

Revision: Revised and power steering pump VT 49 added.

A. Vickers Pump VT 27

Supply Tank

1 Unscrew knurled nut (1) and remove closing cover (2) together with paper seal on power steering pumps with screwed-on supply tank. Remove compression spring (4), damping plate (5) and filter ring (6). Unscrew hex. bolt (13) and hollow screw (8). Remove supply tank (3) and O-rings (9 and 11) from pump housing (10) (Fig. 1).

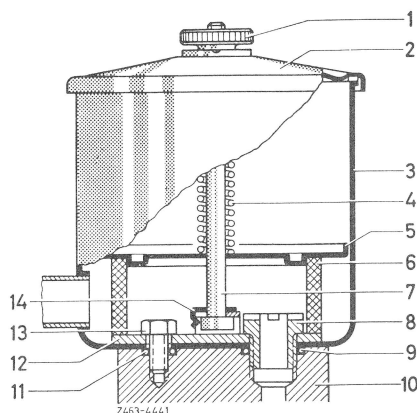


Fig. 1

- | | |
|----------------------|----------------------|
| 1 Knurled nut | 8 Hollow screw |
| 2 Closing cover | 9 O-ring |
| 3 Supply tank | 10 Pump housing |
| 4 Compression spring | 11 O-ring |
| 5 Damping plate | 12 Reinforcing plate |
| 6 Filter ring | 13 Hex. bolt |
| 7 Bolt | 14 Lock |

Rotor and Cam ring

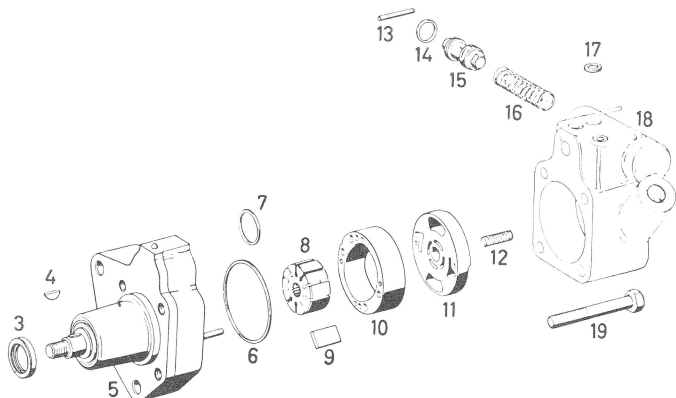


Fig. 2

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|--------------------------|--|
| 3 Radial sealing ring | 12 Compression spring for pressure plate |
| 4 Woodruff key | 13 Locking pin |
| 5 Housing cover | 14 O-ring (closing plug) |
| 6 O-ring (pump housing) | 15 Volume control valve with pressure relief valve |
| 7 O-ring (oil feed hole) | 16 Spring for volume control valve |
| 8 Rotor | 17 O-ring (supply tank) |
| 9 Pump vane | 18 Pump housing |
| 10 Cam ring | 19 Hex. bolt |
| 11 Pressure plate | |

2 Unscrew hex. bolts (19), by means of which the housing cover (5) is attached to pump housing (18) and remove pump housing (Fig. 2).

3 Remove compression spring (5) from pressure plate (3). **Mark pressure plate (3), cam ring (6) and housing cover (15) together** (refer to arrows in Fig. 3).

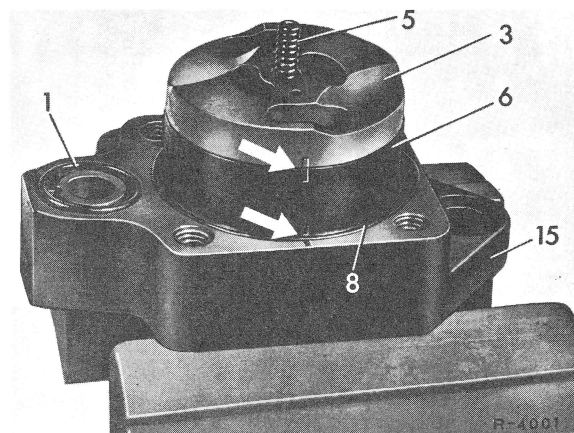


Fig. 3

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|----------------------|------------------|
| 1 O-ring | 6 Cam ring |
| 3 Pressure plate | 8 O-ring |
| 5 Compression spring | 15 Housing cover |

