

Demiseable Momentum Exchange System

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DESCRIPTION

This invention is a spacecraft's momentum exchange system. The system has a flywheel made of aluminum alloy, retractably supported on a base, where the flywheel comprises a web portion defining a set of web openings, and a rim portion. A cover engages the base to enclose the flywheel, where the base and the cover are made of aluminum alloy. The web portion defines a total web area and the web openings define an open web area of various sizes. The base comprises a relatively thin structure with a series of ribs. A housing is disposed on the base, where the flywheel is rotatably supported by the housing.

FEATURES AND BENEFITS

- The web openings define the open web area of various sizes, thus achieving the desired demiseability in the momentum exchange system.
- The base and the cover are made of aluminum alloy, thus providing sufficient weight and strength characteristics for the system.
- The base comprises the relatively thin structure with the series of ribs, thus providing the base with adequate strength and rigidity.
- The configuration of the system facilitates to provide attitude stability to the spacecraft.

APPLICATIONS

- Aerospace
- Aviation

FOR MORE INFORMATION

If you are interested in more information or want to pursue transfer of this technology, GSC-14845-1, please contact:

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