

FENDT

Werkstatthandbuch

Workshopmanual

Manuel d'atelier

Manual de taller

Manuale per l'officina

Werkplaatshandboek

FENDT 900 Vario COM III

X 990.005.057.012

1

FENDT

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C	Documents and Diagrams
D	Component location
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G	Repair
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Transmission/front wheel drive

FENDT 900 Vario - COM III

Volume 1

0000	Overall system/tractor
1005	Overall system/transmission
1010	Transmission/differential
1015	Transmission/axle drive
1050	Transmission/housing
1070	Transmission / Brake system
1080	Transmission/drive train
1200	Transmission/front PTO
1220	Transmission / Live PTO
1320	Transmission/front wheel drive
2000	Overall system/engine
2010	Engine/cylinder head
2050	Engine/cooling
2060	Engine/fuel system
2210	Engine/crankcase
2312	Engine/lubrication
2400	Engine/exhaust system
2712	Engine/injectors
3000	Overall system/front axle
3120	Front axle/steering cylinder
3180	Front axle/cardan shaft

Volume 2

4000	Overall system/steering
4090	Steering system / hydraulic steering unit
5030	Vehicle layout/operator's seat
5500	Overall system/air conditioning system
8100	Overall system/cab
8610	Power lift/EPC electro-hydraulic control
8631	Power lift/hydraulic lift
8800	Overall system/compressed air system

Volume 3

9000	Overall system/electrical system
9015	Electrical system/starter lockout

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- 9534** Hydraulic piping/"Rüfa"reverse operation
- 9600** Overall system/hydraulic equipment
- 9605** Hydraulic equipment/hydraulic connections
- 9610** Hydraulic equipment/central control block (ZSB)
- 9620** Hydraulic equipment/valve fitting
- 9700** Overall system/electronics
- 9920** Service/special tools
- 9975** Service/SERDIA - Deutz engine diagnostics program

1320 Transmission/front wheel drive

G **Repair.5**

G Repair

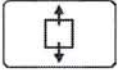
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1 Removing and dismantling the front wheel drive clutch

Preliminary work:

- see §1
- Separate the transmission housing from the clutch housing – Chapter ...

NOTE: The work was carried out on a model for greater clarity.



Remove the screw M8 and the fixing washer

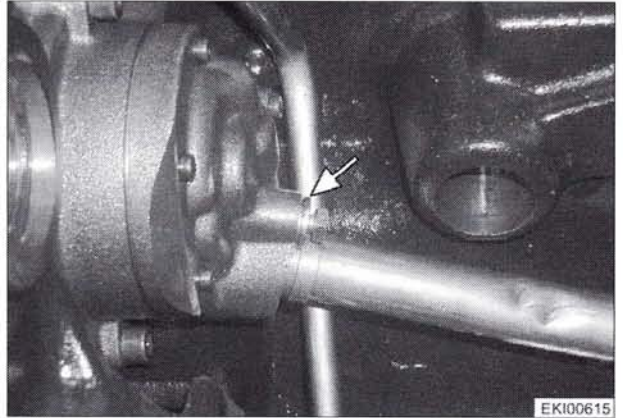
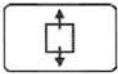


Fig. 1.



Push the suction pipe out of the filter housing

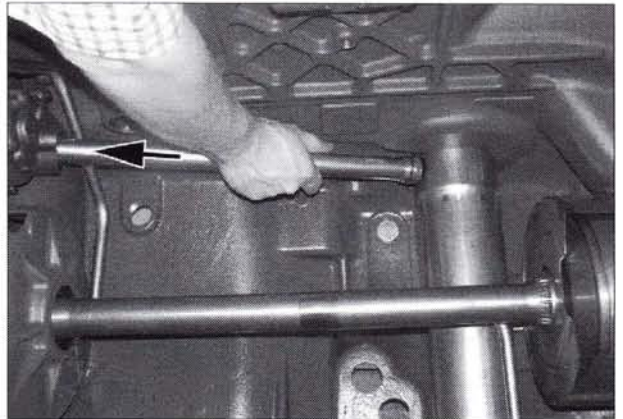
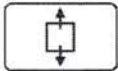


Fig. 2.



Dismantle the cover of the suction filter

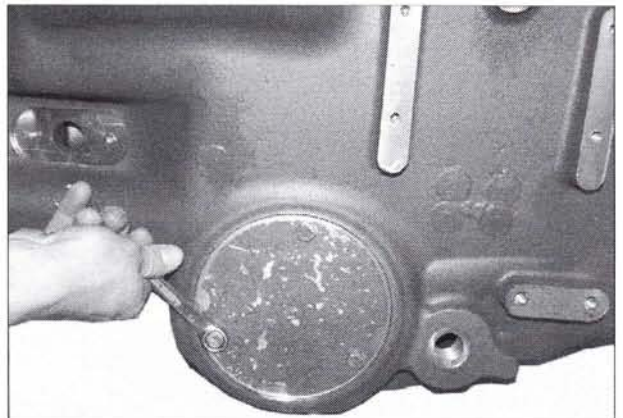
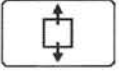


Fig. 3.