4 Remove pressure plate (3) from fitted pins, then remove cam ring (6) (Fig. 4).

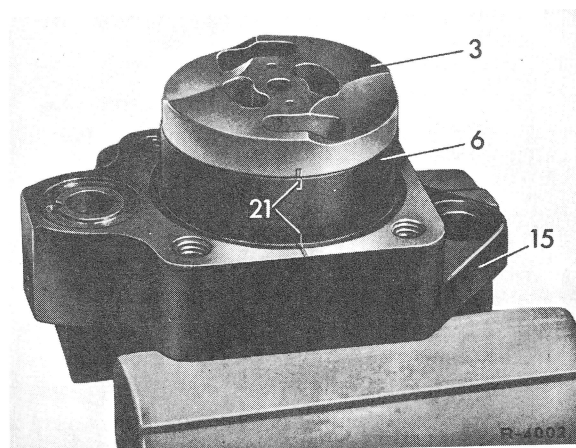


Fig. 4

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|------------------|------------------|
| 3 Pressure plate | 15 Housing cover |
| 6 Cam ring | 21 Marking line |

5 Remove rotor (7) together with pump vane (16) from splining of drive shaft (Fig. 5).

46.0 Disassembly of Power Steering Pump

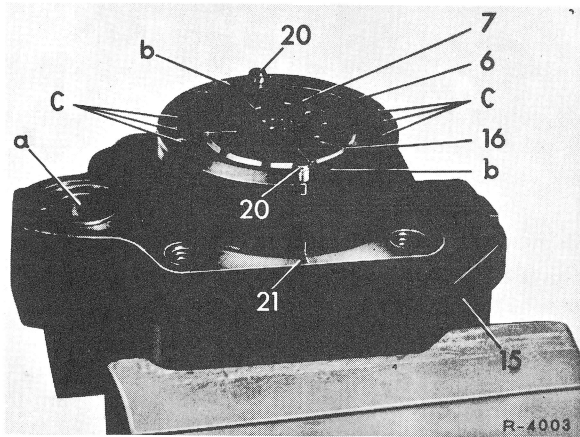


Fig. 5

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|-------------------------------------|------------------|
| a Oil inflow from supply tank | 15 Housing cover |
| b Pressure oil outlet from cam ring | 16 Pump vane |
| c Intake holes | 20 Fitted pin |
| 6 Cam ring | 21 Marking line |
| 7 Rotor | |

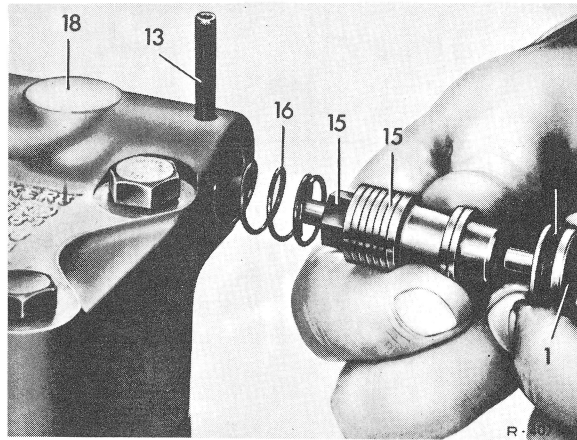


Fig. 6

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|-------------------------|-----------------------|
| 1 Closing plug | 15a Valve screw |
| 13 Locking pin | 16 Compression spring |
| 14 O-ring | 18 Pump housing |
| 15 Volume control valve | |

6 Remove O-ring (1 and 8) from housing cover (15) (Fig. 3).

7 Remove volume control valve (refer to item 9 and 10).

8 Clean all parts well and rinse.

Volume Control Valve

9 Knock locking pin (13) carefully from pump housing (18) (Fig. 6), since this will generally result in pushing the closing plug and the volume control valve of the compression spring out of the housing.

10 Remove closing plug (1), volume control valve (15) and compression spring (16) from pump housing (Fig. 6).

Note: If the closing plug remains seated in housing, loosen by means of light hammer blows against plug.

Make sure that volume control valve is not damaged.

11 Clamp volume control valve (32) at its unground end into vise and unscrew valve screw (53) of pressure relief valve. Make sure that no spacing washer (52) is lost.

Remove valve cone (51) and compression spring (50) from volume control valve (Fig. 7).

