

Title (en)  
ELECTROMAGNETIC JAW CLUTCH

Title (de)  
ELEKTROMAGNETISCHE KLAUENKUPPLUNG

Title (fr)  
EMBRAYAGE À GRIFFES ÉLECTROMAGNÉTIQUE

Publication  
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Application  
**EP 22736366 A 20220614**

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Abstract (en)  
[origin: WO2022264015A1] The invention relates to an electromagnetic jaw clutch, in particular for hybrid ship transmissions, comprising a first part (2) of the clutch and a second part of the clutch connectable by a drive/output shaft, a first crown gear (4) and a second crown gear detachably connected with the first part (2) and the second part of the clutch, respectively, and arranged in a way to mutually come in contact in a form-fit manner to transfer torque, a third crown gear (5) and a fourth crown gear having a plurality of teeth (7) in the form of ring segments, the tips of which are formed as flat faces. The tooth tips of the third and fourth crown gears, respectively, extend beyond the tooth tips of the first and second crown gears, respectively. The advantage of the electromagnetic jaw clutch according to the invention over known clutches is that, when the clutch is coupled at high revolutions, the first and second parts of the clutch are synchronised because of the friction of the teeth of the third and fourth crown gears before the teeth of the first and second crown gears come into engagement, thereby preventing damage to the teeth of the first and second crown gears.

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