NOT MEASUREMENT SENSITIVE

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COMMERCIAL ITEM DESCRIPTION

SCOOTERS, MOTOR: GASOLINE ENGINE DRIVEN, THREE- AND FOUR-WHEEL, MODIFIED COMMERCIAL

This commercial item description is approved for use by the US Army Tank-Automotive Command, Department of the Army, and is available for use by all Departments and Agencies of the Department of Defense.

1.1 Scope. This commercial item description (CID) covers gasoline engine driven three-wheeled scooters intended for both local streets and roads and on-station operation, and four-wheeled scooters restricted to on-station operation (see 6.1 for details on restricted use).

1.2 Classification. The scooter shall be one of the following styles, as specified (see 6.2):

Style	A	-	Scooter, 454 kilograms (kg) (1,000 pound) flatbed, with panel sides and tailgate.
Style	B	-	Scooter, with enclosed lockable package compartment.
Style	C	-	Scooter, with integral van body.
Style	D	-	Scooter, with integral van body and rear passenger seats.
Style	E	-	Scooter, refuse collection.
Style	F	-	Scooter, 910 kg (2,000 pound) flatbed.
Style	G	-	Scooter, 680 kg (1,500 pound) flatbed, wide tread, with panel sides and tailgate.

Beneficial comments (recommendations, additions, deletions) and any pertinent data which may be of use in improving this document should be addressed to: US Army Tank-Automotive Command, ATTN: AMSTA-UED, Warren, MI 48397-5000, by using the self-addressed Standardization Document Improvement Proposal (DD Form 1426) appearing at the end of this document or by letter.

AMSC N/A FSC-2340

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

1.2.1 Model. The model of the scooter shall be determined by the intended usage and by the number of wheels, as specified (see 6.2):

Model 1 - On-road, 3-wheel
Model 2 - On-station, 4-wheel
Model 3 - On-station, 3-wheel.

1.2.2 Class. The class of the scooter shall be determined by the cab enclosure, as specified (see 6.2):

Class I - Integral cab and body
Class II - Enclosed driver's cab, separate from body
Class III - Open driver's area.

1.2.3 Combinations. The combinations of style, model, and class ordered under this CID shall be limited to those shown in table I.

TABLE I. Combinations.

Scooter style	Models available			Classes available		
A	1	2	3	-	II	III
B	1	2	3	-	II	III
C	1	2	-	I	-	-
D	-	2	-	I	-	-
E	1	-	-	-	II	III
F	-	2	3	-	II	III
G	-	-	3	-	II	III

2.1 Government documents.

2.1.1 Specifications, standards and handbooks. The following specifications, standards and handbooks form a part of this document to the extent specified herein. Unless otherwise specified, the issues of these documents are those listed in the issue of the Department of Defense Index of Specifications and Standards (DODISS), and supplement thereto, cited in the solicitation (see 6.2).

SPECIFICATIONS
STANDARDS
FEDERAL
FED-STD-297 - Rustproofing of Commercial (Nontactical) Vehicles.

MILITARY
MIL-STD-461 - Electromagnetic Interference Characteristics Requirements for Equipment.

MIL-STD-1223 - Nontactical Wheeled Vehicles Treatment, Painting, Identification marking, and Data Plate Standards.

(Unless otherwise indicated, copies Of federal and military specifications, standards, and handbooks are available from the Naval Publications and Forms Center, Military Specifications and Standards, Bldg. 4D, 700 Robbins Avenue, Philadelphia, PA 19111-5094.)

2.1.2 Other Government documents, drawings, and publications. The following other Government documents, drawings, and publications form a part of this document to the extent specified herein. Unless otherwise specified, the issues are those cited in the solicitation.

DEPARTMENT OF DEFENSE
Department of Defense Index of Specifications and Standards (DODISS).

(Copies of the DODISS are available on a yearly subscription basis either from the Government Printing office for hard copy, or microfiche copies are available from the Director, Navy Publication and Printing Service Office, 700 Robbins Avenue, Philadelphia, PA 19111-5093.)

