
Cargo Handling Gear and Equipment

- 1917 – Subpart C

1917 - Subpart C

- 1917.41 - House falls
- 1917.42 - Miscellaneous auxiliary gear
- 1917.43 - Powered industrial trucks
- 1917.44 -General rules applicable to vehicles
- 1917.45 - Cranes and derricks
- 1917.46 - Load indicating devices

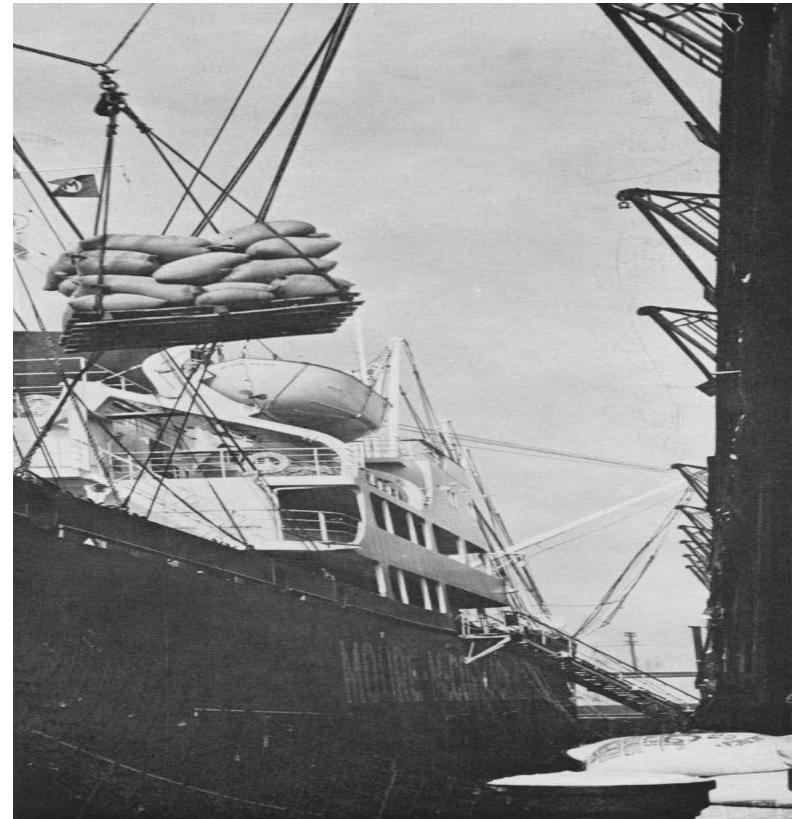
1917 - Subpart C

- 1917.47 – Winches
- 1917.48 – Conveyors
- 1917.49 - Spouts, chutes, hoppers, bins, and associated equipment
- 1917.50 - Certification of marine terminal material handling devices
- 1917.51 - Hand tools

House Falls

1917.41(a)

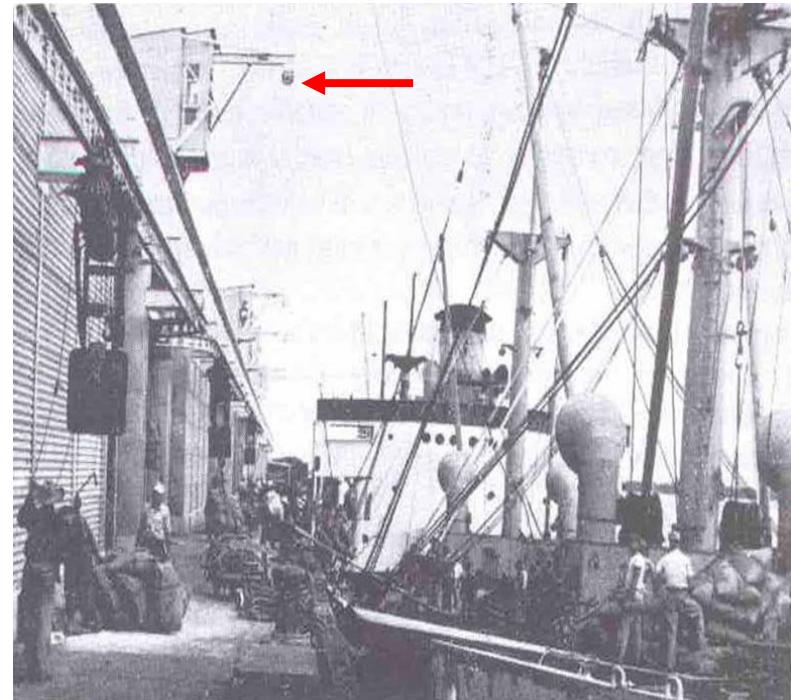
- Span beams secured to prevent accidental dislodgement



House Falls

1917.41(b)

- Safe means of access provided for employees working with house fall blocks



House Falls

1917.41(c)

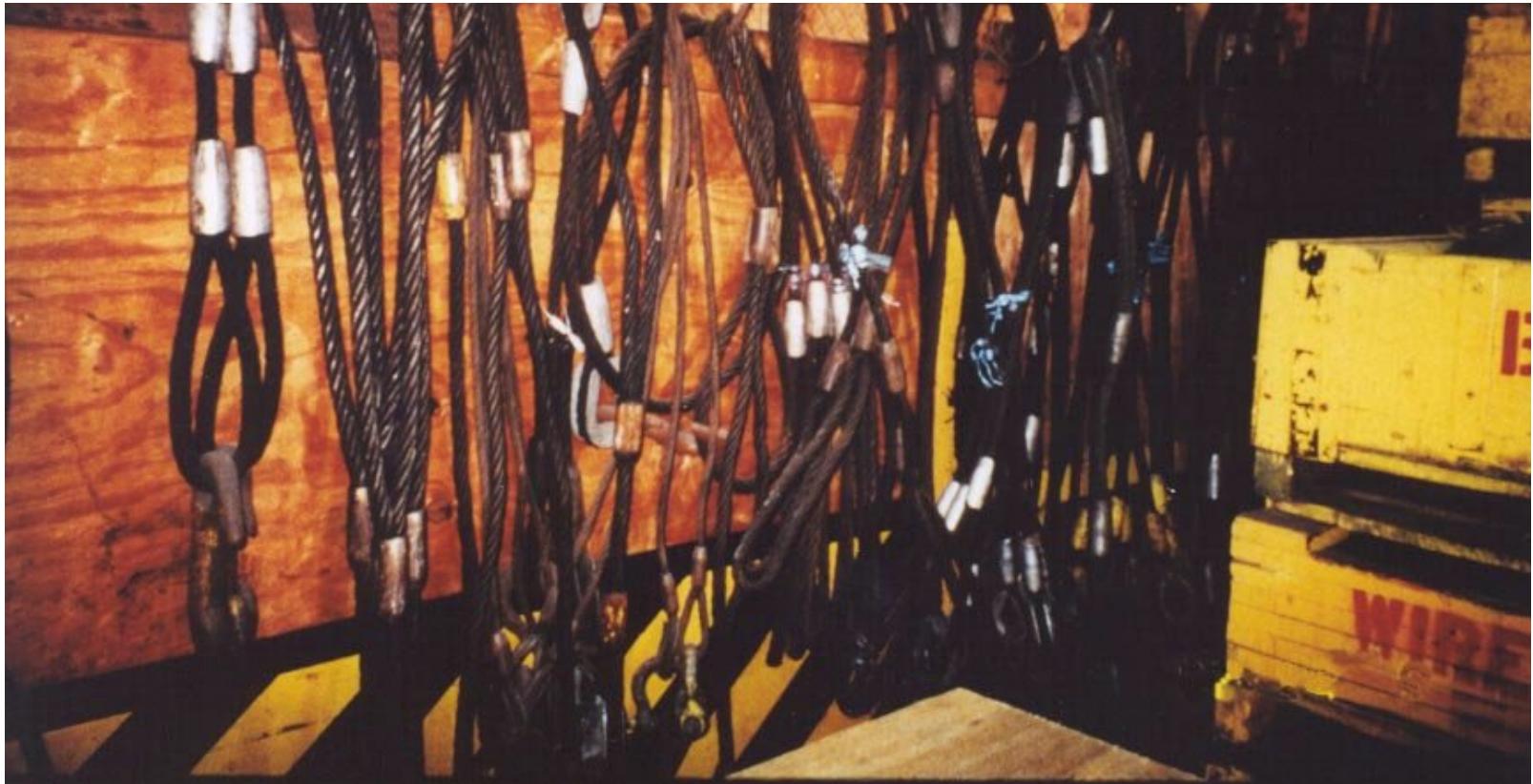
- Chains, links, shackles, swivels, blocks and other loose gear inspected daily before use
- Defective gear not used



Miscellaneous Auxiliary Gear

1917.42(a)(1)

- Loose gear stored to prevent damage



Miscellaneous Auxiliary Gear

1917.42(a)(2)

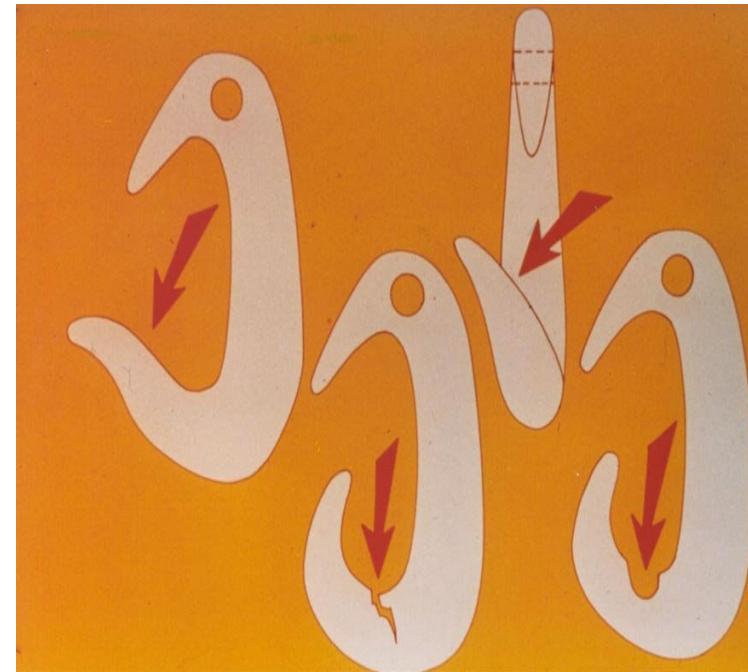
- Loose gear inspected before use and periodically during use
 - Ensure it is safe
- Unsafe gear not used until made safe



Miscellaneous Auxiliary Gear

1917.42(a)(3)

- Defective gear not used
- Distorted hooks, shackles or similar gear discarded



Miscellaneous Auxiliary Gear

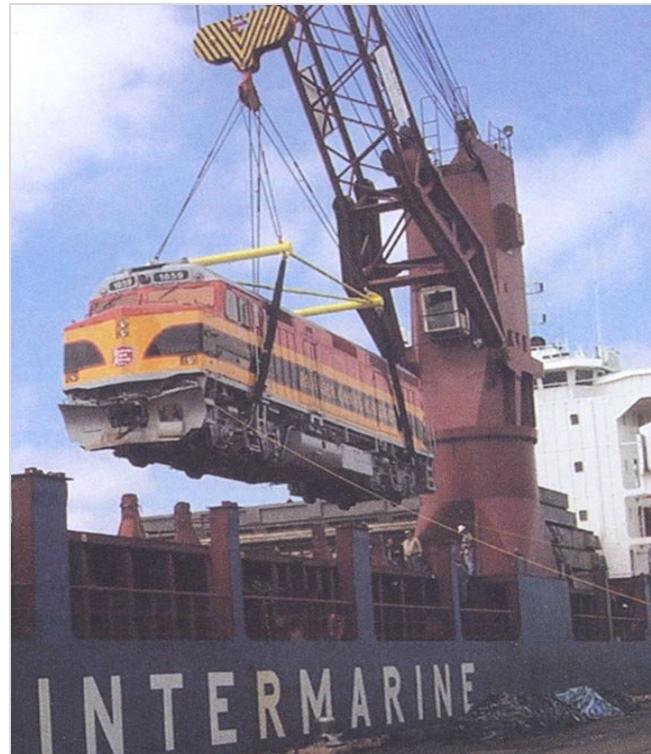
1917.42(b)(1)

- Employer adhere to manufacturer's recommended ratings for wire rope and wire rope slings
- When ratings not available – use ANSI B30.9-1971 for slings

Rigger's Reference Card										
Sling Capacities			MECHANICAL SPLICING IN POUNDS			DESIGN FACTOR = 5:1				
Wire Rope IPS WHC	Size in inches	VERTICAL	CHOKER	12-Legs or Basket 90°	60°	45°	30°	Color Code (Optional)		
	1/4	1,100	840	2,200	1,940	1,580	1,100	White 1/4		
	5/16	1,700	1,300	3,400	3,000	2,400	1,700	Lt.Green 5/16		
	3/8	2,400	1,860	4,800	4,200	3,600	2,400	Red 3/8		
	7/16	3,400	2,500	6,800	5,800	4,800	3,400	Yellow 7/16		
	1/2	4,400	3,200	8,800	7,600	6,200	4,400	Lt.Blue 1/2		
	9/16	5,500	4,200	11,000	9,600	7,700	5,500	Black 9/16		
	5/8	6,800	5,000	13,600	11,800	9,600	6,800	Orange 5/8		
	3/4	9,700	7,200	19,400	16,800	13,600	9,700	Tan 3/4		
	7/8	13,000	9,800	26,000	22,000	18,300	13,000	DK.Green 7/8		
	1	17,000	12,800	34,000	30,000	24,000	17,000	Purple 1		
	1-1/8	20,000	15,600	40,000	36,000	30,000	20,000	DK. Blue 1-1/8		
	1-1/4	25,000	18,400	50,000	42,000	34,000	25,000	Gold 1-1/4		
	MULTIPLIER →			1.00	.75	.60	← MULTIPLIER			
	Formula to find sling length → Load width x Multiplier = Sling Length									
Sling Capacities DESIGN FACTORS - CHAIN 4:1, WEB 5:1, POLYPRO ROPE 6:1										
Chain G-8	Size in inches	VERTICAL	CHOKER	12-Legs or Basket 90°	60°	45°	30°	Color Code (Optional)		
	9/32	3,500	2,620	7,000	6,050	4,950	3,500	Must be tagged for length & strength 9/32		
	3/8	7,100	5,300	14,200	12,300	10,000	7,100	3/8		
	1/2	12,000	9,000	24,000	20,800	17,000	12,000	1/2 Chain G-8		
	5/8	18,100	13,500	36,200	31,300	25,600	18,100	5/8		
	1-9-1	1,600	1,280	3,200	2,770	2,260	1,600	1-9-1		
	1-9-2	3,200	2,560	6,400	5,540	4,452	3,200	1-9-2		
	1-9-3	4,800	3,840	9,600	8,320	6,780	4,800	1-9-3		
	1-9-4	6,400	5,120	12,800	11,090	9,040	6,400	1-9-4		
	2-9-3	8,880	7,100	17,760	15,390	12,540	8,880	2-9-3		
	2-9-4	11,520	9,210	23,040	19,960	16,270	11,520	2-9-4		
Polypro Rope	Size in inches	VERTICAL	CHOKER	12-Legs or Basket 90°	60°	45°	30°	Color Code (Optional)		
	1/2	645	325	1,290	1,120	910	645	1/2		
	9/16	780	390	1,560	1,350	1,100	780	9/16		
	5/8	950	475	1,900	1,650	1,340	950	5/8		
	3/4	1,300	650	2,600	2,250	1,840	1,300	3/4		
	7/8	1,760	880	3,520	3,050	2,490	1,760	7/8		
	1	2,140	1,070	4,280	3,700	3,030	2,140	1		

Miscellaneous Auxiliary Gear 1917.42(b)(1)(i)-(iii)

- Wire rope with safety factor of >5 only used:
 - In specialized equipment designed for a lesser wire rope safety factor
 - Designed standing rigging applications
 - Heavy lifts or other purposes where safety factor of 5 is impracticable and employer can demonstrate equivalent safety



Miscellaneous Auxiliary Gear

1917.42(b)(2)(i)

- Wire rope or wire rope slings not used if:
 - Ten randomly distributed broken wires in one rope lay, **or**
 - Three or more broken wires in one strand in one rope lay



Miscellaneous Auxiliary Gear

1917.42(b)(2)(ii)

- Not to be used if:
 - Kinking
 - Crushing
 - Bird caging, **or**
 - Distortion of wire rope structure



Miscellaneous Auxiliary Gear 1917.42(b)(2)(iii)

- Not to be used if:
 - Evidence of heat damage



Miscellaneous Auxiliary Gear

1917.42(b)(2)(iv)

- Not to be used if:
 - Excessive wear
 - Corrosion
 - Deformation, or
 - Other defect in wire or attachments



Miscellaneous Auxiliary Gear

1917.42(b)(2)(v)

- Not to be used if:
 - Any indication of strand or wire slippage in end attachment



Miscellaneous Auxiliary Gear 1917.42(b)(2)(vi)

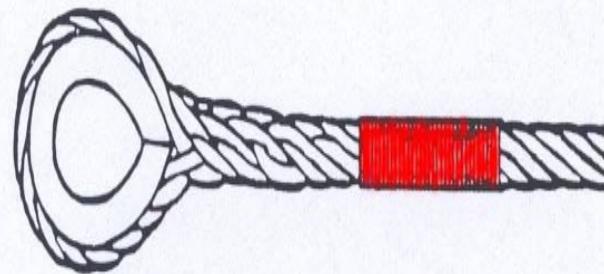
- Not to be used if:
 - More than one broken wire in close vicinity of socket or swaged fitting



Miscellaneous Auxiliary Gear

1917.42(b)(3)

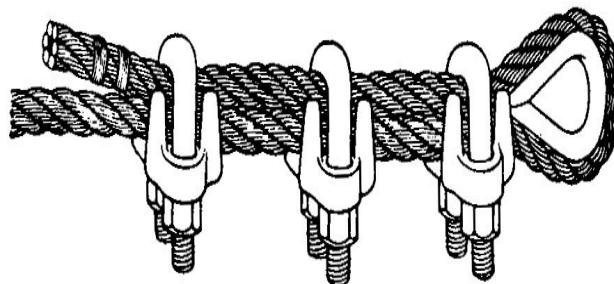
- Protruding ends of strands in splices on slings and bridles covered or blunted



Miscellaneous Auxiliary Gear

1917.42(b)(4)

- Where wire rope clips form eyes, adhere to manufacturer's recommendations
- Manufacturer's recommendations not available - Table C-1 used to determine number and spacing of clips



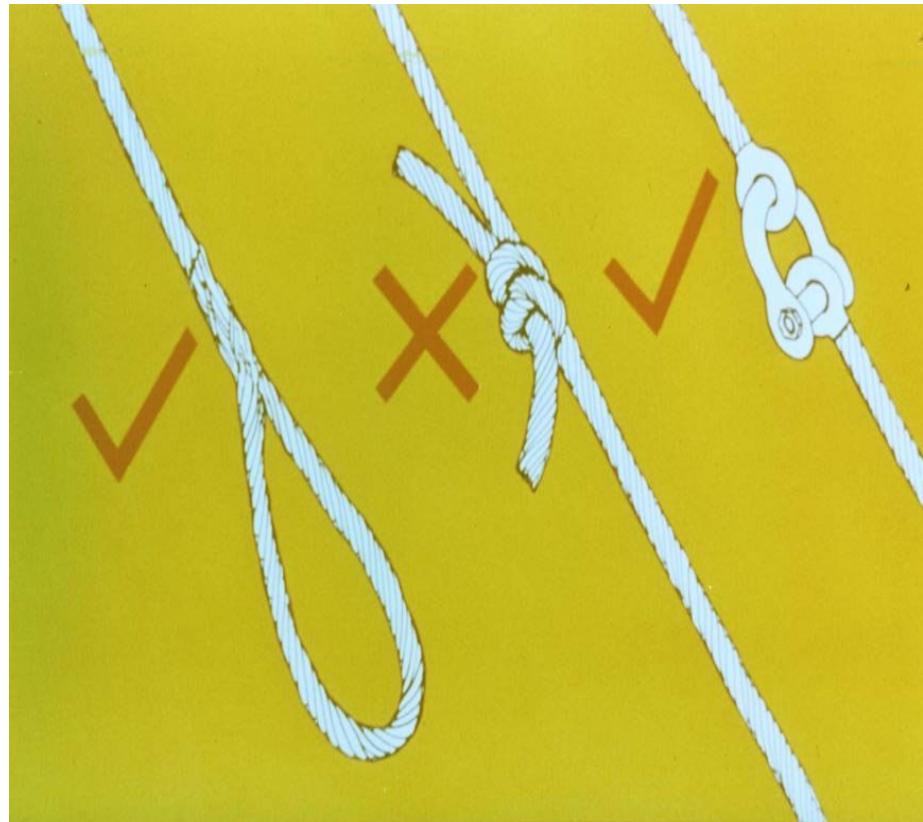


NEVER SADDLE
A DEAD HORSE!!!

