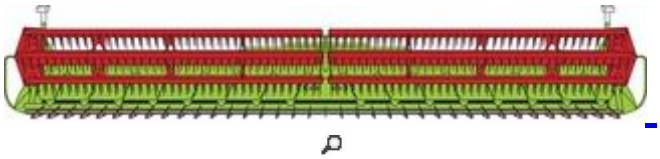


VARIO 1200-1050

CERIO 1200-1050

Repair manual

How to use the Manual

The present Repair Manual is to assist in maintaining permanent machine availability. The high value of the harvesting machine is ensured through careful maintenance and technical monitoring by customer service.

Experience gathered by both our service engineers and factory staff has been compiled in this Repair Manual.

The sequence of pictures shows the procedure of a repair. The text provides the necessary information about the adjustments to be made, the use of special tools etc.

Essential repairs are listed in such a way that even individual and small repairs can be easily found and followed.

Supplements are added to reflect the ongoing technical development of the machines and the manual is thereby continuously being updated as a reference book.

As a precaution, always compare the setting values and fill quantities with the most recent operator's manual for the respective machine.

Text and figures

Photos and graphics have been kept neutral. Notes beneath the figure will draw your attention to any differences.

Text is kept as short and neutral as possible. Subheadings will draw your attention to any differences.

Text types can be easily distinguished from each other by corresponding formatting. The following format types are distinguished:

Formatting	Meaning	Description
Description	Descriptive text	Further information on the subject.
- Procedure instructions	Process	Processes to be carried out one after the other.
Result	Result	Result of the processes carried out.

References can be easily distinguished from each other by corresponding symbols. The following symbols are distinguished:

Symbol	Meaning	Description
	See index	The  symbol indicates that further information on this subject is available in other sections of this manual.
	See the index of the Operator's Manual in question	The  symbol indicates that further information on this subject is available in the Operator's Manual of the machine or of the implement in question.
	See index of Technical Systems documentation	The  symbol indicates that further information on this subject is available in the Technical Systems documentation of this machine or this implement.

Layout with assembly group structure

The chapters of this manual are structured into assembly groups, to the extent that the content allows this. The structure of these assembly groups is the same in all chapters.

Different product groups have different assembly group structures. CLAAS always endeavours to keep these assembly group structures the same in all documents.

Search and find

With the help of the recurring assembly group structure, it is easy to find the corresponding subject via the table of contents or the header of this manual.

In addition, the manual's index is a useful tool for finding topics. The index is at the end of the manual.

Direction information

Text information such as front, back, right and left applies in the direction of travel. In figures, the direction of travel is indicated by a direction of travel arrow.

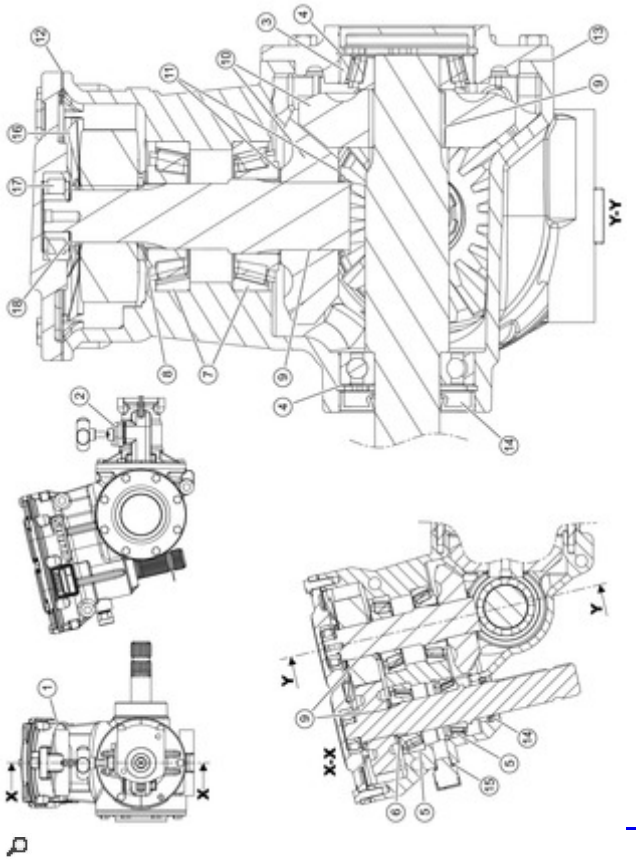
Your CLAAS service department

Validity of manual

This manual applies to the following machine / front attachment:

