


<b>Lifting Devices</b>	<b>Construction Approval</b>		<b>Re-Test Frequency and Method (Load, NDT, Visual Inspection)</b>	<b>Regulatory Code or Standard</b>
	<b>Is testing required before first use?</b>	<b>If yes, what testing method?</b>		
<b>Pad eyes</b>  Wall, hull, floor, beam, etc mount type pad eyes only  (Excluding CCU Pad Eyes)	Yes	Proof test to 1.5 times the SWL, visual inspection and pre and post NDT by a Qualified Inspector	Prior to each use - Visual inspection by a qualified individual  <b>1 Year</b> - visual certification by a Qualified Inspector to the degree deemed necessary by the Qualified Inspector  <b>5 Year</b> - Proof load test to 1.5 times the SWL or rated design, visual inspection,  <b>5 Year NDT</b> - performed at the discretion of Qualified Inspector <b>(Required if no record on file)</b>  <b>Deficient Padeyes lockout (LOTO)</b>  	ASME, OSHA, AWS D1.1
<b>Wire Rope Slings</b>  and  <b>Stingers</b>	Yes	Proof load test to 2 times the SWL and visual inspection by a qualified inspector	Prior to each use - Visual inspection by a qualified individual  <b>1 Year – (from in service date)</b> Replace or conduct an annual 3rd party proof load test to 2 times the SWL and visual inspection by a qualified inspector.	ASME, API RP 2D, OSHA, BP
<b>Nylon Slings / Pallet Straps</b>  <b>(Synthetic Slings)</b>	Yes	Proof Load tested by Manufacturer  visual inspection by a qualified inspector	Prior to each use - Visual inspection by a qualified individual  <b>1 Year (from in service date)</b> - Discard and replace nylon / synthetic slings.  <b>Heavy soiled/oiled/UV damaged/cut or            torn slings to be discarded            immediately.</b>	ASME, OSHA, API RP 2D, BP
<b>Shackles</b>	Yes	Proof load test to 2 times the SWL and visual inspection by a qualified inspector	Prior to each use - Visual inspection by a qualified individual  <b>1 year</b> - Visual recertification inspection by a qualified inspector	API RP 2D, ASME, OSHA, BP

<b>Spreader Bars</b>	Yes	Proof load test to 2 times the SWL, visual inspection and NDT by qualified person.	<p>Prior to each use - Visual inspection by a qualified individual</p> <p><b>1 Year</b> - visual certification by a Qualified Inspector to the degree deemed necessary by the Qualified Inspector</p> <p><b>5 Year</b> – Proof load test to 2 times the SWL, Visual inspection and NDT by Qualified Inspector</p>	ASME, OSHA
<b>Cargo Carrying Unit (CCU)</b>  <b>Portable Offshore Units</b>  Baskets, skids, skid mounted equipment, cabins, boxes, pallet types, reels and skid mounted types, tanks all types.  <b>ISO type lifting Points Prohibited</b>  <b>NOTE: EXCLUDES PERSONNEL BASKETS</b>  (X-904)	Yes	Visual inspection prior to each use.  Proof Load test to 2 times max gross weight, NDT inspection conducted by qualified person.	<p>Prior to each use - Visual inspection by a qualified individual</p> <p><b>12 months</b> – Visual inspection by a Qualified Inspector and NDT required</p> <p><b>5 Year</b> – Proof load test to 2 times the MGW (maximum gross weight), Visual inspection and NDT by Qualified Inspector</p> <p><b>After modification or repair</b> – Proof load test to 2 times the MGW (maximum gross weight), Visual inspection and NDT by Qualified Inspector</p>	ASME, DNV, BP
<b>Trolleys</b>	Yes	Proof load test to 125 % of SWL, visual inspection and NDT by a Qualified Inspector	<p>Prior to each use - Visual inspection by a qualified individual</p> <p><b>1 Year</b> - visual certification by a Qualified Inspector to the degree deemed necessary by the Qualified Inspector</p> <p><b>5 Year</b> - Proof load testing to 125 % of the SWL, visual inspection</p> <p><b>NDT-</b> performed at the discretion of Qualified Inspector</p> <p><b>5 Year Integrity Check- Discard older equipment to ensure adequate safety factors are maintained</b></p>	API RP 2D, ASME, OSHA, OGP
<b>Monorails</b>	Yes	Proof load test to 125 % of SWL, visual inspection and NDT by a Qualified Inspector	<p>Prior to each use - Visual inspection by a qualified individual</p> <p><b>1 Year</b> - visual certification by a Qualified Inspector to the degree deemed necessary by the Qualified Inspector</p> <p><b>5 Year</b> - Proof load test to 125 % of the SWL, visual inspection</p> <p><b>NDT-</b> performed at the discretion of Qualified Inspector</p>	API RP 2D, ASME, OSHA

