

187-001 287-001

SUBJECT: TECHNICAL SERVICE BULLETIN LISTING

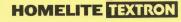
AFFECTS:

1986 TECHNICAL SERVICE BULLETINS

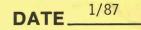
Listed on the back of this Bulletin is a list of all Technical Service Bulletins that were issued during 1986.

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

> Terri Estridge Homelite-Textron P.O. Box 7047 Charlotte, NC 28217



Homelite Division of Textron Inc.



FORESTRY PRODUCTS

BULLETIN #	UNITS AFFECTED
186-001 186-002	Index for 1985 Technical Service Bulletins Hairline Cracks in Intake Manifold
186-003 186-004	Modifying Carburetor Spacer 97571 3-Shoe Unlined Clutch Assembly
186-005	New Crankcase with Series 5 Bar Pad
186-006	Three Piece Oil Line Assembly Threaded Insert Kit for Guide Bar Studs
186-007 186-008	Spark Plug Wrench Warranty Form Not Shipped With Units
186-009	Servicing Raker III Saw Chain
186-010 186-011	Revised Cylinder Assembly (A-70489-C) Crankshaft 67168-3
	Dealer Service Guides
186-012 186-013	Changes Made On String Trimmers from 1985 to 1986 Testing Solid State and Capacitor Discharge Ignition Systems
186-014 186-015	Stringhead Assembly New Stronger 32ME Series (.325 Chain
	Modifying Guide Bar Adjusting Pin (69254-1A)
186-016 186-017	Pinion Shafts for Brushcutter Attachment Modifying Rewind Spring to Fit Starter Pulley
186-018	Greasing Spool Retainer Bolt
186-019	Three-Shoe Unlined Clutch A-98132

CONSTRUCTION EQUIPMENT

BULLETIN

UNITS AFFECTED

286-001	Index for 1985 Technical Service Bulletins
286-002	New Cylinder A-48807-A and Using One Piston Ring
286-003	Adjusting Carburetors on New Units
286-004	Oilgard Decal - Part Number 17887
286-005	New Solid State Ignition
286-006	Warranty Form Not Shipped with Units
286-007	Electromagnet Bracket
286-008	Installing Seals
286-009	Optional Long Life Seals
286-010	Polarity of Battery Charging Cord



NO. 187-002

SUBJECT: 245 MANUFACTURED WITH 37 SERIES CHAIN

AFFECTS: 245 (UT-10638A) SERIAL NUMBERS 5H2740015 - 5H2740700

A limited number (685) of 245 chain saws (UT-10638<u>A</u>) were manufactured and shipped with the 37 Series chain, bar, and sprocket. The standard configuration used on the 245 (UT-10638A) is .325 Series.

It is important that the correct replacement bars, chains, and drive sprockets be used on these units. Mismatching 37 Series components with .325 Series components will result in damage to the chain, guide bar and sprocket.

Peery Gibson Service Manager Forestry Products





NO. 187-003

SUBJECT: THREE-SHOE UNLINED CLUTCH A-98129

AFFECTS: 240, 245 (STARTING WITH LOT #H-247)

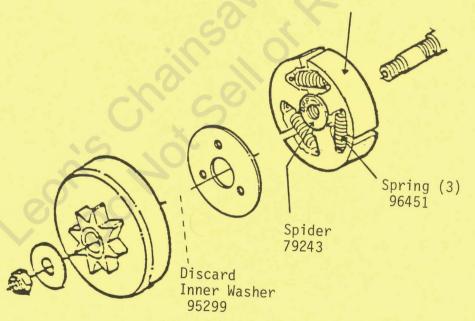
A three-shoe unlined clutch assembly A-98129 has replaced the S-Clutch on the Model 240 and the three-shoe lined clutch on the Model 245. Refer to the diagram below when ordering parts for this new clutch assembly.

