

# CRANE ELITE

## MOBILE CRANE

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### CORE REVIEW

## QUESTIONS

CRANE ELITE PREP SCHOOL  
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MOBILE CRANE OPERATOR

# CORE REVIEW QUESTIONS

- 1) What is the purpose of placing mats or cribbing under outrigger floats?
  - a) Raise the tires off the ground.
  - b) Distribute the force over a larger area.
  - c) Allow the float to be level with surface.
  - d) Raise the operator's cab for better vision.
- 2) Where is the best location for leveling a crane?
  - a) Carrier.
  - b) Upperworks.
  - c) Cab.
  - d) Carbody.
- 3) Before leveling a mobile crane on outriggers, an operator should ensure:
  - a) the weight of the crane is on all the tires.
  - b) there is blocking under the outrigger beams.
  - c) there is no weight of the crane bearing on any tires
  - d) there is weight only bearing on some tires.
- 4) Operating a mobile crane with a long boom, on uneven ground, what support condition should be considered?
  - a) Blocking under the outrigger beams.
  - b) Keeping a  $75^{\circ}$  angle between cylinder rod and pad.
  - c) Keeping a  $90^{\circ}$  angle between cylinder rod and pad.
  - d) Blocking under the front bumper weight.
- 5) When may blocking (cribbing) be placed under outrigger beams on mobile cranes?
  - a) Extending beams.
  - b) Increasing capacity.
  - c) Improving stability.
  - d) Never approved.
- 6) Mobile cranes should be level to within what percent of grade?
  - a) 3%.
  - b) 2%.
  - c) 5%.
  - d) 1%.

- 7) Timber crane mats work best when they are:
- a) bolted together.
  - b) nailed together.
  - c) wired together.
  - d) left loose.
- 8) When arriving in the crane at the job site, the operator should first determine the condition of the:
- a) cranes setup location.
  - b) access roads.
  - c) parking lot.
  - d) headache ball.
- 9) What surface listed below would NOT be a good location for assembly or setup of a mobile crane?
- a) Above compacted fill.
  - b) Above highway asphalt.
  - c) Above underground vaults.
  - d) Above highway concrete.
- 10) Each outrigger pad and its blocking should be sufficient to support?
- a) 85% of the load chart.
  - b) The total weight of the crane and its load.
  - c) The total weight of the crane and its boom.
  - d) 75% of the load chart.
- 11) How does high wind affect a mobile crane with a long boom?
- a) Decreases load line capacity.
  - b) Requires you to slip the swing brake.
  - c) Introduces side load onto the boom.
  - d) Has no effect on overall crane capacity.
- 12) When is the only time the outrigger beams should be less than fully extended?
- a) The load chart indicates that this is allowed.
  - b) There is not enough space to extend the beam.
  - c) The crane is working over the front.
  - d) The main boom is fully retracted.



- 13) What is the primary purpose for a rooster sheave or auxiliary boom point sheave?
- a) Separate the load hoist lines.
  - b) Separate the boom hoist lines.
  - c) Increase the load radius.
  - d) Decrease the load radius.
- 14) Eccentric main boom tip reeving causes which of the following:
- a) increased carrier wear.
  - b) increased wire rope wear.
  - c) twisting of the main boom.
  - d) twisting of the superstructure.
- 15) Which type of wire rope listed below is installed on most cranes?
- a) Right regular lay.
  - b) Right alternate lay.
  - c) Left regular lay.
  - d) Left alternate lay.
- 16) The hoist drum flange shall extend a minimum of \_\_\_\_\_ over the top layer of wire rope at all times while crane is in operation.
- a) ½ inch.
  - b) 1 inch.
  - c) 1 ½ inch.
  - d) 2 inch.
- 17) Which of the following is classified as a standing wire rope?
- a) Main hoist line.
  - b) Boom hoist line.
  - c) Auxiliary hoist line.
  - d) Pendant line.
- 18) When lifting on outriggers, the floats or pads should always be:
- a) sufficient to support three times the applied load.
  - b) raised to touch the tires firmly on the ground.
  - c) secured to the outriggers cylinder.
  - d) secured to the mats.