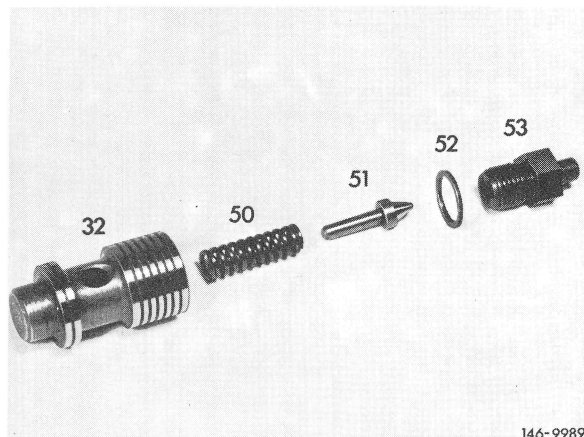


Fig. 7

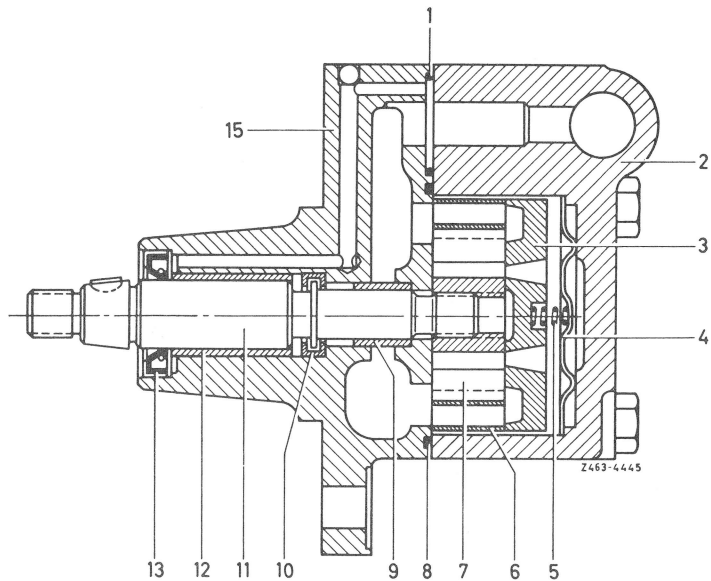
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| 32 Volume control valve | 51 Valve cone |
| 50 Compression spring for pressure relief valve | 52 Spacing washers |
| | 53 Valve screw |

Drive shaft and Sealing Ring

12 Press drive shaft (11) out of housing cover (15), watching out for the two shell halves (10) (Fig. 8).

Fig. 8

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|------------------------|--------------------|
| 1 O-ring | 8 O-ring |
| 2 Pump housing | 9 Bearing bushing |
| 3 Pressure plate | 10 Shell half |
| 4 Oil guide plate | 11 Drive shaft |
| 5 Compression spring | 12 Bearing bushing |
| 6 Cam ring | 13 Sealing ring |
| 7 Rotor with pump vane | 15 Housing cover |



B. Vickers Pump VT 49

1 Unscrew wing nut (47), remove closing cover (45), compression spring (43), the two damping plates (42 and 40) and filter ring (41) (Fig. 1).

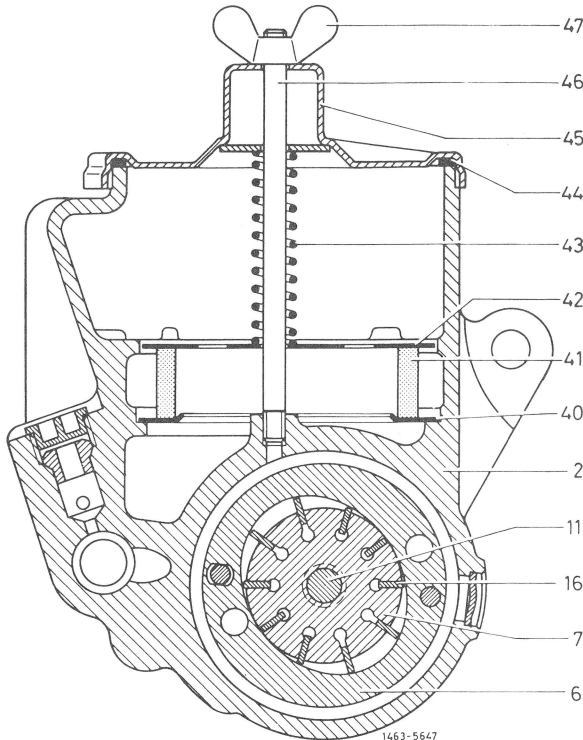


Fig. 1

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|------------------|-----------------------|
| 2 Pump housing | 42 Damping plate |
| 6 Cam ring | 43 Compression spring |
| 7 Rotor | 44 Gasket |
| 11 Drive shaft | 45 Closing cover |
| 16 Vane | 46 Stud |
| 40 Damping plate | 47 Wing nut |
| 41 Filter ring | |

Note: On first version of pump, a washer is inserted between compression spring and closing cover, on the second version, this washer is attached to cover.