Miscellaneous Auxiliary Gear

1917.42(b)(5)

- Wire rope not secured by knots



Miscellaneous Auxiliary Gear

1917.42(b)(6)

- Eyes in wire rope bridles, slings, bull wires, or in single parts used for hoisting
 - Not formed by wire rope clips or **knots**



Miscellaneous Auxiliary Gear

1917.42(b)(7)

- Eye splices
 - At least three tucks
 - With a whole strand of the rope, and
 - Two tucks with one-half of wire cut from each strand



Miscellaneous Auxiliary Gear

1917.42(b)(8)

- Wire rope used in hoisting, lowering or bulling cargo
 - One continuous piece without knot or splices
- Exception: eye splices in ends of wire and endless rope slings.



Miscellaneous Auxiliary Gear

1917.42(c)(1)

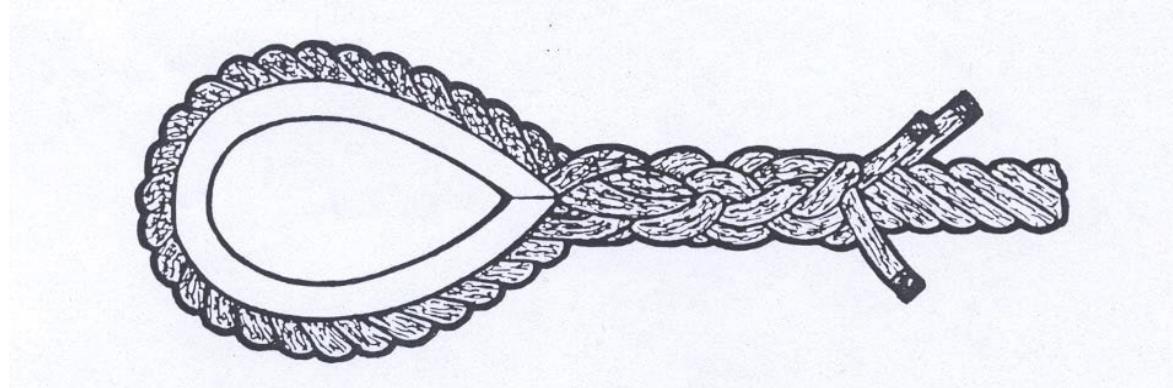
- Know manufacturer's ratings for specific natural fiber rope used
 - Have such ratings available at terminal
- Manufacturer's rating followed
- Minimum design safety factor of five



Miscellaneous Auxiliary Gear

1917.42(c)(2)

- Eye splices have three full tucks
- Short splices have at least six full tucks, three on each side of center line



Miscellaneous Auxiliary Gear

1917.42(d)(1)

- Manufacturer's ratings and use recommendations for synthetic fiber rope followed
- Ratings available at terminal



Miscellaneous Auxiliary Gear 1917.42(e)(1)-(7)

- Removal of natural and synthetic rope from service:
 - Abnormal wear
 - Powdered fiber between strands
 - Cut or broken fibers affecting capability of rope
 - Variations in size
 - Discoloration other than stains not associated with rope damage
 - Rotting
 - Distortion or other damage



Miscellaneous Auxiliary Gear

1917.42(f)

- Properly fitting thimbles used when rope secured permanently to a ring, shackle or attachment, where practicable



Miscellaneous Auxiliary Gear

1917.42(g)(1)

- Slings and nets or combinations of synthetic webbing assembled and used as a single unit
 - Not used in excess of sling's rating capacity

Bishop Lifting Products, Inc. P.O. Box 15619 • 1410 Harris Street
Houston, Texas 77220 U.S.A.
Phone (713) 674-2266 • (800) 972-1041
Fax (713) 672-9229

NYLON WEB SLINGS RATED CAPACITIES IN LBS.

TYPE 1 162" WIDTH

CHOKER	VERTICAL	VERTICAL BASKET	CHOKER	VERTICAL	VERTICAL BASKET	
1'	1280	1600	3200	2480	3100	6200
2'	2480	3100	6200	4960	6200	11400
3'	3760	4700	9400	7040	8800	17800
4'	4960	6200	12400	8800	11000	22000
5'	7440	9300	18600	13200	16500	33000
6'	9920	12400	24800	17600	22000	44000
8'	12400	15500	31000	22000	27500	55000
10'	14880	18600	37200	25400	33000	66000
12'						

*Choker Not Applicable on Type 2

TYPE 2 3&4" WIDTH

CHOKER	VERTICAL	VERTICAL BASKET	CHOKER	VERTICAL	VERTICAL BASKET	
1'	1280	1600	3200	2480	3100	6200
2'	2480	3100	6200	4960	6200	11400
3'	3760	4700	9400	7040	8800	17800
4'	4960	6200	12400	8800	11000	22000
5'	7440	9300	18600	13200	16500	33000
6'	9920	12400	24800	17600	22000	44000
8'	12400	15500	31000	22000	27500	55000
10'	14880	18600	37200	25400	33000	66000
12'						

TYPE 5 WIDTH

CHOKER	VERTICAL	VERTICAL BASKET	CHOKER	VERTICAL	VERTICAL BASKET	
1'	2480	3200	6400	4960	6200	11400
2'	4960	6200	12400	9920	12400	24800
3'	7520	9400	18800	14080	17600	35200
4'	9920	12400	24800	17600	22000	44000
6'	14880	18600	37200	26400	33000	66000
8'						

Miscellaneous Auxiliary Gear

1917.42(g)(2)

- Slings removed from service if any defects:

- Acid or caustic burns
- Melting or charring
- Snags, punctures, tears or cuts
- Broken or worn stitches
- Distortion or damage to fittings
- Display of visible warning threads



Miscellaneous Auxiliary Gear

1917.42(g)(3)

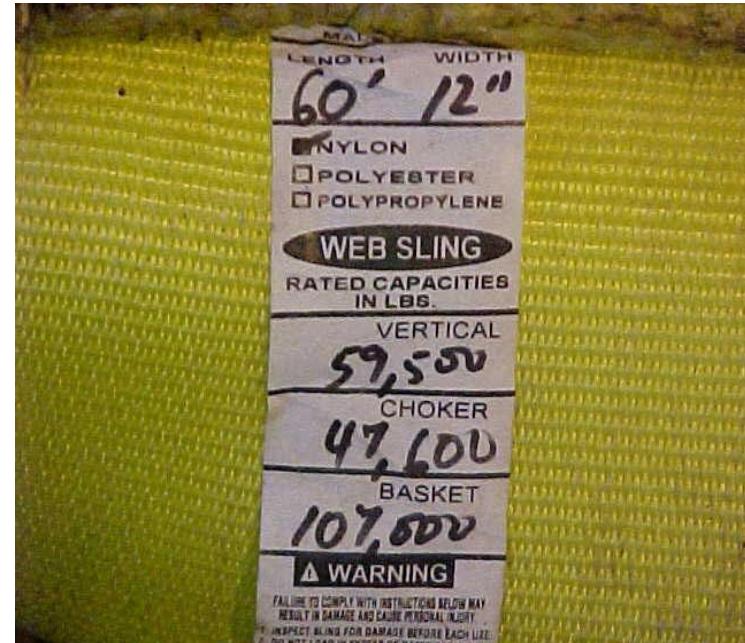
- Defective synthetic web slings removed from service
 - Not returned to service unless repaired by sling manufacturer
- Repaired sling proof tested
- Retain certificate of proof test



Miscellaneous Auxiliary Gear

1917.42(g)(4)

- Synthetic web slings used only in accordance with manufacturer's recommendations
 - Manufacturer's recommendations available



Miscellaneous Auxiliary Gear

1917.42(g)(5)

- Fittings have a breaking strength at least equal to that of sling
- Fittings free of sharp edges



Miscellaneous Auxiliary Gear

1917.42(h)(1)

- Adhere to manufacturer's recommended ratings for safe working loads of chains and chain slings
- Ratings not available - use tables in ANSI 30.9-1971 for slings



Miscellaneous Auxiliary Gear

1917.42(h)(2)

- Proof coil steel chain (common or hardware chain) and chain not recommended by manufacturer
 - Not used for slinging or hoisting



Miscellaneous Auxiliary Gear

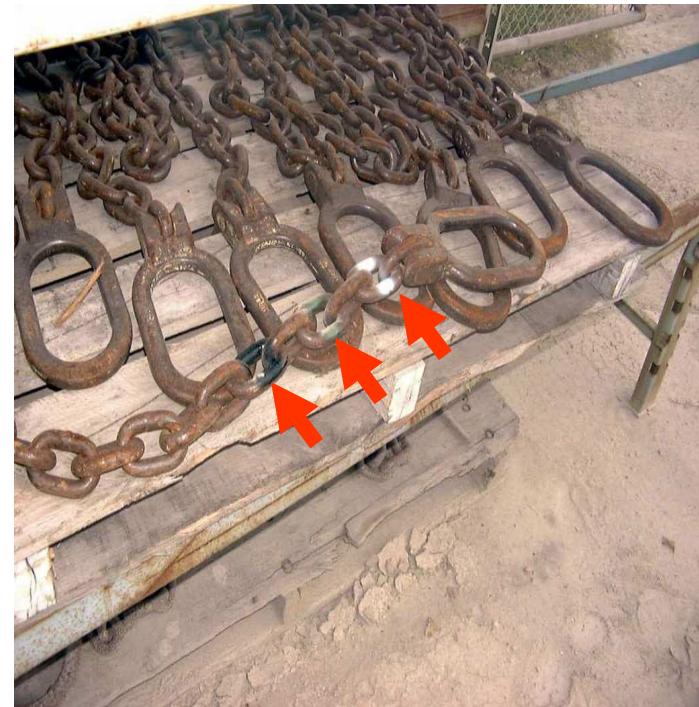
1917.42(h)(3)(i)

- Sling chains, including end fastenings, inspected for visible defects
 - Before each day's use
- As often as necessary during use to ensure integrity of sling



Miscellaneous Auxiliary Gear 1917.42(h)(3)(ii)

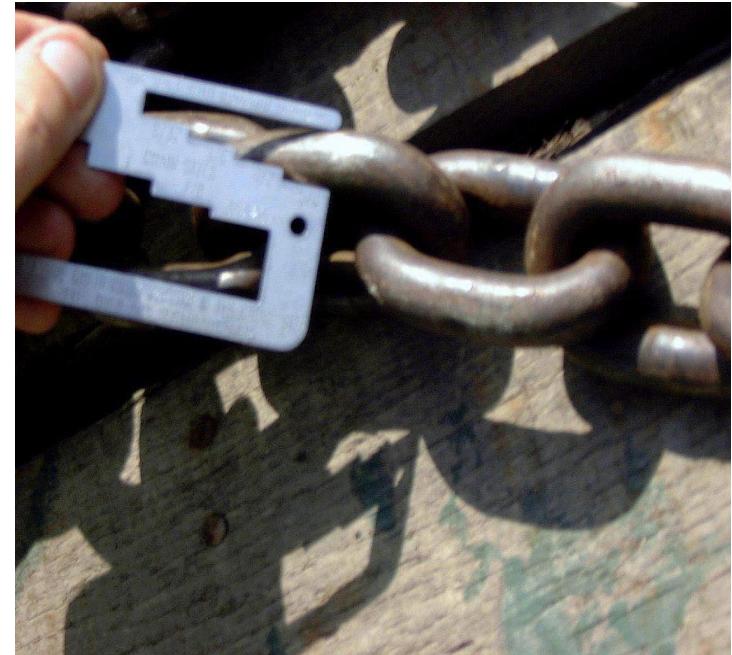
- Thorough inspections of chains in use made quarterly:
 - Detect wear
 - Defective welds
 - Deformation
 - Increase in length or stretch
- Month of inspection indicated on each chain
 - Color of paint on link or other means



Miscellaneous Auxiliary Gear

1917.42(h)(3)(iii)

- Chains removed from service
 - When maximum allowable wear is reached at any point of link
 - As indicated in Table C-2



Miscellaneous Auxiliary Gear 1917.42(h)(3)(iv)

- Chain slings removed from service when:
 - Stretch has increased length of a measured section by more than 5%
 - Link is bent
 - Twisted or otherwise damaged
 - When a link has a raised scarf or defective weld



Miscellaneous Auxiliary Gear 1917.42(h)(3)(v)

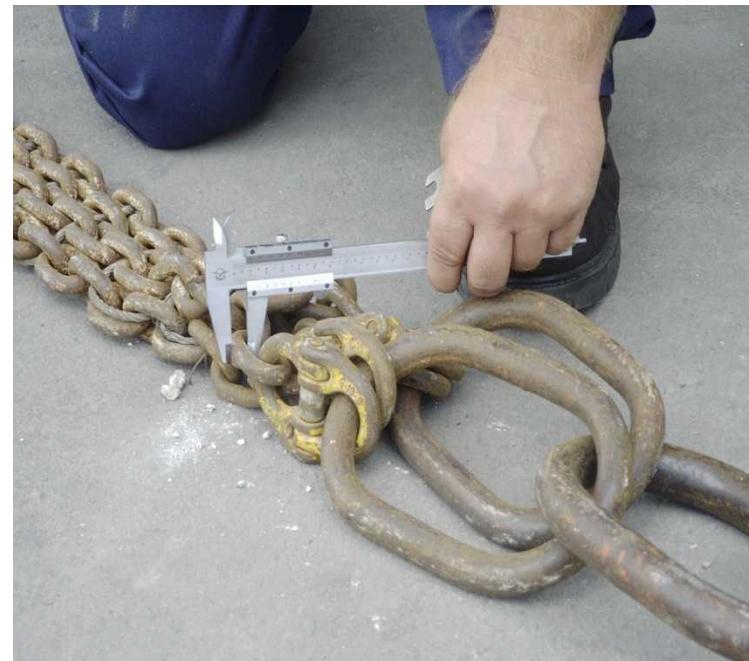
- Only designated persons inspect chains used for slinging and hoisting



Miscellaneous Auxiliary Gear

1917.42(h)(4)

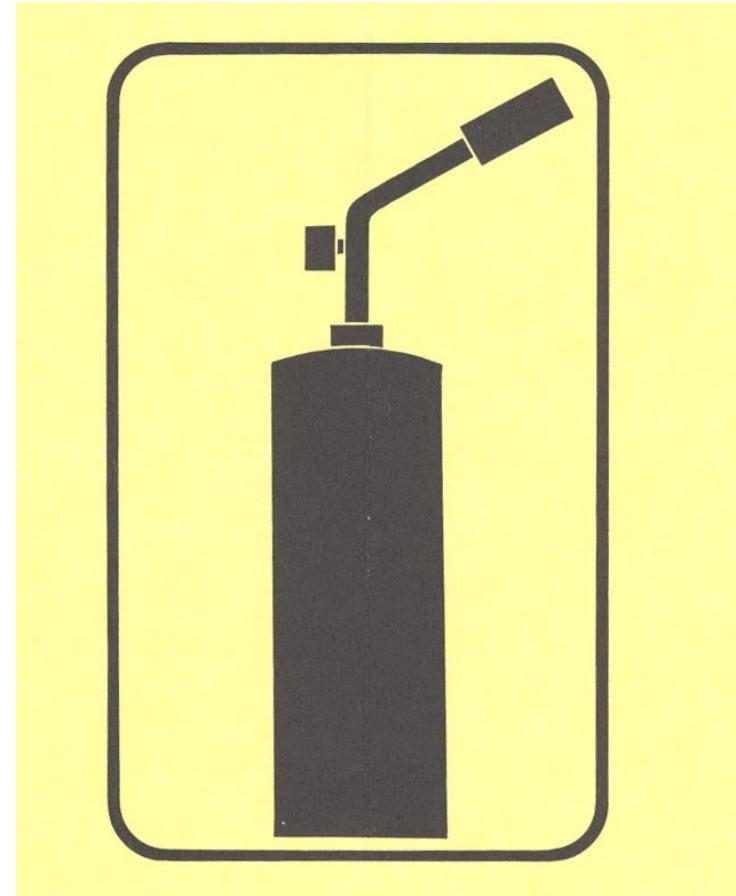
- Chains only repaired under qualified supervision
- Repaired chains proof load tested before returning to service
- Tests performed by manufacturing or accredited agency
- Test certificates available



Miscellaneous Auxiliary Gear

1917.42(h)(5)

- Wrought iron chains in use annealed or normalized at least every six months
- Heat treatment certificates available
- Alloy chains not annealed



Miscellaneous Auxiliary Gear

1917.42(h)(6)

- Kinked or knotted chains not used for lifting
- Chains not shortened by bolting, wiring or knotting



Miscellaneous Auxiliary Gear

1917.42(h)(7)

- Hooks, rings, links and attachments affixed to sling chains
 - Have rated capacities at least equal to that of chains



Miscellaneous Auxiliary Gear

1917.42(h)(8)

- Chain slings bear identification of size, grade and rated capacity



Miscellaneous Auxiliary Gear

1917.42(i)(1)

- Manufacturer's recommended safe working loads for shackles not exceeded
- If manufacturer's recommendations are not available
 - Table C-3 applied



Miscellaneous Auxiliary Gear

1917.42(i)(2)

- Screw pin shackles have their pins moused or otherwise effectively secured
 - Except for use in cargo hook assemblies



Miscellaneous Auxiliary Gear

1917.42(j)(1)

- Manufacturer's recommended safe working loads for hooks not exceeded
- Hooks tested in accordance with 1917.50(c)(6)



Miscellaneous Auxiliary Gear

1917.42(j)(2)

