BRANCH SERVICE MEMO NO. 344-CS



DEALER SERVICE MEMO NO. 140

Distribution: List Nos. 5 & 8

TO:

All Homelite Branches and Chain Saw Dealers

SUBJECT:

Oil Filler Cap--Service

DATE: 1/4/61

Oil filler cap AA-71655-1 (with chain) will be superseded by A-56448 (without chain).

Service Parts will supply A-56448 cap with gasket only; this agrees with latest manufacturing practices on Models 600D, 700D, ZIP and 5-30 chain saws.

Walter N. Herold Service Manager

dm

Dealer Filing Instructions:

File in Service Memo Section of Dealer Operating and Service Manual.



Distribution: List Nos. 5 & 8

TO: All Homelite Branches and Chain Saw Dealers

SUBJECT: Oil Line

DATE: 1/4/61

UNITS AFFECTED: "500"

We assigned two part numbers No. 57292 and No. 56326 to one oil line.

This was an error. Part No. 57292 will be dropped.

Please delete Part No. 57292 from the Model 500 Parts List and substitute Part No. 56326 instead.

Consolidate stock of oil lines 57292 and 56326 under Part No. 56326.

Walter N. Herold Service Manager



Distribution: List Nos. 5 & 8

TO: All Homelite Branches and Chain Saw Dealers

SUBJECT: Fuel Outlet

DATE: 1/18/61

MODELS AFFECTED: 700D and G, 4-20 and 5-30

Shut-off cocks Part No. 55677 and 55738 will be replaced by Elbow Part No. 74917.

A number of service calls have resulted from failure of operators to open fuel shut-off cocks, as well as from mechanical failure of the handle on the shut-offs.

Plain elbows -- already in successful use on a number of Homelite models -- should eliminate these difficulties.

Service Parts will continue to carry Part No. 55677 and 55738 for a few months, after which time elbow 74917 only will be supplied.

Walter N. Herold Service Manager



Distribution: List Nos. 5 & 8

TO: All Homelite Branches and Chain Saw Dealers

SUBJECT: Filler Cap for Chain Oil Reservoir

DATE: 1/30/61

MODELS AFFECTED: 700G, 4-20, WIZ

We have completed the necessary die changes so that identical Filler Caps with Gasket will now be used for both gear oil and chain oil reservoirs of the above listed chain saws.

Cap with Gasket A-56580 will be used in production of new saws.

Tapered pipe plug 55140-A will continue to be available as a Service Part for service of older saws.

Walter N. Herold Service Manager

BRANCH SERVICE MEMO NO. 355-CS



DEALER SERVICE MEMO NO.

Distribution: List Nos. 5 & 8

TO: All Homelite Branches and Chain Saw Dealers (except dealers in districts 4, 11, 14, 17, 18, 19 & 24)

SUBJECT: Cold Weather Operation of Chain Saws

DATE: 2/20/61

A chain saw operating in temperatures well below 0° F -- especially if it is used only for a few minutes at a time or with light loads only -- never has a chance to get properly warmed up.

Under these conditions even HO-8 or J6J spark plug may be too "cold" and cause hard starting as a result of cold fouling.

This difficulty may be corrected by the use of a hotter plug such as Champion UJ12, Homelite Part No. 62032. Use this spark plug for extreme cold weather operation only.

Walter N. Herold Service Manager

dm

Dealer Filing Instructions:



Distribution: List Nos. 5 & 8

TO: All Branches and Chain Saw Dealers

SUBJECT: 50" - 1/2" Pitch Homelite Chain

DATE: 3/23/61

In the future, the 50" - 1/2" pitch chain will be assembled to contain 113 drive links instead of 112 as presently specified.

It was found that the chain with 113 drive links assembles more easily to the 50" Guide Bar.

The part number, as a result, will be changed from HC-10112-L to HC-10113-L.

Therefore, specify HC-10113-L when ordering 50" - 1/2" Pitch Chain.

Please make this change in your parts lists.

Walter N. Herold Service Manager

dm

Dealer Filing Instructions:

File in Service Memo Section of Dealer Operating and Service Manual.