Remove the suction filter

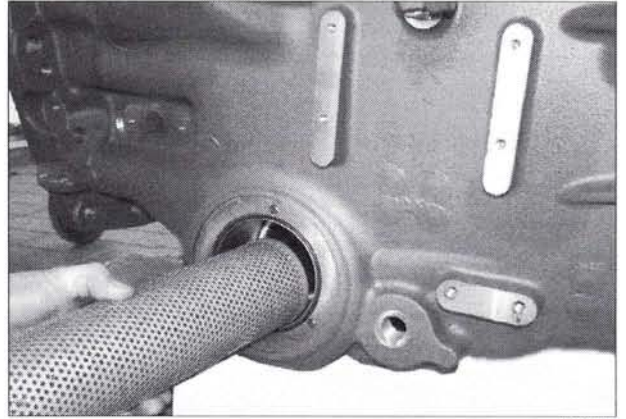
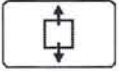


Fig. 4.

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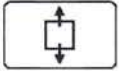


Remove the suction filter housing



Fig. 5.

1002760



Remove the hex bolts of the shielding panels

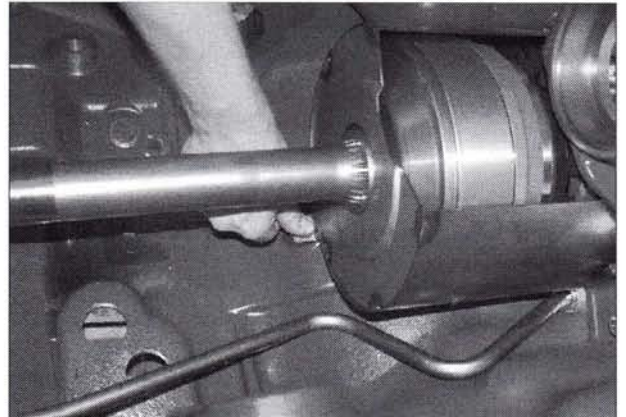
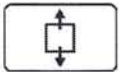


Fig. 6.

1002764



Remove the hex bolts and press off the cover with two screws

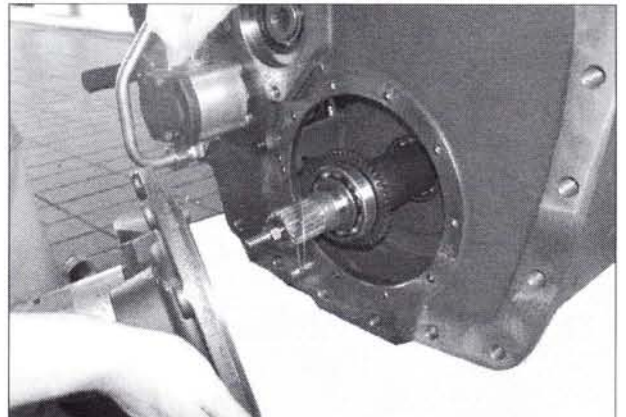
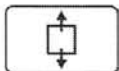


Fig. 7.

1002761



Pull out the shaft with a slide hammer puller

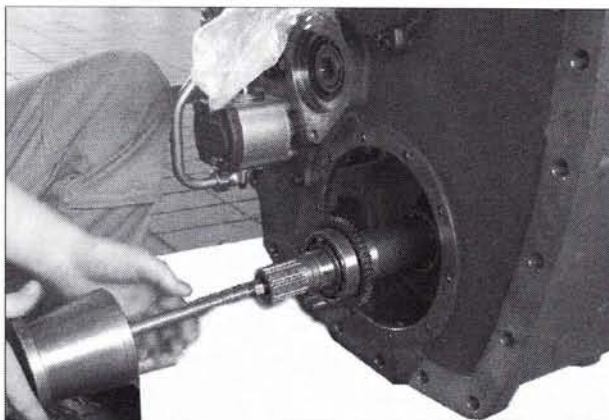
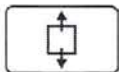


Fig. 8.

I002762



Pull out the shaft

CAUTION: After dismantling the shaft the front wheel drive clutch has no guide
Risk of injury!

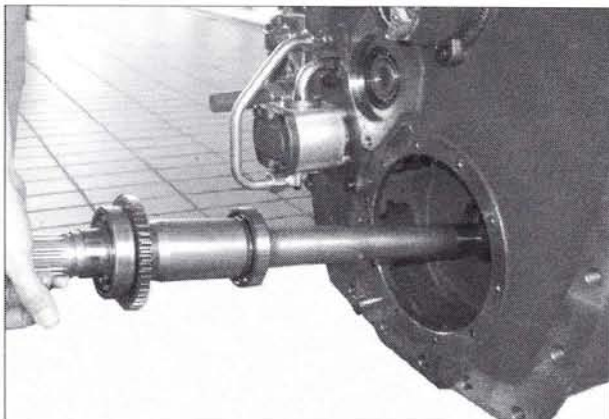
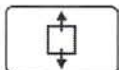


Fig. 9.

