

**RETURN BIDS TO:**  
**RETOURNER LES SOUMISSIONS À:**

**Bid Receiving - PWGSC / Réception des  
soumissions - TPSGC  
11 Laurier St. / 11, rue Laurier  
Place du Portage, Phase III  
Core 0B2 / Noyau 0B2  
Gatineau  
Québec  
K1A 0S5  
Bid Fax: (819) 997-9776**

## Request For Supply Arrangement - Demande pour un arrangement en matière d'approvisionnement

Offer to: Department of Public Works and Government Services

We hereby offer to provide to Canada, as represented by the Minister of Public Works and Government Services, in accordance with the terms and conditions set out herein or attached hereto, the goods, services, and construction detailed herein and on any attached sheets.

Offre au: Ministère des Travaux publics et des Services  
gouvernementaux

Nous offrons par la présente de fournir au Canada, représenté par le ministre des Travaux publics et des Services gouvernementaux, aux conditions énoncées ou incluses par référence dans la présente et aux annexes ci-jointes, les biens, services et construction énumérés ici et sur toute feuille ci-annexée.

## Comments - Commentaires

**Vendor/Firm Name and Address**  
**Raison sociale et adresse du**  
**fournisseur/de l'entrepreneur**

**Issuing Office - Bureau de distribution**  
Industrial Vehicles & Machinery Products Division  
LEFTD - HS Division  
140, O'Connor Street/  
140, rue O'Connor,  
East Tower, 4th Floor/  
Tour Est, 4e étage  
Ottawa  
Ontario  
K1A 0S5

<b>Title - Sujet</b> RFSA - Tractor Loader Backhoes & Sk	
<b>Solicitation No. - N° de l'invitation</b> E60HS-19BCKH/A	<b>Date</b> 2019-12-09
<b>Client Reference No. - N° de référence du client</b> E60HS-19BCKH	<b>GETS Ref. No. - N° de réf. de SEAG</b> PW-\$\$HS-651-78185
<b>File No. - N° de dossier</b> hs651.E60HS-19BCKH	<b>CCC No./N° CCC - FMS No./N° VME</b>
<b>Solicitation Closes - L'invitation prend fin</b> <b>at - à 02:00 PM</b> <b>on - le 2022-12-08</b>	
<b>Delivery Required - Livraison exigée</b> See Herein	
<b>Address Enquiries to: - Adresser toutes questions à:</b> Vallejo, Veronica	<b>Buyer Id - Id de l'acheteur</b> hs651
<b>Telephone No. - N° de téléphone</b> (613)297-3978 ( )	<b>FAX No. - N° de FAX</b> ( ) -
<b>Destination - of Goods, Services, and Construction:</b> <b>Destination - des biens, services et construction:</b>  <div style="text-align: center;">Specified Herein Précisé dans les présentes</div>	
<b>Security - Sécurité</b> This request for a Supply Arrangement does not include provisions for security. Cette Demande pour un arrangement ne comprend pas des dispositions en matière de sécurité.	

**Instructions: See Herein**

**Instructions: Voir aux présentes**

<b>Vendor/Firm Name and Address</b> <b>Raison sociale et adresse du fournisseur/de l'entrepreneur</b>	
<b>Telephone No. - N° de téléphone</b> <b>Facsimile No. - N° de télécopieur</b>	
<b>Name and title of person authorized to sign on behalf of Vendor/Firm</b> <b>(type or print)</b> <b>Nom et titre de la personne autorisée à signer au nom du fournisseur/</b> <b>de l'entrepreneur (taper ou écrire en caractères d'imprimerie)</b>	
<b>Signature</b>	<b>Date</b>

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**ATTACHMENTS**

**Annex “A”** – Purchase Description – Group 1

**Appendix “A1”** – Technical Information Questionnaire – Group 1

**Annex “B”** – Purchase Description – Group 2

**Appendix “B1”** – Technical Information Questionnaire – Group 2

**Annex “C”** – Purchase Description – Group 3

**Appendix “C1”** – Technical Information Questionnaire – Group 3

**Annex “D”** – Existing Qualified Supplier under E60HS-16BCKH/A Certification

**Annex “E”** – RFP Template

(For more information about the RFP template and Bid Solicitation Process, refer to “Bid Solicitation”  
Section detailed under Part 6B.)

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## **PART 1 - GENERAL INFORMATION**

### **1.1 Introduction**

The Request for Supply Arrangements (RFSA) is divided into six parts plus attachments and annexes, as follows:

- Part 1 General Information: provides a general description of the requirement;
- Part 2 Supplier Instructions: provides the instructions applicable to the clauses and conditions of the RFSA;
- Part 3 Arrangement Preparation Instructions: provides Suppliers with instructions on how to prepare the arrangement to address the evaluation criteria specified;
- Part 4 Evaluation Procedures and Basis of Selection: indicates how the evaluation will be conducted, the evaluation criteria which must be addressed in the arrangement and the basis of selection;
- Part 5 Certifications and Additional Information: includes the certifications and additional information to be provided; and
- Part 6 6A, Supply Arrangement, 6B, Bid Solicitation, and 6C, Resulting Contract Clauses:
  - 6A, includes the Supply Arrangement (SA) with the applicable clauses and conditions;
  - 6B, includes the instructions for the bid solicitation process within the scope of the SA;
  - 6C, includes general information for the conditions which will apply to any contract entered into pursuant to the SA.

The Annexes include the Purchase Descriptions and the Technical Information Questionnaires and any other annexes.

### **1.2 Summary**

#### **1.2.1** Canada is seeking to establish SAs to procure:

Group 1 – Tractor Loader Backhoe, various configurations and related items in accordance with Annex “A” – Purchase Description – Group 1.

Group 2 – Skid Steer Loaders, various configurations and related items in accordance with Annex “B” – Purchase Description – Group 2.

Group 3 – Compact Tracked Loaders, various configurations and related items in accordance with Annex “C” – Purchase Description – Group 3.

Suppliers may submit an arrangement for a specific configuration within each Group. Suppliers must however submit an arrangement for all items within the configuration for which an arrangement is submitted.

The period of the RFSA will be for three (3) years from the date of issuance. Suppliers will have the opportunity to qualify throughout the period of the RFSA.

#### **1.2.2** The requirement is subject to the provisions of the World Trade Organization Agreement on

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Government Procurement (WTO-AGP), the North American Free Trade Agreement (NAFTA), the Canada-European Union Comprehensive Economic and Trade Agreement (CETA), and the Canadian Free Trade Agreement (CFTA).

**1.2.3** The RFSA is to establish supply arrangements for the delivery of the requirement detailed in the RFSA to the Identified Users across Canada, excluding locations within Yukon, Northwest Territories, Nunavut, Quebec, and Labrador that are subject to Comprehensive Land Claims Agreements (CLCAs). Any requirement for deliveries to locations within CLCAs areas within Yukon, Northwest Territories, Nunavut, Quebec, or Labrador will have to be treated as a separate procurement, outside of the resulting supply arrangements.

### **1.3 Debriefings**

Suppliers may request a debriefing on the results of the request for supply arrangements process. Suppliers should make the request to the Supply Arrangement Authority within 15 working days of receipt of the results of the request for supply arrangements process. The debriefing may be in writing, by telephone or in person.

### **1.4 Use of an e-Procurement Solution (EPS)**

Canada is currently developing an online EPS for faster and more convenient ordering of goods and services. In support of the anticipated transition to this system and how it may impact any resulting Supply Arrangement that is issued under this solicitation, refer to 6.12 Transition to an e-Procurement Solution (EPS).

The Government of Canada's [press release](#) provides additional information.

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## PART 2 - SUPPLIER INSTRUCTIONS

### 2.1 Standard Instructions, Clauses and Conditions

All instructions, clauses and conditions identified in the Request for Supply Arrangements (RFSA) by number, date and title are set out in the Standard Acquisition Clauses and Conditions Manual (<https://buyandsell.gc.ca/policy-and-guidelines/standard-acquisition-clauses-and-conditions-manual>) issued by Public Works and Government Services Canada.

Suppliers who submit an arrangement agree to be bound by the instructions, clauses and conditions of the RFSA and accept the clauses and conditions of the Supply Arrangement and resulting contract(s).

The 2008 (2019-03-04) Standard Instructions - Request for Supply Arrangements - Goods or Services, are incorporated by reference into and form part of the RFSA.

Subsection 5.4 of 2008, Standard Instructions - Request for Supply Arrangements - Goods or Services, is amended as follows:

Delete: 60 days

Insert: 90 days

### 2.2 Submission of Arrangements

Arrangements must be submitted only to Public Works and Government Services Canada (PWGSC) Bid Receiving Unit by the date, time and place indicated in the RFSA.

Due to the nature of the Request for Supply Arrangements, transmission of arrangements by epost Connect service and by facsimile to PWGSC will not be accepted.

### 2.3 Evaluation Period

The evaluation of the arrangement submitted by suppliers will start on January 21, 2020. Throughout the period of the RFSA, arrangement will be evaluated upon reception.

### 2.4 Federal Contractors Program for Employment Equity - Notification

The Federal Contractors Program (FCP) for employment equity requires that some contractors make a formal commitment to Employment and Social Development Canada (ESDC) - Labour to implement employment equity. In the event that this Supply Arrangement would lead to a contract subject to the Federal Contractors Program (FCP) for employment equity, the bid solicitation and resulting contract templates would include such specific requirements. Further information on the Federal Contractors Program (FCP) for employment equity can be found on Employment and Social Development Canada (ESDC) - Labour's website.

### 2.5 Enquiries - Request for Supply Arrangements

All enquiries must be submitted in writing to the Supply Arrangement Authority.

Suppliers should reference as accurately as possible the numbered item of the RFSA to which the enquiry relates. Care should be taken by Suppliers to explain each question in sufficient detail in order to enable Canada to provide an accurate answer. Technical enquiries that are of a proprietary nature must be clearly marked "proprietary" at each relevant item. Items identified as "proprietary" will be treated as such except where Canada determines that the enquiry is not of a proprietary nature. Canada may edit the question(s) or may request that Suppliers do so, so that the proprietary nature of the question(s) is eliminated, and the enquiry can be answered to all Suppliers. Enquiries not submitted in a form that can be distributed to all Suppliers may not be answered by Canada.

## **2.6 Applicable Laws**

The Supply Arrangement (SA) and any contract awarded under the SA must be interpreted and governed, and the relations between the parties determined, by the laws in force in Ontario.

Suppliers may, at their discretion, substitute the applicable laws of a Canadian province or territory of their choice without affecting the validity of the arrangement, by deleting the name of the Canadian province or territory specified and inserting the name of the Canadian province or territory of their choice. If no change is made, it acknowledges that the applicable laws specified are acceptable to the Suppliers.

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## PART 3 - ARRANGEMENT PREPARATION INSTRUCTIONS

### 3.1 Arrangement Preparation Instructions

Canada requests that Suppliers provide the arrangement in separately bound sections as follows:

Section I: Technical Arrangement (2 hard copies and 1 soft copy on Universal Serial Bus (USB) flash drive, Digital Versatile Disc (DVD) or Compact Disc (CD)).

Section II: Certifications (1 hard copy)

If there is a discrepancy between the wording of the soft copy and the hard copy, the wording of the hard copy will have priority over the wording of the soft copy.

Canada requests that suppliers follow the format instructions described below in the preparation of their arrangement.

- (a) use 8.5 x 11 inch (216 mm x 279 mm) paper;
- (b) use a numbering system that corresponds to the RFSA.

In April 2006, Canada issued a policy directing federal departments and agencies to take the necessary steps to incorporate environmental considerations into the procurement process Policy on Green Procurement (<https://www.tbs-sct.gc.ca/pol/doc-eng.aspx?id=32573>). To assist Canada in reaching its objectives, suppliers should:

- 1) use 8.5 x 11 inch (216 mm x 279 mm) paper containing fibre certified as originating from a sustainably-managed forest and containing minimum 30% recycled content; and
- 2) use an environmentally-preferable format including black and white printing instead of colour printing, printing double sided/duplex, using staples or clips instead of cerlox, duotangs or binders.

#### Section I: Technical Arrangement

In the technical arrangement, Suppliers should explain and demonstrate how they propose to meet the requirements and how they will carry out the Work.

Suppliers do not have to submit an arrangement for all configurations. Each configuration will be evaluated individually.

Suppliers should submit, with their arrangement, the completed Technical Information Questionnaire for each configuration for which they are submitting an arrangement.

- Appendix A1 – Technical Information Questionnaire – Group 1;
- Appendix B1 – Technical Information Questionnaire – Group 2;
- Appendix C1 – Technical Information Questionnaire – Group 3

Suppliers may propose substitutes and alternatives where “or equivalent” is indicated in the technical requirement description (Purchase Description). Suppliers are encouraged to offer or suggest green solutions whenever possible.

Substitutes and alternatives that are equivalent in form, fit, function and performance will be considered for acceptance by the Technical Authority where the supplier:

- (a) Clearly identifies a substitute and/or an alternative;



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(b) Designates the brand name, model and/or part number of the substitute and/or of the product, where applicable;

(c) States that the substitute product is fully interchangeable with the item specified in the technical requirement description;

(d) Provides complete specifications and brochures, where applicable;

(e) Provides compliance statements that include technical details showing the substitute and/or the alternative meet all technical requirements specified in the technical requirement description; and

(f) Clearly identifies those areas in the technical requirement description and in the brochures that support the substitute and/or the alternative compliance with the technical requirements.

Substitutes and alternatives offered as equivalent in form, fit, function and performance will not be considered for acceptance by the technical Authority if:

(a) The arrangement fails to provide all of the information requested to allow the Technical authority to fully evaluate the equivalency, or;

(b) The substitutes and/or the alternative fail to meet or fail to exceed the technical requirements specified in the technical requirement description.

An existing qualified supplier, that has been issued a Supply Arrangement under the RFSA E60HS-16BCKH/A and offers to qualify the same vehicles/equipment under RFSA E60HS-19BCKH/A, must fill out Annex "D" and submit it along with the certifications and additional information required under Part 5 as part of its arrangement submission. The existing qualified suppliers under the RFSA E60HS-16BCKH/A will not be required to submit a technical arrangement to qualify vehicles/equipment that have already been qualified under that Request for Supply Arrangement. The existing qualified suppliers will have an on-going opportunity during the RFSA validity period to qualify new vehicles.

## **Section II: Certifications**

Suppliers must submit the certifications and additional information required under Part 5.

## **PART 4 - EVALUATION PROCEDURES AND BASIS OF SELECTION**

### **4.1 Evaluation Procedures**

- (a) Arrangements will be assessed in accordance with the entire requirement of the Request for Supply Arrangements including the technical evaluation criteria.
- (b) An evaluation team composed of representatives of Canada will evaluate the arrangements.

#### **4.1.1 Technical Evaluation**

##### **4.1.1.1 Mandatory Proof of Compliance**

Suppliers must submit, with their arrangement, all proof of compliance required in the Purchase Description(s) and the Technical Information Questionnaire(s) for each configuration for which an arrangement is being submitted.

##### **4.1.1.2 Substitutes and/or Alternatives**

Suppliers proposing substitutes and/or alternatives must provide with their arrangement, all the information as detailed in Part 3, Section 1, - Substitutes and Alternatives to be considered for evaluation.

### **4.2 Basis of Selection**

An arrangement must comply with the requirements of the Request for Supply Arrangements and meet all mandatory technical evaluation criteria to be declared responsive. All responsive arrangements will be recommended for issuance of a supply arrangement.

## PART 5 – CERTIFICATIONS AND ADDITIONAL INFORMATION

Suppliers must provide the required certifications and additional information to be issued a supply arrangement (SA).

The certifications provided by Suppliers to Canada are subject to verification by Canada at all times. Unless specified otherwise, Canada will declare an arrangement non-responsive, or will declare a contractor in default if any certification made by the Supplier is found to be untrue whether made knowingly or unknowingly during the arrangement evaluation period, or during the period of any supply arrangement arising from this RFSA and any resulting contracts.

The Supply Arrangement Authority will have the right to ask for additional information to verify the Supplier's certifications. Failure to comply and to cooperate with any request or requirement imposed by the Supply Arrangement Authority will render the arrangement non-responsive, or constitute a default under the Contract.

### 5.1 Certifications Required with the Arrangement

Suppliers must submit the following duly completed certifications as part of their arrangement.

#### 5.1.1 Integrity Provisions - Declaration of Convicted Offences

In accordance with the Integrity Provisions of the Standard Instructions, all suppliers must provide with their arrangement, **if applicable**, the declaration form available on the Forms for the Integrity Regime website (<http://www.tpsgc-pwgsc.gc.ca/ci-if/declaration-eng.html>), to be given further consideration in the procurement process.

### 5.2 Certifications Precedent to the Issuance of a Supply Arrangement and Additional Information

The certifications and additional information listed below should be submitted with the arrangement, but may be submitted afterwards. If any of these required certifications or additional information is not completed and submitted as requested, the Supply Arrangement Authority will inform the Supplier of a time frame within which to provide the information. Failure to provide the certifications or the additional information listed below within the time frame provided will render the arrangement non-responsive.

#### 5.2.1 Integrity Provisions – Required Documentation

In accordance with the section titled Information to be provided when bidding, contracting or entering into a real property agreement of the Ineligibility and Suspension Policy (<http://www.tpsgc-pwgsc.gc.ca/ci-if/politique-policy-eng.html>), the Supplier must provide the required documentation, as applicable, to be given further consideration in the procurement process.

#### 5.2.2 Product Conformance

The Supplier certifies that all vehicles/equipment proposed conform, and will continue to conform throughout the duration of the SA and of any resulting contract, to all technical specifications of the purchase description(s).

This certification does not relieve the arrangement from meeting all mandatory technical evaluation criteria detailed in Part 4.

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Supplier's authorized representative signature

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Date

#### 5.2.3 General Environmental Criteria Certification

The Supplier must select and complete one of the following two certification statements.

A) The Supplier certifies that the Supplier is registered or meets ISO 14001.

\_\_\_\_\_  
Supplier's authorized representative signature

\_\_\_\_\_  
Date

Or

B) The Supplier certifies that the Supplier meets and will continue to meet throughout the duration of the arrangement, a minimum of four (4) out of six (6) criteria identified in the table below.

The Supplier must indicate which four (4) criteria, as a minimum, are met.

<b>Green Practices within the Supplier's organization</b>	<b>Insert a checkmark for each criterion that is met</b>
Promotes a paperless environment through directives, procedures and/or programs	
All documents are printed double sided and in black and white for day to day business activity unless otherwise specified by your client	
Paper used for day to day business activity has a minimum of 30% recycled content and has a sustainable forestry management certification	
Utilizes environmentally preferable inks and purchase remanufactured ink cartridges or ink cartridges that can be returned to the manufacturer for reuse and recycling for day to day business activity.	
Recycling bins for paper, newsprint, plastic and aluminum containers available and emptied regularly in accordance with local recycling program.	
A minimum of 50% of office equipment has an energy efficient certification.	

\_\_\_\_\_  
Supplier's authorized representative signature

\_\_\_\_\_  
Date

## PART 6 - SUPPLY ARRANGEMENT AND RESULTING CONTRACT CLAUSES

### A. SUPPLY ARRANGEMENT

#### 6.1 Arrangement

The Supply Arrangement covers the requirement described in the Purchase Descriptions at Annex "A" – Group 1, Annex "B" – Group 2 and Annex "C" – Group 3.

#### 6.2 Security Requirements

There is no security requirement applicable to the Supply Arrangement.

#### 6.3 Standard Clauses and Conditions

All clauses and conditions identified in the Supply Arrangement and resulting contract(s) by number, date and title are set out in the Standard Acquisition Clauses and Conditions Manual (<https://buyandsell.gc.ca/policy-and-guidelines/standard-acquisition-clauses-and-conditions-manual>) issued by Public Works and Government Services Canada.

##### 6.3.1 General Conditions

2020 (2017-09-21) General Conditions - Supply Arrangement - Goods or Services, apply to and form part of the Supply Arrangement.

#### 6.4 Term of Supply Arrangement

##### 6.4.1 Period of the Supply Arrangement

The period for awarding contracts under the Supply Arrangement is from \_\_\_\_\_ to \_\_\_\_\_. (*To be inserted by PWGSC*)

##### 6.4.2 Comprehensive Land Claims Agreements (CLCAs)

The Supply Arrangement (SA) is for the delivery of the requirement detailed in the SA to the Identified Users across Canada, excluding locations within Yukon, Northwest Territories, Nunavut, Quebec, and Labrador that are subject to Comprehensive Land Claims Agreements (CLCAs). Any requirement for deliveries to locations within CLCAs areas within Yukon, Northwest Territories, Nunavut, Quebec, or Labrador will have to be treated as a separate procurement, outside of the supply arrangement.