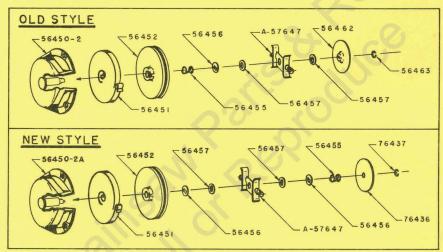
Distribution: List Nos. 5, 8 & 12

TO: All Homelite Branches, Kart and Chain Saw Dealers

SUBJECT: Change in FM Starter and Starter Service Parts

DATE: 3/27/61

1. Fairbanks Morse has informed us of a change in starter construction. New starters for current chain saw and kart engine production are also being fed into Service Parts for replacement of old as well as new starters. It is very easy to tell the old from the new.



- 2. If a replacement pulley cover is needed, we supply the new type 56450-2A along with an envelope containing instructions and an exploded view drawing plus a flat washer, two slotted steel washers and an "E" ring -- everything needed to convert from old style to new style.
- 3. For repair or replacement of old style starters, continue supplying old style starter assemblies or pulley covers. Then, when your stock is exhausted, switch to the new style.
- 4. Service Parts will continue to supply retaining rings and cup washers for replacement in old style starters.
- 5. <u>EFFECTIVE IMMEDIATELY</u>: In compliance with customer preference, Service Parts now offers A-57647 friction shoe assembly (preassembled) and the individual pieces will no longer be supplied.

R. C. Ferguson
Service Department

Dealer Filing Instructions:

File in Service Memo Section of Dealer Operating and Service Manual.



Supplement to Service Memo No. 328-O

Distribution: List Nos. 5, 8, 9, 11 & 12

TO: All Branches and Dealers

SUBJECT: Connecting Rod Cap Screws - new length

DATE: 3/29/61

The vendor from whom we purchase Split Connecting Rods has just informed us that the 1/2" long #8 and #10 Socket Head Cap Screws are replaced by new screws, 9/16" in length.

Homelite part numbers are affected as follows:

For all split rods which use #8-32 screws, Part No. 80805 screw ($\#8-32 \times 9/16$) supersedes 80541-A ($\#8-32 \times 1/2$).

For all split rods which use #10-32 screws, Part No. 80806 screw (#10-32 x 9/16) supersedes 80492 (#10-32 x 1/2).

Please make these part number changes on the engine page of all affected parts lists.

Walter N. Herold Service Manager

dm



Distribution: List Nos. 5 & 8

TO:

All Homelite Branches and Chain Saw Dealers

SUBJECT:

Homelite Universal Guide Bars

DATE: 4/5/61

Soon, new Universal Guide Bars will be on the way to you! Universal Guide Bars mount interchangeably on Direct Drive or on Gear Drive saws. The oil holes are drilled through both rails so that the chain may be lubricated, whether the bar is mounted to the left or to the right of the mounting pad.

IMPORTANT

To prevent loss of chain oil, Guide Bar Outer Plates without oil slot must be used with the new Universal Bars. Old outer plates with the oil slot should be used up with old bars.

The part numbers of the new Universal Bars have been designed to be completely meaningful: GW-1416, for instance, describes a new Universal Bar with a Gas Welded extra long wear nose. This bar, when mounted on a direct drive saw gives 14" free cutting, on a gear drive saw it becomes a 16" blade. HT-1416 is identical in size, Hard Track (induction hardened) all around, but without the special hard nose.

On the other side of this memo we have compiled a chart showing part numbers for the new bars, part numbers for the chains which fit them; and also the part numbers of the old guide bars which will not be manufactured in the future.

Walter N. Herold &

Service Manager

paf

Dealer Filing Instructions:

File in Service Memo Section of Dealer Operating and Service Manual.

