



National Defence

National Defence Headquarters  
Ottawa, Ontario  
K1A 0K2

Défense nationale

Quartier général de la Défense nationale  
Ottawa (Ontario)  
K1A 0K2

**SOLICITATION AMENDMENT  
MODIFICATION DE  
L'INVITATION**

The referenced document is hereby revised; unless otherwise indicated, all other terms and conditions of the Solicitation remain the same.

Ce document est par la présente révisé; sauf indication contraire, les modalités de l'invitation demeurent les mêmes.

**Comments - Commentaires**

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

By e-mail to: - Par courriel au :  
[DLP53BidsReceiving.DAAT53Receptiondessoumissions@forces.gc.ca](mailto:DLP53BidsReceiving.DAAT53Receptiondessoumissions@forces.gc.ca)

Attention: - Attention :  
Christian Massie (BT107)

<b>Title - Sujet</b> LPG (Liquid Propane Gas) Forklift Chariot élévateur GPL (gaz propane liquide)		<b>Amendment No. - N° modif.</b> 001
<b>Solicitation No. N° de l'invitation</b> W8476-216382/B	<b>Date of Amendment Date de modification</b> June 2 <sup>nd</sup> 2021 – 2 Juin 2021	
<b>Address enquiries to: Adresser toute demande de renseignements à :</b> Christian Massie		
<b>Telephone No. - N° de telephone</b> 343-551-0138	<b>E-Mail Address - Courriel</b> christian.massie@forces.gc.ca	
<b>Destination</b> See herein - Voir aux présentes		

**Instructions:** Municipal taxes are not applicable. Unless otherwise specified herein all prices quoted must include all applicable Canadian customs duties, GST/HST, excise taxes and are to be delivered Delivery Duty Paid including all delivery charges to destination(s) as indicated. The amount of the Goods and Services Tax/Harmonized Sales Tax is to be shown as a separate item.

**Instructions :** Les taxes municipales ne s'appliquent pas. Sauf indication contraire, les prix indiqués doivent comprendre les droits de douane canadiens, la TPS/TVH et la taxe d'accise. Les biens doivent être livrés « rendu droits acquittés », tous frais de livraison compris, à la ou aux destinations indiquées. Le montant de la taxe sur les produits et services/taxe de vente harmonisée doit être indiqué séparément.

<b>Delivery required Livraison exigée</b> See herein	<b>Delivery offered Livraison proposée</b>
<b>Vendor/Firm Name and Address Raison sociale et adresse du fournisseur/de l'entrepreneur</b>	
<b>Person authorized to sign on behalf of Vendor/Firm (type or print):   La personne autorisée à signer au nom du fournisseur/de l'entrepreneur (taper ou écrire en caractères d'imprimerie) :</b>	
<b>Name - Nom</b>	<b>Title - Titre</b>
<b>Signature</b>	<b>Date</b>

**Solicitation Closes - L'invitation prend fin**

At - à :  
2:00 PM - 14:00

On - le :  
June 23rd 2021- 23 Juin 2021

Time Zone - Fuseau Horaire :  
Eastern Daylight Time (EDT)  
Heure avancée de l'Est (HAE)

