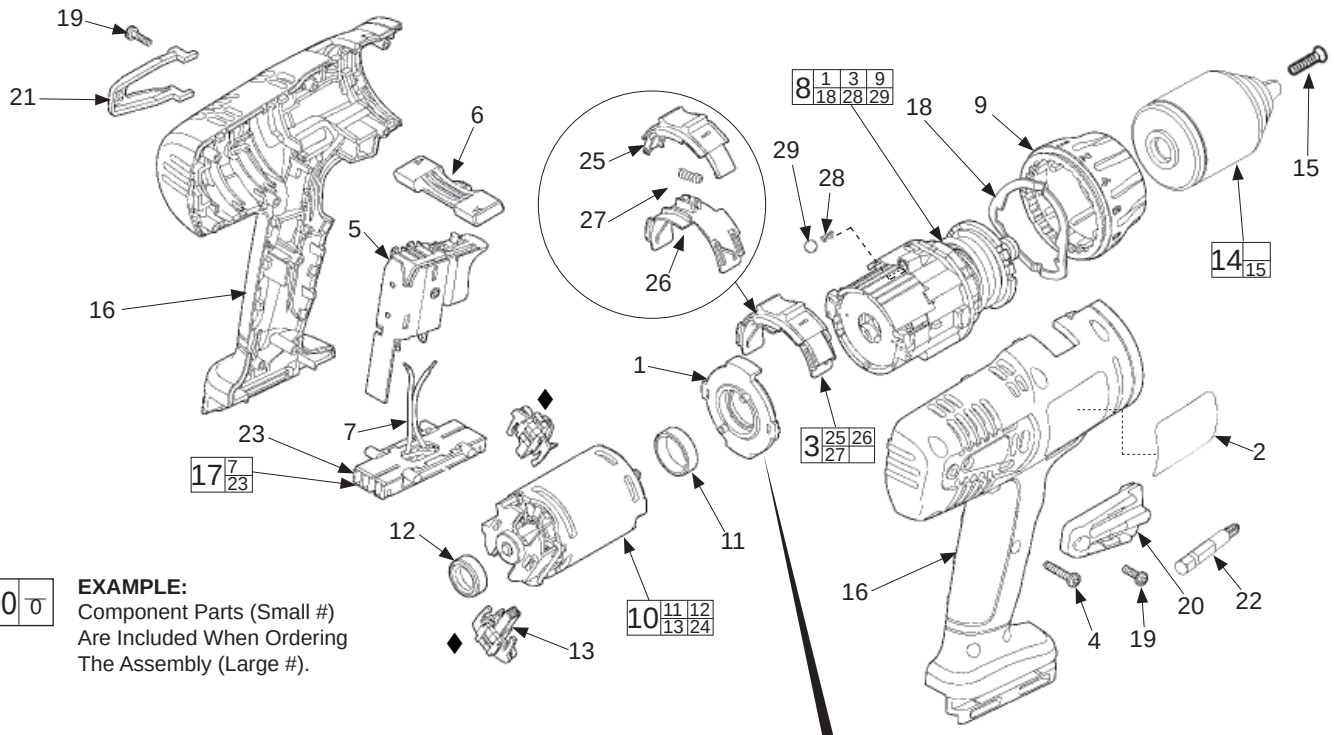
SERVICE PARTS LIST

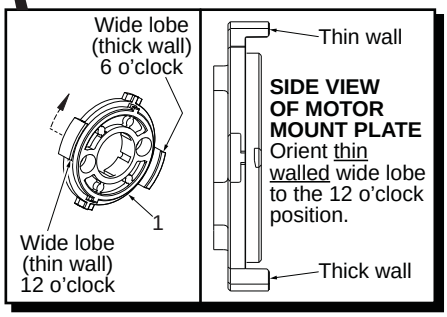
BULLETIN NO. 54-06-0390

SPECIFY CATALOG NO. AND SERIAL NO. WHEN ORDERING PARTS		REVISED BULLETIN	DATE
18 Volt 1/2" Lok-Tor™ II Driver Drill			Oct. 2011
CATALOG NO. 0625-20	STARTING SERIAL NO. A77A	WIRING INSTRUCTION	SEE REVERSE SIDE



00 0 **EXAMPLE:**
Component Parts (Small #) Are Included When Ordering The Assembly (Large #).