#### 6.5 Authorities

##### 6.5.1 Supply Arrangement Authority

The Supply Arrangement Authority is:

Name:	Veronica Vallejo
Title:	Supply Specialist
Organization:	Public Works and Government Services Canada Acquisitions Branch
Directorate:	Logistics, Electrical, Fuel and Transportation Directorate
Address:	140, O'Connor Street, East Tower, 4th Floor, Ottawa, Ontario K1A 0S5
Telephone:	613-297-3978
E-mail address:	Veronica.Vallejo@pwgsc-tpsgc.gc.ca

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The Supply Arrangement Authority is responsible for the issuance of the Supply Arrangement, its administration and its revision, if applicable.

### 6.5.2 Technical Authority

The Technical Authority for the SA is:

Name: \_\_\_\_\_ *(to be inserted by PWGSC)*  
Title: \_\_\_\_\_  
Organization: \_\_\_\_\_  
Telephone: \_\_\_\_\_  
E-mail: \_\_\_\_\_

The Technical Authority is responsible for all matters concerning the technical content of the Purchase Description(s) under the SA. Technical matters may be discussed with the Technical Authority, however the Technical Authority has no authority to authorize changes to the scope of the Work. Changes to the scope of the Work can only be made through an SA amendment issued by the Supply Arrangement Authority.

### 6.5.3 Supplier's Representative

Name: \_\_\_\_\_ *(to be completed by supplier)*  
Title: \_\_\_\_\_  
Organization: \_\_\_\_\_  
Telephone: \_\_\_\_\_  
E-mail: \_\_\_\_\_

### 6.6 Identified Users

The Identified Users include any government department, agency or Crown Corporation listed in Schedules I, I.1, II, III, of the Financial Administration Act, R.S.C., 1985, c. F-11.

### 6.7 On-going Opportunity for Qualification

A Notice will be posted on the Government Electronic Tendering Service (GETS) for the duration of the RFSA to allow new Suppliers to become qualified. Existing qualified Suppliers, who have been issued a supply arrangement, will not be required to submit a new arrangement.

### 6.8 Priority of Documents

If there is a discrepancy between the wording of any documents that appear on the list, the wording of the document that first appears on the list has priority over the wording of any document that subsequently appears on the list.

- (a) the articles of the Supply Arrangement;
- (b) the general conditions 2020 (2017-09-21), General Conditions - Supply Arrangement - Goods or Services;
- (c) Annex "A", Purchase Description Group 1;
- (d) Annex "B", Purchase Description Group 2;
- (e) Annex "C", Purchase Description Group 3;
- (f) the Supplier's arrangement dated \_\_\_\_\_ *(to be inserted by PWGSC)*, as amended *(to be inserted by PWGSC)* \_\_\_\_\_.

### 6.9 Certifications and Additional Information

#### 6.9.1 Compliance

Unless specified otherwise, the continuous compliance with the certifications provided by the Supplier in its arrangement or precedent to issuance of the Supply Arrangement (SA), and the ongoing cooperation in providing additional information are conditions of issuance of the SA and failure to comply will

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constitute the Supplier in default. Certifications are subject to verification by Canada during the entire period of the SA and of any resulting contract that would continue beyond the period of the SA.

#### **6.10 Applicable Laws**

The Supply Arrangement (SA) and any contract resulting from the SA must be interpreted and governed, and the relations between the parties determined, by the laws in force in Ontario.

#### **6.11 Supply Arrangement Reporting**

The Supplier must compile and maintain records on its provision of goods to the federal government under contracts resulting from the Supply Arrangement. This data must include all purchases, including those paid for by a Government of Canada Acquisition Card.

The Supplier must provide this data, in electronic format (Excel spreadsheet format), in accordance with the reporting requirements detailed below. If some data is not available, the reason must be indicated. If no goods are provided during a given period, the Supplier must still provide a "NIL" report.

The data must be submitted on a quarterly basis to the Supply Arrangement Authority.

The quarterly reporting periods are defined as follows:

- 1st quarter: April 1 to June 30;
- 2nd quarter: July 1 to September 30;
- 3rd quarter: October 1 to December 31;
- 4th quarter: January 1 to March 31.

The reporting requirements includes:

- 1a. Supply Arrangement Number;
- 1b. Supply Arrangement Title;
- 1c. Authorized Users;
- 1d. Contract number;
- 1e. Invoice date and number;
- 1f. Delivery Location;
- 1g. Reporting Period (Quarter and Per Fiscal Year);
- 1h. Total Number of Orders and associated value (Applicable taxes included) for the Reporting Period (Quarter);
- 1i. Total Number of Orders and associated value (Applicable taxes included) (Per Fiscal Year);
- 1j. Total Number of Orders and associated value (Applicable taxes included) (For the duration of the Supply Arrangement);
- 2a. Item number;
- 2b. Total Number of Item ordered (Per Quarter and Per Fiscal Year);
- 2c. Total Number of Item ordered (Per Identified user).

The data must be submitted to the Supply Arrangement Authority no later than fifteen (15) calendar days after the end of the reporting period.

#### **6.12 Technical Changes, Substitutes and Alternatives**

Any technical changes, substitutes and alternatives proposed by the Supplier must be evaluated for acceptance by the Technical Authority. Any substitutes and alternatives must be equivalent in form, fit, function, quality and performance to what is being replaced and must be at no additional cost to Canada. Substitutes and alternatives that are offered as equivalent will only be acceptable once they are approved by the Technical Authority as an equivalent. A Supply Arrangement amendment will be issued. Should the Technical Authority not accept the substitute or the alternative and the Supplier is unable to meet the technical requirement, Canada may terminate the Supply arrangement in accordance with the general conditions stated in the Request for Supply Arrangement.

### **6.13 Substitute Model**

In the event that a model is discontinued, the Supplier must notify the Supply Arrangement Authority. The Supplier can offer, through the Supply Arrangement Authority, a substitute model for acceptance. The substitute model must meet all the technical requirements of the Purchase Description. An administrative revision will be done in the Supply Arrangement to reflect the change in model.

### **6.14 Meeting after issuance of Supply Arrangement**

Within ten (10) calendar days from the effective date of the SA, the Supplier must contact the Supply Arrangement Authority to determine if a meeting is required. A meeting will be convened at Canada's discretion. The Supplier shall be responsible for the preparation and distribution of the minutes of meeting within five (5) calendar days after the meeting has been held. The meeting will be held at the Supplier's facilities or at the Supply Arrangement Authority's facility or via teleconference, at Canada's discretion at no additional cost to Canada.

### **6.15 Transition to an e-Procurement Solution (EPS)**

During the period of the Supply Arrangement, Canada may transition to an EPS for more efficient processing and management of individual contracts for any or all of the SA's applicable goods and services. Canada reserves the right, at its sole discretion, to make the use of the new e-procurement solution mandatory.

Canada agrees to provide the Supplier with at least a three-month notice to allow for any measures necessary for the integration of the Supply Arrangement into the EPS. The notice will include a detailed information package indicating the requirements, as well as any applicable guidance and support.

If the Supplier chooses not to provide the supply arrangement of their goods or services through the e-procurement solution, the Supply Arrangement may be set aside by Canada.

## **B. BID SOLICITATION**

### **6.1 Bid Solicitation Documents**

Canada will use the bid solicitation template at Annex "E". The latest versions of the template and terms and conditions will be used at time of bid solicitation. A copy is available by contacting the Supply Arrangement Authority detailed under Part 6A, 6.5 Authorities.

### **6.2 Bid Solicitation Process**

**6.2.1** Bids will be solicited for specific requirements within the scope of the Supply Arrangement (SA) from all pre-qualified Suppliers who have been issued an SA under the RFSA E60HS-19BCKH/A.

**6.2.2** The bid solicitation will be posted on the Government Electronic Tendering Service (GETS) or will be sent directly to Suppliers.

The bid solicitation period will be for a minimum of five (5) calendar days.

**6.2.3** The Department of National Defense will be responsible for the bid solicitation process and the award of individual contracts for requirements not exceeding \$5M (including applicable taxes).

All other identified users will be responsible for the bid solicitation process and the award of individual contracts for requirements not exceeding \$400K (including applicable taxes). PWGSC will be responsible for the bid solicitation process and award of individual contracts exceeding \$400K (including applicable taxes).



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**6.2.4** The following forms must be used for the first page of the bid solicitation document and the first page of the resulting contract document. These forms are available on the Electronic Forms Catalogue ([http://publiservice-app.tpsgc-pwgsc.gc.ca/forms/text/search\\_for\\_forms-e.html](http://publiservice-app.tpsgc-pwgsc.gc.ca/forms/text/search_for_forms-e.html)) website.

PWGSC-TPSGC 9400-3, Bid Solicitation  
PWGSC-TPSGC 9400-4, Contract

## **C. RESULTING CONTRACT CLAUSES**

### **6.1 General**

The conditions of any contract awarded under the Supply Arrangement will be in accordance with the resulting contract clauses of the template used for the bid solicitation.

For any contract to be awarded using the template, general conditions 2010A will apply to the resulting contract.

The latest versions of the template and terms and conditions will be used at time of bid solicitation. A copy is available by contacting the Supply Arrangement Authority specified under part 6A, 6.5 Authorities.



**NOTICE**

This documentation has been reviewed by the Technical Authority and does not contain controlled goods.

**AVIS**

Cette documentation a été révisée par l'Autorité technique et ne contient pas de marchandises contrôlées.

**PURCHASE DESCRIPTION**  
**GROUP 1 – ANNEX “A”**  
**TRACTOR LOADER BACKHOE**

**1. SCOPE**

**1.1 Scope.** This Purchase Description covers the requirements for tractor loader backhoes.

**1.2 Instructions**

- (a) Requirements that are identified by the word “**must**”, **must** be treated as mandatory. Deviations will not be permitted.
- (b) Requirements identified with a “will” define actions to be performed by Canada and require no action/obligation on the Contractor’s part.
- (c) Where “**must**” or “will” are not used, the information provided is for guidance only.
- (d) Where a standard is specified and the Contractor has offered an **Equivalent**, that **Equivalent** standard **must** be supplied by the Contractor.
- (e) Where a technical certification is referred to in this Purchase Description, a copy of the certification or **Equivalent must** be supplied, when requested by the **Technical Authority**.
- (f) While the International System of Units (SI) **must** be used as the primary system of measurement to define requirements of this Purchase Description, both the SI system and the standard system for this product may be indicated. Conversion from one system of measurement to the other may not be exact.
- (g) Dimensions stated as nominal **must** be treated as approximate dimensions. Nominal dimensions reflect a method by which materials or products are generally identified for sale commercially, but that differ from the actual dimensions.

**1.3 Definitions**

- (a) “**Provided**” means “provided and installed”.
- (b) “**Technical Authority**” means the official responsible for the technical content of this requirement.
- (c) “**Equivalent**” means a standard, means, or component type that the **Technical Authority** has approved for this requirement as meeting the specified requirements for fit, form, function and performance.
- (d) “**Commercially Equipped**” means that the vehicle is provided in its standard commercial configuration with no additional government-specified requirements.
- (e) “**Bilingual**” means both official languages; English and French.

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**OPI: DSVPM 4 – BPR: DAPVS 4**

Issued on Authority of the Chief of the Defence Staff

Publiée avec l'autorisation du chef d'état-major de la Défense



- 1.4 **Data Table.** The following table shows the required performance and dimensions for each Configuration and includes paragraph references.

CHARACTERISTIC	PARAGRAPH	UNITS	CONFIGURATION	
			A	B
LOADER CAPACITY	3.4.1 (a)	kg	2,750	2,750
BREAKOUT	3.4.1 (b)	kN	39	45.5
DUMP CLEARANCE	3.4.1 (c)	mm	2,625	2,625
REACH	3.4.1 (d)	mm	675	725
DIGGING DEPTH	3.4.2 (a)	mm	4,250	4,675
DIPPER ARM FORCE	3.4.2 (b)	kN	29	38.5
BUCKET FORCE	3.4.2 (c)	kN	44	65
DIPPER EXTENSION	3.5.2 (a)	mm	5,350	5,900
GP BUCKET	3.5.3 (a)(b)	m <sup>3</sup>	0.76	0.84
SNOW CAPACITY	3.5.3 (d)	m <sup>3</sup>	1.3	1.7

- 1.5 **Attachments Table.** The following table indicates, with "✓", for each Configuration, the attachments, features, accessories, additional items and training that **must** be provided when specified in the solicitation, with a clause reference.

DESCRIPTION	PARAGRAPH	CONFIGURATION	
		A	B
Dipperstick Extension (Backhoe)	3.5.2 (a)	✓	✓
Hydraulic Coupler (Backhoe)	3.5.2 (b)	✓	✓
Hydraulically Actuated Thumb (Backhoe)	3.5.2 (c)	✓	✓
Front Wheel Fenders	3.5.2 (d)	✓	✓
General-Purpose Bucket with Teeth (Loader)	3.5.3 (a)	✓	✓
General-Purpose Bucket with Cutting Edge (Loader)	3.5.3 (b)	✓	✓
4 in 1 Bucket (Loader)	3.5.3 (c)	✓	✓
Snow/Light Material Bucket (Loader)	3.5.3 (d)	✓	✓
Forklift (Loader)	3.5.3 (e)	✓	✓
Crane Jib (Loader)	3.5.3 (f)	✓	✓
Snow Blower (Loader)	3.5.3 (g)	✓	✓
Rotary Sweeper (Loader)	3.5.3 (h)	✓	✓
Snow Pusher (Loader)	3.5.3 (i)	✓	✓
Angling Blade (Loader)	3.5.3 (j)	✓	✓
Standard Trenching Bucket (Backhoe)	3.5.2 (k)	✓	✓
Narrow Trenching Bucket (Backhoe)	3.5.3 (l)	✓	✓
Wide Trenching Bucket (Backhoe)	3.5.3 (m)	✓	✓
Ditching Bucket (Backhoe)	3.5.3 (n)	✓	✓
Heavy Duty Frost Bucket (Backhoe)	3.5.3 (o)	✓	✓
Ripper Tooth (Backhoe)	3.5.3 (p)	✓	✓
Jack-Hammer (Backhoe)	3.5.3 (q)	✓	✓
Plate Compactor (Backhoe)	3.5.3 (r)	✓	✓
Earth Auger (Backhoe)	3.5.3 (s)	✓	✓
12" Heavy Duty Auger Bit	3.5.3 (t)	✓	✓
18" Heavy Duty Auger Bit	3.5.3 (u)	✓	✓

DESCRIPTION	PARAGRAPH	CONFIGURATION	
		A	B
24" Heavy Duty Auger Bit	3.5.3 (v)	✓	✓
Auger Extension	3.5.3 (w)	✓	✓
Fuel-Fired Heater	3.8.3 (a)	✓	✓
4-Wheel Drive	3.9.2 (a)	✓	✓
Battery Solar Charger	3.15.1	✓	✓
Amber Coloured Beacon	3.16.1 (a)	✓	✓
Blue Coloured Beacon	3.16.1 (b)	✓	✓
Automatic Greasing System	3.18.1 (a)	✓	✓
Olive Drab Green Paint	3.19.1 (a)	✓	✓
Training – Familiarization - English	4.3.1	✓	✓
Training – Familiarization - French	4.3.1	✓	✓

## 2. APPLICABLE DOCUMENTS

### 2.1 Government Furnished Documents. NOT APPLICABLE.

### 2.2 Other Publications. Canada will not be supplying any reference documents. Effective documents are those in effect on the date of the manufacture of the vehicle. Information on the organization is supplied below.

- (a) Hazardous Products Act  
Government of Canada / Department of Justice  
<http://laws-lois.justice.gc.ca/eng/acts/H-3/>
- (b) International Organization for Standardization (ISO)  
ISO Central Secretariat  
Chemin de Blandonnet 8  
CP 401  
1214 Vernier, Geneva  
Switzerland  
<http://www.iso.org/iso/home.htm>
- (c) SAE Standards  
SAE World Headquarters  
400 Commonwealth Dr.,  
Warrendale, PA, 15096-0001  
<http://www.sae.org>

## 3. REQUIREMENTS

### 3.1 Standard Design

- (a) The vehicle **must** be the latest model from a manufacturer who has demonstrated acceptability by selling, in North America, this type and size class of vehicle for at least three (3) years.
- (b) The vehicle **must** include all components, equipment and accessories normally supplied for this application, although they may not be specifically described in this Purchase Description.
- (c) The vehicle **must** have engineering certification available, upon request, for this application, from the original manufacturers of the major equipment, systems and assemblies.

- (d) The vehicle **must** conform to all applicable laws, regulations and industrial standards in effect in Canada at the time of manufacture. The regulatory areas may include but are not necessarily limited to manufacturing, health and safety, noise levels, environment and emissions.
- (e) The vehicle and accessories **must** operate in accordance with all original equipment manufacturers' (OEM) rated capacities and performance specifications.

### **3.2 Operating Conditions**

**3.2.1 Weather.** The vehicle **must** start and operate under the extremes of weather conditions found in Canada in temperatures ranging from -30° to 40° C.

**3.2.2 Terrain.** The vehicle **must** propel itself in the forward and reverse directions during off-road operations (e.g. construction sites, open fields and dirt tracks) in all-weather conditions.

### **3.3 Safety Standards**

**3.3.1 Hazardous Materials.** The contractor **must** comply with the Hazardous Products Act of Canada with regards to the use of hazardous materials, ozone depleting substances, polychlorinated biphenyls, asbestos and heavy metals used in the manufacture and assembly of the product supplied.

**3.4 Performance.** The vehicle **must** be an industrial tractor with integral loader and backhoe.

#### **3.4.1 Loader Performance**

- (a) The loader **must** have an operating capacity of at least that given as "**LOADER CAPACITY**" in the Data Table (paragraph 1.4) using the loader bucket specified in paragraph 3.5.3 (a) pinned directly to the standard loader arms (paragraph 3.5.1 (a)).
- (b) The loader **must** have a breakout force of at least that given as "**BREAKOUT**" in the Data Table (paragraph 1.4) using the loader bucket specified in paragraph 3.5.3 (a) pinned directly to the standard loader arms (paragraph 3.5.1 (a)).
- (c) The loader **must** have a dump clearance of the bucket of at least that given as "**DUMP CLEARANCE**" in the Data Table (paragraph 1.4) using the loader bucket specified in paragraph 3.5.3 (a), at a dump angle of at least 40 degrees, pinned directly to the standard loader arms (paragraph 3.5.1 (a)).
- (d) The loader **must** have a reach, at the dump clearance height specified in paragraph 3.4.1 (c), of at least that given as "**REACH**" in the Data Table (paragraph 1.4) using the loader bucket specified in paragraph 3.5.3 (a), at a dump angle of at least 40 degrees, pinned directly to the standard loader arms (paragraph 3.5.1 (a)).

#### **3.4.2 Backhoe Performance**

- (a) The backhoe **must** have a digging depth of at least that given as "**DIGGING DEPTH**" in the Data Table (paragraph 1.4) using the trenching bucket specified in paragraph 3.5.3 (k) pinned directly to the boom of the standard backhoe arm specified in paragraph 3.5.1 (c).
- (b) The backhoe **must** have a dipper cylinder digging force, of at least that given as "**DIPPER ARM FORCE**" in the Data Table (paragraph 1.4) using the trenching bucket specified in paragraph 3.5.3 (k) pinned directly to the boom of the standard backhoe arm specified in paragraph 3.5.1 (c).
- (c) The backhoe **must** have a bucket cylinder digging force, of at least that given as "**BUCKET FORCE**" in the Data Table (paragraph 1.4) using the trenching bucket specified in paragraph 3.5.3 (k) pinned directly to the boom of the standard backhoe arm specified in paragraph 3.5.1 (c).

### 3.5 **Equipment**

**3.5.1 Couplers**. All attachments for mounting on the loader arms **must** have couplers that fit the coupler provided on the tractor loader backhoe's loader arms or backhoe arm.

(a) **Loader Arms**

- i The vehicle **must** be provided with a set of manufacturer's integral loader arms.
- ii The loader arms **must** be provided with a lift arm safety device, as referenced in ISO 10533.

(b) **Hydraulic Coupler (Loader)**. The vehicle **must** be provided with a loader arm hydraulic quick coupler.

(c) **Backhoe**. The vehicle **must** be provided with an integral backhoe.

(d) **Mechanical Coupler (Backhoe)**. The vehicle **must** be provided with a backhoe arm mechanical quick coupler.

(e) **Protection Against Vandalism**. Protection against vandalism including provision for locking engine covers and all filler caps **must** be provided.

(f) **Tool Compartment**

- i A tool compartment to hold all tools and minor loose equipment required for daily maintenance **must** be provided.
- ii The tool compartment **must** be of weatherproof construction with anti-return type drainage.
- iii The tool compartment **must** have a compartment cover equipped with a means to be secured using a padlock or keyed lock.

**3.5.2 Accessories**. The following **must** be provided when indicated with a "✓", in the Attachments Table, paragraph 1.5, and specified in the solicitation.

