General Information

Tightening Torques

Item	N.m	Kgf.m	lb-ft
Magnetic plug	58.9~78.5	6.0~8.0	43.4~57.9
Rail support bracket	19.6~26.5	2.0~2.7	14.5~19.5
Oil filler plug	29.4~34.3	3.0~3.5	21.7~25.3
Idler shaft bolt	24.5~29.4	2.5~3.0	18.1~21.7
Back up lamp switch	29.4~34.3	3.0~3.5	21.7~25.3
Complete	9.8~11.8	1.0~1.2	7.2~8.7

Lubricants

Item	Lubricant	Quantity
Transaxle input shaft spline	CASMOLY L9508	0.2 gr.
Transaxle case gasket	LOCTITE 587 or 5060	As required

Service Standard

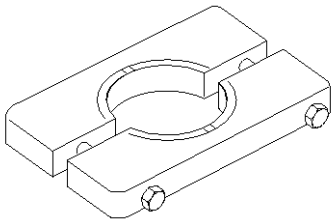
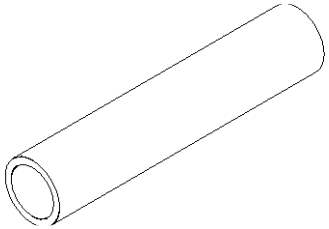
Item	Specification [mm(inch)]
Differential end play	0.15T-0.20T (0.0059T~0.0079T)
Input shaft end play	0.05T-0 (0.0020T~0)
1st output shaft end play	0.05T-0.10T (0.0020T~0.0039T)
2nd output shaft end play	0.05T-0.10T (0.0020T~0.0039T)
1st gear end play	0.135T-0.435T (0.0053T~0.0171T)
2nd gear end play	0.230T-0.430T (0.0091T~0.0169T)
3rd gear end play	0.135T-0.405T (0.0053T~0.0159T)
4th gear end play	0.230T-0.430T (0.0091T~0.0169T)
5th gear end play	0.125T-0.305T (0.0049T~0.0120T)
6th gear end play	0.155-0.445 (0.0061~0.0175)
Reverse gear end play	0.135T-0.345T (0.0053T~0.0136T)

Spacers

Part name	Thickness [mm(inch)]	Identification number
Spacer (For adjustment of input shaft rear bearing end play)	2.15 (0.0846)	15
	2.20 (0.0866)	20
	2.25 (0.0886)	25
	2.30 (0.0906)	30
	2.35 (0.0925)	35
	2.40 (0.0945)	40
	2.45 (0.0965)	45
	2.50 (0.0984)	50
	2.55 (0.1004)	55
	2.60 (0.1024)	60
	2.65 (0.1043)	65
	2.70 (0.1063)	70
	2.75 (0.1083)	75
	2.80 (0.1102)	80
	2.85 (0.1122)	85
Spacer (For adjustment of 1st output shaft rear bearing end play)	2.30 (0.0906)	30
	2.35 (0.0925)	35
	2.40 (0.0945)	40
	2.45 (0.0965)	45
	2.50 (0.0984)	50
	2.55 (0.1004)	55
	2.60 (0.1024)	60
	2.65 (0.1043)	65
	2.70 (0.1063)	70
	2.75 (0.1083)	75
	2.80 (0.1102)	80

Part name	Thickness [mm(inch)]	Identification number
Spacer (For adjustment of 2nd output shaft rear bearing end play)	2.30 (0.0906)	30
	2.35 (0.0925)	35
	2.40 (0.0945)	40
	2.45 (0.0965)	45
	2.50 (0.0984)	50
	2.55 (0.1004)	55
	2.60 (0.1024)	60
	2.65 (0.1043)	65
	2.70 (0.1063)	70
	2.75 (0.1083)	75
	2.80 (0.1102)	80
Spacer (For adjustment of differential end play)	1.13(0.0445)	13
	1.16(0.0457)	16
	1.19(0.0469)	19
	1.22 (0.0480)	22
	1.25 (0.0492)	25
	1.28 (0.0504)	28
	1.31 (0.0516)	31
	1.34 (0.0528)	34
	1.37 (0.0539)	37
	1.40 (0.0551)	40
	1.43 (0.0563)	43
	1.46 (0.0575)	46
	1.49 (0.0587)	49
	1.52 (0.0598)	52
	1.55 (0.0610)	55
	1.58 (0.0622)	58
	1.61 (0.0634)	61
	1.64 (0.0646)	64
	1.67 (0.0657)	67
	1.70 (0.0669)	70

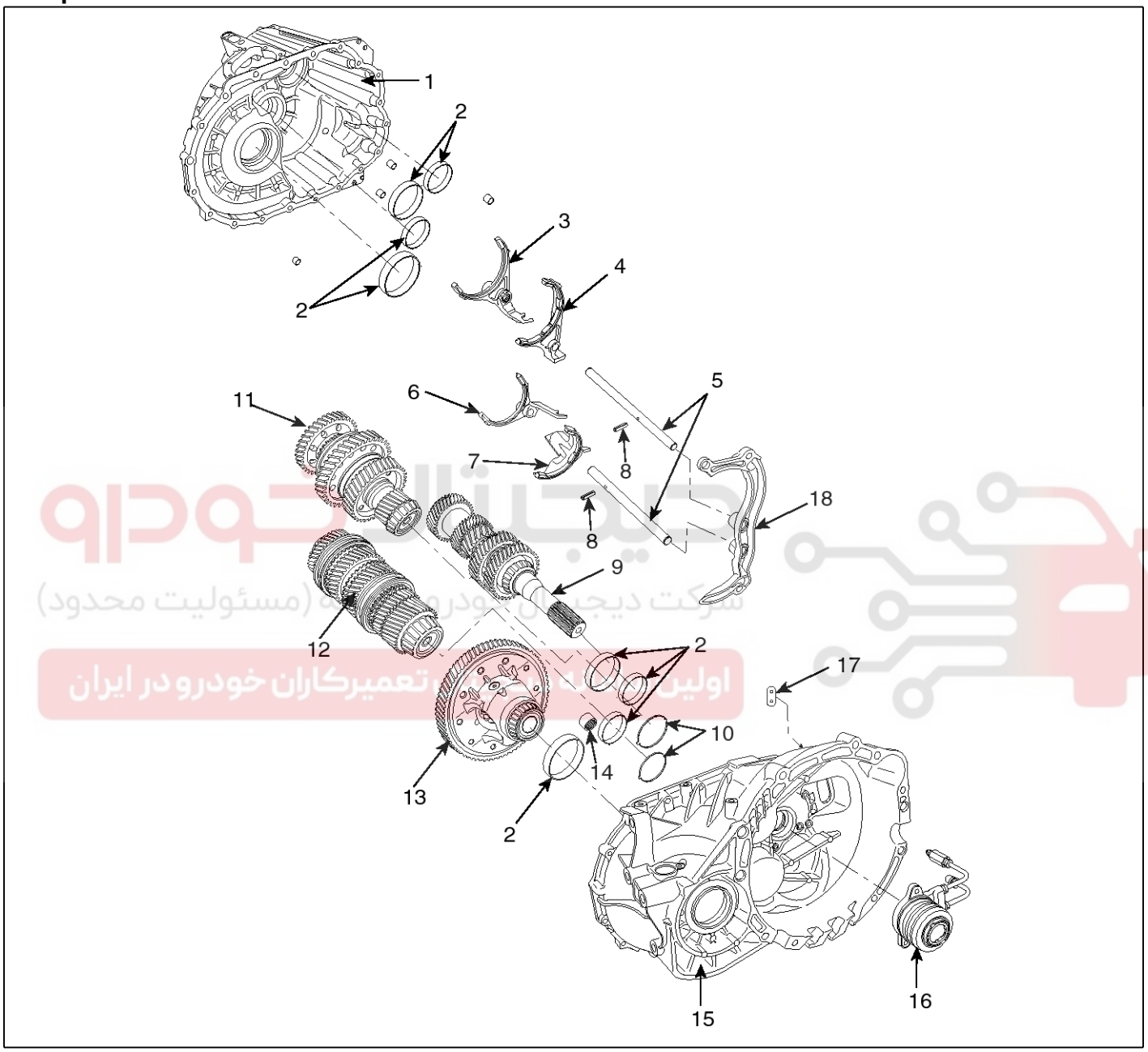
Special Service Tools

Tools (Number and name)	Illustration	Use
09527-4A000 Removing plate	 KMRE001T	Removal of the 1st output shaft front taper roller bearing.
09432-3K000 Oil seal installer	 KMRE001U	Installation of an input shaft oil seal in a clutch housing.

Manual Transaxle System

Manual Transaxle

Components

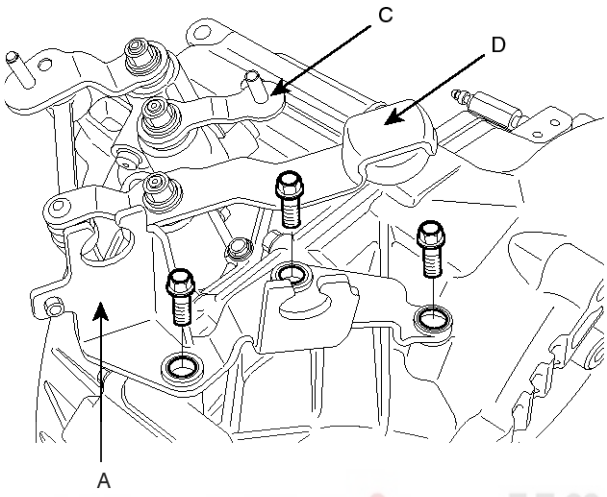


S226M0000L

1. Transaxle case
2. Taper roller bearing outer race
3. 1st/2nd shift fork
4. Reverse shift fork
5. Shift rail
6. 3rd/4th shift fork
7. 5th/6th shift fork
8. Spring pin
9. Input shaft
10. Oil guide
11. 1st output shaft
12. 2nd output shaft
13. Differential assembly
14. Needle bearing
15. Clutch housing
16. Concentric slave cylinder assembly
17. Boot
18. Rail support bracket

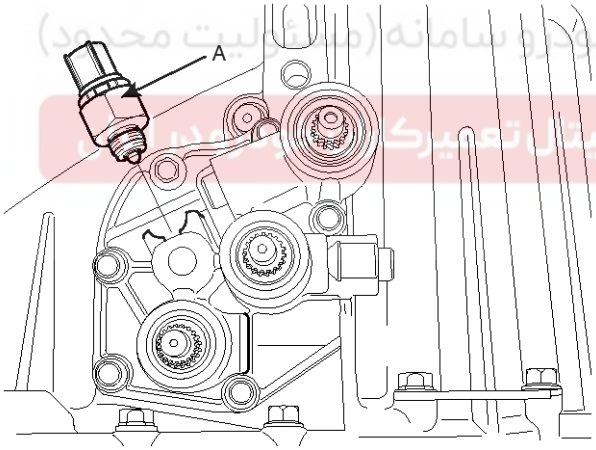
Disassembly

1. After removing the boot, disassemble the concentric slave cylinder assembly.
2. Remove the shift control cable bracket assembly(A).
3. Remove the select lever(C) and shift link assembly(D).



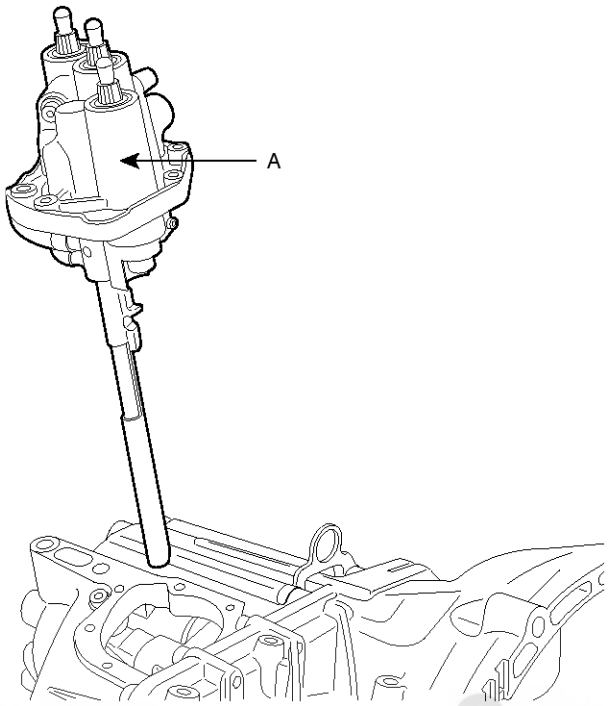
KMRE007J

4. Remove the back up lamp switch(A.



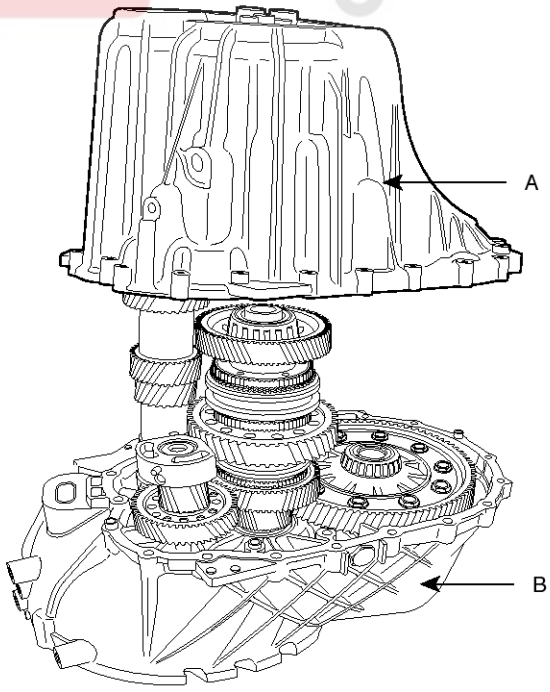
S226M0001L

5. Remove the control shaft complete(A).



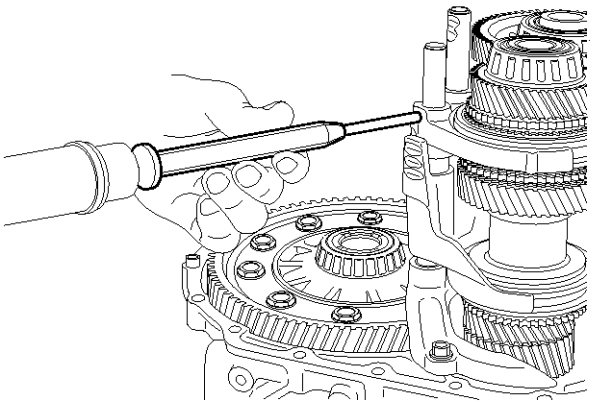
KMRE007L

6. Disconnect the transaxle hanger.
7. Remove the oil filler plug and the idler shaft bolt.
8. Disconnect the clutch housing(B) from the transaxle case(A).



KMRE007A

9. Remove the spring pins from the shift rail(3rd/4th & Reverse).

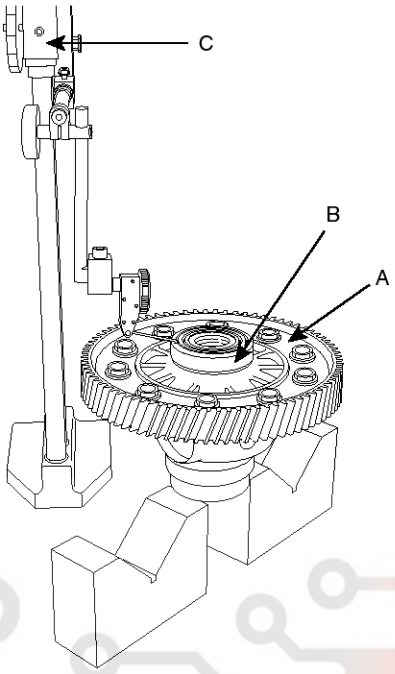


KMRE007K

10. Remove the shift folks(4EA) and shaft rails(2EA) and rail support bracket.
11. Remove the parts in the order as shown below.
    2nd output shaft→input shaft→1st output shaft→differential assembly.
12. Remove the reverse idler gear assembly.
13. Remove the magnetic plug and the concentric slave cylinder.
14. Remove oil guides, bearing outer races, dowel pins and spacers from the clutch housing.
15. Remove oil seals and guides from the clutch housing.

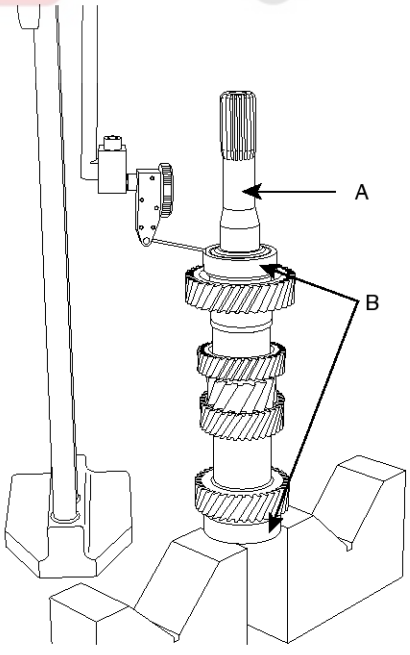
Reassembly

1. Assemble the reverse idler gear assembly.
2. Measure the height with a height gauge(C), after fixing the taper roller bearing outer race(B) to the differential assembly(A).



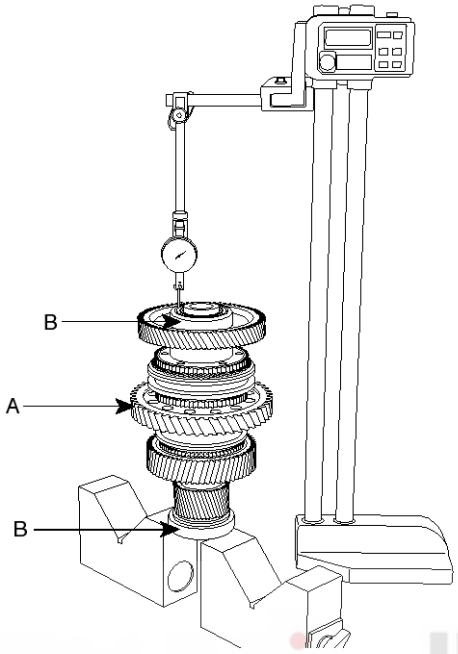
KMRE006B

3. After installing the taper roller bearing outer race(B) to both sides of the input shaft(A), measure the height with a gauge.



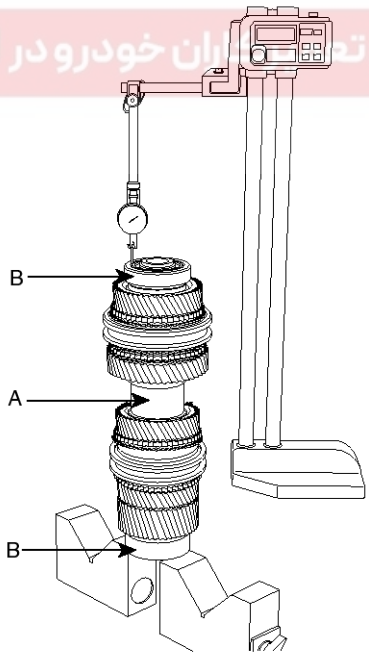
LM71002A

4. After installing the taper roller bearing outer race(B) to both sides of the 1st output shaft(A), measure the height with a gauge.



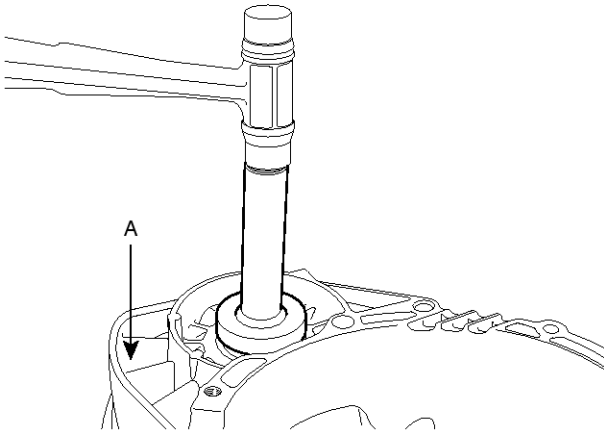
KMRE006D

5. After installing the taper roller bearing outer race(B) to both sides of the 2nd output shaft(A), measure the height with a gauge.

