SECONDARY SHAFT NO.2 COMPONENT INSPECTION

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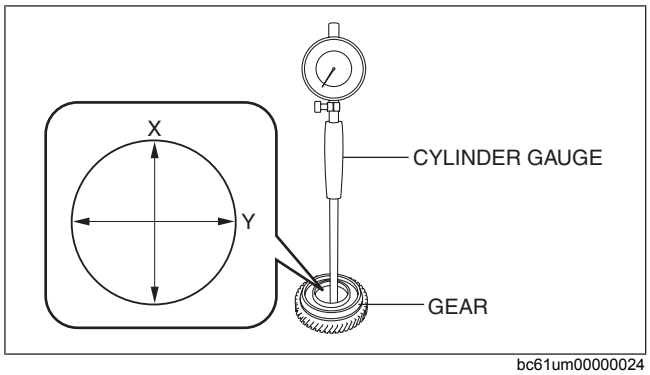
Gear Inspection

1. Inspect the gears for damage, wear, or loss.
   - If there is any malfunction, replace the gear.
2. Inspect the gears and synchronizer rings for damage and wear on contact surfaces.
   - If there is any malfunction, replace the gear.
3. Measure the inner diameter of the gear using a cylinder gauge in X and Y directions as shown in the figure.
   - If it exceeds the maximum specification, replace the gear.



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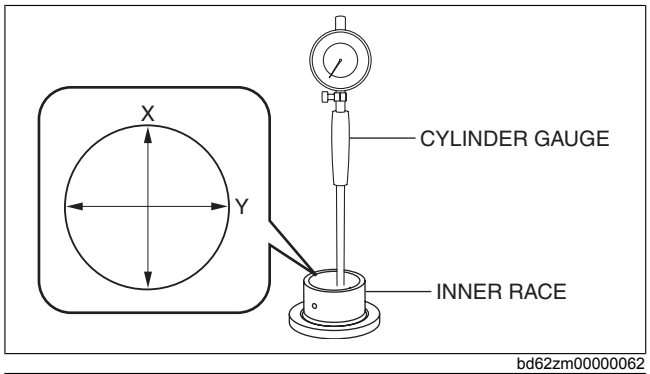
Inner diameter of gear

Measurement location	Specification (mm {in})	Maximum (mm {in})
Secondary 1st gear	56.010 {2.2051}	56.020 {2.2055}
Secondary 2nd gear	37.013 {1.4572}	37.025 {1.4577}
Reverse idler gear	50.510 {1.9886}	50.520 {1.9890}

Inner Race Inspection

1. Inspect the inner race for damage, wear, or loss.
   - If there is any malfunction, replace the inner race.
2. Measure the inner diameter of the inner race using a cylinder gauge in X and Y directions as shown in the figure.
   - If it exceeds the maximum specification, replace the gear.

   Inner diameter of inner race
   Specification: 40.334 mm {1.5880 in}
   Maximum: 40.342 mm {1.5883 in}



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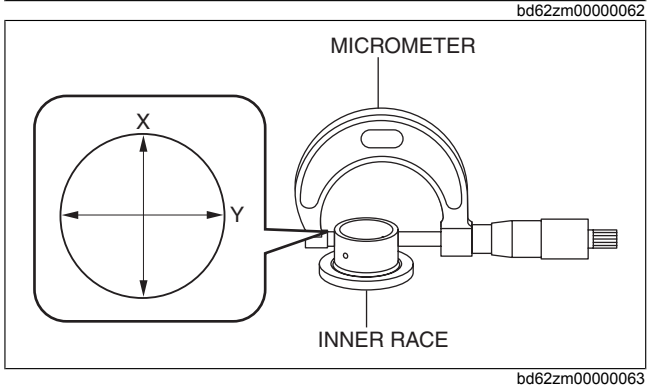
3. Measure the outer diameter of the inner race using the micrometer in X and Y directions as shown in the figure.
   - If it is less than the minimum specification, replace the inner race.

   Outer diameter of inner race
   Specification: 48.938 mm {1.9267 in}
   Minimum: 48.930 mm {1.9264 in}



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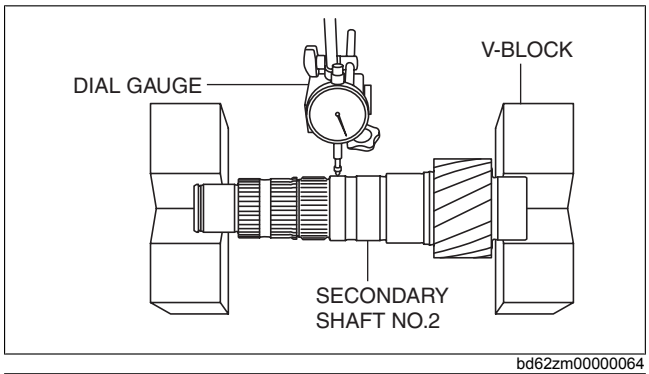
Secondary Shaft No.2 Inspection

1. Inspect the spline for damage and wear.
   - If there is any malfunction, replace the secondary shaft No.2.
2. Inspect the gear area for damage, wear, and loss.
   - If there is any malfunction, replace the secondary shaft No.2.
3. Measure the lateral runout of the secondary shaft No.2.

