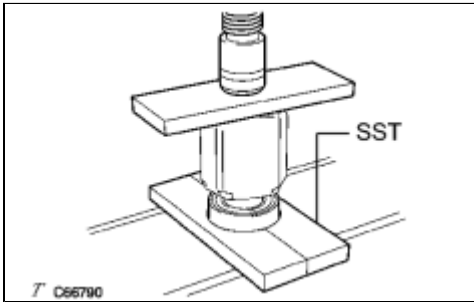


Last Modified: 7-13-2007		1.6 A
Service Category: Drivetrain	Section: Drive Shaft/Propeller Shaft	
Model Year: 2008	Model: ES350	Doc ID: RM000001IWB00LX
Title: DRIVE SHAFT: FRONT DRIVE SHAFT: REASSEMBLY (2008 ES350)		

REASSEMBLY

1. INSTALL FRONT DRIVE SHAFT BEARING



(a) Install a new bearing bracket hole snap ring to the front drive shaft assembly RH.

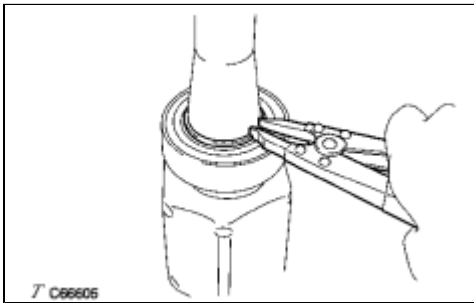
(b) Using SST and a steel plate, install a new front drive shaft bearing.

SST: 09527-30010

SST: 09527-10011

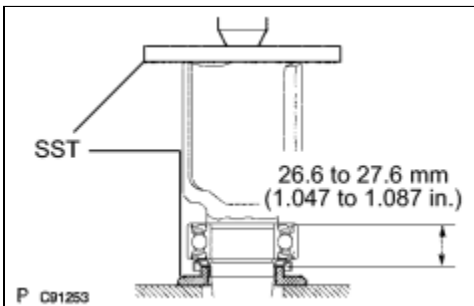
NOTICE:

The bearing should be completely installed.



(c) Using a snap ring expander, install a new drive shaft hole snap ring.

2. INSTALL FRONT DRIVE SHAFT DUST COVER



(a) Using SST and a press, install a new drive shaft dust cover.

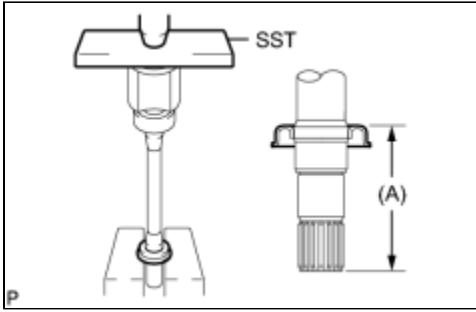
SST: 09726-40010

SST: 09527-10011

NOTICE:

- The dust cover should be completely installed.
- Be careful not to damage the dust cover.

3. INSTALL FRONT DRIVE SHAFT DUST COVER RH



- (a) Using SST and a press, install a new drive shaft dust cover RH until distance (A) from the tip of the center drive shaft to the drive shaft dust cover RH meets the specification.

SST: 09527-10011

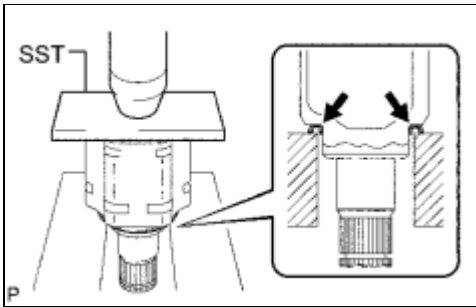
Distance (A):

110.0 to 111.0 mm (4.3307 to 4.3701 in.)

NOTICE:

- The dust cover should be completely installed.
- Be careful not to damage the dust cover.

4. INSTALL FRONT DRIVE SHAFT DUST COVER LH



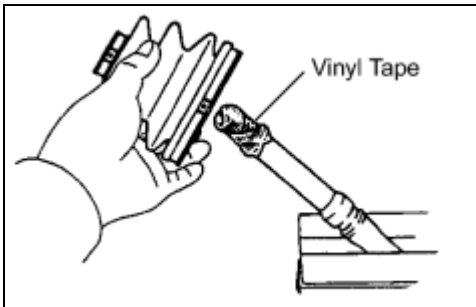
- (a) Using SST and a press, install a new drive shaft dust cover LH.

SST: 09527-10011

NOTICE:

- The dust cover should be completely installed.
- Be careful not to damage the dust cover.