FIG.	PART NO.	DESCRIPTION OF PART	NO. REQ.
1	44-66-1090	Mounting Plate	(1)
2	12-20-0650	Service Nameplate	(1)
3	45-24-0600	Speed Selector Assembly	(1)
4	06-82-7236	4-20 x 5/8" Pan Hd. Plastite T-10	(9)
5	23-66-0605	Switch	(1)
6	45-24-0640	Reversing Shuttle	(1)
7	----------	Lead Wire Assembly (set of 2)	(1)
8	14-29-0180	Gearbox Assembly	(1)
9	43-76-0710	Clutch Ring	(1)
10	23-30-0755	Motor Assembly	(1)
11	45-22-0340	Front Rubber Sleeve	(1)
12	45-22-0710	Rear Rubber Sleave	(1)
13	22-18-1165	Brush Assembly Set (Set of 2)	(2)
14	48-66-1575	1/2" Keyless Chuck	(1)
15	05-88-1500	M6 x 1.0 LH Chuck Screw w/ locking patch	(1)
16	31-50-2275	Handle Kit	(1)
17	22-56-0985	Connector Block Assembly	(1)
18	40-50-1130	Detent Spring	(1)
19	06-82-5275	6-32 x 5/16" Pan Hd. Tapt. T-15 Scr.	(2)
20	43-72-0455	Bit Holder Assembly	(1)
21	43-72-0300	Belt Clip Holder	(1)
22	48-30-1520	#2 Phillips Bit	(1)
23	----------	Connector Block Cover	(1)
24	43-56-0820	Motor/Switch Wire Harness (not shown)	(1)
25	45-24-0850	Speed Selector Slide	(1)
26	43-56-0800	Speed Selector Guide	(1)
27	40-50-1390	Speed Selector Spring	(1)
28	40-50-0520	Speed Selector Detent Spring	(1)
29	02-02-1300	5mm Ball	(1)
	42-70-5005	Clip-Lok (Not Shown)	(1)
	49-15-0400	Side Handle (Not Shown)	(1)

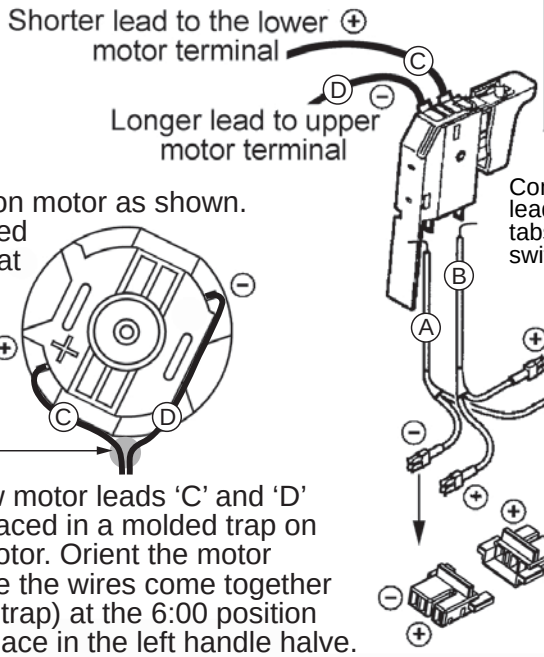


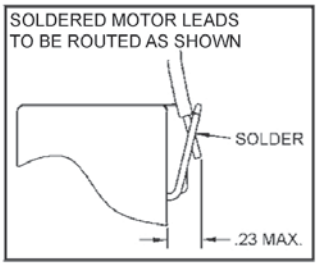
SEE PAGES 3, 4 AND 5 FOR IMPORTANT INSTRUCTIONS TO PROPERLY ASSEMBLE THE GEARBOX AND THE CLUTCH RING.

FIG.	NOTES:
♦10,13	When ordering the service brush assemblies (13) only, the yellow wires are not supplied. The wires must be unsoldered from the old brush holders and resoldered to the new brush holders. When ordering the service motor assembly (10), the brush assembly comes complete with the wires soldered in place, along with the front rubber sleeve (11), rear motor sleeve (12) and the wire harness (24).
17,23	Snap cover (23) onto connector block (17) after installing leadwire assembly (7).

WIRING INSTRUCTIONS

NOTE:
Proper polarity in the terminal block requires leads to be crossed as illustrated.





Connect the terminals of leadwire assemblies to the tabs on the bottom of the switch and solder, as shown.