I002763



Remove the front wheel drive clutch completely from the housing

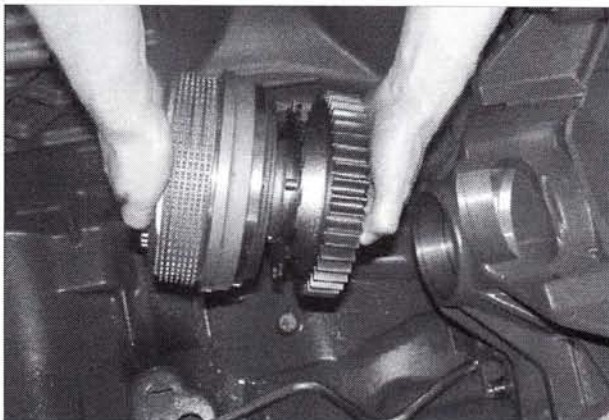
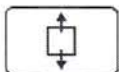


Fig. 10.

I002765



Fit the assembly bracket
 Press the belleville package using a press until the circlip can be moved freely.
 Remove the circlip and release the press carefully

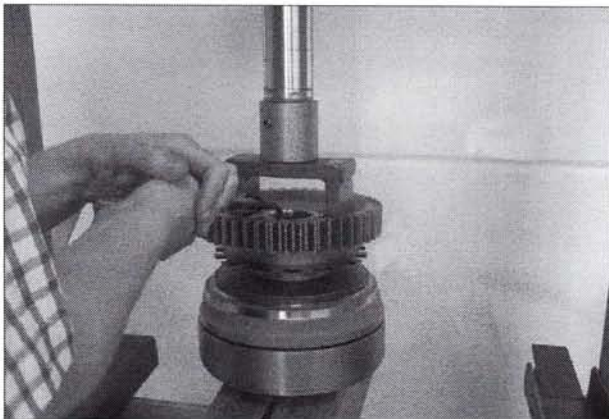


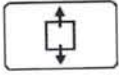
Fig. 11.

I002766

919 .. 0101-1000
 919 .. 1001-
 922 .. 0101-1000
 922 .. 1001-
 925 .. 0101-1000

925 .. 1001-
 928 .. 0101-1000
 928 .. 1001-
 931 .. 0101-1000
 931 .. 1001-

934 .. 0101-1000
 934 .. 1001-

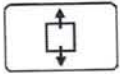


Remove the spur gear



Fig. 12.

1002767



Remove the belleville package

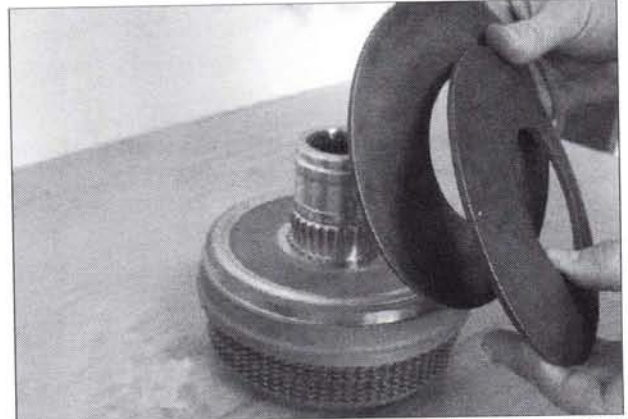
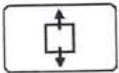


Fig. 13.

1002768



Remove the piston and the disc package from the disc carrier



Fig. 14.

1002769

2 Fitting the front wheel drive clutch

NOTE: The work was carried out on a model for greater clarity.