5. INSTALL FRONT AXLE OUTBOARD JOINT BOOT



- (a) Hold the drive shaft lightly in a vise between aluminium plates.

HINT:

Before installing the boots, wrap the spline of the drive shaft with vinyl tape to prevent the boots from being damaged.

- (b) Temporarily install a new outboard joint boot to the drive shaft with the 2 clamps.

- (c) Pack the outboard joint shaft and boot with grease.

Grease capacity:

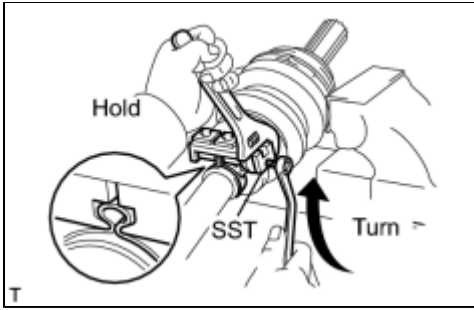
164 to 184 g (5.8 to 6.5 oz.)

6. INSTALL FRONT AXLE OUTBOARD JOINT BOOT CLAMP

- (a) Hold the drive shaft lightly in a vise between aluminum plates.

NOTICE:

Do not overtighten the vise.



(b) Install the 2 outboard joint boot clamps onto the boot.

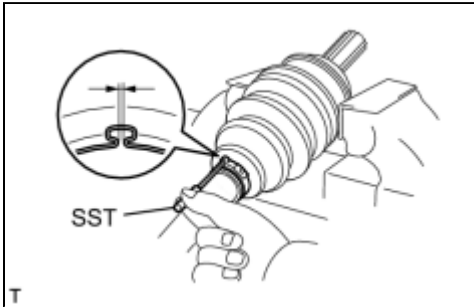
(c) Place SST onto the outboard joint boot clamp.

SST: 09521-24010

(d) Tighten the SST so that the outboard joint boot clamp is pinched.

NOTICE:

Do not overtighten the SST.



(e) Using SST, measure the clearance of the outboard joint boot clamp.

SST: 09240-00020

Clearance:

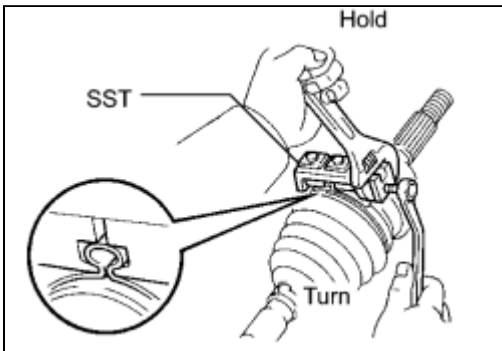
0.5 to 1.5 mm (0.0197 to 0.0591 in.)

NOTICE:

If the measured value is greater than the specified value, retighten the clamp.

7. INSTALL NO. 2 FRONT AXLE OUTBOARD JOINT BOOT CLAMP

(a) Install the No. 2 outboard joint boot clamp onto the boot.



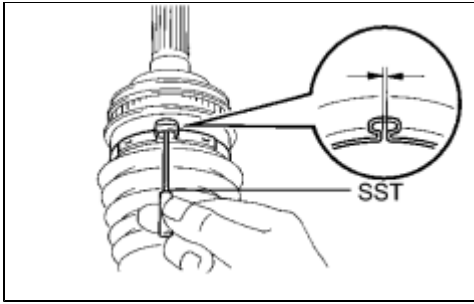
(b) Place SST onto the No. 2 outboard joint boot clamp.

SST: 09521-24010

(c) Tighten the SST so that the No. 2 outboard joint boot clamp is pinched.

NOTICE:

Do not overtighten the SST.



(d) Using SST, measure the clearance of the No. 2 outboard joint boot clamp.

SST: 09240-00020

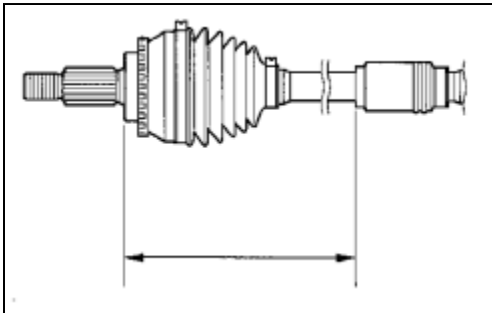
Clearance:

0.5 to 1.5 mm (0.0197 to 0.0591 in.)

NOTICE:

If the measured value is greater than the specified value, retighten the clamp.

8. INSTALL FRONT DRIVE SHAFT DAMPER LH



(a) Install the drive shaft damper to the drive shaft.

(b) Make sure that the damper is on the shaft groove.

(c) Set the distance as specified below.