(a) **Dipperstick Extension (Backhoe)**

- i The backhoe arm **must** be provided with a dipperstick extension.
- ii The backhoe with dipperstick extended **must** have a digging depth of at least that given as "DIPPER EXTENSION" in the Data Table (paragraph 1.4) using the trenching bucket specified in paragraph 3.5.3 (k) pinned directly to the boom of the backhoe.

(b) **Hydraulic Coupler (Backhoe)**. The vehicle **must** be provided with a backhoe arm hydraulic quick coupler, in lieu of the mechanical quick coupler specified in paragraph 3.5 (d).

(c) **Hydraulically Actuated Thumb (Backhoe)**. The backhoe **must** be provided with a hydraulically actuated thumb compatible with the standard trenching bucket (backhoe) specified in paragraph 3.5.3 (k).

(d) **Front Wheel Fenders**. The vehicle **must** be provided with fenders over the front wheels.

**3.5.3 Attachments**. The following **must** be provided when indicated with a "✓", in the Attachments Table, paragraph 1.5, and specified in the solicitation.

(a) **General-Purpose Bucket with Teeth (Loader)**

- i The vehicle **must** be provided with a general-purpose bucket with teeth (loader).

- ii The general-purpose bucket with teeth **must** have a heaped capacity, rated in accordance with ISO 7546, of at least that given as “**GP BUCKET**” in the Data Table (paragraph 1.4).
- iii The general-purpose bucket with teeth (loader) **must** have a width greater than the vehicle width with the widest wheels.
- iv The general-purpose bucket with teeth (loader) **must** be provided with bolt-on, replaceable teeth.

(b) **General-Purpose Bucket with Cutting Edge (Loader)**

- i The vehicle **must** be provided with a general-purpose bucket with cutting edge (loader).
- ii The general-purpose bucket with cutting edge **must** have a heaped capacity, rated in accordance with ISO 7546, of at least that given as “**GP BUCKET**” in the Data Table (paragraph 1.4).
- iii The general-purpose bucket with cutting edge (loader) **must** have a width greater than the vehicle width with the widest wheels.
- iv The general-purpose bucket with cutting edge **must** be provided with reversible, bolt-on, replaceable cutting edge(s).

(c) **4 in 1 Bucket (Loader)**

- i The vehicle **must** be provided with a 4 in 1 bucket (loader).
- ii The 4 in 1 bucket (loader) **must** have a heaped capacity, rated in accordance with ISO 7546, of at least 0.76 m<sup>3</sup>.
- iii The 4 in 1 bucket (loader) **must** have a width greater than the vehicle width with the widest wheels.
- iv The 4 in 1 bucket (loader) **must** be provided with reversible, bolt-on, replaceable cutting edge(s).

(d) **Snow/Light Material Bucket (Loader)**

- i The vehicle **must** be provided with a snow/light material bucket (loader).
- ii The snow/light material bucket (loader) **must** have a heaped capacity, rated in accordance with ISO 7546, of at least that given as “**SNOW CAPACITY**” in the Data Table (paragraph 1.4).
- iii The snow/light material bucket (loader) **must** have a width greater than the vehicle width with the widest wheels.
- iv The snow/light material bucket (loader) **must** be provided with reversible, bolt-on, replaceable cutting edge(s).

(e) **Forklift (Loader)**

- i The vehicle **must** be provided with a forklift attachment for mounting on the loader arms.
- ii The forks **must** have a nominal length of 1,219 mm.
- iii The forks **must** have a capacity of at least 2,100 kg at a 609 mm (24 inch) load centre from the back face of the forks.
- iv The rated capacity of the forks **must** be permanently marked on the forklift attachment.

(f) **Crane Jib (Loader)**

- i The vehicle **must** be provided with a crane jib (loader).
- ii The crane jib (loader) **must** have a reach from the coupler face of at least 1,524 mm.
- iii The crane jib (loader) **must** have a capacity, at 1,500 mm from the coupler face, of at least 560 kg.

(g) **Snow Blower (Loader)**

- i The vehicle **must** be provided with a self-contained snow blower for mounting on the loader arms.
- ii The snow blower (loader) **must** be provided with a directional chute controlled by an operator's station remote control.
- iii The snow blower (loader) **must** have a capacity of at least 905 metric tons per hour.
- iv The snow blower (loader) **must** have the capacity to cast snow a distance of at least 15 metres.
- v The snow blower (loader) **must** load a dump truck with sides 2,650 mm high.
- vi The snow blower (loader) **must** be at least as wide as the width of the vehicle over its largest tires.
- vii The snow blower **must** have the bilingual warning "DANGER STAND CLEAR/DANGER-RESTEZ DISTANCE" painted or stencilled on each side, in day-glow red, as large as space permits or **Equivalent** symbol.

(h) **Rotary Sweeper (Loader)**

- i The vehicle **must** be provided with an angling rotary sweeper for mounting on the loader arms.
- ii The angling rotary sweeper **must** have a width of at least 2,130 mm.
- iii The angling rotary sweeper **must** be controlled from the operator's station.
- iv The controls **must** move the angling rotary sweeper, on command, between the angles of at least 30 degrees to the left and right.

(i) **Snow Pusher (Loader)**

- i The vehicle **must** be provided with a snow pusher for mounting on the loader arms.
- ii The snow pusher **must** have a width of at least 2,740 mm.
- iii The snow pusher **must** have end dams at both plow ends to retain more snow.

(j) **Angling Blade (Loader)**

- i The vehicle **must** be provided with a front angling blade.
- ii The front angling blade **must** mount on the loader arms.
- iii The front angling blade **must** be equipped with bolt-on replaceable cutting edges.
- iv The front angling blade **must** be controlled from the operator's station.
- v The controls **must** move the front angling blade, on command, between the angles of at least 25 degrees to the left and right.



- vi The dozing path, with the blade angled, **must** exceed the width of the tractor with the widest tires.

(k) **Standard Trenching Bucket (Backhoe)**

- i The vehicle **must** be provided with a standard trenching bucket (backhoe).
- ii The standard trenching bucket (backhoe) **must** be provided with bolt-on replaceable teeth.
- iii The standard trenching bucket (backhoe) **must** have a heaped capacity, rated in accordance with ISO 7546, of at least 0.20 m<sup>3</sup>.
- iv The standard trenching bucket (backhoe) **must** have a nominal width of 609 mm.
- v The standard trenching bucket (backhoe) **must** be provided with a hook, loop or **equivalent** feature for attaching of a lifting chain or cable.

(l) **Narrow Trenching Bucket (Backhoe)**

- i The backhoe **must** be supplied with a narrow trenching bucket (backhoe).
- ii The narrow trenching bucket (backhoe) **must** be provided with bolt-on replaceable teeth.
- iii The narrow trenching bucket (backhoe) **must** have a heaped capacity, rated in accordance with ISO 7546, of at least 0.13 m<sup>3</sup>.
- iv The narrow trenching bucket (backhoe) **must** have a nominal width of 457 mm.
- v The narrow trenching bucket (backhoe) **must** be provided with a hook, loop or **equivalent** feature for attaching of a lifting chain or cable.

(m) **Wide Trenching Bucket (Backhoe)**

- i The backhoe **must** be provided with a wide trenching bucket (backhoe).
- ii The wide trenching bucket (backhoe) **must** be provided with bolt-on replaceable teeth.
- iii The wide trenching bucket (backhoe) **must** have a heaped capacity, rated in accordance with ISO 7546, of at least 0.25 m<sup>3</sup>.
- iv The wide trenching bucket (backhoe) **must** have a nominal width of 762 mm.
- v The wide trenching bucket **must** be provided with a hook, loop or **equivalent** feature for attaching of a lifting chain or cable.

(n) **Ditching Bucket (Backhoe)**

- i The backhoe **must** be provided with a ditching bucket with wrist action.
- ii The ditching bucket (backhoe) **must** be provided with reversible, bolt-on, replaceable cutting edge(s).
- iii The ditching bucket (backhoe) **must** have a heaped capacity, rated in accordance with ISO 7546, of at least 0.35 m<sup>3</sup>.
- iv The ditching bucket (backhoe) **must** have a nominal width of 1,220 mm.

(o) **Heavy Duty Frost Bucket (Backhoe)**

- i The vehicle **must** be provided with a heavy duty frost bucket (backhoe).
- ii The heavy duty frost bucket (backhoe) **must** be provided with bolt-on replaceable teeth.

- iii The heavy duty frost bucket (backhoe) **must** have a heaped capacity, rated in accordance with ISO 7546, of at least 0.1 m<sup>3</sup>.
- iv The heavy duty frost bucket (backhoe) **must** have a nominal width of 457 mm.
- (p) **Ripper Tooth (Backhoe)**. The backhoe **must** be provided with a ripper tooth, designed for frozen ground for mounting at the tip of the backhoe arm.
- (q) **Jack-Hammer (Backhoe)**
  - i The vehicle **must** be provided with a jack-hammer for mounting on the backhoe arm.
  - ii The jack-hammer (backhoe) **must** be provided with a moil bit.
  - iii The jack hammer (backhoe) **must** have an impacting force of at least 1,000 joules.
- (r) **Plate Compactor (Backhoe)**. The backhoe **must** be provided with a plate compactor for mounting on the backhoe arm.
- (s) **Earth Auger (Backhoe)**. The vehicle **must** be provided with a heavy-duty earth auger for mounting on the backhoe arm.
- (t) **12" Heavy Duty Auger Bit**
  - i The vehicle **must** be provided with a 12" heavy duty auger bit.
  - ii The 12" heavy duty auger bit **must** have a nominal diameter of 305 mm.
  - iii The 12" heavy duty auger bit **must** have a nominal length of 1,219 mm.
- (u) **18" Heavy Duty Auger Bit**
  - i The vehicle **must** be provided with an 18" heavy duty auger bit.
  - ii The 18" heavy duty auger bit **must** have a nominal diameter of 457 mm.
  - iii The 18" heavy duty auger bit **must** have a nominal length of 1,219 mm.
- (v) **24" Heavy Duty Auger Bit**
  - i The vehicle **must** be provided with a 24" heavy duty auger bit.
  - ii The 24" heavy duty auger bit **must** have a nominal diameter of 609 mm.
  - iii The 24" heavy duty auger bit **must** have a nominal length of 1,219 mm.
- (w) **Auger Extension**. The vehicle **must** be provided with an auger extension with a nominal length of 1,219 mm.

### 3.6 **Operator Station**

- (a) **ROPS Cab**
  - i The vehicle **must** be provided with a ROPS cab incorporating a certified Roll Over Protective Structure (ROPS).
  - ii ROPS certification **must** satisfy ISO 3471 or **equivalent**.
  - iii The ROPS cab **must** be weatherproof, pressurized and insulated.
  - iv The ROPS cab **must** be provided with a heating system with ventilation and defrosting systems to keep windows free from frost and moisture.
  - v The ROPS cab **must** be provided with safety glass in the windows. It is preferred the glass be tinted to reduce solar heating load.

- vi The ROPS cab **must** be provided with windshield wipers and washer system.
- vii The ROPS cab **must** be provided with two lockable doors, or one door and at least one visibly labelled window as an emergency escape route.

(b) **Suspension Seat**

- i The vehicle **must** be provided with a cloth covered padded air suspension seat with backrest.
- ii The seat **must** be provided with seat belts conforming, as a minimum, to SAE J386 or **Equivalent**
- iii The seat **must** be provided with fore/aft and vertically adjustment without the operator having to move from a seated position.

(c) **Mirrors**

- i The vehicle **must** be provided with adjustable rear-view mirrors positioned for safe reverse operation.
- ii The rear view mirrors **must** include exterior mirrors on both sides of the vehicle.
- iii Exterior mirrors **must** be provided with a heating system.
- iv Mirror heating **must** be activated by an in-cab control.

(d) **Air Conditioning**. The vehicle **must** be provided with an air conditioning system.

(e) **Radio**

- i An AM/FM radio **must** be provided.
- ii The radio **must** be blue-tooth equipped.
- iii The radio **must** turn off automatically when the vehicle is turned off.

**3.7 Chassis**. The vehicle **must** be provided with an automatic ride control system for the cushioning of the vehicle and any carried load.

**3.8 Engine**. The vehicle **must** be provided with a diesel engine.

**3.8.1 Fuel Tank(s)**. *Commercially equipped.*

**3.8.2 Engine Cold Weather Aids**

- (a) The engine **must** be equipped with cold weather aids to enable the engine (operating with winter grade fuels/oils) to be started at temperatures down to -30° C.
- (b) The engine **must** have one of the following systems: ether injection, glow plug(s), intake air preheat or **Equivalent**.
- (c) A heated fuel filter/water separator **must** be provided to preheat diesel fuel prior to starting.
- (d) One or more 110-volt engine heaters that have a capacity as recommended by the engine manufacturer or conforming to SAE J1310 **must** be provided.
- (e) The engine **must** be provided with one or more 110-volt battery heaters that have a wattage matched to battery size to prevent battery damage due to overheating.
- (f) External electrical power for engine and battery heaters **must** be a single cover-protected plug, accessible by an operator standing beside the vehicle.
- (g) The external plug **must** include or be accompanied by a light to indicate when power is being supplied to the 110-volt components.

**3.8.3 Engine Accessories.** The following **must** be provided when indicated with a “✓”, in the Attachments Table, paragraph 1.5, and specified in the solicitation.

(a) **Fuel-Fired Heater**

- i An Original Equipment Manufacturer approved fuel-fired engine coolant preheat system **must** be provided.
- ii The fuel-fired pre-heater **must** be provided with a 7 day programmable timer.
- iii The fuel-fired pre-heater **must** draw its fuel from the vehicle fuel tank and operate without power from outside the vehicle.
- iv The fuel-fired coolant heater **must** be accessible for maintenance.

**3.9 Vehicle Driveline**

**3.9.1 Transmission.** The vehicle **must** be provided with a continuous power transmission such as a power shift, power shuttle or hydrostatic transmission.

**3.9.2 Transmission Accessories.** The following **must** be provided when indicated with a “✓”, in the Attachments Table, paragraph 1.5, and specified in the solicitation.

- (a) **4-Wheel Drive.** The vehicle **must** be provided with a 4-Wheel drive system (driver-selected).

**3.10 Brake System.** *Commercially Equipped.*

**3.11 Steering.** *Commercially Equipped.*

**3.12 Tires**

- (a) The tires **must** be tubeless radials.
- (b) The tires **must** have R-4 treads.

**3.13 Controls.** *Commercially Equipped.*

**3.14 Instruments.** The instruments **must** be provided with an hour-meter, which displays accumulated running time up to 9,999 hours.

**3.15 Electrical System.** *Commercially Equipped.*

**3.15.1 Electrical Accessories.** The following **must** be provided when indicated with a “✓”, in the Attachments Table, paragraph 1.5, and specified in the solicitation.

(a) **Battery Solar Charger**

- i A Battery Solar Charging System **must** be provided.
- ii The Battery Solar Charging System **must** be equivalent to NSN 6130-01-487-0035.
- iii The solar charger panel **must** be mounted on an angle of between 10 and 15 degrees in a protected location.

**3.16 Lighting.** *Commercially Equipped.*

**3.16.1 Lighting Accessories.** The following **must** be provided when indicated with a “✓”, in the Attachments Table, paragraph 1.5, and specified in the solicitation.

(a) **Amber Coloured Beacon**

- i An amber coloured omni-directional beacon or **Equivalent must** be provided.
- ii The beacon **must** be mounted so as to provide maximum visibility.
- iii The beacon **must** be LED or **Equivalent.**

(b) **Blue Coloured Beacon**

- i A blue coloured omni-directional beacon or ***Equivalent must*** be provided.
- ii The beacon ***must*** be mounted so as to provide maximum vehicle visibility.
- iii The beacon ***must*** be LED or ***Equivalent***.

**3.17 Hydraulic System**

(a) **Hydraulic System**

- i The vehicle ***must*** be provided with a hydraulic system for the loader and the backhoe arm.
- ii The hydraulic system ***must*** operate all attachments, features and accessories identified in tables 1.4 and 1.5.
- iii The hydraulic reservoir ***must*** be provided with a visual oil level indicator.

(b) **Loader Arm Connection for Hydraulic Accessories**

- i The vehicle ***must*** be provided with 1 set of connections on the loader arms (one inlet and one outlet).
- ii All connections ***must*** be provided with dripless quick connect couplings.

(c) **Backhoe Arm Connection for Hydraulic Accessories**

- i The vehicle ***must*** be provided with 2 sets of connections at or near the tip of the backhoe arm (one inlet and one outlet each).
- ii One set of connections ***must*** be for one way flow and one set for 2 way flow.
- iii Sets of connections ***must*** be identified as one way flow and 2 way flow with permanently affixed labels.
- iv The size of connector for the one way flow ***must*** be different than that for the 2 way flow connection.
- v All connections ***must*** be provided with dripless quick connect couplings.

**3.18 Lubricants and Hydraulic Fluids**

- (a) The vehicle ***must*** operate using synthetic non-proprietary lubricants and hydraulic fluids.
- (b) Grease fittings ***must*** conform to SAE J534 or an ***equivalent***.

**3.18.1 Lubrication Accessories**. The following ***must*** be provided when indicated with a “✓”, in the Attachments Table, paragraph 1.5, and specified in the solicitation.

(a) **Automatic Greasing System**

- i The vehicle ***must*** be equipped with an automatic greasing system.
- ii The system ***must*** automatically provide grease to all greasing points recommended by the vehicle manufacturer including the quick coupler greasing points.
- iii The grease provided to the greasing points ***must*** be metered in accordance with the vehicle manufacturer's specifications.
- iv The system ***must*** include an in cab tell-tale light indicating that the system is functioning and a low grease level alarm.

**3.19 Paint.** *Commercially Equipped.*

**3.19.1 Paint Accessories.** The following **must** be provided when indicated with a “✓”, in the Attachments Table, paragraph 1.5, and specified in the solicitation.

(a) **Olive Drab Green Paint**

- i The vehicle **must** be painted Olive Drab Green 34094 in accordance with SAE Standard AMS-STD-595.
- ii Additional lettering and symbols on the outside of the vehicle **must** be flat black.

**3.20 Vehicle Delivery Condition**

- (a) If the vehicle requires assembly at destination, the contractor **must** be responsible for all manpower and equipment to perform assembly.
- (b) The space for assembly at destination will be provided, if required.
- (c) Fuel tank(s) **must** be half to three quarters full on delivery.
- (d) Lubricants installed in the vehicle at time of delivery **must** be suitable for the destination and the season of delivery.

**4. INTEGRATED LOGISTICS SUPPORT (ILS)**

**4.1 Deliverables**

**4.1.1 General Requirements**

- (a) Sample ILS documents **must** be submitted to the **Technical Authority** prior to the delivery of the vehicle/equipment for each configuration/model and their accessories, for approval. Sample ILS documents will not be returned.
- (b) **Technical Authority** approval, request for additional documentation or request for amendments will be supplied within 15 working days of receipt.
- (c) The Contractor **must** supply the additional documentation or implement the changes as requested by the **Technical Authority**.

(d) **Digital Documents**

- i All digital copies **must** be supplied in searchable PDF format unless stated otherwise.
- ii Digital copies **must** be functional without the requirement for a password, an auto-run installation procedure or an Internet connection.
- iii Digital copies of manuals **must** be supplied on a CD or DVD (**USB sticks cannot be used on DND computers**).
- iv Digital copies of other ILS documents **must** be provided by email to the TA or on CD or DVD.
- v CD/DVD **must** be permanently and legibly marked with the equipment description and a list of contents.

- (e) **Paper Documents.** All paper copies of ILS documents delivered **must** have the same content as the digital copy approved by the **Technical Authority**.

**4.1.2 ILS Deliverables.** The following table indicates the ILS elements that the Contractor **must** deliver, including the medium (paper or digital), the expected means of delivery and the reference paragraph.

Element	Format/ Medium	Delivered to TA by E-mail for approval	Delivered to TA by mail/courier for approval	Supplied with each Vehicle/ equipment	Remarks	Reference Paragraph
Photograph and Line Drawing Package (DND Only)	Digital	X	-	-	JPEG	4.2.1
Data Summary (DND Only)	Digital	X	-	-	Microsoft Word	4.2.2
Initial Parts Kit List	Digital	X	-	-	PDF	4.2.3
Warranty Letter	Digital	X	-	-	PDF	4.2.4
	Paper	-	-	X	-	
Safety Data Sheets Package	Digital	X	-	-	PDF	4.2.5
	Paper	-	-	X	-	
Set of Manuals	Digital	-	X	X	PDF - on CD/DVD*	4.2.6
	Paper	-	-	X	-	
Initial Parts Kit	-	-	-	X	1 kit	4.2.7
Set of Keys	-	-	-	X	2 sets	4.2.8

Note: \* One CD/DVD should be used for all e-manuals covering a configuration/model and its accessories.

