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Sasse et al.

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(54) **TORSIONAL VIBRATION DAMPER**

(56) **References Cited**

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(73) Assignee: **ZF Sachs AG**, Schweinfurt (DE)

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(*) Notice: Subject to any disclaimer, the term of this patent is extended or adjusted under 35 U.S.C. 154(b) by 63 days.

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(30) **Foreign Application Priority Data**

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Dec. 16, 2003	(DE)	103 58 901

(57) **ABSTRACT**

A torsional vibration damper on the bridging clutch of a hydrodynamic clutch arrangement has a first connecting device, which can be brought into working connection with the clutch housing and with a drive-side transmission element. The drive-side transmission element is connected via first energy-storage devices to an intermediate transmission element. The torsional vibration damper also has a second connecting device for establishing a working connection via second energy-storage devices between the intermediate transmission element and a takeoff-side transmission element, which is connected to a takeoff-side component of the hydrodynamic clutch arrangement. The intermediate transmission element accepts a mass element, located operatively between the two connecting devices.

(51) **Int. Cl.**
F16D 47/02 (2006.01)

(52) **U.S. Cl.** **192/3.29; 192/213.1**

(58) **Field of Classification Search** **192/2.29, 192/213.1**

See application file for complete search history.

36 Claims, 10 Drawing Sheets

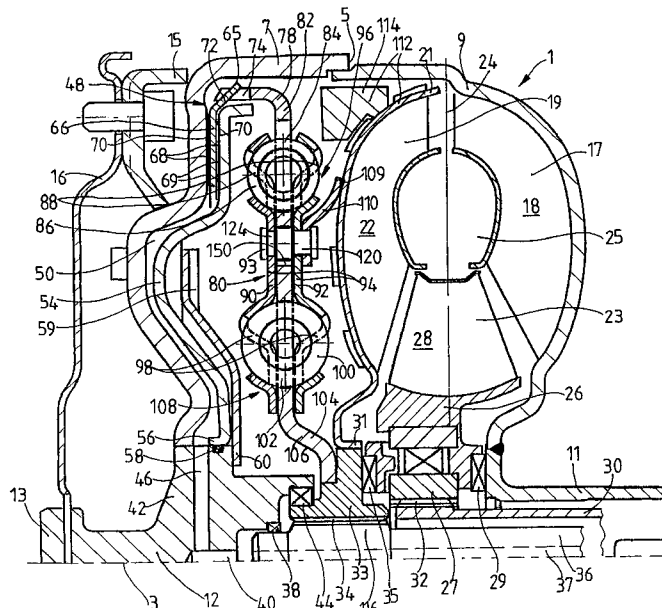
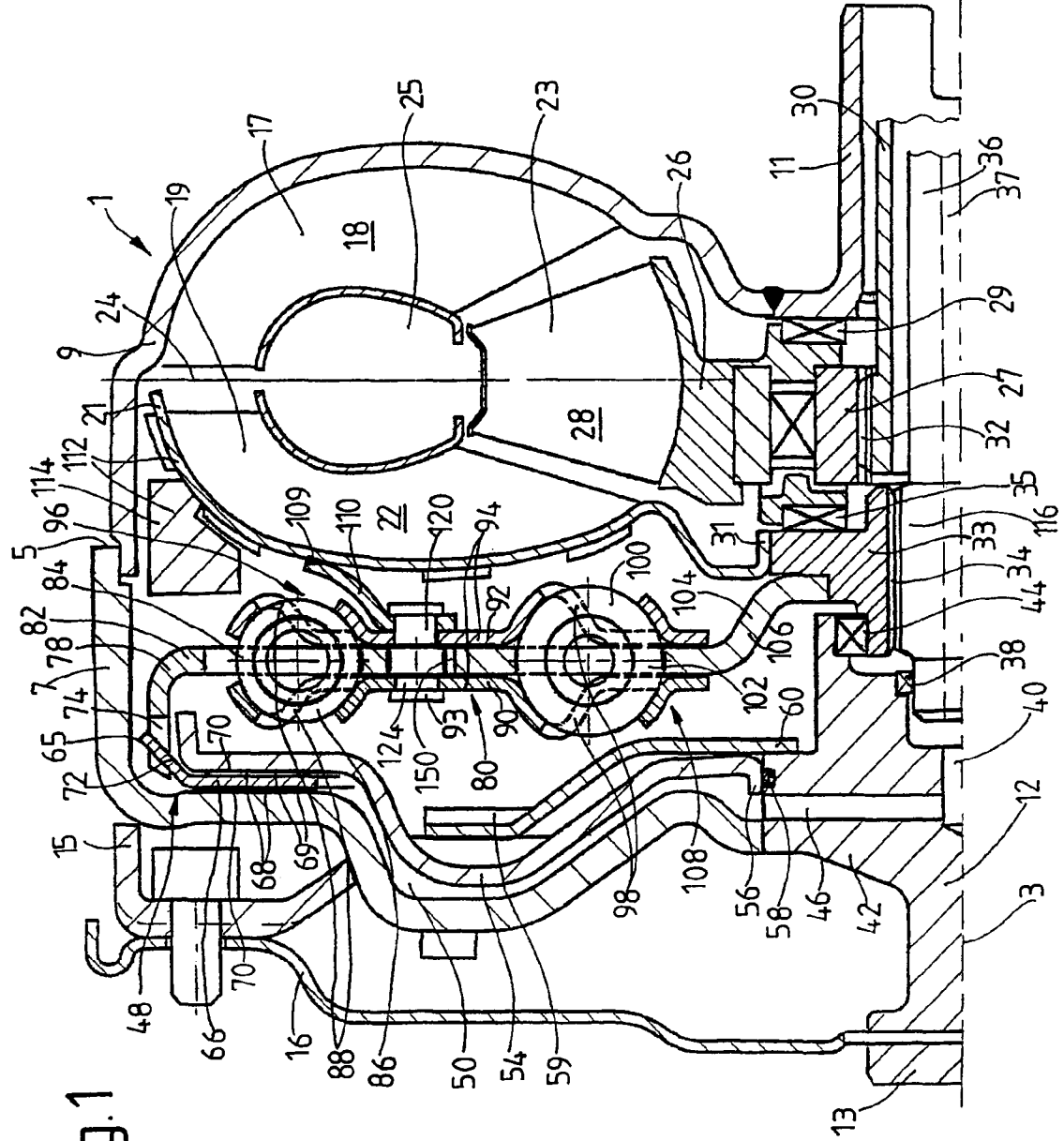