Designation	Type	Serial number	
		from	to
VARIO 1200 - 1050	529	52900001	–
CERIO 1200 - 1050	529	52900001	–

Spur angular gearbox



Pos.	Value	CCN	Remark / designation
1	**18 kg**		Main gearbox
2	**5 kg**		Rape cutter drive pump cooling Rape cutter drive pump clutch
3, 4	**0 to 0.1 mm**		Heat up the bearing to around 100 °C for installation and removal. Adjust axial play of bearing with washers (4).
5, 6			Heat up the bearing to around 100 °C for installation and removal. Adjust bearing (5) to be free of play, using washers (6).
7, 8			Heat up the bearing to around 100 °C for installation and removal. Adjust bearing (7) to be free of play, using washers (8).
9			Coat the external spline with MOLYKOTE G-n plus.
10, 11	**0.08 - 0.27 mm**		Adjust the torsional backlash of bevel gears (10) with washers (4) and (11). Adjust the contact pattern of bevel gears (10), using engineer's blue.
12			Coat gasket with transmission oil.
13			Clean sealing faces thoroughly and coat with Omni-fit FD 10.
14			Insert seal with CLAAS AGRIGREASE EP 2.
15			Coat gasket with transmission oil.
16			Observe the installation position of the wing.
17, 18			Adjust bearing (17) to be free of play, using washers (18).
No tightening torques specified – see section on Tightening torques			

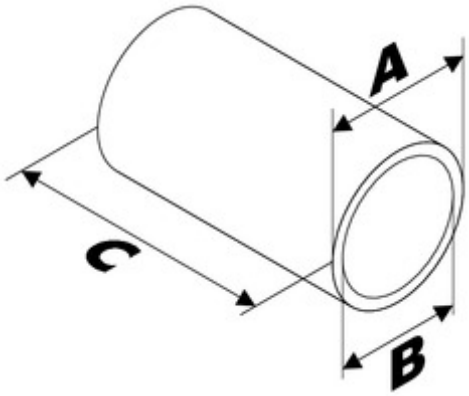
Work preparation

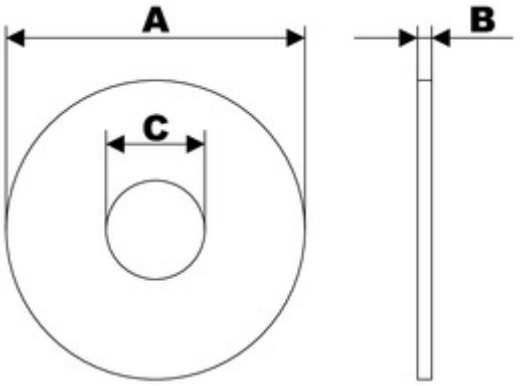
Operating utilities:

- Lubricants:
  CLAAS AGRIGREASE EP 2 - 00 0147 437 0
  MOLYKOTE G-n plus - 00 0177 571 0

- Sealant and adhesive:
  Omnifit FD 10 - 00 0219 027 0

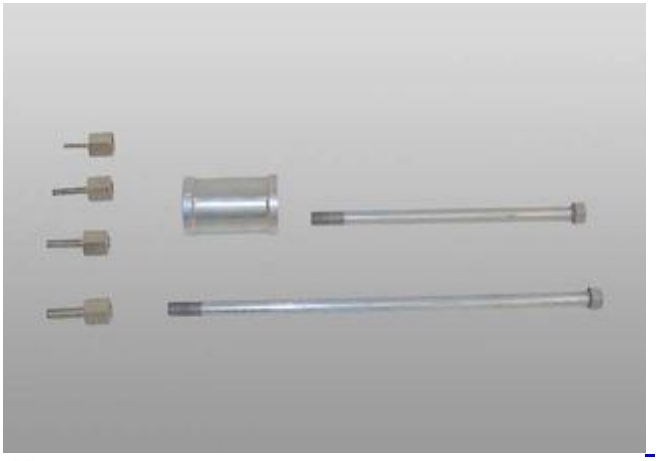
Auxiliary tool:





