



SERVICE BULLETIN

GLOBAL AFTER SALES OFFICE, MITSUBISHI MOTORS CORPORATION

PURPOSE : CHANGE	ISSUE NO. : MSB-15EXL23-002B	DATE : 2015-08-21
SUBJECT : Setting the disassembly and reassembly procedures for the transmission pulley of F1CJA and W1CJA		<DESTINATION/MODEL> <M/Y> (As per attached sheet 1) 6-15
GROUP : Gr:23(Automatic transmission)		

1. Description :

Please refer to the attached document for the information about the change of mention in the applicable service manual.

2. Affected service manuals :

Please refer to the attached document (Attached sheet 1)

3. About the details :

Please refer to the attached document (Attached sheet 2)

4. Effective time : From the initial vehicles.

Revision history

		MSB No.	Issued Date
Original		MSB-15EXL23-002	2015/8/19
Revision	A	MSB-15EXL23-002A	2015/8/20
	B	MSB-15EXL23-002B	2015/8/21

※This time

※ Unfortunately the original version MSB-15EXL23-002 and the revision A version MSB-15EXL23-002A were not issued. The latest version of this MSB is MSB-15EXL23-002B.

OUTLANDER (CW0W)

<EU / RUSSIA>

Applicable manual	Pub. No.	Content
2008 OUTLANDER Workshop manual	CGXE08E2-CD (English) CGXF08E2-CD (French) CGXG08E2-CD (German) CGXS08E2-CD (Spanish) N/A (RUSSIA)	Attached sheet 2
2009 OUTLANDER Workshop manual	CGXE09E2-CD (English) CGXF09E2-CD (French) CGXG09E2-CD (German) CGXS09E2-CD (Spanish) N/A (RUSSIA)	
2010 OUTLANDER Workshop manual	CGXE10E1-CD (English) CGXF10E1-CD (French) CGXG10E1-CD (German) CGXS10E1-CD (Spanish) N/A (RUSSIA)	
2011 OUTLANDER Workshop manual	CGXE11E1-CD (English) CGXF11E1-CD (French) CGXG11E1-CD (German) CGXS11E1-CD (Spanish) N/A (RUSSIA)	
2012 OUTLANDER Workshop manual	CGXE12E1-CD (English) CGXF12E1-CD (French) CGXG12E1-CD (German) CGXS12E1-CD (Spanish) N/A (RUSSIA)	

<G. EXP / GCC / CHINA / SOUTH AFRICA / ARGENTINA
/ BRAZIL / TAIWAN / MMAL / NZ>

Applicable manual	Pub. No.	Content
2006 OUTLANDER Workshop manual (JPN SPEC)	PWRE0503R BRAZIL:TAIWAN:DRAFT	Attached sheet 2
2007 OUTLANDER Workshop manual	PWRE0607R	
2008 OUTLANDER Workshop manual	PWRE0707R(English) PWRS0708R(Spanish), DRAFT (ARGENTINA, SOUTH AFRICA)	
2009 OUTLANDER Workshop manual	PWRE0810R(English) PWRS0811R(Spanish) DRAFT (CHINA , ARGENTINA, SOUTH AFRICA)	
2010 OUTLANDER Workshop manual	PWRE0906R(English) PWRS0907R(Spanish) DRAFT (CHINA, ARGENTINA, SOUTH AFRICA)	

<MMAL / NZ>

Applicable manual	Pub. No.	Content
2007 OUTLANDER Workshop manual	MR936083 DRAFT (NZ)	Attached sheet 2
2008 OUTLANDER Workshop manual	MR936474 DRAFT (NZ)	
2009 OUTLANDER Workshop manual	MR936477 DRAFT (NZ)	
2010 OUTLANDER Workshop manual	MR936925 DRAFT (NZ)	

※As for the publication numbers for GS45X for MMAL/NZ, please see the numbers mentioned in the above table <MMAL/NZ>.

<HONG KONG>

Applicable manual	Pub. No.	Content
2006 OUTLANDER Workshop manual (JPN SPEC)	PWRE0503R	Attached sheet 2
2008 OUTLANDER Workshop manual (JPN SPEC)	PWRE0712R	

OUTLANDER (CF0W)

<EU / RUSSIA / SOUTH AFRICA / ARGENTINA>

Applicable manual	Pub. No.	Content
2013 OUTLANDER Workshop manual	CGFE13E1-CD (English) CGFF13E1-CD (French) CGFG13E1-CD (German) CGFS13E1-CD (Spanish) N/A (RUSSIA)	Attached sheet 2
2014 OUTLANDER/ OUTLANDER PHEV Workshop manual	CGFE14E2-CD (English) CGFF14E2-CD (French) CGFG14E2-CD (German) CGFS14E2-CD (Spanish) N/A (RUSSIA) DRAFT (ARGENTINA, SOUTH AFRICA)	
2014.5 OUTLANDER/ OUTLANDER PHEV Workshop manual	CGFE14E3-CD (English) CGFF14E3-CD (French) CGFG14E3-CD (German) CGFS14E3-CD (Spanish) DRAFT (ARGENTINA, SOUTH AFRICA)	

<G.EXP / GCC / BRAZIL>

Applicable manual	Pub. No.	Content
2014 OUTLANDER Workshop manual	PWRE1303R(English) PWRS1304R(Spanish) BRAZIL:DRAFT	Attached sheet 2

<MMAL / NZ>

Applicable manual	Pub. No.	Content
2013 OUTLANDER Workshop manual	AU900304 DRAFT (NZ)	Attached sheet 2

ASX/OUTLANDER SPORT

<EU / RUSSIA / SOUTH AFRICA>

Applicable manual	Pub. No.	Content
2011 ASX Workshop manual	CGWE11E2-CD (English) CGWF11E2-CD (French) CGWG11E2-CD (German) CGWS11E2-CD (Spanish) CGWI11E2-CD (Italian) N/A (RUSSIA) SOUTH AFRICA:DRAFT	Attached sheet 2
2013 ASX Workshop manual	CGAE13E2-CD (English) CGAF13E2-CD (French) CGAG13E2-CD (German) CGAS13E2-CD (Spanish) CGAI13E2-CD (Italian) N/A (RUSSIA) SOUTH AFRICA:DRAFT	

2014 ASX Workshop manual	CGAE14E1-CD (English) CGAF14E1-CD (French) CGAG14E1-CD (German) CGAS14E1-CD (Spanish) CGAI14E1-CD (Italian) N/A (RUSSIA) SOUTH AFRICA:DRAFT	
--------------------------	---	--

<G. EXP / GCC / CHINA / BRAZIL / HONG KONG / MMAL / NZ>

Applicable manual	Pub. No.	Content
2011 OUTLANDER SPORT / ASX Workshop manual	PWPE1006R(English) PWPS1007R(Spanish) NZ:DRAFT MMAL:DRAFT CHINA/BRAZIL/HONG KONG:DRAFT	Attached sheet 2

LANCER/LANCER EX/LANCER SPORTBACK

<EU / RUSSIA>

Applicable manual	Pub. No.	Content
2008 LANCER Workshop manual	CG1E08E2-CD (English) CG1F08E2-CD (French) CG1G08E2-CD (German) CG1S08E2-CD (Spanish) N/A (RUSSIA)	Attached sheet 2
2009 LANCER SPORTBACK Workshop manual	CG4E09E1-CD (English) CG4F09E1-CD (French) CG4G09E1-CD (German) CG4S09E1-CD (Spanish) CG4I09E1-CD (Italian) N/A (RUSSIA)	
2011 LANCER/LANCER SPORTBACK Workshop manual	CG1E11E1-CD (English) CG1F11E1-CD (French) CG1G11E1-CD (German) CG1S11E1-CD (Spanish) CG1I11E1-CD (Italian) N/A (RUSSIA)	
2012 LANCER/LANCER SPORTBACK Workshop manual	CG1E12E1-CD (English) CG1F12E1-CD (French) CG1G12E1-CD (German) CG1S12E1-CD (Spanish) CG1I12E1-CD (Italian) N/A (RUSSIA)	
2013 LANCER/LANCER SPORTBACK Workshop manual	CCAE13E1-CD (English) CCAF13E1-CD (French) CCAG13E1-CD (German) CCAS13E1-CD (Spanish) CCAI13E1-CD (Italian) N/A (RUSSIA)	
2014 LANCER/LANCER SPORTBACK Workshop manual	CCAE14E1-CD (English) CCAF14E1-CD (French) CCAG14E1-CD (German) CCAS14E1-CD (Spanish) CCAI14E1-CD (Italian) N/A (RUSSIA)	
2015 LANCER/LANCER SPORTBACK Workshop manual	CCAE15E1-CD (English) CCAF15E1-CD (French) CCAG15E1-CD (German) CCAS15E1-CD (Spanish) CCAI15E1-CD (Italian) N/A (RUSSIA)	

<G. EXP / GCC / SOUTH AFRICA / ARGENTINA / HONG KONG / CHINA>

Applicable manual	Pub. No.	Content
2008 LANCER/LANCER EX Workshop manual	PWME0701R(English) PWMS0702R(Spanish), ARGENTINA/ SOUTH AFRICA:DRAFT HONG KONG/CHINA:DRAFT	Attached sheet 2
2009 LANCER/LANCER EX Workshop manual	PWME0802R(English) PWMS0803R(Spanish), ARGENTINA/ SOUTH AFRICA:DRAFT HONG KONG/CHINA:DRAFT	
2010 LANCER/LANCER EX Workshop manual	PWME0901R(English) PWMS0902R(Spanish), ARGENTINA/ SOUTH AFRICA:DRAFT HONG KONG/CHINA:DRAFT	

<MMAL/NZ>

Applicable manual	Pub. No.	Content
2008 LANCER Workshop manual	MR936470 DRAFT (NZ)	Attached sheet 2
2009 LANCER Workshop manual	MR936503 DRAFT (NZ)	
2010 LANCER Workshop manual	MR936920 DRAFT (NZ)	
2009 LANCER SPORTBACK Workshop manual	MR936570 DRAFT (NZ)	
2010 LANCER SPORTBACK Workshop manual	MR936922 DRAFT (NZ)	

