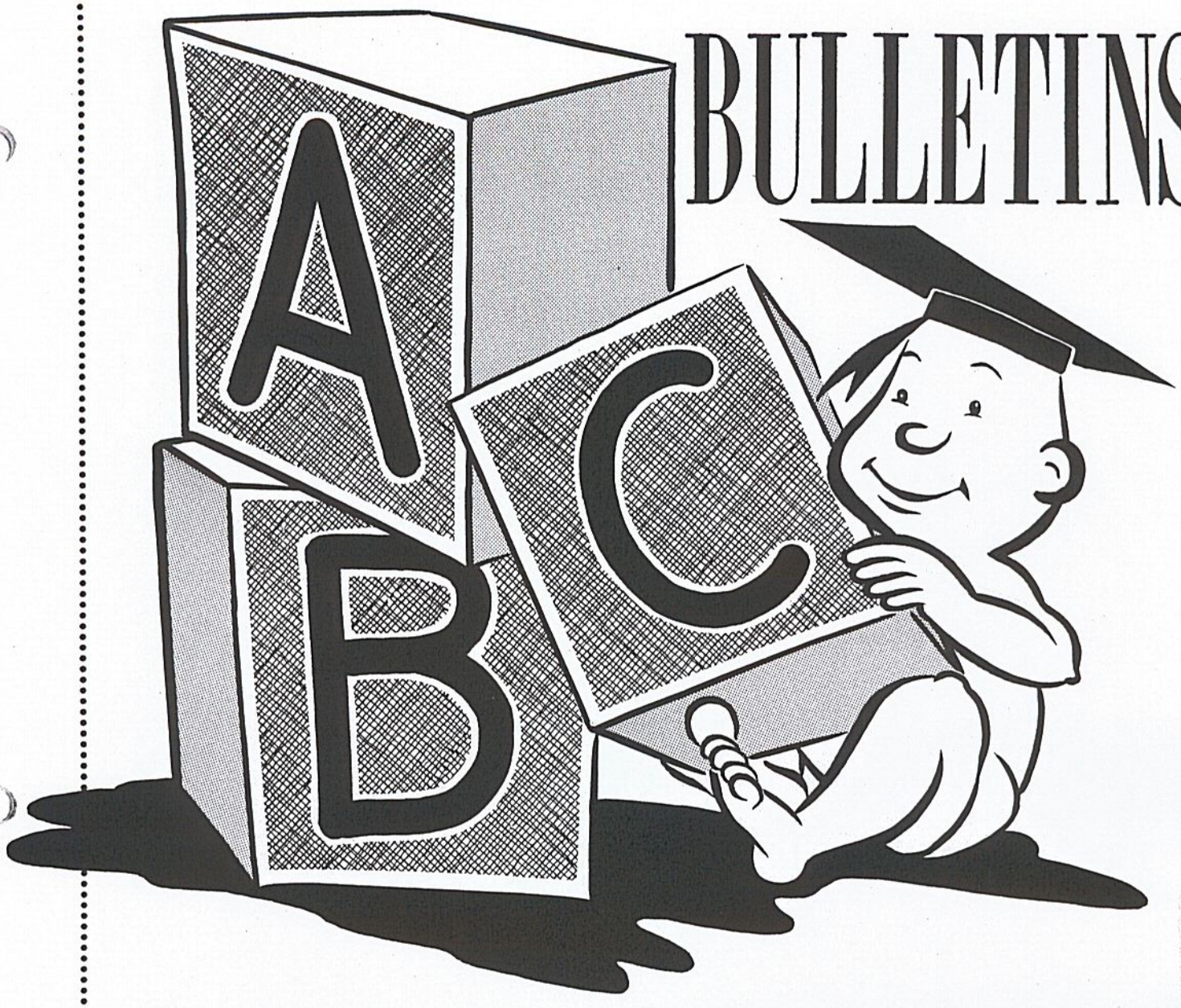
BULLETINS



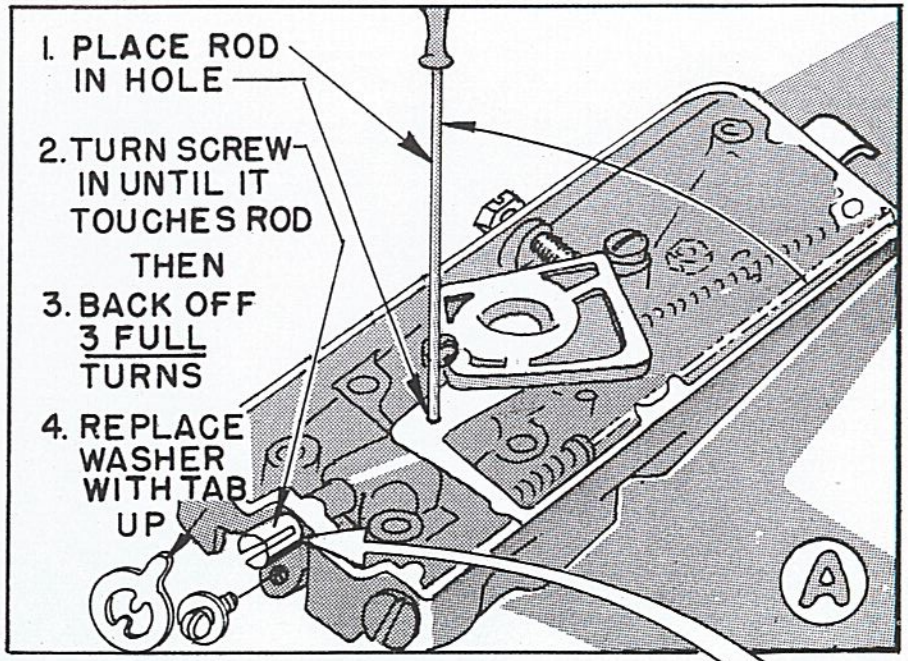
A compilation of all A-B-C Bulletins issued by the McCulloch Corporation from October 1954 through May 1957.

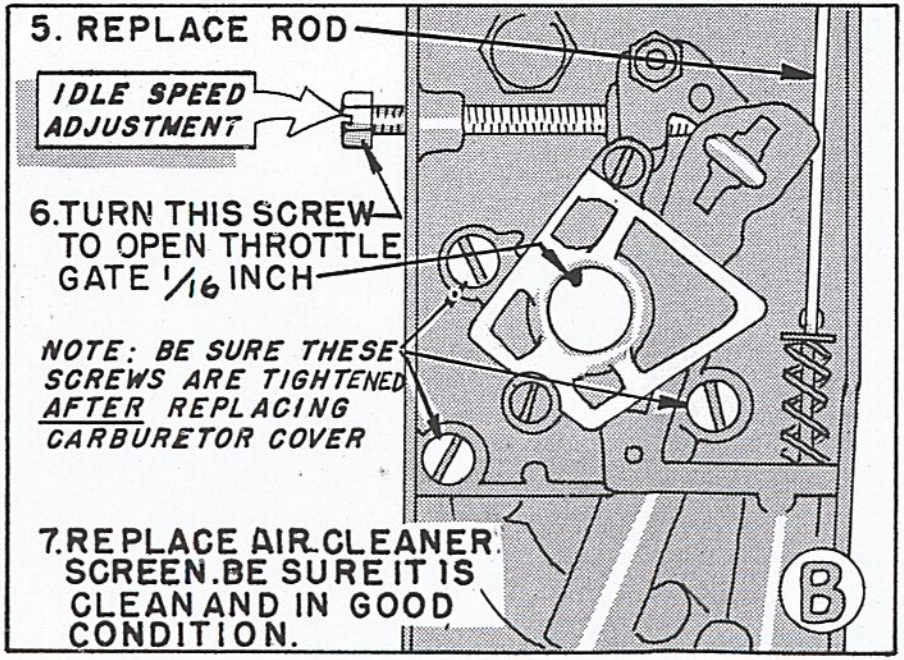
McCULLOCH BULLETIN ABC NO 1

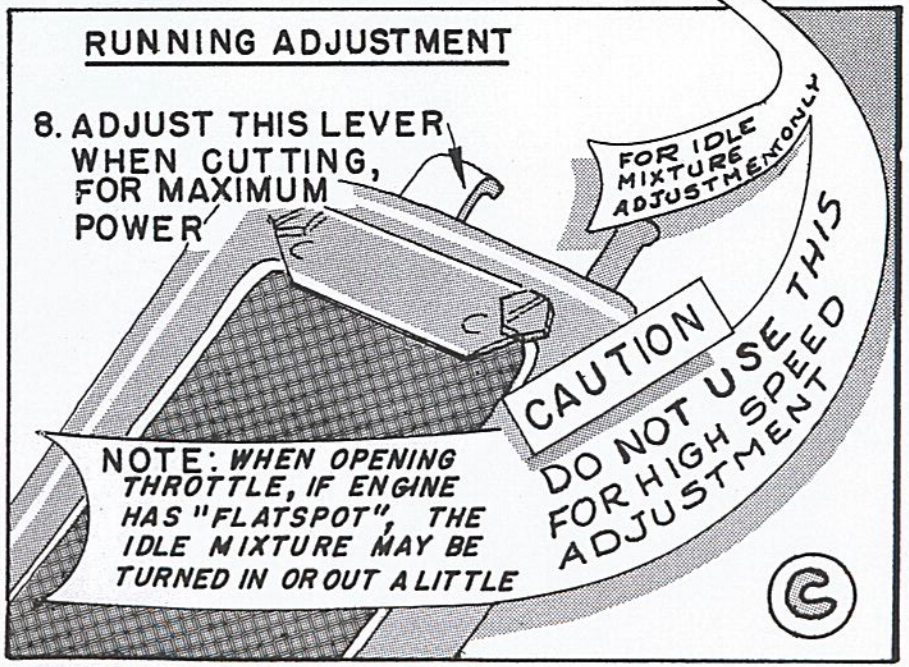
ABC SIMPLIFIED

METHOD OF ADJUSTING CARBURETOR

MODEL 33B





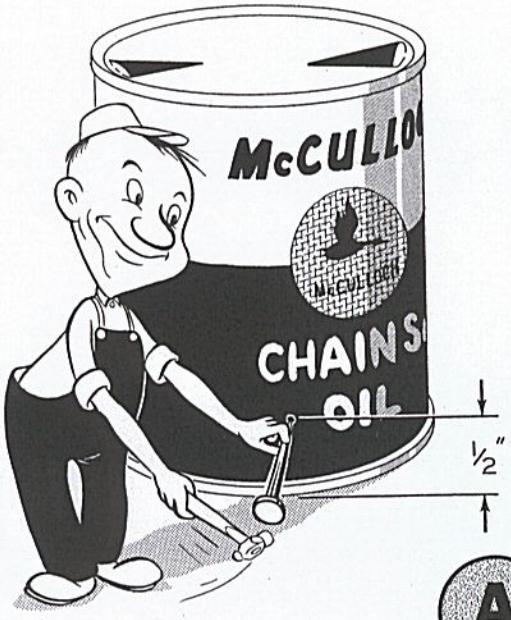


McCULLOCH

SIMPLIFIED ABC bulletin No. 2

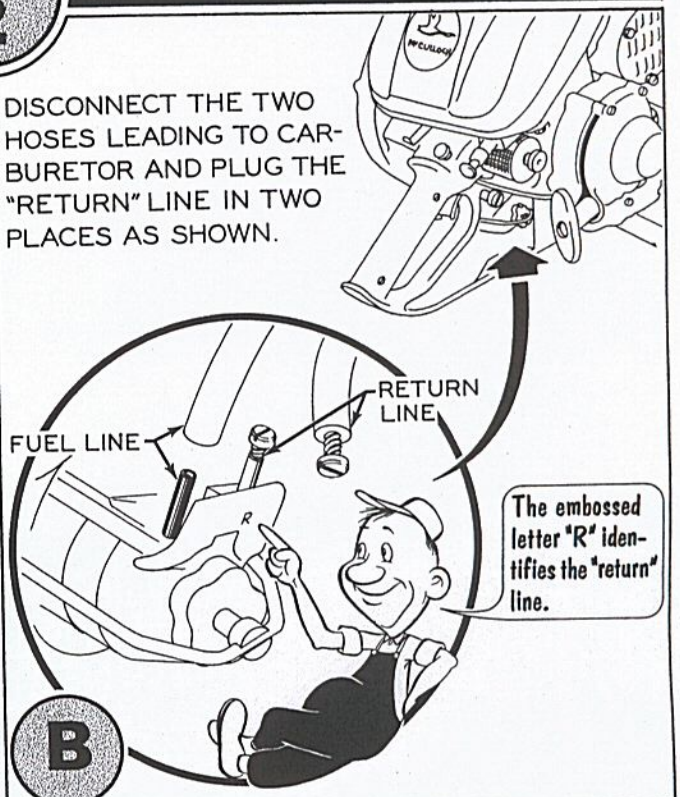
Fuel Flow Check
FOR
47, 4-30, 4-30A

PUNCH SMALL HOLE ½" FROM BOTTOM OF EMPTY ONE QUART McCULLOCH OIL CAN.



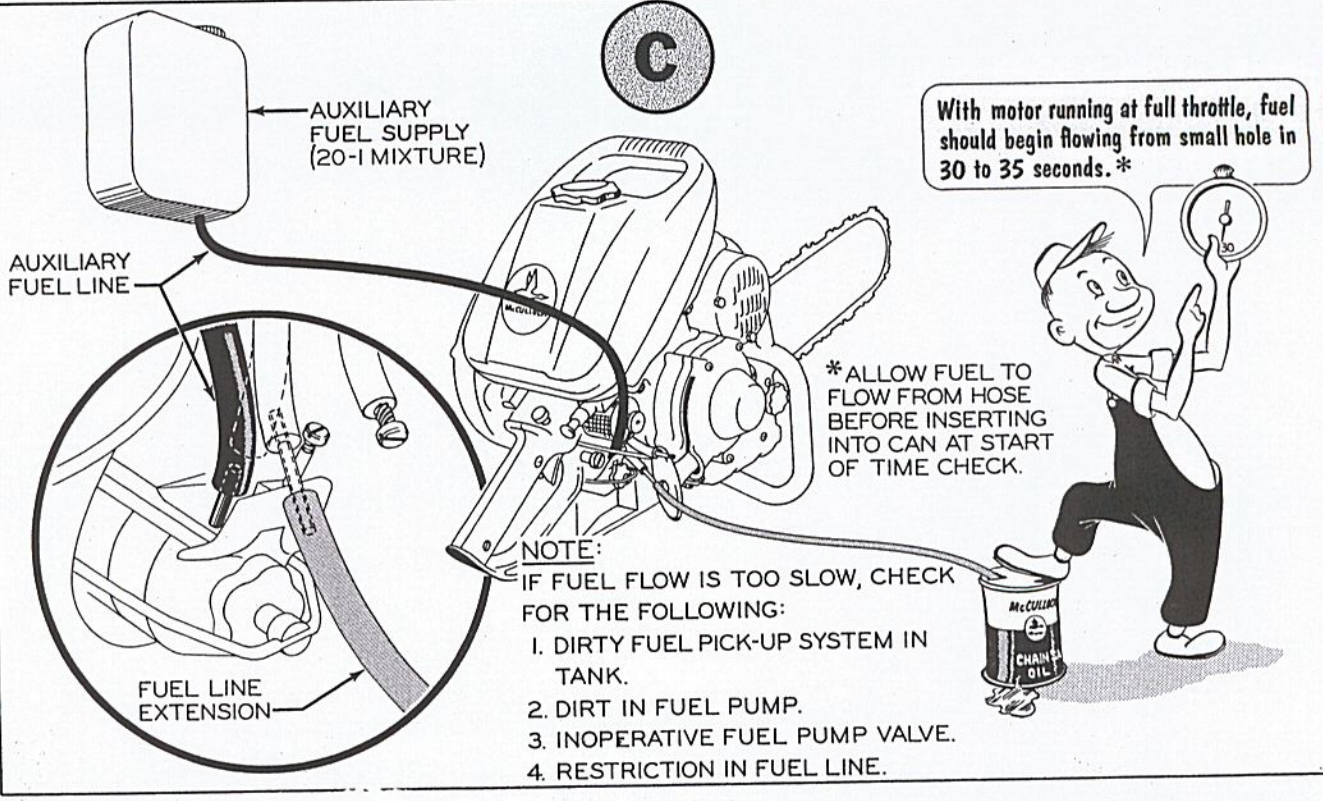
A

DISCONNECT THE TWO HOSES LEADING TO CARBURETOR AND PLUG THE "RETURN" LINE IN TWO PLACES AS SHOWN.



B

C



NOTE:
IF FUEL FLOW IS TOO SLOW, CHECK FOR THE FOLLOWING:

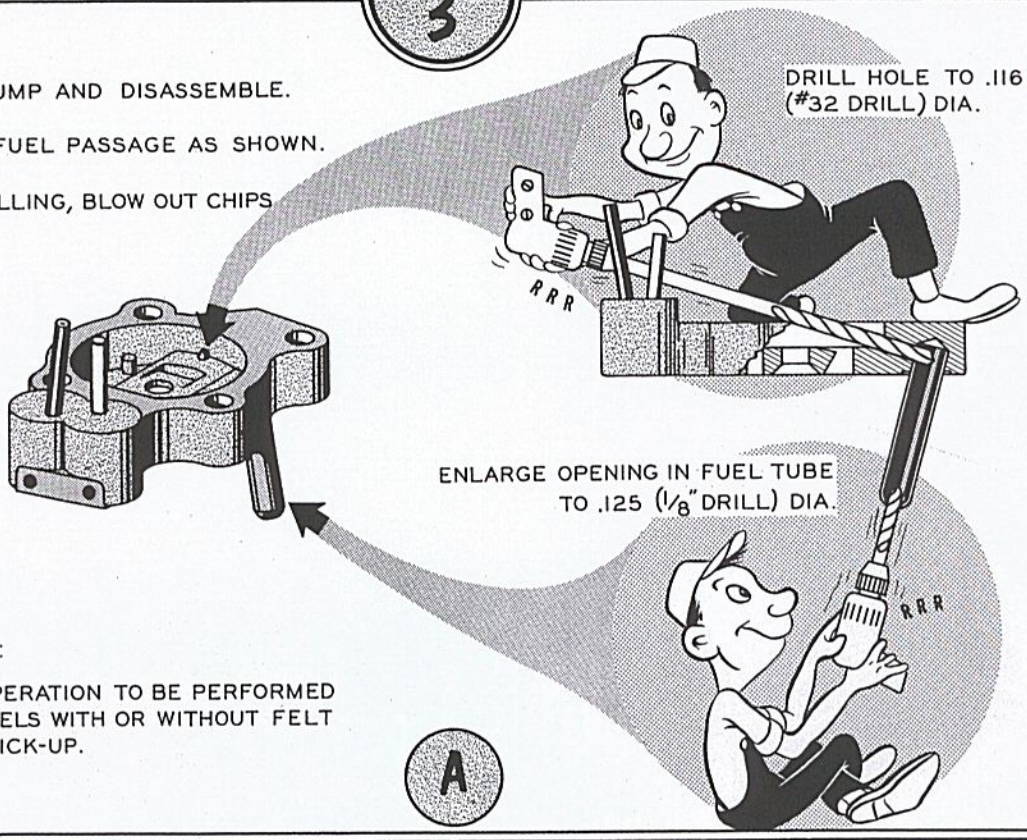
1. DIRTY FUEL PICK-UP SYSTEM IN TANK.
2. DIRT IN FUEL PUMP.
3. INOPERATIVE FUEL PUMP VALVE.
4. RESTRICTION IN FUEL LINE.

McCULLOCH Simplified ABC bulletin No. 3

Method of Increasing Fuel Pump Efficiency

Models 47, 4-30, & 4-30A

1. REMOVE PUMP AND DISASSEMBLE.
2. ENLARGE FUEL PASSAGE AS SHOWN.
3. AFTER DRILLING, BLOW OUT CHIPS.



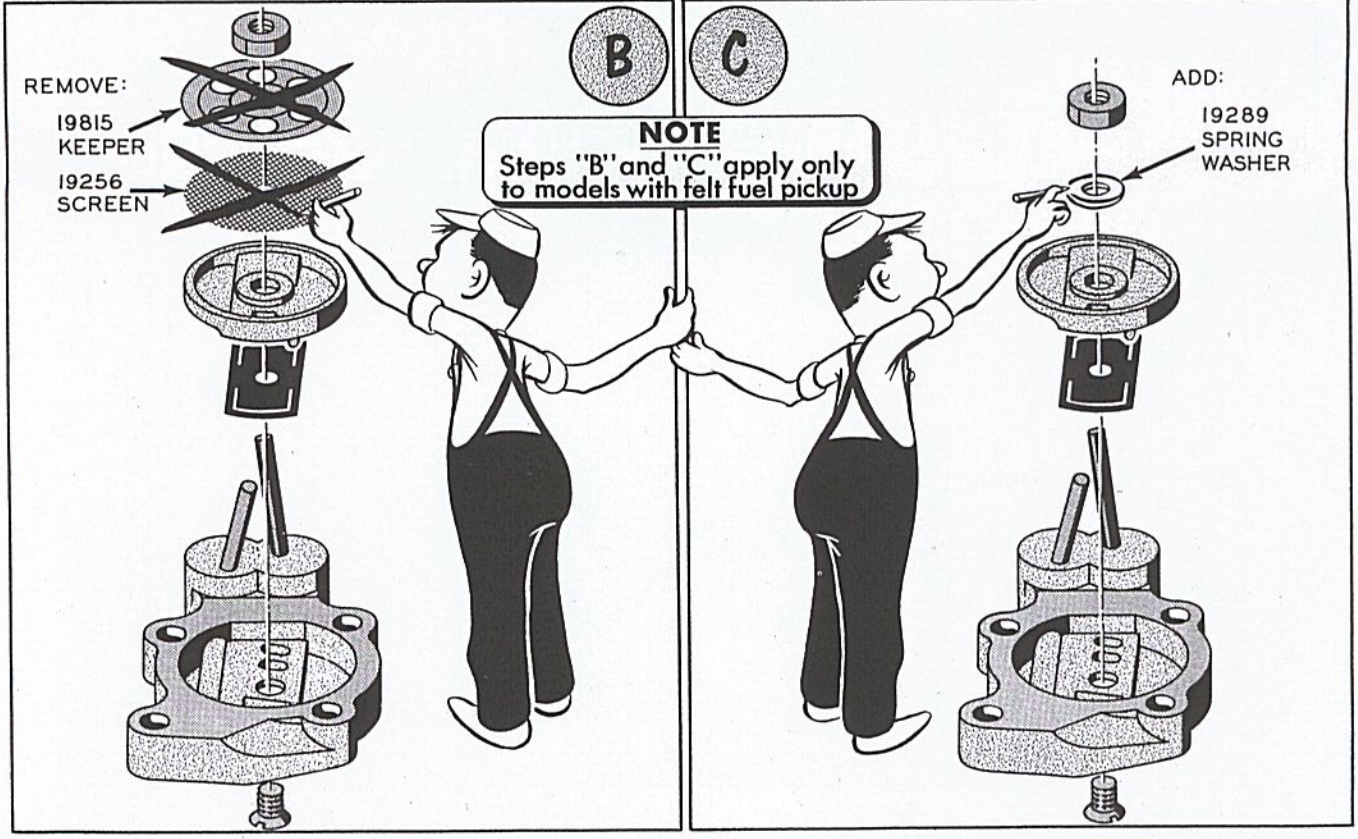
NOTE:

THIS OPERATION TO BE PERFORMED ON MODELS WITH OR WITHOUT FELT FUEL PICK-UP.