NOTE

For Model 240 - Discard clutch cover 69915-1, screws (2) 97605, and inner washer (1) 95299.

For Model 245 - Discard clutch cover 96919-1, screws (3) 97605, and inner washer (1) 95299.

> Shoe (3) 79233-A



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

SERVICE NOTE

Install clutch assembly A-98129 with the "OFF \rightarrow " facing out. Torque clutch assembly to 250 - 300 in.1bs. (28,2 - 33.9 Nm).



DATE 3/87



NO. 187-004

SUBJECT: S-CLUTCH (00242) REMOVAL

AFFECTS: ST-185 & ST-385 Trimmer/Brushcutter

OFF

The subject model trimmer/brushcutter units use two (2) 1/8" thick S-clutches installed one on top of the other. These S-clutches must be <u>REMOVED one at a time by turning COUNTERCLOCKWISE</u> (R.H. Thread).

Use clutch tool A-93791 to remove and install each S-clutch.

SERVICE NOTE

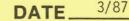
During installation, torque each S-clutch to 80-100 in.lbs. (9,0-11,3 Nm).

ON

Peery Gibson Service Manager Forestry Products

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NO. 187-005

BULLETIN

TECHNICAL SERVICE

SUBJECT: PHELON SOLID STATE IGNITION SYSTEM

AFFECTS: SXL-AO CHAIN SAW (STARTING WITH LOT #H-338)

A one-piece, solid state PHELON ignition system has replaced the Prestolite (Wico) ignition system on the SXL-AO chain saw. The PHELON ignition system uses:

Module - 94589-A Rotor - 94588

The PHELON ignition module can be identified by the black color. Since the two ignition systems are charged in opposite directions, the modules and rotors cannot be interchanged. It is, therefore, important that the ignition system be identified before ordering replacement parts.

Replacement parts (module and rotor) will continue to be available for the Prestolite (Wico) ignition systems. The Prestolite module is light blue in color.

Converting from one ignition system to the other will not be allowable under warranty.

Perry Alson

Peery Gibson Service Manager Forestry Products







NO. 187-006

5/87

SUBJECT: LOCATING SCREW FOR DRIVESHAFT HOUSING

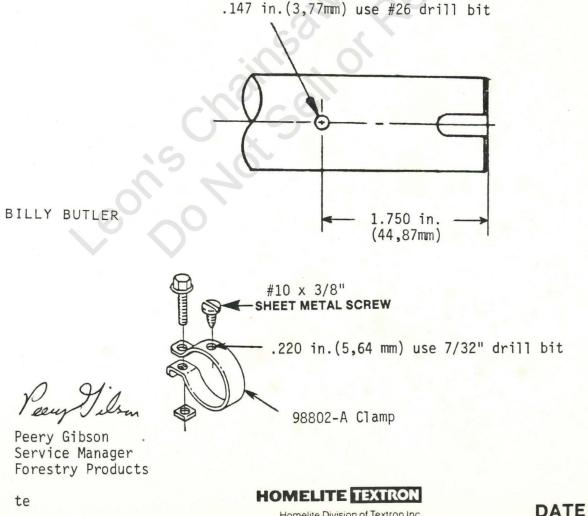
AFFECTS: ST-155, ST-175 (STARTING WITH LOT #1064)

The models ST-155 and ST-175 trimmers built starting with Lot #I064 use a #10 x 3/8" sheet metal screw and clamp 98802-A to secure the engine housing to the driveshaft housing. The driveshaft housing also has a .147" diameter hole to accept the new screw.

Trimmers built prior to Lot #I064 can be modified by drilling a .220" (7/32" drill bit) hole in the existing clamp (or using clamp 98802-A), drilling *a .147" (#26 drill bit) diameter hole in the driveshaft housing as shown in the diagram below, and using a #10 x 3/8" sheet metal screw. The diagram below may also be used as a template.

*IMPORTANT NOTE:

When drilling hole in driveshaft housing do not pierce inner star liner or flexible driveshaft.