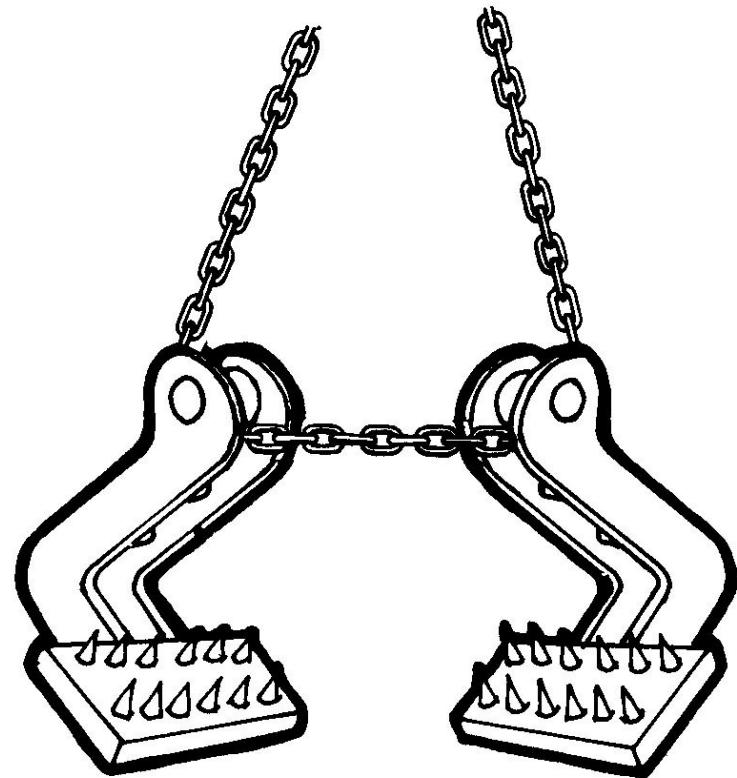
- Bent or sprung hooks discarded



Miscellaneous Auxiliary Gear

1917.42(j)(3)

- Teeth of case hooks maintained in safe condition



Miscellaneous Auxiliary Gear

1917.42(j)(4)

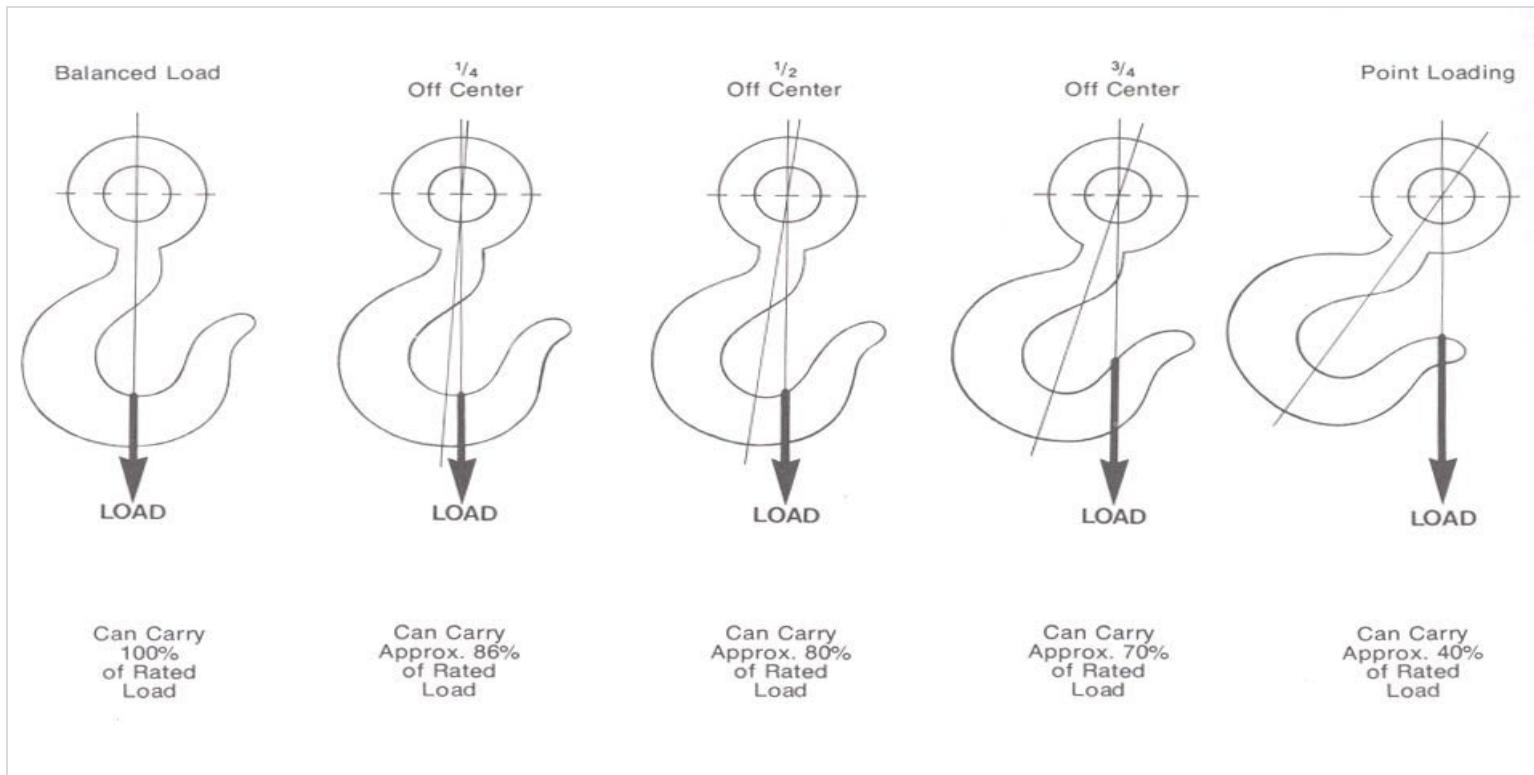
- Jaws of patent clamp-type plate hooks maintained in condition to grip plates securely



Miscellaneous Auxiliary Gear

1917.42(j)(5)

- Loads applied to throat of hook only



Miscellaneous Auxiliary Gear

1917.42(k)(1)

- Pallets made and maintained to safely support and carry loads being handled
- Fastenings of reusable pallets for hoisting:
 - Bolts and nuts
 - Drive screws
 - Annular threaded nails



Miscellaneous Auxiliary Gear

1917.42(k)(2)

- Damaged pallets stored in designated areas and identified



Miscellaneous Auxiliary Gear

1917.42(k)(3)

- Reusable wing or lip-type pallets hoisted by bar bridles or other suitable gear
- Have an overhanging wing or lip of at least 3"
- Not hoisted by wire slings alone



Miscellaneous Auxiliary Gear

1917.42(k)(4)

- Loaded pallets not meeting requirements of this section
 - Handled by other means providing equivalent safety



Miscellaneous Auxiliary Gear

1917.42(k)(6)

- Pallets stacked or placed
 - Prevent falling, collapsing, **or**
 - Otherwise causing a hazard under standard operating conditions.



Miscellaneous Auxiliary Gear

1917.42(k)(7)

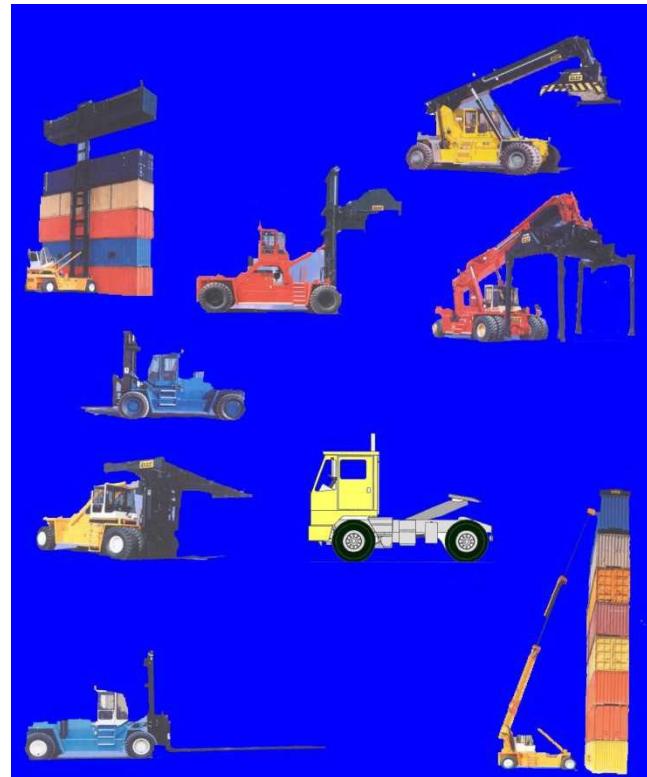
- Disposable pallets intended only for one use
 - Not reused for hoisting



Powered Industrial Trucks

1917.43(a)

- Section applies to every type of powered industrial truck
 - Used for material or equipment handling within a marine terminal
- Does not apply to over-the-road vehicles



Powered Industrial Trucks

1917.43(b)(1)

- Modifications that affect vehicle's capacity or safety
 - Not be performed without manufacturer's prior written approval, **or**
 - Written approval of professional engineer
 - » Experienced with equipment
 - » Has consulted with manufacturer



Powered Industrial Trucks

1917.43(b)(2)

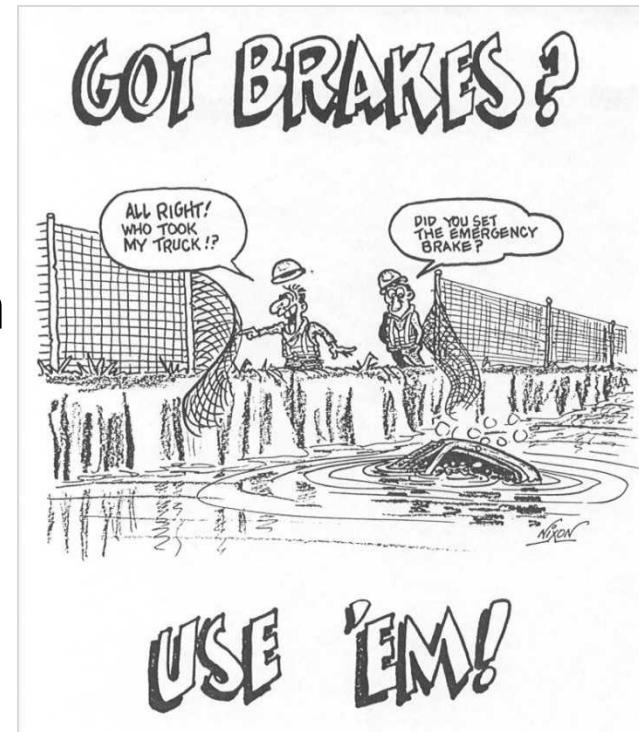
- Unauthorized personnel not ride on powered industrial trucks
- Safe place to ride provided when riding is authorized



Powered Industrial Trucks

1917.43(b)(3)

- When powered industrial truck is left unattended:
 - Load-engaged means fully lowered
 - Controls neutralized
 - Brakes set
- Unless truck is in view and within 25' of operator
 - Power cut off
- Wheels blocked or curbed if on incline



Powered Industrial Trucks

1917.43(b)(4)

- Powered industrial trucks not operated inside highway vehicles or railcars
 - Having damage which could affect operational safety



Powered Industrial Trucks

1917.43(b)(5)

- Trucks marked with rated capacities, and visible to operator



Powered Industrial Trucks

1917.43(b)(6)

- Only stable and safely arranged loads within rated capacity of truck handled







Powered Industrial Trucks

1917.43(b)(7)

- Employer direct drivers to ascend and descend grades slowly



Powered Industrial Trucks

1917.43(b)(8)

- Employer direct drivers to slow down and sound horn at cross aisles
 - Other locations where visibility is obstructed



Powered Industrial Trucks

1917.43(b)(9)

- Employer direct drivers to travel with load trailing
 - If load obstructs forward view



Powered Industrial Trucks

1917.43(b)(10)

- Steering knobs not used unless truck is equipped with power steering



Powered Industrial Trucks

1917.43(b)(11)

- Powered industrial trucks using cargo lifting devices having means of engagement hidden from operator
 - Means provided to enable operator to determine cargo has been engaged



Powered Industrial Trucks

1917.43(b)(12)

- Safe means provided to protect driver from sliding loads
 - When cargo is being towed on pipe trucks or similar equipment



Powered Industrial Trucks

1917.43(c)(1)

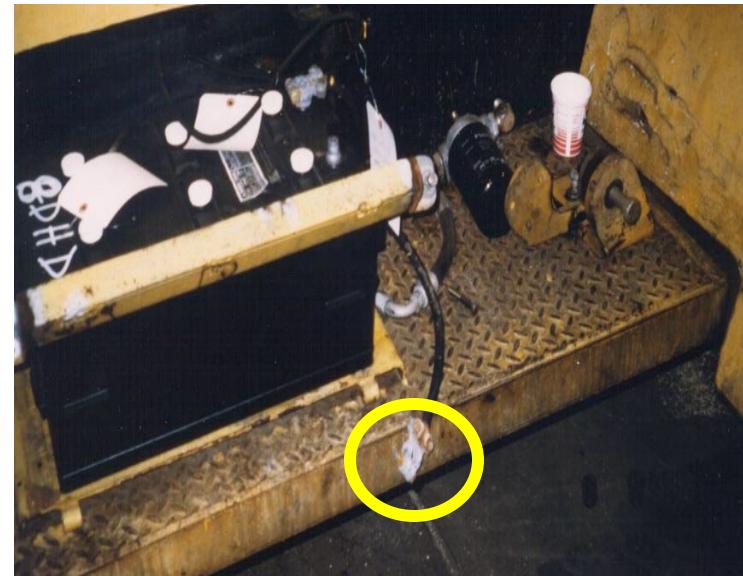
- Only designated persons perform maintenance and repair



Powered Industrial Trucks

1917.43(c)(2)

- Batteries on all powered industrial trucks disconnected during repairs to electrical system
 - Unless power is necessary for testing and repair



Powered Industrial Trucks

1917.43(c)(3)

- Replacement parts whose function affect operational safety
 - Equivalent in strength and performance capability to original parts



Powered Industrial Trucks

1917.43(c)(4)

- Braking systems or other mechanisms used for braking
 - Operable and in safe condition





Powered Industrial Trucks

1917.43(c)(5)

- Trucks maintained in safe working order
- Safety devices not removed or made inoperative
- Trucks with fuel system leak or other safety defect not operated



Powered Industrial Trucks

1917.43(c)(6)

- Repairs to fuel and ignition systems that present fire hazards, done in designated safe areas



Powered Industrial Trucks

1917.43(d)(1)

- “Approved power-operated industrial truck”
 - One listed or approved for the intended use by a nationally recognized testing laboratory.



Powered Industrial Trucks

1917.43(d)(2)

- Approved trucks acquired and used after 2/15/1972
 - Bear a label or other identification indicating testing laboratory approval



Powered Industrial Trucks

1917.43(e)(1)(i)

- Operators exposed to overhead falling hazards
 - Trucks equipped with securely attached overhead guards
- Guards constructed to protect operator from falling objects



Powered Industrial Trucks

1917.43(e)(1)(ii)

- Overhead guard not obstruct operator's view
- Openings not exceed 6" in one of two directions - width or length
- Larger openings permitted if cargo being handled cannot fall through guard



Powered Industrial Trucks

1917.43(e)(1)(iii)

- Overhead guard built so that:
 - Failure of vehicles mast tilting mechanism
 - Will not displace guard



Powered Industrial Trucks

1917.43(e)(1)(iv)

- Overhead guard removed only when:
 - It would prevent truck from entering work space
- Operator not exposed to low overhead obstructions in work space.



Powered Industrial Trucks

1917.43(e)(1)(v)

- Overhead guards large enough to extend over operator during all truck operations



Powered Industrial Trucks

1917.43(e)(2)

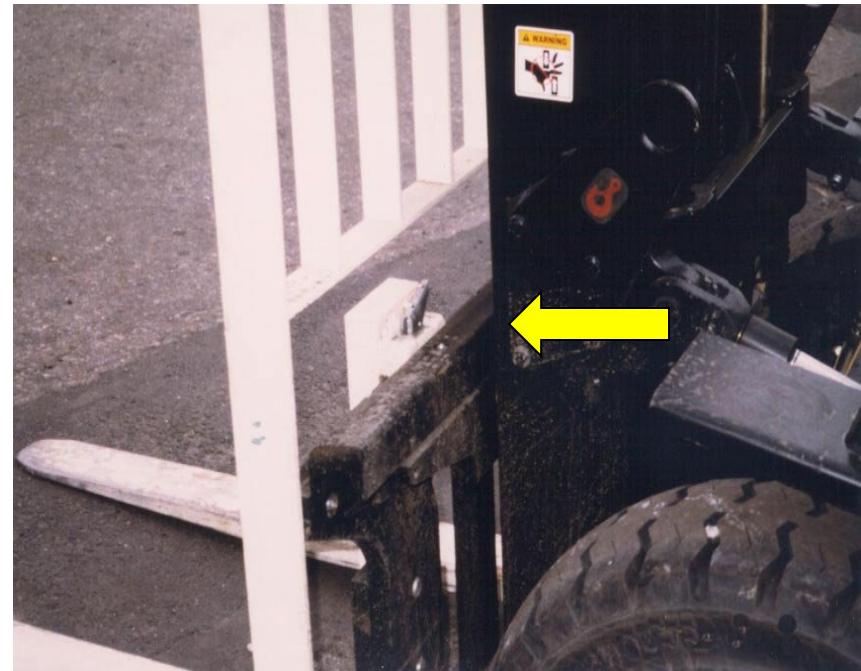
- When necessary to protect operator
 - Fork lift trucks fitted with vertical load backrest extension
- Prevents load from hitting mast when mast tilted backward



Powered Industrial Trucks

1917.43(e)(3)

- Forks, extensions and other attachments secured to prevent being accidentally dislodged
- Used only in accordance with manufacturer's recommendation



Powered Industrial Trucks

1917.43(e)(4)

- Counterweights so affixed that they cannot be accidentally dislodged



Powered Industrial Trucks

1917.43(e)(5)(i)

- Rated capacities, with and without removable counterweights, not exceeded
- Rated capacities marked on vehicle
- Vehicle weight, with and without counterweight, marked





Powered Industrial Trucks

1917.43(e)(5)(ii)

- Loads lifted by two or more trucks working in unison
 - Total weight of load not exceed combine rated lifting capacity of all trucks involved



Powered Industrial Trucks

1917.43(e)(6)

- Employees elevated by fork lift trucks
 - Platform secured to lifting carriage or forks



Powered Industrial Trucks

1917.43(e)(6)(i)

- Platform used for lifting employees
 - Have a railing which complies with 1917.112(c)



Powered Industrial Trucks

1917.43(e)(6)(ii)

- Platform have toeboards complying with 1917.112(d)
 - If tools or other objects could fall on employees below



Powered Industrial Trucks

1917.43(e)(6)(iii)

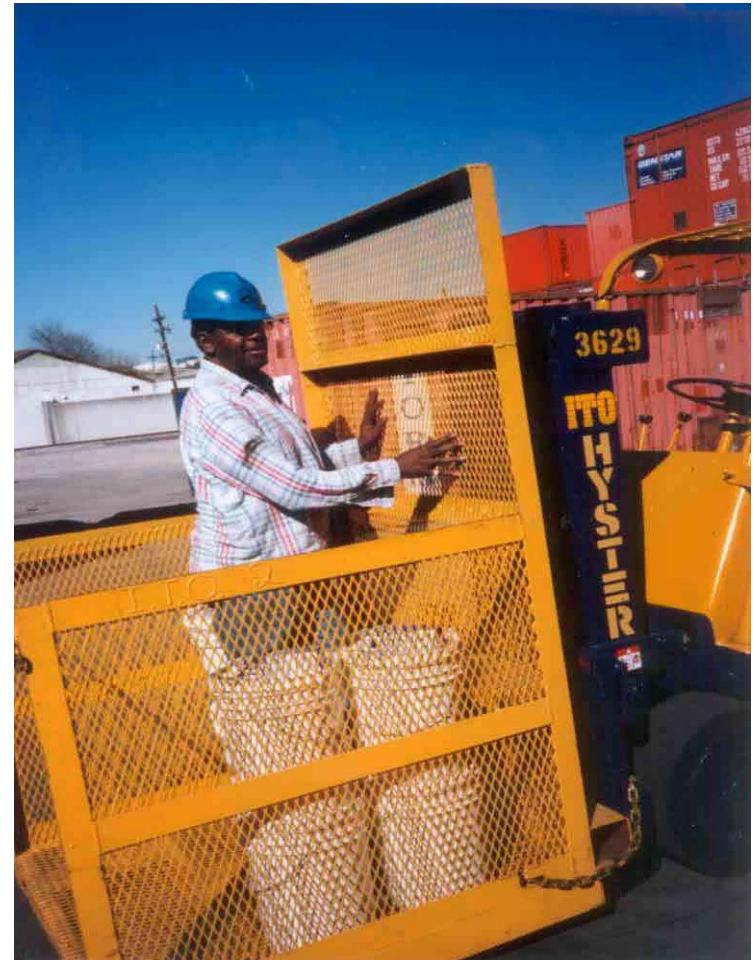
- Employee at truck's controls whenever employees are elevated



