

[NOT MEASUREMENT
SENSITIVE]

A-A-52166A

June 28, 1996

SUPERSEDING

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21 August 1991

COMMERCIAL ITEM DESCRIPTION

SNOWMOBILES: GASOLINE ENGINE DRIVEN, COMMERCIAL

The General Services Administration has authorized the use of this commercial item description for all federal agencies.

1. SCOPE. This commercial item description (CID) covers four types of commercial gasoline engine driven snowmobiles: moderate speed, high speed, high traction and heavy duty.

2. CLASSIFICATION. Snowmobiles are one of the following types:

Type I - Light duty, moderate speed (see tables I and II).

Type II - Light duty, high speed (see tables I and II).

Type III - Light duty, high traction (see tables I and II).

Type IV - Heavy duty, high traction (see tables I and II).

3. SALIENT CHARACTERISTICS

3.1 Materials. Materials shall conform to the contractor's commercial standards and shall be subject to all provisions of this CID. Asbestos, cadmium and radioactive materials shall not be used in this item. Radioactive material is defined by Title 10, Code of Federal Regulations, Parts 30 and 40, and as other radioactive material in which the specific activity is greater than 0.002 microcuries per gram or the activity per item equals or exceeds 0.01 microcuries.

Beneficial comments, recommendations, additions, deletions, clarifications, etc. and any other data which may improve this document should be sent by letter to: U.S. Army Tank-automotive and Armaments Command, ATTN: AMSTA-TR-E/BLUE, Warren, MI 48397-5000.

AMSC N/A

FSC 2340

DISTRIBUTION STATEMENT A. Approved for public release; distribution is unlimited.

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3.1.1 Material deterioration prevention and control. Vehicles shall be fabricated from compatible materials, inherently corrosion resistant or treated to provide protection against the various forms of corrosion and deterioration that may be encountered in any of the applicable operating and storage environments. Dissimilar metals shall not be used in intimate contact with each other unless protected against galvanic or electrolytic action.

3.2 Design and construction. Vehicle shall be procurable as an “off-the-shelf”, commercially produced, readily available item as specified herein.

3.2.1 Airdrop capability. When specified (see 7.2), the vehicle shall be capable of being airdropped using standard military pallet systems (see 7.3). The front ski(s) shall be easily removable to reduce the vehicle length. The vehicle shall be capable of resisting vertical decelerations of approximately 18.5 times the vehicle weight.

3.2.2 Payload capacity. The total vehicle payload shall be not less than that shown in table I. The payload shall include the operator and, when applicable, a passenger (weight computed at 200 pounds (lbs) each).

3.2.3 Towed sled weight. The towed sled weight shall be the weight towed by the snowmobile and shall include the weight of the sled and its payload. The snowmobile shall be capable of towing a towed sled weight of not less than that specified in table I and shall be capable of towing the towed sled weight in snow conditions specified in table II.

3.2.4 Ratings. Vehicle ratings shall be the manufacturer’s published ratings and shall be not less than those specified in table I.

TABLE I. Snowmobile weights, loads, and ratings.

Type	Payload (lbs)	Towed sled weight (lbs)	Ground pressure (psi)
I	400	500	0.404
II	400	300	0.445
III	400	600	0.405
IV	600	1000	0.390

3.2.5 General configuration. Types I, II and III snowmobiles shall be equipped with a single track drive system and dual steering skis. Type IV snowmobile shall be equipped with a twin drive system, with single or dual steering skis and a cargo area located to the rear and parallel to the seat.

3.2.6 Seating configuration. The seat shall be of the open saddle type with friction-surfaced foot rests along the sides. The seat shall be well-padded to withstand the vertical accelerations expected, in accordance with SAE J89. For type IV, a backrest shall be adjustable to

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accommodate the operator and equipment. For types I and III, and when specified for types II and IV (see 7.2), the seat shall have provision for a passenger and shall include a passenger handgrip behind the operator. The handgrip shall be in accordance with SAE J1062. Metallic passenger handgrips shall have hand warmers built in.

3.2.7 Cargo area (type IV). The cargo area shall be rail-enclosed on the sides to a height of not less than 8 inches and shall be not less than 5 square feet (ft²) in total platform area.

3.2.8 Ski tiedown straps. When specified (see 7.2), ski tiedown straps with velcro, or equal, fasteners shall be furnished.

3.2.9 Chassis construction. The chassis shall be sufficiently strong to withstand expected shock loads and rough treatment without premature failure.

3.2.10 Windscreen. The vehicle shall be equipped with a transparent windscreen, made of either shatterproof plastic or safety glass. When specified (see 7.2), a cross-country windshield with full recurve design shall be furnished.

