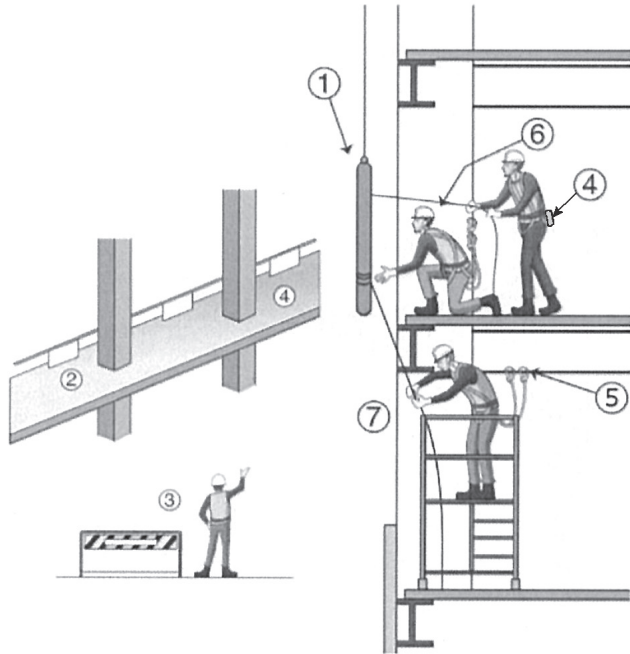
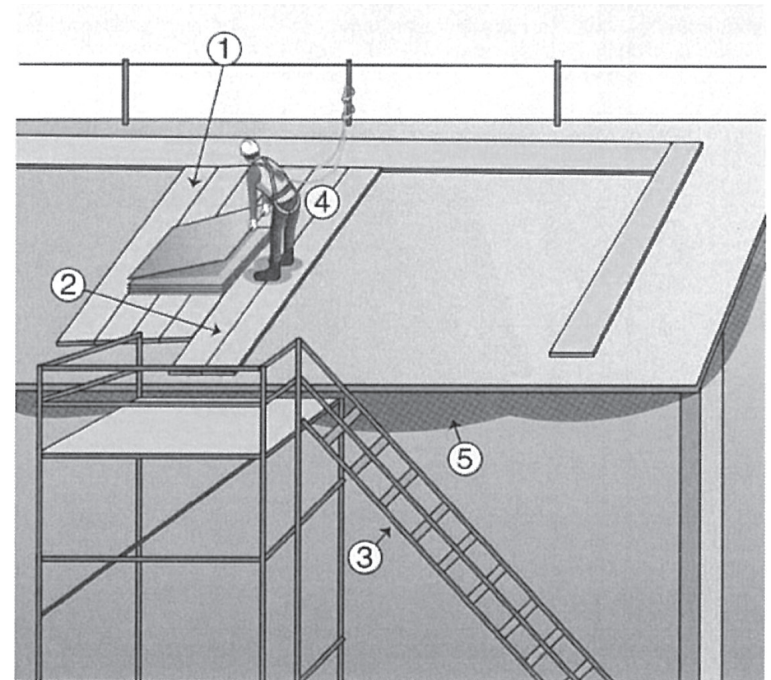


II – 14. Installing precast concrete exterior wall panels



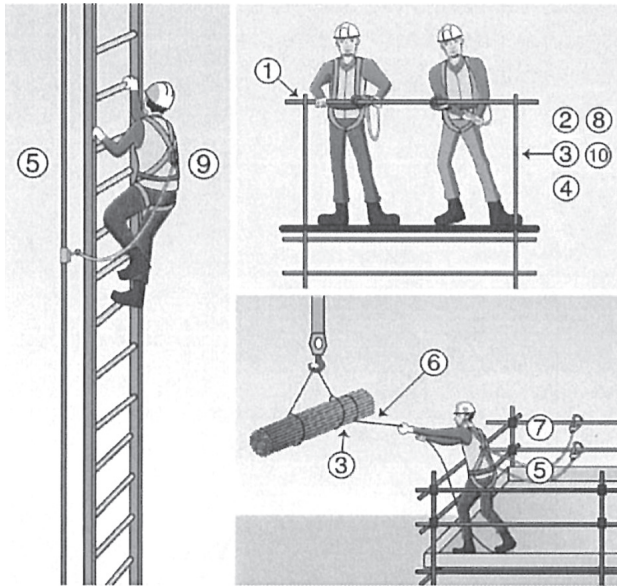
1. Are precast concrete panel hooks in normal condition?
2. Have fall prevention measures been taken under the installation site?
3. Has a lookout been stationed?
Have barricades, rope, and Do Not Enter signs been put in place?
4. Do you have a toolbelt for small items?
Are lines attached to tools to prevent falling?
5. Are you using a safety belt?
6. Are you using guide ropes?
7. Did you reset the safety net after installing the precast concrete panel?

II – 15. Slate roof work



1. Are materials used on the roof placed on top of planking?
2. Are passageways at least 30 cm wide?
3. Is there adequate access to the roof?
4. Are you using a safety belt?
5. Is there a horizontal net?

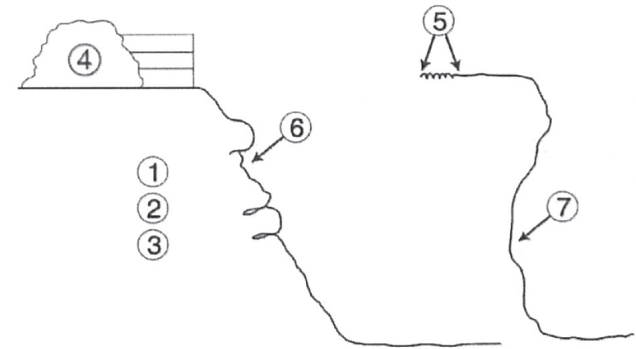
II – 16. Using safety belts



1. Are your safety belt and lanyard undamaged?
2. Is your safety belt attached at the level of your hipbone?
3. Is the D ring positioned at the level of your hipbone?
4. Are the hooks placed higher than your waist?
5. Are you using a safety belt in danger zones?
6. Are you using a guide rope to control materials?
7. Are the attachment points for safety belts (hooks) strong enough?
8. Is the lanyard in contact with anything that has an acute angle?
9. Are you using a lifeline and safety grips on access ladders?
10. Do you avoid placing your body weight on the safety belt?