Powered Industrial Trucks

1917.43(e)(6)(iv)

- Employees on platform protected from exposure to moving truck parts



Powered Industrial Trucks

1917.43(e)(6)(v)

- Platform floor skid resistant



Powered Industrial Trucks

1917.43(e)(6)(vi)

- When truck has controls elevated with lifting carriage:
 - Means provided for employees on platform to shut off power to vehicle



Powered Industrial Trucks

1917.43(e)(6)(vii)

- When employees elevated
 - Truck moved only to make minor placement adjustments



Powered Industrial Trucks

1917.43(f)(1)

- Rider operated crawler-type bulk cargo-moving vehicle
 - Equipped with operator's guards
- Guard required where operator may contact projecting overheads



Powered Industrial Trucks

1917.43(f)(2)

- Guards and attachments points designed to withstand, without excessive deflection
 - Load applied horizontally at operator's shoulder level



Powered Industrial Trucks

1917.43(f)(3)

- After 7/26/99, roll-over protection required



Powered Industrial Trucks

1917.43(g)(1)

- Straddle trucks have permanent means of access to operator's station
- Access include handholds necessary for safe ascent and descent



Powered Industrial Trucks

1917.43(g)(2)(i)(A)-(C)

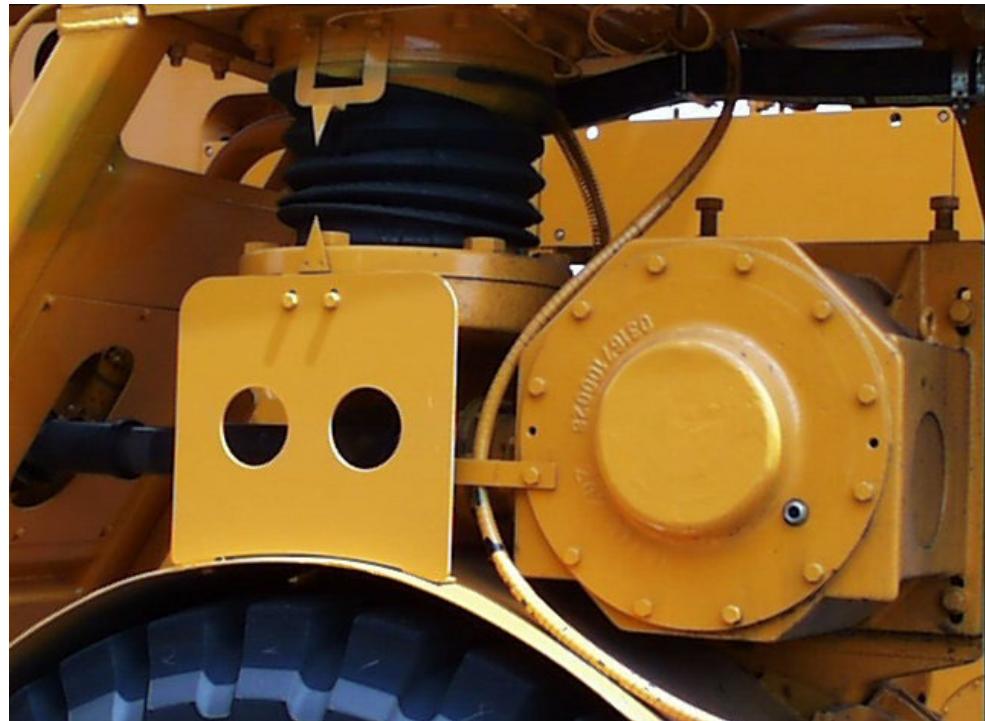
- Main sprockets and chains to wheels guarded:
 - Upper sprocket enclosed
 - Upper half of lower sprocket enclosed
 - Drive chain enclosed to a height of eight feet
 - » Except for portion at lower half of lower sprocket



Powered Industrial Trucks

1917.43(g)(2)(ii)

- Gears enclosed and revolving parts guarded
 - Can be contacted by operator



Powered Industrial Trucks

1917.43(g)(2)(iii)

- Personnel-deflecting guards provided around leading edges of front and rear wheels



Powered Industrial Trucks

1917.43(g)(3)

- Operator visibility required in all directions of movement









Powered Industrial Trucks

1917.43(h)(1)

- Trailer-spotting tractors fitted with hand grabs and footing necessary for safe access to fifth wheel



Powered Industrial Trucks

1917.43(h)(2)

- Rear cab window made of safety glass or equivalent material



General Rules Applicable to Vehicles

1917.44(a)

- Apply to general vehicle use in marine terminals except (c) and (l) do not apply when preempted by applicable DOT regulations.
 - DOT rules apply when motor carrier is engaged in interstate commerce or transporting certain hazardous items.



General Rules Applicable to Vehicles

1917.44(b)

- Private vehicle parking in marine terminal allowed only in designated areas



MAERSK

MAERSK

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38-11-18

General Rules Applicable to Vehicles

1917.44(c)

- Trailers disconnected from tractors at loading docks
 - Have road wheels immobilized
- Supplementary front end support used when necessary
- Rear end support used
 - When rear wheels so far forward to allow tipping



General Rules Applicable to Vehicles

1917.44(d)

- Motor vehicle operators comply with posted speed limits and other traffic control signs or signals





General Rules Applicable to Vehicles

1917.44(e)

- Stop signs posted at main entrances and exits of structures
 - Where visibility is impaired
- Direct traffic control, warning mirror systems, or other systems
 - May be provided



General Rules Applicable to Vehicles

1917.44(f)

- Vehicle routes, traffic rules, and parking areas established, identified, and used







General Rules Applicable to Vehicles

1917.44(g)

- Vehicle drivers warn employees in traffic lanes of vehicle's approach



General Rules Applicable to Vehicles

1917.44(h)

- Signs indicating pedestrian traffic clearly posted
 - At vehicle check-in and check-out lines
 - Similar locations where employees are working



General Rules Applicable to Vehicles

1917.44(i)

- Distance of not $<20'$ maintained between first two vehicles in:
 - Check-in/check-out
 - Roadability
 - Vessel loading/discharging line
 - Between any subsequent vehicles where employees working



General Rules Applicable to Vehicles

1917.44(j)

- Vehicle not left unattended with engine running
 - Unless secured against movement



General Rules Applicable to Vehicles

1917.44(k)

- If vehicle is elevated to facilitate loading or discharging
 - Ramp provided and secured
- Vehicle secured against accidental movement





General Rules Applicable to Vehicles

1917.44(l)

- Only highway vehicle floors in safe condition used



General Rules Applicable to Vehicles

1917.44(m)

- Cargo consisting of pipe or other products which could spread or roll
 - Contained to prevent movement



General Rules Applicable to Vehicles

1917.44(n)

- Vehicles transporting employees within a terminal maintained in safe working order
- Safety devices not removed or made inoperative





PORT OF NEW ORLEANS
GROWTH AND PROSPECTS
FOR THE FUTURE

General Rules Applicable to Vehicles

1917.44(o)(1)

- Section applies to vehicle wheels containing tube-type tires mounted on multi-piece rims



General Rules Applicable to Vehicles

1917.44(o)(2)

- “Multi-piece rim”
 - Vehicle wheel rim consisting of two or more parts
 - One of which is a locking ring



General Rules Applicable to Vehicles

1917.44(o)(3)(i)

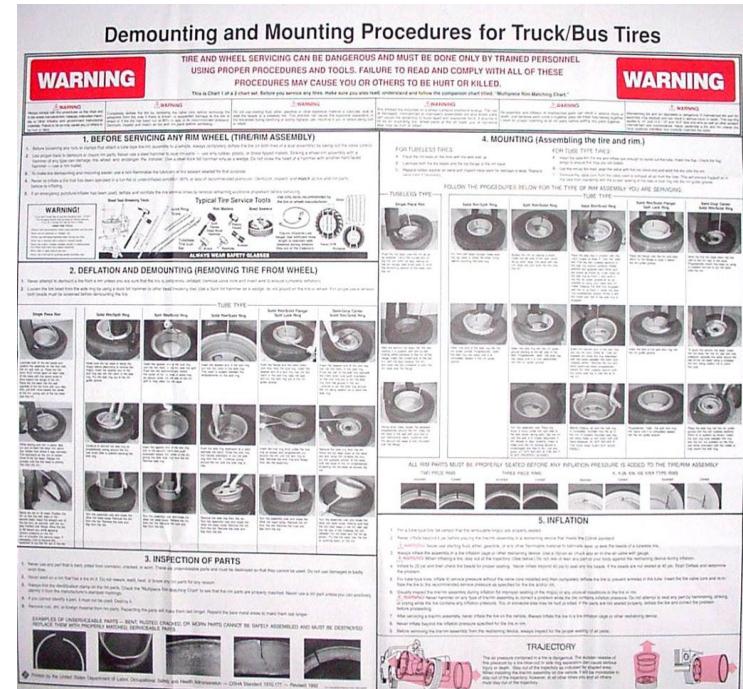
- Only employees trained in procedures and demonstrated their ability to service multi-piece rim wheels
 - Assigned such duties



General Rules Applicable to Vehicles

1917.44(o)(5)(i)

- Chart containing instructions and information pertinent to type(s) of multi-piece rim wheels serviced
- Chart available in terminal service area



USER'S GUIDE

TO

WHEELS AND RIMS

COURTESY OF

ACCURIDE™

The All Around Leader In Wheels.

TMC
THE
MAINTENANCE COUNCIL

General Rules Applicable to Vehicles

1917.44(o)(6)(i)

- Inflation done within restraining device such as cage, rack, or other device
- Restraining device capable of preventing rim components from being thrown outside device





General Rules Applicable to Vehicles

1917.44(o)(8)(ii)

- Wheel components not interchanged
 - Except as provided in applicable chart or manual

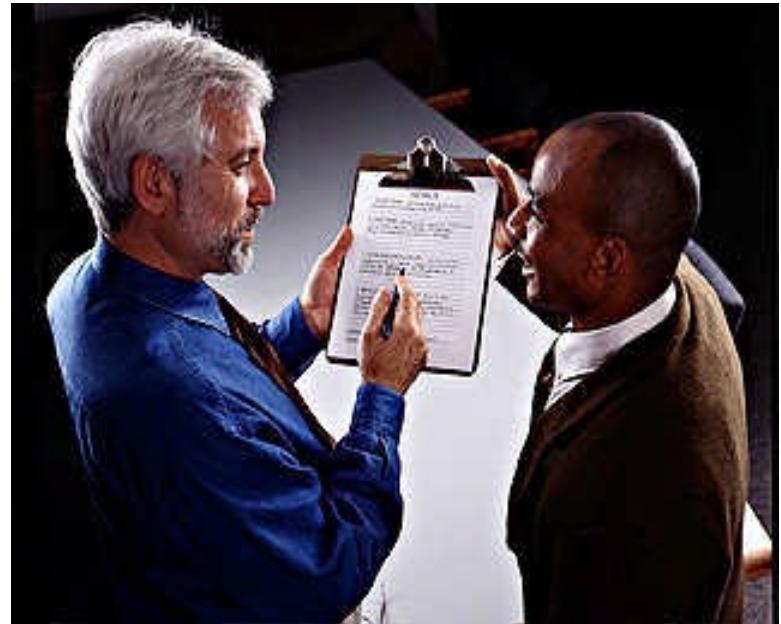


For Public Official's Use Only

Cranes and Derricks

1917.45(a)(1)

- This section applies to every kind of crane and derrick and any other type of equipment performing the functions of a crane or derrick.















4

53

PORT DE BOURGOGNE

9



Cranes and Derricks

1917.45(a)(2)

- Section does not apply to:
 - Small industrial truck-type cranes



Cranes and Derricks

1917.45(a)(2)

- Section does not apply to:
 - Container handling top loader





Cranes and Derricks

1917.45(a)(2)

- Section does not apply to:
 - Container handling sideloaders



Cranes and Derricks

1917.45(a)(2)

- Section does not apply to:
 - Chain hoists



Cranes and Derricks

1917.45(a)(2)

- Section does not apply to:
 - Mobile straddle-type cranes incapable of straddling two or more intermodal containers (16' in width)



Cranes and Derricks

1917.45(b)(1)

- Cranes and derricks ratings vary with boom length, radius or other variables
 - Have rating chart visible to operator



Cranes and Derricks

1917.45(b)(2)

- Manufacturer's rated loads for conditions of use not exceeded



Cranes and Derricks

1917.45(b)(3)

- Designated working loads not increased beyond manufacturer's ratings



Cranes and Derricks

1917.45(c)

- Crane or derrick fitted with boom angle or radius indicator
 - When rated load varies with boom radius
- Visible to operator



Cranes and Derricks

1917.45(d)(1)

- Equipment not used in manner that exerts sideloading stresses upon boom



Cranes and Derricks

1917.45(d)(2)

- Crane or derrick having visible or known defect affecting safe operation not used



Cranes and Derricks

1917.45(e)(1)

- Moving parts such as gears, chains and chain sprockets
 - Presenting hazard to employees during operation
 - Parts securely guarded



Cranes and Derricks

1917.45(e)(2)

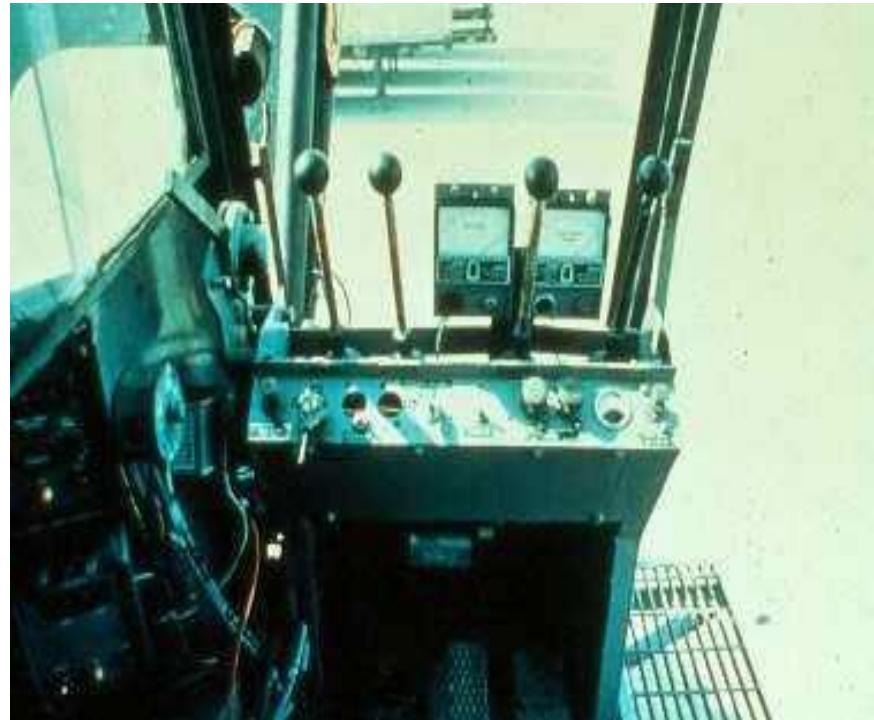
- Crane hooks latched or otherwise secured
 - Prevent accidental load disengagement



Cranes and Derricks

1917.45(f)(1)(i)

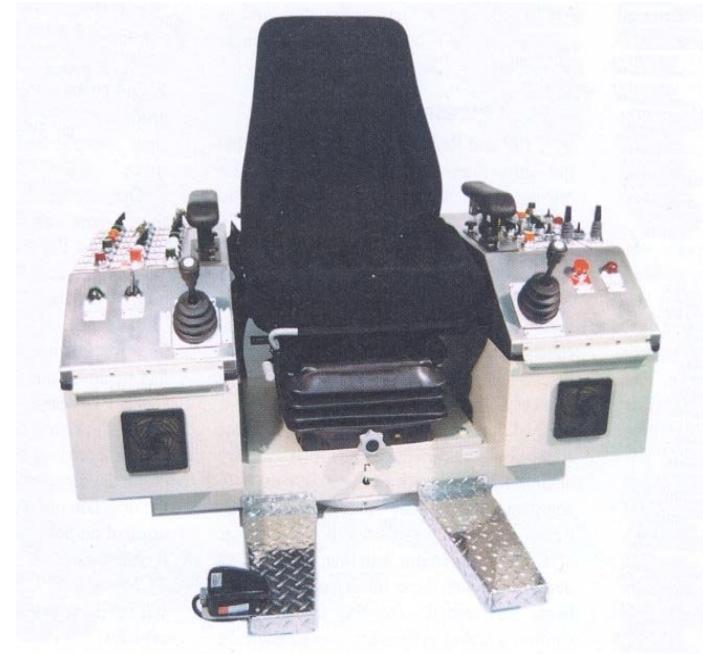
- Operating controls clearly marked, **or**
- Chart indicating their function posted at operator's position



Cranes and Derricks

1917.45(f)(1)(ii)

- After 10/3/84, overhead bridge and container gantry crane operating control levers self-centering
- Will automatically move to “off” position when released



Cranes and Derricks

1917.45(f)(2)

- Cranes with elevatable booms provided with boom stops



Cranes and Derricks

1917.45(f)(3)

- Foot pedals have a non-skid surface



Cranes and Derricks

1917.45(f)(4)

- Safe access provided to:

- Footwalks
- Cab platforms
- Cab
- Any portion of superstructure which employees must reach



Cranes and Derricks

1917.45(f)(4)(i)

- Footwalks of rigid construction
- Capable of supporting load of 100 lbs. per square foot



Cranes and Derricks

1917.45(f)(4)(ii)

- Vertical ladders >20' in height comply with:
 - 1917.118(d)
 - 1917.118(e)(1)
 - 1917.118(e)(2)(iii)
 - 1917.118(e)(2)(iv)



Cranes and Derricks

1917.45(f)(4)(iii)

- Stairways on cranes provided with rigid handrails meeting requirements of 1917.112(e)



Cranes and Derricks

1917.45(f)(5)(i)

- Cab glass, when used, safety plate glass or equivalent
- Cranes with missing, broken, cracked, scratched, or dirty glass impairing operator's visibility not used
- Good housekeeping maintained in cab





Off Vessel Equipment



Cranes and Derricks

1917.45(f)(5)(i)

- Clothing, tools and equipment not stored in cab
 - Interfere with access, operation, and operator's view



Cranes and Derricks

1917.45(f)(5)(ii)

- Seat (lap) belt installed on operator's seat of high speed container gantry cranes where seat trolleys
 - High speed container gantry crane
 - » Hoist speed of 360 feet/minute and trolley speed of 500 feet/minute or faster



Cranes and Derricks

1917.45(f)(6)

- Cranes operated only with specified type and amount of ballast or counterweights



Cranes and Derricks

1917.45(f)(7)

- Outriggers used according to manufacturing specifications
- Floats securely attached to outriggers
- Wood blocks sufficient size to support outrigger and prevent crane from shifting or toppling under load



