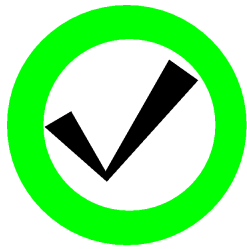


**STATEMENT OF WORK (SOW)
MODIFICATIONS – 70 TON HET
SEMI-TRAILER AND JEEP**

**30 APRIL 2018
W8486-195246
Annex A**



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.

1. SCOPE

1.1 **Scope** - The Department of National Defence (DND) requires modifications to be completed on three (3) existing 70 Ton Heavy equipment Trailer systems to meet Federal and Provincial Transportation Regulations.

1.2 **Instructions** – The following instruction apply to this Statement of Work (SOW).

- (a) Requirements, which are identified by the word “**must**”, are mandatory. Deviations will not be permitted;
- (b) Requirements identified by “**must**”..... or “**equivalent**” are mandatory. The Technical Authority will consider substitutes/alternatives for acceptance as a Technical Authority approved equivalent;
- (c) Requirements identified with a “will” define actions to be performed by Canada and require no action/obligation on the Contractor’s part;
- (d) Where “**must**”, “**must**”..... or “**equivalent**”, or “will” are not used, the information provided is for guidance only;
- (e) In this document “provided” means “provided and installed”;
- (f) Where a standard is specified and the Contractor has offered an **equivalent**, that equivalent standard **must** be supplied by the Contractor, at no cost to Canada, when requested by the **Technical Authority**;
- (g) Where a technical certification is referred to in this SOW, a copy of the certification or an acceptable Proof of Compliance **must** be provided for the semi-trailer when requested by the Technical Authority up until the date of the expiration of the warranty period;
- (h) While the SI system is used as the primary system of measurement to define requirements of this SOW, both the SI system and the Standard system of measurements may be indicated. Conversions from one system of measurement to the other may not be exact; and
- (i) Dimensions stated as nominal are treated as approximate dimensions. Nominal dimensions reflect a method by which materials or products are generally identified for sale commercially, but which differ from the actual dimensions.

OPI DSVPM 4 – DAVPS 4

Issued on Authority of the Chief of the Defence Staff

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



National Défense
Défense nationale

**STATEMENT OF WORK (SOW)
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30 APRIL 2018



1.3

Definitions

- (a) **“Provided”** means “provided and installed”;
- (b) **“Technical Authority”** means the official responsible for the technical content of this SOW;
- (c) **“Equivalent”** means a standard, means, or component type, which 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 semi-trailer is provided in its standard commercial configuration with no additional government-specified requirements;
- (e) **“Road Legal”** means the semi-trailer can be legally operated on all Canadian highways and secondary roads, without restrictions or special permits;
- (f) **“Curb Weight”** (CW) means the weight of the fully equipped semi-trailer. The curb weight includes all attached accessories and equipment. The Curb Weight does not include the Payload;
- (g) **“Payload”** means the maximum cargo load carrying capacity of the semi-trailer. The payload is the calculated difference between the Gross Vehicle Weight Rating and the Curb Weight;
- (h) **“Gross Axle Weight Rating”** (GAWR) means the gross axle weight rating, which is the maximum axle load allowed by the manufacturer for this application; and
- (i) **“Gross Vehicle Weight Rating”** (GVWR) means the maximum operating weight of the semi-trailer as stated by manufacturer.



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2. APPLICABLE DOCUMENTS - The following documents are referenced in this SOW. Canada will not be supplying any reference documents. Available information on the organization is supplied.

Canada Motor Vehicle Safety Act (CMVSA)

Government of Canada / Transport Canada,

<http://www.tc.gc.ca/eng/acts-regulations/acts-1993c16.htm>



3. REQUIREMENTS

3.1 Scope of Work

- (a) The Contractor **must** perform modifications to the Jeep and Semi-trailer, by removing the front axle of the Jeep, and extending the Jeep bottom frame and trailer gooseneck. The modifications will result in extending the axle spacing between the Tractor and the Jeep to the minimum required to be able to load the axles to the maximum allowable loads by the Federal and Provincial Transportation Regulations.

