Patent claims

1. A lifting gear having a load chain sprocket (6) and a drive shaft (4), which drives the load chain sprocket (6) by way of a gearbox (5), and a motor (10) having a motor shaft (11), wherein the motor shaft (11) and the drive shaft (4) are coupled by way of a brake clutch system (12), characterized in that the brake clutch system (12) has a clutch part (13), which is able to be coupled to the motor shaft (11), and a brake hub (15), which is rotatably disposed on a brake thread (14) of the drive shaft (4), wherein the clutch part (13) has dogs (20) and the brake hub (15) has pegs (21), wherein disposed between the clutch part (13) and the brake hub (15) is a vane disk (22) which has vane bodies (23) and is disposed on a coupling portion (24) of the drive shaft (4), and wherein a pressure plate (28) is positioned in a rotationally fixed manner on the drive shaft (4) proximal to the gearbox and disposed between the brake hub (15) and the pressure plate (28) are two friction disks (33, 34) and a brake disk (35) incorporated between the friction disks (33, 34), wherein the brake disk (35) is mounted in a rotationally fixed manner.

2. The lifting gear as claimed in claim 1, characterized in that the dogs (20) and the pegs (21) are rotatable relative to one another and during a rotating movement of the clutch part (13) for lowering a load come into mutual contact.

3. The lifting gear as claimed in claim 1 or 2, characterized in that the dogs (20) and the vane bodies (23) are rotatable relative to one another and during a rotating movement of the clutch part (13) for lifting a load come into mutual contact.

4. The lifting gear as claimed in claim 3, characterized in that during a rotating movement of the clutch part (13) for lifting a load the dogs (20) and the pegs (21) come into contact and the brake hub (15) is moved in the direction of rotation.

5. The lifting gear as claimed in one of claims 1 to 4, characterized in that the brake disk (35) is mounted in a housing (3).

6. The lifting gear as claimed in claim 5, characterized in that the brake disk (35) has recesses (36), in which counter bearing members (38) provided on the housing (3) engage.

7. The lifting gear as claimed in claim 6, characterized in that the recesses (36) are provided on the external circumference of the brake disk (35), and the counter bearing members (38) are provided on a wall (37) of the housing (3).

8. The lifting gear as claimed in one of claims 1 to 7, characterized in that the pressure plate (28) proximal to the gearbox is supported on a bearing (40).

9. The lifting gear as claimed in one of claims 1 to 8, characterized in that the brake hub (15) on the side that is directed toward the pressure plate (28) has an annular receptacle (42) on which a first friction disk (33) is disposed.

10. The lifting gear as claimed in one of claims 1 to 9, characterized in that the pressure plate (28) on the side that is directed toward the brake hub (15) has a receptacle portion (45) on which a second friction disk (34) is disposed.

11. The lifting gear as claimed in one of claims 1 to 10, characterized in that the dogs (20) project axially in the direction toward the brake hub (15), and the pegs (21) project axially in the direction toward the clutch part (13).

12. The lifting gear as claimed in one of claims 1 to 11, characterized in that spring elements (47) which are defined and specified to press the brake disk (35) against the brake hub (15) are provided.

13. The lifting gear as claimed in claim 12, characterized in that the spring elements (47) are supported in the housing (3).