III Preventing Collapses and Cave-ins

III – 1 – 1. Excavation work



1. Items to investigate before excavation work:

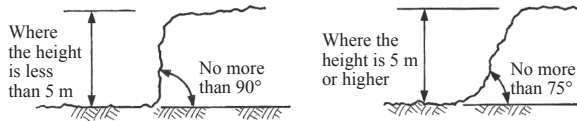
- * Form, geology, and stratum
- * Cracks, groundwater, and spring water
- * Underground installations (cables, gas pipes, and water pipes, etc.)
- * Gushing gas or water

2. Has an operations chief been appointed for excavations over 2 m?
3. Has an operations chief been appointed for shoring work?
4. Has all surplus soil been cleared from the top of the slope after excavation?
5. Has the area been checked for loose stones and cracks?
6. Is the face of the slope covered during rain?
7. Is there no undermining?
8. Is there adequate lighting at night?

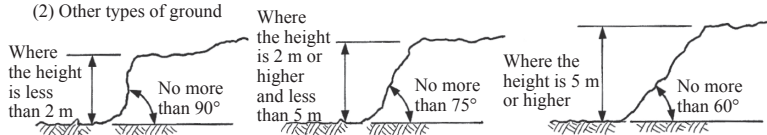
III – 1 – 2. Excavation work

Has surface soil and loose rock that could collapse been removed?

(1) Ground composed of bedrock or hard clay



(2) Other types of ground



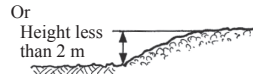
(3) Ground composed of sand



(4) Ground in a collapse-prone state due to blasting, etc

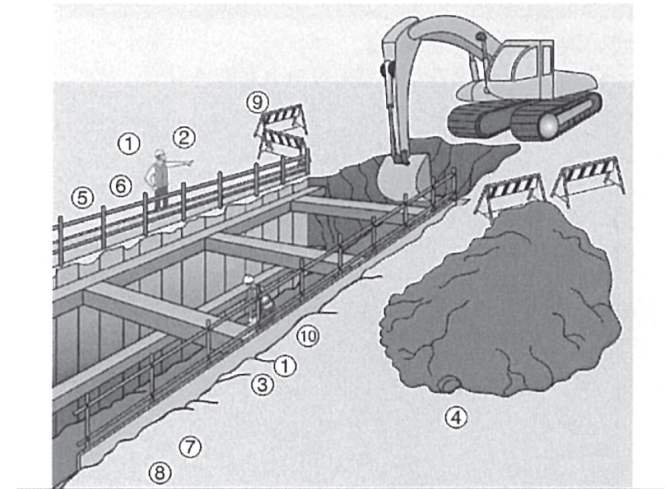


- Make the gradient no more than 35° or the height less than 5 m.



- Make the gradient no more than 45° or the height less than 2 m

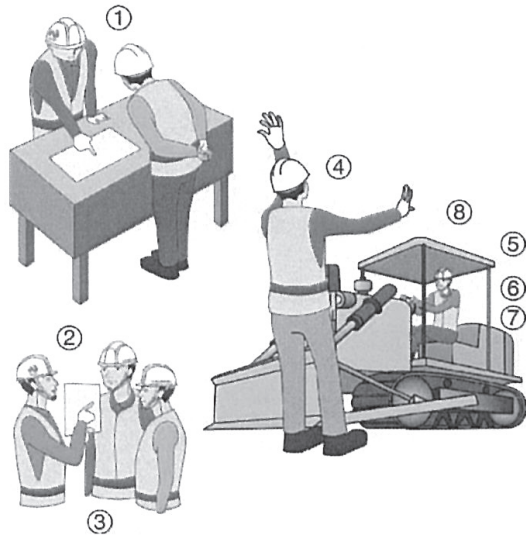
III – 2. Shoring work



1. Has an operations chief been appointed for excavations over 2 m?
2. Is there a checklist related to cracks and falling rocks?
3. Is the shoring work carried out according to plan?
4. Is excavated soil put in a safe location?
5. Is there shoring and a guardrail where the depth is 1.5 m or greater?
6. Were the waling and struts installed early?
7. Has an operations chief been appointed?
8. Do you check the condition of the ground before starting work?
Do you check the condition of the ground after rain and earthquakes?
9. Have barricades and Do Not Enter signs been put in place?
10. Are there any stairs?

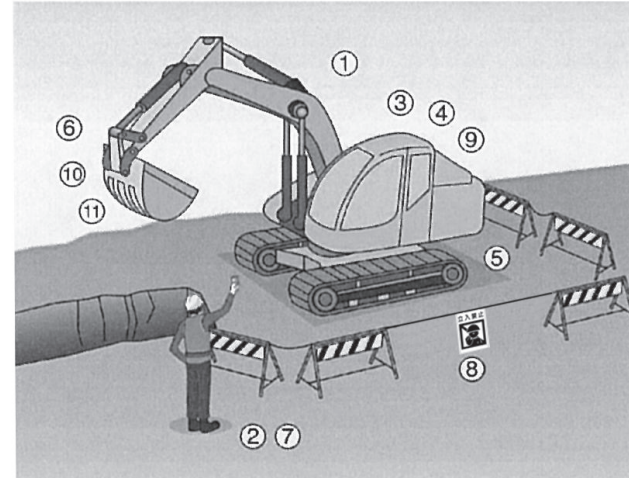
IV Preventing Accidents with Construction Equipment, etc.