Position motor as shown. Trapped wires at 6:00.

Yellow motor leads 'C' and 'D' are placed in a molded trap on the motor. Orient the motor (where the wires come together in the trap) at the 6:00 position and place in the left handle halve.

WARNING!
Switch polarity sensitive if wired incorrectly with the terminal block(17). The switch will be damaged and destroyed.

♦ **NOTE:**
When ordering the service brush assemblies (13) only, the yellow brush assembly wires are not supplied. The wires must be unsoldered from the old brush holders and resoldered to the new brush holders. Care must be taken to position and resolder the wires as in the old assembly.

If yellow motor lead wires are damaged, order No. 23-94-5061 (10' length of yellow 16 gauge wire). Cut and strip to the specifications listed below.

WIRING SPECIFICATIONS

Wire No.	Wire Color	Origin or Gauge	Length	Terminals, Connectors and 1 or 2 End Wire Preparation
A	Black	22-56-0985	-----	Leadwire assembly - Black
B	Red	22-56-0985	-----	Leadwire assembly - Red
C	Yellow	♦	4"	Strip one end .25 and solder to switch / Strip the other end .18 and solder to brush assy.
D	Yellow		5"	

BULK LEAD WIRE - BULLETIN NO. 58-01-0003

TERMINAL DESCRIPTION		
Code	Part No.	Qnty.

INSTRUCTIONS FOR SERVICING THE CLUTCH MECHANISM

SETTING THE CLUTCH RETAINING COLLAR

Gearbox square ■ and triangle ▲ are whitened for reference only.

- **NOTE:** Triangle ▲ of rear gearbox assembly housing is aligned with square ■ located on front housing.

  Begin assembly by aligning the retaining collar triangle ▲ with front housing square ■ and rear gearbox triangle ▲ at the 12 o'clock position.

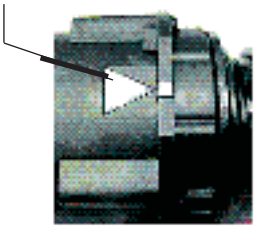
- Turn retaining collar clockwise until clutch spring is fully collapsed. Retaining collar triangle ▲ should be at approximately the 12 o'clock position to the front housing square ■ and the rear gearbox triangle ▲.

- If the front retaining collar triangle ▲ stops at approximately the 5 o'clock position, the retaining collar will have been installed 180° off. This requires unthreading and rethreading of the collar. Initial position of collar for proper threading is with triangles ▲ aligned.

- When fully compressed, make sure the retaining collar triangle ▲ is in line with the front housing square ■ and rear gearbox triangle ▲.

☞ Clutch collar triangles ▲ on a few gearboxes may be slightly to the left of the center 12 o'clock position when tightened, as shown below.

Triangle ▲ of rear gearbox assembly housing is aligned with square ■ located on front housing.







Clutch Spring/Retaining Collar fully compressed- triangles ▲ in alignment.

STEP 1

CHECKING / SETTING THE HAMMER SHIFT COLLAR

The following must be in place:

- Clutch collar triangle ▲ (tight) in-line, slightly to the left of gearbox 12 o'clock position. (Set in step 1).

- Washer [A] visible above hammer shift collar, (fig. 2).

- Hammer Shift Collar [B] notch [1] with the .160 wide notch in-line or slightly left of gearbox 12 o'clock position (fig. 1).

☞ If hammer Shift Collar [B] is out of position, it will look like example shown in (fig. 3).

Rotate shift collar left or right by hand until it drops into position shown in (fig. 2). The washer must be visible, and the .160 wide shift collar notch [1] must be in-line or slightly left of top 12 o'clock position, as viewed from the front of the gearbox.

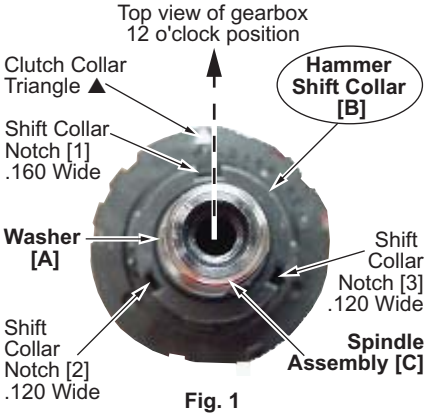


Fig. 1

Hammer Shift Collar Properly seated in Gearbox

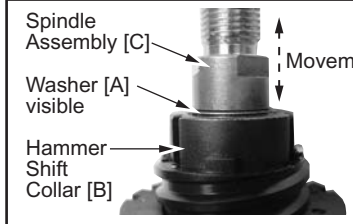


Fig. 2 Correct Position

Washer [A] must be visible above Hammer Collar [B] on Spindle Assembly [C]