4007 (PEUGEOT)/C-Crosser (CITROEN)

<EU>

Applicable manual	Pub. No.	Content
2008 4007 (PEUGEOT)/C-Crosser (CITROEN) Workshop manual	N/A	Attached sheet 2
2009 4007 (PEUGEOT)/C-Crosser (CITROEN) Workshop manual	N/A	
2010 4007 (PEUGEOT)/C-Crosser (CITROEN) Workshop manual	N/A	

DELICA D:5

<HONG KONG / NZ>

Applicable manual	Pub. No.	Content
2007 DELICA D:5 Workshop manual	PWRE0711R DRAFT (NZ)	Attached sheet 2
2009 DELICA D:5 Workshop manual	PWRE0804R DRAFT (NZ)	

GROUP 23

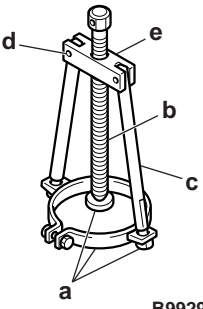
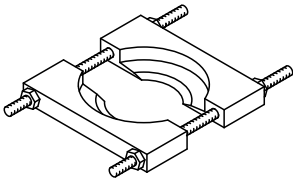
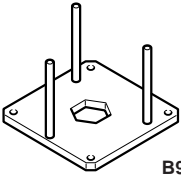
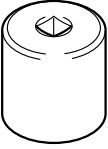
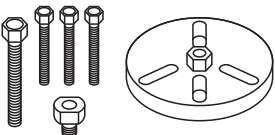
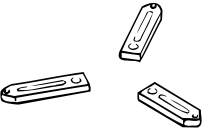
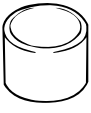
CONTINUOUSLY
VARIABLE
TRANSMISSION
OVERHAUL

CONTENTS

SPECIAL TOOLS.....	23-2	PULLEY DISASSEMBLY AND REASSEMBLY	23-3
PULLEY	23-3	PULLEY CLEANING	23-16

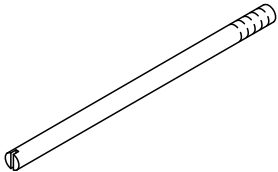
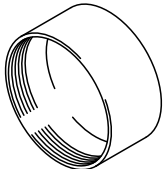
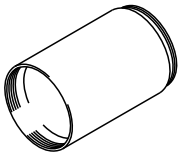
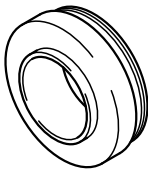
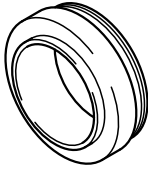
SPECIAL TOOLS

M1231200600774

Tool	Tool number	Name	Use
 <p>B992984AB</p>	MB992984 a: MB992990 b: MB998022 c: MB998023 d: MB998088 e: MB998021 <Incorrect> ↑ b:MD998022 <Correct> c:MD998023 d:MD998088 e:MD998021	Secondary pulley piston compressor a: Band set b: Push bolt c: Rod ×2 d: E-ring, pin ×2 e: Arm	Remove and install the of secondary pulley assembly
	MD998917	Bearing remover	Removal of ball bearing
 <p>B992985</p>	MB992985	Pulley clamp base	Remove and install the rear lock nut of the pulley assembly
 <p>B992986</p>	MB992986	Primary pulley holder	Remove and install the rear lock nut of the primary pulley assembly
	MB992221	Puller set	Remove of ball bearing and bearing retainer
	MB991116	Working base adapter	
 <p>MB991389</p>	MB991389	Bush remover base	Installation of ball bearing

CONTINUOUSLY VARIABLE TRANSMISSION OVERHAUL PULLEY

23-3

Tool	Tool number	Name	Use
	MD998412	Guide	Aligning side cover and bearing retainer
	MD998812	Installer cap	Installation of ball bearing and bearing retainer
	MD998813	Installer-100	Installation of ball bearing and bearing retainer
	MD998829	Installer adapter (60)	Installation of ball bearing and bearing retainer
	MD998823	Installer adapter (48)	Installation of ball bearing and bearing retainer

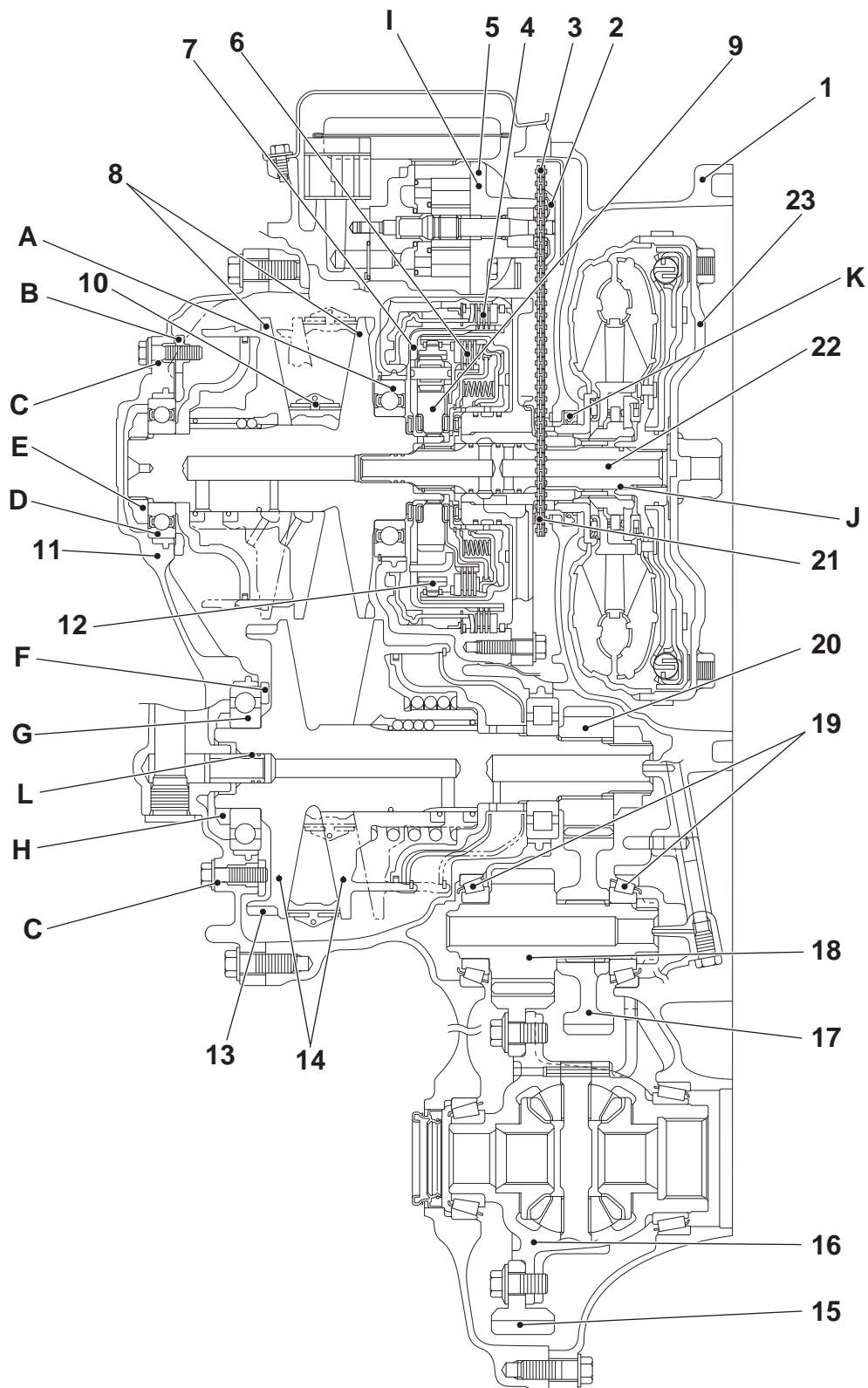
PULLEY

DISASSEMBLY AND REASSEMBLY

M1233201900053

NOTE: How to disassemble and reassemble the CVT to replace the pulley bearing is explained as follows. For the other removal and installation procedures, refer to the relevant Workshop Manuals.

23-4

CONTINUOUSLY VARIABLE TRANSMISSION OVERHAUL
PULLEY

1. Converter housing
2. Driven sprocket
3. Chain
4. Reverse brake
5. Oil pump
6. Forward clutch
7. Planet carrier

8. Primary pulley
9. Sun gear
10. Steel belt
11. Side cover
12. Internal gear
13. Parking gear
14. Secondary pulley

AC505738AC

CONTINUOUSLY VARIABLE TRANSMISSION OVERHAUL PULLEY

23-5

15. Final gear
 16. Differential case
 17. Idler gear
 18. Reduction gear
 19. Taper roller bearing
 20. Output gear
 21. Drive sprocket
 22. Input shaft
 23. Torque converter
- Parts to be replaced
- A. Ball bearing
 - B. Bearing retainer
 - C. O-ring
 - D. Ball bearing
 - E. Lock nut
 - F. Bearing retainer
 - G. Ball bearing
 - H. Lock nut
 - I. Oil pump
 - J. O-ring
 - K. Oil seal
 - L. O-ring
- Control valve

2. When the reduction gear assembly and the differential assembly are replaced, adjust the shim(s), and then assemble the converter housing.
3. Assemble the control valve.
4. Assemble the ancillary parts.
5. Mount the CVT assembly to the vehicle.
6. Connect the battery, and then initialize the learnt values stored in the CVT-ECU.
7. Initialize the CVT-ECU.