2 Remove woodruff key from drive shaft.

3 Push cover (23) downwards and remove circlip (22) out of bore in housing (2) by means of a punch (064) (Fig. 2).

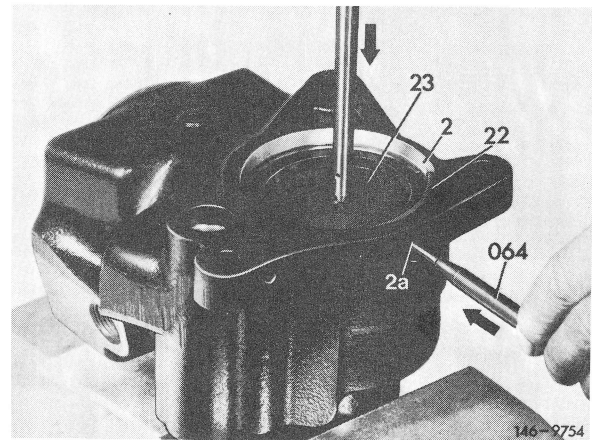


Fig. 2

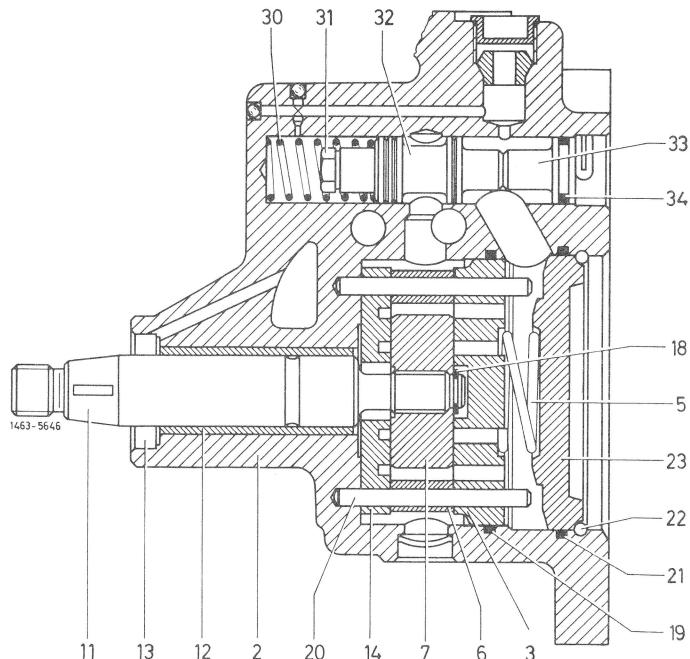
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| 2 Pump housing | 23 Cover |
| 2a Bore in housing | 064 Punch |
| 22 Circlip | |

4 Take spring (5) and O-ring (21) out of pump housing (2) (Fig. 3).

46.0 Disassembly of Power Steering Pump

Fig. 3

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|------------------------|-------------------------|
| 2 Pump housing | 19 O-ring |
| 3 Pressure plate | 20 Cyl. pin |
| 5 Compression spring | 21 O-ring |
| 6 Cam ring | 22 Circlip |
| 7 Rotor with vane | 23 Cover |
| 11 Drive shaft | 30 Compression spring |
| 12 Bearing bushing | 31 Valve screw |
| 13 Radial sealing ring | 32 Volume control valve |
| 14 Wear plate | 33 Closing plug |
| 18 Locking ring | 34 O-ring |



5 Push drive shaft (11) complete with pressure plate (3), rotor (7), cam ring (6) and wear plate (14) out of housing in rearward direction (Fig. 3 and 4).

6 Remove pressure plate (3), cam ring (6) and vanes (10 each) (Fig. 3).

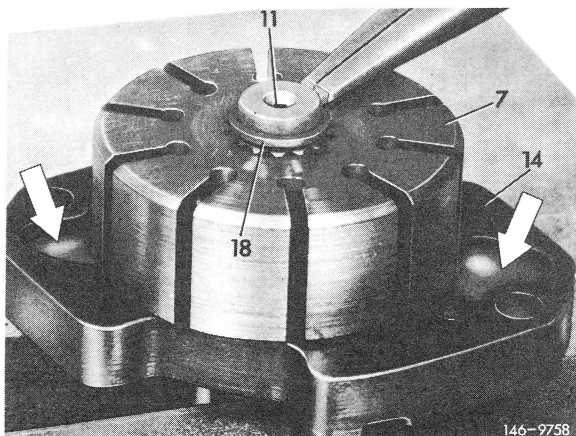


Fig. 4

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|----------------|-----------------|
| 7 Rotor | 14 Wear plate |
| 11 Drive shaft | 18 Locking ring |