**THIS SOLICITATION AMENDMENT IS RAISED TO:**

1. Provide clarification and answers to questions from potential suppliers;

**QUESTIONS AND ANSWERS:**

<p><b>Question 1</b></p>	<p>Regarding bid W8476-216382/B, I have a question for the technical group.</p>																							
	<table border="1"> <thead> <tr> <th data-bbox="412 470 899 533">Characteristics</th> <th data-bbox="899 470 1118 533">Paragraphs</th> <th data-bbox="1118 470 1281 533">Units</th> <th colspan="2" data-bbox="1281 470 1549 533">Configuration</th> </tr> <tr> <td colspan="3"></td> <th data-bbox="1281 501 1414 533">A</th> <th data-bbox="1414 501 1549 533">B</th> </tr> </thead> <tbody> <tr> <td data-bbox="412 533 899 596">Standard Mast – Vehicle Height</td> <td data-bbox="899 533 1118 596">3.4.1 (d)</td> <td data-bbox="1118 533 1281 596">Mm</td> <td data-bbox="1281 533 1414 596">2413</td> <td data-bbox="1414 533 1549 596">2413</td> </tr> <tr> <td colspan="3"></td> <td data-bbox="1281 596 1414 617">95</td> <td data-bbox="1414 596 1549 617">95</td> </tr> </tbody> </table>	Characteristics	Paragraphs	Units	Configuration					A	B	Standard Mast – Vehicle Height	3.4.1 (d)	Mm	2413	2413				95	95			
Characteristics	Paragraphs	Units	Configuration																					
			A	B																				
Standard Mast – Vehicle Height	3.4.1 (d)	Mm	2413	2413																				
			95	95																				
<p>QUESTION– the manufacturer we represent has a production mast with a 96” lowered height. This design would already meet the lift height requirements and we hope the client will accept a standard production mast to save build time and cost.</p> <p>Exact specifications offered.                      3 Stage Full Free Lift Mast - Class IV                      185” Maximum Lift Height                      96” Overall Lowered Height                      56” Free Lift Height without Load Backrest                      235” Overall Extended Height with Load Backrest</p>																								
<p><b>Answer 1</b></p>	<p>An overall lowered height of 96” is acceptable. Please consult revised Purchase Description (PD).</p>																							
<p><b>Question 2</b></p>	<p>In regards to RDIMS #5125784 Purchase Description (PD) for Propane (LPG) Engine Driven, 4-Wheel, Counterbalance, Sit-Down Rider Type, Forklift Trucks,</p> <p>Section 3.3.4 “LPS” Safety Rating Feature                      “LPS” safety ratings are no longer a North American standard with manufacturers, please advise if you will advise which safety ratings are equivalent.</p>																							
<p><b>Answer 2</b></p>	<p>All major forklifts manufacturers/suppliers are able to provide forklifts of this type with UL “LPS” safety rating and many of these vehicles are currently in-service with DND. This is preferred but any proposed equivalent would also be considered for acceptance. The bidder must identify and offer equivalent for consideration.</p>																							
<p><b>Question 3</b></p>	<p>For this tender, we are analyzing the demand. We would only be willing to supply equipment that will be delivered in the Montreal area. Can we still participate in the tender? We are not in a position to submit an answer for the Dunburn cart.</p>																							
<p><b>Answer 3</b></p>	<p>No – a partial proposal is not acceptable.</p>																							

<b>Question 4</b>	Also, if the carts are required to have LPS certification, we will not be able to bid on the tender. If you are open to a standard LPG cart we can respond to the tender with a XXXXXX brand cart.
<b>Answer 4</b>	No – a model that is not certified for UL “LPS” rating is not acceptable.

<b>Question 5</b>	In regards to RDIMS #5125784 Purchase Description (PD) for Propane (LPG) Engine Driven, 4-Wheel, Counterbalance, Sit-Down Rider Type, Forklift Trucks, Section 3.5.1 (d-i) Rotating Fork Attachment. Section 3.5.1 (b) Side Shift Fork Positioning System Attachment. The two attachments are not compatible. Please advise which attachment is priority.
<b>Answer 5</b>	Both attachments are required and must be provided with the vehicle.

**THIS SOLICITATION IS HEREBY AMENDED AS FOLLOWS:**

1. DELETE in its entirety:

The Canadian Forces Material Handling Equipment Purchase Description (PD) for Propane (LPG) Engine Driven, 4-Wheel, Counterbalance, Sit-Down Rider Type, Forklift Trucks **dated 01 February 2021**.

REPLACE with:

The Canadian Forces Material Handling Equipment Purchase Description (PD) for Propane (LPG) Engine Driven, 4-Wheel, Counterbalance, Sit-Down Rider Type, Forklift Trucks **dated 25 May 2021**.

**ALL OTHER TERMS AND CONDITIONS REMAIN THE SAME.**



**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.

**The Canadian Forces Material Handling Equipment**

**Purchase Description (PD) for Propane (LPG) Engine Driven, 4-Wheel, Counterbalance, Sit-Down Rider Type, Forklift Trucks**

25 May 2021

OPI: DSVPM 4/DAPVS 4  
National Defence Headquarters  
Major General George R. Pearkes Building  
Ottawa, Ontario  
K1A 0K2

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Issued on Authority of the Chief of the Defence Staff



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## 1. SCOPE

1.1. **Scope** - This Purchase Description covers the requirements for propane (LPG) engine powered, 4-wheel, counterbalance, sit down rider type forklift trucks with features and accessories.

### 1.2. Instructions

- a) Appendix A containing the Data Table as well as the Feature and Accessory Table applicable to each Configuration is an integral part of this specification;
- b) Requirements that are identified by the word “**must**”, **must** be treated as mandatory. Deviations will not be permitted;
- c) Requirements identified with a “will” define actions to be performed by Canada and require no action/obligation on the Contractor’s part;
- d) Where “**must**” or “will” are not used, the information provided is for guidance only;
- e) Where a standard is specified and the Contractor has offered an **Equivalent**, that **Equivalent** standard **must** be supplied by the Contractor;
- f) Where a technical certification is referred to in this Purchase Description, a copy of the certification or an **Equivalent must** be supplied, when requested by the **Technical Authority**; and
- g) 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.

