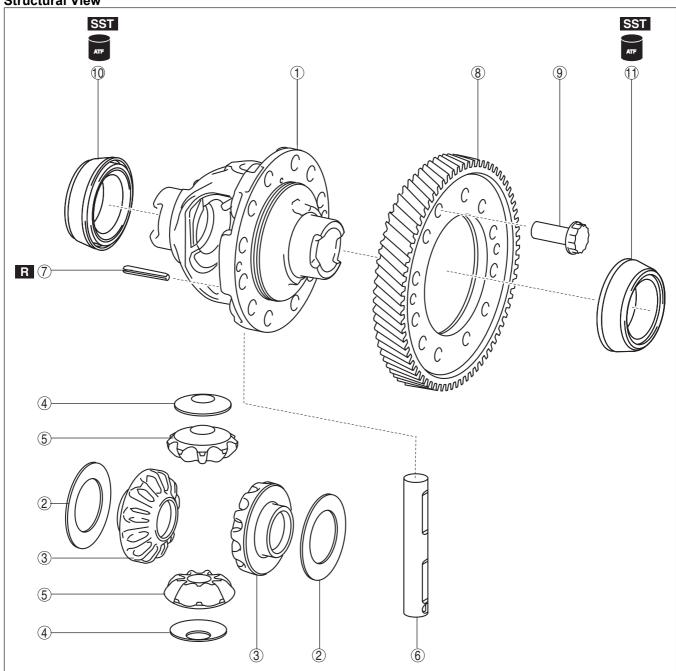
# RING GEAR AND DIFFERENTIAL ASSEMBLY

id051700664100

# **Structural View**



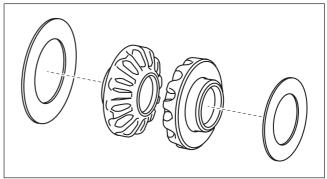
	,
1	Differential gear case
2	Thrust washer (selection)
3	Side gear
4	Thrust washer
5	Pinion gear
6	Pinion shaft
7	Roll pin
8	Ring gear
9	12 bolts (M13×1.0 bolt, length approx. 26.2 mm {1.03
	in})

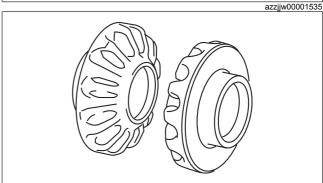
bgw3ja00000476 Tapered roller bearing (converter housing side) (inner diameter approx. 55 mm {2.2 in}, inner race

width approx. 23 mm {0.91 in})

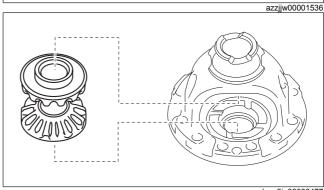
Tapered roller bearing (transaxle case side)
(inner diameter approx. 55 mm {2.2 in}, inner race 11 width approx. 20 mm {0.79 in})

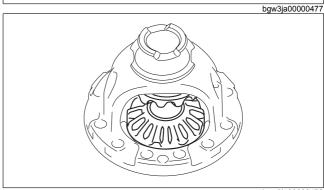
**Assembly Procedure**1. Assemble the thrust washers to the side gears.



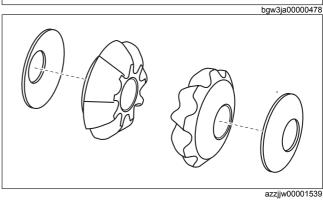


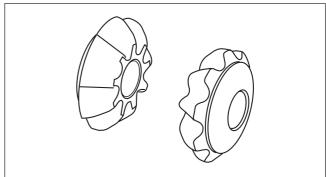
2. Assemble the side gears which have the thrust washers assembled to them.





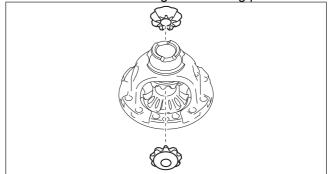
3. Assemble the thrust washers to the pinion gears.

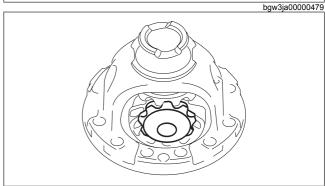




azzjjw00001540

- 4. Assemble the pinion gears which have the thrust washers assembled to them using the following procedure:
  - (1) Assemble the pinion gears which have the thrust washers assembled to them.



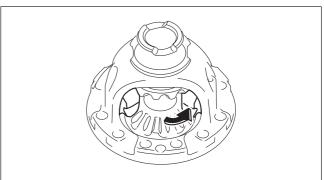


bgw3ja00000480

(2) Rotate the pinion gears so that the pinion shaft holes of the differential gear case and the pinion gears are aligned as shown in the figure.

#### Note

• If the pinion shaft holes of the differential gear case and the pinion gears are not aligned, remove the pinion gears, change the side gears combination, and reassemble.

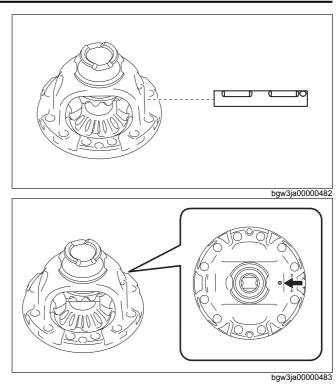


bgw3ja00000481

5. Assemble the pinion shaft.

#### Caution

 Assemble the pinion shaft so that the roll pin holes of the differential gear case and the pinion shaft are aligned.



