

WORKER BEING EVALUATED: _____

EVALUATOR: _____

LOCATION: _____ **DATE:** _____

This evaluation form can be used as a demonstration or knowledge-based competency of a worker’s understanding of a Wire Rope Clip. It can be used by either Workers or Employers to assess their knowledge.

The ASME B30.26 Standard has been used for reference when compiling this evaluation. ASME B30.26 states that the Wire Rope Clip Manufacturer specifications must also be referenced to provide specific information required for the Selection, Inspection, Limitations and Use.

EMPLOYER	YES	NO
READ THE CAPITALIZED WORDS, can the Employer successfully explain and complete the following.		
1) COMPLIANCE TO STANDARDS THE EMPLOYER TO VERIFY THE WIRE ROPE CLIP IS COMPLIANT TO A STANDARD. Compliance to a standard should be confirmed in the manufacturer’s specifications, <i>generally the ASME B30.26 standard in North America.</i>		
2) DESIGN FACTORS DOES THE EMPLOYER KNOW THE DESIGN FACTOR ASSOCIATED WITH THE WIRE ROPE CLIP BEING USED. This is the point it will fail. <i>ASME B30.26 states Wire rope clips shall be designed to have an 80% minimum termination efficiency based on the wire rope published minimum breaking force with which they are used.</i>		
3) MANUFACTURERS SPECIFICATIONS THE EMPLOYER MUST HAVE THE MANUFACTURERS SPECIFICATIONS READILY AVAILABLE. The only way a worker can be assessed is if they have been given the manufactures specification for the product being evaluated on, as manufactures specifications differ. <i>This information will provide the worker its limitations, use and inspection requirements.</i>		
4) PERIODIC INSPECTIONS THE EMPLOYER IS RESPONSIBLE TO ENSURE THAT THE WIRE ROPE CLIP HAS HAD A PERIODIC INSPECTION. These are the inspections required by the ASME B30.26 standard that the employer must ensure are completed. <i>At a minimum annually.</i>		
5) STORAGE THE EMPLOYER IS RESPONSIBLE TO ENSURE PROPER WIRE ROPE CLIP STORAGE WHEN NOT IN USE. Storage is important to stop or reduce possible damage to the wire rope clip whether it be mechanical, chemical or temperature related. <i>What is your company’s storage policy?</i>		

WIRE ROPE CLIP KNOWLEDGE Evaluator to READ THE CAPITALIZED WORDS and see if the worker can successfully explain the following.	COMPETENT	NEEDS COACHING
6) MANUFACTURERS SPECIFICATIONS DOES THE WORKER HAVE ACCESS TO THE MANUFACTURERS SPECIFICATIONS? The worker knows that manufacturers specification are available, where they are located, and why they have to be used.		
7) DESIGN FACTORS DOES THE WORKER KNOW THE DESIGN FACTOR ASSOCIATED WITH THE WIRE ROPE CLIP BEING USED? The worker states that wire rope clips have a termination efficiency. <i>ASME B30.26 states Wire rope clips shall be designed to have an 80% minimum termination efficiency based on the wire rope published minimum breaking force with which they are used.</i>		
8) PERIODIC INSPECTIONS CAN THE WORKER VERIFY THAT THE WIRE ROPE CLIP HAS HAD A PERIODIC INSPECTION? These are the annual inspections required by the employer to complete. <i>As stated in the ASME B30.26 standard.</i>		
9) MARKINGS - MANUFACTURER SHOW ME THE MANUFACTURERS NAME MARKING ON THE WIRE ROPE CLIP. The manufacturer's name or trademark must be marked on the wire rope clip. <i>This may be an actual name, but in some cases is a trademark, abbreviation or logo.</i>		
10) MARKINGS – SIZE SHOW ME THE SIZE MARKING ON THE WIRE ROPE CLIP. The size must be marked on the wire rope clip, and refers to the wire rope diameter or size the wire rope clip is being used with. <i>Normally marked in inches (in) or millimeters (mm's).</i>		
11) TEMPERATURES ASK THE WORKER WHAT THE TEMPERATURE RANGE FOR THE WIRE ROPE CLIP IS FROM THE MANUFACTURER. AND HOW CAN THE WORKER VERIFY THIS? The worker knows extreme temperatures can affect the wire rope clip, ASME B30.26 states not below -40C or above 204 C. <i>The worker must confirm with the manufacturer as they may differ.</i>		