Auxiliary tool (I)
1x tube, steel (self-manufactured) A= Ø 45 mm, B= Ø 40 mm, C=100 mm
1x washer, steel (self-manufactured) A= Ø 45 mm, B= 10 mm, C= Ø 7 mm
1x hex. bolt ISO 4017 M6x80
2x hex. nut DIN 6331 M6

Special tool



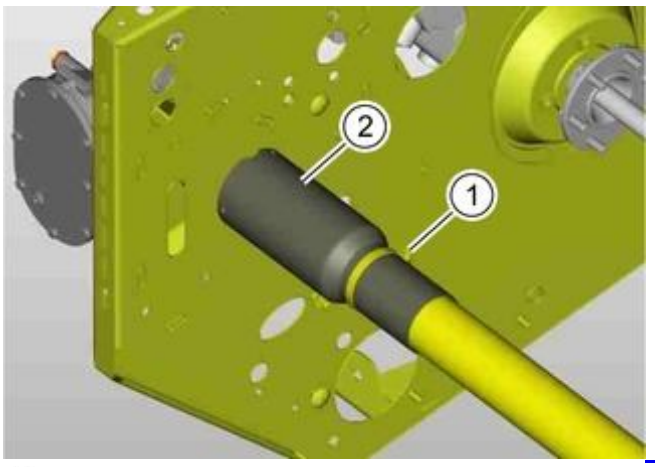
	Special tool / Part no.	Pcs.
1	Slide hammer puller 00 0181 628 0	1
The following is needed from this set:		
	Striking tool 00 0181 604 0	1
	Tow bar M16x225 mm 00 0181 605 0	1
	Adapter M6 / M16 00 0181 607 0	1

Removal

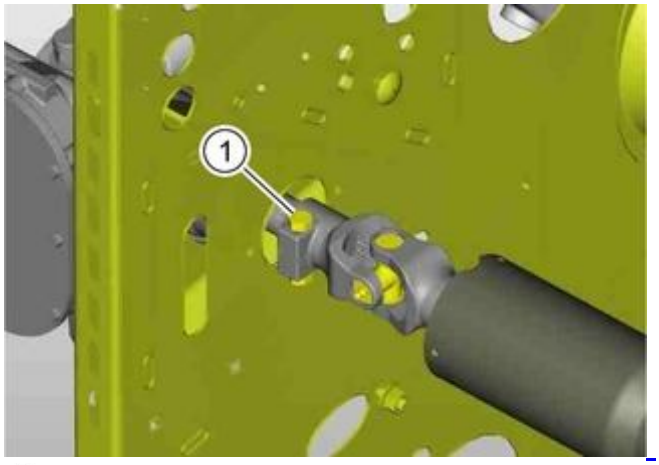
► Drain the spur angular gearbox oil.

► Remove the rape cutter drive pump (2022).
Rape cutter drive pump (2022)

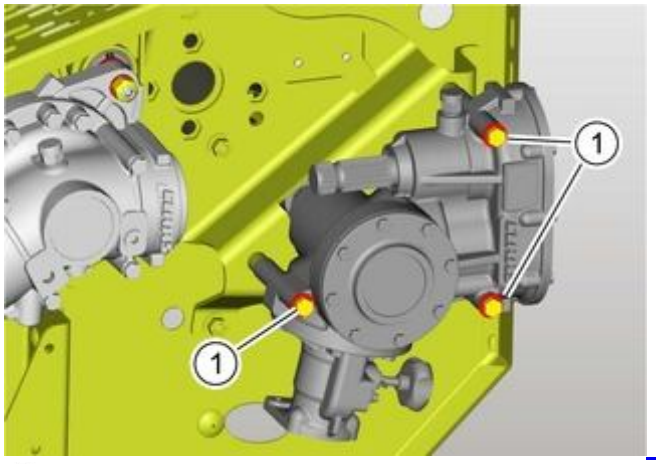
► Remove the gearbox drive universal drive shaft.
Gearbox drive universal drive shaft



► Unscrew the bolt (1).
► Push back cap (2).