DEPARTMENT OF TRANSPORTATION (DoT)
Federal Motor Carrier Safety Regulations (FMCSR).
Federal Motor Vehicle Safety Standards (FMVSS).

(Application for copies of DOT publications should reference the code of Federal Regulations, 49 CFR, and the Federal Register and should be addressed to the Superintendent of Documents, U.S. Government Printing Office,Washington, D.C. 20402.)

ENVIRONMENTAL PROTECTION AGENCY (EPA)
Certification and Test Procedures for New Motorcycles; Emission Regulations and Appendices.
EPA Noise Emission Regulations for Motorcycles.

(Application for copies of EPA publications should reference the Code of Federal Regulations, 40 CFR, and the Federal Register and should be addressed to the Superintendent of Documents, U.S. Government Printing Office,Washington, D.C. 20402.)

OCCUPATIONAL SAFETY AND HEALTH ADMINISTRATION (OSHA)
Standards.

(Application for copies of OSHA publications should reference the Code of Federal Regulations 29 CFR, Part 1910, and the Federal Register and should be addressed to the Superintendent of Documents, U.S. Government Printing office, Washington, D.C. 20402.)

2.2 Non-Government publications. The following documents form a part of this document to the extent specified herein. Unless otherwise specified, the issues of the documents which are DoD adopted are those listed in the issue of the DODISS cited in the solicitation. Unless otherwise specified, the issues of documents not listed in the DODISS are the issues of the documents cited in the solicitation (see 6.2).

THE EUROPEAN TYRE AND RIM TECHNICAL ORGANISATION (ETRTO)
Standards Manual.

(Application for copies of ETRTO publications should be addressed to the European Tyre and Rim Technical Organisation, 32, Avenue Brugmann, 1060 Brussels, Belgium.)

SOCIETY OF AUTOMOTIVE ENGINEERS, INC. (SAE)
SAE Standards and Recommended Practices.

J551	- Performance Levels and Methods of Measurement of Electromagnetic Radiation from Vehicles and Devices (30-1000 MHz).
J560	- Seven-Conductor Electrical Connector for Truck-Trailer Jumper Cable.
J695	- Turning Ability and Off Tracking.

(Application for copies of SAE publications should be addressed to SAE, Inc., 400 Commonwealth Drive, Warrendale, PA 15096.)

THE TIRE AND RIM ASSOCIATION, INC.
Year Book.

(Application for copies of Tire and Rim Association publications should be addressed to The Tire and Rim Association, Inc., 175 Montrose West Ave., Copley, OH 44321.)

(Non-Government standards and other publications are normally available from the organizations that prepare or distribute the documents. These documents also may be available in or through libraries or other informational services.)

2.3 Order of precedence. In the event of a conflict between the text of this document and the references cited herein, the text of this document shall take precedence. Nothing in this document, however, supersedes applicable laws and regulations unless a specific exemption has been obtained.

3.1 Salient characteristics. The vehicle described by this CID is a gasoline engine driven motor scooter. The vehicle shall be procurable as an “off-the-shelf", commercially produced, readily available item. The vehicle 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 200 units a year. The manufacturer shall have multiple branches or dealers. The vehicle shall comply with listed applicable documents or their respective commercial counterparts.

3.1.1 Painting and marking. Treatment, painting, identification marking and data plates per MIL-STD-122J. Exterior color and identification markings per MIL-STD-1223 for the military service identified by the procuring activity (see 6.2).

3.1.2 Rustproofing. In accordance to the truck requirements of FED-STD-297.

3.1.3 Pintle. when specified (see 6.2), a pintle assembly on the rear of model 2 or 3 vehicles. Pintle of the fixed type, five-ton capacity, with locking pin and chain, Holland Hitch Model T60AL. Pintle installed on the chassis or reinforced bumper with reinforcements to transfer pintle loads directly to the frame. Rearmost part of the pintle not more than 100 millimeters (mm) (four inches) forward of the rearmost part of the vehicle. Pintle hook height to the centerline of the pintle hook on the loaded vehicle in the range of 300 to 460 mm (12 to 18 inches). Two trailer safety chain attachment devices, one adjacent to each side of the pintle. Each attachment providing an ultimate strength not less than the gross vehicle weight of the vehicle furnished. Pintle secured with a minimum of four 0.500 inch bolts.

