



Australian Government

Department of Education, Employment and Workplace Relations

SUGTDCL2A Drive a cane locomotive

Revision Number: 1

SUGTDCL2A Drive a cane locomotive

Modification History

Not applicable.

Unit Descriptor

Unit descriptor

This is a Specialist unit. It covers the skills and knowledge required to prepare, start up, operate and shut down a locomotive.

Application of the Unit

Not applicable.

Licensing/Regulatory Information

Not applicable.

Pre-Requisites

Not applicable.

Employability Skills Information

Not applicable.

Elements and Performance Criteria Pre-Content

Not applicable.

Elements and Performance Criteria

Element	Performance criteria
1. Prepare for locomotive operation	1.1 Health and safety hazards / maintenance requirements are identified and reported to appropriate personnel according to workplace reporting procedures 1.2 Workplace records are checked to confirm operational status 1.3 Locomotive and related equipment is inspected to confirm status and pre-start checks and warm up procedures are conducted 1.4 Pre-departure checks are conducted to confirm locomotive and related equipment meets operating standard 1.5 Appropriate end of train tail flags and brake vans are fitted as required
2. Start, operate and monitor locomotive	2.1 Authority to move locomotive is obtained 2.2 Locomotive is operated in accordance workplace procedures and manufacturer's specifications to meet transport requirements 2.3 Locomotive, rake and related equipment are monitored to maintain optimum operating condition and identify faults or defects 2.4 Operation is monitored against schedule and communicated as required 2.5 Housekeeping standards are maintained
3. Analyse and respond to abnormal conditions and performance	3.1 Hazardous situations and conditions are recognized and appropriate action taken to maintain safety of personnel and equipment 3.2 Faults are assessed to determine risk of injury to personnel or damage to equipment 3.3 Corrective action is taken in accordance with workplace procedures in response to Hazards, abnormal or unacceptable equipment condition or performance 3.4 Emergency procedures are implemented as required according to workplace procedures and manufacturer's recommendations
4. Prepare for shift handover	4.1 Workplace records are maintained in accordance with statutory requirements and workplace procedures 4.2 Handover is carried out according to workplace

Element	Performance criteria
	procedure
	4.3 Changeover drivers are aware of locomotive and related equipment status, track conditions and incidents at completion of handover
5. Shut down locomotive	5.1 Locomotive is parked in the appropriate location
	5.2 Locomotive is shut down and secured in accordance with workplace procedures
6. Complete work	6.1 Workplace information is recorded according to workplace recording requirements
	6.2 Tools, plant and equipment are cleaned and stored/parked as required
	6.3 Defects and faults are identified and reported according to workplace procedures

Required Skills and Knowledge

Not applicable.

Evidence Guide

Evidence guide

The assessment process must address all of the following items of evidence.

Ability to:

1. Access workplace information such as running slips to identify driving requirements
2. Select, fit and use personal protective clothing and/or equipment
3. Prepare the locomotive and related equipment such as brake vans for operation. This includes conducting visual inspection of equipment, pre-start checks and warm up procedures and pre-departure checks. Visual inspection may include checking:
 - wheels and braking equipment, hoses and fittings for signs of wear or damage
 - fuel, oil, water and coolant levels
 - emergency and safety equipment
 - condition of the rake

Pre-departure checks may include checking:

- lubrication system
 - water and oil leaks
 - brake testing
 - communications equipment
 - traction systems
 - battery charging
 - sand boxes
 - gear changes
4. Operate the locomotive and associated equipment such as brake vans according to work procedure to achieve work requirements. This includes demonstrating manual and automatic control procedures
 5. Monitor locomotive and equipment condition. This includes monitoring operating status of the locomotive and related equipment and monitoring condition of bins in the rake
 6. Take corrective action in response to abnormal or unacceptable quality of bins, rolling stock or equipment performance
 7. Assess equipment faults to determine appropriate corrective action
 8. Follow procedures to drop off and tag damaged bins. This includes identifying an appropriate location, shunting bins and notifying appropriate personnel
 9. Follow procedure to notify a locomotive breakdown
 10. Communicate with the traffic officer and rail personnel as required
 11. Use appropriate communication methods and equipment
 12. Maintain workplace records
 13. Maintain work area to meet housekeeping standards