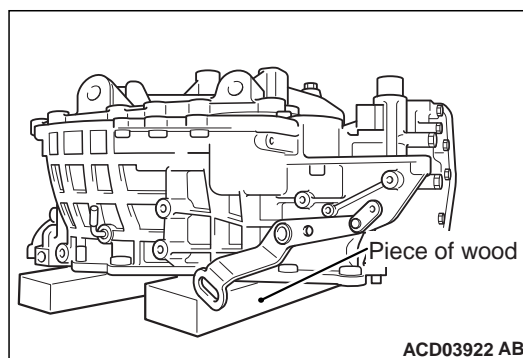
⚠ CAUTION

- **Do not use an oil changer to extract the oil. Always drain it by removing the drain plug.**
 - **For vehicles with air-cooled oil cooler, follow how to flush the transmission explained in the relevant Workshop Manual.**
8. Flush the CVT using the CVT fluid.
 - a. Refill the specified amount of the new CVT fluid.
 - b. Road test the vehicle with the selector lever at D range for five minutes.
 - c. Remove the drain plug to drain the CVT fluid.
- Road test conditions**
- Warming-up not required
 - Vehicle speed not specified
 - Road test with the vehicle raised is permitted.
- d. Repeat steps a to c.
 9. Refill the specified amount of the new CVT fluid.
 10. Adapt the CVT-ECU to learn the CVT hydraulic pressure control.

DISASSEMBLY

⚠ CAUTION

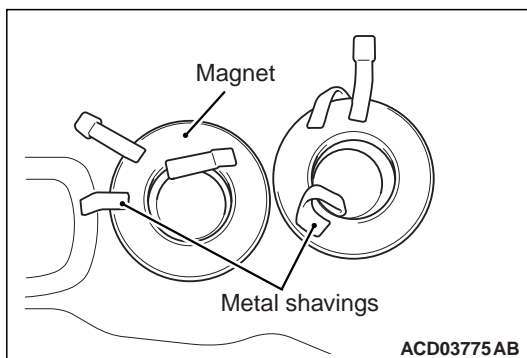
- **Be careful not to damage the other part(s). If you damage them, replace the CVT assembly.**
- **Place pieces of wood around the differential oil seal to protect it.**



1. Place pieces of wood under the engine contacting surface with the side cover facing up.

PRE-DISASSEMBLY OPERATION

1. Raise the vehicle or carry out road test to check that abnormal noise is heard from the CVT.
2. Drain the CVT fluid.

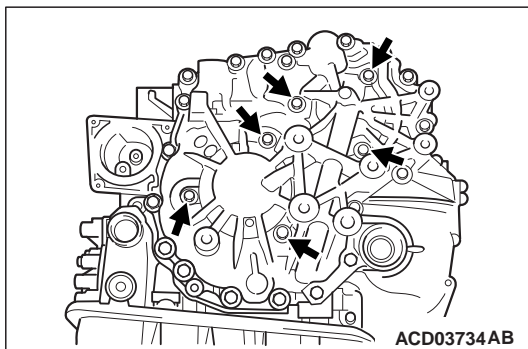


3. Remove the oil pan, and check metal shavings are not adhered to the magnet.
 - Foreign material adhered: Replace the CVT assembly
 - No foreign material: Disassemble and repair the CVT.
4. Remove the CVT assembly from the vehicle.
5. Remove the entire power train to clean the channels in the CVT.
6. Assemble the converter housing temporarily.

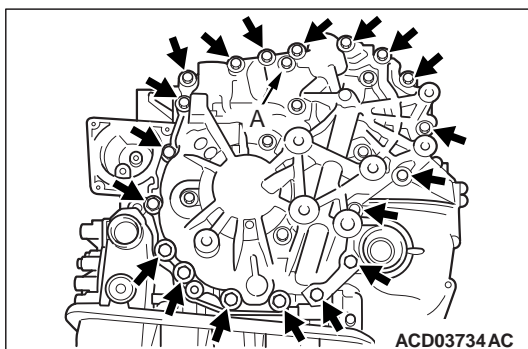
POST-ASSEMBLY OPERATION

1. Assemble the power train.

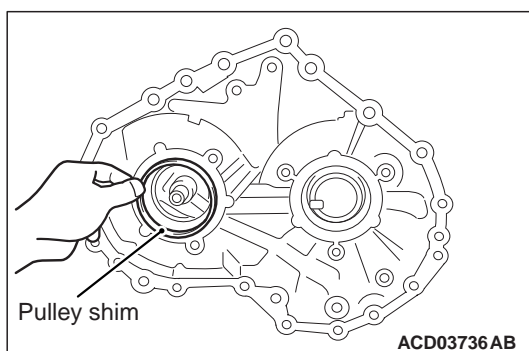
23-6

CONTINUOUSLY VARIABLE TRANSMISSION OVERHAUL
PULLEY

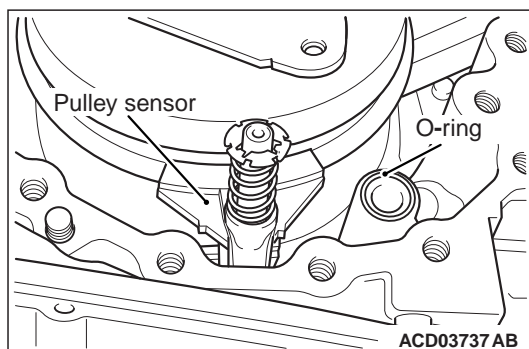
2. Remove the side cover bearing retainer mounting bolts as shown.



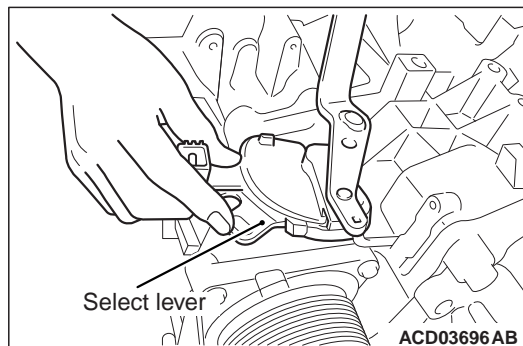
3. Remove the side cover mounting bolts.
4. If fitted, do not remove bolt A shown in the figure.
5. Pull up the side cover evenly to remove.



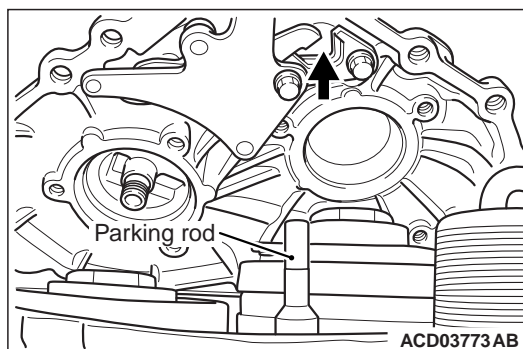
6. Remove the secondary pulley shim from the side cover.



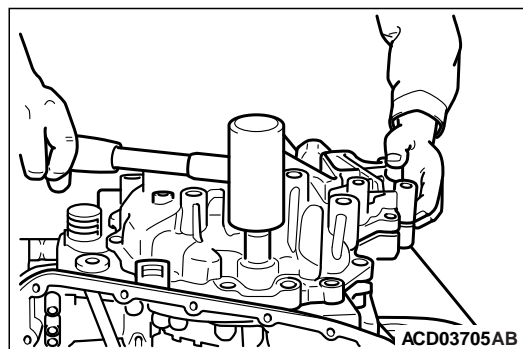
7. Remove the pulley sensor from the transmission case.
8. Remove the O-ring from the transmission case.



9. Move the selector lever to the P range to pull up the parking rod.



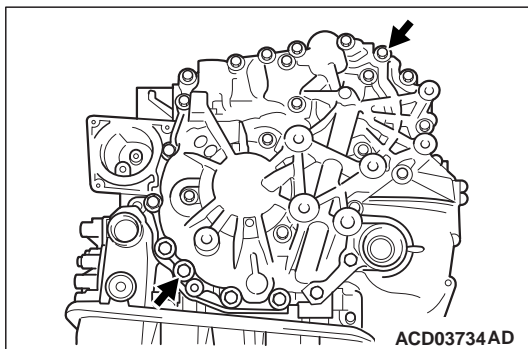
10. Insert the parking rod as shown with the parking rod pulled up.



11. Install the side cover to the transmission case by taping the cover with a plastic hammer lightly.
NOTE: If the side cover is not seated to the transmission case easily, move the select lever to the N position.
NOTE: If the side cover is not seated to the transmission case tightly, remove the side cover and repeat the installation procedure.

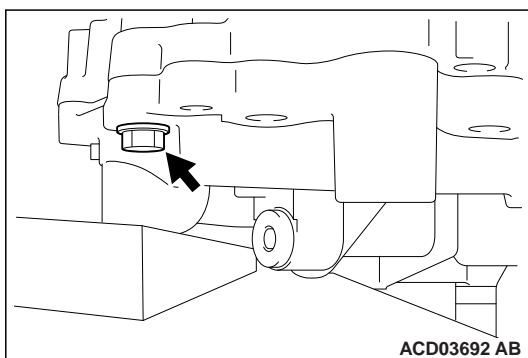
CONTINUOUSLY VARIABLE TRANSMISSION OVERHAUL PULLEY

23-7

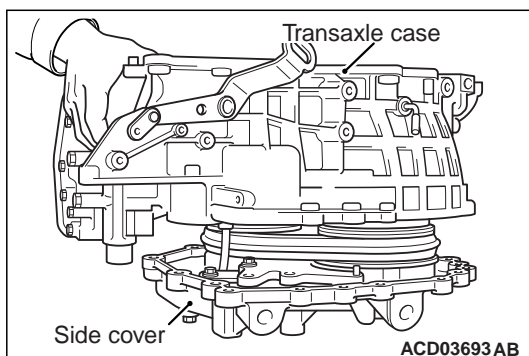


12. Tighten the mounting bolts as shown to install the side cover temporarily.

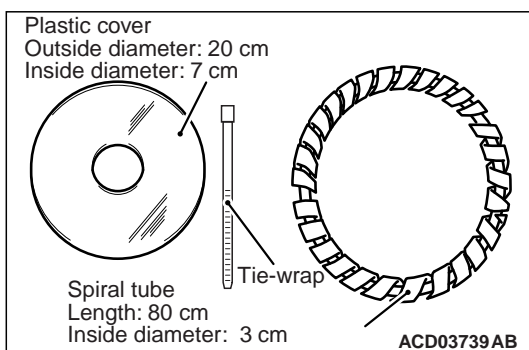
13. Place the transmission case horizontally through pieces of wood on a workbench with the side cover facing down.



