

D47-6

SPECIAL TOOL MANUAL

FOR

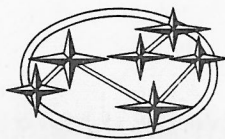
SUBARU 360 SERIES

(R-2, TRUCK & VAN)

SUBARU FF-1 SERIES

(1100 & 1300G)

SUBARU 1400 SERIES



 **FUJI HEAVY INDUSTRIES LTD.**

NOTE 1: Marks R, TV, A-1, A-2, G and L indicate the following vehicles.

R SUBARU R-2 SEDAN (K12 & K12L)

TV SUBARU 360 TRUCK & VAN (K55, K55L, K64 & K64L)

A-1 SUBARU FF-1 SEDAN & STATION WAGON: 1100 CC

4-door Sedan: Right Hand Drive c/# A14-030000 and before
Left Hand Drive c/# A14L-402000 and before
FOR U. S. A. c/# A14L-204000 and before
2-door Sedan: Right Hand Drive c/# A14-550000 and before
Left Hand Drive c/# A14L-901000 and before
FOR U. S. A. c/# A14L-704000 and before
Station Wagon: Right Hand Drive c/# A43-015000 and before
Left Hand Drive c/# A43L-204000 and before
FOR U. S. A. c/# A43L-204000 and before

A-2 SUBARU FF-1 SEDAN & STATION WAGON: 1100 CC

4-door Sedan: Right Hand Drive c/# A14-030001 and after
Left Hand Drive c/# A14L-402001 and after
FOR U. S. A. c/# A14L-204001 and after
2-door Sedan: Right Hand Drive c/# A14-550001 and after
Left Hand Drive c/# A14L-901001 and after
FOR U. S. A. c/# A14L-704001 and after
Station Wagon: FOR U. S. A. c/# A43L-204001 and after

G SUBARU FF-1 1300G SEDAN & STATION WAGON: 1300 CC
(A15, A15L, A44 & A44L)

L SUBARU 1400 COUPE, SEDAN & STATION WAGON: 1400 CC
(A22, A22L, A23L, A62, A62L & A63L)

NOTE 2: Markes E, T and B in the column "CLACIFICATION" indicate the following matters.

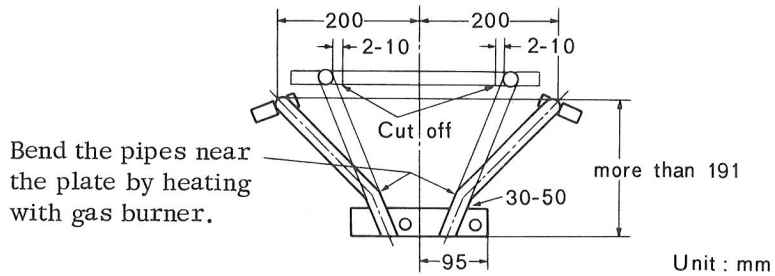
E: Special tools for ENGINE

T: Special tools for TRANSMISSION

B: Special tools for BODY

NOTE 3: The special tools marked with © in the column "APPLICABLE MODEL" can be also used to Subaru 360 Sedan (Model K111 and K111L) and Subaru 360 Truck & Van (Model K153, K153L, K163 and K163L)

NOTE 4: Regarding special tools "STAND II" - No. 36 & No. 37 on page 25, 899814102 STAND II can be used to "G" by modifying as shown in the drawing. In this case, it is not necessary to order 899818600 STAND II.



If you do not have 899814102 STAND II, please order 899818600 STAND II only. This can be used to "A-1" and "A-2".

NOTE 5: Regarding the special tools REMOVER (899764104) and REAMER (899764105) (valve guide) on page 22 & 23, If you have special tool REPLACER SET (899764100), do not need buy above two tools.

TOOL NO.	PARTS NAME	APPLICATION	PAGE	CLASSIFI- CATION	APPLICABLE MODEL							
					R	TV	A-1	A-2	G	L		
898858600	INSTALLER	Intake valve oil seal	7	E							o	
898867800 *1	INSTALLER	Cylinder installation		E	o							
898878600	T-HANDLE WRENCH	Crankcase stud bolt	8	E						o	o	
898917800	CAULKER	Transmission main shaft nut	32	T	o	o						
898928000 *2	PRESS	Primary pinion		T	o	o						
898928001 *2	SPACER I			T	o	o						
898928002 *2	SPACER II			T	o	o						
898938600	HOLDER		Transmission main shaft lock nut	33	T						o	o
898968600	PLIERS	Piston pin circlip	8	E			o	o	o	o	o	
898977820	EXTRACTOR	Straight pin (Shifter fork)	34	T	o	o						
898996100	REMOVER & REPLACER SET	Valve rocker arm bushing	9	E			o	o	o	o	o	
899010110	HAND PRESS	Piston pin		E	⊙	⊙						
899014100	PISTON PIN PRESS	Piston pin	10	E			o	o	o	o	o	
899021400 *3	RING BAND	Cylinder installation		E	⊙	⊙						
899064110	INSTALLER	Crankcase oil seal	11	E			o	o	o	o	o	
899090110	GUIDE	Piston pin		E	⊙	⊙						
899094100	REMOVER	Piston pin	12	E			o	o	o	o	o	
899186100	RING BAND	Piston installation		E				o	o			
899188600										o	o	
899235000	PULLER	Counter shaft bearing	34	T	⊙	⊙						
899247801 *4	INSTALLER I	Primary pinion (Oil seal bushing)	35	T	o	o						
899247802 *4	INSTALLER II											
899247803 *4	BOLT											
899278600	INSTALLER	Drive pinion spacer	36	T						o	o	
899307800	GUIDE	Straight pin		T	o	o						
899354800	SYNCHRO TESTER	Carburetor (Twin carburetor)	13	E			o	o	o	o	o	
899401400	INSTALLER	Crankshaft bearing retainer Main drive gear ball bearing		E	⊙	⊙						
899431400	KEY WRENCH	Crankcase socket bolt	14	E	⊙	⊙	⊙	⊙	⊙	⊙	⊙	
899457800	STOPPER	Lock nut (3rd & 4th synchronizer hub)	37	T	o	o						
899467800	SOCKET	Lock nut (3rd & 4th synchronizer hub & reverse driven gear)	37	T	o	o						
899471410	EXPANDER	Snap ring (Release yoke shaft, Transmission main shaft)	38	T	⊙	⊙						
899474100	EXPANDER	Snap ring (Transmission main shaft)	38	T			o	o	o	o	o	
899487810	ASSEMBLY TOOL	Clutch assembly	14	E	o	o						
899497800	PULLER	Transmission case	39	T	o	o						
899507800	SOCKET	Lock nut (Primary gear)										
899510100	INSTALLER	Main drive gear ball bearing	40	T	⊙	⊙						

*1 Applied to Engine No. 1038698 and after.

*2 Applied to Engine No. 952410 and after.

*3 Applied to all TV Engine and R Engine (Engine No. 1038697 and before).

*4 Applied to Engine No. 952409 and before.

TOOL NO.	PARTS NAME	APPLICATION	PAGE	CLASSIFI- CATION	APPLICABLE MODEL					
					R	TV	A-1	A-2	G	L
899520120	EXTRACTOR	Clutch, fan, primary reduction gear, crankcase cover	15	E	⊙	⊙				
899524100	PULLER	Taper roller bearing (Differential case)	40	T			o	o	o	o
899530110	ALIGNER	Cylinder installation	16	E	⊙	⊙				
899540100	REPLACING TOOL	Main drive gear needle bearing	41	T	⊙	⊙				
899580100	INSTALLER	Crankshaft bearing and counter shaft bearing	17	E	⊙	⊙	⊙	⊙	⊙	⊙
899600100	PULLER	Crankshaft bearing (Fan side)			⊙	⊙				
899620100	BEARING BAND	Crankshaft bearing (Clutch side)	18	E	⊙	⊙				
899694100	TESTER	Gear backlash	41	T			o	o	o	o
899704100	PULLER	Cylinder liner	18	E			o	o	o	o
899714110	RETAINER	Cam gear, gear and bushing and ball bearing (Transmission)	42	T			o	o	o	o
899724100	PRESS	Valve spring	19	E			o	o	o	o
899734110	ALIGNER	Cylinder head		E			o	o		
899738600	ALIGNER	Cylinder head	20	E					o	o
899744100	GUIDE	Clutch disk		E			o	o	o	
899754110	INSERTER	Snap ring and ball bearing (Transmission main shaft)	42	T			o	o	o	o
899764100	REPLACER SET	Valve guide (Intake and exhaust)	21	E			o	o		
899764104 *5	REMOVER VALVE GUIDE	Valve guide		E					o	o
899764105 *5	REAMER VALVE GUIDE	Valve guide	22	E					o	o
899768601	TABLE	Cylinder head		E					o	o
899768602	ADJUSTER	Exhaust valve guide	23	E					o	o
899768603	ADJUSTER	Intake valve guide		E					o	o
899774101	WRENCH	Thrust bearing holder (Transmission)	43	T			o	o	o	
899784100	WRENCH	Holder (Front axle bearing)		T			o	o	o	
899794100	INSTALLER	Differential oil seal, main shaft bearing	44	T			o	o	o	
899804100	CLIP	Crankcase right & left	24	E			o	o	o	o
899814101	STAND-I	Engine assembly		E			o	o	o	o
899814102 *6	STAND-II	Engine assembly	25	E			o	o		
899818600 *6	STAND-II	Engine assembly		E					o	o
899824100	PRESS	Speedometer oil seal (Engine side)	44	T			o	o	o	o
899834100	STOPPER	Cylinder liner	26	E			o	o		
899838600	STOPPER	Cylinder liner		E					o	o
899844100	SPACER	Cylinder head	27	E			o	o		
899848600	SPACER	Cylinder head		E					o	o
899854110	RETAINER	Bushing and spacer (Transmission)	45	T			o	o		
899858600	REMOVER-II	Drive pinion spacer		T					o	o
899864100	REMOVER	Bearing and bushing (Transmission)	46	T			o	o	o	o
899874100	INSTALLER	Bushing (Transmission)		T			o	o	o	o
899884100	HOLDER	Drive pinion assembly (Transmission)	47	T			o	o	o	o

*5 See NOTE 5.

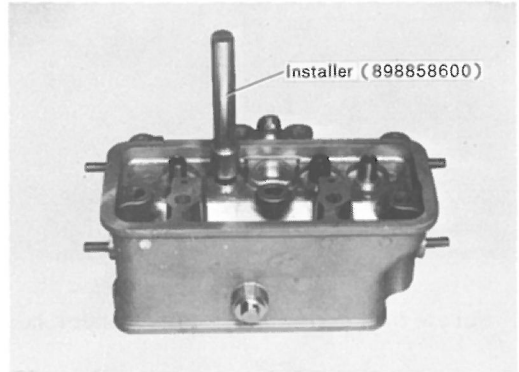
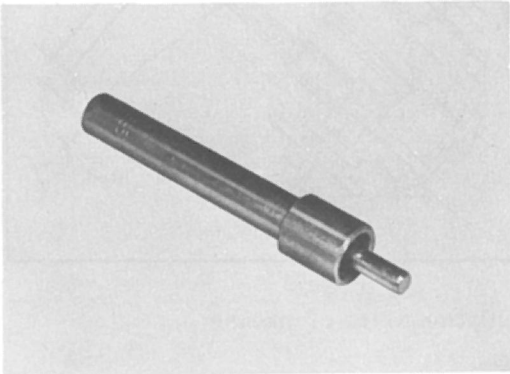
*6 See NOTE 4.

TOOL NO.	PARTS NAME	APPLICATION	PAGE	CLASSIFI- CATION	APPLICABLE MODEL					
					R	TV	A-1	A-2	G	L
899904100	REMOVER	Straight pin (Differential case and Transmission cover)	47	T			o	o	o	o
899914100	GAUGE ASSEMBLY	Drive pinion assembly (Transmission)	48	T			o	o	o	o
899924100	HANDLE	Transmission assembly	49	T			o	o	o	o
899934100	STAND	Transmission assembly								
899944100	HOLDER	Axle shaft bearing	50	T			o	o	o	
899974101	KEY WRENCH	Plug (Crankcase)	28	E			o	o	o	o
899984101	SOCKET	Valve clearance								
899984103	SOCKET	Drive pinion lock nut	50	T			o	o	o	o
899984104	SOCKET	Valve rocker assembly	29	E			o	o	o	
899984115	SOCKET (17)	Cylinder head installation bolt								
899988606	SOCKET (17)	Cylinder head installation bolt	30	E					o	o
899988607	SOCKET (17)	Valve rocker assembly								
899988608	SOCKET	Transmission main shaft lock nut	51	T					o	o
899994101	WRENCH	Valve clearance	31	E			o	o	o	o
921130000	REPLACING TOOL	Front or rear (A-1, A-2, G, L) brake drum bearing	54	B	⊙					
921141000	EXTRACTOR	King pin			⊙	⊙				
921230000	GAUGE	Front & rear brake lining	55	B	⊙	⊙				
921240000	REMOVER	Tie-rod end ball stud								
921290000	INSERTER	Weather strip	56	B	⊙	⊙				
921330000	PULLER	Rubber bushing (Front inner & outer, Rear outer)			o	o				
921340000	INSTALLER	Rubber bushing (Front inner & outer)	57	B	o	o				
921350000	INSTALLER	Hub bearing	58	B	o	o				
921360000	INSTALLER	Hub	59	B	o					
921380000	INSTALLER	Rubber bushing (Rear trailing arm)			o	o				
921390000	INSTALLER & REMOVER	Rubber bushing (Rear trailing arm inner)	60	B	o	o				
921410000	REMOVER	Back metallic-bushing (Trailing arm)								
921420000	PULLER ATTACHMENT	Brake drum (Front and rear)	61	B	o	o				
922091000	INSTALLER	Nylon bushing (Front trailing arm)								
922320000	CAP	Hub	62	B		o				
925010000	INSTALLER	Front cross member bearing					o	o	o	
925020000	PULLER	Front & rear cross member bearing	63	B			o	o	o	
925030000	INSTALLER	Rear cross member bearing of Sedan		B			o	o		
925041000	ADJUSTER	Front ground clearance	64	B			o	o	o	
925051000	BEARING REPLACER	Knuckle bearing								
925061000	WRENCH	Knuckle	65	B			o	o	o	
925071000	INSTALLER	Knuckle and front hub								
925080000	INSTALLER	Rear brake drum bearing	66	B			o	o	o	o
925090000	TIGHTENER	Front axle boot clip								
925100001	WRENCH	Speedometer calbe	68	B			o	o	o	o
925110000	REPLACER	Brake								

TOOL NO.	PARTS NAME	APPLICATION	PAGE	CLASSIFI- CATION	APPLICABLE MODEL					
					R	TV	A-1	A-2	G	L
925120000	INSTALLER	Rear cross member bearing of STATION WAGON	69	B			o	o	o	
925130000	INSTALLER	Housing, Drum & Hub	70	B						o
925140000	INSTALLER	Housing								
925160000	PULLER & WRENCH	Strut assembly	72	B						o
925200000	PULLER	Housing, Drum & Hub	73	B						o
925210000	PULLER	Trailing arm bushing (inner & outer)	74	B			o	o	o	
925220000	INSTALLER	Rear brake drum bearing (inner & outer)	75	B			o	o	o	
925230000	PULLER	Rear brake drum bearing (inner & outer)	76	B			o	o	o	
925240000	PULLER ATTACHMENT	Brake drum	77	B			o	o		
925250000	INSTALLER	Rear brake drum oil seal					o	o	o	
399520105	SHEET	Differential side taper bearing	51	T						o
399740100	GUIDE	Clutch disc	31	E						o
399780101	WRENCH	Adjusting the hypoid gear back lash	52	T						o
399780104	WEIGHT	Adjusting the hypoid gear back lash								
399790100	INSTALLER	Axle shaft oil seal	53	T						o

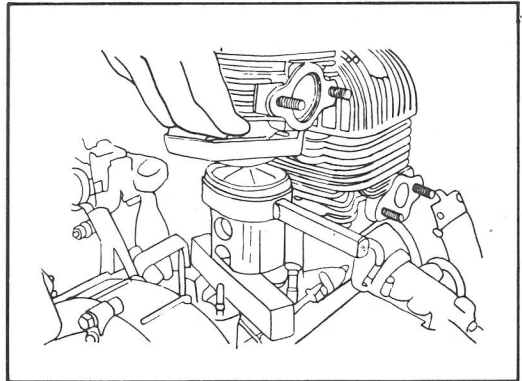
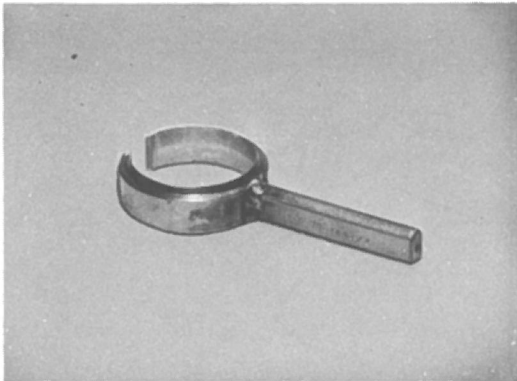
1. ENGINE

1	898858600	INSTALLER	Intake valve oil seal	L
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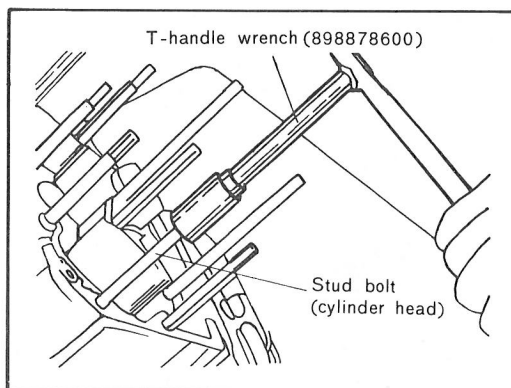
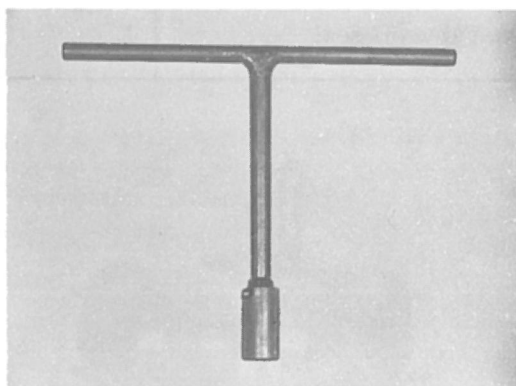
Use this tool with a press to fit the oil seal (intake valve).

2	898867800	INSTALLER	Cylinder installation	R, E/# 1038698 and after
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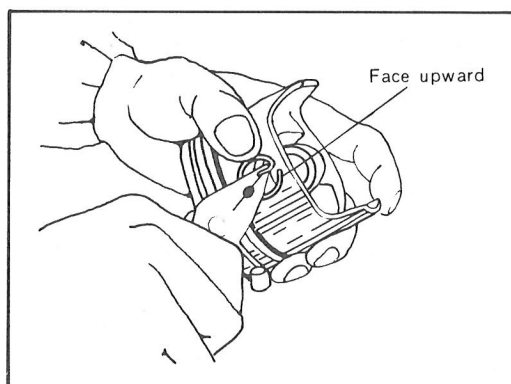
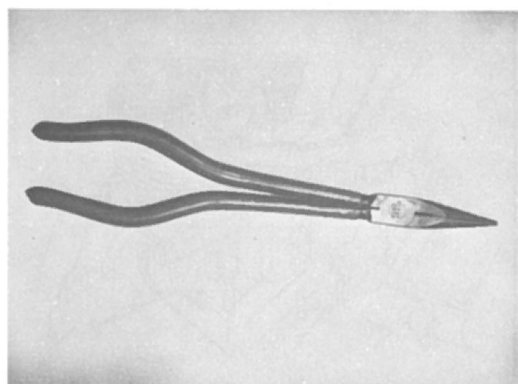
Support the piston ring and install the cylinder.

3	898878600	T-HANDLE WRENCH	Crankcase stud bolt	G, L
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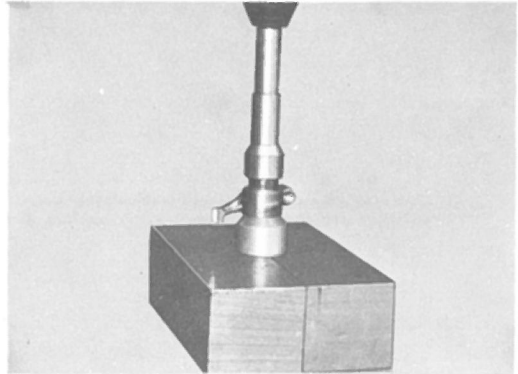
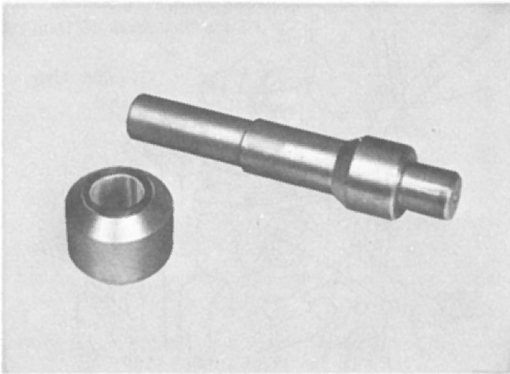
Screw in the stud bolts for cylinder head installation to the crankcase.

4	898968600	PLIERS	Piston pin cir-clip	A-1, A-2, G, L
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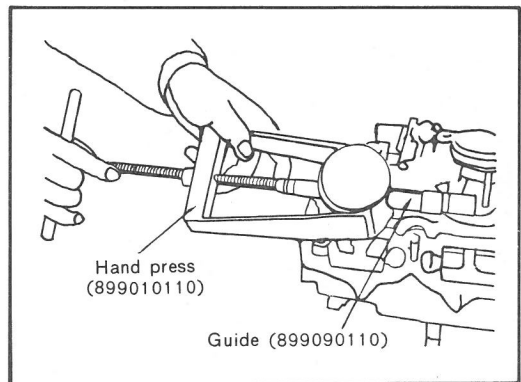
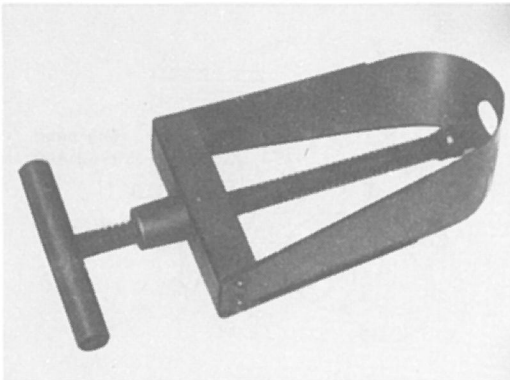


Remove or install the piston pin circlips using the pliers.

5	898996100	REMOVER & REPLACER SET	Valve rocker arm bushing	A-1, A-2, G, L
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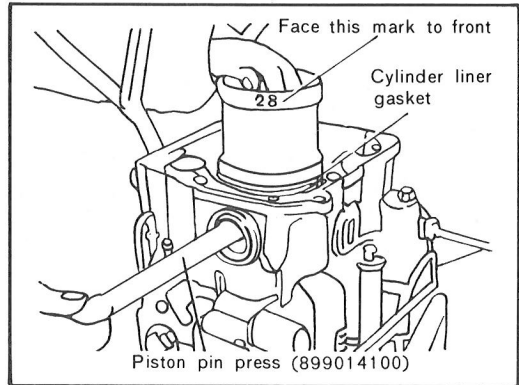
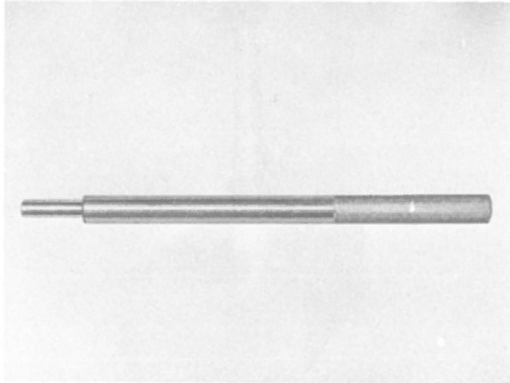


6	899010110	HAND PRESS	Piston pin	R, TV,
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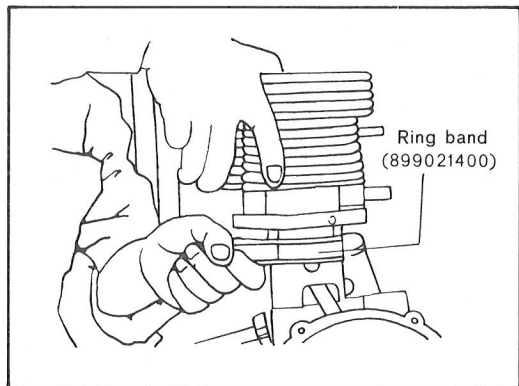
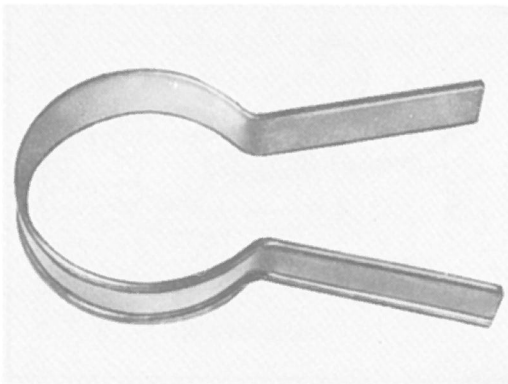
- (1) Turn the handle to attach or remove the piston pin.
- (2) When attaching the piston pin, use the guide (899090110).

7	899014100	PISTON PIN PRESS	Piston pin	A-1, A-2, G, L
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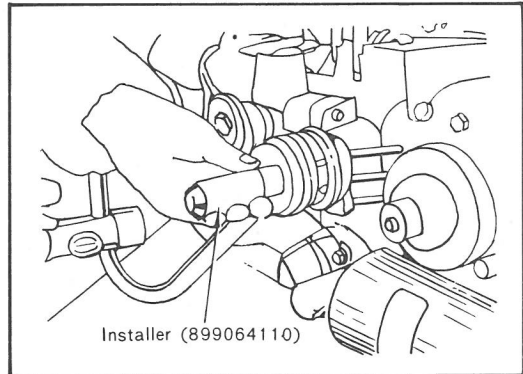
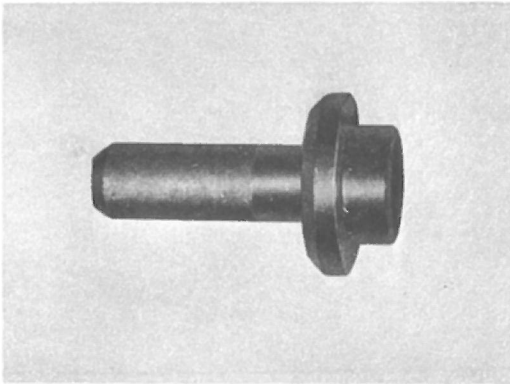
- (1) Align the small end of the **connecting** rod with the piston pin hole of the piston.
- (2) Insert the piston pin through the plug hole of the crankcase using this piston pin press.