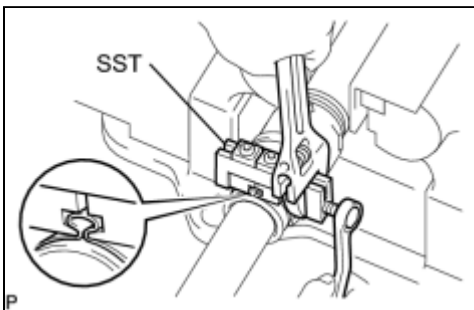
Distance:

228.0 to 232.0 mm (8.976 to 9.134 in.)

(d) Install the drive shaft damper clamp onto the drive shaft damper.

NOTICE:

Be sure to install the clamp in the correct position.



(e) Place SST onto the drive shaft damper clamp.

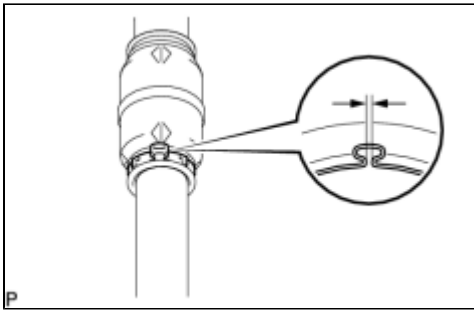
SST: 09521-24010

(f) Tighten the SST so that the clamp is pinched.

NOTICE:

Do not overtighten the SST.

(g) Using SST, measure the clearance of the drive shaft damper clamp.



SST: 09240-00020

Clearance:

0.5 to 1.5 mm (0.0197 to 0.0591 in.)

NOTICE:

If the measured value is greater than the specified value, retighten the clamp.

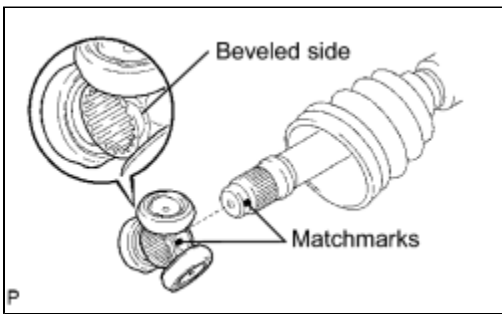
9. INSTALL FRONT DRIVE SHAFT DAMPER RH

(a) Install the front drive shaft damper RH.

HINT:

Perform the same procedures as for the front drive shaft damper LH.

10. INSTALL FRONT DRIVE INBOARD JOINT ASSEMBLY



(a) Temporarily install a new inboard joint boot to the drive shaft with the 2 clamps.

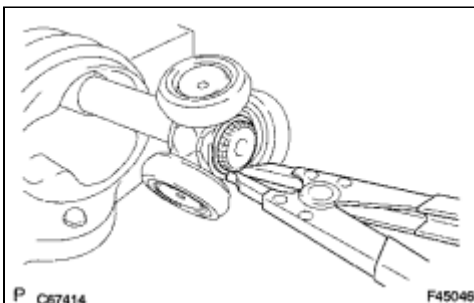
(b) Place the beveled side of the tripod joint axial spline toward the outboard joint shaft.

(c) Align the matchmarks.

(d) Using a brass bar and hammer, tap in the tripod joint to the outboard joint shaft.

NOTICE:

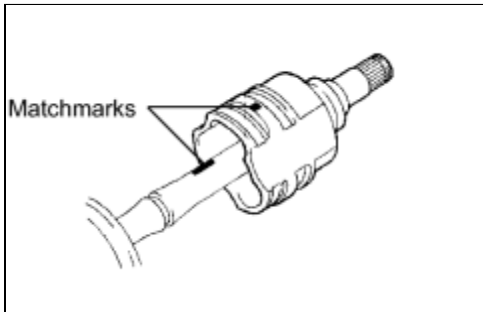
- Do not tap the roller.
- Be sure to install the tripod joint assembly in the correct direction.



(e) Using a snap ring expander, install a new shaft snap ring.

(f) Coat the outboard joint shaft and boot with grease.

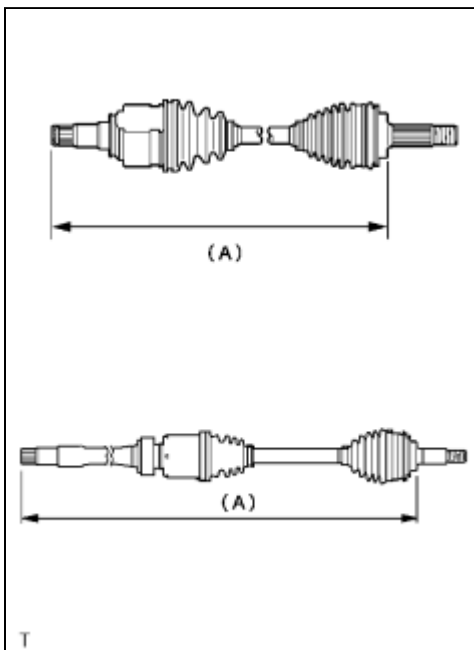
Grease capacity:
155 to 175 g (5.5 to 6.2 oz.)