**4.1.3 Training Deliverables.** The following **must** be provided when indicated with a “✓”, in the Attachments Table, paragraph 1.5, and specified in the solicitation.

Element	Format/ Medium	Delivered to TA by E-mail for approval	Remarks	Reference Paragraph
Course Syllabus	Digital	X	-	4.3.1
Familiarization Training	-	-	Delivery in person, at the location specified in the contract.	4.3.1
Proof of Training Certificate	Digital	X	TA will provide template	4.3.1

## 4.2 ILS Elements Description

### 4.2.1 Photograph and Line Drawing Package (DND contracts only)

- (a) DND requires photographs and line drawings for documentation and cataloguing purposes. The Photograph and Line Drawing Package **must** include:
  - i Two (2) digital colour photographs, one (1) left-front three-quarter view, and one (1) right-rear three-quarter view of each configuration/model;

- ii One (1) digital colour photograph of each attachment taken at the three-quarter view that best illustrates the attachment; and
  - iii One (1) front-view and one (1) side-view line drawing showing dimensions of the vehicle/equipment. Brochure line drawings are acceptable.
- (b) Photographs **must** have a plain background and be in a JPEG (Joint Photographic Experts Group) format with a resolution of at least eight (8) Mega pixels.

#### **4.2.2 Data Summary (DND contracts only)**

- (a) The **Technical Authority** will supply a bilingual Data Summary Template (in Microsoft Word format) to the Contractor.
- (b) The data summary **must**:
- i Use the **Technical Authority** provided bilingual template;
  - ii Be a separate document for each configuration/model;
  - iii Include accessories and features; and
  - iv Be delivered in Microsoft Word format.

#### **4.2.3 Initial Parts Kit List**

- (a) The Initial Parts Kit List **must** include:
- i A complete list of parts needed to perform preventive maintenance on one (1) vehicle/equipment for a period of one (1) year, in accordance with the maintenance manual, for each configuration/model;
  - ii A complete change of all filters and filter elements; and
  - iii The following elements for each part listed: part description; Original Equipment Manufacturer (OEM) part number; suggested quantity; and, unit cost.

#### **4.2.4 Warranty Letter**

- (a) For DND contracts, the **Technical Authority** will supply a bilingual Warranty Letter Template (in PDF format) to the Contractor.
- (b) The Warranty Letter **must**:
- i For DND contracts, use the **Technical Authority** provided bilingual template;
  - ii Contain a complete description of the warranty requested with the warranty terms and conditions;
  - iii Contain the complete warranty details on any system or sub-system warranty that exceeds the minimum requested; and
  - iv Contain the name and contact information of the closest designated warranty provider and other designated warranty providers across Canada.

#### **4.2.5 Safety Data Sheets Package**

- (a) The Safety Data Sheets Package **must** include:
- i A bilingual (or a separate French and an English) list of all hazardous materials used on the vehicle/equipment; and
  - ii A complete bilingual set (or a set in French and a set in English), of all the safety data sheets for all hazardous materials in the list.
- (b) If there are no hazardous materials used, “no hazardous materials” **must** be stated on the list.



#### **4.2.6 Set of Manuals**

- (a) The set of manuals for each configuration/model **must** include:
  - i The French and English (or bilingual) operator manual(s);
  - ii The French and English (or bilingual) maintenance (shop repair) manual(s); and
  - iii The English or bilingual parts manual(s).
- (b) The set of manuals **must** include manuals (operator, maintenance (shop repair) and parts) for all major components, all attachments, accessories and features for the configuration/model supplied. Accessory manuals may be included as supplements to the vehicle manuals.

**4.2.7 Initial Parts Kit.** The Contractor **must** supply one (1) complete set of parts contained in the approved Initial Parts Kits List with each vehicle/equipment.

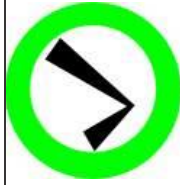
**4.2.8 Set of Keys.** The Contractor **must** supply at least two (2) sets of keys with each vehicle/equipment.

#### **4.3 Training**

##### **4.3.1 Familiarization Training**

- (a) The Contractor **must** deliver a familiarization course optimized for trained operators and technicians.
- (b) The course **must** be delivered at the delivery destination, unless stated otherwise in the contract.
- (c) The course **must** be delivered in the official language (English or French) specified in the contract for that delivery destination.
- (d) The instructor **must** be an OEM Factory Certified Training Provider.
- (e) **Course Syllabus**
  - i The Contractor **must** provide the familiarization training course syllabus, in the same language as the course delivery, for review and approval by the **Technical Authority**.
  - ii The operator familiarization portion of the course **must** include, but is not limited to, safety precautions to be observed while operating and servicing, operating characteristics, calibration, pre-operating and pre-shutdown procedures and daily/weekly operator servicing procedures for the vehicle/equipment, attachments, features and accessories.
  - iii The technician familiarization portion of the course **must** include, but is not limited to, operation and maintenance safety precautions, overview of air, hydraulic and electrical systems (as applicable), preventive maintenance including servicing schedules, inspection and maintenance requirements, special tools and test equipment (as applicable), diagnostics, troubleshooting, testing and adjustments for the vehicle/equipment, attachments, features and accessories.
- (f) The familiarization course **must** have a minimum duration of four (4) hours for operators and four (4) hours for technicians.
- (g) The familiarization course **must** accommodate up to eight (8) people (4 operators and 4 technicians).
- (h) The date for the familiarization course **must** be coordinated with the **Technical Authority**.

- (i) After completion of the familiarization course, the Contractor ***must*** have the “**Proof of Training**” certificate signed by the senior course attendee.
- (j) The ***Technical Authority*** will supply the “**Proof of Training**” certificate template in a digital format.

**NOTICE**

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**AVIS**

Cette documentation a été révisée par l'Autorité technique et ne contient pas de marchandises contrôlées.

**TECHNICAL INFORMATION QUESTIONNAIRE****GROUP 1 – APPENDIX A1****TRACTOR LOADER BACKHOE**

This questionnaire covers technical information, which **must** be provided for evaluation of the configuration(s) of the vehicle(s) offered.

Where the specification paragraphs below indicate “**Substantial Information**”, the “**Substantial Information**” describing completely and in detail how the requirement is met or addressed **must** be supplied for each performance requirement/specification.

Bidder is required to indicate the document name/title and page number where the **Substantial Information** can be found.

Definitions for **Equivalent** is found in the DEFINITION section at the end of this document.

**CONTRACTOR INFORMATION**

**Contractor Name:** \_\_\_\_\_

**Address:** \_\_\_\_\_

**Proposal Date:** \_\_\_\_\_

**Substitutes/Alternatives**

Are any equipment substitutes/alternatives offered as **Equivalent**? YES ☐ NO ☐

If yes, please identify all equipment substitutes/alternatives offered as **Equivalents** below:

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<b>GROUP 1</b> <b>TRACTOR LOADER BACKHOE</b> <b>CONFIGURATION A</b>					
PD Reference	Requirement	Substantial Information required	Value	Location of Substantial Information in Bid Proposal	
3.4	<b>Performance.</b> The vehicle <b>must</b> be an industrial tractor with integral loader and backhoe.	Vehicle Make		Provide brochure or specification document.	
		Vehicle Model			
3.4.1	<b>Loader Performance</b> (a) The loader <b>must</b> have an operating capacity of at least that given as “ <b>LOADER CAPACITY</b> ” ( <b>2,750 kg</b> ) in the Data Table (paragraph 1.4) using the loader bucket specified in paragraph 3.5.3 (a) pinned directly to the standard loader arms (paragraph 3.5.1 (a)). (b) The loader <b>must</b> have a breakout force of at least that given as “ <b>BREAKOUT</b> ” ( <b>39 kN</b> ) in the Data Table (paragraph 1.4) using the loader bucket specified in paragraph 3.5.3 (a) pinned directly to the standard loader arms (paragraph 3.5.1 (a)). (c) The loader <b>must</b> have a dump clearance of the bucket of at least that given as “ <b>DUMP CLEARANCE</b> ” ( <b>2,625 mm</b> ) in the Data Table (paragraph 1.4) using the loader bucket specified in paragraph 3.5.3 (a), at a dump angle of at least 40 degrees, pinned directly to the standard loader arms (paragraph 3.5.1 (a)). (d) The loader <b>must</b> have a reach, at the dump height specified in paragraph 3.4.1 (c), of at least that given as “ <b>REACH</b> ” ( <b>675 mm</b> ) in the Data Table (paragraph 1.4) using the loader bucket specified in paragraph 3.5.3 (a), at a dump angle of at least 40 degrees, pinned directly to the standard loader arms (paragraph 3.5.1 (a)).	Loader Capacity	kg		
		Loader Breakout Force	kN		
		Loader Dump Clearance	mm		
		Loader Reach	mm		

<p><b>GROUP 1</b></p> <p><b>TRACTOR LOADER BACKHOE</b></p> <p><b>CONFIGURATION A</b></p>				
3.4.2	<u>Backhoe Performance</u>			
	(a) The backhoe <b>must</b> have a digging depth of at least that given as “ <b>DIGGING DEPTH</b> ” ( <b>4,250 mm</b> ) in the Data Table (paragraph 1.4) using the trenching bucket specified in paragraph 3.5.3 (k) pinned directly to the boom of the standard backhoe arm specified in paragraph 3.5.1 (c).	Backhoe Digging Depth	mm	
	(b) The backhoe <b>must</b> have a dipper cylinder digging force, of at least that given as “ <b>DIPPER ARM FORCE</b> ” ( <b>29 kN</b> ) in the Data Table (paragraph 1.4) using the trenching bucket specified in paragraph 3.5.3 (k) pinned directly to the boom of the standard backhoe arm specified in paragraph 3.5.1 (c).	Backhoe Dipper Arm Force	kN	
	(c) The backhoe <b>must</b> have a bucket cylinder digging force, of at least that given as “ <b>BUCKET FORCE</b> ” ( <b>44 kN</b> ) in the Data Table (paragraph 1.4) using the trenching bucket specified in paragraph 3.5.3 (k) pinned directly to the boom of the standard backhoe arm specified in paragraph 3.5.1 (c).	Backhoe Bucket Force	kN	

<b>GROUP 1</b> <b>TRACTOR LOADER BACKHOE</b> <b>CONFIGURATION B</b>					
PD Reference	Requirement	Substantial Information required	Value	Location of Substantial Information in Bid Proposal	
3.4	<b>Performance.</b> The vehicle <b>must</b> be an industrial tractor with integral loader and backhoe.	Vehicle Make		Provide brochure or specification document.	
		Vehicle Model			
3.4.1	<b>Loader Performance</b> (a) The loader <b>must</b> have an operating capacity of at least that given as “ <b>LOADER CAPACITY</b> ” (2,750 kg) in the Data Table (paragraph 1.4) using the loader bucket specified in paragraph 3.5.3 (a) pinned directly to the standard loader arms (paragraph 3.5.1 (a)). (b) The loader <b>must</b> have a breakout force of at least that given as “ <b>BREAKOUT</b> ” (45.5 kN) in the Data Table (paragraph 1.4) using the loader bucket specified in paragraph 3.5.3 (a) pinned directly to the standard loader arms (paragraph 3.5.1 (a)). (c) The loader <b>must</b> have a dump clearance of the bucket of at least that given as “ <b>DUMP CLEARANCE</b> ” (2,625 mm) in the Data Table (paragraph 1.4) using the loader bucket specified in paragraph 3.5.3 (a), at a dump angle of at least 40 degrees, pinned directly to the standard loader arms (paragraph 3.5.1 (a)). (d) The loader <b>must</b> have a reach, at the dump height specified in paragraph 3.4.1 (c), of at least that given as “ <b>REACH</b> ” (725 mm) in the Data Table (paragraph 1.4) using the loader bucket specified in paragraph 3.5.3 (a), at a dump angle of at least 40 degrees, pinned directly to the standard loader arms (paragraph 3.5.1 (a)).	Loader Capacity	kg		
		Loader Breakout Force	kN		
		Loader Dump Clearance	mm		
		Loader Reach	mm		

<p><b>GROUP 1</b></p> <p><b>TRACTOR LOADER BACKHOE</b></p> <p><b>CONFIGURATION B</b></p>				
3.4.2	<b><u>Backhoe Performance</u></b>			
	(a) The backhoe <b>must</b> have a digging depth of at least that given as “ <b>DIGGING DEPTH</b> ” ( <b>4,675 mm</b> ) in the Data Table (paragraph 1.4) using the trenching bucket specified in paragraph 3.5.3 (k) pinned directly to the boom of the standard backhoe arm specified in paragraph 3.5.1 (c).	Backhoe Digging Depth	mm	
	(b) The backhoe <b>must</b> have a dipper cylinder digging force, of at least that given as “ <b>DIPPER ARM FORCE</b> ” ( <b>38.5 kN</b> ) in the Data Table (paragraph 1.4) using the trenching bucket specified in paragraph 3.5.3 (k) pinned directly to the boom of the standard backhoe arm specified in paragraph 3.5.1 (c).	Backhoe Dipper Arm Force	kN	
	(c) The backhoe <b>must</b> have a bucket cylinder digging force, of at least that given as “ <b>BUCKET FORCE</b> ” ( <b>65 kN</b> ) in the Data Table (paragraph 1.4) using the trenching bucket specified in paragraph 3.5.3 (k) pinned directly to the boom of the standard backhoe arm specified in paragraph 3.5.1 (c).	Backhoe Bucket Force	kN	

**DEFINITION**

The following definition apply to the interpretation of this Technical Information Questionnaire:

- a) “***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.





**NOTICE**

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**AVIS**

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**PURCHASE DESCRIPTION**  
**GROUP 2 – ANNEX “B”**  
**SKID STEER LOADER**

**1. SCOPE**

**1.1 Scope.** This Purchase Description covers the requirements for skid steer loaders.

**1.2 Instructions**

- (a) Requirements that are identified by the word “**must**”, **must** be treated as mandatory. Deviations will not be permitted.
- (b) Requirements identified with a “will” define actions to be performed by Canada and require no action/obligation on the Contractor’s part.
- (c) Where “**must**” or “will” are not used, the information provided is for guidance only.
- (d) Where a standard is specified and the Contractor has offered an **Equivalent**, that **Equivalent** standard **must** be supplied by the Contractor.
- (e) Where a technical certification is referred to in this Purchase Description, a copy of the certification or **Equivalent must** be supplied, when requested by the **Technical Authority**.
- (f) While the International System of Units (SI) **must** be used as the primary system of measurement to define requirements of this Purchase Description, both the SI system and the standard system for this product may be indicated. Conversion from one system of measurement to the other may not be exact.
- (g) Dimensions stated as nominal **must** be treated as approximate dimensions. Nominal dimensions reflect a method by which materials or products are generally identified for sale commercially, but that differ from the actual dimensions.

**1.3 Definitions**

- (a) “**Provided**” means “provided and installed”.
- (b) “**Technical Authority**” means the official responsible for the technical content of this requirement.
- (c) “**Equivalent**” means a standard, means, or component type that the **Technical Authority** has approved for this requirement as meeting the specified requirements for fit, form, function and performance.
- (d) “**Commercially Equipped**” means that the vehicle is provided in its standard commercial configuration with no additional government-specified requirements.
- (e) “**Bilingual**” means both official languages; English and French.

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- 1.4 **Data Table.** The following table shows the required performance and dimensions for each Configuration and includes paragraph references.

CHARACTERISTIC	PARAGRAPH	UNITS	CONFIGURATION			
			A	B	C	D
TIPPING LOAD	3.4.2 (a)	kg	1,100	1,700	2,150	2,700
BREAKOUT	3.4.2 (b)	kN	17.0	20.0	25.0	30.0
GP CAPACITY	3.5.3 (a)	m <sup>3</sup>	0.31	0.41	0.45	0.49
LP CAPACITY	3.5.3 (b)	m <sup>3</sup>	0.37	0.49	0.54	0.54
LIGHT MATERIAL BUCKET	3.5.3 (c)	m <sup>3</sup>	0.56	0.67	0.79	0.79
4-IN-1 BUCKET	3.5.3 (d)	m <sup>3</sup>		0.30	0.37	0.43
CONCRETE BUCKET	3.5.3 (e)	m <sup>3</sup>		0.37	0.37	0.57
HOPPER	3.5.3 (f)	m <sup>3</sup>	0.80	0.80	2.00	2.00
BUSH WIDTH	3.5.3 (g)	mm	1,500	1,500	1,800	1,800
INDUSTRIAL WIDTH	3.5.3 (h)	mm	1,500	1,500	1,800	1,800
SNOW BLOWER SWATH	3.5.3 (m)	mm	1,500	1,800	1,800	1,950
SNOW PUSHER	3.5.3 (n)	mm		2,525	3,150	3,150
SNOW BLADE	3.5.3 (o)	mm	1,825	1,825	2,130	2,435
DOZER BLADE	3.5.3 (p)	mm	1,325	1,575	1,775	2,075
SWEEPER SWATH	3.5.3 (q)&(r)	mm	1,200	1,500	1,800	2,075
BACKHOE DIG	3.5.3 (s)	mm		2,665	3,300	3,300
BACKHOE REACH		mm		3,425	4,060	4,060
BACKHOE DUMP		mm		1,980	2,435	2,435
BUCKET WIDTH		mm		457	457	600
BREAKER ENERGY	3.5.3 (u)	Joules		700	700	1000
TRENCH WIDTH	3.5.3 (v)	mm		100	150	150
TRENCH DEPTH		mm		875	1,250	1,250
AUGER 1	3.5.3 (y)	mm		225	300	300
AUGER 2	3.5.3 (z)	mm		300	450	450
AUGER 3	3.5.3 (aa)	mm		450	600	600
TILLER	3.5.3 (ee)	mm	1,550	1,550	1,550	1,900
TREE	3.5.3 (hh)	mm		75	125	125
CUTTING WHEEL	3.5.3 (jj)	mm		610	610	750
BELOW GRADE		mm		250	300	300

- 1.5 **Attachments Table.** The following table indicates, with a "✓", for each Configuration, the attachments, features, accessories, additional items and training that **must** be provided when specified in the solicitation, with a clause reference.

DESCRIPTION	PARAGRAPH	CONFIGURATION			
		A	B	C	D
Loader Arm Quick-Connect – Hydraulic	3.5.2 (a)	✓	✓	✓	✓
General-Purpose Bucket	3.5.3 (a)	✓	✓	✓	✓
Low Profile Bucket	3.5.3 (b)	✓	✓	✓	✓
Light Material/Snow Bucket	3.5.3 (c)	✓	✓	✓	✓
4-in-1 Bucket	3.5.3 (d)		✓	✓	✓

DESCRIPTION	PARAGRAPH	CONFIGURATION			
		A	B	C	D
Concrete Pouring Bucket	3.5.3 (e)		✓	✓	✓
Dumping Hopper	3.5.3 (f)	✓	✓	✓	✓
Bush Grapple	3.5.3 (g)	✓	✓	✓	✓
Industrial Grapple	3.5.3 (h)	✓	✓	✓	✓
Rock Grapple	3.5.3 (i)	✓	✓	✓	✓
Crane Boom	3.5.3 (j)	✓	✓	✓	✓
Forklift	3.5.3 (k)	✓	✓	✓	✓
Trailer Hitch	3.5.3 (l)	✓	✓	✓	✓
Snow Blower	3.5.3 (m)	✓	✓	✓	✓
Snow Pusher	3.5.3 (n)		✓	✓	✓
Snow Blade	3.5.3 (o)	✓	✓	✓	✓
Dozer Blade	3.5.3 (p)	✓	✓	✓	✓
Angle Sweeper	3.5.3 (q)	✓	✓	✓	✓
Rotary Pickup Sweeper	3.5.3 (r)	✓	✓	✓	✓
Backhoe	3.5.3 (s)		✓	✓	✓
Pavement Saw	3.5.3 (t)		✓	✓	✓
Hydraulic Breaker	3.5.3 (u)		✓	✓	✓
Trencher	3.5.3 (v)		✓	✓	✓
Cold Planer	3.5.3 (w)			✓	✓
Earth Auger	3.5.3 (x)		✓	✓	✓
Auger No. 1	3.5.3 (y)		✓	✓	✓
Auger No. 2	3.5.3 (z)		✓	✓	✓
Auger No. 3	3.5.3 (aa)		✓	✓	✓
Auger Extension	3.5.3 (bb)		✓	✓	✓
66 Inch Roller Compactor	3.5.3 (cc)	✓	✓		
73 Inch Roller Compactor	3.5.3 (cc)			✓	✓
66 Inch Pad Foot Compactor	3.5.3 (dd)	✓	✓		
73 Inch Pad Foot Compactor	3.5.3 (dd)			✓	✓
Tiller	3.5.3 (ee)	✓	✓	✓	✓
Land Planer	3.5.3 (ff)	✓	✓	✓	✓
Post Driver	3.5.3 (gg)		✓	✓	✓
Wood Chipper	3.5.3 (hh)		✓	✓	✓
Brush Cutter	3.5.3 (ii)		✓	✓	✓
Stump Grinder	3.5.3 (jj)		✓	✓	✓
Air Conditioning	3.6.1 (a)	✓	✓	✓	✓
Suspension Seat	3.6.1 (b)		✓	✓	✓
Ride Control System	3.7.1 (a)	✓	✓	✓	✓
2-Speed Hydrostatic Transmission	3.9.2 (a)		✓	✓	✓
Non-Pneumatic Tires	3.12.1 (a)	✓	✓	✓	✓
Battery Solar Charger	3.15.1	✓	✓	✓	✓
Amber Coloured Beacon	3.16.1 (a)	✓	✓	✓	✓
Blue Coloured Beacon	3.16.1 (b)	✓	✓	✓	✓

DESCRIPTION	PARAGRAPH	CONFIGURATION			
		A	B	C	D
Olive Drab Green Paint	3.19.1(a)	✓	✓	✓	✓
Training – Familiarization - English	4.3.1	✓	✓	✓	✓
Training – Familiarization - French	4.3.1	✓	✓	✓	✓

## 2. APPLICABLE DOCUMENTS

### 2.1 Government Furnished Documents. NOT APPLICABLE.

### 2.2 Other Publications. Canada will not be supplying any reference documents. Effective documents are those in effect on the date of the manufacture of the vehicle. Information on the organization is supplied below.

