

## Adjusting Pinion Gear

### Special Tools:

13 RA

P 33 Gauge for adjusting ring and pinion  
VW 400 Hydraulic Press with accessories

### General

The provisional adjustment of the pinion has been made prior to assembly (see section 4 RA reconditioning pinion).

Measure distance "R" after measuring distance "J" using tool P 33 (11 RA).

### Preparation

Install assembled intermediate plate (without paper gasket) in transmission housing and secure.

Zero the dial gauge in P 33 using adjusting ring. The inscribed diameter of the adjusting ring should be divided and recorded, i.e. 118 mm gives 59.00 mm.

### Measuring

1. Install P 33.
2. Turn until feeler contacts face of pinion gear.
3. Turn gauge shaft left and right and record the observed minimum reading.

### First Example

Dial gauge adjustment	59.00 mm
Reading	59.06 mm
Required dimension R	59.24 mm
Difference	- 0.18 mm

i.e. the pinion has to be moved away from ring gear center axis 0.18 mm. This is possible by inserting a paper gasket of 0.2 mm between the intermediate plate and the transmission housing. (Adjust differences to the nearest gasket thickness available.)

### Second Example

Dial gauge adjustment	59.00 mm
Reading	59.45 mm
Required dimension R	59.31 mm
Difference	+ 0.14 mm

i.e. the pinion has to be moved 0.14 mm towards the center axis of the ring gear. Disassemble pinion and insert required shims on pinion shaft (Fig. 96, 97, 98).

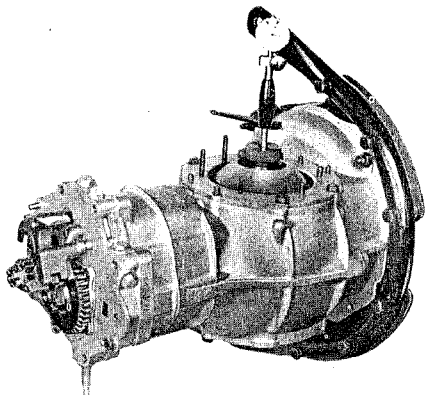


Fig. 101

### Note

In order to move the pinion gear away from the ring gear center, paper gaskets available in sizes 0.10 mm, 0.15 mm, and 0.20 mm may be installed between the intermediate plate and the transmission housing.

In order to move the pinion gear closer to the ring gear center it is necessary to disassemble the pinion shaft and install shims which are available in sizes 0.10 mm, 0.15 mm, and 0.30 mm.