► Unscrew the bolt (1).

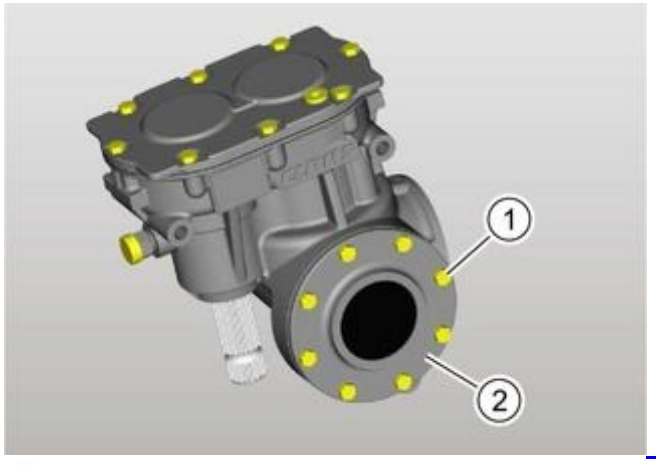


► Unscrew bolts (1).

► Ensure that the gearbox will not fall down!

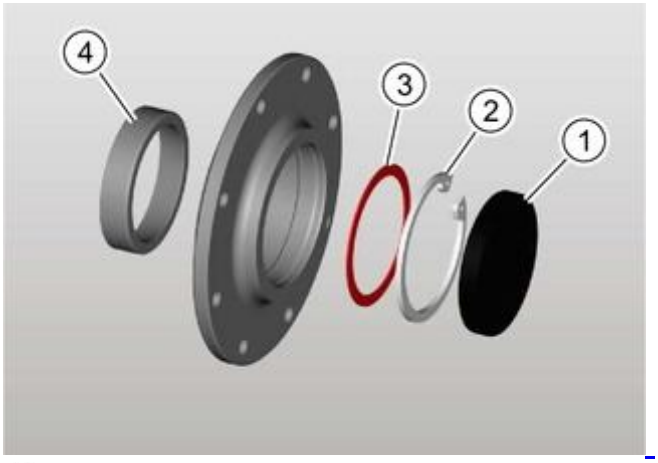
Disassembly

► Remove the rape cutter drive pump clutch.
Rape cutter drive pump clutch



► Unscrew bolts (1).

► Remove flange (2).

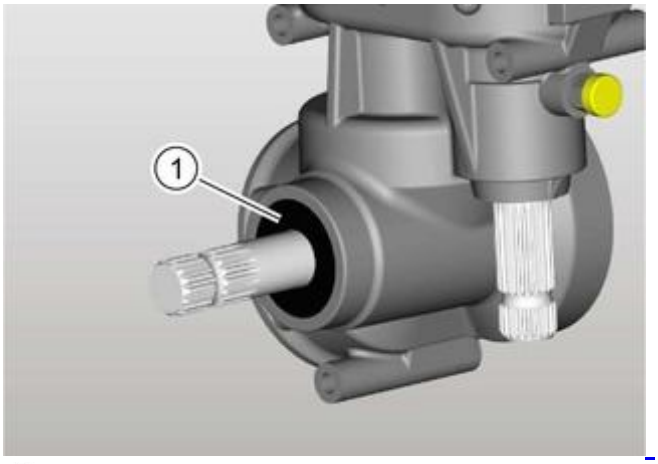


► Remove lid (1).

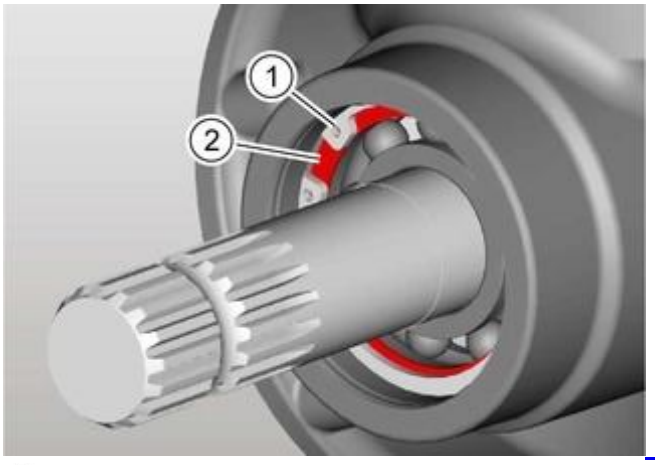
► Remove circlip (2).