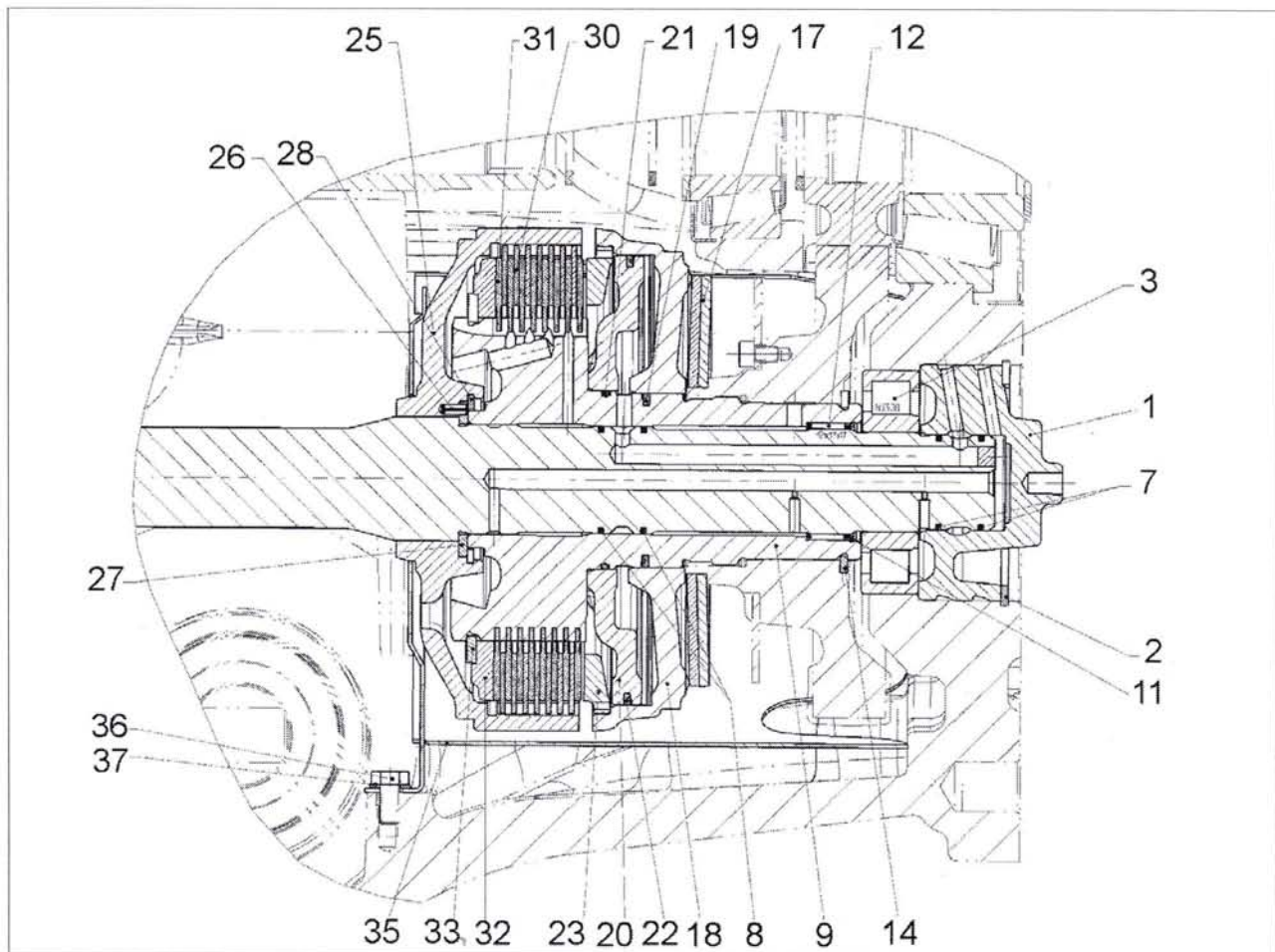


Fig. 15.

1002760

Item	Designation	Item	Designation
1	Cover	23	Supporting plate
2	Circlip	25	Bell housing
3	Cylinder roller bearing	26	Dowel pin
5	Shaft	27	Washer
6	Screw plug	28	Circlip
7	Rectangular-section ring	30	External disc
8	Rectangular-section ring	31	Internally toothed disc
9	Disc carrier	32	Supporting plate
11	Snap ring	33	Circlip
12	Needle bearing	35	Shroud
14	Circlip	36	Hex bolt
15	Spur gear	37	Washer
17	Bellville spring pack	39	Deep-groove ball bearing
18	Piston	40	Spur gear
19	Lip seal	41	Deep-groove ball bearing
20	Piston disc	42	Shim pack
21	O-ring	43	Circlip
22	Lip seal		