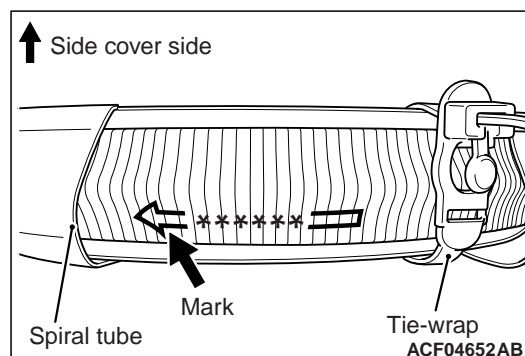
14. Remove the temporarily secured side cover bolts.



15. Remove the transmission case from the side cover.



16. Obtain commercially-available four plastic covers, one spiral tube and two cable tie wraps to avoid damage to the steel belt and the pulley assembly.

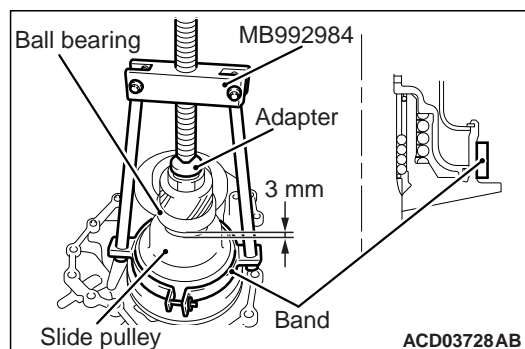


17. Tie the steel belt segments and the steel rings together at the two diagonal positions by using cable tie-wraps.

NOTE: The mark of the steel belt being an illustration position.

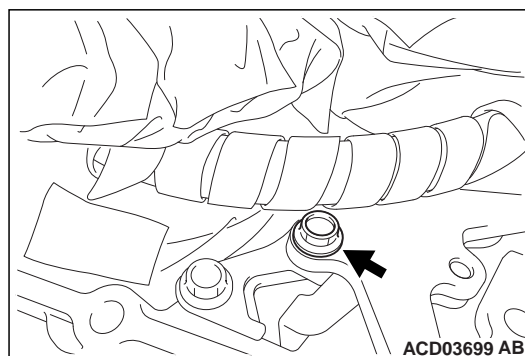
CAUTION

- Be careful that special tools do not hit against the steel belt and the pulley to avoid damage.
- Be careful that any foreign materials do not enter the oil channels.



18. Engage the special tool Secondary pulley piston compressor (MB992984) with the secondary pulley assembly. The band of the special tool should be placed as shown.

NOTE: Do not forget to install the adapter as shown, which is supplied with the special tool.



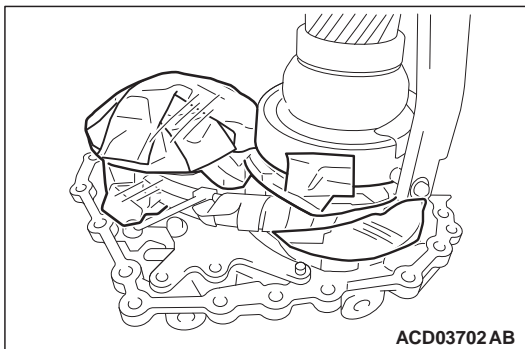
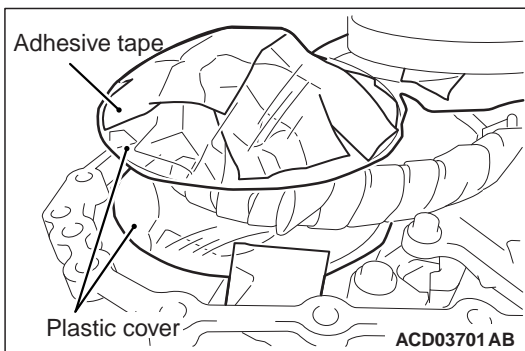
23-8

CONTINUOUSLY VARIABLE TRANSMISSION OVERHAUL
PULLEY**⚠ CAUTION**

- The steel belt will be loosened when the slide pulley is pulled up. Be careful that the loosened steel belt does not touch the parking lock mounting bolt. If it touches, the belt may be damaged.
- Make sure that the band of the special tool does not slide. If so, retighten it.

19. Pull up the slide pulley by tightening the special tool Secondary pulley piston compressor (MB992984). Pull it up until the clearance between the ball bearing and the pulley reaches 3 mm.

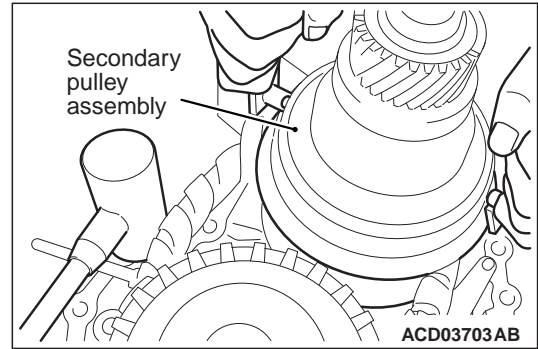
20. Wrap the spiral tube around the steel belt to avoid damage to the pulley. The entire steel belt should be protected as possible.



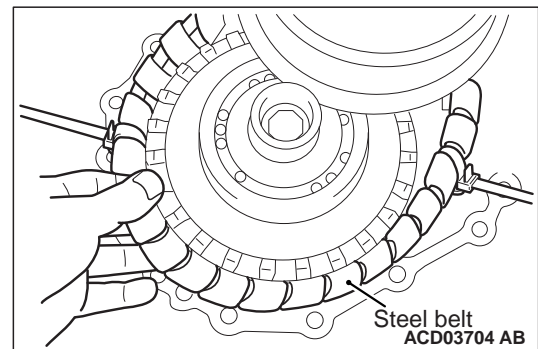
21. Protect the steel belt sliding surfaces of the pulley at four positions with the plastic cover.

NOTE: Secure the upper plastic cover with adhesive tape.

NOTE: Bend the lower plastic cover securely.



22. A second mechanic is required for this operation. One mechanic must lift the secondary pulley assembly and the special tool Secondary pulley piston compressor (MB992984) with both hands. The other mechanic must grasp the belt with one hand, and tap the side cover around the secondary pulley assembly with a plastic hammer if necessary to pull out the secondary pulley assembly from the side cover.

⚠ CAUTION

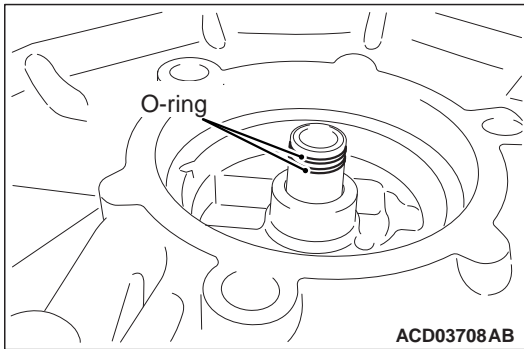
- Make sure that the hammer does not touch the steel belt to avoid damage to the belt.
- Place the removed secondary pulley assembly and the steel belt on a paper towel to avoid damage.
- Do not bend the steel belt.

23. One mechanic must slide the special tool Secondary pulley piston compressor (MB992984) toward the primary pulley with both hands with the compressor lifted. The other mechanic must grasp the steel belt to remove it from the secondary pulley assembly.

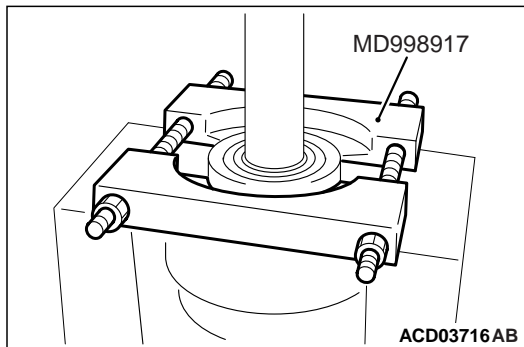
24. Remove the primary pulley assembly from the side cover.

CONTINUOUSLY VARIABLE TRANSMISSION OVERHAUL PULLEY

23-9



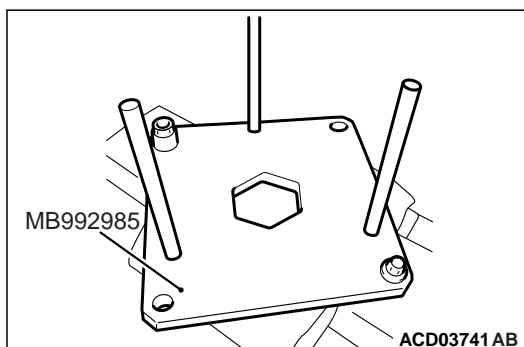
25. Remove the O-rings from the side cover as shown.



CAUTION

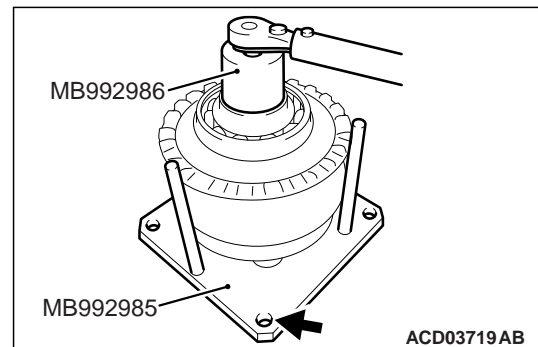
- Be careful not to engage the remover with the C-ring by mistake. Make sure that the bearing is installed securely.
- After the ball bearing is removed, the primary pulley assembly should be stored with its front side facing down to prevent tilting.

