285	Air Filter Element
71296	Muffler
71299	Carb. Spacer
71310-B	Indexing Ring
AA-71313	Handle Bar
71314	Clamp
71321-A	Throttle Button
71325	Air Filter Cap
AA-71328	
	Spark Plug Shield
71334	Snap Ring
71376	Spacer
71377	Throttle Rod
71402	Guide Bar Stud
71420-A	Lock, Starter Grip
AA-71423	Indexing Lever
AA-71424	Throttle Lever
71425	Shut Off Valve
71428	Gasket
71445	Retaining Ring
71446	Bearing
AA-71449	Sprocket & Drum
71451	Bearing
71469-1	Fuel Line
71475	Swivel Elbow
71482	Rotor
AA-71490	Service Body
71522	Lock Washer
71536	Decal
AA-71537	Fuel Tank
71545	Air Filter Brush
71546	Lub. Body
71565 - D	Ratchet
71566	Gasket

AA-71567	Filler Cap
AA-71585-A	Swivel Handle Bracket
AA-71586	Ratchet & Hub
AA-71589	Pulley, Starter
AA-71618	Ball Drive
AA-71653	Carburetor
AA-71697	Swivel Handle
AA-71699	Ground Lead
AA-71741	Stator Plate
AA-71786	Lubricator
AA-71790	Oil Line
71952	Swivel Handle Brace
AA-71953	Air Screen & Bracket
71972-A	Sprocket & Hub
71988	Gasket
71993	Spacer
AA-72000	Drive Case
AA-72013	Crankcase, Rear Half
AA-72054	Rear Half, Crankshaft
AA-72072	Front Half, Crankshaft
AA-72095	Fan Housing
AA-72205	Crankshaft
AA-72261	Sprocket
89371	High Tension Lead



Distribution: Lists 5, 8 & 12

DATE: 6/15/62

TO: All Branches, Chain Saw and Kart Engine Dealers

SUBJECT: Fuel Pump Diaphragm

Units Affected: All HL Carburetors

We are gradually changing our stock to a new type Fuel Pump Diaphragm. This diaphragm will also be used in Repair Kits with no change in kit part numbers. The new Fuel Pump Diaphragm, Part No. 58388, is red in color. This change has been made by Tillotson to improve the performance and increase the service life of this part.

The new diaphragm #58388 will be supplied in place of #55753, #57062, and #57729 Fuel Pump Diaphragm.

We can now use Gasket Set #57919 to service HL-46A & B, HL-82A, HL-101A, HL-142A original equipment carburetors.

Please mark your carburetor lists accordingly.

Robert S. Townsend

Assit. Service Manager

las



Distribution: List Nos. 5, 8 & 12

TO: All Branches, Chain Saw and Kart Dealers

SUBJECT: Improved Connecting Rod

DATE: 6/29/62

UNITS AFFECTED:

Rod	<u>Used In</u>	Supersedes
AA-55195-A	17, 4-20, 5-20, 6-22, 7-21, 700, WIZ, WIZ-A, WIZ-B, Super WIZ, BUZ, 500, EZ, EZ-6, 7-19, 600, ZIP, EBC	AA-55195
A-57643-B	660, 707, 770	A-57643-A
A-58262-A	9-23, 9-26, 900, 909, 990	A-58262
A-58265-A	K-82, K-92, K-95, K-100	A-58265

The new rods, listed on the left above, supersede the rods listed on the right.

The new rods are machined for increased clearance on the large end and are identified with a stroke of paint (red or yellow) on the shank of the rod.

Walter N. Herold Service Manager



Distribution:

List Nos. 5 & 8

TO: All Branches and Chain Saw Dealers

SUBJECT: Carburetor Parts - Super WIZ "A"

**DATE:** 8/9/62

The Production Carburetor on the Super WIZ "A" is a Tillotson HL-142A. It is serviced with the same Parts, Repair Kit and Gasket Set shown on Carburetor Sheet #23521 for the HL-46B Carburetor (Homelite #A-56484).

## BUT NOTE!

If a throttle shaft requires replacement, both

Throttle Shaft and Roller

A75766

and Throttle Stop Lever

77247-1 must be

installed together

Please note this in your Super WIZ Parts Book.

To replace the complete carburetor we supply Part No. A-57440 (Tillotson HL-104) which you already stock. The HL-142A complete carburetor is not carried in Service Parts.

Walter N. Herold Service Manager



Distribution: List No. 5 & 8

TO: All Homelite Branches and Chain Saw Dealers

SUBJECT: Governor for Super WIZ

DATE: 8/21/62

Super WIZ saws below Serial No. 1309088 were not originally equipped with governors.

