

PRECAUTIONS

See Figures 1 through 7

1. The flexible coupling is not to be disassembled. Do not re-use a flexible coupling which has been disassembled.

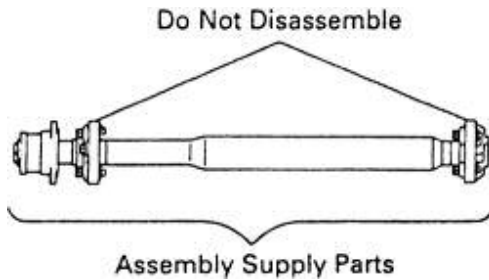


Fig. 1: The couplings are on each end of the shaft, DO NOT disassemble them

2. The driveshaft must be installed in a straight line without forcing it. The coupling is made out of rubber, so it can easily bend out of shape. When performing service related to the driveshaft, observe the following:
 - Do not disconnect the rear end of the driveshaft from the engine and the leave the shaft resting at an angle for a long period. When leaving the driveshaft disconnected for long periods, support it with a sling so that it is horizontal, in a straight line with the engine.

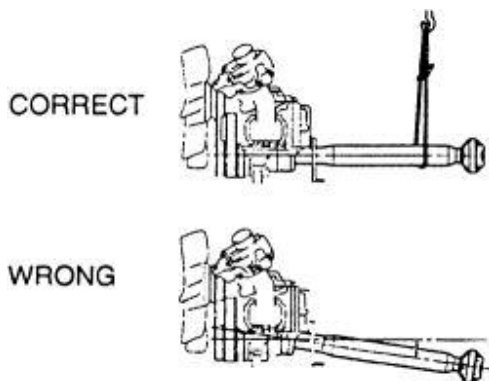


Fig. 2: Always use a sling to support the shaft if being left unattached for long periods of time

- Store the driveshaft in a straight line without bending it.

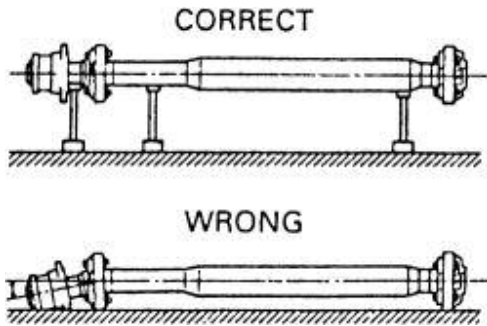


Fig. 3: Only store the shaft in a straight line without bending it

- When installing the driveshaft, visually check that the flexible coupling is not twisted or squeezed out of shape. If the coupling is out of shape, disconnect it and install it again.

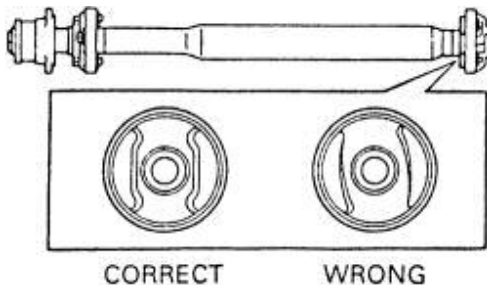


Fig. 4: When installing, make sure the shaft is not out of shape or twisted

- When installing the equipment driveshaft and drive housing, measure the installation angle of the driveshaft in front of and behind the flexible coupling. If the difference in the angle between each section is 2° or more, correct the installation angle by adjusting the position of the No. 3 equipment drive housing stay and No. 2 equipment drive housing insulator. The angle gauge is 09370-50010 or equivalent.

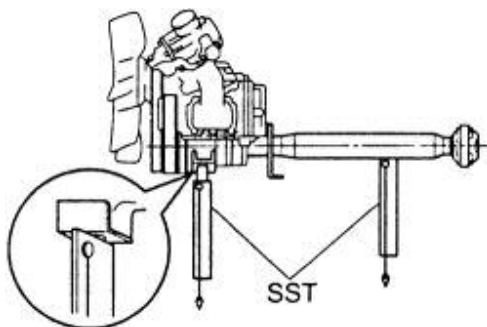


Fig. 5: Use an angle gage to measure the installation angle of the driveshaft in the front and behind the coupling

- For vehicle which have been in a serious accident, also check the body dimensions.
3. There are ground straps between the equipment drive housing and body, and between the alternator and negative battery terminal. After completing the operation, always check that the ground straps are firmly attached.

