Tightening to	orques		Nm
Oil drain plu	g to oil pan		35–45
Oil pan upper half to cylinder crankcase		M 6	9–11
		M 8	20–25
Oil pan lower half to upper half			9–11
Engine carrier to engine mount front			70
Oil pump	to crankcase		20–25
	to flange member		9–11
Sprocket on oil pump		30-35	
Special tools			
Torque wrench handle 20–100 Nm			001 589 35 21 00
Torque wrench handle 50—200 Nm		11004-7035	001 589 44 21 00
Changeover ratchet for torque wrench		<b>1</b> 1004-7115	001 589 42 09 00
Allen wrench 5 mm, 300 mm long		1004 - 8187	116 589 02 07 00
Knock-out mandrel 9 mm dia.		1904 - 8194	110 589 02 15 00
Socket 27 mm, 1/2" square for rotating engine		11004-6165	001 589 65 09 00
Knock-in tool for oil dipstick guide tube		11004-9254	117 589 00 31 00
Conventional	tool		
Engine hoist (Motordirigent) size 1.5		e.g. made by Bäcker, D–5630 Remscheid Order No. 3178	

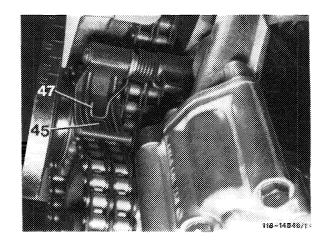
## Note

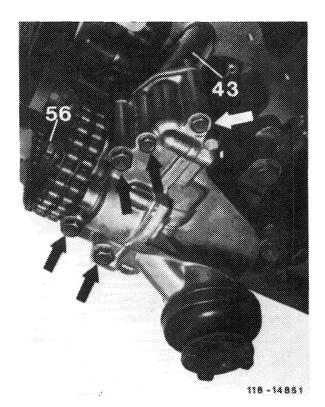
Since a connecting link might wipe against timing chain or oil pan, do not open double roller chain during repairs and connect again by means of a connecting link.

To renew double roller chain and tensioning unit, completely remove oil pan (01-310) and front cylinder housing cover (01-107).

## Removal

- 1 Completely remove oil pan (01-310).
- 2 Unscrew fastening screw (56) of sprocket.
- 3 Remove torsion spring (47) from clamp (45) in rearward direction.
- 4 Turn clamp in upward direction.
- 45 Clamp 47 Torsion spring
- 5 Remove sprocket by means of two screwdrivers.
- 6 Unscrew hex. screws (arrows) on oil pump and remove oil pump.
- 7 Remove sprocket.
- 8 Pull flange member (43) out of cylinder crankcase.



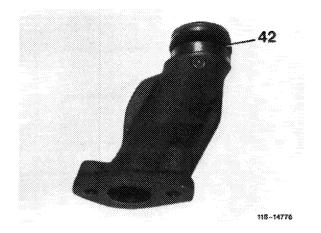


43 Flange member56 Fastening screw

## Installation

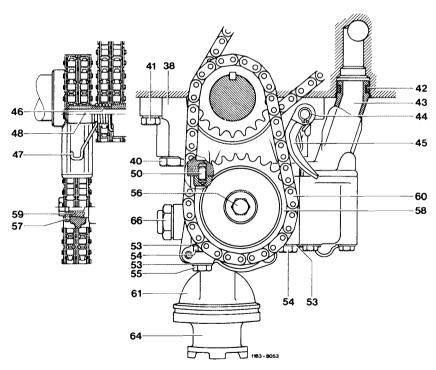
- 9 Renew O-ring (42) on flange member, if damaged.
- Insert flange member.
- Place sprocket into double roller chain.
- 12 Install oil pump and tighten fastening screws to 20-25 Nm on crankcase or 9-11 Nm on flange member.





- 13 Place sprocket on drive shaft and tighten fastening screw (56) to 30-35 Nm.
- 14 Set clamp on double roller chain and place torsion spring on clamp.
- 15 Completely install oil pan (01-310).

## Layout of oil pump



- Crankshaft bearing cover
- Hex. screw 40
- Hex. screw
- O-ring
- Flange member
- Locking ring 44
- 45 Clamp
- Bushing

- Torsion spring
- Bolt
- Fitted pin
- 53 54 Spring washer Hex. screw Hex. screw
- 55
- Hex. screw Washer
- Drive sprocket
- 59 Drive shaft
- Double roller chain 60
- 61 Strainer
- Adapter
- Closing plug oil pressure relief valve