IV-1. Working with construction vehicles



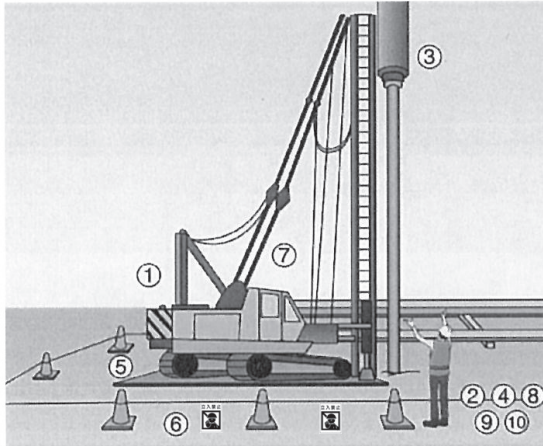
1. Has a work plan for construction vehicles been drawn up?
 - Type and capability
 - Operation routes
 - Work methods
2. Has the stationing of workers been determined before starting work?
Have dos and don'ts been explained to all persons concerned?
3. Have all vehicles been checked before starting work?
(Statutory inspection and voluntary inspection)
4. Have flaggers been appointed?
Are signals standardized?
5. Do operators have a sufficient understanding of the vehicle's characteristics?
6. Are the vehicles used only for their intended purposes?
7. Are workers seated on vehicles other than in the driver's seat?
8. Are operators appropriately licensed?

IV-2. Hydraulic shovels



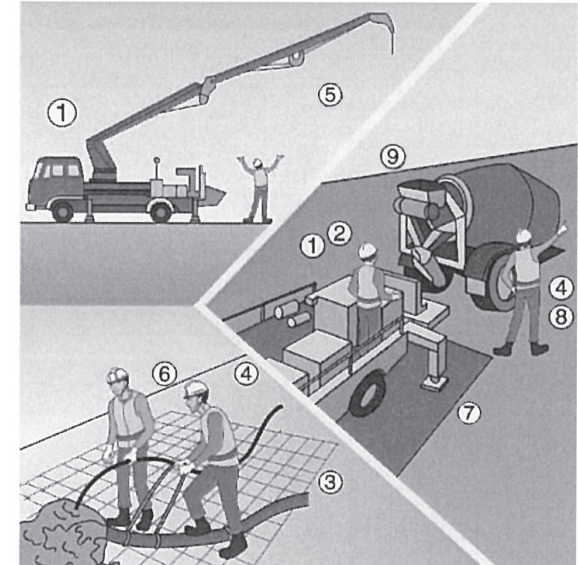
1. Is the excavation conducted based on a work plan and procedures?
2. Has an operations chief been appointed?
3. Are operators appropriately licensed?
4. Are brakes, clutch, and hydraulic system, etc., checked before work?
5. Is the setup site for shovels strong enough?
6. Are you staying outside of the shovel's turning radius?
7. Are signalmen stationed in narrow areas?
8. Are safety barricades in place?
Have flaggers been stationed?
9. Are operators stopping the engine when leaving the driver's seat?
10. Is there no undermining?
11. Is the hydraulic shovel used as a crane?

IV – 3. Pile drivers and pile extractors



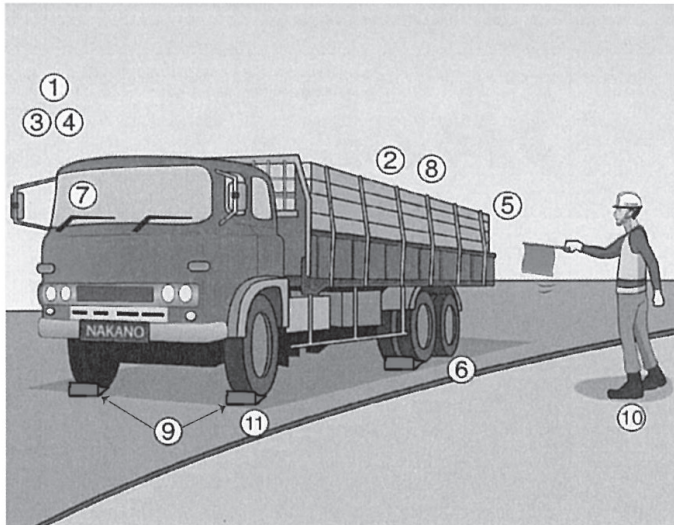
1. Are operators appropriately licensed?
2. Is piling work conducted based on a work plan and procedures?
3. Are the clutch, brakes, and hoisting wire in proper condition?
4. Are signals standardized?
5. Are steel plates used under the pile driver?
6. Have barricades been set up to stop other workers from approaching?
7. Are operators stopping the engine when leaving the driver's seat?
Is the hammer lowered?
Are the brakes applied?
8. Has an operations chief been stationed during assembly and moving?
9. Has a lookout been stationed?
Have signalmen been stationed?
10. Have signalmen been designated?

IV – 4. Concrete pumps



1. Are transfer pipes assembled by an appropriately licensed worker?
2. Is the assembly of transfer pipes conducted under the direction of the operations chief based on established work procedures?
3. Are the pipe connections in good condition?
4. Are signals standardized?
5. Is the area under the boom clear of workers?
6. Has the order for pouring concrete into formwork been decided?
Have all persons concerned been informed?
7. Are steel plates used on soft ground?
8. Have flaggers been stationed?
9. Have measures been taken to prevent spray when washing the transfer pipes?

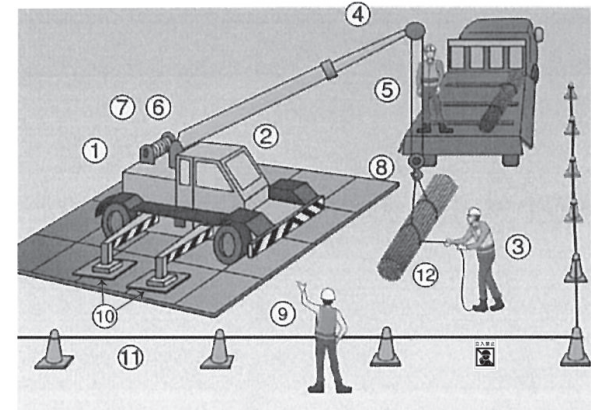
IV – 5. Dump trucks



1. Have the brakes and clutch been checked before driving?
2. Is the load within the maximum capacity?
3. Are the taillights functioning normally?
4. Are indicators, such as for lights, functioning normally?
5. Is the alarm functioning normally?
6. Are the tires free of mud?
7. Are drivers following traffic rules?
8. Has the dump bed lift been checked?
9. Are wheel chocks used on sloping ground?
10. Have flaggers been stationed?
11. Does the crew have the designated number of members?

