PURCHASE DESCRIPTION

FOR

LIGHT
MULTI-PURPOSE
4 PAX
4 WHEELED, DIESEL ENGINE
VEHICLE

ECC 140297

NSN 2320-21-920-6831

FEBRUARY 2011
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1. INSTRUCTIONS

1.1 Scope - This document covers *eight (8)* light, multi-purpose, 4 PAX, four wheeled, diesel engine vehicles. The purpose of these vehicles is to provide a utility vehicle capability within 1 Canadian Division that is air-deployable and has a minimum cargo footprint.

1.2 Instructions - The following instructions apply to this Purchase Description:

a. Requirements, which are identified by the word “shall”, are mandatory. Deviations will not be permitted;

b. Requirements identified by “shall(E)” are mandatory. The Technical Authority will consider substitutes/alternatives for acceptance as an Equivalent;

c. Requirements identified with a “will” define actions to be performed by Canada and require no action/obligation on the Contractor’s part;

d. Where “shall”, “shall(E)”, or “will” are not used, the information provided is for guidance only;

e. In this document “provided” shall mean “provided and installed”;

f. Where technical certification is required, a copy of the certification or an acceptable proof of compliance shall be provided upon request;

g. Metric measurements shall be used to define the requirement. Other measurements are for reference only and may not be exact conversions; and

h. Dimensions stated as nominal shall be treated as approximate dimensions. Nominal dimensions reflect a method by which materials or products are generally identified for sale commercially, but which differ from the actual dimensions.

1.3 Definitions - The following definitions apply to the interpretation of this Purchase Description:

a. “Technical Authority” - The government official responsible for technical content of this requirement;

b. “Equivalent” - A standard, means, or component type, which has been accepted by the Technical Authority as meeting the specified requirements for form, fit, function and performance; and
c. “Proof of Compliance” - A document such as a brochure, a third party test report, a
report generated by third party software, or a certificate of attestation signed by a
senior representative of the Original Equipment Manufacturer (such as a certified
engineer) indicating the performance and/or feature specified.

2. APPLICABLE DOCUMENTS

2.1 Government Furnished Documents - NOT APPLICABLE

2.2 Other Publications - The following documents form part of this Purchase
Description. Web sites for the organization are given when available. Effective
documents are those in effect on date of manufacture. Sources are as shown:

a. SAE Handbook

Society of Automotive Engineers Inc.
400 Commonwealth Dr.,
Warrendale, PA, 15096
http://www.sae.org

3. REQUIREMENTS

3.1 Standard Design – The vehicle/equipment shall:

a. Be the latest model from a manufacturer who has demonstrated acceptability by
manufacturing and selling this type and size class of vehicle for at least 1 year;

b. Have engineering certification available, upon demand, for this application from
the original manufacturer of major equipment systems and assemblies;

c. Conform to all applicable laws, regulations and industrial standards governing
manufacture, safety, noise levels and pollution in effect in Canada at the time of
manufacture; and

d. Have system and component capacities not greater than their published ratings
(i.e. product or component brochures) or accompanied by proof of compliance.
3.2 **Operating Conditions** – The vehicle/equipment, under all load conditions, shall operate safely and efficiently as follows without appreciable degradation in reliability and maintainability:

a. **Towing capacity** – The vehicle/equipment shall be capable of being operated while towing a minimum load of 680 kg;

b. **Towing Hitch Vertical Load** - The vehicle/equipment shall be capable of being operated while towing with a minimum vertical load of 200 kg;

c. **Weather** - The vehicle/equipment shall operate under the extremes of weather found in Canada in temperatures ranging from -40 to 37°C (-40 to 99°F);

d. **Terrain** - The vehicle/equipment shall be capable of being operated off-road (e.g. construction sites, open fields and dirt tracks). Terrain conditions shall include year round operations on snow, mud, sand and ice.

3.3 **Safety Regulations** – The vehicle should comply with applicable Canadian Federal safety regulations.

3.4 **Human Engineering and Safety** – The following applies:

a. All systems and controls should be safe and easy to use by a full range of operators (5th percentile female to 95th percentile male), in general accordance with SAE J833 (ISO 3411) and SAE J898 (ISO 6682);

b. Safety devices such as warning plates, instruction plates, non-slip surfaces, grab handles and heat shields should be provided, where required, to ensure safe operation.