Hammer Shift Collar Improperly seated in Gearbox

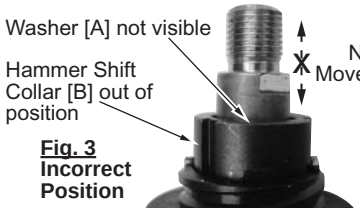


Fig. 3 Incorrect Position

If Washer [A] is not visible, turn collar left or right by hand until it drops into position shown on [fig. 2]. Only one position will allow Hammer Shift Collar to drop down.

STEP 2

LOCATING RAISED GEARBOX NOTCHES FOR CLUTCH RING SPRING ASSEMBLY

Locate clutch ring spring notches by first identifying...

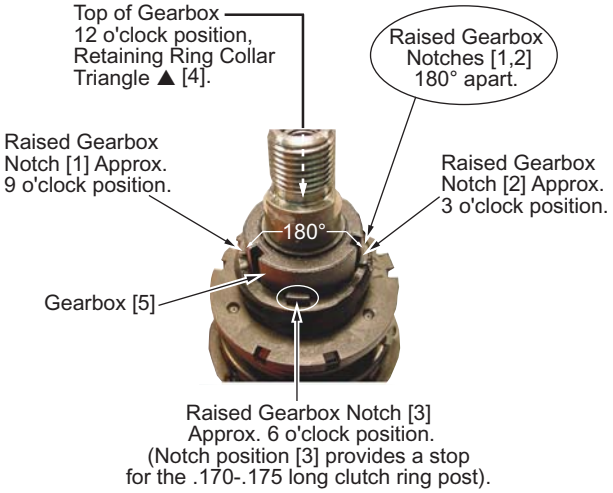
- The triangle ▲ on top of retaining collar [4].

- Raised gearbox notch [1] located at approx. 9 o'clock position.

- Raised gearbox notch [2] located at approx. 3 o'clock position. (Notch [1] and [2] located 180° apart on gearbox [5], as viewed from front of gearbox).

- Raised gearbox notch [3]. (Will not contact clutch ring spring).

Proceed to STEP 4.

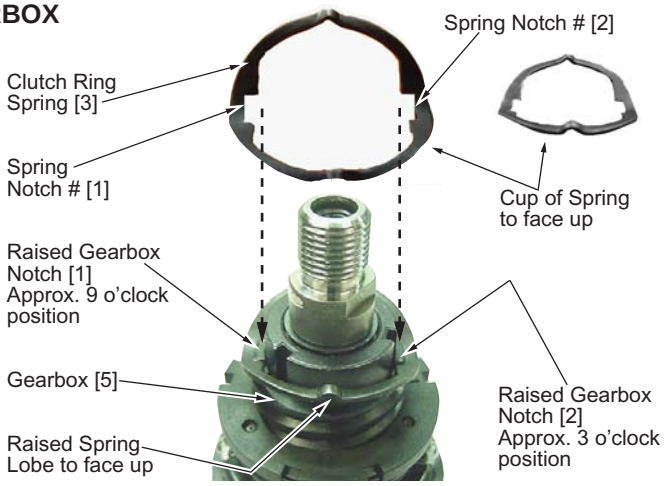


STEP 3

INSTALLING CLUTCH RING SPRING ONTO GEARBOX

- Position clutch ring spring [3] above gearbox [5]. (Cup of spring to face up).
- Position clutch ring spring notches [1,2] over raised gearbox notches [1,2]. (Make sure spring is seated flat and fits firmly over both raised gearbox notches).

Proceed to RECAPPING STEPS 1,2,3,4.

