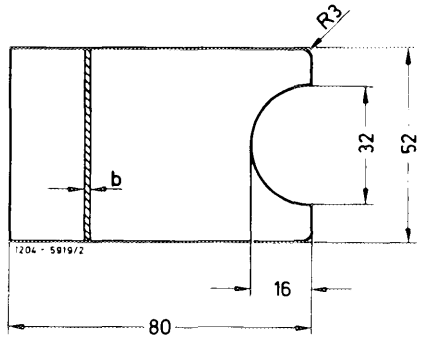
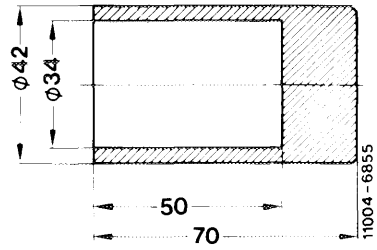
Self-made tools

Spacing plate
b = 2 mm

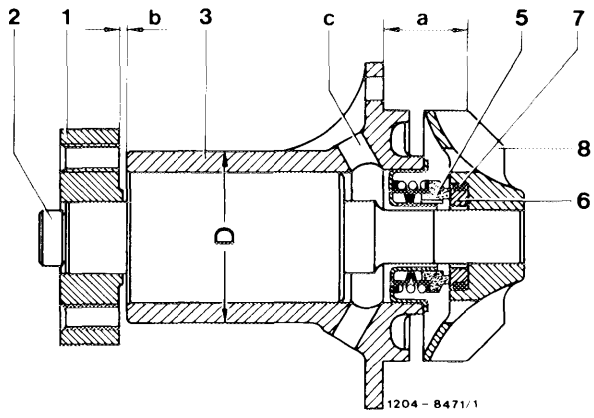


Installation sleeve



Note

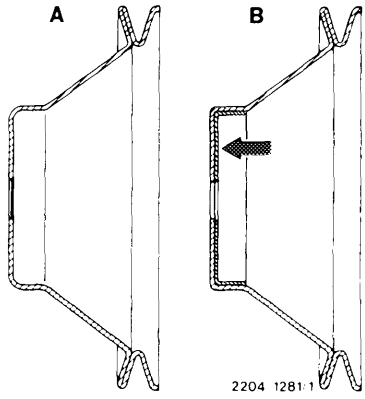
On engine 617.912, from engine end No. 046718 to 061708 with manual transmission and from 043754 to 058448 with automatic transmission, the water pump of engines 615, 616 with the smaller bearing dia. of 36 mm (D) has been installed.



1 Fan hub
2 Water pump shaft with compact bearing
3 Bearing housing
5 Sliding ring seal
6 Counter-ring
7 O-ring
8 Impeller
a 22.8–23.2 mm
b 2 mm
c Vent bores
D Bearing dia.

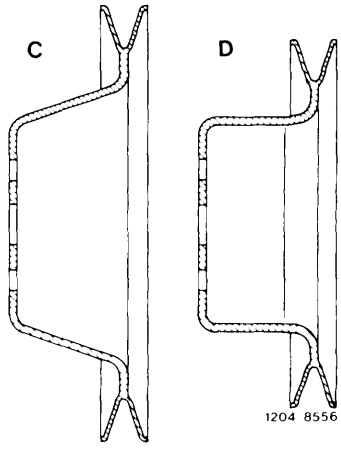
The water pump of engine 617.912 has a bearing diameter of 40 mm. In the event of repairs, install the water pump used up to now.

On engine 617.912 with 9.5 V-belt profile, the water pump pulley version A has been replaced by version B with soldered-in cup (arrow) starting October 1978. In the event of repairs, install new pulley with part No. 617 205 01 10.

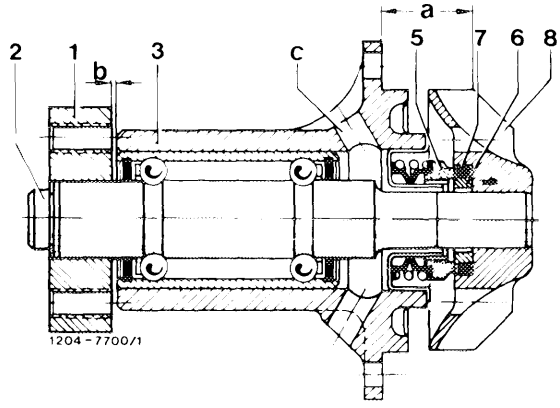


A 1st version
B 2nd version

On engine 616.912, the water pump pulley with 12.5 V-belt profile is installed since February 1979 on vehicles with manual transmission with a diamter of 176 mm (C) and on vehicles with automatic transmission with a diameter of 148 mm (D).