8	899021400	RING BAND	Cylinder installation	R, TV, © R: E/# 1038697 and before
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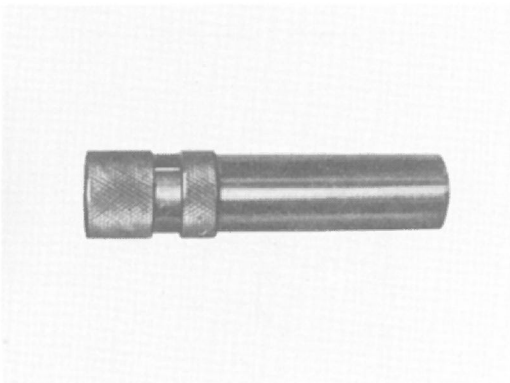
Support the piston ring and install the cylinder.

9	899064110	INSTALLER	Crankcase oil seal	A-1, A-2, G, L
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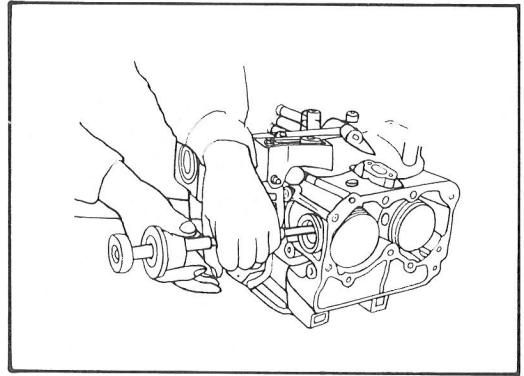
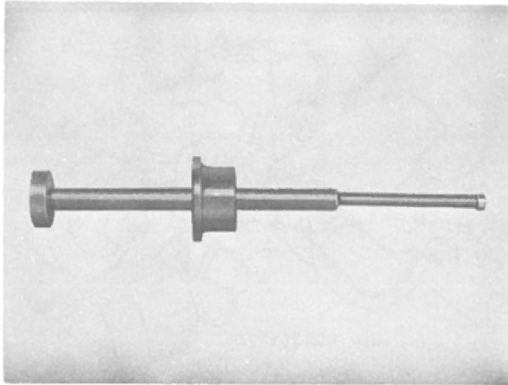
- (1) Fit the oil seal on the installer.
- (2) Press it in by tapping the installer.

10	899090110	GUIDE	Piston pin	R, TV, ◎
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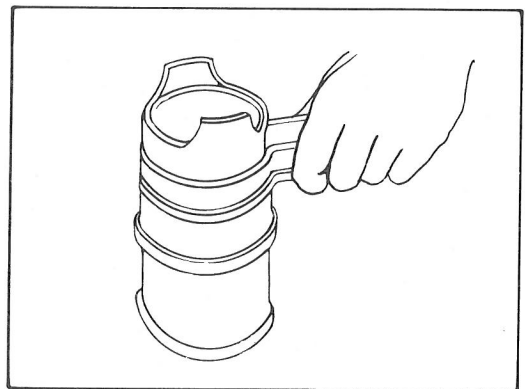
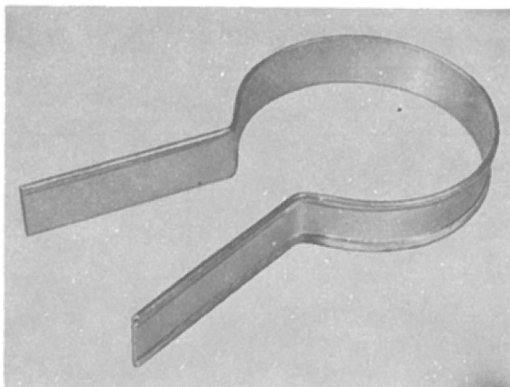
Refer to No. 6 (Page 9) "899010110 Hand press".

11	899094100	REMOVER	Piston pin	A-1, A-2, G, L
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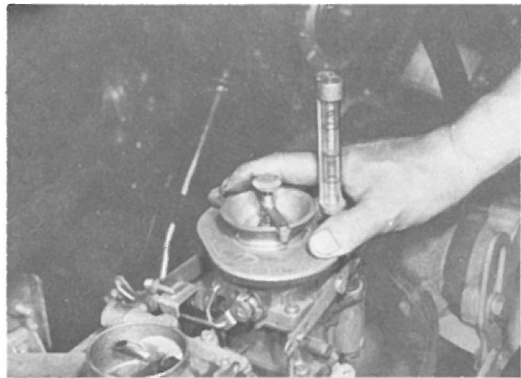
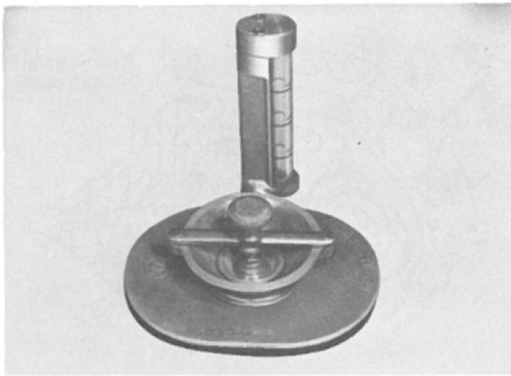
- (1) Insert this remover through the plug hole of the crankcase into the piston pin, after removing the piston pin circlip on the plug hole side.
- (2) Pass the claw of the remover through the circlip at the opposite end of the piston pin by aligning the groove in the claw with the projection of the circlip.
- (3) Turn the remover so as to hook the claw to the piston pin end.
- (4) Pull out the piston pin by knocking on the remover head with its attached weight.

12	899186100	RING BAND	Piston installation	A-1, A-2
13	899188600			G, L

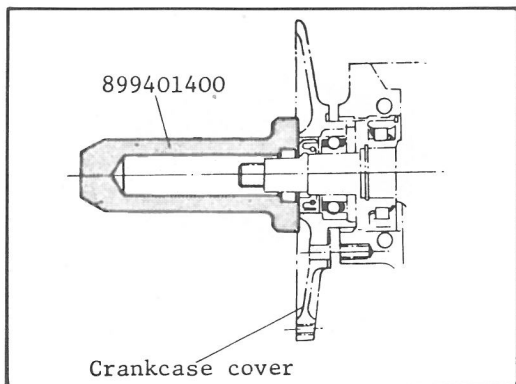
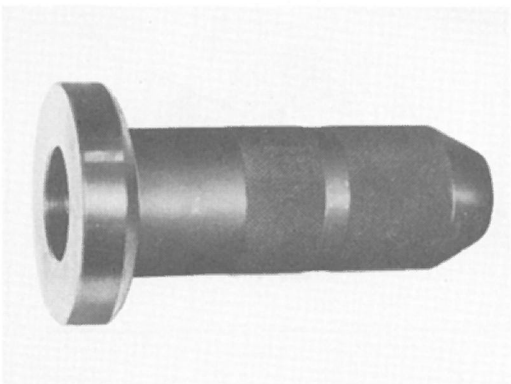


Hold the piston ring with this ring band and install the piston from the skirt side of the cylinder liner.

14	899354800	SYNCHRO TESTER	Carburetor	A-1, A-2, G, L
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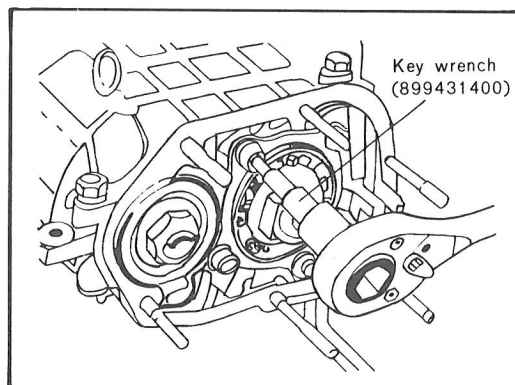
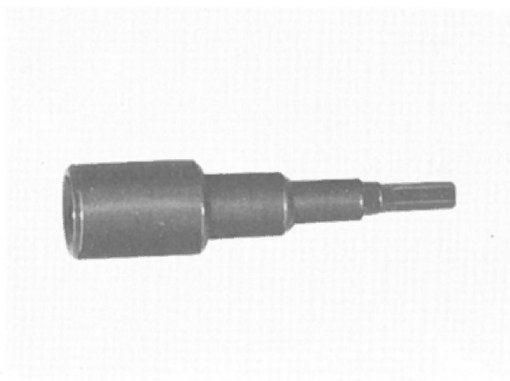


15	899401400	INSTALLER	Crankshaft bearing retainer Main drive gear ball bearing	R, TV, ⊙
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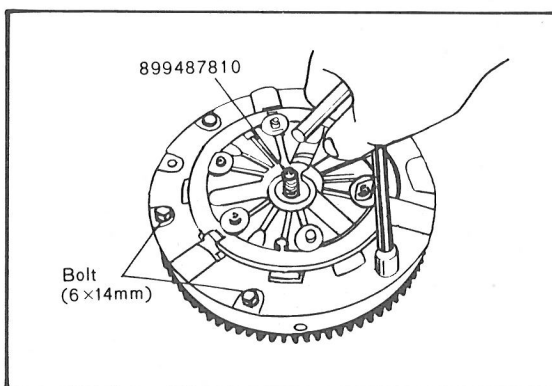
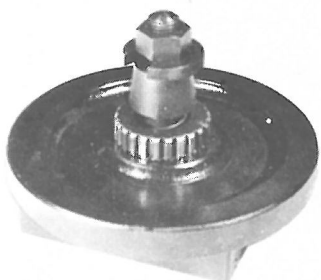
After pressing the oil seal and the bearing into the crankcase cover, install this assembly by pressing with this installer.

16	899431400	KEY WRENCH	Crankcase socket bolt	R, TV, ⊙ A-1, A-2, G
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Loosen and tighten the crankcase socket bolt in R, TV and ⊙ series, and the transmission socket bolt in A-1, A-2, and G series, using this key wrench.

17	899487810	ASSEMBLY TOOL	Clutch assembly	R, TV
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A. When disassembling the clutch assembly.

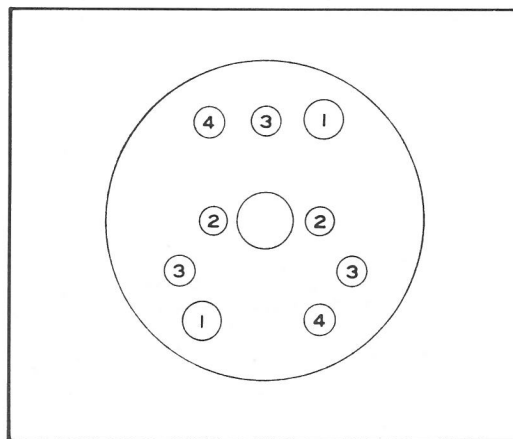
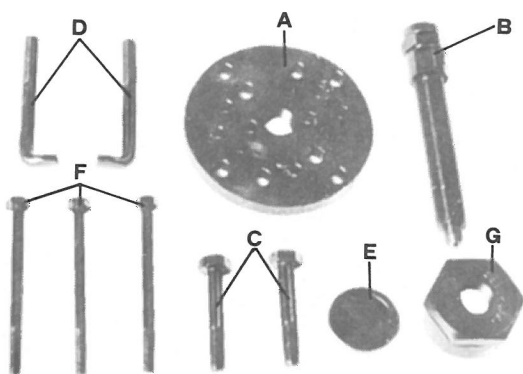
- (1) Place the clutch assembly on this tool and tighten it with the nut.
- (2) Remove the six bolts (6 x 14 mm) around the edge of the clutch cover, separating the clutch cover and clutch disc from the flywheel.

(NOTE) Do not allow oil or grease to come into contact with the clutch disc facing.

B. When assembling the clutch assembly.

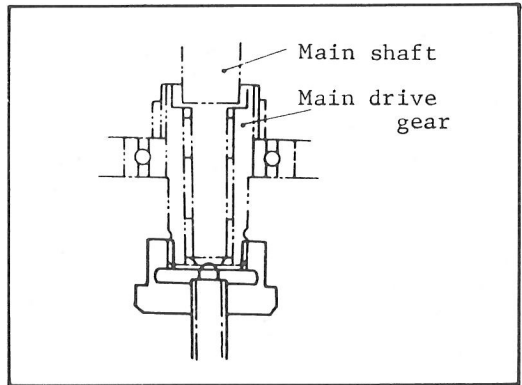
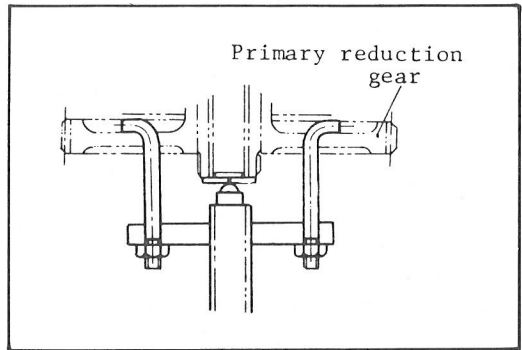
- (1) Place the flywheel and clutch disc on this tool.
- (2) Face the side of the disc having the deep oil slinger toward the clutch cover.
- (3) Place the clutch cover on the flywheel, aligning the flywheel guides and clutch cover guide holes.
- (4) Clamp the periphery of the clutch cover with six bolts (6 x 14 mm) and spring washers.
- (5) Remove the clutch assembly from the special tool.

18	899520120	EXTRACTOR	Clutch, fan, primary reduction gear, crankcase cover	R, TV, ⊙
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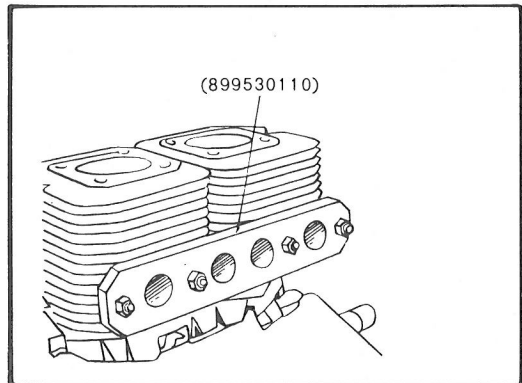
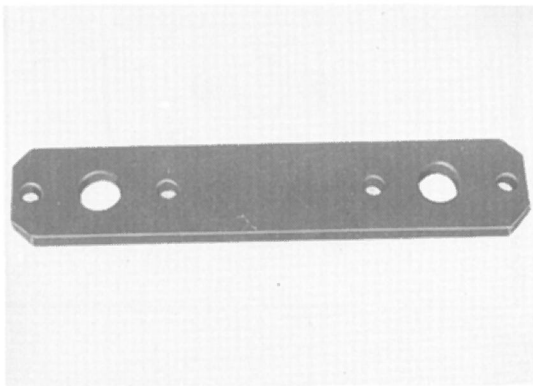


- (1) Pull out the clutch assembly using B and A with C inserted into the hole ①.
- (2) Pull out the primary reduction gear using B, E, and A with D inserted into the hole ①.

- (3) Pull out the fan using B and A with F inserted into the hole ② .
- (4) Pull out the crankshaft fan side bearing using B and A with F inserted into the hole ③ .
- (5) Pull out the crankcase cover using B and A with F inserted into the hole ④ .
- (6) Pull out the main drive gear by attaching G to the main drive gear and then screwing in the B.

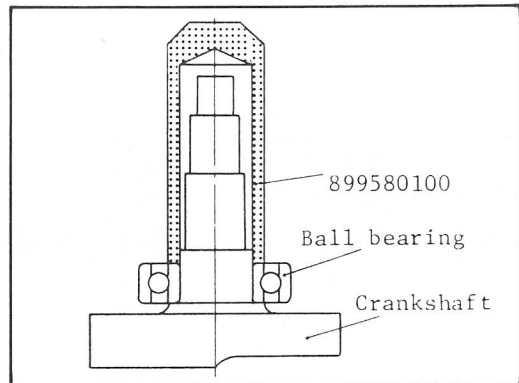
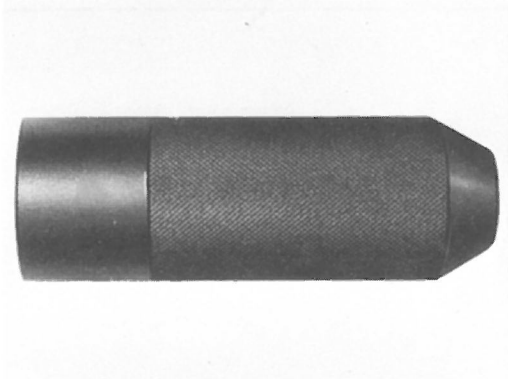


19	899530110	ALIGNER	Cylinder installation	R, TV, ◎
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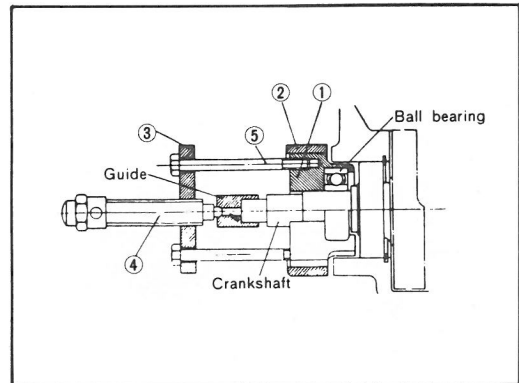
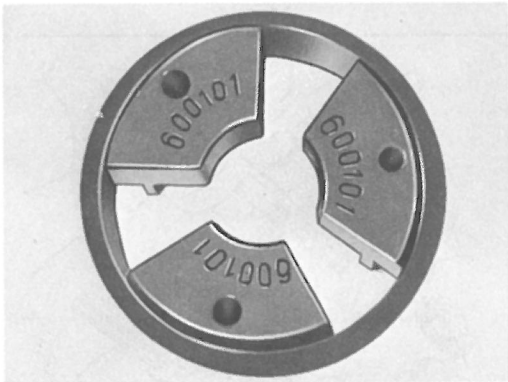
Align the cylinders when installing them by using this tool.

20	899580100	INSTALLER	Crankshaft bearing and counter shaft bearing	R, TV, ⊙, A-1, A-2, G, L
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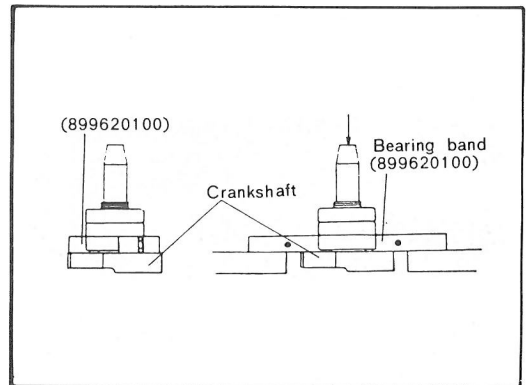
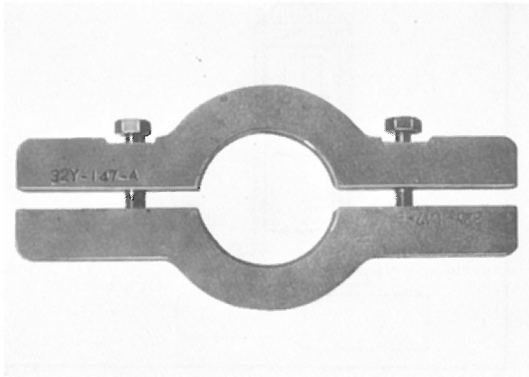
Use this tool to install the crankshaft bearing and countershaft bearing in R, TV, and ⊙ vehicles, and the transmission gear and bushing in A-1, A-2, G and L vehicles.

21	899600100	PULLER	Crankshaft bearing (Fan side)	R, TV, ⊙
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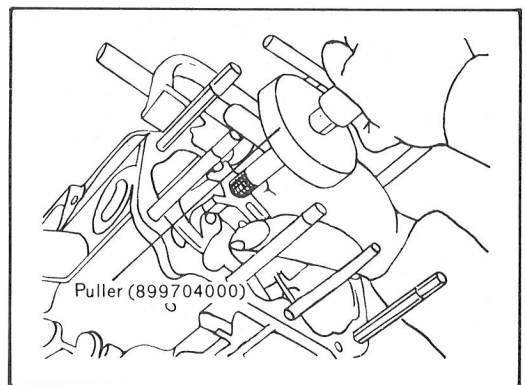
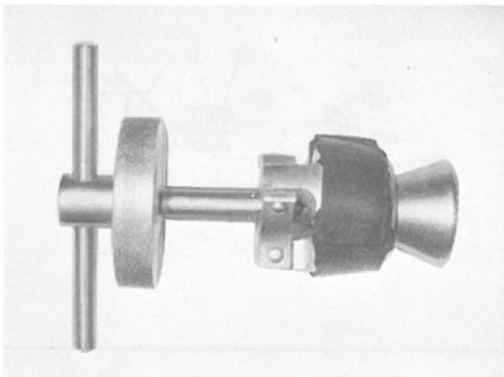
- (1) Hook ①, which is separated into three pieces, to the ball bearing and fit ② on ①.
- (2) Attach ③, ④, and ⑤, place a guide on the end of the crankshaft and screw in ④ to pull out the bearing.

22	899620100	BEARING BAND	Crankshaft bearing (Clutch side)	R, TV, Ⓢ
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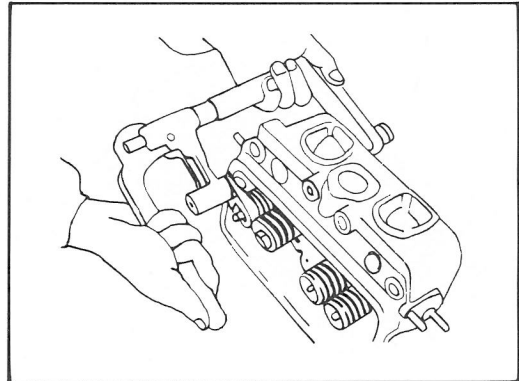
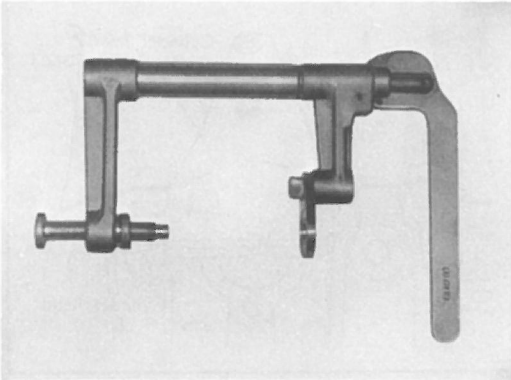
- (1) Attach this tool as shown above and press the crankshaft with a protector between the press and the crankshaft end to remove the two bearing, oil seal and spacer II.

23	899704100	PULLER	Cylinder liner	A-1, A-2, G, L
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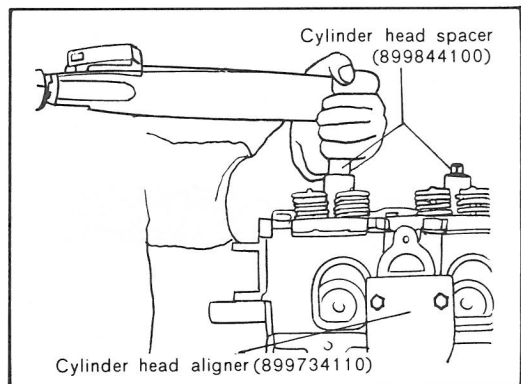
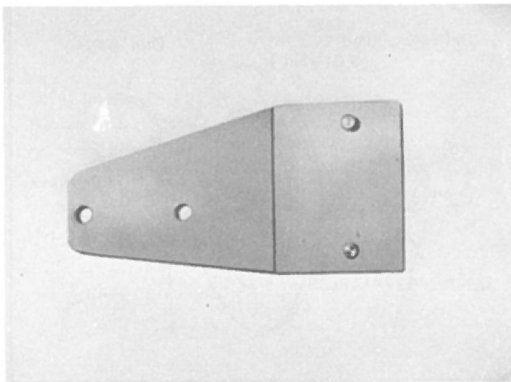
- (1) Insert this puller into the cylinder and turn the handle to stick this puller to the cylinder liner.
- (2) Hit the handle upward with the attached weight to pull out the liner.

24	899724100	PRESS	Valve spring	A-1, A-2 G, L
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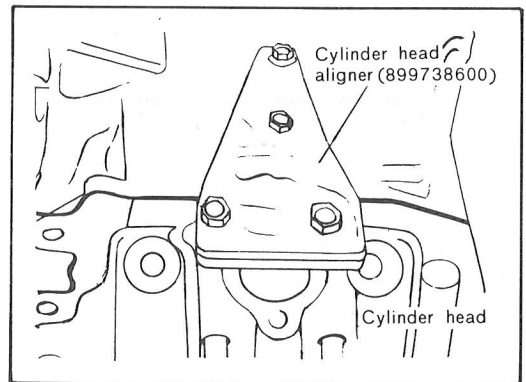
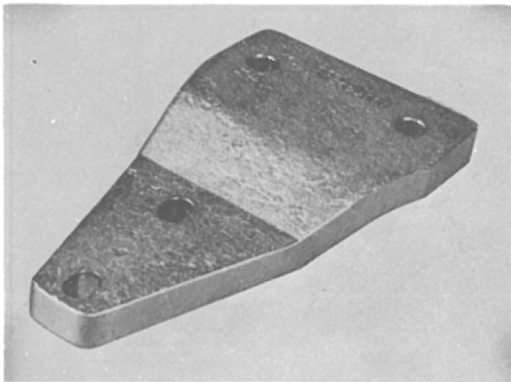
Compress the valve spring and install (or remove) the key (valve spring retainer) and the intake valve spring or exhaust valve spring.

25	899734110	ALIGNER	Cylinder head	A-1, A-2
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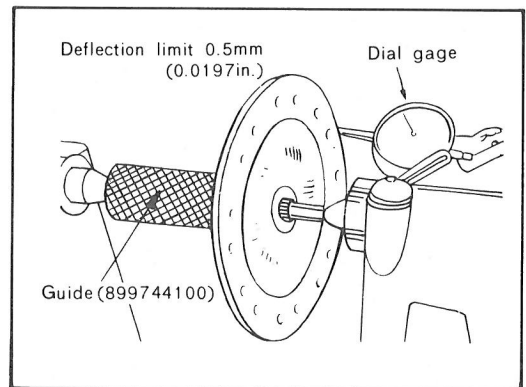
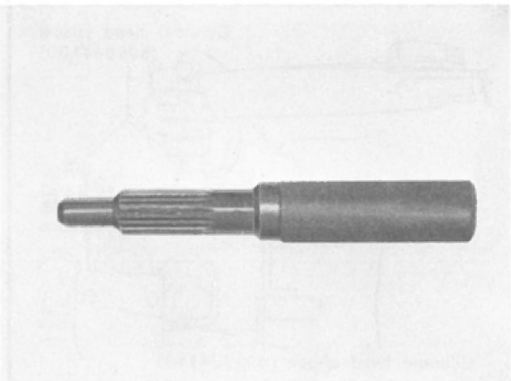
Fix this aligner with four bolts to the crankcase and cylinder head to align them.

26	899738600	ALIGNER	Cylinder head	G, L
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Fix this aligner with four bolts to the crankcase and cylinder head to align them.

27	899744100	GUIDE	Clutch disc	A-1, A-2, G
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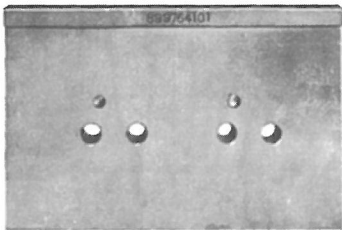
Measure the clutch disc deflection in the way as shown above using this guide and a dial gauge.

This special tool also can be used for the clutch disc centering when installing the clutch disc and clutch cover to the flywheel.

