SAE International™

SURFACE VEHICLE RECOMMENDED PRACTICE

SAE J44

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Service Brake System Performance Requirements—Snowmobiles

1. Scope—This SAE Recommended Practice establishes performance requirements for hand-operated brake systems on recreational, noncompetition snowmobiles.

2. References

2.1 Applicable Publication—The following publication forms a part of this specification to the extent specified herein. Unless otherwise indicated, the latest issue of SAE publication shall apply.

2.1.1 SAE PUBLICATION—Available from SAE, 400 Commonwealth Drive, Warrendale, PA 15096-0001.

SAE J45—Brake System Test Procedure—Snowmobiles

2.2 Related Publication—The following publication is provided for information purposes only and is not a required part of this specification.

2.2.1 SAE PUBLICATION—Available from SAE, 400 Commonwealth Drive, Warrendale, PA 15096-0001.

SAE J1282—Snowmobile Brake Control Systems

2.2.2 SSCC PUBLICATION—Available from Snowmobile Safety and Certification Committee, 271 Woodland Road, East Lansing, MI 48823.

SSCC 52—Snowmobile Brake Control Systems (Part of SSCC 11—Safety Standards for Snowmobile Product Certification)

3. General Requirement—The brake systems shall be functional under winter operating conditions.

4. Performance Requirements—When subjected to the test procedures given in SAE J45, the following requirements must be satisfied by the service brake system:

4.1 Preburnish Check

4.1.1 No component failure shall occur during the 400 N (90 lb) force application.

4.1.2 Deceleration shall be at least 3 m/s^2 (10 ft/s^2).

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4.2 Burnish Procedure—No unusual variations in deceleration versus brake lever force shall occur during the burnishing operation.

4.3 Effectiveness Test

4.3.1 Testing shall result in an average deceleration of at least 6 m/s^2 (20 ft/s^2) or a locked track, if 6 m/s^2 (20 ft/s^2) is unobtainable, from initial vehicle speeds of 32 and 64 km/h (20 and 40 mph).

4.3.2 During all phases of the test, no condition shall be permitted to cause the vehicle to lose stability due to track skid, to overturn, or to pull or swerve out of a test lane 1.2 m (4 ft) wider than the vehicle.

4.4 Water Test—Deceleration shall be at least 3 m/s^2 (10 ft/s^2).

4.5 Fade and Recovery Test

4.5.1 FADE TEST—Each stop shall be achieved with a deceleration of at least 4.6 m/s^2 (15 ft/s^2).

4.5.2 RECOVERY TEST—Testing shall result in an average deceleration of at least 6 m/s^2 (20 ft/s^2) or a locked track, if 6 m/s^2 (20 ft/s^2) is unobtainable, from an initial vehicle speed of 64 km/h (40 mph).

4.6 Final Inspection

4.6.1 Unusual wear, scores, or cracks of the brake friction material which may interfere with braking function shall be reason for rejection.

4.6.2 All components of the brake system shall be intact and functional.

5. Notes

5.1 Marginal Indicia—The change bar (l) located in the left margin is for the convenience of the user in locating areas where technical revisions have been made to the previous issue of the report. An (R) symbol to the left of the document title indicates a complete revision of the report.

PREPARED BY THE SAE SNOWMOBILE SUBCOMMITTEE OF THE SAE SPECIAL PURPOSE VEHICLE, ENGINE AND EQUIPMENT COMMITTEE