3.1.4 Trailer lighting receptacle. When specified (see 6.2), on pintle-equipped vehicles, a 12-volt trailer lighting receptacle on the rear adjacent to the pintle, conforming to SAE J560 with its conductors connected and color coded as specified therein.

3.1.5 Special radio interference suppression. When specified (see 6.2), for vehicles operating in critical communications areas, electromagnetic radiation suppressed in accordance with the requirements of MIL-STD-461 for class IIIC equipment in lieu of 3.4.7.4.

3.2 General design.

3.2.1 Model I design standards.

3.2.1.1 FMVSS. Model I scooter to all FMVSS's as applicable to motorcycles.

3.2.1.2 Interior sound level. Model 1, class 1 and 2 to FMCSR 393.94, except when cloth doors are furnished.

3.2.1.3 Exterior noise level. Model 1 to EPA Noise Emission Regulations for motorcycles. Vehicles destined for California to the California Vehicle Code.

3.2.1.4 Air pollution control. Model 1 to EPA regulations governing Certification and Test Procedures for New Motorcycles; Emission Regulations and Appendices.

3.2.2 Model 2 and model 3 design standards.

3.2.2.1 OSHA standards. Model 2 and model 3 to vehicle requirements set forth in the OSHA standards, section 1910.178, for powered industrial trucks, type G designation.

3.2.3 Curb weight. Not less than 410 kg (900 pounds).

3.2.4 Total rated payload. As specified in table II.

TABLE II. Total rated payload.

Style	Model	Loadspace Payload kg (pounds)	Operator kg (pounds)	Passenger(s) kg (pounds)	Total rated payload kg (pounds)
A, B, C, E	1	454 (1,000)	80 (175)	-	530 (1,175)
A, B	2	454 (1,000)	80 (175)	80 (175)	610 (1,350)
C	2	370 (825)	80 (175)	80 (175)	530 (1,175)
D	2	136 (300)	80 (175)	320 (700)	530 (1,175)
F	2	910 (2,000)	80 (175)	80 (175)	1070 (2,350)
F	3	910 (2,000)	80 (175)	-	990 (2,175)
G	3	680 (1,500)	80 (175)	80 (175)	840 (1,850)

3.2.5 Vehicle dimensions. As specified in table III.

TABLE III. Dimensions.

	Model 1	Model 2	Model 3		
Feature	All Styles mm (inch)	All Styles mm (inch)	Style A mm (inch)	Style F mm (inch)	Style G mm (inch)
Wheelbase (minimum)	1980 (78)	2130 (84)	1980 (78)	2130 (84)	1980 (78)
Wheel tread (minimum)	1040 (41)	1040 (41)	1040 (41)	1040 (41)	1140 (45)
Overall length (maximum)	3230 (127)	3050 (120) 1/	2850 (112)	3350 (132)	3180 (125)
Overall width (minimum)	1190 (47)	1190 (47)	1190 (47)	1190 (47)	1370 (54)

TABLE III. Dimensions. (continued)

	Model 1	Model 2	Model 3		
Feature	All Styles mm (inch)	All Styles mm (inch)	Style A mm (inch)	Style F mm (inch)	Style G mm (inch)
Overall height, class I and class II (maximum)	1800 (71)	1800 (71)	1800 (71)	1800 (71)	1830 (72)
Overall height, class III (maximum excluding mirrors)	1190 (47)	1220 (48)	1190 (47)	1190 (47)	1270 (50)

1/ NOTE: Overall length for style F not to exceed 3560 mm (140 inches).

3.3.1 Maximum geared speed. Unless a pintle assembly is required, a maximum geared speed at engine governed speed within 5 percent of the speed listed in table IV as the standard speed for the body style and model specified. When specified (see 6.2), the optional geared speed specified in table IV by use of an optional rear axle ratio. When a pintle is required, maximum geared speed not exceeding 39 kilometers per hour (km/h) (24 miles per hour (mph)).

TABLE IV. Maximum speeds (nominal).