Cranes and Derricks

1917.45(f)(8)

- Engine exhaust gases discharged away from normal position of crane operating personnel



Cranes and Derricks

1917.45(f)(9)

- Electrical equipment located or enclosed to prevent accidental contact with live parts
- Designated persons work on energized equipment only:
 - If necessary during inspection, maintenance, or repair



Cranes and Derricks

1917.45(f)(10)(i)

- At least one portable fire extinguisher of at least 5-BC rating in cab



Cranes and Derricks

1917.45(f)(10)(ii)

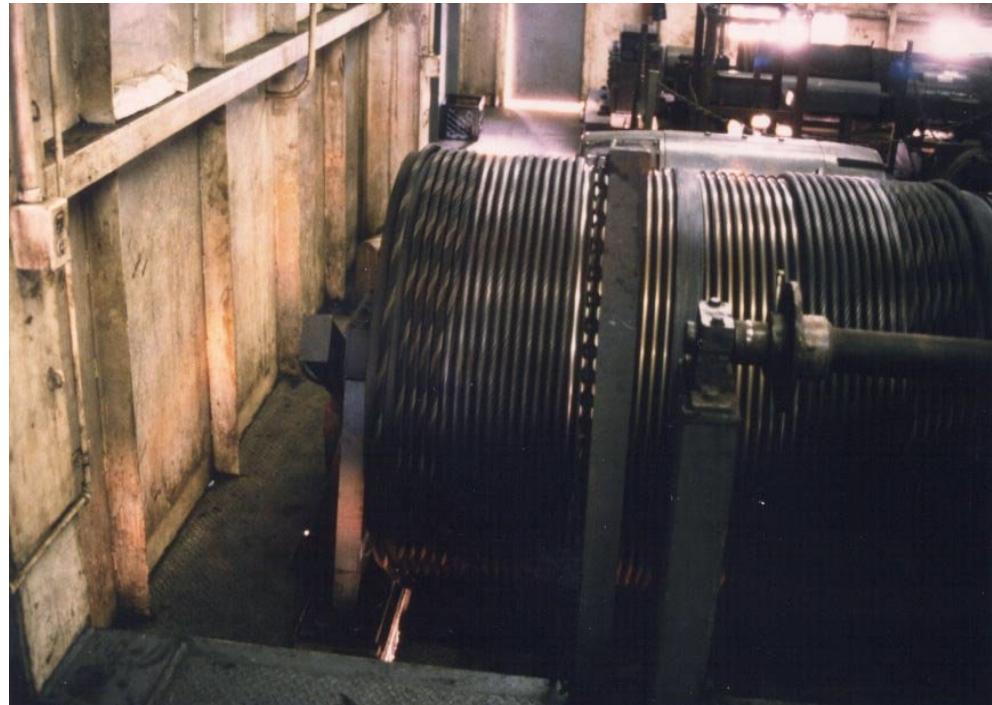
- No portable fire extinguisher using carbon tetrachloride or chlorobromomethane extinguishing agents used



Cranes and Derricks

1917.45(f)(11)

- At least three full turns of rope remain on ungrooved drums, and two turns on grooved drums, under all operating conditions
- Wire rope secured to drums by clamps, u-bolts, etc.
- Fiber rope fastening prohibited



Cranes and Derricks

1917.45(f)(12)

- Mobile crane booms blocked
 - Prevent dropping when being assembled or disassembled on ground



Cranes and Derricks

1917.45(f)(13)(i)

- Each independent hoisting unit equipped with at least one holding brake
- Brake apply directly to motor shaft or gear train



Cranes and Derricks

1917.45(f)(13)(iv)

- Power control braking means
 - Capable of maintaining safe lowering speeds of rated loads



Cranes and Derricks

1917.45(g)(1)

- For purpose of this section
 - Rail-mounted cranes include bridge cranes and portal cranes





Cranes and Derricks

1917.45(g)(2)

- Rated loads of bridge cranes marked on each side of crane and in cab
- Each hoist have rated load marked on it or on load block



Cranes and Derricks

1917.45(g)(3)(i)

- After 10/3/83, each rail-mounted bridge and portal crane located outside
 - Fitted with an wind-indicating device



Cranes and Derricks

1917.45(g)(3)(ii)

- Wind indicating device provide visible or audible warning to alert operator of high wind conditions
 - Wind velocity reaches warning speed
 - Wind velocity reaches shutdown speed



Cranes and Derricks

1917.45(g)(3)(iii)

- Operating instructions for high wind conditions posted in operator's cab
- Operators directed to comply with these instructions
- Include procedures for responding to high wind alerts for coordination with other cranes

XYZ TERMINAL OPERATING COMPANY

CRANE OPERATING PROCEDURES

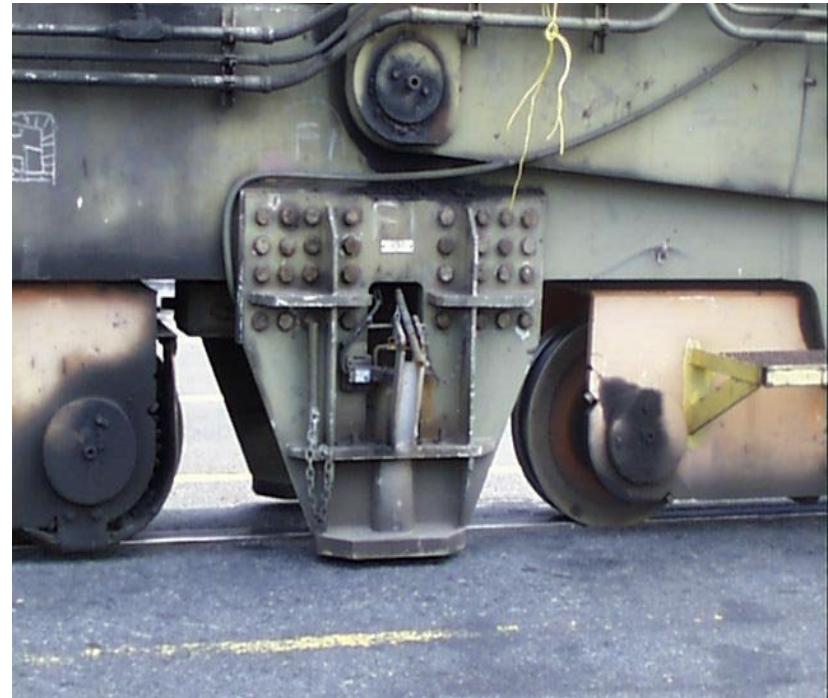
DURING ACTUAL AND FORECAST

HIGH WINDS

Cranes and Derricks

1917.45(g)(4)(i)

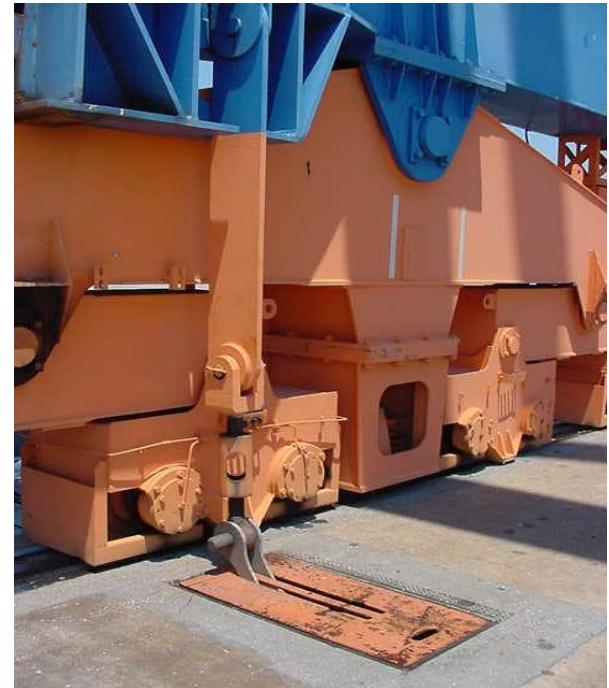
- Securing crane in high winds when wind reaches crane's warning speed:
 - Gantry travel stopped
 - Crane readied for shutdown



Cranes and Derricks

1917.45(g)(4)(ii)

- When wind reaches crane's shutdown speed:
 - Any portion of crane spanning or partially spanning a vessel moved clear of vessel
 - Crane secured against travel, using all available means of securing



Cranes and Derricks

1917.45(g)(5)

- Employer monitor local weather conditions:
 - By subscribing to a weather service, **or**
 - Using equally effective means





Cranes and Derricks

1917.45(g)(6)(i)

- Ends of tracks equipped with stops or bumpers
- If stop engages wheel
 - Height not less than radius of wheel







Cranes and Derricks

1917.45(g)(6)(ii)

- More than one crane operates on same runway
 - Cranes equipped with bumpers at adjacent ends subject to impact



Cranes and Derricks

1917.45(g)(7)

- Crane trucks equipped with personnel-deflecting guards
 - When employees in vicinity of tracks



Cranes and Derricks

1917.45(g)(8)

- Where track area used for employee passage or for work
 - Minimum clearance of 3' provided between trucks and any structure or obstruction





Cranes and Derricks

1917.45(g)(9)

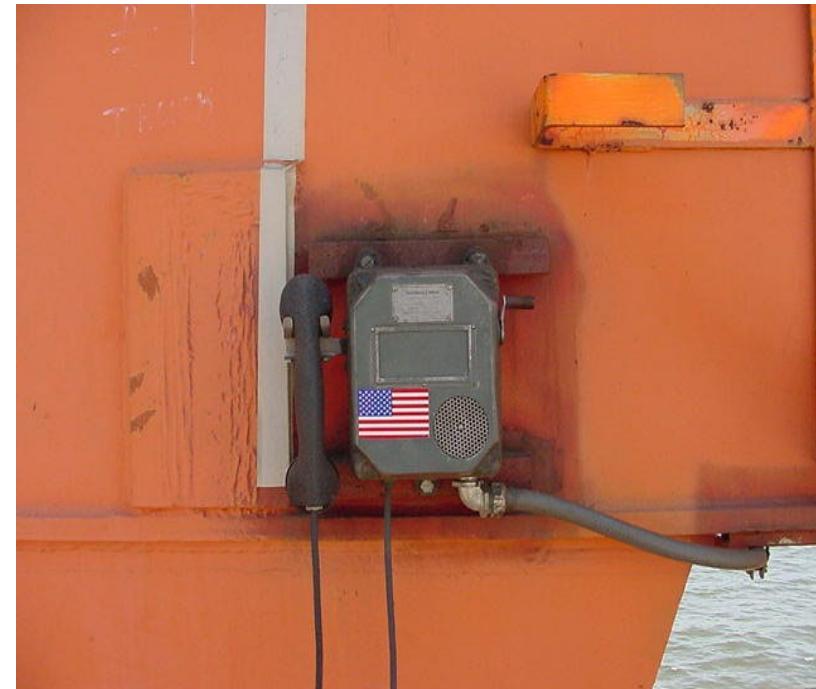
- Rail mounted cranes
 - Equipped with effective travel warning device
 - Used to warn employees in path of moving crane



Cranes and Derricks

1917.45(g)(10)

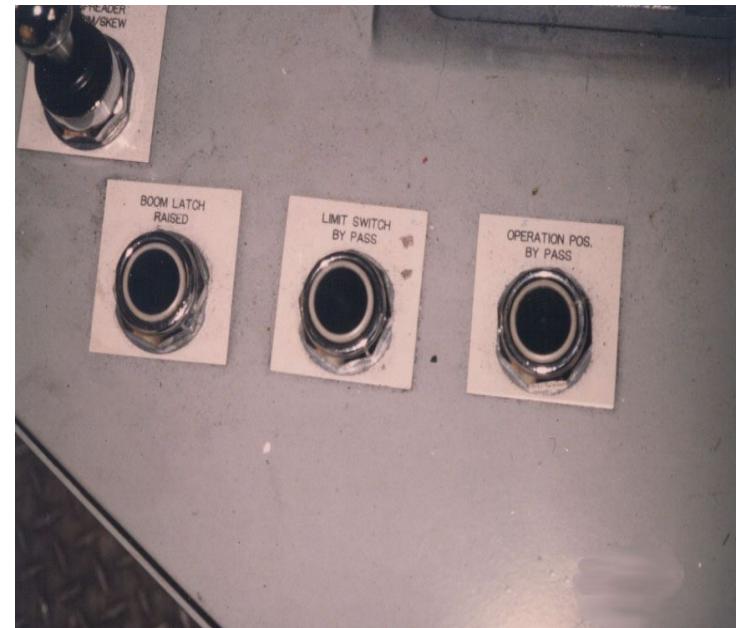
- Communications provided between operator's cab and base of gantry of rail-mounted cranes
 - Telephone, radio, sound-signaling system
 - Not solely by hand-signaling



Cranes and Derricks

1917.45(g)(11)

- Limit switch bypass systems secured during cargo operations
- Bypass used in emergency or non-cargo handling operations
- Use of bypass done under direction of a crane mechanic



Cranes and Derricks

1917.45(i)(1)

- Two or more cranes hoist load in unison, designated person must:
 - Direct operation
 - Instruct personnel in positioning
 - Rigging of load
 - Movements to be made



Cranes and Derricks

1917.45(i)(2)

- Accessible areas within swing radius of body of revolving crane guarded











Cranes and Derricks

1917.45(i)(3)

- When in transit crane's superstructure and boom secured against rotation
- Carried in line with direction of travel
- Empty hook or other attachment secured



Cranes and Derricks

1917.45(i)(4)

- Steps taken before leaving crane unattended between work periods:
 - Suspended loads landed
 - Clutches disengaged
 - Power supply shut off
 - Secured against accidental travel
 - Boom lowered or secured against movement



Cranes and Derricks

1917.45(i)(5)(i)

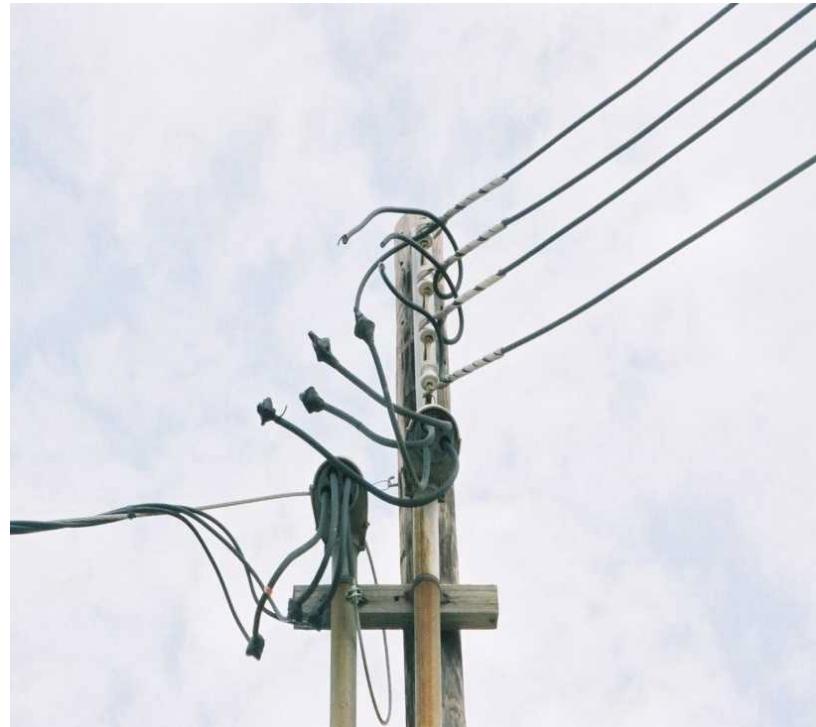
- Cranes operated near power lines only in accordance with following:
 - Lines rated at 50kV or below - minimum clearance 10'
 - Lines rated over 50kV – minimum clearance 10' plus 0.4" for each 1kV over 50kV
 - In transit with no load and boom lowered, minimum clearance 4'



Cranes and Derricks

1917.45(i)(5)(iii)

- Overhead line presumed to be energized
 - Until owner of line indicates it is not energized



Cranes and Derricks

1917.45(j)(1)

- No employee hoisted by load apparatus of crane or derrick
 - Except as outlined in (j)(1)(i) through (j)(1)(iii)





bobcat





3 10'33

Cranes and Derricks

1917.45(j)(1)(i)

- Employee may be hoisted on intermodal container spreader
 - Equipped in accordance with paragraph (j)(8)



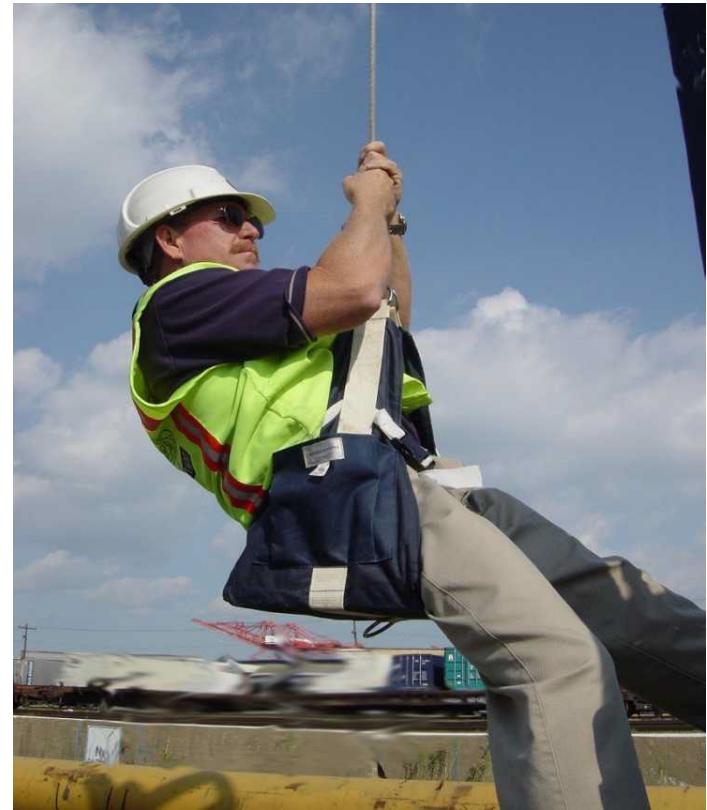
HAT AREA



Cranes and Derricks

1917.45(j)(1)(ii)

- Employee hoisted in a boatswain's chair or other device
 - Rigged to prevent accidental disengagement from hook



Cranes and Derricks

1917.45(j)(1)(iii)

- Employee hoisted on platform meeting all requirements
 - Section - (j)(1)(iii)(A) through (j)(1)(iii)(F)



Cranes and Derricks

1917.45(j)(2)

- Except in an emergency
 - Hoisting mechanism used to hoist personnel operate in power up and power down
- Automatic brake application when not hoisting or lowering



Cranes and Derricks

1917.45(j)(3)

- Variable radius booms of crane used to hoist personnel
 - Constructed or secured to prevent accidental boom movement



Cranes and Derricks

1917.45(j)(4)

- Platforms or devices used to hoist employees
 - Inspected before use
 - Removed from service if defective



Cranes and Derricks

1917.45(j)(5)

- Employees being hoisted
 - Remain in continuous sight of and communication with operator or signalman



Cranes and Derricks

1917.45(j)(6)

- Operators remain at controls when employees are hoisted



Cranes and Derricks

1917.45(j)(7)