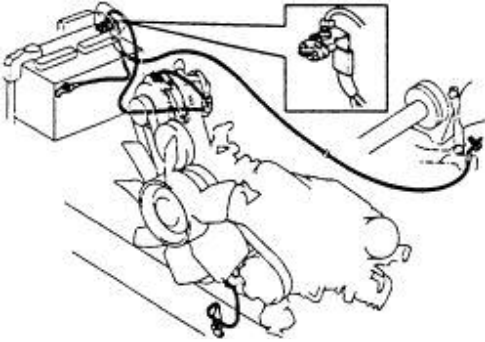


Fig. 6: Check all ground straps to see if they are all secure

4. When rotating the driveshaft or engine by hand, this can be done by inserting a service bolt 12mm diameter and 1.25mm pitch with a nut into the screw hole at the end of the driveshaft. After doing the operation, do not forget to remove the service bolt and nut. If the service bolt is left installed, the bolt head may be hit and damage the cooling fan.

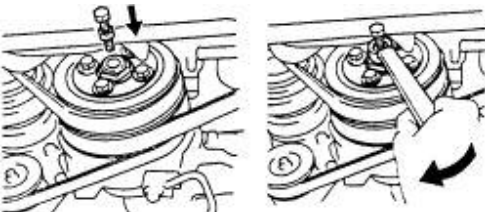


Fig. 7: Insert a service bolt and nut into the hole at the end of the shaft and turn it clockwise

REMOVAL & INSTALLATION

See Figures 8 through 28

1. Remove the air duct.

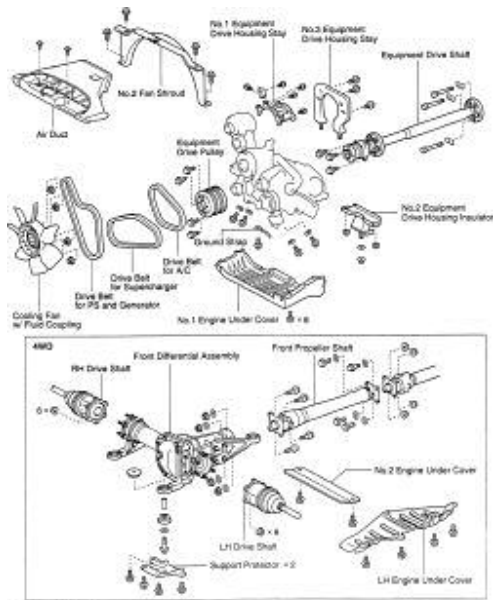


Fig. 8: View of the equipment driveshaft and related components

2. Remove the No. 2 fan shroud.
3. Remove the fluid coupling with cooling fan.
4. Remove the drive belt for the alternator and power steering pump.
5. Remove the supercharger belt.
6. Remove the engine under cover.
7. Remove the drive belt for the A/C compressor.
8. On the 4WD models, remove the front propeller shaft and front differential.
9. Remove the 4 bolts and equipment drive pulley.

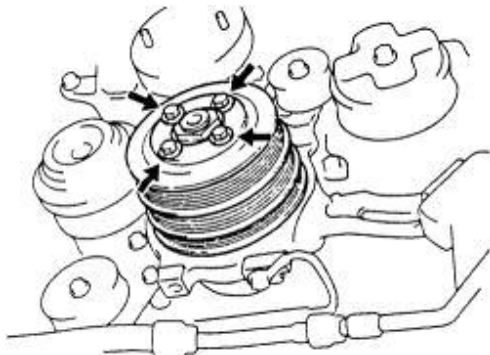


Fig. 9: Remove these four bolts retaining the equipment driveshaft pulley

10. Remove the three bolts, three nuts, plate washer, No. 3 equipment drive housing stay and No. 2 equipment drive insulator.

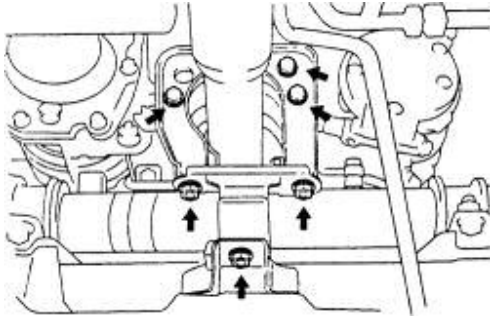


Fig. 10: Remove these bolts and nuts to extract the No. 2 equipment drive housing insulator and No. 3 housing stay

