



Australian Government

RIIDES304D Inspect, test and maintain inlet systems on diesel engine systems

Release: 2

RIIDES304D Inspect, test and maintain inlet systems on diesel engine systems

Modification History

Release	Comment
1	This unit replaces RIIDES304 Inspect, test and maintain inlet systems on diesel engine systems
2	Required frequency and volume of evidence amended in Performance evidence. Substantial amendments made in Assessment Conditions field, including: references to Industry Sectors, assessor and subject matter expert experience requirements, how assessment should be conducted and what it should confirm.

Application

This unit describes a participant's skills and knowledge required to inspect, test and maintain inlet systems on diesel engine systems in Coal mining.

This unit is appropriate for those working in operational roles.

Licensing, legislative, regulatory and certification requirements that apply to this unit can vary between states, territories, and Industry sectors. Relevant information must be sourced prior to application of this unit.

Elements and Performance Criteria

1. Plan for inspection, testing and maintenance of inlet systems on diesel engine systems	1.1 Access, interpret, inspect, test and maintain inlet systems on diesel engine systems documentation and ensure the work activity is compliant 1.2 Obtain, interpret clarify, confirm and apply verbal and written work instructions 1.3 Conduct a toolbox talk with others at the site prior to commencing and during work activities 1.4 Identify, address and report potential hazards, risks and environmental issues and implement control measures 1.5 Obtain and interpret emergency procedures, and be prepared for an emergency
2. Prepare for inspection, testing and maintenance of inlet	2.1 Coordinate activities with others prior to commencement of, during, and on completion of the work activity

systems on diesel engine systems	2.2 Identify and obtain items and tools required for the safe, effective and efficient conduct of the tasks. 2.3 Select and wear personal protection equipment appropriate for work activities 2.4 Access and apply isolation and lock-out of all equipment
3. Carry out inspection, testing and maintenance of inlet systems on diesel engine systems	3.1 Carry out inspection of inlet systems on diesel engine systems 3.2 Carry out the inspection of inlet system flame traps for explosion protection 3.3 Carry out the inspection of inlet system joints for explosion and fire protection 3.4 Identify and record existing or potential faults, including blockages and constrictions and recommend corrective actions
4. Carry out testing of inlet systems on diesel engine systems	4.1 Access and operate testing equipment 4.2 Carry out testing and fault finding of inlet systems on diesel engine systems 4.3 Carry out testing and fault finding of inlet system flame traps and joints to ensure explosion protection 4.4 Carry out testing of the operation of any forced induction systems to confirm their correct operation 4.5 Identify and record existing or potential faults, including blockages and constrictions and recommend corrective actions
5. Carry out routine maintenance of inlet systems on diesel engine systems	5.1 Access and use maintenance tools and equipment 5.2 Identify, interpret and apply corrective actions 5.3 Carry out routine maintenance of inlet systems on diesel engine systems 5.4 Carry out routine maintenance of inlet system flame traps and joints to ensure explosion protection
6. Carry out the overhaul of inlet systems on diesel engine systems	6.1 Access and use overhaul tools and equipment 6.2 Carry out overhaul of inlet systems on diesel engine systems
7. Conduct housekeeping activities	7.1 Clean, check, maintain and store plant, tools and equipment 7.2 Report issues identified with plant, tools and equipment

Foundation Skills

Foundation skills essential to performance are explicit in the performance criteria of this unit. Further information is available in the Resources and Infrastructure Industry Training Package Companion Volume.

