



VULCAN MINE

Standard Operating Procedure Towing Mobile Plant



Contents

1. PURPOSE.....	3
2. SCOPE.....	3
3. DEFINITIONS.....	3
4. PROCEDURE.....	3
4.1. Planning for General Towing Operations	3
4.1.2 Additional Requirements for Towing Heavy Mobile Equipment	4
4.2. A-Frames or Specifically Designated Drawbars.....	Error! Bookmark not defined.
4.3. Trailers and Towing Capacity	4
4.4. Marking of Towing Equipment.....	4
4.5. Towing Speeds	5
5. ROLES AND RESPONSIBILITIES.....	6
6. REFERENCES	6
7. REVIEW	6
8. DOCUMENT CONTROL	6



1. PURPOSE

The purpose of this procedure is to describe the requirements and to ensure the protection of persons from hazard and risks associated with towing mobile plant at the Vulcan Mine.

2. SCOPE

This procedure is applicable to all persons at the Vulcan Mine including employees, contractors and visitors.

The controls within this procedure are mandatory.

3. DEFINITIONS

Authorised Person	A person who has the required competencies and who has been authorised by the Site Senior Executive to carry out a designated scope of duties.
CMSHA	Queensland Coal mining Safety and Health Act (1999).
CMSHR	Queensland Coal mining Safety and Health Regulation (2017).
CMW	Coal Mine Worker.
Competent Person	Competence for a task at a coal mine is the demonstrated skill and knowledge required to carry out the task to a standard necessary for the safety and health of persons.
GCM	Gross Combination Mass.
HME	Heavy Mobile Equipment.
JHA	Job Hazard Analysis.
OEM	Original Equipment Manufacturer.
SHMS	Safety and Health Management System.
Take 5	Personal Risk Assessment.

4. PROCEDURE

4.1. Planning for General Towing Operations

The following general rules relate to towing operations:

- Towing shall not be undertaken on ramps or grades where traction is compromised.
- Towing must only be carried out with the correct equipment.
- All equipment including slings, safety chains, safety latches and hitching points are to be checked and inspected to ensure they are fit for purpose.
- Where fitted, safety chains must be attached and crossed when towing mobile plant.
- Towing capacity and GCM must be accounted for.
- The use of chains for towing is restricted to skid mounted equipment only.
- Check the braking systems on the plant is serviceable and good working order.
- When towing plant in the hours of darkness or in low visibility conditions, there must be trailer lights, a flashing amber hazard light (positioned to the rear) or an escort vehicle at the rear of the vehicle under tow with the hazard lights on.



4.1.2 Additional Requirements for Towing Heavy Mobile Equipment

- If there is the requirement to tow inoperable Heavy Mobile Equipment (HME) a JHA must be completed in consultation with the Open Cut Examiner and Maintenance Supervisor.
- If towing of HME is to take place, mining operations in the immediate area shall cease.
- If there is the requirement to tow HME using a hook, consideration must be given to ensure that gravity does not cause the tow line to become detached from the tow point.
- The towing route shall be planned and driven before operations begin with consideration given to traffic controls in place and the potential need for an escort.
- A pedestrian exclusion zone of 1.5 times the sling length each side of the tow rope whenever the tow rope is under tension.
- All attempts must be made to ensure that the vehicle under tow is free of any unnecessary weight (ie, load/water).

4.2. Trailers and Towing Capacity

Light vehicle trailers under 750 kilograms do not require brakes. Trailers 750 kilograms to 2,000 kilograms require an efficient braking system that operate on the wheels of at least one axle. Over-run brakes may only be used on vehicles that do not exceed 2,000 kilograms.

For trailers exceeding 2,000 kilograms, brakes must operate on all wheels. If towing speed is to exceed 40km/h or the trailer is to be used on public roads, the brake system must cause immediate application of the trailer brakes in the event of the trailer becoming detached from the towing vehicle. Under these circumstances, the brakes must remain applied for at least 15 minutes. For trailers where such a system is not installed, maximum towing speed is not to exceed 40 km/h and this maximum speed shall be prominently displayed on the trailer. Trailers may not be used on public roads unless they are fully compliant with state and federal law.