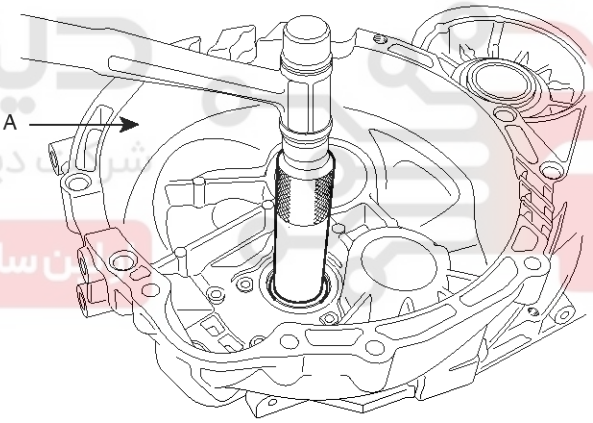


S226M0002L

6. Assemble oil seals and guides to the clutch housing(A).



KMRE006F

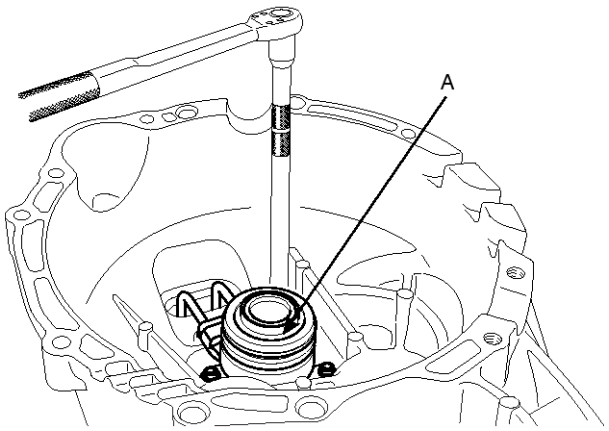


KMRE006G

7. Install the concentric slave cylinder assembly(A) and the boot.

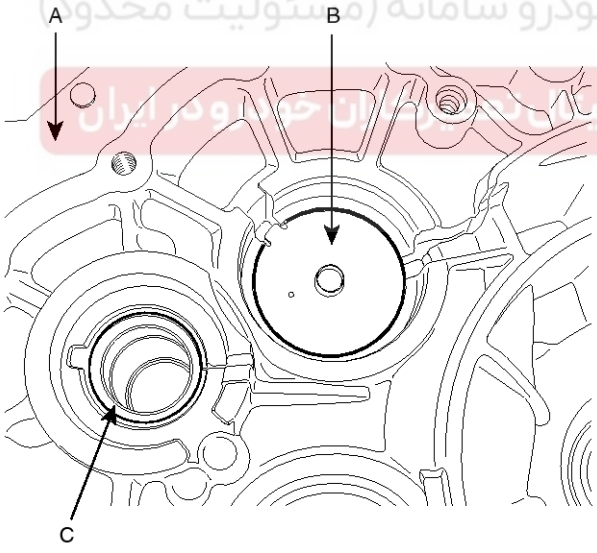
Tightening torque :
11.8~14.7N.m (1.2~1.5kgf.m, 8.7~10.8lb-ft)

Give it a series of tightenings.

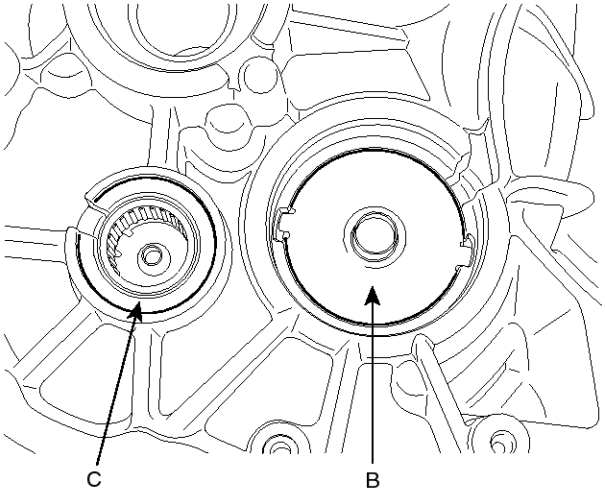


KMRE006H

8. Fix the oil guides(B), bearing outer races, dowel pins and spacers(C) to the clutch housing(A).



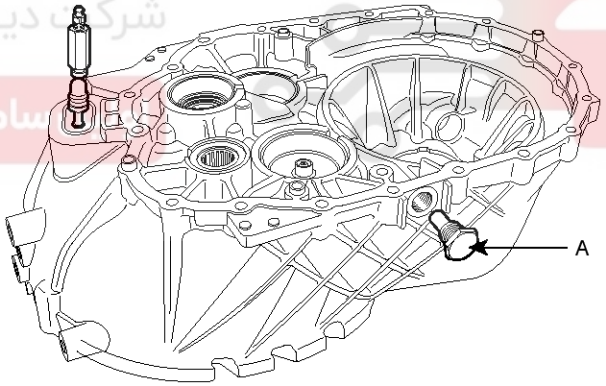
KMRE006I



KMRE006J

9. Insert a rubber bushing in the hole for the concentric slave cylinder.
10. Tighten the magnetic plug(A).

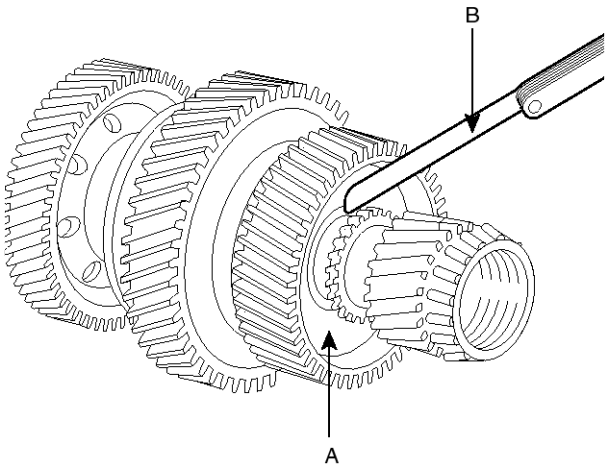
Tightening torque :
58.8~78.5N.m (6.0~8.0kgf.m, 43.4~57.9lb-ft)



KMRE006K

11. Measure the end play with a thickness gauge(B) in the reverse gear(A) of the 1st output shaft.

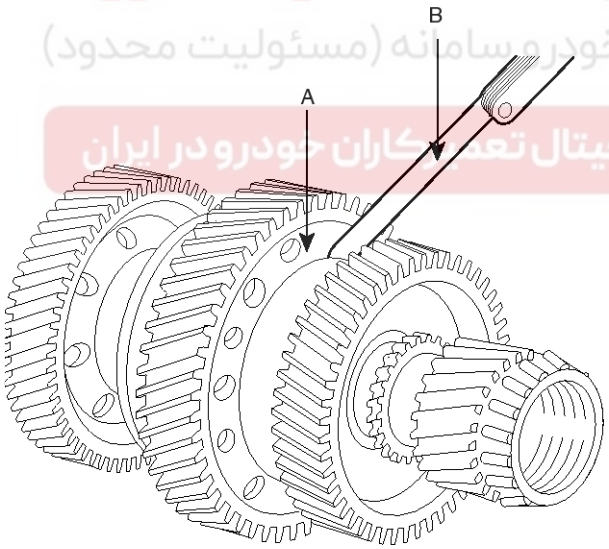
Standard Value : 0.135~0.345mm



KMRE006L

12. Measure the end play with a thickness gauge(B) in the 1st gear(A) of the 1st output shaft.

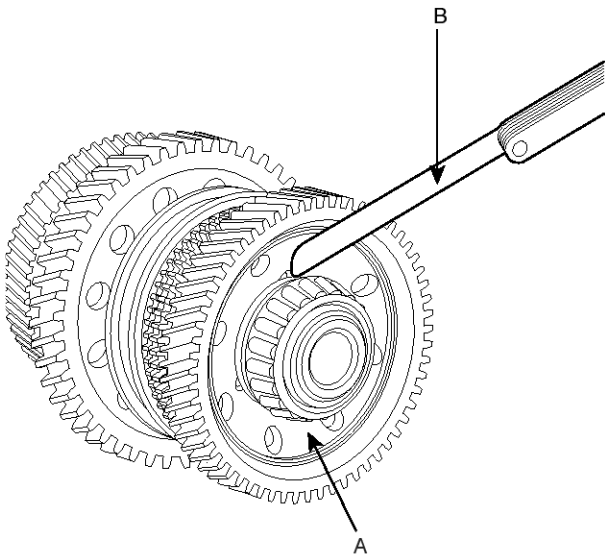
Standard Value : 0.135~0.435mm



KMRE006M

13. Measure the end play with a thickness gauge(B) in the 2nd gear(A) of the 1st output shaft.

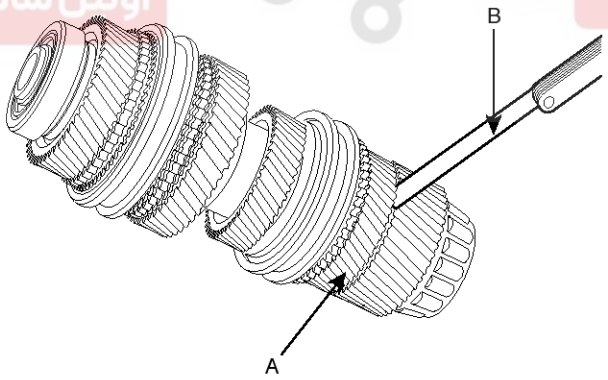
Standard Value : 0.230~0.430mm



KMRE006N

14. Measure the end play with a thickness gauge(B) in the 5th gear of the 2nd output shaft(A).

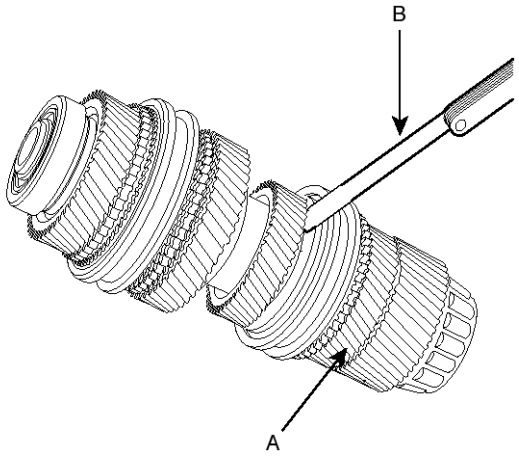
Standard Value : 0.125~0.305mm



LM71002B

15. Measure the end play with a thickness gauge(B) in the 6th gear(A) of the 2nd output shaft.

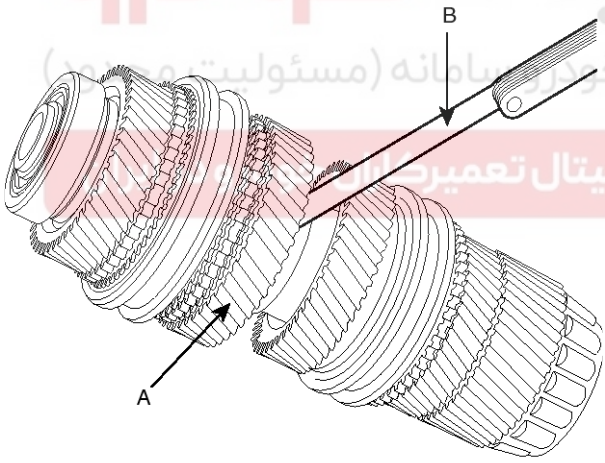
Standard Value : 0.155~0.445mm



S226M0004L

16. Measure the end play with a thickness gauge(B) in the 3rd gear(A) of the 2nd output shaft.

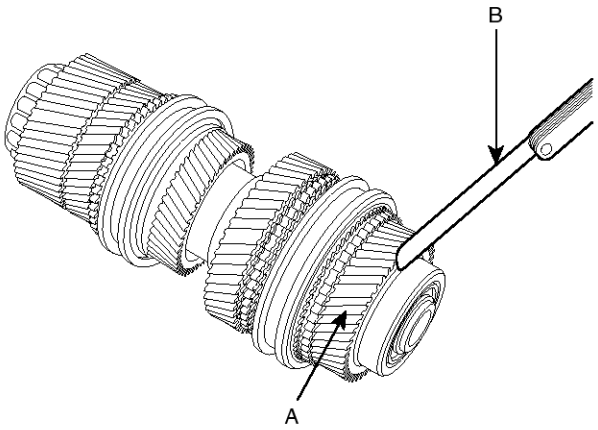
Standard Value : 0.135~0.405mm



LM71002C

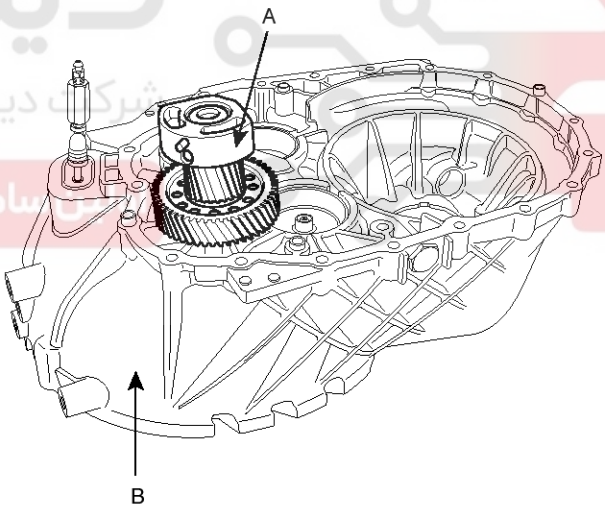
17. Measure the end play with a thickness gauge(B) in the 4th gear(A) of the 2nd output shaft.

Standard Value : 0.230~0.430mm



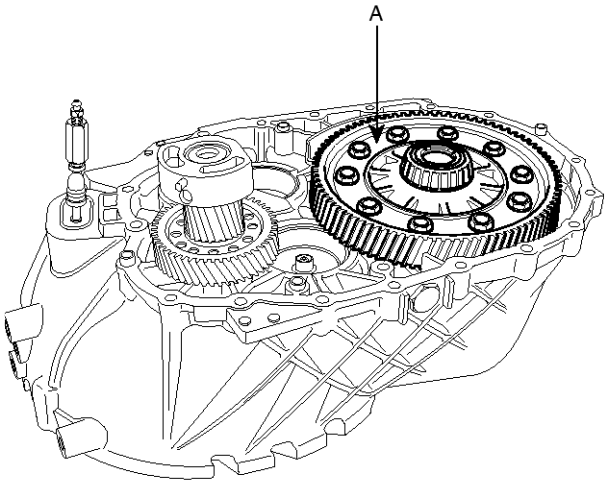
LM71002D

18. Install the reverse idler gear assembly(A) with a spacer in the clutch housing(B).



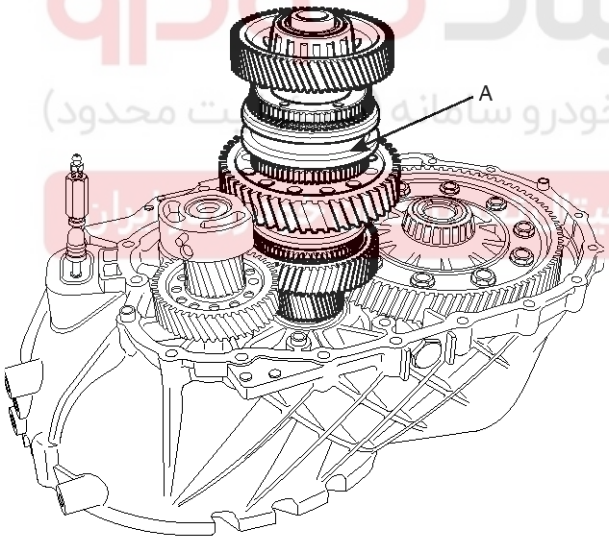
KMRE006R

19. Install the differential assembly(A) with a spacer in the clutch housing.



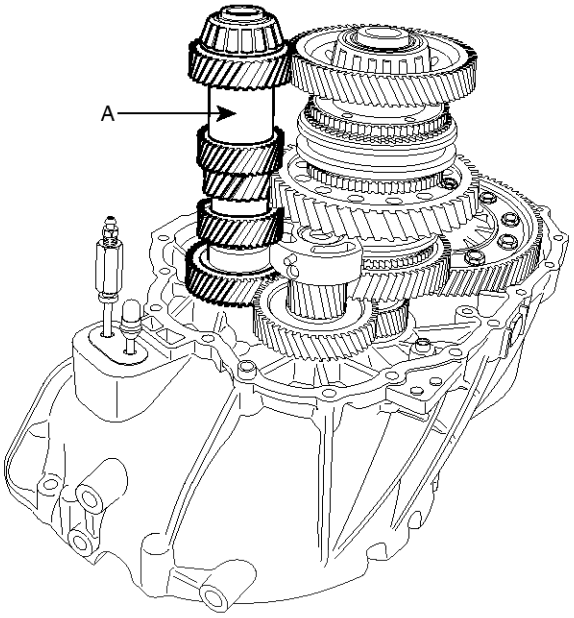
KMRE006S

20. Install the 1st output shaft(A) with a spacer in the clutch housing.



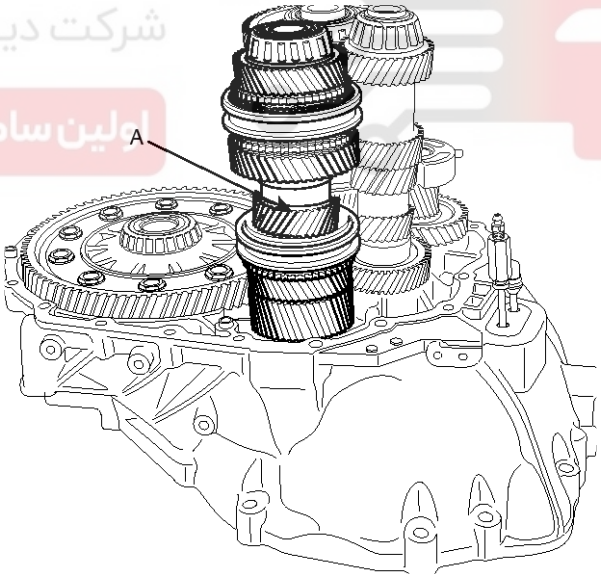
KMRE006T

21. Install the input shaft(A) with a spacer in the clutch housing.



LM71002E

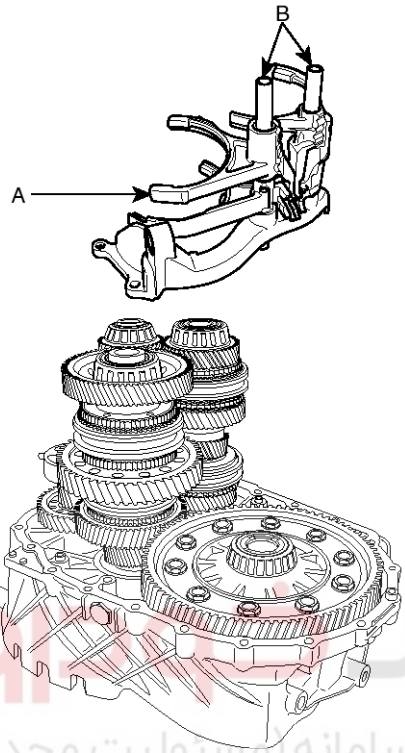
22. Install the 2nd output shaft(A) with a spacer in the clutch housing.



