

ADJUSTMENT OF STEERING KNUCKLE ALIGNMENT AND BEARING PRELOAD

NOTE: Whenever the axle housing or the steering knuckle is replaced, the steering knuckle alignment and knuckle bearing preload are to be adjusted with the SST.

SST 09634-60013

1. ADJUST BEARING PRELOAD

(a) Using SST, remove the oil seal.

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(b) Coat the knuckle bearings lightly with MP grease.

(c) Mount the SST on the housing with the bearings.

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(d) Add preload to the bearings by tightening nut F.

Using a spring tension gauge, measure the preload.

Preload (rotating): 3.0 – 6.0 kg

(6.6 – 13.2 lb, 29 – 59 N)

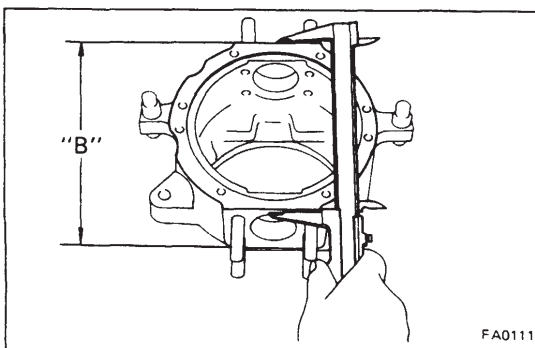
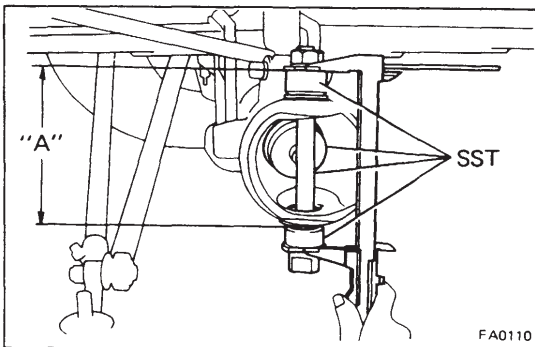
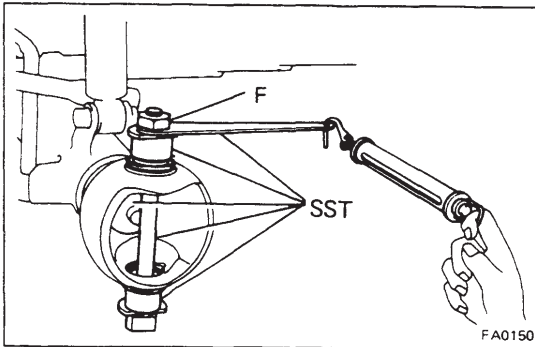
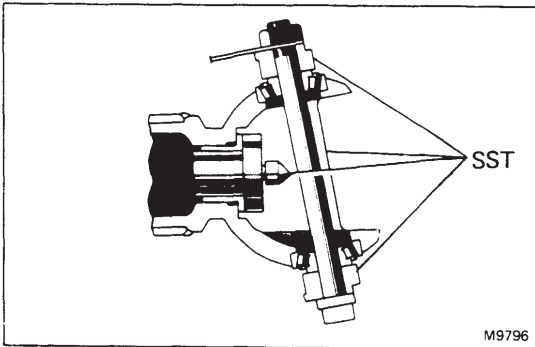
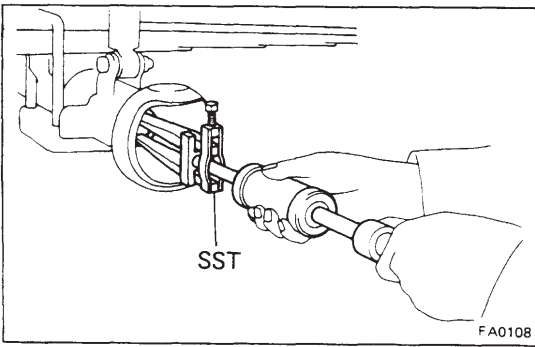
(e) Measure distance "A".

(f) Measure distance "B".