Homelite Division of Textron Inc.



BULLETIN

NO. 187-007

SUBJECT: CORRECTION TO N.P.P.L. (DECEMBER 1, 1986)

AFFECTS: ST-200, 210

The current N.P.P.L. refers to using clutch A-97921 (3-shoe) in place of S-clutch A-70351-A. THIS IS INCORRECT!

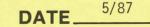
Due to the angle of the engine when operating, the clutch shoes (on the 3-shoe clutch) will walk off of spider during operation resulting in damage to the drum and connector and both engine housings.

IMPORTANT SERVICE NOTE

The S-clutch (A-70351-A) MUST BE USED on the ST-200 and 210 trimmer/brushcutter units.

Peery Gibson Service Manager Forestry Products







NO. 187-008

6/87

DATE

SUBJECT: ZAMA CARBURETOR NOT SEATING PROPERLY ON INTAKE MANIFOLD

AFFECTS: 240, 245

Models 240 and 245 chain saws exhibiting hard starting, poor idling, and erratic operation should be checked for proper carburetor (Zama Only) seating on the intake manifold. It is possible that the top left manifold mounting screw may be preventing the carburetor from seating.

In order to insure proper seating, one corner of the carburetor (see diagram below) may have to be filed away.

View Shown is From Metering Side

File off this corner of the carburetor casting

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Peery Gibson Service Manager Forestry Products



NO. 187-009

SUBJECT: NEW GEARHEAD ASSEMBLY

AFFECTS: ST-385 (Effective With UT-15040-A) (Effective With UT-15045-1A) (Effective With UT-15045-2A) INTERNATIONAL ONLY!

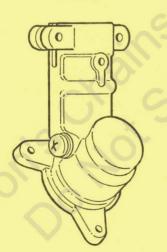
A new gearhead assembly (A-00436) is now being used on the ST-385 trimmer/brushcutter. Although this gearhead assembly (A-00436) will interchange with the previous gearhead assembly (A-98844), the associated parts (flange washers, retaining nut, and stringhead shaft adapter) are not interchangeable.

NOTE: Service will supersede the old gearhead (A-98844) to assembly A-00535 which includes the new gearhead A-00436 and shaft adapter 00490.

ST-385

GEAR HEAD ASSEMBLY

UT-15040 A-98844 UT-15040-<u>A</u> A-00436



98944

98940

81271

83120

00088

(5/16-18

Female Thread)

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Peery Gibson Service Manager Forestry Products Upper Flange Washer Lower Flange Washer Nut

Washer

Shaft Adapter for Stringhead

00436-06

00436-08 (includes washer)

00490 (8mm x 1.25 Female Thread)

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DATE 6/87



NO. 187-010

BULLETIN

TECHNICAL SERVICE

6/25 5- K

SUBJECT: 1) REMOVING CLUTCH DRUM & CONNECTOR FROM ADAPTER SHAFT

2) BUSHING COMES OUT OF CLUTCH DRUM

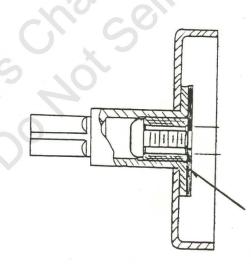
AFFECTS: ST-185, 385

- The clutch drum & connector assembly is retained to the adapter shaft by a Torx head screw. The clutch drum is removed by using Torx bit (P/N 24982-03). This bit has a 1/4" shank and is 6" long allowing access to the screw through the square connector.
- 2) Several reports have been received concerning the clutch drum & connector moving forward resulting in the bushing coming out the drum. All production (starting with S/N HI1051927) and service drum & connector A-00252 now have a thin flat washer welded to the drum after the bushing is installed. This washer has a smaller I.D. to retain the bushing in the drum.

Any service drum & connectors (A-00252) in your stock which do not have the washer to retain the bushing welded to the drum should be returned to the address below for replacement.