LM71002F

23. Install the shift folk(4EA)(A) and shift rails(2EA)(B) and rail support bracket.

Tightening torque :
19.6~26.5N.m (2.0~2.7kgf.m, 14.5~19.5lb-ft) (3EA)

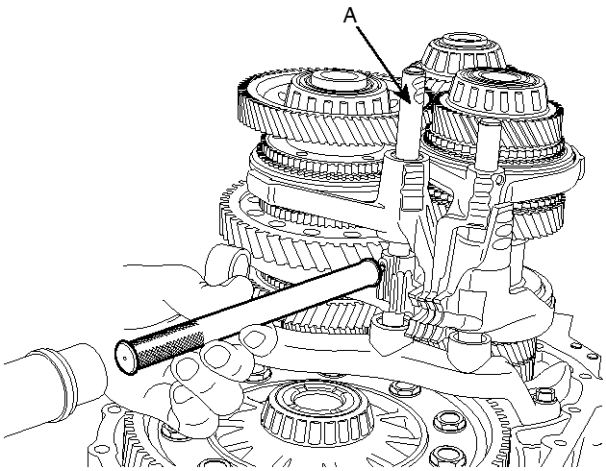


LM71002G

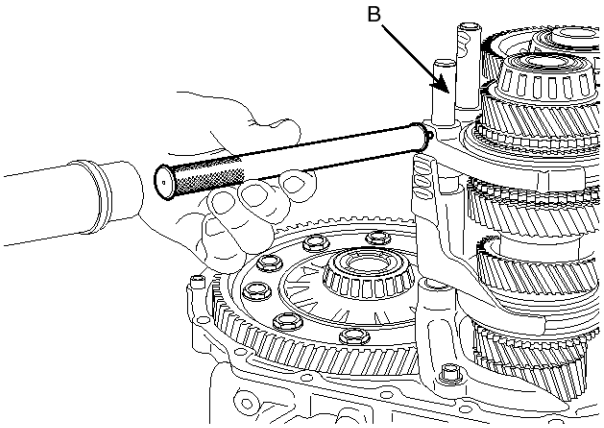
24. Fix them by inserting a pin into the shift rail(A, B).

NOTICE

Strike the spring pins with slit facing front or rear side.



KMRE006X



LM71002H

25. Insert spacers, bushings and bearing outer races in the transaxle case.

NOTICE

Differential end play [mm(inch)]: 0.15T-0.20T (0.0059T~0.0079T) (Preload : 686.5N.m, 70kgf.m, 506.3lb-ft)

Input shaft end play [mm(inch)]: 0.05T-0 (0.0020T~0) (Preload : 686.5N.m, 70kgf.m, 506.3lb-ft)

1st output shaft end play [mm(inch)]: 0.05T-0.10T (0.0020T~0.0039T) (Preload : 686.5N.m, 70kgf.m, 506.3lb-ft)

2nd output shaft end play [mm(inch)]: 0.05T-0.10T (0.0020T~0.0039T) (Preload : 686.5N.m, 70kgf.m, 506.3lb-ft)

Spacer thickness[mm(inch)] = Clutch housing height[mm(inch)] + Transaxle case [mm(inch)] - Measured length [mm(inch)] + end play + tolerance value 0.05mm(0.0020inch)

When measuring the length of the output shaft, the outer races on both sides should be installed to the output shaft.

Measure the length at least 3 other points and take the average value for accuracy.

When measuring end play, take the average.

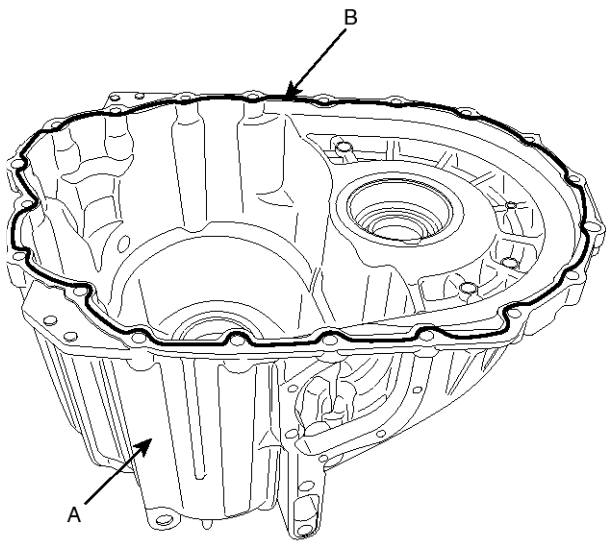
Tolerance means the applied value of shafts and differential length for the transaxle case weight.

Part name	Thickness [mm(inch)]	Identification number
Spacer (For adjustment of input shaft rear bearing end play)	2.15 (0.0846)	15
	2.20 (0.0866)	20
	2.25 (0.0886)	25
	2.30 (0.0906)	30
	2.35 (0.0925)	35
	2.40 (0.0945)	40
	2.45 (0.0965)	45
	2.50 (0.0984)	50
	2.55 (0.1004)	55
	2.60 (0.1024)	60
	2.65 (0.1043)	65
	2.70 (0.1063)	70
	2.75 (0.1083)	75
	2.80 (0.1102)	80
	2.85 90.1122)	85
Spacer (For adjustment of 1st output shaft rear bearing end play)	2.30 (0.0906)	30
	2.35 (0.0925)	35
	2.40 (0.0945)	40
	2.45 (0.0965)	45
	2.50 (0.0984)	50
	2.55 (0.1004)	55
	2.60 (0.1024)	60
	2.65 (0.1043)	65
	2.70 (0.1063)	70
	2.75 (0.1083)	75
	2.80 (0.1102)	80

Part name	Thickness [mm(inch)]	Identification number
Spacer (For adjustment of 2nd output shaft rear bearing end play)	2.30 (0.0906)	30
	2.35 (0.0925)	35
	2.40 (0.0945)	40
	2.45 (0.0965)	45
	2.50 (0.0984)	50
	2.55 (0.1004)	55
	2.60 (0.1024)	60
	2.65 (0.1043)	65
	2.70 (0.1063)	70
	2.75 (0.1083)	75
	2.80 (0.1102)	80
Spacer (For adjustment of differential end play)	1.13(0.0445)	13
	1.16(0.0457)	16
	1.19(0.0469)	19
	1.22 (0.0480)	22
	1.25 (0.0492)	25
	1.28 (0.0504)	28
	1.31 (0.0516)	31
	1.34 (0.0528)	34
	1.37 (0.0539)	37
	1.40 (0.0551)	40
	1.43 (0.0563)	43
	1.46 (0.0575)	46
	1.49 (0.0587)	49
	1.52 (0.0598)	52
	1.55 (0.0610)	55
	1.58 (0.0622)	58
	1.61 (0.0634)	61
	1.64 (0.0646)	64
	1.67 (0.0657)	67
	1.70 (0.0669)	70

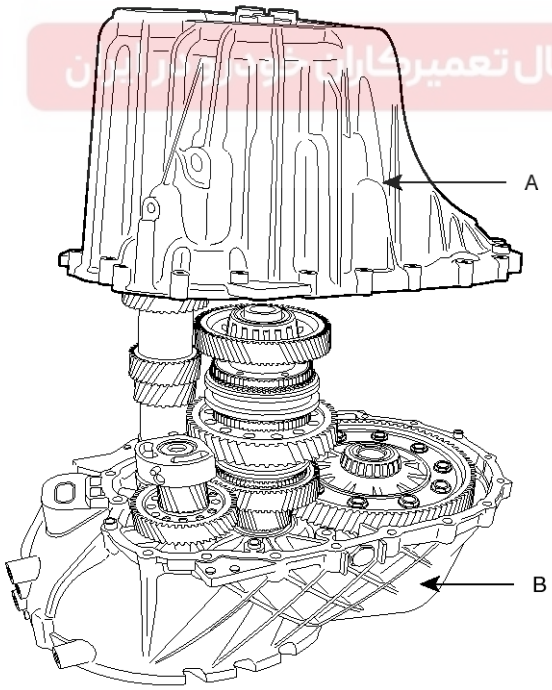
26. Apply the liquid gasket(B) on the transaxle case(A).

Specification : LOCTITE 587 or 5060



KMRE006Z

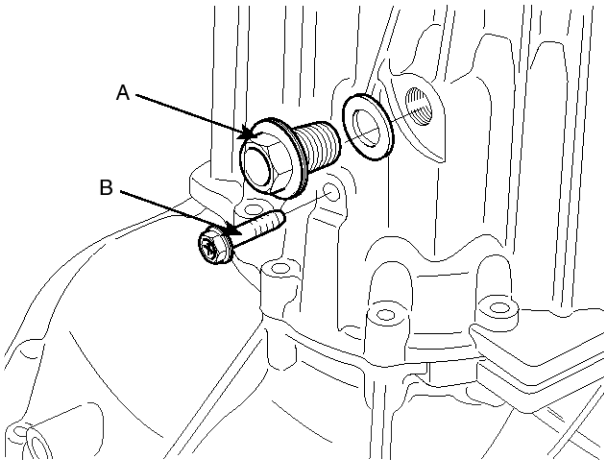
27. Align the pin position with the hole on the reverse idler gear damper.
28. Install the transaxle case(A) with the clutch housing(B).



KMRE007A

29. Tighten the oil filler plug(A) and idler shaft bolt(B).

Tightening torque :
29.4~34.3N.m (3.0~3.5kgf.m, 21.7~25.3lb-ft)
(Oil filler plug)
24.5~29.4N.m(2.5~3.0kgf.m, 18.1~21.7 ib-ft)
(Idler shaft bolt)

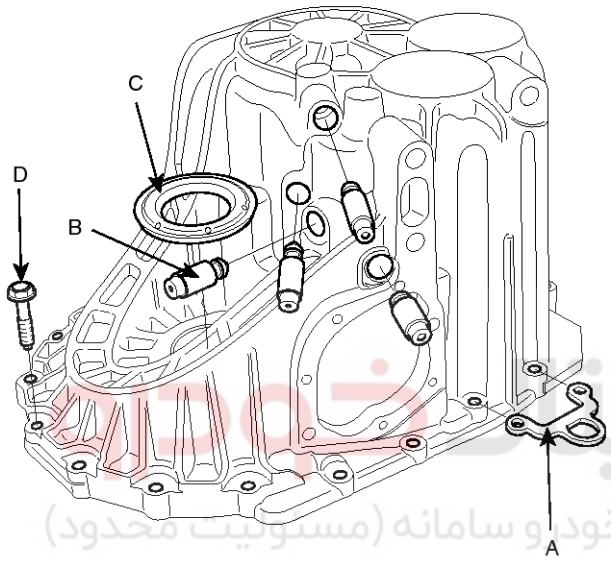


KMRE007B

30. Fix the transaxle hanger(A), detent pins(4EA)(B) and oil seal(C).

Tightening torque :
Transaxle case bolt(20EA)
24.5~29.4N.m (2.5~3.0kgf.m, 18.1~21.7lb-ft)(D)

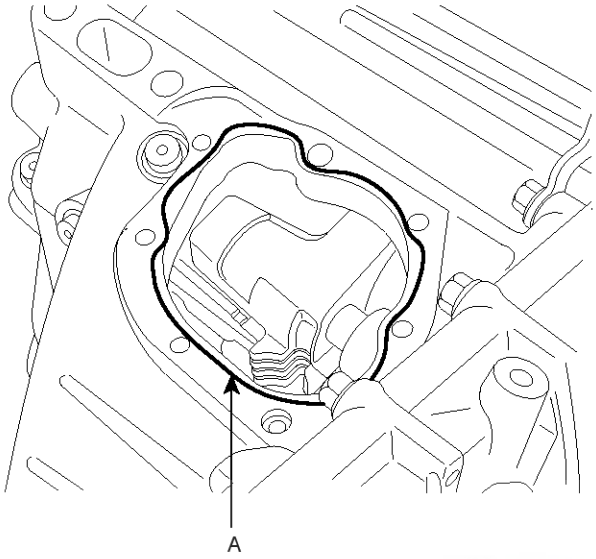
NOTICE
Press the detent pins for the step to be the same level as the surface on the transmission case(4 places).



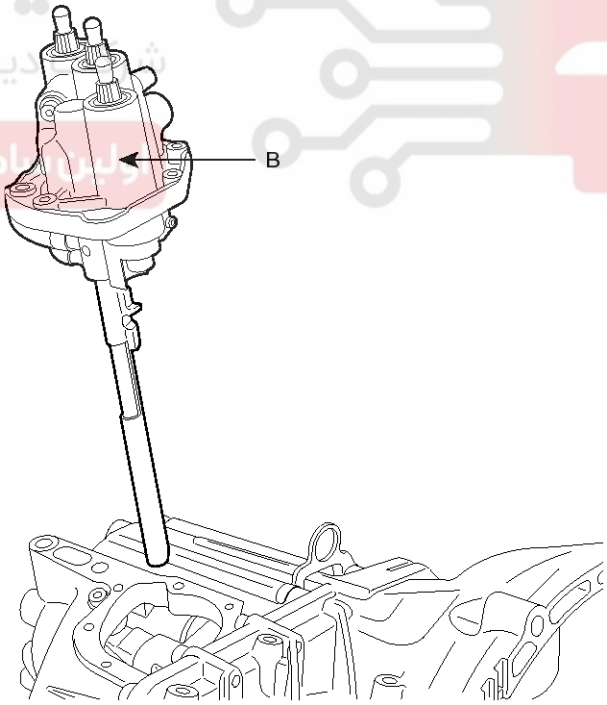
KMRE007C

31. Applying a liquid gasket(A) on the contacting surface of the control shaft complete(B), install it.

Tightening torque :
9.8~11.8N.m (1.0~1.2kgf.m, 7.2~8.7lb-ft) (7EA)



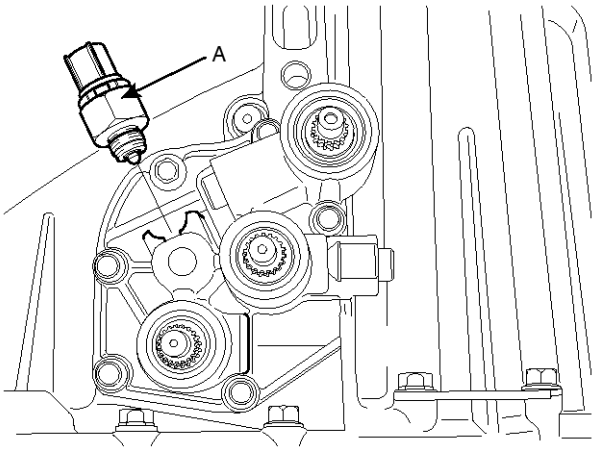
KMRE007D



KMRE007E

32. Tighten the back up lamp switch(A) and neutral suitch(B).

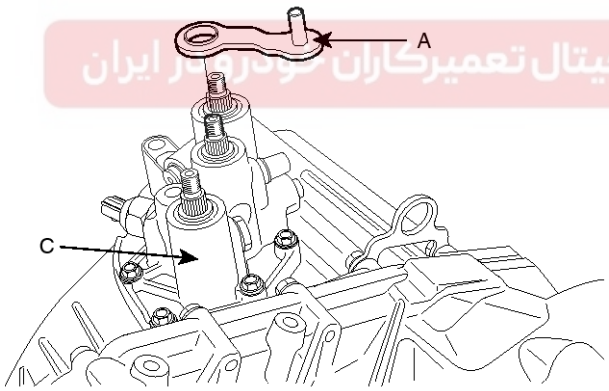
Tightening torque :
29.4~34.3N.m (3.0~3.5kgf.m, 21.7~25.3lb-ft)



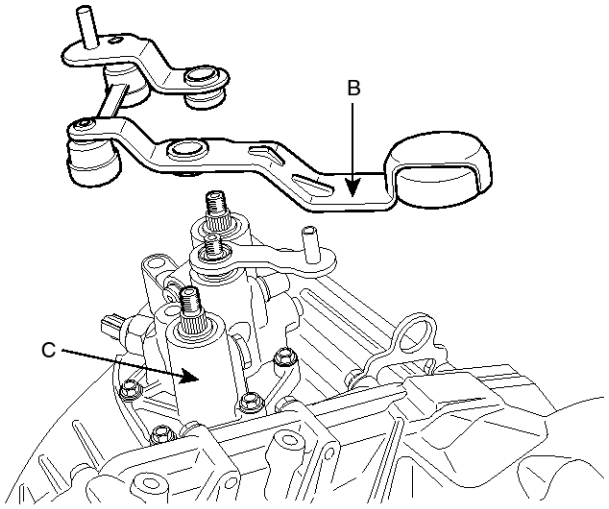
S226M0001L

33. Install the select lever(A) and the shift link assembly(B) aligning their position with the identification mark(yellow) which is on the control shaft complete(C).

Tightening torque :
42.2~53.9N.m (4.3~5.5kgf.m, 31.1~39.8lb-ft) (3EA)



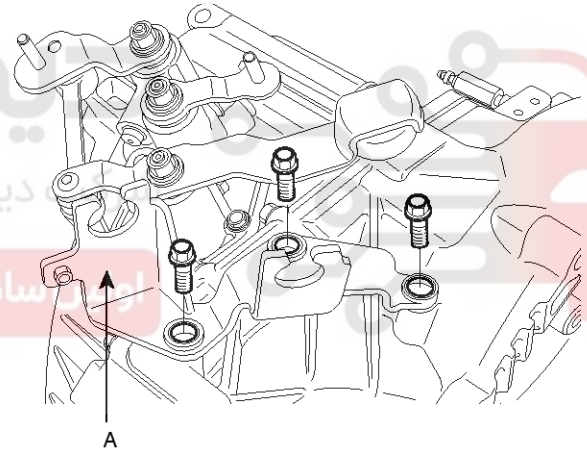
KMRE007G



KMRE007H

34. Install the shift control cable bracket assembly(A).

Tightening torque :
14.7~19.6N.m (1.5~2.2kgf.m, 10.8~14.5lb-ft)