C Manual transmission with V-belt 12.5 x 1035
D Automatic transmission with V-belt 12.5 x 1000

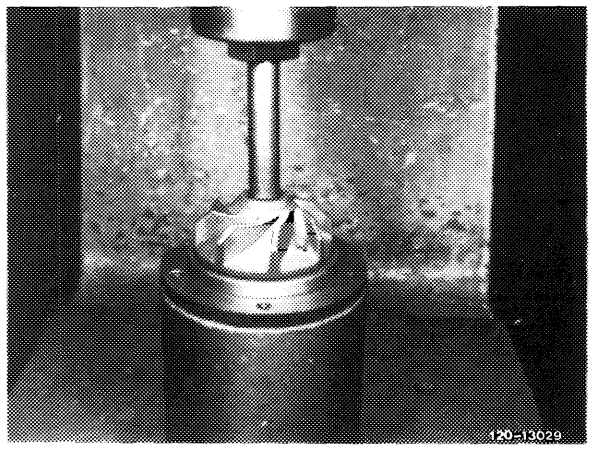


Water pump engine 617

1 Fan hub
2 Water pump shaft with compact bearing
3 Bearing housing
5 Sliding ring seal
6 Counter-ring
7 O-ring
8 Impeller
a 22.8–23.2 mm
b 2 mm
c Vent bores

Disassembly

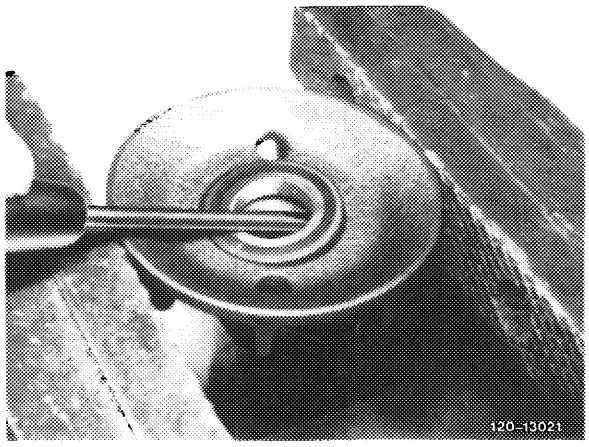
1 Support bearing housing with pertinent tubing and press-out water pump shaft by means of a mandrel.



2 Knock sliding ring seals from bearing housing.

3 Remove counter-ring from impeller.

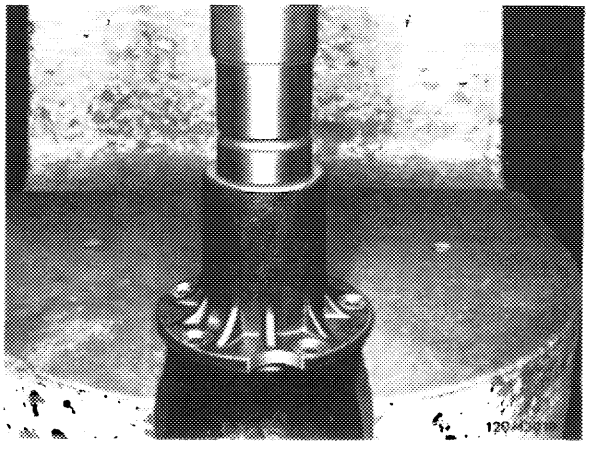
Note: Always replace compact bearing and fan hub following disassembly.



Assembly

4 Press-in new compact bearing flush with bearing housing by means of a tube positioned against outer race.

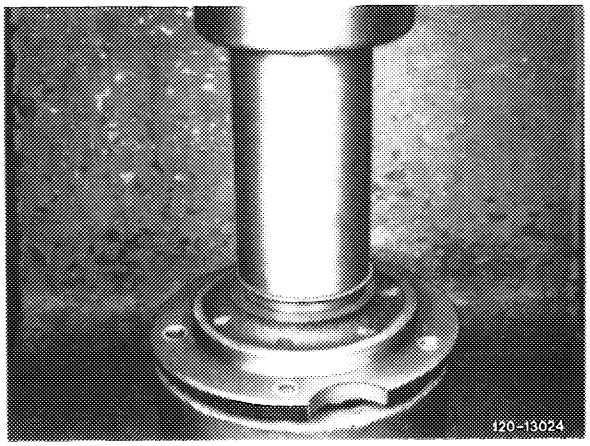
Do not press against water pump shaft.



5 Coat mounting bore of sliding ring seal in bearing housing sliding ring with sealing compound.

Press-in or knock-in sliding ring seal with pressing-in sleeve.

Attention !
Support only against bearing housing and not against water pump shaft.



6 Coat O-ring on counter-ring with brake cylinder paste and push with chamfered side (arrow) into thorougly cleaned impeller.

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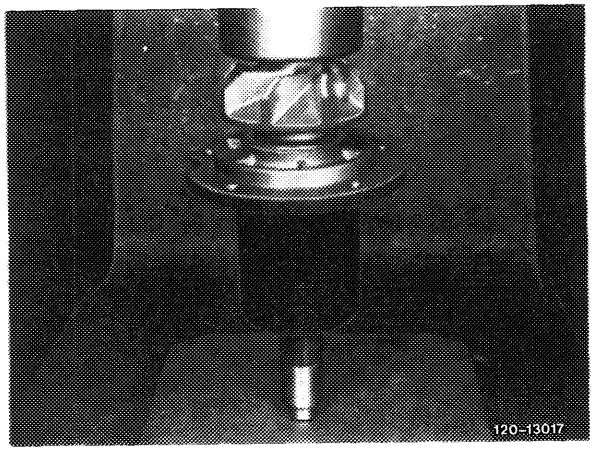
7 Clean sealing surfaces of counter-ring and sliding ring seal free of dust by means of a chamois cloth.

8 Degrease both shaft studs and impeller in bore.

9 Press-on impeller flush with shaft while supporting water pump shaft.



10 Heat fan hub on a hot plate to approx. 300°C (annealing color dark – up to light blue).

Place heated fan hub on a recessed base. Hold spacing plate on water pump shaft, slip water pump shaft on fan hub and apply a blast of compressed air against hub. Wait for a few seconds until fan hub is firm and then cool immediately in water bath.