26. Use the following special tool Bearing remover (MD998917) to drive out the front ball bearing of the primary pulley assembly from the primary pulley with a press.

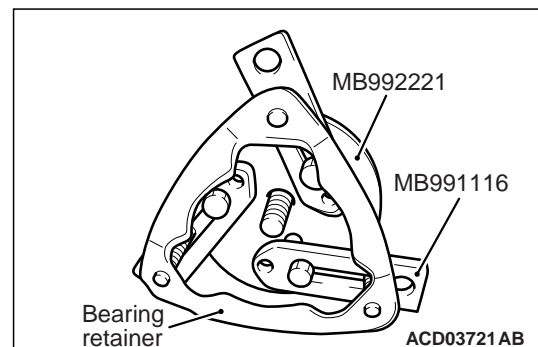
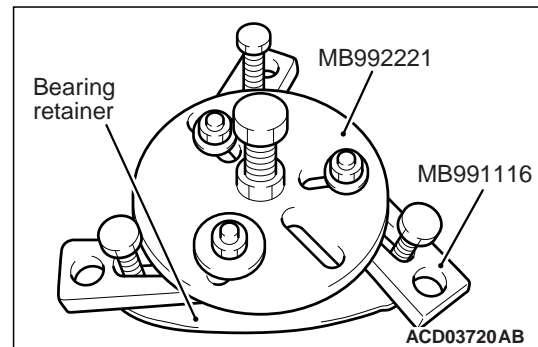


27. Secure the special tool Pulley clamp base (MB992985) by using the four holes.

28. Engage the lock nut of the primary pulley assembly with the hexagonal opening at the center of the special tool Pulley clamp base (MB992985).



29. Use the special tool Primary pulley holder (MB992986) to remove the rear lock nut of the primary pulley assembly.



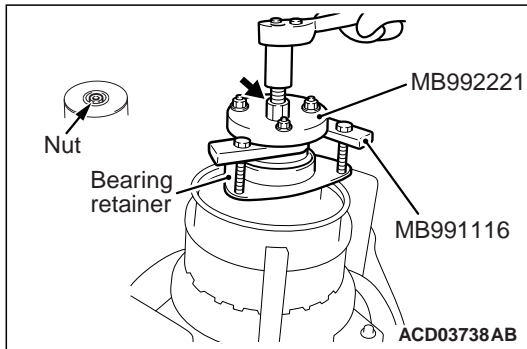
CAUTION

Use an old bolt as the bolt securing the special tool to the bearing retainer may be bent.

30. Install the following special tools to the bearing retainer side of the primary pulley assembly with nuts and bolts.

- Puller set (MB992221)
- Working base adapter (MB991116)

23-10

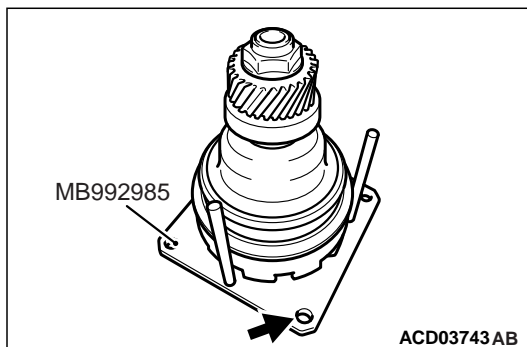
CONTINUOUSLY VARIABLE TRANSMISSION OVERHAUL
PULLEY

31. To avoid damage to the primary pulley assembly, install a nut (width across flat; 8 mm) to the top end.
32. Adjust the bearing retainers so that they depress the bearing evenly.

CAUTION

- Store the bearing retainers so that the primary one is not confused with the secondary one.
- After the ball bearing is removed, the primary pulley assembly should be stored with its front side facing down to prevent tilting.

33. Apply a ring spanner to the hexagonal portion of the special tool Puller set (MB992221) to counterhold the assembly.
34. Remove the ball bearing and the bearing retainers by tightening the center bolt.



35. Secure the special tool Pulley clamp base (MB992985) by using the four holes.
36. Place the secondary pulley assembly on the special tool Pulley clamp base (MB992985).

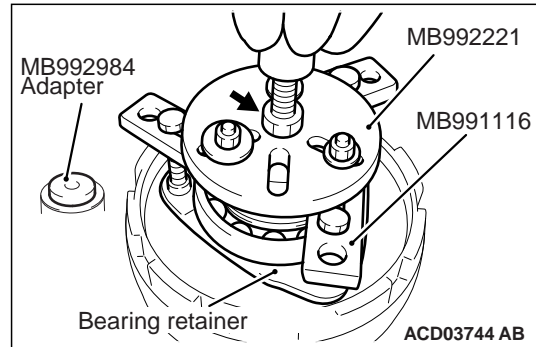
CAUTION

Note that the rear lock nut is tightened to 310 N·m.

37. Use a socket wrench (width across flat; 40 mm) to remove the rear lock nut of the secondary pulley assembly.

CAUTION

After the ball bearing and the bearing retainers are removed, the secondary pulley assembly should be stored with its rear side facing down to prevent tilting.



38. Assemble the following special tools to the rear bearing retainer of the secondary pulley assembly.
- Puller set (MB992221)
 - Working base adapter (MB991116)
39. Insert the adapter supplied with special tool Secondary pulley piston compressor (MB992984) to prevent the center bolt from touching the secondary pulley assembly directly.
40. Apply a ring spanner to the hexagonal portion of the special tool Puller set (MB992221) to counterhold the assembly.

CAUTION

Store the bearing retainers so that the primary one is not confused with the secondary one.

41. Remove the ball bearing and the bearing retainers by tightening the center bolt.

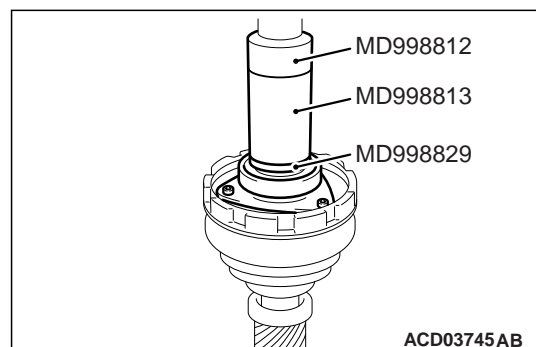
CAUTION

On completion, clean the power train, the pulley assembly and the steel belt.

REASSEMBLY

CAUTION

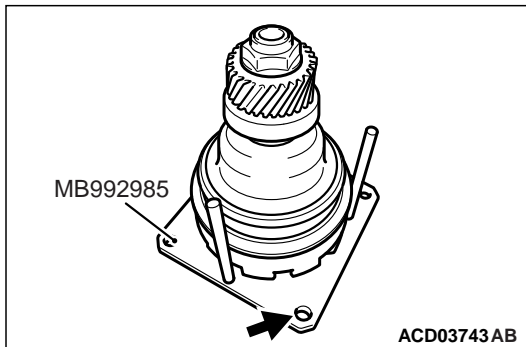
Be careful not to damage the other part(s). If you damage them, replace the CVT assembly.



CONTINUOUSLY VARIABLE TRANSMISSION OVERHAUL PULLEY

23-11

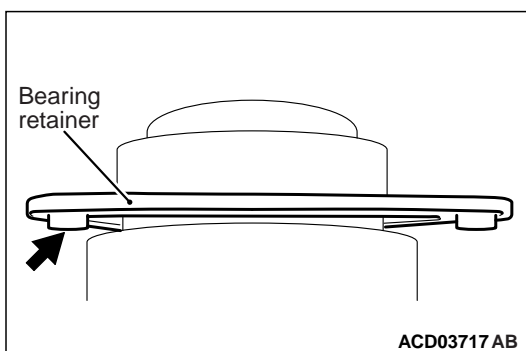
1. Install the new bearing retainer together with the ball bearing to the secondary pulley with the retainer projection facing up.
2. Use the following special tools to drive the rear ball bearing into the secondary pulley with a press.
 - Installer cap (MD998812)
 - Installer-100 (MD998813)
 - Installer adapter (MD998829)



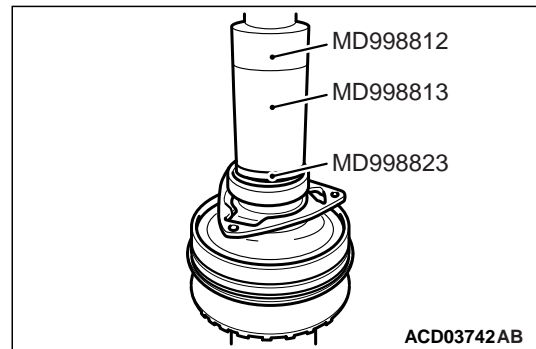
3. Install the lock nut to the secondary pulley assembly by hand.
4. Secure the special tool Pulley clamp base (MB992985) by using the four holes.
5. Engage the temporarily installed rear lock nut with the hexagonal opening of the special tool Pulley clamp base (MB992985).
6. Use a socket wrench (width across flat; 40 mm) to tighten the front lock nut of the secondary pulley assembly to the specified torque (310 N·m).

⚠ CAUTION

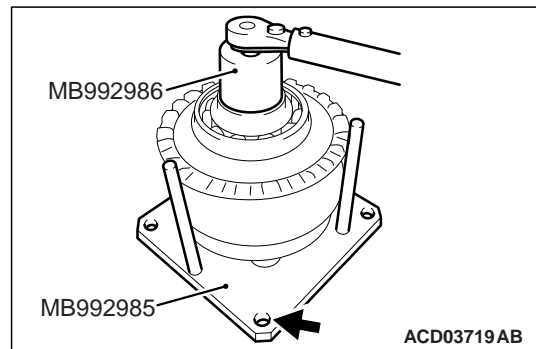
Make sure that the primary pulley assembly is separated.



