

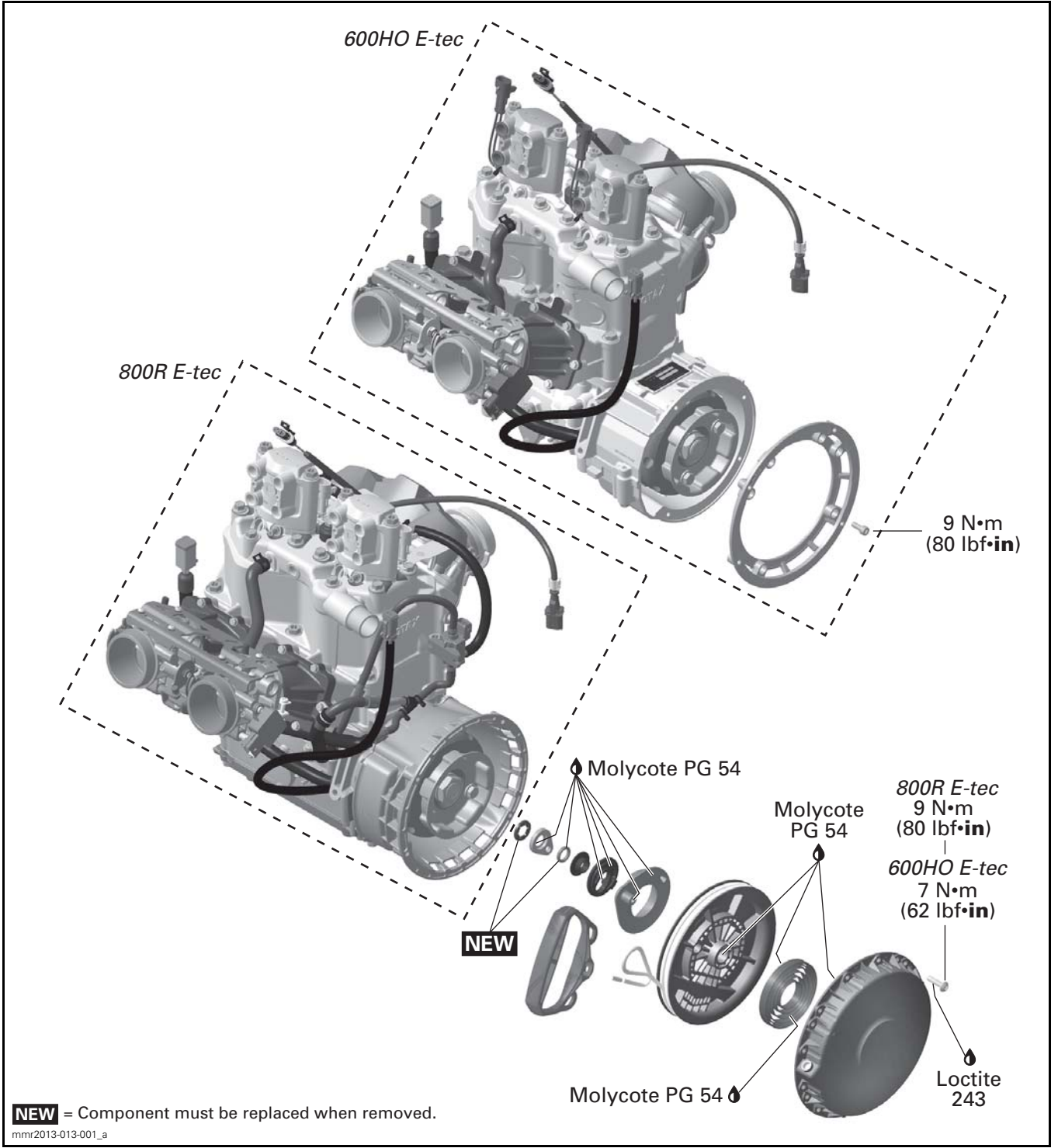
# REWIND STARTER

## SERVICE TOOLS

Description	Part Number	Page
SMALL HOSE PINCHER .....	295 000 076 .....	3

## SERVICE PRODUCTS

Description	Part Number	Page
LOCTITE 243 (BLUE).....	293 800 060 .....	7
MOLYKOTE PG 54 .....	420 899 763 .....	5-7



## INSPECTION

Due to dust accumulation, rewind starter must be periodically cleaned, inspected and lubricated. Refer to *MAINTENANCE* section.

**NOTICE** It is of the utmost importance that the rewind starter spring be lubricated periodically using specific lubricant. Otherwise, rewind starter component life will be shortened and/or rewind starter will not operate properly under very cold temperatures.