New	Uses	Uses	Uses	Uses	REF	LA	CES	
Universal		7/16"	1/2"	9/16"	On Direct		On Gear	
Bar	Chain #	Chain #_	Chain #_	Chain #	Drive		Drive	
HT-1416	HC-5254-L	HC-6250-L	HC-1044-L	HC-439-L	A52614	14"		
GW-1416	HC-5254-L	HC-6250-L	HC-1044-L	HC-439-L	A51545	12"	A5 6590	14"
∵w-1719	HC-5262-L	HC-6258-L	HC-1051-L	HC-446-L	A51517	17"	(A55718 (A55720	18"
		HC-6266-L		HC-452-L	A51521	21"	A55723	23"
GW-2528	HC-5281-L	HC-6276-L	HC-1067-L	HC-460-L	A51525	25"	A55728	28"
GW-3033	HC-5295-L	HC-6287-L	HC-1077-L	HC-469-L	A51539	30"	55704-1	33"
: Must u			101					
	Direct Dr	ive	35 60					
56957-A	Gear Dri	COLL						



Distribution: List Nos. 5, 8, 9, 11 & 12

TO: All Homelite Branches and Dealers

SUBJECT: Bearing Replacement

DATE: 4/11/61

During the servicing of engines proper attention should be given to bearings. We use two basic types of bearings: ball bearings and needle or roller bearings.

Ball bearings are used where radial loads are encountered and axial loads are not excessive, while needle or roller bearings work best in places where axial loads are wholly absent or where a certain amount of end play is desirable.

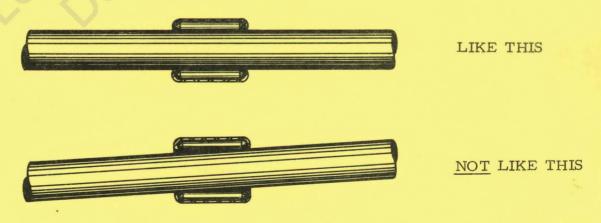
To install a ball bearing on a shaft you should always press on the inner race. To press a ball bearing into a housing you should always press on the outer race. If this is not practical, the housing may be heated and the bearing can then be dropped into its bore. If you heat an aluminum casting from room temperature to the heat of boiling water (212°F.), the bore gets almost two thousands of an inch (.002") larger for every inch of bore diameter.

If a bearing has been subjected to overloads, it should not be reused. For instance, if a shaft is supported by two bearings, one on each end



and either bearing fails - or if the shaft is bent -- or breaks -- the best policy is to replace both bearings.

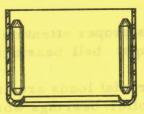
The reason for this is simply the fact that these bearings are designed to operate with the axis of the bearing and the axis of the shaft properly in line



(OVER)

For this same reason we recommend the use of the special service tools which properly align bearings during installation.

Another point is this: needle bearings are manufactured by loading the needles into a cage as shown



This end of the cage is hardened and stamped with the number of the bearing. The other end of the bearing is relatively <u>soft</u> so that it can be rolled over after the needles are properly placed. You should <u>apply pressure only on the lettered end</u> of the cage. Pushing from the other side would bend the shell and ruin the bearing.

Also, remember that <u>dirt</u> is the arch enemy of all bearings. Keep bearings in their wrappings until you are ready to use them. If you do wash a bearing use only clean, fresh solvent. The solvent in a degreaser, even if filtered, usually introduces more dirt into a bearing than you are trying to wash out. Of course, reoil a bearing immediately after it is washed and wrap it unitl it's ready to be used again.

Walter N. Herold Service Manager

dm



Distribution: List Nos. 5 & 8

TO: All Homelite Branches and Chain Saw Dealers

SUBJECT: Spring Insert for Fuel Line

Models affected: 909D and 909G

DATE: 6/16/61

A Spring, Homelite Part No. 57915 is now inserted into the Part Number 55680 Fuel Line, when this Fuel Line is used on Model 909 Chain Saws.

The Spring prevents "kinking" of the fuel line, assuring a steady flow of fuel. Please make a note in your Model 909 Parts Lists to indicate the use of Spring, Part No. 57915.

