

## Table of Contents

TABLE OF CONTENTS	1
1.0 PERSONS AFFECTED	2
2.0 PURPOSE	2
3.0 RATIONALE	2
4.0 SCOPE	2
5.0 POLICIES AND REGULATORY REQUIREMENTS	3
6.0 ROLES, RESPONSIBILITIES AND PREREQUISITES	3
7.0 TOOLS AND EQUIPMENT	3
8.0 PLANNING AND PREPARATION CHECKLIST	4
9.0 PROCEDURE	4
10.0 ACRONYMS, DEFINITIONS AND SYMBOLS	6
11.0 SOP COMPONENTS	7
12.0 SOP OWNER	7
13.0 REFERENCES	7

## 1.0 Persons Affected

This Standard Operating Procedure (SOP) affects all Transmission & Distribution Services employees and contractors who operate, or assist in the operation of, a Material Handling Aerial Device (MHAD) or an Aerial Device.

## 2.0 Purpose

This SOP provides the standard for performing boom lowering with a MHAD or Aerial Device after loss of upper controls using hydraulic power lower controls or secondary DC hydraulic pump.

The purpose of this procedure is:

- To establish a standard for performing boom lowering within the Transmission and Distribution Services
- To provide a detailed job aid to employees and contractors who perform this procedure within the course of their job

## 3.0 Rationale

This SOP will support the safety of our personnel by ensuring safe working methods are consistently used for performing boom lowering with a MHAD or an Aerial Device under abnormal conditions.

- This SOP requires that work performed by Transmission and Distribution Services employees and contractors satisfies all applicable policies and regulations.

## 4.0 Scope

### In-the-Scope of the Procedure

The procedure includes the following:

- Determine if hydraulics are functioning
- Lower the boom(s) using hydraulic power
- Determine if there is an optional secondary DC pump
- Lower the boom(s) with optional secondary DC pump
- Notify Fleet Services

### Out-of-the-Scope of the Procedure

The procedure does not include the following:

- MHAD or Aerial Device - Perform Bucket Dump SOP
- Emergency descent
- Mechanically adjusting of hydraulic valves to lower boom

## 5.0 Policies and Regulatory Requirements

This SOP is a result of the following:

### Policies:

- SaskPower Hazard Control Policy

### Regulatory Requirement(s)

Saskatchewan Occupational Health and Safety Regulations, 1996

- Part XI: Powered Mobile Equipment
  - Section 155: Visual Inspection
  - Section 156: Inspection and Maintenance
  - Section 164: Dangerous Movements
- Part XII: Scaffolds, Aerial Devices, Elevating Work Platforms and Temporary Supporting Structures
  - Section 192: Aerial Devices and Elevating Work Platforms
- Part XXX: Additional Protection for Electrical Workers
  - Section 465(2): Proximity to exposed energized high voltage Electrical Conductors
- Table 22: Minimum Distances from Exposed Energized High Voltage Electrical Conductors

### Other

Industry Standards

- Canadian Standards Association
  - C225-00 Vehicle Mounted Aerial Devices

Manufacturer's Specifications

SaskPower Procedures

- SaskPower Bonding and Grounding Procedures
- SaskPower Limits of Approach
- SaskPower Standard Protection Code

SaskPower Safety Rulebook

## 6.0 Roles, Responsibilities and Prerequisites

In-the-Scope of the Procedure Role(s)	Quantity Required	Responsibilities	Prerequisites
Operator	1	1. Operate the equipment as per guidelines established in the following procedure.	1. As per OH&S regulations, an employee must be a competent Aerial Device Operator or working under the supervision a competent operator.