- 19) How many randomly broken wires in a lay length must there be on a mobile cranes hoist line, before it should be removed from service?
- a) 4
  - b) 3
  - c) 5
  - d) 6
- 20) What is the minimum design factor required for a right regular lay, boom or hoist wire rope?
- a) 5
  - b) 3.5
  - c) 2.5
  - d) 7
- 21) On a mobile crane, how many broken wires are permitted at the end connection of a pendant before it must be taken out of service?
- a) 6
  - b) 5
  - c) 3
  - d) 1
- 22) Type 1 rotation resistant hoist wire rope has a design factor of:
- a) 2.5 to 1
  - b) 3 to 1
  - c) 3.5 to 1
  - d) 5 to 1
- 23) It is important to know when lubricating crane hoist wire rope, that the lubricant must:
- a) not hinder visual inspection.
  - b) not be applied in direct sunlight.
  - c) not be applied prior to use.
  - d) not be applied to regular lay wire rope.
- 24) How often is the competent person required to inspect the running wire ropes on a mobile crane?
- a) Each shift.
  - b) Each year.
  - c) Each week.
  - d) Each month.

- 25) On mobile cranes, how many broken wires must be present in one strand of one lay for running wire rope to be removed from service?
- a) 3
  - b) 1
  - c) 2
  - d) 0
- 26) How many randomly distributed broken wires in rotation-resistant hoist wire rope are considered for replacement?
- a) 1 broken wire in 6 rope diameters.
  - b) 2 broken wires in 30 rope diameters.
  - c) 3 broken wires in one strand in one lay.
  - d) 2 broken wires in 6 rope diameters.
- 27) According to OSHA, what is the minimum number of full wraps of wire rope that must remain on hoist drums in all service conditions?
- a) 1
  - b) 5
  - c) 2
  - d) 4
- 28) On whose recommendations should a mobile crane preventative maintenance program be developed?
- a) Master mechanic.
  - b) Crane operator.
  - c) Company supervisor.
  - d) Crane manufacturer.
- 29) On a mobile crane, the measurement for the load radius is the distance from the center of gravity of the suspended load to the:
- a) center of rotation of the crane.
  - b) center of gravity on the crane.
  - c) tipping axis of the equipment carrier.
  - d) hook rollers on the equipment carrier.

- 30) On a mobile crane, should the load be applied when determining the proper boom angle?
- a) Yes.
  - b) No.
  - c) Maybe.
  - d) Sometimes.
- 31) On a mobile cranes range diagram, boom length and boom angle can be used to determine?
- a) Load weight.
  - b) Load radius.
  - c) Counterweights.
  - d) Gross capacity.
- 32) On a mobile crane, what is the weight of the stowed jib that is deducted in load chart calculations called?
- a) Actual weight.
  - b) Non- deducted weight.
  - c) Effective weight.
  - d) Non-effective weight.
- 33) When determining boom tip elevation for a mobile crane, the user could:
- a) call the manufacturer.
  - b) use the range diagram.
  - c) use the wiring diagram.
  - d) call the site supervisor.
- 34) The term net capacity is best defined by which of the terms listed below?
- a) Net load plus gross capacity.
  - b) Capacity deductions minus gross capacity.
  - c) Net load minus gross capacity.
  - d) Gross capacity minus capacity deductions.
- 35) When lifting off the main boom, how is the effective weight of the fly/jib different in the erected position from that of the stowed position?
- a) Effective weight increases.
  - b) Effective weight decreases.
  - c) Effective weight is reduced 85%.
  - d) Effective weight is reduced 75%.