Check if starter rope is fraying, replace if necessary.

When pulling starter handle, starter mechanism must engage within 30 cm (1 ft) of rope pull length. If not, disassemble rewind starter, clean and check for damaged plastic parts. Replace as required, lubricate, reassemble and recheck.

When releasing starter handle, it must return to its stopper and stay against it. If not, check for proper spring preload or damage. Readjust or replace as required.


When pulling starter handle 10 times in a row, it must return freely. If not, check for damaged parts or lack of lubrication. Replace parts or lubricate accordingly.

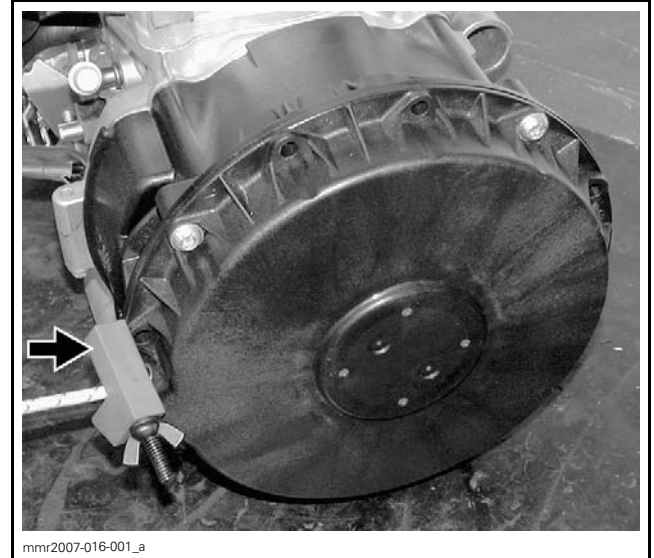
## PROCEDURES

### REWIND STARTER HANDLE

#### Rewind Starter Handle Removal

Pull out starter handle/rope for 50 cm (20 in) approximately and lock rope near rewind starter.

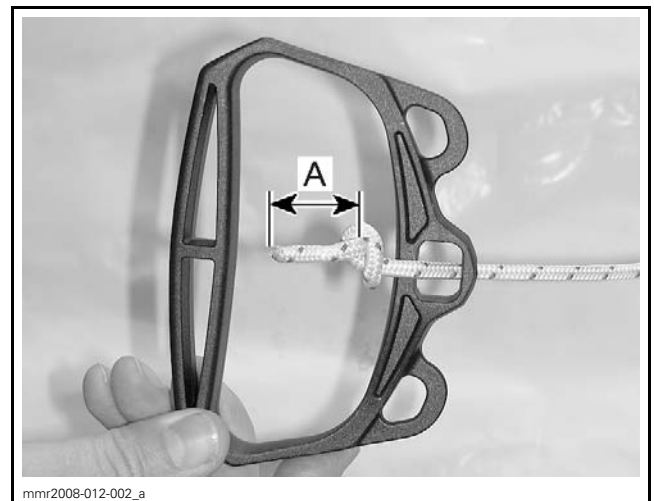
REQUIRED TOOL	
SMALL HOSE PINCHER (P/N 295 000 076)	



Using a small screwdriver, extract rope knot from stater handle. Cut rope close to knot.

#### Rewind Starter Handle Installation

Before installing starter handle on the rope, it is necessary to fuse the rope end with a lit match. Pass rope through starter handle and tie a knot on the rope end, see picture.



A. 30 mm  $\pm$  5 mm (1 in  $\pm$  1/4 in)

Fuse the knot with a lit match then insert rope end down and pull the starter handle over the knot.

## Subsection XX (REWIND STARTER)



### REWIND STARTER

#### Rewind Starter Access

Remove the following parts:

- RH side panel
- Muffler

#### Rewind Starter Removal

Remove starter handle.