### 1.3. Definitions

- (a) “**Provided**” means “provided and installed”;
- (b) “**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; and
- (c) “**Commercially Equipped**” means that the vehicle is provided in its standard commercial configuration with no additional government-specified requirements.

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## **2. APPLICABLE DOCUMENTS**

### **2.1 Government Furnished Documents - NOT APPLICABLE**

**2.2 Other Publications** - Canada will not supply reference documents. Effective documents are those in effect on the date of the manufacture of the vehicle. Information on the organization is supplied below.

#### **2.2.1 SAE Standards**

SAE World Headquarters  
400 Commonwealth Drive  
Warrendale, PA, 15096-0001  
<http://www.sae.org>

#### **2.2.2 CSA B335**

Safety Standards for Lift Trucks  
Canadian Standards Association (CSA)  
5060 Spectrum Way, Suite 100  
Mississauga, Ontario, L4W 5N6  
<http://www.csa.ca/cm/ca/en/home>

#### **2.2.3 UL 558**

**Standard for Industrial Trucks, Internal Combustion Engine-Powered**  
Underwriters' Laboratories of Canada  
7 Underwriters Road,  
Toronto, Ontario, M1R 3A9  
<http://www.ulc.ca/>

#### **2.2.4 Canada Occupational Health and Safety Regulations**

Government of Canada / Department of Justice  
<http://laws-lois.justice.gc.ca/eng/regulations/SOR-86-304/index.html>

#### **2.2.5 CAN/CSA Z107.56-13**

**Measurement of Noise Exposure**  
Canadian Standards Association  
5060 Spectrum Way, Suite 100  
Mississauga, Ontario, L4W 5N6  
<http://www.csa.ca/cm/ca/en/home>

#### **2.2.6 Hazardous Products Act**

Government of Canada / Department of Justice  
<http://laws-lois.justice.gc.ca/eng/acts/H-3/>

#### **2.2.7 ANSI B56.1**

**Safety Standards for Low Lift and High Lift Trucks**  
American National Standards Institute  
1899 L Street, NW, 11th Floor  
Washington, DC, 20036



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<http://www.ansi.org/>

2.2.8 **ISO 5353**

Earth-moving machinery, and tractors and machinery for agriculture  
and forestry – Seat index point

International Organisation for Standardisation

ISO Central Secrétariat

1, ch. de la Voie-Creuse

CP 56

CH 1211 Geneva 20

Switzerland

<http://www.iso.org/iso/home.htm>

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### 3. REQUIREMENTS

#### 3.1. Standard Design

- 3.1.1. The vehicle **must** be the latest model from a manufacturer who has demonstrated acceptability by manufacturing and selling this type and size class of vehicle for at least one (1) year;
- 3.1.2. The vehicle **must** have engineering certification available, upon demand, for this application from the original equipment manufacturers (OEM) of major equipment systems and assemblies;
- 3.1.3. The vehicle **must** conform to all applicable laws, regulations and industrial standards governing manufacture, safety, noise levels and emissions in effect in Canada at the time of manufacture;
- 3.1.4. The vehicle **must** have systems and components not operating at greater than their ratings published by the systems or components manufacturers; and
- 3.1.5. The vehicle **must** include all components, equipment and accessories normally supplied for the model offered, although they may not be specifically described in this Purchase Description.

#### 3.2. Operating Conditions

- 3.2.1. Weather – The vehicle **must** start and operate under weather conditions found in Canada in temperatures ranging from -40°C to 40°C (-40°F to 104°F).
- 3.2.2. Terrain - The vehicle **must** operate on use-roughened concrete floors, deteriorated outdoor paved surfaces and packed gravel with potholes while being used for stacking and un-stacking and moving general supplies in and around warehouses.

#### 3.3. Safety Standards

- 3.3.1. Noise Level – The vehicle noise levels **must** meet the requirements of legislation relative to paragraph 7.4 of Canada Occupational Safety and Health Regulations both at the operator’s station and exterior to the vehicle for exposures of eight (8) hours during a twenty four (24) hour period when measured in accordance with CAN/CSA Z107.56-13.
- 3.3.2. Vehicle Safety – All vehicle design, construction and safety aspects **must** be in accordance with the latest edition of ANSI/ITDSF B56.6.
- 3.3.3. Hazardous Materials – The Contractor **must** minimize or eliminate the use of hazardous materials, ozone depleting substances, polychlorinated biphenyls, asbestos and heavy metals (as described in the Hazardous Products Act of Canada) on the vehicle at the time of delivery.
- 3.3.4. “LPS” Safety Rating Feature
  - (a) The vehicle **must** meet the requirements of an “LPS” safety rating in accordance with Standard UL 558, or an **Equivalent**, and
  - (b) A certification label confirming the vehicle meets the “LPS” safety rating **must** be permanently affixed to the vehicle before delivery.