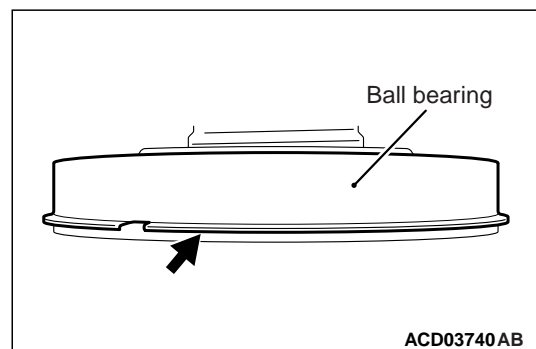
7. Install the new bearing retainer together with the ball bearing to the primary pulley assembly with the retainer projection facing down.



8. Use the following special tools to drive the rear ball bearing into the primary pulley with a press.
 - Installer cap (MD998812)
 - Installer-100 (MD998813)
 - Installer adapter (MD998823)

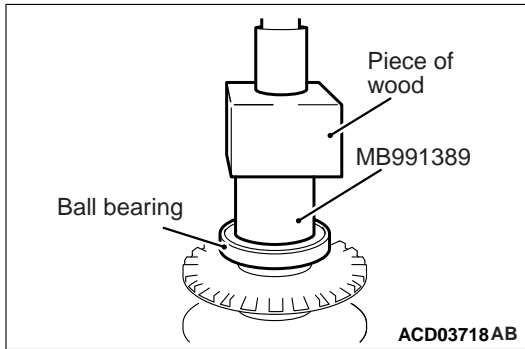


9. Install the lock nut to the primary pulley assembly by hand.
10. Secure the special tool Pulley clamp base (MB992985) by using the four holes.
11. Engage the temporarily installed rear lock nut with the hexagonal opening of the special tool Pulley clamp base (MB992985).
12. Use the special tool Primary pulley holder (MB992986) to tighten the front lock nut of the primary pulley assembly to the specified torque (130 N·m).

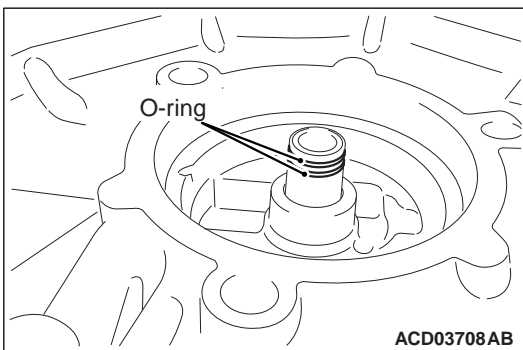


13. Set the front ball bearing to the primary pulley as shown.

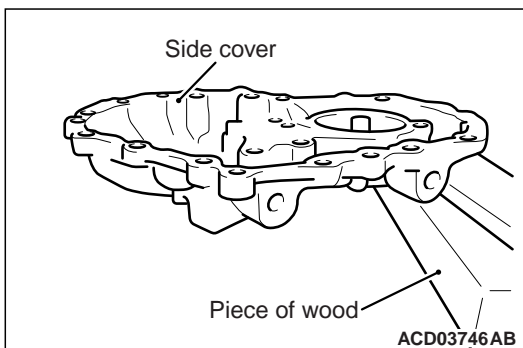
23-12

CONTINUOUSLY VARIABLE TRANSMISSION OVERHAUL
PULLEY

14. Use the special tool Bush remover base (MB991389) to drive the front ball bearing into the primary pulley with a press.

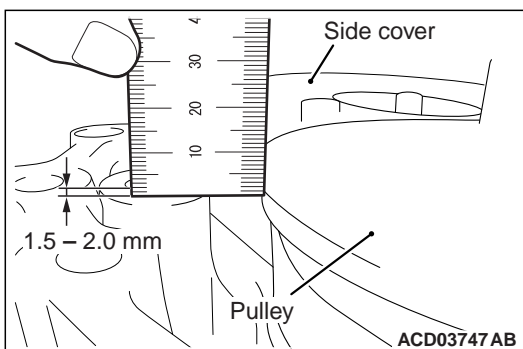


15. Install the O-rings to the side cover as shown.



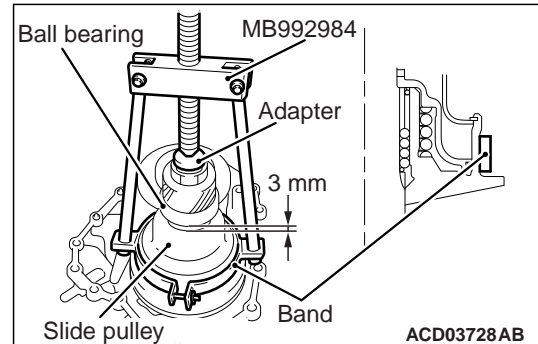
16. Use pieces of wood to place the pulley assembly so that its installation surface is horizontal.

NOTE: If it is not horizontal, you cannot install the pulley assembly easily.

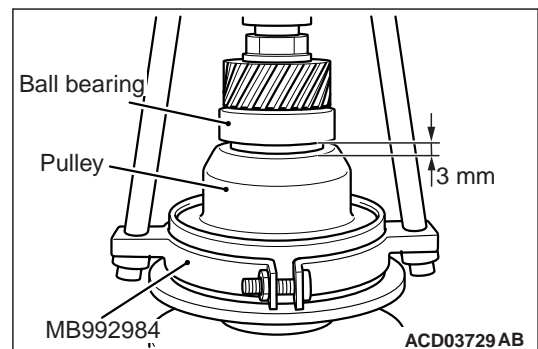


17. Install the primary pulley assembly to the side cover. The shown dimension should reach 1.5 – 2.0 mm.

Set the special tools to the secondary pulley assembly.



18. Engage the special tool Secondary pulley piston compressor (MB992984) with the secondary pulley assembly. The band of the special tool should be placed as shown.



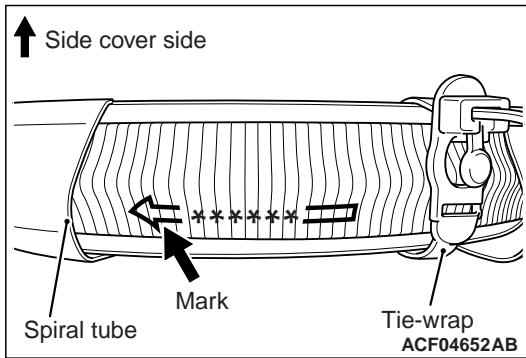
CAUTION

- Counterhold the special tools securely.
- Make sure that the band of the special tool does not slide. If so, retighten it.
- When pulling up the special tool, the clearance between the ball bearing and the pulley should not exceed 3 mm.

19. Pull up the slide pulley by tightening the special tool Secondary pulley piston compressor (MB992984). Pull it up until the clearance between the ball bearing and the pulley reaches 3 mm.

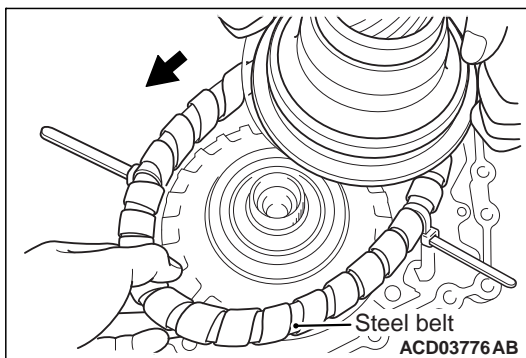
CONTINUOUSLY VARIABLE TRANSMISSION OVERHAUL PULLEY

23-13

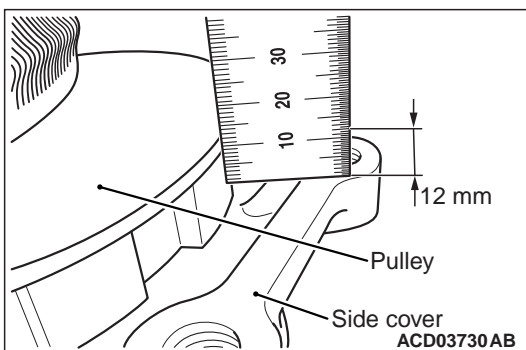


20. The other mechanic should check the rotation direction of the steel belt to apply the belt to the secondary pulley assembly.

NOTE: The mark of the steel belt being an illustration position.



21. Lift the secondary pulley assembly and the steel belt as a set, and slide the assembly toward the primary pulley to apply the steel belt to the primary pulley.



22. Install the secondary pulley assembly to the side cover.

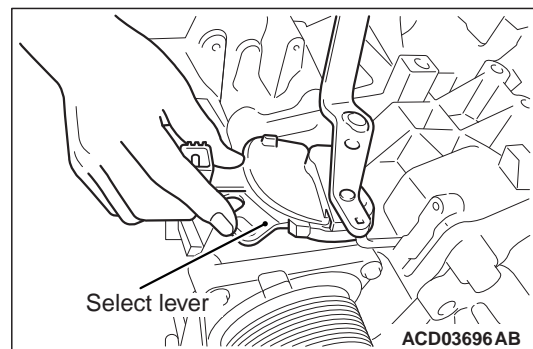
NOTE: If the ball bearing is engaged into the insertion hole, seat the secondary pulley assembly by tapping the side cover lightly with a plastic hammer.

23. The shown dimension should be approx. 12 mm.

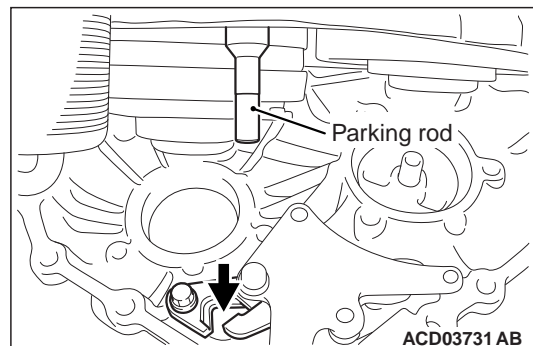
CAUTION

Be careful not to damage the steel belt and the pulley.