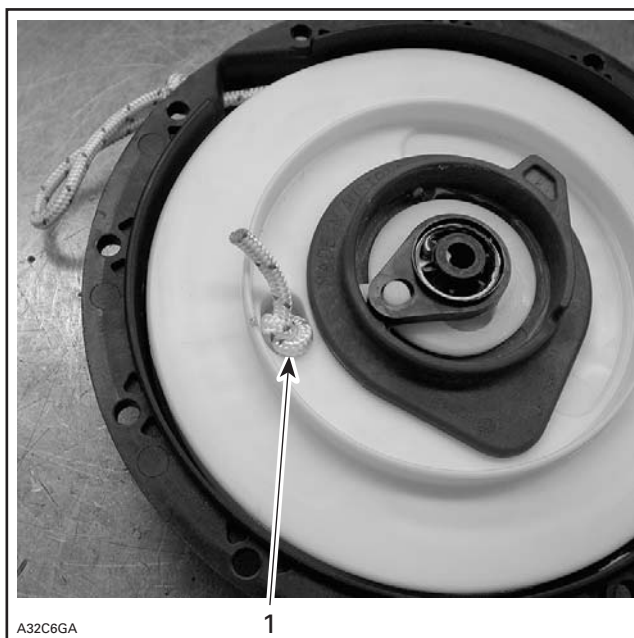
Remove:

- Rewind starter retaining screws
- Rewind starter.

#### Rewind Starter Rope Replacement

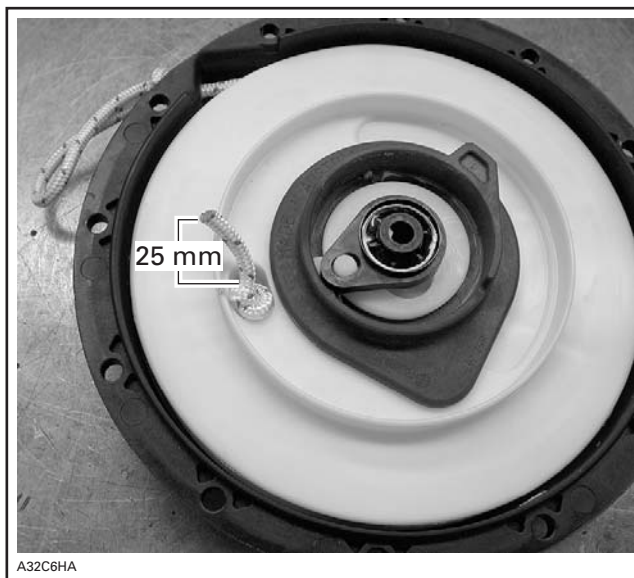
Remove rewind starter.

Completely pull out rope. Hold rewind starter in a vise. Slide rope and untie the knot. Remove rope from starter sheave.



1. *Knot to be untied*

Insert rope in starter sheave orifice and lock it by making a knot, leaving behind a free portion of about 25 mm (1 in) in length.



**FREE PORTION**

Fuse rope end with a lit match and insert it into sheave.



FREE PORTION INSERTED INTO SHEAVE

**NOTE:** When rope is completely pulled out, spring preload is 4-1/2 turns.

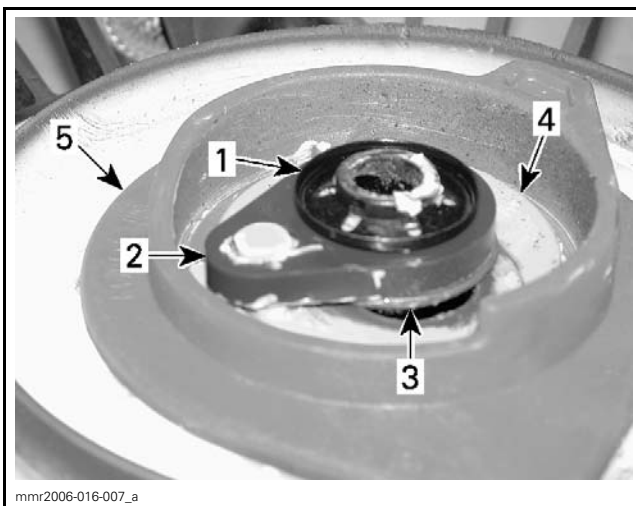
### Rewind Starter Disassembly

Remove the hose pincher previously installed on rope at rewind starter removal. Let sheave get free to release spring preload.

Cut push nut and discard.

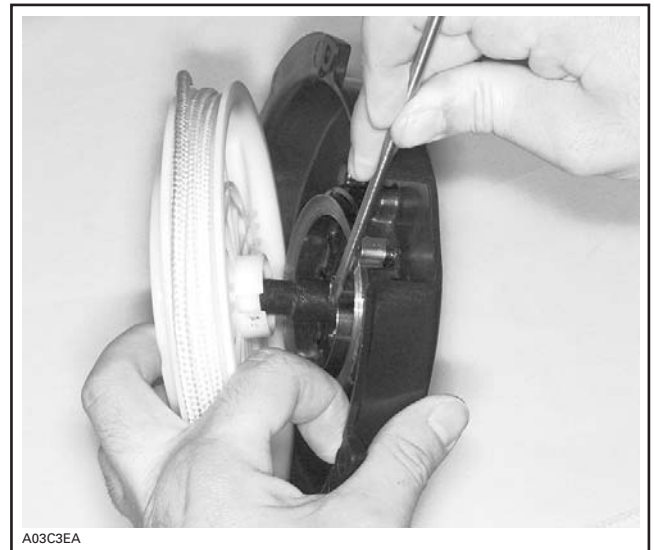
Remove:

- Lock lever
- O-ring
- Collar sleeve
- Pawl lock
- Pawl.