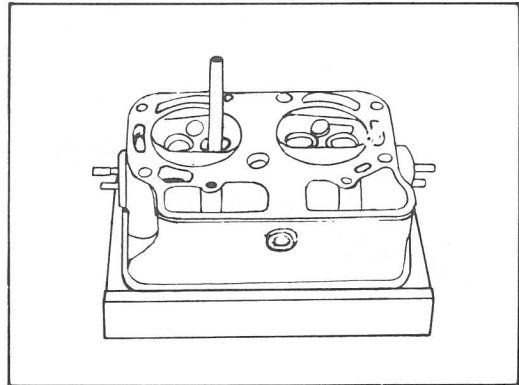
28	899764100	REPLACER SET	Valve guide (Intake and exhaust)	A-1, A-2
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Adjuster (Ex) —  — Adjuster (In) 

Remover  — Reamer 

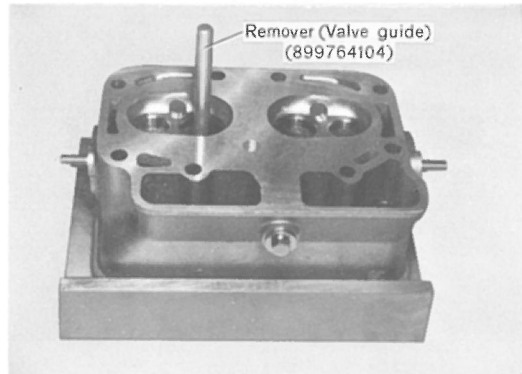
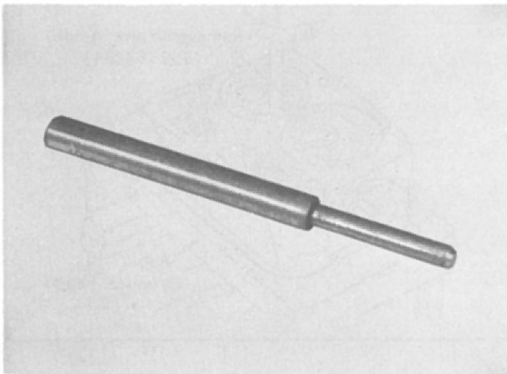


Cylinder Head Table



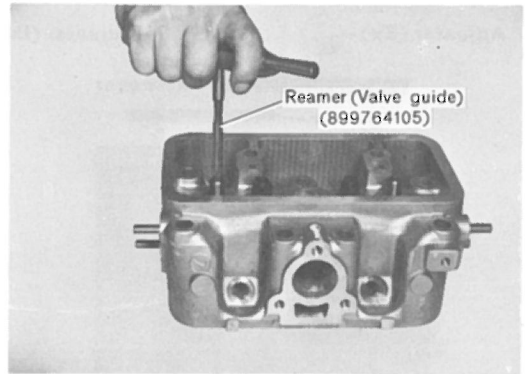
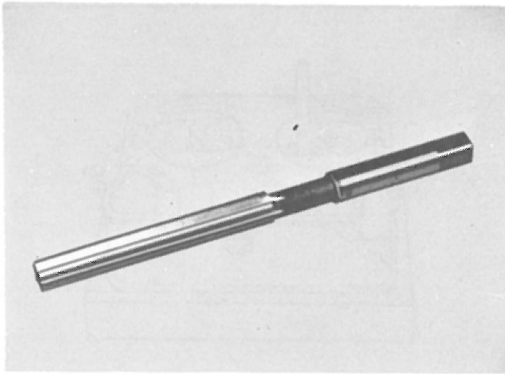
- (1) Place the cylinder head on the table to make the valve vertical.
- (2) Use the adjusters as height gauge when installing the valve guides into the cylinder head.
- (3) Use the remover when pulling out the valve guides.
- (4) Use the reamer to ream the inner surface of the valve guide.

29	899764104	REMOVER (VALVE GUIDE)	Valve guide	G, L
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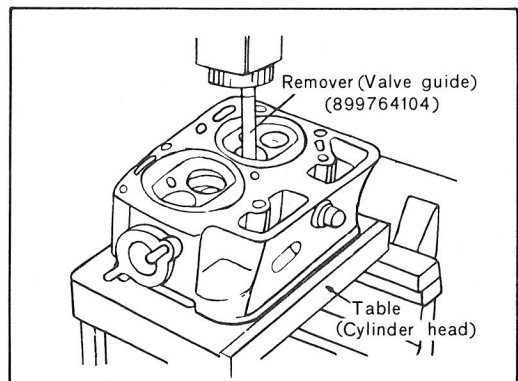
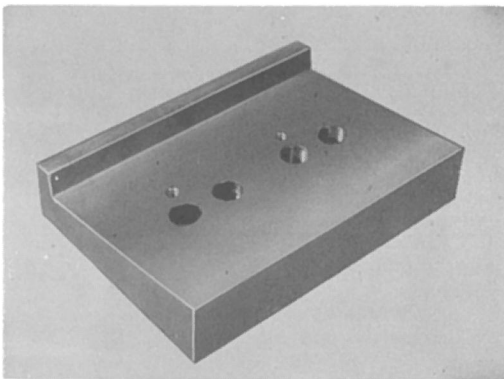
Use this special tool when pulling out the valve guide.

30	899764105	REAMER (VALVE GUIDE)	Valve guide	G, L
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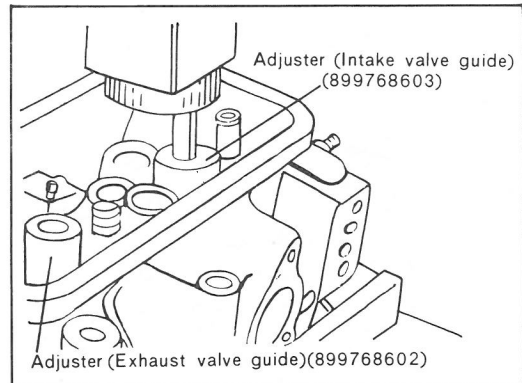
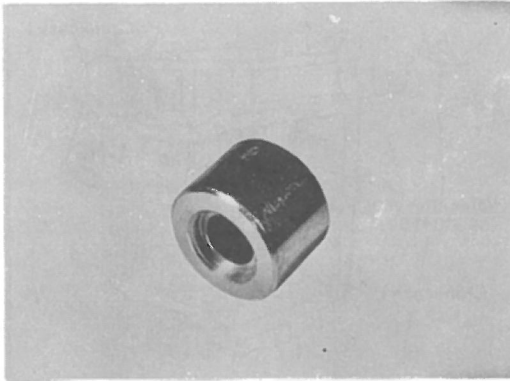
Use this tool to ream the inner surface of the valve guide.

31	899768601	TABLE	Cylinder head	G, L
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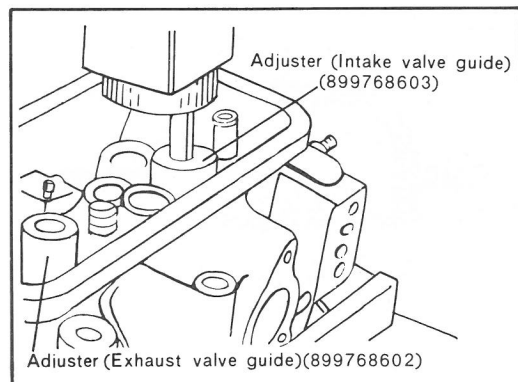
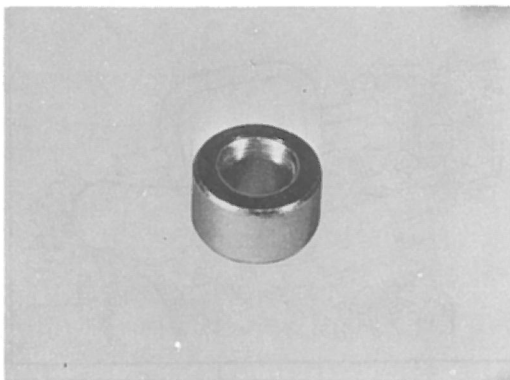
Place the cylinder head on this table when removing the valve guide and adjusting the valve guide position.

32	899768602	ADJUSTER	Exhaust valve guide	G, L
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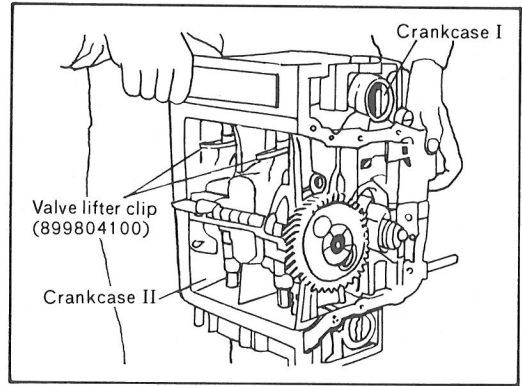
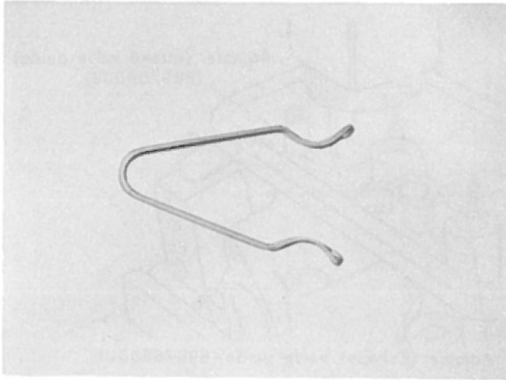
- (1) Place the cylinder head on the table (899768601) and set this adjuster on the valve spring seat.
- (2) Put the valve guide in the adjuster.
- (3) Insert the pin into the valve guide and press it in until the valve guide end comes to the adjuster face.

33	899768603	ADJUSTER	Intake valve guide	G, L
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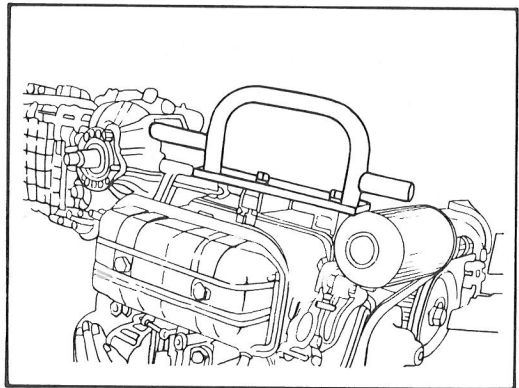
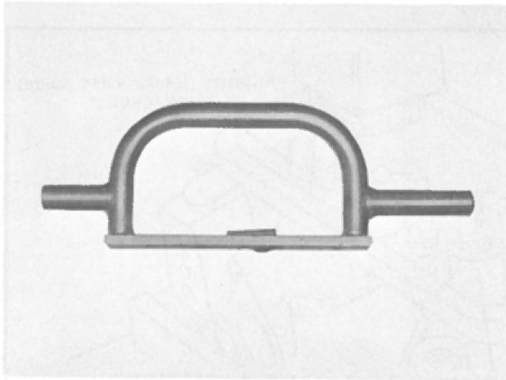
- (1) Place the cylinder head on the table (899768601) and set this adjuster on the valve spring seat.
- (2) Put the valve guide in the adjuster.
- (3) Insert the pin into the valve guide and press it in until the valve guide end comes to the adjuster face.

34	899804100	CLIP	Crankcase right & left	A-1, A-2, G, L
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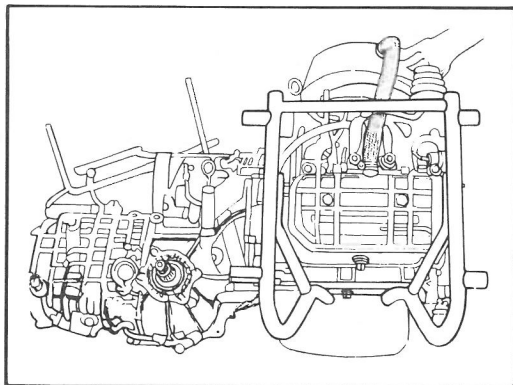
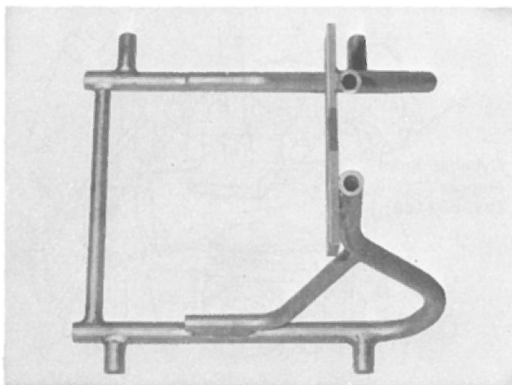
When joining the crankcase I and the crankcase II together, use this valve lifter clip so that the valve lifter does not drop off.

35	899814101	STAND-I	Engine assembly	A-1, A-2, G, L
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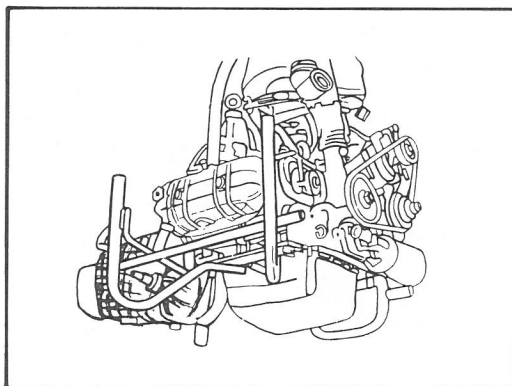
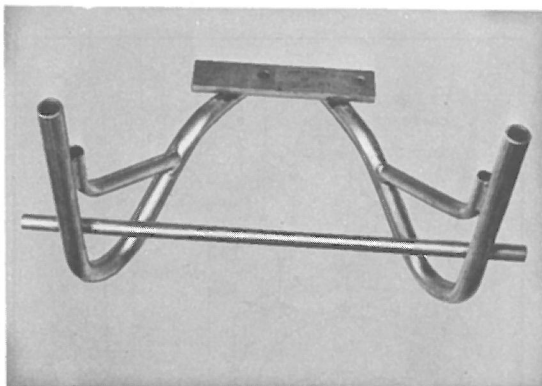
Attach this stand to the crankcase with bolts for easy engine assembling and dis-assembling works.

36	899814102	STAND-II	Engine assembly	A-1, A-2
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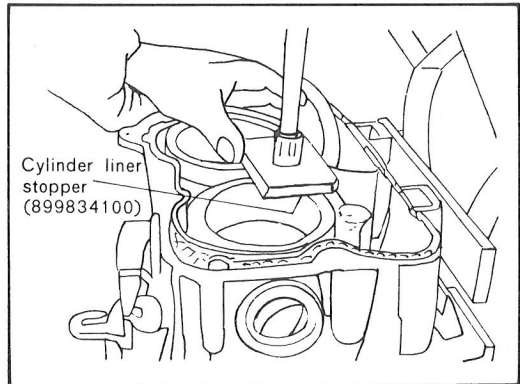
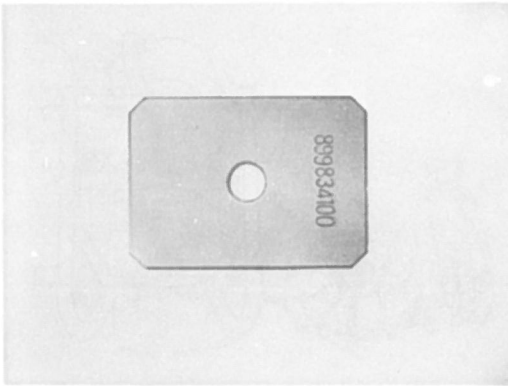
Attach this stand to the crankcase with bolts for easy engine assembling and dis-assembling works. (See NOTE 4 on page 2.)

37	899818600	STAND-II	Engine assembly	A-1, A-2, G, L
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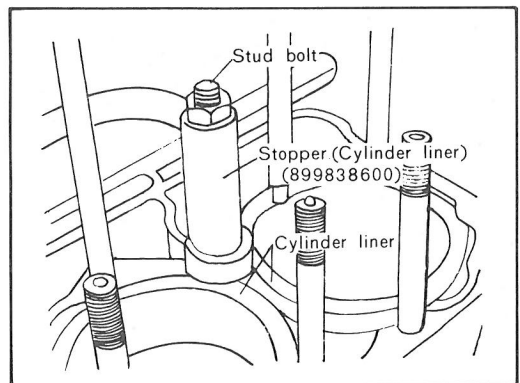
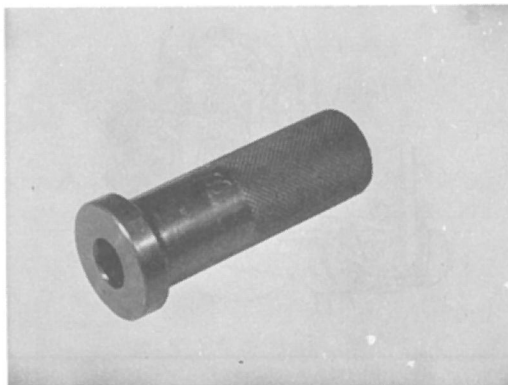
Attach this stand to the crankcase with bolts for easy engine assembling and dis-assembling works. (See NOTE 4 on page 2.)

38	899834100	STOPPER	Cylinder liner	A-1, A-2
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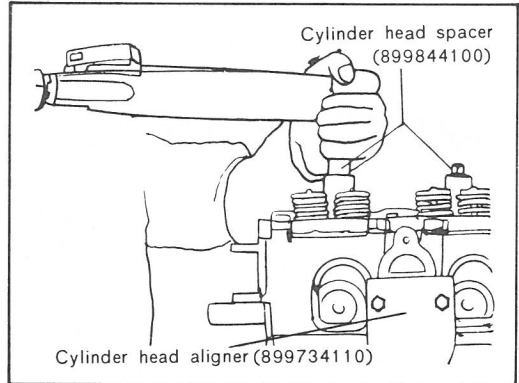
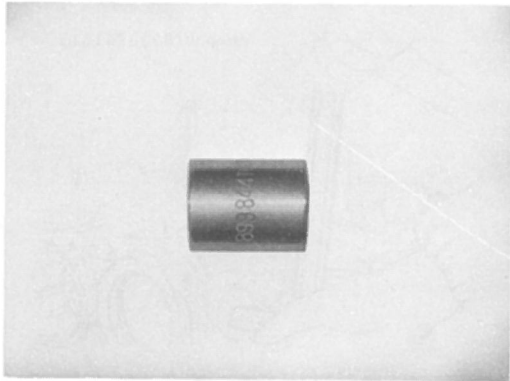
After completing the installation of the cylinder liner and piston, retain them using this stopper.

39	899838600	STOPPER	Cylinder liner	G, L
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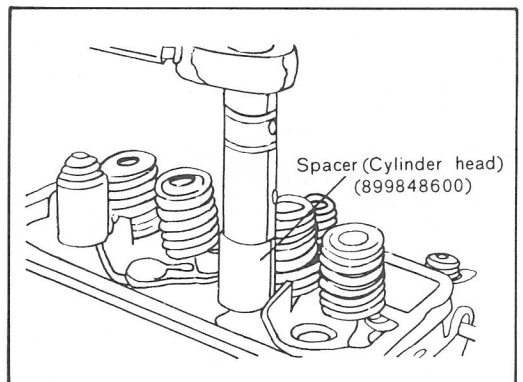
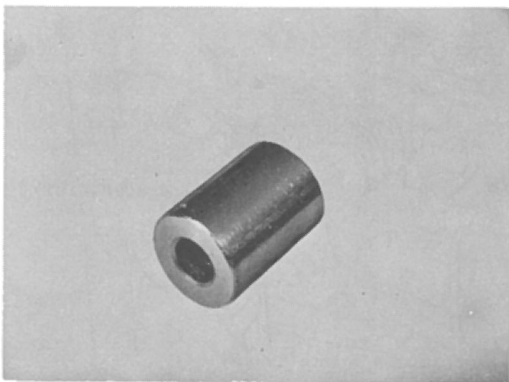
After completing installation of the cylinder liner and piston, retain them using this stopper.

40	899844100	SPACER	Cylinder head	A-1, A-2
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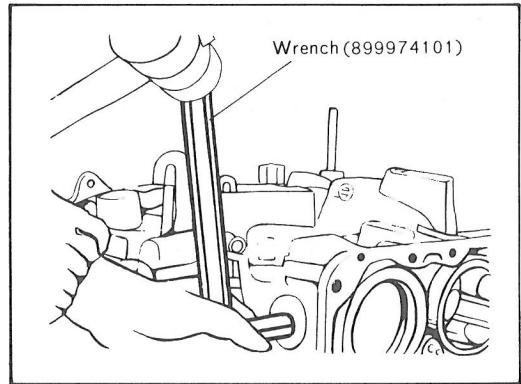
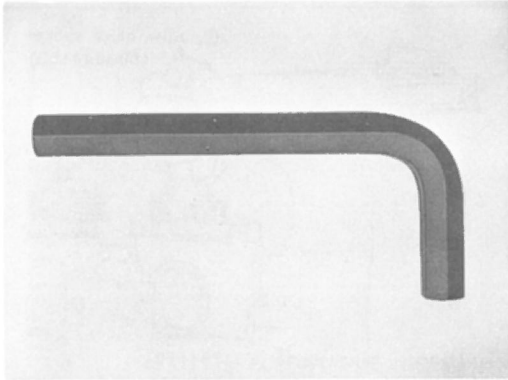
Tighten the valve rocker bolts **using** this spacer.

41	899848600	SPACER	Cylinder head	G, L
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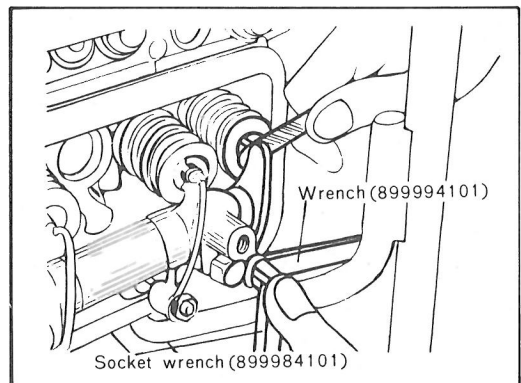
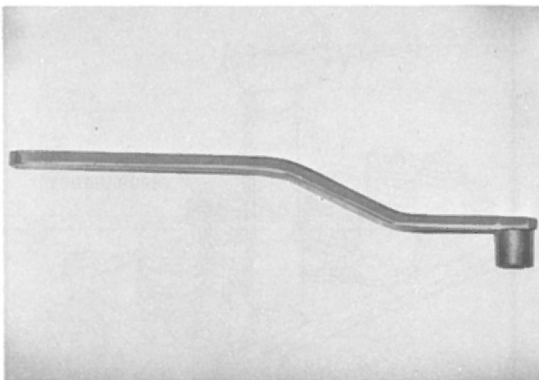
After correcting the cylinder head position by the aligner assembly (cylinder head) (899738600), tighten the part of the cylinder head on which the rocker assembly is to be fitted.

42	899974101	KEY WRENCH	Plug (Crankcase)	A-1, A-2, G, L
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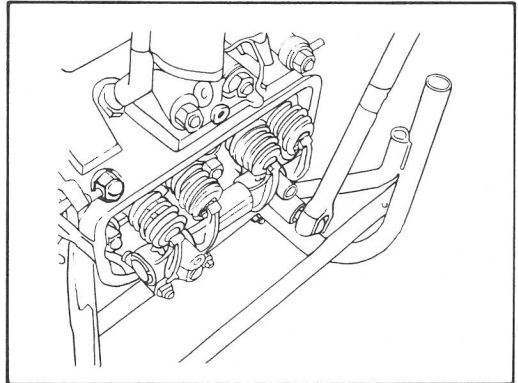
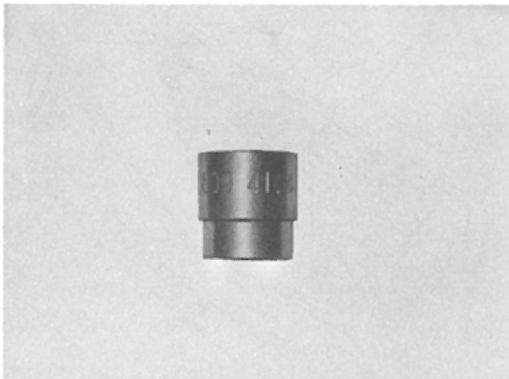
Use this tool to remove and reinstall the plugs (crankcase) of the crankcase.

43	899984101	SOCKET	Valve clearance	A-1, A-2, G, L
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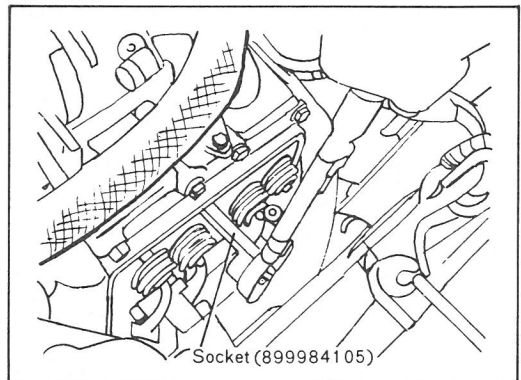
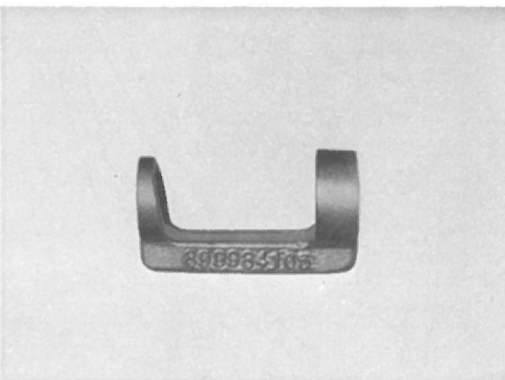


Turn the adjusting screw to adjust the valve clearance using this socket together with the wrench (899994101).

44	899984104	SOCKET	Valve rocker assembly	A-1, A-2, G
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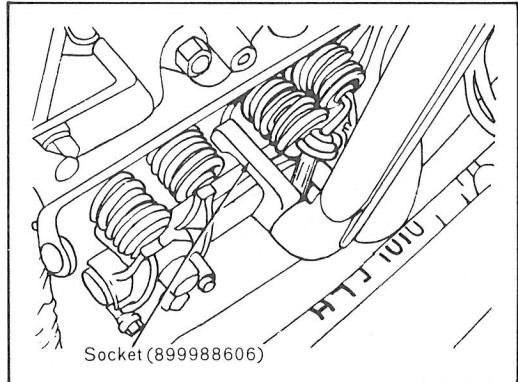
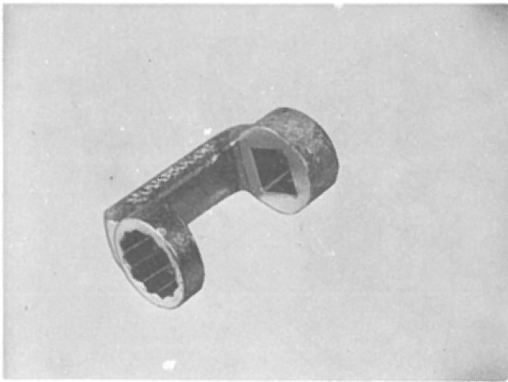


45	899984115	SOCKET (17)	Cylinder head installation bolt	A-1, A-2
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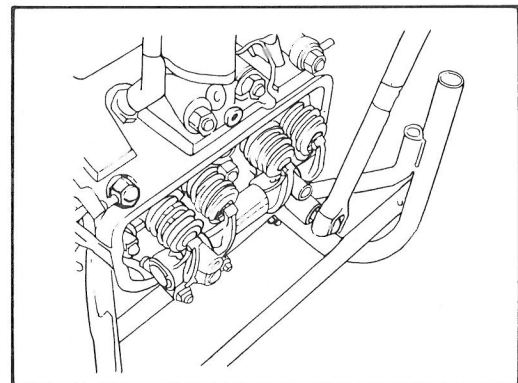
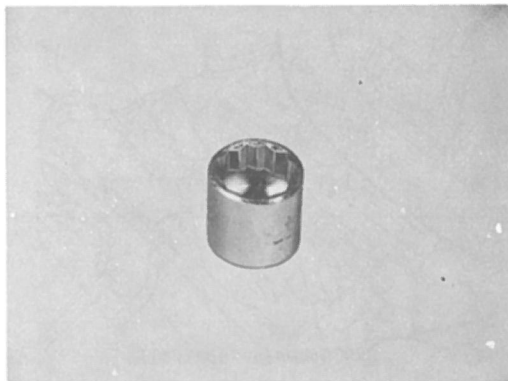
Retighten the cylinder head bolts using this socket with a torque wrench.