919 .. 0101-1000
 919 .. 1001-
 922 .. 0101-1000
 922 .. 1001-
 925 .. 0101-1000

925 .. 1001-
 928 .. 0101-1000
 928 .. 1001-
 931 .. 0101-1000
 931 .. 1001-

934 .. 0101-1000
 934 .. 1001-

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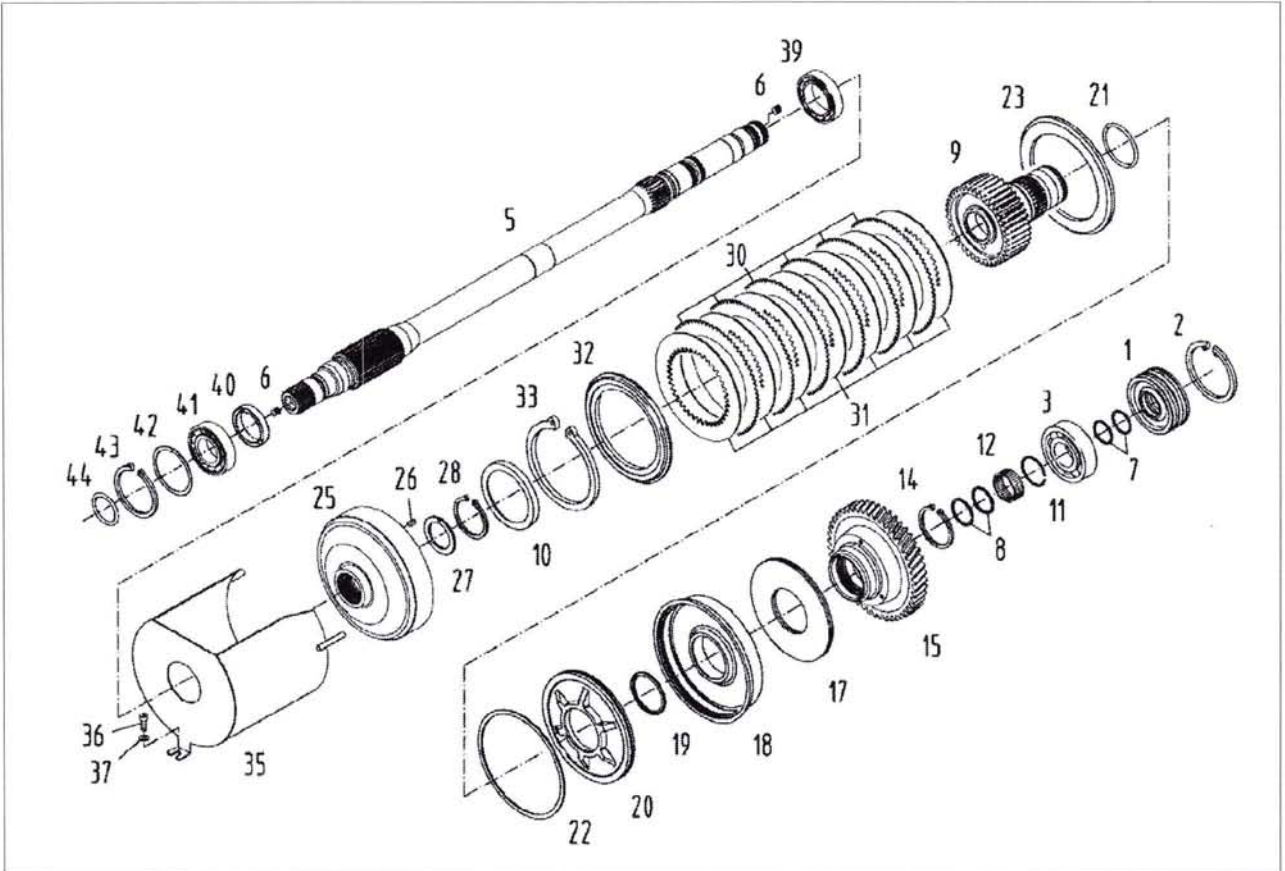
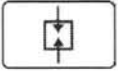


Fig. 16.

1002781

Item	Designation	Item	Designation
1	Cover	23	Supporting plate
2	Circlip	25	Bell housing
3	Cylinder roller bearing	26	Dowel pin
5	Shaft	27	Washer
6	Screw plug	28	Circlip
7	Rectangular-section ring	30	External disc
8	Rectangular-section ring	31	Internally toothed disc
9	Disc carrier	32	Supporting plate
11	Snap ring	33	Circlip
12	Needle bearing	35	Shroud
14	Circlip	36	Hex bolt
15	Spur gear	37	Washer
17	Bellville spring pack	39	Deep-groove ball bearing
18	Piston	40	Spur gear
19	Lip seal	41	Deep-groove ball bearing
20	Piston disc	42	Shim pack
21	O-ring	43	Circlip
22	Lip seal		



Fit new lip seal (22) into the piston disc (20)

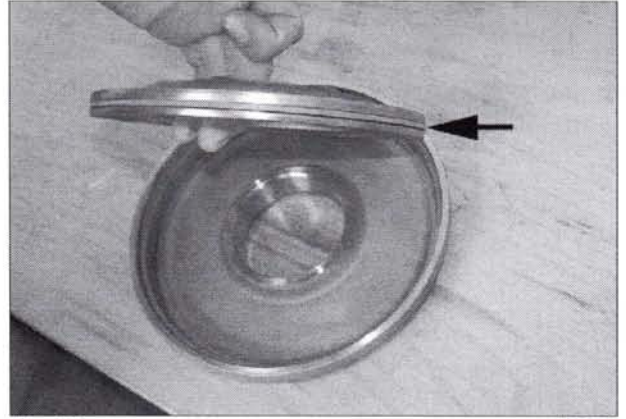
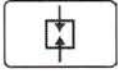


Fig. 17.

