

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 Vacuum Lifter. It can be used by either Workers or Employers to assess their knowledge.

The ASME B30.20 Standard has been used for reference when compiling this evaluation. ASME B30.20 states that the Vacuum Lifter Manufacturer specifications must also be referenced to provide specific information required for the Selection, Inspection, Limitations and Use.

EMPLOYER READ THE CAPITALIZED WORDS, can the Employer successfully explain and complete the following.	YES	NO
1) COMPLIANCE TO STANDARDS THE EMPLOYER TO VERIFY THE VACUUM LIFTER IS COMPLIANT TO A STANDARD. Compliance to a standard should be confirmed in the manufacturers' specifications, <i>generally the ASME B30.20 standard in North America.</i>		
2) DESIGN FACTORS DOES THE EMPLOYER KNOW THE DESIGN FACTOR ASSOCIATED WITH THE VACUUM LIFTER BEING USED? This is the point it will break above its rated load. The minimum required design factor of vacuum lifter is based on the service class. <i>The manufacturer must be consulted.</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 VACUUM LIFTER HAS HAD A PERIODIC INSPECTION. These are the inspections required by the ASME B30.20 standard that the employer must ensure are completed. <i>At a minimum annually.</i>		
5) STORAGE THE EMPLOYER IS RESPONSIBLE TO ENSURE PROPER VACUUM LIFTER STORAGE WHEN NOT IN USE. Storage is important to stop or reduce possible damage to the vacuum lifter whether it be mechanical, chemical or temperature related. <i>What is your company's storage policy?</i>		

VACUUM LIFTER KNOWLEDGE Evaluators 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 VACUUM LIFTER BEING USED? The worker states the minimum required design factor of vacuum lifters is based on the service class. <i>The manufacturer must be consulted.</i>		
8) PERIODIC INSPECTIONS CAN THE WORKER VERIFY THAT THE VACUUM LIFTER HAS HAD A PERIODIC INSPECTION? These are the annual inspections required by the employer to complete. As stated in the ASME B30.20 standard. <i>Records should be available for each periodic inspection and when the vacuum lifters is either altered or repaired.</i>		
9) MARKINGS - MANUFACTURER SHOW ME THE MANUFACTURERS NAME MARKING ON THE VACUUM LIFTER. The manufacturer's name and contact information must be marked on the vacuum lifters. <i>This may be an actual name, but in some cases is a trademark or abbreviation, the contact information may be an address, telephone number or website.</i>		
10) MARKINGS – SERIAL NUMBER SHOW ME THE SERIAL NUMBER MARKING ON THE VACUUM LIFTER. The serial number must be marked on the vacuum lifter. <i>It gives vacuum lifters its own unique unit identifier.</i>		
11) MARKINGS – LIFTER WEIGHT SHOW ME THE VACUUM LIFTER WEIGHT MARKING ON THE VACUUM LIFTER. The vacuum lifters own weight must be marked on the vacuum lifter. <i>The vacuum lifters weight must be taken into consideration when calculating total load weights.</i>		
12) MARKINGS – POWER REQUIREMENTS) SHOW ME THE VACUUM LIFTER ELECTRICAL POWER REQUIREMENTS MARKING ON THE VACUUM LIFTER. The voltage of the primary power supply or battery must be marked on the vacuum lifter. <i>Normally a voltmeter showing maximum and minimum battery voltage in Volts DC.</i>		
13) MARKINGS – PRESSURE AND VOLUME) SHOW ME THE VACUUM LIFTER PRESSURE AND VOLUME OF COMPRESSED AIR REQUIRED MARKING ON THE VACUUM LIFTER. The suction pressure of the suction cups must be marked on the vacuum lifter. <i>Normally a pressure gauge showing minimum allowable lifting pressure in Bar or PSI.</i>		
14) MARKINGS – RATE LOAD SHOW ME THE RATED LOAD MARKING ON THE VACUUM LIFTER. The rated load must be marked on the vacuum lifter. Usually marked with WLL “working load limit” followed by a number and unit that can be US or Metric <i>E.g. 1 Ton, 2000 lbs. or maybe 1Tonne, 1000 kg.</i>		
15) MARKINGS – DESIGN CATEGORY SHOW ME THE DESIGN CATEGORY MARKING ON THE VACUUM LIFTER. The design category must be marked on the vacuum lifter. <i>Design Category refers to the vacuum lifter's static strength criteria.</i>		
16) MARKINGS – SERVICE CLASS SHOW ME THE SERVICE CLASS MARKING ON THE VACUUM LIFTER. The service class must be marked on the vacuum lifter. <i>Service Class refers to the vacuum lifter fatigue life criteria.</i>		