WIRE ROPE CLIP APPLICATION Evaluator to READ THE CAPITALIZED WORDS and see if the worker can successfully explain the following.	COMPETENT	NEEDS COACHING
12) REMOVAL CRITERIA HAVE THE WORKER INSPECT THE WIRE ROPE CLIP AND TELL YOU REASONS TO REMOVE THE WIRE ROPE CLIP FROM SERVICE. 1. Missing or illegible identification, 2. Indications of heat damage, 3. Excessive pitting or corrosion, 4. Bends, twists, distortion, stretching, cracks or breaks, 5. Excessive nicks or gouges, 6. 10% reduction of original dimensions, 7. Unauthorized replacement components, 8. Insufficient number of wire rope clips, improperly tightened wire rope clips, 9. Indications of damaged wire rope, 10. Indications of wire rope slippage, 11. Improper assembly, 12. Evidence of unauthorized welding or modification. <i>Manufacturer will give specific criteria and must be referenced.</i>		
13) ASSEMBLY - ORIENTATION IF WIRE ROPE CLIPS ARE BEING USED HAVE THE WORKER TELL YOU THE CORRECT ASSEMBLY ORIENTATION. The worker knows the saddle shall be placed on the live end of the wire rope, with the U-bolt on the dead-end side. <i>Some workers remember this method with the saying "Never saddle a dead horse". Manufacturer will give specific criteria and must be referenced.</i>		
14) ASSEMBLY – CLIP PLACEMENT IF WIRE ROPE CLIPS ARE BEING USED HAVE THE WORKER TELL YOU THE CORRECT CLIP PLACEMENT. The worker knows that at least the minimum number of clips must to be used, and the spacing and turn-back should be as recommended by the manufacturer or a qualified person. <i>Manufacturer will give specific criteria and must be referenced.</i>		

<p>15) ASSEMBLY – CLIP TIGHTENING IF WIRE ROPE CLIPS ARE BEING USED HAVE THE WORKER TELL YOU THE CORRECT CLIP TIGHTENING METHOD. The worker knows that the wire rope clip shall be tightened to the torque recommended by the manufacturer or a qualified person. Under-tightening may result in slippage of the connection and over-tightening may result in flattening or crushing of the wires at the connection. <i>Manufacturer will give specific criteria and must be referenced.</i></p>		
<p>16) POST ASSEMBLY CHECKS IF WIRE ROPE CLIPS ARE BEING USED HAVE THE WORKER TELL YOU THE CORRECT CLIP POST ASSEMBLY CHECKS. The worker knows that after assembly, the connection shall be loaded to at least the expected working load and that after unloading, wire rope clips shall then be retightened to the torque as recommended by the manufacturer or a qualified person. <i>Manufacturer will give specific criteria and must be referenced.</i></p>		
<p>17) LOAD CONTACT IF WIRE ROPE CLIPS ARE BEING USED HAVE THE WORKER TELL YOU NECESSARY PROCEDURES TO FOLLOW. The worker knows wire rope clips should not be in contact with the load or any obstruction during lifting or load handling activities. Contact could interfere with the integrity of the clips clamping ability or dislodge its position. <i>The worker must confirm with the manufacturer as they may differ.</i></p>		
<p>18) SLING CONSTRUCTION IF WIRE ROPE CLIPS ARE BEING USED TO FABRICATE SLINGS HAVE THE WORKER TELL YOU THE PROCEDURE TO FOLLOW. The worker knows Wire rope clips should not be used to fabricate slings. <i>The worker must confirm with the manufacturer as they may differ.</i></p>		
<p>19) STORAGE HAVE THE WORKER TELL YOU WHERE THE WIRE ROPE CLIPS IS KEPT WHEN NOT IN USE. Storage is important to stop or reduce possible damage to the eyebolt whether it be mechanical, chemical or temperature related.</p>		

COMMENTS:

SIGNATURE OF WORKER BEING EVALUATED:

X _____

SIGNATURE OF EVALUATOR:

X _____