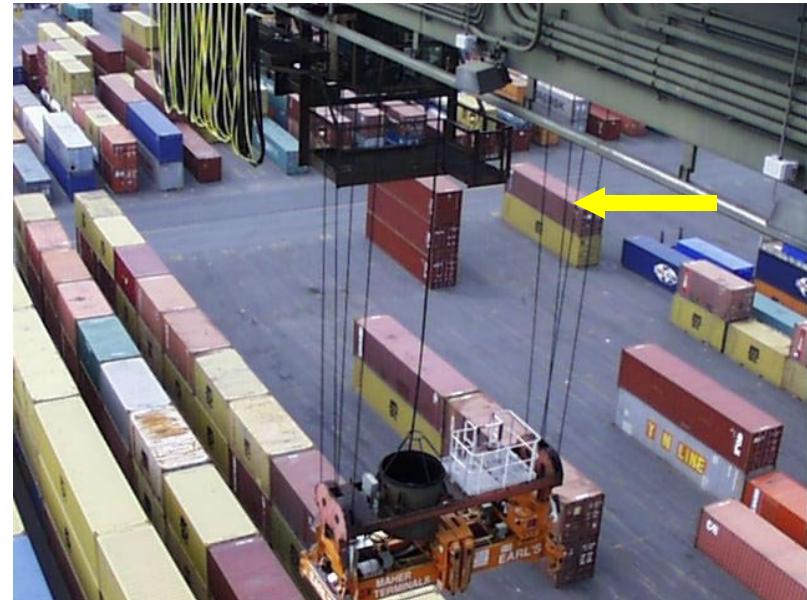
- Cranes not travel while employees are hoisted:
 - Except in emergency, **or**
 - Normal tier to tier transfer of employees during container operations



Cranes and Derricks

1917.45(j)(8)

- Intermodal container spreaders used to transfer employees to or from tops of containers
 - Equipped with personnel platform



Cranes and Derricks

1917.45(j)(9)

- Employees not hoisted on intermodal container spreaders
 - While a load is engaged

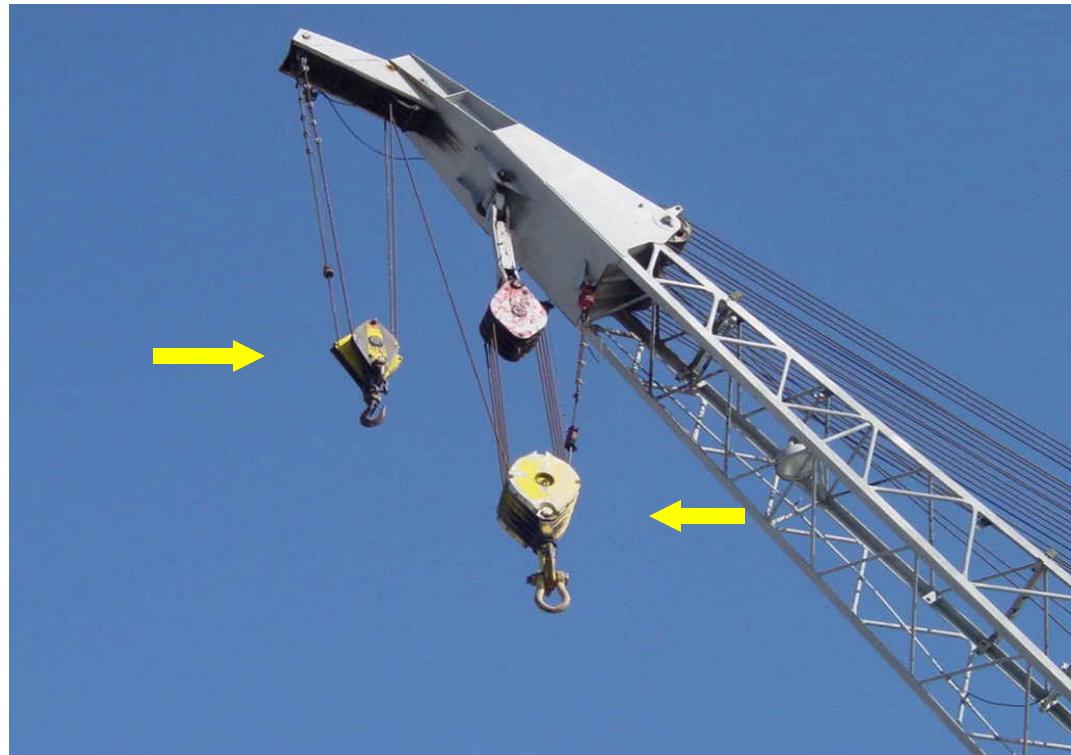




Cranes and Derricks

1917.45(j)(10)

- Cranes and derricks used to hoist personnel
 - Equipped with an anti-two-blocking device



Cranes and Derricks

1917.45(k)(1)

- Designated persons visually inspect each crane and derrick
 - On each day of use
- Defects in functional operating components reported



Cranes and Derricks

1917.45(k)(2)-(3)

- Designated person thoroughly inspect all functional components and accessible structural features of each crane or device at monthly intervals
- Defects found creating safety hazard corrected before further equipment use
- Repairs performed only by designated persons

Cranes and Derricks

1917.45(k)(4)

- Record of monthly inspections maintained for six months
 - In or on crane or derrick, **or**
 - At terminal

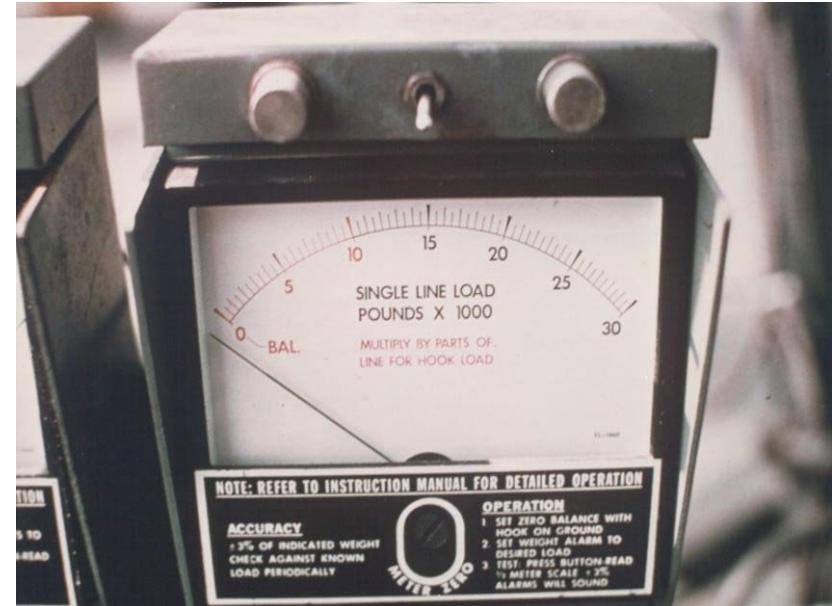
Signed Monthly Reports For Critical Items		
Item	Inspect For	Date
Main Drum Brake	Function, Adjustment	
Lining	Excessive Wear	
Drum Braking Surface	Wear, Cracks, Distortion	
Linkage and Pins	Wear, Cracks, Distortion	
Actuating Cylinders & Fittings (if any)	Leakage or Deterioration	
Auxiliary Drum Brake	Function, Adjustment	
Lining	Excessive Wear	
Drum Braking Surface	Wear, Cracks, Distortion	
Linkage and Pins	Wear, Cracks, Distortion	
Actuating Cylinders & Fittings (if any)	Leakage or Deterioration	
Travel Brake (if any)	Function, Adjustment	
Lining	Excessive Wear	
Drum Braking Surface	Wear, Cracks, Distortion	
Linkage and Pins	Wear, Cracks, Distortion	
Actuating Cylinders & Fittings (if any)	Leakage or Deterioration	
Boom Hoist Brake	Function, Adjustment	
Lining	Excessive Wear	
Drum Braking Surface	Wear, Cracks, Distortion	
Linkage and Pins	Wear, Cracks, Distortion	
Actuating Cylinders & Fittings (if any)	Leakage or Deterioration	
Load Block	Function	
Hook	Cracks, Distortion	
Hook Slewel	Cracks, Wear, Function	
Sheave	Wear, Cracks, Distortion	
Whip Block or Ball	Function	
Hook	Cracks, Distortion	
Hook Slewel	Cracks, Wear, Function	
Sheave (if any)	Wear, Cracks, Distortion	
Boom Point Sheaves	Wear, Cracks, Distortion	
Hoist Rope Dead End	Wear, Cracks, Distortion	
Whip Rope Dead End	Wear, Cracks, Distortion	
Auxiliary Rope Dead End	Wear, Cracks, Distortion	
Hoist Rope	Diameter, Wear, Broken Wire, Corrosion, Kinking, Crushing	
End of Rope	Untwisting	
Pendants		
Tagline		
Boom Hoist Rope		

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17501-887

Load Indicating Devices

1917.46(a)(1)

- Every crane after 10/3/84 fitted with a load indicating device
 - Except as provided in paragraph (a)(1)(viii)



Load Indicating Device

1917.46(a)(1)(viii)

- Load indicating device requirements do not apply to crane:
 - Trolley equipped bridge type handling containers
 - Handling bulk cargoes by clamshell bucket or magnet
 - Handling hoses transferring bulk liquids
 - Used exclusively to handle cargo where total gross weight is known by means of marking
 - » Total actual gross weight never exceeds 11,200 lbs.
 - » 11,200 lbs. is less than rated capacity of crane at maximum outreach

Winches

1917.47(a)

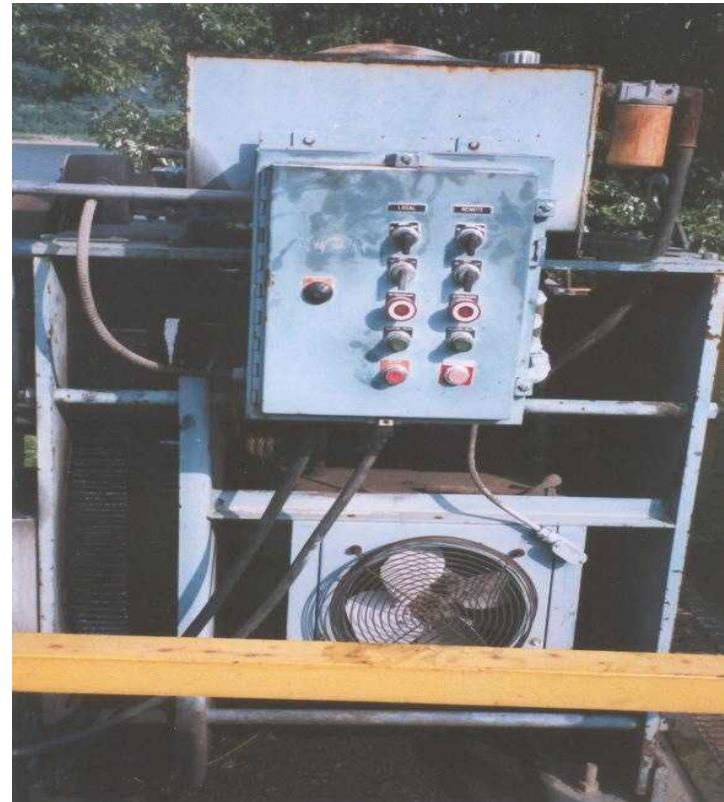
- Moving winch parts which present caught-in hazards to employees guarded



Winches

1917.47(b)

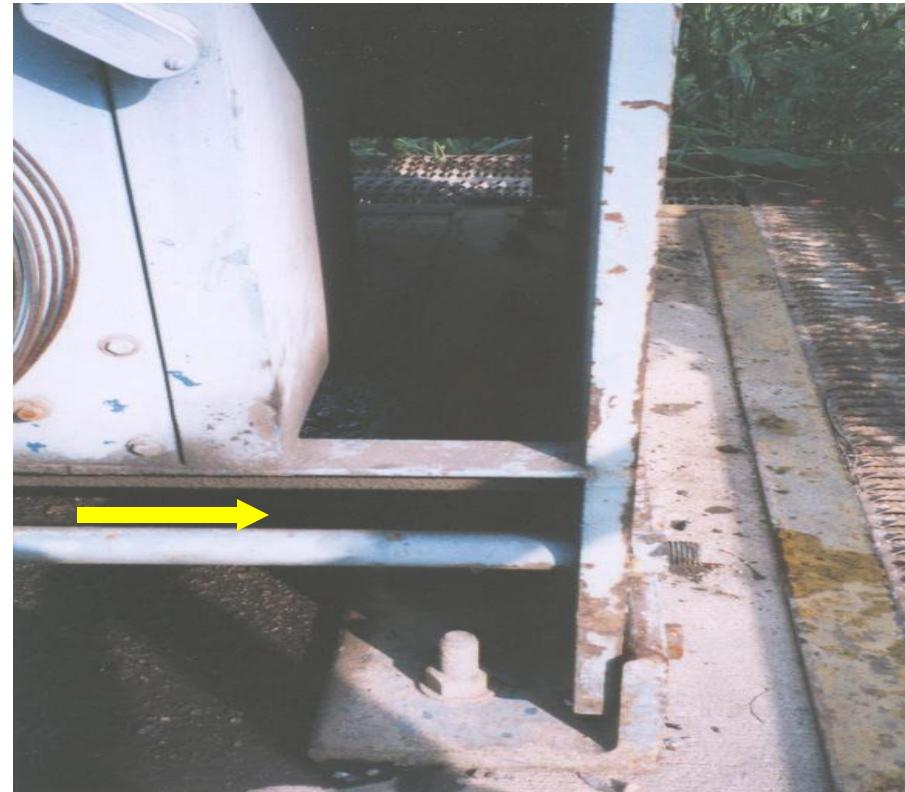
- Winches have clearly identifiable and readily accessible stop controls



Winches

1917.47(c)

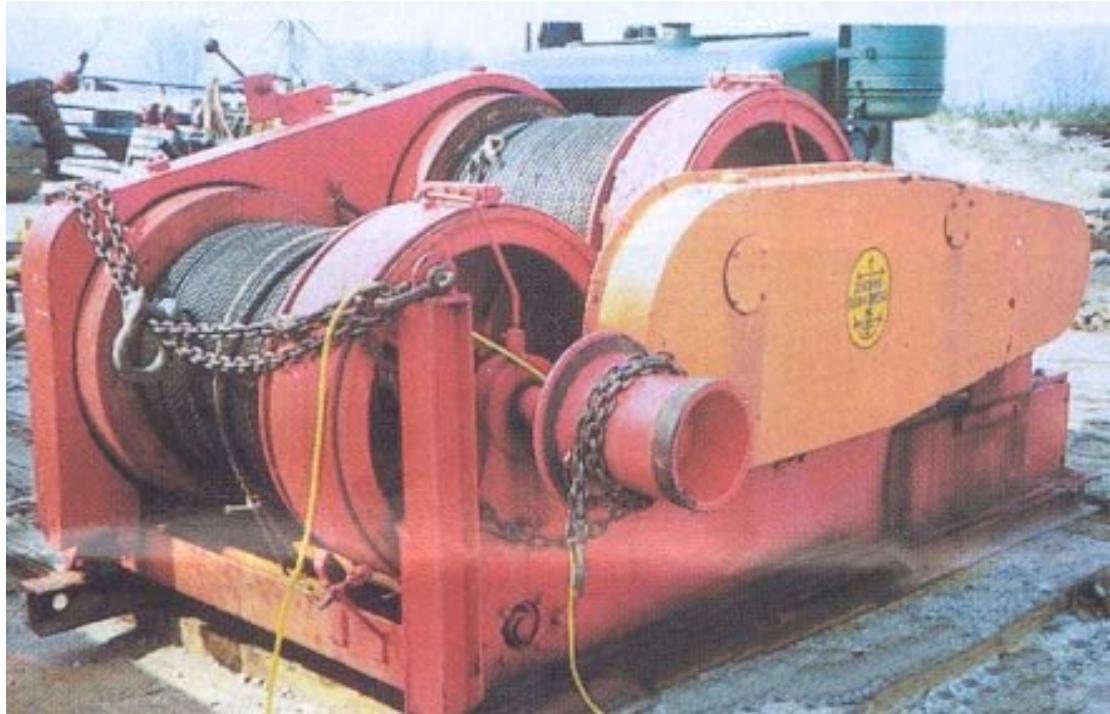
- Portable winches secured against accidental shifting while in use



Winches

1917.47(d)

- Portable winches fitted with limit switches
 - If possible for employees to be drawn into winch

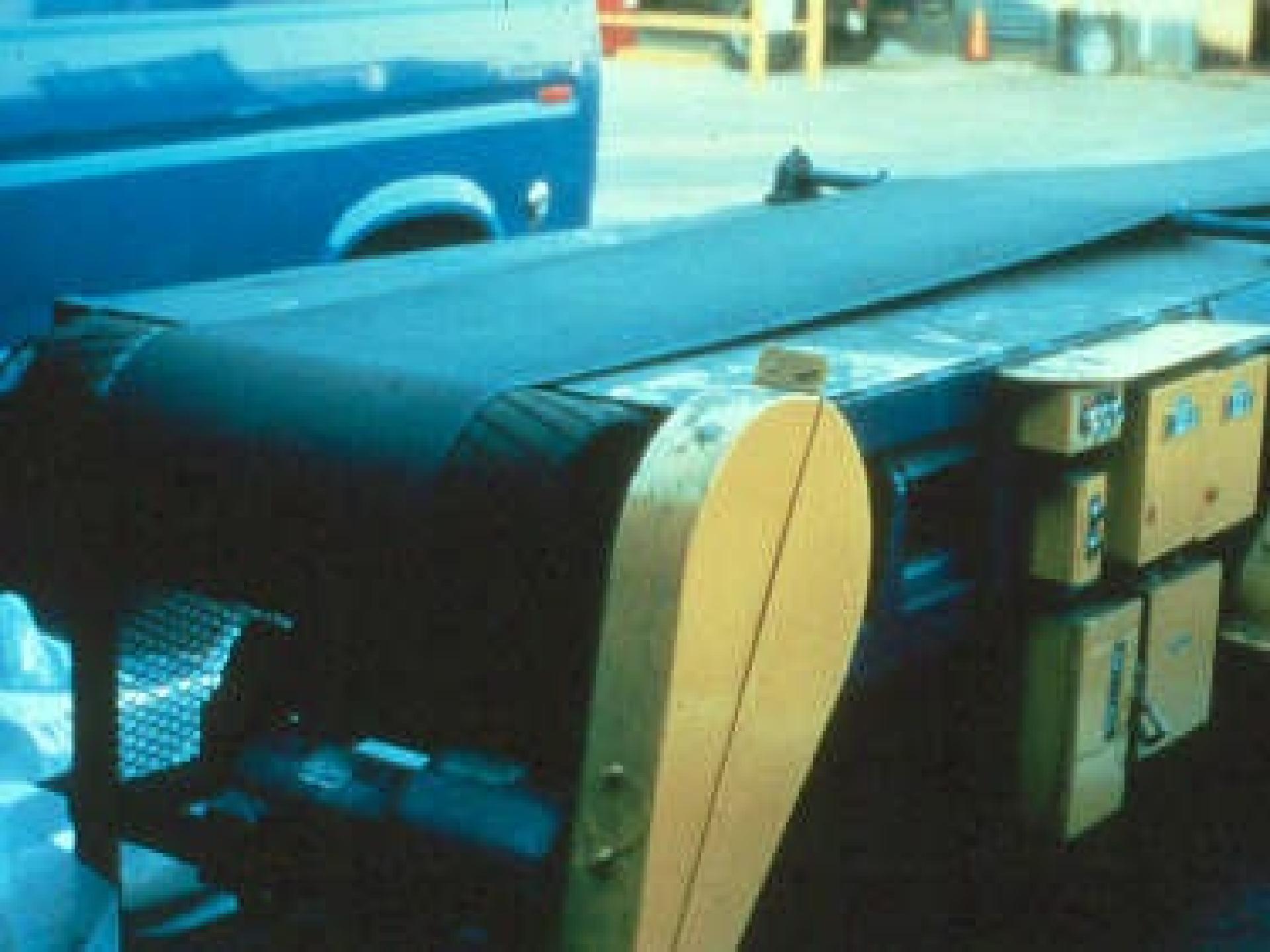


Conveyors

1917.48(a)(1)