46	899988606	SOCKET (17)	Cylinder head installation bolt	G, L
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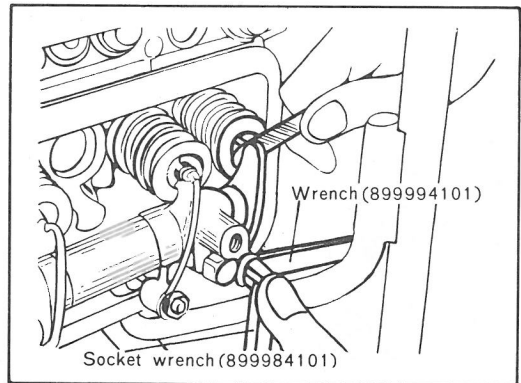
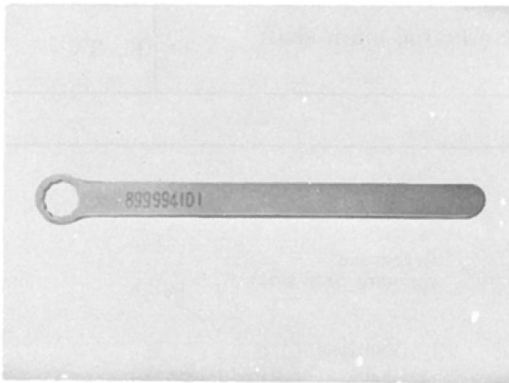
Retighten the cylinder head bolts **using** this socket with a torque wrench.

47	899988607	SOCKET (17)	Valve rocker assembly	G, L
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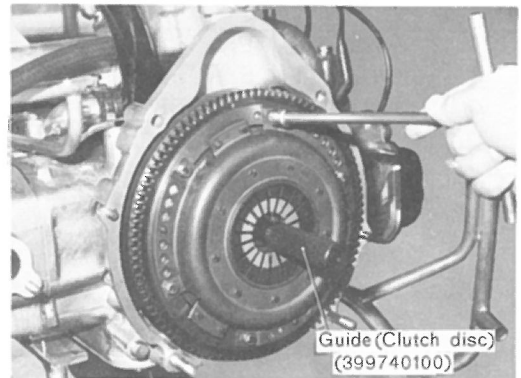
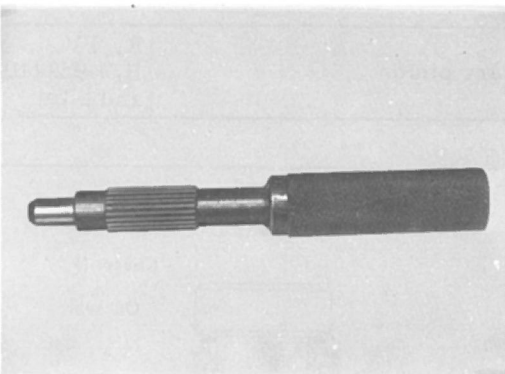
Retighten the cylinder head bolts **using** this socket with a torque wrench.

48	899994101	WRENCH	Valve clearance	A-1, A-2, G, L
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Loosen and tighten the lock nut to adjust the valve clearance using this wrench and the socket (899984101).

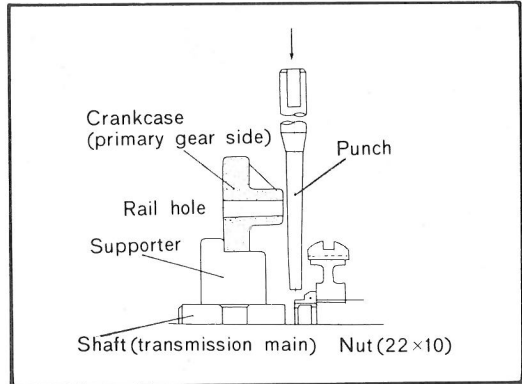
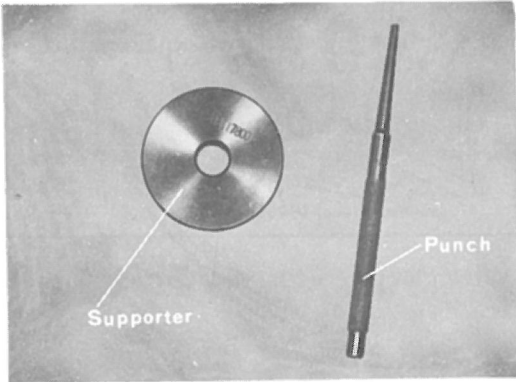
49	399740100	GUIDE	Clutch disc	L
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Use this tool for the clutch disc centering.

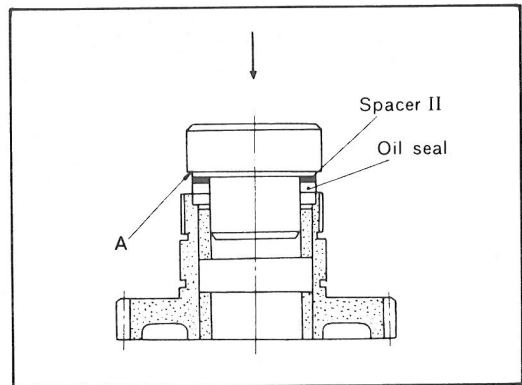
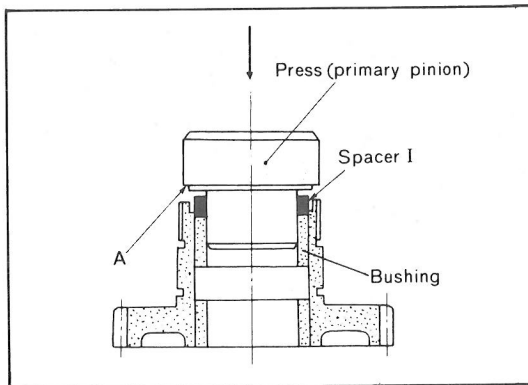
2. TRANSMISSION

1	898917800	CAULKER	Transmission main shaft nut	R, TV
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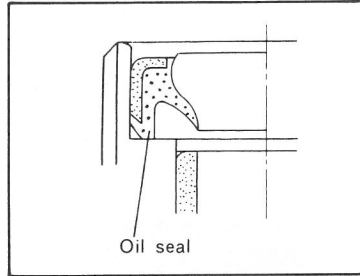


- (1) After tightening the nuts, fit the supporter as shown above.
 - (2) Set the shaft so that its groove comes upward.
 - (3) Caulk the nut end at the groove portion.
- (NOTE) Take care so that the nut does not crack.

2	898928000	PRESS	Primary pinion	R, TV E/# 952410 and after
3	898928001	SPACER I		
4	898928002	SPACER II		

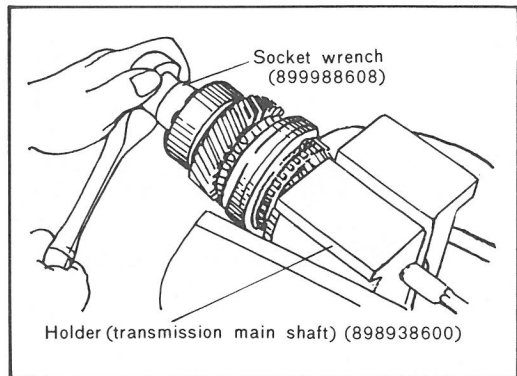
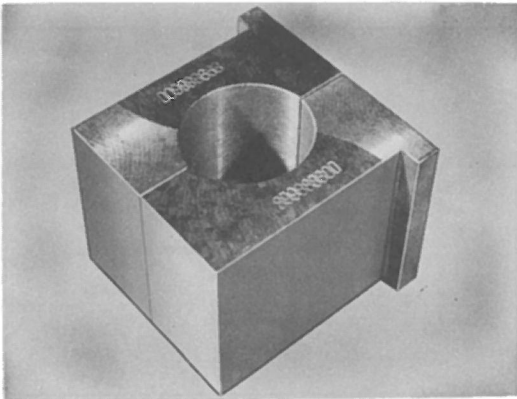


- (1) Press in the bushing with the spacer I and press, until the surface A comes in contact with the upper end of the primary pinion.
- (2) Press in the oil seal in the same way with the spacer II, until the surface A comes in contact with the upper end of the primary pinion.



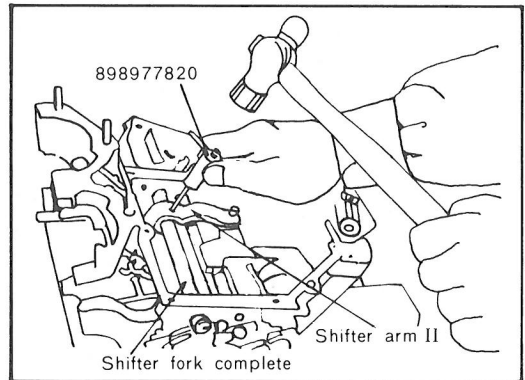
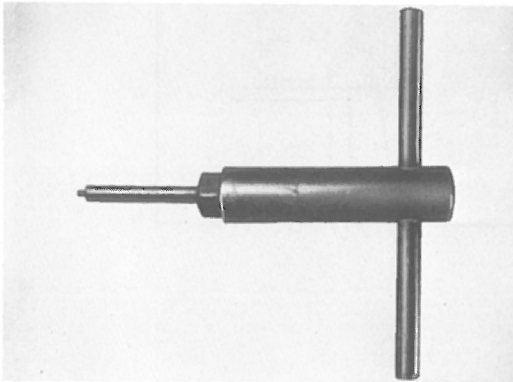
(NOTE) Do not fit the oil seal upside down.

5	898938600	HOLDER	Transmission main shaft lock nut	G, L
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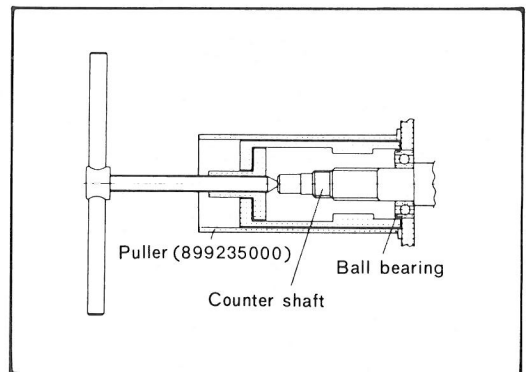
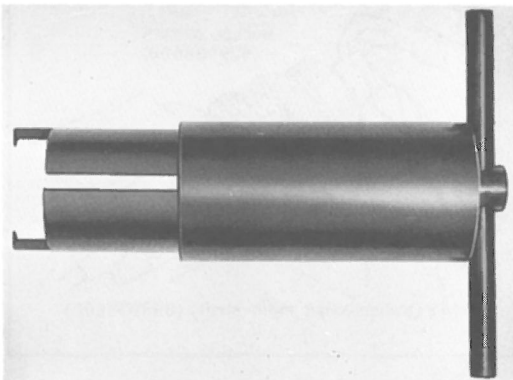
- (1) Hold the second gear of the transmission main shaft with the holder.
- (2) Fix them by a vise.
- (3) Remove or install the lock nut with the socket wrench.

6	898977820	EXTRACTOR	Straight pin (Shifter fork)	R, TV
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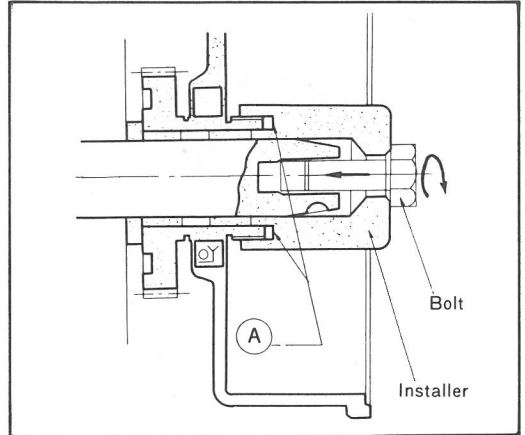
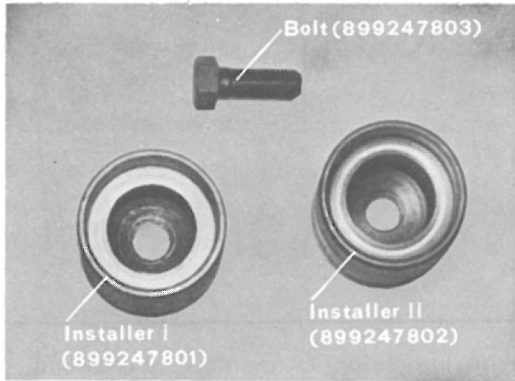
- (1) Insert the end of the extractor into the straight pin.
- (2) Tap the head of the extractor to drive out the straight pin.

7	899235000	PULLER	Counter shaft bearing	R, TV, ⊙
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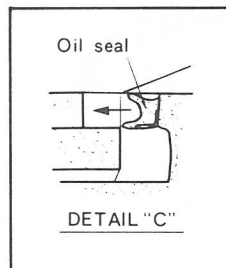
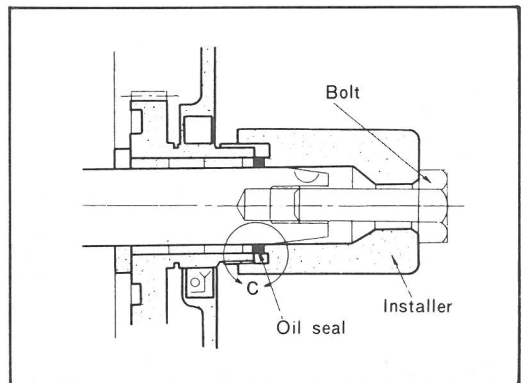


- (1) Hook the claws of the puller in the bearing groove.
- (2) Push the outer cylinder as close as possible to the claws.
- (3) Fit the screw end to the center hole of the counter shaft.
- (4) Turn the screw to pull out the bearing.

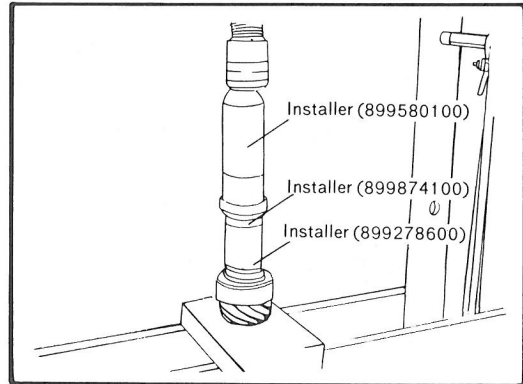
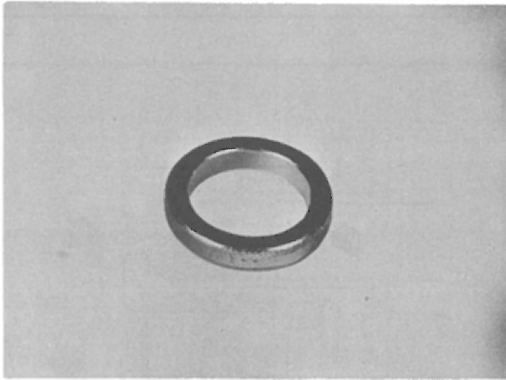
8 9 10	899247801 899247802 899247803	INSTALLER I INSTALLER II BOLT	Primary pinion (Oil seal bushing)	R, TV E/#952409 (EK33) and before
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- (1) Press in the bushing of the pinion using the installer I and the bolt.
- (2) Screw the bolt until the face A comes in contact with the primary pinion end, preventing the rotation of the installer by hand.
- (3) Press in the oil seal in the same way using the installer II and the bolt, paying attention to the direction of the oil seal.
- (4) The end surface of the oil seal, when fully pressed in, should fall in 0.3mm (0.012 in.) from the pinion end surface.

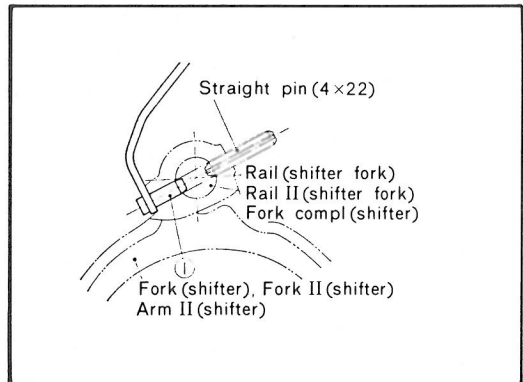
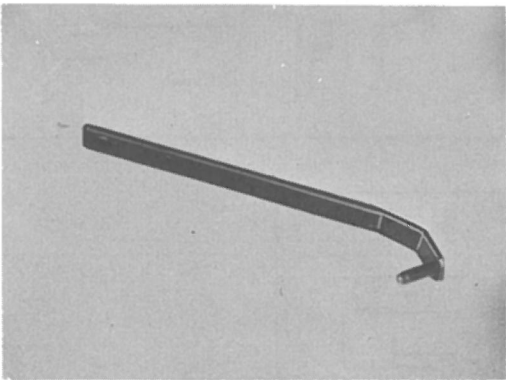


11	899278600	INSTALLER	Drive pinion spacer	G, L
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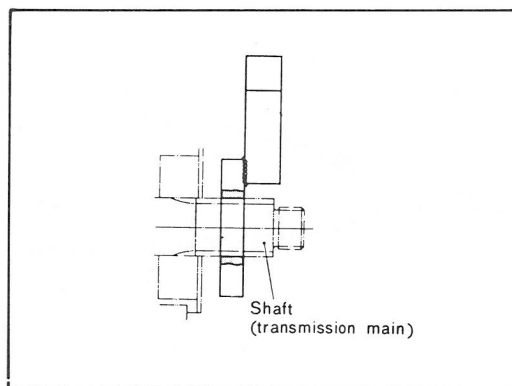
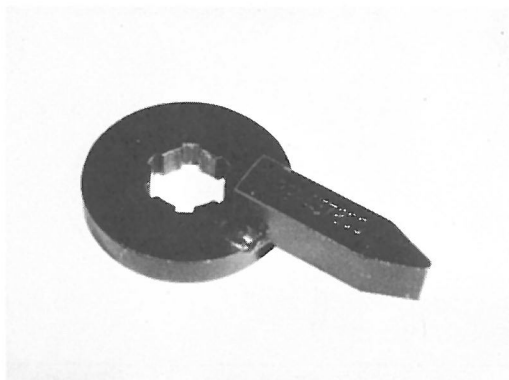
After fitting the roller bearing, fit the spacer (drive pinion) on the drive pinion and press it using this tool with the installers (899874100 and 899580100).

12	899307800	GUIDE	Straight pin	R, TV
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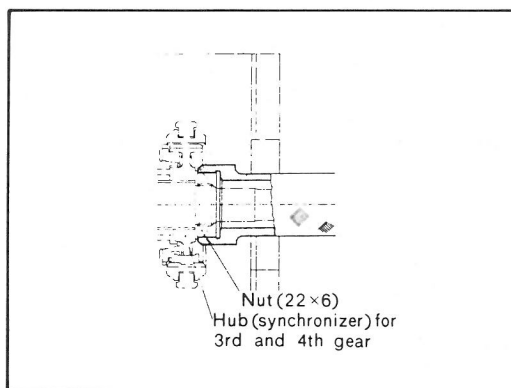
- (1) When installing the shifter fork I and II, use this guide to align the rail and fork holes and drive in the spring pins.
- (2) When installing the shifter arm II, use this guide to align the holes of the shifter fork complete and the shifter arm and drive in the spring pin.

13	899457800	STOPPER	Lock nut (3rd & 4th synchronizer hub)	R, TV
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Lock the end of the main shaft and remove (or install) the lock nut of the 3rd and 4th synchronizer hub.

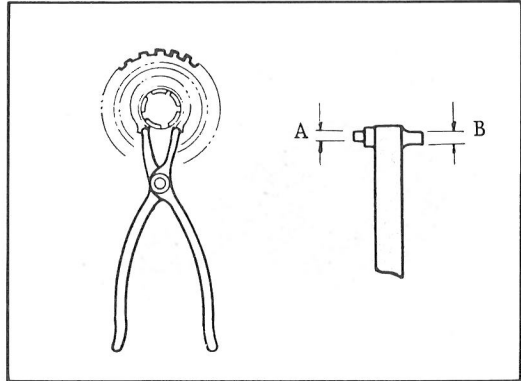
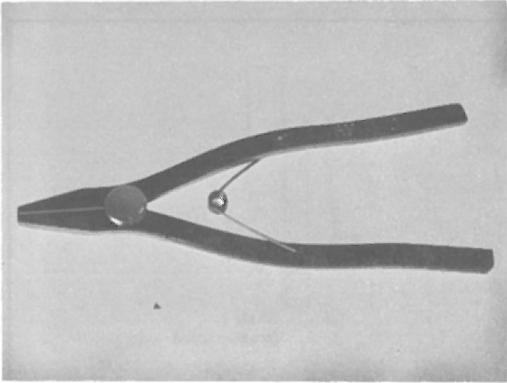
14	899467800	SOCKET	Lock nut (3rd & 4th synchronizer hub & reverse driven gear)	R, TV
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Tighten or loosen the lock nuts of the 3rd & 4th synchronizer hub and reverse driven gear using this socket.

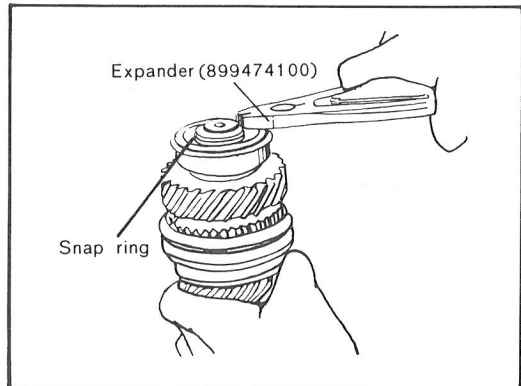
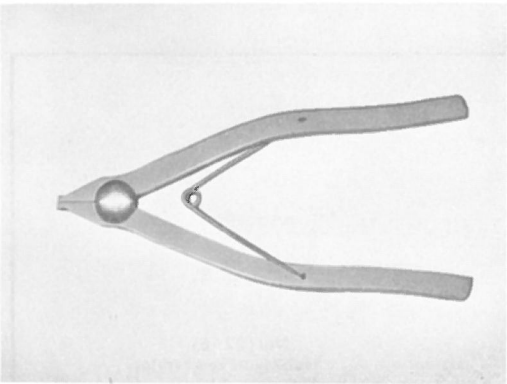
(NOTE) Lock the main shaft end with the stopper (899457800) when tightening and loosening the synchronizer hub lock nut.

15	899471410	EXPANDER	Snap ring (Release yoke shaft, Transmission main shaft)	R, TV, ⊙
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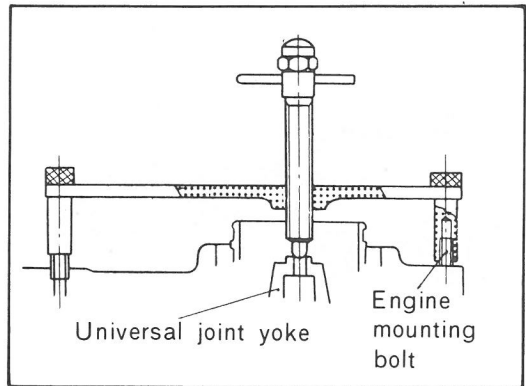
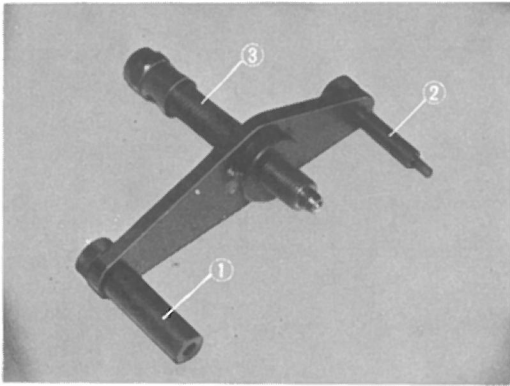
Use this expander to remove and install the clutch release yoke shaft snap ring and the transmission main shaft snap ring. The A side (1.5mm dia.) is applicable to the former and the B side to the latter.

16	899474100	EXPANDER	Snap ring (Transmission main shaft)	A-1, A-2, G, L
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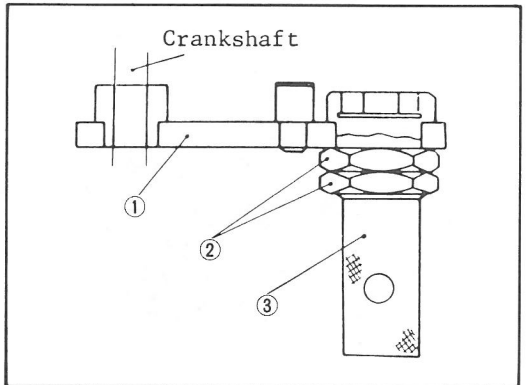
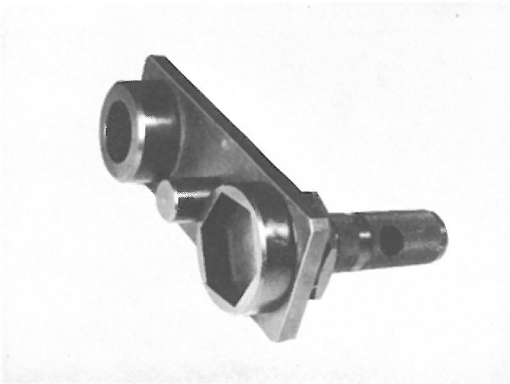
Expand the snap ring and remove it from the transmission main shaft.