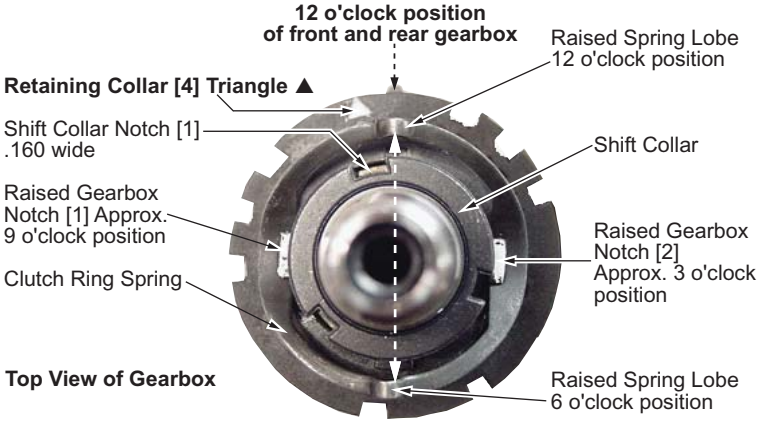


STEP 4

RECAPPING STEPS 1,2,3,4

- Retaining collar [4] should be tightened completely (clockwise) with triangle ▲ in-line or slightly to the left of top 12 o'clock position.
- Shift collar notch [1] with a .160 wide opening must be in-line or slightly to the left of the 12 o'clock position of front gearbox. (Widest of the three openings in the shift collar).
- Raised spring lobes will be in-line with the 12 and 6 o'clock position of front gearbox.

Proceed to STEP 5.



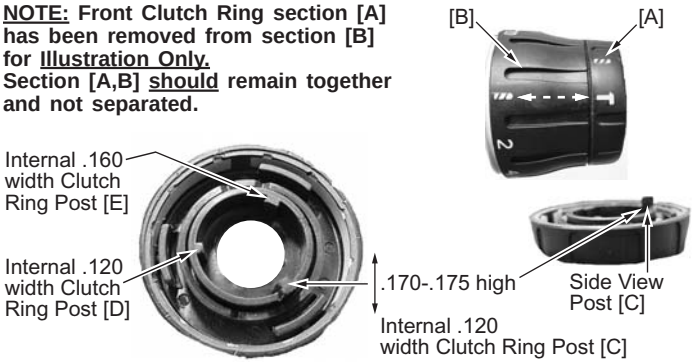
INSTALLING CLUTCH RING ONTO GEARBOX

Before installing clutch ring assembly [A,B] onto gearbox...

- Identify internal clutch ring [A] components and the corresponding widths.
- Concentrate on the main clutch ring post when installing the clutch collar assembly. The main post [E] is the widest of the three, with a width of approximately .160.

Proceed to STEP 6.

NOTE: Front Clutch Ring section [A] has been removed from section [B] for Illustration Only.
Section [A,B] should remain together and not separated.



Rear view of (outside) Clutch Ring [A] to illustrate internal Clutch Ring Post widths and positions.

STEP 5

INSTALLING CLUTCH RING ONTO GEARBOX

- Align two piece clutch assembly [A,B], as shown in fig. 1.
- Turn clutch ring assembly to position shown in fig. 2 to view internal clutch ring posts [C,D,E] for correct position prior to assembling clutch ring to gearbox.

Proceed to STEP 7.

12 o'clock position of Clutch Ring [B] will have the Drill Symbol .

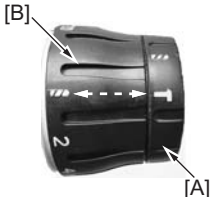


Fig. 1

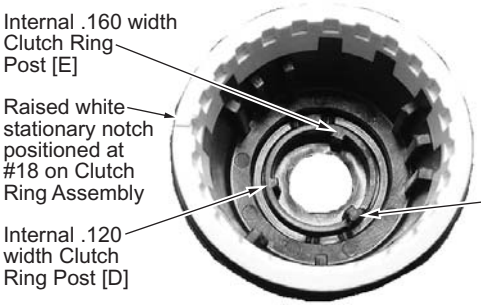


Fig. 2

Picture shown with hammer symbol aligned with drill symbol ready for assembly.

STEP 6

INSTALLING CLUTCH RING ONTO GEARBOX

- Hold gearbox assembly, fig. 3 in one hand with the 12 o'clock position facing up.
- Install clutch ring assembly, figs. 1,2 over gearbox assembly, fig. 3 in direction of arrows.
- Make sure drill symbol and hammer symbol stay in-line with the top 12 o'clock position of the gearbox when installing clutch ring.
- Failure to hold clutch ring symbols together, as shown in figs. 1,2, when installing clutch ring assembly, will result in a misalignment of the internal clutch ring post, shown / illustrated in step 5.