- (a) Hazardous Products Act  
Government of Canada / Department of Justice  
<http://laws-lois.justice.gc.ca/eng/acts/H-3/>
- (b) International Organization for Standardization (ISO)  
ISO Central Secretariat  
Chemin de Blandonnet 8  
CP 401  
1214 Vernier, Geneva  
Switzerland  
<http://www.iso.org/iso/home.htm>
- (c) SAE Standards  
SAE World Headquarters  
400 Commonwealth Dr.,  
Warrendale, PA, 15096-0001  
<http://www.sae.org>

## 3. REQUIREMENTS

### 3.1 Standard Design

- (a) The vehicle **must** be the latest model from a manufacturer who has demonstrated acceptability by selling, in North America, this type and size class of vehicle for at least three (3) years.
- (b) The vehicle **must** include all components, equipment and accessories normally supplied for this application, although they may not be specifically described in this Purchase Description.
- (c) The vehicle **must** have engineering certification available, upon request, for this application, from the original manufacturers of the major equipment, systems and assemblies.
- (d) The vehicle **must** conform to all applicable laws, regulations and industrial standards in effect in Canada at the time of manufacture. The regulatory areas may include but are not necessarily limited to manufacturing, health and safety, noise levels, environment and emissions.
- (e) The vehicle and accessories **must** operate in accordance with all original equipment manufacturers' (OEM) rated capacities and performance specifications.

### 3.2 Operating Conditions

#### 3.2.1 Weather. The vehicle **must** start and operate under the extremes of weather conditions found in Canada in temperatures ranging from -30° to 40° C.

**3.2.2 Terrain.** The vehicle **must** propel itself in the forward and reverse directions during off-road operations (e.g. construction sites, open fields and dirt tracks) in all-weather conditions.

**3.3 Safety Standards**

**3.3.1 Hazardous Materials.** The contractor **must** comply with the Hazardous Products Act of Canada with regards to the use of hazardous materials, ozone depleting substances, polychlorinated biphenyls, asbestos and heavy metals used in the manufacture and assembly of the product supplied.

**3.4 Performance.** The vehicle **must** be a 4-wheel drive skid steer loader.

**3.4.1 Vehicle Performance.** The vehicle **must** have a forward speed of at least 10.5 km/h.

**3.4.2 Loader Performance**

- (a) The skid steer loader **must** have a tipping load, when measured in accordance with ISO 14397-1, of at least that given as “**TIPPING LOAD**” in the Data Table (paragraph 1.4) using the loader bucket specified in paragraph 3.5.3 (a) pinned directly to the lift arms (paragraph 3.5.1 (a)).
- (b) The skid steer loader **must** have a breakout force (bucket cylinder force or lift cylinder force) of at least that given as “**BREAKOUT**” in the Data Table (paragraph 1.4) using the loader bucket specified in paragraph 3.5.3 (a) pinned directly to the lift arms (paragraph 3.5.1 (a)).

**3.5 Equipment, Accessories and Attachments**

**3.5.1 Standard Equipment**

(a) **Standard Lift Arms**

- i The vehicle **must** be provided with standard lift arms.
- ii The standard lift arms **must** be provided with a lift arm safety device, as referenced in ISO 10533.

(b) **Loader Arm Mechanical Quick – Connect**

- i The vehicle **must** be provided with a mechanical loader arm quick-connect.
- ii The loader arm quick-connect **must** include all fittings for connection of hydraulic power required for operation of all accessories.
- iii Hydraulic fittings **must** be dripless.

(c) **Protection Against Vandalism.** Protection against vandalism including provision for locking engine covers and all filler caps **must** be provided.

**3.5.2 Accessories.** The following **must** be provided when indicated with a “✓”, in the Attachments Table, paragraph 1.5, and specified in the solicitation.

(a) **Loader Arm Quick-Connect – Hydraulic**

- i The vehicle **must** be provided with a hydraulic loader arm quick-connect.
- ii The hydraulic loader arm quick-connect **must** be controlled from the operator's station.
- iii The loader arm quick-connect **must** include all fittings for connection of hydraulic power required for operation of all accessories.
- iv Hydraulic fittings **must** be spill-proof.

**3.5.3 Attachments.** The following **must** be provided when indicated with a “✓”, in the Attachments Table, paragraph 1.5, and specified in the solicitation.

(a) **General-Purpose Bucket**

- i The vehicle **must** be provided with a general-purpose bucket.
- ii The general-purpose bucket **must** have a heaped capacity, rated in accordance with ISO 7546, of at least that given as “**GP CAPACITY**” in the Data Table (paragraph 1.4).
- iii The general-purpose bucket **must** be wider than the width of the vehicle.
- iv The general-purpose bucket **must** be provided with reversible, bolt-on, replaceable cutting edge(s).

(b) **Low Profile Bucket**

- i The vehicle **must** be provided with a low profile bucket.
- ii The low profile bucket **must** have a heaped capacity, rated in accordance with ISO 7546, of at least that given as “**LP CAPACITY**” in the Data Table (paragraph 1.4).
- iii The low profile bucket **must** be wider than the width of the vehicle.
- iv The low profile bucket **must** be provided with reversible, bolt-on, replaceable cutting edge(s).

(c) **Light Material/Snow Bucket**

- i The vehicle **must** be provided with a light material/snow bucket.
- ii The light material/snow bucket **must** have a heaped capacity, rated in accordance with ISO 7546, of at least that given as “**LIGHT MATERIAL BUCKET**” in the Data Table (paragraph 1.4).
- iii The light material/snow bucket **must** be wider than the width of the vehicle.
- iv The light material/snow bucket **must** be provided with reversible, bolt-on, replaceable cutting edge(s).

(d) **4-in-1 Bucket**

- i The vehicle **must** be provided with a 4-in-1 bucket.
- ii The 4-in-1 bucket **must** have a heaped capacity, rated in accordance with ISO 7546, of at least that given as “**4-IN-1 BUCKET**” in the Data Table (paragraph 1.4).
- iii The 4-in-1 bucket **must** be wider than the width of the vehicle.
- iv The 4-in-1 bucket **must** be provided with reversible, bolt-on, replaceable cutting edge(s).

(e) **Concrete Pouring Bucket**

- i The vehicle **must** be provided with a concrete pouring bucket.
- ii The concrete pouring bucket **must** have a capacity of at least that given as “**CONCRETE BUCKET**” in the Data Table (paragraph 1.4).
- iii The concrete pouring bucket **must** be equipped with a pouring spout for controlled pouring.

(f) **Dumping Hopper**

- i The vehicle **must** be provided with a dumping hopper.

- ii The dumping hopper **must** have a heaped volume of at least that given as “**HOPPER**” in the Data Table (paragraph 1.4).
  - iii The dumping hopper **must** be supported with front castor wheels.
  - iv The dumping hopper **must** dump by the action of raising the loader arms.
- (g) **Bush Grapple**
- i The vehicle **must** be provided with a bush grapple.
  - ii The bush grapple **must** have a width of at least that given as “**BUSH WIDTH**” in the Data Table (paragraph 1.4).
  - iii The bush grapple **must** have the lower teeth at no more than 208 mm centres.
  - iv The bush grapple **must** have upper teeth that when the grapple is closed are between the lower grapple teeth.
- (h) **Industrial Grapple**
- i The vehicle **must** be provided with a bucket style industrial grapple.
  - ii The industrial grapple **must** have a width of at least that given as “**INDUSTRIAL WIDTH**” in the Data Table (paragraph 1.4).
  - iii The industrial grapple **must** have two sets of 2 teeth, each set with its own actuating cylinder.
- (i) **Rock Grapple**
- i The vehicle **must** be provided with a rock grapple.
  - ii The rock grapple **must** be constructed of tines which allow dust and small stones to pass through the grapple.
  - iii The rock grapple **must** be provided with at least 4 grapple teeth which are mounted on a hydraulically activated frame that is mounted at the top of the bucket.
  - iv The rock grapple **must** have a width greater than the vehicle.
- (j) **Crane Boom**
- i The vehicle **must** be provided with a crane boom.
  - ii The crane boom **must** extend the lift centre of the vehicle at least 1,800 mm in front of the loader arm attachment face.
- (k) **Forklift**
- i The vehicle **must** be provided with a forklift attachment.
  - ii The forklift attachment **must** have forks with a nominal length of 1,067 mm.
- (l) **Trailer Hitch**
- i The vehicle **must** be provided with a trailer hitch.
  - ii The trailer hitch when mounted on the loader arm **must** tow vehicles on the coupler.
  - iii The trailer hitch **must** be supplied with a combination 6 ton receiver mount combination hitch with a 1-7/8 inch replaceable ball.
- (m) **Snow Blower**
- i The vehicle **must** be provided with a snow blower attachment.

- ii The snow blower **must** have a swath of at least that given as “**SNOW BLOWER SWATH**” in the Data Table (paragraph 1.4).
  - iii The snow blower **must** be provided with a rotary chute and deflector with commands from the operator station.
  - iv The snow blower **must** have the bilingual warning “DANGER STAND CLEAR/DANGER-RETEZ DISTANCE” painted or stencilled on each side, in day-glow red, as large as space permits or **Equivalent** symbol.
  - v For Configurations B, C and D, the snow blower **must** operate with high flow hydraulics.
- (n) **Snow Pusher**
- i The vehicle **must** be provided with a snow pusher.
  - ii The snow pusher **must** have a width of at least that given as “**SNOW PUSHER**” in the Data Table (paragraph 1.4).
  - iii The snow pusher **must** be provided with end dams at both plow ends to retain more snow.
- (o) **Snow Blade**
- i The vehicle **must** be provided with a snow blade.
  - ii The snow blade **must** have a hydraulic angling feature.
  - iii The snow blade **must** angle to both sides.
  - iv The snow blade **must** have a straight face width of at least that given as “**SNOW BLADE**” in the Data Table (paragraph 1.4).
  - v The snow blade **must** have a trip edge or a trip blade.
- (p) **Dozer Blade**
- i The vehicle **must** be provided with a dozer blade.
  - ii The dozer blade **must** have a straight face width of at least that given as “**DOZER BLADE**” in the Data Table (paragraph 1.4).
  - iii The dozer blade **must** have a bolt-on, replaceable wear edge.
- (q) **Angle Sweeper**
- i The vehicle **must** be provided with an angle sweeper.
  - ii An angle sweeper **must** have a sweeping swath of at least that given as “**SWEEPER SWATH**” in the Data Table (paragraph 1.4).
  - iii The angle sweeper **must** articulate to the left and right of at least 30 degrees.
- (r) **Rotary Pickup Sweeper**
- i The vehicle **must** be provided with a rotary pickup sweeper.
  - ii The rotary pickup sweeper **must** have a sweeping swath of at least that given as “**SWEEPER SWATH**” in the Data Table (paragraph 1.4).
  - iii The rotary pickup sweeper **must** have an integral debris bucket with dumping capabilities.
- (s) **Backhoe**
- i The vehicle **must** be provided with a backhoe.



- ii The backhoe **must** have a digging depth of at least that given as “**BACKHOE DIG**” in the Data Table (paragraph 1.4).
  - iii The backhoe **must** have a reach from centre of swing axis of at least that given as “**BACKHOE REACH**” in the Data Table (paragraph 1.4).
  - iv The backhoe **must** have a dump height of at least that given as “**BACKHOE DUMP**” in the Data Table (paragraph 1.4).
  - v The backhoe **must** be provided with a heavy duty digging bucket with a nominal width of that given as “**BUCKET WIDTH**” in the Data Table (paragraph 1.4).
- (t) **Pavement Saw**
- i The vehicle **must** be provided with a pavement saw.
  - ii The pavement saw **must** have a cutting width of at least 60 mm.
  - iii The pavement saw **must** have a cutting depth of at least 225 mm.
  - iv The pavement saw **must** operate with high flow hydraulics.
- (u) **Hydraulic Breaker**
- i The vehicle **must** be provided with a hydraulic breaker.
  - ii The hydraulic breaker **must** be provided complete with a chisel point tool.
  - iii The hydraulic breaker **must** deliver an impact energy of at least that given as “**BREAKER ENERGY**” in the Data Table (paragraph 1.4).
- (v) **Trencher**
- i The vehicle **must** be provided with a chain type trencher.
  - ii The chain type trencher **must** dig a trench with a width of at least that given as “**TRENCH WIDTH**” in the Data Table (paragraph 1.4).
  - iii The chain type trencher **must** dig to a depth of at least that given as “**TRENCH DEPTH**” in the Data Table (paragraph 1.4).
  - iv The trencher **must** be provided with a side shift feature and a spoil-spreading auger.
- (w) **Cold Planer**
- i The vehicle **must** be provided with a cold planer.
  - ii The cold planer **must** have a cutting width of at least 400 mm.
  - iii The cold planer **must** have hydraulic side shift and tilt back features.
  - iv The cold planer **must** have individually removable and replaceable teeth.
  - v The cold planer **must** include all components required to operate the planer including all additional hydraulic and control components required.
  - vi The cold planer **must** operate with high flow hydraulics.
- (x) **Earth Auger**. The vehicle **must** be provided with a heavy-duty earth auger.
- (y) **Auger No. 1**
- i The vehicle **must** be provided with a heavy-duty auger bit.
  - ii The heavy-duty auger bit **must** have a nominal diameter of that given as “**AUGER 1**” in the Data Table (paragraph 1.4).

- iii The auger bit **must** have a nominal length of 1,219 mm long.
- (z) **Auger No. 2**
  - i The vehicle **must** be provided with a heavy-duty auger bit.
  - ii The heavy-duty auger bit **must** have a nominal diameter of that given as “**AUGER 2**” in the Data Table (paragraph 1.4).
  - iii The auger bit **must** have a nominal length of 1,219 mm long.
- (aa) **Auger No. 3**
  - i The vehicle **must** be provided with a heavy-duty auger bit.
  - ii The heavy-duty auger bit **must** have a nominal diameter of that given as “**AUGER 3**” in the Data Table (paragraph 1.4).
  - iii The auger bit **must** have a nominal length of 1,219 mm long.
- (bb) **Auger Extension**. The vehicle **must** be provided with an auger extension with a nominal length of 1,219 mm.
- (cc) **Roller Compactor**
  - i The vehicle **must** be provided with a vibrating roller compactor.
  - ii The roller compactor **must** have a smooth drum with a diameter of at least 500 mm.
  - iii **Roller Compactor Width**
    - 1. **66 Inch Roller Compactor**. The roller compactor **must** have a nominal width of 1676 mm.
    - 2. **73 Inch Roller Compactor**. The roller compactor **must** have a nominal width of 1854 mm.
- (dd) **Pad Foot Compactor**
  - i The vehicle **must** be provided with a vibrating pad foot compactor.
  - ii The pad foot compactor **must** have a pad foot drum with a diameter of at least 500 mm.
  - iii **Pad Foot Compactor Width**
    - 1. **66 Inch Pad Foot Compactor**. The pad foot compactor **must** have a nominal width of 1676 mm.
    - 2. **73 Inch Pad Foot Compactor**. The pad foot compactor **must** have a nominal width of 1854 mm.
- (ee) **Tiller**
  - i The vehicle **must** be provided with a hydraulically powered rotary tiller.
  - ii The rotary tiller **must** have a tilling width of at least that given as “**TILLER**” in the Data Table (paragraph 1.4).
  - iii The rotary tiller **must** mount on the loader arms.
- (ff) **Land Planer**
  - i The vehicle **must** be provided with a land planer.
  - ii The land planer **must** have a cleaning path that is wider than the vehicle.

- iii The land planer **must** level and remove rocks, grass etc. along the path where it is pushed.
- iv The land planer **must** remove rocks from an area to a depth of at least 75 mm.

(gg) **Post Driver**

- i The vehicle **must** be provided with a post driver.
- ii The post driver **must** drive posts with a diameter of at least 200 mm into the ground.
- iii The post driver **must** drive posts to a depth of at least 500 mm.

(hh) **Wood Chipper**

- i The vehicle **must** be provided with a wood chipper.
- ii The wood chipper **must** chip wood of the diameter given as “**TREE**” in the Data Table (paragraph 1.4).
- iii The wood chipper **must** use the hydraulic power from the vehicle.
- iv The wood chipper **must** mount on the front of the vehicle.

(ii) **Brush Cutter**

- i The vehicle **must** be provided with a brush cutter.
- ii The brush cutter **must** have a cutting width wider than the loader.
- iii The brush cutter **must** cut through brush including saplings at least 62 mm in diameter.
- iv The brush cutter **must** operate with high flow hydraulics.

(jj) **Stump Grinder**

- i The vehicle **must** be provided with a stump grinder.
- ii The stump grinder **must** have a cutting wheel diameter of at least that given as “**CUTTING WHEEL**” in the Data Table (paragraph 1.4).
- iii The stump grinder **must** cut into a hole that has a depth at least that given as “**BELOW GRADE**” in the Data Table (paragraph 1.4).

**3.6 Operator Station**

(a) **ROPS Cab**

- i The vehicle **must** be provided with a ROPS cab incorporating a certified Roll Over Protective Structure (ROPS).
- ii ROPS certification **must** satisfy ISO 3471 or **equivalent**.
- iii The ROPS cab **must** be weatherproof, pressurized and insulated.
- iv The ROPS cab **must** be provided with a heating system with ventilation and defrosting systems to keep windows free from frost and moisture.
- v The ROPS cab **must** be provided with safety glass in the windows. It is preferred the glass be tinted to reduce solar heating load.
- vi The ROPS cab **must** be provided with windshield wipers and washer system.
- vii The ROPS cab **must** be provided with a door, which can be latched closed, or removed.

- (b) **Security Locking Provisions.** Doors on the cab **must** be provided with padlock hasps or keyed lock.
- (c) **Seat.** The vehicle **must** be provided with a padded operator's seat and backrest, equipped with seat belts.
- (d) **Mirrors.** The vehicle **must** be provided with rear view mirrors providing a full view for safe reverse operations.

**3.6.1 Operator Station Accessories.** The following **must** be provided when indicated with a "✓", in the Attachments Table, paragraph 1.5, and specified in the solicitation.

- (a) **Air Conditioning.** The vehicle **must** be provided with an air conditioning system.
- (b) **Suspension Seat**
  - i The vehicle **must** be provided with a padded full suspension seat and backrest.
  - ii It is preferred that the seat be cloth covered.
  - iii The seat **must** be provided with seat belts conforming, as a minimum, to SAE J386.
  - iv The seat **must** be provided with fore/aft and vertically adjustment without the operator having to move from a seated position.

**3.7 Chassis.** *Commercially equipped.*

**3.7.1 Chassis Accessories.** The following **must** be provided when indicated with a "✓", in the Attachments Table, paragraph 1.5, and specified in the solicitation.

- (a) **Ride Control System.** The vehicle **must** be provided with an automatic ride control system for the cushioning of the vehicle and any carried load.

**3.8 Engine.** The vehicle **must** be provided with a diesel engine.

**3.8.1 Fuel Tank(s).** *Commercially equipped.*

**3.8.2 Engine Cold Weather Aids**

- (a) The engine **must** be provided with cold weather aids to enable the engine (operating with winter grade fuels/oils) to be started at temperatures down to -30° C. The engine starting aids may include but are not limited to: glow plug(s) and intake air preheat.
- (b) The engine **must** be provided with 110-volt engine block heaters with a capacity as recommended by the engine manufacturer or conforming to SAE J1310.
- (c) The engine **must** be provided with a heated fuel filter/water separator to preheat diesel fuel prior to starting.