Unit Mapping Information

RIIDES304 Inspect, test and maintain inlet systems on diesel engine systems

Links

Companion Volume implementation guides are found in VETNet -

<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=88a61002-9a21-4386-aaf8-69c76e675272>

Assessment Requirements for RIIDES304D Inspect, test and maintain inlet systems on diesel engine systems

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Performance Evidence

Evidence is required to be collected that demonstrates a candidate's competency in this unit. Evidence must be relevant to the roles within this sector's work operations and satisfy all of the requirements of the performance criteria of this unit and include evidence that the candidate:

- locates and applies relevant documentation, policies and procedures
- works effectively with others to undertake and complete the inspection, testing and maintenance of inlet systems on diesel engine systems that meets all of the required outcomes including:
 - using a range of communications techniques and equipment to convey information to others
 - maintaining written and verbal reporting requirements and procedures
 - communicating clearly and concisely with others to receive and clarify work instructions
- demonstrates completion of inspecting, testing and maintaining inlet systems on diesel engine systems that safely, effectively and efficiently meets all of the required outcomes on more than one (1) occasion including:
 - carrying out inspection of inlet systems on diesel engine systems
 - carrying out the inspection of inlet system flame traps for effectiveness of explosion protection
 - carrying out testing and fault finding of inlet systems on diesel engine systems
 - diagnosing and recording existing or identified faults, including blockages and constrictions

Knowledge Evidence

The candidate must demonstrate knowledge in when inspecting, testing and maintaining inlet systems on diesel engine systems through:

- site risk, statutory compliance, health, safety, environmental, quality and communication requirements and procedures
- limitations on allowable maintenance including work in hazardous environments
- site and manufacturer's requirements and procedures
- tools required to be used in performance of inspection, testing and maintenance tasks
- site inspection, testing and maintenance support requirements and availability
- site isolation and lock-out requirements and procedures
- the failure modes of the inlet system that may affect the explosion protection characteristics and the emissions from diesel engine systems
- the relative performance (including emissions) of increased air induction systems
- systems for the reduction of the harmful emissions from diesel engines
- functions of the management and treatment systems and principles employed to limit the creation of and to manage harmful emissions from diesel engine

Assessment Conditions

- An assessor of this unit must satisfy the requirements of the NVR/AQTF or their successors; and Industry regulations for certification and licensing; and,
- this unit must be assessed in the context of this sector's work environment; and,
- this unit must be assessed in compliance with relevant legislation/regulation and using policies, procedures, processes and operational manuals directly related to the industry sector for which it is being assessed; and,
- assessment may be conducted in conjunction with the assessment of other Units of Competency; and,
- assessment must confirm consistent performance can be applied in a range of relevant workplace circumstances; and,
- assessors must demonstrate the performance evidence, and knowledge evidence as outlined in this Unit of Competency, and through the minimum years of current* work experience specified below in an Industry sector relevant to the outcomes of the unit; or,
- where the assessor does not meet experience requirements a co-assessment or partnership arrangement must exist between the qualified assessor and an Industry subject matter expert. The Industry subject matter expert should hold the unit being assessed (or an equivalent unit) and/or demonstrate equivalence of skills and knowledge at the unit level. An Industry technical expert must also demonstrate skills and knowledge from the minimum years of current work experience specified below in the Industry sector, including time spent in roles related to the unit being assessed; and,
- assessor and Industry subject matter expert requirements differ depending on the Australian Qualifications Framework Level (AQF) of the qualification being assessed and/or Industry Sector as follows:

Industry sector	AQF** Level	Required assessor or Industry subject matter expert
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		experience
Drilling, Metalliferous Mining, Coal Mining, Extractive (Quarrying) and Civil Construction	1	1 Year
	2	2 Years
Drilling, Coal Mining and Extractive (Quarrying)	3-6	3 Years
Metalliferous Mining and Civil Construction	3-6	5 Years
Other sectors	Where this Unit is being assessed outside of the Resources and Infrastructure Sectors assessor and/or Industry subject matter expert experience should be in-line with industry standards for the sector in which it is being assessed and where no Industry standard is specified should comply with any relevant regulation.	

*Assessors can demonstrate current work experience through employment within Industry in a role relevant to the outcomes of the Unit; or, for external assessors this can be demonstrated through exposure to Industry by conducting frequent site assessments across various locations.

**Where a unit is being delivered outside of a Qualification the first numeric character in the Unit code should be considered to indicate the AQF level

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