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3.4. **Vehicle** – The vehicle **must** be a sit down rider type forklift.

3.4.1. **Forklift Performance**

- (a) The vehicle, with the mast and no auxiliary stabilizer, **must** have a load capacity of at least that given as “**LIFT CAPACITY**” in the A.1 - Data Table (Appendix A) at the load centre of that given as “**LOAD CENTRE**” in the A1- Data Table (Appendix A);
- (b) The load capacity **must** not de-rate to below specified load capacity before reaching a load lift height of 3,810 mm(150 inches);
- (c) The vehicle **must** have a lift height of at least that given as “**STANDARD MAST - LIFT HEIGHT**” in A.1 - Data Table (Appendix A), measured from the floor to the top of the forks with the mast in an extended vertical position; and
- (d) The vehicle, with the mast in its lowest position, **must** pass under a horizontal beam with a height above ground level of that given as “**STANDARD MAST – VEHICLE HEIGHT**” in the A.1 - Data Table (Appendix A).

3.5. **Equipment**

(a) **Standard Mast**

- i. The vehicle **must** be provided with a see-through telescopic mast; and
- ii. The standard mast **must** have full free lift.

(b) **Forks**

- i. The vehicle **must** be provided with standard forks having a nominal length of 1,219 mm (48 inches); and
- ii. Forks with nominal lengths of 1,067 mm (42 inches) **must** be provided, in lieu of the standard forks, when requested, at no additional cost.

(c) **Load Backrest** - The load backrest **must** have a nominal height of 1,219 mm (48 inches);

(d) **Mast Tilt** – The vehicle **must** be provided with a power mechanism that tilts the mast fore and aft of vertical; and

(e) **Fire Extinguisher**

- i. Internal combustion vehicles **must** be provided with a fire extinguisher having at least 1 kg (2.2 lb) of fire extinguishing chemicals;
- ii. The fire extinguisher **must** be readily accessible to the operator; and
- iii. The fire extinguisher **must** not interfere with the operation of the vehicle or the view of the operator.

3.5.1. **Features and Accessories**

(a) **Lift Accumulator** – The mast **must** be provided with a system to absorb impact loads from tracks, potholes and other obstacles;

(b) **Side Shifter and Fork Positioner**

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- i. The vehicle **must** be provided with side shifting and fork positioning systems;
  - ii. The fork-positioning system **must** increase/decrease the spacing between the unloaded forks; and
  - iii. The side shifter **must** side shift fully loaded forks to either side to that given as “**SIDE SHIFT**” in A1- Data Table (Appendix A);
- (c) **Fork Tine Position Guide**
- i. The vehicle **must** be provided with a fork tine position guide;
  - ii. The fork tine position guide **must** be permanently attached to the backrest;
  - iii. The fork tine position guide **must** use a laser to create a line that shows the level of the top of the fork tines;
  - iv. The fork tine position guide **must** be connected to the vehicle electrical system;
  - v. The fork tine position guide **must** automatically turn off when the vehicle is turned off; and
  - vi. The fork tine position guide **must** automatically turn off when the forks are within 2,130 mm (84 inches) of ground level.
- (d) **Rotating Fork Attachment**
- i. When Specified in A.1 – Data Table of Appendix A, the vehicle **must** be provided with a rotating fork attachment;
  - ii. The rotating fork attachment **must** have hydraulically controlled function to rotate the forks to full 360-degree on both sides of the fork assembly;
  - iii. The fork rotating fork attachment **must** have hydraulic side shifting function described in section 3.5.1(b) above;
  - iv. The rotating fork attachment **must** be provided with a cylinder and side-shifter protection mechanism; and
  - v. The fork rotating fork attachment **must** meet the load capacity and lift criteria specified in Appendix A – A.1: Data Table.
- (e) **Fork Extension**
- i. When Specified in A.1 – Data Table of Appendix A the vehicle **must** be provided with a 72-inch fork extension; and
  - ii. The fork extension **must** handle a load equivalent to the rated load capacity of the forklift specified in section 3.4.2(a) of this document.

