

SURFACE VEHICLE RECOMMENDED PRACTICE

SAE J33

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Submitted for recognition as an American National Standard

Snowmobile Definitions and Nomenclature—General

Foreword—This Document has not changed other than to put it into the new SAE Technical Standards Board Format. Definitions changed to Section 3. All other section numbers have changed accordingly.

- 1. Scope and Purpose**—This SAE Recommended Practice sets forth accepted definitions and terminology of major components and parts peculiar to snowmobiles.

Illustrations have been selected to identify functional characteristics and to identify common mechanisms. They are not intended to show all existing commercial machines or to be exactly descriptive of any particular machine. These criteria were prepared to facilitate clear understanding and promote uniformity in snowmobile nomenclature.

2. References

- 2.1 Applicable Publication**—The following publication forms a part of this specification to the extent specified herein. The latest issue of SAE publications shall apply.

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

SAE J1038—Recommendations for Children's Snowmobile

3. Definitions

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

3.1.1 CLASS I-COMPETITION SNOWMOBILE—A snowmobile intended only for competition as stated and identified publicly by the manufacturer.

3.1.2 CLASS II-CHILDREN'S SNOWMOBILE—A snowmobile intended only for use by children, as stated and identified publicly by the manufacturer. For a more detailed definition, see SAE J1038.

- 3.2 Operation Weight**—The total weight of a snowmobile including a full load of fuel, oil, coolant, tool kit (supplied by manufacturer), and an 80 kg (175 lb) operator.

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- 3.3 Curb Weight**—The total weight of a snowmobile including a full load of fuel, oil, coolant, and tool kit (supplied by manufacturer), but without any occupants or cargo.
- 3.4 Unladen Weight**—The weight of a snowmobile without load, fuel, and oil, but comprising of all other materials necessary for its operation.
- 3.5 Flotation Area (Bearing Area)**—The projection in a horizontal plane of the area on the surface of the track and skis which contact the snow. To account for machine penetration into snow, the projection plane is located 75 mm (3 in) above a nonyielding horizontal surface supporting the snowmobile while in a curb weight condition. (See side view Figure 1.)
- 3.6 Snowmobile Cutter**—A sleigh designed to be drawn behind a snowmobile.
- 4. Snowmobile Dimensional Definitions**—The dimensions listed are defined by Figure 1 and are to be taken with the snowmobile in an unladen weight condition on any unyielding horizontal surface, with the following exceptions:
- 4.1 Overall Length**—The horizontal distance from the foremost part of the snowmobile, to include the bumper and ski or ski handles, to the rearmost part of the snowmobile, to include the bumper or other fixed attachments.
- 4.2 Overall Height**—The vertical distance from any unyielding horizontal surface on which the snowmobile, in an unladen weight condition, rests to the topmost fixed part of the unladen snowmobile, including the windshield.
- 4.3 Overall Width**—The horizontal dimension of the minimum aperture through which the snowmobile can pass.
- 4.4 Driver Position**—The seated, forward-facing position which is necessary to operate the controls under normal operating conditions.
- 4.5 Passenger Position (if provided)**—The seated, forward-facing position in the area in which adequate handgrips have been provided.
- 5. Nomenclature**—The terms listed as follows are illustrated in Figure 2.
1. Steering Control (Handlebar)
 2. Console
 3. Headlight Hi-Lo Beam Switch
 4. Emergency Stop Switch (Electrical cut-off for engine ignition)
 5. Throttle Control (Lever type)
 6. Manual Starter Handle
 7. Ski Wear Rod, Wear Bar (Reduces ski wear and greatly improves directional control)
 8. Suspension (Slider and/or bogie wheel types)
 9. Track (Cleated or moulded, propels vehicle)
 10. Snow Flap (Deflects snow and debris released by the rotating track)
 11. Hitch
 12. Taillight/Brake Light
 13. Reflectors/Side Marker Lights
 14. Vehicle Identification Number (Right side of vehicle)
 15. Reflectors/Side Marker Lights
 16. Running Board and Footrest
 17. Front Bumper
 18. Headlight or Headlamp
 19. Windshield
 20. Brake Control
 21. Handlebar Grip