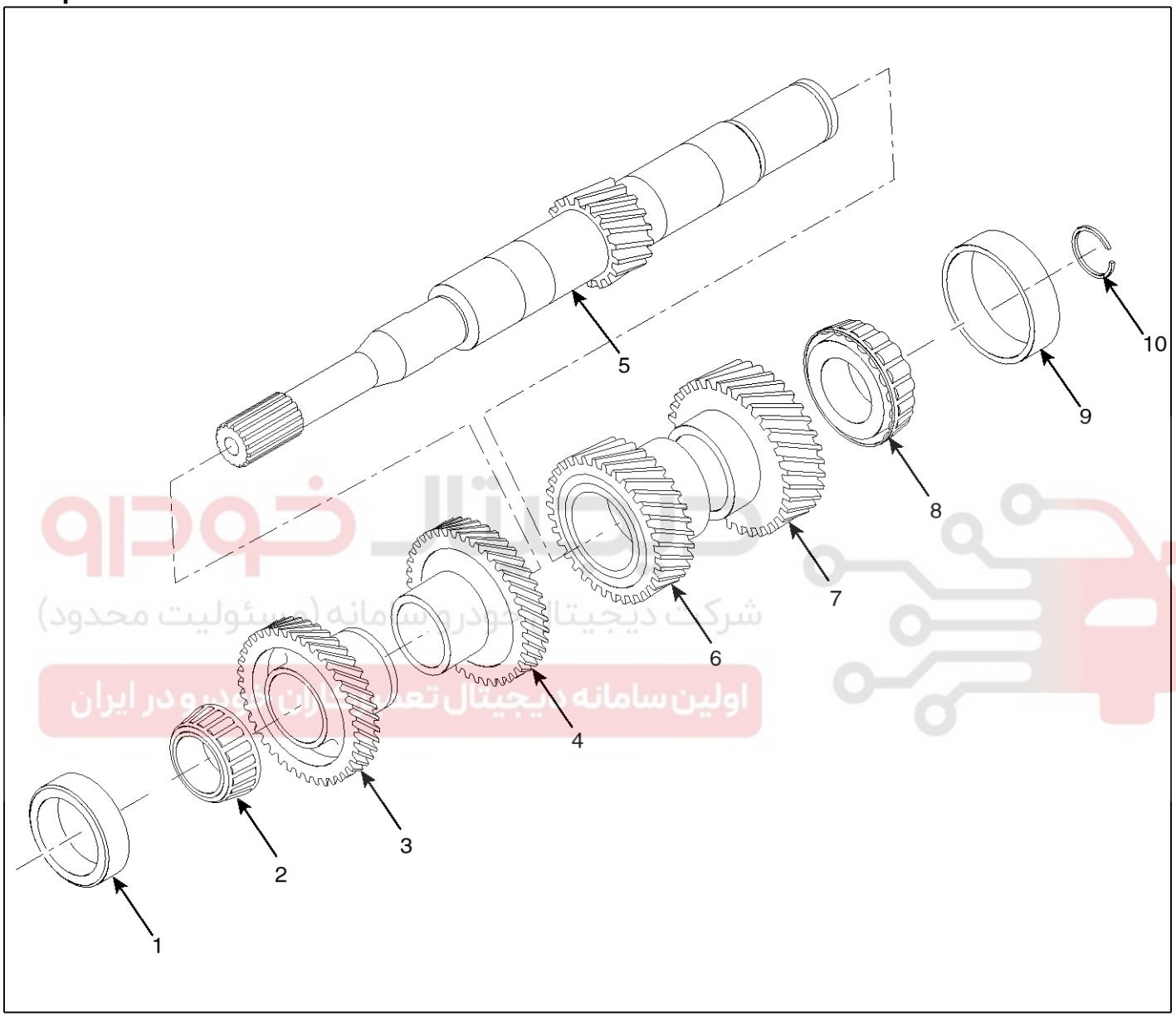


S226M0003L

Manual Transaxle Gear System

Input Shaft

Components



S226M0010L

1. Taper roller bearing outer race
2. Taper roller bearing
3. 5th Input gear
4. 6th Input gear
5. Input shaft
6. 3rd Input gear
7. 4th Input gear
8. Taper roller bearing
9. Taper roller bearing outer race
10. Snap ring

Disassembly

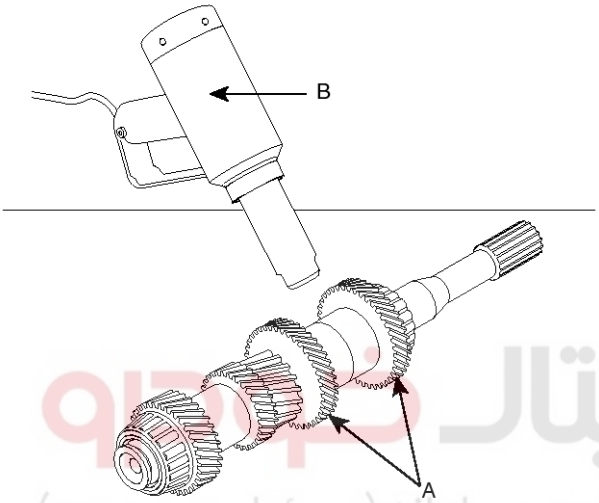
⚠CAUTION

It is highly recommended not to disassemble input shaft assembly.

If you have a problem with a part in the input shaft assembly, replace it with a new input shaft assembly.

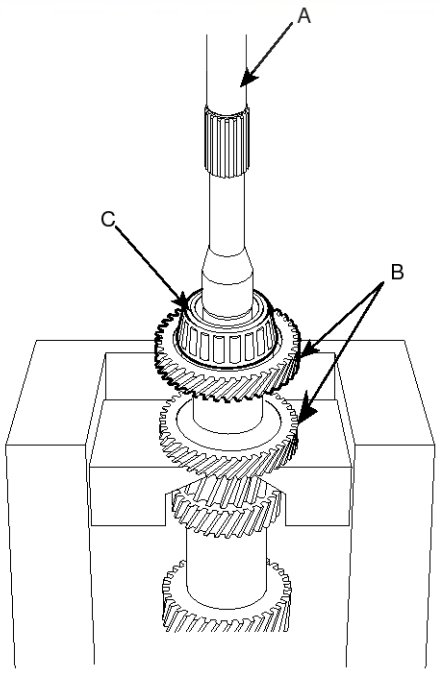
The procedures below are just for reference.

1. Heat the 5th/6th input gear(A) with a heat gun SST(B)(09432-3E000).



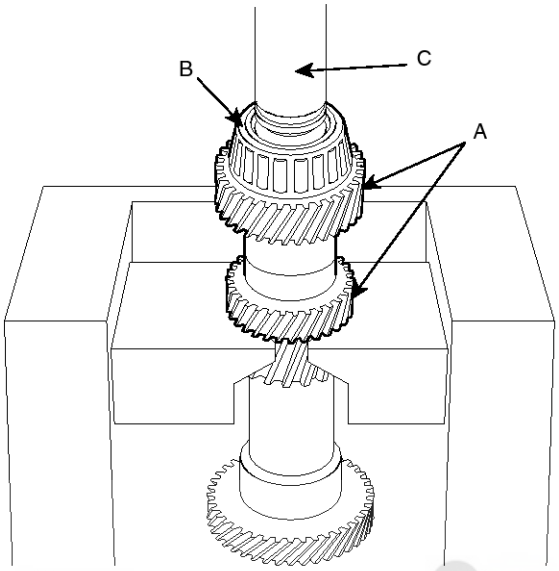
S226M0011L

2. Using a press(A), separate the 5th/6th input gear(B) and the front side taper roller bearing(C) at a time.



S226M0012L

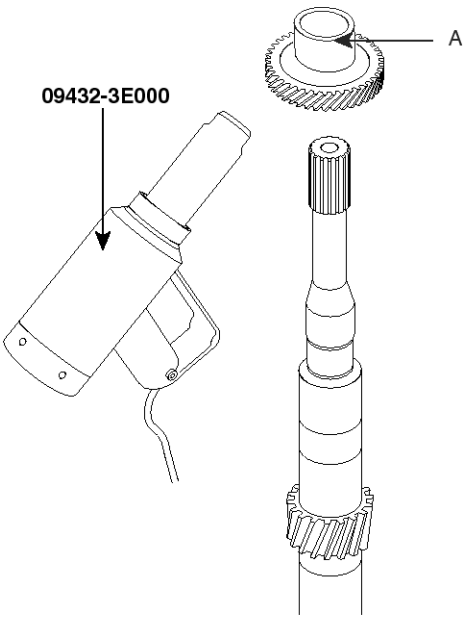
3. Remove the spacer.
4. Heating the 3rd/4th gear(A) with a heat gun, seperate the gear(A) and the rear side taper roller bearing(B) with a press(C).



KMRE001P

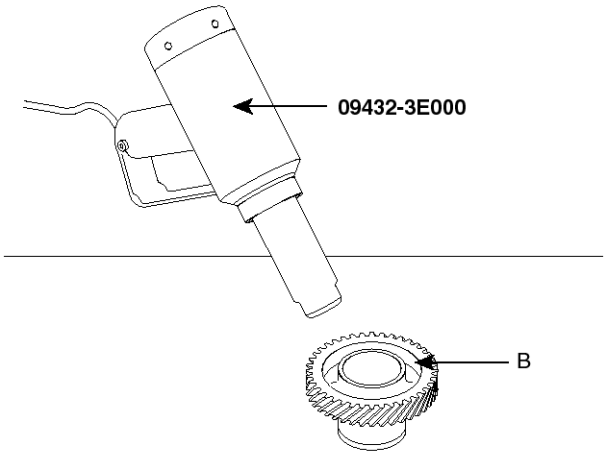
Reassembly

1. Heating the 6th input gear(A) with a heat gunSST(09432-3E000), insert the input shaft into it with a press.

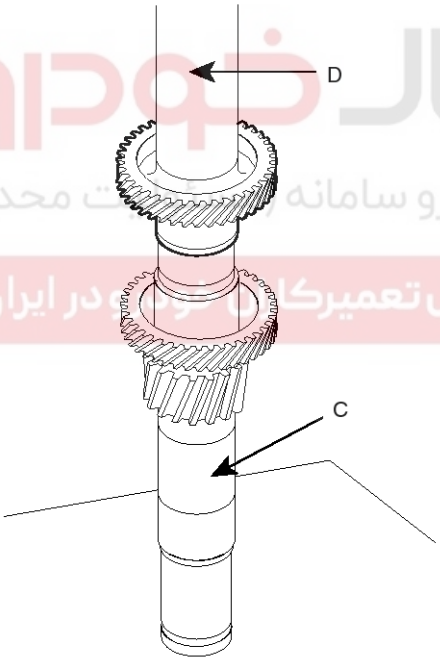


LM71001B

2. Heating the 5th input gear(B) with a heat gun SST(09432-3E000), insert the input shaft(C) into it with a press(D).

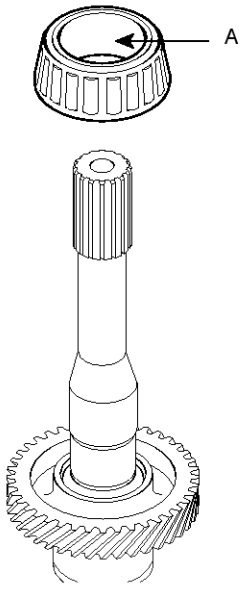


KMRE001C

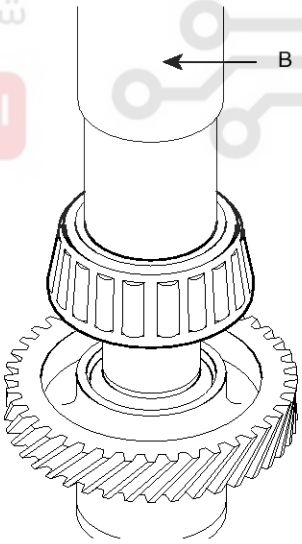


LM71001C

3. Using a press(B), do the same procedure as described above with the front side taper roller bearing(A) for its installation.

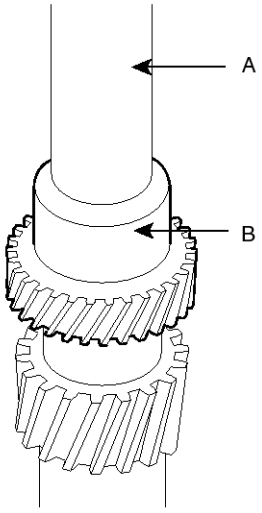


LM71001D



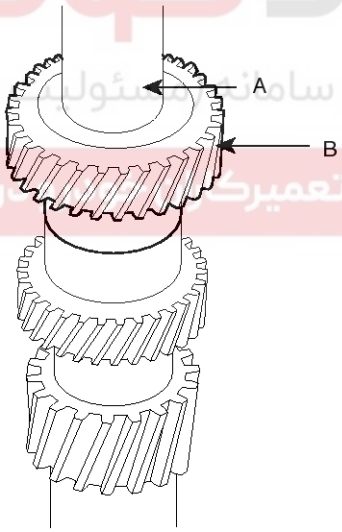
LM71001E

4. Heating the 3rd gear(B) with a heat gun, insert the input shaft(rear side) into it with a press(A).



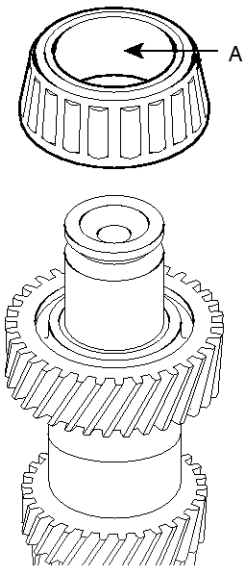
LMIG001D

5. Heating the 4th gear(B) with a heat gun, insert the input shaft(rear side) into it with a press(A).

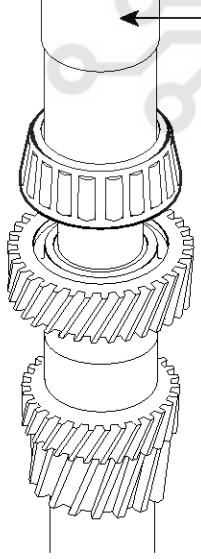


LM71001G

6. Using a press(B), do the same procedure as described above with the rear side taper roller bearing(A) for its installation.



LM71001H

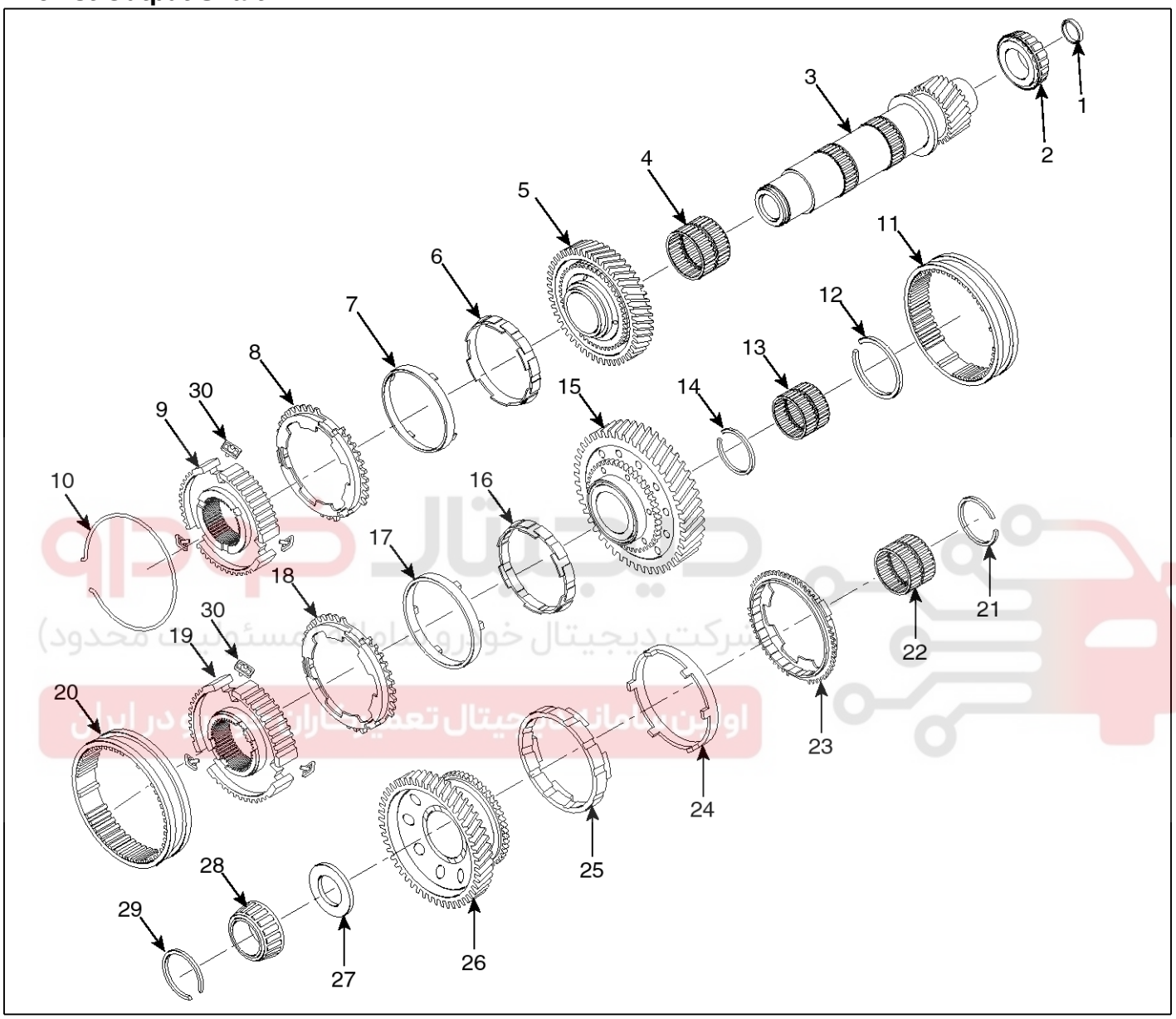


LM71001I

Output Shaft

Components

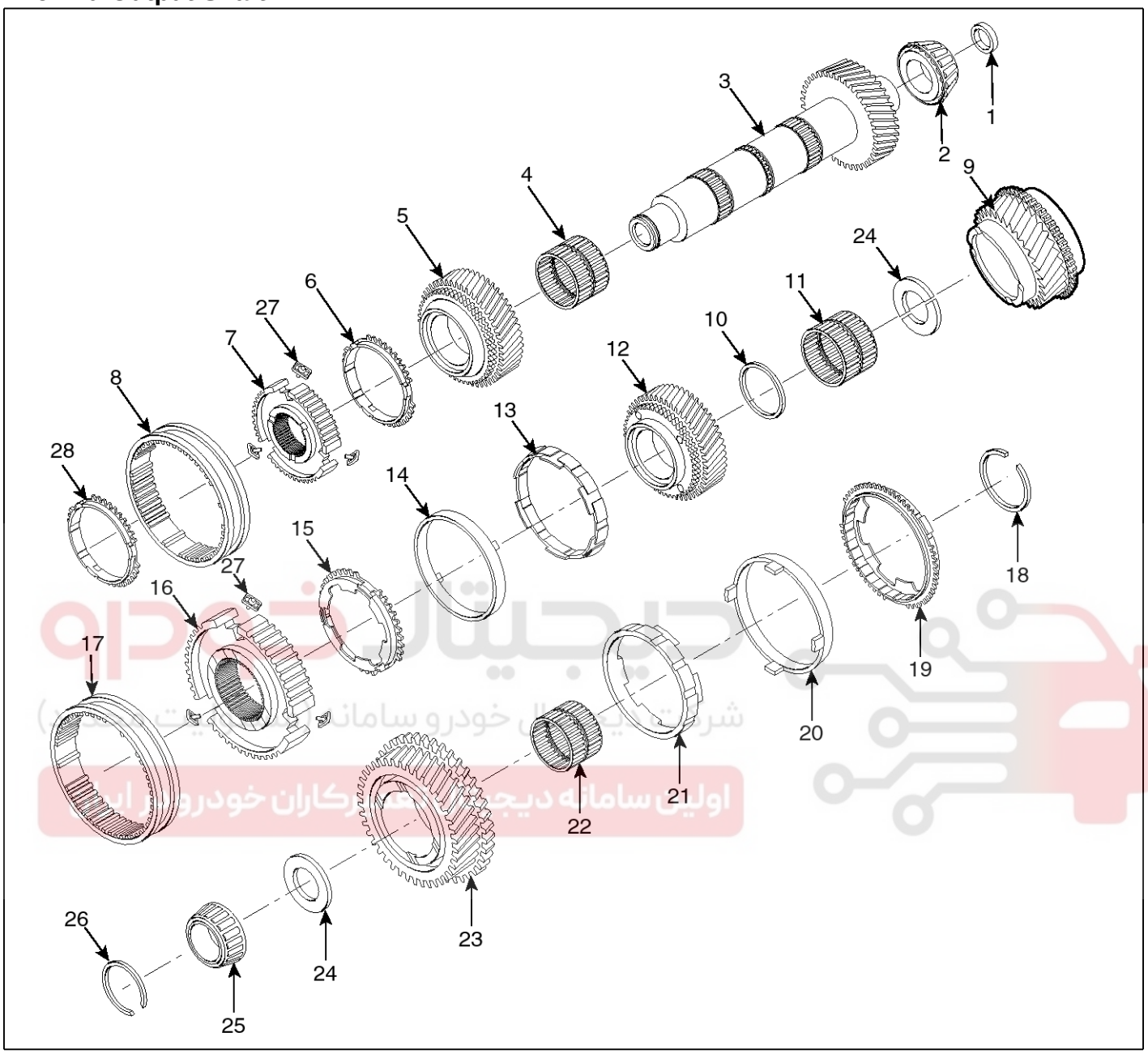
The 1st Output Shaft



S226M0020L

1. Oil guide ring
2. Taper roller bearing
3. 1st output shaft
4. Needle roller bearing
5. Reverse driven gear
6. Reverse inner synchronizer ring
7. Reverse synchronizer cone
8. Reverse outer synchronizer ring
9. Reverse hub
10. Synchronizer key stopper
11. Reverse sleeve
12. Snap ring
13. Needle roller bearing
14. Snap ring
15. 1st output gear
16. 1st inner synchronizer ring
17. 1st synchronizer cone
18. 1st outer synchronizer ring
19. 1st/2nd hub
20. 1st/2nd sleeve
21. Snap ring
22. Needle roller bearing
23. 2nd outer synchronizer ring
24. 2nd synchronizer cone
25. 2nd inner synchronizer ring
26. 2nd output gear
27. Spacer
28. Taper roller bearing
29. Snap ring
30. Synchronizer key assembly