17	899497800	PULLER	Transmission case	R, TV
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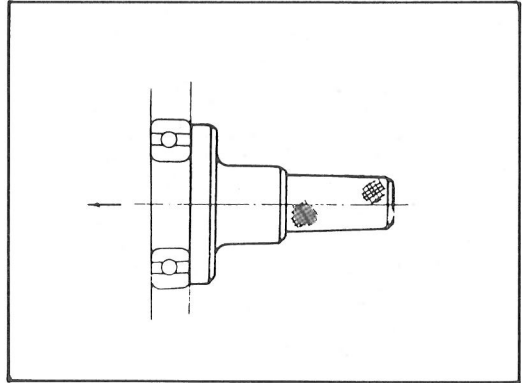
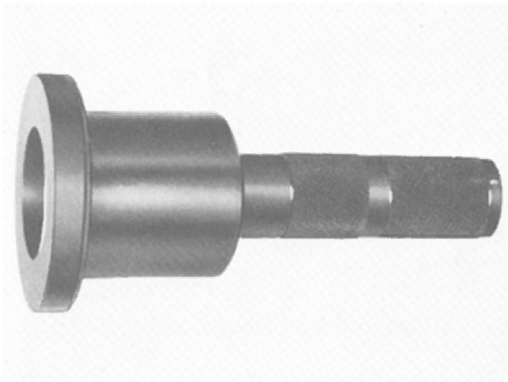
Fit ① on the engine mounting bolt and ② into the hole, and turn ③ to pull off the transmission case by pushing the universal joint yoke.

18	899507800	SOCKET	Lock nut (Primary gear)	R, TV
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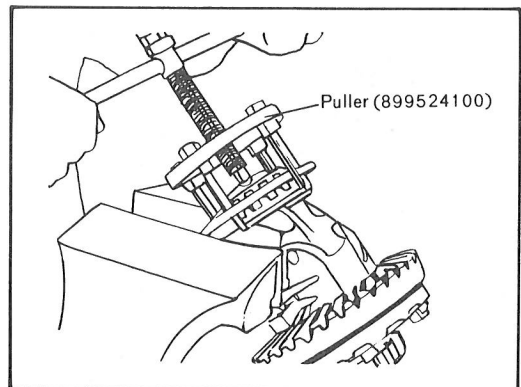
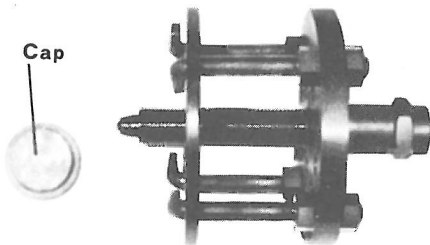
- (1) Fit the tool on the transmission with the socket hole fitted on the crankshaft and the socket pin into the hole of the primary gear.
- (2) Turn ③ to tighten or remove the lock nut.

19	899510100	INSTALLER	Main drive gear ball bearing	R, TV, ☉
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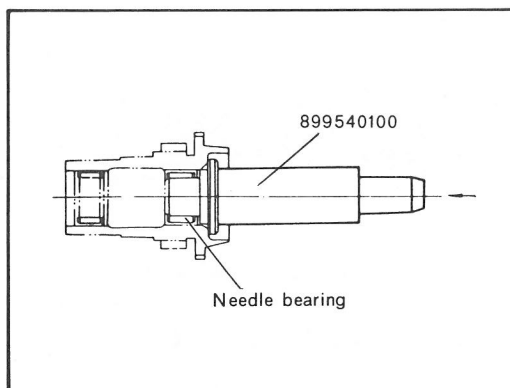
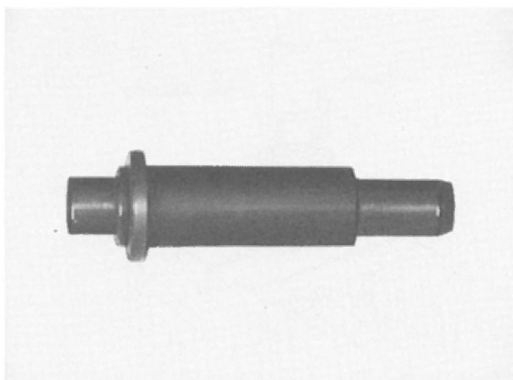
Tap lightly on the end to press in the bearing (input side) to the same plane as the crankcase surface.

20	899524100	PULLER	Taper roller bearing (Differential case)	A-1, A-2, G, L
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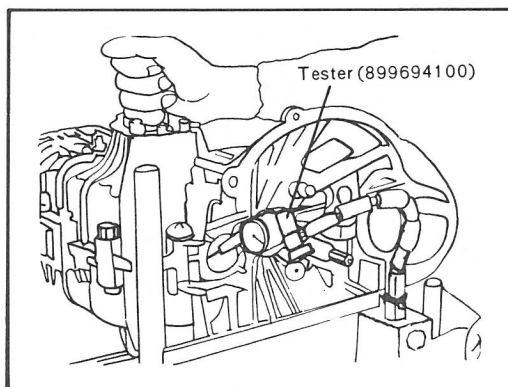
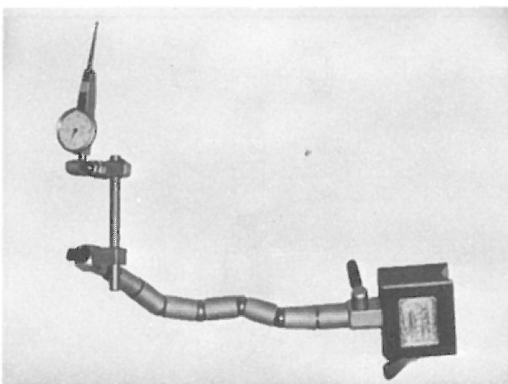
- (1) Fit the cap to the end of the case and hook this puller as shown above.
- (2) Pull out the bearing by turning the lead screw.

21	899540100	REPLACING TOOL	Main drive gear needle bearing	R, TV, ☉
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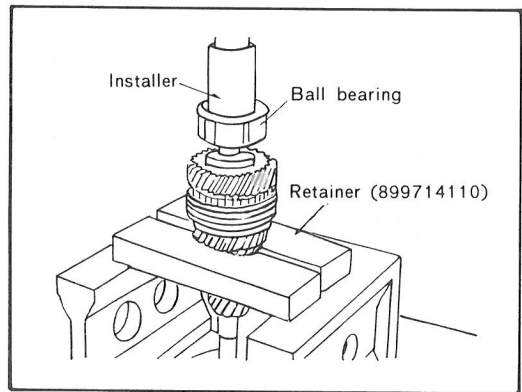
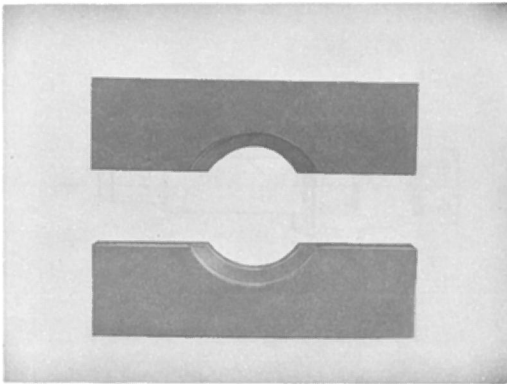
When pressing in the needle bearing on the main drive gear, use the flanged side as shown above. When removing the needle bearing, use the opposite side.

22	899694100	TESTER	Gear backlash	A-1, A-2, G, L
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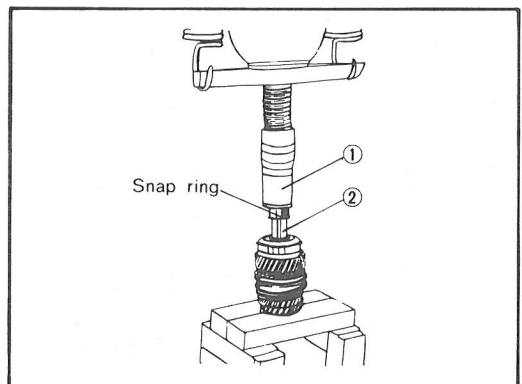
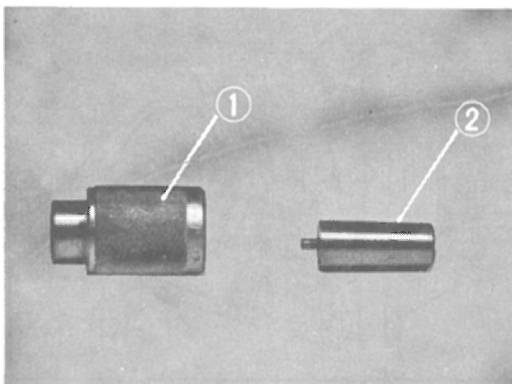
- (1) Rotate the main shaft for approx. ten turns, and apply this tester to the inspection hole.
- (2) Set the tester at right angle to the gear tooth surface and make sure that the backlash is 0.1 to 0.15mm (0.0039 to 0.0059 in.).

23	899714110	RETAINER	Cam gear, gear and bushing (Transmission) and ball bearing (main shaft)	A-1, A-2, G, L
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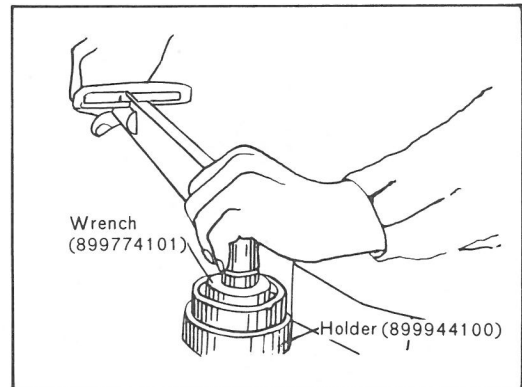
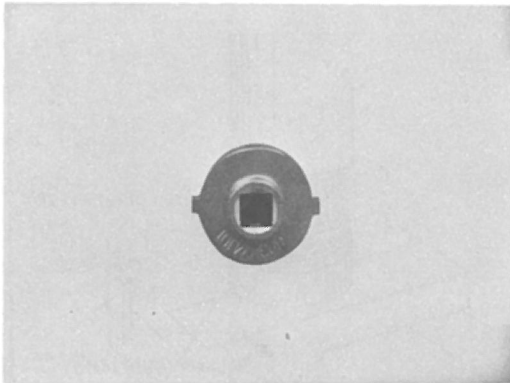
Use this retainer when pressing to install the cam gear, transmission gear, and bushing, and to remove these parts.

24	899754110	INSERTER	Snap ring (Transmission main shaft)	A-1, A-2, G, L
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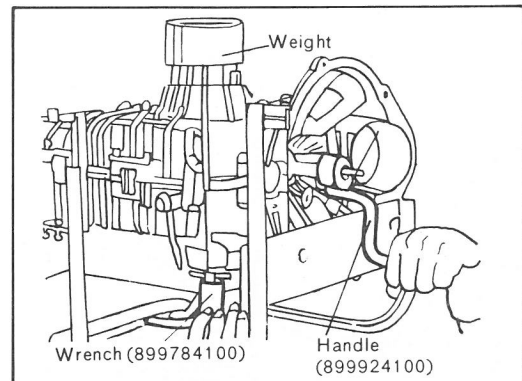
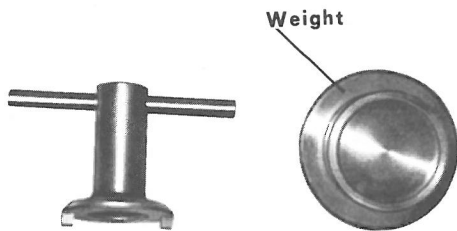
Place the inserter ① and ② as shown above and press down to install the snap ring. The inserter ① can be used for inserting the ball bearing (main shaft) of Subaru 1400 series.

25	899774101	WRENCH	Thrust bearing holder (Transmission)	A-1, A-2, G
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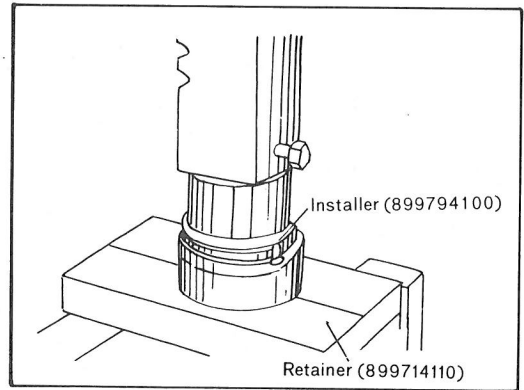
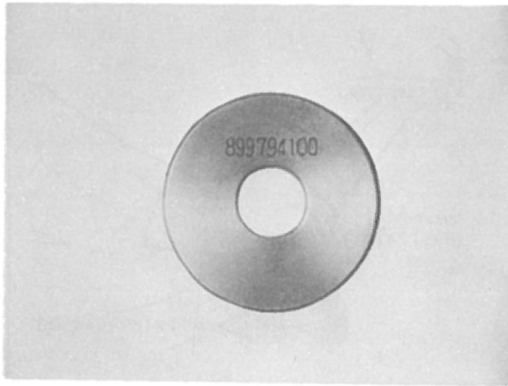
Tighten or loosen the bearing retainer (axle shaft) with this wrench by locking the holder (834314100) in the holder (899944100 special tool).

26	899784100	WRENCH	Holder (Front axle bearing)	A-1, A-2, G
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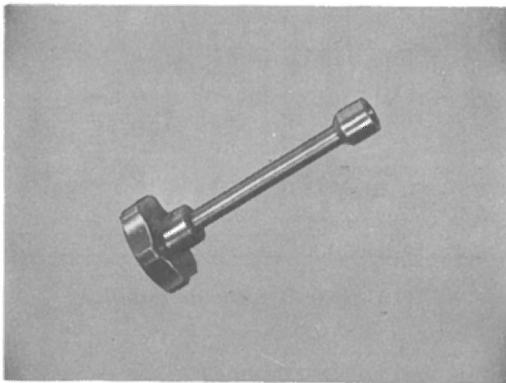
- (1) When adjusting the hypoid gear backlash, use this wrench with the handle (899924100).
- (2) Place the weight on the outer race of the tapered roller bearing.
- (3) Screw in the axle shaft from the lower side with the wrench.
- (4) Shift to 4th gear and rotate the transmission main shaft several times using the handle.
- (5) Screw in the axle shaft stopping at the point of light contact.
- (6) Repeat this procedure several times to confirm the position of light contact between the crown gear and the pinion.

27	899794100	INSTALLER	Differential oil seal, main shaft bearing	A-1, A-2, G
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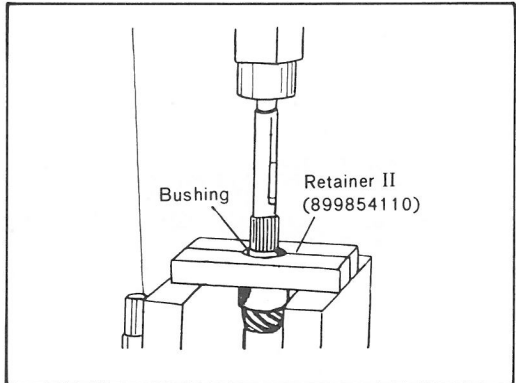
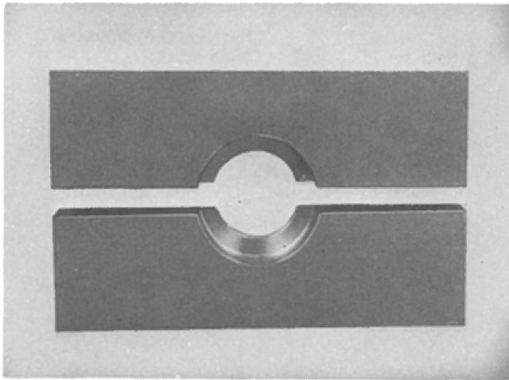
Use this tool with a press and retainer (899714110) to fit the differential oil seal.

28	899824100	PRESS	Speedometer oil seal (Engine side)	A-1, A-2, G, L
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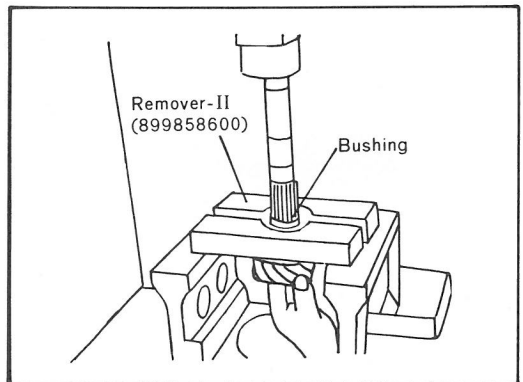
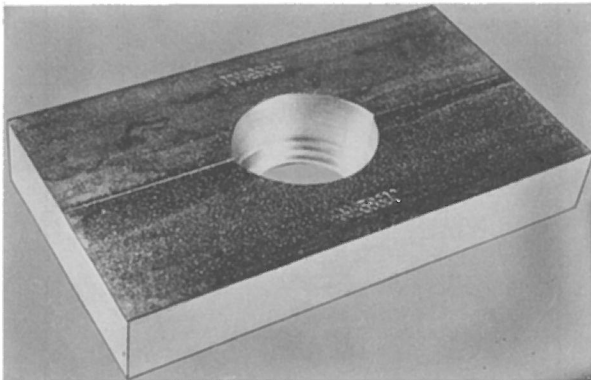
Use this tool to install the oil seal into the hole in the transmission to which the speedometer cable is to be connected.

29	899854110	RETAINER	Bushing and spacer (Transmission)	A-1, A-2
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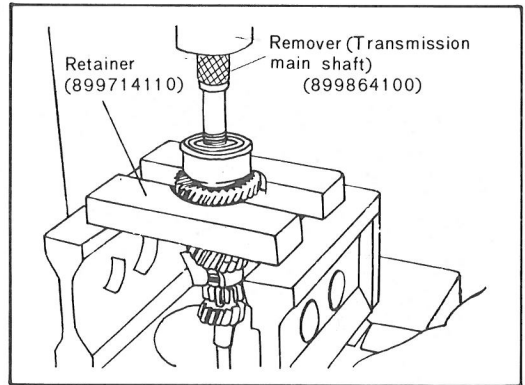
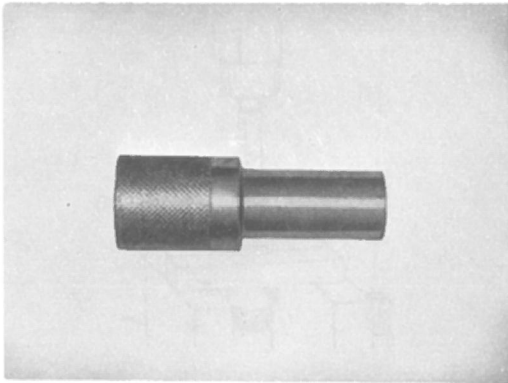
Use this retainer when removing the bushing (1st driven gear), spacer (drive pinion) and roller bearing with a press.

30	899858600	REMOVER-II	Drive pinion spacer	G, L
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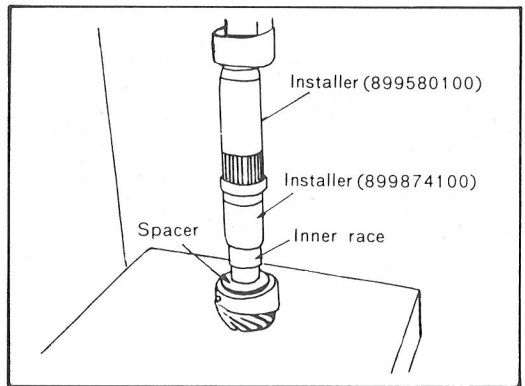
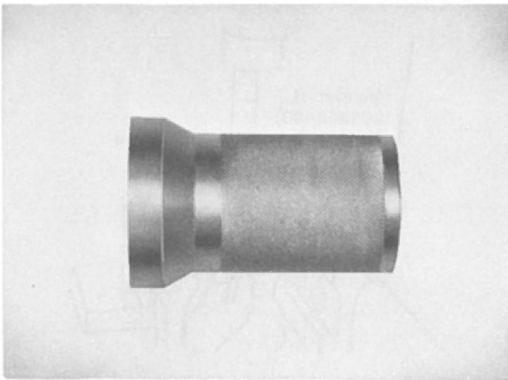
Use this remover when removing the race (needle bearing), spacer (drive pinion), and roller bearing with a press.

31	899864100	REMOVER	Bearing and bushing (Transmission)	A-1, A-2, G, L
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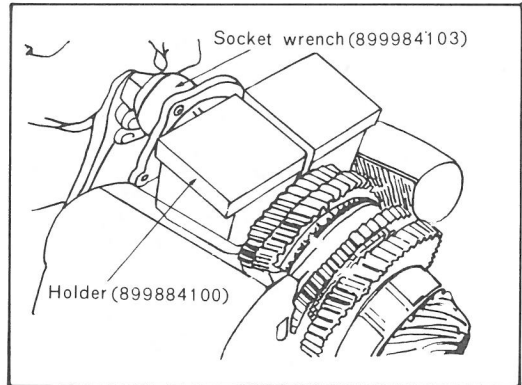
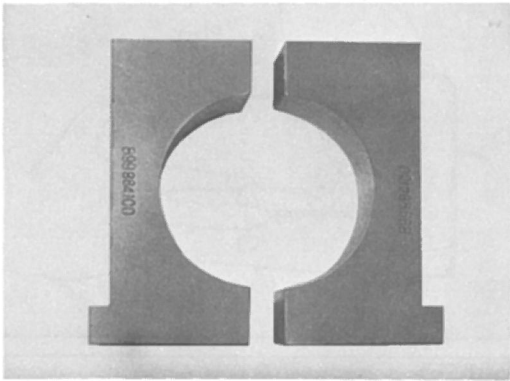
Take out the ball bearing and 4th drive gear using this tool with the retainer 899714110 and a press.

32	899874100	INSTALLER	Bushing (Transmission)	A-1, A-2, G, L
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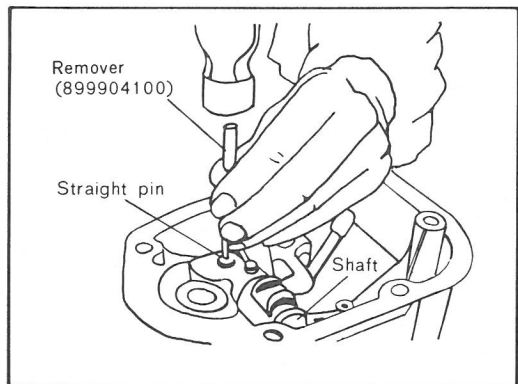
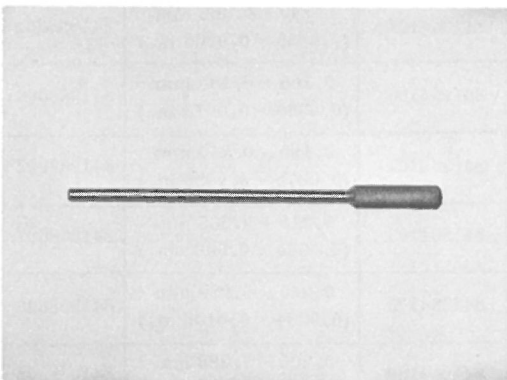
Install the bushing (4th drive gear) on the main shaft (transmission) by using this tool with the retainer 899714110 and a press.

33	899884100	HOLDER	Drive pinion assembly (Transmission)	A-1, A-2, G, L
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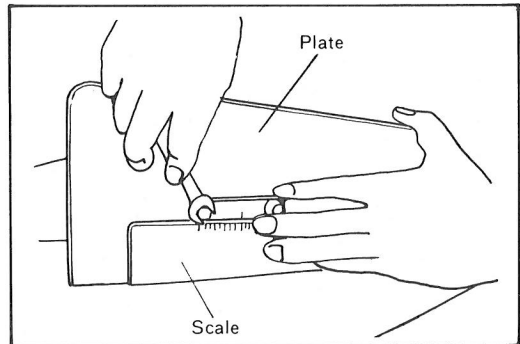
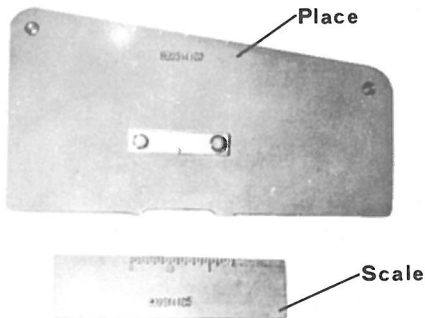
Tighten the lock nut (drive gear) using this holder with the socket wrench (89984103) and a vise to grasp the holder.

34	899904100	REMOVER	Straight pin (Differential case & Transmission cover)	A-1, A-2, G, L
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Tap out the straight pin. (4 x 24) to remove the shifter shaft.

35	899914100	GAUGE ASS'Y	Drive pinion assembly (Transmission)	A-1, A-2, G, L
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With the drive pinion installed, place the gauge on the transmission case and read the number on the scale when it stops between the pinion and the block on the plate.

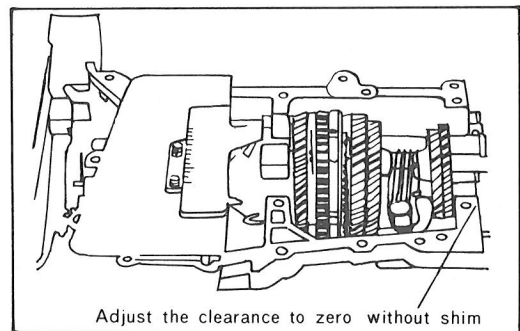
(NOTE) 1. Tighten the socket bolts or bolts (L) temporarily so that no clearance exists between the drive pinion and the surface at the end of the transmission case. Read the scale without inserting a shim.

2. Insert the knock pin on the gauge into the knock hole in the transmission case.

3. Decide the thickness of the shim by adding or subtracting the number marked at lower portion of the end surface of the drive pinion to the number indicated on the gauge. Mark \oplus on the drive pinion means addition, while mark \ominus means subtraction. According to the number decided above, select 1 to 3 sheets of the shim given in the table, and finally select the most suitable shim thickness.

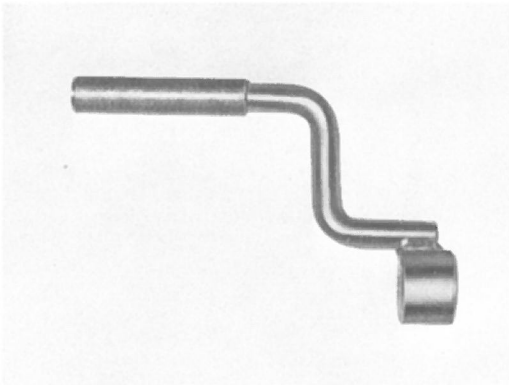
(INSPECTION & ADJUSTMENT OF GAUGE)

Loosen the 2 bolts and adjust so that the scale indicates 0.5 correctly when the plate end and the scale end are on the same level.