1002770

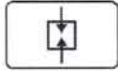


Fit the piston disc (20) into the piston (18)



Fig. 18.

1002771



Fit new lip seal (19) and O-ring (21) into the disc carrier

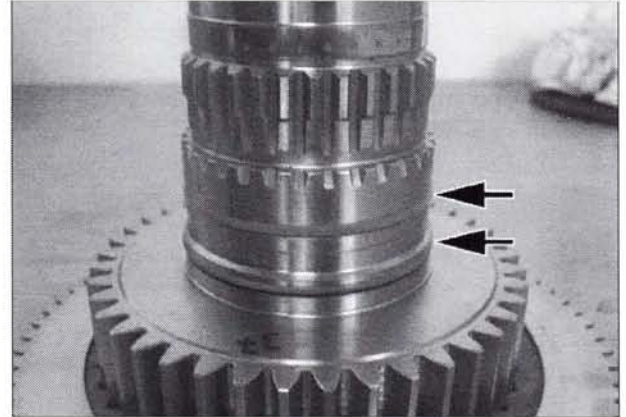
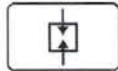


Fig. 19.

1002773



If necessary, replace the needle bearing (12)

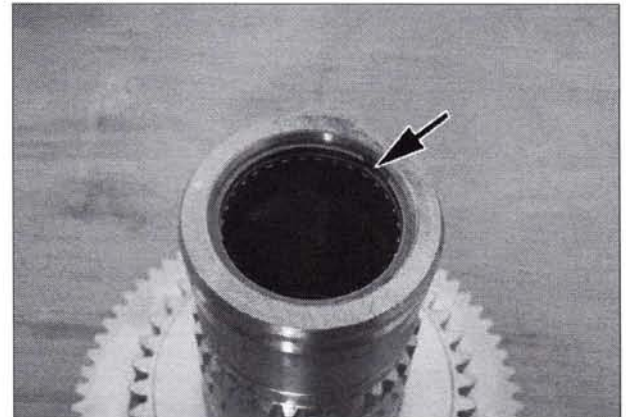


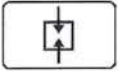
Fig. 20.

1002772

919 .. 0101-1000
 919 .. 1001-
 922 .. 0101-1000
 922 .. 1001-
 925 .. 0101-1000

925 .. 1001-
 928 .. 0101-1000
 928 .. 1001-
 931 .. 0101-1000
 931 .. 1001-

934 .. 0101-1000
 934 .. 1001-

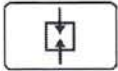


Fit the disc carrier (9) into the clutch bell housing (25)



Fig. 21.

1002791



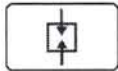
Fit the supporting plate (32) and the disc package (30, 31) to the disc carrier

NOTE: Fit the supporting plate (32) with the groove to the bell housing (25)
Begin with an internal disc (31)



Fig. 22.

1002792

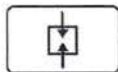


Fit the supporting plate (23) with the groove to the internal disc



Fig. 23.

1002793

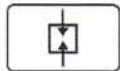


Fit the piston (18) with the piston disc (20)



Fig. 24.

1002794



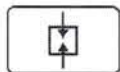
Fit the bellville spring pack (17)

NOTE: Both bellville springs with the curve upwards



Fig. 25.

1002795

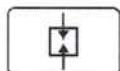


Fit the spur gear (15)



Fig. 26.

1002767



Fit the assembly bracket

Press the bellville spring pack (17) together with a clamp Snap on the circlip (14)

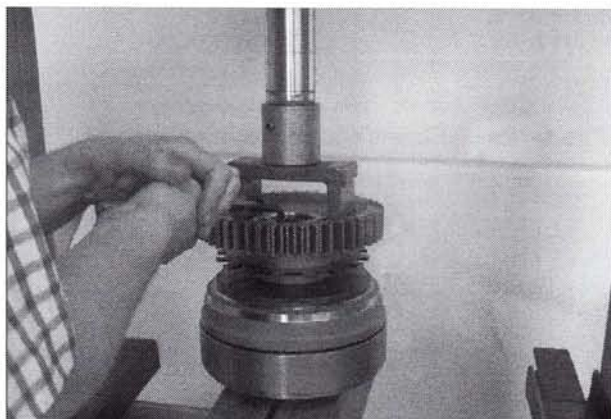
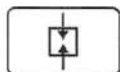


Fig. 27.

1002766



Install the front wheel drive clutch and shroud (35) into the transmission housing



Fig. 28.