A

B

C



McCULLOCH

a b c Simplified Bulletin

No. 4A

INCREASED FUEL FLOW

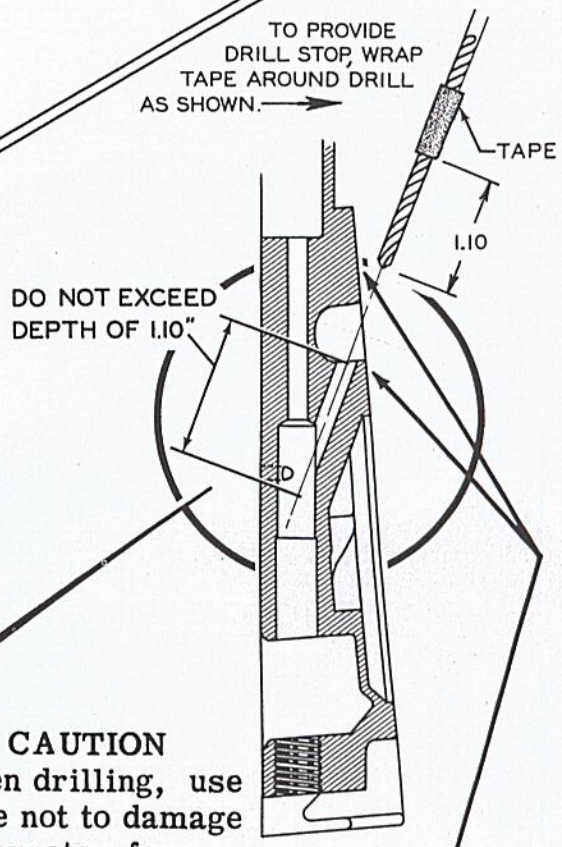
Model 33B

1/55

A

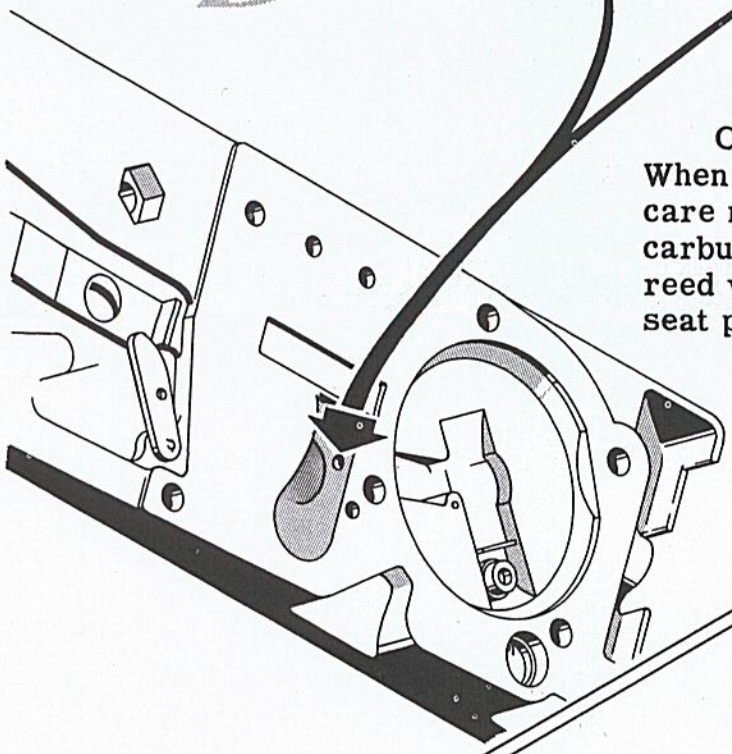
REMOVE FROM CARBURETOR:

1. NEEDLE SEAT ASSEMBLY
2. PISTON SPRING
3. NEEDLE PISTON
4. REED VALVE GUARD
5. REED VALVE



B

DRILL MAIN FUEL PASSAGE TO .180 DIA. (NO. 15 DRILL)



CAUTION
When drilling, use care not to damage carburetor face or reed valve will not seat properly.

C

1. BLOW OUT ALL CHIPS AFTER DRILLING IS COMPLETED.
2. REASSEMBLE & ADJUST CARBURETOR (SEE A-B-C BULLETIN NO. 1).

A B C SIMPLIFIED

McCULLOCH Bulletin

No. 5

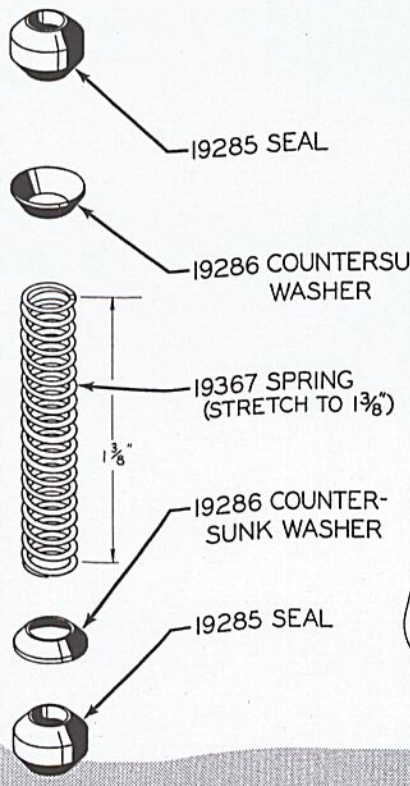
OIL SEAL BREAKER POINT PUSH-ROD FOR 47 - 4-30 - 4-30A

A

1. REMOVE FAN HOUSING ASS'Y.
2. PULL FLYWHEEL.
3. REMOVE BREAKER BOX COVER.
4. REMOVE BREAKER POINTS.
5. PULL OUT PUSH ROD.
6. REMOVE FELT WASHERS AND DISCARD.

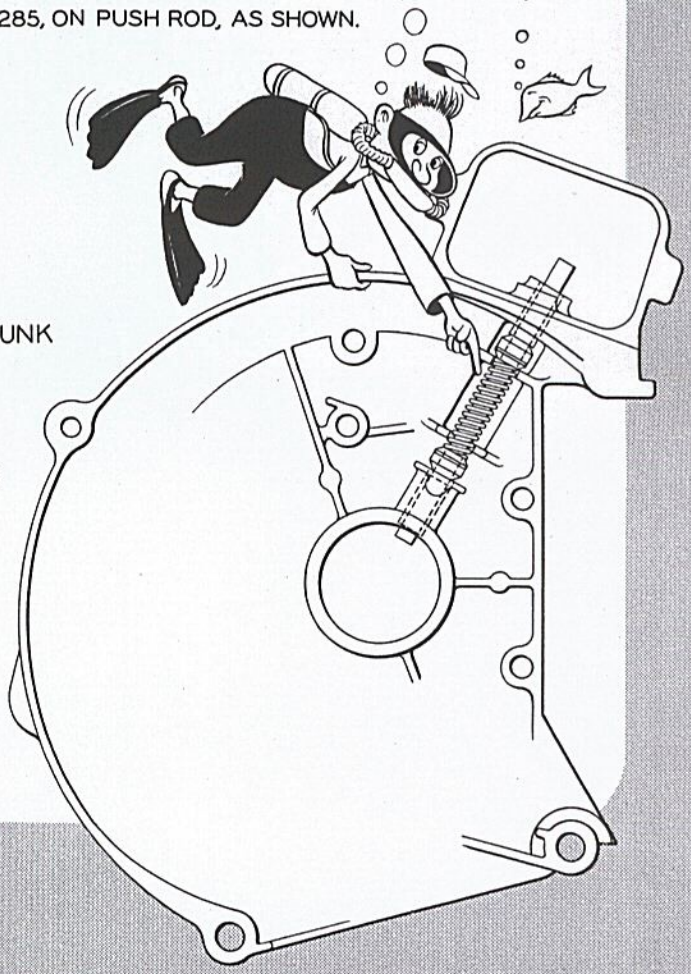
B

7. STRETCH SPRING, NO. 19367, TO 1 3/8" LONG.
8. INSTALL SPRING, NO. 19367; COUNTERSUNK WASHERS, NO. 19286; AND SEALS, NO. 19285, ON PUSH ROD, AS SHOWN.



C

9. INSTALL BREAKER POINTS. AND SET.
10. REPLACE BREAKER BOX COVER.
11. REPLACE FLYWHEEL.
12. REPLACE FAN HOUSING ASS'Y.



LITHO IN U.S.A. APRIL 8 1955

SIMPLIFIED McCulloch Bulletin

NO. 6

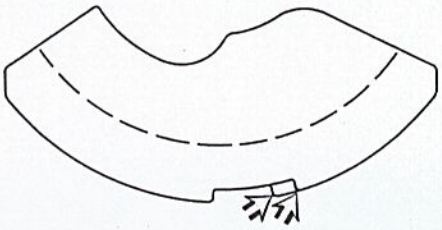
TO REMEDY CLUTCH SLIPPAGE

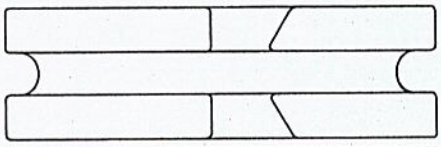
LAWNMOWER



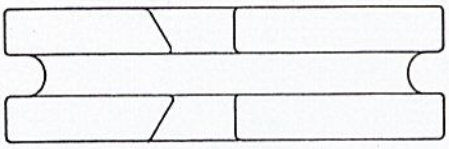
A

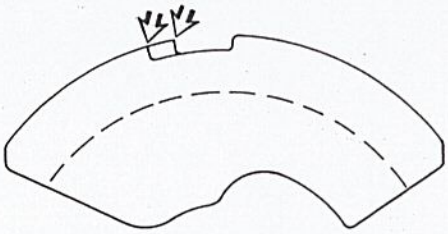
CLUTCH SLIPPAGE OCCURS WHEN THE EDGES BECOME ROUNDED, THUS PERMITTING EXCESSIVE OIL BUILD-UP ON CLUTCH DRUM SURFACE.





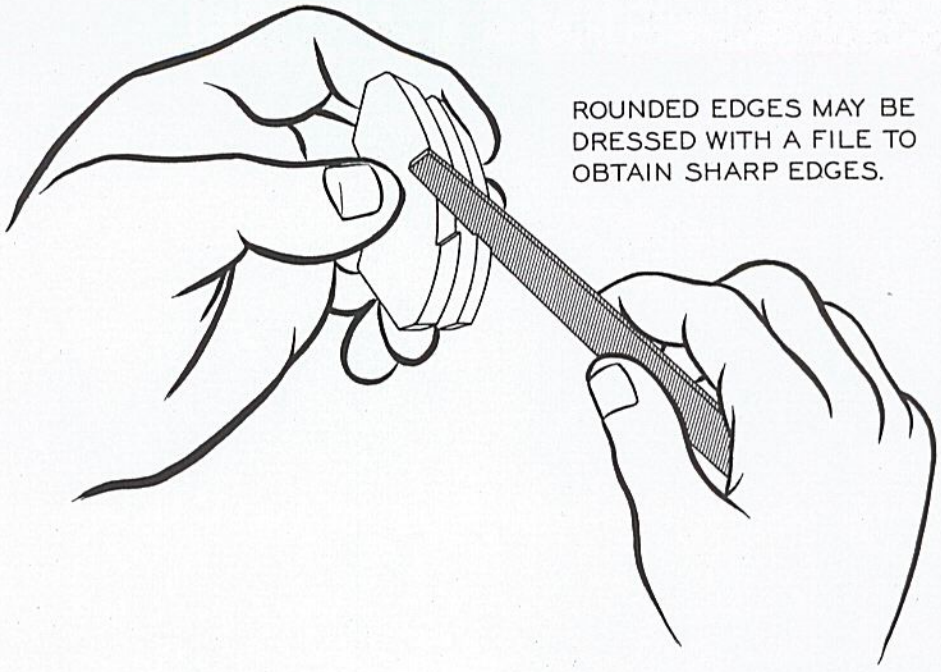
B





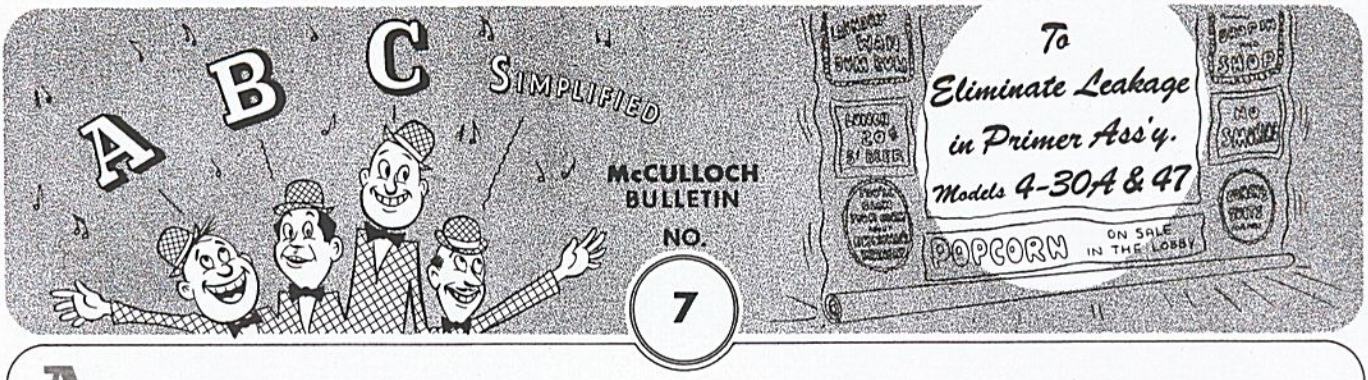
SHARP EDGES PREVENT EXCESSIVE OIL DEPOSITS ON CLUTCH DRUM SURFACE.

C

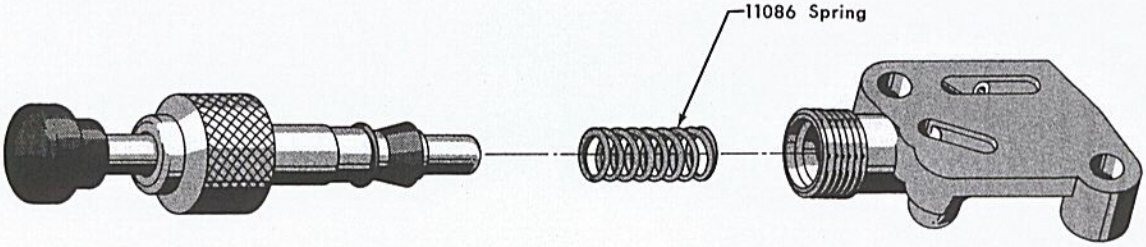


ROUNDED EDGES MAY BE DRESSED WITH A FILE TO OBTAIN SHARP EDGES.

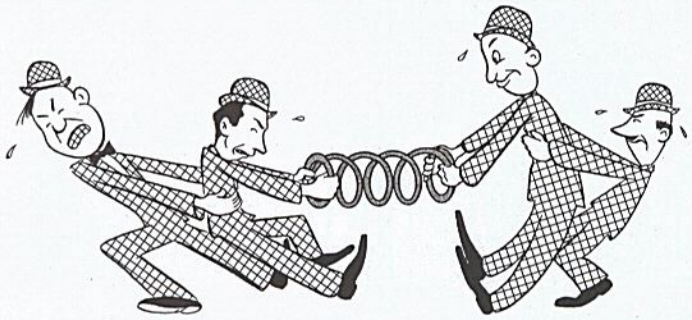
LITHO IN U.S.A.
MAY 2 1955

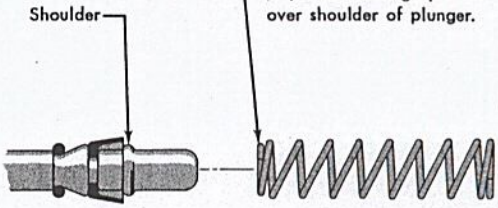


A Disassemble Primer

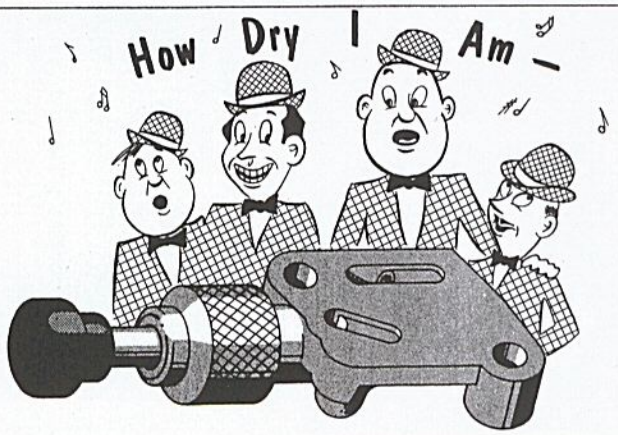


B Stretch Spring (11086) to 1½" long





C Reassemble Primer



LITHO IN U.S.A.
MAY 24 1955

McCulloch ABC Bulletin No. 8

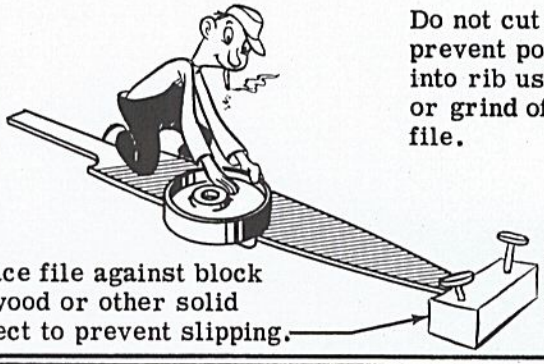
CORRECTION OF LEANING CONDITION - MODEL 4-30A ENGINES -

A

1. Remove fuel pump from fuel tank and disassemble.
2. Use 2nd cut mill file and reface valve seat on Retainer #19645.
3. To obtain smooth, even cuts, hold file firmly at a 45 degree angle and draw valve retainer over file.
4. If valve seat does not clean up after two or three medium strokes valve retainer should be replaced.

CAUTION

Do not cut into rib "A". To prevent possibility of cutting into rib use safety-type file or grind off edge of ordinary file.



Brace file against block of wood or other solid object to prevent slipping.

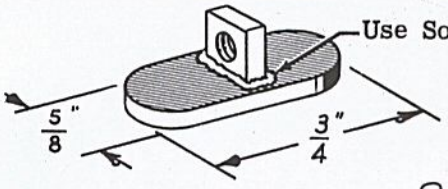


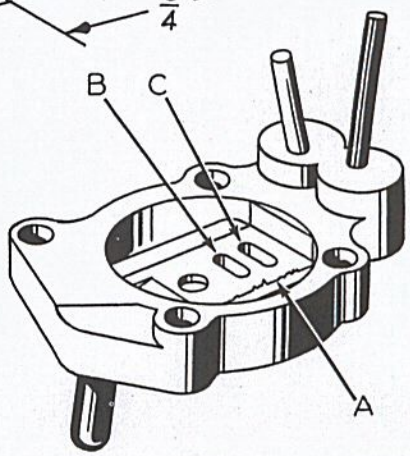
This surface to be smooth after filing with only minute witness marks showing

B

1. Remove any burrs or tool marks on surface "A" - fuel pump body.
2. Particular attention must be paid to the area directly about holes "B" & "C".

   If any indentions on the surface about these holes cannot be removed the fuel pump body should be replaced.
3. To remove burrs or tool marks from the surface - use a piece of a mill file-1st cut or bastard - 5/8" x 3/4". A nut, soldered on one side of the file, will suffice as a handle.





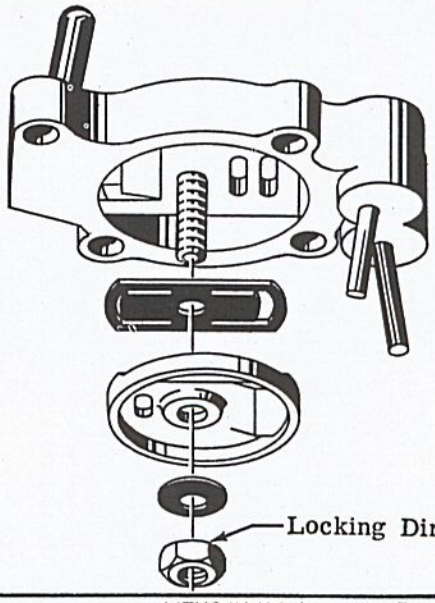
C

Wash parts thoroughly in clean solvent to remove any loose metal or dirt, and re-assemble fuel pump

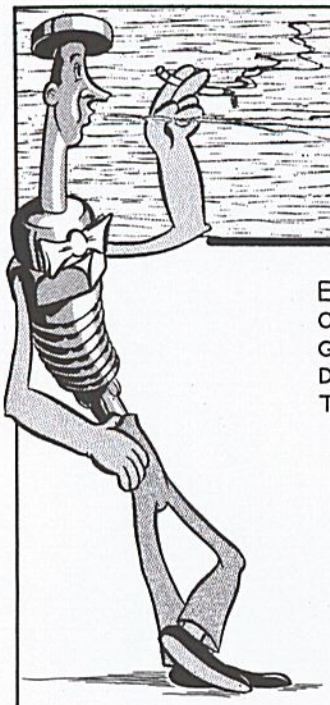
1. The spring washer should be assembled with convex surface up, or to nut.
2. Nut should be installed with locking dimples down, or to pump.
3. Tighten nut until, with exerted finger strength, both screw and nut will just rotate.

NOTE

If nut is tightened too much the fuel pump will not function properly.



LITHO IN U.S.A. JUNE 21 1955



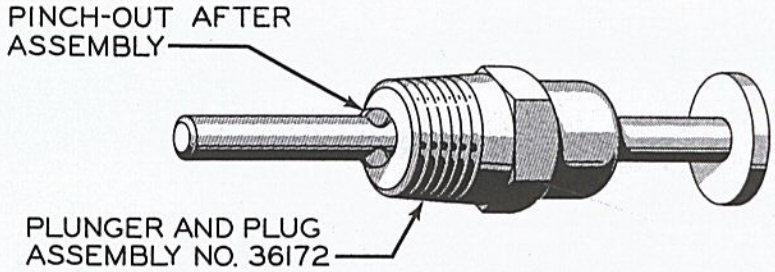
McCULLOCH *Simplified* Bulletin No. 9

METHOD FOR INSTALLING AND REMOVING CHAIN OILER PLUNGER

• Model 33 Series •

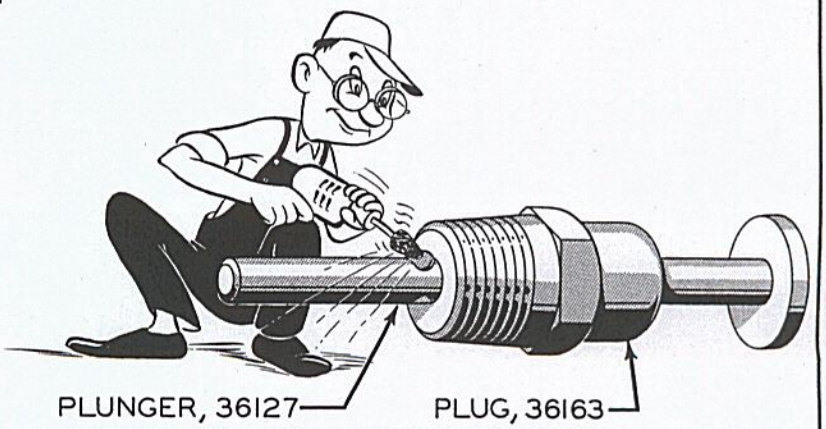
A

BECAUSE OF THE WEAR POTENTIAL OF THE SNAP RING IN THE CHAIN OILER PLUNGER, PART NUMBER 36127, IN MODEL 33 SERIES SAW ENGINES, BOTH THE RING AND ITS GROOVE HAVE BEEN ELIMINATED. A DOUBLE PINCH-OUT ON THE SIDES OF THE PLUNGER SHAFT REPLACES THE SNAP RING AND GROOVE AT THEIR SAME LOCATION.



B

IN ORDER TO REMOVE THE PLUNGER FROM THE PLUG, PART NO. 36163, IT WILL BE NECESSARY TO GRIND OFF THE PINCH-OUT MARKS ON THE PLUNGER SHAFT.

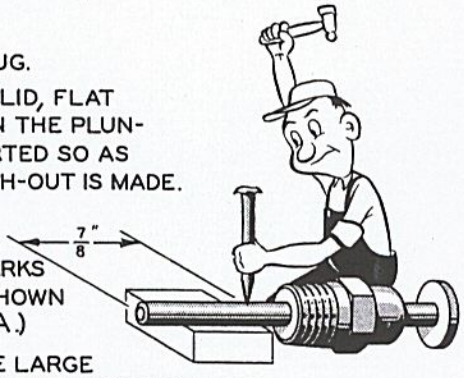


C

PLUNGER, PART NO. 36127, AS SHIPPED ON SERVICE REPLACEMENT REQUEST, WILL REQUIRE THE PINCH-OUT WHEN INSTALLED IN THE PLUG, PART NO. 36163.

TO MAKE PINCH-OUT:

1. INSTALL PLUNGER IN PLUG.
2. PLACE ASSEMBLY ON SOLID, FLAT SURFACE MAKING CERTAIN THE PLUNGER IS PROPERLY SUPPORTED SO AS NOT TO BEND WHEN PINCH-OUT IS MADE.
3. USE A WELL POINTED PUNCH OR SIMILAR TOOL AND MAKE TWO PUNCH MARKS 180 DEGREES APART AS SHOWN IN ILLUSTRATION. (SEE A.)
4. PUNCH MARKS SHOULD BE LARGE ENOUGH TO PREVENT PLUNGER FROM PULLING THROUGH THE PLUG WHEN ASSEMBLED.





PLUNGER AS CURRENTLY BEING SHIPPED ON SERVICE PARTS REQUESTS MINUS SNAP RING GROOVE AND PINCH-OUT.