Fig.1



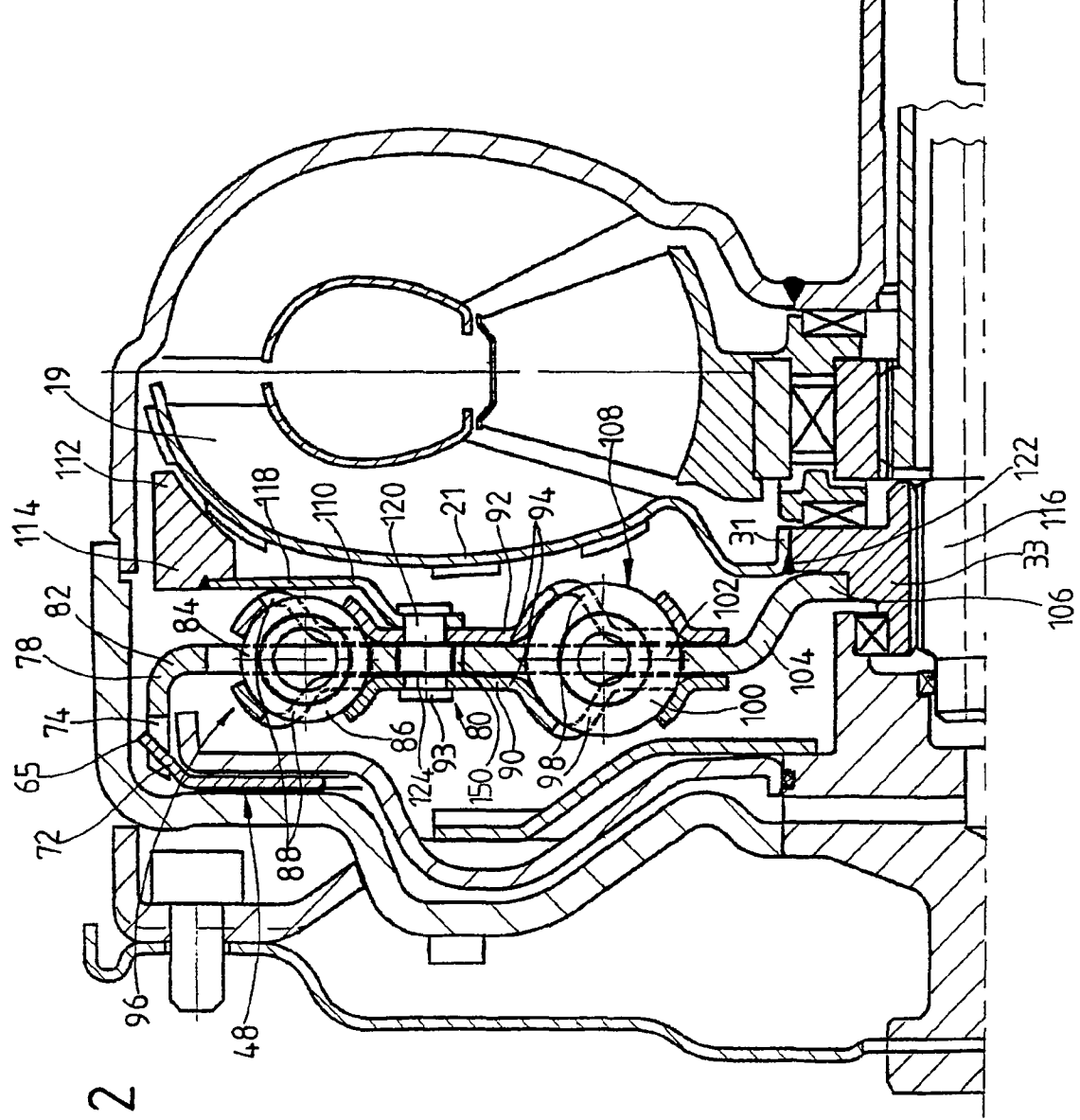


Fig. 2

Fig. 3