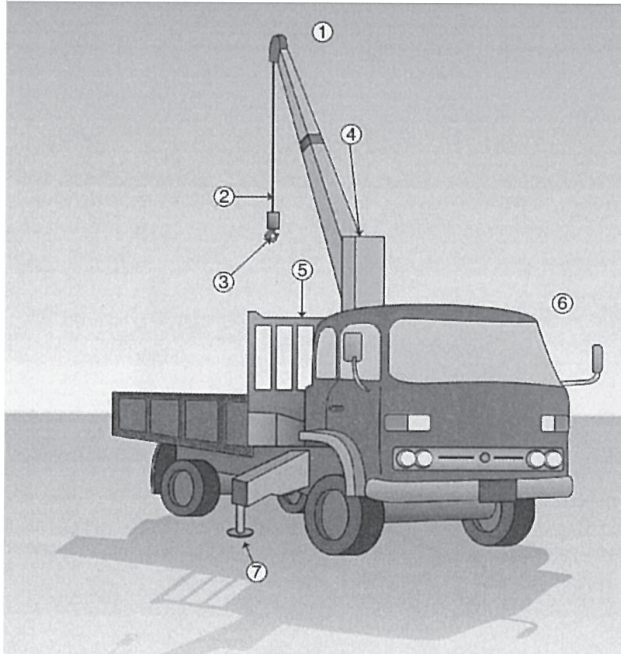
V Preventing Accidents with Cranes, etc.

V – 1. Mobile cranes



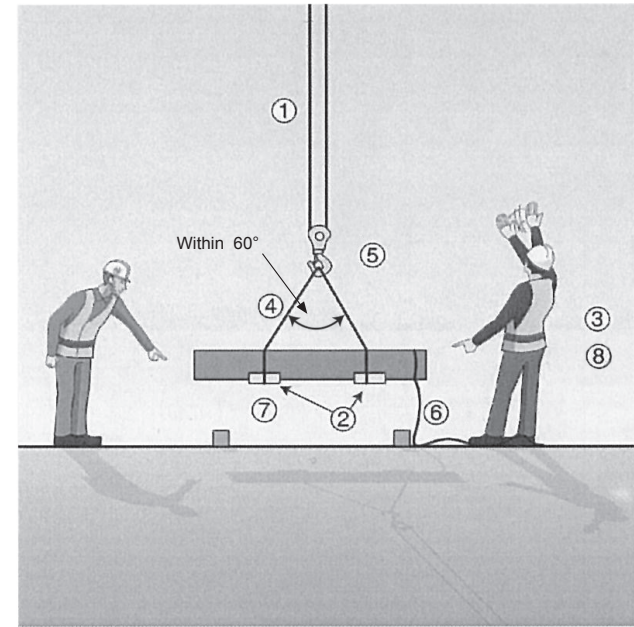
1. Has the working method been determined?
Has an operations leader been appointed?
2. Are operators appropriately licensed?
3. Are riggers appropriately licensed?
4. Is the crane's capacity adequate for the work plan?
5. Is the wire free of damage?
6. Are the brakes and clutch operating properly?
7. Is the overload protector switched on?
8. Is the hook latch in proper condition?
9. Has a signalman been designated?
Has the signaling method been determined?
10. Is the ground strong enough?
Are outriggers extended to their maximum length?
11. Have barricades been set up around the crane?
12. Is the area under the load clear of people?

V – 2. UNIC cargo cranes



1. Is the overwinding alarm working correctly?
2. Is the wire in proper condition?
3. Does the hook rotate well?
Is the hook latch in proper condition?
4. Are load weights under lifting capacity?
5. Is the wire rolled correctly?
Are the brakes operating properly?
6. Are operators appropriately licensed for the applicable crane?
7. Is the ground strong enough?
Are outriggers extended to their maximum length?

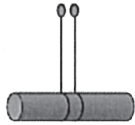
V – 3 – 1. Rigging operations



1. Do you avoid using damaged wire?
2. Do the corners of loads have sling protection?
3. Are riggers appropriately licensed?
4. Is the angle of the sling 60° or less?
5. Are loads hauled with more than one sling?
6. Are tag lines used for long loads?
7. Are operators stopping loads just after leaving the ground to check the stability?
8. Is work performed under the direction of a rigger chief?

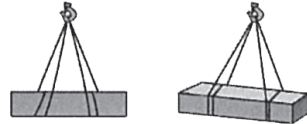
V – 3 – 2. Rigging operations

1. Single sling
In principle, forbidden.

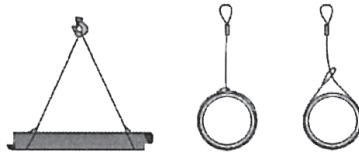


Tag Line Use
A tag line is used when lifting long materials. It is used to prevent a load from swinging.

2. Double Wrap Basket Hitch
The double wrap basket hitch is a safe way to lift long materials.



3. Choker Hitch
The choker hitch is not advisable, because it bends the wire to a severe degree.

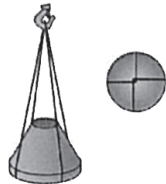


Tight hitch Loose hitch

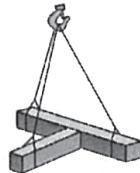
4. *Hakama*
A strong bag is used.



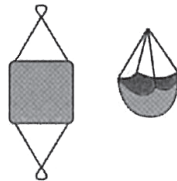
6. Others



- Three leg sling



5. Wire net
A wire net is used for lifting small materials.



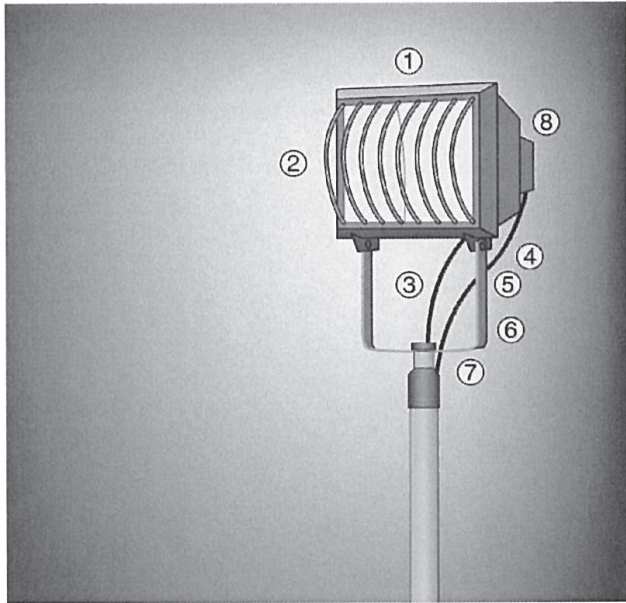
V – 4. Rigging equipment



1. Wire ropes in which 10% or more of the wires in a single strand are cut
2. Wire ropes in which the diameter is 7% or more smaller than usual
3. Wire ropes with kinks
4. Wire ropes that are corroded or badly marked
5. Wire ropes with damaged eye splices
6. Deformed or cracked shackles and clips
7. Chain that has stretched 5% or more from the original length at the time of manufacture