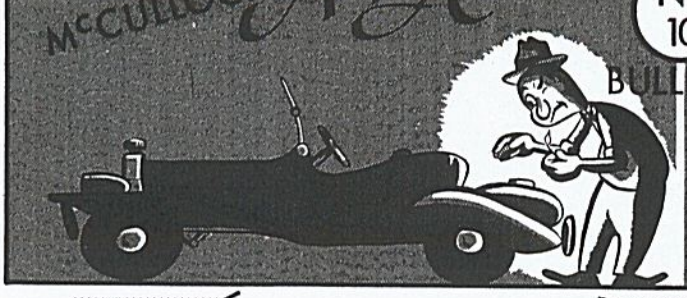
LITHO IN U.S.A. JUNE 23 1955

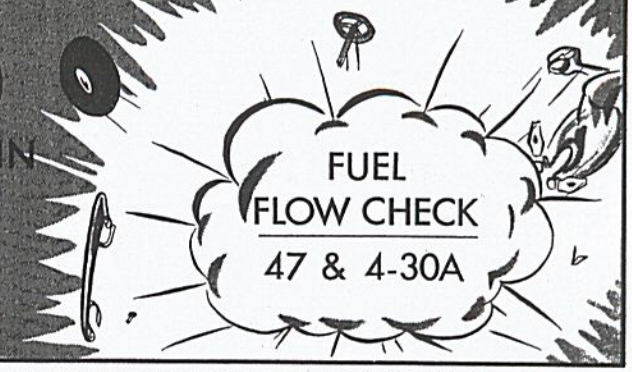
McCULLOCH ABC Simplified

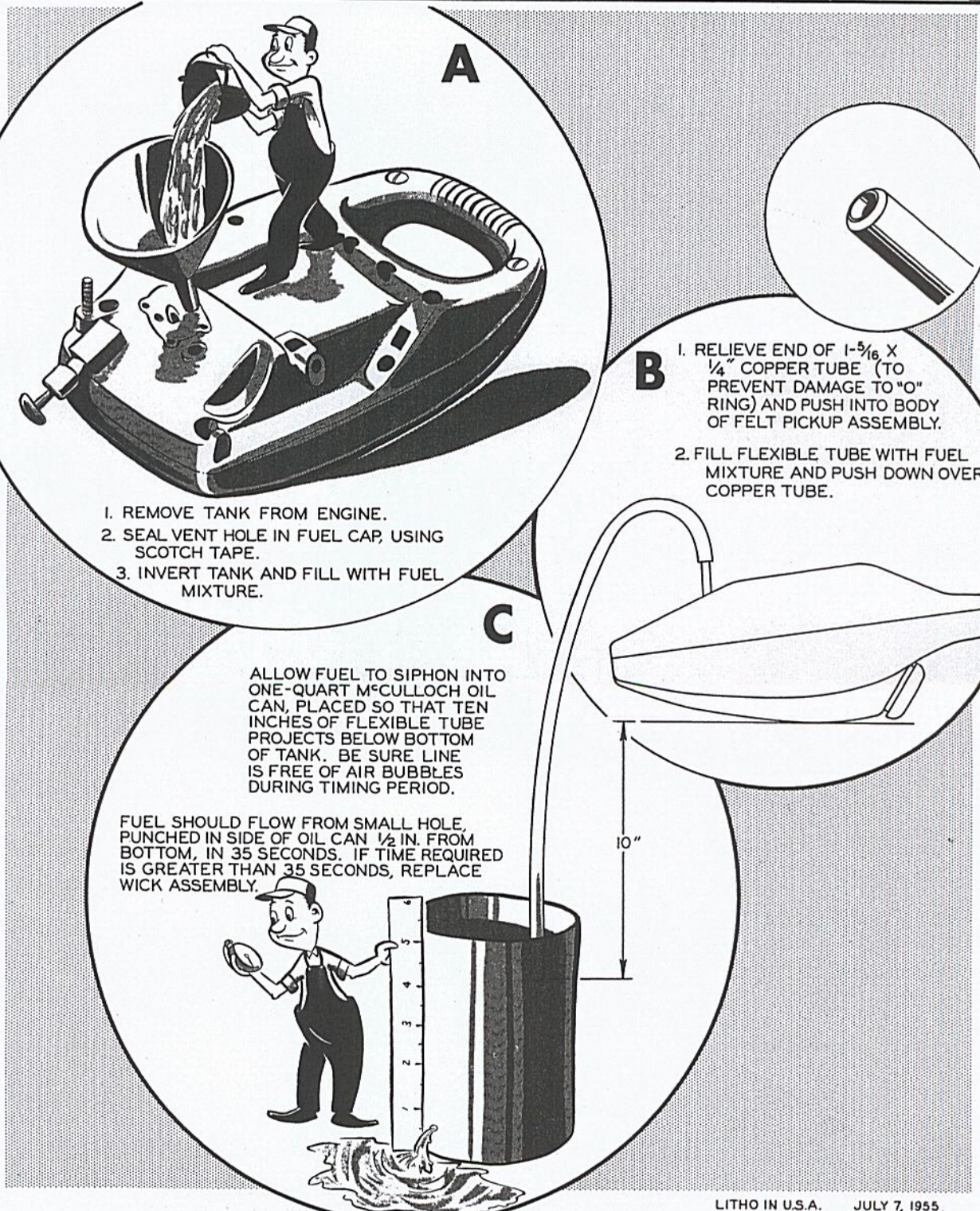
No. 10 BULLETIN

FUEL FLOW CHECK

47 & 4-30A







A

1. REMOVE TANK FROM ENGINE.
2. SEAL VENT HOLE IN FUEL CAP, USING SCOTCH TAPE.
3. INVERT TANK AND FILL WITH FUEL MIXTURE.

B

1. RELIEVE END OF 1-5/16 X 1/4" COPPER TUBE (TO PREVENT DAMAGE TO "O" RING) AND PUSH INTO BODY OF FELT PICKUP ASSEMBLY.
2. FILL FLEXIBLE TUBE WITH FUEL MIXTURE AND PUSH DOWN OVER COPPER TUBE.

C

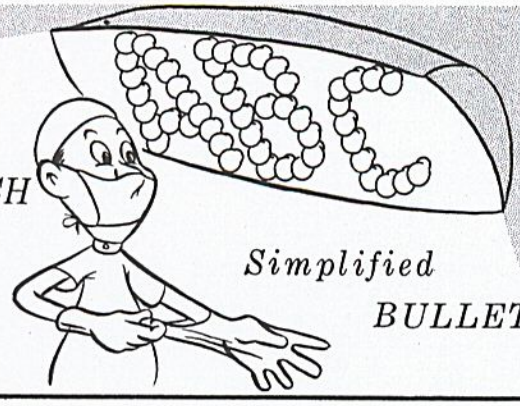
ALLOW FUEL TO SIPHON INTO ONE-QUART McCULLOCH OIL CAN, PLACED SO THAT TEN INCHES OF FLEXIBLE TUBE PROJECTS BELOW BOTTOM OF TANK. BE SURE LINE IS FREE OF AIR BUBBLES DURING TIMING PERIOD.

FUEL SHOULD FLOW FROM SMALL HOLE, PUNCHED IN SIDE OF OIL CAN 1/2 IN. FROM BOTTOM, IN 35 SECONDS. IF TIME REQUIRED IS GREATER THAN 35 SECONDS, REPLACE WICK ASSEMBLY.

10"

LITHO IN U.S.A. JULY 7, 1955

NOTE: DESTROY ABC BULLETIN #11 AND REPLACE WITH ABC BULLETIN #11-A.



McCULLOCH

Simplified

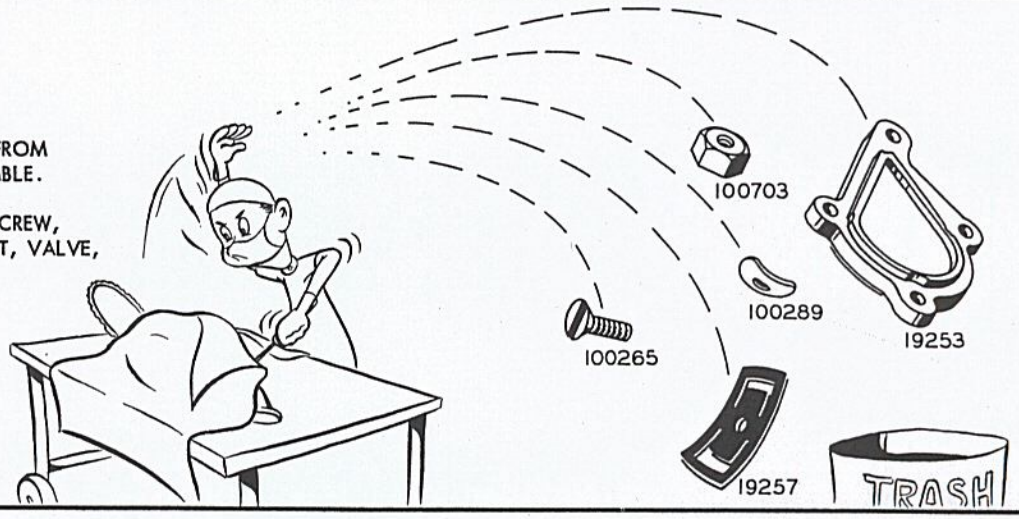
BULLETIN No. **11-A**

TO IMPROVE OPERATING EFFICIENCY OF FUEL PUMP

MODELS 47, 4-30A & 73

A

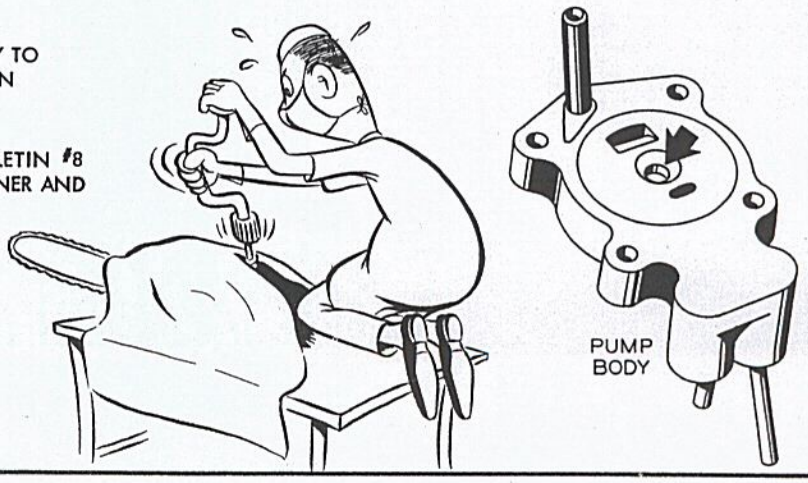
1. REMOVE FUEL PUMP FROM TANK AND DISASSEMBLE.
2. DISCARD INTERNAL SCREW, SPRING WASHER, NUT, VALVE, AND PUMP COVER.



B

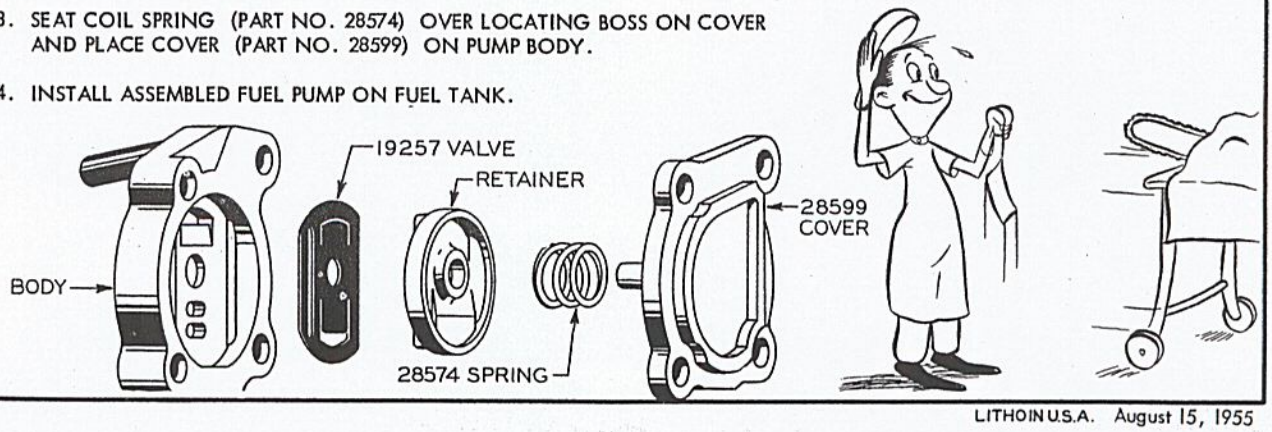
1. ENLARGE CENTER HOLE OF PUMP BODY TO .215 INCH (#3 DRILL). CENTER HOLE IN RETAINER SHOULD BE .201/.206 INCH.
2. FOLLOW INSTRUCTIONS IN A-B-C BULLETIN #8 AND REFINISH VALVE FACES ON RETAINER AND PUMP BODY.



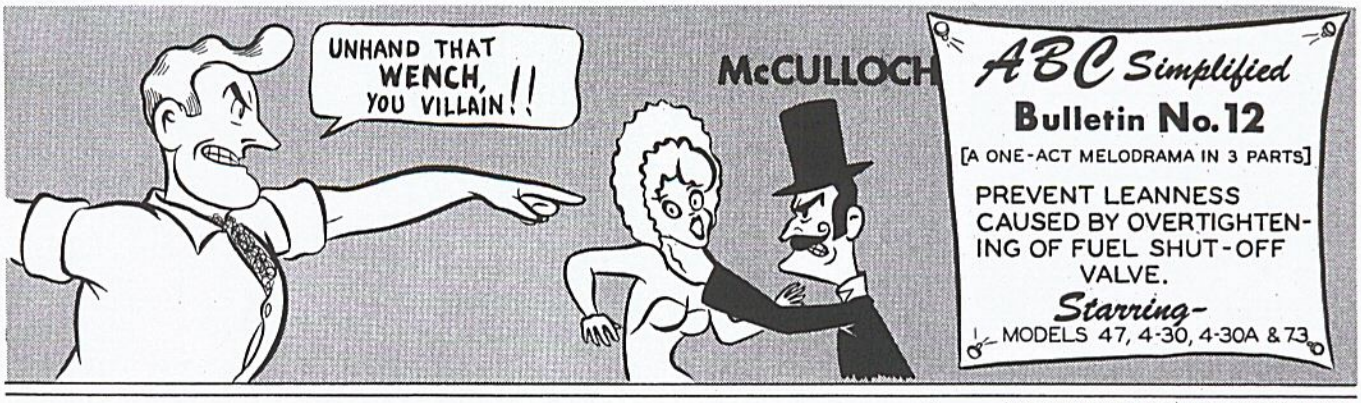


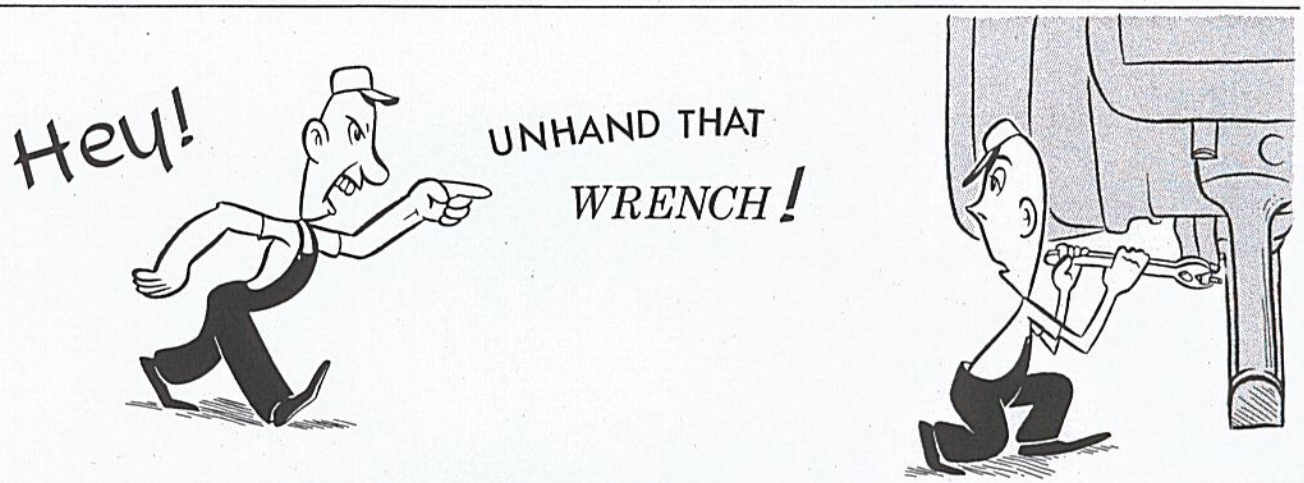
C

1. PLACE NEW VALVE (PART NO. 19257) ON RETAINER.
2. INSTALL VALVE AND RETAINER IN FUEL PUMP BODY.
3. SEAT COIL SPRING (PART NO. 28574) OVER LOCATING BOSS ON COVER AND PLACE COVER (PART NO. 28599) ON PUMP BODY.
4. INSTALL ASSEMBLED FUEL PUMP ON FUEL TANK.

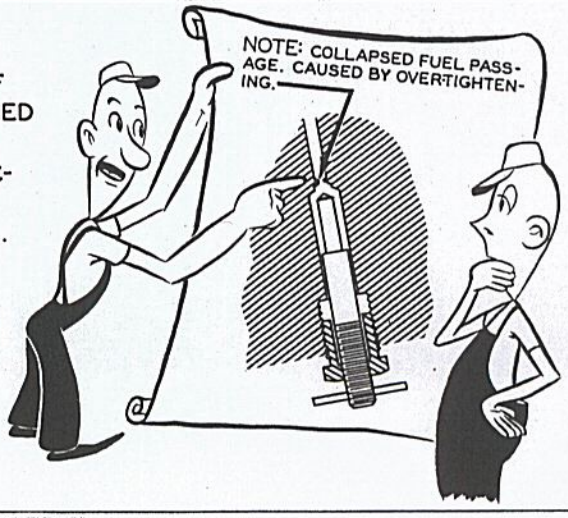


LITHO IN U.S.A. August 15, 1955





IF THE FUEL SHUT-OFF VALVE IS OVER-TIGHTENED IT CAN COLLAPSE THE FUEL PASSAGE – REDUCING IT IN SIZE TO LESS THAN .093" DIAMETER...



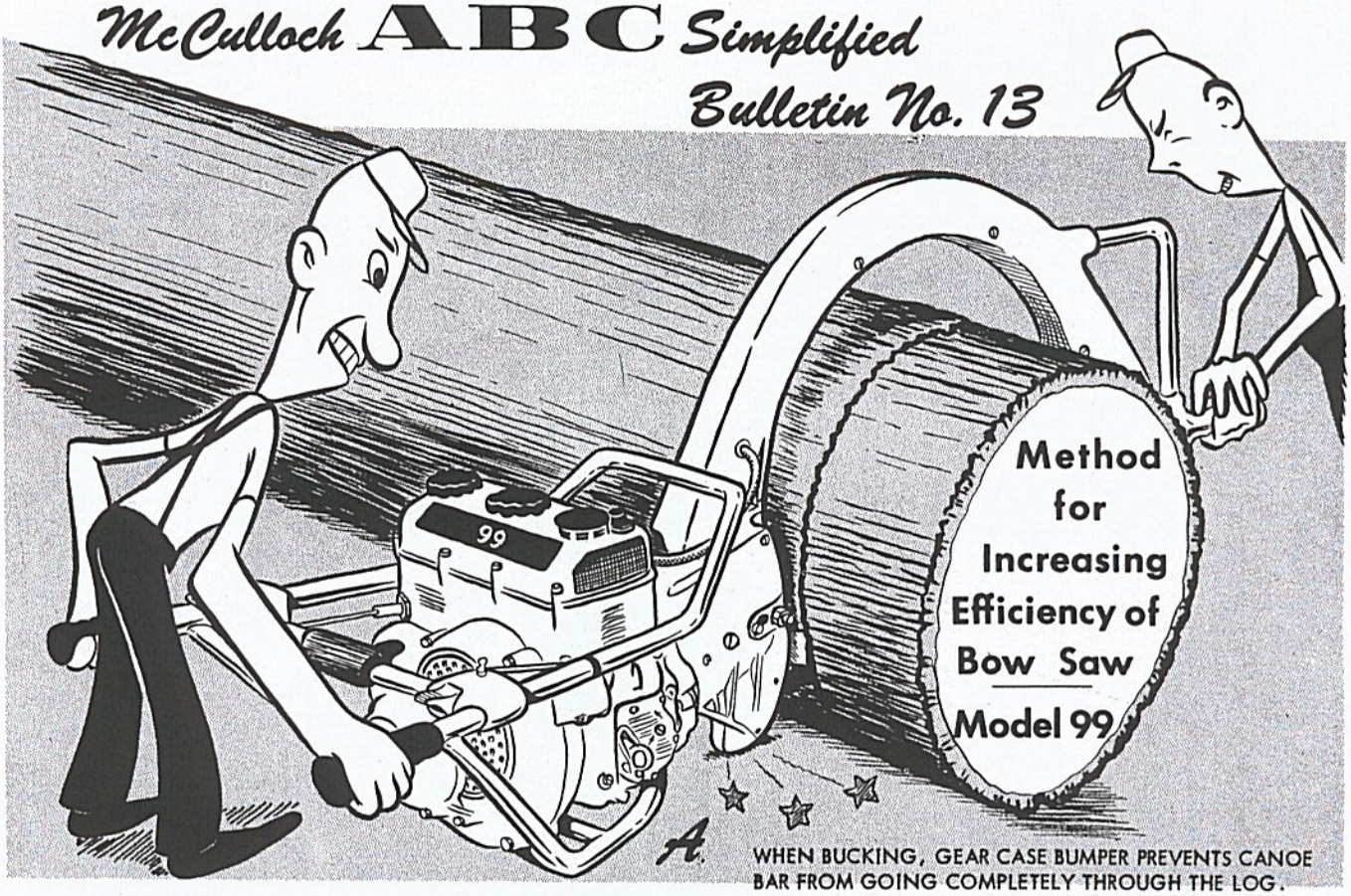
...AND THAT WILL CAUSE THE ENGINE TO RUN LEAN?



