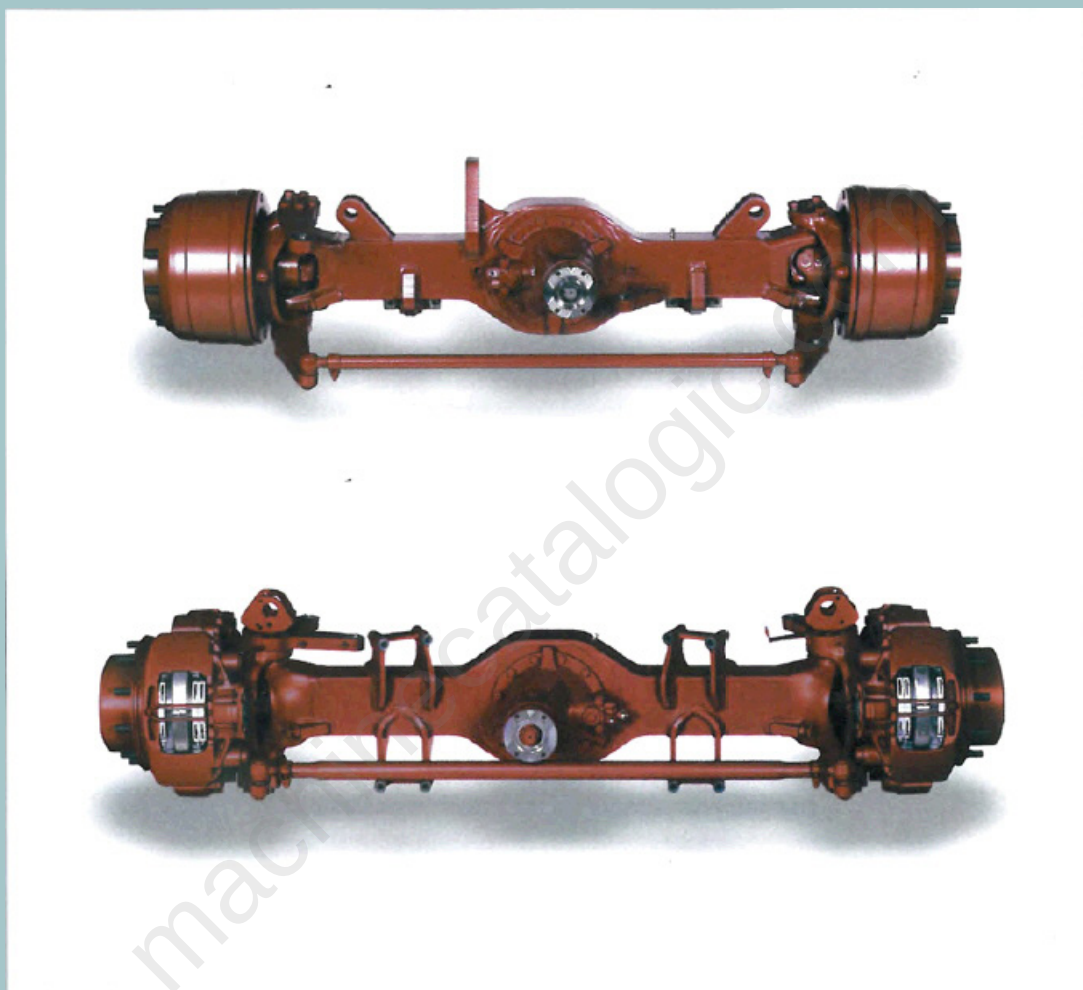


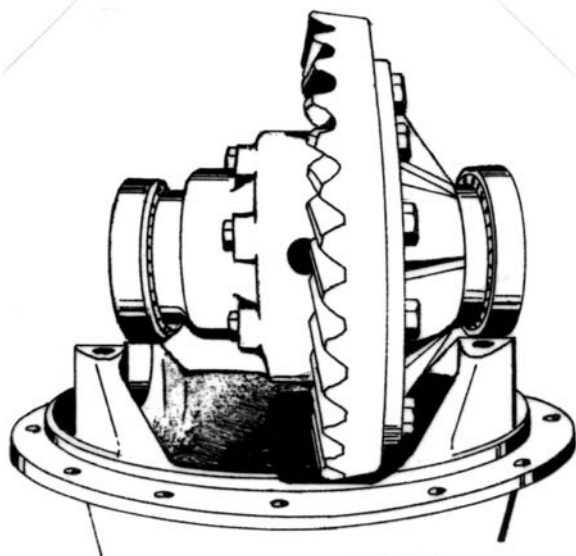
Repair and Maintenance  
**for Kessler axles**  
**series 51, 61, 71, 72, 81, 82**



**KESSLER+CO**

Version 02/2017  
Original

## Dimension of backlash



Place the differential with the outer rings of the taper roller bearings on the differential carrier which is in a vertical position, with mounted drive pinion.

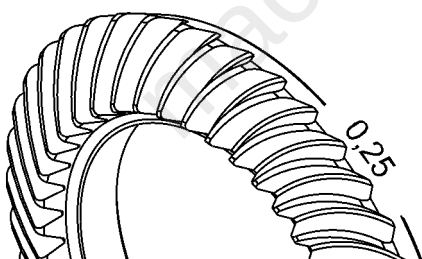
Mount the differential straps and align them with the thread rings.

During this operation be careful of the alignment marks on the differential straps with respect to the differential carrier. (Do not interchange the differential straps.)

## Backlash

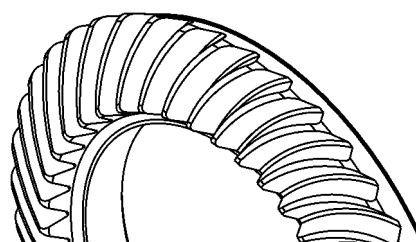
### Version 1

The smallest admissible value at the closest place is marked on the circumference of the ring gear.