Homelite 14401 Carowinds Blvd. Charlotte, N.C. 28217

ATTN: Peery Gibson - Service Manager



Washer welded to drum retains bushing.

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BILLY BUTLER

HOMELITE TEXTRON

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A-00143 A-00144

> 81272-1 98551-16

98551-17

98551-18

98551-19 98551-20

98551-21

00490



NO. 187-011

SUBJECT: 1) MANUAL STRINGHEAD 2) ADAPTER BOLTS

AFFECTS: HK-18, HK-24, HK-33, ST-385

1) The manual string advance supplied for the ST-385 has been incorporated into service replacement assemblies for the HK-18, HK-24, and HK-33.

The following assemblies should be used when servicing these units.

Spool & String

Stringhead Nut-Retainer

Cover

Shield

Stay

Bolt

Screw

Washer

Adapter

PART #	DESCRIPTION	USAGE		
A-98064-13*	Spool & String	To replace an existing stringhead assembly on HK-18, HK-24, HK-33		
<u>includes:</u> A-00143 A-00144 81272-1	Spool & String Stringhead Nut-Retainer	and ST-385.		
* Will not convert brushcutter to stringtrimmer				
PART #	DESCRIPTION	USAGE		
A-00434	Stringhead Kit	Converts HK-33 brushcutter to string- trimmer.		
includes:		Crimmer.		

BILLY BUTLER

 Some 98551-25 adapters (black in color) were produced with the wrong internal thread size. All 98551-25 (silver) adapters in stock are correct.

In order to clear up any confusion that exists about the manual string advance adapters, use the list on the back when ordering service replacements.

CONTINUED ON BACK!

HOMELITE TEXTRON

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DATE _____9/87

2) CONTINUED

Z) CONTINUED			
PART #	THREAD SIZE	FINISH	USAGE
98062-53	10m x 1.5 (M) 8m x 1.25 (M)		1985 HK-24, HK-33
98551-25*	10m x 1.5 (M) 8m x 1.25 (F)	Cadmium Plate	1986 & 1987 HK-18, HK-24, HK-33
00088	10m x 1.5 (M) 5/16 x 18 (F)	Black Oxide	ST-385 (UT #15040)
C0490	10m x 1.5 (M) 8m x 1.25 (F)		HK-18, HK-24, HK-33 ST-385 (UT #15040 <u>A</u>) Suy Milun
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* 98551-25 Superseded by 00490 When Exhausted.



BULLETIN

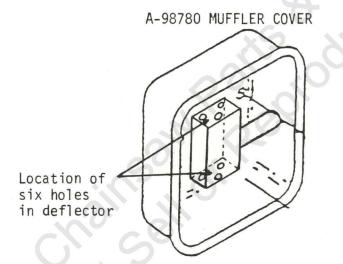
NO. 187-012

SUBJECT: DEFLECTOR IN MUFFLER COVER NOT DRILLED

AFFECTS: ST-155, 175, 185, 285, 385

Any of the above subject units exhibiting symptoms* of low power, low no-load RPM, and/or hard starting should be checked to see if the deflector welded inside the muffler cover (Part #A-98780) has the correct number of holes drilled in it.

There should be a total of six (three in the top and three in the bottom) 5/32" diameter holes drilled in the deflector (see illustration below).



*NOTE: We have heard of several cases where mud dauber wasps have built nests in the round exhaust tube of the muffler cover. If this occurs the symptoms will be similar to those described above. The cleaning of these mud dauber nests out of the muffler cover is NOT A WARRANTABLE FAILURE.

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NO. 187-013

DATE 9/87

SUBJECT: CORRECTION TO 290/340 SERVICE GUIDE (PART #17880)

AFFECTS: 290, 340

Page 18, Figure 76 in the subject 290/340 Service Guide refers to applying silastic to the outer edges of the bearing bores (where the main seals seat). This is incorrect.