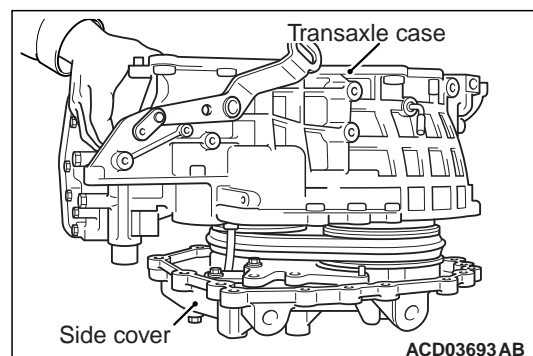
24. Remove the plastic cover from the pulley sliding surface. Then detach the spiral tube from the steel belt.
25. Pull down the slide pulley which has been lifted by the special tool Secondary pulley piston compressor (MB992984).
26. Remove the Secondary piston pulley compressor (MB992984) from the secondary pulley assembly.
27. Remove the cable tie-wraps from the steel belt.



28. Move the selector lever to the P range to pull up the parking rod.



29. Insert the parking rod as shown with the parking rod pulled up.



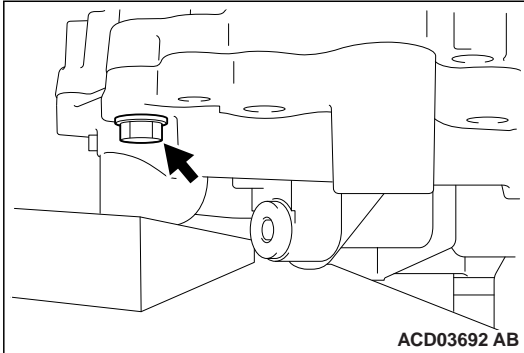
30. Install the transmission case to the side cover.

23-14

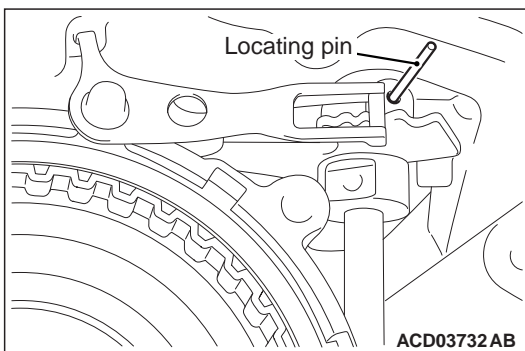
CONTINUOUSLY VARIABLE TRANSMISSION OVERHAUL
PULLEY

NOTE: If the side cover is not seated to the transmission case easily, move the select lever to the N position.

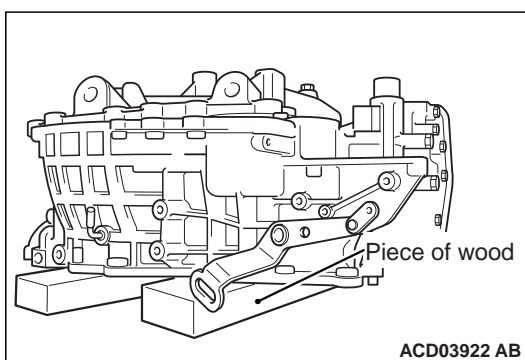
NOTE: If the side cover is not seated to the transmission case tightly, remove the side cover and repeat the installation procedure.



31. Tighten the mounting bolts as shown to install the side cover temporarily.



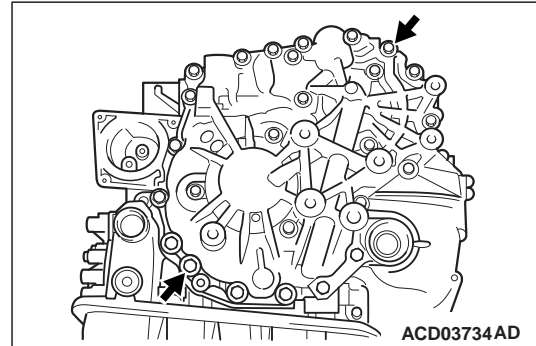
32. Check that the manual shaft locating pin has not fallen out.



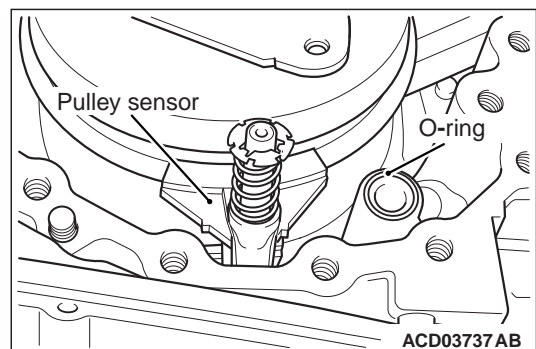
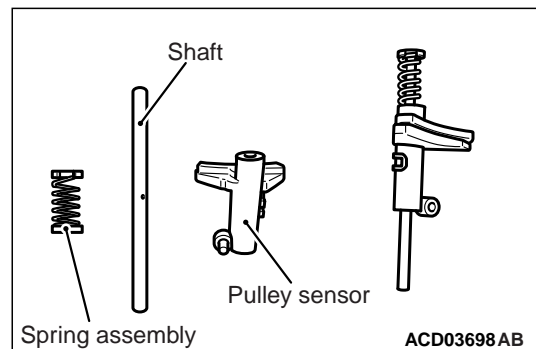
CAUTION

Place pieces of wood around the differential oil seal to protect it.

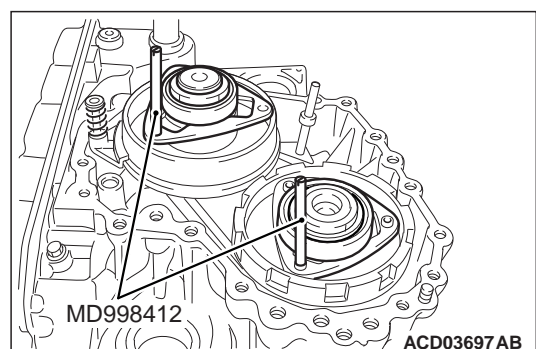
33. Place the transmission case with its engine mounting surface facing down via pieces of wood.



34. Remove the temporarily tightened bolt from the side cover, and pull away the side cover evenly.



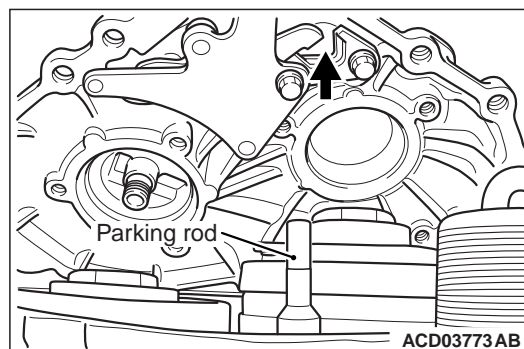
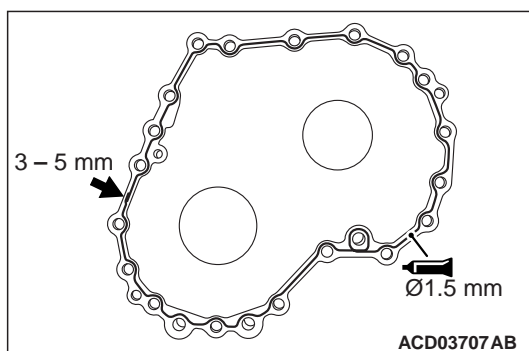
35. Install the pulley sensor, the shaft and spring assembly to the transmission case in that order.
36. Install the O-ring to the transmission case.



37. Install the special tool Guide (MD998412) to the bearing retainers of the primary pulley assembly and the secondary pulley assembly as shown.

CONTINUOUSLY VARIABLE TRANSMISSION OVERHAUL PULLEY

23-15



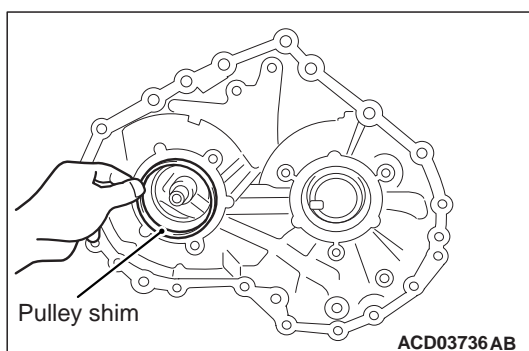
CAUTION

- The sealant application surface should be free of humidity, oil or residual sealant.
- The ends of the sealant should be midway between the bolts.

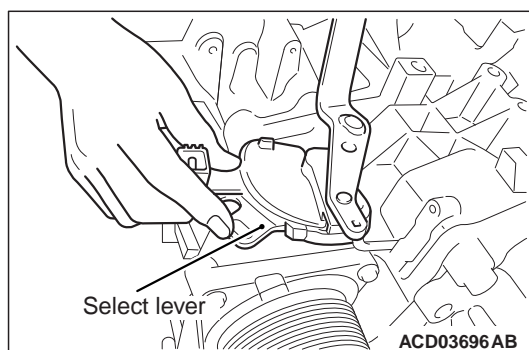
38. Apply a 1.5 mm diameter bead of sealant to the transmission case mounting surface on the side cover. The ends of the sealant bead should overlap by 3 – 5 mm.

