The Engineering Society For Advancing Mobility Land Sea Air and Space®

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Snowmobile Passenger Handgrips

SAE Recommended Practice
Reaffirmed October 1984

an American National Standard

The Engineering Society For Advancing Mobility Land Sea Air and Space ®

400 COMMONWEALTH DRIVE, WARRENDALE, PA 15096

SPECIALIZED VEHICLE PRACTICE

an American National Standard

SAE J1062

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SNOWMOBILE PASSENGER HANDGRIPS

1. SCOPE: This SAE Recommended Practice is intended to give information to engineers and designers in order that access to a passenger handgrip, when used, is easily obtained and that such handgrips offer maximum safety for a person at least as large as a 95th percentile adult male during snowmobile operation.

2. REFERENCES:

American Association Textile Chemists and Colorists (AATCC)

ASTM, Part 24, General Methods for Textile Materials

Federal CCC-T-191B, Textile Test Methods

Henry Dreyfuss, The Measure of Man (Human Factors in Design). Cincinnati: Watson Guptill Publications, 1973.

SAE J925

3. DEFINITIONS:

3.1 Snowmobile: A self-propelled vehicle intended primarily for off-road travel on snow, having a curb weight of not more than 1000 lb (450 kg), driven by a track or tracks in contact with the terrain, steered by a ski or skis in contact with the terrain.

3.2 Passenger: A person traveling on a snowmobile positioned either behind or beside the operator, but not controlling the vehicle.

3.3 Handgrip: A device on a snowmobile grasped by the passenger to maintain balance and stability during operation.

3.4 Designated Seating Position: Any plan view position intended by the manufacturer to provide accommodations for a 95th percentile adult male.

4. REQUIREMENTS:

4.1 Functionability: A passenger handgrip should be designed so that its ability to function effectively is not adversely affected by climatic or atmospheric conditions (such as aging, ozone, sunlight, petrochemicals, and dirt). These parameters to be checked per the applicable section of ASTM Part 24, Federal Specification CCC-T-191B, Textile Test Methods; ASTM Part 27, General Test Methods for Plastics; or Test Methods of the American Association of Textile Chemists and Colorists.

4.2 Location: Either a single passenger handgrip or a double passenger handgrip, or both, shall be provided for each designated passenger position. A single handgrip shall be located directly in front of every seating position or double handgrips shall be provided, one on each side of the seating position. All passenger handgrips shall be large enough to be easily grasped without exerting force or pressure by a 95th percentile adult male wearing heavy Arctic mittens, re: SAE J925.

4.3 Loading: Every passenger handgrip shall be attached to a loadcarrying part of the snowmobile and shall be capable of withstanding a 400 lb (1800 N) tensile force applied in the vertical plane and a 200 lb (900 N) tensile force applied in the horizontal plane, without failure of either the handgrip or its attach mechanism from the vehicle throughout a temperature range consistent with the methods of ASTM Part 27.

4.3.1 Any handgrip not rigidly attached to the snowmobile shall be affixed so it automatically returns to a position that is readily accessible.

5. DURABILITY CYCLE TEST: Durability should be verified by cycling the handgrip mounted in its designed position, applying a 200 lb (900 N) tensile load vertically for 5000 repetitions. Upon completion of the cycle test, the unit must meet the requirements of paragraph 4.3.