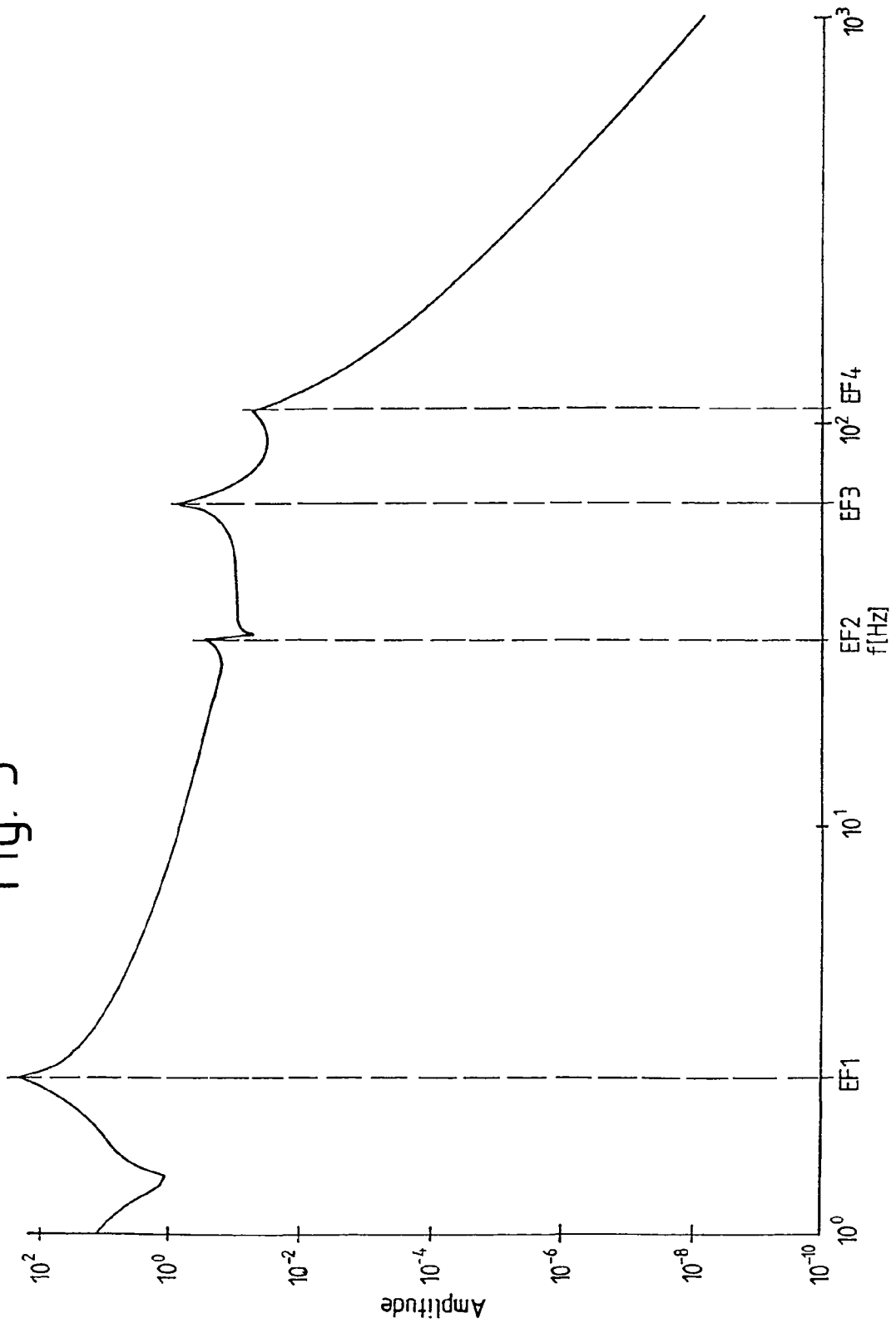
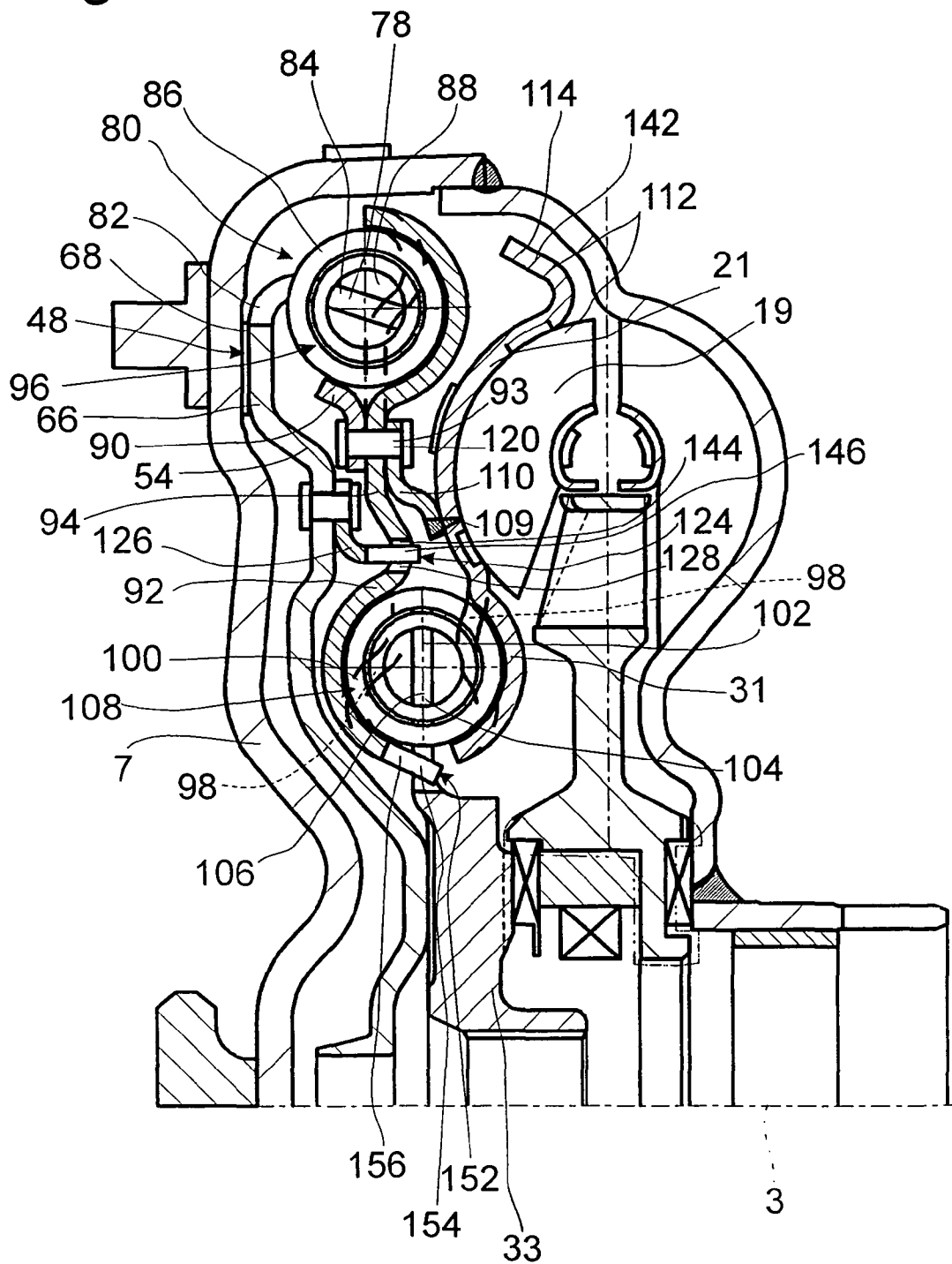


Fig. 4



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