

REPAIR-MANUAL

5 HP - 19

ZF GETRIEBE GMBH SAARBRÜCKEN

Version 99/04/15

Subject to alterations

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Preliminary information

This manual covers the procedure for repairing the complete transmission.

Repairs to this transmission must be carried out by persons trained by ZF Getriebe GmbH.

All disassembly and re-assembly work should be carried out in the order described.

The photographs apply to various versions and have therefore been kept general. They are not binding in every case.

Important changes that are specific to particular applications and need to be taken into account when carrying out repair work are announced in *Service Bulletins* and training courses.

If this repair manual is given to a third party, it will not be covered by our alteration service.

The instructions and specifications given in the *Service Bulletins* must be followed when carrying out repairs.

Depending on the damage that has occurred, it may be possible to limit repair work to this damage.

The following points should be noted:

- Seals, e.g. O-rings, shaft seals, gaskets and filters, should always be renewed.
- All O-rings, rectangular-section rings and other sealing rings should be smeared with white petroleum jelly before being fitted.
- All bearings must be fitted in a lightly oiled condition.
- All lined clutch discs and steel discs on high-mileage transmissions (> 80,000 km) must be replaced.
- Following damage to clutches/brakes, the converter, oil tubes and oil cooler must be thoroughly and adequately cleaned with a suitable cleaning agent.

Before carrying out repair work, make sure that:

- All special tools required are readily available.
The complete set of special tools is listed in Chapter 1.8.
- A suitable transmission test bench is available.
See *Service Bulletins* for the required test values.

Please note:

In this manual, the automatic control unit is treated as a complete unit. It should not be disassembled except by a specialist. It should be exchanged as a complete unit.

A separate manual is planned for the automatic control unit.

Important:

The transmission is filled with a long-life oil.

The oil does not have to be changed until it has been in use for 10 years.

The transmission must be delivered with the volume and type of oil specified in the relevant parts list documentation (see ELCAT).

Otherwise, the transmission may fail.