### 3.6. **Operator Station**

- (a) **Overhead Guard**
- i. The vehicle **must** be provided with a driver's overhead guard with wire mesh or **Equivalent** mounted to protect operator; and
  - ii. The height from the seat point index to the underside of the overhead guard **must** be at least 890 mm (35 inches) in accordance with the

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recommendation in ANSI B56.1 when measured in accordance with ISO 5353; and

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

3.6.1. **Operator Station Features and Accessories**

(a) **Cab** -

- i. When Specified in A.2 – Feature and Accessory Table of Appendix A, the vehicle **must** be provided with a fully enclosed weatherproof and insulated cab;
- ii. The height from the seat point index to the underside of the cab roof **must** be at least 890 mm (35 inches) in accordance with the recommendation in ANSI B56.1 when measured in accordance with ISO 5353;
- iii. The cab **must** be provided with a heating system with ventilation and defrosting systems capable of keeping windows free from frost and moisture;
- iv. The cab **must** be provided with safety glass in the windows;
- v. It is preferred the glass be tinted to reduce solar heating load;
- vi. The cab **must** be provided with windshield wipers, including a windshield washer for each wiper; and
- vii. The cab **must** offer overhead load visibility during storage and retrieval operations.

(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; and
- iv. The seat **must** be provided with fore/aft and vertical adjustment without the operator having to move from a seated position.

3.7. **Chassis** - The vehicle **must** be provided with a commercially equipped chassis system.

3.8. **Engine** - The vehicle **must** be provided with a Liquefied Propane Gas (LPG) driven engine.

3.8.1. **Engine Components** – The vehicle **must** be provided with a catalytic converter and closed loop control system for reduction of emissions.

3.8.2. **LPG Fuel Tank**

- (a) The vehicle **must** be provided with a LPG fuel tank mounted on the vehicle. It is preferable to have the tank mounted horizontally;
- (b) The fuel tank **must** have a safety guard with quick release clamps and quick connect couplings; and

- 
- (c) When Specified in A.2 – Feature and Accessory Table of Appendix A, the vehicle **must** be provided with one spare tank.
- 3.8.3. **Engine Features and Accessories**
- (a) **Tank Lift Device**
- i. The vehicle **must** be provided with a tank lift device that reduces the effort required to remove and replace the propane tank; and
  - ii. The tank lift device **must** lower the tank into a convenient position for exchange.
- 3.9. **Transmission** - The transmission **must** be provided with a commercially equipped transmission system for a propane forklift of this type and size.
- 3.10. **Brake System** - The braking system **must** conform to CSA B335, or an ***Equivalent***.
- 3.11. **Steering** - The vehicle **must** be provided with a commercially equipped steering system.
- 3.12. **Tires and Wheels**
- (a) **Single Load Wheels – Snow and Mud**
- i. The vehicle **must** be provided with single load wheels; and
  - ii. Tires **must** have a snow and mud or aggressive tread pattern.
- (b) **Dual Load Wheels – Snow and Mud**
- i. When specified in A.2 – Feature and Accessory Table of Appendix A, the vehicle **must** be provided with dual load wheels; and
  - ii. Tires **must** have a mud and snow or aggressive tread pattern.
- 3.13. **Controls** - The vehicle **must** be provided with a safety device ensuring that the engine can only be started with the transmission in a neutral position.
- 3.14. **Instruments** - The instruments **must** be provided with an hour-meter, which displays accumulated running time up to 9,999 hours.
- 3.14.1. **Instruments Features and Accessories**
- (a) **Weigh Scale**
- i. The vehicle **must** be provided with a weigh scale with 2 percent accuracy at forklift capacity; and
  - ii. The weigh scale **must** be provided with a digital readout with zeroing capability.
- 3.15. **Electrical System**
- (a) The vehicle **must** be provided with a readily accessible driver-operated warning horn; and
  - (b) The vehicle **must** be provided with a backup alarm to alert personnel that the vehicle is in backup mode.
- 3.16. **Lighting**
- (a) **Floodlights**