3.2 Corporate Requirements

- (a) The Contractor **must** be an established heavy trailer manufacturer that has been in the business of developing and manufacturing heavy trailers, of rated capacity of at least 35 Ton, for at least two (2) years; and
- (b) The Contractor **must** have previous experience performing major modifications to heavy trailers, of rated capacity of no less than 35 Ton, where the modifications are similar in nature to those described in this SOW.

3.3 Equipment to be modified

- (a) The Contractor **must** modify quantity three (3), 2011 MANAC Jeep, NSN 2330-20-001-3775, ECC 159152. See Annex A, Figure 1 for current configuration; and
- (b) The Contractor **must** modify quantity three (3), 2011 MANAC Semi-trailer, NSN 2330-20-005-7956, ECC 159161. See Annex A, Figure 1 for current configuration.

3.4 General Requirements

- (a) The Contractor **must** be authorized by Transport Canada to affix the national safety mark (NSM) to a semi-trailer;
- (b) The Contractor **must** have the capability to certify that their vehicle modification complies with the applicable Motor Vehicle Safety regulations concerning “altered vehicles”;
- (c)
 - i The Contractor **must** produce written instructions prior to starting the work, detailing the required modifications to the Jeep and Semi-trailer; The Contractor **must** have the written instructions approved by a professional engineer specializing in commercial, heavy haul semi-trailer systems designed for use on highway in North America; OR
 - ii The Contractor **must** obtain written instructions from the original equipment manufacturer detailing the required modifications to the Jeep and Semi-trailer.
- (d) The Contractor **must** comply with the written instructions in (c) while performing the modifications to the Jeep and Semi-trailer;



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- (e) The Contractor **must** provide all parts and materials necessary to perform the work;
- (f) The Contractor **must** ensure all parts and materials used for the modifications are unused and are in new condition;
- (g) Mechanical and electrical components **must** be removed or otherwise protected to ensure that they are not damaged during the modification process;
- (h) Legislated essential and DND data plates including decals identifying the vehicle VIN, the National Safety Mark and the NATO Stock Number **must** be preserved and protected from damage throughout the modification process;
- (i)
 - i The Contractor **must** provide new identification plates if required to comply with written instructions from a professional engineer specializing in commercial, heavy haul semi-trailer systems designed for use on highway in North America; OR
 - ii The Contractor **must** provide new identification plates if required to comply with written instructions from the original equipment manufacturer;
- (j) All rubber and plastic components, hoses, electrical harnesses and connectors **must** be protected throughout the modification process and prior to applying the coating system; and
- (k) All surfaces whose intended function would be impaired by painting **must** not be painted or be subjected to overspray;

3.5 Modifications to the Jeep

- (a) The Contractor **must** disconnect and remove the fifth wheel plate and slider rails from the jeep;
- (b) The Contractor **must** remove the front axle system of the Jeep; the axle system includes the attached suspension, tires and rims, and brakes;
 - i The Contractor **must** secure the removed axle on a shipping pallet and affix a label with the GAWR of the axle system clearly stated.
- (c) The Contractor **must** extend the lower section of the Jeep frame by a length of 27 inches by fabricating and installing an extension; the extension **must** increase the distance between the fifth wheel and the tandem axles of the Jeep by a length of 27 inches;
- (d) The Contractor **must** perform all other modifications necessary to the Jeep to accommodate the modified frame, as detailed in the written instructions by the professional engineer or the original equipment manufacturer; and
- (e) The Contractor **must** reassemble all components and ensure that they function properly as originally intended.

3.6 Modifications to the Semi-trailer

- (a) The Contractor **must** remove the flip over jeep extension on the semi-trailer;



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- (b) The Contractor **must** fabricate a new flip over jeep extension that is 27 inches longer than the original – the lengthened jeep extension will provide adequate swing clearance between the lengthened Jeep frame and the semi-trailer gooseneck;
- (c) The Contractor **must** perform all other modifications necessary to the semi-trailer to accommodate the new flip over jeep extension, as detailed in the written instructions by the professional engineer or the original equipment manufacturer;
- (d) The Contractor **must** install the new fabricated jeep extension on the lowbed; and
- (e) The Contractor **must** reassemble all components and ensure that they function properly as originally intended.