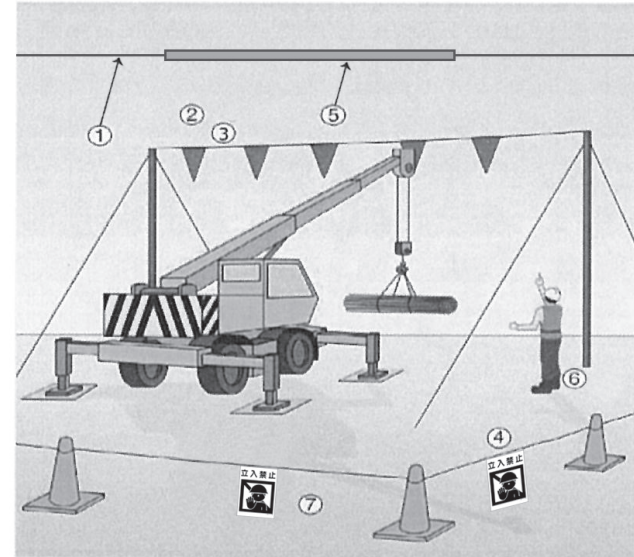
VI Preventing Electric Shock Accidents

VI-1. Temporary lighting



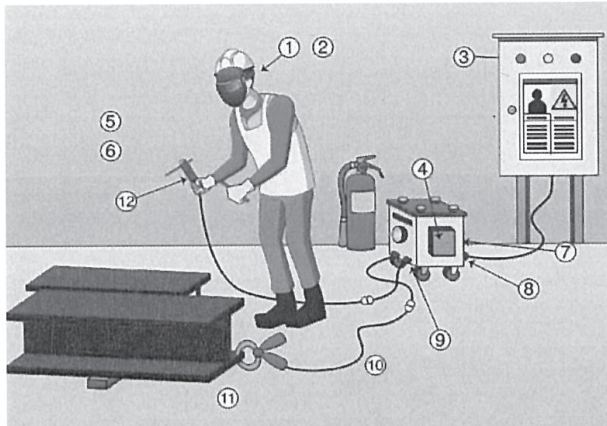
1. Are all electric bulbs and sockets free of damage?
2. Is there a bulb cover?
3. Are all cables free of damage?
4. Are flexible cables used?
5. Are the flexible cables undamaged?
6. Are the flexible cables used as rope?
7. Are any portions of the flexible cables overheated?
8. Are the plugs undamaged?

VI-2. Working near overhead power lines



1. Have the positions of power lines been checked?
2. Have safety provisions been discussed with the electric company?
3. Have voltage, position, and distance been checked? Have danger signs been posted?
4. Is the area roped off to prevent electrical shock?
5. Have power lines been fitted with protective covers?
6. Has a lookout been stationed?
7. Has a safe distance been ensured between the crane and power lines?

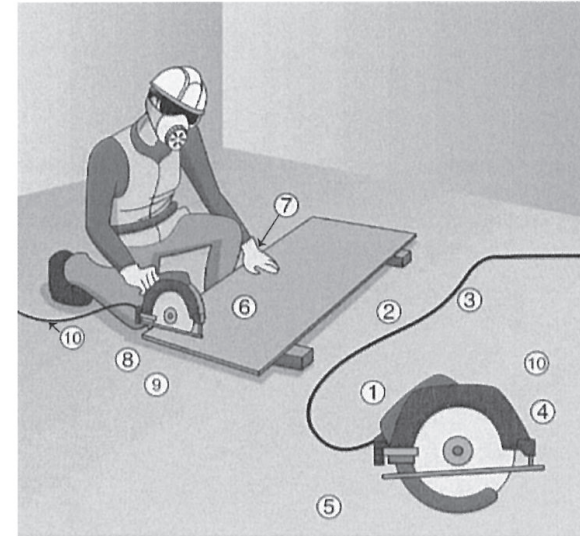
VI – 3. Welding work



1. Is protective equipment such as goggles and leather gloves used?
2. Are the workers appropriately licensed?
3. Is the circuit breaker operating properly?
4. Is the automatic electric shock prevention device working properly?
5. Are workers working away from wet areas and in dry clothes?
6. Are workers working away from areas exposed to rain?
7. Is the name of the person in charge displayed?
8. Is the system grounded?
9. Is the cable connection taping in proper condition?
10. Have loose cables been protected?
11. Has the ground clamp been connected near the welding location?
12. Is the holder undamaged?

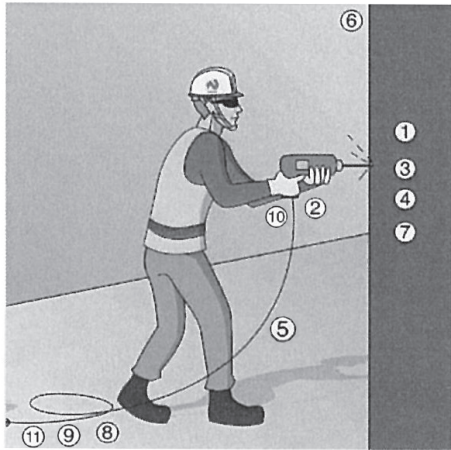
VII Preventing Accidents with Power Tools