Chain Fall / Hoist	Yes	Proof load test to 125 % of SWL, visual inspection by a Qualified Inspector	<p>Prior to each use - Visual inspection by a qualified individual and consultation of operating manual for proper configuration.</p> <p><b>1 Year</b> - Proof load tested to 125 % of the SWL and visual inspection by a Qualified Inspector</p> <p><b>5 Year Integrity Check- Discard older equipment to ensure adequate safety factors are maintained</b></p>	ASME, OSHA, BP
Eye Bolts with Threaded Rods	No	Inspected by Manufacturer	<p>Prior to each use visual inspection by qualified person. <b>1 year inspection.</b> See guide for inspection in ASME B30.26-2.8.4</p>	ANSI / ASME B30.26-2010
Master Links, all type Rings and Swivels	Yes	<p>By Manufacturer.</p> <p>And by Rigging Supply Company</p>	<p>Prior to each use - Visual inspection by a qualified individual</p> <p><b>1 year</b> inspection and tested when attached to sling rigging set proof tested to 2 times rated load. (same as slings)</p>	<p>ASME B30.26-4</p> <p>BP</p>
Rigging Blocks all Types	NO	Inspection by qualified person	<p>Prior to each use - Visual inspection by a qualified individual</p> <p><b>In service date:</b> Annual Inspection and certification by qualified inspector. Proof tested 1.5 times rated capacity.</p> <p>Review ASME B30.26-5.8.4 for removal from service.</p>	<p>ASME B30.26-5</p> <p>BP</p>
Tripods & A-Frames	Yes	Proof load test to 125 percent of SWL, visual inspection and NDT by a Qualified Inspector	<p>Prior to each use - Visual inspection by a qualified individual</p> <p><b>1 Year</b> - visual certification by a Qualified Inspector to the degree deemed necessary by the Qualified Inspector</p> <p><b>5 Year</b> - Proof load testing to 125 percent of the SWL, visual inspection and NDT by a Qualified Inspector</p>	ASME

**Note: Any lifting & rigging equipment that is found to be defective should be tagged out of service immediately and properly discarded or repaired.**

## PADEYE INSPECTION CRITERIA

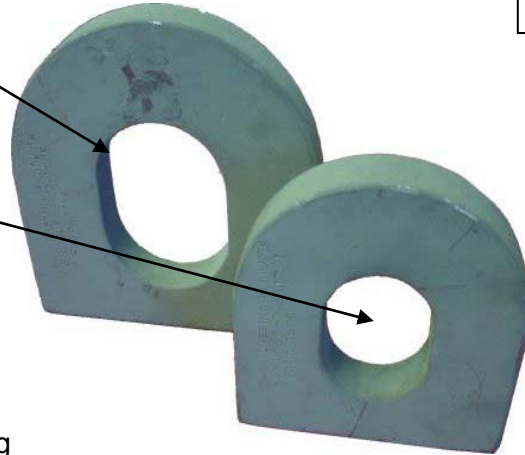
### Inspection Criteria

- Damage
- Corrosion
- Cracks

### Applicable Standards

- ASME
- OSHA
- AWS D1.1

Holes are not within industry standards. Pad eye hole ID must be 6 to 10% larger than the OD shackle pin OD size.



