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[54] **DRIVE TRAIN ASSEMBLY**

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[52] U.S. Cl. **180/60; 180/65.6; 74/413; 74/420**

[58] Field of Search **180/60, 65.5, 65.6, 180/65.7, 291, 343, 374; 74/413, 420**

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[57] ABSTRACT

A drive train assembly for motorized vehicles, for example lift trucks. The rotational movement of the output shaft of a motor, for example an electrical motor, is transmitted to a drive wheel by a single drive shaft having at one end a gear interface assembly consisting of a gear on the end of the output shaft and a gear on an end of the drive shaft, and at the other end of the drive shaft by a second gear interface assembly consisting of a gear on the drive shaft and a gear fixedly mounted on the inside of the rim of the drive wheel. The drive train assembly allows for strong, reliable transfer of rotational torque to the drive wheel in a compact, non-complex arrangement with a minimum number of drive parts, bearings and gears. The drive wheel is independently rotatably supported on a spindle mounted to the chassis of the vehicle and bears a majority of the external load and stresses, relieving the drive train assembly of a substantial amount of such load and stresses. The assembly contributes to other important lift truck design considerations, such as mast placement, counterbalance requirements, and right angle stack.

15 Claims, 3 Drawing Sheets