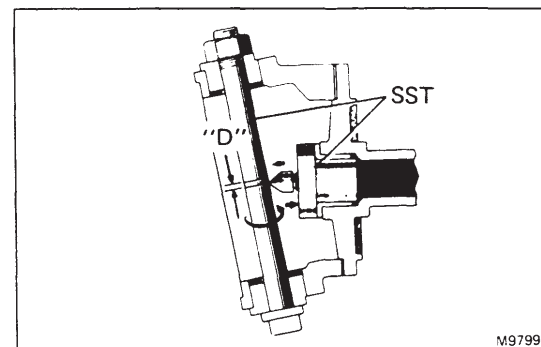
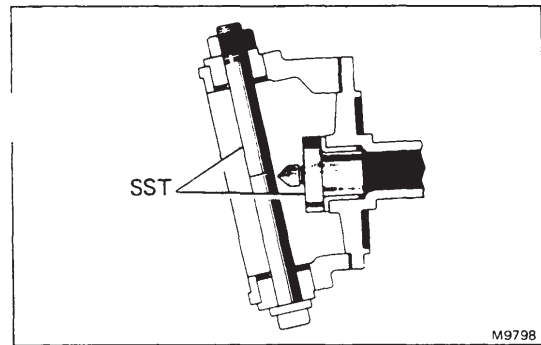
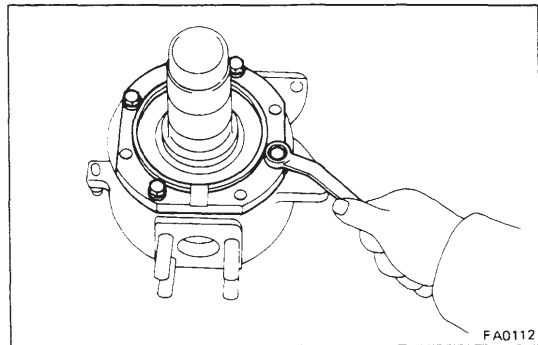
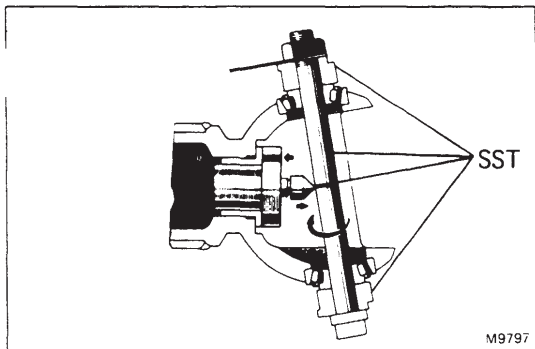
The difference between "A" and "B" is the total adjusting shim thickness that is required to maintain the correct bearing preload.

TOTAL SHIM THICKNESS "C"

$$"C" = "A" - "B"$$



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2. ADJUST STEERING KNUCKLE ALIGNMENT

- (a) Apply a light coat of red lead on the center part of rod D.
- (b) Press adapters A and B against the housing, press plug C against the rod D, and turn lever G so that a line will be scribed on rod D.

- (c) Temporarily install the spindle to the knuckle. Tighten the bolt with two washers.

- (d) Dismount the SST from the housing , and mount it on the knuckle.

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NOTE: Use care not to erase the scribed line when dismounting and remounting the SST.

Make sure that rod D is in the same vertical direction that it was when mounted on the housing.

- (e) Turn rod D and scribe another line on it. Measure distance "D" between the two scribed lines.

The thickness of the steering knuckle lower bearing shim "E" will be the distance "D" less 3 mm (0.12 in.).

LOWER SHIM THICKNESS "E"

$$"E" = "D" - 3 \text{ mm}$$

The thickness of the steering knuckle upper bearing shim "F" will be the difference between the total adjusting shim thickness "C" and shim thickness "E".

UPPER SHIM THICKNESS "F"

$$"F" = "C" - "E"$$

NOTE: Compare "E" and "F" with the thicknesses of the shims removed at disassembly. If there is considerable difference, remeasure "E" and "F".

Adjusting shim thickness mm (in.)

Thickness
0.1 (0.004)
0.2 (0.008)
0.5 (0.020)
1.0 (0.039)