► Remove spacer ring (3).

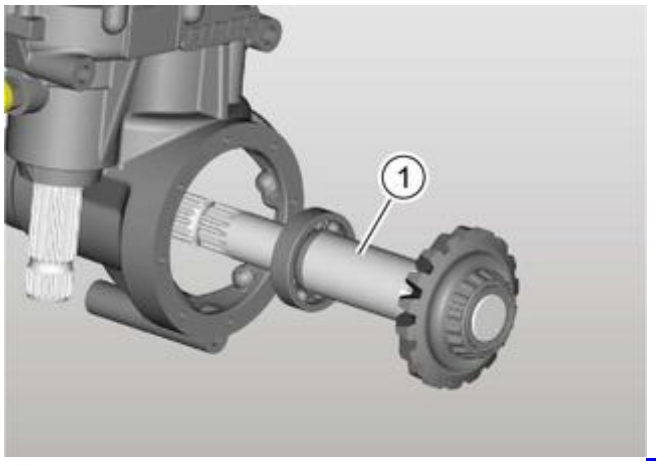
► Remove outer bearing race (4).



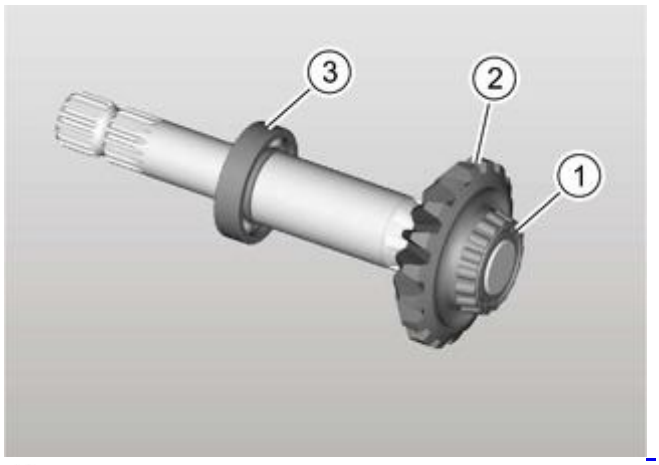
► Remove sealing ring (1).



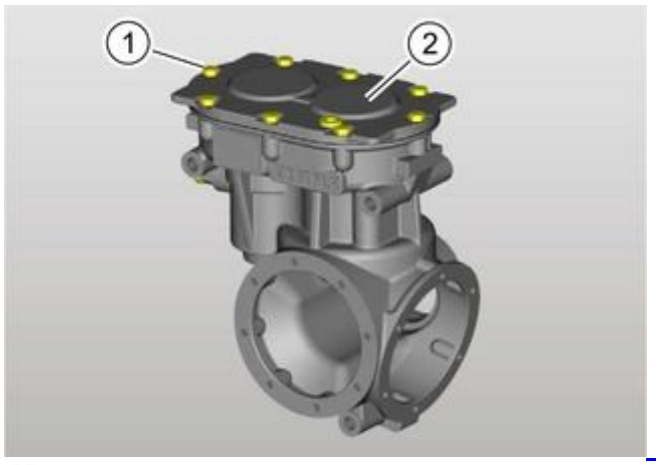
- Remove circlip (1).
- Remove spacer ring (2).



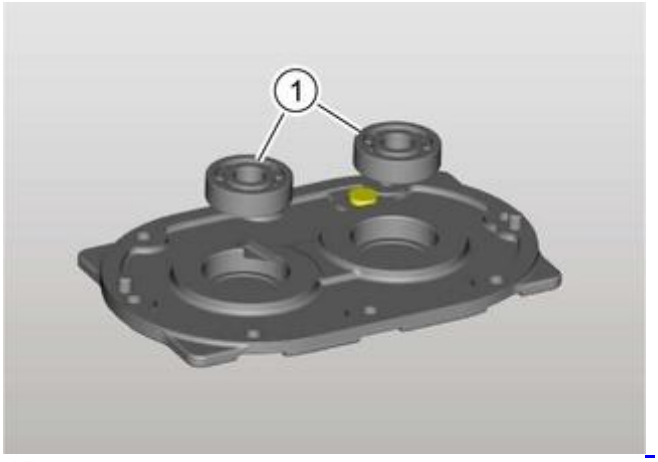
- Drive out shaft (1).