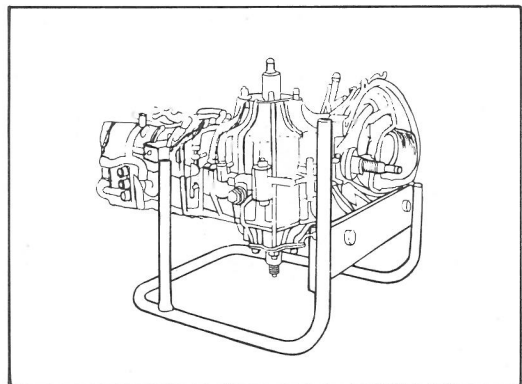
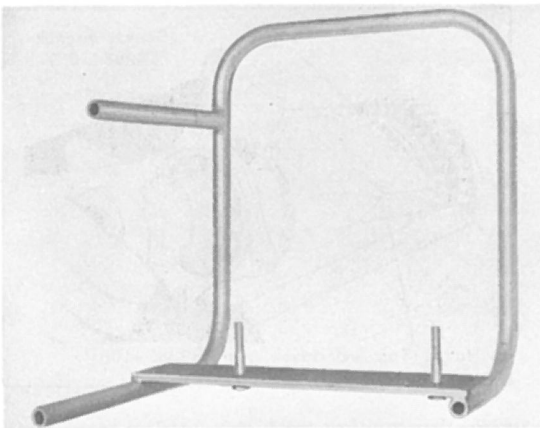
Part No. (A-1, A-2, G)	Thickness	Part No. (L)
841964101	0.140 - 0.160 mm (0.0055 - 0.0063 in.)	841968601
841964106	0.165 - 0.185 mm (0.0065 - 0.0073 in.)	841968606
841964102	0.190 - 0.210 mm (0.0075 - 0.0083 in.)	841968602
841964107	0.215 - 0.235 mm (0.0085 - 0.0093 in.)	841968607
841964103	0.240 - 0.260 mm (0.0094 - 0.0102 in.)	841968603
841964108	0.265 - 0.285 mm (0.0104 - 0.0112 in.)	841968608
841964104	0.290 - 0.310 mm (0.0114 - 0.0122 in.)	841968604
841964105	0.490 - 0.510 mm (0.0193 - 0.0201 in.)	841968605

36	899924100	HANDLE	Transmission assembly	A-1, A-2, G, L
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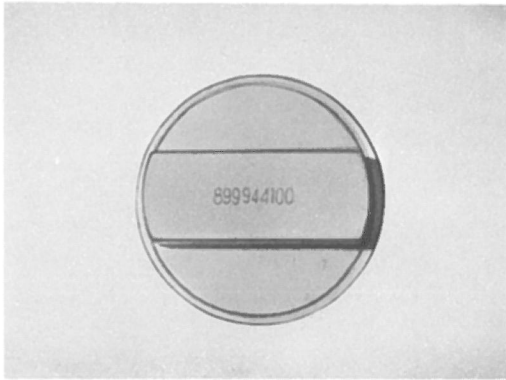
Refer to No. 26 (page 43) "899784100 Wrench".

37	899934100	STAND	Transmission assembly	A-1, A-2, G, L
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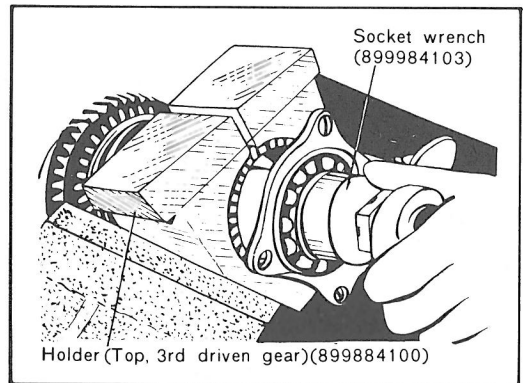
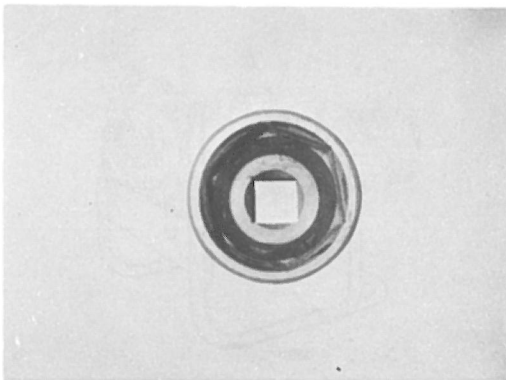
Attach this stand to maintain the transmission assembly at a proper height for easy assembling and disassembling works.

38	899944100	HOLDER	Axle shaft bearing	A-1, A-2, G
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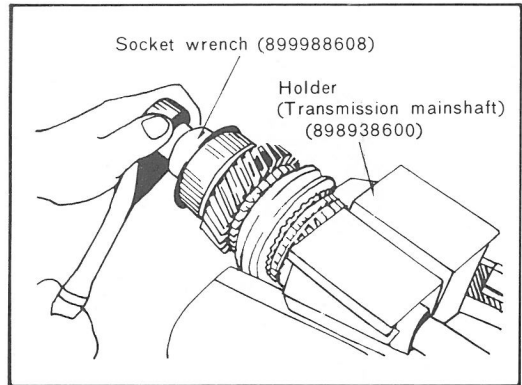
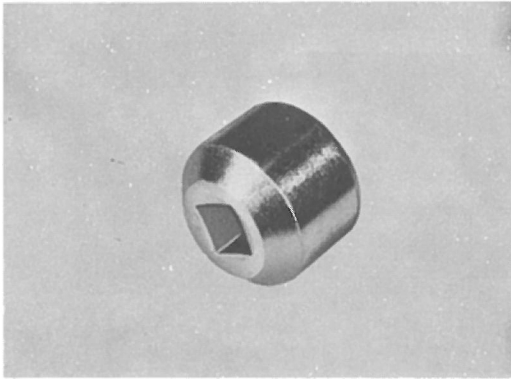
Refer to No. 25 (page 43) "899774101 Wrench".

39	899984103	SOCKET	Drive pinion lock nut	A-1, A-2, G, L
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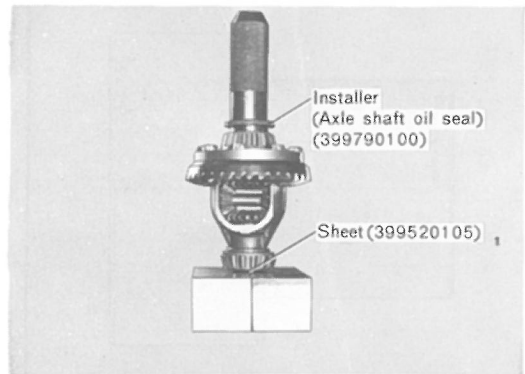
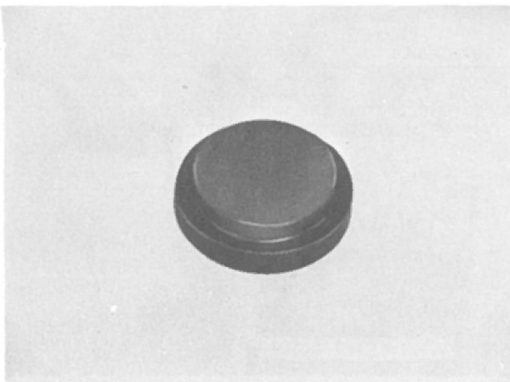
Turn the lock nut on the drive pinion shaft using this socket with the holder (4th/3rd driven gear) (899884100) and a vise.

40	899988608	SOCKET	Transmission main shaft lock nut	G, L
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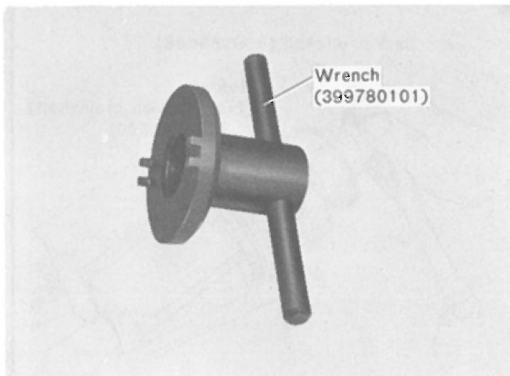
Tighten the lock nut of the transmission main shaft by holding it with a vise and using this socket wrench and the holder (898938600).

41	399520105	SHEET	Differential side taper bearing	L
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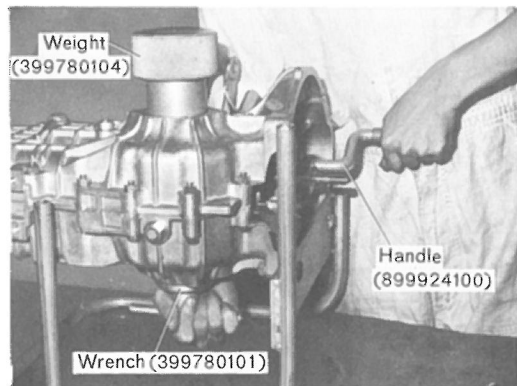
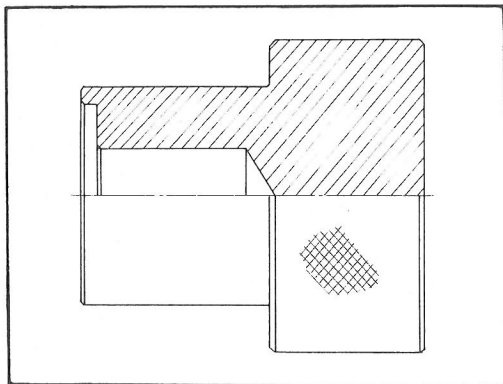
Use this tool with a press to fit the differential side taper bearing.

42	399780101	WRENCH	Adjusting the hypoid gear back lash	L
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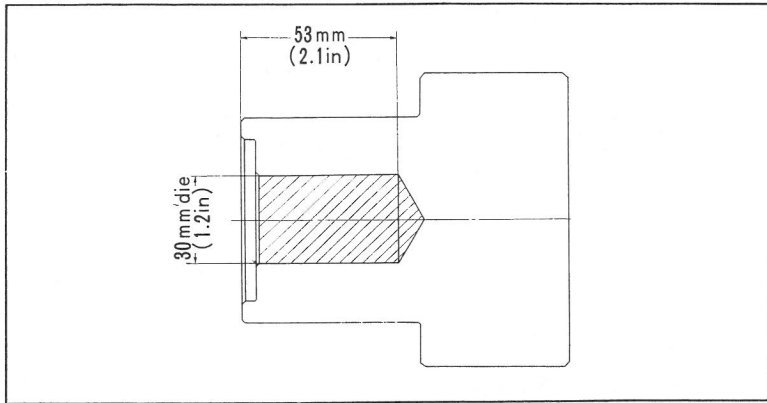
When adjusting the hypoid gear backlash, use this wrench with the handle.
 Adjusting procedure is just same as previous model's (A-1, A-2, G) one.
 (Refer to page 43).

43	399780104	WEIGHT	Adjusting the hypoid gear back lash	L
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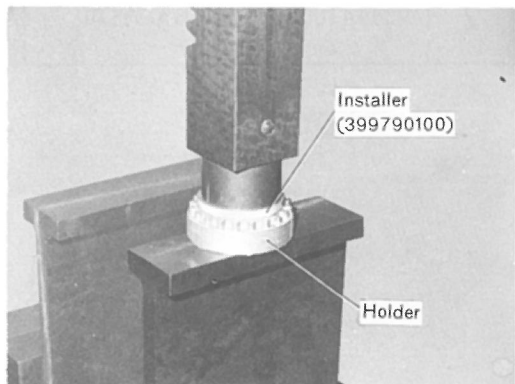
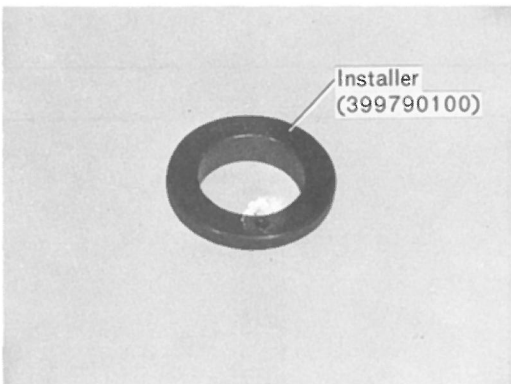
Use for adjusting the hypoid gear backlash.

(NOTE) If you have the special tool (Weight) for previous model (A-1, A-2, G), you can use it to the "L" model by making a hole as shown in the figure.



Cut off an oblique line of special tool "Weight" (Tool No. 899784104).

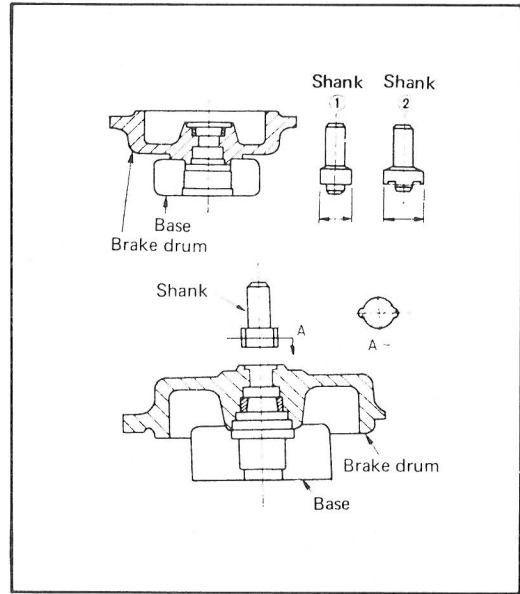
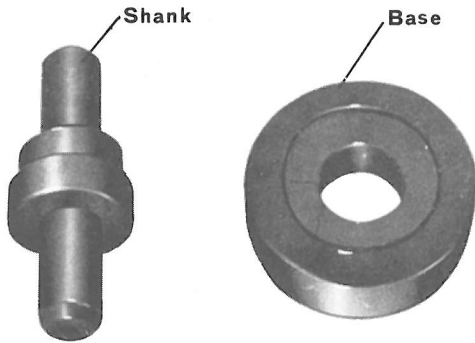
44	399790100	INSTALLER	Axle shaft oil seal	L
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Use this tool with a press to fit the axle shaft oil seal.

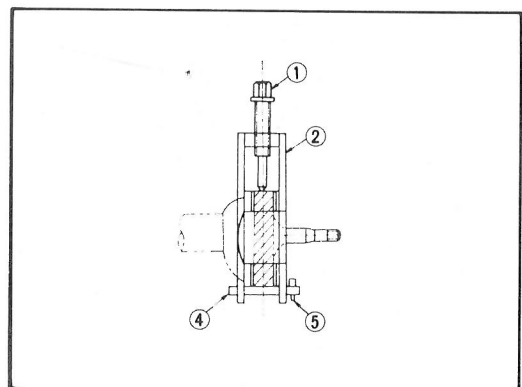
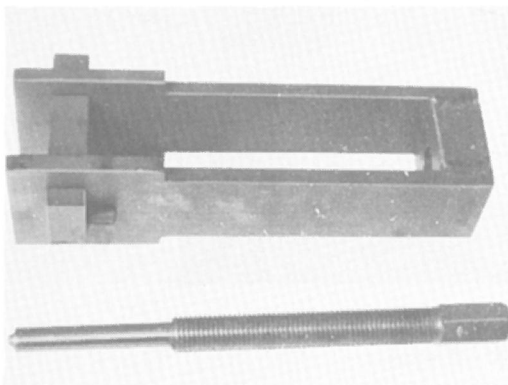
3. BODY

1	921130000	REPLACING-TOOL	Front brake drum bearing	R, ⊙
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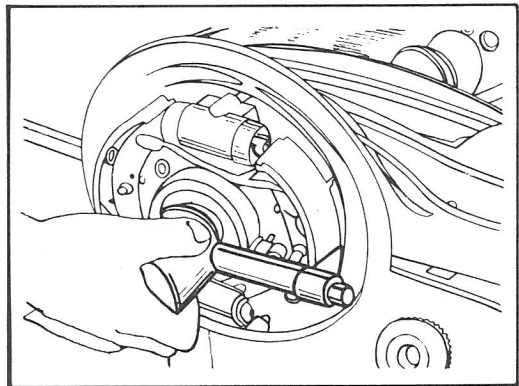
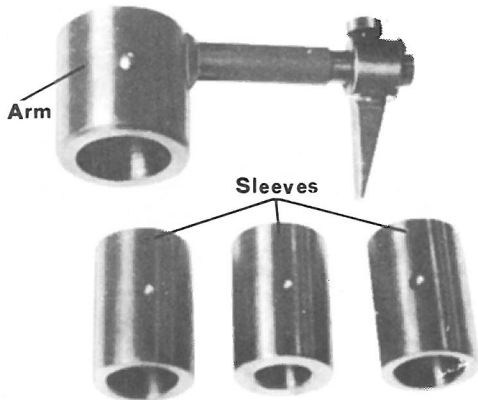
After positioning the drum on the base as shown above, press down the shank with a press or mallet to force the bearing into place.

2	921141000	EXTRACTOR	King pin	R, TV, ⊙
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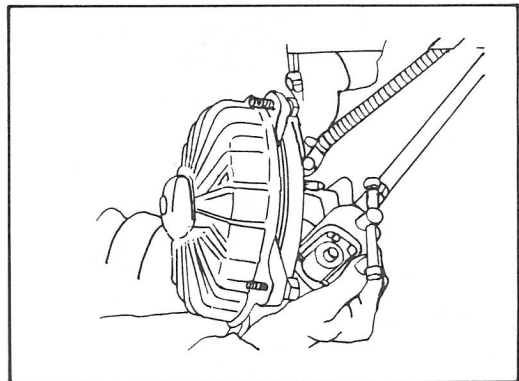
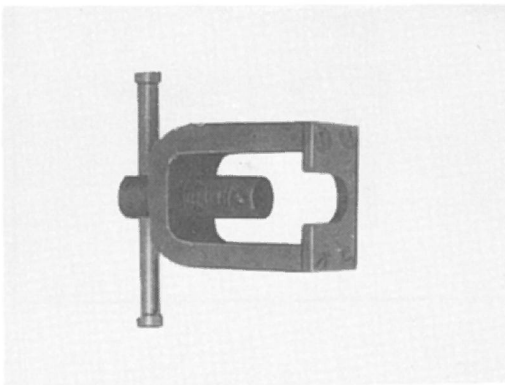
- (1) Fit the body ② to the trailing arm yoke with the stopper ④ and insert a pin ⑤ removed.
- (2) After centering the lead screw ① and the king pin, turn the lead screw to push out the king pin.

3	921230000	GAUGE	Front & rear brake lining	R, TV, ☉
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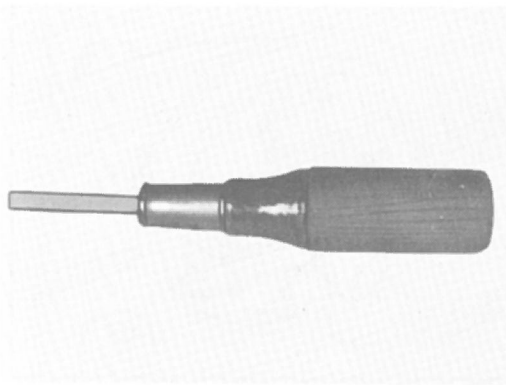
- (1) Pick up an applicable sleeve according to the brake assembly to be adjusted.
- (2) Insert that sleeve into the arm and fit that combination on the axle to adjust the lining.

4	921240000	REMOVER	Tie-rod end ball stud	R, TV, ☉
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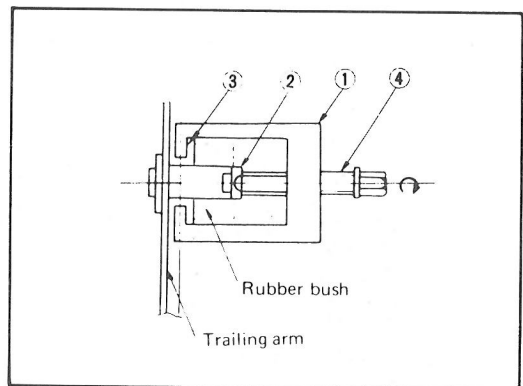
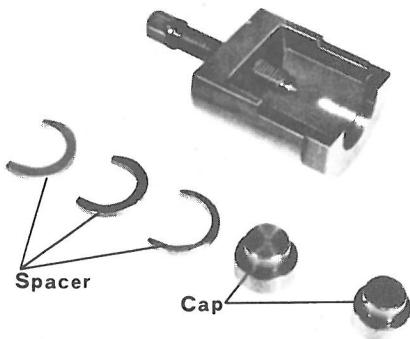
Pull out the ball stud of the tie-rod end from the knuckle arm using this tool.

5	921290000	INSERTER	Weather strip	R, TV, ●
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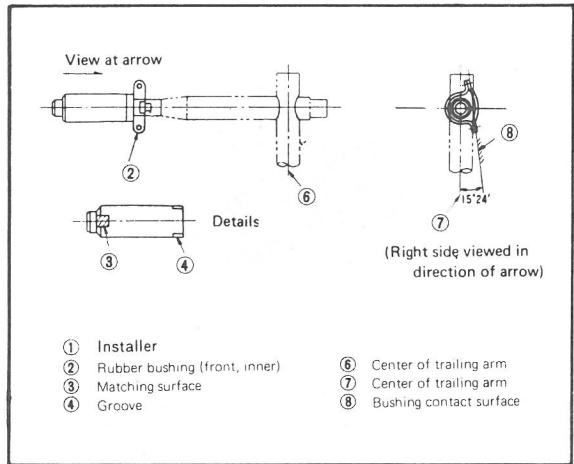
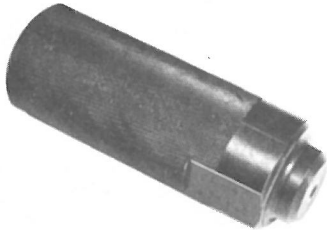
Insert the weather strip, glass, and roof panel using this tool.

6	921330000	PULLER	Rubber bushing (Front inner & outer, Rear outer)	R, TV
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- (1) Fit the cap to the trailing arm first.
- (2) Fit the puller body with the spacer in it to the trailing arm.
- (3) Align the lead screw and the hole in the cap, and pull out the rubber bush by turning the screw.
- (4) The cap and the spacer must be selected in each case in accordance with the rubber bush to be removed.

7	921340000	INSTALLER	Rubber bushing (Front inner & outer)	R, TV
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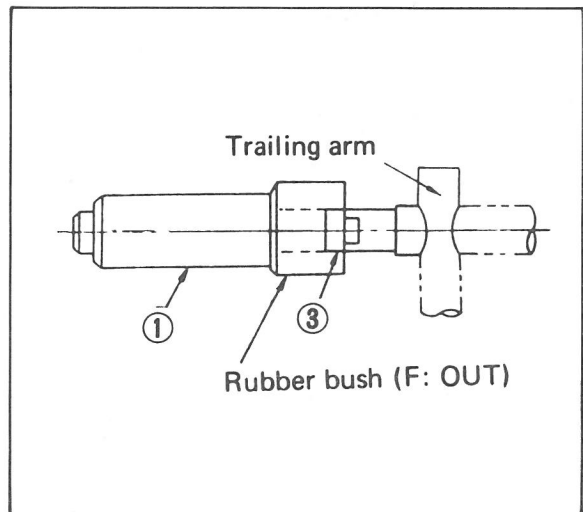
- (1) When installing the rubber bushing (front inner), fit the cap to the trailing arm shaft and the rubber bushing to the arm pressing by a slight force.
- (2) With the installer groove and the trailing arm center line being aligned, adjust the attaching face of the rubber bushing to the datum plane of the installer, and press on the installer until it touches the cap.

(3) The datum faces are marked with RH or LH which indicates the face should be applied in the right hand or left hand of the trailing arm.

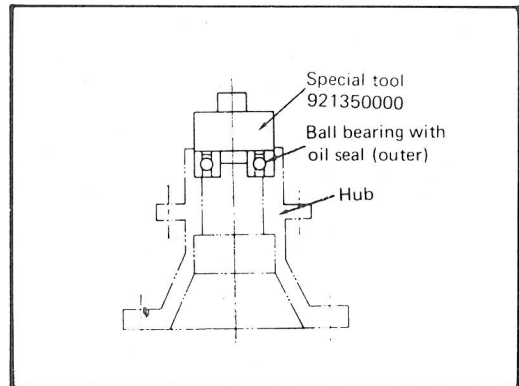
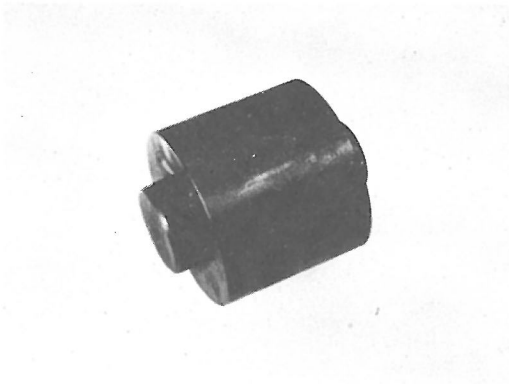
(4) When installing the rubber bushing (front outer), fit the cap to the trailing arm first.

(5) After pressing in the rubber bushing to the arm lightly just to fix it on the arm, remove the cap and give another press to the installer until it touches the shaft end.

(6) The cap must be picked up from those used for the puller 921330000.



8	921350000	INSTALLER	Hub bearing	R, TV
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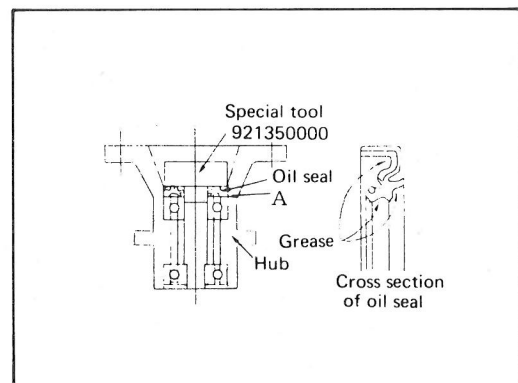
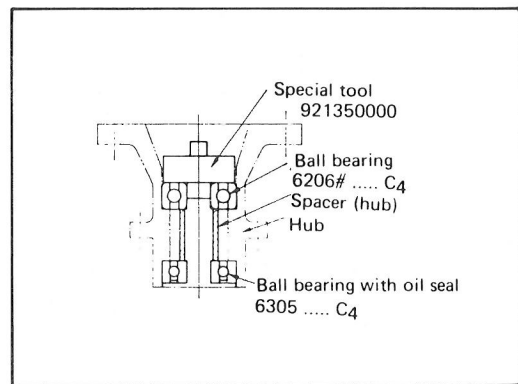


- (1) **When installing the outer hub bearing** into the hub, first place the bearing with its seal side upward into place as shown above.
- (2) With the 25mm (0.98 in.) dia. end of this installer inserted into the inner race of the bearing, force the bearing into the hub using a press.
- (3) When installing the inner bearing, place the bearing in the hub after installing the hub spacer and applying 5 to 6 gr (0.18 to 0.21 OZ) of grease in the hub.

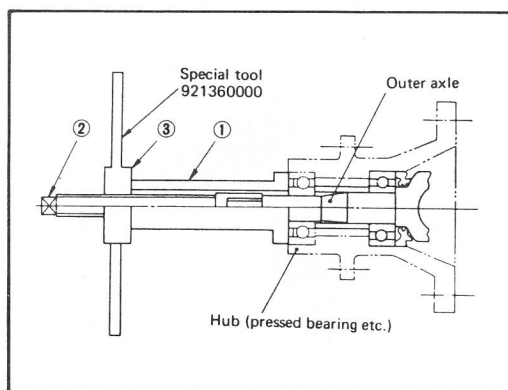
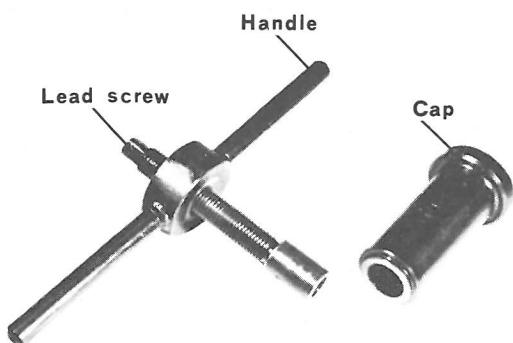
(4) With the 30mm (1.18 in.) dia. end of the installer inserted into the inner race of the bearing, force the bearing into place using a press.