3.5 **Vehicle Delivery Condition** – The vehicle shall be delivered to destination in a fully operational condition (serviced and adjusted) and both the interior and exterior shall be cleaned. If the vehicle requires assembly at destination, the Contractor shall be responsible for all manpower and equipment to perform assembly. The consignee will provide the area required for assembly. For shipment verification, all items such as wheel wrenches, jacks, and all other tools, equipment and accessories, which are shipped loose with the equipment, shall be listed on the shipping certificate or to an attached packing note.

3.6 **Dimensions** – The following shall be provided:

a. A maximum vehicle length of 370 cm;

b. A maximum vehicle width of 175 cm.
c. A minimum ground clearance of 28 cm to the transfer case.

4. CHASSIS AND POWER TRAIN SYSTEMS

4.1 Engine Systems – The following applies:
   a. The engine displacement shall be at least 850 cc;
      The engine should be liquid cooled;
   b. The engine shall have a minimum of one (1) cylinder;
   c. The engine shall be a 4-stroke engine;
   d. Exhaust pipe and spark arresting muffler shall(E) be provided;
   e. The engine fuel type shall be diesel.

4.2 Fuel Tank – The following applies:
   a. A minimum 20 litres fuel tank capacity shall be provided;
      Fuel tank cap should indicate the use of diesel fuel;
   b. Fuel tank and/or fuel tank cap shall(E) indicate the level of fuel in the tank.

4.3 Transmission – the following applies:
   a. The vehicle shall(E) have four wheels with a minimum of four-wheel drive option;
   b. A minimum of one forward and one reverse gear shall be provided.

4.4 Brakes – The following applies:
   a. Front and rear hydraulic disc brakes shall(E) be provided;
   b. A parking brake shall be provided.

5. BODY SYSTEMS
5.1 **Body Features** – The following *shall(E)* be provided:

a. Front and rear body guards (bumpers);
b. Rear cargo box;
c. Under body protection;
d. Roll-over protection.

5.2 **Seating and Driver/Passenger Compartment** – The following *shall(E)* be provided:

a. Two (2) rows of side-by-side seating with a capacity of two (2) occupants each for a total seating capacity of four (4) occupants;
b. Backrest and handholds for each passenger.

5.3 **Controls and Instruments** – The following applies:

a. Electrical starting *shall* be provided;
b. Fuel gauge in the instrument panel *shall(E)* be provided;
c. Hour meter *shall* be provided;
d. Gear indicator *shall* be provided. The gear indicator *shall* be, as a minimum, markings on and/or a decal next to the gear selector lever;
e. A speedometer *shall* be provided. The speedometer *shall*, as a minimum, indicate speed in KPH and MPH;
f. An odometer *shall(E)* be provided, calibrated to kilometres.

6. **ELECTRICAL SYSTEMS** – The following *shall* be provided:

a. Heavy-duty maintenance-free battery;
b. A 12V outlet in the instrument panel.

7. **MISCELLANEOUS**
7.1 **Special Equipment** – The following applies:

a. All-Terrain all-purpose tires *shall (E)* be provided;

b. A winch *shall (E)* be provided with a minimum capacity of 2000 Kg.

7.2 **Colour** – The following applies:

a. The colour of external surfaces is as per Manufacturer’s standard colour.

7.3 **Tools** – The following applies:

a. A basic tool kit *shall (E)* be provided with each vehicle;

   The tools should be stored in a bag and should include, as a minimum, tools specific to the vehicle for roadside maintenance.

7.4 **Identification Plate** – The following information *shall* be provided as a minimum, permanently marked and in a conspicuous and protected location:

   - Manufacturer;
   - Model;
   - Model year;
   - Serial number;
   - Gross Vehicle Weight Rating (GVWR);
   - NATO Stock Number (NSN);
   - Equipment Configuration Code (ECC);
   - Contract number.

7.5 **Equipment Location and Layout** – Location and layout for unique components *shall* be subject to review and acceptance by the Technical Authority.
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