3.2.11 Engine. The engine shall be a multi-cylinder air or liquid cooled, two-stroke cycle, gasoline type having a minimum displacement not less than that specified in table II. Horsepower and torque ratings shall be obtained in accordance with SAE J1349. Engine shall be equipped with an adjustable ratio oil injection pump.

TABLE II. Engine requirements.

Type	Displacement cubic centimeters (cc)	Peak horsepower minimum at rpm	Net torque (lbf-ft) minimum at rpm
I	365	34 at 7000	25 at 6500
II	365	40 at 7500	30 at 7000
III	365	34 at 7000	25 at 6500
IV	495	32 at 5250	33 at 5000

3.2.11.1 Engine instruments and controls. Speedometer, odometer, hour meter and deadman throttle control shall be in accordance with SAE J92.

3.2.11.2 Starting system. Starting system shall be manual. In addition, an electric starting system shall be furnished for type IV and when specified (see 7.2) for types I, II, and III.

3.2.12 Transmission. An automatic transmission shall be furnished with the vehicle. For type IV, the transmission shall have not less than two forward speed ranges and one reverse speed. Clutch lining shall be asbestos free.

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3.2.13 Tracks. Types I, II and III vehicles shall have at least a single track and type IV vehicle shall have twin tracks. The vehicle track(s) shall be not less than 15 inches wide. The maximum ski and track contact pressure shall be in accordance with SAE J33 and as specified in table I with the vehicle loaded to the curb weight specified in table I.

3.2.14 Steering. Steering shall be achieved by means of a tie rod linkage connecting the handlebar to the pivoting front ski(s) on type IV and to dual pivoting front skis on types I, II, and III vehicles. When a single front ski is provided, the ski shall be not less than 8 inches in width. When dual skis are provided, their total width shall be not less than 8 inches.

3.2.15 Suspension. The tracks shall use a bogie wheel or slide rail type suspension system with shock absorber(s) on the front ski(s).

3.2.16 Brakes. Brake control system shall be in accordance with SAE J1282.

3.2.17 Towing device. Towing device shall be on the hitch. When specified (see 7.2), a 4-inch rearward hitch extension shall be furnished.

3.2.18 Electrical system. A 12-volt electrical system shall be furnished in accordance with SAE J277.

3.2.18.1 Lighting system. The snowmobile stop lamp, tail lamp, and headlamp shall be designed in accordance with SAE J278, J279 and J280, respectively. If lights are used on the towed sled, they shall be in accordance with SAE J292. When specified (see 7.2), an electrical connector for towed sled lights in accordance with SAE J292 shall be furnished.

3.2.19 Fuel system capacity and duration. The fuel system capacity shall be not less than 5.4 U.S. gallons and shall be sufficient for not less than 2 hours operation at the speed specified in table II over level terrain with full load, including towed sled. The fuel tank shall be in accordance with SAE J288. The engine shall be capable of operation on regular grade unleaded fuel. When specified (see 7.2), an auxiliary fuel tank shall be furnished.

3.2.19.1 Oil tank capacity. The oil tank capacity shall be not less than enough to go through two full tanks of gasoline at a 40:1 injection ratio.

3.3 Performance. Snowmobile performance requirements shall be met when operated over a nominal 3 inches of loose, dry, powdered snow with terrain grade levels not less than shown in table III. The performance requirements shall be met with the snowmobile loaded under specified load conditions and at speeds listed in table III.

TABLE III. Performance.

Load condition	Terrain grade	Minimum performance requirements	Speed (mph)			
			Snowmobile type			
			I	II	III	IV
GVW and sled	Level	Speed, maintain for 60 minutes	20	20	20	25
GVW only	Level	Cruising speed maintain for 60 minutes	40	45	30	30
Operator only	Level	Speed, maximum, not less than	60	70	50	40
Operator only	25 percent (%) sidegrade	Maintain grade without overturn or engine stoppage.	N/A	N/A	N/A	N/A
GVW and sled	Level	100 ft radius turn (maximum).	20	20	20	20
GVW and sled	30% upgrade	Ascend continuous grade for 10 minutes without overheating.	N/A	N/A	N/A	N/A

3.3.1 Brake performance. Brake performance shall be in accordance with SAE J44.

3.3.2 Cold starting performance. The vehicle shall be operated after 48-hour exposure to -40°F ambient temperature. Starting aids shall be allowed.

3.3.3 Noise performance. The sound pressure level shall not exceed 73 decibels on the “A” scale (73 dB(A)) at 15.2 meters (50 ft) when traveling at 24 kilometers per hour (km/h) (15 miles/hour). The sound pressure level shall not exceed 78 dB(A) at 15.2 meters (50 ft) when accelerating at wide open throttle.