### Version 2

Is no value marked on the circumference of the ring gear, the backlash is depend on the ring gear diameter (see following table).



| Drive description | Ring gear diameter | Backlash |
|-------------------|--------------------|----------|
| Drive assembly 51 | < 325              | 0,30     |



Figure 284

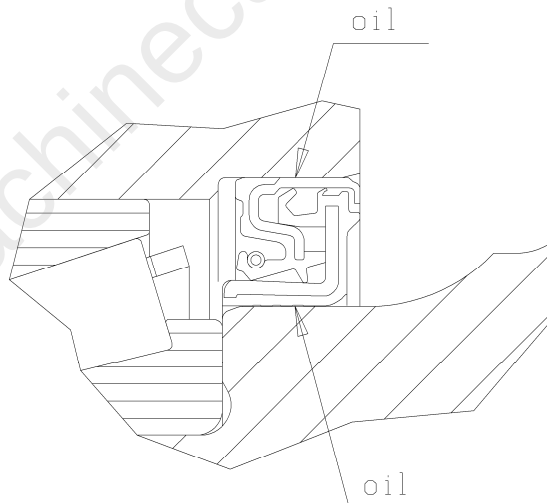
5. Use a punch to tap the circlip (38) further into the housing.



**NOTICE:** Check to ensure that the circlip (32) is fully seated in the groove.

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1. Visual control of the cassette seal ring and the seal ring seats about damage.
2. Coat entire surface of the cassette seal ring with not much oil. Use clean oil.
3. Press in the cassette seal ring flush with the end face of the wheel hub, do not cant it (figure 1 – page 5.6.5).
4. Push the wheel hub with inner taper roller bearing onto the steering knuckle resp. axle spindle. The cassette seal ring must not slide on.
5. Install outer taper roller bearing, ring gear carrier resp. Nilos - plate and nose disc, put on the wheel safety nut (figure 2 – page 5.6.5).
6. Push the cassette seal ring through tightening of the wheel safety nut onto the steering knuckle resp. axle spindle (figure 3 – 5.6.5). The wheel hub weight must not brace on the seal ring. Do not cant the wheel hub.
7. At draw - together, canting or at disassembly of the wheel hub, the seal lip can slide over the flanging shoulder of the cassette seal ring or damage it; in this case the cassette seal ring has to be changed.



### c) Remarks

- Use only master cylinders with a special residual pressure center valve, in order to avoid damages by residual pressures over 0.1 bar.
- Operating fluid level of the reservoir must be checked at regularly scheduled intervals and, if necessary, refilled to 2/3 of reservoir volume.
- Operating fluid must be changed annually.
- Bleeder valves must not be interchanged.

Tightening torque specifications:  
(in Nm)

|                              |                                 |
|------------------------------|---------------------------------|
| Bolts at cover (3)           | 35-40 Nm                        |
| Bolts at cylinder insert (6) | 50±5Nm (assembling torque 30Nm) |
| Bleeder                      | 15-20 Nm                        |

- Spare parts, see spare parts list.
- Vehicles operating on public roads are subject to compliance with all applicable Federal, State and Local Ordinances, Standards and Regulations, they must be inspected / serviced and maintained accordingly.

## 3) Description of the electric wear indicator

### General

The electric wear indicator (9 u. 10) has the task of supplying a visual warning signal when the maximum brake pad wear limit is reached.

### Function

At one end of the wear indicator cable is a wear sensor, which is recessed into the brake pads. The plug connection at the other end of the cable is to transmit the electrical impulse to the warning lamp on the vehicle's instrument panel. The wear sensor touches the brake disc when a brake with a worn pad is applied, and opens or close the electrical circuit. Depending on the nature of the vehicles electrical system, this can be used to operate a visual pad wear warning signal. The signal is first transmitted when the remaining brake pad thickness is 2 mm, and at this stage of wear the pads must be renewed.

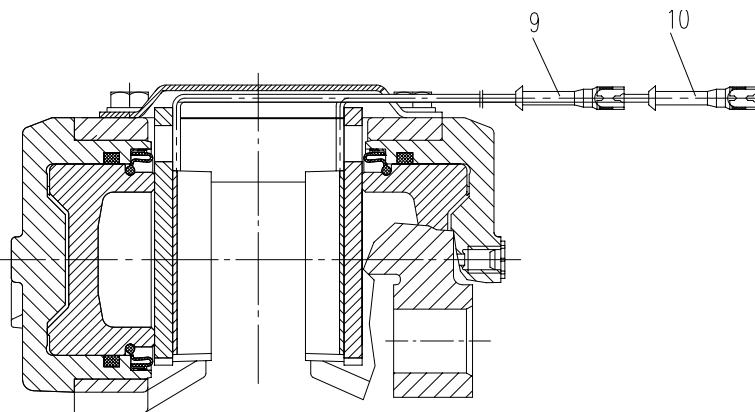


Bild 4

### Maintenance and repair

The wear indicator needs no maintenance.

When renewing brake pads, the following work must be performed:

- Disconnect the plugs at the end of the cable.
- Take off cover (3).
- Remove worn brake pads (2) and install new pads. Note that new pads must always be installed at all points on any axle at the same time.
- Install cover (3) again.
- Make the cable connections.
- Check operation of the pad wear indicator in accordance with the vehicle manufacturer's instructions.

# Full Version Available

## Kessler Axles Repair and Maintenance Manual

Kessler \_General axle service manual with repair procedures, hub, differential and brake assembly steps. Searchable 493-page English PDF.

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