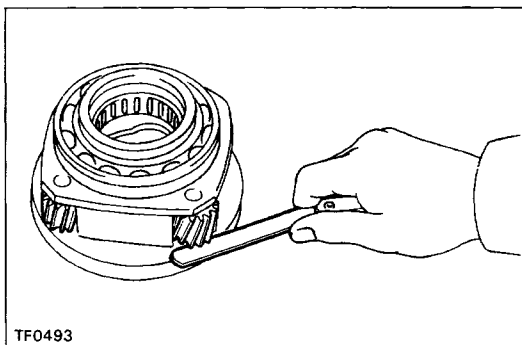
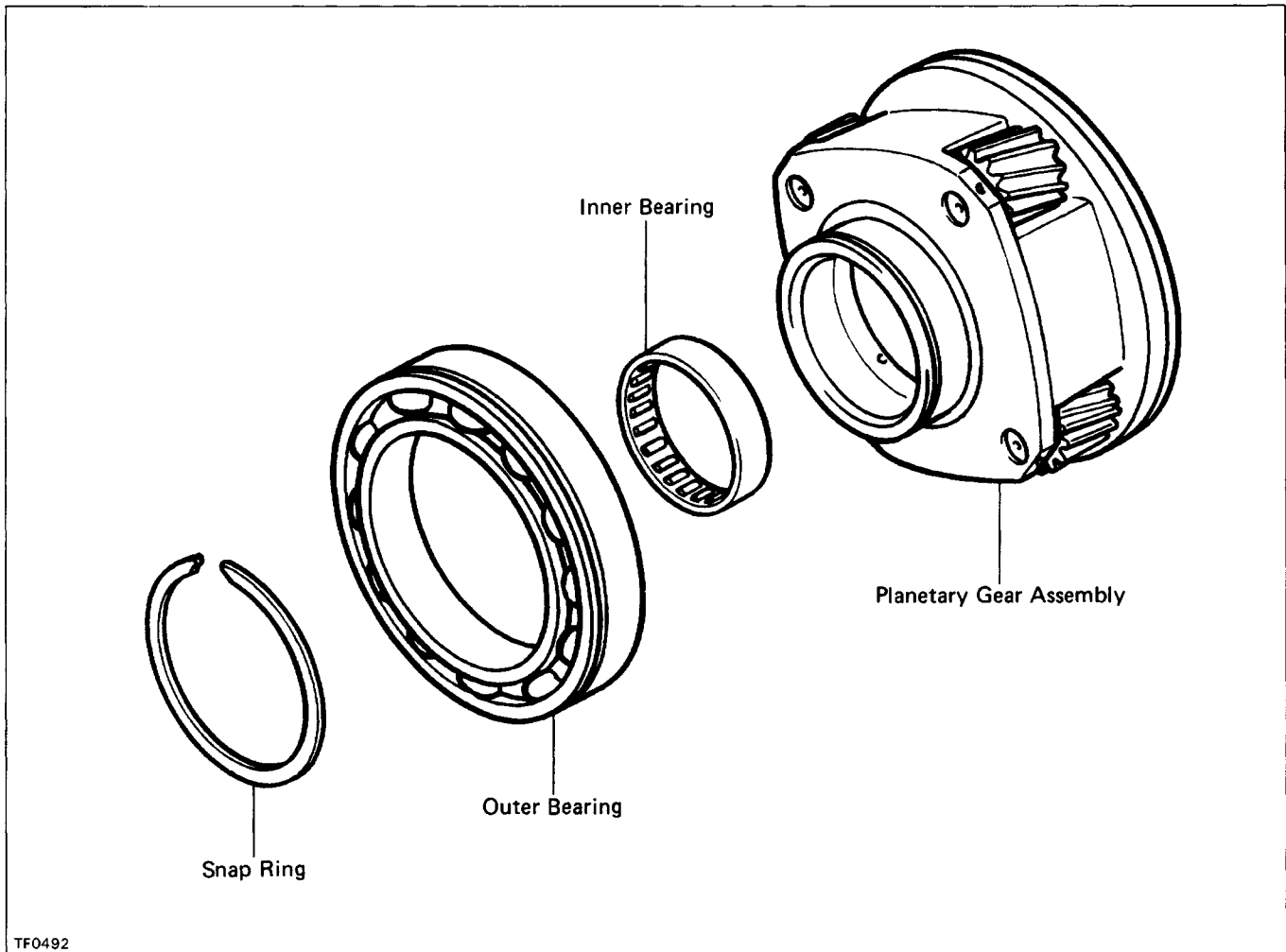


# Planetary Gear COMPONENTS



## INSPECTION OF PLANETARY GEAR

### 1. MEASURE PLANETARY PINION GEAR THRUST CLEARANCE

Using a feeler gauge, measure the planetary pinion gear thrust clearance.

**Standard clearance: 0.11 – 0.86 mm**  
(0.0043 – 0.0339 in.)

**Maximum clearance: 0.86 mm (0.0339 in.)**

If the clearance exceeds the limit, replace the planetary gear assembly.

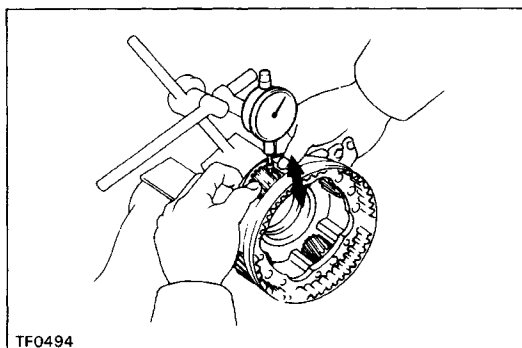
### 2. CHECK OIL CLEARANCE OF PLANETARY PINION GEAR

Using a dial indicator, measure the oil clearance of the planetary pinion gear.