## 7.0 Tools and Equipment

**Tools and Equipment and Quantity Required:**

- MHAD or Aerial Device
- MHAD or Aerial Device Operating Manual

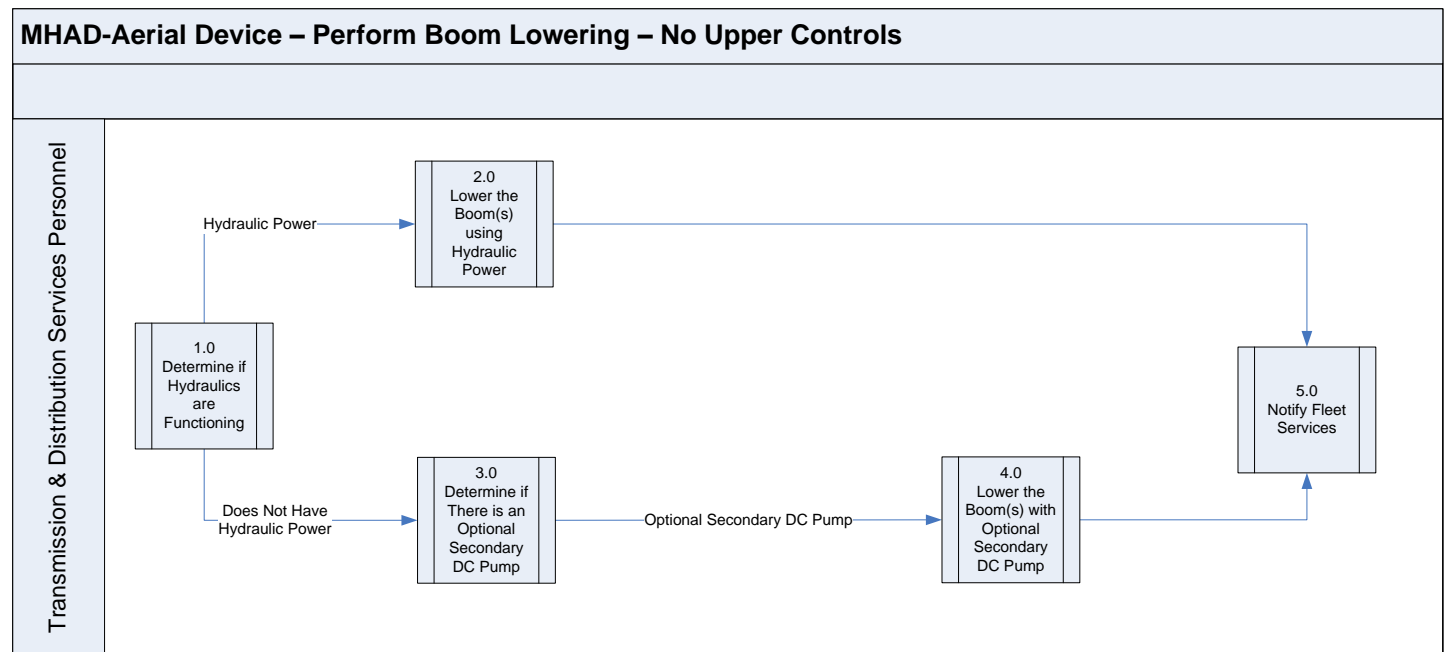
## 8.0 Planning and Preparation Checklist

### Things to Check Before Starting the Procedure:

- Completed Hazard and Risk Assessment and Job Plan
- Completed Fleet Services' Aerial Daily Inspection Checklist
- Completed TRNSP Compliance - Perform Pre-Trip Chassis Inspections SOP
- Completed TRNSP Compliance - Perform Pre-Trip Air Inspections SOP
- Completed Pre-Operational Equipment Checks - Perform Equipment Checks SOP
- Completed Pre-Operational Equipment Checks - Perform Holding Valves Checks SOP
- Applicable Personal Protective Equipment (PPE) is available and in good condition

## 9.0 Procedure

### High Level Flowchart



### The Procedure

This Standard Operating Procedure (SOP) covers the methods for performing a boom lowering with a MHAD or Aerial Device after loss of upper controls.