- Danger zones at or adjacent to conveyors guarded





Conveyors

1917.48(a)(2)

- Elevated walkway with guardrail provided
 - Where employees cross over moving conveyors
- Suitable guarding provided
 - When employees pass under moving conveyors



Conveyors

1917.48(b)

- Conveyor rollers and wheels secured in position



Conveyors

1917.48(c)

- Gravity conveyor sections firmly place and secured
 - Prevent them from falling



Conveyors

1917.48(d)(1)

- Provisions made for braking objects at delivery end of conveyor



Conveyors

1917.48(d)(2)

- Conveyor using electrically released brakes not release until power is applied
- Brakes automatically engaged if power fails or operating control returned to “stop” position



Conveyors

1917.48(e)

- Portable conveyors stable within their operating ranges
- When used at variable fixed levels
 - Unit secured at operating level



Conveyors

1917.48(f)

- Readily accessible stop controls provided for use in an emergency
- Conveyor or controls not left unattended:
 - Whenever personnel working in immediate vicinity of conveyor
 - While conveyor in operation



Conveyors

1917.48(g)

- Powered conveyors not started until employees clear, **or**
- Have been warned that conveyor is about to start



Conveyors

1917.48(h)

- Area around conveyor loading and unloading points
 - Kept clear of obstructions during operations



Conveyors

1917.48(i)(1)

- Conveyor stopped and power source locked out and tagged out:
 - During maintenance
 - Repair and servicing
 - Unless power is necessary for testing



Conveyors

1917.48(i)(2)

- Starting device locked out and tagged out in stop position before attempt to clear jam
 - Unless necessary to have power on to remove jam



Conveyors

1917.48(j)(1)

- Only designated persons operate, repair or service powered conveyors



Conveyors

1917.48(j)(2)

- Employees directed to stay off operating conveyors



Conveyors

1917.48(j)(3)

- Conveyors operated with overload devices, guards and safety devices in place and operable





Spouts, Chutes, Hoppers, Bins, and Associated Equipment

1917.49(a)

- Standing and running rigging and associated gear inspected before use
- Not used if any functional defects
- 1917.50(c)(2) applies for certification requirements



Spouts, Chutes, Hoppers, Bins, and Associated Equipment

1917.49(b)

- Communication provided between:
 - Discharge end of loading spouts and point in terminal where flow of cargo is controlled



Spouts, Chutes, Hoppers, Bins, and Associated Equipment

1917.49(c)

- Chute and hopper openings guarded
 - Prevent employees from falling through them



Spouts, Chutes, Hoppers, Bins, and Associated Equipment

1917.49(d)

- Hopper equipped with safe walkway and means of access



Spouts, Chutes, Hoppers, Bins, and Associated Equipment

1917.49(e)

- Chutes equipped with sideboards
 - Afford protection from falling objects



Spouts, Chutes, Hoppers, Bins, and Associated Equipment

1917.49(h)

- Before employee enters empty bin:
 - Personnel controlling flow of cargo into bin notified of entry; **and**
 - Power supply to equipment carrying cargo to bin turned off, locked out and tagged



Spouts, Chutes, Hoppers, Bins, and Associated Equipment

1917.49(i)

- Before employee enters bin container bulk commodity such as coal or sugar:
 - Personnel controlling flow of cargo notified of entry
 - Power supply to equipment turned off, locked out and tagged
 - Employee entering bin wears lifeline and safety harness
 - Standby attendant equipped to perform rescue is continuously stationed outside bin



Spouts, Chutes, Hoppers, Bins, and Associated Equipment

1917.49(j)

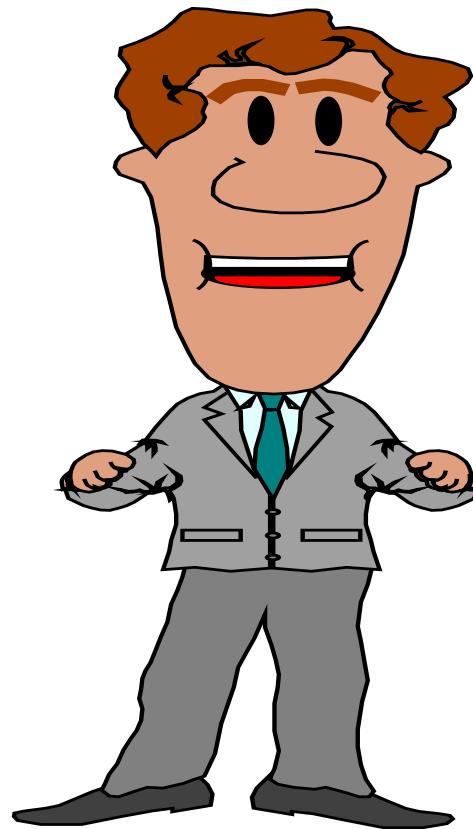
- Bin top openings that present hazard to employees
 - Covered to prevent employees from falling into bins



Spouts, Chutes, Hoppers, Bins, and Associated Equipment

1917.49(k)

- Chutes and hoppers repaired by designated persons



Spouts, Chutes, Hoppers, Bins, and Associated Equipment

1917.49(l)(1)-(3)

- Designated person inspect equipment used in power shoveling operations
- Equipment with defects not used
- Power supply turned off, locked out, and tagged, belt stopped, and hopper closed, before adjustments made to power shovel



Certification of Marine Terminal Material Handling Devices

1917.50(a)

- Material handling device listed in paragraph (c)
 - Not used until certificated
- Current and valid documents attesting to compliance
 - Meet requirements of paragraph (b) of this section

U.S. DEPARTMENT OF LABOR
Occupational Safety and Health Administration

Certificate of Unit Test and/or Examination
of Crane, Derrick, or Other Material

Paperwork Reduction Act Notice:
Public reporting burden for this collection of information is estimated to vary from 8 to 10 minutes per response with an average of 7 minutes per response, including the time for reviewing instructions, searching existing data sources, gathering and maintaining the data needed, and completing and maintaining the collection. Send comments regarding this burden estimate or any other aspect of this collection of information, including suggestions for reducing burden, to the Office of IRM Policy, Department of Labor, Paperwork Reduction Project (1218-0003), Wash., DC 20503, and to the Office of Management and Budget, Paperwork Reduction Project (1218-0003), Wash., DC 20503.

DO NOT SEND THE COMPLETED FORM TO EITHER OF THESE OFFICES:

This certificate may be issued only by persons acting under current accreditation by the Occupational Safety and Health Administration under the provisions of 29 CFR Part 1917, or otherwise specifically authorized to do so by the Occupational Safety and Health Administration. Use of this certificate by unauthorized persons is prohibited. Violators may subject themselves to the penalties provided in 33 U.S.C. 941 (PL-85-742) and 29 U.S.C. 651 (PL-87-366).

Form Approved
OMB No. 1218-0003
Expires 1-31-05

Crane/Device No. 1239-CB-303-2316-99 **Owner** Cooper T. Smith
108 N. Royal St., Mobile, AL 36602
REF 90605

Description (check):

Crane (describe type (truck, rail, etc.)) _____

Demol (describe) _____

Other (describe) **Cargo-handling Gear & Spreader bar**
If power or other device, describe _____

Location If (a) or (c), describe _____

(a) Remains at worksite
 (b) Changes worksite
 (c) Altered work

20' steel pipe
spreader bar

Manufacturer Cooper Wilkins **Model** CTS SWL 50 MT 2006 **Serial No.** 2006

Owner's identification, if any

Service status at time of survey (check):

Lifting Magneti steel pipe. Three (3) lift eyes 2 inch steel plate, suspension rail steel plate

Classified Other (describe) (1-3/4")

4. Boom at time of survey (except bridge cranes):

Length N/A **Type** N/A

5. Test loads applied (leave out if only examination conducted):

Radius N/A **Proof Loads** Applied 121,940 lbs. **Rated Loads** 50 MT

Means of application of proof load: Certified DW lifted
held suspended 5 min.
lowered & then examined **Ratio for assigned load rating:** Proof load 25%
in excess of rated loads

6. Remarks with/ or limitations imposed:

7. Load indicating or limited device (check): Fixed Non Fixed Assembly

I certify that on the 17 day of June, 1999, the above described device was (tested and examined) WORKED by the undersigned or his authorized representative, that said (test and examination) WORKED met in all respects with the requirements of 29 CFR Part 1917, or otherwise specifically authorized to do so by the Occupational Safety and Health Administration, and any deficiencies or unsatisfactory conditions have been corrected; and that the device has been found to be in compliance in all applicable respects with the governing requirements.

Name and address of accredited or otherwise authorized organization making the test and/or examination:
C. Baxter, Jr. & Associates, Inc., P.O. Box 9006, Mobile, AL 36609

Name and address of authorized person carrying out the test and/or examination:
C. Baxter, Jr., 3113 Cottage Hill Road, Mobile, AL 36606

Position of signatory in the organization making the test and/or examination:
Chief Surveyor

Certification of Marine Terminal Material Handling Devices

1917.50(a)(1)

- Certification surveys completed for conditions found at time surveys are completed
- Owners/users can change configurations of equipment according to manufacturer's specifications without affecting certification

Annual Inspection/Last Quad 413-09-98
Certificate of Unit Test and/or Examination
of Crane, Derrick, or Other Material

U.S. DEPARTMENT OF LABOR
Occupational Safety and Health Administration

Public reporting burden for this collection of information is estimated to vary from 5 to 10 minutes per response with an average of 7 minutes per response, including the time for reviewing instructions, searching for the information, and completing the form. You are not required to provide the information in this collection of information, including suggestions for reducing the burden. However, you may be subject to penalties if you fail to provide information that is required under the provisions of 29 CFR Part 1917, and to the Office of Management and Budget, Paperwork Reduction Project (1218-0003), Wash., DC 20503.

DO NOT SEND THE COMPLETED FORM TO EITHER OF THESE OFFICES

Form Approved
OMB No. 1218-0003
Expires 7-31-2001

1. Owner		2. Description (check):		3. Location:	
322-09-00		<input checked="" type="checkbox"/> Crane (describe type (truck, rail, etc.)) <u>Cantilever</u> <input type="checkbox"/> Derrick (describe) <u>Gantry Crane</u> <input type="checkbox"/> Other (describe) <u>If spout or other device, describe:</u>		<input checked="" type="checkbox"/> (a) Remains at worksite <input type="checkbox"/> (b) Changes worksite <input type="checkbox"/> (c) Aboard vessel <u>NIT Pier Norfolk, VA.</u>	
Manufacturer <u>PACCO</u>	Model <u>Portainer</u>	Serial No. <u>272</u>	4. Boom at time of survey (except bridge cranes): Length <u>113.5'</u> Type <u>Tubular Chords/Lacings</u>		
5. Test loads applied (cross out if only examination conducted): Radius <u>Main 8-parts rope 7/8"</u> Proof Loads <u>N/A</u> Rated Loads <u>67,200 lbs</u>			6. Means of application of proof load: None Basis for assigned load ratings: Mfg Design Rating		
7. Load indicating or limited device (check): <input type="checkbox"/> Fitted <input checked="" type="checkbox"/> Not fitted <input type="checkbox"/> Accuracy _____			8. Remarks and/or limitations imposed: None		
I certify that on the <u>15th</u> day of <u>Sept.</u> , <u>2000</u> , the above described device was <u>100009363030000X</u> (examined) by the undersigned or his authorized representative, that said <u>100009363030000X</u> (examination) met in all respects with the requirements of 29 CFR Part 1917 or with requirements deemed comparable under the provisions of 29 CFR 1917.50(b)(2), any deficiencies considered to constitute an unsafe condition have been corrected; and that the device has been found to be in compliance in all applicable respects with the governing requirements.			Name and address of accredited or otherwise authorized organization making the test and/or examination: <u>Martin Enterprise, Inc. P.O. Box 744 Chesterfield, VA, 23832</u>		
Name and address of authorized person carrying out the test and/or examination: <u>Casey Smith (Same as above)</u>			Position of signature in the organization making the test and/or examination: <u>Casey Smith Chief Surveyor</u>		
Signature 			Date <u>September 24, 2000</u> OSHA 71 Rev July 1993		
Previous editions obsolete			OWNER'S COPY		

Certification of Marine Terminal Material Handling Devices

1917.50(a)(2)

- Foreign manufactured cranes
 - Have owner's warranty that design is adequate for intended use
- Warranty based on thorough examination of design specifications by a register professional engineer familiar with equipment

Annual Inspection/Last Quad 413-09-98
U.S. DEPARTMENT OF LABOR
Occupational Safety and Health Administration

Paperwork Reduction Act Notice
Public reporting burden for this collection of information is estimated to vary from 5 to 10 minutes per response with an average of 7 minutes per response, including the time for reviewing instructions, searching existing data sources, gathering and maintaining the data needed, and completing and maintaining the collection of information. Send comments regarding this burden estimate or any other aspect of this collection of information, including suggestions for reducing the burden, to the Office of Management and Budget, Paperwork Reduction Project (1218-0009), Washington, DC 20503.

DO NOT SEND THE COMPLETED FORM TO EITHER OF THESE OFFICES

Form Approved
OMB No. 1218-0003
Expires 7-31-2001

Certificate of Unit Test and/or Examination		U.S. DEPARTMENT OF LABOR Occupational Safety and Health Administration	
of Crane, Derrick, or Other Material			
Crane (describe type (truck, rail, etc.)) <input checked="" type="checkbox"/> Cantilever			
Derrick (describe) <input type="checkbox"/> Gantry Crane			
Other (describe) <input type="checkbox"/> If (a) or (c), describe: If (b), describe: If (c), describe: Manufacturer <input type="checkbox"/> Facesco Cap. 67,200 lbs Model Portainer Serial No. 272 Owner's identification, if any PT-1			
Location: <input checked="" type="checkbox"/> (a) Remains at worksite <input type="checkbox"/> (b) Changes worksite <input type="checkbox"/> (c) Aboard vessel NUT Pier Norfolk, VA.			
2. Description (check): <input checked="" type="checkbox"/> Lifting <input type="checkbox"/> Magnet <input type="checkbox"/> Clamshell <input type="checkbox"/> Other (describe):			
3. Service status at time of survey (check): <input checked="" type="checkbox"/> In use <input type="checkbox"/> Under repair <input type="checkbox"/> Under construction <input type="checkbox"/> Other (describe):			
4. Boom at time of survey (except bridge cranes): Length 113.5' Type Tubular Chords/Lacings			
5. Test loads applied (cross out if only examination conducted): Radius <input type="checkbox"/> Proof Loads <input type="checkbox"/> Rated Loads Main 8-parts rope 7/8" N/A 67,200 lbs			
Means of application of proof load: <input type="checkbox"/> None Basis for assigned load rating: <input type="checkbox"/> Mfg Design Rating			
6. Remarks and/or limitations imposed: None			
7. Load indicating or limited device (check): <input type="checkbox"/> Fitted <input type="checkbox"/> Not fitted <input type="checkbox"/> Accuracy			
I certify that on the 15th day of Sept., 2000, the above described device was <input type="checkbox"/> inspected <input checked="" type="checkbox"/> examined by the undersigned or his authorized representative, that said <input type="checkbox"/> inspected <input checked="" type="checkbox"/> examined (examination) met in all respects with the requirements of 29 CFR Part 1917.50(b)(1) and (2) and that the device is declared compatible under the provisions of 29 CFR 1917.50(b)(2), any deficiencies considered to constitute an unsatisfactory condition have been corrected; and that the device has been found to be in compliance in all applicable respects with the governing requirements.			
Name and address of accredited or otherwise authorized organization making the test and/or examination: Martin Enterprise, Inc. P.O. Box 744 Chesterfield, VA, 23832			
Name and address of authorized person carrying out the test and/or examination: Casey Smith (Same as above)			
Signature  Date September 24, 2000			
Previous editions obsolete OWNER'S COPY OSHA 71 Rev July 1993			

Certification of Marine Terminal Material Handling Devices

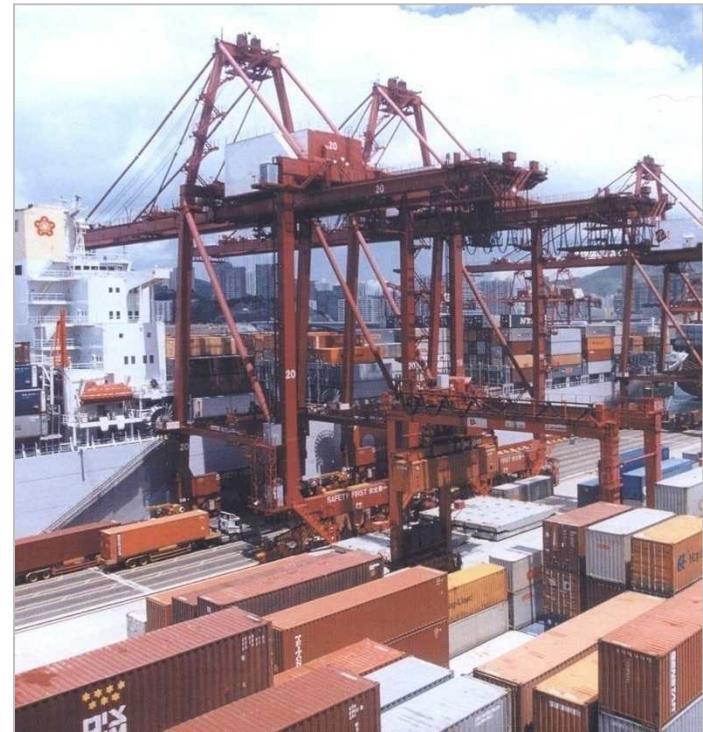
1917.50(b)(1)-(2)

- Certifications required by this part performed:
 - In accordance with Part 1919, by persons currently accredited by OSHA
 - In accordance with standards established and enforce by state in which device is located
 - By a political subdivision found by Secretary to be compatible with Part 1919
 - Persons designated as competent to perform such certification by competent state authority and recognized by Secretary

Certification of Marine Terminal Material Handling Devices

1917.50(c)(1)

- Marine terminal handling devices certificated in following manner:
 - Crane and derrick tested as a unit quadrennially, and examined annually
 - Certificates of tests and examinations readily available for inspections











KONECRANES

port of charleston

KONECRANES

charleston

K-229-00

CCC







CAP.

385 GALS.

WT.

1060 LBS.

WT.

