

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 Lifting Magnet. 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 Lifting Magnet 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 LIFTING MAGNET 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 LIFTING MAGNET BEING USED? This is the point it will break above its rated load. The minimum required design factor of lifting magnets 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 LIFTING MAGNET 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 LIFTING MAGNET STORAGE WHEN NOT IN USE. Storage is important to stop or reduce possible damage to the lifting magnet whether it be mechanical, chemical or temperature related. <i>What is your company's storage policy?</i>		

LIFTING MAGNET KNOWLEDGE Evaluator to READ THE CAPITALIZED WORDS and see if the worker can successfully explain the following.	COMPETENT	NEEDS COACHING
6) <u>MANUFACTURERS SPECIFICATIONS</u> 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) <u>DESIGN FACTORS</u> DOES THE WORKER KNOW THE DESIGN FACTOR ASSOCIATED WITH THE LIFTING MAGNET BEING USED? The worker states the minimum required design factor of lifting magnets is based on the service class. <i>The manufacturer must be consulted.</i>		
8) <u>PERIODIC INSPECTIONS</u> CAN THE WORKER VERIFY THAT THE LIFTING MAGNET 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 lifting magnet is either altered or repaired.</i>		
9) <u>MARKINGS - MANUFACTURER</u> SHOW ME THE MANUFACTURERS NAME MARKING ON THE LIFTING MAGNET. The manufacturer's name and contact information must be marked on the lifting magnet. <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) <u>MARKINGS – SERIAL NUMBER</u> SHOW ME THE SERIAL NUMBER MARKING ON THE LIFTING MAGNET. The serial number must be marked on the lifting magnet. <i>It gives the lifting magnet its own unique unit identifier.</i>		
11) <u>MARKINGS – MAGNET WEIGHT</u> SHOW ME THE LIFTING MAGNETS WEIGHT MARKING ON THE LIFTING MAGNET. The lifting magnet own weight must be marked on the lifting magnet. <i>The magnets weight must be taken into consideration when calculating total load weights.</i>		
12) <u>MARKINGS – DUTY CYCLE</u> SHOW ME THE LIFTING MAGNET DUTY CYCLE MARKING ON THE LIFTING MAGNET. The duty cycle is the ratio between the time the magnet is energized, and the time it is de-energized and is normally stated as a time of a percentage. <i>This would be applicable if the lifting magnet has powered activation.</i>		
13) <u>MARKINGS – COLD CURRENT</u> SHOW ME THE COLD CURRENT (AMPS) MARKING ON THE LIFTING MAGNET. The cold current amps at 68° F (20° C) must be marked on the lifting magnet, if applicable. <i>This would be applicable if the lifting magnet has powered activation.</i>		
14) <u>MARKINGS - VOLTAGE</u> SHOW ME THE VOLTAGE MARKING ON THE LIFTING MAGNET. The voltage of the primary power supply or battery must be marked on the lifting magnet, if applicable. <i>This would be applicable if the lifting magnet has powered activation.</i>		
15) <u>MARKINGS – RATE LOAD</u> SHOW ME THE RATED LOAD MARKING ON THE LIFTING MAGNET. The rated load must be marked on the lifting magnet. 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>		
16) <u>MARKINGS – DESIGN CATEGORY</u> SHOW ME THE DESIGN CATEGORY MARKING ON THE LIFTING MAGNET. The design category must be marked on the lifting magnet. <i>Design Category refers to the lifting magnets static strength criteria.</i>		
17) <u>MARKINGS – SERVICE CLASS</u> SHOW ME THE SERVICE CLASS MARKING ON THE LIFTING MAGNET. The service class must be marked on the lifting magnet. <i>Service Class refers to the lifting magnet fatigue life criteria.</i>		

<p>18) <u>MARKINGS – PRODUCT SAFETY LABEL</u> SHOW ME THE PRODUCT SAFETY LABEL ON THE LIFTING MAGNET. The lifting magnet 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>19) <u>TEMPERATURES</u> WHAT IS THE TEMPERATURE RANGE OF THE LIFTING MAGNET FROM THE MANUFACTURER? AND HOW CAN THE WORKER VERIFY THIS. The worker knows temperatures exceeding normal ambient temperatures can affect the lifting magnet. <i>The worker must confirm with the manufacturer as they may differ.</i></p>		

<p>LIFTING MAGNET APPLICATION Evaluator to READ THE CAPITALIZED WORDS and see if the worker can successfully explain the following.</p>	<p>COMPETENT</p>	<p>NEEDS COACHING</p>
<p>20) <u>REMOVAL CRITERIA</u> HAVE THE WORKER TELL YOU REASONS TO REMOVE THE LIFTING MAGNET FROM SERVICE. 1. Structural members if deformed, cracked or worn, 2. Lifting magnet face for foreign materials and smoothness, 3. Condition of lifting bail or sling suspension, 4. Condition and operation of control handle, 5. Condition and operation of indicators and meters (where applicable), 6. Loose or missing, guards, fasteners, covers, stops or nameplates, 7. Cracked housings, welds and loose bolts, 8. Labels and markings, 9. Missing or illegible operating control markings. <i>Manufacturer may give specific criteria and must be referenced.</i></p>		
<p>21) <u>LOAD DISTRIBUTION</u> IF A LOAD IS ATTACHED TO A LIFTING MAGNET HAVE THE WORKER TELL YOU HOW THE LOAD MUST BE DISTRIBUTED? The worker knows that the lifting magnet must be attached securely above the loads center of gravity to achieve balance.</p>		
<p>22) <u>LOAD SECURITY</u> IF THE LIFTING MAGNET IS BEING USED TO LIFT A LOAD HAVE THE WORKER TELL YOU WHAT COULD AFFECT LOAD SECURITY. The worker knows that load thickness, material, surface condition, size, orientation, contact area and temperature can affect the lifting magnet load securement capabilities. The worker must also verify that the load is well secured and properly balanced when it is initially lifted, and use caution to avoid lifting multiple (stacked) loads due to the possibility of breakaway occurring. <i>Manufacturer will give specific criteria and must be referenced.</i></p>		
<p>23) <u>SIDE LOADING</u> IF THE LIFTING MAGNET IS BEING USED TO SIDE PULL OR SLIDE A LOAD HAVE THE WORKER TELL YOU HOW THIS AFFECTS THE LIFTING MAGNET. The worker knows that the lifting magnet 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>24) <u>STORAGE</u> 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 _____