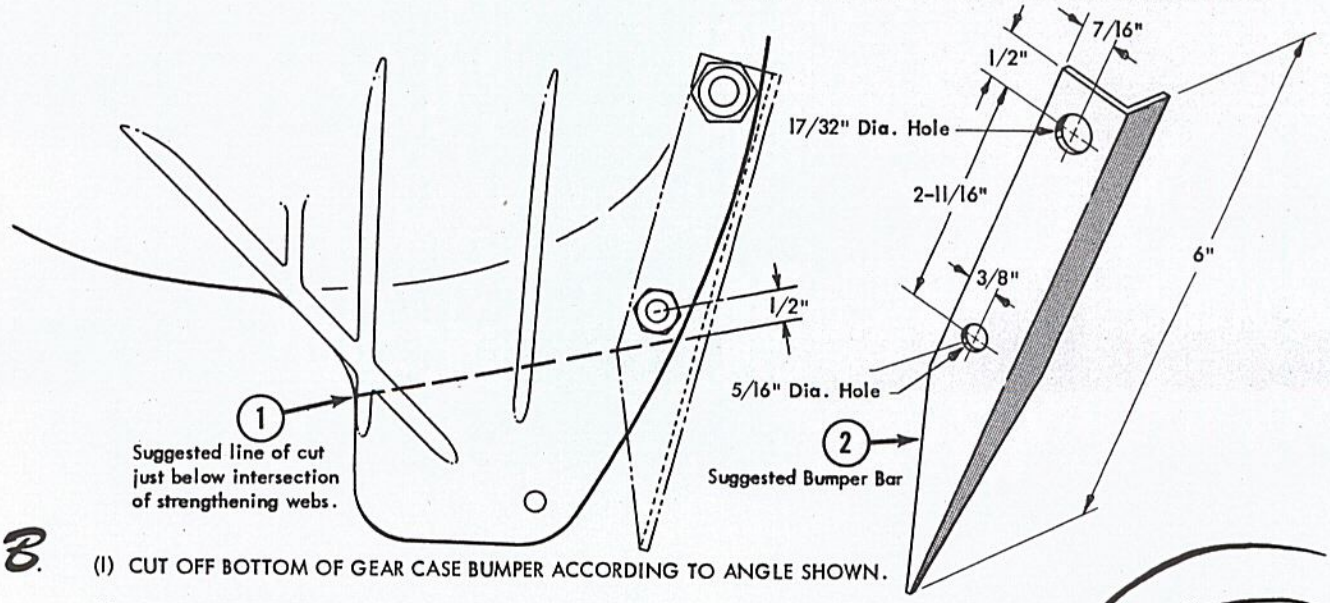
LITHO IN U.S.A. AUG. 5, 1955

McCulloch ABC Simplified

Bulletin No. 13

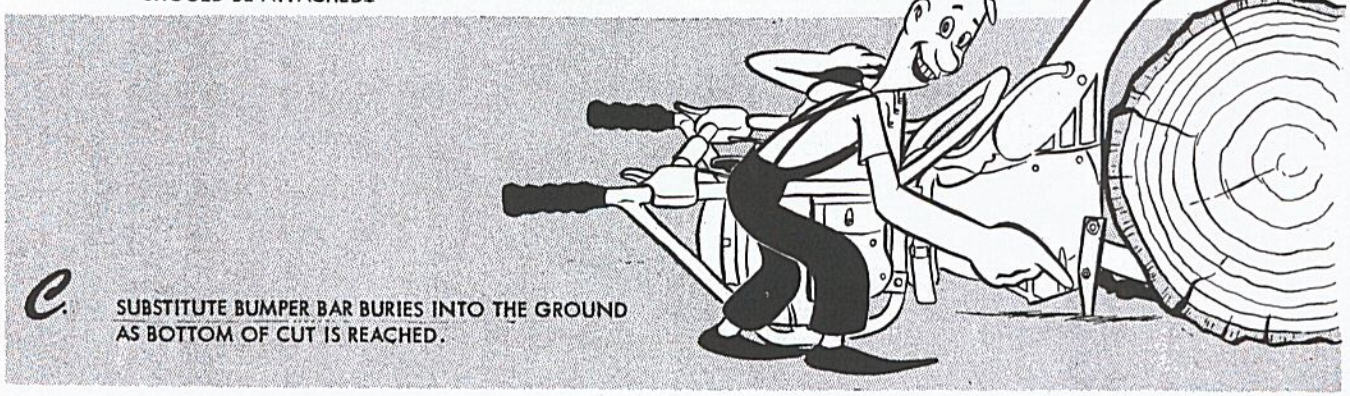


A. WHEN BUCKING, GEAR CASE BUMPER PREVENTS CANOE BAR FROM GOING COMPLETELY THROUGH THE LOG.



B. (1) CUT OFF BOTTOM OF GEAR CASE BUMPER ACCORDING TO ANGLE SHOWN.

(2) A POINTED 6 INCH BUMPER BAR WHICH CAN BE MADE OF 1 INCH ANGLE SHOULD BE ATTACHED±



C. SUBSTITUTE BUMPER BAR BURIES INTO THE GROUND AS BOTTOM OF CUT IS REACHED.

Litho in U.S.A. August 18, 1955

McCulloch's *Simply Electrifying*

ABC's BULLETIN NO. 14

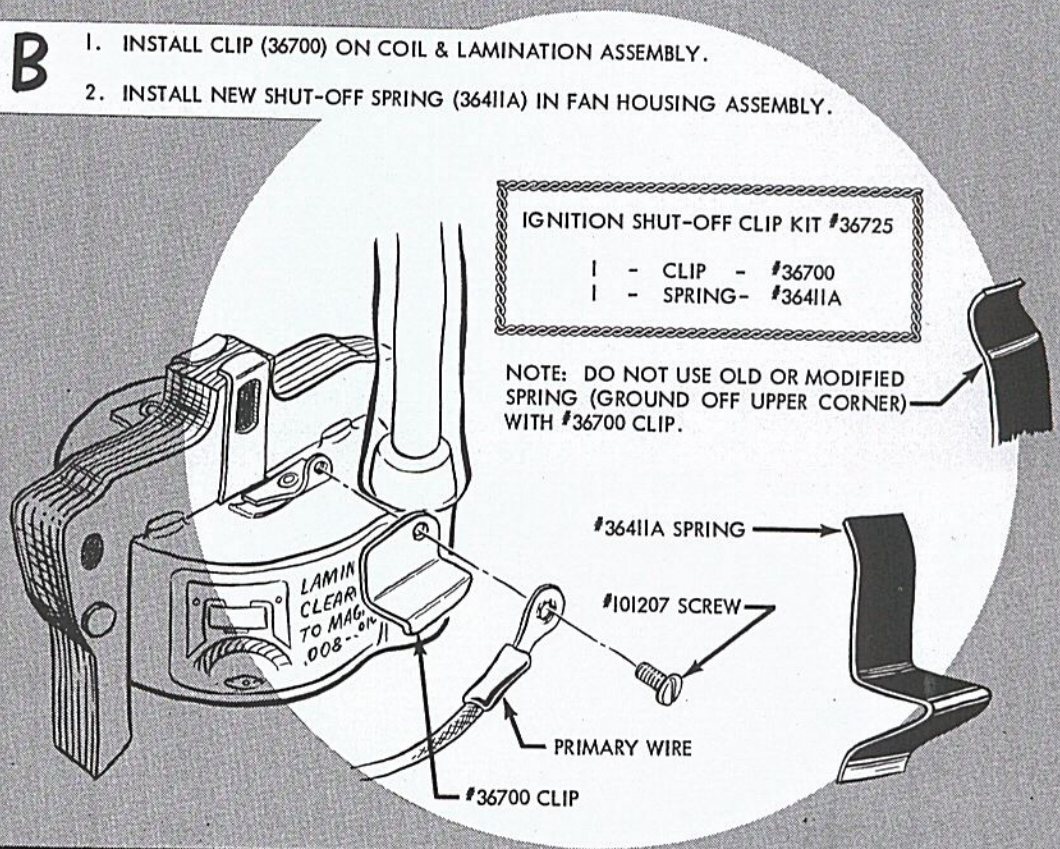
IGNITION SHUT-OFF CLIP KIT FOR POSITIVE IGNITION SHUT-OFF – MODELS 33-B AND S-33.

A

1. REMOVE FAN HOUSING ASSEMBLY FROM ENGINE.
2. REMOVE OLD SHUT-OFF SPRING FROM HOUSING ASSEMBLY.

B

1. INSTALL CLIP (36700) ON COIL & LAMINATION ASSEMBLY.
2. INSTALL NEW SHUT-OFF SPRING (36411A) IN FAN HOUSING ASSEMBLY.



C

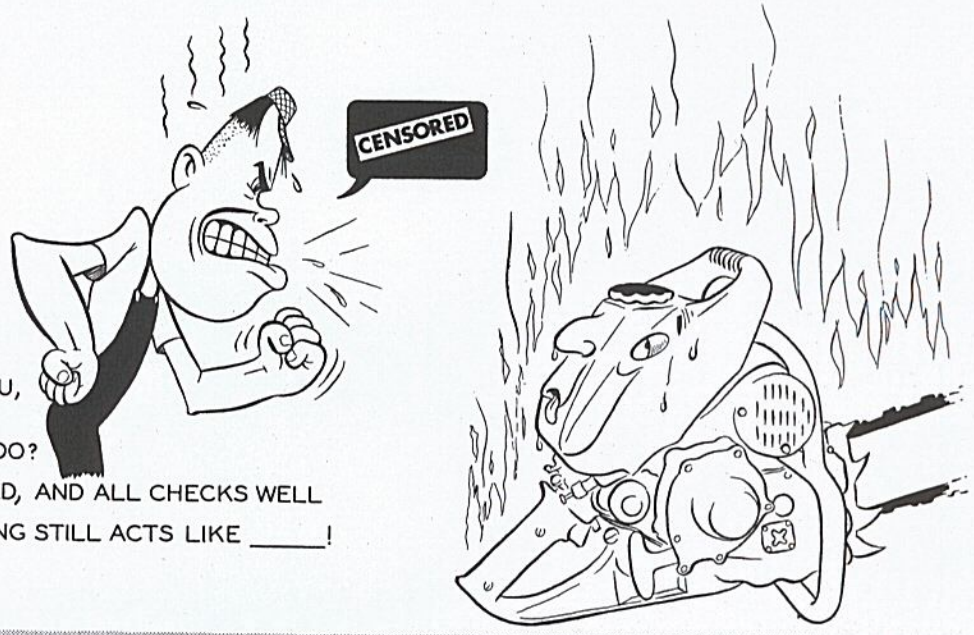
REASSEMBLE FAN HOUSING ASSEMBLY TO ENGINE.

Litho in U.S.A. August 25, 1955

McCULLOCH

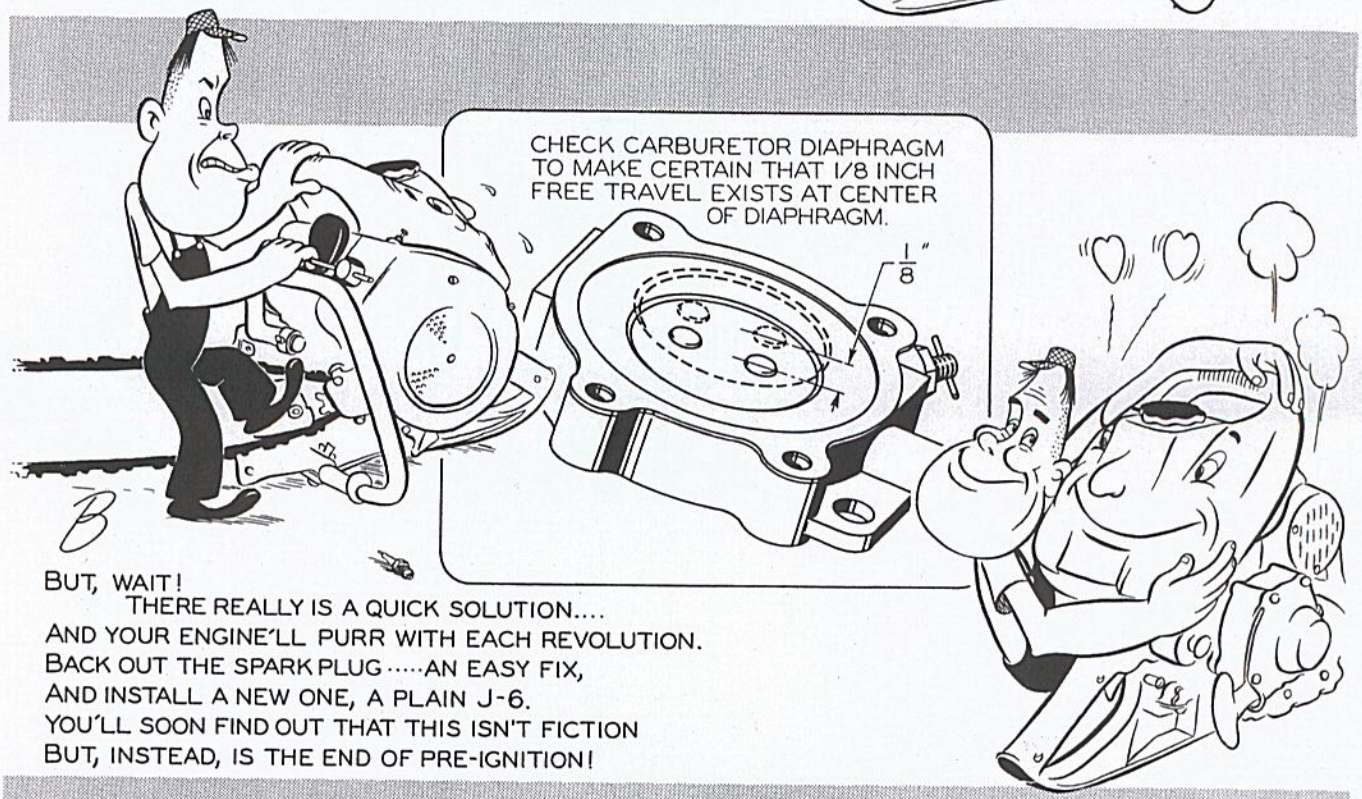
Simplified ABC **bulletin no. 15**

Change type of spark plug to combat "lean" operation - All models



A

THE ENGINE'S HOT.....
AND SO ARE YOU,
IT'S "LEANING OUT,"
NOW, WHAT TO DO?
THE PUMP'S BEEN CHANGED, AND ALL CHECKS WELL
BUT THE GOL-DANGED THING STILL ACTS LIKE _____!



B

BUT, WAIT!
THERE REALLY IS A QUICK SOLUTION....
AND YOUR ENGINE'LL PURR WITH EACH REVOLUTION.
BACK OUT THE SPARK PLUG .....AN EASY FIX,
AND INSTALL A NEW ONE, A PLAIN J-6.
YOU'LL SOON FIND OUT THAT THIS ISN'T FICTION
BUT, INSTEAD, IS THE END OF PRE-IGNITION!

C

EFFECTIVE IMMEDIATELY, TO COMBAT PRE-IGNITION AND DETONATION THAT APPARENTLY APPEAR TO BE "LEAN" CARBURETION, REPLACE THE J-8J SPARK PLUG WITH A TYPE J-6 SPARK PLUG, OR EQUIVALENT. IN EXTREME CASES, WHERE SAW ENGINE IS OPERATED IN HIGH TEMPERATURE AREAS, IT MAY BE NECESSARY TO USE A SPARK PLUG OF STILL COLDER RANGE: J-3, K-3, J-2, OR HO-3. (SEE SERVICE BULLETIN NO. 230.)

LITHO IN U.S.A. SEPT. 6, 1955

McCULLOCH SIMPLIFIED

ABC BULLETIN Nº 16

To prevent shearing of Idler Shaft retaining screws — Model 73 —

(FOR MODEL 73 ENGINES PRIOR TO SERIAL 2025)



A

REMOVE:

STARTER ASSEMBLY (#19550)

CLUTCH ASSEMBLY (#19074)

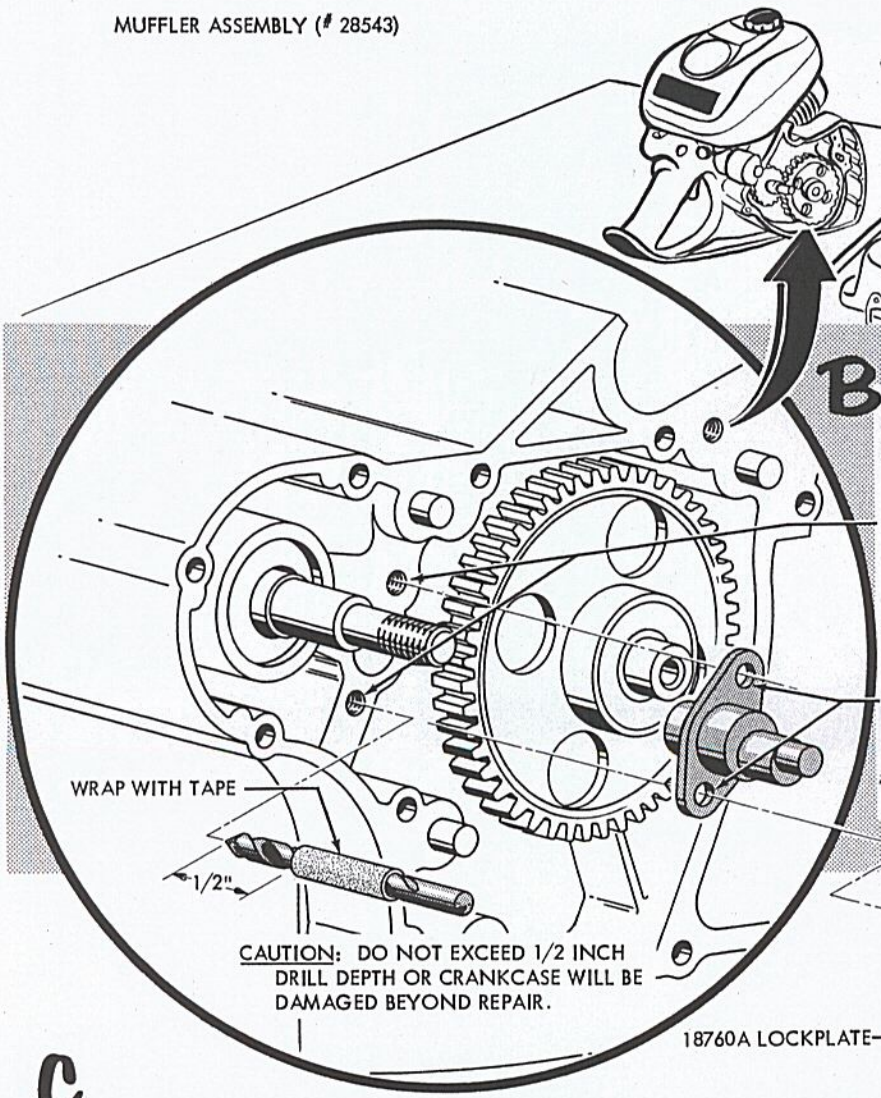
CLUTCH DRUM & PINION ASSEMBLY

MUFFLER ASSEMBLY (# 28543)

GEAR CASE ASSEMBLY (#28046)

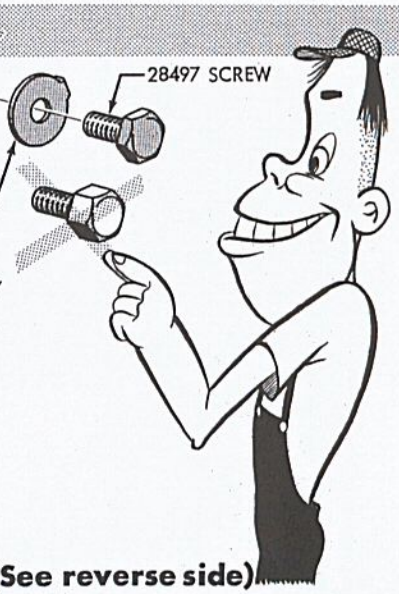
SHAFT SUPPORT PLATE (#28534)

HANDLE BAR ASSEMBLY (#28561)



B

1. REMOVE IDLER GEAR (#28006A).
2. REMOVE IDLER GEAR SHAFT RETAINING SCREWS (2) #102499 AND DISCARD.
3. DRILL OUT IDLER GEAR SHAFT RETAINING SCREW HOLES (2) IN CRANKCASE, USING #7 DRILL.
4. TAP ENLARGED HOLES WITH 1/4-20 TAP THREAD.
5. ENLARGE RETAINING SCREW HOLES IN IDLER GEAR SHAFT SEAT TO 1/4 INCH.
6. BLOW OR WIPE ALL DRILL CHIPS FROM GEAR ENCLOSURE.



C

1. INSTALL IDLER GEAR SHAFT, USING SPECIAL 1/4-20 x 1/2 INCH SCREWS, PART NUMBER 28497. NOTE: DO NOT USE STOCK 1/4-20 x 1/2 INCH SCREWS AS THE THICK HEADS WILL CAUSE INTERFERENCE WITH THE IDLER GEAR. ALSO, DO NOT FAIL TO INSTALL LOCKPLATES, #18760A, UNDER SCREWS.
2. INSTALL IDLER GEAR.
3. INSTALL COMPONENTS REMOVED IN STEP A.
4. FILL TRANSMISSION WITH LUBRICANT TO SPECIFICATIONS.

(See reverse side)

Litho in U.S.A. Sept. 8, 1955

NOTE 1

The work procedures outlined in ABC Bulletin #16 apply only to Model 73 engines bearing serial numbers prior to #2025. (All Model 73 engines of later manufacture, serial number 2025 and up, will have the 1/4"-20 idler gear shaft retaining screws, #28497, installed.)

It is Factory recommendation that all Model 73 engines of early serial number be modified in accordance with the procedures of ABC Bulletin #16 at the earliest possible date.

NOTE 2

Also, to avoid possible engine damage resulting from a loose, or free retaining ring (Piston Assembly), the following check should be made.

1. Remove muffler assembly.

2. Rotate crankshaft until wrist pin appears at center opening of exhaust port.

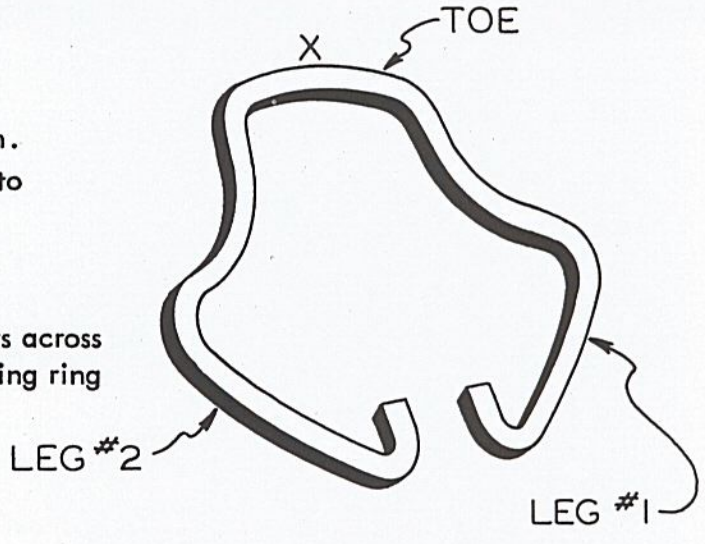
3. Insert finger through center exhaust port opening and test condition of retaining ring by attempting to rotate ring in its seat. If possible to rotate ring, the engine should be torn down and both retaining rings replaced.

When replacing retaining rings, use only rings of late manufacture, available from the factory. These retaining rings, although identical in size and appearance, are processed from material of improved chemical structure, and are held to more exacting tolerances during manufacturing procedures.

4. Install new retaining rings (#28597) as follows:

   a. Insert toe of ring into keeper-groove of piston.
   b. Hold ring in place, and use long-nose pliers to install Leg #1 in groove.
   c. Install Leg #2 in keeper-groove.

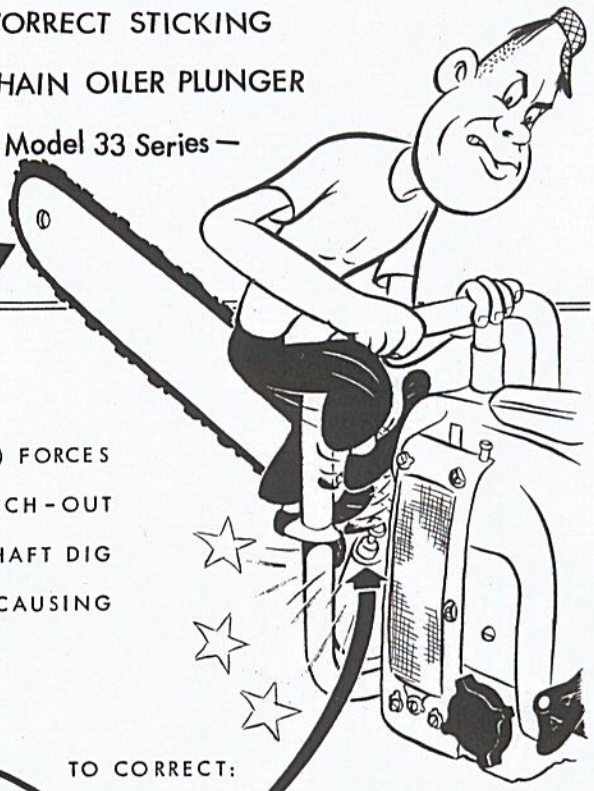
CAUTION: Do not apply crimping action with pliers across legs of retaining ring. To do so will result in fracturing ring at point "X" of toe.



McCULLOCH *Simplified* ABC BULLETIN No. 17

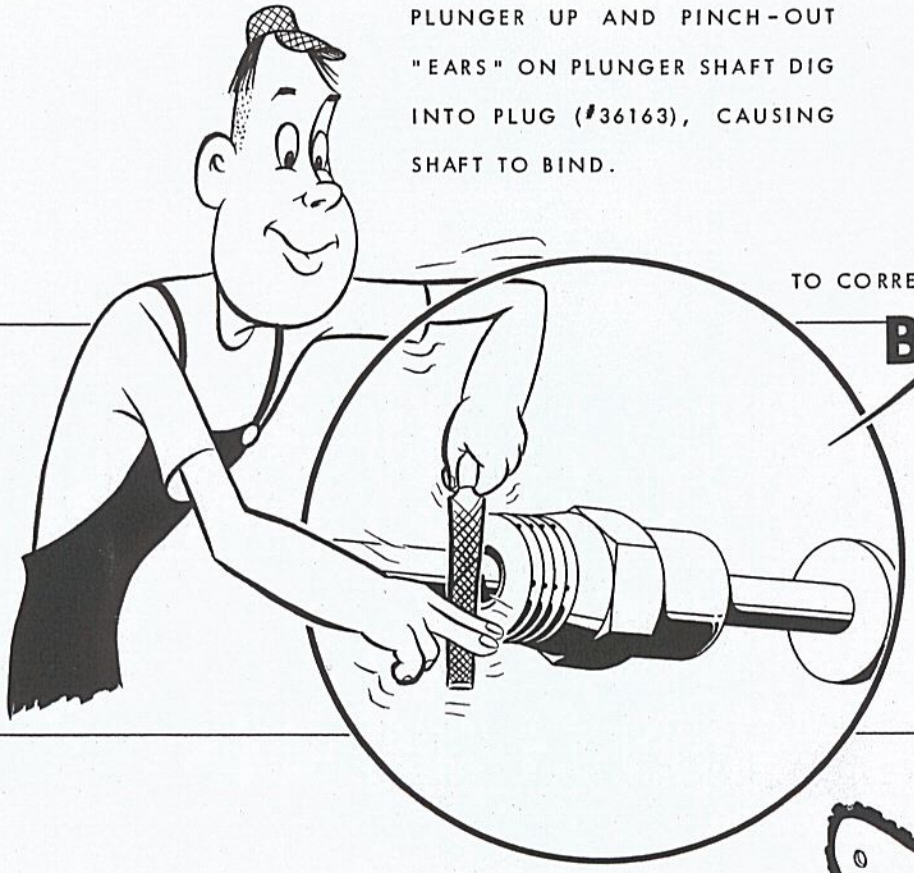
TO CORRECT STICKING OF CHAIN OILER PLUNGER

— Model 33 Series —



A CAUSE OF PLUNGER STICKING:

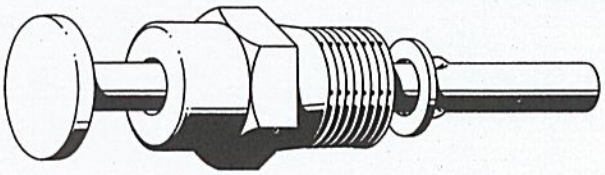
RETURN SPRING (#19236) FORCES PLUNGER UP AND PINCH-OUT "EARS" ON PLUNGER SHAFT DIG INTO PLUG (#36163), CAUSING SHAFT TO BIND.