3.7 Paint Finish

- (a) The Contractor **must** paint the Jeep and Semi-trailer in accordance with industry standard practices for good quality and workmanship, rendering a smooth appearance free from runs and sags, and surface roughness and/or overspray;
- (b) The coating system **must** consist of a metal conditioner, an epoxy primer and at least two applications of the topcoat; and
- (c) The paint finish color **must** be an exact match to the original color; original color is flat olive drab, matching Dupont N6297.

3.8 Inspection and Verification

- (a) The Contractor **must** demonstrate loading/unloading operation with a maximum payload onto the Semi-trailer while connected to the Jeep; and
- (b) The Contractor **must** demonstrate that the fully assembled system (Jeep, Semi-trailer, Booster) operates normally with maximum payload under all terrain conditions (highway at maximum speed, off-road).



4. DELIVERABLE INFORMATION

4.1 Identification Plate

- (a) The Contractor **must** provide new identification plates on the modified equipment;
- (b) The identification plate **must** include the manufacturer's name, equipment model, model year, and serial number;
- (c) The identification plate **must** include the GAWR and GVWR ratings;
- (d) The maximum payload capacity **must** be displayed on or near the identification plate; and
- (e) The Contractor **must** destroy the old identification plates.

4.2 Data Summary

- (a) The Contractor **must** update the Data Summary for the modified semi-trailer using the template provided by the Technical Authority;
- (b) The Data Summary **must** include the maximum payload for the following scenarios:
 - i Semi-trailer only;
 - ii Semi-trailer and Jeep combination;
 - iii Semi-trailer and Booster combination; and
 - iv Semi-trailer, Jeep and Booster combination;
- (c) The Contractor **must** provide a hard copy of the Data Summary with each modified semi-trailer; and
- (d) The Contractor **must** provide the Data Summary to the Technical Authority in digital format.

4.3 Technical Drawings

- (a) The Contractor **must** produce a new General Arrangement technical drawing of the trailer system, similar to Figure 1 in Annex A, including the following information:
 - i Length of each component (trailer, jeep and booster);
 - ii Overall length of the system; and
 - iii Inter-axle Spacing.
- (b) The Contractor **must** provide the General Arrangement Technical Drawing to the Technical Authority in digital format.



4.4

Photos of Removed Axle

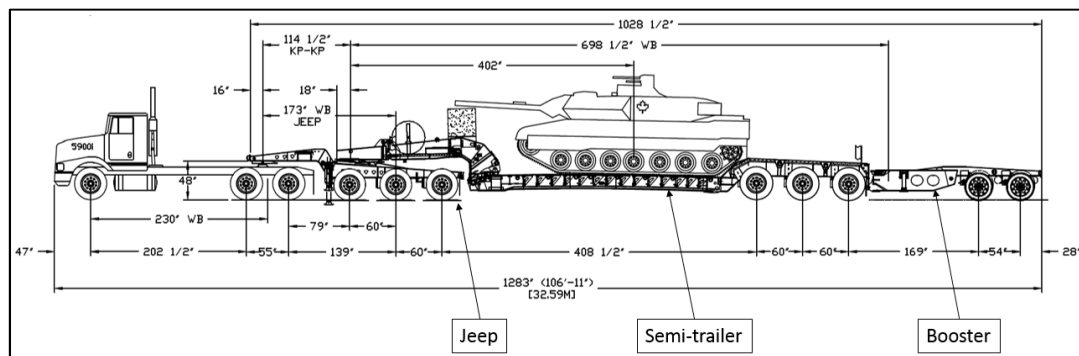
- (a) The Contractor ***must*** provide two (2) photos, taken from different angles, of the removed axle to the Technical Authority in digital format.
- (b) The Contractor ***must*** provide one (1) photo of the label, with the GAWR of the axle clearly visible, to the Technical Authority in digital format.
- (c) Upon receiving the photos, the Technical Authority will facilitate the removal of the axle from the Contractor's facility.



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Annex A



*Figure 1: DND 70 Ton Heavy Equipment Transporter – Current Configuration
(General Arrangement)*