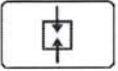
1002786

919 .. 0101-1000
919 .. 1001-
922 .. 0101-1000
922 .. 1001-
925 .. 0101-1000

925 .. 1001-
928 .. 0101-1000
928 .. 1001-
931 .. 0101-1000
931 .. 1001-

934 .. 0101-1000
934 .. 1001-

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Emplace and lock the rectangular-section rings (7, 8) into the grooves of the shaft (5)
Turn each of the rectangular-section rings through 180° and grease

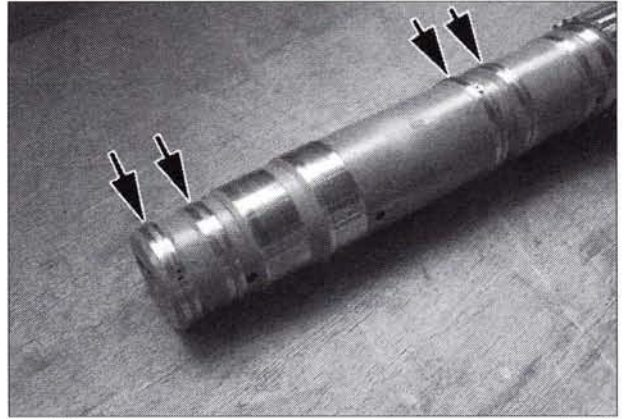
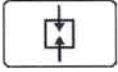


Fig. 29.

1002785



Fit the shaft (5)

NOTE: When fitting the shaft (5) ensure that the rectangular section rings (7, 8) are not damaged

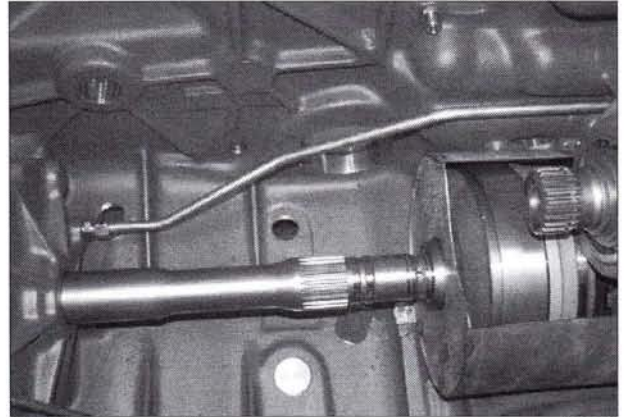
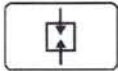


Fig. 30.

1002787



Fit the shim pack (42) and bearing cover
Fit a new shaft sealing ring into the bearing cover

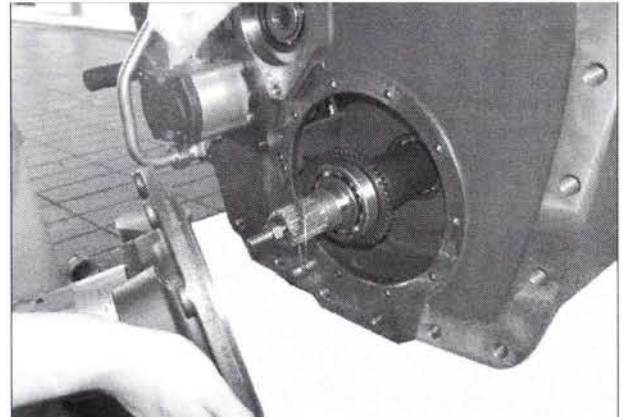
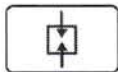


Fig. 31.

1002761



Using a measuring scale, check the play of the shaft (5)
Target = 0.3+01
If there is any deviation, adjust the play by means of the shim pack (42)

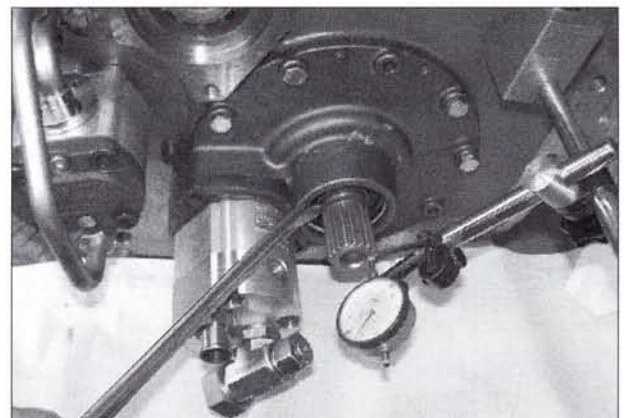
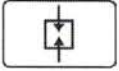


Fig. 32.

1002796



Fit the suction filter housing

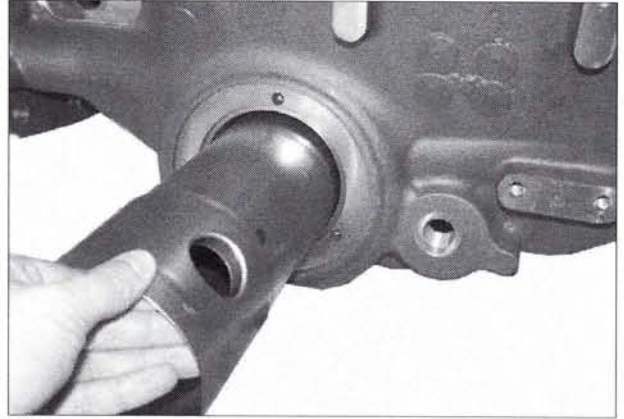
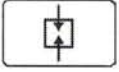


Fig. 33.