For medium mobile equipment and other equipment trailers:

- less than 1:0.5 towing vehicle to trailer mass ratio: brakes not required;
- between 1:0.5 and 1:0.75 towing vehicle to trailer mass ratio: brakes are mandatory;
- a vehicle to trailer mass greater than 1:0.75 is not permitted; and
- trailers are to be secured against unwanted movement at all times, unless coupled to a towing unit that provides this security, e.g. by having a fail to safe-state brake system or using wheel chocks.

When considering which plant to use when towing, all attempts must be made to ensure the GCM of the towing equipment is equal to or greater than the equipment being towed.

4.3. Marking of Towing Equipment

The towing equipment (tow bars) fitted to any vehicle is to be clearly marked with the maximum allowable towing mass (kilograms or tonnes).

The allowable towing mass (carried weight) applicable to that equipment shall be clearly marked on the towing attachment on equipment designed to be towed (e.g. trailers, etc.).

Towing attachments and trailer safety chains shall not to be used as lifting devices.

No part of any towing vehicle shall be used for towing other than a certified towing hitch or towing point.

All towing points shall be certified by a competent person including the manufacturer of new towing points or repairer of existing points.

If it is necessary to tow mobile plant using a sling, consideration must be had to VUL-SOP-72(e)-Lifting Operations to ensure the correct slings are being used (see below) and that slings/shackles are in good working order.



Colour Code	Maximum Load Rating – tonnes
Violet	1.0
Green	2.0
Yellow	3.0
Grey	4.0
Red	5.0
Brown	6.0
Blue	8.0
Orange	10.0+
Pink	Towing

4.4. Towing Speeds

Towing speed must not exceed the OEM recommendation if available.

Vehicles shall be driven at a speed so that full control over the towing vehicle and trailer/vehicle under tow is maintained at all times.

All Safety chains are to be connected from the draw bar to the towing vehicle using the crossed chains/saddle method (see below)





5. ROLES AND RESPONSIBILITIES

SSE	Shall review and approve this procedure.
HST Superintendent	Shall ensure that all provisions of this procedure are implemented, and that compliance is achieved.
Managers/Superintendents	Shall be responsible for their area of operations and the implementation and application of this procedure; Provide adequate training, information, structure and supervision to ensure that this procedure is implemented; Carry-out a periodic review of activities to ensure the appropriate application and understanding of this procedure; and Ensure immediate and appropriate steps are taken to investigate and rectify any risks to health and safety arising from these activities.
Supervisors	Ensure all CMWs are familiar with, have access to and comply with the requirements set out in this procedure.
All CMWs (including visitors and contactor)	Shall comply with the requirements of this procedure.

6. REFERENCES

- Coal Mining Safety and Health Act 1999 (Qld)
- Coal Mining Safety and Health Regulation 2017 (Qld)
- QLD Government – Transport and motoring – [Towing equipment](#)
- QLD Government – Transport and motoring – [Towing vehicles and trailers](#)
- VUL-SOP-72(e)-Lifting Operations

7. REVIEW

This document shall be reviewed at a minimum every two years, or as follows:

- when there is a change of method and/or technology and/or legal or other requirement that may affect the accuracy of this document;
- when operational changes occur that effect the currency of the document;
- when there has been a significant event to which this document was relevant; and
- as a result of relevant audit findings.

8. DOCUMENT CONTROL

Version	Date	Description	Document Controller
01	02/06/2020	Initial Draft	Rachael Dacker
02	03/07/2020	Risk Workshop	Shane Johnson
03	22/04/2021	Review and formatting	Nicole Davey
04	1/09/2021	Review and formatting	Rachael Dacker
05	24/03/2022	Review WRAC and amend SOP	Michael Cavanagh
06	31/08/2023	Review and Update	Kelly Jensen