- 36) Mobile cranes that are setup on barges, shall have a list chart provided by which of the entities listed below?
- a) Crane owner.
  - b) Superintendent.
  - c) Manufacturer.
  - d) Employer.
- 37) When lifting loads on tires, mobile cranes are rated at what percentage of tipping?
- a) 70%.
  - b) 75%.
  - c) 80%.
  - d) 85%.
- 38) How does the effective weight of a stowed extension relate to the actual weight of the extension?
- a) Lower than the actual weight.
  - b) Depends on the boom angle.
  - c) Higher than the actual weight.
  - d) Same as the actual weight.
- 39) When load radius is between radii values, the operator must use the:
- a) shorter radius.
  - b) longer radius.
  - c) shorter angle.
  - d) longer angle.
- 40) Why do most crane manufacturers reduce load capacity for duty-cycle operations?
- a) The maximum load is almost always known.
  - b) Dynamic loads are not encountered.
  - c) Side loading forces may occur.
  - d) Front loading forces may occur.
- 41) Why should only approved attachments or extra counterweights provided by the manufacturer be placed on the rear of crane?
- a) They could cause a backward stability problem.
  - b) The crane will develop a swing problem.
  - c) The swing clearance will increase.
  - d) The ground pressure will increase.



- 42) A mobile crane's jib is offset  $15^{\circ}$  versus its original  $0^{\circ}$  offset, but the boom angle remains unchanged. In this situation, the load radius:
- a) increases.
  - b) remains the same.
  - c) decreases.
  - d) cannot be determined.
- 43) What is the difference between an anti-two-block warning device and an anti-two-block prevention device?
- a) Warning device only warns, but prevention devices will stop the functions.
  - b) Prevention device only warns, but warning device stops the functions.
  - c) Both are the same and serve the same purpose.
  - d) Both will warn and stop some dangerous operations.
- 44) How can the LMI's boom length or load radius reading be verified?
- a) Actual measurements.
  - b) No need to verify.
  - c) Calibrate the LMI.
  - d) Check with superintendent.
- 45) On mobile cranes, what does the boom angle indicator show the operator?
- a) Radius of the boom to ground.
  - b) Angle of boom to horizontal.
  - c) Angle of boom to vertical.
  - d) Axis of tipping from centerline.
- 46) What is the device called that automatically stops the boom when it nears the crane's maximum angle?
- a) Boom hoist limiting.
  - b) Boom backstop.
  - c) Mechanical boom stop.
  - d) Boom hoist pawl.
- 47) When the number of layers of wire rope on a drum increases the:
- a) allowable line pull decreases.
  - b) allowable line pull increases.
  - c) allowable line pull remains the same.
  - d) allowable line pull can't be calculated.

- 48) On a mobile crane, side loading of the boom could be caused by which of the following?
- a) Starting or stopping the swing too rapidly.
  - b) Raising or lowering the load too rapidly.
  - c) Raising or lowering the boom too rapidly.
  - d) Starting or stopping the engine too rapidly.
- 49) Which person listed below, has the responsibility for determining the correct weight of a load?
- a) Crane Operator.
  - b) Crane Owner.
  - c) Lift Director.
  - d) Signal person.
- 50) What must an operator do when an operator leaves the controls of the crane for an extended period of time?
- a) Apply all brakes and dogs, and leave the load suspended.
  - b) Apply all brakes and dogs, and lower the load to the ground.
  - c) Apply all brakes and dogs, and lower boom to ground.
  - d) Apply only swing brake and leave the engine running.
- 51) Abruptly stopping a rapid swing on a long-boom mobile crane will produce what major effect?
- a) Overheating the swing brake.
  - b) Collapsing the boom.
  - c) Increasing ground pressure.
  - d) Overheating the race and bearings.
- 52) When should a tag line be used, during the hoisting of material?
- a) When the rotation of the load would be dangerous.
  - b) When the rigger is not certain of the loads stability.
  - c) When only one signal person is required to signal lift.
  - d) When the lift director leaves the lifting area of the crane.
- 53) What percentage of the rated capacity of a mobile crane must be used when lifting with two cranes attached to the same load?
- a) 85%
  - b) 75%
  - c) 50%
  - d) 90%