Walter N. Herold Service Manager

dm

Dealer Filing Instructions:



Distribution: List Nos. 5 & 8

10: All Branches and Chain Saw Dealers

SUBJECT: Air Cleaner Elbow Gaskets

DATE: 9/8/61

UNITS AFFECTED: I 707D & 707G -- All Chain Saw Service Usage

II 9-23, 9-26, 900D, 900G, 909D & 909G

- I The gasket between the air cleaner elbow and the carburetor has been increased in thickness to 3/32". The part number has been changed from 72971-1 to 72971-2. The new gasket is used to properly align and seal the air elbow and carburetor on the 707 series saws. The new thicker gasket will require the use of two longer screws (10 32 x 1 3/16") part # 80841. The longer screws will provide better thread engagement. This change became effective in Production with 707Gl s/n 1199752. This gasket can be used in all usage previously specified for 72971-1 only when new screws 80841 are also used.
- II The seal between the carburetor and air elbow on Model 909 series saws has been improved. Effective with 909Gl s/n 1188114 we are using an "O" Ring part # 57938 in place of gasket # 56313. The "O" Ring may be used as a replacement part on all units indicated above by "UNITS AFFECTED II".

Please up-date all necessary Parts Lists in accordance with the above information.

Robert S. Townsend

Assit. Service Manager



Distribution: List Nos. 5 & 8

TO: All Branches and Chain Saw Dealers

SUBJECT: Air Filter Element Material Change

DATE: 10/17/61

UNITS AFFECTED: 909D and G Chain Saws

Service Parts now has available Air Filter Elements, for the above units, made from a new material. The new material is designated as "Phenolic Impregnated Polyester Fiber". This material does an excellent job of filtering and will withstand more cleanings than paper type filters.

The new filter element can be cleaned in clean gasoline (not fuel mix) and compressed air.

This change became effective in production with all model 909 saws above S/N 1189363.

Mark your Parts Lists for 909D and 909G as follows:

Air Filter Element

#57599-A supersedes #57599

Robert S. Townsend

Ass't. Service Manager

dm



Distribution: Lists Nos. 5 & 8

TO: All Branches and Chain Saw Dealers

SUBJECT: Replacement Crankcase Assemblies - Saw Dust Shields - DATE: 10/18/61

Cylinders - Cylinder Gaskets

UNITS AFFECTED: 9-23, 9-26, 900D & G, 909D & G

Replacement crankcases for the above saws now utilize 5/16" diameter cylinder studs. This change requires changes in the hole size on the saw dust shield, cylinders, cylinder gaskets and larger nuts and lockwashers for cylinder mounting.

We also have changed the cylinder gasket material. All of these changes improve the reliability of the cylinder mounting method.

Model 909D and 909G chain saws above S/N 1204549 are manufactured with large cylinder stude, new cylinder gaskets and new saw dust shields.

Mark your parts lists in accordance with the following information:

9~26, 900G, 909G	Crankcase Assy. Ser	v. A-57846-A	supersedes	A-57846, A57091 & A56652 (See note #1)
9-23, 900D, 909D	Crankcase Assy. Ser	v. A-57089-A	supersedes	A=57089, A=56651
9-23, 9-26	Stud #727	87 (5/16 - 18)	supersedes	55871 (1/4 - 28) See
900D & G	Lockwasher	#83042 (5/16)	supersedes	
909D & G	Nut #254	12 (5/16 - 18)	supersedes	
909D & G	Saw Dust Shield	A-56914-A	supersedes	A-56914 (See notes 2 & 3)
909D & G	Cylinder Gasket	56875-A	supersedes	56875
900D & G	0.1/-1	A 5(07/ D	1	(See note #2)
909D & G	Cylinder	A.~208/4~B	supersedes	A-56874A & A-56874AT (See note #4)

Superseded parts will be available until the present supply has been exhausted.

NOTE #1 When crankcase A-57846-A is used as a replacement for A-56652 (9-26) or A-57091 (900G, 9-26) it will be necessary to change the mounting method of Idler Gear by adding the following:

2	28922	Snap Rings
1	57769	Idler Gear
1:104/th page w	72328-S	Bearing, Idler Gear
1	57768	Nut
1 0 8 0000	57770	Pivot Stud

Add the above information to Parts Books for 9-26 and 900G when crankcase part number is brought up-to-date.