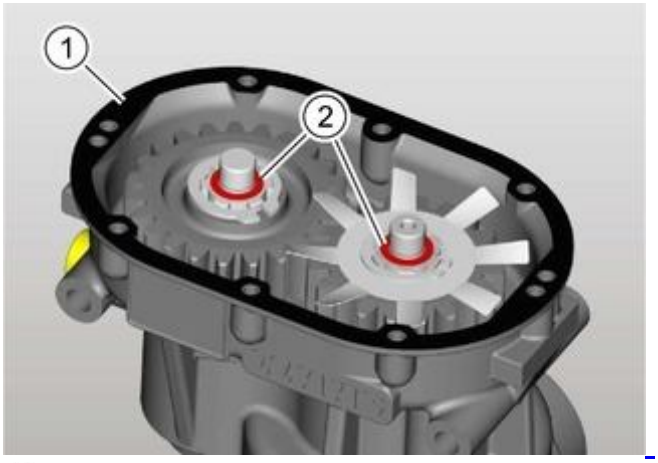
- Pull off bearing (1).
- Pull off gear (2).
- Pull off bearing (3).



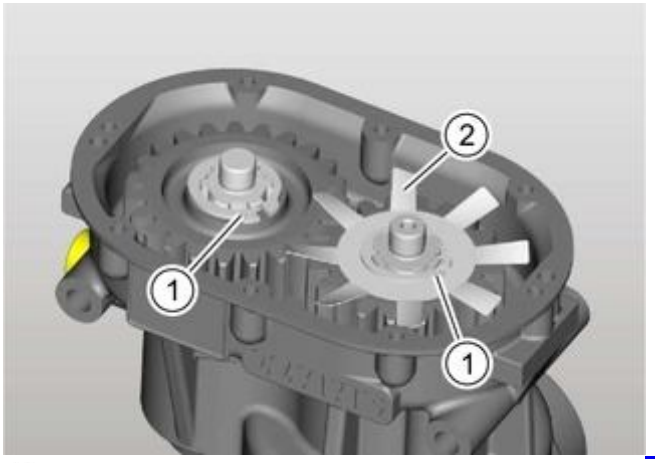
- Unscrew bolts (1).
- Remove cover (2).



- Remove bearings (1).

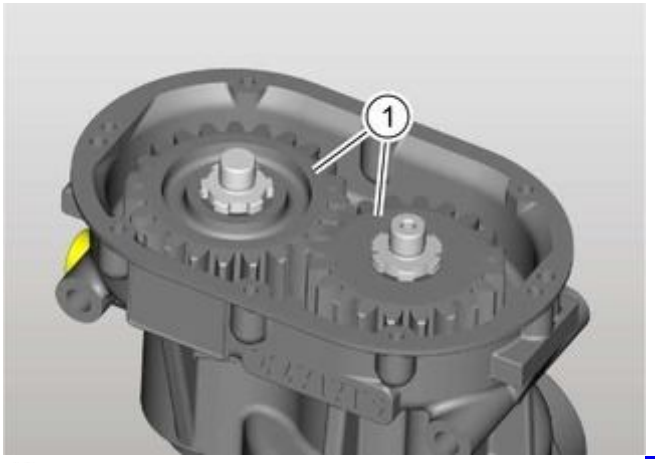


- Remove seal (1).
- Remove spacer rings (2).