- 54) When lifting a load with two mobile cranes, it is very important to:
- a) use only cranes from the same manufacturer.
  - b) use only cranes with the same rated capacity.
  - c) keep the working radius of both cranes identical.
  - d) keep the hoist lines of both cranes vertical.
- 55) If lifting a load with two mobile cranes of different rated capacities, the crane with the larger rated capacity should:
- a) be hooked at an equal distance from the loads center of gravity.
  - b) be hooked at a distance closer to the loads center of gravity.
  - c) be hooked at the loads center of gravity.
  - d) be hooked at a distance farther from the loads center of gravity.
- 56) When determining the position to a mobile crane should be left in over night, with high winds in the forecast the operator should:
- a) tie off to the closest solid structure with the wind in the front.
  - b) tie off to the closest solid structure with the wind in the back.
  - c) put the crane in weather vane position.
  - d) follow manufacturers recommendations.
- 57) When performing a multiple crane lift it is important for the operator's of each crane to understand that:
- a) the weight is equally distributed at all times during the lift.
  - b) the weight is never equally distributed during the crane lift.
  - c) the weight may increase if the other crane lands the load.
  - d) the weight may decrease if the other crane lands the load.
- 58) When lifting loads that are submerged under water with a mobile crane, what is one of the conditions that the operator should be familiar with?
- a) Current can change and cause the crane to tip over.
  - b) Brakes or dogs on the crane could get wet and slip.
  - c) Boom and extension can't be moved without high tide.
  - d) Load will increase when lifting the load out of the water.
- 59) When lifting over water with a personnel platform, what are the occupants of the platform required to wear?
- a) A body harness.
  - b) A waste Belt.
  - c) A flotation device.
  - d) A full face respirator.

- 60) If a mobile crane is NOT set-up level and the operator swings the load from the high side to the low side, what effect will that have on the radius?
- a) The radius will decrease.
  - b) The radius stays the same.
  - c) The radius can't be calculated.
  - d) The radius increase.
- 61) Increasing the distance from the crane's center of gravity to the tipping axis will have what effect on a mobile crane?
- a) Increase stability.
  - b) Decrease stability.
  - c) Increase structural competence.
  - d) Decrease structural competence.
- 62) Backward stability of a mobile crane is tested in which configuration listed below?
- a) Basic boom at maximum angle with maximum load.
  - b) Maximum boom at maximum angle with maximum load.
  - c) Basic boom at minimum angle with no load.
  - d) Basic boom at maximum angle with no load.
- 63) What is the minimum pitch diameter used for sheaves in a boom hoist reeving system using rotation resistant wire rope?
- a) Not less than 15 times rope diameter.
  - b) Not less than 16 times rope diameter.
  - c) Not less than 18 times rope diameter.
  - d) Not less than 20 times rope diameter.
- 64) When can capacity altering modifications be made to mobile cranes?
- a) Capacity altering modifications may not be made to mobile cranes.
  - b) When lifting in the tipping portion of the load chart.
  - c) When lifting in the structural portion of the load chart.
  - d) When permission is given by the crane manufacturer.
- 65) A crane is at the point of instability when the crane's leverage on the load equals:
- a) 100% of the load's leverage on crane.
  - b) 90% of the load's leverage on crane.
  - c) 85% of the load's leverage on crane.
  - d) 75% of the load's leverage on crane.

- 66) Who must determine maximum speed for a mobile crane to travel with a suspended load?
- a) The competent person
  - b) The job site.
  - c) The superintendent.
  - d) The craft foreman.
- 67) Deflection of the boom while operating a mobile crane will increase?
- a) Load radius.
  - b) Weight of boom.
  - c) Load weight.
  - d) Crane stability.
- 68) A sudden start or stop of the hoisting function while operating a mobile crane can produce a:
- a) static load.
  - b) dynamic load.
  - c) eccentric load.
  - d) symmetrical load.
- 69) When traveling with a suspended load on a mobile crane climbing an incline, the load should be carried in which direction?
- a) Uphill.
  - b) Downhill.
  - c) Both ways.
  - d) Never.
- 70) Which mobile crane boom configuration can cause the most hazardous side-loading condition for the crane?
- a) Short boom with minimum radius.
  - b) Long boom with minimum radius.
  - c) Short boom at  $45^{\circ}$  angle.
  - d) Long boom at  $45^{\circ}$  angle.
- 71) When preparing to hoist a load, the load block hook should be positioned:
- a) slightly to the side you're planning to swing.
  - b) slightly to the side opposite you plan to swing.
  - c) directly above the load's center of gravity.
  - d) above the edge of the load closest to the crane.