(g) Align the matchmarks and install the inboard joint assembly to the outboard joint shaft assembly.

11. INSTALL FRONT AXLE INBOARD JOINT BOOT

(a) Install the inboard joint boot to the inboard joint assembly.



(b) Check whether the drive shaft dimensions are within the following specifications.

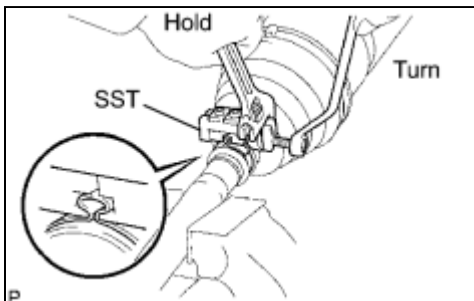
HINT:

The following table shows dimension (A) of the drive shaft.

Dimension (A) :

LH	585.5 to 589.5 mm (23.05 to 23.21 in.)
RH	904.4 to 908.4 mm (35.61 to 35.76 in.)

12. INSTALL FRONT AXLE INBOARD JOINT BOOT CLAMP



(a) Hold the drive shaft lightly in a vise between aluminum plates.

NOTICE:

Do not overtighten the vise.

(b) Install the 2 inboard joint boot clamps onto the boot.

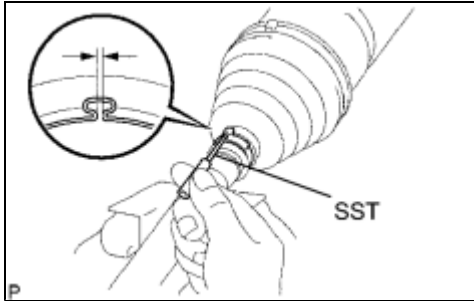
(c) Place SST onto the inboard joint boot clamp.

SST: 09521-24010

(d) Tighten the SST so that the inboard joint boot clamp is pinched.

NOTICE:

Do not overtighten the SST.



(e) Using SST, measure the clearance of the inboard joint boot clamp.

SST: 09240-00020

Clearance:

0.5 to 1.5 mm (0.0197 to 0.0591 in.)

NOTICE:

If the measured value is greater than the specified value, retighten the clamp.

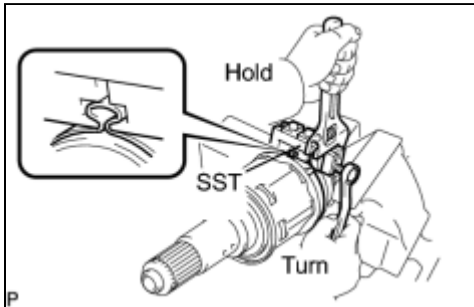
13. INSTALL NO. 2 FRONT AXLE INBOARD JOINT BOOT CLAMP

(a) Hold the inboard joint shaft assembly in a vise between aluminium plates.

NOTICE:

Do not overtighten the vise.

(b) Install the No. 2 front axle inboard joint boot clamp onto the boot.



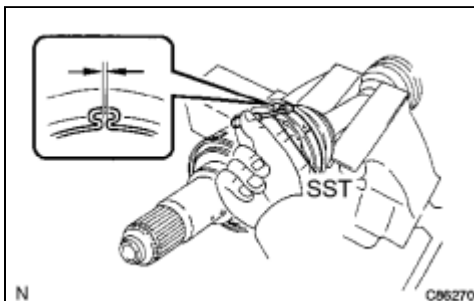
(c) Place SST onto the No. 2 front axle inboard joint boot clamp.

SST: 09521-24010

(d) Tighten the SST so that the No. 2 front axle inboard joint boot clamp is pinched.

NOTICE:

Do not overtighten the SST.



(e) Using SST, measure the clearance of the No. 2 front axle inboard joint boot clamp.

SST: 09240-00020

Clearance:

0.5 to 1.5 mm (0.0197 to 0.0591 in.)

NOTICE:

If the measured value is greater than the specified value, retighten the clamp.

14. INSTALL FRONT DRIVE SHAFT LH HOLE SNAP RING

(a) Install a new hole snap ring.

15. INSPECT FRONT DRIVE SHAFT ASSEMBLY