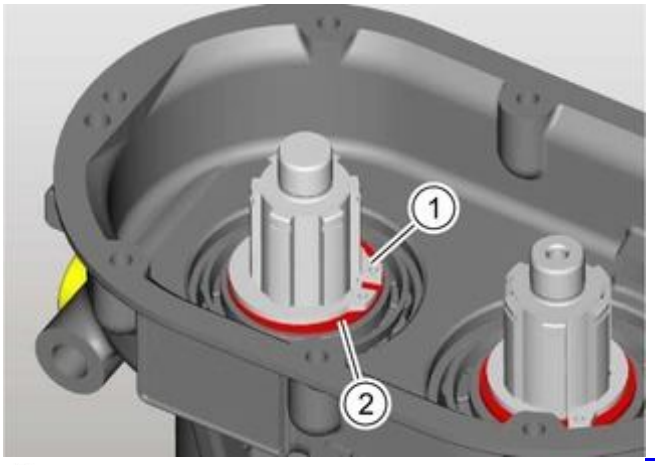


- Remove circlips (1).

► Remove wing (2).

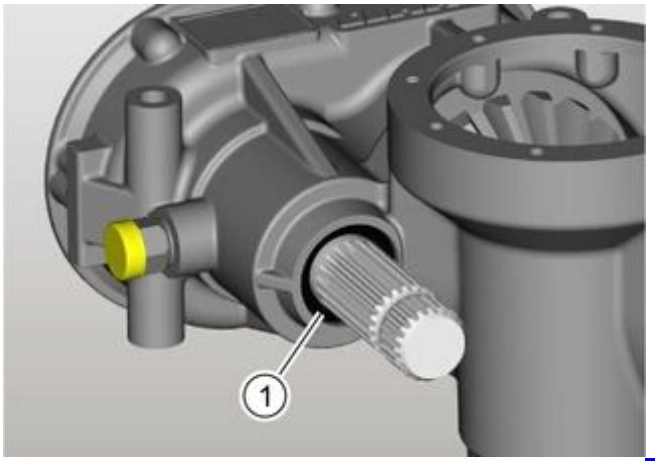


► Remove gears (1).

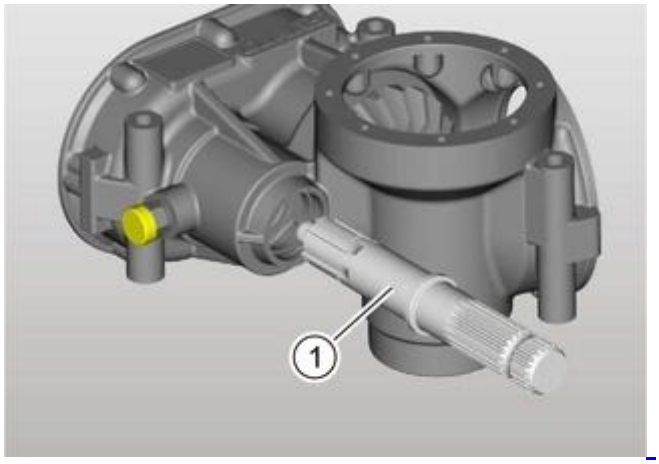


► Remove circlip (1).

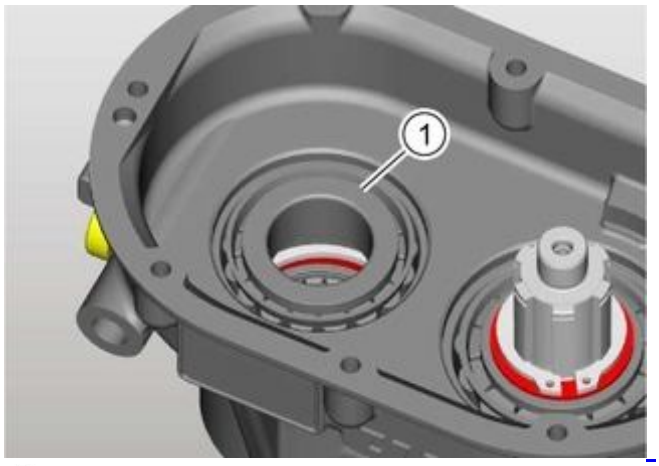
► Remove spacer rings (2).