- 72) When making a lift on outriggers, the maximum ground-bearing pressure occurs in which boom position?
- a) Over the rear.
  - b) Over the corner.
  - c) Over the front.
  - d) Over the side.
- 73) When personnel platforms are hoisted with a mobile crane what item listed below must be provided?
- a) A free fall button.
  - b) A load moment indicator.
  - c) An anti two-block device.
  - d) An anti collision device.
- 74) Personnel platforms suspended on the hook of a mobile crane, must not exceed what percentage of a crane's capacity at any given radius?
- a) 50%.
  - b) 75%.
  - c) 100%.
  - d) 125%.
- 75) When proof testing a personnel platform to 125% of its rated capacity, how long must the platform be suspended?
- a) 1 minute.
  - b) 5 minutes.
  - c) 7 minutes.
  - d) 10 minutes.
- 76) Which of the following correctly states the requirements for hooks used to hoist employees on a crane-supported personnel platform?
- a) Hooks shall have a latch that closes and doesn't lock.
  - b) Hooks shall have a latch that closes and locks.
  - c) Hooks shall be able to support 25 times their normal rating.
  - d) Hooks shall be able to support 20 times their normal rating.



- 77) OSHA permits hoisting of personnel by a crane as long as the employer can show:
- a) the prevailing wind speed is less than 35 mph.
  - b) there is no less hazardous or practicable way.
  - c) all personnel have CPR training and first aid.
  - d) all aerial lifts on site are being used that day.
- 78) Before lifting an occupied personnel platform on a jobsite the crew must ensure they perform which of the following?
- a) Must attend a pre-lift meeting.
  - b) Must fully deploy all outriggers.
  - c) Must perform a trial lift.
  - d) All of the above.
- 79) Before lifting an occupied personnel platform on a jobsite, which of the following applies?
- a) Must use 50% of cranes rated capacity.
  - b) Must trial lift anticipated load weight.
  - c) Must ensure rigging is dedicated to platform only.
  - d) All of the above.
- 80) Which of the following standards or regulations governs the lifting of personnel in construction?
- a) ASME B30.5.
  - b) OSHA 1926.1431.
  - c) OSHA 1910.180.
  - d) PCSA #4.
- 81) According to OSHA 1926.1431, which device listed below must be attached to the crane?
- a) Anti-two-block.
  - b) Swing-away.
  - c) Two-way bridle.
  - d) Dead section.
- 82) According to OSHA 1926.1431, which of these hoist options is prohibited?
- a) Controlled lowering.
  - b) Controlled hoisting.
  - c) Hoist free fall.
  - d) Hoist governor.

- 83) Inside the personnel platform except for gates, how much of the perimeter must contain a grab rail for the occupants?
- a) 25 percent.
  - b) 50 percent.
  - c) 75 percent.
  - d) 100 percent.
- 84) According to OSHA 1926.1431, during personnel platform hoisting operations, access gates shall NOT swing in which direction?
- a) Inward.
  - b) Outward.
  - c) Sideward.
  - d) Wayward.
- 85) OSHA 1926.1431 states that tag lines must be used:
- a) when overload condition exists.
  - b) when necessary to control platform.
  - c) when platform is in static condition.
  - d) when tipping condition exists.
- 86) According to OSHA 1926.1431, while hoisting a personnel platform, what weather condition listed below will promptly discontinue the operation?
- a) Dark.
  - b) Light.
  - c) Dangerous.
  - d) Normal.
- 87) While hoisting employees in a personnel platform, direct communication must be maintained between the signal person and who?
- a) Superintendent.
  - b) Lift director.
  - c) Operator.
  - d) Rigger.
- 88) According to OSHA 1926.1431, at what wind speed must a qualified person be consulted?
- a) 10 mph.
  - b) 15 mph.
  - c) 20 mph.
  - d) 25 mph.