**3.9 Vehicle Driveline**

**3.9.1 Transmission**

- (a) The vehicle **must** be provided with a transmission to deliver full power to all wheels.
- (b) Wheels on opposite sides **must** rotate in the same or opposite directions

**3.9.2 Transmission Accessories.** The following **must** be provided when indicated with a "✓", in the Attachments Table, paragraph 1.5, and specified in the solicitation.

- (a) **2-Speed Hydrostatic Transmission**
  - i The vehicle **must** be provided with a hydrostatic transmission with 2 speed ranges.

- ii The vehicle with the 2-speed hydrostatic transmission **must** have a forward speed of at least 16 km/h.

**3.10 Brake System.** *Commercially Equipped.*

**3.11 Steering.** *Commercially Equipped.*

**3.12 Tires.** The vehicle **must** be provided with tires with L-2 treads or **equivalent**.

**3.12.1 Accessories for Wheel, Rims and Tires.** The following **must** be provided when indicated with a “✓”, in the Attachments Table, paragraph 1.5, and specified in the solicitation.

- (a) **Non-Pneumatic Tires.** The vehicle **must** be provided with non-pneumatic tires, with a cushioning effect and with L-2, or excavator type treads, in lieu of the tires described in paragraph 3.12. Solid tires will not be accepted.

**3.13 Controls**

- (a) **Joystick Controls.** The vehicle **must** be provided with joystick controls or **Equivalent** for tool controls.

**3.14 Instruments.** The instruments **must** be provided with an hour-meter, which displays accumulated running time up to 9,999 hours.

**3.15 Electrical System**

- (a) The vehicle **must** be provided with a readily accessible driver-operated warning horn.
- (b) The vehicle **must** be provided with a backup alarm to alert personnel that the vehicle is in backup mode.

**3.15.1 Electrical Accessories.** The following **must** be provided when indicated with a “✓”, in the Attachments Table, paragraph 1.5, and specified in the solicitation.

(a) **Battery Solar Charger**

- i A Battery Solar Charging System **must** be provided.
- ii The Battery Solar Charging System **must** be equivalent to NSN 6130-01-487-0035.
- iii The solar charger panel **must** be mounted on an angle of between 10 and 15 degrees in a protected location.

**3.16 Lighting.** The vehicle **must** be provided with front work lights, rear work lights and clearance lights.

**3.16.1 Lighting Accessories.** The following **must** be provided when indicated with a “✓”, in the Attachments Table, paragraph 1.5, and specified in the solicitation.

(a) **Amber Coloured Beacon**

- i An amber coloured omni-directional beacon or **Equivalent must** be provided.
- ii The beacon **must** be mounted so as to provide maximum visibility.
- iii The beacon **must** be LED or **Equivalent**.

(b) **Blue Coloured Beacon**

- i A blue coloured omni-directional beacon or **Equivalent must** be provided.
- ii The beacon **must** be mounted so as to provide maximum vehicle visibility.
- iii The beacon **must** be LED or **Equivalent**.

**3.17 Hydraulic System.**

- (a) For Configuration A, the vehicle's hydraulic system **must** run all of the hydraulic attachments in column A of the Attachments Table, paragraph 1.5.
- (b) For Configurations B, C and D, the vehicle **must** be provided with a high flow hydraulic system, in addition to the standard system.
- (c) All connections **must** be provided with dripless quick connect couplings.
- (d) All couplings **must** be provided with captured dust covers.

**3.18 Lubricants and Hydraulic Fluids**

- (a) The vehicle **must** operate using synthetic non-proprietary lubricants and hydraulic fluids.
- (b) Grease fittings **must** conform to SAE J534 or an **equivalent**.

**3.19 Paint. *Commercially Equipped.***

**3.19.1 Paint Accessories.** The following **must** be provided when indicated with a "✓", in the Attachments Table, paragraph 1.5, and specified in the solicitation.

- (a) **Olive Drab Green Paint**
  - i The vehicle **must** be painted Olive Drab Green 34094 in accordance with SAE Standard AMS-STD-595.
  - ii Additional lettering and symbols on the outside of the vehicle **must** be flat black.

**3.20 Vehicle Delivery Condition**

- (a) If the vehicle requires assembly at destination, the contractor **must** be responsible for all manpower and equipment to perform assembly.
- (b) The space for assembly at destination will be provided, if required.
- (c) Fuel tank(s) **must** be half to three quarters full on delivery.
- (d) Lubricants installed in the vehicle at time of delivery **must** be suitable for the destination and the season of delivery.

**4. INTEGRATED LOGISTICS SUPPORT (ILS)**

**4.1 Deliverables**

**4.1.1 General Requirements**

- (a) Sample ILS documents **must** be submitted to the **Technical Authority** prior to the delivery of the vehicle/equipment for each configuration/model and their accessories, for approval. Sample ILS documents will not be returned.
- (b) **Technical Authority** approval, request for additional documentation or request for amendments will be supplied within 15 working days of receipt.
- (c) The Contractor **must** supply the additional documentation or implement the changes as requested by the **Technical Authority**.
- (d) **Digital Documents**
  - i All digital copies **must** be supplied in searchable PDF format unless stated otherwise.
  - ii Digital copies **must** be functional without the requirement for a password, an auto-run installation procedure or an Internet connection.

- iii Digital copies of manuals **must** be supplied on a CD or DVD (**USB sticks cannot be used on DND computers**).
- iv Digital copies of other ILS documents **must** be provided by email to the TA or on CD or DVD.
- v CD/DVD **must** be permanently and legibly marked with the equipment description and a list of contents.

(e) **Paper Documents.** All paper copies of ILS documents delivered **must** have the same content as the digital copy approved by the **Technical Authority**.

**4.1.2 ILS Deliverables.** The following table indicates the ILS elements that the Contractor **must** deliver, including the medium (paper or digital), the expected means of delivery and the reference paragraph.

Element	Format/ Medium	Delivered to TA by E-mail for approval	Delivered to TA by mail/courier for approval	Supplied with each Vehicle/ equipment	Remarks	Reference Paragraph
Photograph and Line Drawing Package (DND Only)	Digital	X	-	-	JPEG	4.2.1
Data Summary (DND Only)	Digital	X	-	-	Microsoft Word	4.2.2
Initial Parts Kit List	Digital	X	-	-	PDF	4.2.3
Warranty Letter	Digital	X	-	-	PDF	4.2.4
	Paper	-	-	X	-	
Safety Data Sheets Package	Digital	X	-	-	PDF	4.2.5
	Paper	-	-	X	-	
Set of Manuals	Digital	-	X	X	PDF - on CD/DVD*	4.2.6
	Paper	-	-	X	-	
Initial Parts Kit	-	-	-	X	1 kit	4.2.7
Set of Keys	-	-	-	X	2 sets	4.2.8

Note: \* One CD/DVD should be used for all e-manuals covering a configuration/model and its accessories.

**4.1.3 Training Deliverables.** The following **must** be provided when indicated with a “✓”, in the Attachments Table, paragraph 1.5, and specified in the solicitation.

Element	Format/ Medium	Delivered to TA by E-mail for approval	Remarks	Reference Paragraph
Course Syllabus	Digital	X	-	4.3.1

Element	Format/ Medium	Delivered to TA by E-mail for approval	Remarks	Reference Paragraph
Familiarization Training	-	-	Delivery in person, at the location specified in the contract.	4.3.1
Proof of Training Certificate	Digital	X	TA will provide template	4.3.1

## 4.2 ILS Elements Description

### 4.2.1 Photograph and Line Drawing Package (DND contracts only)

- (a) DND requires photographs and line drawings for documentation and cataloguing purposes. The Photograph and Line Drawing Package **must** include:
  - i Two (2) digital colour photographs, one (1) left-front three-quarter view, and one (1) right-rear three-quarter view of each configuration/model;
  - ii One (1) digital colour photograph of each attachment taken at the three-quarter view that best illustrates the attachment; and
  - iii One (1) front-view and one (1) side-view line drawing showing dimensions of the vehicle/equipment. Brochure line drawings are acceptable.
- (b) Photographs **must** have a plain background and be in a JPEG (Joint Photographic Experts Group) format with a resolution of at least eight (8) Mega pixels.

### 4.2.2 Data Summary (DND contracts only)

- (a) The **Technical Authority** will supply a bilingual Data Summary Template (in Microsoft Word format) to the Contractor.
- (b) The data summary **must**:
  - i Use the **Technical Authority** provided bilingual template;
  - ii Be a separate document for each configuration/model;
  - iii Include accessories and features; and
  - iv Be delivered in Microsoft Word format.

### 4.2.3 Initial Parts Kit List

- (a) The Initial Parts Kit List **must** include:
  - i A complete list of parts needed to perform preventive maintenance on one (1) vehicle/equipment for a period of one (1) year, in accordance with the maintenance manual, for each configuration/model;
  - ii A complete change of all filters and filter elements; and
  - iii The following elements for each part listed: part description; Original Equipment Manufacturer (OEM) part number; suggested quantity; and, unit cost.

### 4.2.4 Warranty Letter

- (a) For DND contracts, the **Technical Authority** will supply a bilingual Warranty Letter Template (in PDF format) to the Contractor.
- (b) The Warranty Letter **must**:



- i For DND contracts, use the **Technical Authority** provided bilingual template;
- ii Contain a complete description of the warranty requested with the warranty terms and conditions;
- iii Contain the complete warranty details on any system or sub-system warranty that exceeds the minimum requested; and
- iv Contain the name and contact information of the closest designated warranty provider and other designated warranty providers across Canada.

#### **4.2.5 Safety Data Sheets Package**

- (a) The Safety Data Sheets Package **must** include:
  - i A bilingual (or a separate French and an English) list of all hazardous materials used on the vehicle/equipment; and
  - ii A complete bilingual set (or a set in French and a set in English), of all the safety data sheets for all hazardous materials in the list.
- (b) If there are no hazardous materials used, “no hazardous materials” **must** be stated on the list.

#### **4.2.6 Set of Manuals**

- (a) The set of manuals for each configuration/model **must** include:
  - i The French and English (or bilingual) operator manual(s);
  - ii The French and English (or bilingual) maintenance (shop repair) manual(s); and
  - iii The English or bilingual parts manual(s).
- (b) The set of manuals **must** include manuals (operator, maintenance (shop repair) and parts) for all major components, all attachments, accessories and features for the configuration/model supplied. Accessory manuals may be included as supplements to the vehicle manuals.

**4.2.7 Initial Parts Kit.** The Contractor **must** supply one (1) complete set of parts contained in the approved Initial Parts Kits List with each vehicle/equipment.

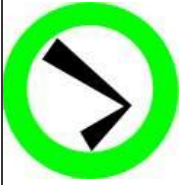
**4.2.8 Set of Keys.** The Contractor **must** supply at least two (2) sets of keys with each vehicle/equipment.

### **4.3 Training**

#### **4.3.1 Familiarization Training**

- (a) The Contractor **must** deliver a familiarization course optimized for trained operators and technicians.
- (b) The course **must** be delivered at the delivery destination, unless stated otherwise in the contract.
- (c) The course **must** be delivered in the official language (English or French) specified in the contract for that delivery destination.
- (d) The instructor **must** be an OEM Factory Certified Training Provider.
- (e) **Course Syllabus**
  - i The Contractor **must** provide the familiarization training course syllabus, in the same language as the course delivery, for review and approval by the **Technical Authority**.

- ii The operator familiarization portion of the course **must** include, but is not limited to, safety precautions to be observed while operating and servicing, operating characteristics, calibration, pre-operating and pre-shutdown procedures and daily/weekly operator servicing procedures for the vehicle/equipment, attachments, features and accessories.
  - iii The technician familiarization portion of the course **must** include, but is not limited to, operation and maintenance safety precautions, overview of air, hydraulic and electrical systems (as applicable), preventive maintenance including servicing schedules, inspection and maintenance requirements, special tools and test equipment (as applicable), diagnostics, troubleshooting, testing and adjustments for the vehicle/equipment, attachments, features and accessories.
- (f) The familiarization course **must** have a minimum duration of four (4) hours for operators and four (4) hours for technicians.
  - (g) The familiarization course **must** accommodate up to eight (8) people (4 operators and 4 technicians).
  - (h) The date for the familiarization course **must** be coordinated with the **Technical Authority**.
  - (i) After completion of the familiarization course, the Contractor **must** have the “**Proof of Training**” certificate signed by the senior course attendee.
  - (j) The **Technical Authority** will supply the “**Proof of Training**” certificate template in a digital format.

**NOTICE**

This documentation has been reviewed by the Technical Authority and does not contain controlled goods.

**AVIS**

Cette documentation a été révisée par l'Autorité technique et ne contient pas de marchandises contrôlées.

**TECHNICAL INFORMATION QUESTIONNAIRE****GROUP 2 – APPENDIX B1****SKID STEER LOADER**

This questionnaire covers technical information, which **must** be provided for evaluation of the configuration(s) of the vehicle(s) offered.

Where the specification paragraphs below indicate “**Substantial Information**”, the “**Substantial Information**” describing completely and in detail how the requirement is met or addressed **must** be supplied for each performance requirement/specification.

Bidder is required to indicate the document name/title and page number where the **Substantial Information** can be found.

Definitions for **Equivalent** is found in the DEFINITION section at the end of this document.

**CONTRACTOR INFORMATION**

Contractor Name: \_\_\_\_\_

Address: \_\_\_\_\_

Proposal Date: \_\_\_\_\_

**Substitutes/Alternatives**

Are any equipment substitutes/alternatives offered as **Equivalent**?

YES ☐ NO ☐

If yes, please identify all equipment substitutes/alternatives offered as **Equivalents** below:

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<p><b>GROUP 2</b></p> <p><b>SKID STEER LOADER</b></p> <p><b>CONFIGURATION A</b></p>					
PD Reference	Requirement	Substantial Information required	Value	Location of Substantial Information in Bid Proposal	
3.4	<b>Performance.</b> The vehicle <b>must</b> be a 4-wheel drive skid steer loader.	Vehicle Make		Provide brochure or specification document.	
		Vehicle Model			
3.4.1	<b><u>Loader Performance</u></b> (a) The skid steer loader <b>must</b> have a tipping load, when measured in accordance with ISO 14397-1, of at least that given as <b>“TIPPING LOAD” (1,100 kg)</b> in the Data Table (paragraph 1.4) using the loader bucket specified in paragraph 3.5.3 (a) pinned directly to the lift arms (paragraph 3.5.1 (a)). (b) The skid steer loader <b>must</b> have a breakout force (bucket cylinder force or lift cylinder force) of at least that given as <b>“BREAKOUT” (17.0 kN)</b> in the Data Table (paragraph 1.4) using the loader bucket specified in paragraph 3.5.3 (a) pinned directly to the lift arms (paragraph 3.5.1 (a)).	Tipping Load	kg		
		Breakout Force	kN		

<b>GROUP 2</b> <b>SKID STEER LOADER</b> <b>CONFIGURATION B</b>					
PD Reference	Requirement	Substantial Information required	Value	Location of Substantial Information in Bid Proposal	
3.4	<b>Performance.</b> The vehicle <b>must</b> be a 4-wheel drive skid steer loader.	Vehicle Make		Provide brochure or specification document.	
		Vehicle Model			
3.4.1	<b>Loader Performance</b> (a) The skid steer loader <b>must</b> have a tipping load, when measured in accordance with ISO 14397-1, of at least that given as <b>"TIPPING LOAD" (1,700 kg)</b> in the Data Table (paragraph 1.4) using the loader bucket specified in paragraph 3.5.3 (a) pinned directly to the lift arms (paragraph 3.5.1 (a)). (b) The skid steer loader <b>must</b> have a breakout force (bucket cylinder force or lift cylinder force) of at least that given as <b>"BREAKOUT" (20.0 kN)</b> in the Data Table (paragraph 1.4) using the loader bucket specified in paragraph 3.5.3 (a) pinned directly to the lift arms (paragraph 3.5.1 (a)).	Tipping Load	kg		
		Breakout Force	kN		

GROUP 2 SKID STEER LOADER CONFIGURATION C					
PD Reference	Requirement	Substantial Information required	Value	Location of Substantial Information in Bid Proposal	
3.4	<b>Performance.</b> The vehicle <b>must</b> be a 4-wheel drive skid steer loader.	Vehicle Make		Provide brochure or specification document.	
		Vehicle Model			
3.4.1	<b><u>Loader Performance</u></b>  (a) The skid steer loader <b>must</b> have a tipping load, when measured in accordance with ISO 14397-1, of at least that given as “ <b>TIPPING LOAD</b> ” (2,150 kg) in the Data Table (paragraph 1.4) using the loader bucket specified in paragraph 3.5.3 (a) pinned directly to the lift arms (paragraph 3.5.1 (a)).  (b) The skid steer loader <b>must</b> have a breakout force (bucket cylinder force or lift cylinder force) of at least that given as “ <b>BREAKOUT</b> ” (25.0 kN) in the Data Table (paragraph 1.4) using the loader bucket specified in paragraph 3.5.3 (a) pinned directly to the lift arms (paragraph 3.5.1 (a)).	Tipping Load	kg		
		Breakout Force	kN		

<b>GROUP 2</b> <b>SKID STEER LOADER</b> <b>CONFIGURATION D</b>					
PD Reference	Requirement	Substantial Information required	Value	Location of Substantial Information in Bid Proposal	
3.4	<b>Performance.</b> The vehicle <b>must</b> be a 4-wheel drive skid steer loader.	Vehicle Make		Provide brochure or specification document.	
		Vehicle Model			
3.4.1	<b>Loader Performance</b> (a) The skid steer loader <b>must</b> have a tipping load, when measured in accordance with ISO 14397-1, of at least that given as <b>"TIPPING LOAD" (2,700 kg)</b> in the Data Table (paragraph 1.4) using the loader bucket specified in paragraph 3.5.3 (a) pinned directly to the lift arms (paragraph 3.5.1 (a)). (b) The skid steer loader <b>must</b> have a breakout force (bucket cylinder force or lift cylinder force) of at least that given as <b>"BREAKOUT" (30.0 kN)</b> in the Data Table (paragraph 1.4) using the loader bucket specified in paragraph 3.5.3 (a) pinned directly to the lift arms (paragraph 3.5.1 (a)).	Tipping Load	kg		
		Breakout Force	kN		

**DEFINITION**

The following definition apply to the interpretation of this Technical Information Questionnaire:

- a) “***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.





**NOTICE**

This documentation has been reviewed by the Technical Authority and does not contain controlled goods.

**AVIS**

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**PURCHASE DESCRIPTION**  
**GROUP 3 – ANNEX “C”**  
**COMPACT TRACKED LOADER**

**1. SCOPE**

**1.1 Scope.** This Purchase Description covers the requirements for compact tracked loaders.

**1.2 Instructions**

- (a) Requirements that are identified by the word “**must**”, **must** be treated as mandatory. Deviations will not be permitted.
- (b) Requirements identified with a “will” define actions to be performed by Canada and require no action/obligation on the Contractor’s part.
- (c) Where “**must**” or “will” are not used, the information provided is for guidance only.
- (d) Where a standard is specified and the Contractor has offered an **Equivalent**, that **Equivalent** standard **must** be supplied by the Contractor.
- (e) Where a technical certification is referred to in this Purchase Description, a copy of the certification or **Equivalent must** be supplied, when requested by the **Technical Authority**.
- (f) While the International System of Units (SI) **must** be used as the primary system of measurement to define requirements of this Purchase Description, both the SI system and the standard system for this product may be indicated. Conversion from one system of measurement to the other may not be exact.
- (g) Dimensions stated as nominal **must** be treated as approximate dimensions. Nominal dimensions reflect a method by which materials or products are generally identified for sale commercially, but that differ from the actual dimensions.

**1.3 Definitions**

- (a) “**Provided**” means “provided and installed”.
- (b) “**Technical Authority**” means the official responsible for the technical content of this requirement.
- (c) “**Equivalent**” means a standard, means, or component type that the **Technical Authority** has approved for this requirement as meeting the specified requirements for fit, form, function and performance.
- (d) “**Commercially Equipped**” means that the vehicle is provided in its standard commercial configuration with no additional government-specified requirements.
- (e) “**Bilingual**” means both official languages; English and French.

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- 1.4 **Data Table.** The following table shows the required performance and dimensions for each Configuration and includes paragraph references.