11. Remove the No. 1 intake air connector bracket.

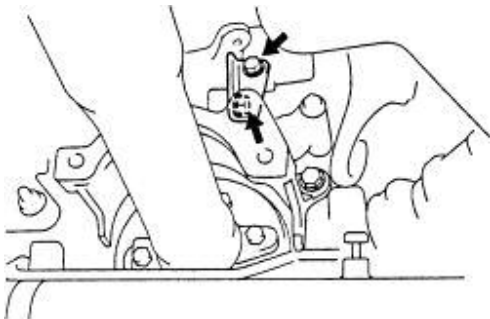


Fig. 11: Unbolt and extract the No. 1 intake air connector bracket

12. Unbolt and extract the No. 1 equipment drive housing stay.

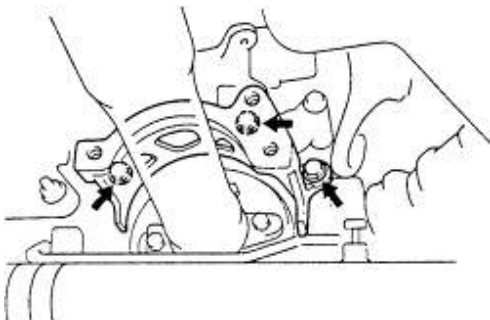


Fig. 12: Three bolts retain the No. 1 equipment drive housing stay

13. To remove the equipment driveshaft perform the following:
 - a. Paint matchmarks on the rear flexible coupling, flange and crankshaft pulley. Do not place marks using punch etc.
 - b. Install a service bolt and nut to the front end of the equipment driveshaft.

- c. Disconnect the equipment driveshaft from the ground strap.
- d. Rotate the equipment driveshaft by turning the service nut to a position where the bolts are easy to remove, then remove the 3 bolts (A) and 3 washers.

Do not remove the other 3 bolts (B).

- e. Remove the 3 bolts holding the equipment driveshaft and equipment drive housing.
- f. Remove the 4 bolts and 4 plate washers holding the right and left hand equipment drive housing insulators to the body bracket.
- g. Lift up the equipment drive housing.
- h. Rotate the equipment driveshaft approximately 60° clockwise and remove it from the rear end of the equipment drive housing.
- i. Lower the equipment drive housing and set it in the body bracket.

Refer to the cautions earlier in this section.