- 89) If working near power lines and using a tag line, which type of rope is least conductive to electricity?
- a) Cotton.
  - b) Nylon.
  - c) Hemp.
  - d) Polypropylene.
- 90) When working near power lines with a mobile crane, where does OSHA require caution stickers be installed on all equipment?
- a) On the equipment carrier and on the main boom tip.
  - b) On the equipment superstructure and the extension.
  - c) At operators station and 2 on the outside of the equipment.
  - d) At operators station and 5 on the outside of the equipment.
- 91) According to OSHA table T, what is the minimum clearance for 133kV power lines?
- a) 4 feet.
  - b) 6 feet.
  - c) 10 feet.
  - d) 15 feet.
- 92) According to OSHA, when working near power lines when is a dedicated spotter required?
- a) When crane moves within 10 ft. of power lines.
  - b) When crane moves within 15 ft. of power lines.
  - c) When crane operator is unable to see the warning line of signs.
  - d) When crane signal person is elevated from crane level.
- 93) According to OSHA's table T, what clearance should a mobile crane **IN TRANSIT** keep while going under 445kV lines?
- a) 4 feet.
  - b) 6 feet.
  - c) 10 feet.
  - d) 16 feet.



- 94) According to OSHA when is it safe to hoist loads with a mobile crane below energized power lines?
- a) If a crane is equipped with an isolated link or proximity alarm.
  - b) If the crane only raises the boom to a maximum angle of 60 degrees.
  - c) When the fully extended boom can't reach the prohibited zone.
  - d) The boom is kept 10 feet away from the power line for 360 degrees.
- 95) According to OSHA 1926.1408, when operating near high voltage power lines, what clearance shall be required when the rating of the lines is 275kV?
- a) 5 feet w/encroachment precautions.
  - b) 10 feet w/encroachment precautions.
  - c) 15 feet w/encroachment precautions.
  - d) 20 feet w/encroachment precautions.
- 96) According to OSHA 1926.1411, when you encounter power lines with a voltage of 44 kV and the crane is **TRAVELING**, according to **Table T**, what is the minimum required clearance?
- a) 4.
  - b) 6.
  - c) 10.
  - d) 16.
- 97) According to OSHA 1926.1408, the minimum clearance between any part of the crane and power lines rated 50 kV or below shall be:
- a) 5 feet w/encroachment precautions.
  - b) 10 feet w/encroachment precautions.
  - c) 15 feet w/encroachment precautions.
  - d) 20 feet w/encroachment precautions.
- 98) According to OSHA 1926.1408, for power lines rated 100 kV, the minimum clearance between the crane and any lines shall be?
- a) 5 feet w/encroachment precautions.
  - b) 10 feet w/encroachment precautions.
  - c) 15 feet w/encroachment precautions.
  - d) 20 feet w/encroachment precautions.

- 99) The term "jib offset" can be expressed as the jib angle to which mobile crane component listed below?
- a) Boom.
  - b) Forestay.
  - c) Pendants.
  - d) Gantry.
- 100) On a mobile crane the term "part's of line" refers to which item listed below?
- a) The number of wires and strands in the load line.
  - b) The number of sheaves mounted on load block and boom point sheaves.
  - c) The number of lines running thru the load block and boom point sheaves.
  - d) The number of total sheaves mounted on the crane.
- 101) According to OSHA, mobile crane load block hooks must not have a twist in excess of:
- a) 0 degrees.
  - b) 5 degrees.
  - c) 10 degrees.
  - d) 15 degrees.
- 102) According to OSHA, mobile crane load block hooks must not have a throat opening in excess of:
- a) 5% of its original size.
  - b) 8% of its original size.
  - c) 10% of its original size.
  - d) 15% of its original size.
- 103) What is the design factor for grade 80 chain slings?
- a) 5.
  - b) 3.6.
  - c) 4.
  - d) 7.
- 104) What grade alloy steel chain should be used for hoisting slings?
- a) 40.
  - b) 70.
  - c) 80.
  - d) 60.