The main seals which are rubber coated do not require any sealant during assembly. In some cases, applying silastic to the main seal area of the crankcase and cylinder may cause the seal to opo out during operation of the unit.

Please make this correction in your Service Guide or make a note in your 290/340 Parts List. SILASTIC SHOULD ONLY BE APPLIED TO THE MATING SURFACES OF THE CRANKCASE AND CYLINDER, NOT TO THE MAIN SEAL BORES.

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NO. 187-014

11/87

DATE

SUBJECT: PISTON PIN BEARING IN CONNECTING ROD

AFFECTS: SUPER 2 (STARTING WITH S/N HI0330538) UT-10653, 10654, 10520-A, 10652 VI SUPER 2 SL (STARTING WITH S/N HI0050001) UT-10466-B VI SUPER 2 SLF (STARTING WITH S/N HI0510237) UT-10601

A piston pin bearing is now being used in the connecting rods on the subject units beginning with the serial numbers mentioned above. Due to the length of the bearing, a new piston assembly is required. This new piston* must be used in conjunction with the new crankshaft and connecting rod assembly which contains the piston pin bearing.

The new part numbers are listed below. Service will continue to supply the old piston and crankshaft to fit units made prior to the addition of the piston pin bearing.

*SERVICE NOTE

Using the new piston assembly with the old style crankshaft and connecting rod (without the bearing) may result in the failure of crankshaft, connecting rod, and piston.

NEW PARTS

Piston & Pin Assembly

Piston Ring Retaining Ring Retaining Ring

Retaining Ring

A-97611 includes: 97612

65261

A-98967

includes: 70205

98060-26

Crankshaft and Connecting Rod Assembly

Needle Bearing

(1)

(1)

1

(1)

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NO. NONE

SUBJECT: CARBURETOR WARRANTY

AFFECTS: ALL TWO-CYCLE ENGINES HOMELITE AND JACOBSEN

We have had some inquiries regarding what is and what is not carburetor warranty. Any defect in material or workmanship constitutes a warranty situation. The warranty period is one (1) year from date of purchase for non-commercial applications.

All carburetors are flow tested before assembly and again when the unit is run after assembly to assure a high quality level.

The following are examples of repairs that are acceptable as warranty:

- -Passages within carburetor improperly machined, non-machined or containing machining chips;
- -Carburetors assembled with the wrong lever, controls or incorrectly set levers.
- -Snowthrowers and other 2-cycle engine driven equipment are used infrequently and stored for long periods of time between use. Inlet needles can stick or deposits form due to storage. This is not warranty!

The following are other examples of repairs not acceptable as warranty:

- -Carburetor gummed up because customer stored unit with fuel in it or used stale gas;
- -Sawdust, dirt, wood fibers in the passages or screen;
- -Replacement of gaskets and diaphragms due to deterioration through the use of gasohol;
 -Deterioration of gasket and rubber parts due to storage of the unit or carburetor in the dealer's inventory for more than one (1) season;
- -Stuck inlet needle valves;
- -Damage due to improper dealer disassembly or assembly;
- -Corrosion of the carburetor:
- -Worn inlet needle tip or shaft;
- -Replacement of carburetor because adjusting needles have been screwed in too tight ruining the seat;
- -Customer has attempted own repair of carburetor.

Under our warranty policy, you may be requested to return the carburetor for inspection. It will be returned to you and no credit issued if no defect is found.

Bill Borachok Service Manager Lawn & Garden

HOMELITE TEXTRON





NO. 187-015

SUBJECT: PERFORMANCE IMPROVEMENT

AFFECTS: HB180V VACUUM UNITS AND HB180 VACUUM KITS

There is a notice in ALL vacuum kits shipped after 10/28/87 stating "DO NOT INSTALL THIS VACUUM KIT UNTIL YOU RETURN YOUR UNIT TO YOUR NEAREST SERVICE DEALER FOR MODIFICATION".