#### 1.0 Determine if Hydraulics are Functioning

1.1 Is there Hydraulic Power?

1.1.1 The Operator shall ensure that the tool circuit is disengaged.

## MHAD-Aerial Device - Perform Boom Lowering-No Upper Controls

- 1.1.2 The Operator shall determine if there is hydraulic power by moving selector valve to lower controls and then operating the lower controls.
- *Yes, (hydraulic power), go to step 2.1 Lower the Boom(s)*
  - *No, (does not have hydraulic power), go to step 3.1 Is the Unit Equipped with a Functioning Optional Secondary DC Pump?*

**Note:** The selector valve or the override lever may be located on the turret or the mainframe

### 2.0 Lower the Boom(s) using Hydraulic Power

#### 2.1 Lower the Boom(s)

2.1.1 The Operator shall lower the boom(s) using lower controls.

- *Identify any new hazards and risks*
- *Ensure the area is clear*

2.1.2 Proceed to step 5.1 Should Fleet Services be Contacted?

### 3.0 Determine if There is an Optional Secondary DC Pump

3.1 Is the Unit Equipped with a Functioning Optional Secondary DC Pump?

3.1.1 The Operator shall determine if the unit is equipped with a functioning optional secondary DC pump by locating the emergency power switch on the turret, mainframe or at bucket controls.

- *Yes, (optional secondary DC pump), go to step 4.1 Activate the Optional Secondary DC Pump*
- *No, (does not have a functioning optional secondary DC pump), go to step 5.1 Should Fleet Services be Contacted?*

### 4.0 Lower the Boom(s) with Optional Secondary DC Pump

#### 4.1 Activate the Optional Secondary DC Pump

4.1.1 The Operator shall restore hydraulic power to the unit by activating the optional secondary DC pump.

- *Locate the emergency override toggle switch on the turret, mainframe, or at bucket controls*

#### 4.2 Lower the Boom(s)

4.2.1 The Operator shall lower the boom(s) using the emergency override toggle switch.

- *As per manufacturer's specifications*
- *Identify any new hazards and risks*
- *Ensure the area is clear*

- *Hold the emergency override toggle switch while operating the lower or bucket controls*

**Note:** Use the least amount of boom movement as possible to lower the bucket to conserve emergency power. The length of time the pump can be operated depends on the capacity of the battery.

### 5.0 Notify Fleet Services

#### 5.1 Should Fleet Services be Contacted?

5.1.1 The Operator shall determine if Fleet Services should be contacted if there was an equipment malfunction, electrical contact or is in need of assistance.

- *Yes, go to step 5.2 Contact Supervisor and Fleet Services*
- *No, End of procedure*

#### 5.2 Contact Supervisor and Fleet Services

5.2.1 The Operator shall contact their Supervisor and Fleet Services to inform them of the equipment malfunction and/or request their assistance.

- *Fleet Services will be available for assistance and direction with boom lowering*

**Note:** In situations where the boom is inoperable, Operator Emergency Descent may be an option.

**Note: Caution:** Fleet Services **must** be involved with the mechanical override of hydraulic systems.

#### 5.2.2 End of procedure

## 10.0 Acronyms, Definitions and Symbols

### Acronyms and Abbreviations

**DC** - Direct Current (battery)

**CNTRLS** - Controls

**MHAD** - Material Handling Aerial Device

**SOP** - Standard Operating Procedure

**TRNSP** - Transportation

### Definitions

#### Aerial Device:

Any device, extensible, articulating, or both, that is primarily designed and used to position personnel. The device may also be used to handle material, if designed and equipped for that purpose.

#### Competent Operator (OH&S Regulation 192 (5)(a)(b):

(a) A worker who operates an aerial device or elevating work platform is trained to operate the device or platform safely; and

(b) The training includes the manufacturer's instructions and recommendations, the load limitations, the proper use of all controls and any limitations on the surfaces on which the device or platform is designed to be used.



## MHAD-Aerial Device - Perform Boom Lowering-No Upper Controls

Standard Operating Procedure

### Material Handling Aerial Device:

Is an Aerial Device equipped with a winch, jib, and lifting attachments.

### Symbols

---

N/A

### 11.0 SOP Components

N/A

### 12.0 SOP Owner

<b>SOP Owner</b>
Operating Supervisor

### 13.0 References

N/A