1. Push nut
2. Lock lever
3. Collar sleeve
4. Pawl lock
5. Pawl

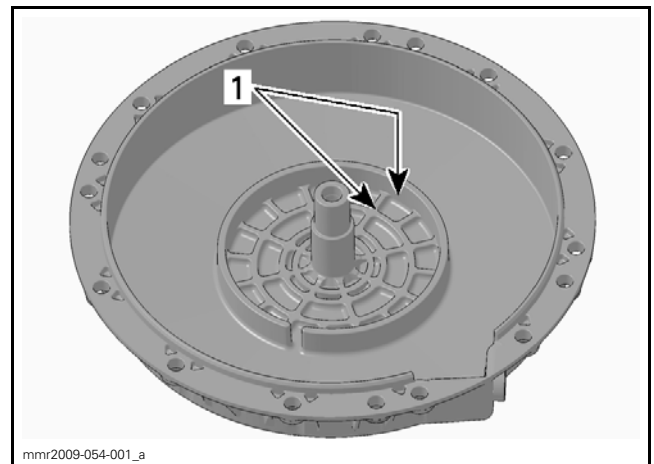
Remove sheave with rope from starter housing. Hold spring in starter housing using a screwdriver.



Take out the knot and then rope.

### Rewind Starter Assembly

Lubricate spring contact area and spring guide inside housing with MOLYKOTE PG 54 (P/N 420 899 763).



1. Molykote PG 54

At assembly, position spring outer end in spring guide notch then wind the spring counterclockwise in the guide.

### **⚠ WARNING**

Since the spring is tightly wound inside the guide it may fly out when rewind is handled. Always handle with care.

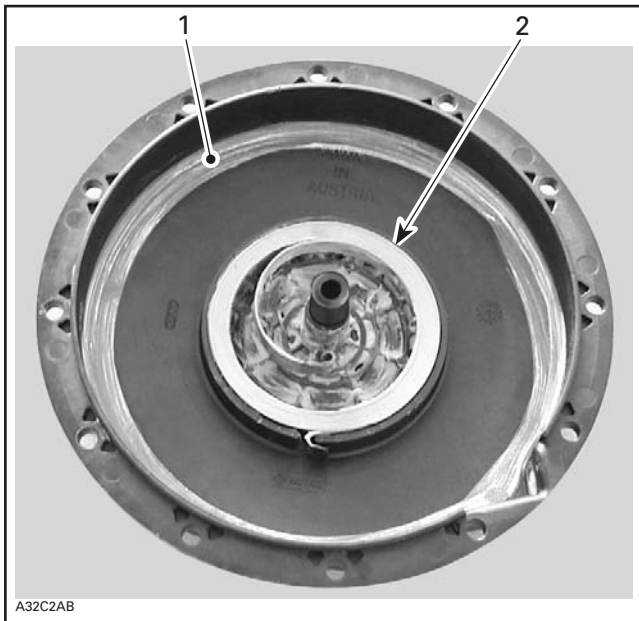
## Subsection XX (REWIND STARTER)



### TYPICAL

1. Outer end into guide notch

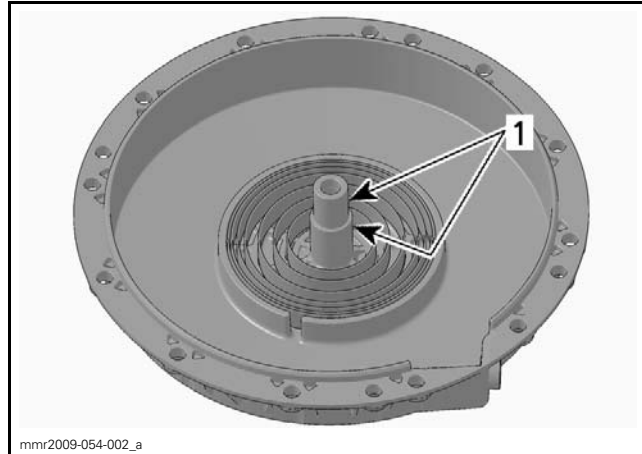
Lubricate spring assembly and 1 cm (1/2 in) wide on bottom of housing with MOLYKOTE PG 54 (P/N 420 899 763).