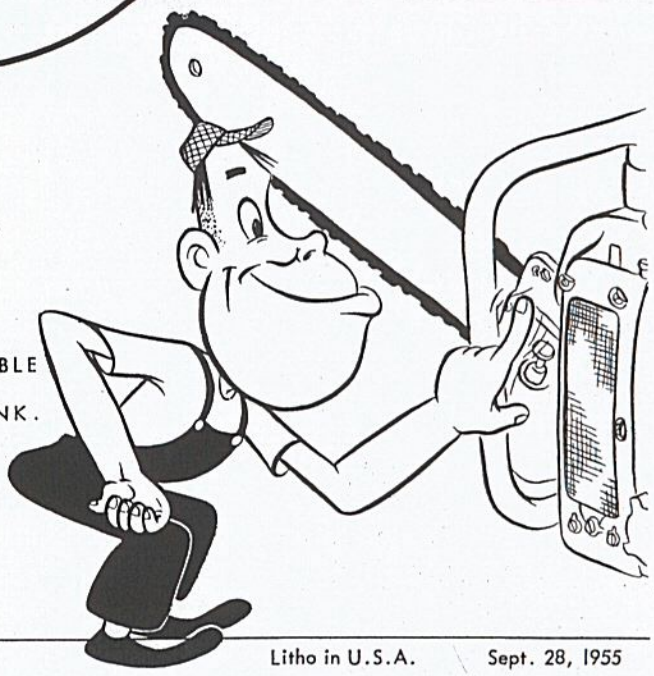


TO CORRECT:

B

1. REMOVE PLUNGER AND PLUG ASSEMBLY (36172) FROM OIL TANK.
2. FILE, OR GRIND OFF PINCH-OUT "EARS".
3. INSTALL FLAT WASHER (#102189) ON SHAFT.





C PINCH OUT PLUNGER SHAFT AND REASSEMBLE PLUNGER AND PLUG ASSEMBLY IN OIL TANK.

NOTE: SEE "ABC BULLETIN" No. 9 FOR PINCH-OUT INSTRUCTIONS.

Litho in U.S.A. Sept. 28, 1955

McCulloch

ABC bulletin No. 18





A

STANDARD CHAIN LENGTHS, IN SOME CASES, ARE TOO SHORT FOR THE NEW McCULLOCH CONTOUR BLADE. CHAIN LENGTHS AFFECTED ARE:

B

WITH 7-TOOTH SPROCKET		
MODEL	McCULLOCH CHAIN - BAR LENGTH	OREGON CHAIN BAR LENGTH
33	16 INCH	16 INCH
33	20 INCH	20 INCH
33	26 INCH	26 INCH
33	30 INCH	30 INCH
47 & 4-30A	30 INCH	

WITH 6-TOOTH SPROCKET		
MODEL	McCULLOCH CHAIN - BAR LENGTH	OREGON CHAIN BAR LENGTH
33	20 INCH	

C

TO COMPENSATE FOR SHORT CHAIN - ADD TWO (2) MASTER LINKS AND ONE (1) DRIVE LINK AS SHOWN.



EXTRA MASTER LINKS AND DRIVE LINKS FOR CHAINS AFFECTED CAN BE OBTAINED FROM YOUR DISTRIBUTOR AT NO CHARGE.

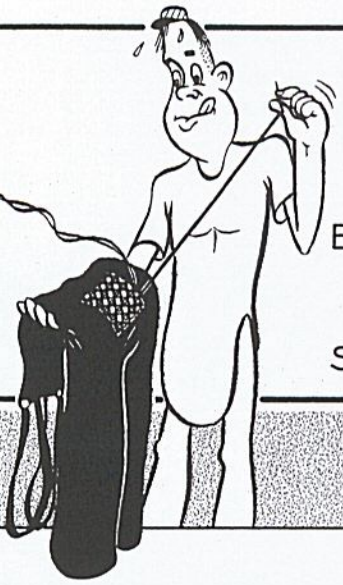
Litho in U.S.A. Dec. 13, 1955

McCULLOCH

BULLETIN NO. 19

INSTALLATION OF NEW BALL CHECK SEAT

MODELS SUPER 33 & 33B

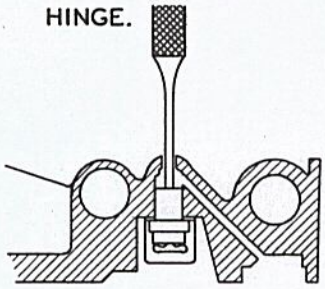


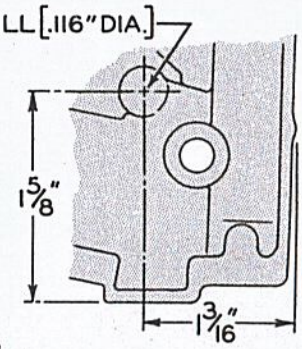
A

1. REMOVE CARBURETOR FROM ENGINE.
2. DISASSEMBLE REED VALVE GUARD, REED VALVE, DIAPHRAGM ASSEMBLY, LEVER, AND CHECK BALL FROM BACK SIDE OF CARBURETOR.
3. MASK OFF FACE OF CARBURETOR TO PREVENT ENTRY OF DRILL CHIPS INTO PASSAGES.
4. DRILL AS SHOWN IN "B", USING Nº 32 DRILL [.116"DIA.]

B

1. DRILL WITH Nº 32 DRILL [.116" DIA.]
2. USE FINE PIN-PUNCH AND DRIVE OUT OLD CHECK BALL SEAT AND HINGE.

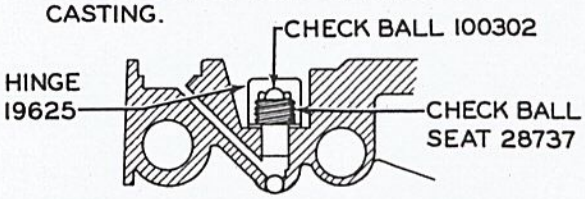




3. BLOW OUT METAL DUST AND CHIPS.
4. CAREFULLY DRIVE OLD CHECK BALL [.125" DIA.] INTO DRILLED HOLE TO SEAL OFF HOLE.



5. PRESS NEW CHECK BALL SEAT [28737] INTO PLACE. HINGE MUST BE IN PLACE, AND SEAT SHOULD BE PRESSED IN UNTIL THE SHOULDER BOTTOMS ON HINGE AND CASTING.

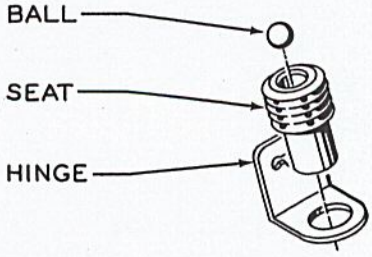


NOTE: THREADS ON CHECK BALL SEAT ACCOMODATE SPECIAL PULLER, PART Nº 36851, AVAILABLE FROM THE FACTORY.

C

REASSEMBLE COMPONENTS TO CARBURETOR AND INSTALL CARBURETOR ON ENGINE.

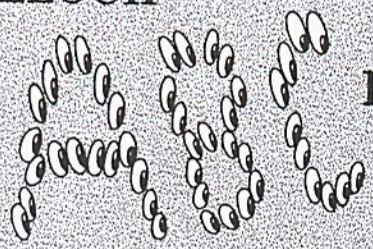
FOR BEST RESULTS, INSTALL BOTH A NEW HINGE [19625] AND A NEW CHECK BALL [100302] WHEN INSTALLING A NEW CHECK BALL SEAT.



Litho in U.S.A. Jan. 24, 1956

McCULLOCH

BULLETIN #20





INSTALLATION OF NEW CHECK BALL SEAT

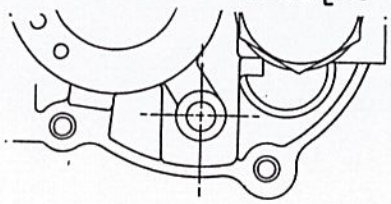
MODEL: 4-30, 4-30A, 47 & 73

A

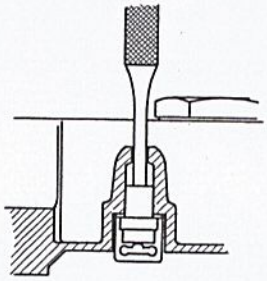
1. REMOVE DIAPHRAGM CHAMBER FROM ENGINE.
2. DISASSEMBLE SEDIMENT BOWL, SCREEN ASSEMBLY, DIAPHRAGM ASSEMBLY, LEVER AND CHECK BALL.
3. DRILL AS SHOWN IN "B", USING Nº 32 DRILL [.116" DIAMETER].

B

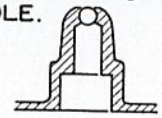
1. DRILL WITH Nº 32 DRILL [.116" DIA.].



2. USE FINE PIN-PUNCH AND DRIVE OUT OLD CHECK BALL SEAT AND HINGE.



3. BLOW OUT METAL DUST AND CHIPS.
4. CAREFULLY DRIVE OLD CHECK BALL [.125" DIA.] INTO DRILLED HOLE TO SEAL OFF HOLE.

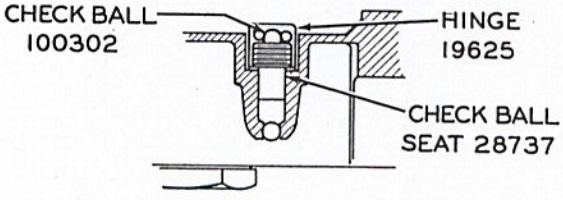


C

REASSEMBLE COMPONENTS TO CARBURETOR AND INSTALL CARBURETOR ON ENGINE.

FOR BEST RESULTS, INSTALL BOTH A NEW HINGE [19625] AND A NEW CHECK BALL [100302] WHEN INSTALLING A NEW CHECK BALL SEAT.

5. PRESS NEW CHECK BALL SEAT [28737] INTO PLACE. HINGE MUST BE IN PLACE, AND SEAT SHOULD BE PRESSED IN UNTIL SHOULDER BOTTOMS ON HINGE AND CASTING.



NOTE: THREADS ON CHECK BALL SEAT ACCOMODATE SPECIAL PULLER, PART Nº 36851, AVAILABLE FROM THE FACTORY.

Litho in U.S.A. Jan. 24, 1956

McCULLOCH

Installation of Idler Gear Assembly with Double Row Bearing

ABC SIMPLIFIED BULLETIN Nº 21

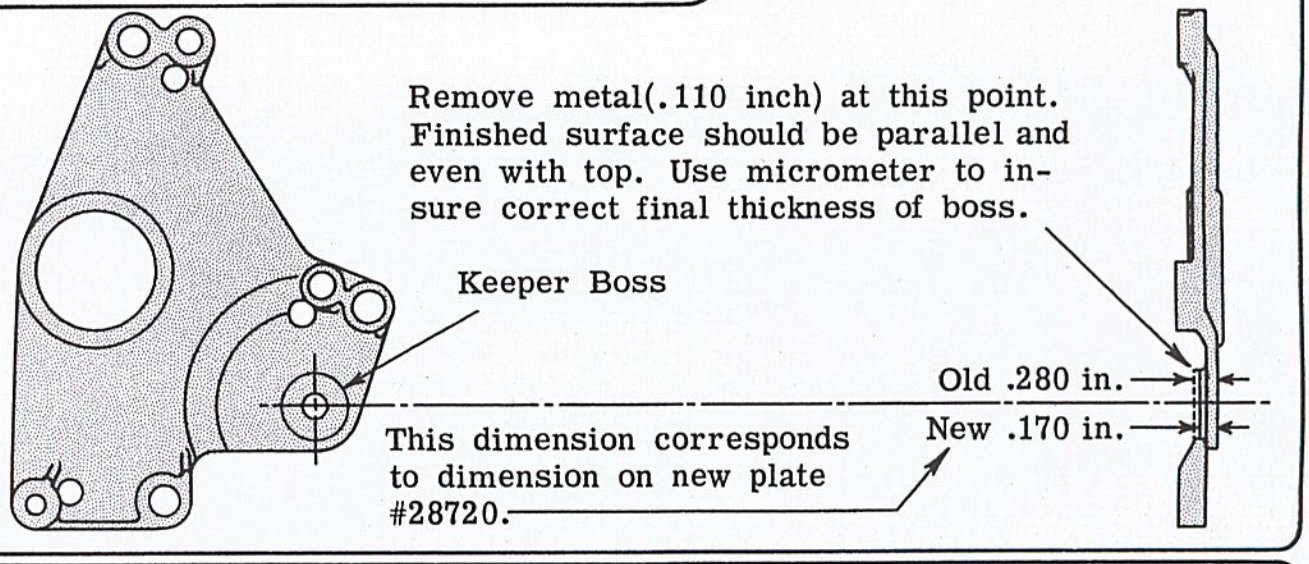
Model 73 (prior to Serial 73-5879)

A

1. Remove: Muffler, Frame Assembly, Starter and Clutch Assembly, and Gear Case Assembly.
2. Remove: Shaft Support Plate(#28534), Idler Gear Assembly(#28006A), and Idler Gear Shaft(#28535 modified or 28661).

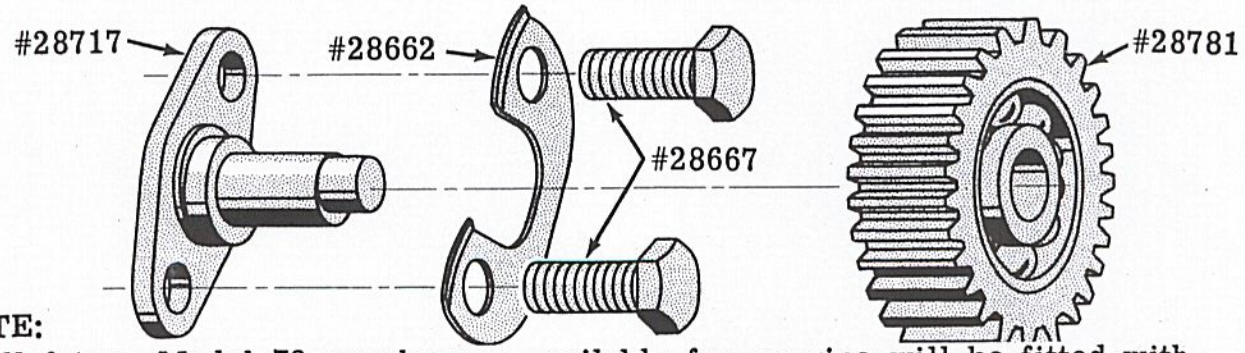
B

1. Modify Shaft Support Plate #28534(to accommodate thicker Idler Gear Assembly #28781) by grinding or filing keeper boss to dimension shown.



C

1. Install: Idler Gear Shaft #28717(NEW), Lockplate #28662(NEW), Retaining Screw #28667(NEW) (2 req'd).
2. Install: Idler Gear Assembly #28781(NEW-Double Row Bearing).
3. Assemble remaining components to engine.

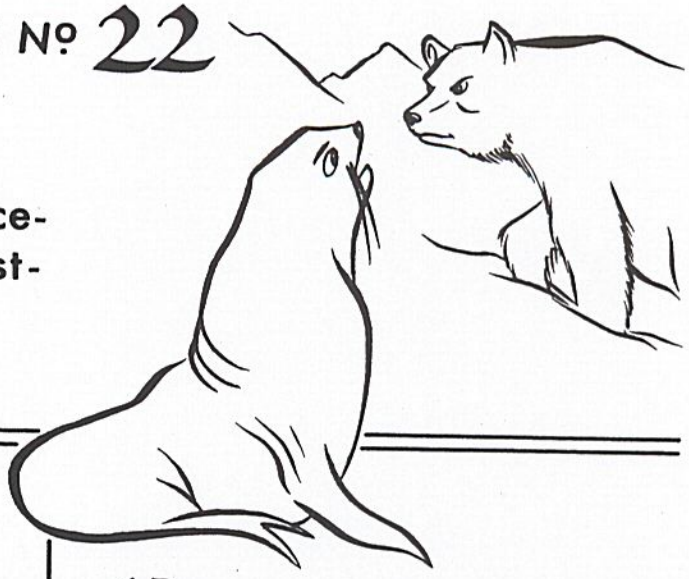


NOTE:
All future Model 73 crankcases available for service will be fitted with the new Idler Gear Shaft #28717, thereby necessitating the use of a new Idler Gear Assembly #28781 and a modified #28534 Shaft Support Plate.

LITHO IN U.S.A.

JAN 30 1956

McCULLOCH ABC BULLETIN No 22



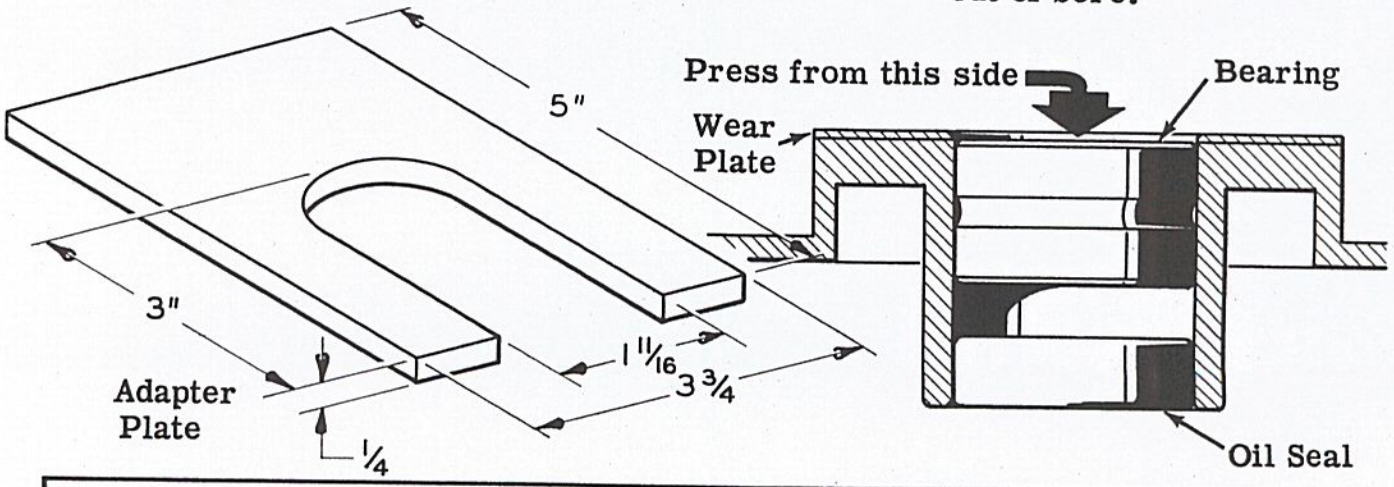
Bearing and Oil Seal replacement - - End Cover with cast-in Wear Plate.

A

1. Remove: frame assembly, fan housing, sawdust guard, flywheel, and venturi cover.
2. Disassemble breaker points and remove push rod.
3. Remove end cover assembly.

B

1. Heat end cover to approximately 180 degrees F. and position on special adapter plate on arbor press. Wear plate must be facing up.
2. Using bearing driver, press bearing and oil seal out of bore.



C

1. To install new bearing and oil seal: Heat end cover to approximately 180-200 degrees F.
2. Position cover on arbor press with wear plate facing "up" and use bearing driver to press bearing into bore. Bearing should be slightly below face of wear plate.
3. Reverse cover on arbor press and use bearing driver to press oil seal into bore boss. Use caution not to mar face of wear plate. NOTE: Oil seal must be installed with lip (and tension spring) down in bore.
4. Assemble all components removed from engine.

NOTE: If these procedures are not followed and the bearing is pressed out in reverse direction, the wear plate will be forced away from its seat in the narrow area around the bearing bore. As such damage cannot be repaired, replacement of the end cover assembly will be required.

Litho in U.S.A. January 31, 1956

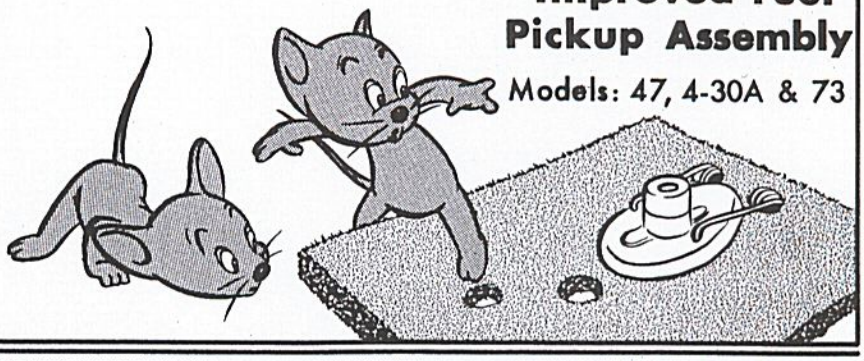
McCULLOCH

ABC SIMPLIFIED

BULLETIN Nº 23

Improved Fuel Pickup Assembly

Models: 47, 4-30A & 73

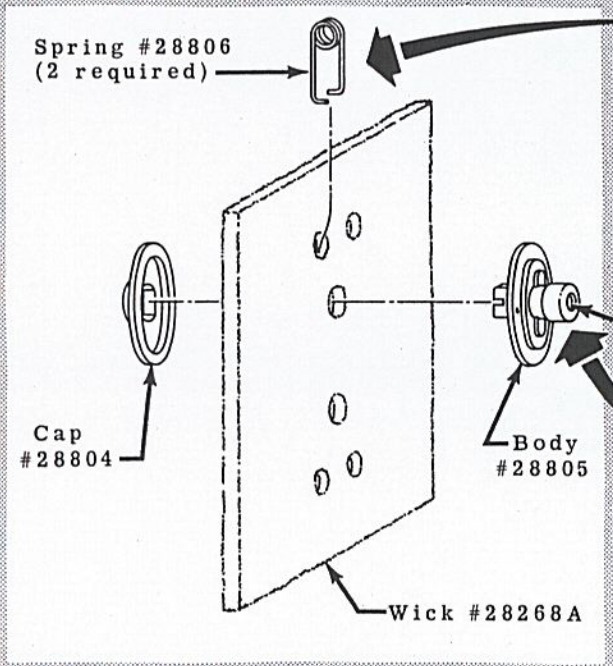


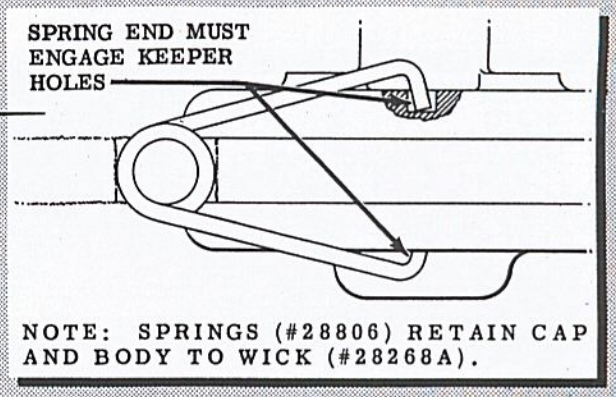
a

1. REMOVE FUEL TANK, FOLLOWING STANDARD PROCEDURES (Do not remove Fuel Pump).
2. SEPARATE TANK HALVES AND REMOVE FUEL PICKUP WICK ASSEMBLY.

b

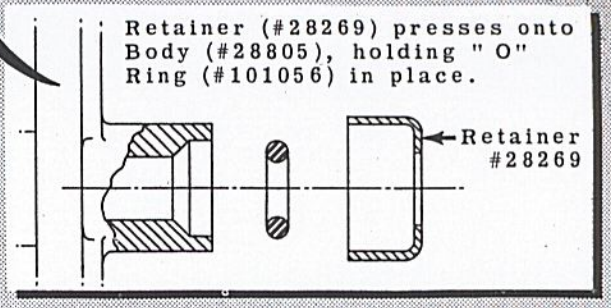
1. INSTALL NEW IMPROVED FUEL PICKUP WICK ASSEMBLY.





NOTE: SPRINGS (#28806) RETAIN CAP AND BODY TO WICK (#28268A).