- NOTE #2 These parts must be used on 909D & G saws above S/N 1204549 or on earlier units (9-23, 9-26, 900D & G) using replacement crankcases A-57846-A or A-57089-A.
- NOTE #3 A-56914 Saw Dust Shield can be reworked to A-56914-A by filing out the holes to fit over 5/16" studs. We will still supply shield #A-56914 for service of 9-23, 9-26, 900D & G with small diameter cylinder studs.
- NOTE #4 Cylinder A-56874-B is the same as A-56874-AT with the exception of the mounting holes which are 11/32" in diameter. Cylinder A-56874-AT and A-56832 (9-23, 9-26) may be used on Service Replacement Crankcase A-57846-A and A-57089-A if the mounting holes are drilled to the 11/32" diameter. Care should be exercised in drilling out the mounting holes straight and square to the mounting face.

Robert S. Townsend

Ass't. Service Manager

BRANCH SERVICE MEMO NO. 380-CS



DEALER SERVICE MEMO NO.__152

Distribution:

List Nos. 5 & 8

TO: All Branches and Chain Saw Dealers

SUBJECT: A 56874-AT Cylinders

DATE: 10/26/61

Cylinders shipped under Part #A 56874-AT are transplant coated cylinders. The running surface is a special layer of steel which is finished by grinding and honing.

To prevent rust we protect the running surfaces of these cylinders with a rust preventative oil.

Before installing any of these cylinders on engines, each cylinder must be thoroughly washed -- not so much to remove the rust preventative oil which is quite harmless -- but to remove any grit or dust which may have settled on the oil and which could cause rapid wear of the cylinder.

Use clean solvent or mineral spirits and thoroughly flush and rinse each cylinder before installation on the engine. Use the rich break-in mixture recommended in the Owner's Manual for the first few hours of operation.

Walter N. Herold

Service Manager

dm



Distribution: List Nos. 5 & 8

TO: All Branches and Chain Saw Dealers

SUBJECT: New Ball Drive, Rotor, Crankshaft and Starter Cup DATE: 11/16/61

UNITS AFFECTED: 707G, 707G1, 707G2, 707G3, WIZ-B

We can now supply a new larger Ball Drive Assy. with 1/4" driving balls for the Model 707G chain saw. This new Ball Drive is similar in size to those used on direct and belt drive units.

The new Ball Drive requires changes in the rotor and crankshaft. To maintain as much parts interchangeability as possible we are now using the new 707G rotor on the WIZ-B also. The rotor taper is larger, requiring a new crankshaft for 707G and 707G3 and WIZ-B units. A new starter cup will be required on the WIZ-B, units.

These changes became effective in Production with 707G, S/N 1216896 and WIZ-B, S/N 1208843.

Adjust your Parts Books and records as follows:

707G	Ball Drive	A-57883	replaces	A-56906
above	Plate	57792	replaces	55054-A
S/N 1216896	Ball	30355-1	replaces	55217
	Sleeve	74221	replaces	55584
	Retainer	57796	replaces	55097
	Screw	80464	replaces	80588
	Hub & Screw	A-58047	replaces	A-57100
	Pin	57065	(No Change i	n this Part)
	Screw	72295-A	(No Change i	n this Part)
	Sealing Cup	56896	replaces	56903
	Ratchet & Bearing	A-57885	replaces	AA-55213
	Ratchet	57797	replaces	A-55348 (ratchet
				& washer)
	Washer	73525	replaces	55271
Paul	Seal	71597	replaces	55272
	Bearing	71596	replaces	55215
	Felt	71595	replaces	55214
	Pulley, starter	55597-2	replaces	55362-2
	177.177			

707G	Crankshaft	A-57541-A	replaces	A-57541	
707G3	Crankshaft	A-57538-A	replaces	A-57538	
	Rotor	57579	replaces	55994	
WIZ-B	Crankshaft	57555-A	replaces	57555	
	Rotor	57579	replaces	55994-1	
WIZ-B & 707G3	Starter Cup	56441-1	replaces	56534-1	

To remove Rotor #57579 use Magneto Rotor Remover Assy. AA-22560.

Jeen sup Jelow S/N 1 We will continue to supply those parts which have been superseded for service of 707G units below S/N 1216896 and WIZ-B units below S/N 1208843.