7 Take locking ring (18) out of drive shaft (11), then remove rotor (7) and wear plate (14) (Fig. 4).

8 Remove cyl. pins (20) out of pump housing.

9 Force radial sealing ring (13) out of pump housing (2) (Fig. 3).

10 Knock locking pin (48) out of pump housing (2) with punch (064) (Fig. 5).

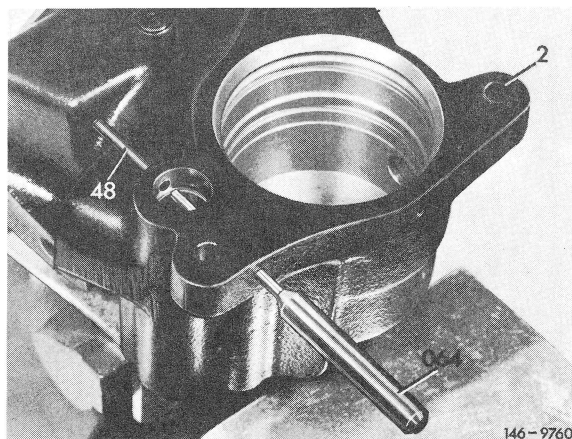


Fig. 5

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|----------------|-----------|
| 2 Pump housing | 064 Punch |
| 48 Locking pin | |

Note: Punch is self-made acc. to dimensions shown in Fig. 6.

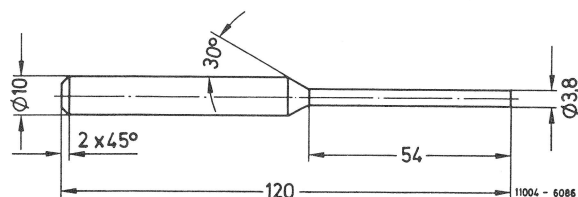


Fig. 6
Punch

11 Remove closing plug (34), volume control valve (32) and compression spring (30) from housing (Fig. 7).

Note: If the closing plug remains seated in housing, loosen by applying light hammer blows against plug.
Be sure not to damage volume control valve.

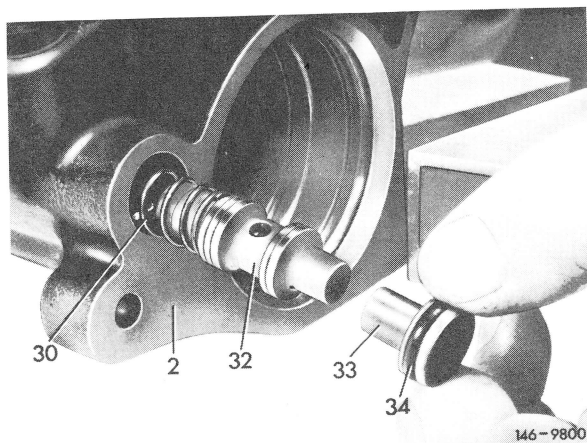


Fig. 7

- | | |
|-------------------------|-----------------|
| 2 Pump housing | 33 Closing plug |
| 30 Compression spring | 34 O-ring |
| 32 Volume control valve | |

12 Clamp volume control valve (32) with its unground end into vise and unscrew valve screw (53) of pressure relief valve. Make sure that no spacing washer (52) is lost. Remove valve cone (51) and compression spring (50) from volume control valve (Fig. 8).

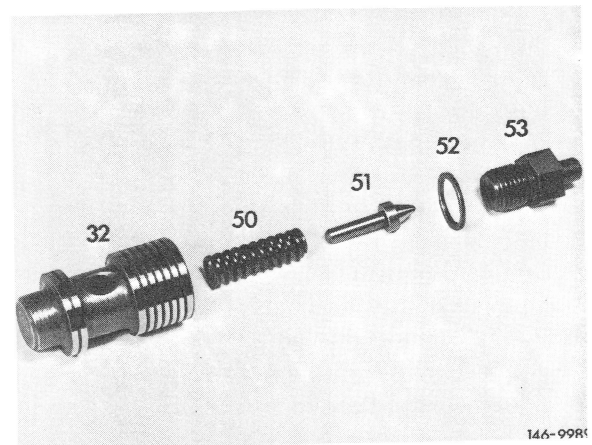


Fig. 8

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|-------------------------|-------------------|
| 32 Volume control valve | 52 Spacing washer |
| 50 Compression spring | 53 Valve screw |
| 51 Valve cone | |