SAE J33 Reaffirmed DEC2000

- 22. Seat
- 23. Passenger Hand Grips (Not used on all machines)
- 24. Rear Bumper/Lift Handle (Not used on all machines)
- 25. Tunnel or Frame
- 26. Nose Pan or Belly Pan
- 27. Hood, Cowl, or Shroud
- 28. Ski
- 29. Ski Suspension (Leafspring type)
- 30. Ski Shock Absorber (Not used on all machines)
- 31. Ski Spindle or Ski Leg
- 32. Ski Handle or Tip

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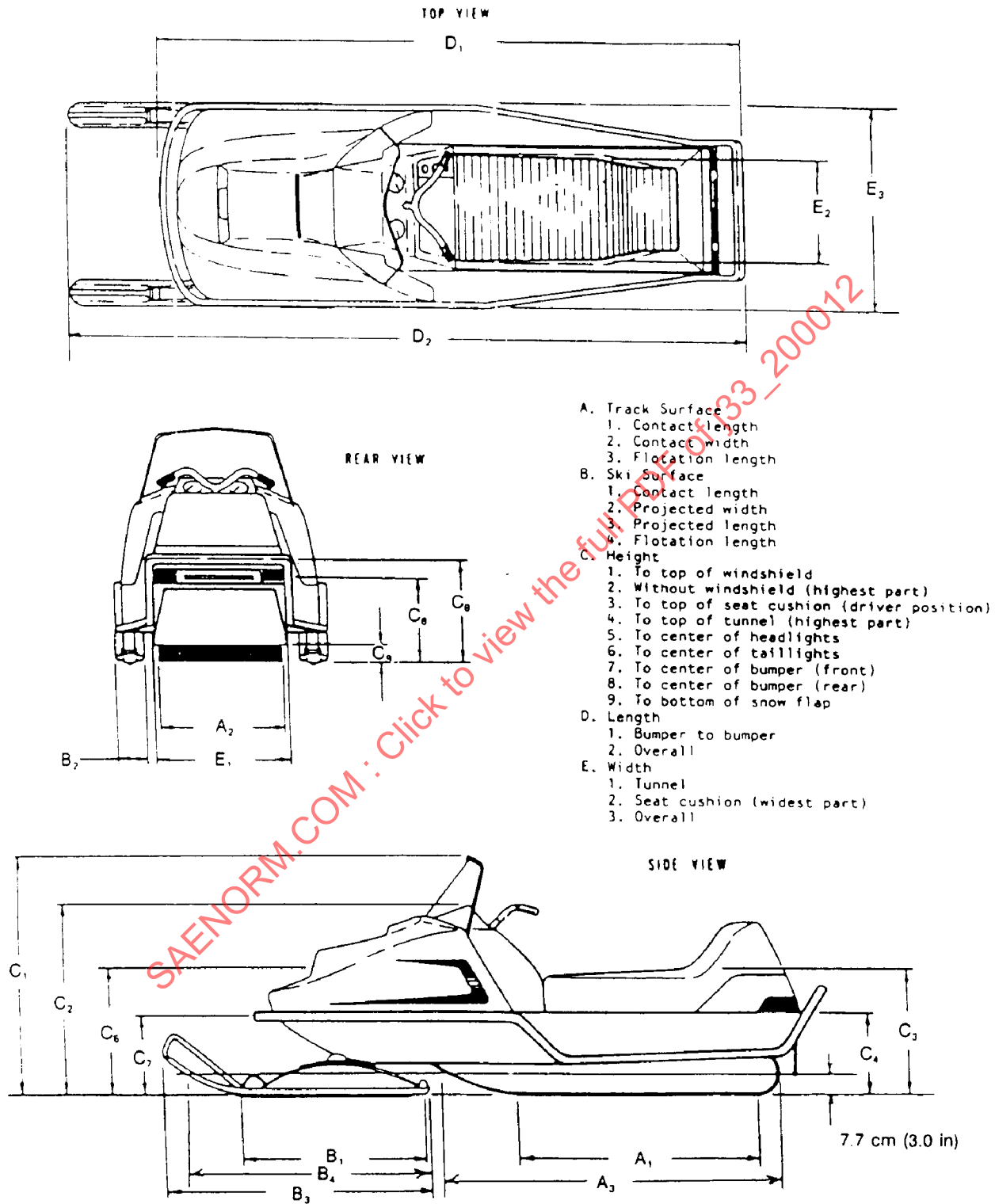


FIGURE 1—SNOWMOBILE DIMENSIONAL DEFINITIONS