VII – 1. Circular saws



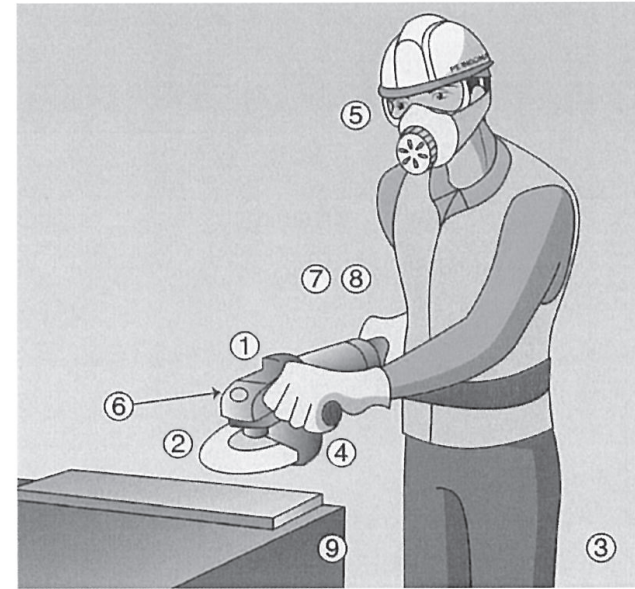
1. Is the blade undamaged?
Are all bolts and screws tight?
2. Are the flexible cables undamaged?
3. Is there a ground system?
4. Is the protective cover in proper condition?
5. Is the brake in proper condition?
6. Is the saw used on a stable base?
7. Wearing gloves while using a circular saw is prohibited.
8. Is the circular saw making any abnormal sounds while in use?
9. Are you making sure you do not carry a circular saw while the blade is moving?
10. Are workers checking the position of the cable before cutting?

VII – 2. Electric drills



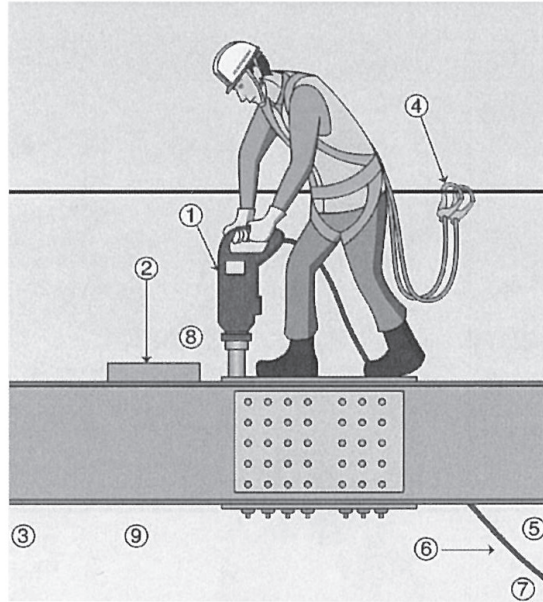
1. Is the drill bit undamaged?
2. Is the drill switch operating properly?
3. Is the drill used in front of the body?
Are workers in a safe position?
4. When drilling a hole in a vertical surface, are workers making sure that no one is on the other side?
5. Do the flexible cables have three cores?
Is there a ground system?
6. Is the material secured in place?
7. Are there no unusual sounds or vibrations during use?
8. Is the cable in the proper position?
Will the cable get in the way during work?
9. Are the flexible cables undamaged?
10. Are drills turned off when carried?
11. Are drills unplugged when not in use?

VII – 3. Grinders



1. Is the grinder suited to the work done?
2. Is the grindstone undamaged?
3. Are grindstones changed by a qualified person?
4. Is there a protective cover?
5. Are workers wearing dustproof goggles and a dust mask?
6. Are grinders run without grinding for one minute before use to check that they are in proper condition?
7. Are the flexible cables and plugs undamaged?
8. Do plugs have a ground?

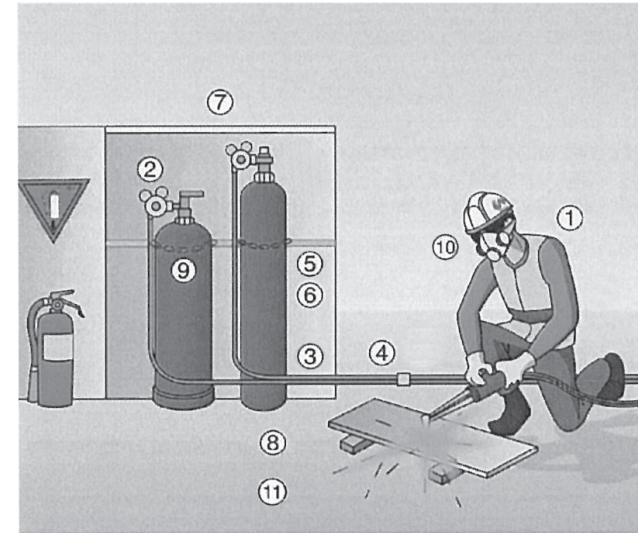
VII – 4. Impact wrenches



1. Is the wrench spinning idly or going in reverse?
2. Are beams clear of scattered bolts?
Are bolts stored in boxes?
3. Are high-tension bolts used as temporary bolts?
4. Are workers using a full harness?
5. Are flexible cables pulled forcefully?
6. Are flexible cables undamaged?
7. Is the grounding system adequate?
8. Do the sizes of nuts and the wrench match?
9. Is the area underneath work performed above clear of people?

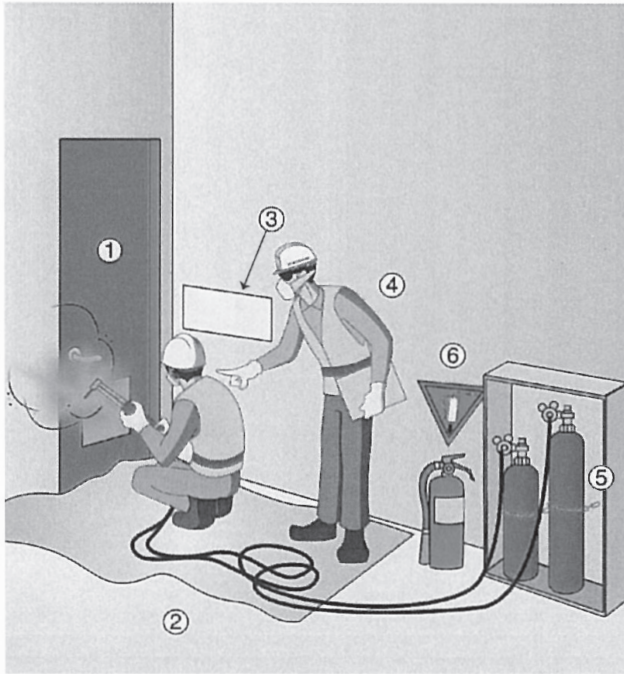
VIII Preventing Accidents from Fire and Explosion