		Standard geared speed	Optional geared speed
Style	Model	km/h (mph)	km/h (mph)
A thru C	1	63 (39)	47 (29)
A thru C	2	35 (22)	-
D	2	35 (22)	-
A	3	35 (22)	30 (18)
E	1	47 (29)	30 (18)
F	2	30 (18)	-
F	3	30 (18)	-
G	3	37 (23)	-

3.3.2 Gradeability. High speed gradeability to be met with the transmission in the highest gear; low speed gradeability in first gear. Based on the required maximum geared speed, the scooter to ascend the continuous grades specified in table V, when loaded with the payload specified in table V.

TABLE V. Gradeability.

Required maximum geared speed km/h (mph)	Payload kg (pounds)	Percent grade (high speed)	Percent grade (low speed)
30 (18)	454 (1,000)	9	25
35 or 37 (22 or 23)	680 (1,500)	8	20
47 (29)	454 (1,000)	7	20
63 (39)	454 (1,000)	4	12

3.3.3 Drawbar pull. When a pintle is required, capable of developing a continuous first gear drawbar pull of 340 kg (750 pounds). When an auxiliary transmission is specified for pintle-equipped style G, drawbar pull of not less than 454 kg (1,000 pounds).

3.3.4 Turning clearance. Turn within an SAE J695 vehicle clearance circle of not more than 7600 mm (25 feet).

3.3.5 Service brake performance. On model 1 to FMVSS No. 122. On model 2 and model 3 stop and hold the vehicle loaded with total rated payload on a25 percent grade, and stop the fully loaded scooter within a distance of 9140 mm (30 feet) from a speed of 29 km/h (18 mph) on smooth, dry, level, hard-surfaced road.

3.3.6 Parking brake performance. Model 1 to FMVSS No. 122. Model 2 and 3 hold the vehicle, loaded with total rated payload, on grade of not less than 20 percent.

3.4 Chassis. Model 1 and model 3 three wheel with single front and two rear wheels. Model 2 four wheels. All front wheel steering and rear wheel driving.

3.4.1 Engine and drivetrain. Four-stroke cycle gasoline. Not less than 18 horsepower at a governed speed not greater than 3600 revolutions per minute (rpm).

3.4.1.1 Oil filter. Full-flow type.

3.4.1.2 Governor. Set to engine manufacturer's maximum recommended operating speed.

3.4.2 Fuel system. Accessible in-line fuel filter.

3.4.2.1 Air cleaner. Manufacturer's standard.

3.4.2.2 Fuel tank. Not less than 21 liters (L) (5.5 gallons).

3.4.3 Exhaust system. For model 2 and 3, the manufacturer's standard exhaust system.

3.4.3.1 Spark arrester. When specified (see 6.2), a spark arrester.

3.4.4 Clutch. Clutch torque capacity exceeding the maximum delivered engine torque. Asbestos free clutch lining.

3.4.5 Transmission. Unless otherwise specified (see 3.4.6), a 3- or 4-speed manual transmission.

3.4.6 Auxiliary transmission. When specified (see 6.2) for style G, an auxiliary transmission providing 6 forward speeds.

3.4.7 Electrical System. 12-volt.

3.4.7.1 Ignition System. Battery type. Alternator, 35 amperes.

3.4.7.2 Starter. Electrical.

3.4.7.3 Battery. 12-volt maintenance-free.

3.4.7.4 Radio interference suppression. Suppressed to limit electromagnetic radiation in accordance with SAE J551.

3.4.8 Bumpers. Front bumper. Except for styles E and G, rear bumper.

3.4.9 Suspension. Springs or rubber shear mounts and shock absorber(s) on the front wheel(s) and multiple leaf springs and shock absorbers on the rear wheels.

3.4.10 Steering. Automotive steering wheel type.

3.4.11 Wheels, rims, tires and tubes. Single wheels. Rims and tire ratings conforming to Tire and Rim Association or European Tyre and Rim Technical Organisation recommendations.