- Bending or twisting
- Ensure there are no jagged or flame cut eyes
- Correct and legible tag information

### Most Common Causes of Damage

- Damage due to misuse
  1. Deformation due to overload or improper lifting
- Effects of the environment
  1. Severe corrosion, Pitting or metal loss, Abrasions from side loading,

### Inspection Criteria

- Broken wires (5 and 10)
- Heat damage
- Crushing, kinking, & bird caging
- Reduction in size of the rope (Abrasion and Corrosion)
- 10 times the rope diameter between the sleeves
- Damaged end fittings
- Core damage

### Most Common Causes of Damage

- Broken Wires
  1. Fatigue
  2. Insufficient D/d ratios
- Effects of the Environment
  1. Corrosion
  2. Core damage
  3. Loss of flexibility
- Damage due to misuse
  1. Kinking
  2. Crushing
  3. Bird caging
  4. Shock loading
  5. Core protrusion
- Loss of Diameter
  1. Exterior wire wear due to incorrect sheave size
  2. Core damage

### Applicable Standards

- API RP 2D
- ASME B30.9
- OSHA 1910.184

### Example of Wire Rope Sling Abuse



Broken Wires



Worn Wires



Corroded



Bird Caging



Kinked and Crushed



Worn and Deformed Attachments

## **NYLON SLING INSPECTION CRITERIA**

### **Inspection Criteria**

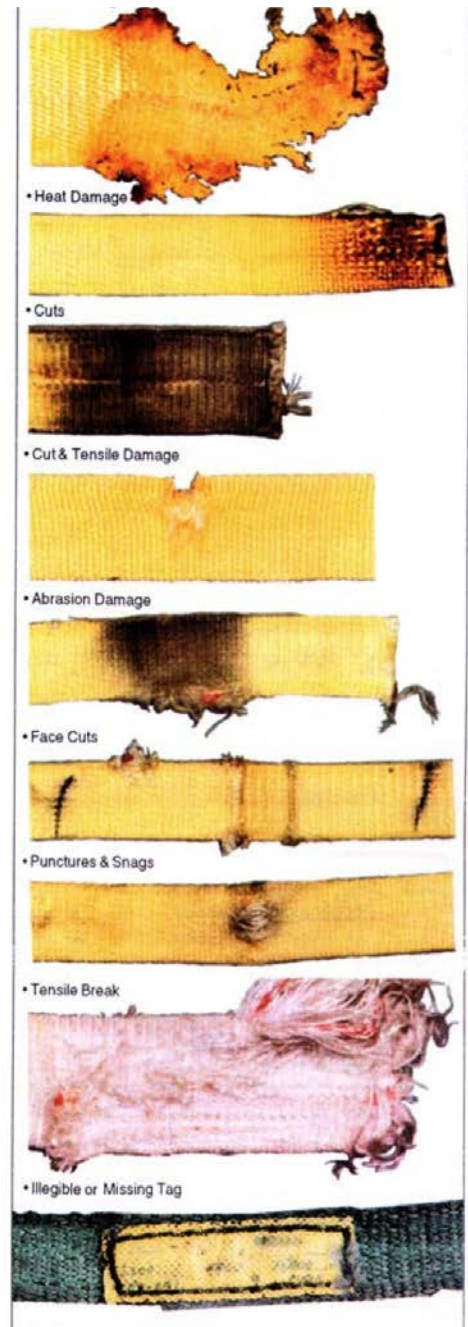
- Heat damage
- Ultra violet damage
- Tag readable
- Caustic damage
- Tears, snags, puncture holes, & cuts
- Damaged end fittings
- Worn/ broken stitching
- Knots
- Severe abrasion

### **Most Common Causes of Damage**

- Damage do to misuse
  1. Used on sharp corners
  2. Exposed at excessive temperatures
  3. Exposure to welding
  4. Abrasion
  5. Tag illegible
  6. Damage do to overloading
- Effects of the environment
  1. Ultra violet damage
  2. Caustic damage and acid damage