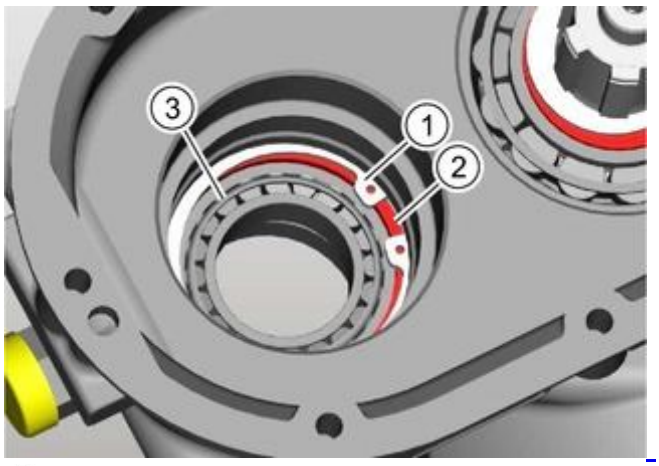
► Remove sealing ring (1).



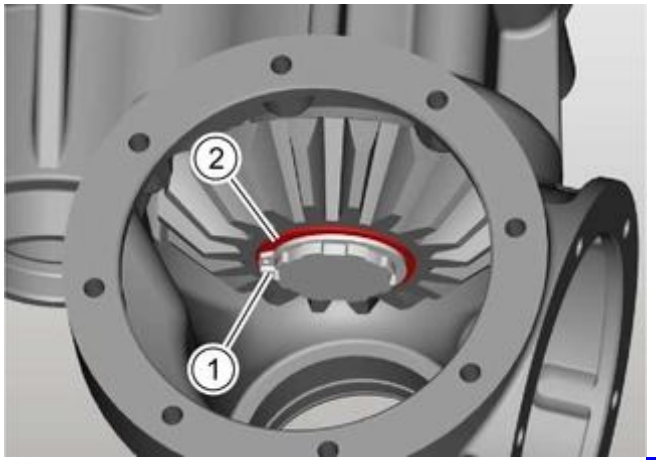
- Drive out shaft (1).



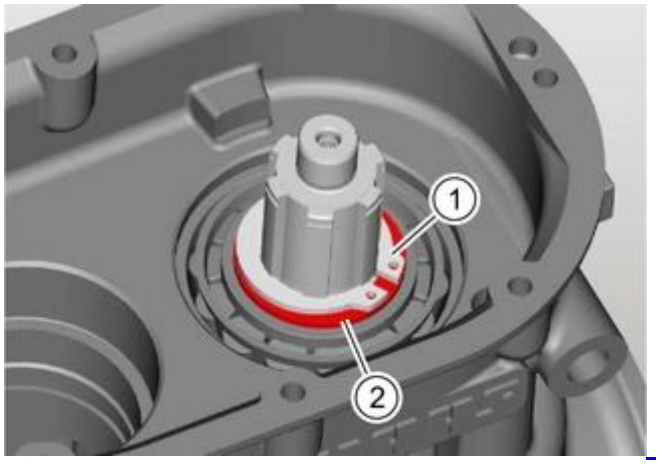
- Remove bearing (1) completely.



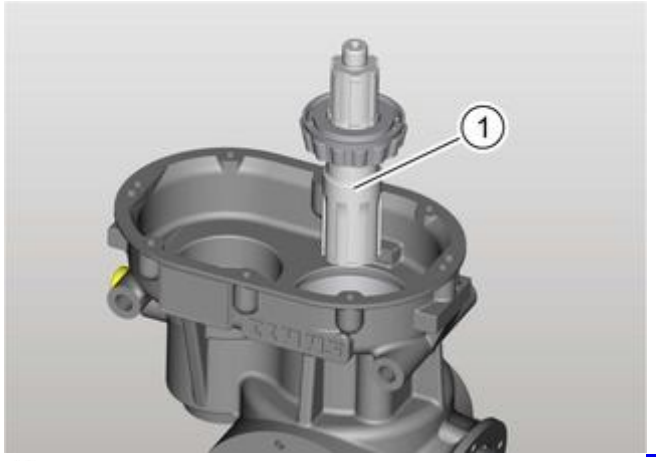
- Remove circlip (1).
- Remove spacer ring (2).
- Remove bearing (3) completely.



- Remove circlip (1).
- Remove spacer ring (2).



- Remove circlip (1).
- Remove spacer rings (2).



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