" O" Ring #101056
(Inside retainer)



c

1. ASSEMBLE FUEL TANK AND INSTALL ON ENGINE.

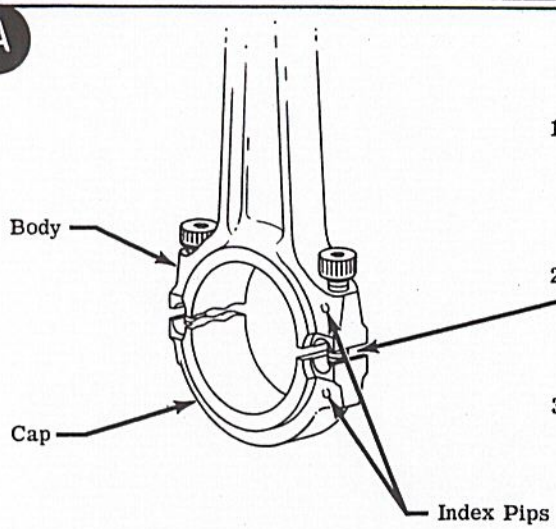
Litho in U.S.A. February 22, 1956

McCULLOCH

ABC BULLETIN No. 24

CONNECTING ROD INSTALLATION -ALL MODELS-

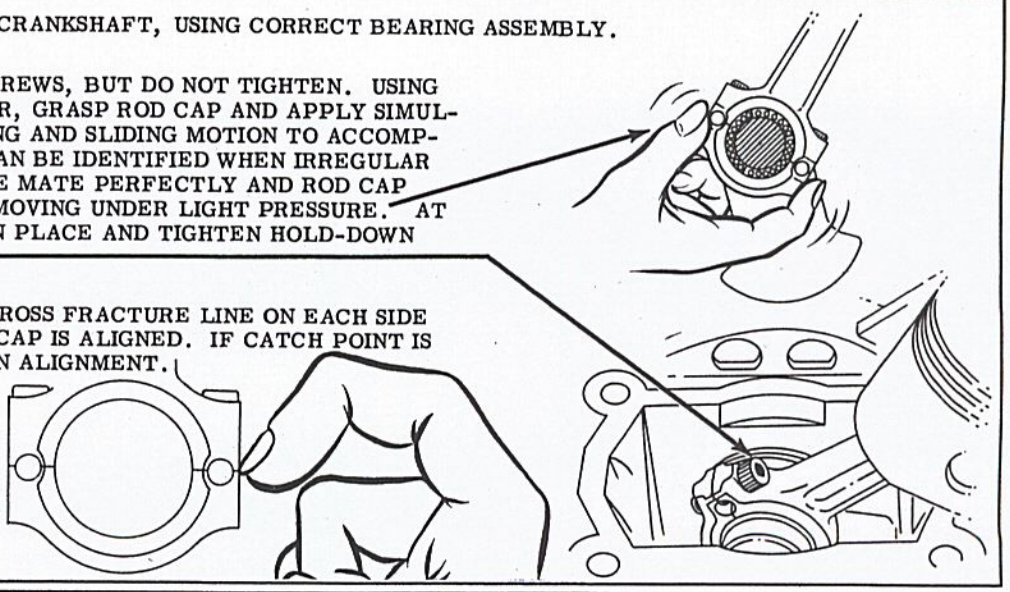
A



1. BEFORE INSTALLING, LOOSEN SCREWS UNTIL CAP IS SEPARATED FROM BODY APPROXIMATELY 1/8 - 3/16 INCH.
2. THOROUGHLY WASH FRACTURE MATING FACES IN CLEAN GASOLINE OR SOLVENT.
3. DRY ROD, USING COMPRESSED AIR.

B

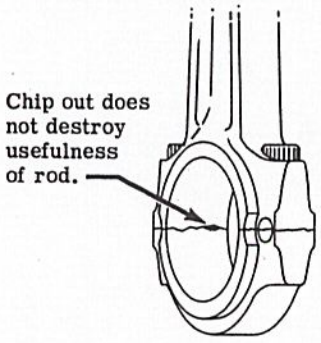
1. INSTALL ROD ON CRANKSHAFT, USING CORRECT BEARING ASSEMBLY.
2. INSTALL HOLD-DOWN SCREWS, BUT DO NOT TIGHTEN. USING THUMB AND FOREFINGER, GRASP ROD CAP AND APPLY SIMULTANEOUS LIGHT TWISTING AND SLIDING MOTION TO ACCOMPLISH FIT-UP. FIT-UP CAN BE IDENTIFIED WHEN IRREGULAR SURFACES OF FRACTURE MATE PERFECTLY AND ROD CAP SHOWS RESISTANCE TO MOVING UNDER LIGHT PRESSURE. AT THIS POINT HOLD CAP IN PLACE AND TIGHTEN HOLD-DOWN SCREWS FINGER TIGHT.
3. SCRAPE FINGERNAIL ACROSS FRACTURE LINE ON EACH SIDE OF ROD TO MAKE SURE CAP IS ALIGNED. IF CATCH POINT IS FELT, ROD CAP IS NOT IN ALIGNMENT.



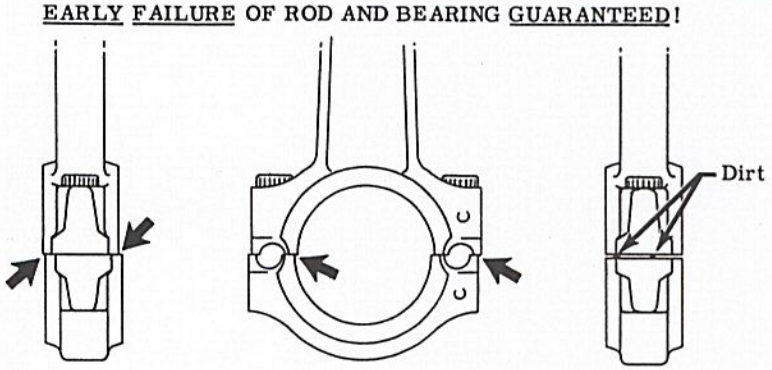
C

IF CAP IS ALIGNED, TORQUE HOLD-DOWN SCREWS TO 65-70 INCH/POUNDS. (SCREWS MUST BE TORQUED TO 65-70 INCH/POUNDS -- WITH MAXIMUM VARIANCE OF 5 INCH/POUNDS -- TO PREVENT I.D. DISTORTION RESULTING FROM EITHER OVER- OR UNDER-TIGHTENING.

THIS ROD O.K. TO USE



EARLY FAILURE OF ROD AND BEARING GUARANTEED!



Litho in U.S.A. March 1, 1956

McCULLOCH

ABC

BULLETIN #25



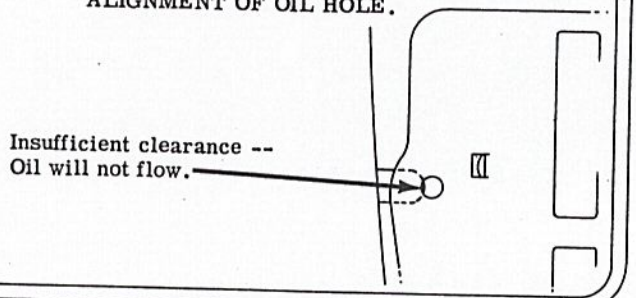
TO CORRECT OIL FLOW TO CUTTING CHAIN

Models: 47, 4-30A, and 73

NOTE: IN SUCH CASES WHERE THERE IS AN INSUFFICIENT FLOW OF OIL TO THE CUTTING CHAIN, CHECK FOR ALIGNMENT OF OIL HOLE IN PROTECTOR PLATE, #28066, AND OIL GROOVE IN BAR.

A

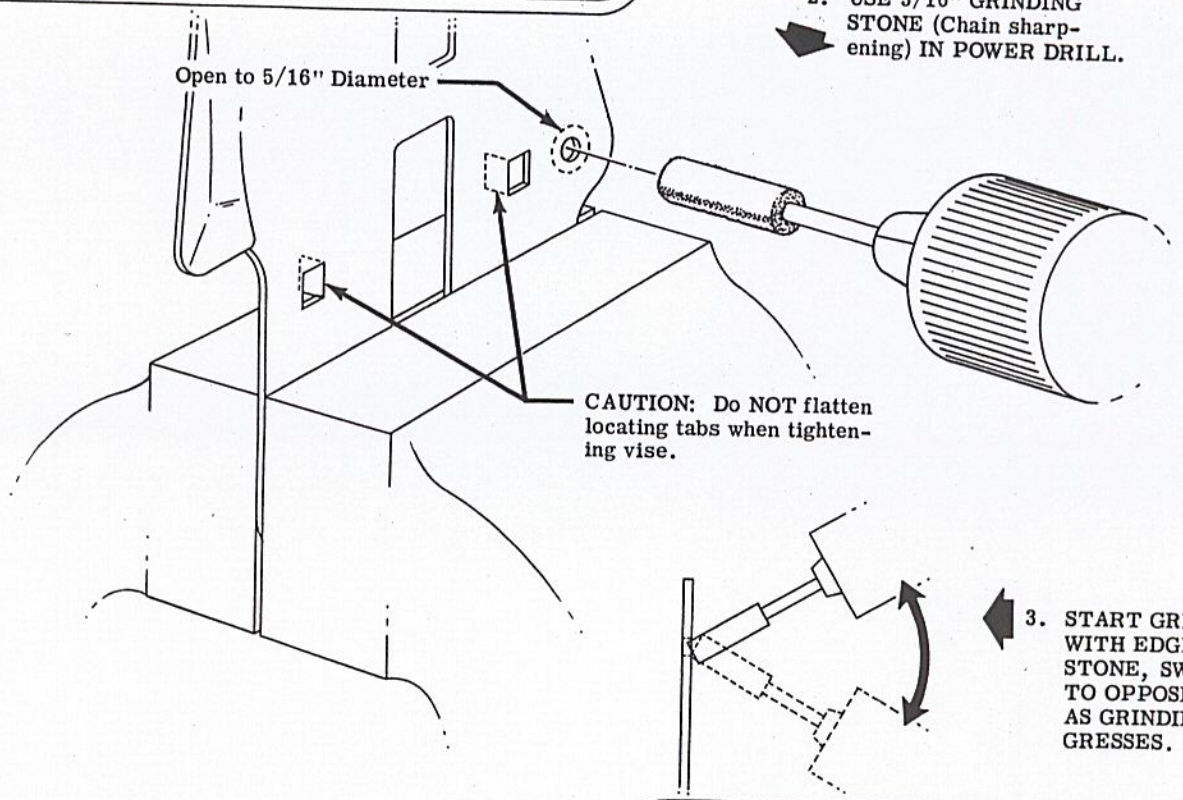
1. POSITION PROTECTOR ON BAR AND NOTE ALIGNMENT OF OIL HOLE.



B

1. ENLARGE OIL HOLE IN PROTECTOR PLATE TO 5/16" DIAMETER, USING ONE OF THE FOLLOWING METHODS. (a) AS PROTECTOR IS TOO HARD TO DRILL, ENLARGE OPENING THROUGH USE OF GRINDING STONE, AS ILLUSTRATED. (b) USE TORCH TO SOFTEN LOCAL AREA AROUND OIL HOLE; ENLARGE HOLE THROUGH USE OF ROUND CHAIN FILE.

2. USE 5/16" GRINDING STONE (Chain sharpening) IN POWER DRILL.



3. START GRINDING WITH EDGE OF STONE, SWINGING TO OPPOSITE SIDE AS GRINDING PROGRESSES.

4. REVERSE PROTECTOR IN VISE AND GRIND FROM OPPOSITE SIDE UNTIL HOLE IS FULLY OPENED.

5. DE-BURR EDGES OF HOLE ON BOTH SIDES OF PROTECTOR.

C

REASSEMBLE COMPONENTS TO ENGINE.

Litho in U.S.A. March 5, 1956

ABC simplified

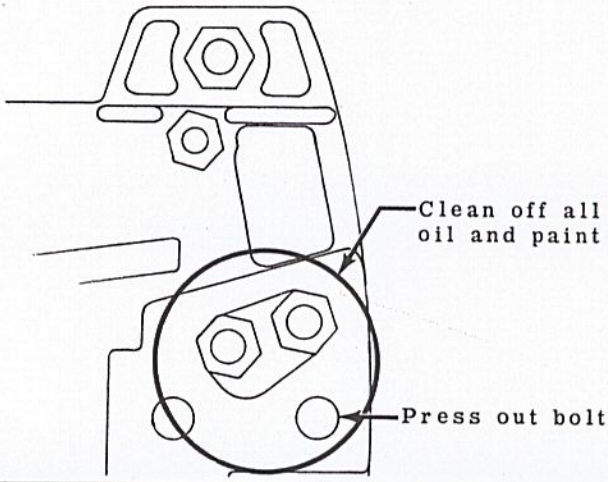
Bulletin No. 26



IMPROVED CHAIN OILING SYSTEM - Model 33 Series

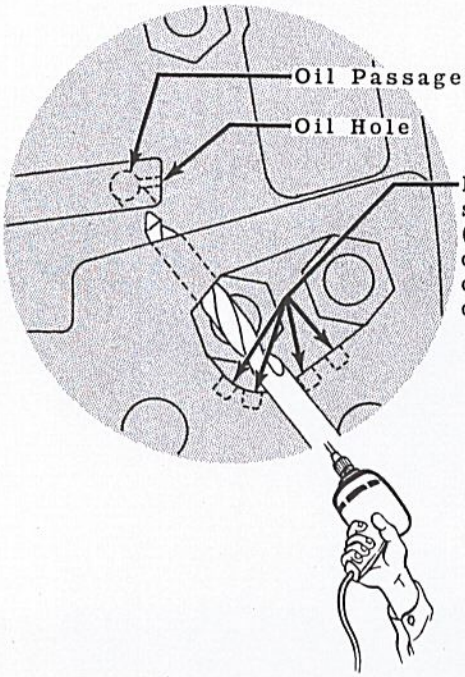
a...

1. REMOVE AND DISASSEMBLE TRANSMISSION.
2. PRESS OUT FRONT CHAIN BAR BOLT.
3. THOROUGHLY CLEAN OIL AND PAINT FROM AREA CIRCLED.

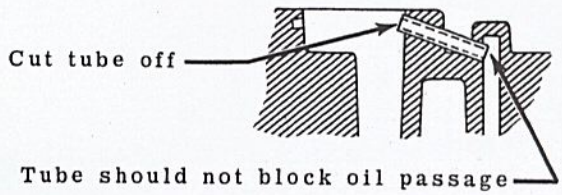


b...

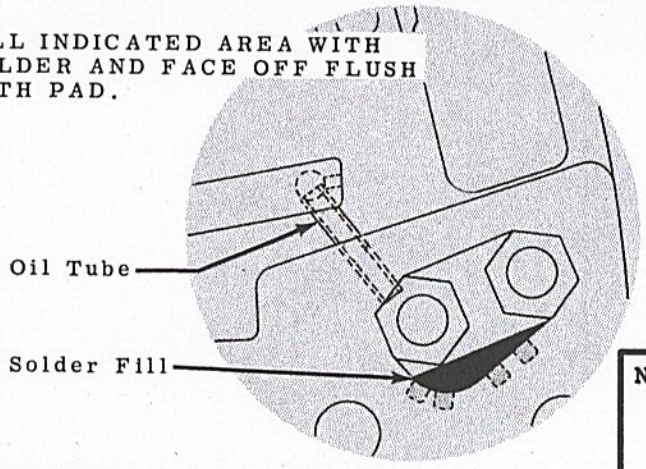
1. DRILL .152 INCH DIAMETER HOLE (#24 Drill) AS SHOWN. USE COMPRESSED AIR TO BLOW DRILL CHIPS OUT OF OIL PASSAGE.



2. AFTER DRILLING, PRESS #28069 TUBE INTO DRILLED HOLE.

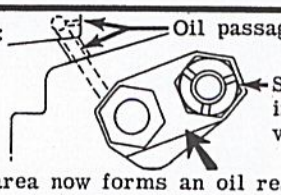


3. FILL INDICATED AREA WITH SOLDER AND FACE OFF FLUSH WITH PAD.



4. REASSEMBLE TRANSMISSION FOLLOWING STANDARD PROCEDURES.

NOTE:



This area now forms an oil reservoir to keep supply of oil at the chain. To prevent oil leaking, screw that holds spike must be in place and securely tightened whether or not spike is used.

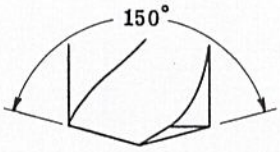
c...

INSTALL TRANSMISSION ON ENGINE.

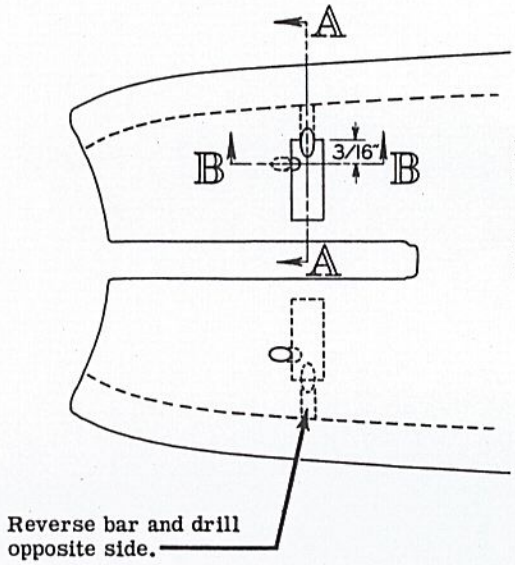
See reverse side for chain bar modification.

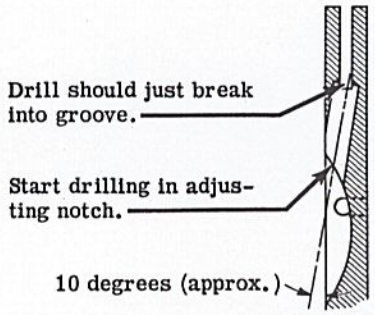
Bar Modification

1. Sharpen #34 drill to 150 degrees cutting angle.

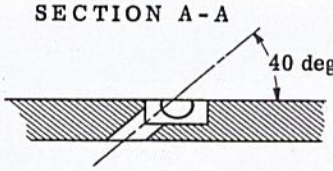


2. Drill bar as shown (4 holes required).



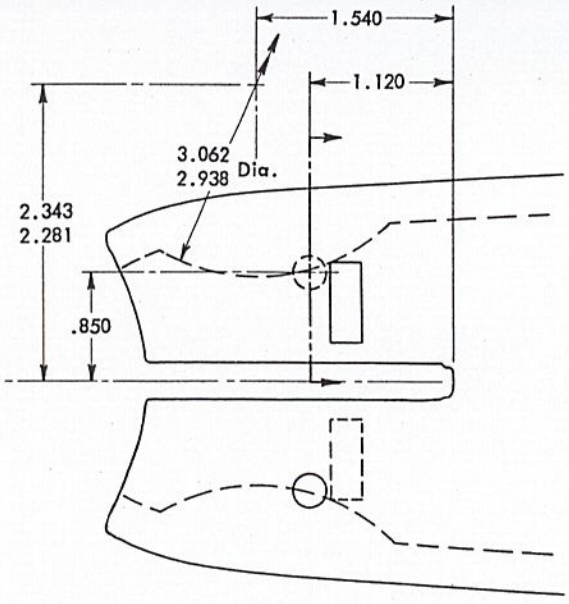


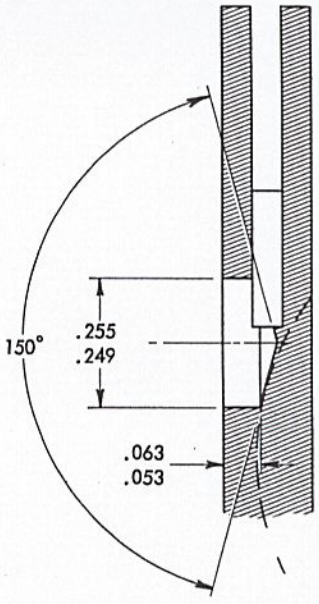
SECTION A-A



SECTION B-B

Bar Modification — Alternate Method





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ABC Simplified

BULLETIN #27

SHORTENING OF FUEL CAP CHAIN

---Models 47, 4-30A and 73---

Litho in U.S.A. March 28, 1956

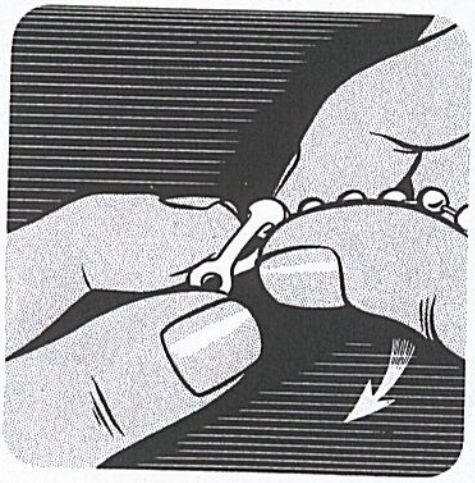
NOTE: When the improved "mousetrap" spring and fuel pickup assembly is used (refer to ABC Bulletin #23), the keeper chain of the fuel cap should be shortened to prevent the retainer from hooking into the springs.

a

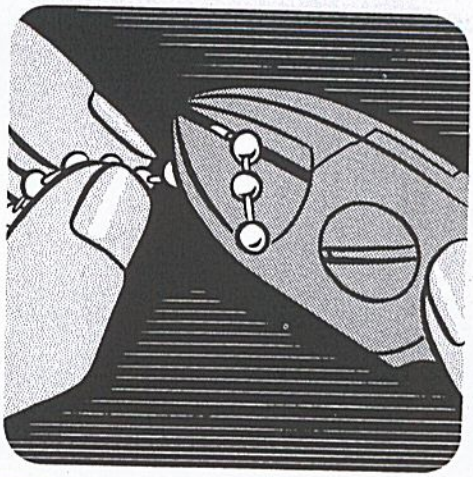
1. Unscrew fuel cap from tank.
2. Remove assembly of retainer, chain, and fuel cap from tank.

b

1. Unsnap retainer from chain.



2. Use diagonal cutters to cut link of chain, removing three (3) ball links.



3. Snap retainer back onto shortened chain. (This is reverse of Step 1.)

c

Reassemble fuel cap assembly to fuel tank.

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ABC

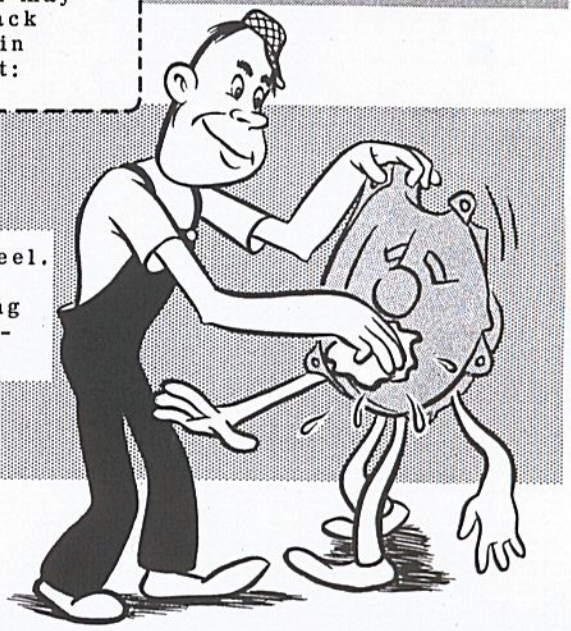
BULLETIN No. 28

PREVENTION OF AIR LEAK AND "LEANING-OUT"

- CRANKCASE END COVER -

Models 4-30A and 73

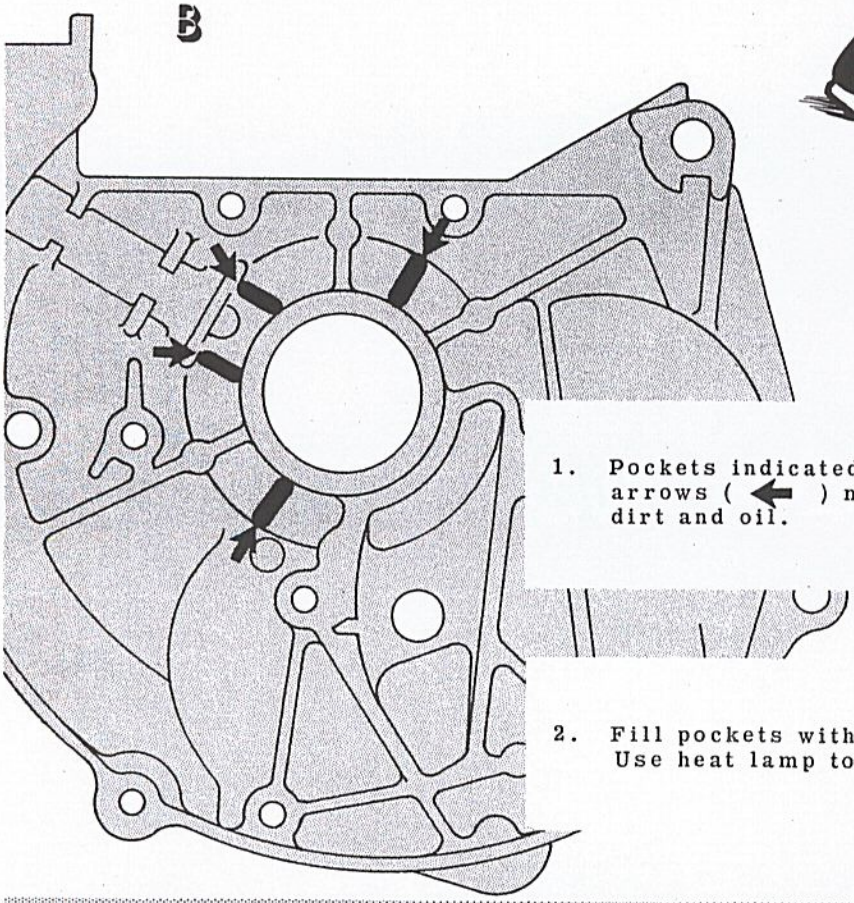
NOTE: It has been determined that an air leak may possibly develop between the end cover and back face of the cast-in wearplate, thus resulting in "leaning-out" of the fuel mixture. To correct:



A

1. Remove fan housing, sawdust guard, and flywheel.
2. Thoroughly wash face of end cover with cleaning solvent, making sure all grease and dirt is removed. Dry, using compressed air.