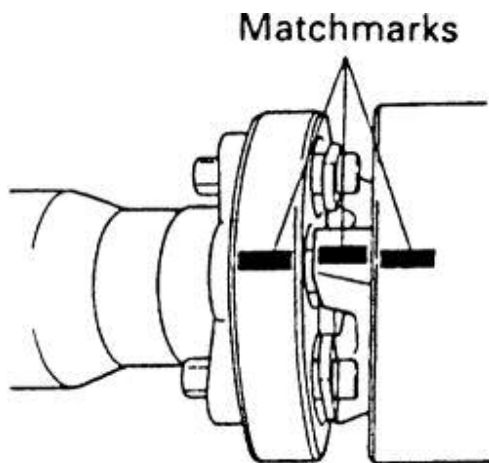


Fig. 13: Paint matchmarks on the rear coupling, flange and crank pulley

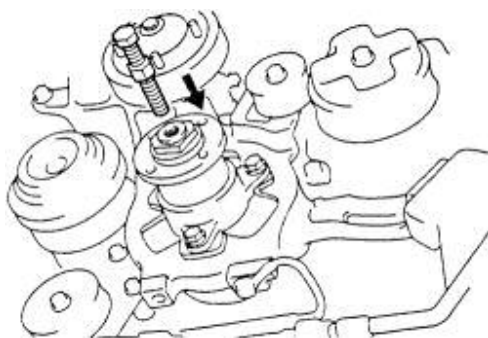


Fig. 14: Install a special service bolt and nut to the front of the driveshaft

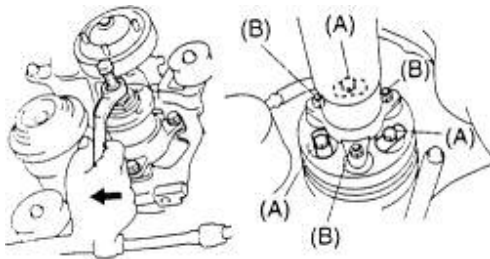


Fig. 15: Rotate the shaft and remove ONLY bolts A and washers

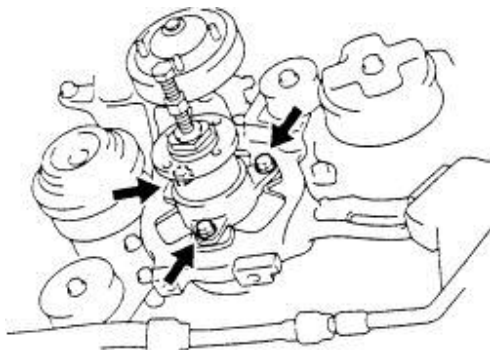


Fig. 16: Unbolt the equipment driveshaft and drive housing

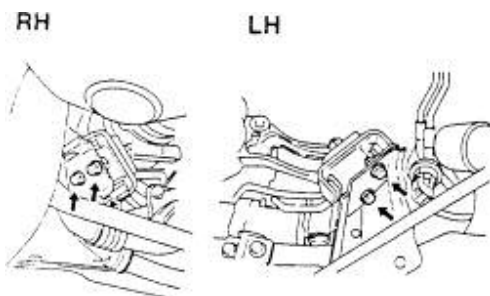


Fig. 17: Unbolt and extract the right and left drive housing insulators

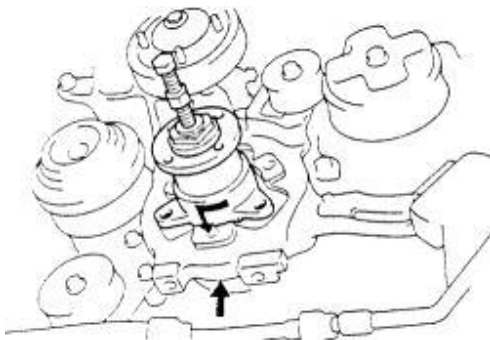


Fig. 18: Lift up and rotate approximately 60° clockwise and remove the housing

14. Inspect the driveshaft.

- a. Rotate the flange of the equipment driveshaft bearing and check that the equipment driveshaft bearing rotates smoothly and without any strange noise.
- b. Check the driveshaft runout, maximum should be 0.031 inch (0.8mm).
- c. Visually check that the coupling has no damage, leaks or silicone oil leakage.

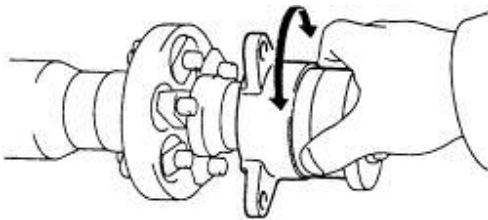


Fig. 19: Rotate the flange and check the bearing rotation

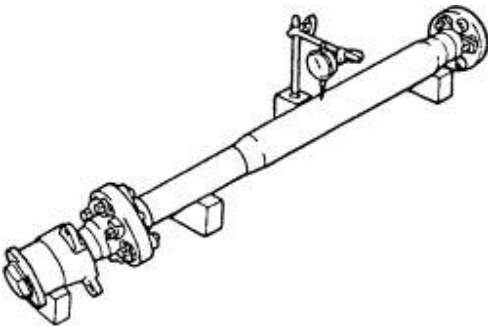


Fig. 20: Using a dial indicator to check the runout of the equipment driveshaft

To install:

15. Lift up the equipment drive housing. Insert the driveshaft through the hole at the rear of the equipment drive housing and set it to the crankshaft pulley and equipment drive housing.

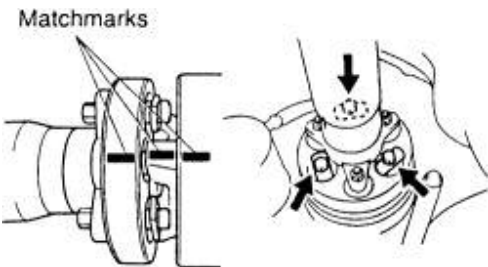


Fig. 21: Align the matchmarks and install the 3 washers with bolts to the shaft coupling

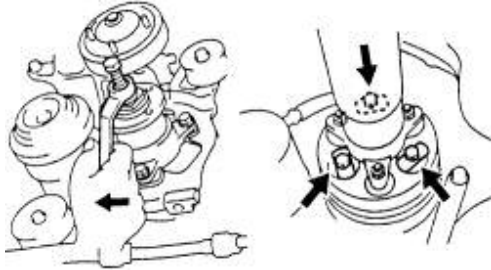


Fig. 22: Rotate the shaft using the service nut enough to tighten each one of the bolts

- a. Align the matchmarks of the coupling and crankshaft pulley which were placed at removal. Lower the driveshaft housing. Temporarily install the 3 washers and bolts.
- b. Install and tighten the 3 bolts holding the driveshaft to the housing to 38 ft. lbs. (51 Nm).
- c. Rotate the driveshaft to the position where it is easy to tighten the 3 washers and 3 bolts on the rear side. Tighten the 3 bolts to 25 ft. lbs. (33 Nm)
- d. Remove the service bolt and nut installed on the front end of the driveshaft.
- e. Install the 4 plate washers and 4 bolts holding the right and left side No. 1 equipment drive housing insulators to the body bracket to 13 ft. lbs. (18 Nm).
- f. Connect the ground strap to the housing and tighten to 24 ft. lbs. (33 Nm).