### **Applicable Standards**

- ASME B30.9
- OSHA 1910.184



## **SHACKLE INSPECTION CRITERIA**

### **Inspection Criteria**

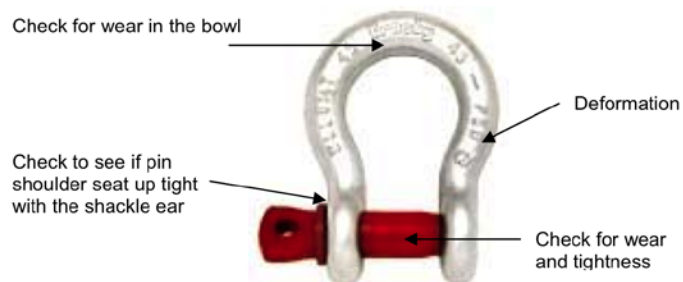
- Deformation stretch
- Gouges, cracks, and nicks
- Excessive corrosion
- Heat damage
- Wear in excess of 10% at any point
- Correct pin in place
- Proper size and working load permanently marked

### **Most Common Causes of Damage**

- Damage due to misuse
  1. Overload stretch or side load deformation
  2. Gouges and nicks
  3. Heat damage exposure to welding or heat source
  4. Excessive wear in load bearing contact points
- Effects of environment
  1. Excessive corrosion due to exposure

### **Applicable Standards**

- API RP2 D
- ASME B30.26
- OSHA 1910.184



## **SPREADER BAR INSPECTION**

### **Inspection Criteria**

- Damage
- Corrosion
- Smooth boreholes (pad eyes)
- Cracks
- Security of weld / bolts
- Wear
- Deformation
- Correct and legible tag information

### **Most Common Causes of Damage**

- Damage due to misuse
  2. Bent or broken pad eyes or supports
  3. Deformation due to overload or improper lifting
- Effects of the environment
  1. Severe corrosion
  2. Pitting or metal loss

### **Applicable Standards**

- ASME
- OSHA





## **CARGO CARRYING UNIT INSPECTION CRITERIA**

### **Inspection Criteria**

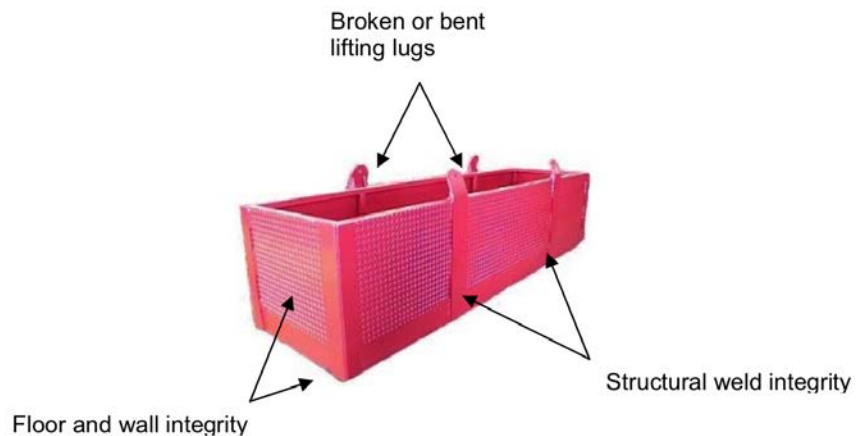
- Broken or bent lifting lugs
- Structural weld integrity
- Floor and wall integrity
- Excessive corrosion
- Legible manufacturers tag securely attached
- Capacity markings

### **Most Common Causes of Damage**

- Damage due to misuse
  1. Bent or broken lugs and supports
  2. Deformation due to overload, or improper lifting
- Effects of the Environment
  1. Severe corrosion / side panel or flooring broken
  2. Pitting /loss of metal