**Standard clearance: 0.009 – 0.038 mm**  
(0.0004 – 0.0015 in.)

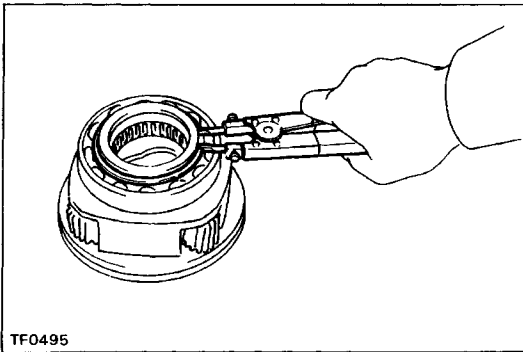
**Maximum clearance: 0.038 mm (0.0015 in.)**

If the clearance exceeds the limit, replace the planetary gear assembly.

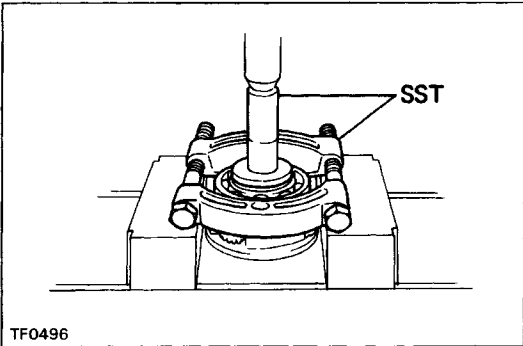


**3. IF NECESSARY, REPLACE PLANETARY GEAR OUTER BEARING**

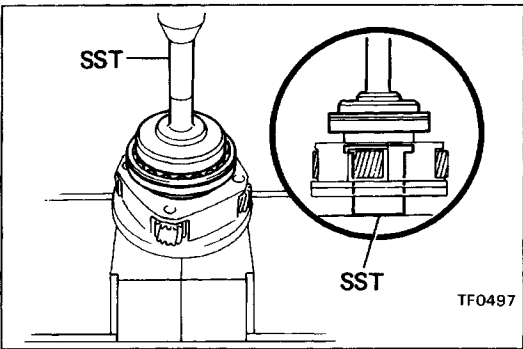
(a) Using snap ring pliers, remove the snap ring.



(b) Using SST and a press, remove the bearing.  
SST 09554-30011 and 09555-55010



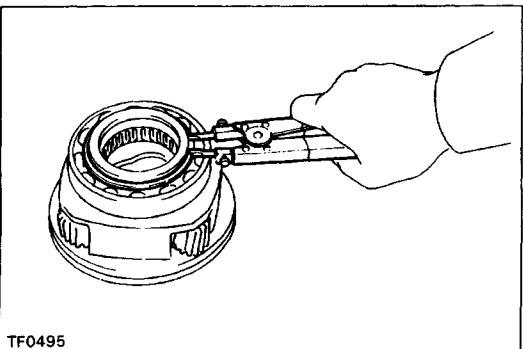
(c) Using SST and a press, install a new bearing with the outer race snap ring groove toward the front.  
SST 09223-15010 and 09515-30010

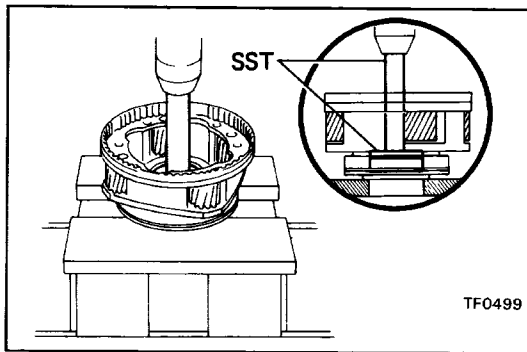


(d) Select a snap ring that will allow minimum axial play.

Mark	Thickness mm (in.)
1	1.45 – 1.50 (0.0571 – 0.0591)
2	1.50 – 1.55 (0.0591 – 0.0610)
3	1.55 – 1.60 (0.0610 – 0.0630)
4	1.60 – 1.65 (0.0630 – 0.0650)
5	1.65 – 1.70 (0.0650 – 0.0669)

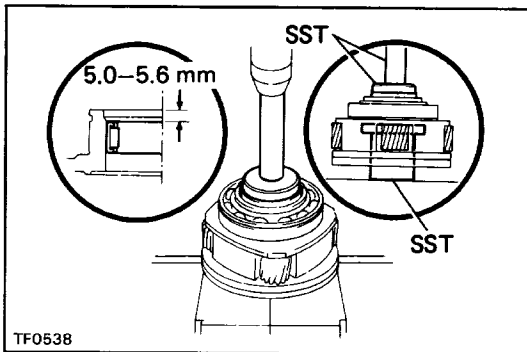
(e) Using snap ring pliers, install the snap ring.





#### 4. IF NECESSARY, REPLACE PLANETARY GEAR INNER BEARING

(a) Using SST and a press, remove the bearing.  
SST 09550-10012 (09252-10010, 09557-10010)



(b) Using SST and a press, install a new bearing.  
SST 09550-10012 (09252-10010, 09557-10010)  
and 09515-30010

**Bearing depth: 5.0 – 5.6 mm (0.197 – 0.220 in.)**