B



1. Pockets indicated by heavy black arrows (←) must be free of dirt and oil.
2. Fill pockets with Seal-All (or equivalent cement). Use heat lamp to speed set-up time of cement.

C

When cement is thoroughly dry, assemble flywheel, sawdust guard, and fan housing.

Litho in U.S.A. April 2, 1956

McCULLOCH

ABC

BULLETIN NO. 29

CORRECT INSTALLATION

OF CYLINDER

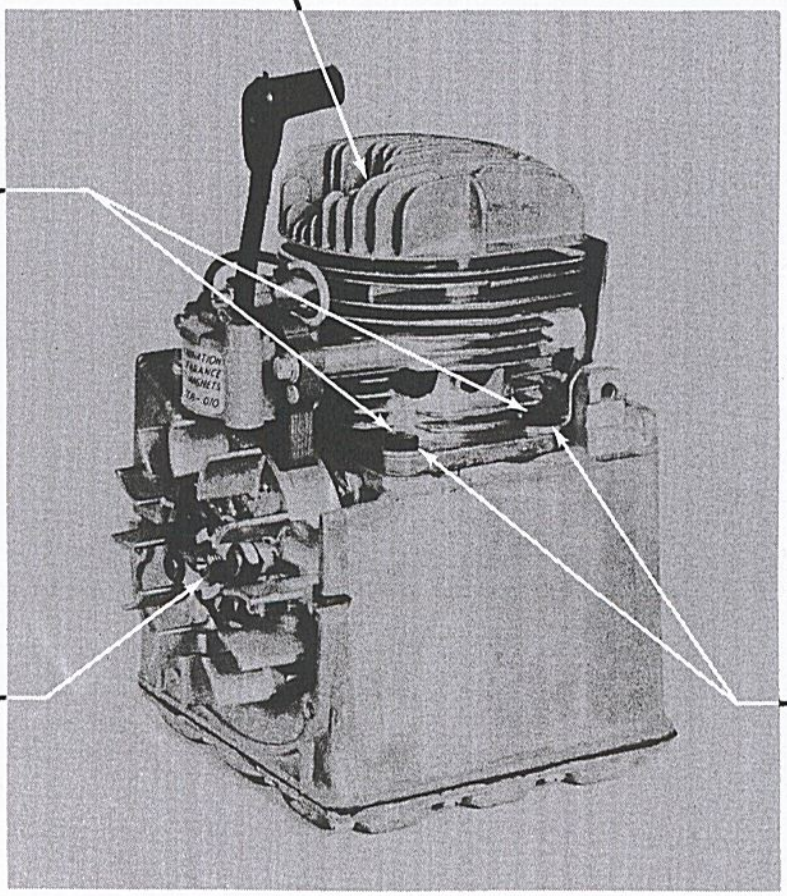
-Model 33 Series-

A

1. Lightly oil cylinder walls, piston, and rings.
2. Turn crankshaft until throw is at top dead center.
3. Fit cylinder down over piston, using ring compressor to compress rings.

B

NOTE: Spark plug removed.



1. Tighten nuts (4) FINGER-TIGHT.

2. Rotate crankshaft 6 or 7 turns to locate cylinder. Turn counter-clockwise at flywheel end.

3. Tighten nuts (4) securely (100-120 inch/pounds. Use caution not to disturb position of cylinder during tightening.

4. Rotate crankshaft to insure there is no binding.

C

Finish assembly of engine.

NOTE: This procedure insures maximum alignment between cylinder, piston and rod assembly, and crankshaft. Thus, possibility of binding is virtually eliminated.

Litho in U.S.A. April 4, 1956

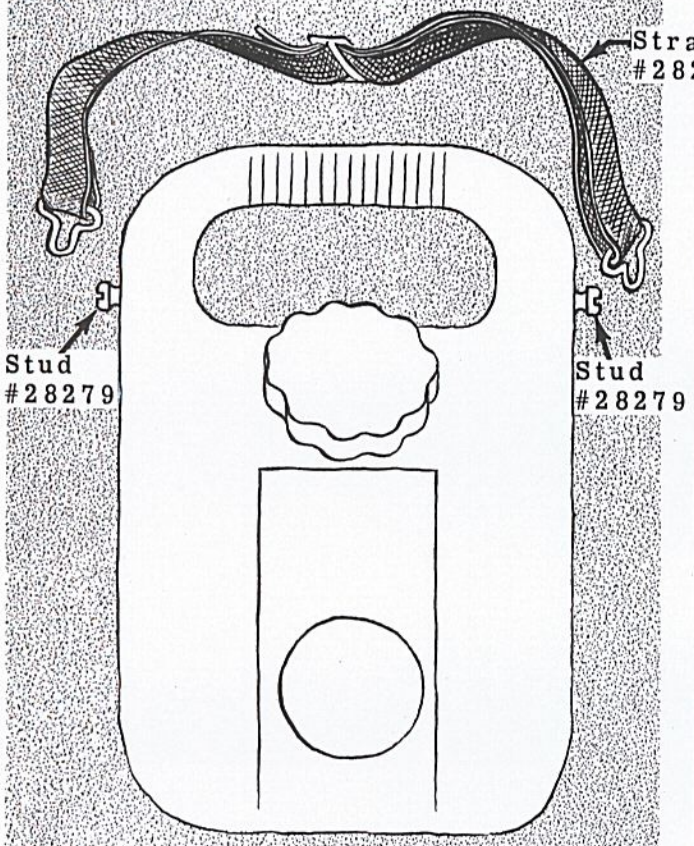
McCulloch ABC Simplified Bulletin No. 30

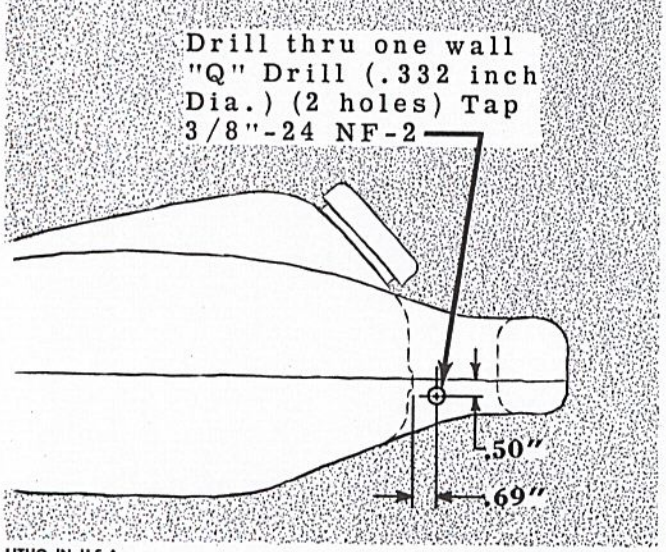
INSTALLATION OF CARRYING STRAP

-Model 4-30 and 73-

Model 4-30

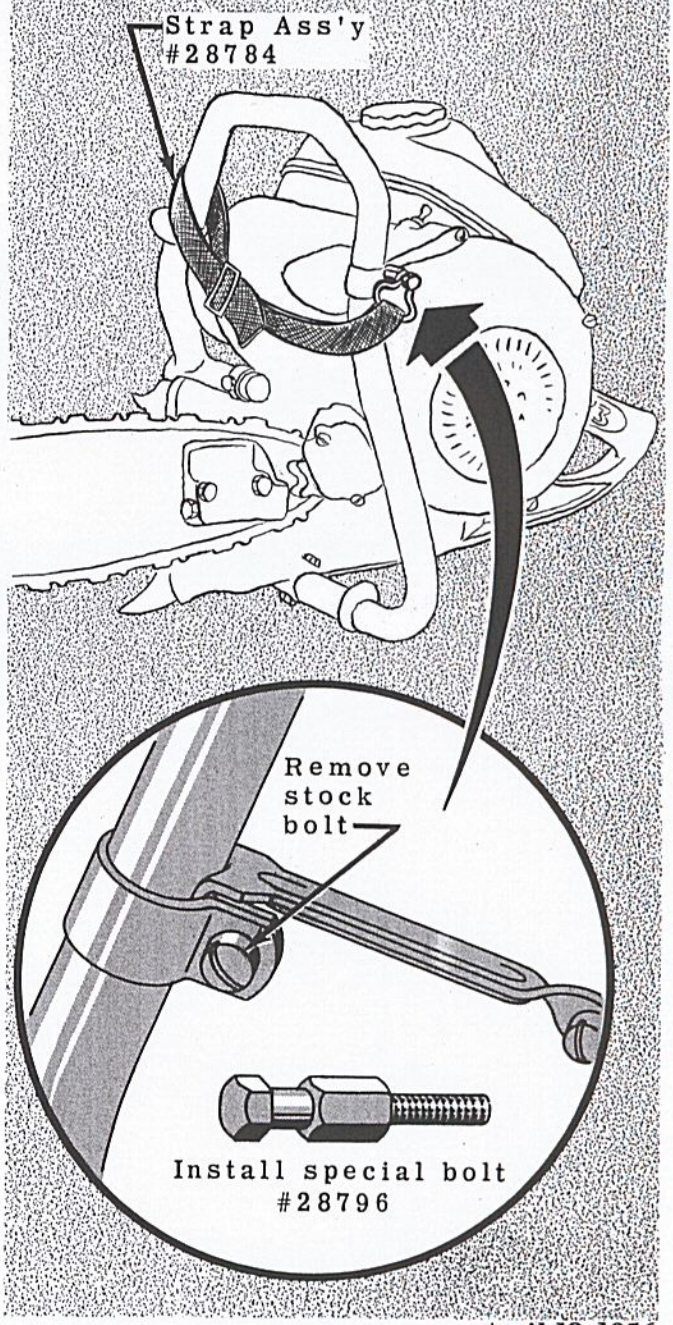
Order Kit #28303





Model 73

Order Kit #28783



LITHO IN U.S.A.

April 18 1956

Simplified ABC Bulletin No. 31

Installation of Snorkel Air Filter Assembly No. 28623

— MODEL 73 —

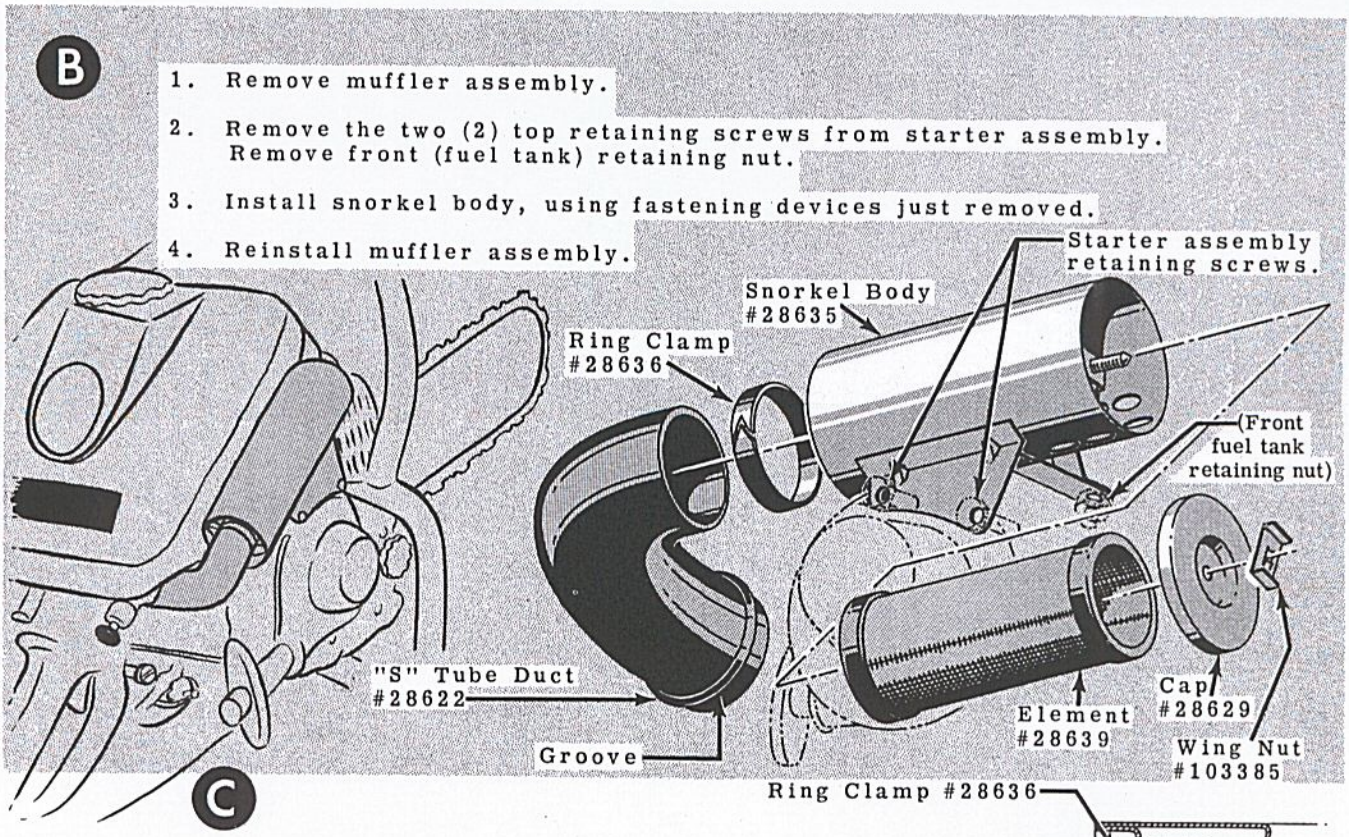
NOTE:
If engine is equipped with "Jet-Air" Filter System (air intake from within fan housing), procede with steps 1, 2, 3, 4, 5, and 6 of "A". If engine is fitted with conventional air filter, procede with step 1 of "B".

A

1. Remove fan housing, flywheel, and venturi cover.
2. Remove breaker points and pull out breaker point push rod.
3. Remove end cover assembly and gasket. Discard gasket, part number 28079A.
4. Reinstall end cover, using old gasket without air hole, part number 28079.
5. Reassemble push rod, breaker points, venturi cover, flywheel, and fan housing.
6. Adjust breaker points.

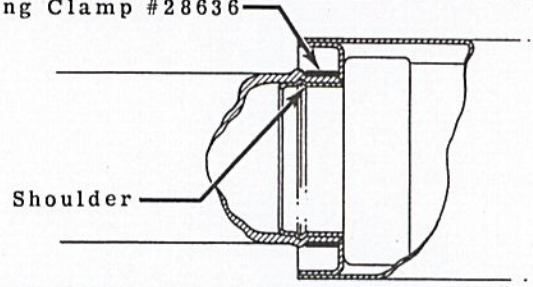
B

1. Remove muffler assembly.
2. Remove the two (2) top retaining screws from starter assembly. Remove front (fuel tank) retaining nut.
3. Install snorkel body, using fastening devices just removed.
4. Reinstall muffler assembly.



C

1. Install clamp ring on "S" tube and assemble to snorkel body, making sure clamp ring is over shoulder at base of snorkel body.
2. Opposite end of tube must be seated up to groove into air intake cavity of engine.



Litho in U.S.A. April 24, 1956

A B C Simplified BULLETIN No. 32

SEALING OF AIR PASSAGE WHEN MODIFYING FROM "JET-AIR" TO SNORKEL FILTER SYSTEM -- Model 73

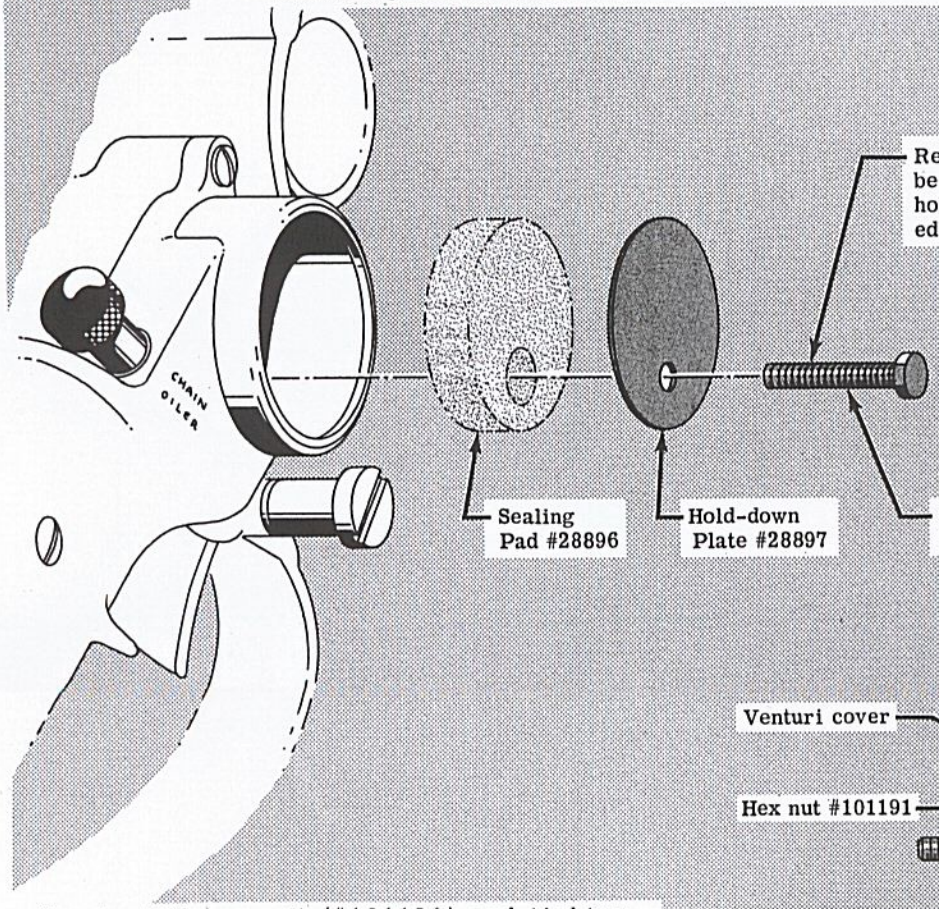
NOTE: An improved method of sealing off the air passage (at base of filter in crankcase casting) has been released by the Engineering Department.

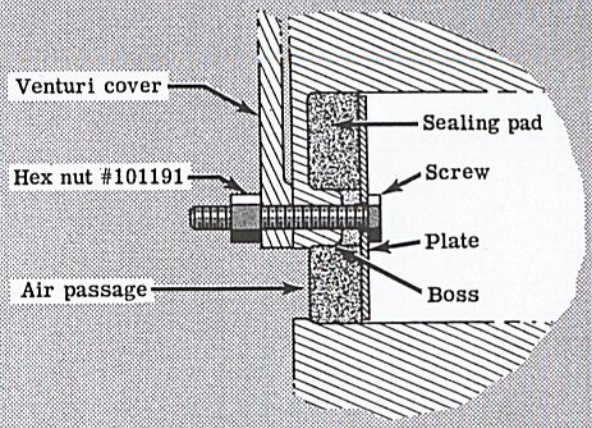
A

1. Remove fan housing, flywheel, and lower right venturi cover retaining screw.
2. Pull out air filter element.

B

1. Install sealing pad (#28896), hold-down plate (#28897), and retaining screw (#28898).





2. Install hex nut (#101191) and tighten securely. (Venturi cover now retained by 2 screws and hex nut).

C

Reassemble flywheel and fan housing.

LITHO IN U.S.A. MAY 16, 1956

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ABC bulletin #33

MODIFICATION OF FUEL PUMP AND SEDIMENT BOWL --IMPROVED FUEL SYSTEM--

NOTE: Due to improvement of the fuel system, it has been determined that the fuel return system is no longer required. Accordingly, the fuel return tube will be omitted from both sediment bowl (new number: 28558A) and fuel pump body assembly (new number: 28652A).

Models 47, 4-30A and 73

TO USE NEW PUMP BODY WITH OLD SEDIMENT BOWL:

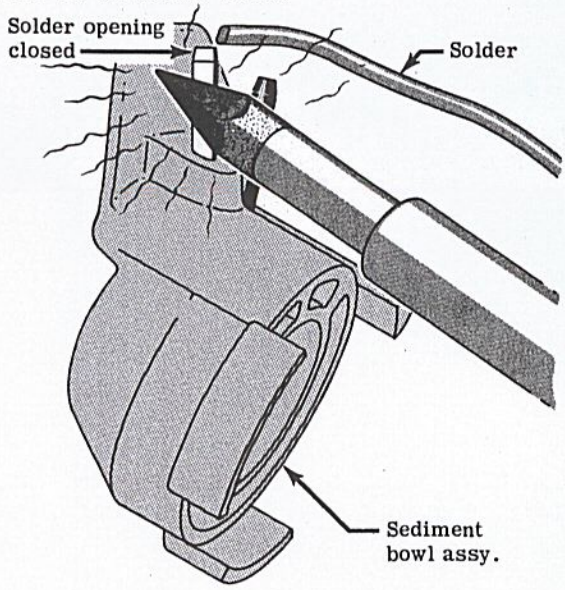
A

Remove sediment bowl and thoroughly wash fuel return tube (silver) with naptha. Use pipe cleaner to clean tube I.D.



B

Heat return tube with soldering iron and flow solder (rosin core) into tube to achieve seal.



C

Reassemble sediment bowl to carburetor and install fuel supply line.

TO USE NEW SEDIMENT BOWL WITH OLD PUMP BODY ASSY.

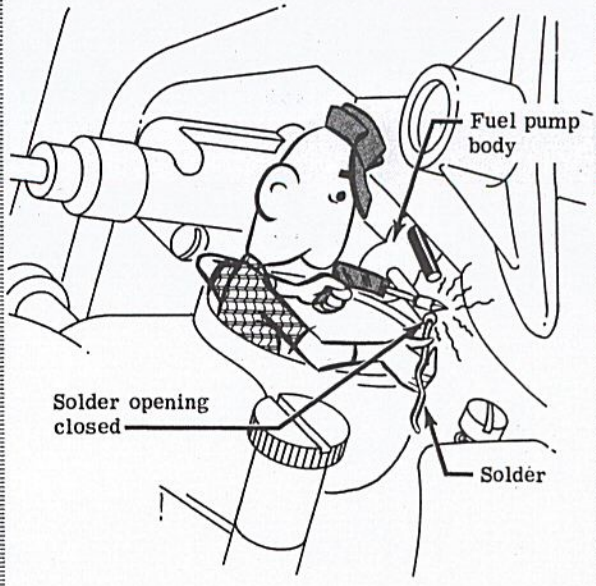
A

Remove air filter and fuel lines. Wash fuel return tube (fuel pump) with naptha to remove oil and dirt.



B

Heat return tube (silver) with soldering iron and flow solder (rosin core) into tube to achieve seal.

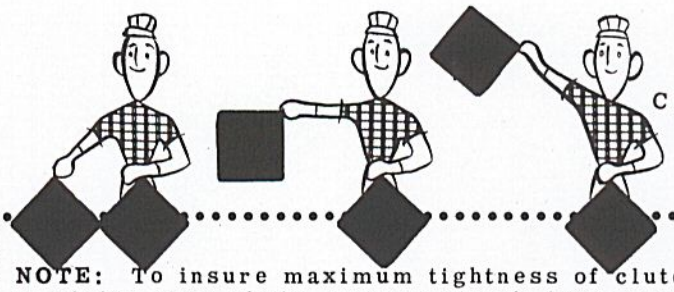


C

Re-install fuel supply line and air filter assembly.

Litho in U.S.A. May 24, 1956

A B C Bulletin No. 34



CLUTCH DRUM WASHER

Model 99 Series

NOTE: To insure maximum tightness of clutch drum to pinion gear shaft, install clutch drum washer No. 24070 in place of regular flat washer No. 15182.