Super WIZ saws with Serial No. 1309088 and higher are built with the new fan housing with the additional handle support and <u>are</u> equipped with governors. However, because of the difference in shape of the fan housings, these governors cannot be used in the early Super WIZ saws.

We now have available a governor designed especially for Super WIZ saws below Serial No. 1309088. We strongly recommend installation of a governor in these saws.

Please mark your parts book as follows:

In Super WIZ below Serial No. 1309088 install

Governor	A-58222-2
Carburetor Bracket	57935-A
Governor Spring	58035
Throttle Friction Spring	56175*

\* Clip or remove the throttle opening spring.

Walter N. Herold

Service Manager



Distribution: List Nos. 5 & 8

TO: All Branches and Chain Saw Dealers

SUBJECT: Fuel Tank Fastening -- Gear Drive Chain Saws

**DATE:** 10/16/62

(770-G and similar construction)

Two case hardened flatwashers, 3/32" thick, Part No. 84095-2 replace the thinner, soft washers used previously to cover the mounting slots at the bottom attachment for the tanks.

Please mark your parts list as follows:

For fuel tank bottom mounting use washers Part No. 84095-2 instead of Part No. 84004.

Walter N. Herold Service Manager



Distribution: List Nos. 5 & 8

TO: Homelite Branches and Chain Saw Dealers

SUBJECT: Air Filter Adapter Plate

Models 909 and 990 Chain Saws

**DATE:** 11/7/62

Part Number 57754 Air Filter Adapter Plate, for Models 909 and 990 Chain Saws

is now available as a separate Service Parts item.

Walter N. Herold Service Manager



Distribution:

List Nos. 5, 8 & 12

TO: All Branches, Chain Saw Dealers and Kart Engine Dealers

SUBJECT:

Improvements in Magnetos --

DATE: 12/4/62

New Coil, New Rotors for Chain Saws, Brushcutters

and Karts

A new, higher output magneto is used for all C-5 saws, which means surefire starts at all temperatures, even at very low cranking speeds. The higher output results from the use of a new Ignition Coil and new Rotors with stronger magnets.

The benefits of these new components (greatest dependability, easiest starting in all kinds of weather) are now being made available for other Homelite units also.

Ignition Coil #55986-A

supersedes

#55986 in all usage

The new coil works as well or better than the old one when it is used under the old rotors. Together with a new rotor, it steps up voltage at least 2000 volts.

## CAUTION

New rotors should not be used over old coils. The primary current would be quite high and might burn the ignition points prematurely.

For easy identification:

- 1. The primary lead insulation on new coils is some color other than black (usually red).
- 2. The new rotors have <u>two triangles</u> cast on the hub.
- 3. The part numbers have been amended.

new coil new rotors 55986-A 55994-A 55994-1A

clockwise rotors

56214-A

57579-A

56026-A

56111-A

56276-A

57568-A

counterclockwise rotors

Walter N. Herold Service Manager



List Nos. 5 & 8 Distribution:

TO: All Homelite Branches and Chain Saw Dealers

SUBJECT: Clutch Spider -- C-5 Saw

12/7/62 DATE:

Now, first again with the C-5, a threaded Clutch Spider goes into production. Starting with Serial No. 1349787 all C-5 chain saws use clutch spider Part No. 58546-1 with LEFT hand thread.

Even earlier C-5 saws (those with Serial Nos. below 1349787) have crankshafts already threaded. If a spider requires replacement on one of these units, discard the two clutch keys and thread a new #58546-1 spider onto the shaft.

If there is a spacer behind the clutch cover, keep it there. The latest shafts use no spacer and the keyways have been omitted.

Please mark your C-5 parts book as follows:

Page 3, Item 18

58189-B Crankshaft

supersedes

58189

Note: The new shaft takes the new spider only.

Page 5, Item 41

58546-1 Spider

supersedes

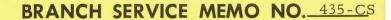
55075-3A

Note: Left hand thread --

55075-3A remains available for service

of "Keyed" models.

Walter N. Herold Service Manager





Distribution: List Nos. 5 & 8

TO: All Branches and Chain Saw Dealers

SUBJECT: Fuel Tank Cover Gasket -- C-5

DATE: 12/14/62

Item 9 on page 3 of the C-5 parts list shows gasket Part No. 58367.

We found during preproduction tests, but after we went to press with the parts book, that this gasket was not satisfactory. Consequently, all C-5 fuel tanks are presently cemented, the same as is usual on our other saws.

All open orders for Part No. 58367 will be canceled.

Until a suitable gasket is released, use cement Homelite No. 22788 to seal fuel tank covers.

Walter N. Herold Service Manager

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Filing Instructions:

File in Chain Saw Service Manual behind "Service Memo" Tab in Numerical Order.