(5) When installing the oil seal, first coat it with grease and place it in the hub as shown on the right.

(6) With the 30mm (1.18 in.) dia. end of this installer inserted into the oil seal, force the oil seal against the bearing end surface using a press.

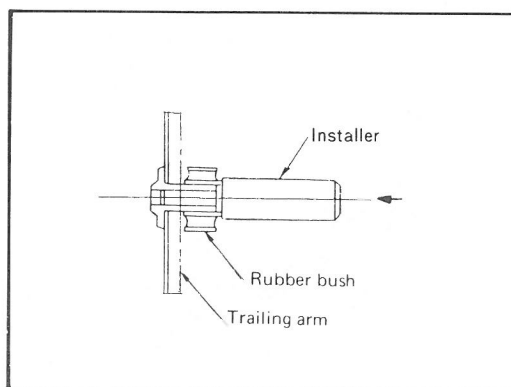
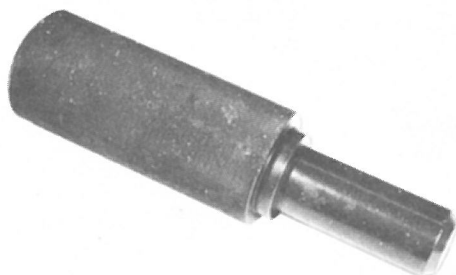


9	921360000	INSTALLER	Hub	R
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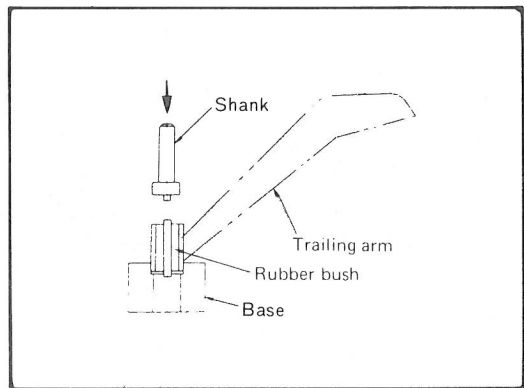
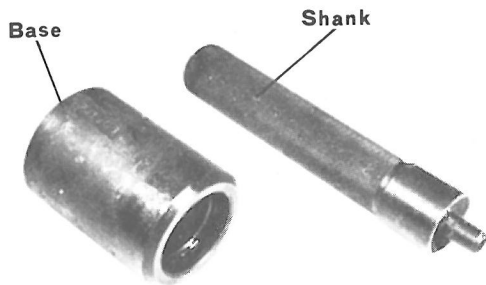
- (1) Fit the hub to the outer axle by hand.
- (2) Fit the lead screw to the outer axle and align the cap with the hub bearing surface.
- (3) Fit the handle to the lead screw, and force the hub into the outer axle by turning the handle while holding the lead screw with a wrench.

10	921380000	INSTALLER	Rubber bushing (Rear trailing arm)	R, TV
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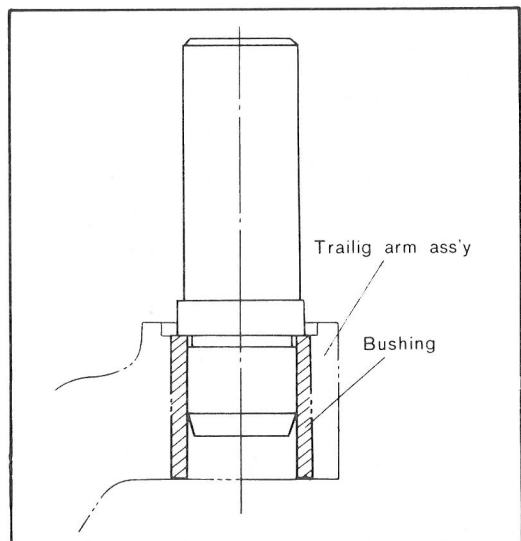
Fit the bushing to the installer, then align this combination with the trailing arm and force in the bushing.

11	921390000	INSTALLER & REMOVER	Rubber bushing (Rear trailing arm inner)	R, TV
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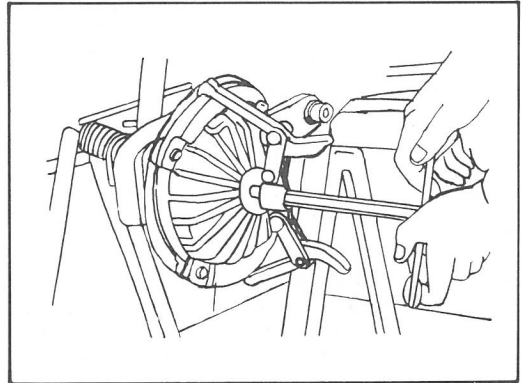
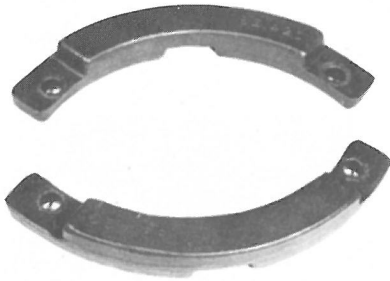
- (1) When removing the bushing; align the base with the trailing arm, and the shank with the bushing hole and push out the bushing.
- (2) When installing the bushing, fit the shank to the bushing and press the bushing into the trailing arm.
- (3) The bushing must be flush with the end surface of the trailing arm.

12	921410000	REMOVER	Back metallic-bushing (Trailing arm)	R, TV
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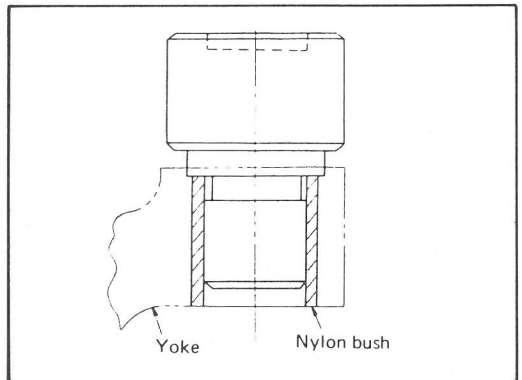
Push out the bushing by inserting this remover into the bush and hammering its end.

13	921420000	PULLER ATTACHMENT	Brake drum (Front & rear)	R, TV
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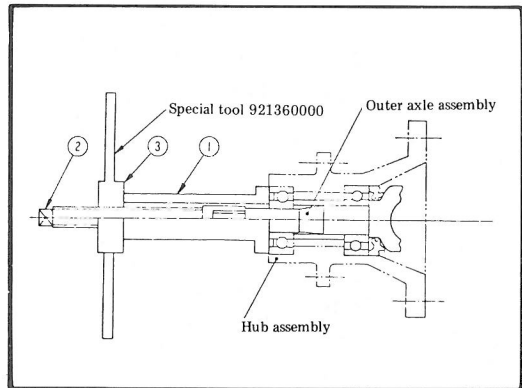
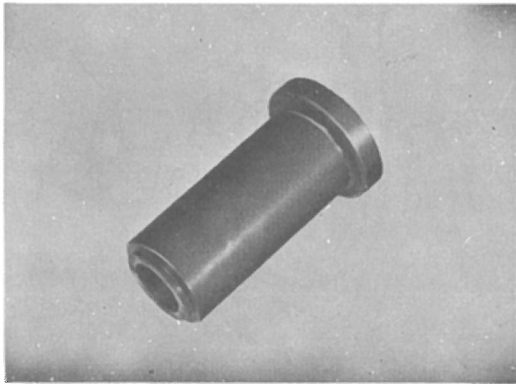
- (1) Secure this attachment to the **brake drum** wheel mounting bolts.
- (2) Hook an ordinary puller in place at the center of the attachment, align the lead screw and shaft center hole, and pull the brake drum by turning the lead screw.

14	922091000	INSTALLER	Nylon bushing (Front trailing arm)	R, TV
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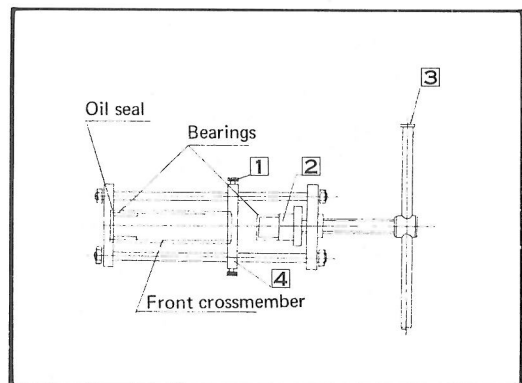
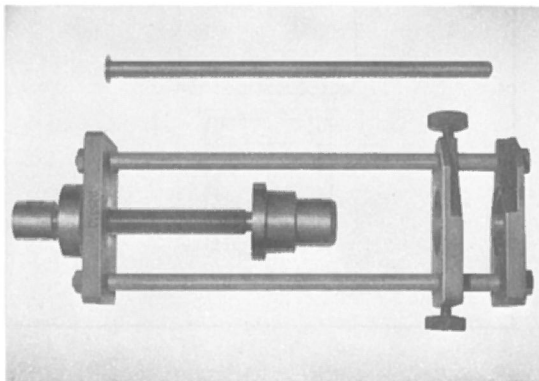
- (1) Align the bushing with the yoke hole, position this bushing installer, and force in the bushing with a press or mallet.
- (2) Take care not to damage the trailing arm while forcing in the bushing, and not to allow the nylon bushing to protrude from the inside end of the yoke.

15	922320000	CAP	Hub	TV
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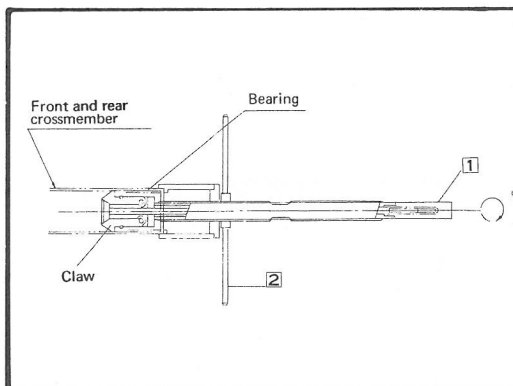
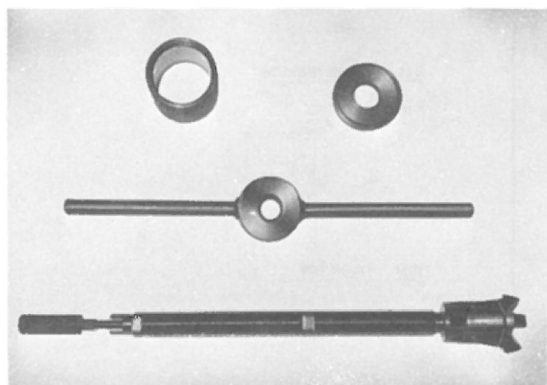
- (1) Use this cap with the handle and lead screw of the installer (921360000) for the R-2.
- (2) Fit the hub by hand to the outer axle assembly which is being secured.
- (3) Screw the lead screw into the outer axle.
- (4) With the cap aligned with the hub assembly bearing, fit the handle to the lead screw, and turn it to force the hub assembly into place, while holding the lead screw with a wrench to prevent its turning.

16	925010000	INSTALLER	Front cross member bearing	A-1, A-2, G
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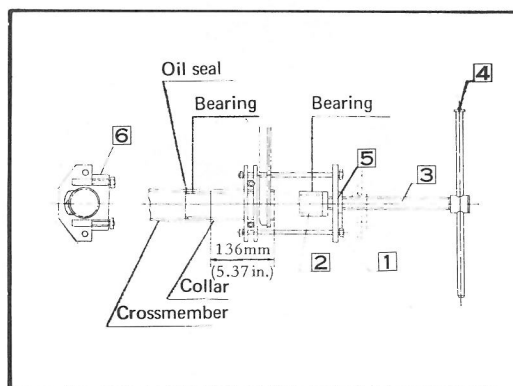
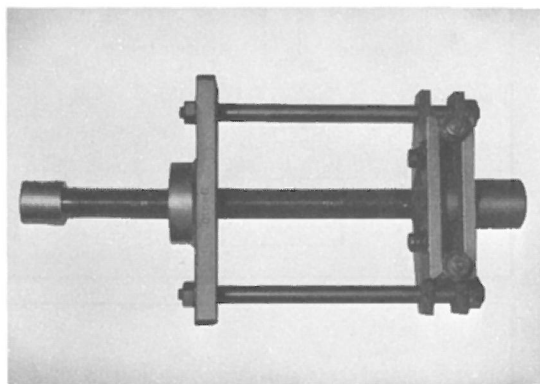
- (1) Coat the crossmember bearing pressure section and bearing with soapy water.
- (2) Fit this installer onto the crossmember, set the installer by turning ①, insert the bearing into ②, and press it in by turning the huddle ③ until the end surface of ② touches ④, and press the bearing.
- (3) Using the same procedure, press on the oil seal until it touches the bearing.

17	925020000	PULLER	Front & Rear cross member bearing	A-1, A-2, G
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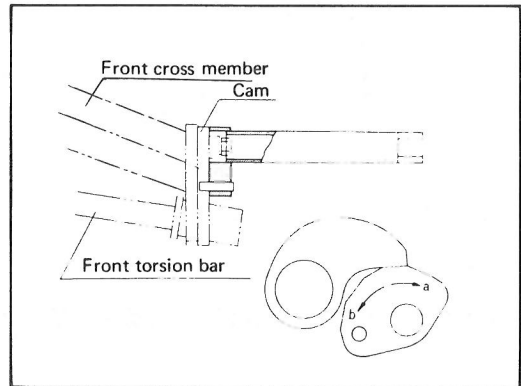
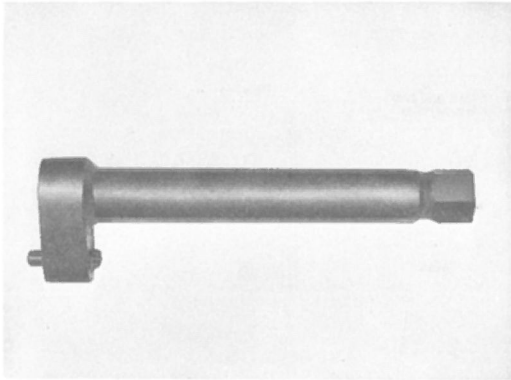
- (1) Adjust the puller claw to its **smallest** size and insert it into the front or rear cross member.
- (2) Set the puller, and open the claw to fix by pulling and turning ① .
- (3) Withdraw the bearing by turning ②

18	925030000	INSTALLER	Rear cross member bearing of SEDAN	A-1, A-2,
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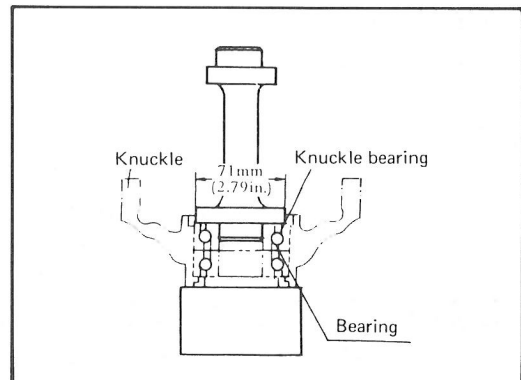
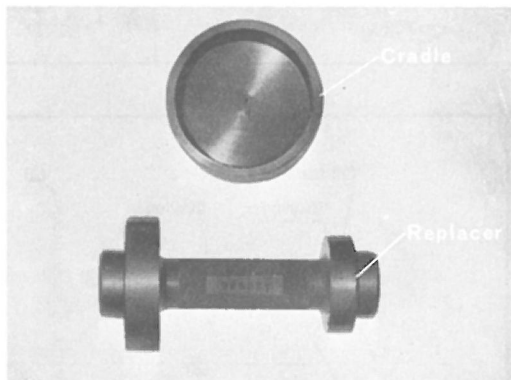
- (1) Apply soapy water to the **bearing** and the inside of the rear cross member where the bearing is to be fitted.
- (2) Fit this installer to the cross member, tightening the nuts securely.
- (3) Fit the bearing and oil seal on ② , and press it by turning ④.
- (4) In the same way, press in the collar until it contacts the bearing, making sure that the grease filling ports on the collar and the cross member are aligned.

19	925041000	ADJUSTER	Front ground clearance	A-1, A-2, G
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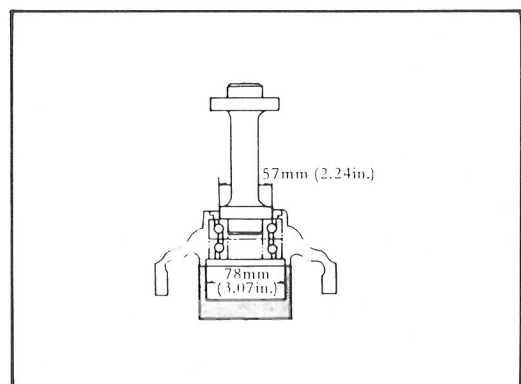


Set this adjuster to the cam. If the cam is turned in direction "a" the road clearance can be increased, and vice versa. A change of one cam face moves the wheel position 8mm (0.32 in.).

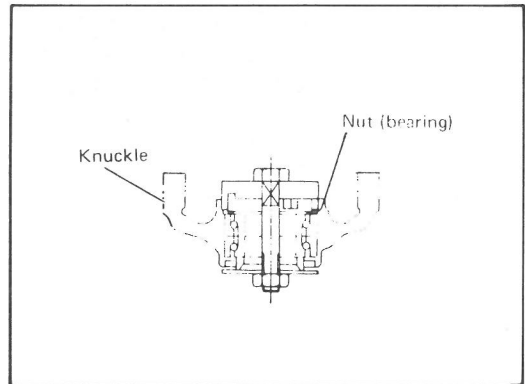
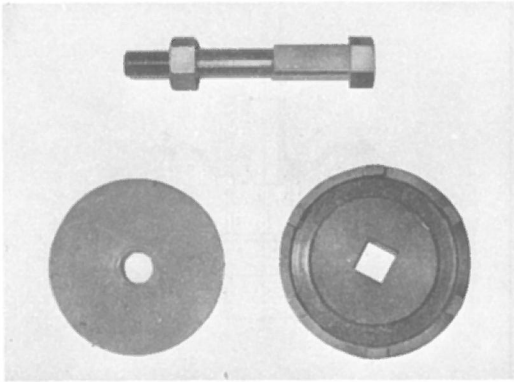
20	925051000	BEARING REPLACER	Knuckle bearing	A-1, A-2, G
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- (1) When pressing the knuckle bearing, align the bearing with the hole first and fit the 71mm (2.79 in.) side of the replacer on the bearing.
- (2) Knock the tool with a hammer until it touches the bottom of the knuckle.
- (3) When withdrawing the bearing, place the knuckle on the cradle, fit the 57mm (2.24 in.) side of the replacer on the bearing from above, and remove the bearing with a hammer.

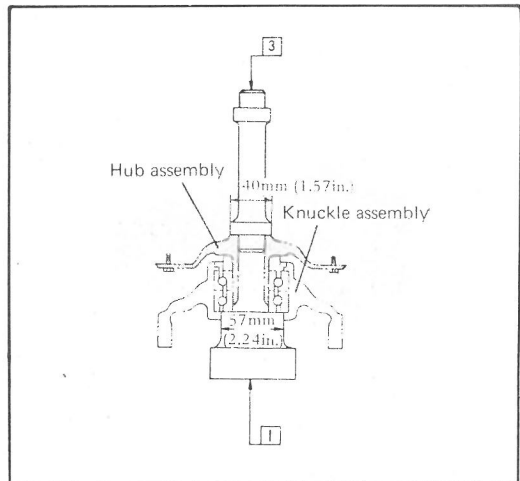
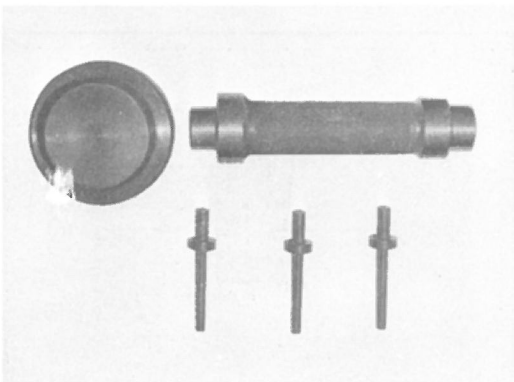


21	925061000	WRENCH	Knuckle	A-1, A-2, G
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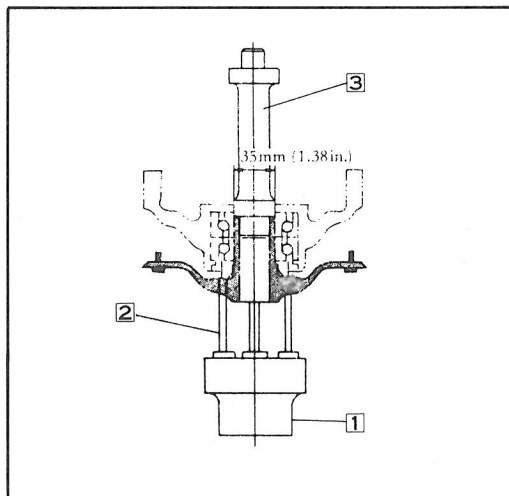
Attach this wrench to the knuckle as illustrated above and tighten or loosen the knuckle bearing nut.

22	925071000	INSTALLER	Knuckle and front hub	A-1, A-2, G
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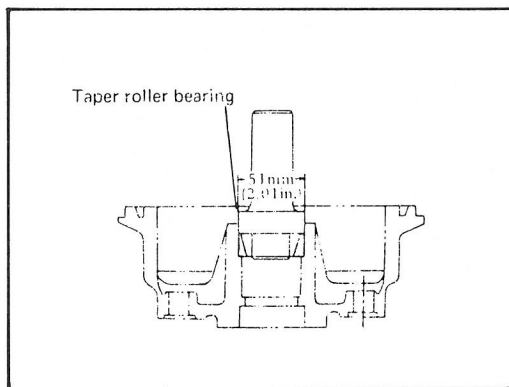
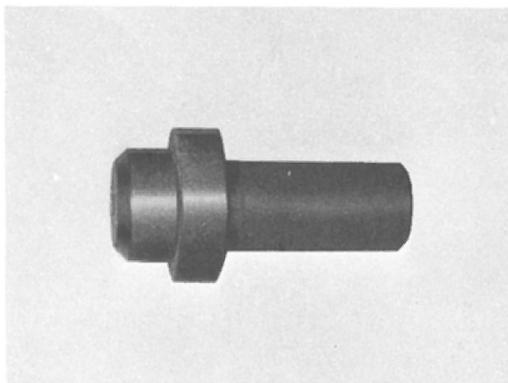


- (1) When pressing the hub assembly into the knuckle, with the hub aligned with the knuckle which is placed on the cradle ①, set ③ on the hub and hammer it from above.

- (2) When withdrawing the hub assembly from the knuckle, first assemble ① to ②, insert ② in the three holes in the hub, and disassemble the knuckle and the hub by hitting ③ from above.

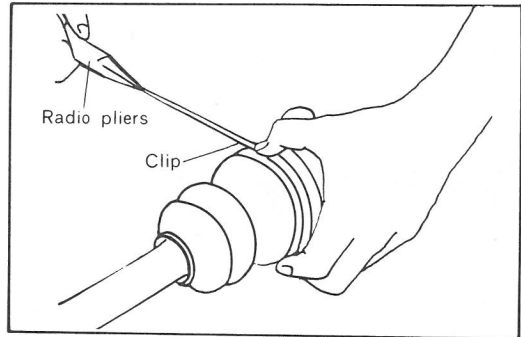
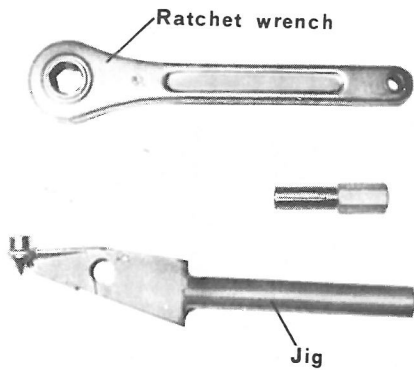


23	925080000	INSTALLER	Rear brake drum bearing	A-1, A-2, G, L
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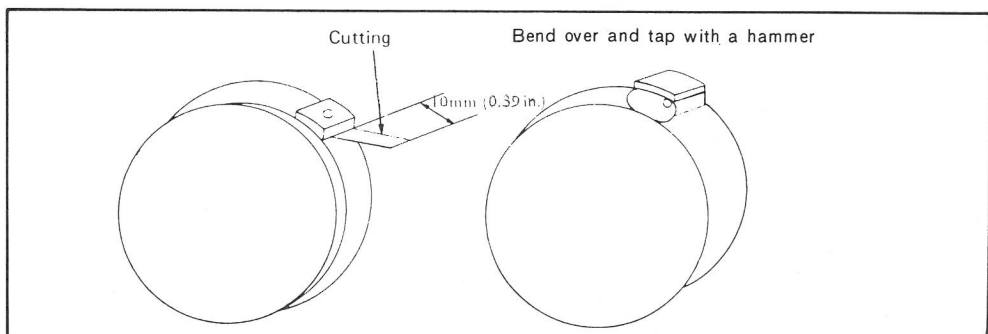
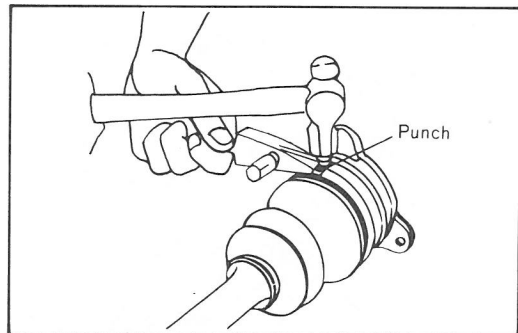
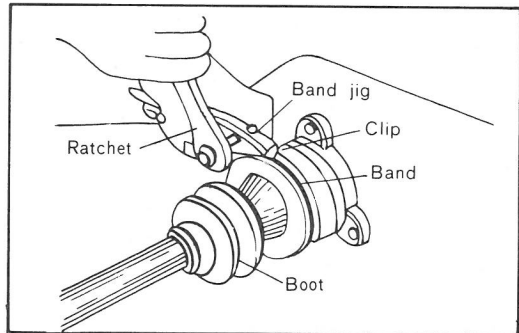


Install the rear brake drum bearing by using this tool and hammering from above.

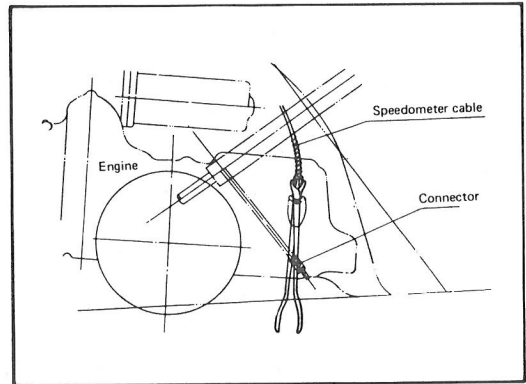
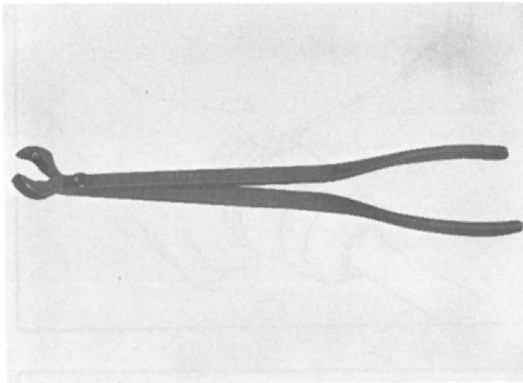
24	925090000	TIGHTENER	Front axle boot clip	A-1, A-2, G, L
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- (1) Pass the band through the clip, fit it into the boot groove and wind it around twice.
- (2) Holding the end of the band with a radio plier and pressing the clip, tighten the band.
- (3) Hold the band in the band jig and ratchet.
- (4) Tighten the band with the ratchet until it ceases to move if forced by hand.
- (5) Tap the top of the clip with punch, taking care not to damage the boot.
- (6) Cut off the band leaving about 10mm (0.39 in.) from the clip.
- (7) Bend the end of the cutting over onto the clip and tap with a hammer.