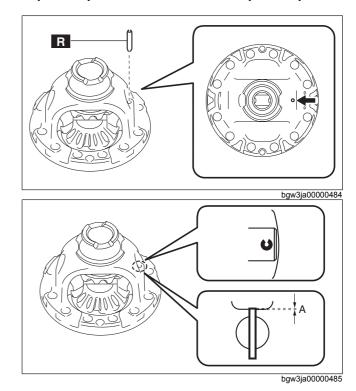
6. Assemble a new roll pin to the position shown in the figure using a pin punch.

# Caution

Assemble so that the end gap of the roll pin is positioned in the direction shown in the figure.

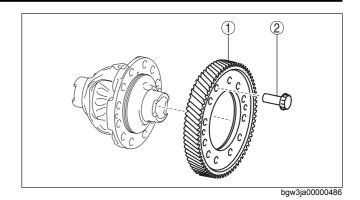
## Note

Use a pin punch with an end outer diameter of 5 mm {0.197 in} or more and within 8 mm {0.314 in}.



 $A: -0.5-0.5 \text{ mm } \{-0.01-0.01 \text{ in}\}$ 

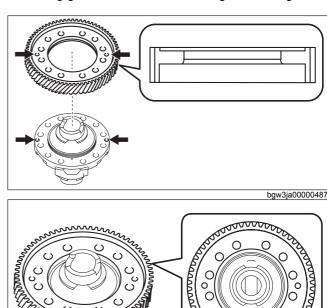
7. Assemble the ring gear using the following procedure:



(1) Assemble the ring gear.

## Note

• Assemble the ring gear so that the differential holes and ring gear holes shown in the figure are aligned.



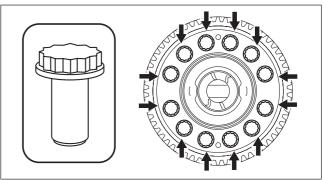
bgw3ja00000488

STATATOR

(2) Assemble and temporarily tighten the bolts to the positions shown in the figure.

#### Note

• Bolt size: M13×1.0 bolt, length approx. 26.2 mm {1.03 in}



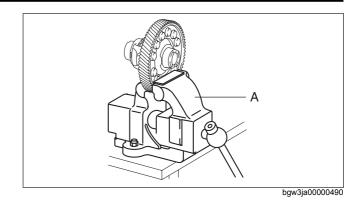
bgw3ja00000489

(3) Secure the ring gear and differential in a vise.

## Caution

• Insert a protective plate between the vise and the part so as not to damage the part.

A: Vise

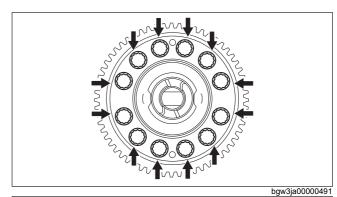


(4) Tighten the bolts shown in the figure.

#### **Note**

• Change the vise securing position of the ring gear and differential and tighten all of the bolts shown in the figure.

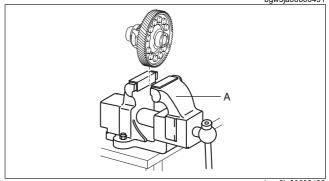
Tightening torque 152—176 N·m {16—17 kgf·m, 113—129 ft·lbf}



(5) Remove the ring gear and differential from the vise.

A: Vise

1	Ring gear
2	12 bolts (M13×1.0 bolt, length approx. 26.2 mm {1.03
	in})



bgw3ja00000492

8. Assemble the tapered roller bearing (converter housing side) using the following procedure:

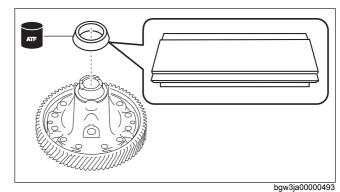
## Caution

• The sizes of the tapered roller bearings are different between the converter housing side and transaxle case side. When assembling, verify the size so as not to assemble incorrectly.

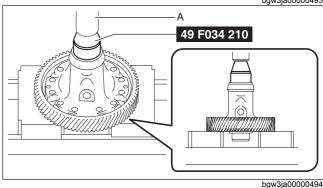
## Note

- Tapered roller bearing size: Inner diameter approx. 55 mm {2.2 in}, inner race width approx. 23 mm {0.91 in}
- (1) Apply ATF (ATF FZ) to the engagement area of the tapered roller bearing and differential.

(2) Using the SST and press, assemble the tapered roller bearing.



A: Press



9. Assemble the tapered roller bearing (transaxle case side) using the following procedure:

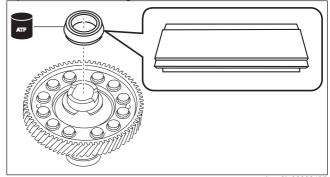
### Caution

• The sizes of the tapered roller bearings are different between the converter housing side and transaxle case side. When assembling, verify the size so as not to assemble incorrectly.

# Note

- Tapered roller bearing size: Inner diameter approx. 55 mm {2.2 in}, inner race width approx. 20 mm {0.79 in}
- (1) Apply ATF (ATF FZ) to the engagement area of the tapered roller bearing and differential.

(2) Using the SST and press, assemble the tapered roller bearing.



# A: Press

10. Perform the differential backlash measurement/ adjustment. (See DIFFERENTIAL BACKLASH MEASUREMENT/ADJUSTMENT.)