16. Install the plate washer and nut holding the body bracket to the insulator. Tighten to 18 ft. lbs. (25 Nm).

The stopper must be secured against the body bracket. The equipment driveshaft must not be twisted.

17. Check the alignment and gap of the insulators as follows:

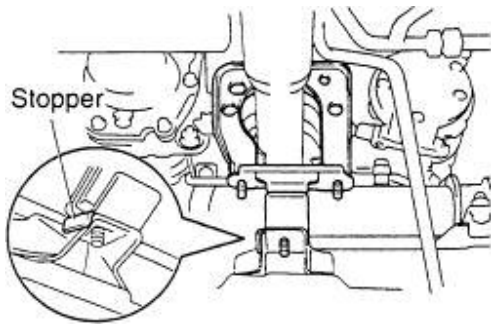


Fig. 23: Place the insulator and stay on the body bracket ...

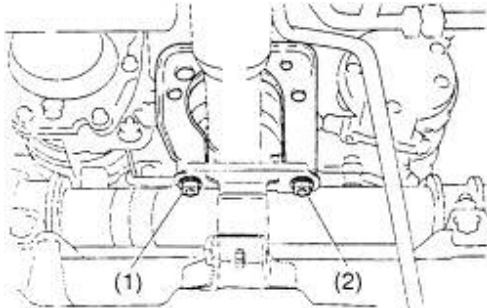


Fig. 24: ... and tighten the nuts in several passes in the order shown

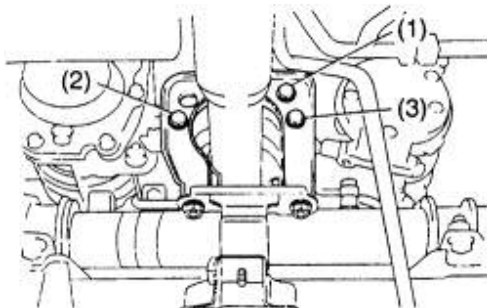
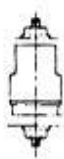
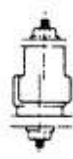


Fig. 25: Attach the No. 3 housing stay to the No. 1 housing stay and tighten ins several passes in the order shown

Front ←



CORRECT



WRONG



WRONG

Fig. 26: Align the insulators at the front correctly

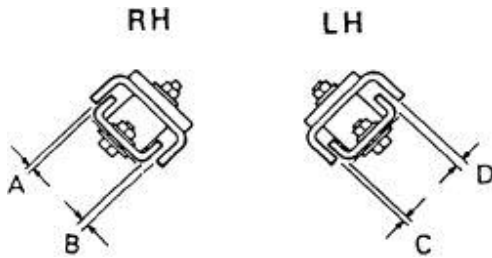


Fig. 27: Adjust the No. 1 housing insulator gaps to specification

mm (in.)			
A	B	C	D
0.5 - 4.5 (0.020 - 0.177)	6.2 - 10.2 (0.244 - 0.402)	0.2 - 4.2 (0.008 - 0.165)	7.5 - 10.5 (0.295 - 0.413)

Fig. 28: No. 1 housing insulator specification chart

- a. Check the insulators are correctly aligned at the front. If they are not correctly aligned, adjust the position of the insulators.
 - b. Check that gaps A, B, C and D shown of the No. 1 equipment drive housing insulator are as specified.
 - A-0.020-0.177 inch (0.5-4.5mm)
 - B-0.0244-0.402 inch (6.2-10.2mm)
 - C-0.008-0.165 inch (0.2-4.2mm)
 - D-0.295-0.413 inch (7.5-10.5mm)
 - c. If the gaps are not as specified, adjust the position of the insulator.
18. Check the installation angle of the driveshaft. Refer to the precautions earlier in this section.
 19. Install the equipment drive pulley and tighten the bolts to 21 ft. lbs. (39 Nm).
 20. On the 4WD models, install the front differential and front propeller shaft.
 21. Install and adjust the A/C, supercharger, alternator/power steering pump belts.
 22. Install the fluid coupling with cooling fan and tighten the nuts to 10 ft. lbs. (13.5 Nm).
 23. Install the No. 2 fan shroud.
 24. Install the air duct.
 25. Check the installation of the negative battery cable.
 26. Install the No. 1 engine under cover.
 27. Start the engine and check for abnormal noises or vibrations.

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