3.4.11.1 Tires. Pneumatic with highway tread. Rated capacity at least equal to the load imposed on each tire, measured at the ground, with the scooter loaded with its total rated payload. Tire size on style G not less than 18 x 9.50-8 on the rear and 8.00-6 on the front.

3.4.11.2 Spare tire mounting bracket. When specified (see 6.2), for all styles except style G, a spare tire mounting bracket.

3.4.11.3 Spare wheel assembly. When specified (see 6.2), a spare wheel with mounted tire installed on the spare tire mounting bracket.

3.4.12 Service brakes. Hydraulic. Except for style G, each wheel equipped with brakes. Brake construction for model 1 conforming to FMVSS No. 122. Nonasbestos brake linings.

3.4.12.1 Parking brakes. Hand-operated or foot operated.

3.4.13 Cab. Enclosed, integral with the body on class I. Enclosed cab, separate from the body, on Class II. The requirements of 3.4.11.1 through 3.4.11.3 shall apply to both class I and class II. No cab or windshield on class III.

3.4.13.1 Cab construction. Rigid construction. Windshield of laminated safety glass and a rear window of laminated or tempered safety glass. Side closures lockable steel or aluminum doors on class I and II, except when specified (see 6.2), weatherproof cloth doors on class II. Windows of laminated or tempered safety glass on steel or aluminum doors. Soft clear plastic windows on cloth doors.

3.4.13.2 Windshield wiper. Electric windshield wiper on class I and II.

3.4.13.3 Heater and defroster. Hot air heating and defrosting system on all class I and II except style G.

3.4.13.4 Cab area seating. Model 1 and 3 single or two place seat provided with a backrest, hip restraint and vinyl clad padded construction. Model 2 with a full width two-place bench seat with similar provisions.

3.4.13.5 Seat belts. All seating positions.

3.4.14 Instruments, lights and accessories.

3.4.14.1 Speedometer. Speedometer with odometer.

3.4.14.2 Engine hour meter. Engine hour meter reading up to 9,999hours.

3.4.14.3 Ammeter. Ammeter or charging indicator.

3.4.14.4 Oil pressure indicator. Oil pressure gage or indicator.

3.4.14.5 Fuel gage. Manufacturer's standard.

3.4.14.6 Headlight(s), tail lights and stoplights. Headlight(B), taillight, stoplight, or combination stoplight and tail light. Model 1 to FMVSSNo. 108. Stoplight(s) to override the four-way emergency flasher.

3.4.14.7 Turn signals. Required, all vehicles.

3.4.14.8 Horn. Required, all styles except style G.

3.4.14.9 Rearview mirrors. Adjustable, provided on the right and left sides.

3.5 Vehicle styles.

3.5.1 Style A 454 kg (1,000 pound) flatbed, with panel sides and tailgate. Style A steel flatbed platform with steel sides and a swingdown tailgate. Interior dimensions of the compartment not less than 1090 mm (43 inches) in width, 1270 mm (50 inches) in length, and 300 mm (12 inches) in depth. The platform bed may be composed of 2 levels. Steel panels at the front, rear and sides of bed with the rear section serving as a tailgate.

3.5.1.1 Tarpaulin cover. Weatherproof tarpaulin cover (with tiedowns) to cover the complete bed and cargo.

3.5.2 Style B (enclosed lockable package compaetment). Style B an enclosed rigid-construction package compartment to the rear of the cab. Covered floor area of the package compartment not less than 0.975 square meter (m^2) (1,500 square inches). Box type cover shall be of rigid construction with a hinged opening equipped with a handle and lock. Inside height under the cover, measured from the floor, not less than 460 mm (18 inches). When the cover size is shorter than the total bed length, a bulkhead to close off the lockable compartment.

3.5.3 Style C (integral van body). Style C a fully enclosed cab integral with a fully enclosed cargo compartment, all of rigid construction. Side windows. Lockable door with window at the rear. Windshield of laminated safety glass. Side and rear windows laminated or tempered safety glass. Capacity of the cargo area shall be not less than 1.7 cubic meter (m^3) (60 cubic feet).