The 2nd Output Shaft



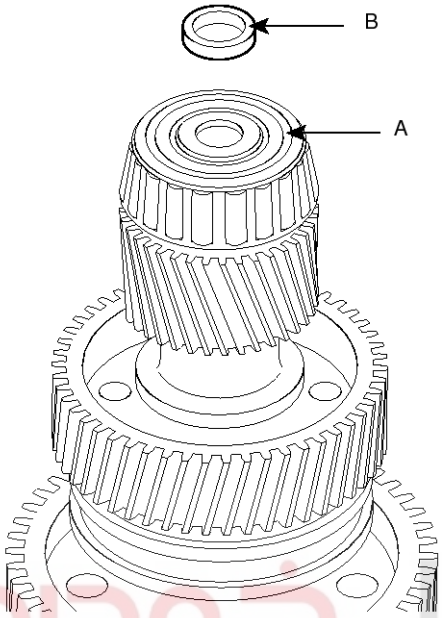
S226M0021L

1. Oil guide ring
2. Taper roller bearing
3. 2nd output shaft
4. Needle roller bearing
5. 5th output gear
6. 5th synchronizer ring
7. 5th hub
8. 5th sleeve
9. 6th output gear
10. Retainer ring
11. Needle roller bearing
12. 3th output gear
13. 3th inner synchronizer ring
14. 3th synchronizer cone
15. 3th outer synchronizer ring
16. 3th/4th hub
17. 3th/4th sleeve
18. Snap ring
19. 4th outer synchronizer ring
20. 4th synchronizer cone
21. 4th inner synchronizer ring
22. Needle roller bearing
23. 4th output gear
24. Spacer
25. Taper roller bearing
26. Snap ring
27. Synchronizer key assembly
28. 6th synchronizer ring

Disassembly

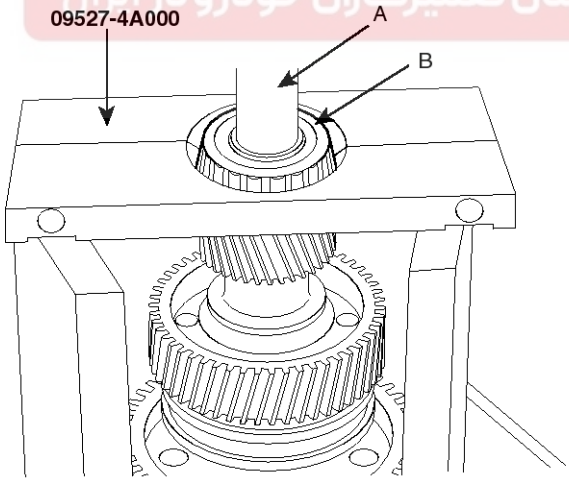
The 1st Output Shaft

1. Remove the oil guide ring(B) from the front taper roller bearing(A).



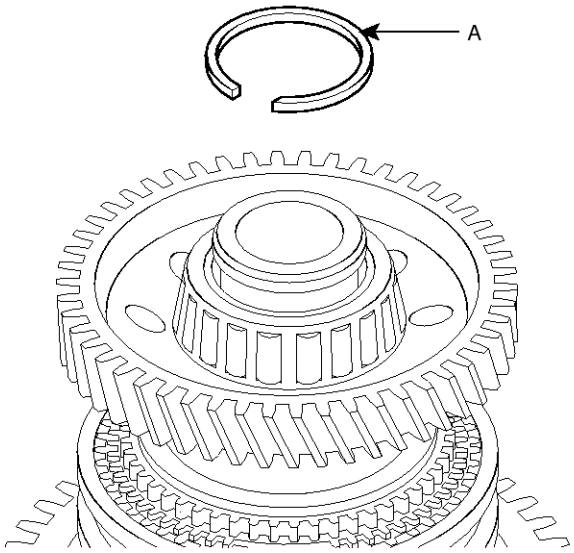
KMRE005A

2. Using a press(A) and the SST(09527-4A000), remove the front side taper roller bearing(B).



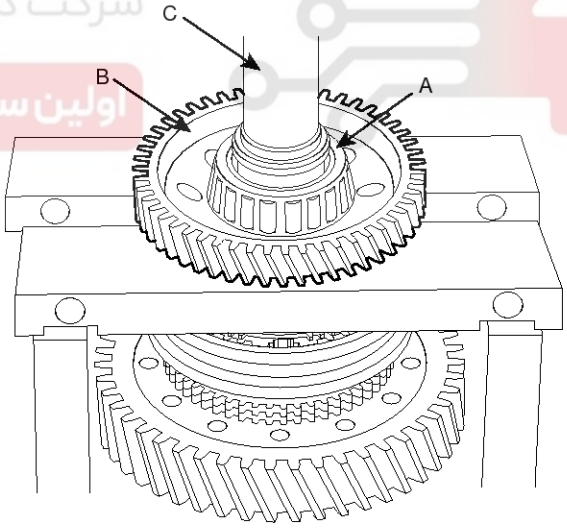
KMRE005B

3. Remove the rear side snap ring(A).



KMRE003C

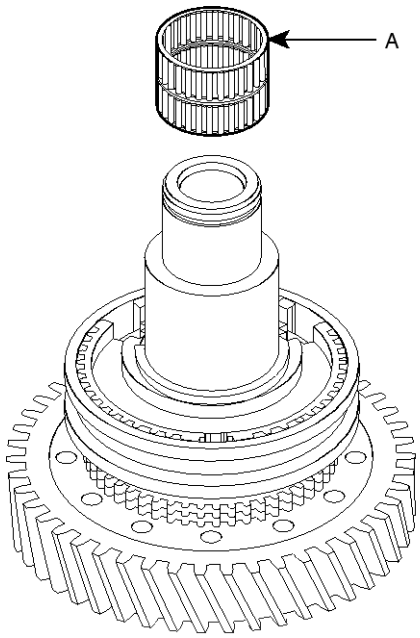
4. Using a press(C), remove the rear side taper roller bearing(A) and the 2nd output gear(B).



KMRE005C

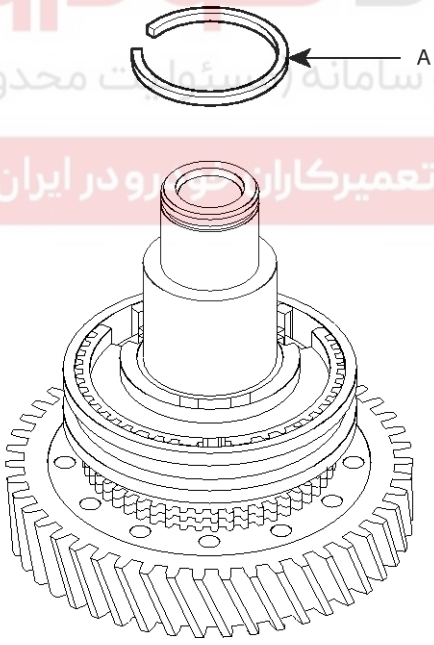
5. Remove the 2nd triple cone assembly.

6. Remove the needle roller bearing(A).



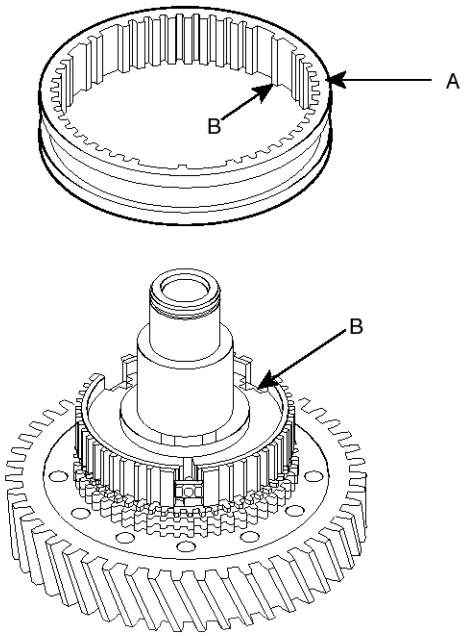
KMRE002W

7. Remove the snap ring(A).



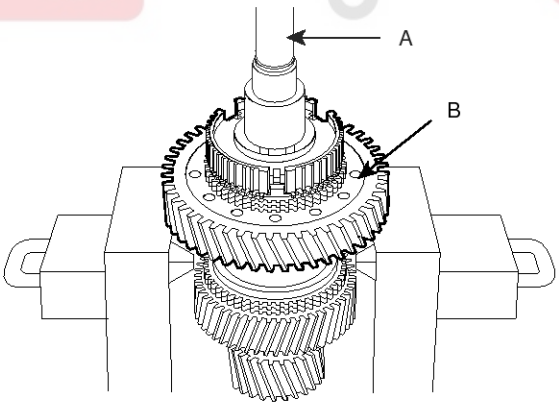
KMRE002V

8. Remove the 1st/2nd sleeve(A).



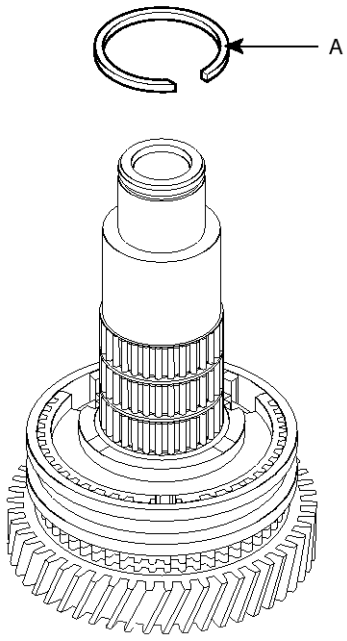
KMRE002T

9. Disassemble the 1st synchronizer key assembly (3EA).
10. Using a press(A), remove the 1st output gear(B), 1st synchronizer assembly and hub at a time.



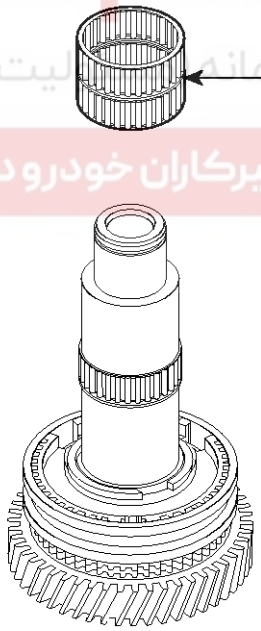
KMRE005D

11. Remove the snap ring(A).



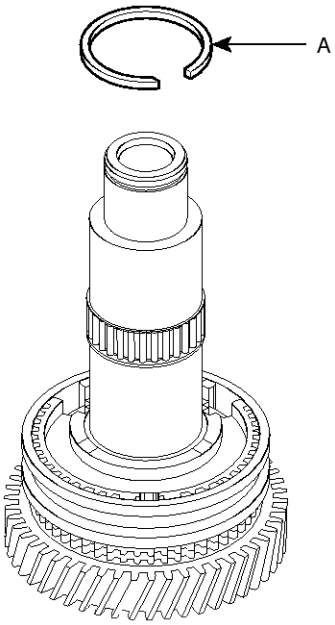
KMRE002M

12. Remove the needle roller bearing(A).



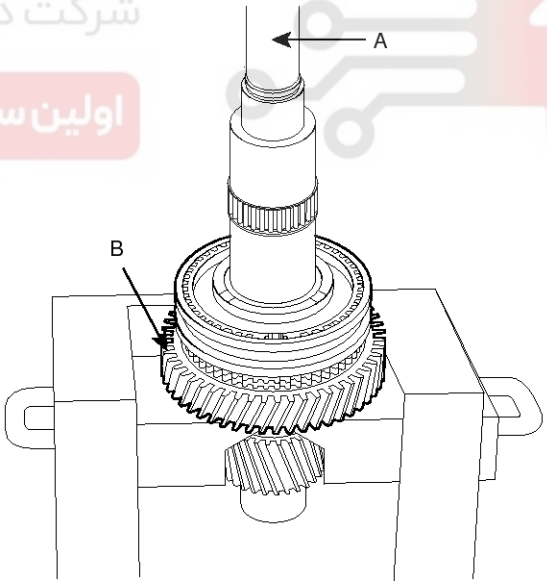
KMRE002L

13. Remove the snap ring(A).



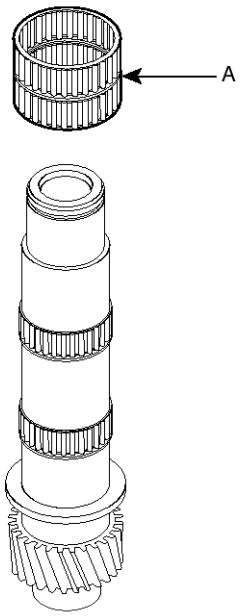
KMRE002K

14. Using a press(A), remove the reverse gear(B), synchronizer assembly and hub.



KMRE005E

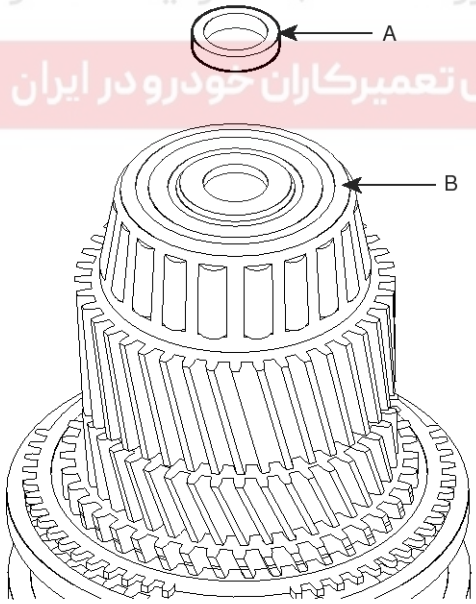
15. Remove the needle roller bearing(A).



KMRE002C

The 2nd Output Shaft

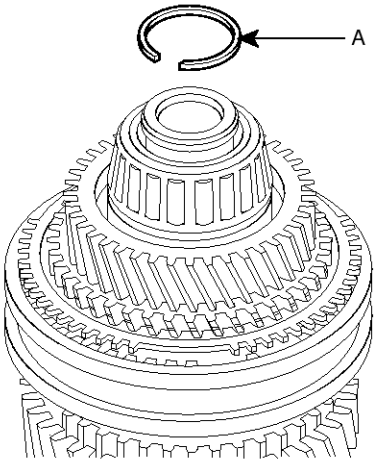
1. Remove the oil guide ring(A) from the front side taper roller bearing(B).



KMRE004B

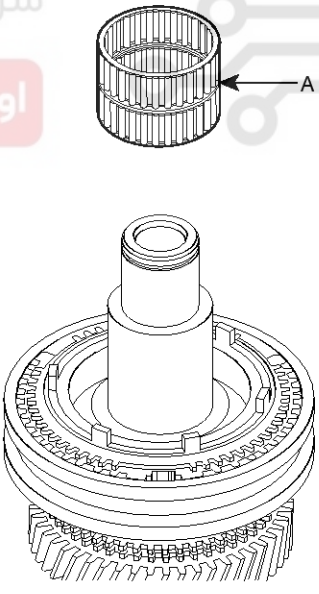
2. Using a press, remove the front side taper roller bearing.

3. Remove the rear side snap ring(A).



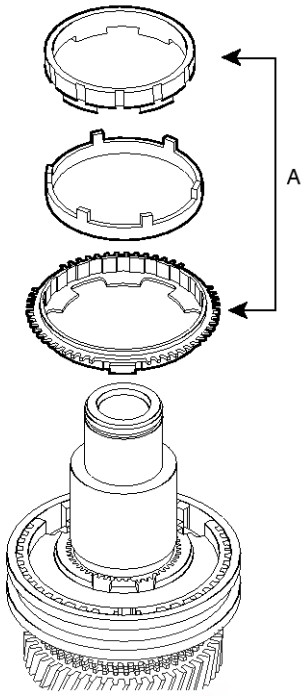
LM71004B

4. Setting a press up in the 4th output gear, remove the assemblies at a time.
5. Remove the needle roller bearing(A).



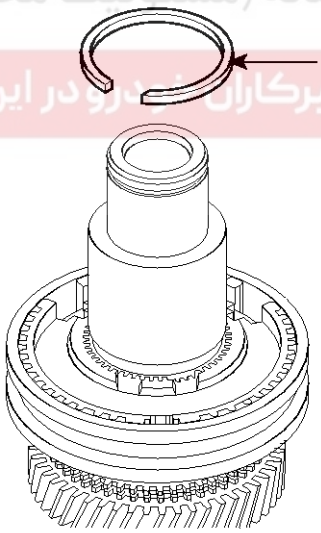
LM71004C

6. Remove the 4th double cone ring assembly(A).



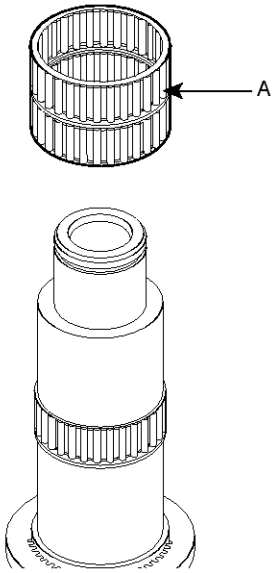
LM71004D

7. Remove the snap ring(A).



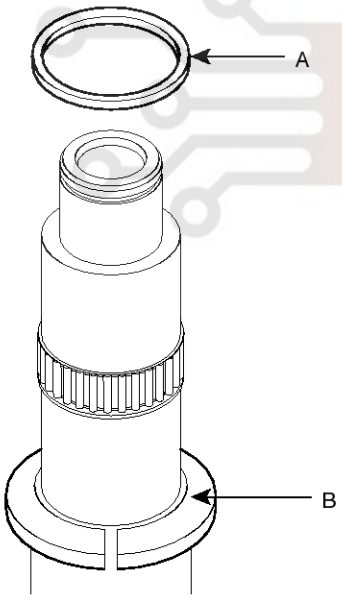
LM71004E

8. Setting a press up in the 3rd output gear, remove the assemblies at a time.
9. Remove the snap ring.
10. Remove the needle roller bearing(A).