1002760

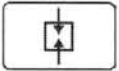


Fit new O-rings to the suction pipe



Fig. 34.

1002776



Insert the suction pipe into the suction filter housing

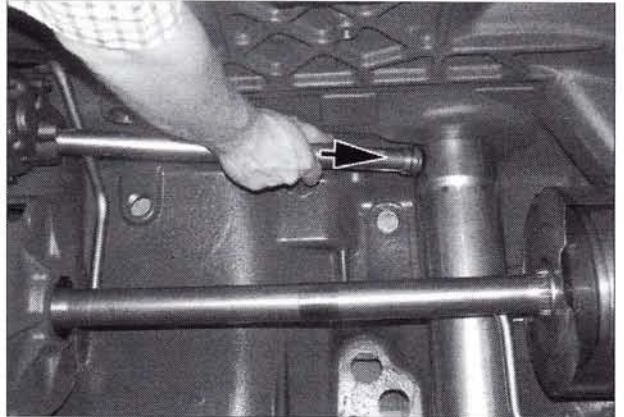
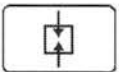


Fig. 35.

1002799



Fit the screw M8 and fixing washer

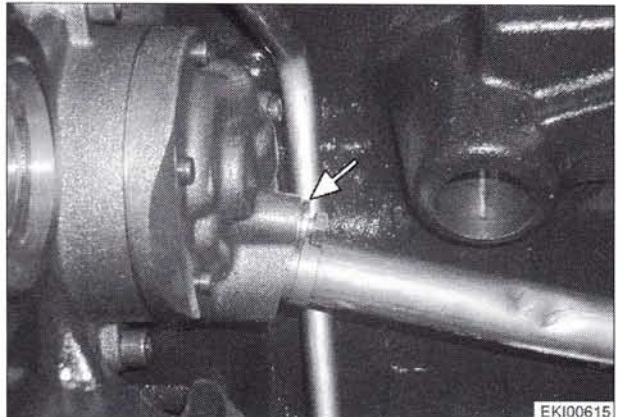


Fig. 36.

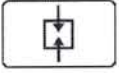
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1002907

919 .. 0101-1000
 919 .. 1001-
 922 .. 0101-1000
 922 .. 1001-
 925 .. 0101-1000

925 .. 1001-
 928 .. 0101-1000
 928 .. 1001-
 931 .. 0101-1000
 931 .. 1001-

934 .. 0101-1000
 934 .. 1001-



Fit the suction filter

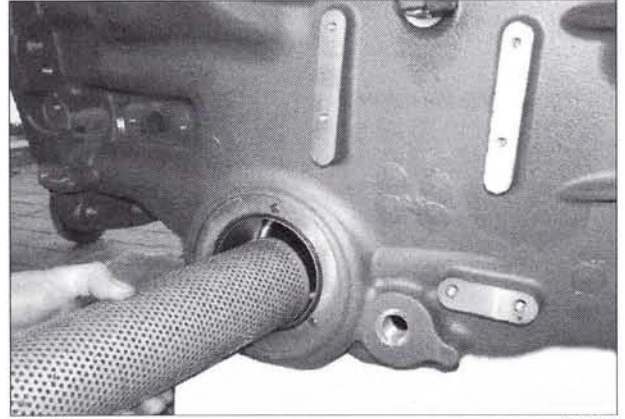
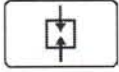


Fig. 37.

1002759



Fit the suction filter cover with a new O-ring

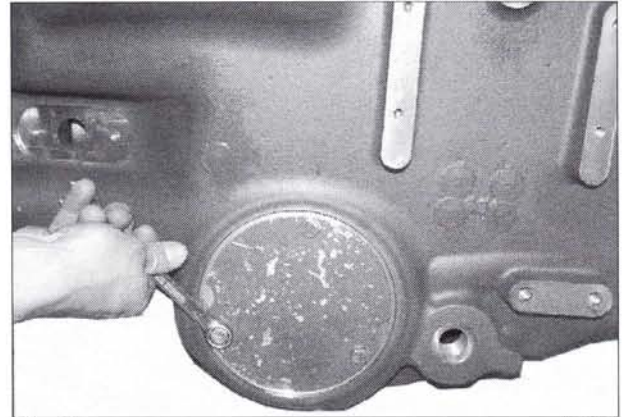


Fig. 38.

1002758

Final procedures:

- see §2
- see §6