To improve performance and engine life, it is necessary to install a sealing kit (Part Number A-00813). The sealing kit will prevent air from exiting out of the molding slots in the inner volute housing and debris from collecting on cooling fins. The sealing kit includes five (5) adhesive seals, new fan nut and instruction sheet. File a normal warranty claim for the kit and .5 labor time for installation.

We strongly suggest you make an effort to modify any vacuum equipped units you know of in a customers hands. If you have Model 180 blowers in stock and will be selling them with a vacuum kit, modify them prior to sale.

rick Mason

Rick Mason Service Manager Construction Equipment

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DATE 10/87



SUBJECT: PRESTOLITE SOLID STATE IGNITION MODULE

AFFECTS: SXL-A0 XL-12 DM-20 XLS-1¹₂ ST-400

The blue Prestolite (Wico) module & core (A-94605-S) used on the subject units is no longer available. It has been superseded by a Phelon module and rotor ignition kit (A-00815). The Phelon module & core and rotor will also continue to be supplied separately.

Module & Core A-94605-S Superseded By:

Ignition Kit A-00815 includes: Module & Core 94589-A Rotor 94588

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DATE 11/87



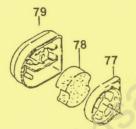
NO. 187-017

SUBJECT: AIR FILTER SERVICE PARTS

AFFECTS: HT-18 HEDGE TRIMMER

The Parts List for the HT-18 shows item #79 as three (3) components. We will only supply the individual parts as shown below. Please correct your parts list accordingly.

78



98552-52 CASE 98552-53 ELEM 98552-54 CAP-

CASE- Air filter ELEMENT CAP- Air filter

Rick Mason Service Manager

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NO. 287-002

SUBJECT: OPTIONAL LONG LIFE SEALS

AFFECTS: BULLETIN 286-009

On Technical Bulletin 286-009 we special priced the long life seals to reduce our inventory levels. Our inventory has dropped to an adequate level and as of January 1, 1987 prices on the long life seals have been returned to the price listed in the Blue Price List.

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Rick Mason Service Manager Construction Equipment



1/87 DATE



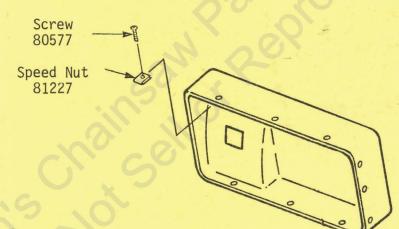
BULLETIN

NO. 287-003

SUBJECT: MISSING PARTS FROM PARTS LIST

AFFECTS: HG3500, 176B40, 176R42, 178B48, 180R62

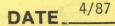
The DC Battery Charging lead for the HG3500 was not included in the parts list. The part number for the DC Lead is A-49380. The speed nut and screw for the panel cover are also missing from the parts list. Please correct your parts list accordingly.



Rick Mason

Rick Mason Service Manager Construction Equipment







NO. 387-002

SUBJECT: CLUTCH CONTROL CABLE

- **AFFECTS:**
- 320 UT #35011A UT #35012A
- 420 UT #35016 UT #35017

If the tie straps that hold the cable to the handle are not properly installed they will be cut through by the cable. The cable will then cut through the upper cowling.

To prevent this from happening, service assembly JA-99236-5 has been issued. This service assembly consists of an eyebolt and nut and requires the drilling of one hole. Instructions are provided with the service assembly and .3 hours labor will be allowed for the job.

Use Fail Code JV106 and Job Code JV15 for this repair.

Bill Borachok Service Manager Lawn & Garden



1/87 DATE



SERVICE ASSEMBLY EYEBOLT AND NUT PART NUMBER JA-99236-5

- 1) Locate and drill a 1/4" (.250) diameter hole in left handle 1" above intersection of the cross bar and lower handle.
- 2) Install eyebolt in hole with eye toward inside of handle and open part of eye facing down.
- 3) Route clutch cable through eye.