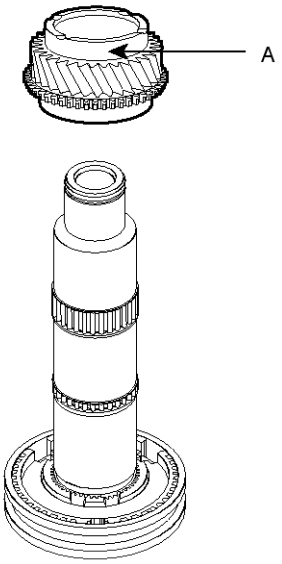
LM71004F

11. Remove the retainer ring(A) and spacers(B).



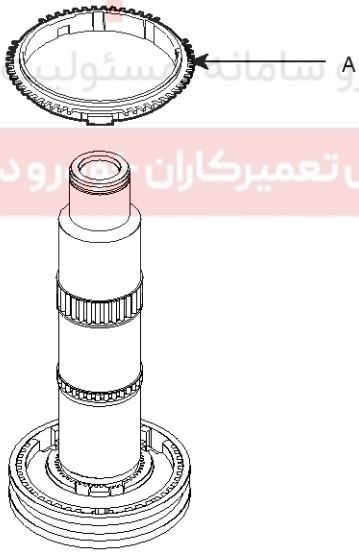
S226M0022L

12. Remove the 6th output gear(A).



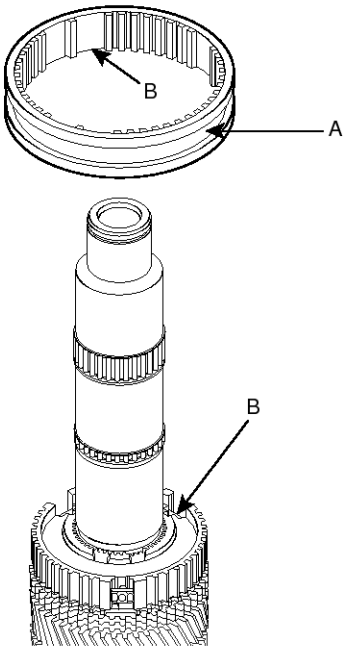
LM71004H

13. Remove the 6th synchronizer ring(A).



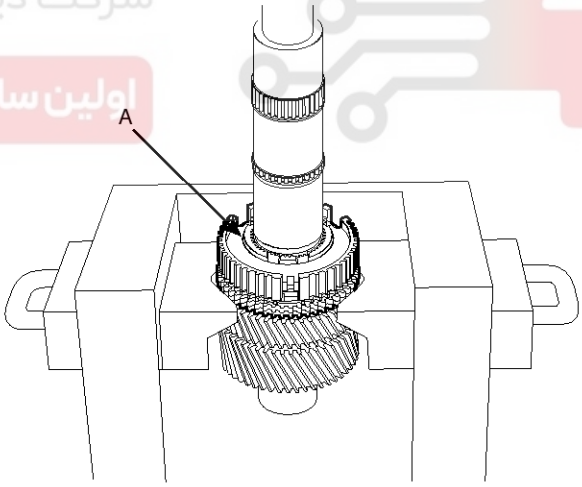
LMIG001C

14. Remove the 5th sleeve(A).



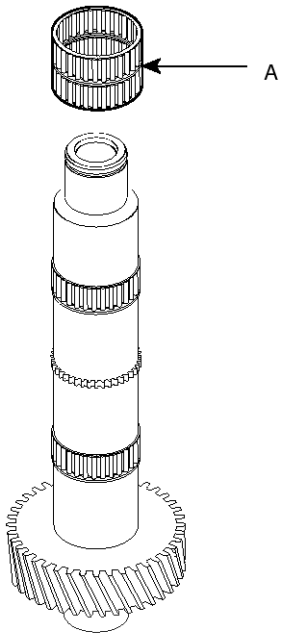
KMRE003K

15. After removing the 5th synchronizer keys, pull out the hub assembly(A) with a press.



KMRE005G

16. Remove the needle roller bearing(A).

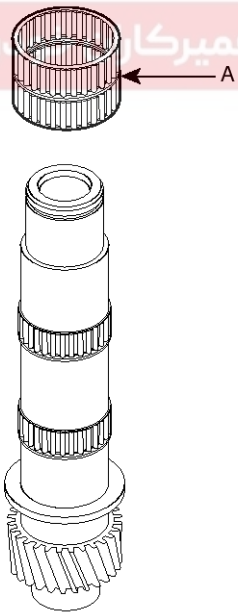


KMRE003F

Reassembly

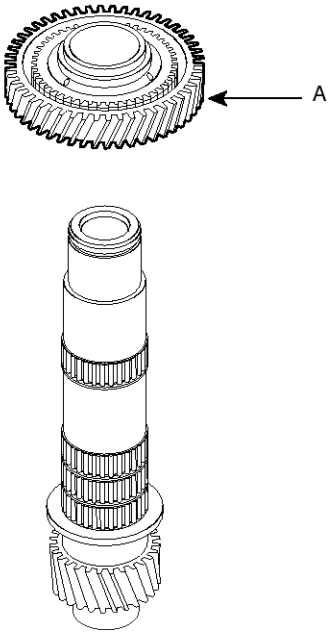
The 1st Output Shaft

1. Installing the needle roller bearing(A), apply gear oil around.



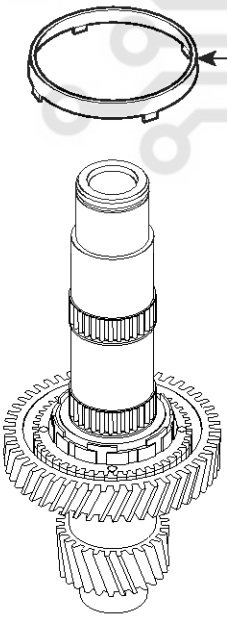
KMRE002C

2. Install the reverse driven gear(A).



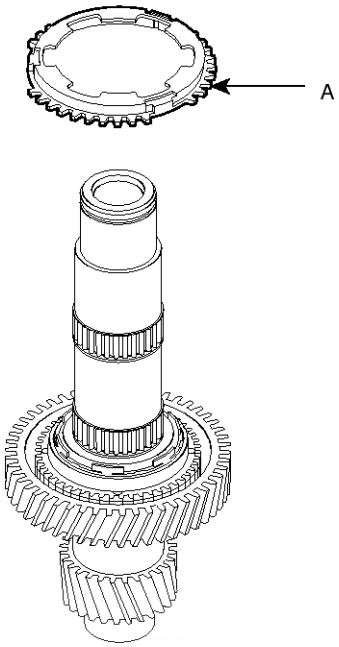
KMRE002D

3. Install the reverse inner synchronizer ring with the reverse synchronizer cone(A).



KMRE002E

4. Assemble the reverse outer synchronizer ring (A)(triple cone type).

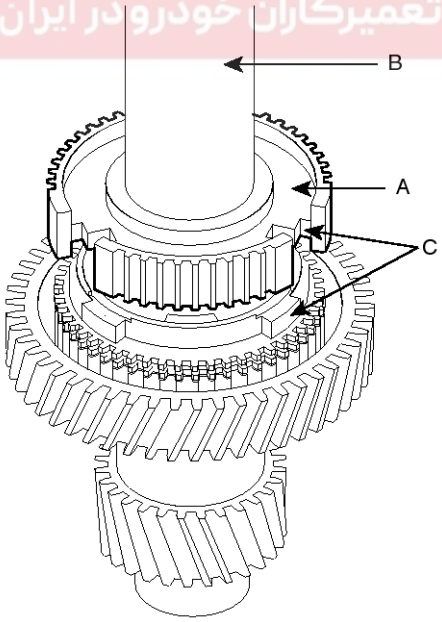


KMRE002F

5. Install the reverse hub(A) with a press(B).

NOTICE

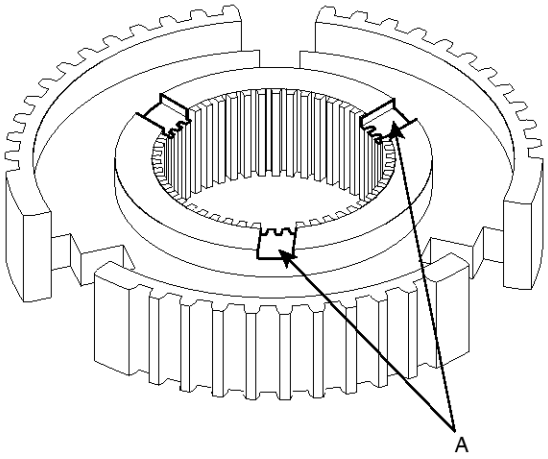
Align the groove(C) of the reverse hub with the protrusion(C) of the output synchronizer ring.



KMRE002G

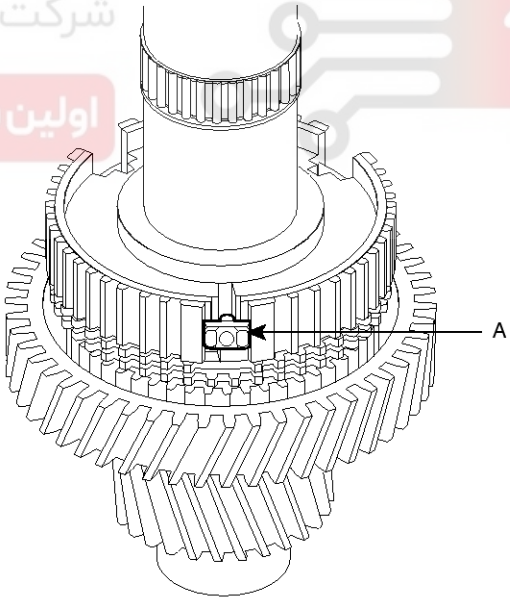
NOTICE

The hub surface which has the three grooves(A) in triangle should face the 1st gear side.



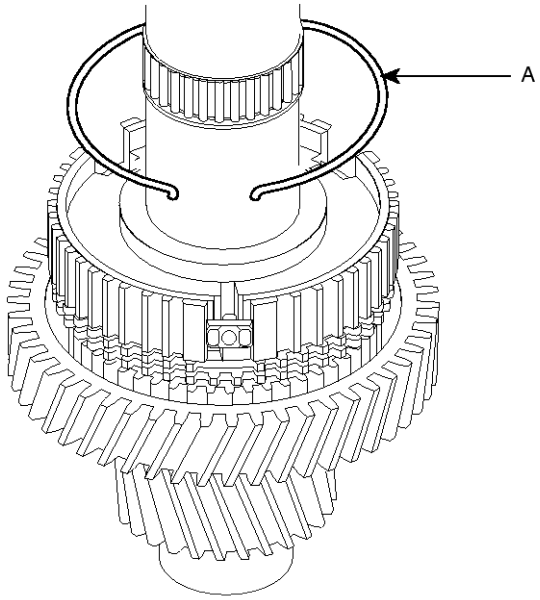
KMRE002H

6. Insert the three 1st/2nd synchronizer key assemblies(A).



KMRE002I

7. Insert the synchronizer key stopper(A).

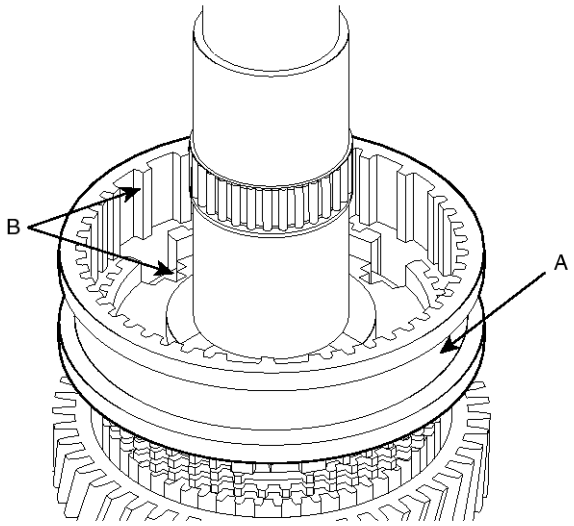


LMIG001B

8. Install the reverse sleeve(A) by tapping softy with a rubber hammer.
9. Insert the three key assemblies in the reverse sleeve by pushing the balls.

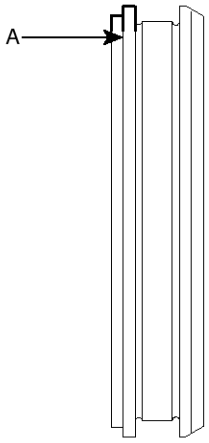
NOTICE

- *Aligning the groove & protrusion(B), install the reverse sleeve(A).*



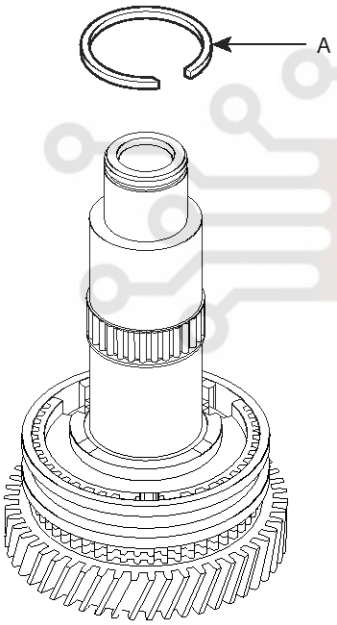
KMRE002J

- *The sleeve surface which has the groove(A) should face the 1st gear side.*



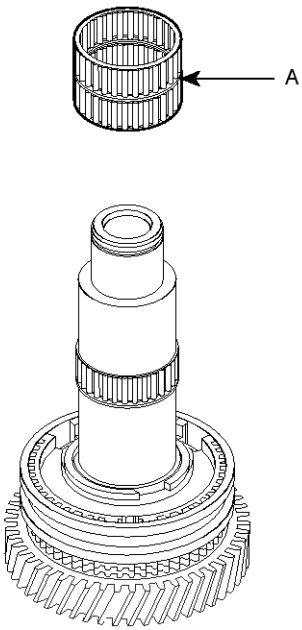
KMRE002U

10. Selecting the snap ring(A) which makes the gap be 0~0.03mm(0.0012inch), install it.



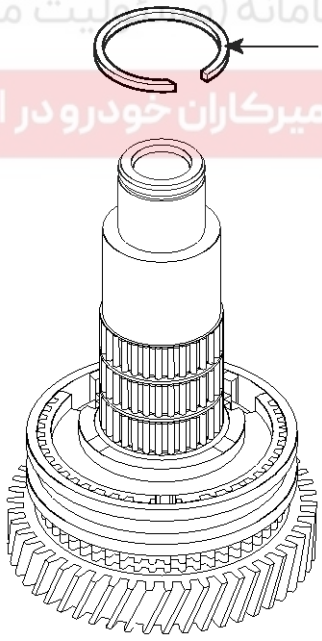
KMRE002K

11. Installing the needle roller bearing(A), apply gear oil around.



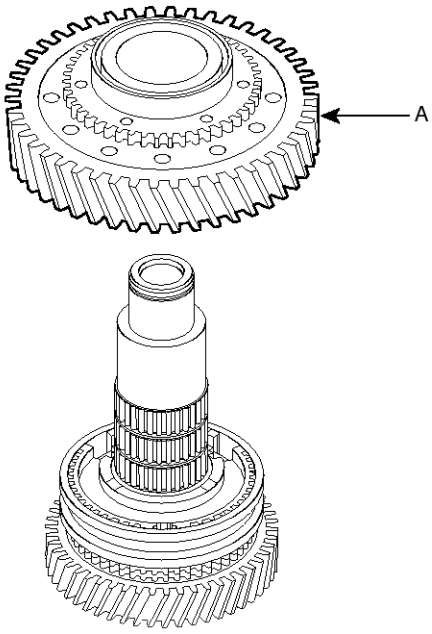
KMRE002L

12. Install the snap ring(A) (thickness: 2.5mm or 0.0984inch).



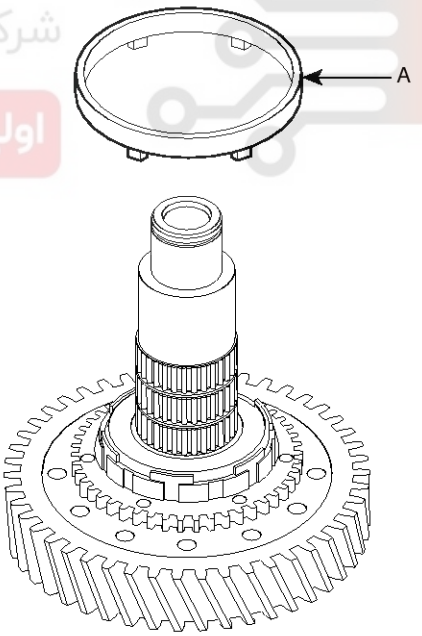
KMRE002M

13. Install the 1st gear assembly(A).



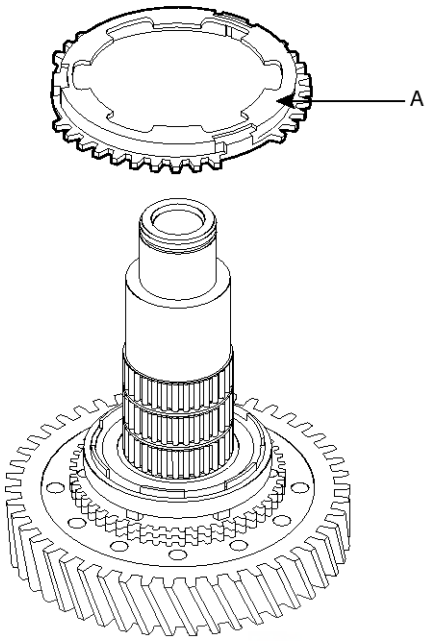
KMRE002N

14. Install the 1st inner synchronizer ring with the 1st synchronizer cone(A).



KMRE002O

15. Assemble the 1st outer synchronizer ring(A)(triple cone type).

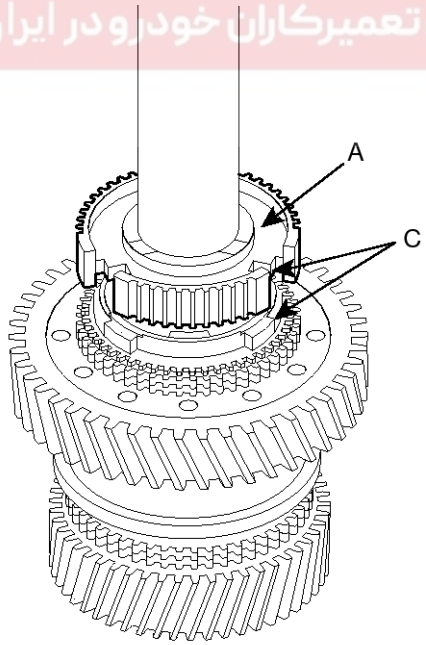


KMRE002P

16. Using a press, install the 1st/2nd hub(A).

NOTICE

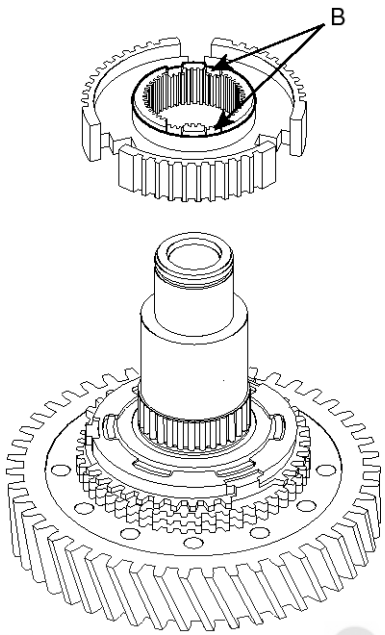
Align the groove(C) of the hub with the protrusion(C) of the output synchronizer ring.



KMRE002Q

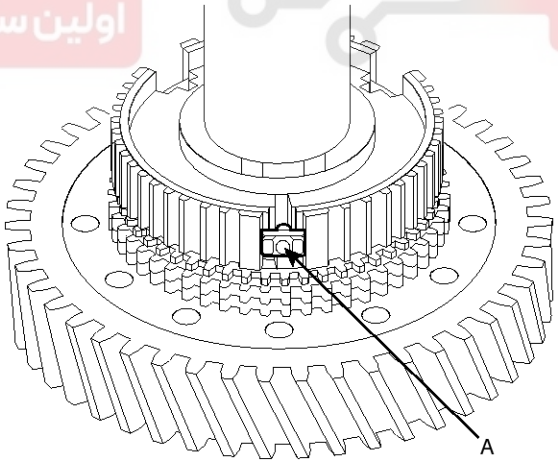
NOTICE

The hub surface which has the four grooves(B) in parallel should face the 2nd gear side.