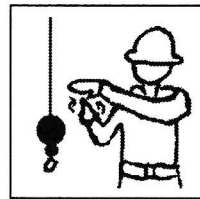
- 105) Loads rigged using a basket hitch should be \_\_\_\_\_ to prevent slippage.
- a) Suspended.
  - b) Static.
  - c) Balanced.
  - d) Weighed
- 106) When slings encounter sharp edges on loads to be lifted, riggers shall ensure that slings are:
- a) protected or padded.
  - b) kinked or knotted.
  - c) lengthened or shortened.
  - d) damaged or defective.
- 107) According to OSHA, quadruple sling bridle ratings are the same as:
- a) triple sling bridle ratings.
  - b) double sling bridle ratings.
  - c) single sling bridle ratings.
  - d) quadruple bridle ratings.
- 108) When correctly installing U-bolt type wire rope clips, the U portion of the clip shall be on:
- a) the dead or short end.
  - b) the live or long end.
  - c) the live end or dead end.
  - d) the live end then the dead end.
- 109) Which statement listed below is correct about basic load rigging?
- a) As horizontal load angle increases, stress increases.
  - b) As horizontal load angle decreases, load decreases.
  - c) As horizontal load angle decreases, stress increases.
  - d) As horizontal load angle increases, load increases.

- 110) The approximate percentage of strength of choker, vertical, and basket hitches respectively are:
- a) 50%, 75%, 100%.
  - b) 75%, 100% 200%.
  - c) 75%, 90%, 100%.
  - d) 50%, 100%, 200%.
- 111) According to ASME which of the following listed below shall **NOT** be used for the suspension system on suspended personnel platforms?
- a) Wire rope bridle.
  - b) Alloy steel chain bridle.
  - c) Synthetic web bridle.
  - d) Wire rope slings.
- 112) When rigging a bundle of pipe or tubing, which of the following would provide the best contact between sling and load?
- a) Double vertical.
  - b) Single leg choker.
  - c) Double wrap choker.
  - d) Single basket.
- 113) What is the angle between the top of the load and the sling leg referred to in sling load charts?
- a) Vertical sling angle.
  - b) Included sling angle.
  - c) Working sling angle.
  - d) Horizontal sling angle.
- 114) When installing a wedge socket, it must be attached with the load line pulling in a straight line from the:
- a) shank.
  - b) point.
  - c) pin.
  - d) wedge.

- 115) For any signal other than emergency stop, who is permitted to give hand signals to the crane operator during a lift?
- a) A qualified crane inspector.
  - b) A qualified crane operator.
  - c) A qualified material rigger.
  - d) A qualified signal person.

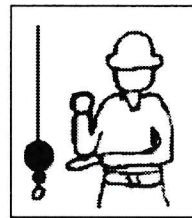
- 116) Select the correct OSHA Standard Method Hand Signal that matches the illustration.

- a) Stop.
- b) Hoist.
- c) Move slowly.
- d) Use whipline.



- 117) Select the correct OSHA Standard Method Hand Signal that matches the illustration.

- a) Use whipline.
- b) Travel.
- c) Use main hoist.
- d) Retract boom.



- 118) What is the first element of voice signals given to a crane operator prior to the lift?
- a) Distance and Speed.
  - b) Function and Direction.
  - c) Speed and/or Distance.
  - d) Function stop.

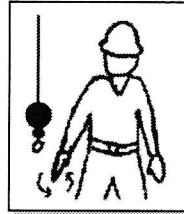
- 119) According to OSHA, each series of voice signals contain how many elements?

- a) Two.
- b) One.
- c) Three.
- d) Four.



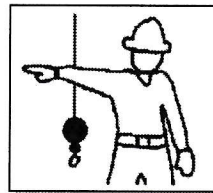
- 120) Select the correct OSHA Standard Method Hand Signal that matches the illustration.

- a) Stop.
- b) Hoist.
- c) Lower.
- d) Lower boom.