3.5.4 Style D (integral van body with seats). Style D identical to the style C integral van body scooter, except with individual, fold-up, padded personnel seats with backrests and hip restraints for three passengers in the rear. Rear personnel seats positioned longitudinally, facing inward. The seating positions staggered to permit adequate leg room. Seat belts at each seating position.

3.5.5 Style E (refuse collection). Style E a hydraulically operated refuse hopper to the rear. Hopper capacity not less than 1.2 cubic meters (m^3) (1.6 cubic yards). Hopper capable of dumping refuse into a receptacle with upper edge 1090 mm (43 inches) above the ground. Full hydraulic dumping with hydraulic dump cylinder(s) and a hydraulic control valve.

3.5.6 Style F 910 kg (2,000 pound) flatbed. Style F a diamond-tread steel flatbed to the rear of the driver's seat. Flatbed not less than 1170 mm (46 inches) in width and 1780 mm (70 inches) in length. Flatbed payload capacity of not less than 910 kg (2,000 pounds).

3.5.6.1 Tarpaulin cover. Weatherproof tarpaulin cover (with tiedowns) to cover the complete bed and cargo.

3.5.7 Style G 680 kg (1,500 pound) flatbed, wide tread, with panel sides and tailgate. Style G steel flatbed platform with steel sides and swingdown tailgate. Interior dimensions of the compartment not less than 1320 mm (52 inches) in width, 1170 mm (46 inches) in length, and 300 mm (12 inches) in depth. Platform bed a single level.

3.5.7.1 Tarpaulin cover. Weatherproof tarpaulin cover (with tiedowns) to cover the complete bed and cargo.

3.6 Servicing and adjusting. At least the following:

(a) Alinement of light(s);
(b) Adjustment of the engine, electrical and brake system;
(c) Filling and charging of the battery;
(d) Filling of the cooling system for liquid-cooled engines with ethylene glycol type antifreeze and water in equal parts by volume;
(e) Inflation of all tires;
(f) Complete lubrication of chassis and engine with the grades of lubricants recommended for the ambient air temperature at the delivery point.
(g) When the vehicle is crated for shipment, all liquids shall be drained.

4.1 Certification. The contractor shall certify that the product offered meets the salient characteristics of this description, and that the product conforms to the producer's own drawings, specifications, 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 first delivery and thereafter as may be otherwise provided for under the provisions of the contract.

5.1 Vehicle processing. The vehicle shall be fully assembled and processed for shipment, from the manufacturer's plant or dealer's facility to the initial receiving activity, in accordance with the manufacturer's standard commercial practice. See 3.6 for crated vehicles.

6.1 Intended use. Model 1 is intended for nontactical use by the Government in transporting personnel and cargo on local streets and roads and for on-station usage over improved roads. Model 2 and model 3 are intended for nontactical use only within the confines of military installations, over improved roads, with limited and low speed traffic where licensing of vehicles for roadway use would not otherwise be required. The use of model 2 and model 3 on the roads at large military installations with heavy traffic is not intended.

6.2 Ordering data. Acquisition documents should specify the following:

(a) Title, number, and date of this CID.
(b) Body style, model, and class of vehicle required (see 1.2, 1.2.1, and 1.2.2).
(c) Issue of DODISS to be cited in the solicitation and if required, the specific issue of individual documents referenced (see 2.1.1 and 2.2).
(d) Identification of appropriate military service for painting and marking (see 3.1.1).
(e) Pintle assembly, if required (see 3.1.3).
(f) Trailer lighting receptacle, if required (see 3.1.4).
(g) Electromagnetic radiation suppression per MIL-STD-461 for class IIIC equipment if required (see 3.1.5).
(h) Optional geared speed, if required (see 3.3.1).
(i) Spark arrester, if required (see 3.4.3.1).
(j) An auxiliary transmission for style G, if required (see 3.4.6).
(k) Spare tire mounting bracket, if required (see 3.4.11.2).
(l) Spare tire and rim, if required (see 3.4.11.3).
(m) Cloth doors, if required (see 3.4.13.1).

Custodians:
Army - AT
Navy - YD

Reviewer interest:
Army - AT
Navy - YD

Preparing Activity:
Army - AT

Project No. 2340-0044