KMRE002R

17. Insert the three 1st/2nd synchronizer key assemblies(A).



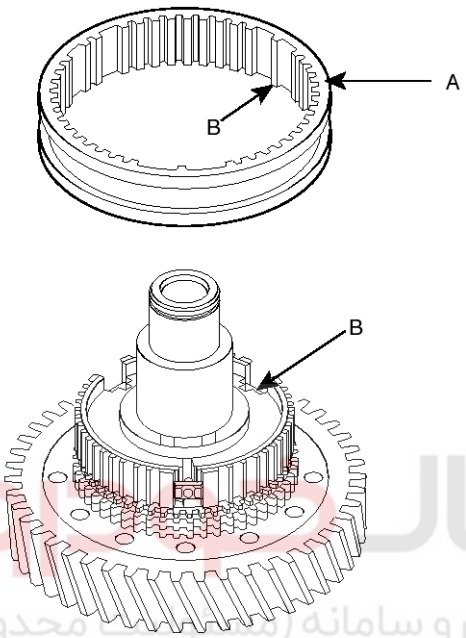
KMRE002S

18. Install the 1st/2nd sleeve(A) by tapping softly with a rubber hammer.

    Insert the three key assemblies in the 1st/2nd sleeve by pushing them.

NOTICE

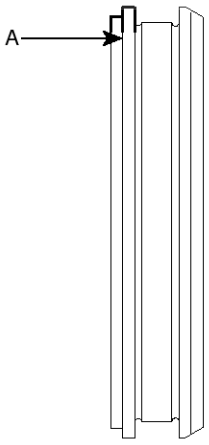
Align the groove &protrusion(B), install the 1st/2nd sleeve(A).



KMRE002T

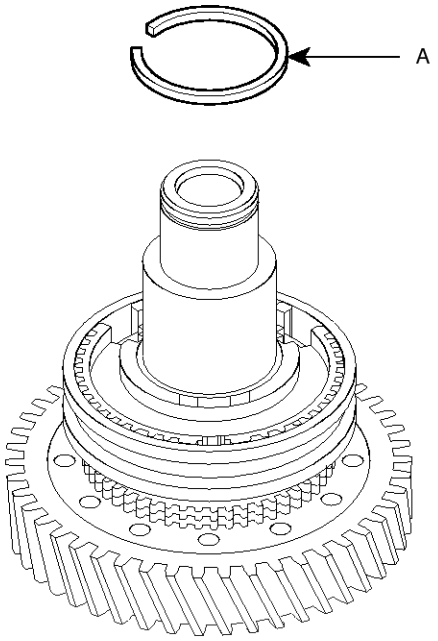
NOTICE

The sleeve surface which has the groove(A) should face the 1st gear side.



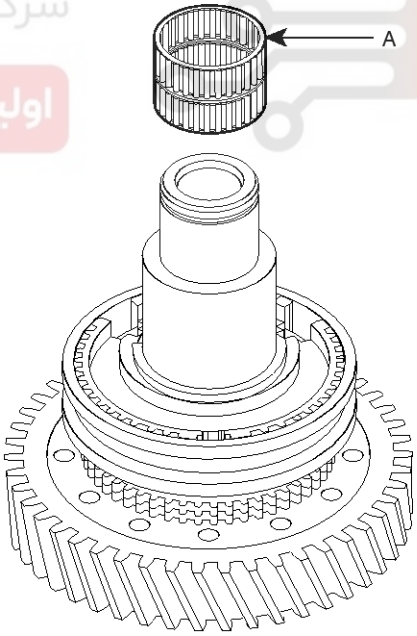
KMRE002U

19. Selecting the snap ring(A) which makes the gap be 0~0.03mm(0.0012inch), install it.



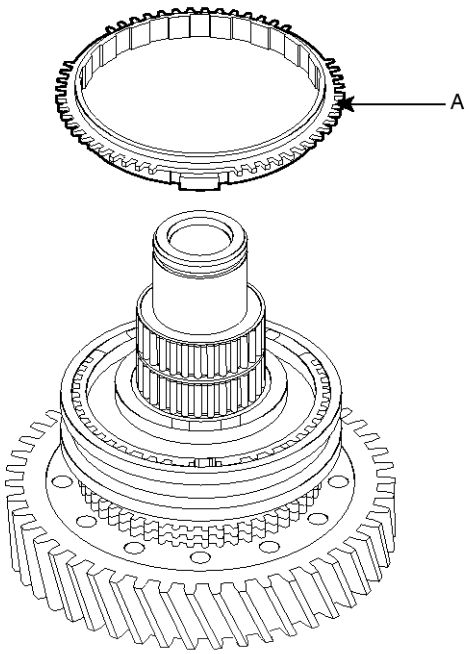
KMRE002V

20. Installing the needle roller bearing(A), apply gear oil around.



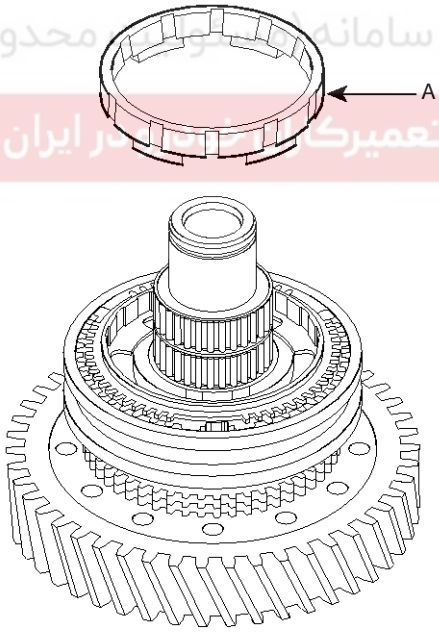
KMRE002W

21. Install the 2nd outer synchronizer ring(A).



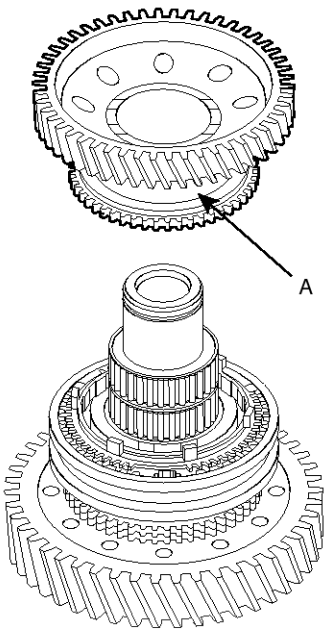
KMRE002X

22. Install the 2nd synchronizer cone with the 2nd inner synchronizer ring(A)(triple cone type).



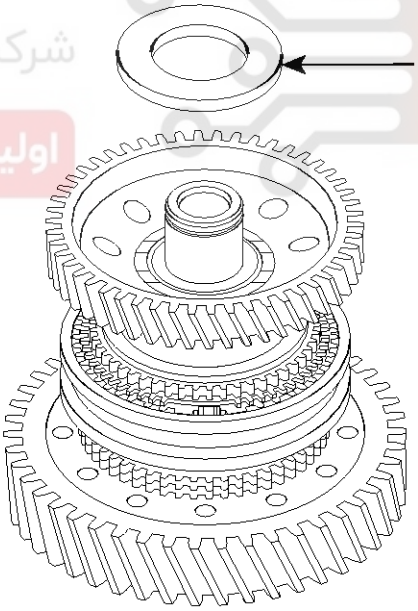
KMRE002Y

23. Assemble the 2nd output gear(A).



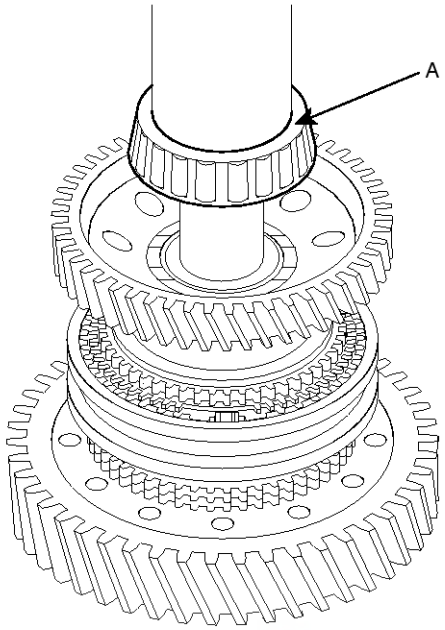
KMRE002Z

24. Assemble the spacer(A).



KMRE003A

25. Using a press, assemble the rear side taper roller bearing(A).

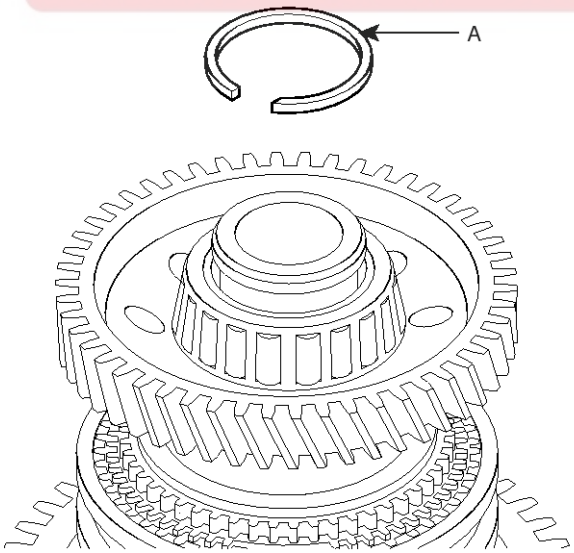


KMRE003B

26. Assemble the snap ring(A).

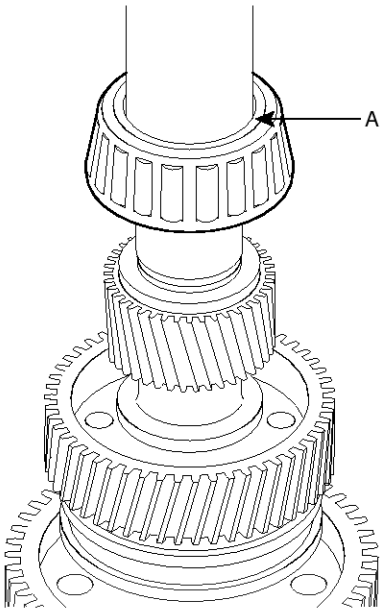
NOTICE

Selecting the snap ring which makes the gap be 0~0.03mm(0.0012inch), install it.



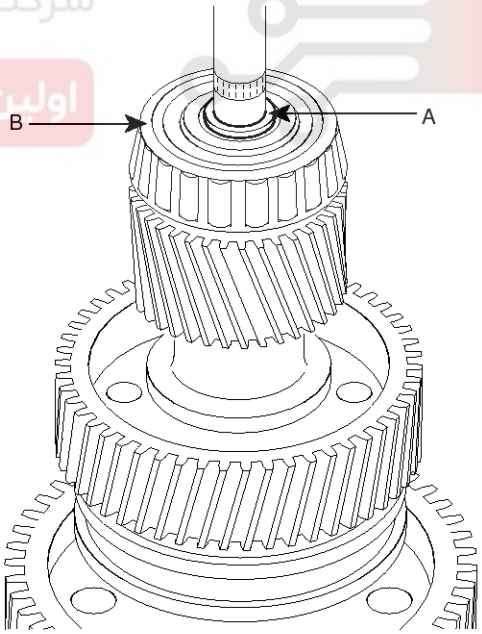
KMRE003C

27. Using a press, assemble the front side taper roller bearing(A).



KMRE003D

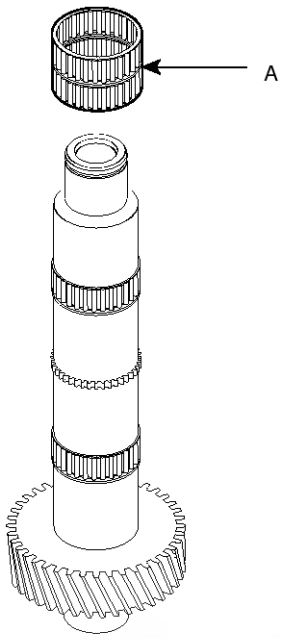
28. Using a press, insert the oil guide ring(A) into the front side taper roller bearing(B).



KMRE003E

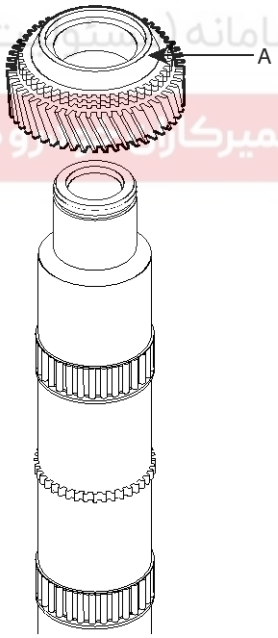
The 2nd Output Shaft

1. Assemble the needle roller bearing(A).



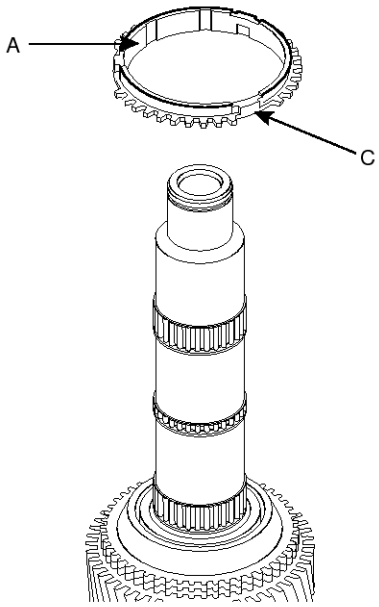
KMRE003F

2. Assemble the 5th output gear(A).



KMRE003G

3. Assemble the 5th synchronizer ring(A).

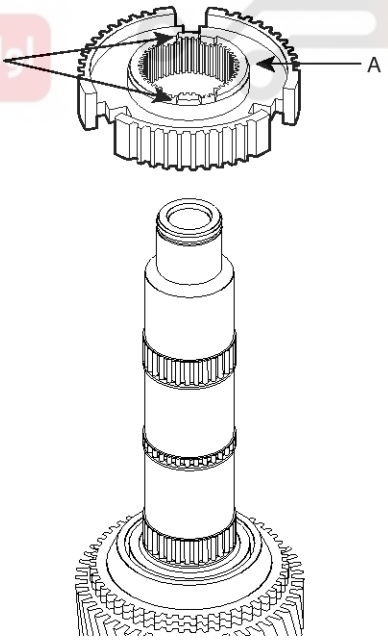


KMRE003H

4. Using a press, assemble the 5th hub(A).

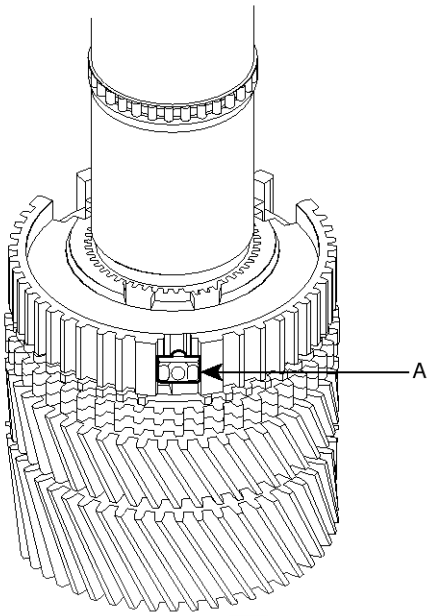
NOTICE

The hub surface which has the four grooves(B) in parallel should face the 6th gear side.



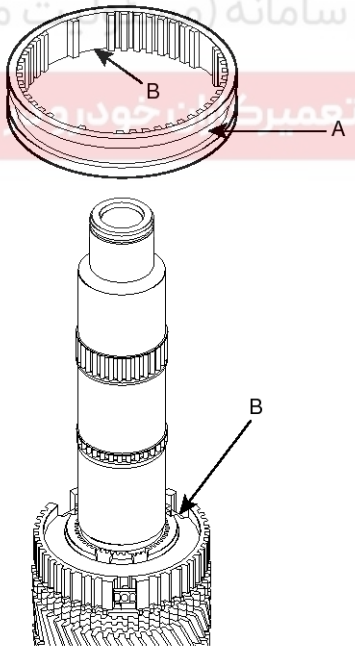
EMRE003I

5. Insert the three 5th/6th synchronizer key assemblies(A).



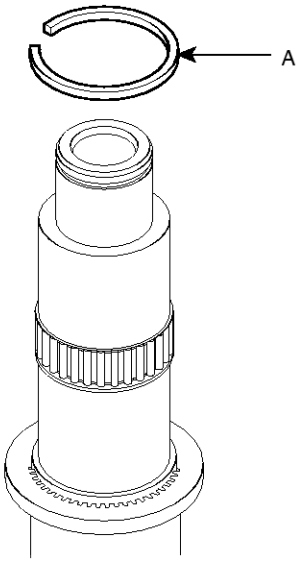
KMRE003J

6. Taking care of the grooves(B), assemble the 5th/6th sleeve(A).



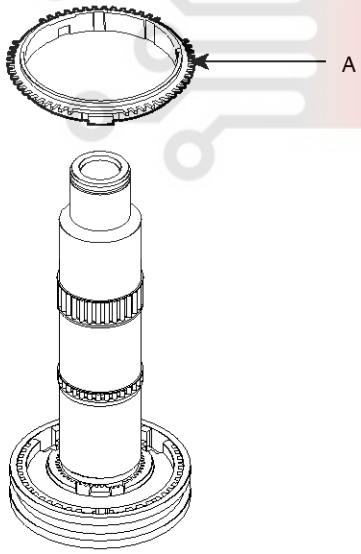
KMRE003K

7. Selecting the snap ring(A) with makes the gap be 0~0.03mm(0.0012inch), install it.



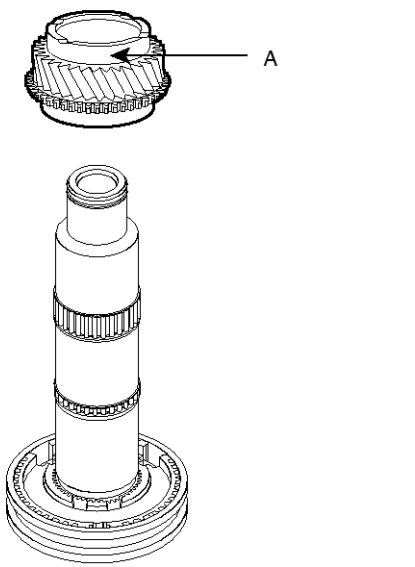
LM71005B

8. Assembly the 6th synchronizer ring(A).



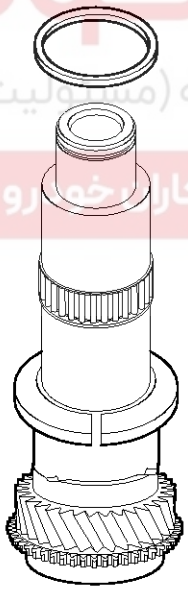
LMIG001C

9. Install the 6th gear(A).



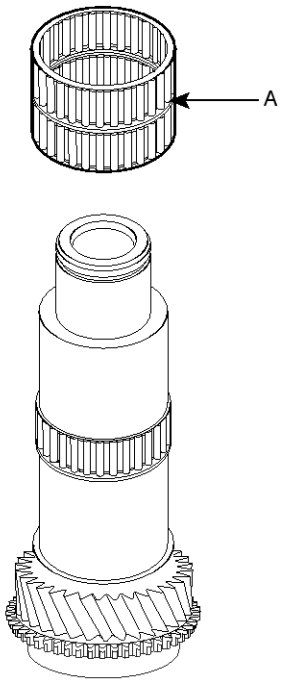
LM71005A

10. Install the spacer and retainer.



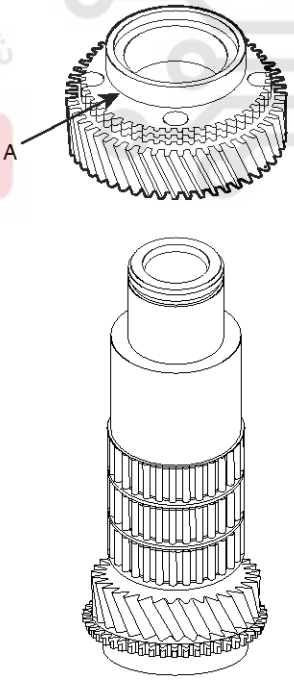
S226M0023L

11. Assemble the needle roller bearing(A).



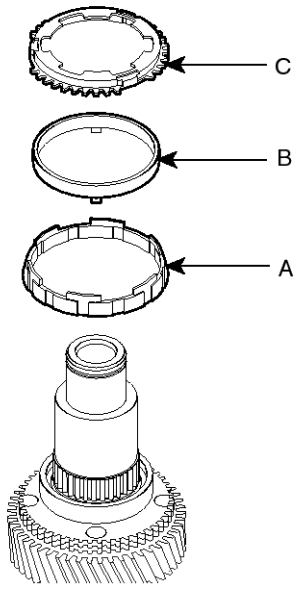
S226M0024L

12. Install the snap ring(thickness: 2.5mm or 0.0984inch).
13. Assemble the 3rd output gear assembly(A).



S226M0025L

14. Assemble the 3rd inner synchronizer ring(A), synchronizer cone(B) and outer synchronizer ring(C). Apply gear oil around.