1. Molykote PG 54 applied 1 cm (1/2 in) wide on bottom of housing
2. Molykote PG 54 on spring

**NOTICE** It is of the utmost importance that the rewind starter spring be lubricated periodically using MOLYKOTE PG 54 (P/N 420 899 763). The use of standard multipurpose grease could result in rewind starter malfunction under very cold temperatures and component life will be shortened.

Lubricate housing post with MOLYKOTE PG 54 (P/N 420 899 763). Install sheave.



1. Molykote PG 54

To adjust spring tension:

Wind rope on sheave and place rope sheave in starter housing making sure the sheave hub notch engages in the rewind spring hook.

Rotate the sheave counterclockwise until rope end is accessible through rope exit hole. This will provide 1/2 turn of preload.

Pull rope out of starter housing and temporarily make a knot to hold it.



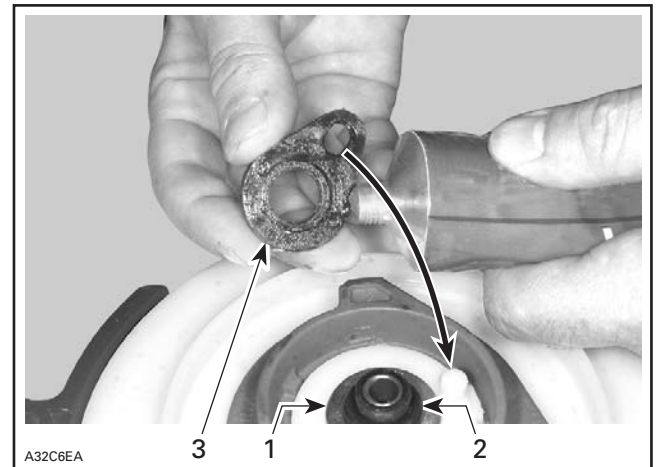
Lubricate pawl with MOLYKOTE PG 54 (P/N 420 899 763) then install over rope sheave.



Lubricate pawl lock with MOLYKOTE PG 54 (P/N 420 899 763). Install over pawl.



Install collar sleeve with its collar first. Lubricate a **NEW** O-ring and lock lever with MOLYKOTE PG 54 (P/N 420 899 763). Install over pawl lock.



1. Collar sleeve
2. O-ring
3. Lock lever

Secure lock lever with a **NEW** push nut.

## Rewind Starter Installation

Thread starter rope through console.

Install handle, refer to *STARTER HANDLE INSTALLATION*.

Reinstall rewind starter assembly on engine.

SERVICE PRODUCT	
Rewind starter retaining screws	LOCTITE 243 (BLUE) (P/N 293 800 060)

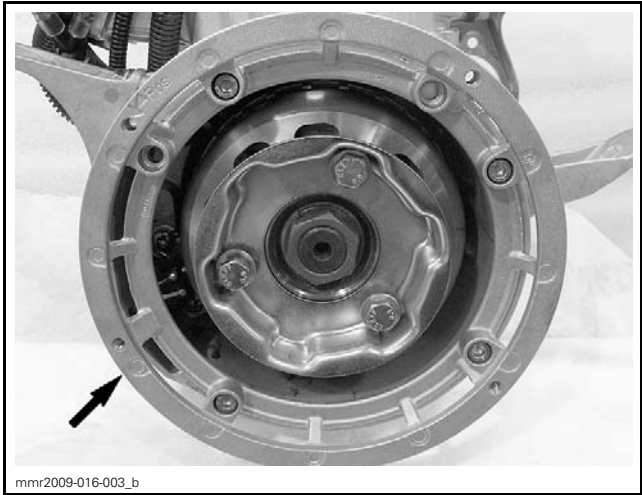
TIGHTENING TORQUE	
600HO E-Tec	7 N•m (62 lbf•in)
800R E-Tec	9 N•m (80 lbf•in)

## CONNECTING FLANGE (600HO E-TEC)

### Connecting Flange Removal

Remove rewind starter housing (magneto cover on electric start models).

Remove connecting flange retaining screws.



TYPICAL - CONNECTING FLANGE

Connecting Flange Installation

When reinstalling the connecting flange, torque screws as specified.

TIGHTENING TORQUE	
Connecting flange retaining screws	9 N•m (80 lbf•in)