May include ability to:

14. Prepare, start up, operate, monitor and shut down brake vans

Knowledge of:

15. Relevant state OHS legislation, standards and codes of practice relating to work responsibilities

16. Safe work procedures including awareness of health and safety hazards related to driving a locomotive and associated control measures. Typical hazards include working with moving machinery, manual handling and working in exposed conditions
17. Purpose and limitations of protective clothing and equipment
18. Functions and basic operating principles of a locomotive and related equipment such as brake vans. This includes layout and purpose of the principal mechanical, pneumatic and electrical systems, purpose and of all equipment components
19. Function of all instruments and controls
20. Safe operating capacities of equipment
21. Methods used to render equipment safe to inspect, maintain and/or clean including lock-out, tag-out and isolation procedures
22. Cane rail system layout to identify the location of points, signals and crossings including cross over of non-company rail lines
23. Options for responding to unplanned events such as derailments, breakdowns, accidents or track damage. This includes an understanding of the impact of different options on efficient performance and safety issues when parking/dropping off damaged bins or locomotives
24. Safe operating conditions and speeds. This includes awareness of typical conditions and situations that are hazardous and appropriate preventative action
25. Typical faults to be able to assess severity and risk in order to determine appropriate corrective action
26. Acceptable bin and rake condition
27. Communication procedures, methods and equipment. This includes an understanding of warning devices and signals
28. Meaning of hand and audible signals, including use of lights
29. Procedures for responding to emergency situations. This includes use of two-way radio system to report emergencies
30. Environmental issues and controls
31. Requirements to liaise/advise related work areas and personnel
32. Housekeeping standards
33. Reporting and recording systems and responsibilities

May include knowledge of:

34. Compressors, where brake vans are operated, including safe operation

Relationship with other standards

Pre-requisite units

There are no pre-requisite units for this competency standard.

Co-assessment of related units

Other units of competency relevant to the work role should be assessed in conjunction with this unit.

Resources required for assessment

Assessment must occur in a real or simulated workplace where the assessee has access to:

- Locomotive and related equipment such as brake vans
- Cane railway system
- Relevant services and equipment required to carry out inspections, checks and monitoring
- Workplace information including running slips and daily schedule, to advise of driving requirements

- Operating procedures and related advice on equipment operation
- Personal protective clothing and equipment
- Communication systems and equipment
- Housekeeping standards and procedures
- Workplace information recording systems, requirements and procedures

Assessment requirements

For information on how to assess this competency standard and who can assess, refer to the Assessment Guidelines for this Training Package.

Range Statement

Range statement

The range statement indicates the context for demonstrating competence. This statement is a guide and unless otherwise indicated, items may or may not apply as required by the work context.

- Work is carried out in accordance with company policies and procedures, licensing requirements, legislative requirements, codes of practice and industrial awards and agreements. Codes of practice include the Sugar Milling Operations Industry Code of Practice and sugar industry codes of practice related to cane railway and transport operations
- Workplace information can include Standard Operating Procedures (SOPs) and manufacturer's specifications
- Documentation and recording requirements may include marshalling strategy, documentation relating to the traffic schedule such as run slips and loco running sheets and log books, tags to identify damaged bins and maintenance request forms
- Cane transport network features and their characteristics may include main and branch lines, yards, sidings, loops, dump points and pads
- Information systems may be print or screen based
- Locos may or may not be fitted with break vans and may be single or double-headed. They do not include locomotives in a master-slave configuration
- Equipment may include control systems, braking systems, manual and remote control systems, communication systems
- Confirming equipment status involves conducting relevant pre-start checks, and equipment is ready and safe to operate
- Work may require the ability to work within a team environment
- Communication methods include use of two-way radios used in accordance with workplace requirements and state authority protocols and hand and audible signaling
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Unit Sector(s)

Not applicable.