Australian Government

PMBPROD241 Lay up rubber lining or lag pulleys

Release: 1

PMBPROD241 Lay up rubber lining or lag pulleys

Modification History

Release 1. Supersedes and is equivalent to PMBPROD241C Lay up rubber lining or lag pulleys

Application

This unit of competency covers the skills and knowledge required to lay up rubber or similar materials to line vessels or components or to lag pulleys. Vessels and tanks are typically lined in order to retard abrasion, impact or corrosion. The re-lagging of pulleys for conveyors provides a positive drive.

This unit of competency applies to operators who are required to prepare materials and surfaces, plan and sequence the work, position, join and cure the lining/lagging and recognise routine and non-routine problems and take appropriate action.

The key factors are the preparation of the surfaces to be lined/lagged and the successful application of the rubber to the surfaces without contaminating the materials. This unit of competency is typically performed by operators working either independently or as part of a work team.

This unit of competency applies to lining/lagging that is carried out in a workshop or other off-site facility.

No licensing, legislative or certification requirements apply to this unit at the time of publication.

Pre-requisite Unit

Nil

Competency Field

Production

Unit Sector

Not applicable

Elements and Performance Criteria

Elements describe the essential outcomes.		Performance criteria describe the performance needed to demonstrate achievement of the element.
1	**Plan rubber**	1.1 Review specifications and work order documentation

	lining or lagging work	1.2	Identify hazards and risk controls, including emergency evacuation and adequate ventilation, including breathing apparatus, where required
		1.3	Plan work, including materials, sequences, times and process stages
		1.4	Plan to minimise downtime, economically use materials and meet repair quality specifications
		1.5	Assemble equipment, tools and materials required, checking them for condition, quality and compliance tags
2	**Prepare surfaces for rubber lining or lagging**	2.1	Lay out materials in an appropriate contamination free area
		2.2	Ensure materials are clean and free of debris and damage
		2.3	Identify non-conforming materials and report, as required
		2.4	Examine component, vessel or pulley and ensure the surfaces to be lined or lagged are free of defects and contaminants
		2.5	Plan the sequence for application of the adhesives and materials
		2.6	Prepare lining or lagging surfaces
		2.7	Monitor surface coatings for setting time and manage the staggered supply of adhesives and materials, where appropriate
3	**Lay up rubber lining or lagging**	3.1	Ensure adequate ventilation is provided and monitored during the laying up process
		3.2	Monitor any confined space activity and conform to regulations and procedures
		3.3	Position lining/lagging segments according to the lay-up plan
		3.4	Exclude entrapped air and ensure complete contact

			between the lining/lagging and surface is obtained
		3.5	Ensure joins are sealed and adhered properly with no gaps or overlaps
		3.6	Check for slips, sagging or other separation of the lining/lagging from the surface
		3.7	Ensure lining/lagging material is finished off as required at the extremities
		3.8	Cure rubber lining/lagging where appropriate
4	**Clean work area**	4.1	Clean, inspect and store tools and equipment used
		4.2	Tag unserviceable tools and equipment, identify faults and inform relevant personnel
		4.3	Clean work area and return to approved condition
		4.4	Dispose of waste or recycle according to procedures
		4.5	Complete appropriate workplace documentation
5	**Respond to routine problems to procedures**	5.1	Recognise known faults that occur during the operation
		5.2	Identify and take action on causes of routine faults
		5.3	Log problems as required
		5.4	Identify non-routine process and quality problems and take appropriate action

Foundation Skills

This section describes those required skills (language, literacy and numeracy) that are essential to performance.

Foundation skills essential to performance are explicit in the performance criteria of this unit of competency.

Range of Conditions

This field allows for different work environments and conditions that may affect performance.

Essential operating conditions that may be present (depending on the work situation, needs of the candidate, accessibility of the item, and local industry and regional contexts) are included.

Regulatory framework

The latest version of all legislation, regulations, industry codes of practice and Australian/international standards, or the version specified by the local regulatory authority, must be used.

Applicable legislation, regulations, standards and codes of practice include:

- health, safety and environmental (HSE) legislation, regulations and codes of practice relevant to the workplace, equipment and production processes and hazardous materials
- Australian/international standards relevant to the materials being used and products being made
- any relevant licence and certification requirements.

All operations to which this unit applies are subject to stringent HSE requirements, which may be imposed through state/territory or federal legislation, and these must not be compromised at any time. Where there is an apparent conflict between performance criteria and such requirements the legislative requirements take precedence.

Procedures

All operations must be performed in accordance with relevant procedures.

Procedures are written, verbal, visual, computer-based or in some other form, and include one or any combination of:

- emergency procedures
- work instructions
- standard operating procedures (SOPs)
- safe work method statements (SWMS)
- formulae/recipes
- batch sheets
- temporary instructions
- any similar instructions provided for the smooth running of the plant.

Tools and equipment

Tools and equipment include one or more of:

- hand tools (e.g. spanners, wrenches and hammers)
- knives and other trimming devices
- hoists/lifting equipment not requiring any special permits or licences
- rollers and other surface compression tools
- ventilation equipment (e.g. fans)

- relevant personal protective equipment (PPE).

Hazards

Hazards must be identified and controlled. Identifying hazards requires consideration of:

- confined spaces
- working at heights
- blades and cutting equipment
- weight, shape, volume of materials to be handled
- hazardous products and materials
- sharp edges, protrusions or obstructions
- slippery surfaces, spills or leaks
- rotational equipment or vibration
- smoke, dust, vapours or other atmospheric hazards
- electricity
- gas
- gases and liquids under pressure
- structural hazards
- equipment failures
- machinery, equipment and product mass
- other hazards that might arise.

Routine problems

Routine problems must be resolved by applying known solutions.

Routine problems are predictable and include one or more of:

- variations in materials
- incorrectly cut material shapes
- contamination of materials
- contamination of the surfaces to be lined or lagged
- physical size and complexity of some components
- entrapped air
- gaps between lining segments
- inappropriate laps or joins.

Known solutions are drawn from one or more of:

- procedures
- training
- remembered experience.

Non-routine problems must be reported according to according to relevant procedures.

Unit Mapping Information

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Links

Companion Volume implementation guides are found in VETNet - https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=932aacef-7947-4c80-acc6-593719fe4090