Proceed to STEP 8.

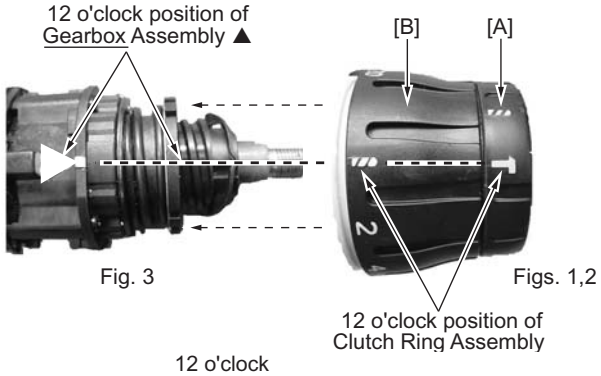


Fig. 3

Figs. 1,2

12 o'clock position of
Clutch Ring Assembly

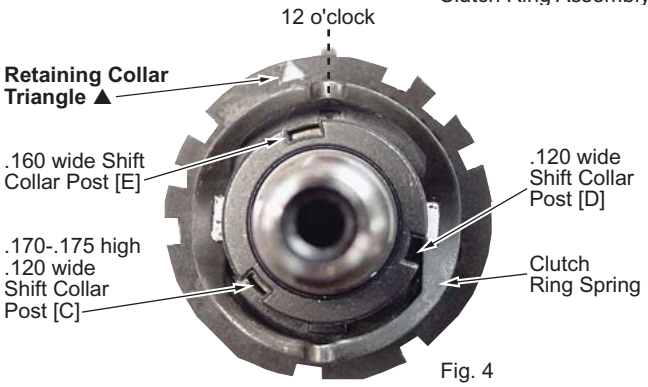


Fig. 4

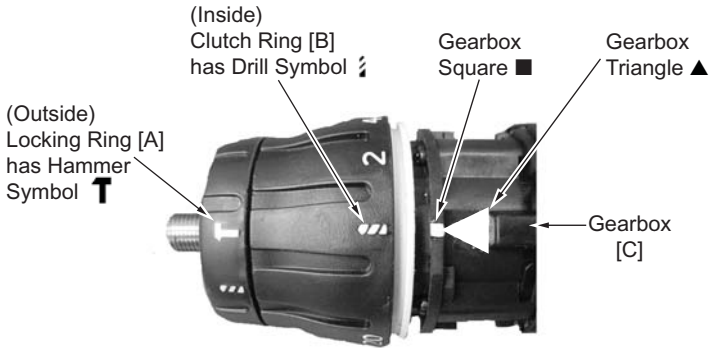
STEP 7

TOP VIEW OF GEARBOX WITH CLUTCH RING INSTALLED

- Triangle ▲ and square ■ located on gearbox [C], should be in-line with drill symbol and hammer symbol on clutch ring assembly [A,B].

Proceed to STEP 9.

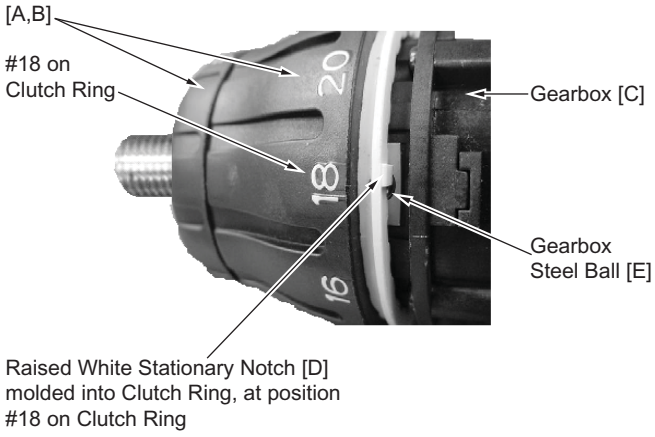
☞ Gearbox square ■ and triangle ▲ are highlighted for reference only.



STEP 8

RIGHT SIDE OF GEARBOX WITH CLUTCH RING INSTALLED (As viewed from the front of the gearbox)

- Clutch ring [A,B], when properly installed, will have the number 18 and raised white stationary notch [D] (as viewed from the front of the gearbox) on the right side of gearbox [C] in-line with gearbox steel ball [E].



STEP 9