CHARACTERISTIC	PARAGRAPH	UNITS	CONFIGURATION	
			A	B
TIPPING LOAD	3.4.2 (a)	kg	2,400	2,900
BREAKOUT	3.4.2 (b)	kN	20	24
GP CAPACITY	3.5.3 (a)	m <sup>3</sup>	0.40	0.45
LP CAPACITY	3.5.3 (b)	m <sup>3</sup>	0.49	0.54
LIGHT MATERIAL BUCKET	3.5.3 (c)	m <sup>3</sup>	0.64	0.72
4-IN-1 BUCKET	3.5.3 (d)	m <sup>3</sup>	0.32	0.36
CONCRETE BUCKET	3.5.3 (e)	m <sup>3</sup>	0.35	0.55
HOPPER	3.5.3 (f)	m <sup>3</sup>	2.0	2.0
BUSH WIDTH	3.5.3 (g)	mm	1,500	1,500
INDUSTRIAL WIDTH	3.5.3 (h)	mm	1,800	1,800
SNOW BLOWER SWATH	3.5.3 (m)	mm	1,800	1,950
SNOW PUSHER	3.5.3 (n)	mm	3,150	3,150
SNOW BLADE	3.5.3 (o)	mm	2,100	2,400
DOZER BLADE	3.5.3 (p)	mm	1,750	2,050
SWEEPER SWATH	3.5.3 (q)&(r)	mm	1,675	1,855
BACKHOE DIG	3.5.3 (s)	mm	3,300	3,300
BACKHOE REACH		mm	4,060	4,060
BACKHOE DUMP		mm	2,435	2,435
BUCKET WIDTH		mm	600	600
BREAKER ENERGY	3.5.3 (u)	Joules	700	1,000
TRENCH WIDTH	3.5.3 (v)	mm	150	150
TRENCH DEPTH		mm	1,250	1,250
AUGER 1	3.5.3 (y)	mm	300	300
AUGER 2	3.5.3 (z)	mm	450	450
AUGER 3	3.5.3 (aa)	mm	600	600
TILLER	3.5.3 (ee)	mm	1,550	1,900
TREE	3.5.3 (hh)	mm	75	125
CUTTING WHEEL	3.5.3 (jj)	mm	610	750
BELOW GRADE		mm	250	300

- 1.5 **Attachments Table.** The following table indicates, with a "✓", for each Configuration, the attachments, features, accessories, additional items and training that **must** be provided when specified in the solicitation, with a clause reference.

DESCRIPTION	PARAGRAPH	CONFIGURATION	
		A	B
Loader Arm Quick-Connect – Hydraulic	3.5.2 (a)	✓	✓
General-Purpose Bucket	3.5.3 (a)	✓	✓
Low Profile Bucket	3.5.3 (b)	✓	✓
Light Material/Snow Bucket	3.5.3 (c)	✓	✓
4-in-1 Bucket	3.5.3 (d)	✓	✓
Concrete Pouring Bucket	3.5.3 (e)	✓	✓

DESCRIPTION	PARAGRAPH	CONFIGURATION	
		A	B
Dumping Hopper	3.5.3 (f)	✓	✓
Bush Grapple	3.5.3 (g)	✓	✓
Industrial Grapple	3.5.3 (h)	✓	✓
Rock Grapple	3.5.3 (i)	✓	✓
Crane Boom	3.5.3 (j)	✓	✓
Forklift	3.5.3 (k)	✓	✓
Trailer Hitch	3.5.3 (l)	✓	✓
Snow Blower	3.5.3 (m)	✓	✓
Snow Pusher	3.5.3 (n)	✓	✓
Snow Blade	3.5.3 (o)	✓	✓
Dozer Blade	3.5.3 (p)	✓	✓
Angle Sweeper	3.5.3 (q)	✓	✓
Rotary Pickup Sweeper	3.5.3 (r)	✓	✓
Backhoe	3.5.3 (s)	✓	✓
Pavement Saw	3.5.3 (t)	✓	✓
Hydraulic Breaker	3.5.3 (u)	✓	✓
Trencher	3.5.3 (v)	✓	✓
Cold Planer	3.5.3 (w)	✓	✓
Earth Auger	3.5.3 (x)	✓	✓
Auger No. 1	3.5.3 (y)	✓	✓
Auger No. 2	3.5.3 (z)	✓	✓
Auger No. 3	3.5.3 (aa)	✓	✓
Auger Extension	3.5.3 (bb)	✓	✓
73 Inch Roller Compactor	3.5.3 (cc)	✓	✓
73 Inch Pad Foot Compactor	3.5.3 (dd)	✓	✓
Tiller	3.5.3 (ee)	✓	✓
Land Planer	3.5.3 (ff)	✓	✓
Post Driver	3.5.3 (gg)	✓	✓
Wood Chipper	3.5.3 (hh)	✓	✓
Brush Cutter	3.5.3 (ii)	✓	✓
Stump Grinder	3.5.3 (jj)	✓	✓
Air Conditioning	3.6.1 (a)	✓	✓
Suspension Seat	3.6.1 (b)	✓	✓
Ride Control System	3.7.1 (a)	✓	✓
2-Speed Hydrostatic Transmission	3.9.2 (a)	✓	✓
Battery Solar Charger	3.15.1	✓	✓
Amber Coloured Beacon	3.16.1 (a)	✓	✓
Blue Coloured Beacon	3.16.1 (b)	✓	✓
Olive Drab Green Paint	3.19.1(a)	✓	✓
Training – Familiarization – English	4.3.1	✓	✓
Training – Familiarization - French	4.3.1	✓	✓

## 2. APPLICABLE DOCUMENTS

### 2.1 Government Furnished Documents. NOT APPLICABLE

### 2.2 Other Publications. Canada will not be supplying any reference documents. Effective documents are those in effect on the date of the manufacture of the vehicle. Information on the organization is supplied below.

- (a) Hazardous Products Act  
Government of Canada / Department of Justice  
<http://laws-lois.justice.gc.ca/eng/acts/H-3/>
- (b) International Organization for Standardization (ISO)  
ISO Central Secretariat  
Chemin de Blandonnet 8  
CP 401  
1214 Vernier, Geneva  
Switzerland  
<http://www.iso.org/iso/home.htm>
- (c) SAE Standards  
SAE World Headquarters  
400 Commonwealth Dr.,  
Warrendale, PA, 15096-0001  
<http://www.sae.org>

## 3. REQUIREMENTS

### 3.1 Standard Design

- (a) The vehicle **must** be the latest model from a manufacturer who has demonstrated acceptability by selling, in North America, this type and size class of vehicle for at least three (3) years.
- (b) The vehicle **must** include all components, equipment and accessories normally supplied for this application, although they may not be specifically described in this Purchase Description.
- (c) The vehicle **must** have engineering certification available, upon request, for this application, from the original manufacturers of the major equipment, systems and assemblies.
- (d) The vehicle **must** conform to all applicable laws, regulations and industrial standards in effect in Canada at the time of manufacture. The regulatory areas may include but are not necessarily limited to manufacturing, health and safety, noise levels, environment and emissions.
- (e) The vehicle and accessories **must** operate in accordance with all original equipment manufacturers' (OEM) rated capacities and performance specifications.

### 3.2 Operating Conditions

#### 3.2.1 Weather. The vehicle **must** start and operate under the extremes of weather conditions found in Canada in temperatures ranging from -30° to 40° C.

#### 3.2.2 Terrain. The vehicle **must** propel itself in the forward and reverse directions during off-road operations (e.g. construction sites, open fields and dirt tracks) in all-weather conditions.

### 3.3 Safety Standards

#### 3.3.1 Hazardous Materials. The contractor **must** comply with the Hazardous Products Act of Canada with regards to the use of hazardous materials, ozone depleting substances, polychlorinated

biphenyls, asbestos and heavy metals used in the manufacture and assembly of the product supplied.

**3.4 Performance.** The vehicle **must** be a compact tracked loader.

**3.4.1 Vehicle Performance.** The vehicle **must** have a forward speed of at least 11.0 km/h.

**3.4.2 Loader Performance**

- (a) The compact tracked loader **must** have a tipping load, when measured in accordance with ISO 14397-1, of at least that given as “**TIPPING LOAD**” in the Data Table (paragraph 1.4) using the loader bucket specified in paragraph 3.5.3 (a) pinned directly to the lift arms (paragraph 3.5.1 (a)).
- (b) The compact tracked loader **must** have a breakout force (bucket cylinder force or lift cylinder force) of at least that given as “**BREAKOUT**” in the Data Table (paragraph 1.4) using the loader bucket specified in paragraph 3.5.3 (a) pinned directly to the lift arms (paragraph 3.5.1 (a)).

**3.5 Equipment, Accessories and Attachments**

**3.5.1 Standard Equipment**

- (a) **Standard Lift Arms**
  - i The vehicle **must** be provided with standard lift arms.
  - ii The standard lift arms **must** be provided with a lift arm safety device, as referenced in ISO 10533.
- (b) **Loader Arm Mechanical Quick – Connect**
  - i The vehicle **must** be provided with a mechanical loader arm quick-connect.
  - ii The loader arm quick-connect **must** include all fittings for connection of hydraulic power required for operation of all accessories.
  - iii Hydraulic fittings **must** be spill-proof.
- (c) **Protection Against Vandalism.** Protection against vandalism including provision for locking engine covers and all filler caps **must** be provided.

**3.5.2 Accessories.** The following **must** be provided when indicated with a “✓”, in the Attachments Table, paragraph 1.5, and specified in the solicitation.

- (a) **Loader Arm Quick-Connect – Hydraulic**
  - i The vehicle **must** be provided with a hydraulic loader arm quick-connect.
  - ii The hydraulic loader arm quick-connect **must** be controlled from the operator's station.
  - iii The loader arm quick-connect **must** include all fittings for connection of hydraulic power required for operation of all accessories.
  - iv Hydraulic fittings **must** be spill-proof.

**3.5.3 Attachments.** The following **must** be provided when indicated with a “✓”, in the Attachments Table, paragraph 1.5, and specified in the solicitation.

- (a) **General-Purpose Bucket**
  - i The vehicle **must** be provided with a general-purpose bucket.

- ii The general-purpose bucket **must** have a heaped capacity, rated in accordance with ISO 7546, of at least that given as “**GP CAPACITY**” in the Data Table (paragraph 1.4).
- iii The standard bucket **must** be wider than the width of the vehicle.
- iv The standard bucket **must** be provided with reversible, bolt-on, replaceable cutting edge(s).

(b) **Low Profile Bucket**

- i The vehicle **must** be provided with a low profile bucket.
- ii The low profile bucket **must** have a heaped capacity, rated in accordance with ISO 7546, of at least that given as “**LP CAPACITY**” in the Data Table (paragraph 1.4).
- iii The low profile bucket **must** be wider than the width of the vehicle.
- iv The low profile bucket **must** be provided with reversible, bolt-on, replaceable cutting edge(s).

(c) **Light Material/Snow Bucket**

- i The vehicle **must** be provided with a light material/snow bucket.
- ii The light material/snow bucket **must** have a heaped capacity, rated in accordance with ISO 7546, of at least that given as “**LIGHT MATERIAL BUCKET**” in the Data Table (paragraph 1.4).
- iii The light material/snow bucket **must** be wider than the width of the vehicle.
- iv The light material/snow bucket **must** be provided with reversible, bolt-on, replaceable cutting edge(s).

(d) **4-in-1 Bucket**

- i The vehicle **must** be provided with a 4-in-1 bucket.
- ii The 4-in-1 bucket **must** have a heaped capacity, rated in accordance with ISO 7546, of at least that given as “**4-IN-1 BUCKET**” in the Data Table (paragraph 1.4).
- iii The 4-in-1 bucket **must** be wider than the width of the vehicle.
- iv The 4-in-1 bucket **must** be provided with reversible, bolt-on, replaceable cutting edge(s).

(e) **Concrete Pouring Bucket**

- i The vehicle **must** be provided with a concrete pouring bucket.
- ii The concrete pouring bucket **must** have a capacity of at least that given as “**CONCRETE BUCKET**” in the Data Table (paragraph 1.4).
- iii The concrete pouring bucket **must** be equipped with a pouring spout for controlled pouring.

(f) **Dumping Hopper**

- i The vehicle **must** be provided with a dumping hopper.
- ii The dumping hopper **must** have a heaped volume of at least that given as “**HOPPER**” in the Data Table (paragraph 1.4).
- iii The dumping hopper **must** be supported with front castor wheels.

- iv The dumping hopper **must** dump by the action of raising the loader arms.

(g) **Bush Grapple**

- i The vehicle **must** be provided with a bush grapple.
- ii The bush grapple **must** have a width of at least that given as “**BUSH WIDTH**” in the Data Table (paragraph 1.4).
- iii The bush grapple **must** have the lower teeth at no more than 208 mm centres.
- iv The bush grapple **must** have upper teeth that when the grapple is closed are between the lower grapple teeth.

(h) **Industrial Grapple**

- i The vehicle **must** be provided with a bucket style industrial grapple.
- ii The industrial grapple **must** have a width of at least that given as “**INDUSTRIAL WIDTH**” in the Data Table (paragraph 1.4).
- iii The industrial grapple **must** have two sets of 2 teeth, each set with its own actuating cylinder.

(i) **Rock Grapple**

- i The vehicle **must** be provided with a rock grapple.
- ii The rock grapple **must** be constructed of tines which allow dust and small stones to pass through the grapple.
- iii The rock grapple **must** be provided with at least 4 grapple teeth which are mounted on a hydraulically activated frame that is mounted at the top of the bucket.
- iv The rock grapple **must** have a width greater than the vehicle.

(j) **Crane Boom**

- i The vehicle **must** be provided with a crane boom.
- ii The crane boom **must** extend the lift centre of the vehicle at least 1,800 mm in front of the loader arm attachment face.

(k) **Forklift**

- i The vehicle **must** be provided with a forklift attachment.
- ii The forklift attachment **must** have forks with a nominal length of 1,067 mm.

(l) **Trailer Hitch**

- i The vehicle **must** be provided with a trailer hitch.
- ii The trailer hitch when mounted on the loader arm **must** tow vehicles on the coupler.
- iii The trailer hitch **must** be supplied with a combination 6 ton receiver mount combination hitch with a 1-7/8 inch replaceable ball.

(m) **Snow Blower**

- i The vehicle **must** be provided with a snow blower attachment.
- ii The snow blower **must** have a swath of at least that given as “**SNOW BLOWER SWATH**” in the Data Table (paragraph 1.4).

- iii The snow blower **must** be provided with a rotary chute and deflector with commands from the operator station.
  - iv The snow blower **must** have the bilingual warning “DANGER STAND CLEAR/DANGER-RESTEZ DISTANCE” painted or stencilled on each side, in day-glow red, as large as space permits or **Equivalent** symbol.
  - v For Configuration B, the snow blower **must** operate with high flow hydraulics.
- (n) **Snow Pusher**
- i The vehicle **must** be provided with a snow pusher.
  - ii The snow pusher **must** have a width of at least that given as “**SNOW PUSHER**” in the Data Table (paragraph 1.4).
  - iii The snow pusher **must** be provided with end dams at both plow ends to retain more snow.
- (o) **Snow Blade**
- i The vehicle **must** be provided with a snow blade.
  - ii The snow blade **must** have a hydraulic angling feature.
  - iii The snow blade **must** angle to both sides.
  - iv The snow blade **must** have a straight face width of at least that given as “**SNOW BLADE**” in the Data Table (paragraph 1.4).
  - v The snow blade **must** have a trip edge or a trip blade.
- (p) **Dozer Blade**
- i The vehicle **must** be provided with a dozer blade.
  - ii The dozer blade **must** have a straight face width of at least that given as “**DOZER BLADE**” in the Data Table (paragraph 1.4).
  - iii The dozer blade **must** have a bolt-on, replaceable wear edge.
- (q) **Angle Sweeper**
- i The vehicle **must** be provided with an angle sweeper.
  - ii An angle sweeper **must** have a sweeping swath of at least that given as “**SWEEPER SWATH**” in the Data Table (paragraph 1.4).
  - iii The angle sweeper **must** articulate to the left and right of at least 30 degrees.
- (r) **Rotary Pickup Sweeper**
- i The vehicle **must** be provided with a rotary pickup sweeper.
  - ii The rotary pickup sweeper **must** have a sweeping swath of at least that given as “**SWEEPER SWATH**” in the Data Table (paragraph 1.4).
  - iii The rotary pickup sweeper **must** have an integral debris bucket with dumping capabilities.
- (s) **Backhoe**
- i The vehicle **must** be provided with a backhoe.
  - ii The backhoe **must** have a digging depth of at least that given as “**BACKHOE DIG**” in the Data Table (paragraph 1.4).



- iii The backhoe **must** have a reach from centre of swing axis of at least that given as “**BACKHOE REACH**” in the Data Table (paragraph 1.4).
- iv The backhoe **must** have a dump height of at least that given as “**BACKHOE DUMP**” in the Data Table (paragraph 1.4).
- v The backhoe **must** be provided with a heavy duty digging bucket with a nominal width of that given as “**BUCKET WIDTH**” in the Data Table (paragraph 1.4).

(t) **Pavement Saw**

- i The vehicle **must** be provided with a pavement saw.
- ii The pavement saw **must** have a cutting width of at least 60 mm.
- iii The pavement saw **must** have a cutting depth of at least 225 mm.
- iv The pavement saw **must** operate with high flow hydraulics.

(u) **Hydraulic Breaker**

- i The vehicle **must** be provided with a hydraulic breaker.
- ii The hydraulic breaker **must** be provided complete with a chisel point tool.
- iii The hydraulic breaker **must** deliver an impact energy of at least that given as “**BREAKER ENERGY**” in the Data Table (paragraph 1.4).

(v) **Trencher**

- i The vehicle **must** be provided with a chain type trencher.
- ii The chain type trencher **must** dig a trench with a width of at least that given as “**TRENCH WIDTH**” in the Data Table (paragraph 1.4).
- iii The chain type trencher **must** dig to a depth of at least that given as “**TRENCH DEPTH**” in the Data Table (paragraph 1.4).
- iv The trencher **must** be provided with a side shift feature and a spoil-spreading auger.

(w) **Cold Planer**

- i The vehicle **must** be provided with a cold planer.
- ii The cold planer **must** have a cutting width of at least 400 mm.
- iii The cold planer **must** have hydraulic side shift and tilt back features.
- iv The cold planer **must** have individually removable and replaceable teeth.
- v The cold planer **must** include all components required to operate the planer including all additional hydraulic and control components required.
- vi The cold planer **must** operate with high flow hydraulics.

(x) **Earth Auger**. The vehicle **must** be provided with a heavy-duty earth auger.

(y) **Auger No. 1**

- i The vehicle **must** be provided with a heavy-duty auger bit.
- ii The heavy-duty auger bit **must** have a nominal diameter of that given as “**AUGER 1**” in the Data Table (paragraph 1.4).
- iii The auger bit **must** have a nominal length of 1,219 mm long.

- (z) **Auger No. 2**
- i The vehicle **must** be provided with a heavy-duty auger bit.
  - ii The heavy-duty auger bit **must** have a nominal diameter of that given as “**AUGER 2**” in the Data Table (paragraph 1.4).
  - iii The auger bit **must** have a nominal length of 1,219 mm long.
- (aa) **Auger No. 3**
- i The vehicle **must** be provided with a heavy-duty auger bit.
  - ii The heavy-duty auger bit **must** have a nominal diameter of that given as “**AUGER 3**” in the Data Table (paragraph 1.4).
  - iii The auger bit **must** have a nominal length of 1,219 mm long.
- (bb) **Auger Extension.** The vehicle **must** be provided with an auger extension with a nominal length of 1,219 mm.
- (cc) **73 Inch Roller Compactor**
- i The vehicle **must** be provided with a vibrating 73 inch roller compactor.
  - ii The roller compactor **must** have a smooth drum with a diameter of at least 500 mm.
  - iii The roller compactor **must** have a nominal width of 1854 mm.
- (dd) **73 Inch Pad Foot Compactor**
- i The vehicle **must** be provided with a vibrating 73 inch pad foot compactor.
  - ii The pad foot compactor **must** have a pad foot drum with a diameter of at least 500 mm.
  - iii The pad foot compactor **must** have a nominal width of 1854 mm.
- (ee) **Tiller**
- i The vehicle **must** be provided with a hydraulically powered rotary tiller.
  - ii The rotary tiller **must** have a tilling width of at least that given as “**TILLER**” in the Data Table (paragraph 1.4).
  - iii The rotary tiller **must** mount on the loader arms.
- (ff) **Land Planer**
- i The vehicle **must** be provided with a land planer.
  - ii The land planer **must** have a cleaning path that is wider than the vehicle.
  - iii The land planer **must** level and remove rocks, grass etc. along the path where it is pushed.
  - iv The land planer **must** remove rocks from an area to a depth of at least 75 mm.
- (gg) **Post Driver**
- i The vehicle **must** be provided with a post driver.
  - ii The post driver **must** drive posts with a diameter of at least 200 mm into the ground.
  - iii The post driver **must** drive posts to a depth of at least 500 mm.

(hh) **Wood Chipper**

- i The vehicle **must** be provided with a wood chipper.
- ii The wood chipper **must** chip wood of the diameter given as “**TREE**” in the Data Table (paragraph 1.4).
- iii The wood chipper **must** use the hydraulic power from the vehicle.
- iv The wood chipper **must** mount on the front of the vehicle.