SEALANTS

Brand name: Loctite 509



39. Apply petroleum jelly to the pulley shim, and install it to the side cover.

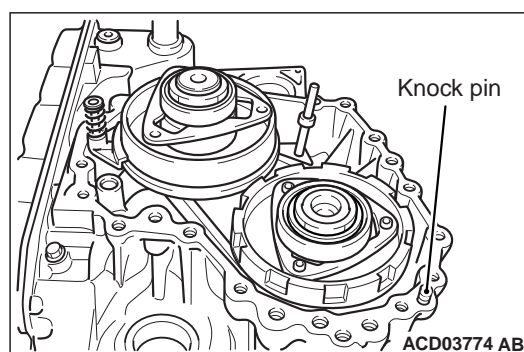


40. Move the selector lever to the P range to pull up the parking rod.

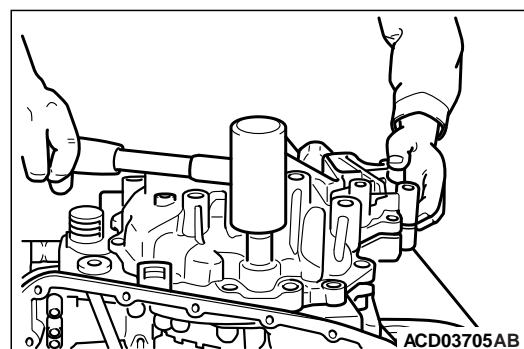
CAUTION

When installing the side cover, make sure that the sealant bead is not broken.

41. Install the side cover to the transmission case. Insert the parking rod as shown with the parking rod pulled up.
42. Make sure that the parking rod is inserted slightly. Then move the select lever to the neutral position.



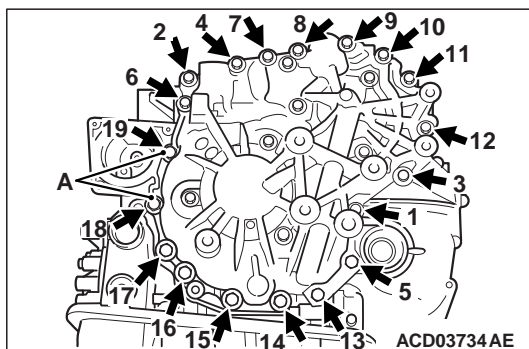
43. The pulley sensor shaft, the two ball bearings and the two knock pins should be aligned with the corresponding recesses on the side cover.



44. Tap the entire perimeter of the side cover with a plastic hammer to engage it into the transmission case.

NOTE: If the side cover is not seated to the transmission case tightly, remove the side cover and repeat the installation procedure.

23-16

CONTINUOUSLY VARIABLE TRANSMISSION OVERHAUL
PULLEY

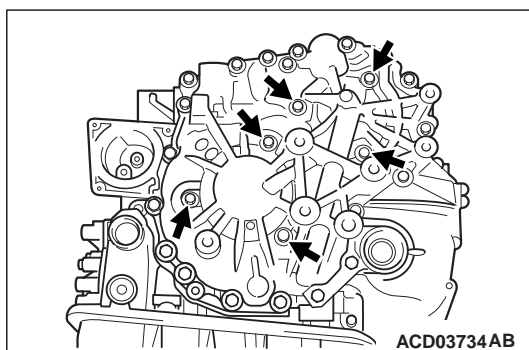
45. Tighten the side cover mounting bolts in the order shown to 45 N·m.

Bolt shank length

A: 35 mm

The others: 30 mm

46. Replace the O-rings of the bearing retainer mounting bolts.



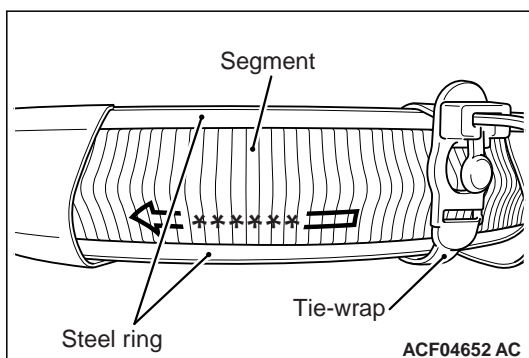
47. Tighten the bearing retainer mounting bolts to 28 N·m as shown.

CLEANING

M1233202100049

CAUTION

- Be careful not to damage a component by cleaning. Use a soft brush if necessary.
- Tie the steel belt segments and steel rings with a tie-wrap.

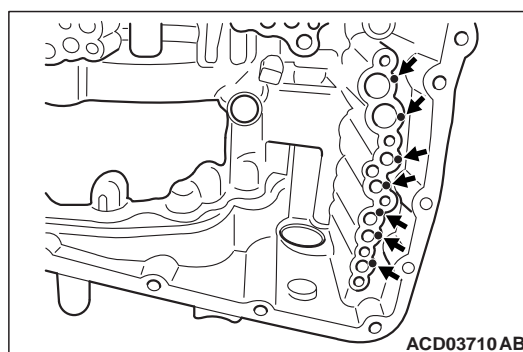
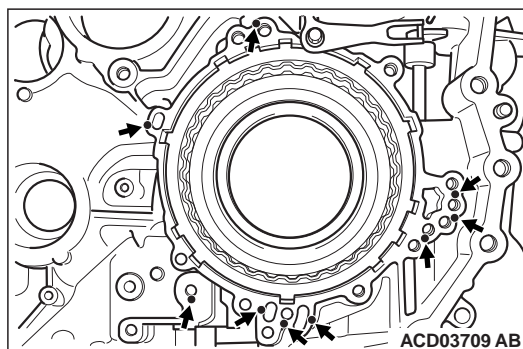


Clean the power train, the pulley assemblies and the steel belt with CVT fluid.

CAUTION

Wear safety goggles to protect your eyes from dust thrown off by compressed air.

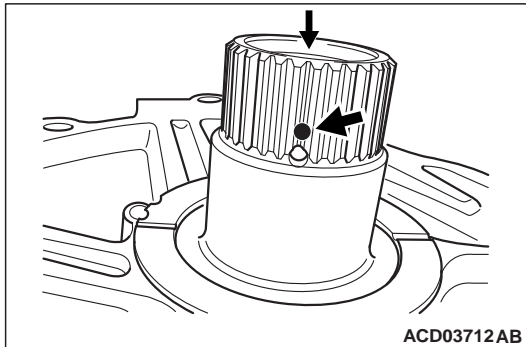
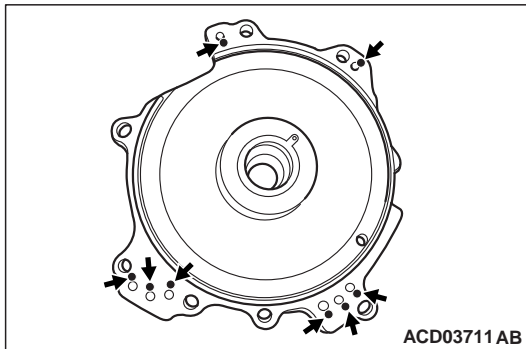
1. Clean the oil channels with compressed air.

CAUTION

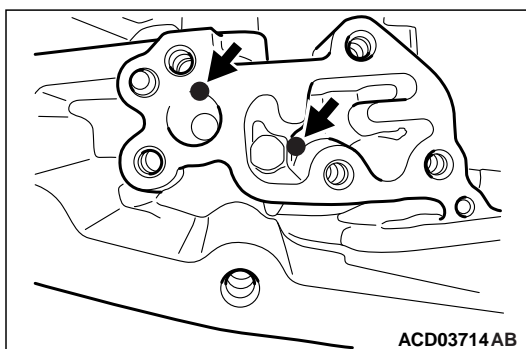
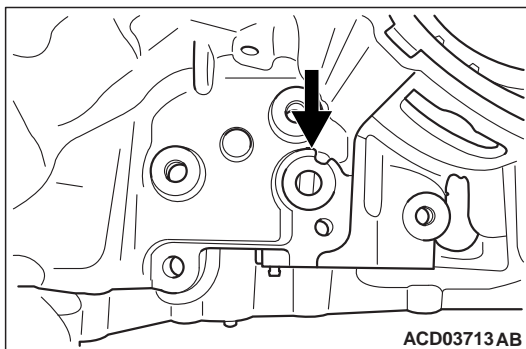
- Protect your eyes from dust thrown off by compressed air.
 - Do not stand against the control valve opening as compressed air comes out.
2. Spray a commercial-available cleaner to the shown positions of the transaxle case, and then clean them with compressed air.

CONTINUOUSLY VARIABLE TRANSMISSION OVERHAUL PULLEY

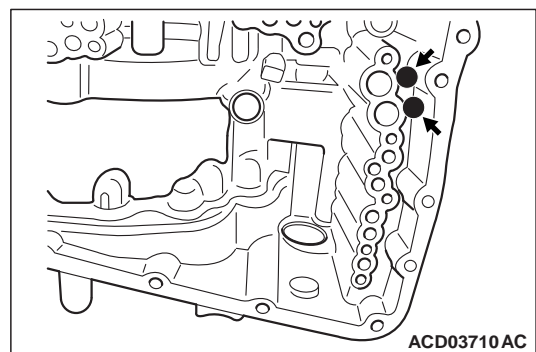
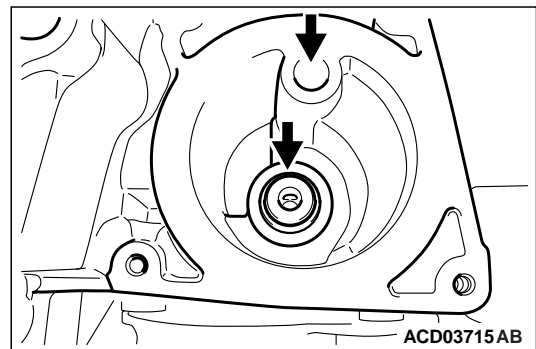
23-17



3. Spray a commercial-available cleaner to the shown positions of the dummy cover, and then clean them with compressed air.



4. Spray a commercial-available cleaner to the shown positions of the oil pump, and then clean the oil channels with compressed air.



5. Spray a commercial-available cleaner to the shown positions of the warmer, and then clean the oil channels with compressed air.