4400 LBS.

ROLL

4-1-93

6-94

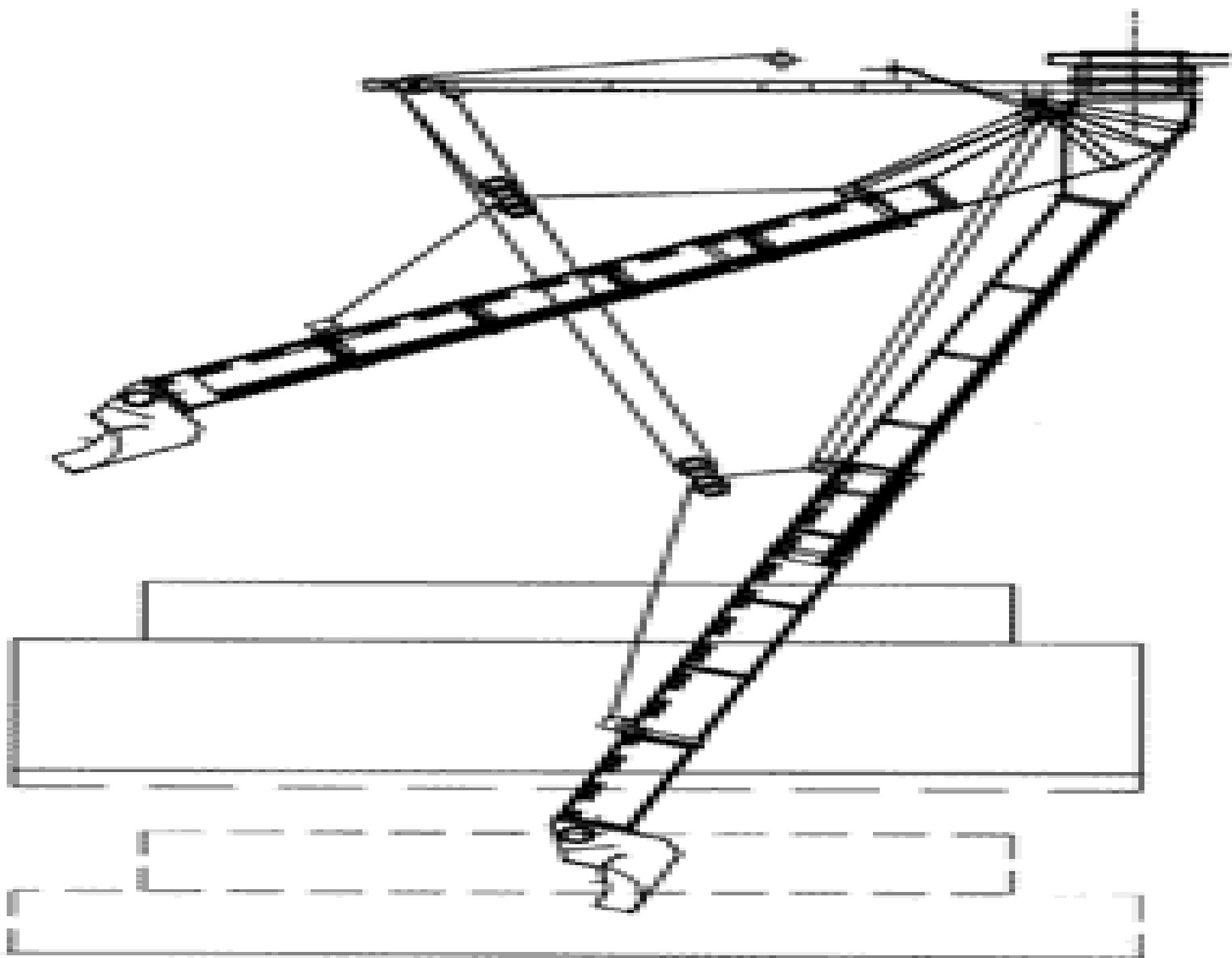


Certification of Marine Terminal Material Handling Devices

1917.50(c)(2)

- Bulk cargo spouts and suckers examined annually
- Certificates attesting to examination readily available for inspection





Certification of Marine Terminal Material Handling Devices

1917.50(c)(3)

- Vertical pocket or bucket conveyors examined annually
- Certificates attesting to examination readily available for inspection

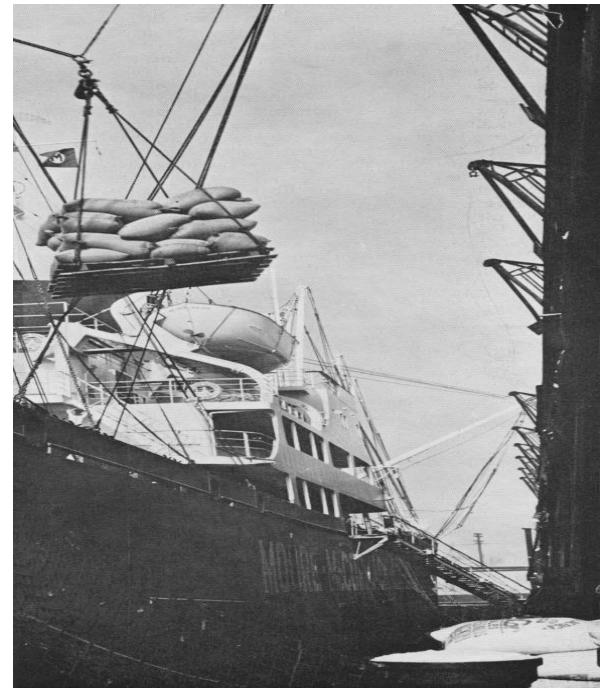




Certification of Marine Terminal Material Handling Devices

1917.50(c)(4)(i)

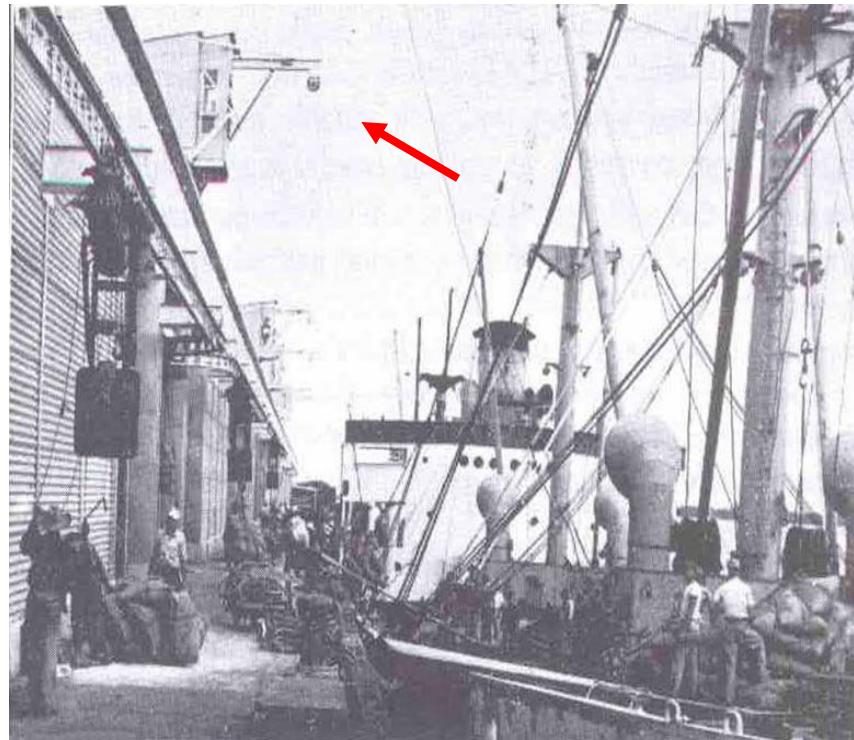
- House fall cargo-handling gear
 - Tested as a unit quadrennially and examined annually
- Certificates attesting to required tests and examinations
 - Readily available for inspection



Certification of Marine Terminal Material Handling Devices

1917.50(c)(4)(ii)

- House fall span beams or other block supports
 - Marked with safe working load



Certification of Marine Terminal Material Handling Devices

1917.50(c)(5)(i)

- Special stevedoring gear, strength which depends upon components other than commonly used stock items (shackles, ropes, chains):
 - Has Safe Working Load (SWL) greater than five short ton (10,000 lbs.)
 - Inspected and tested as a unit before initial use
 - If suffers structural damage - inspected and retested after repair



Certification of Marine Terminal Material Handling Devices

1917.50(c)(5)(ii)

- Special stevedoring gear with SWL of five short tons (10,000 lbs.) or less
 - Inspected and tested as unit before initial use
- Inspected and tested in accordance with paragraphs (d) - (e) of this section or by a designated person



NO SMOKING

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Certification of Marine Terminal Material Handling Devices

1917.50(c)(5)(iii)

- Spreader used for hoisting intermodal containers tested
 - Proof load equal to 25% in excess of rated capacity
- Structural damage resulting in repair
 - Spreader re-tested



Certification of Marine Terminal Material Handling Devices

1917.50(c)(5)(iv)

- Cargo handling gear with SWL greater than five short tons (10,000 lbs.)
 - Proof load tested every 4 years
- In accordance with paragraph (b) of this section or by designated person



Certification of Marine Terminal Material Handling Devices

1917.50(c)(5)(v)

- Certificates and inspection and test records attesting to tests
 - Available for inspection

SPECIAL STEVEDORE GEAR Safe Working Load 5 short tons or less (-10,000 lbs)	
PROOF LOAD TEST CERTIFICATE	
<hr/> <hr/> <hr/> (company name & address)	
Type Gear :	<hr/>
Serial Number:	<hr/>
Designated Safe Working Load:	<hr/> (pounds)
Actual Proof Load Test:	<hr/> (pounds)
Proof Load Test Date:	<hr/>
Test Results:	<input type="checkbox"/> Satisfactory <input type="checkbox"/> Unsatisfactory
The special stevedoring gear identified above has been proof load tested, in accordance with OSHA Longshoring regulations 29-CFR-1918.61(f), (g) & (h) and OSHA Marine Terminal regulation 29-CFR-1917.50(c)(5), by the designated person listed below.	
(signature)	(Job Title)

Certification of Marine Terminal Material Handling Devices

1917.50(c)(6)

- Wire rope and loose gear obtained after 10/3/83
 - Used for material handling
 - Tested and certificated
- Certificates attesting to required tests, inspections and examinations available



Certification of Marine Terminal Material Handling Devices

1917.50(d)

- Disassembly and reassembly of equipment
 - Does not require recertification of equipment
- Provided equipment is reassembled and used in manner consistent with its certification



Certification of Marine Terminal Material Handling Devices

1917.50(e)

- Equipment certificated in accordance with (b)(2) of this section and transferred to job site in another state
 - Current certification shall remain valid until next inspection or examination becomes due



Certification of Marine Terminal Material Handling Devices

1917.50(f)

- Certification procedures not construed as substitute for normal operational inspection and routine maintenance



Certification of Marine Terminal Material Handling Devices

1917.50(g)(1)

- Equipment requiring quadrennial certification
 - Certification within previous 48 months
- Equipment requiring annual certification
 - Certification within previous 12 months
- Annual examinations accomplished up to one month early without effecting due dates

Annual Inspection/Last Quad 413-09-98
Certificate of Unit Test and/or Examination
of Crane, Derrick, or Other Material
U.S. DEPARTMENT OF LABOR
Occupational Safety and Health Administration

Paperwork Reduction Act Notice
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Form Approved
OMB No. 1118-0003
Expires 7-31-2001

DO NOT SEND THE COMPLETED FORM TO EITHER OF THESE OFFICES

This certificate may be issued only by persons acting under current accreditation by the Occupational Safety and Health Administration under the provisions of 29 CFR Part 1917, or otherwise specifically authorized to do so by the Occupational Safety and Health Administration. Use of this certificate by unauthorized persons is prohibited. Violators may subject themselves to the penalties provided in 33 U.S.C. 931 (P.L. 83-542) and/or 29 U.S.C. 655 (P.L. 91-596).

Certificate No. 322-09-00 L. Owner _____

2. Description (check):
 Crane (describe type (truck, rail, etc.)) Cantilever
 Derrick (describe) Gantry Crane
 Other (describe) _____
If spout or other device, describe: _____

Manufacturer PACCO Cap. 67,200 lbs Model Portainer Serial No. 272

Owner's identification, if any PT-1

3. Service status at time of survey (check):
 Lifting Magnet
 Chassis Other (describe): _____

4. Boom at time of survey (except bridge cranes):
Length 113.5' Type Tubular Chords/Lacings

5. Test loads applied (cross out if only examination conducted):
Radius Main 8-parts rope 7/8" Proof Loads N/A Rated Loads 67,200 lbs

Means of application of proof load: _____ Basis for assigned load rating: _____
None Mfg. Design Rating

6. Remarks and/or limitations imposed:
None

7. Load indicating or limited device (check): Fitted Not fitted Accuracy _____

I certify that on the 15th day of Sept. 2000, the above described device was inspected and found to be in compliance with the requirements of 29 CFR Part 1919 or with requirements declared comparable by 29 CFR 1917.50(b)(2), any deficiencies compared to constitute an unsatisfactory condition, have been corrected; and that the device has been found to be in compliance in all applicable respects with the governing requirements.

Name and address of accredited or otherwise authorized organization making the test and/or examination: Martin Enterprise, Inc. P.O. Box 744 Chesterfield, VA, 23832

Name and address of authorized person carrying out the test and/or examination: Casey Smith (Same as above)

Signature Casey Smith Position of signature in the organization making the test and/or examination: Chief Surveyor

Date September 24, 2000 Previous editions obsolete OSHA 71 Rev July 1993

OWNER'S COPY

Certification of Marine Terminal Material Handling Devices

1917.50(h)

- Loose gear obtained after 1/3/83
 - Bear legible mark indicating it was tested
- Marks relating to testing
 - Identifiable on related certificates
 - Must be available



Certification of Marine Terminal Material Handling Devices

1917.50(i)(1)

- Safe working load of gear not exceeded



Certification of Marine Terminal Material Handling Devices

1917.50(i)(2)

- Cargo handling gear with SWL greater than five short tons (10,000 lbs.)
 - SWL plainly marked on it



17

Thick w/t. 4.5 MT

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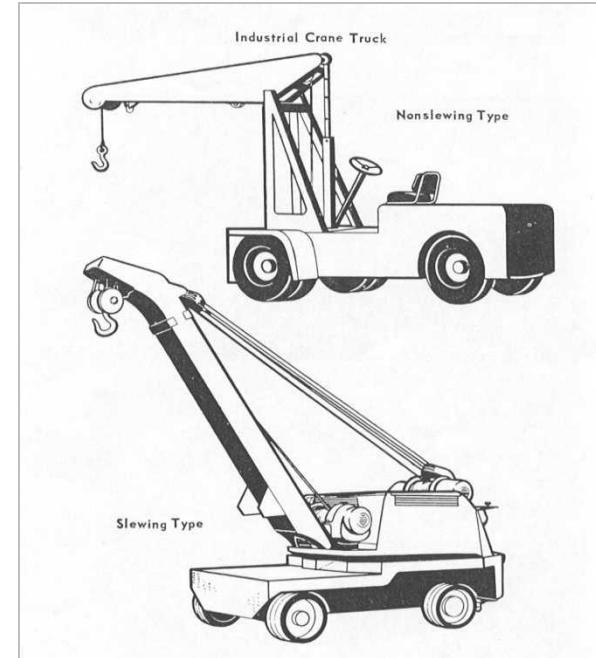
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9月 2010

Certification of Marine Terminal Material Handling Devices

1917.50(j)(1)

- Exception to certification requirements:
 - Small industrial trucks as described on page 8 and illustrated on page 13 of ASME B56.1 – 1959, “Safety Code for Powered Industrial Trucks.”



Certification of Marine Terminal Material Handling Devices

1917.50(j)(2)

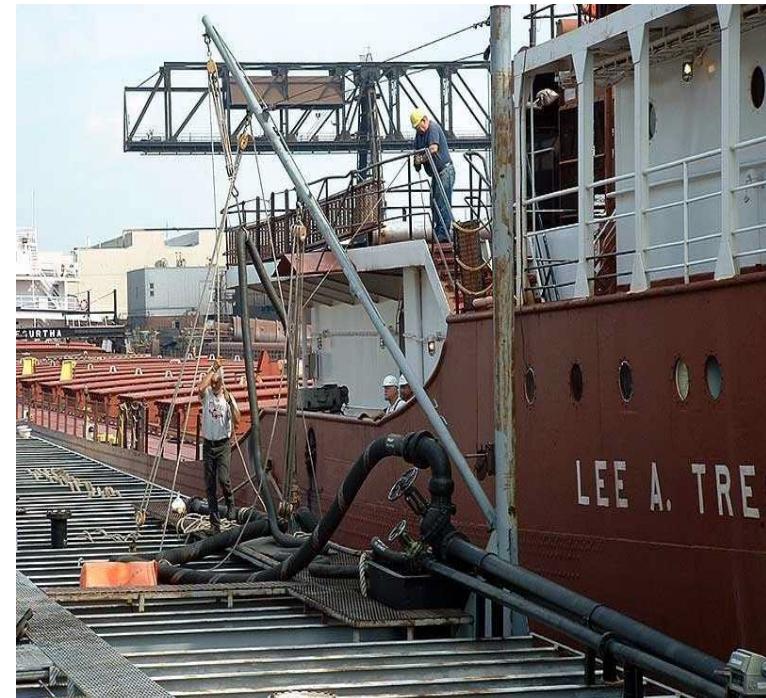
- Exception to certification requirements:
 - Straddle truck not capable of straddling two or more intermodal containers 16 feet in width.



Certification of Marine Terminal Material Handling Devices

1917.50(j)(3)

- Exception to certification requirements:
 - Gear used only for:
 - » Handling or holding hoses
 - » Handling ship's stores
 - » Handling gangway



Hand Tools

1917.51(a)

- Hand tools maintained in safe operating condition



Hand Tools

1917.51(b)(1)

- Hand-held portable electric tools
 - Equipped with switches manually held in a closed position to operate tool





Hand Tools

1917.51(b)(2)

- Portable power-driven circular saws
 - Equipped with guards above and below base plate
- Lower guard automatically return to covering position over blade teeth



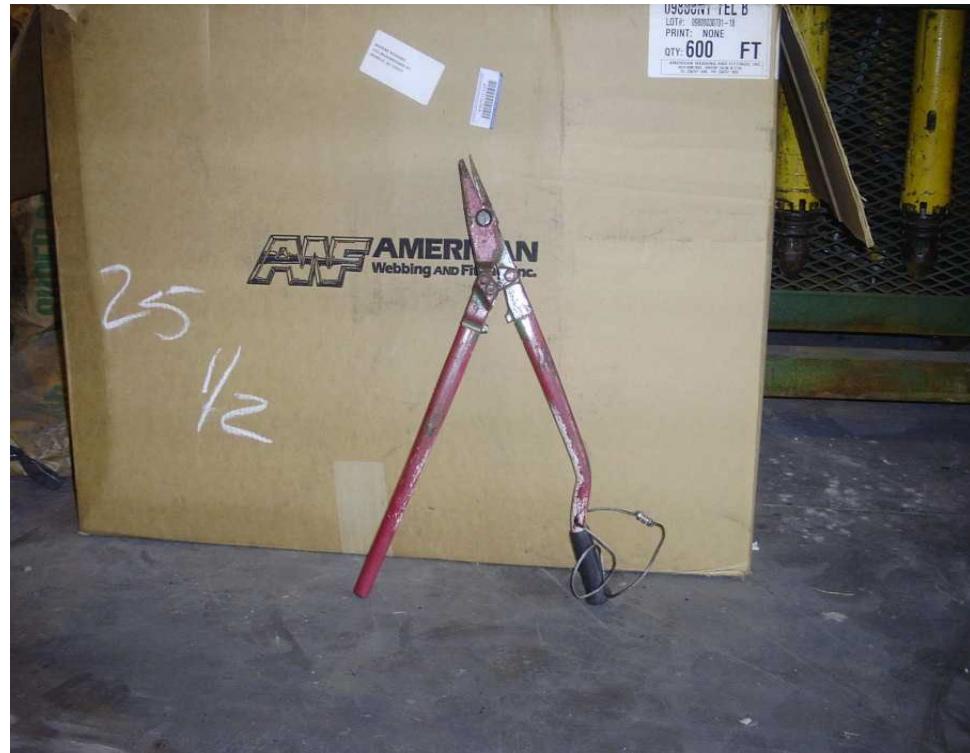


SKILSAW

Hand Tools

1917.51(c)

- Only cutting tools used to cut metal strapping or banding used to secure cargo



Thank You For Attending!

Final Questions?

1-800-NC-LABOR
(1-800-625-2267)
www.nclabor.com



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