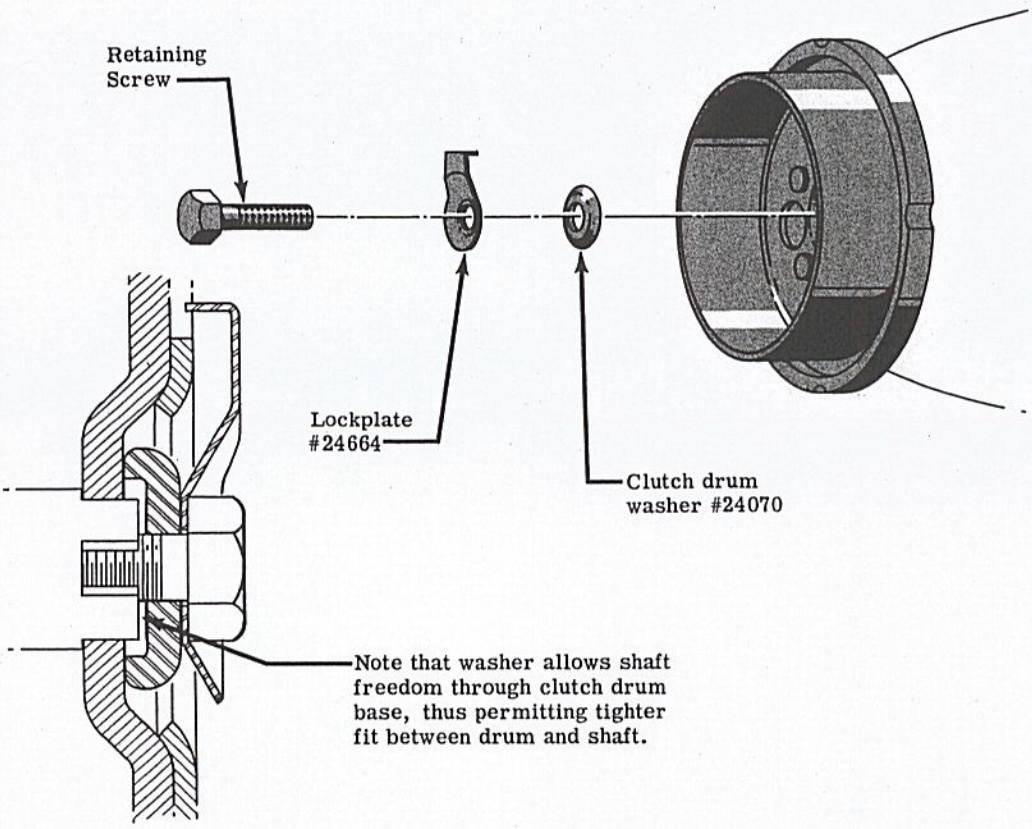
A

Open quick-release toggle and remove transmission assembly from engine.

B

1. Remove cap screw (clutch drum retaining), lock plate (#24664), and plain flat washer. Discard the plain flat washer.

2. Install clutch drum washer (#24070), lockplate (#24664), and retaining screw. Tighten retaining screw securely.



C

Reinstall transmission assembly on engine, locking quick-release toggle securely.

Litho in U.S.A.
June 4, 1956

Simplified A•B•C BULLETIN NO. 35

MOLDED IGNITION CABLE

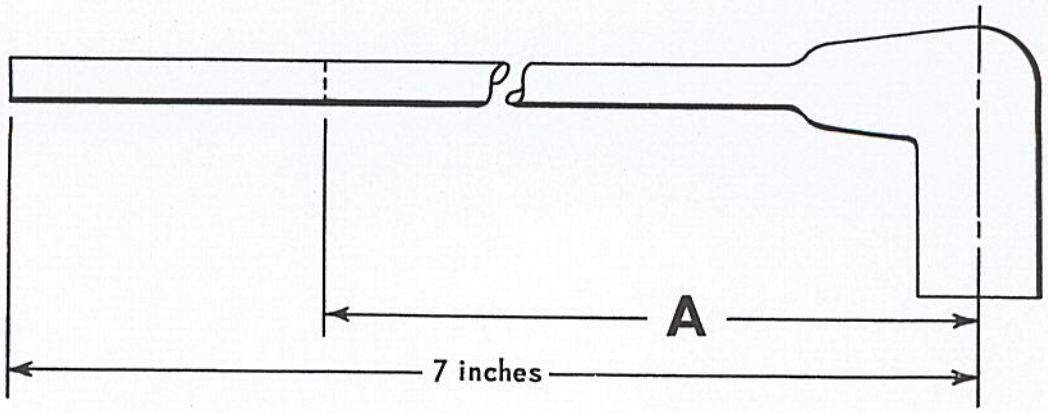
– ALL MODELS –

NOTE: AN IMPROVED, MOLDED IGNITION CABLE ASSEMBLY IS NOW AVAILABLE FOR SERVICE ORDERS. TO REDUCE PHYSICAL INVENTORY, THIS IGNITION CABLE WILL BE SUPPLIED IN ONLY ONE LENGTH -- 7 INCHES -- UNDER PART NO 36898.. AS THIS LENGTH IS LONGER THAN REQUIRED FOR SOME ENGINES, THE CABLE MUST BE CUT TO THE LENGTH REQUIRED.

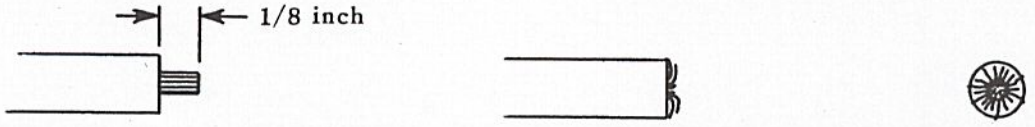
A TABLE OF LENGTHS:

MODEL	PART NO.	REQUIRED LENGTH A
D–44	36898	7 inches
S–33	36907	4–1/2 inches
D–33	36907	4–1/2 inches
33–B	36907	4–1/2 inches
99	36907	4–1/2 inches
47	28873	2–3/4 inches
4–30A	28873	2–3/4 inches
73	28873	2–3/4 inches

B



C Cut cable 1/8–inch over–length, and then peel insulation back 1/8–inch to insure good electrical contact.



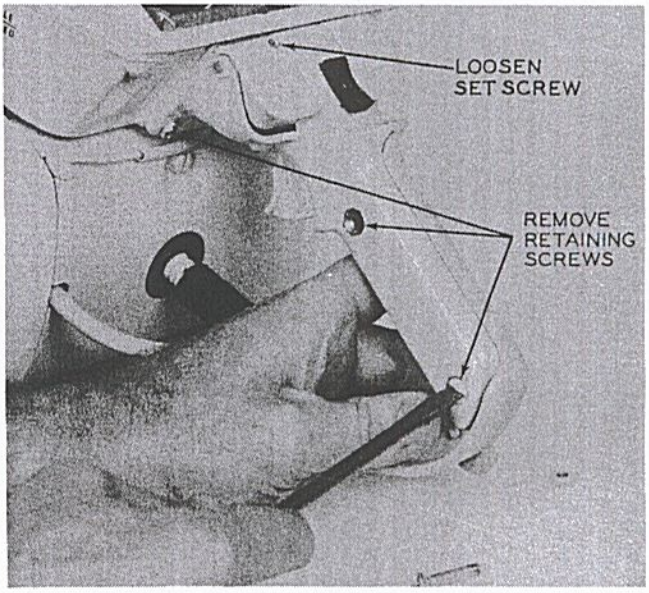
Spread wires over face of cable

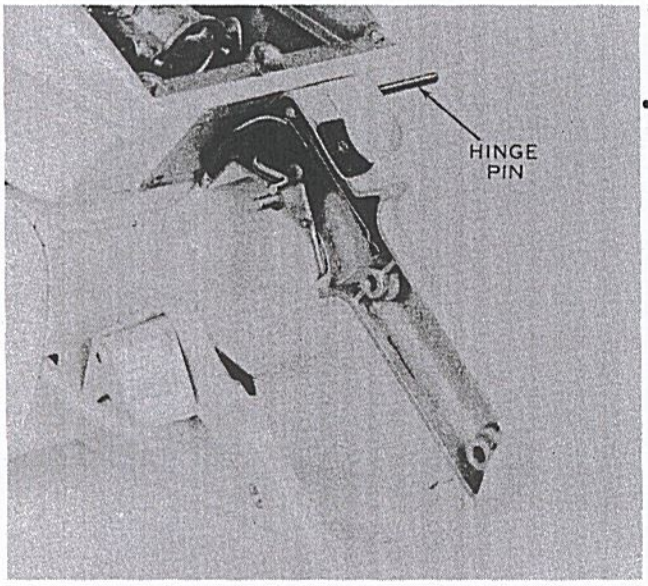
LITHO IN U.S.A. AUGUST 1956

A·B·C bulletin #36

Installation of Improved Switch Assembly – Model D-44 –

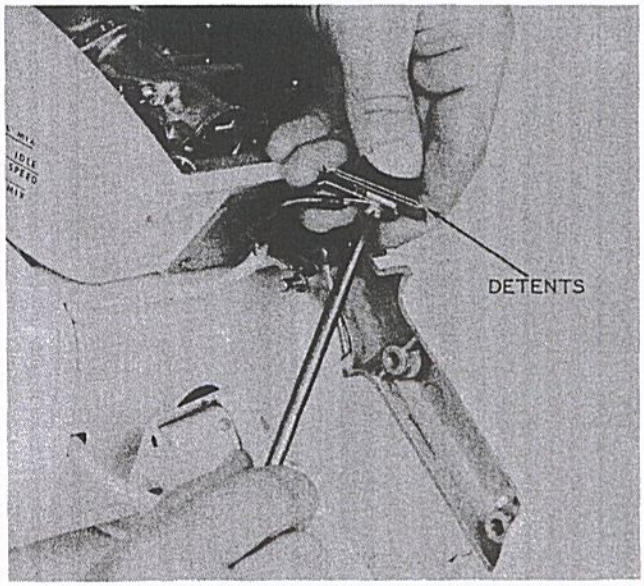
1. Removing retaining screws (two in handle and one handle-to-fuel-tank). Loosen set screw in oiler push button and push hinge pin to right to free button. NOTE: If oiler push rod is retained by clip, depress button, as shown in Step 5, and work clip free. After removal, discard clip as it is not required.





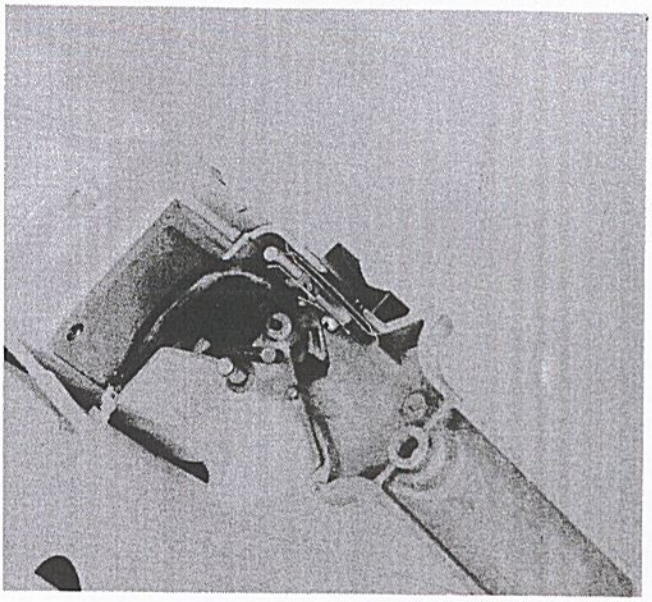
2. After left handle has been removed, push ignition switch free of main handle assembly. Before disassembling, note position of ignition wire in relation to hinge pin, oiler push rod, and throttle trigger linkage. For free action upon reassembly, ignition wire must be replaced in same manner.

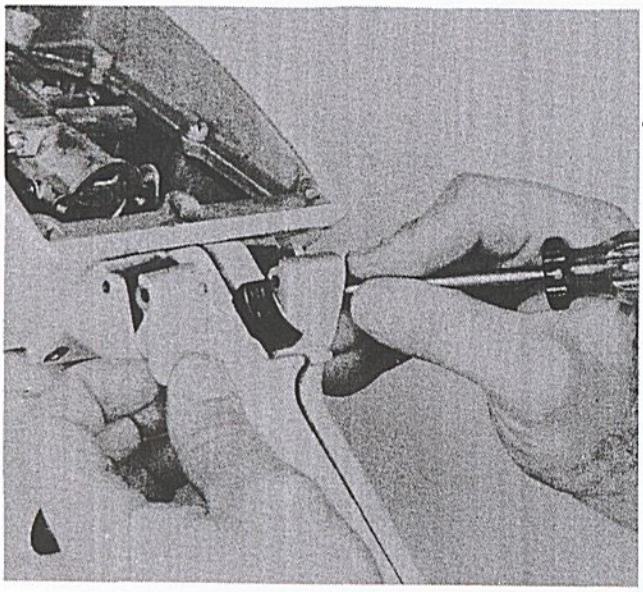
3. After disconnecting ignition wire from old switch assembly, install new, improved switch assembly as shown. Use caution during assembly to avoid bending or otherwise distorting detents and switch grounding contact.



Litho in U.S.A. October 16, 1956

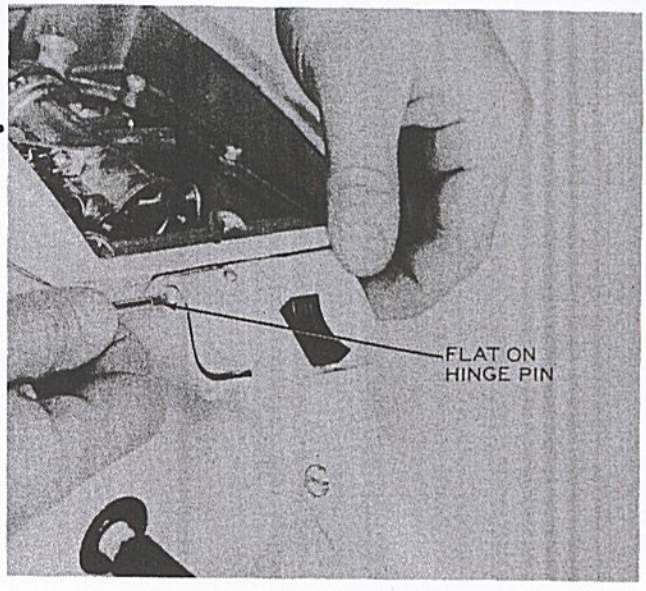
4. Slide switch assembly into place in main handle assembly, making certain that detents and insulator are correctly engaged in switch opening. Ignition wire should be positioned to permit correct action of all controls and linkage, and to permit contact between grounding contact and hinge pin.



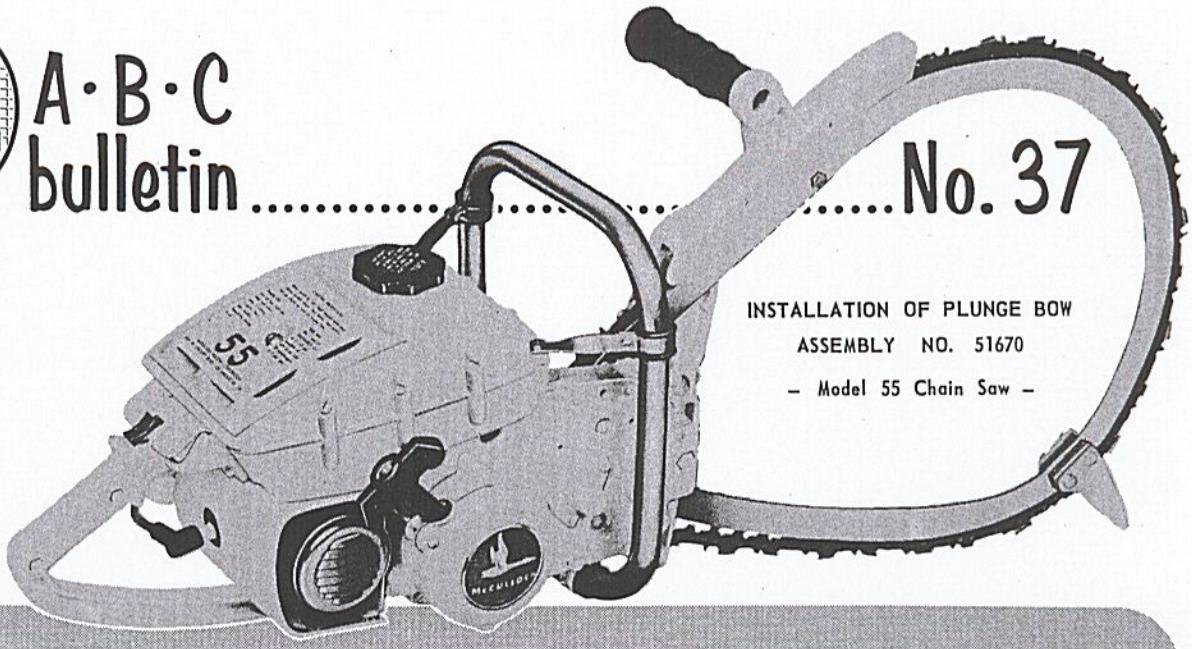


5. Assemble left handle to main handle assembly, loosely retaining with one screw. Pull hinge pin free of Choke button, but do not disconnect Choke button from linkage. Use screwdriver to force back Oiler push rod, as shown, to permit engaging of Oiler button. After engaging, install hinge pin to retain both push buttons.

6. Install and tighten all retaining screws which secure handle assembly. Pull hinge pin free just sufficiently far to locate flat, then turn pin until flat is aligned with set screw. Push hinge pin into place and tighten set screw. Test all operating controls for freedom of action and correct if necessary.



A·B·C bulletin ..... No. 37



INSTALLATION OF PLUNGE BOW ASSEMBLY NO. 51670

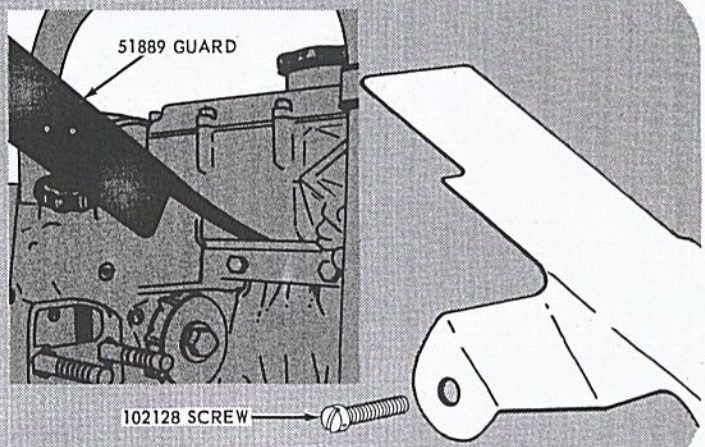
– Model 55 Chain Saw –

A

NOTE: IN ORDER TO INSTALL THE PLUNGE BOW ASSEMBLY CORRECTLY, THERE ARE TWO ASSEMBLY PRECAUTIONS WHICH MUST BE OBSERVED.....

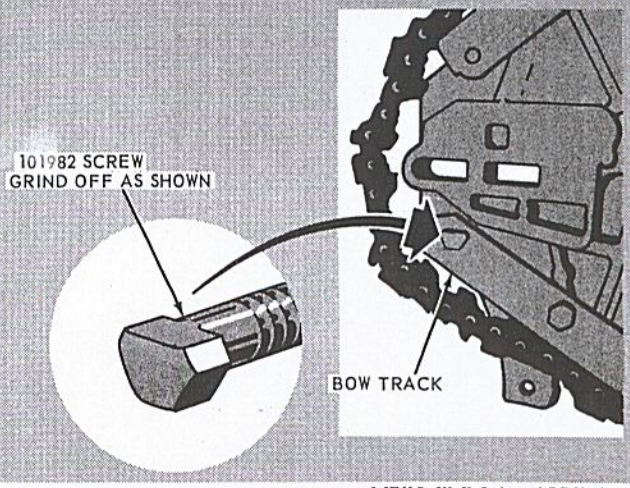
B

THE TAIL OF THE CHAIN GUARD, PART NO. 51889, MUST BE INSERTED BETWEEN THE FUEL TANK BOTTOM, PART NO. 51320, AND THE GEARCASE BRACE, PART NO. 51795. THE GUARD IS ATTACHED TO THE GEARCASE WITH A 1/4-20 X 1.25 INCH LONG SCREW, PART NO. 102128.



C

THE HEX HEAD OF THE MOUNTING SCREW, PART NO. 101982, WHICH RETAINS THE LOWER END OF THE BOW TRACK, PART NO. 52119, TO THE BODY, PART NO. 51672, MUST BE GROUND OFF TO PERMIT THE BOW SAW BODY TO SEAT CORRECTLY ON THE TRANSMISSION MOUNTING PAD. NOTE: THE GROUND OFF SURFACE MUST BE FLUSH WITH THE THREADS AND PARALLEL TO ONE OF THE OTHER FLAT SIDES OF THE HEAD.



LITHO IN U.S.A. APRIL 10, 1957

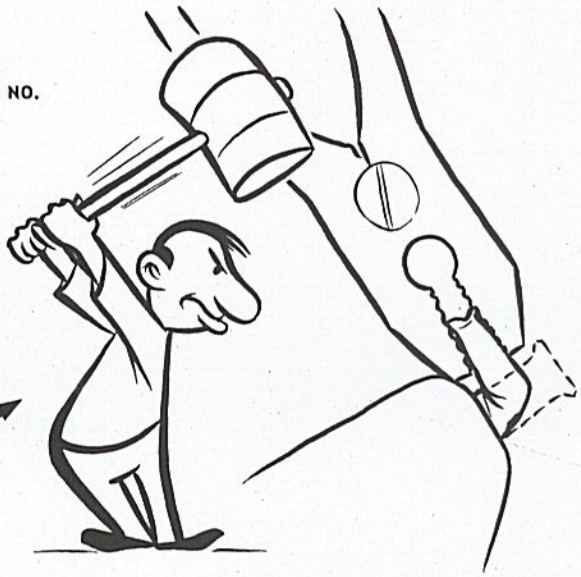
A-B-C- BULLETIN.....NO. 38

INSTALLATION OF IMPROVED CHAIN OILER TUBE AND VALVE ASSY., PART NO. 51982

- MODEL 55 CHAIN SAW -

A

REMOVE OLD OILER PICKUP TUBE, PART NO. 28042.

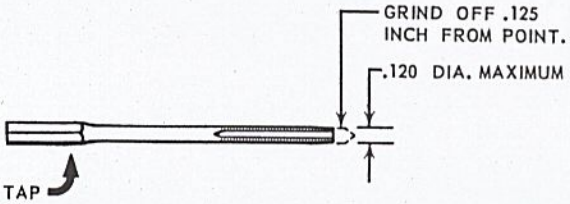


1. REMOVE GEARCASE COVER, PART NO. 51608, AND DISCONNECT FLEXIBLE HOSE, PART NO. 28007, FROM OILER PICKUP TUBE, PART NO. 28042.

2. GRIP PICKUP TUBE WITH PLIERS AND BEND UPWARD TO RIGHT ANGLE. THEN, WHILE STILL GRIPPING TUBE, DRIVE IT OUT OF INLET PASSAGE BY STRIKING PLIERS LIGHTLY WITH MALLET.

B

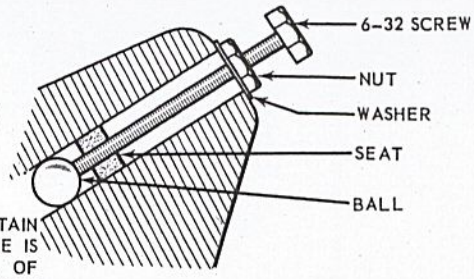
REMOVE OLD SEAT AND BALL AS FOLLOWS:



1. MAKE A SPECIAL BOTTOMING TAP FROM STANDARD 6-32 TAP AS SHOWN. TAP HOLE IN BALL SEAT AND INSERT 6-32 SCREW, WITH NUT AND WASHER, AS ILLUSTRATED.

2. TIGHTEN NUT AGAINST BOSS UNTIL BALL SEAT IS LIFTED OUT. SHOULD THE THREADS IN THE SEAT STRIP OUT, REPEAT THE PROCEDURE WITH A SIMILARLY REWORKED 8-32 TAP, 8-32 SCREW, WASHER AND NUT.

3. ONCE THE SEAT IS REMOVED, THE BALL CAN BE LIFTED OUT WITH A SMALL MAGNETIC SCREWDRIVER OR SIMILAR TOOL.

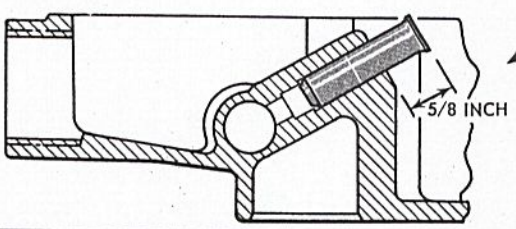




CAUTION: MAKE CERTAIN THAT THE OIL PASSAGE IS THOROUGHLY CLEAN OF DIRT AND CHIPS BEFORE STARTING REASSEMBLY.

C

INSTALL NEW TUBE AND VALVE ASSEMBLY, PART NO. 51982.



1. PRESS TUBE AND VALVE ASSEMBLY, PART NO. 51982, INTO BORE TO DEPTH INDICATED.

2. REASSEMBLE FLEXIBLE HOSE TO THE NEW TUBE AND VALVE ASSEMBLY AND REPLACE THE GEARCASE COVER.

LITHO IN U.S.A. MAY 22, 1957