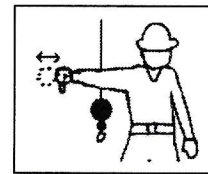
- 121) Select the correct OSHA Standard Method Hand Signal that matches the illustration.

- a) Lower.
- b) Swing.
- c) Stop.
- d) Travel.



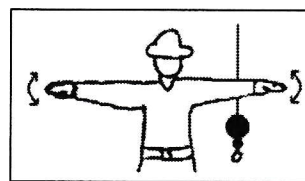
- 122) Select the correct OSHA Standard Method Hand Signal that matches the illustration.

- a) Stop.
- b) Travel. (1 Track)
- c) Raise boom and lower load.
- d) Lower boom and raise load.



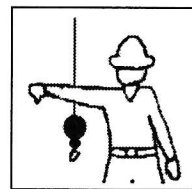
- 123) Select the correct OSHA Standard Method Hand Signal that matches the illustration.

- a) Stop.
- b) Travel.
- c) Extend boom.
- d) Emergency stop.



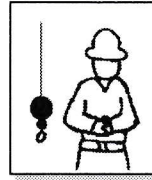
- 124) Select the correct OSHA Standard Method Hand Signal that matches the illustration.

- a) Swing.
- b) Retract boom.
- c) Lower boom.
- d) Lower.



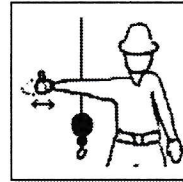
125) Select the correct OSHA Standard Method Hand Signal that matches the illustration.

- a) Move Slowly.
- b) Dog Everything.
- c) Boom Down.
- d) Boom.



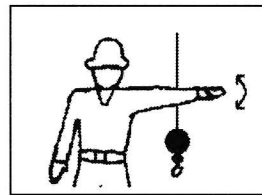
126) Select the correct OSHA Standard Method Hand Signal that matches the illustration.

- a) Raise boom, lower load.
- b) Extend boom.
- c) Lower boom, raise load.
- d) Hoist.



127) Select the correct OSHA Standard Method Hand Signal that matches the illustration.

- a) Swing.
- b) Emergency stop.
- c) Travel.
- d) Stop.



128) When directing a crane using voice signals the transmission must be through a channel that is:

- a) dedicated.
- b) multiple.
- c) hard wired.
- d) job wired.

129) Before commencing lifting operations, the operator and signal person must contact and identify each other when using which form of communication?

- a) Hand signals.
- b) Special signals.
- c) Voice signals.
- d) Basic signals.



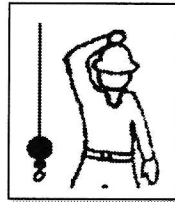
130) According to OSHA where must a signal chart be posted?

- a) Electronically in the main office.
- b) Inside the lifting equipment's operator's station.
- c) Inside the lifting equipment's operator's manual.
- d) On the equipment or in the area of the hoisting operation.

131) How many audible travel signals are there?

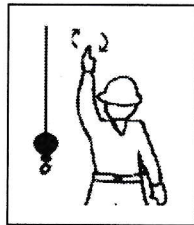
- a) 3.
- b) 2.
- c) 5.
- d) 4.

132) Select the correct OSHA Standard Method Hand Signal that matches the illustration.



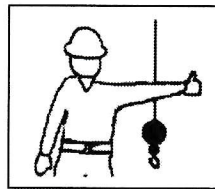
- a) Extend boom.
- b) Use main hoist.
- c) Raise boom.
- d) Use whipline.

133) Select the correct OSHA Standard Method Hand Signal that matches the illustration.



- a) Swing.
- b) Hoist.
- c) Move slowly.
- d) Lower.

134) Select the correct OSHA Standard Method Hand Signal that matches the illustration.



- a) Hoist.
- b) Lower boom.
- c) Raise boom.
- d) Swing.

135) Select the correct ASME Standard Hand Signal that matches the illustration.



- a) Lower boom.
- b) Lower boom and raise load.
- c) Extend boom and lower load.
- d) Extend boom.