VIII – 1. Gas welding and cutting work



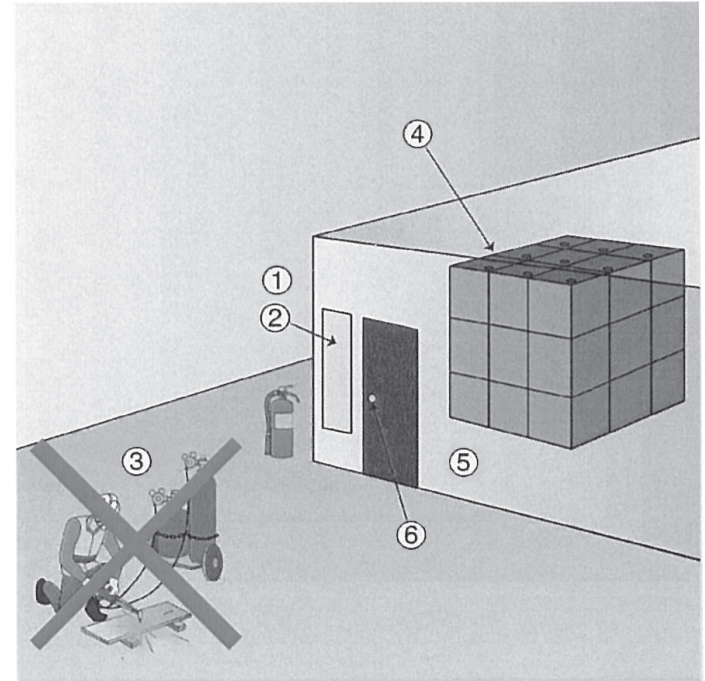
1. Are workers appropriately licensed?
2. Is the pressure gauge functioning properly?
Is the pressure regulator functioning properly?
3. Does the hose have any holes?
4. Is the hose connected securely to the correct instrument?
5. Are gas cylinders kept at a temperature of no more than 40 degrees?
6. Are gas cylinders stored in a well-ventilated area?
7. Are gas cylinders kept away from locations where fire is used?
8. Have gas cylinders been secured with a rope, etc.?
9. Are empty cylinders marked as empty?
10. Are workers wearing welding goggles, leather gloves, and protective footwear?
11. Are fire-prevention sheets used?

VIII— 2. Working near foamed plastic insulation



1. Are areas near places where fire is used clear of combustibles?
2. Are workers using fire-prevention sheets?
3. Has a sign been posted indicating the areas where heat insulation work will take place?
4. Is work conducted under the direction of the operations leader?
5. Have gas cylinders been secured with a rope, etc.?
6. Is there a fire extinguisher nearby?

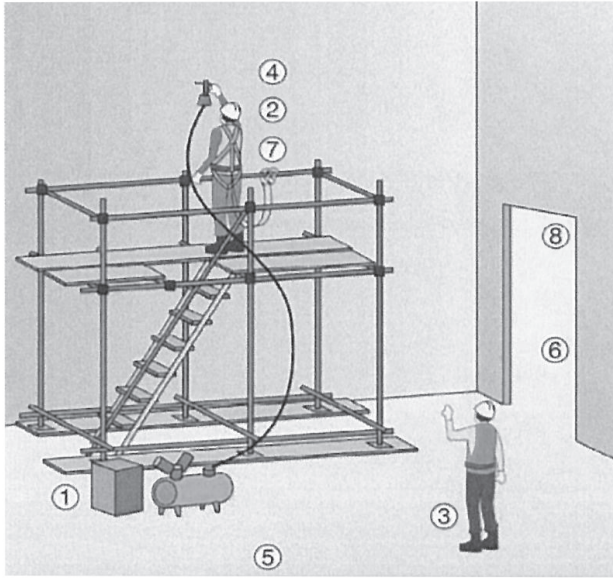
VIII— 3. Handling hazardous materials



1. Has the site manager appointed a person to be in charge?
2. Is there a DO NOT ENTER sign?
3. Do you avoid using fire near hazardous materials?
4. Has permission been obtained from the fire department for materials requiring special permission?
5. Are hazardous materials stored in a proper condition?
6. Is the hazardous materials storage facility locked by the appointed persons?