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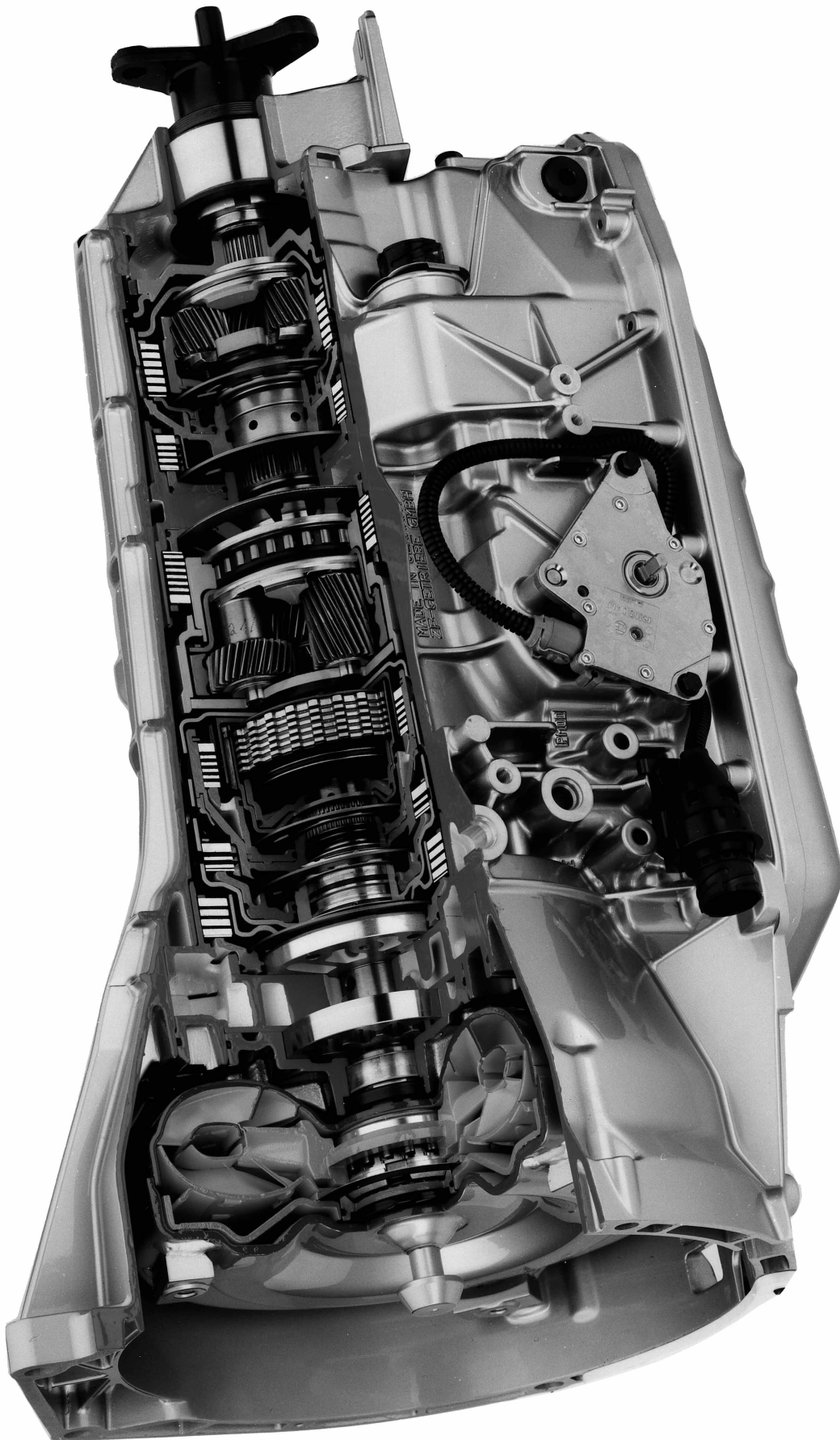
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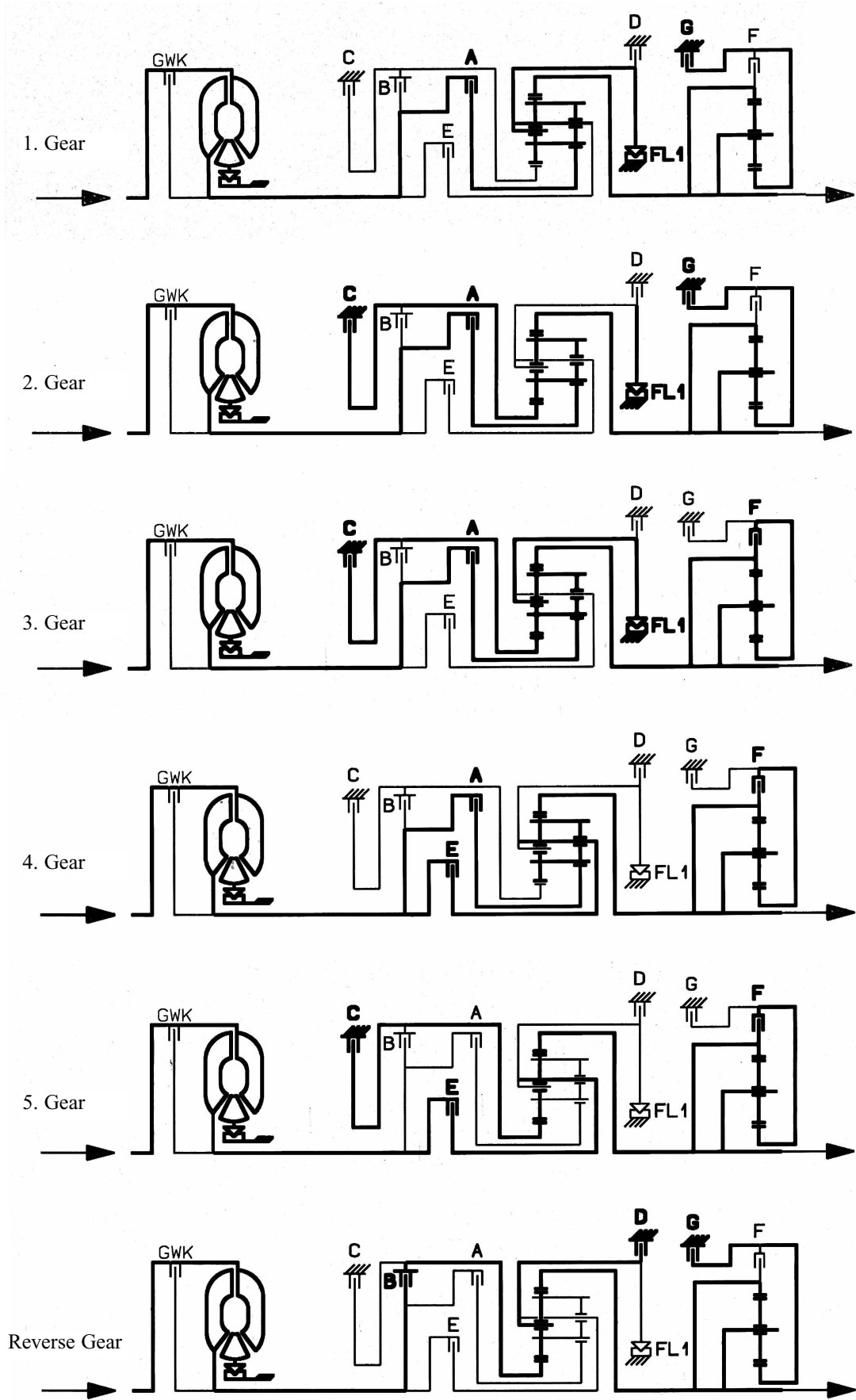
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1. General information

1.1 Picture of the transmission



1.2 Power flow diagram



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