(1) Set the secondary shaft No.2 on V-blocks so that the V-blocks support the secondary shaft No.2 journal as shown in the figure.
(2) Measure the lateral runout of the position shown in the figure for the secondary shaft No.2 using a dial gauge.
  • If it exceeds the maximum specification, replace the secondary shaft No.2.

Lateral runout of secondary shaft No.2
Maximum: 0.030 mm {0.0012 in}



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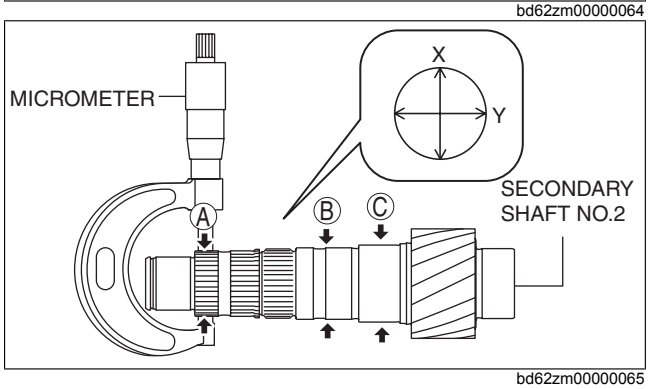
4. Measure the outer diameter of the secondary shaft No.2 using a micrometer. Measurement positions total six and are in the X and Y directions, at four points (A, B and C) as shown in the figure.
  • If it is less than the minimum specification, replace the secondary shaft No.2.



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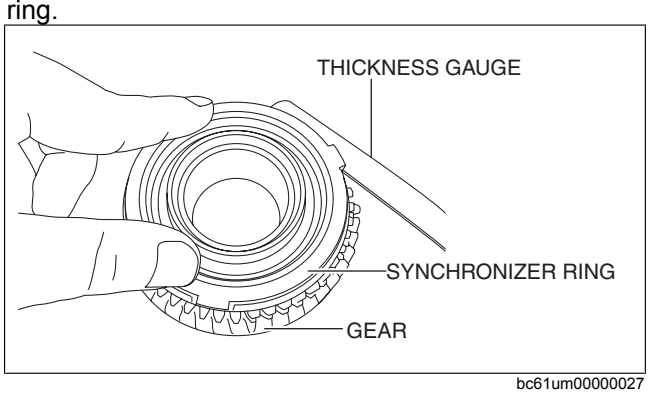
Outer diameter of secondary shaft No.2

Measurement location	Specification (mm {in})	Minimum (mm {in})
A: Secondary 2nd gear assembly part	36.958 {1.4550}	36.945 {1.4545}
B: Inner race assembly part	40.383 {1.5899}	40.375 {1.5896}
C: Reverse idler gear assembly part	43.483 {1.7119}	43.475 {1.7116}

Synchronizer Ring Inspection

1. Inspect the teeth of the synchronizer ring for damage, wear, or loss.
  • If there is any malfunction, replace the synchronizer ring.
2. Inspect the taper surface for wear or loss.
  • If there is any malfunction, replace the synchronizer ring.
3. While holding the synchronizer ring and gear with your fingers as shown in the figure, measure the clearance of the synchronizer ring and gear side surface around the entire circumference using a thickness gauge.
  • If it is less than the minimum specification, replace the synchronizer ring.



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Clearance between synchronizer ring and gear

Measurement location	Specification (mm {in})	Minimum (mm {in})
Synchronizer ring (1GR)	0.965 {0.0380}	0.50 {0.01969}
Synchronizer ring (2GR)	0.965 {0.0380}	0.50 {0.01969}
Synchronizer ring (reverse)	0.985 {0.0388}	0.50 {0.01969}

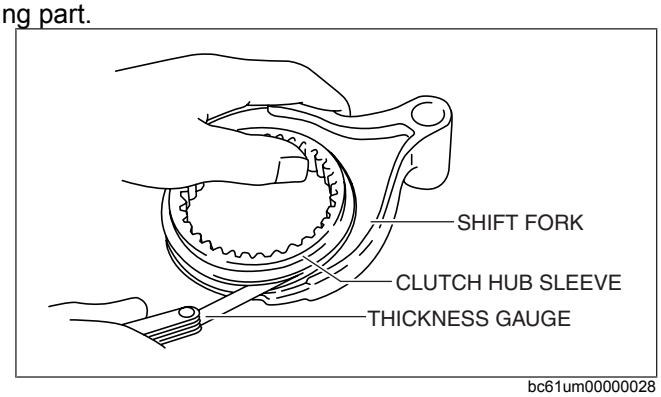
Clutch Hub Component Inspection

Note
  • The secondary 1st gear is integrated with the clutch hub (reverse).

1. Inspect the clutch hub sleeve and clutch hub operation.

- If there is any malfunction, replace the malfunctioning part.

2. Inspect the spline for damage, wear or loss.
   - If there is any malfunction, replace the malfunctioning part.
3. While holding the clutch hub sleeve and shift fork together with your hand as shown in the figure, measure the clearance between the shift fork and clutch hub sleeve groove using a thickness gauge.
   - If it exceeds the maximum, replace the clutch hub sleeve and shift fork as a set.



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Clearance between shift fork and clutch hub sleeve groove

Measurement location	Specification (mm {in})	Maximum (mm {in})
Shift fork (1GR/2GR)	0.225 {0.00886}	0.40 {0.0157}
Shift fork (reverse)		