(ii) **Brush Cutter**

- i The vehicle **must** be provided with a brush cutter.
- ii The brush cutter **must** have a cutting width wider than the loader.
- iii The brush cutter **must** cut through brush including saplings at least 62 mm in diameter.
- iv For Configuration B, the brush cutter **must** operate with high flow hydraulics.

(jj) **Stump Grinder**

- i The vehicle **must** be provided with a stump grinder.
- ii The stump grinder **must** have a cutting wheel diameter of at least that given as “**CUTTING WHEEL**” in the Data Table (paragraph 1.4).
- iii The stump grinder **must** cut into a hole that has a depth at least that given as “**BELOW GRADE**” in the Data Table (paragraph 1.4).

**3.6 Operator Station**

(a) **ROPS Cab**

- i The vehicle **must** be provided with a ROPS cab incorporating a certified Roll Over Protective Structure (ROPS).
- ii ROPS certification **must** satisfy ISO 3471 or **equivalent**.
- iii The ROPS cab **must** be weatherproof, pressurized and insulated.
- iv The ROPS cab **must** be provided with a heating system with ventilation and defrosting systems to keep windows free from frost and moisture.
- v The ROPS cab **must** be provided with safety glass in the windows. It is preferred the glass be tinted to reduce solar heating load.
- vi The ROPS cab **must** be provided with windshield wipers and washer system.
- vii The ROPS cab **must** be provided with a door, which can be latched closed, or removed.

(b) **Security Locking Provisions**. Doors on the cab **must** be provided with padlock hasps or keyed lock.

(c) **Seat**. The vehicle **must** be provided with a padded operator's seat and backrest, equipped with seat belts.

(d) **Mirrors**. The vehicle **must** be provided with rear view mirrors providing a full view for safe reverse operations.

**3.6.1 Operator Station Accessories**. The following **must** be provided when indicated with a “✓”, in the Attachments Table, paragraph 1.5, and specified in the solicitation.

(a) **Air Conditioning**. The vehicle **must** be provided with an air conditioning system.

(b) **Suspension Seat**

- i The vehicle **must** be provided with a padded full suspension seat and backrest.
- ii It is preferred that the seat be cloth covered.
- iii The seat **must** be provided with seat belts conforming, as a minimum, to SAE J386.
- iv The seat **must** be provided with fore/aft and vertically adjustment without the operator having to move from a seated position.

**3.7 Chassis.** *Commercially equipped.*

**3.7.1 Chassis Accessories.** The following **must** be provided when indicated with a “✓”, in the Attachments Table, paragraph 1.5, and specified in the solicitation.

- (a) **Ride Control System.** The vehicle **must** be provided with an automatic ride control system for the cushioning of the vehicle and any carried load.

**3.8 Engine.** The vehicle **must** be provided with a diesel engine.

**3.8.1 Fuel Tank(s).** *Commercially equipped.*

**3.8.2 Engine Cold Weather Aids**

- (a) The engine **must** be provided with cold weather aids to enable the engine (operating with winter grade fuels/oils) to be started at temperatures down to -30° C. The engine starting aids may include but are not limited to: glow plug(s) and intake air preheat.
- (b) The engine **must** be provided with 110-volt engine block heaters with a capacity as recommended by the engine manufacturer or conforming to SAE J1310.
- (c) The engine **must** be provided with a heated fuel filter/water separator to preheat diesel fuel prior to starting.

**3.9 Vehicle Driveline**

**3.9.1 Transmission**

- (a) The vehicle **must** be provided with a transmission to deliver full power to the tracks.
- (b) Tracks on opposite sides **must** move in the same or in opposite directions.

**3.9.2 Transmission Accessories.** The following **must** be provided when indicated with a “✓”, in the Attachments Table, paragraph 1.5, and specified in the solicitation.

(a) **2-Speed Hydrostatic Transmission**

- i The vehicle **must** be provided with a hydrostatic transmission with 2 speed ranges.
- ii The vehicle with the 2-speed hydrostatic transmission **must** have a forward speed of at least 12 km/h.

**3.10 Brake System.** *Commercially Equipped.*

**3.11 Steering.** *Commercially Equipped.*

**3.12 Rubber Tracks.** *Commercially Equipped.*

**3.13 Controls**

- (a) **Joystick Controls.** The vehicle **must** be provided with joystick controls or **Equivalent** for tool controls.

**3.14 Instruments.** The instruments **must** be provided with an hour-meter, which displays accumulated running time up to 9,999 hours.

**3.15 Electrical System**

- (a) The vehicle **must** be provided with a readily accessible driver-operated warning horn.
- (b) The vehicle **must** be provided with a backup alarm to alert personnel that the vehicle is in backup mode.

**3.15.1 Electrical Accessories.** The following **must** be provided when indicated with a “✓”, in the Attachments Table, paragraph 1.5, and specified in the solicitation.

(a) **Battery Solar Charger**

- i A Battery Solar Charging System **must** be provided.
- ii The Battery Solar Charging System **must** be equivalent to NSN 6130-01-487-0035.
- iii The solar charger panel **must** be mounted on an angle of between 10 and 15 degrees in a protected location.

**3.16 Lighting.** The vehicle **must** be provided with front work lights, rear work lights and clearance lights.

**3.16.1 Lighting Accessories.** The following **must** be provided when indicated with a “✓”, in the Attachments Table, paragraph 1.5, and specified in the solicitation.

(a) **Amber Coloured Beacon**

- i An amber coloured omni-directional beacon or **Equivalent must** be provided.
- ii The beacon **must** be mounted so as to provide maximum visibility.
- iii The beacon **must** be LED or **Equivalent.**

(b) **Blue Coloured Beacon**

- i A blue coloured omni-directional beacon or **Equivalent must** be provided.
- ii The beacon **must** be mounted so as to provide maximum vehicle visibility.
- iii The beacon **must** be LED or **Equivalent.**

**3.17 Hydraulic System.**

- (a) For Configuration A, the vehicle’s hydraulic system **must** run all of the hydraulic attachments in column A of the Attachments Table, paragraph 1.5.
- (b) For Configuration B, the vehicle **must** be provided with a high flow hydraulic system, in addition to the standard system.
- (c) All connections **must** be provided with dripless quick connect couplings.
- (d) All couplings **must** be provided with captured dust covers.

**3.18 Lubricants and Hydraulic Fluids.**

- (a) The vehicle **must** operate using synthetic non-proprietary lubricants and hydraulic fluids.
- (b) Grease fittings **must** conform to SAE J534 or an **equivalent.**

**3.19 Paint.** *Commercially Equipped.*

**3.19.1 Paint Accessories.** The following **must** be provided when indicated with a “✓”, in the Attachments Table, paragraph 1.5, and specified in the solicitation.

- (a) **Olive Drab Green Paint**
  - i The vehicle **must** be painted Olive Drab Green 34094 in accordance with SAE Standard AMS-STD-595.
  - ii Additional lettering and symbols on the outside of the vehicle **must** be flat black.

### 3.20 **Vehicle Delivery Condition**

- (a) If the vehicle requires assembly at destination, the contractor **must** be responsible for all manpower and equipment to perform assembly.
- (b) The space for assembly at destination will be provided, if required.
- (c) Fuel tank(s) **must** be half to three quarters full on delivery.
- (d) Lubricants installed in the vehicle at time of delivery **must** be suitable for the destination and the season of delivery.

## 4. **INTEGRATED LOGISTICS SUPPORT (ILS)**

### 4.1 **Deliverables**

#### 4.1.1 **General Requirements**

- (a) Sample ILS documents **must** be submitted to the **Technical Authority** prior to the delivery of the vehicle/equipment for each configuration/model and their accessories, for approval. Sample ILS documents will not be returned.
- (b) **Technical Authority** approval, request for additional documentation or request for amendments will be supplied within 15 working days of receipt.
- (c) The Contractor **must** supply the additional documentation or implement the changes as requested by the **Technical Authority**.
- (d) **Digital Documents**
  - i All digital copies **must** be supplied in searchable PDF format unless stated otherwise.
  - ii Digital copies **must** be functional without the requirement for a password, an auto-run installation procedure or an Internet connection.
  - iii Digital copies of manuals **must** be supplied on a CD or DVD (**USB sticks cannot be used on DND computers**).
  - iv Digital copies of other ILS documents **must** be provided by email to the TA or on CD or DVD.
  - v CD/DVD **must** be permanently and legibly marked with the equipment description and a list of contents.
- (e) **Paper Documents**. All paper copies of ILS documents delivered **must** have the same content as the digital copy approved by the **Technical Authority**.

4.1.2 **ILS Deliverables**. The following table indicates the ILS elements that the Contractor **must** deliver, including the medium (paper or digital), the expected means of delivery and the reference paragraph.

Element	Format/ Medium	Delivered to TA by E-mail for approval	Delivered to TA by mail/courier for approval	Supplied with each Vehicle/ equipment	Remarks	Reference Paragraph
Photograph and Line Drawing Package (DND Only)	Digital	X	-	-	JPEG	4.2.1
Data Summary (DND Only)	Digital	X	-	-	Microsoft Word	4.2.2
Initial Parts Kit List	Digital	X	-	-	PDF	4.2.3
Warranty Letter	Digital	X	-	-	PDF	4.2.4
	Paper	-	-	X	-	
Safety Data Sheets Package	Digital	X	-	-	PDF	4.2.5
	Paper	-	-	X	-	
Set of Manuals	Digital	-	X	X	PDF - on CD/DVD*	4.2.6
	Paper	-	-	X	-	
Initial Parts Kit	-	-	-	X	1 kit	4.2.7
Set of Keys	-	-	-	X	2 sets	4.2.8

Note: \* One CD/DVD should be used for all e-manuals covering a configuration/model and its accessories.

**4.1.3 Training Deliverables.** The following **must** be provided when indicated with a “✓”, in the Attachments Table, paragraph 1.5, and specified in the solicitation.

Element	Format/ Medium	Delivered to TA by E-mail for approval	Remarks	Reference Paragraph
Course Syllabus	Digital	X	-	4.3.1
Familiarization Training	-	-	Delivery in person, at the location specified in the contract.	4.3.1
Proof of Training Certificate	Digital	X	TA will provide template	4.3.1

## 4.2 ILS Elements Description

### 4.2.1 Photograph and Line Drawing Package (DND contracts only)

- (a) DND requires photographs and line drawings for documentation and cataloguing purposes. The Photograph and Line Drawing Package **must** include:
  - i Two (2) digital colour photographs, one (1) left-front three-quarter view, and one (1) right-rear three-quarter view of each configuration/model;

- ii One (1) digital colour photograph of each attachment taken at the three-quarter view that best illustrates the attachment; and
  - iii One (1) front-view and one (1) side-view line drawing showing dimensions of the vehicle/equipment. Brochure line drawings are acceptable.
- (b) Photographs **must** have a plain background and be in a JPEG (Joint Photographic Experts Group) format with a resolution of at least eight (8) Mega pixels.

#### **4.2.2 Data Summary (DND contracts only)**

- (a) The **Technical Authority** will supply a bilingual Data Summary Template (in Microsoft Word format) to the Contractor.
- (b) The data summary **must**:
- i Use the **Technical Authority** provided bilingual template;
  - ii Be a separate document for each configuration/model;
  - iii Include accessories and features; and
  - iv Be delivered in Microsoft Word format.

#### **4.2.3 Initial Parts Kit List**

- (a) The Initial Parts Kit List **must** include:
- i A complete list of parts needed to perform preventive maintenance on one (1) vehicle/equipment for a period of one (1) year, in accordance with the maintenance manual, for each configuration/model;
  - ii A complete change of all filters and filter elements; and
  - iii The following elements for each part listed: part description; Original Equipment Manufacturer (OEM) part number; suggested quantity; and, unit cost.

#### **4.2.4 Warranty Letter**

- (a) For DND contracts, the **Technical Authority** will supply a bilingual Warranty Letter Template (in PDF format) to the Contractor.
- (b) The Warranty Letter **must**:
- i For DND contracts, use the **Technical Authority** provided bilingual template;
  - ii Contain a complete description of the warranty requested with the warranty terms and conditions;
  - iii Contain the complete warranty details on any system or sub-system warranty that exceeds the minimum requested; and
  - iv Contain the name and contact information of the closest designated warranty provider and other designated warranty providers across Canada.

#### **4.2.5 Safety Data Sheets Package**

- (a) The Safety Data Sheets Package **must** include:
- i A bilingual (or a separate French and an English) list of all hazardous materials used on the vehicle/equipment; and
  - ii A complete bilingual set (or a set in French and a set in English), of all the safety data sheets for all hazardous materials in the list.
- (b) If there are no hazardous materials used, “no hazardous materials” **must** be stated on the list.



#### **4.2.6 Set of Manuals**

- (a) The set of manuals for each configuration/model **must** include:
  - i The French and English (or bilingual) operator manual(s);
  - ii The French and English (or bilingual) maintenance (shop repair) manual(s); and
  - iii The English or bilingual parts manual(s).
- (b) The set of manuals **must** include manuals (operator, maintenance (shop repair) and parts) for all major components, all attachments, accessories and features for the configuration/model supplied. Accessory manuals may be included as supplements to the vehicle manuals.

**4.2.7 Initial Parts Kit.** The Contractor **must** supply one (1) complete set of parts contained in the approved Initial Parts Kits List with each vehicle/equipment.

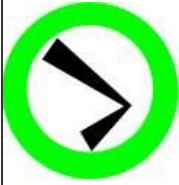
**4.2.8 Set of Keys.** The Contractor **must** supply at least two (2) sets of keys with each vehicle/equipment.

#### **4.3 Training**

##### **4.3.1 Familiarization Training**

- (a) The Contractor **must** deliver a familiarization course optimized for trained operators and technicians.
- (b) The course **must** be delivered at the delivery destination, unless stated otherwise in the contract.
- (c) The course **must** be delivered in the official language (English or French) specified in the contract for that delivery destination.
- (d) The instructor **must** be an OEM Factory Certified Training Provider.
- (e) **Course Syllabus**
  - i The Contractor **must** provide the familiarization training course syllabus, in the same language as the course delivery, for review and approval by the **Technical Authority**.
  - ii The operator familiarization portion of the course **must** include, but is not limited to, safety precautions to be observed while operating and servicing, operating characteristics, calibration, pre-operating and pre-shutdown procedures and daily/weekly operator servicing procedures for the vehicle/equipment, attachments, features and accessories.
  - iii The technician familiarization portion of the course **must** include, but is not limited to, operation and maintenance safety precautions, overview of air, hydraulic and electrical systems (as applicable), preventive maintenance including servicing schedules, inspection and maintenance requirements, special tools and test equipment (as applicable), diagnostics, troubleshooting, testing and adjustments for the vehicle/equipment, attachments, features and accessories.
- (f) The familiarization course **must** have a minimum duration of four (4) hours for operators and four (4) hours for technicians.
- (g) The familiarization course **must** accommodate up to eight (8) people (4 operators and 4 technicians).
- (h) The date for the familiarization course **must** be coordinated with the **Technical Authority**.

- (i) After completion of the familiarization course, the Contractor ***must*** have the “**Proof of Training**” certificate signed by the senior course attendee.
- (j) The ***Technical Authority*** will supply the “**Proof of Training**” certificate template in a digital format.



**NOTICE**

This documentation has been reviewed by the Technical Authority and does not contain controlled goods.

**AVIS**

Cette documentation a été révisée par l'Autorité technique et ne contient pas de marchandises contrôlées.

**TECHNICAL INFORMATION QUESTIONNAIRE**

**GROUP 3 – APPENDIX C1**

**COMPACT TRACKED LOADER**

This questionnaire covers technical information, which **must** be provided for evaluation of the configuration(s) of the vehicle(s) offered.

Where the specification paragraphs below indicate “**Substantial Information**”, the “**Substantial Information**” describing completely and in detail how the requirement is met or addressed **must** be supplied for each performance requirement/specification.

Bidder is required to indicate the document name/title and page number where the **Substantial Information** can be found.

Definitions for **Equivalent** is found in the DEFINITION section at the end of this document.

**CONTRACTOR INFORMATION**

**Contractor Name:** \_\_\_\_\_

**Address:** \_\_\_\_\_

**Proposal Date:** \_\_\_\_\_

**Substitutes/Alternatives**

Are any equipment substitutes/alternatives offered as **Equivalent**? YES ☐ NO ☐

If yes, please identify all equipment substitutes/alternatives offered as **Equivalents** below:

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**OPI: DSVPM 4 – BPR: DAPVS 4**

Issued on Authority of the Chief of the Defence Staff

Publiée avec l'autorisation du chef d'état-major de la Défense



<p style="text-align: center;"><b>GROUP 3</b> <b>COMPACT TRACKED LOADER</b> <b>CONFIGURATION A</b></p>					
PD Reference	Requirement	Substantial Information required	Value	Location of Substantial Information in Bid Proposal	
3.4	<b><u>Performance.</u></b> The vehicle <b><i>must</i></b> be a compact tracked loader.	Vehicle Make		Provide brochure or specification document.	
		Vehicle Model			
3.4.1	<b><u>Loader Performance</u></b> (a) The compact tracked loader <b><i>must</i></b> have a tipping load, when measured in accordance with ISO 14397-1, of at least that given as “ <b>TIPPING LOAD</b> ” (2,400 kg) in the Data Table (paragraph 1.4) using the loader bucket specified in paragraph 3.5.3 (a) pinned directly to the lift arms (paragraph 3.5.1 (a)). (b) The compact tracked loader <b><i>must</i></b> have a breakout force (bucket cylinder force or lift cylinder force) of at least that given as “ <b>BREAKOUT</b> ” (20.0 kN) in the Data Table (paragraph 1.4) using the loader bucket specified in paragraph 3.5.3 (a) pinned directly to the lift arms (paragraph 3.5.1 (a)).	Tipping Load	kg		
		Breakout Force	kN		

<p style="text-align: center;"><b>GROUP 3</b> <b>COMPACT TRACKED LOADER</b> <b>CONFIGURATION B</b></p>					
PD Reference	Requirement	Substantial Information required	Value	Location of Substantial Information in Bid Proposal	
3.4	<b><u>Performance.</u></b> The vehicle <b><i>must</i></b> be a compact tracked loader.	Vehicle Make		Provide brochure or specification document.	
		Vehicle Model			
3.4.1	<b><u>Loader Performance</u></b>  (a) The compact tracked loader <b><i>must</i></b> have a tipping load, when measured in accordance with ISO 14397-1, of at least that given as “ <b>TIPPING LOAD</b> ” (2,900 kg) in the Data Table (paragraph 1.4) using the loader bucket specified in paragraph 3.5.3 (a) pinned directly to the lift arms (paragraph 3.5.1 (a)).  (b) The compact tracked loader <b><i>must</i></b> have a breakout force (bucket cylinder force or lift cylinder force) of at least that given as “ <b>BREAKOUT</b> ” (24.0 kN) in the Data Table (paragraph 1.4) using the loader bucket specified in paragraph 3.5.3 (a) pinned directly to the lift arms (paragraph 3.5.1 (a)).	Tipping Load	kg		
		Breakout Force	kN		

**DEFINITION**

The following definition apply to the interpretation of this Technical Information Questionnaire:

- a) “***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.

## ANNEX “D” – EXISTING QUALIFIED SUPPLIER UNDER RFSA E60HS-16BCKH/A CERTIFICATION

Supply Arrangement Number: \_\_\_\_\_

Supplier's Name: \_\_\_\_\_

GROUP 1		
Configuration A	Vehicle Make	
	Vehicle Model	
Configuration A	Vehicle Make	
	Vehicle Model	
Configuration B	Vehicle Make	
	Vehicle Model	
Configuration B	Vehicle Make	
	Vehicle Model	

GROUP 2B		
Configuration A	Vehicle Make	
	Vehicle Model	
Configuration A	Vehicle Make	
	Vehicle Model	
Configuration B	Vehicle Make	
	Vehicle Model	
Configuration B	Vehicle Make	
	Vehicle Model	

GROUP 2A		
Configuration A	Vehicle Make	
	Vehicle Model	
Configuration A	Vehicle Make	
	Vehicle Model	
Configuration B	Vehicle Make	
	Vehicle Model	
Configuration B	Vehicle Make	
	Vehicle Model	
Configuration C	Vehicle Make	
	Vehicle Model	
Configuration C	Vehicle Make	
	Vehicle Model	
Configuration D	Vehicle Make	
	Vehicle Model	
Configuration D	Vehicle Make	
	Vehicle Model	

The Supplier confirms it provides the above Vehicle Make (s) and Model (s) under the RFSA E60HS-19BCKH/A. The Supplier certifies that all the above vehicles/equipment conform, and will continue to conform throughout the duration of the SA and of any resulting contract, to all technical specifications of the purchase descriptions under the RFSA E60HS-19BCKH/A.

\_\_\_\_\_  
Supplier's authorized representative signature

\_\_\_\_\_  
Date