3.4 Safety. Guards shall be provided for all rotating pulleys in accordance with SSCC-57. In addition, all rotating or reciprocating parts or other parts subject to high operational temperatures that are of such a nature or are so located as to be or become a hazard to the operating or maintenance personnel shall be substantially guarded or insulated to the extent necessary to eliminate the hazard. Exhaust discharges from the snowmobile shall be directed so that they do not endanger personnel or obstruct the view of the operator. Non-functional sharp edges, projecting points, and excessive length of fasteners shall not be incorporated. Footrests shall have a non-skid surface.

3.5 Human factors. The characteristics of the snowmobile shall provide for operation by arctic clothed persons in the size category from the fifth to the ninety-fifth percentile.

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3.6 Special tools. All special tools that are required for disassembly and assembly of components for routine maintenance and repair shall be furnished with each vehicle.

3.7 Radio interference suppression. The snowmobile shall be suppressed to limit electromagnetic radiation in accordance with SAE J551. Any body equipment emitting radiation shall be suppressed to the same level as the snowmobile.

3.8 Servicing and adjusting. The vehicle shall be serviced, adjusted and delivered in condition for immediate use excluding fueling and battery preparation. The grade and viscosity of the lubricants shall be suitable for operation in temperatures down to -40°F.

3.9 Painting and marking. Unless otherwise specified (see 7.2), treatment, painting, identification marking and data plates shall be in accordance with the manufacturer's commercial practice. The plate shall include the agency identification and registration number. Unless otherwise specified (see 7.2), the snowmobile exterior color shall be the manufacturer's standard flat white. The identification marking shall be located on a surface adjacent to the operator's right leg when in the normal seated position so that it is visible and legible to an observer without moving any part of the vehicle and without detaching or dismantling any component parts.

4. REGULATORY REQUIREMENTS

4.1 Recovered materials. The offeror/contractor is encouraged to use recovered materials to the maximum extent practicable, in accordance with paragraph 23.403 of the Federal Acquisition Regulation (FAR).

5. QUALITY ASSURANCE PROVISIONS

5.1 Responsibility for inspection. The contractor is responsible for the performance of all inspections (examinations and tests).

5.2 Contractor certification. The contractor shall certify and maintain substantiating evidence that the product offered meets the salient characteristics of this CID and that the product conforms to the producer's own drawings, specifications, workmanship standards, and quality assurance practices, and is the same product offered for sale in the commercial marketplace. The Government reserves the right to require proof of such conformance prior to the first delivery and thereafter as may be otherwise provided for under the provisions of the contract or order.

5.3 Market acceptability. The manufacturer shall have built similar model vehicles, as offered to the Government, for commercial sales for at least the past two years, at a rate of not less than 500 units a year. The manufacturer shall have multiple branches or dealers in order to properly support their vehicles (warranty work, parts and technical support).

6. PACKAGING

6.1 Preservation, packaging, and marking. Preservation, packing, and marking shall be as specified in the contract or order (see 7.2).

7. NOTES

(This section contains information of a general or explanatory nature that may be helpful, but is not mandatory.)

7.1 Addresses for obtaining copies of referenced documents.

7.1.1 Government documents. Copies of the Code of Federal Regulations (CFR) are available from the Superintendent of Documents, U.S. Government Printing Office, Washington, DC 20402.

7.1.2 Non-Government documents. Copies of SAE documents are available from the Society of Automotive Engineers, Inc. (SAE), 400 Commonwealth Dr., Warrendale, PA 15096-0001. Copies of SSCC-57 "Snowmobile Pulley Guards and Shields" are available from the Snowmobile Safety and Certification Committee, Inc., Suite 330, 7535 Little River Turnpike, Annadale, VA 22003.

7.2 Ordering data. Acquisition documents must specify the following:

- a. Title, number, and date of this CID.
- b. Issue of Department of Defense Index of Specifications and Standards (DoDISS).
- c. PIN and quantity required.
- d. If the vehicles should be capable of being air dropped.
- e. If passenger seat and handgrip is required for types II and IV.
- f. If a ski tiedown strap should be furnished.
- g. If a cross-country windshield with full recurve design should be furnished.
- h. If an electric starting system should be furnished for types I, II and III.
- i. If a 4-inch rearwood hitch extension should be furnished.
- j. If an electrical connector should be furnished for towed sled lights.
- k. If an auxiliary fuel tank should be furnished.
- l. Treatment, painting, identification marking, data plates, and color, if other than as specified.
- m. Selection of applicable level and packaging requirements.