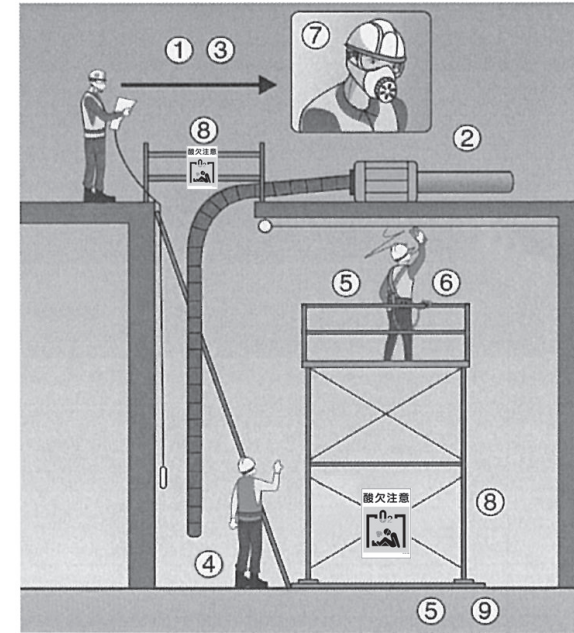
IX Preventing Work-related Illness

IX – 1. Working with organic solvents



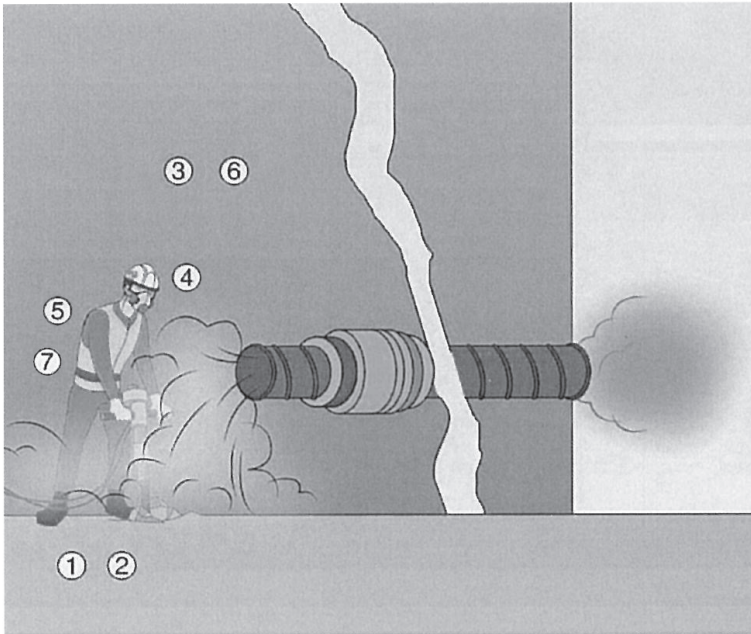
1. Have paints with minimal hazardous properties been chosen?
2. Are you aware of the hazardous properties of materials?
3. Is work conducted based on work procedures under the direction of an operations leader?
4. Are you using a gas mask?
5. Is the area near the worksite free of flame?
6. Is there adequate ventilation?
7. Have workers been properly trained to work with organic solvents?
8. Are there proper measures in place to prevent the theft of empty containers?

IX – 2. Working where there is a danger of oxygen deficiency



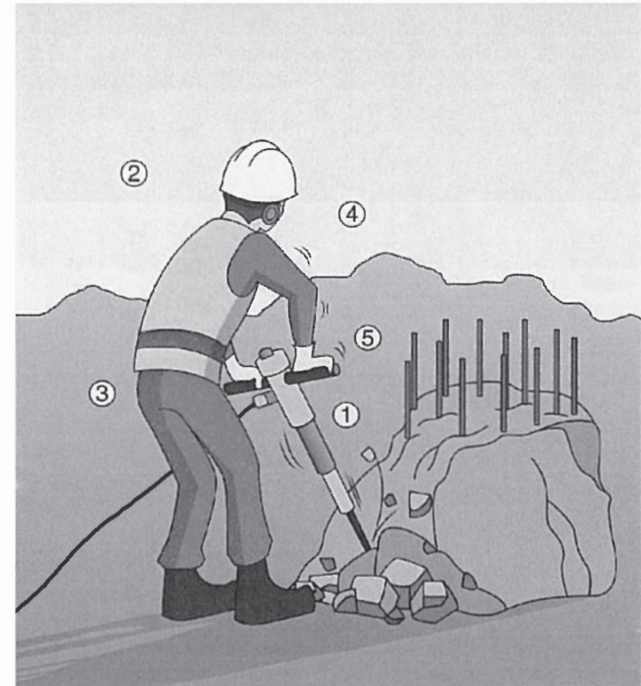
1. Is the operations chief measuring oxygen concentration?
2. Is there adequate ventilation?
3. Is the number of workers entering and leaving checked?
4. Is work conducted under the direct instruction of the operations chief?
5. Have workers been properly trained in matters related to oxygen deficiency?
6. Are there facilities to which safety belts can be attached?
Are you using a safety belt?
7. Are there oxygen masks available?
8. Are there warning signs about the danger of oxygen deficiency?

IX – 3. Dusty work



1. Is the worksite always kept clean?
2. Is water sprinkled to keep dust down?
3. Is there adequate ventilation?
4. Are workers using dust masks and dustproof goggles?
5. Have you had the specified health checkups?
6. Is the level of dust measured during tunnel work?
7. Have you received specialized training?

IX – 4. Work with a risk of vibration disorder



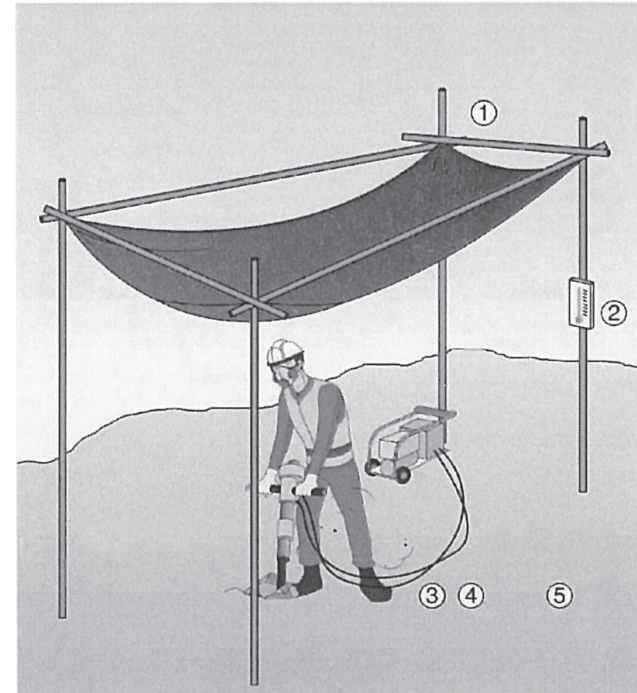
1. Are vibrating tools inspected before work?
2. Is vibration work limited to two hours per day for each worker?
3. Have you had the specified health checkups?
4. Are you doing warmup exercises?
5. Are you using anti-vibration gloves, an anti-vibration handle cover, and earplugs?

IX – 5. Work with a risk of noise injury



1. Are noise prevention measures in place?
2. Are you getting hearing tests?
3. Are you using earplugs?
4. Have you been properly trained about noise prevention?

IX – 6. Heatstroke



1. Are there sunshades for outdoor work?
2. Are temperature and humidity measured?
3. Are you taking in water, salt, and sports drinks?
4. Is a supervisor monitoring your condition?
5. Are you resting at appropriate intervals?