



AMERICAN PETROLEUM INSTITUTE
TRAINING PROGRAMS

API-U Training Provider Certification Program (TPCP)

Qualified Rigger Compliance Checklist

VERSION 1_August2020

All API-U Approved courses through TCPD should include Hand Signals and Wire Rope Knowledge and Understanding. Course Materials must illustrate the following (**disregard if this section was filled out with another course compliance checklist**):

Compliance Check	Course Content and Testing	Notes
	<ul style="list-style-type: none"> <input type="checkbox"/> Identification and testing of test the student's ability to understand and perform the basic hand signals in this standard for the purposes of API 2D. <input type="checkbox"/> A thorough understanding of wire rope construction and its: construction effects on performance and applications, construction factors causing rope deterioration. <input type="checkbox"/> Testing of wire rope inspection responsibility <input type="checkbox"/> Testing of wire rope manufacturing <input type="checkbox"/> Testing of wire rope terminology <input type="checkbox"/> Practical assessment of steel wire rope characteristics <input type="checkbox"/> Testing of wire rope deterioration including rope terminations/end fittings, good, bad, and indifferent <input type="checkbox"/> Testing of wire rope inspection/examination procedures <input type="checkbox"/> Testing of discard/retirement criteria <input type="checkbox"/> Understanding of record keeping and reports <input type="checkbox"/> Identification of damaged/failed wire ropes 	

Qualified Crane Rigger Training

API-U crane rigger training must include the classroom course content listed below.

Compliance Check	Course Content	Notes
Rigging Hardware		
	<ul style="list-style-type: none"> <input type="checkbox"/> Identification of types and application of rigging hardware to include: blocks; sheaves; hooks/latches; rings, links, swivels; shackles; turnbuckles; spreader and equalizer beams; cable clips; pad eyes; eyebolts; and wedge sockets/termination <input type="checkbox"/> Describe the application of each piece of rigging hardware. <input type="checkbox"/> Describe inspection points, how to inspect, and criteria for removal of each piece of rigging hardware. <input type="checkbox"/> Describe and explain safe and unsafe conditions for usage <input type="checkbox"/> Describe the purpose and proper use of different types/variations of basic rigging hardware under discussion <input type="checkbox"/> Describe rigging hardware working load limit (WLL) rating where applicable <input type="checkbox"/> Describe how to properly maintain hardware <input type="checkbox"/> Describe safe and proper storage techniques/practices for each piece of rigging hardware 	
Slings		
	<ul style="list-style-type: none"> <input type="checkbox"/> Identification of types and application of slings and material to include: wire rope; synthetic; chain; and two-, three-, and four-leg bridle <input type="checkbox"/> Sling application (configuration and function) <input type="checkbox"/> Sling inspection/rejection criteria <input type="checkbox"/> Sling angle and load tension <input type="checkbox"/> Sling handling and storage <input type="checkbox"/> D/d ratio <input type="checkbox"/> Cargo nets and other basket types (e.g. bulk bags/flexible fabric) <input type="checkbox"/> Describe function, applications, and safety precautions of hitches (vertical, choker, basket) <input type="checkbox"/> Describe configurations to include different types of hitches (vertical, choker, basket) <input type="checkbox"/> Describe when to use and how to use <input type="checkbox"/> Describe the effect of the sling load at different sling angles <input type="checkbox"/> Describe safe and proper storage techniques/practices for all rigging hardware 	

Procedures and Precautions

- Load control/taglines
- Describe the procedures and inspection for each type of personnel transfer equipment.
- Unbinding loads
- Personnel transfer/pre-lift considerations
- Sling handling and storage
- Determining load weights and center of gravity of load
- Softeners (e.g. wear pads)
- Attaching unused sling legs
- Improving sling efficiency
- Turning loads
- Securing loads
- Placement of loads

Rigging Basics

- Pinch points/body positions,
- Personal protective equipment (PPE)
- Hand signals/radio communications

Practical Exercises

General Guidelines

1. A crane and actual hardware should be used during these exercises.
2. Minimum of one practical exercise for each student on each appropriate topic item as follows: rigging hardware, slings, procedures and precaution, rigging basics.
3. The minimum practical exercises include pre-lift rigging inspection, rigging hitches, and hand signals.