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- i. The vehicle **must** be provided with floodlights that allow for forklift operations at night;
  - ii. The floodlights **must** provide sufficient lighting for the operator to see the load and fork tips in all positions; and
  - iii. The vehicle **must** be provided with at least one adjustable floodlight.
- (b) **Flashing Beacon**
- i. The vehicle **must** be provided with a red flashing beacon light mounted on the rear of the vehicle; and
  - ii. The beacon **must** be activated when the vehicle travels in reverse.
- 3.16.1. **Lighting Features and Accessories**
- (a) **Signal Lights** – The vehicle **must** be provided with headlights, adjustable work lights at the front and rear, stoplights and turn signals; and
  - (b) **Additional Working Lights** – The vehicle **must** be provided with at least 2 additional working lights on the front.
- 3.17. **Hydraulic System** - The vehicle **must** be provided with a hydraulic system that supports the operation of all hydraulic components.
- 3.18. **Lubricants and Hydraulic Fluids**
- (a) The vehicle **must** operate using synthetic non-proprietary lubricants and hydraulic fluids; and
  - (b) Grease fittings provided on the vehicle **must** conform to SAE J534.
- 3.19. **Paint** - The vehicle **must** be painted using commercial colour having a high-durability, corrosion-resistant type coating.
- 3.20. **Identification** - The manufacturer's name, model and vehicle serial number **must** be permanently marked in a conspicuous and protected location.
- 3.21. **Vehicle Delivery Condition**
- (a) The vehicle **must** be delivered to destination in a fully operational condition (serviced and adjusted). Both the interior and exterior **must** be cleaned;
  - (b) If the vehicle requires assembly at destination, the Contractor **must** be responsible for all manpower and equipment to perform assembly;
  - (c) The space for assembly at destination will be provided, if required;
  - (d) For shipment verification, items such as wheel wrenches, jacks, and all other tools, equipment and accessories, which are shipped loose, **must** be listed on the shipping certificate or to an attached packing note;
  - (e) Propane fuel tanks **must** be shipped empty; and
  - (f) Lubricants installed in the vehicle at time of delivery **must** be suitable for the destination and the season of delivery.

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

##### 4.1 **Documentation and Support Items**

##### 4.1.1 **Items Provided to Technical Authority**

###### (a) **Manuals for Approval**

- i The Contractor **must** supply, no later than thirty (30) days prior to the forklift(s) being shipped to their delivery destination, a set of manuals for each Configuration/model, in digital format, including the operator, parts and maintenance (shop repair) manuals. Manuals may cover more than one (1) Configuration/model;
- ii The set of manuals **must** include manuals for all the specified accessories and features for the Configuration/model. Accessory manuals may be included as supplements to the vehicle manuals;
- iii The operator manuals **must** be supplied in a bilingual format as a package;
- iv Digital copies **must** be functional without the requirement for a password, an auto-run installation procedure or an Internet connection;
- v Digital copies **must** be supplied on an electronic media such as USB memory stick or Drop box;
- vi Digital copies **must** be supplied in a searchable PDF format;
- vii The electronic media **must** be permanently and legibly marked with a list of contents;
- viii Manual approval or comments will be supplied within 15 working days of receipt;
- ix The Contractor must supply responses to the Technical Authority's (TA) comments. If comments are acceptable, the TA will approve manuals;
- x Manuals will not be returned; and
- xi Paper copies of manuals delivered under this contract **must** have the same content as the electronic format approved by the **Technical Authority**.

###### (b) **Photographs and Line Drawings**

- i The Contractor **must** supply, no later than thirty (30) days prior to the forklift(s) being shipped to their delivery destination, two (2) digital colour photographs, one left-front three-quarter view, and one right-rear three-quarter view of each Configuration/Model;



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- ii One (1) digital colour photograph of each attachment taken at the three-quarter view that best illustrates the attachment **must** be supplied;
  - iii One (1) front-view and one side-view line drawing showing dimensions of the vehicle **must** be supplied. Brochure line drawings are acceptable;
  - iv Photographs **must** have a plain background;
  - v Photographs **must** be in a JPEG (*Joint Photographic Experts Group*) format; and
  - vi Photographs **must** have a resolution of at least eight (8) Mega pixels.
- (c) **Data Summary**
- i The Contractor **must** supply, no later than thirty (30) days prior to the forklift(s) being shipped to their delivery destination, a bilingual data summary for each Configuration/model, with vehicle data (including accessories and features) and a vehicle picture;
  - ii The **Technical Authority** will supply a bilingual template of a data summary to the Contractor;
  - iii The Contractor **must** supply a digital copy (MS Word) of the completed data summary for approval;
  - iv Data summary approval or comments will be supplied within 15 working days of receipt; and
  - v The Contractor **must** supply responses to the **Technical Authority's** comments.
- (d) **Safety Data Sheets**
- i The Contractor **must** supply, no later than thirty (30) days prior to the forklift(s) being shipped to their delivery destination, a list, in digital format, of all hazardous materials used on the vehicle;
  - ii If there are no hazardous materials used, this **must** be stated on the list; and
  - iii The Contractor **must** supply safety data sheets in both official languages, in digital PDF format for all hazardous materials in the list
- (e) **Warranty Letter**
- i The **Technical Authority** will supply, no later than thirty (30) days prior to the forklift(s) being shipped to their delivery destination, a bilingual warranty letter template to the Contractor;