### **Applicable Standards**

- BP
- DNV 2.7-1
- ASME B30.20



## **TROLLEY BEAM INSPECTION CRITERIA**

### **Inspection Criteria**

- Bent or worn clamp jaws
- Bent, worn, or cracked threading lever
- Load bearing pin integrity
- Excessive Corrosion
- Legible manufacturers tag securely attached
- Heat damage

### **Most Common Causes of Damage**

- Damage due to misuse
  1. Cracks, nicks, or gouges
  2. Deformation due to overload, or improper lifting
  3. Heat damage due to exposure to welding or heat source
- Effects of the Environment
  1. Severe corrosion
  2. Pitting /loss of metal

### **Applicable Standards**

- API RP2 D
- ASME B30.2
- ASME B30.18
- OSHA 1910.184



## **MONORAIL INSPECTION CRITERIA**

### **Inspection Criteria**

- Bent or worn clamp jaws
- Bent, worn, or cracked threading lever
- Load bearing pin integrity
- Excessive Corrosion
- Legible manufacturers tag securely attached
- Heat damage

### **Most Common Causes of Damage**

- Damage due to misuse
  1. Cracks, nicks, or gouges
  2. Deformation due to overload, or improper lifting
  3. Heat damage due to exposure to welding or heat source
- Effects of the Environment
  1. Severe corrosion
  2. Pitting /loss of metal

### **Applicable Standards**

- API RP2 D
- ASME B30.2
- ASME B30.18
- OSHA 1910.184



## **CHAINFALL / HOIST INSPECTION CRITERIA**

### **Inspection Criteria**

- Damage
- Corrosion
- Cracks
- Chain condition
- Sheave or pinion wear



- Hook deformation
- Correct and legible tag information

### **Most Common Causes of Damage**

- Damage due to misuse
  1. Deformation due to overload or improper lifting
- Effects of the environment
  1. Severe corrosion
  2. Pitting or metal loss

### **Applicable Standards**

- ASME
- OSHA
- BP

## **A-FRAME INSPECTION CRITERIA**

### **Inspection Criteria**

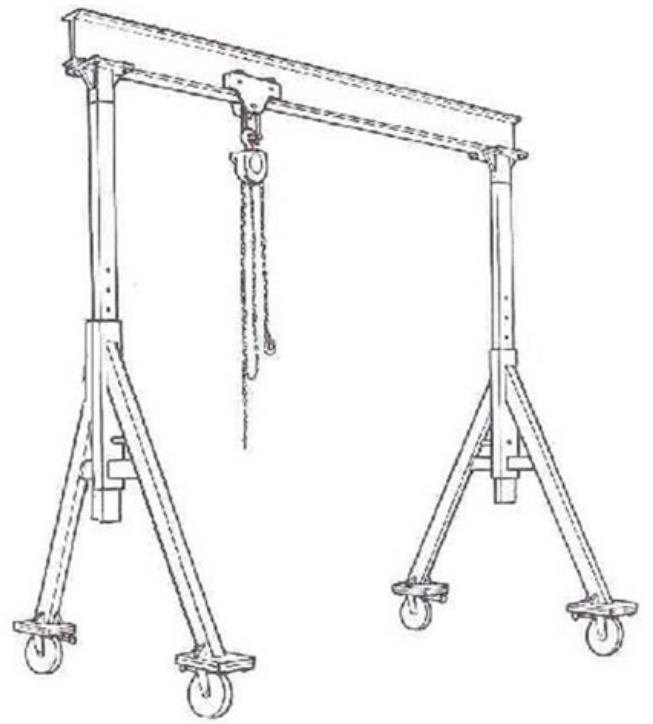
- Damage
- Corrosion
- Cracks
- Sheave or pinion wear
- Loose or missing bolts, nuts or rivets
- Operation of limiting devices (if installed)
- Correct and legible tag information

### **Most Common Causes of Damage**

- Damage due to misuse
  1. Deformation due to overload or improper lifting
- Effects of the environment
  1. Severe corrosion
  2. Pitting or metal loss

### **Applicable Standards**

- **ASME**



# Gulf of Mexico

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