Robert S. Townsend

Ass't. Service Manager

dm



Distribution: List Nos. 5 & 8

TO: All Branches and Chain Saw Dealers

SUBJECT: Air Filter Element Change

DATE: 11/10/61

UNITS AFFECTED: 707D, 707G

Model 707 saws above S/N 1222610 now use a new Air Filter Element.

The new filter element is made of Phenolic Impregnated Polyester Fiber. The life and serviceability of the element will be greatly increased. The new element may be washed in clean gasoline (not fuel mix) and dried with compressed air.

These new filter elements may be used in 707D and 707G units below S/N 1222610. It will be necessary to up-date the mounting method by adding new gaskets, mounting insert and mounting screw.

Bring your 707D and 707G Parts Lists up-to-date as follows:

707D	Filter	#58033	supersedes	#57619
707G	Filter	#58036	supersedes	#57626
707D & G	Mtg. Screw	#57994	supersedes	#57655
707D	Filter Gasket	#57992	Not previously	required
707G	Filter Gasket	#57993	Not previously	required
707D	Mtg. Insert	#55995	Not previously	required
707G	Mtg. Insert	#57996	Not previously	required
707D & G	Mtg. Insert Gskt.	#57991	Not previously	required
707D 707G	(Air Filter) (Cover Assy.)	#A-57654-A #A-57696-A	supersedes	#A-57654 #A-57696

We will no longer supply the old style paper filters, filter cover assembly, or cover parts when present stock is exhausted.

Robert S. Townsend

Ass't. Service Manager

- 1. Remove Filter Cover -- before removing old filter, clean out ALL sawdust. Remove filter -- clean filter cavity, if necessary, and clean filter mounting boss so that new gasket will adhere.
- 2. Remove the cloth backing carefully from gasket (57991) and install (stick) on mounting insert 57995 (707D) or 57996 (707G). The gasket fits over the smallest diameter on the mounting insert and is installed so that it sticks to the mounting insert.
- 3. Now install the mounting insert #57995 (707D) or #57996 (707G) in the existing 1/4-20 tap lock insert, which is part of the fuel tank. The mounting insert has an 11/16 HEX to facilitate this installation.
- 4. Carefully remove the cloth backing from gasket #57992 (707D) or #57993 (707G) and carefully stick in place in filter cavity.
- 5. Remove cover mounting screw #57655 from filter cover and replace with #57994 screw.
- 6. Install new filter #58033 (707D) or #58036 (707G) with the corrugations on the upstream side (facing out).
- 7. Replace air filter cover assembly.

BRANCH SERVICE MEMO NO. 384-CS



DEALER SERVICE MEMO NO. 155

Distribution: List Nos. 5 & 8

TO: All Branches and Chain Saw Dealers

SUBJECT: Air Filter Elements #57337 and #57172 Material Change DATE: 11/3/61

UNITS AFFECTED:

6-22, 7-21, 7-21C, 700G, EZ, EZ-6, ZIP, ZIP-5, 600D (use #57337-A)

17, 5-20, 4-20, 4-20A, WIZ, WIZ "A", WIZ "B" (use #57172-A)

We are now supplying the subject Air Filter Elements with Phenolic Impregnated Polyester Fiber filtering material. This new material provides longer service life and easier cleaning. This material may be washed in clean gasoline (not fuel mix) and blown clean with compressed air.

The part numbers have been changed from #57337 to 57337-A and #57172 to 57172-A.

Assembly Instructions for these filters remain the same as with #57337 and #57172. These elements require gaskets cemented to the tank. Use gasket #57041 with filter #57337-A and gasket #57173 with filter #57172-A.

Adjust your parts records for units shown in "Units Affected" above.

Robert S. Townsend

Ass't. Service Manager

las



Distribution: List Nos. 5 & 8

TO: All Homelite Branches and Chain Saw Dealers

SUBJECT: New Identification System Effective November 1, 1961 DATE: 12/5/61

We are all familiar with the fact that saws differing from each other in construction are often marketed with the same identifying model number and decal designs to take advantage of brand name acceptance. In order to continue this practice, but be able to tell one from the other, the following system of identification has been established.