Homelite Division of Textron Inc.

ONE INCH

DRILL 1/4" DIAMETER HOLE



SUBJECT: VAPOR LOCK ON SNOWTHROWERS

AFFECTS: 320 (UT #35011, 35011A, 35012, 35012A)

420 (UT #35016, 35017)

We have found that when the snowthrowers are run under a heavy load around the freezing temperature, vapor lock can occur in the carburetor causing the engine to stall.

A heat sink assembly is now available to correct this situation. The heat sink assembly should be ordered through your normal channels.

ORDER Part Number JA-99238-8 for 320 (UT #35011, 35011A, 35012, 35012A)

ORDER Part Number JA-99238-5 for 420 (UT #35016, 35017)

Labor of .7 hours will be allowed for this job. Use Fail Code JV107 and Job Code JV17 for this repair.

Bill Borachok Service Manager Lawn & Garden



2/87 DATE



NO. ³⁸⁷⁻⁰⁰⁴

3/87

DATE

SUBJECT: WIRING HARNESS

AFFECTS: RMX (UT #32017, UT #32018)

In order to more efficiently charge the battery and run the electric clutch on the RMX, a new wiring harness has been introduced. This harness has the electric clutch circuit and the battery charging circuits seperated.

This new harness (Part Number JA-99244-9) can be installed on those machines when the customer is having trouble keeping the battery charged.

At the time of installation be sure to charge the battery and to load test it to be sure the battery is not defective. Follow the directions supplied with the harness during installation.

Use Fail Code JV108 and Job Code JV16 for this repair. A labor time of .5 hours will be allowed.

Remember to inform the customer to run the engine at full throttle when using the mower and adjust the ground speed by selecting the proper transmission gear.

Bill Borachok

Service Manager Lawn & Garden





NO. <u>387-006</u>

SUBJECT: GEAR REDUCERS

AFFECTS: ALL SELF-PROPELLED ROTARY MOWERS

The part numbers for the complete gear reducers have been reinstated and will be available to service lawnmowers with worn out ratchet type clutch reducers.

Parts for the new type (cone clutch) gear reducer are available. The entire gear reducer should not be replaced, but instead they should be rebuilt.

Complete cone clutch gear reducers will no longer be accepted for warranty. Any that may fail in the warranty period can be rebuilt under warranty.

All cone clutch gear reducers use type "F" automatic transmission fluid. Do not substitute any other fluid in the gear reducer.

The following are the part numbers for the gear reducers:

All Superbagger Mowers All Turbo Vac Mowers All Mulcher All LK20 Lawn King Mowers All LK21 Lawn King Mowers

Use	Gear	Reducer	JA99127-8
Use	Gear	Reducer	JA99054-6
Use	Gear	Reducer	JA99054-9
Use	Gear	Reducer	JA99054-7
Use	Gear	Reducer	JA99054-8

Bill Borachok Service Manager Lawn & Garden

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BULLETIN

SUBJECT: VAPOR LOCK ON SNOWTHROWERS

AFFECTS: 320 (UT #35011, 35011A, 35012, 35012A) 420 (UT #35016, 35017)

Further testing has indicated that certain 320 and 420 Snowthrowers, when operated for extended periods at temperatures close to freezing, will experience vapor lock even with the Heat Sink Kit installed.

Snowthrowers that experience this problem should have Carburetor Spacer Assembly JA-99274-6 installed.

Labor of .7 will be allowed for this job. Use Fail Code JV170 and Job Code JV17 for this repair.

JA-99238-8 and JA-99238-5 Heat Sink Kit are superseded by JA-99274-6 Carb Spacer Assembly.

Bill Borachok /2

Bill Borachok Service Manager Lawn'& Garden

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DATE <u>9/87</u>