Pre-lift Rigging Hardware and Sling Inspection	Notes
<ul style="list-style-type: none"> <input type="checkbox"/> Students should be evaluated as they visually check the wire rope sling for the following: wear, abrasion, broken wires, corrosion, kinks, eye deformation, end fitting condition, and identification tag. <input type="checkbox"/> Students should be evaluated as they visually check the synthetic sling for the following: wear, broken stitches, heat damage, chemical damage, holes, tears, cuts, snags, ultraviolet (sun) damage, eye fitting condition, and identification label. <input type="checkbox"/> Students should be evaluated as they visually check shackle for the following: wear on bow, wear on pin, pin flush w/shackle, throat opening, cracks and nicks, any modifications, missing parts, and markings. <input type="checkbox"/> Students should be evaluated as they visually check hook and latch for the following: wear, cracks or nicks, latch (positive locking for personnel transfer), throat opening, bent tip, any modification, parts missing, and markings. <input type="checkbox"/> Students should be evaluated as they visually check block for the following: wear of pins, trunnion, swivel clearance, sheave condition, identification label, and side and cheek plates fasteners are tight. 	
Rigging Hitches	Notes
<ul style="list-style-type: none"> <input type="checkbox"/> Students perform a visual inspection of all rigging slings and hardware and perform vertical, choker, basket hitches and two- and/or four-part bridle sling. Select those items that meet the "remove from service" criteria and set them off to the side and obtain a replacement. All components to complete the basic hitches will be on site. <p>Students perform the basic hitches and perform and/or explain the process described below.</p> <ul style="list-style-type: none"> <input type="checkbox"/> Configure vertical hitch: (attach vertical sling to load with rigging gear given). <ul style="list-style-type: none"> – Perform a visual inspection on all rigging hardware and slings on location. – Those items that meet the "remove from service" criteria and remove from location and obtain a replacement. – Verify lift plan and JSA are completed. – Correct personal protective equipment (PPE). – Observe pinch points and body positioning. – Know the person in charge (PIC). – Have an escape route/emergency plan. – Verify the weight of the load. – Attach tagline. – Observe conditions of the load. – Verify sling working load limit (WLL) 	

- The vertical hitch was assembled correctly
- Verify if the load is safe or not safe to lift
- The sling is attached properly to the hook
- Verify if load is balance (center of gravity)
- Assembled rigging is disassembled and stowed properly

Configure choker hitch (attach choker sling to load with rigging gear given).

- Perform a visual inspection on all rigging hardware and slings on location
- Those items that meet the "remove from service" criteria and remove from location and obtain a replacement
- If lift plan and JSA is completed
- Correct personal protective equipment (PPE)
- Observe pinch points and body positioning
- Know the person in charge (PIC)
- Have an escape route/emergency plan
- Verify the weight of the load
- Attach tagline
- Observe conditions of the load
- Verify sling working load limit (WLL)
- The choker hitch was assembled correctly
- Verify if the load is safe or not safe to lift
- The sling is attached properly to the hook
- Verify if load is balance (center of gravity)
- The assembled rigging is disassembled and stowed properly

Basket hitch (attach basket hitch to load with rigging gear given).

- Perform a visual inspection on all rigging hardware and slings on location
- Those items that meet the "remove from service" criteria and remove from location and obtain a replacement
- If lift plan and JSA is completed
- Correct personal protective equipment (PPE)
- Observe pinch points and body positioning
- Know the person in charge (PIC)
- Have an escape route/emergency plan
- Verify the weight of the load
- Attach tagline
- Observe conditions of the load
- Verify sling working load limit (WLL)
- The basket hitch was assembled correctly
- Verify safe or not safe to lift
- The sling is attached properly to the hook
- Verify if load is balance (center of gravity)
- The assembled rigging is disassembled and stowed properly

Configure two- and/or four-part bridle $\geq 60^\circ$

- Perform a visual inspection on all rigging hardware and slings on location
- Those items that meet the "remove from service" criteria and remove from location and obtain a replacement
- If lift plan and JSA is completed
- Correct personal protective equipment (PPE)

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| <ul style="list-style-type: none">- Observe pinch points and body positioning- Know the person in charge (PIC)- Have an escape route/emergency plan- Verify the weight of the load- Attach tagline- Observe conditions of the load- Verify sling working load limit (WLL)- The two- and/or four-part bridle was assembled $\geq 60^\circ$ correctly- Verify approximate load tension- Verify safe or not safe to lift- The sling is attached properly to the hook- Verify if load is balance (center of gravity)- The assembled rigging is disassembled and stowed properly | |
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