39-146

Pinion shaft and ring gear, adjusting

Notes:

- *Careful adjustment of the pinion shaft and ring gear is important for the service life and smooth running of the final drive. For this reason, the pinion shaft and ring gear are matched together during manufacturing, and checked to ensure a good mesh pattern and quiet running in both directions of rotation. The position of quietest running is attained by moving the pinion shaft in an axial direction and at the same time lifting the ring gear out of the zero-play mesh position by the amount necessary to maintain the backlash within the specified tolerance.*

- *The objective of the adjustment is to reproduce the setting for quietest possible running, as obtained on the test machine during production.*

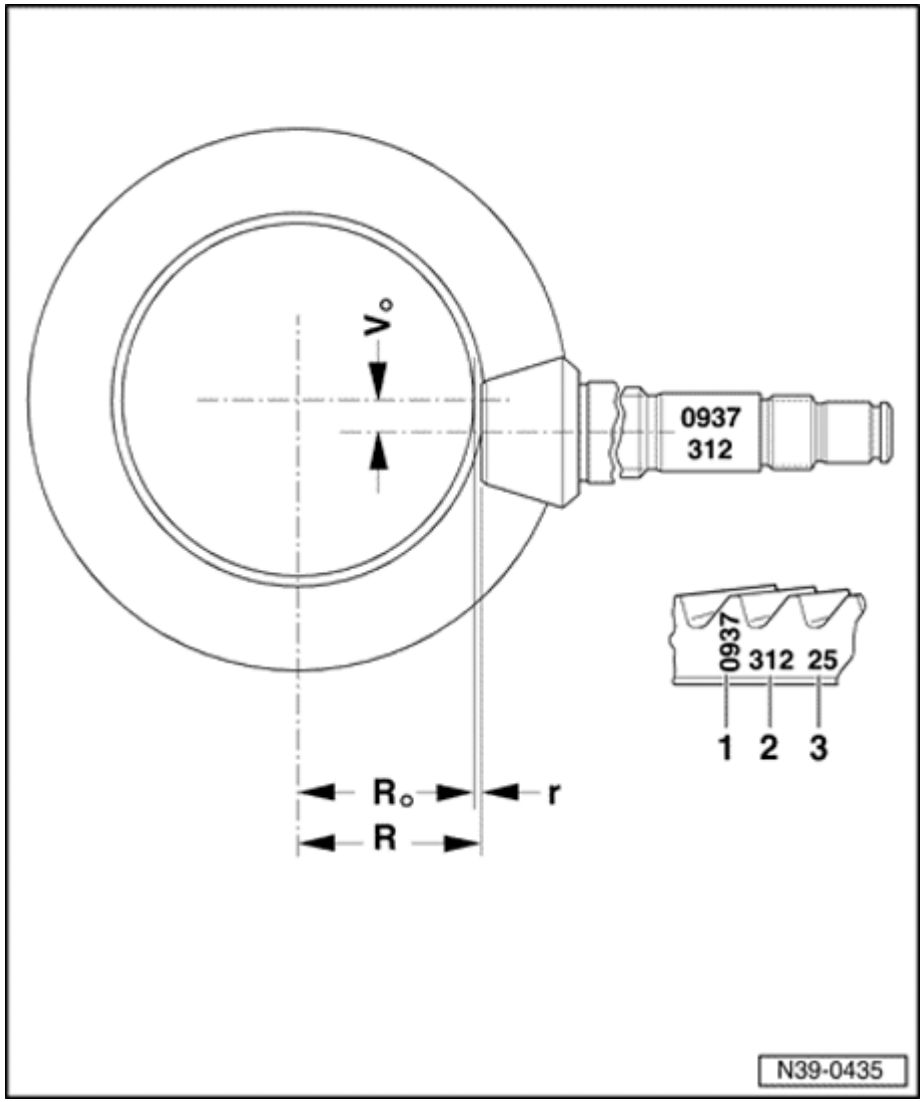
- *The deviation, or tolerance "r", which is related to the master gauge-adjustable "Ro" is measured for the final drive sets supplied as replacement parts and marked on the outer circumference of the ring gear. The final drive set (pinion shaft and ring gear) may only be replaced together as a matched pair.*

- *Observe general repair instructions for tapered*

roller bearings and shims.

- *Maximum care and cleanliness are essential for achieving good results during repairs and taking measurements.*

39-147



Adjustment and marking of gear sets

1 - Identification "0937" signifies an Oerlikon gear set with a ratio of 37:9

2 - Gear set pairing number (312)

3 - Deviation (tolerance) "r" is based on the test machine master gauge-adjustable used during production. Deviation "r" is always given in 1/100 mm. Example: 25 signifies "r" = 0.25 mm

Ro - Length of master gauge-adjustable used on test machine "Ro"

Ro - Ring gear = 57.50 mm (2.263 in.)

R - Actual dimension between center axis of ring gear and face of pinion shaft at point with quietest running for this gear set. R = Ro + r

Vo - Hypoid offset