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- ii The Contractor **must** supply a complete description of the warranty with the requested warranty terms and any system or sub system warranty that exceeds the minimum requested;
  - iii The warranty letter **must** include the name and contact information of the closest designated warranty provider and other designated warranty providers across Canada; and
  - iv The Contractor **must** supply the original warranty letter in digital format, for each vehicle delivered, to the **Technical Authority**.
- (f) **Initial Parts Kit List**
- i The Contractor **must** supply, no later than thirty (30) days prior to the forklift(s) being shipped to their delivery destination, a list of parts needed to perform preventive maintenance on one (1) vehicle 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 **must** be included in the list; and
  - iii The list **must** include the following elements: part description; Original Equipment Manufacturer (OEM) Part number; suggested quantity; and unit cost.
- (g) **Training Plan(s)** - The Contractor **must** supply, no later than thirty (30) days prior to the forklift(s) being shipped to their delivery destination, a training plan for approval for each of the training courses listed in this purchase description to the **Technical Authority**. Approval or comments will be supplied within 15 working days of receipt of the training plan.

#### 4.1.2 **Items with Each Vehicle**

- (a) **Operator's Manual** - The Contractor **must** supply an approved bilingual operator's manual in both paper and digital format with each vehicle delivered;
- (b) **Warranty Letter** - The Contractor **must** supply a copy of the warranty letter with each vehicle delivered;
- (c) **Safety Data Sheets**
  - i The Contractor **must** supply a set of safety data sheets; and
  - ii The safety data sheets **must** be the same as those supplied to the **Technical Authority** as described in the purchase description.
- (d) **Initial Parts Kit**
  - i One (1) initial parts kit **must** be supplied; and
  - ii The initial parts kit **must** include a set of parts in the approved initial parts kit list as described in this purchase description.

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(e) **Maintenance Manual**

- i The Contractor **must** supply the approved maintenance (shop repair) manuals in paper and digital format in English required for the maintenance and repair of the vehicle, features and accessories; and
- ii The Contractor may supply this deliverable as a bilingual package

(f) **Parts Manual**

- i The Contractor **must** supply the approved parts manuals for the vehicle, features and accessories;
- ii The parts manual **must** be supplied in English in paper and digital format;
- iii It is desirable to supply the parts manual in French in addition to the English version; and
- iv Digital parts manuals **must** be supplied in a searchable PDF format CD/DVD-ROM.

(g) **Keys** – The vehicle **must** be provided with two (2) sets of keys.

4.2 **Training**

(a) **Training – Familiarization**

- i The Contractor **must** supply a familiarization course, at the delivery destination, optimized for operators and technicians who are qualified on the vehicle type but require training on newer or unique features and sub-systems of the delivered model;
- ii The instructor **must** be an OEM Factory Certified Training Provider;
- iii The course **must** be delivered in the official language (English or French) specified in the contract for that delivery destination;
- iv **Curriculum**
  - 1. The familiarization course **must** include operation and maintenance segments;
  - 2. The operation segment **must** include safety precautions to be observed while operating and servicing the vehicle, vehicle operating characteristics, pre-operating and shutdown procedures and daily/weekly operator servicing procedures;
  - 3. The operation segment **must** include sub-systems including container handling attachment, automatic grease system and pre-heaters; and

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- 4. The maintenance segment **must** include diagnostics, trouble shooting and operation of any special tools and test equipment (if any).
  - v The familiarization course **must** have a minimum duration of eight (8) hours, divided into four (4) hours for operators and four (4) hours for technicians;
  - vi The familiarization course **must** accommodate up to eight (8) personnel; four (4) operators and four (4) technicians;
  - vii The date for the familiarization course **must** be arranged with the **Technical Authority**;
  - viii After completion of the familiarization course, the Contractor **must** have the “**PROOF OF FAMILIARIZATION**” certificate signed by the senior course attendee; and
  - ix The **Technical Authority** will supply the “**PROOF OF FAMILIARIZATION**” document template in a digital format.
- (b) **Training – Troubleshooting**
- i When requested by DND, the Contractor **must** supply a troubleshooting course in the official language (English or French) specified in the contract for that delivery destination;
  - ii The instructor **must** be an OEM Factory Certified Training Provider;
  - iii The troubleshooting course **must** include detailed testing, troubleshooting, problem analysis and adjustments training
  - iv The troubleshooting course **must** have a minimum duration of twenty four (24) hours but not exceeding eight (8) hours a day;
  - v The troubleshooting course **must** accommodate up to eight (8) maintenance personnel;
  - vi The troubleshooting course **must** be supplied at the delivery destination;
  - vii The date for the troubleshooting course **must** be arranged with the **Technical Authority**;
  - viii After completion of the troubleshooting course, the Contractor **must** have the “**PROOF OF TROUBLESHOOTING TRAINING**” certificate signed by the senior course attendee; and
  - ix The **Technical Authority** will supply the “**PROOF OF TROUBLESHOOTING TRAINING**” document template in a digital format.