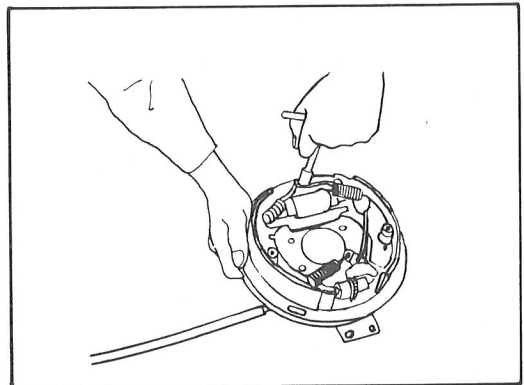
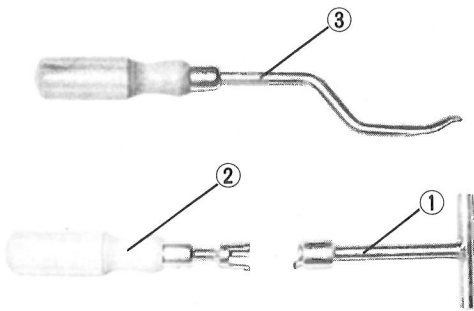


25	925100000	WRENCH	Speedometer cable	A-1, A-2, G, L
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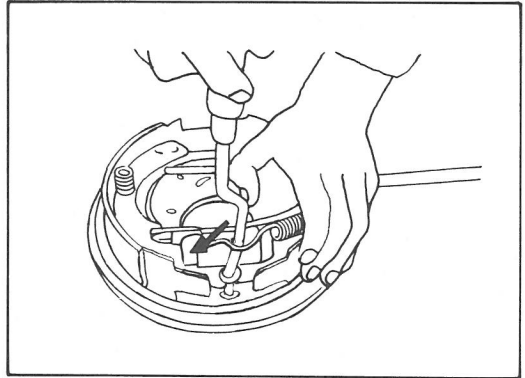
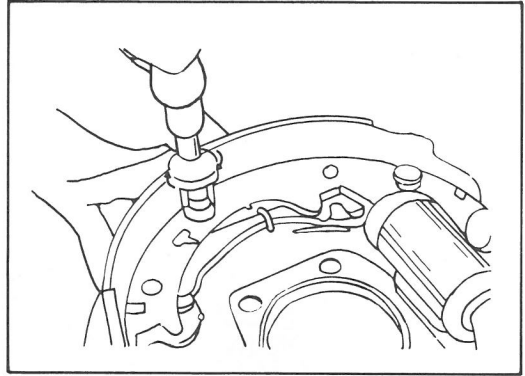


Use this wrench when removing and installing the speedometer cable from under the floor.

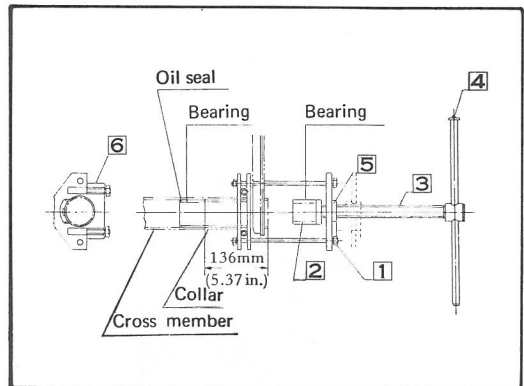
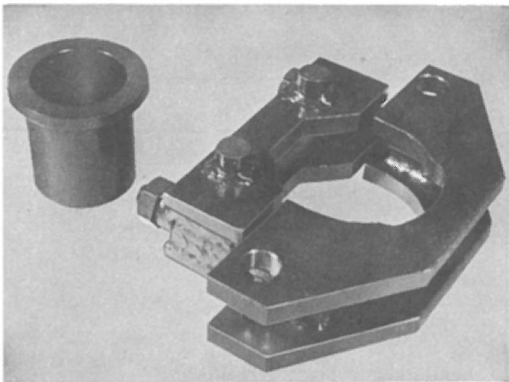
26	925110000	REPLACER	Brake	A-1, A-2, G, L
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- (1) Use ① when removing the shoe return spring and cable from the anchor pin.
- (2) Use ② when removing the shoe set spring to set the shoe free.
- (3) Use ③ when installing the shoe return spring and automatic adjusting cable on the anchor pin.

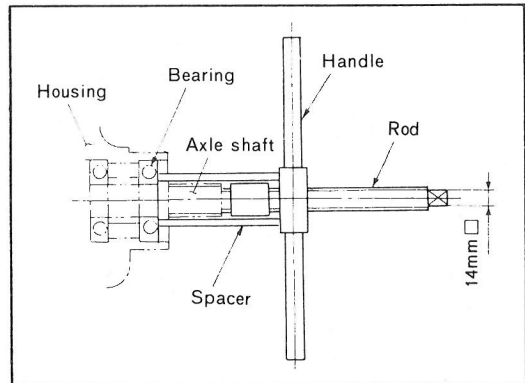
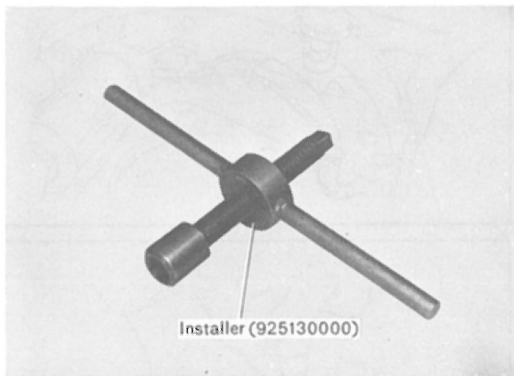


27	925120000	INSTALLER	Rear cross member bearing of STATION WAGON	A-1, A-2, G
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Use this tool to install the rear crossmember bearing with the parts ①, ③, ④, ⑤ of the installer 925030000 and handle in the exactly the same method described in No.18 (Page 63)

28	925130000	INSTALLER	Housing, drum & hub	L
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- (1) Fit the axle shaft assembly to the vise without making any damage on the surface of axle shaft.
- (2) After install the housing assembly on the axle shaft, set a spacer as shown in the above figure. At this time do not make any damage on the oil seal's lip part by the edge of the spacer.
- (3) Screw in the rod to the axle shaft threaded part and press in the housing assembly by turning the handle while holding the end of the rod by spanner.

29	925140000	INSTALLER	Housing	L
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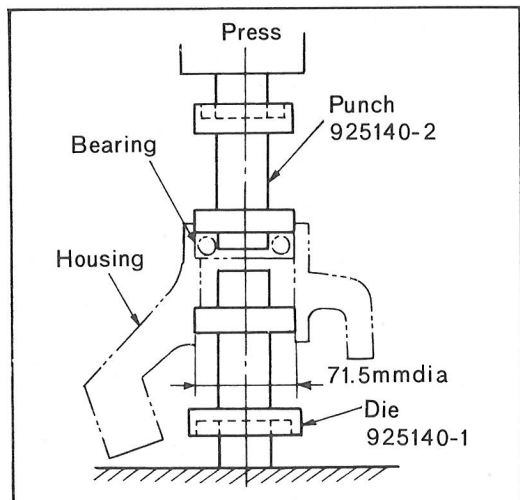
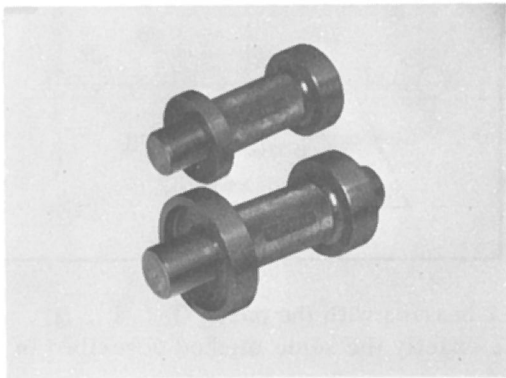


Fig. 1

A. Installation of the bearing.
(see Fig. 1 & 2)

1. When installing the bearing into the housing, first place the die with its 71.5 mm dia side upward as shown in the figure 1.
2. Fit the bearing onto the punch and set it on the housing.
Force the bearing into the housing by using a press.
3. Apply proper amount of grease inside of the housing and install the spacer.
4. Set the housing upside down onto the die as shown in the above figure 2 and force the bearing into the housing as the procedure described in item 2.

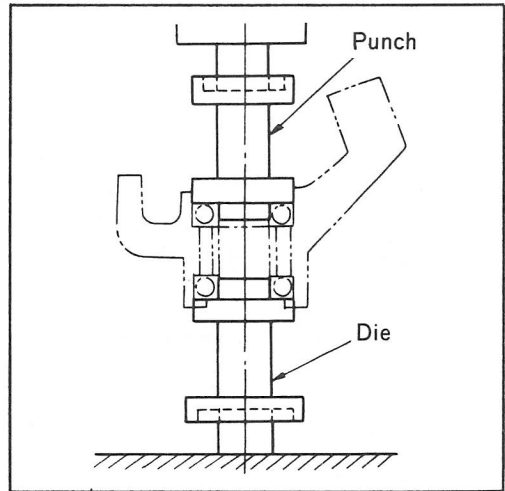


Fig. 2

B. Installation of the oil seal
(see Fig. 3 & 4)

1. When installing the oil seal into the housing, place the die with its 71.5 mm dia side upward under the housing and set on the press as shown in the above figure 3.
2. Fit the oil seal onto the punch and set it on the housing.
Force the oil seal into the housing gradually using a press till the end of the oil seal comes in contact with the bearing.
3. Change the die upside down and place it under the housing as shown in the figure 4.
4. Fit the oil seal onto the punch and set it on the housing.
5. Gradually force the oil seal into the housing as the same procedure described in item 2.

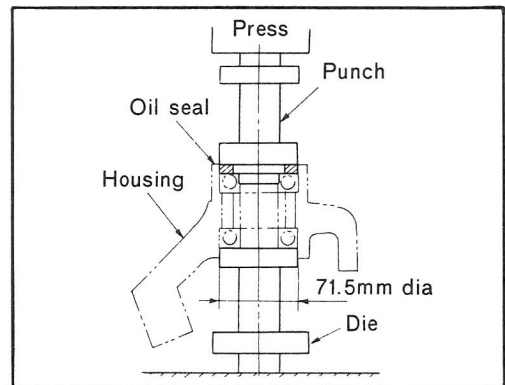


Fig. 3

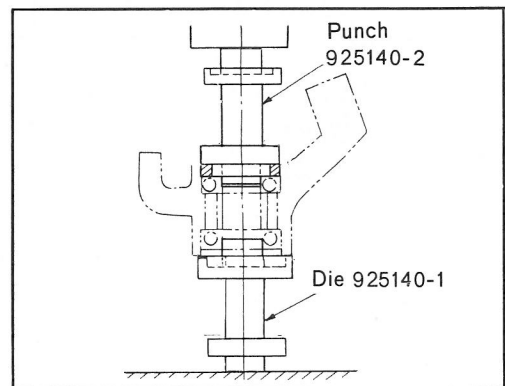
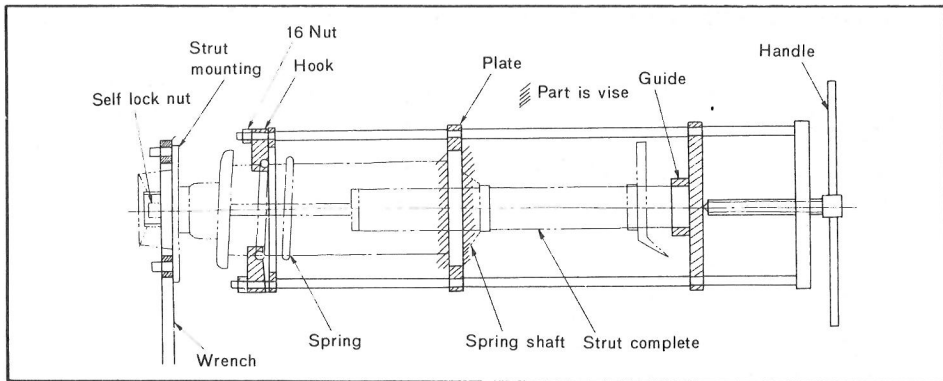
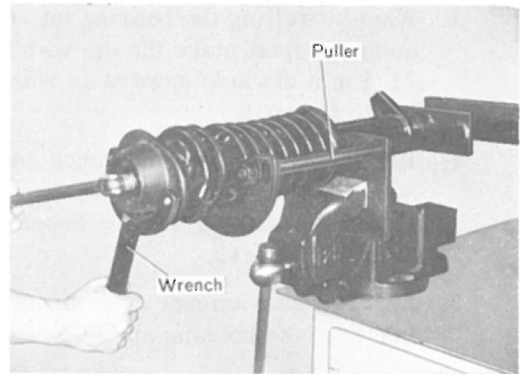
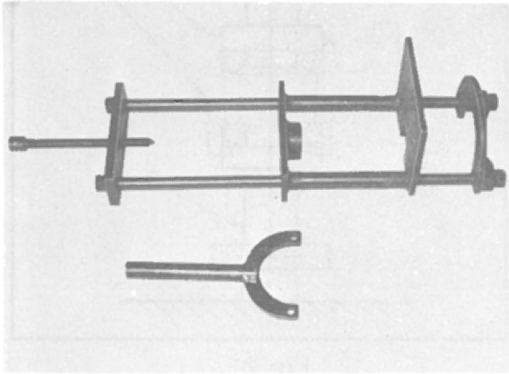


Fig. 4

30	925160000	PULLER & WRENCH	Strut Assembly	L
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A. Disassembling the spring

1. Horizontally set the special tool 925160000 on a vise as shown in the above photo.
2. Set the strut assembly between the plate and guide.
3. Fit the hook as close as possible to the end of the spring.
4. Turn a handle so as to compress the spring until the strut mounting can be moved.
5. Fit a wrench to the bolts on the strut mounting then loosen and remove a self lock nut by the socket wrench.

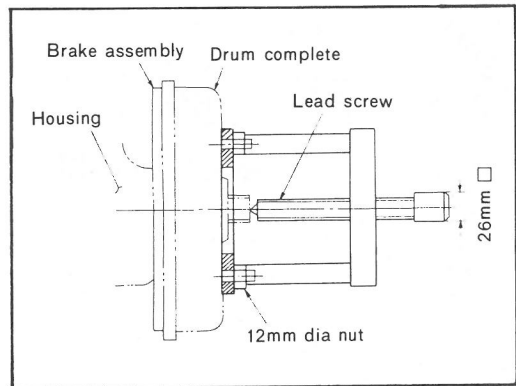
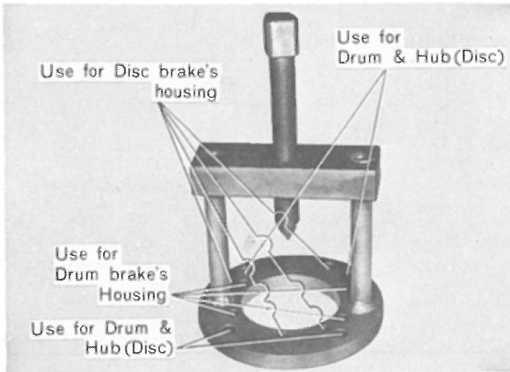
(NOTE) When carry out this job, always change a self lock nut with the new one.

6. Disconnect a strut mounting and turning back a handle gradually so as to reduce the compression force on the spring and then remove the spring from the strut complete.

B. Reassembling the spring

Reassembling the spring is the reverse of the disassembly.

31	925200000	PULLER	Housing, drum & hub	L
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A. Pulling out the brake drum.

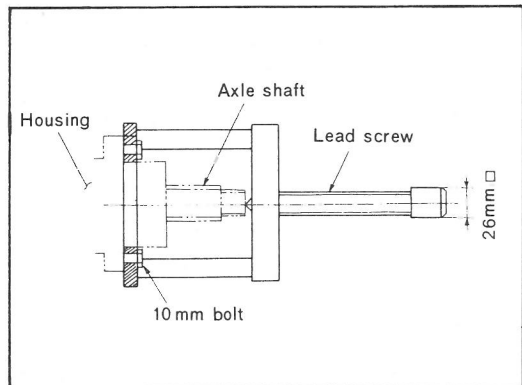
1. Fit the puller by using four hub bolts to the brake drum and tighten the wheel nuts.
2. Match the end of the lead screw to the center of the axle shaft and pull out a brake drum by turning the lead screw with wrench.

(NOTE) Hub (disk brake) is also can be removed by the same procedure described above.

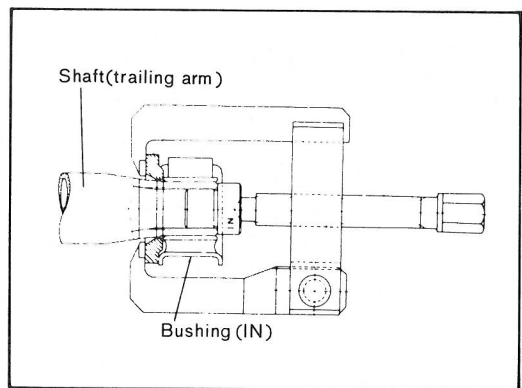
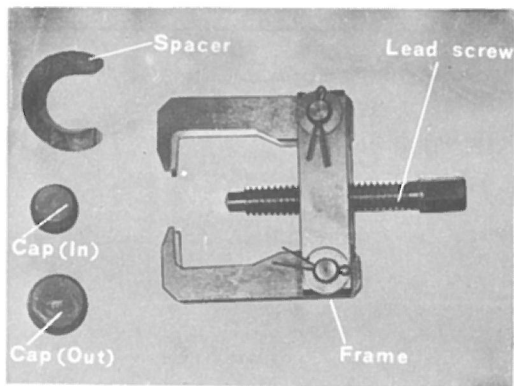
B. Pulling out the housing.

1. Fit the puller on the housing and firmly tighten it with four 10 mm bolts.
2. Match the end of the lead screw to the center of the axle shaft and pull out a housing by turning the lead screw with wrench.

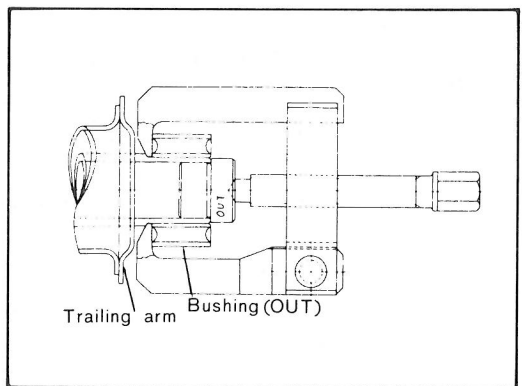
(NOTE) In case of the disc brake, use an 8 mm bolts and 12 mm bolts for tightening the puller.



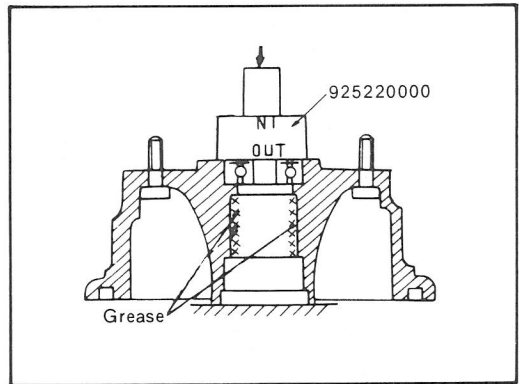
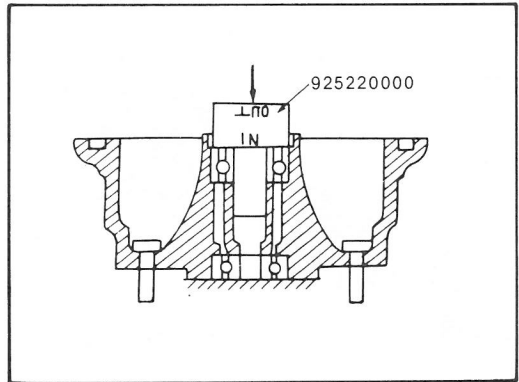
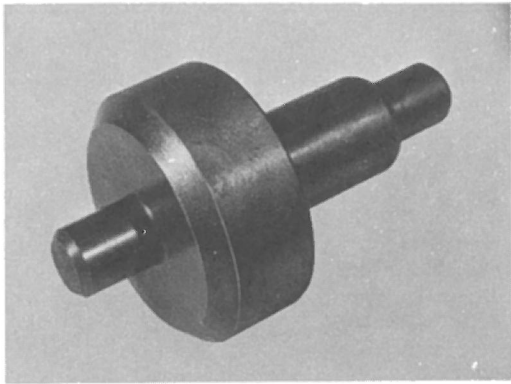
32	925210000	PULLER	Trailing arm bushing (inner & outer)	A-2, G, L
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- (1) When withdrawing the inner bushing, set the spacer and the frame after installing the cap (IN) to the trailing arm, with the lead screw aligned with the hole of the cap (IN), and remove the bushing by turning the lead screw.
- (2) When withdrawing the outer bushing, set the frame after installing the cap (out) to the trailing arm.
- (3) With the lead screw aligned with the hole of the cap (OUT), remove the bushing by turning the lead screw.

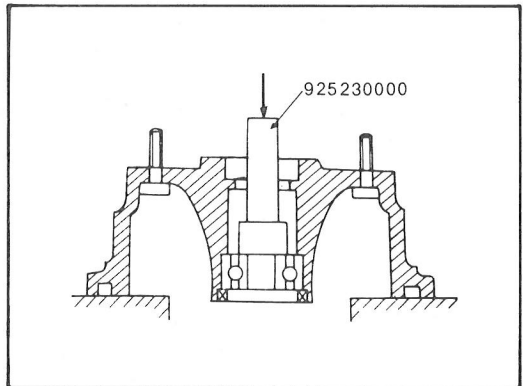
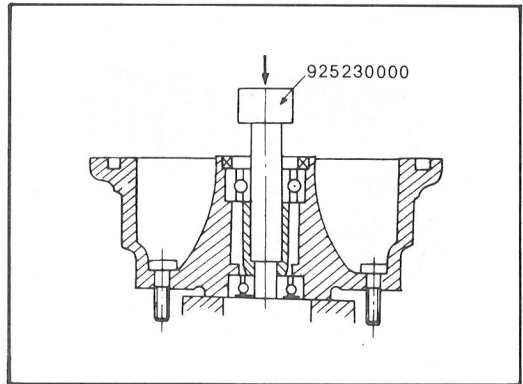
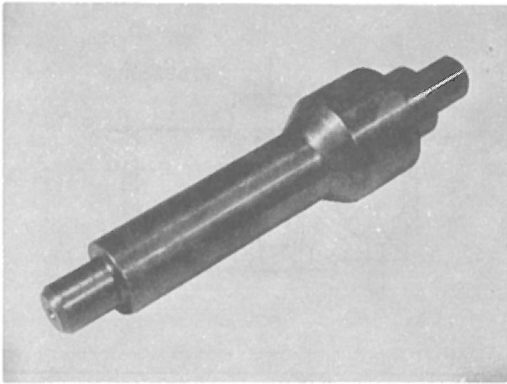


33	925220000	INSTALLER	Rear brake drum bearing (inner & outer)	A-2, G, L
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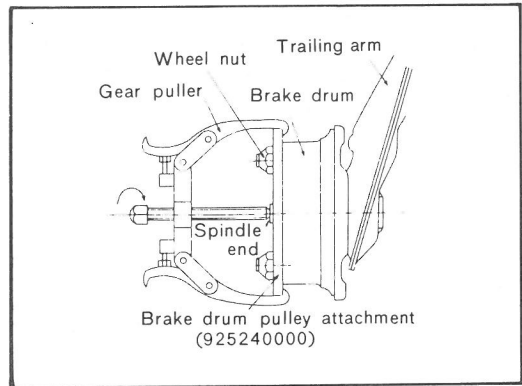
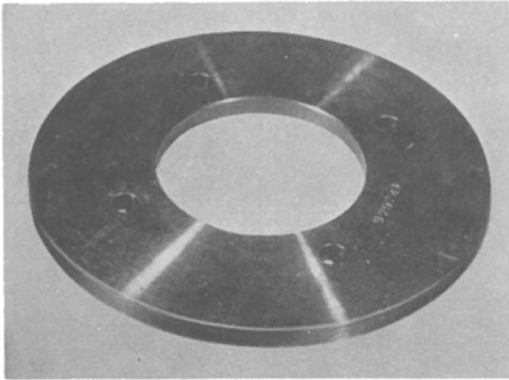
Press the inner and outer bearing into the rear brake drum by fitting this tool on the bearing and striking with a hammer.

34	925230000	PULLER	Rear brake drum bearing (inner & outer)	A-2, G, L
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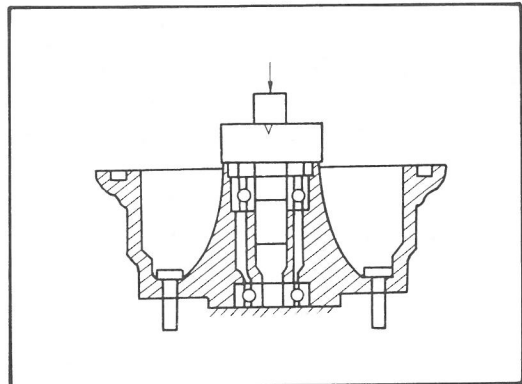
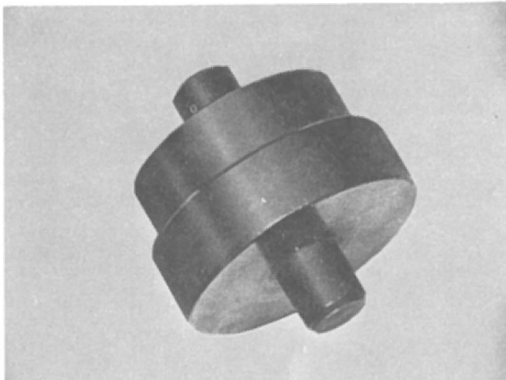
- (1) Place the brake drum on a base and set the shank.
- (2) Strike the shank with a hammer and remove the outer bearing and spacer.
- (3) The inner bearing and oil seal can be withdrawn by using this tool similarly.

35	925240000	PULLER ATTACHMENT	Brake drum	A-2, G
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- (1) Fit this puller attachment using the hub bolts to the brake drum and tighten the wheel nuts. The wheel nuts should be used inside out.
- (2) Pull out the brake drum with a gear puller.

36	925250000	INSTALLER	Rear brake drum oil seal	A-2, G, L
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Force the oil seal into the rear brake drum using this tool with a press or mallet. For the sedan and sports sedan use the "S" marked side, and for station wagon the "V" marked side.