- 1. A letter stamped ahead of the serial number on the name plate of each unit will indicate production modification. Letter "A" will be used for the first modification series; letter "B" for second modification series, etc.
- 2. Unit shipping cartons will be marked with serial numbers and letter prefix.
- 3. An illustrated parts list will be prepared for every model series identified by serial number prefix as above. The parts list for a modified unit will state on the <u>front cover</u> what series the list covers. For example, the June, 1961 WIZ Parts List has on the front cover, "Identified by "B" preceding serial number".
- 4. In all communications, except advertising and sales department material for public consumption, quick reference to a modified production unit can be made by applying the letter prefix from the serial number to the model number.

Example: A ZIP, A 500, A 600D, B WIZ

Although the above system does not make serial numbers unnecessary, using the prefix for group identification helps us to identify modified construction units in parts lists and other materials which must be printed before the saws are actually built.

Your collection of parts lists should contain lists for the following modified units:

A ZIP, A 500, A 600D, B WIZ and an A 4-20 supplement to the regular 4-20 parts list.

To bring your parts book information further up-to-date, please make the following usage note on the cover of the May, 1960 WIZ Parts List:

USE FOR A WIZ PARTS

K and Jergun

Rod Ferguson, Supervisor Technical Publications struction of an marketed with the same identifying

dm

the first model ration Ties; latter "B" for second modification series.

fied by serial number prefix as above. The parts list for a modified example, the June, 1961 WIZ and Listing on the front cover, "Idencia

We are all familiar with the fact that saws

Dealer Filing Instructions:

File in numerical order in Service Manual Section of Dealer Operating and Service Manual.

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 understand 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.

To bring your parts book information further up-to-date, please make the following usage note on the cover of the May, 1960 WIZ Parts List:

USE FOR A WIZ PARTS

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Rod Ferguson, Supervisor Courties Sell of Reproduce Technical Publications

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Dealer Filing Instructions:

File in numerical order in Service Manual Section of Dealer Operating and Service Manual.



Distribution: List Nos. 5 & 8

TO: All Homelite Branches and Chain Saw Dealers

SUBJECT: Oil Reservoir Cover Change Direct Drive Saws DATE: 12/11/61

UNITS AFFECTED: ZIP - 600D - 700D - 707D

Effective immediately, Service Parts will no longer supply Oil Reservoir Cover A-55621. For service of above saws, we will now supply A-55621-A.

Cover A-55621-A is threaded to use Cap A-56580. It will be necessary, when installing the new Cover A-55621-A, to also install a new Cap A-56580. This change allows us to use one Oil Reservoir Cap on both Direct and Gear Drive Saws.

Please up-date your parts lists for above units as follows:

Oil Reservoir Cover A-55621 Superseded by A-55621-A

When using A-55621-A use Oil Reservoir Cap A-56580

We will continue to supply Oil Reservoir Cap A-56448 only as a replacement for above units not requiring a new Oil Reservoir Cover.

Robert S. Townsend

Assit. Service Manager

dm

Dealer Filing Instructions:

File in Service Memo Section of Dealer Operating and Service Manual in numerical order.



Distribution: List Nos. 5 & 8

TO: All Branches and Chain Saw Dealers

SUBJECT: Lubricant for Needle Bearing Roller Type Sprocket DATE: 12/15/61

PART AFFECTED: Needle Bearing #77403, part of Sprocket A-57363

We have found that the needle bearing #77403 used in sprocket #A-57363 is insufficiently lubricated.

To prevent premature failure of this bearing, in new units as well as with replacement sprockets, these bearings should be re-lubricated.

Use grease #23280 (Texaco Regal Starfax #2) or equivelant and pack well in between the rollers. Bearing should be clean and dry before packing.

CAUTION: Do not over grease. Too much grease will cause clutch slippage.

Bearing #77403 has a rust preventive oil coat. This should not be mistaken for grease or sufficient lubrication.

Robert S. Townsend

Assit. Service Manager

dm

Dealer Filing Instructions:

File in numerical order in Service Manual Section of Dealer Operating and Service Manual.