<p>17) MARKINGS – PRODUCT SAFETY LABEL SHOW ME THE PRODUCT SAFETY LABEL ON THE VACUUM LIFTER. The vacuum lifter must have fixed to it a product safety label concerning the operating procedures, cautionary language identifying hazards, and methods for accident prevention. <i>The worker must refer to instruction manuals for additional information.</i></p>		
<p>18) TEMPERATURES WHAT IS THE TEMPERATURE RANGE OF THE VACUUM LIFTER FROM THE MANUFACTURER? AND HOW CAN THE WORKER VERIFY THIS. The worker knows temperatures exceeding normal ambient temperatures can affect the vacuum lifter. <i>The worker must confirm with the manufacturer as they may differ.</i></p>		

<p>VACUUM LIFTER APPLICATION Evaluators to READ THE CAPITALIZED WORDS and see if the worker can successfully explain the following.</p>	<p>COMPETENT</p>	<p>NEEDS COACHING</p>
<p>19. REMOVAL CRITERIA HAVE THE WORKER TELL YOU REASONS TO REMOVE THE VACUUM LIFTER FROM SERVICE. 1. Structural members if deformed, cracked or worn, 2. Vacuum generator output, 3. Vacuum pad seals for cuts, tears, excessive wear, or foreign particles, 4. Vacuum lines and connections for leaks, cuts, kinks, and collapsed hoses, 5. Vacuum reservoir for leaks and visual damage, 6. Indicator lights, gages, horns, bells, pointers or other warning device, and vacuum level indicators , 7. Missing or illegible operating control markings. <i>Manufacturer may give specific criteria and must be referenced.</i></p>		
<p>20. LOAD DISTRIBUTION IF A LOAD IS ATTACHED TO A VACUUM LIFTER HAVE THE WORKER TELL YOU HOW THE LOAD MUST BE DISTRIBUTED? The worker knows that the vacuum lifter must be attached securely above the loads center of gravity to achieve balance.</p>		
<p>21. LOAD SECURITY IF THE VACUUM LIFTER IS BEING USED TO LIFT A LOAD HAVE THE WORKER TELL YOU WHAT COULD AFFECT LOAD SECURITY. The worker knows that load thickness, balance, surface cleanliness, flatness, bending, temperature, and wind speed can affect the vacuum lifter load securement capabilities. The worker must also verify that the load is well secured and properly balanced when it is initially lifted. <i>Manufacturer will give specific criteria and must be referenced.</i></p>		
<p>19) SIDE LOADING IF THE VACUUM LIFTER IS BEING USED TO SIDE PULL OR SLIDE A LOAD HAVE THE WORKER TELL YOU HOW THIS AFFECTS THE VACUUM LIFTER. The worker knows that the vacuum lifter shall not be used for side pulls or sliding the load unless specifically authorized. <i>Manufacturers may give specific criteria and must be referenced.</i></p>		
<p>20) SURFACE CONDITION IF THE VACUUM LIFTER IS BEING USED TO LIFT A LOAD HAVE THE WORKER TELL YOU HOW SURFACE CONDITION COULD AFFECT THE VACUUM LIFTER. The worker knows that any oil, grease, dust, dirt, ice or excess water should be removed from the loads surface where the suction cups will be located. <i>Manufacturer will give specific criteria and must be referenced.</i></p>		
<p>21) STORAGE HAVE THE WORKER TELL YOU WHERE THE LIFTING MAGNET IS KEPT WHEN NOT IN USE. The worker must land any attached load and store the lifting magnet before leaving the device. Storage is important to stop or reduce possible damage to the lifting magnet whether it be mechanical, corrosive or temperature related. <i>Manufacturer may give specific criteria and must be referenced.</i></p>		

COMMENTS:

SIGNATURE OF WORKER BEING EVALUATED:

X _____

SIGNATURE OF EVALUATOR:

X _____