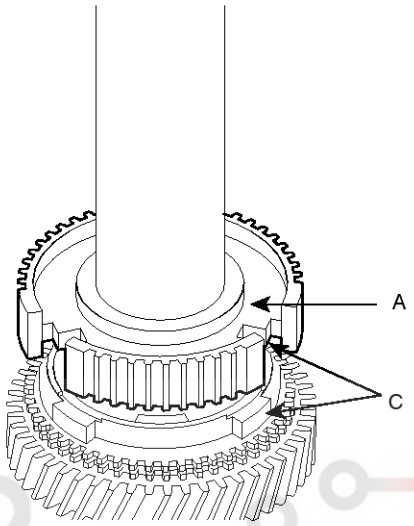


LM71005E

15. Using a press, install the 3rd/4th hub(A).

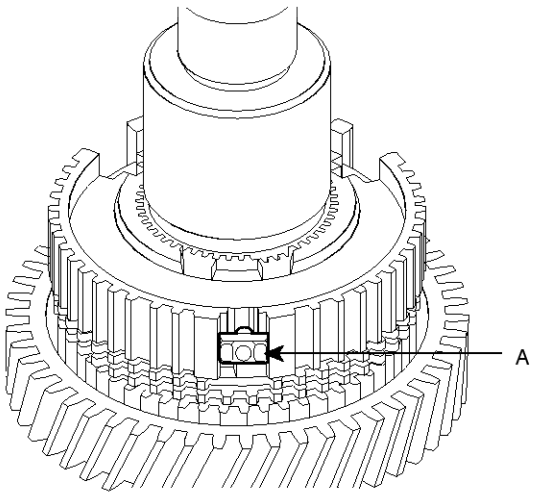
NOTICE

- *The hub surface which has the four grooves in parallel should face the 4th gear side.*
- *Assemble the hub, aligning the groove & protrusion(C).*



LM71005F

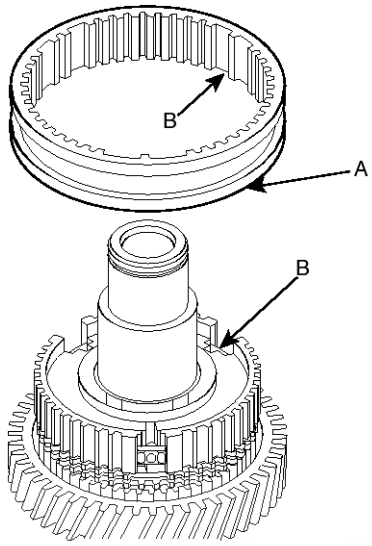
16. Insert the three 3rd/4th synchronizer key assemblies(A).



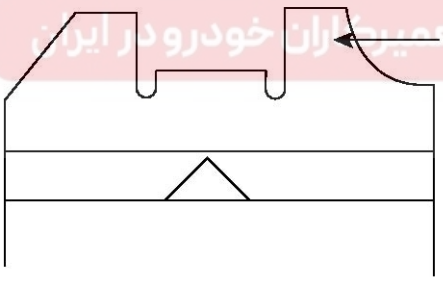
LM71005G

17. The sleeve surface which has the groove should face the 3rd gear side(A).

    Align the grooves(B) in the sleeve with the ones of the hub.

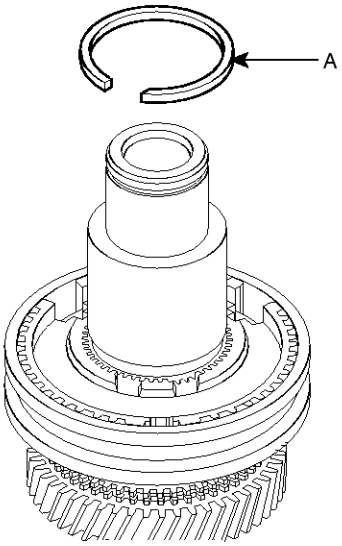


LM71005H



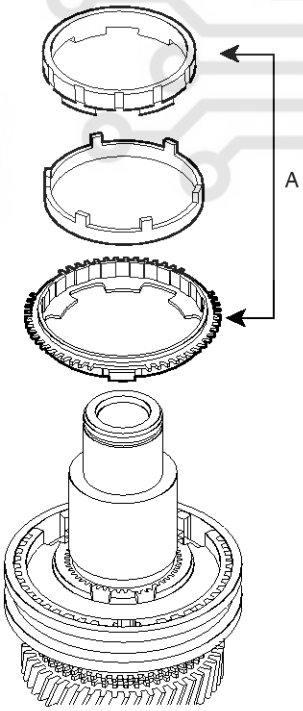
KMRE004C

18. Selecting the snap ring(A) which makes the gap be 0~0.03mm(0.0012inch), install it.



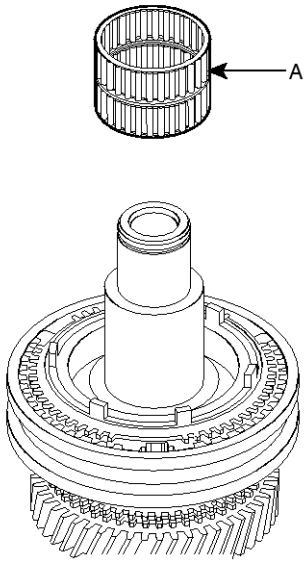
LM71005I

19. Assemble the 4th double cone ring assembly(A).



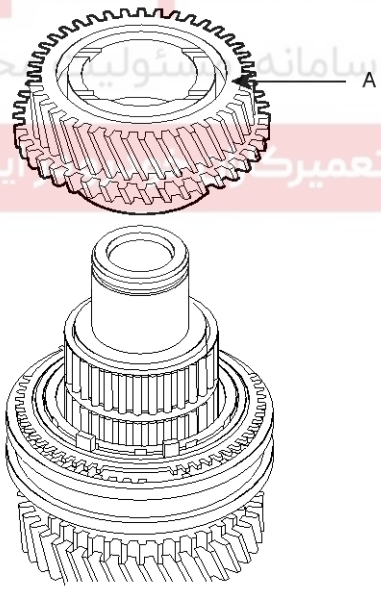
LM71005J

20. Insert the needle roller bearing(A).



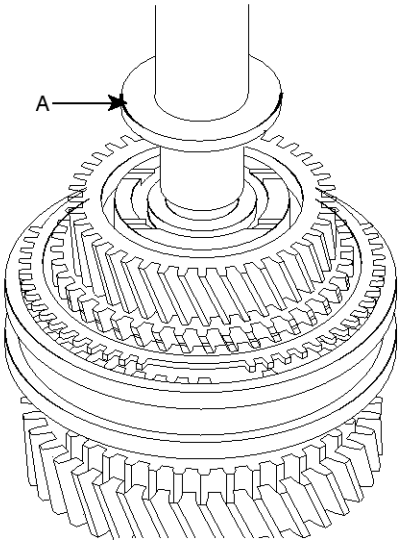
LM71005K

21. Insert the 4th output gear assembly(A).



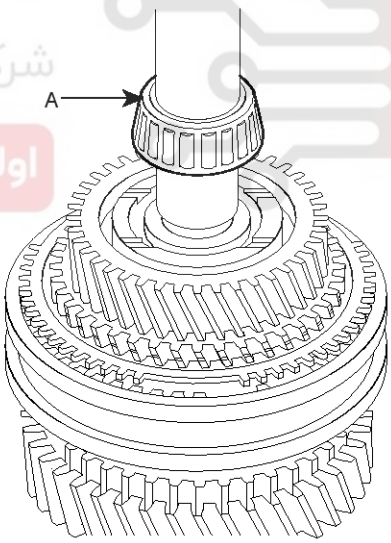
LM71005L

22. Using a press, assemble the spacer(A).



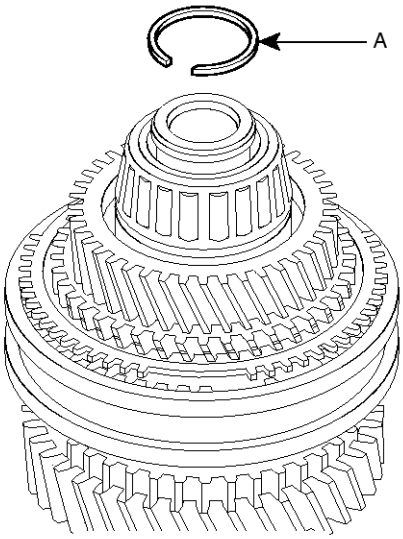
LM71005M

23. Using a press, install the taper roller bearing(A).



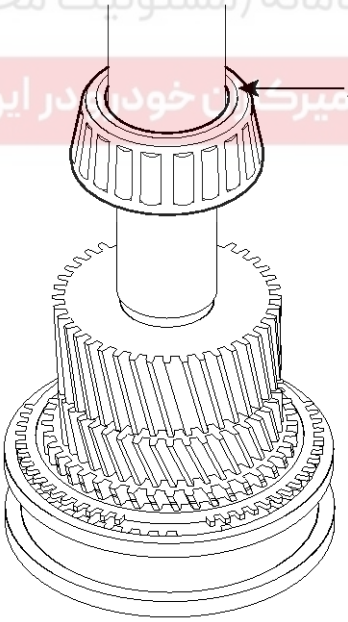
LM71005N

24. Selecting the snap ring(A) which makes the gap be 0~0.03mm(0.0012inch), install it.



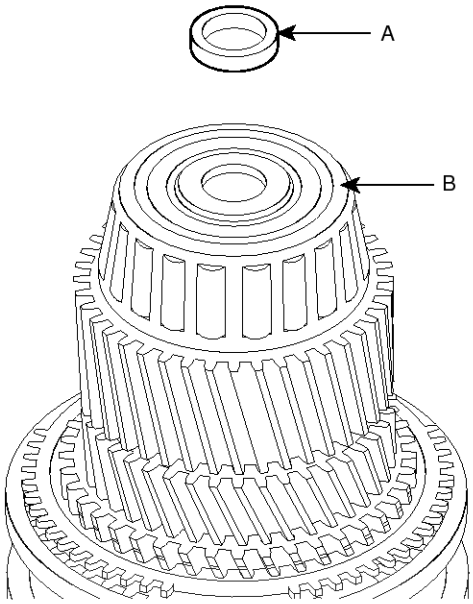
LM71005O

25. Using a press, install the front side taper roller bearing(A).



KMRE004A

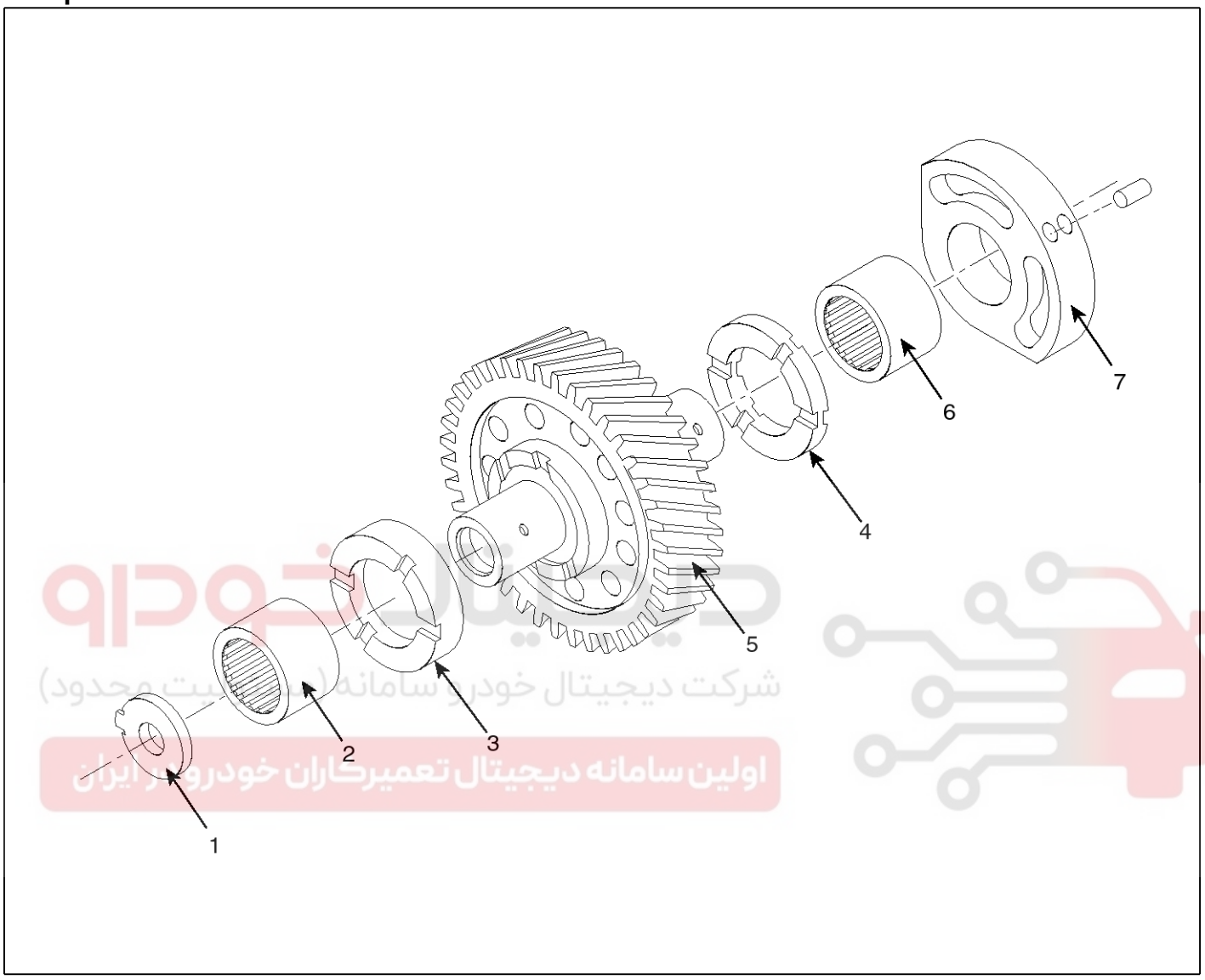
26. Using a press, insert the oil guide ring(A) into the front side taper roller bearing(B).



KMRE004B

Reverse Idler Gear Assembly

Components



S226M0030L

1. Oil guide
2. Needle roller bearing
3. Reverse idler spacer A
4. Reverse idler spacer B
5. Reverse idler gear assembly
6. Needle roller bearing
7. Bearing retainer

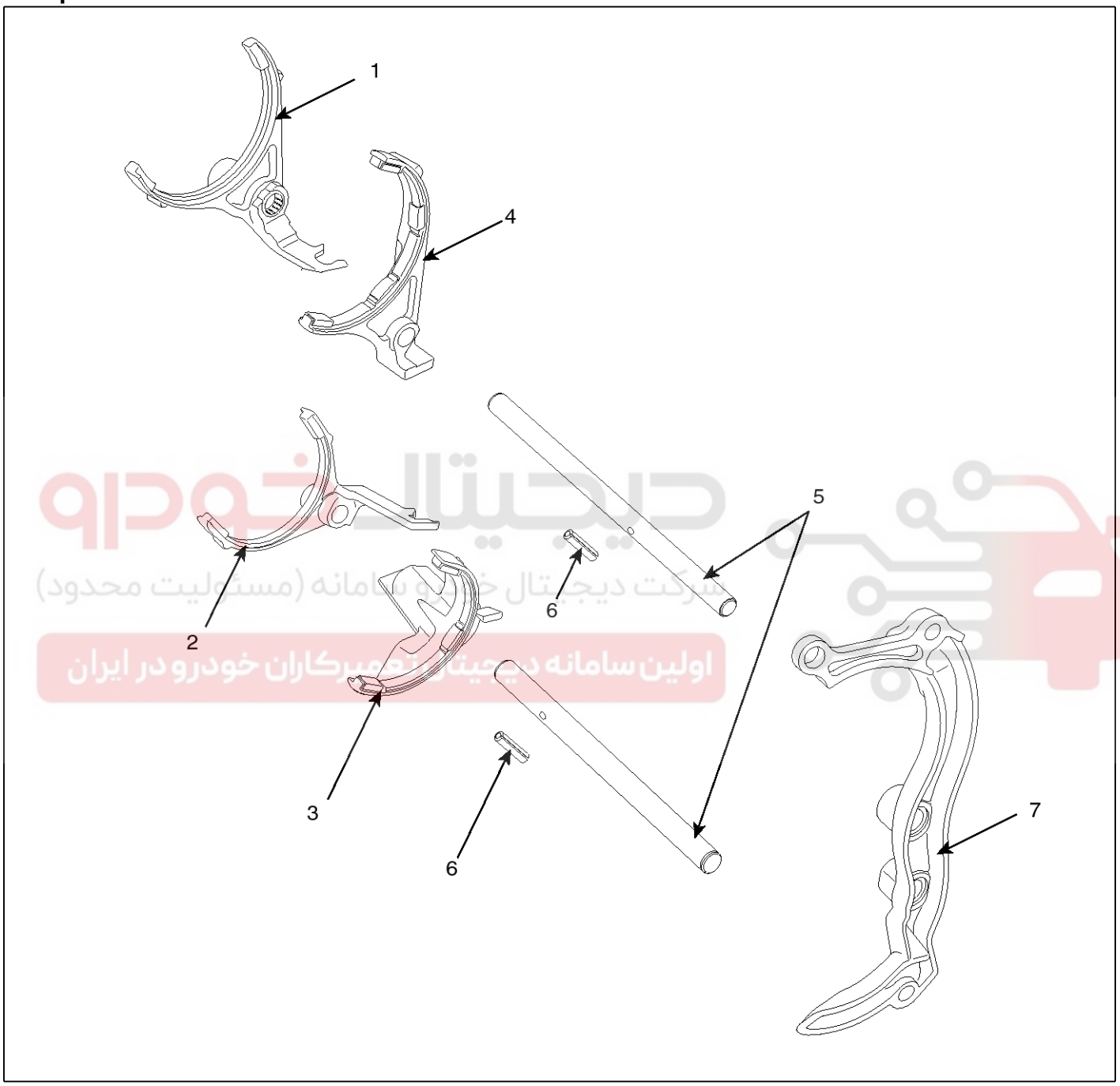
Reassembly

1. Insert the reverse idler spacers in the reverse idler gear assembly.
2. Insert the needle roller bearing into the bearing retainer by tapping.
3. Install the rest of the parts manually.

Manual Transaxle Control System

Shift Fork

Components



S226M0040L

1. 1st/2nd shift fork
2. 3rd/4th shift fork
3. 5th/6th shift fork4. Reverse shift fork
5. Shift rail
6. Spring pin
7. Rail support bracket