4.3 **ILS Data Deliverables Summary** - This table is for quick reference only. All detailed requirements to be met are contained under Paragraph 4 - Integrated Logistics Support.

Item	Format	Delivered to TA by E-mail	Delivered to TA by mail/courier	Copy with Vehicle	Remarks
Photographs and Line Drawings	Digital	x	-	-	
Data Summary	Digital	x	-	-	TA will provide template
Initial Parts Kit List *	Digital	x	-	-	
Warranty Letter	Digital	x	-	-	TA will provide template
	Paper**	-	-	x	
Listing of HAZMAT and Safety Data Sheets French and English	Digital	x	-	-	
	Paper**	-	-	x	
Operator Manual(s) Bilingual	Digital	-	x	x	On electronic media*
	Paper**	-	-	x	
Maintenance (shop repair) Manual(s) English	Digital	-	x	x	On electronic media*
	Paper**	-	-	x	On electronic media*
Maintenance (shop repair) Manual(s) French	Digital	-	x	x	On electronic media*
	Paper**	-	-	x	On electronic media*
Parts Manual(s)	Digital	-	x	x	On electronic media*
	Paper**	-	-	x	
<b>The items below <i>must</i> be provided only if training is requested in the bid solicitation/contract.</b>					
Training Plan/Curriculum	Digital	x	-	-	For each type of course required.
Proof of Familiarization Course Certificate	Digital	x	-	-	TA will provide template

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Notes: \*Although a separate electronic media *must* be used for each Configuration, a single electronic media should ideally be used for all e-manuals covering a specific Configuration and its accessories.

\*\* Paper copy *must* have identical content as the electronic copy approved by the TA.

## 5. **ACCEPTANCE TESTING**

- 5.1 The first vehicle *must* be performance tested as per section 3.4.2 (a) through (c) as well as dimensional and physical characteristics by the Contractor at the Contractor's facility to ensure conformance to the requirements in this document;
- 5.2 The Contractor *must* arrange and provide necessary tools/equipment and personnel required to conduct the acceptance testing;
- 5.3 The **Technical Authority** or their authorized representative will witness this testing and approve for acceptance if no deficiencies are identified; and
- 5.4 The Contractor *must* rectify deficiencies to requirements that are identified during the acceptance testing prior to the vehicle(s) being shipped to their delivery destination.

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**APPENDIX A****A.1. Data Table**

The following table shows required performance and dimensions for each Configuration with paragraph references that **must** be provided.

CHARACTERISTIC	PARAGRAPH	UNITS	CONFIGURATION	
			A	B
LIFT CAPACITY	3.4.1 (a)	kg	3,629	4,536
		lbs	8,000	10,000
LOAD CENTRE		mm	610	610
		inches	24	24
STANDARD MAST – LIFT HEIGHT	3.4.1 (c)	mm	4,699	4,699
		inches	185	185
STANDARD MAST – VEHICLE HEIGHT	3.4.1 (d)	mm	2,438	2,438
		inches	96	96
SIDE SHIFT	3.5.1 (b)	mm	101	101
		inches	4	4
ROTATING FORK ATTACHMENT	3.5.1 (d)		X	-

## A.2. Feature and Accessory Table

The following table indicates, with a clause reference and with "X", for each configuration the accessories, attachments and features that **must** be provided when specified in the solicitation while complying with all other requirements of this document.

DESCRIPTION	PARAGRAPH	Configuration	
		A	B
"LPS" Safety Rating Feature	3.3.5	X	X
Lift Accumulator	3.5.1 (a)	X	X
Fork Positioning Side Shifter	3.5.1 (b)	X	X
Fork Tine Position Guide	3.5.1 (c)	X	X
Fork Extension	3.5.1 (c)	X	-
Cab	3.6.1 (a)	X	X
Suspension Seat	3.6.1 (b)	X	X
Spare Tank	3.8.2(c)	X	-
Tank Lift Device	3.8.3 (a)	X	X
Single Load Wheels – Snow and Mud	3.12.1 (a)	-	X
Dual Load Wheels – Snow and Mud	3.12.1 (b)	X	-
Weigh Scale	3.14.1 (a)	X	X
Signal Lights	3.16.1 (a)	X	X
Additional Working Lights	3.16.1 (b)	X	X
Initial Parts Kit	4.1.1 (f)	X	X
Manuals for Approval	4.1.1 (a)	X	X
Maintenance Manual - English	4.1.2 (d)	X	X
Maintenance Manual - French	4.1.2 (e)	X	X
Parts Manuals	4.1.2 (f)	X	X
Training – Familiarization	4.2 (a)	X	X
Training – Troubleshooting	4.2 (b)	X	-