

# **SOP FOR HANDLING OF DIFFERENT TYPES OF CARGOES IN THE PORT**

## **(A) SOP FOR HANDLING STEEL CARGO**

### 1. Handling on board the ship:

- (a) Slings / chains used for handling cargo shall conform with statutory requirements.
- (b) All slings / Chains / Belts used for handling cargo shall be duly tested by competent person. Also test certificate / Register etc. shall be made available to the Port authorities as and when demanded.
- (c) All equipment / machines used on board shall conform to the statutory requirement.
- (d) Winchmen and signal foremen deployed on board shall be well trained.
- (e) All employees deployed on board must wear PPEs. (use of helmet, Safety Shoes and Hand gloves are mandatory while working on board the ship).
- (f) While preparing kachha/pacca sling, no person should go below the cargo to pull sling or chain etc. A pulling device or metallic stick shall be used to pull the sling/chain to other end.
- (g) No unauthorised person shall be allowed to enter inside the hatch.
- (h) No person should be allowed to take rest or sleep inside the hatch or ship.
- (i) No person should be allowed to read or listen to music on board vessel.
- (j) While loading cargo inside hatch, stacking should be done as per stowage plan.
- (k) While stacking cargo inside the hatch, proper dunnage should be used and lashing shall be done under strict supervision.
- (l) Loitering on board is strictly prohibited.
- (m) Sitting/walking on hatch cover or beam is prohibited.

### 2. While unloading the steel cargo:

- (a) Sling/chain belt etc. used shall be in conformity with statutory requirement.
- (b) Sling/chain/Belt etc. used for operations shall be tested by a competent person.
- (c) Winchmen and Signalmen shall be trained and shall use standard signals during hoisting lowering slinging operations etc.
- (d) No person shall walk or stand below hanging cargo.

### 3. Transportation of steel cargo:

- (a) Vehicle deployed for transportation of steel cargo shall be certified fit by RTO Authorities to carry steel cargo.
- (b) Only licensed drivers shall drive vehicles in the docks, and should be accompanied by a cleaner.
- (c) No vehicle is allowed to carry load beyond it's designed capacity.
- (d) Stanchions shall be provided on trailers used for transportation of cargo like angles, steel pipes etc.
- (e) All steel cargo, especially coils shall be lashed properly on the trailer during transportation.
- (f) Vehicles shall not be parked in prohibited area or in between road causing traffic jam.
- (g) Cooking inside vehicle is prohibited.
- (h) No vehicle shall overtake queues or line. Breaking lines /queues is a serious offence.

### 4. Storing of steel cargo in the shed and open spaces:

- (a) Floor strength shall be examined before stacking steel cargo in multi-layer or stages.
- (b) Proper wedges should be provided to prevent stack failure.

### 5. Delivery of steel cargo:

- (a) At the time of delivery of steel cargo, no person shall be allowed to stand below the slinging path of steel coil.
- (b) All persons shall wear PPE.

## **(B) SOP FOR HANDLING PROJECT CARGO**

While Handling Project Cargo following safety procedure shall be taken/;

### **1. Safe Unloading from ship to Vehicle or Shore:**

- (a) The Vessel Supervisor or Foreman shall supervise the activity continuously. If any unsafe action and condition is noticed, immediate action should be taken in consultation with the sectional Asst. Manager.
- (b) Project cargo shall be engaged for lifting or shifting as per directives given on packing. Proper size of gears shall be used to lift cargo.
- (c) The Vehicle used for carrying project cargo shall have all required facilities like multi wheels, special braking system, etc.
- (d) Prior to unloading of cargo on the trailer, condition of trailer bed shall be examined for stability of cargo.
- (e) Cargo shall be lashed properly on truck / trailer before the movement of truck / trailer from the unloading point.
- (f) If cargo is to be unloaded on wharf or to be stored in the dock premises, strength of surface should be examined first for assessment of load capacity. Also cargo shall be supported from all directions, if it does not have solid stable base.
- (g) While delivering project cargo, the concerned Shed Supt./ Labour Supervisor of MbPT and supervisor/s of Port User shall take all necessary precautions for safety of cargo.

### **(C) SOP FOR HANDLING DRY BULK CARGO**

- (a) The wire ropes used for fixing grabs should be in good condition and tested and certified by a competent person.
- (b) The 'save all' net used for ship to shore transfer should be in good condition and properly fastened by means of nylon ropes.
- (c) The hoppers / sling nets wherever used should be in good condition and free from defects.
- (d) Trucks used for transportation should be in good condition and must be driven by authorized driver only.
- (e) Truck should be loaded only up to the body level, properly trimmed and covered by tarpaulin to avoid spillage and flying of dust.
- (f) Spilled over cargo should be cleared immediately.
- (g) Speed limit of trucks should not exceed 20 kmph on roads inside docks and 8 kmph on wharf.
- (h) Transportation of workers in the bucket of JCB / Pay Loader is totally prohibited.
- (i) Better co-ordination between Crane Operator and Signaller is necessary.
- (j) Use of Personal Protective Equipment like safety helmet, safety shoes, hand gloves and dust mask etc. is compulsory.
- (k) Pal should be adequately fixed between vessel and wharf to avoid spillage of bulk material in dock basin or sea.
- (l) The cargo shall be discharged tier by tier to avoid well formation in the hatch.

## **(D) SOP FOR HANDLING OF CONTAINERS**

- (a) Always make use of suitable, tested and certified spreaders for handling containers.
- (b) Trailers with twist lock facility should only be used for transporting containers, to prevent them from falling off the chassis.
- (c) Containers shall be firmly secured on the chassis of the Trailers by means of twist locks before transporting.
- (d) Use ladders only of sound construction, provided with anti-skid devices to reach the top of the containers, whenever necessary.
- (e) Do not use single or multi legged slings for lifting containers.
- (f) Do not permit any person to ride over spreaders / containers while handling at berth / yard.
- (k) The speed limit of trucks / trailers should not exceed 20 kmph on roads inside docks and 8 kmph on wharf.
- (g) Observe corners of containers while lifting, clewing and lowering operations.
- (h) Better co-ordination should be maintained between Winch Operator, Signaller and workers.
- (i) Use of Personal Protective Equipment is compulsory.
- (j) Container's locks should be removed before discharging/loading of containers from/to vessels. These locks should not be kept lying on container top unnecessarily.
- (k) No employee or worker shall sleep or relax inside empty container.
- (l) Loitering in container yard is prohibited.
- (m) Use of mobile phone is prohibited while handling containers on board/on shore and driving of Container Trailers/Equipment and other vehicles.
- (n) Cooking in the cabin of Container Trailer is prohibited.
- (o) Container Trailers shall be driven only by licensed drivers. Instructions should be issued to drivers not to hand over keys of the vehicles to cleaners.
- (p) No employee / worker should sleep below/near Container Trailer/Equipment.
- (q) Trailer driver shall not leave keys while leaving the trailer.

## **(E) SOP FOR HANDLING OF AUTOMOBILES**

- (a) Vehicles brought inside the docks should be parked in such an order that, at time of loading, there is a smooth movement.
- (b) Drivers deployed to load the vehicles should drive vehicles at slow speed complying with the safety norms.
- (c) Drivers deployed to load the vehicle should be trained for loading vehicles on board.
- (d) High speed driving is strictly prohibited.
- (e) Agents should post their own staff to control vehicle movement.
- (f) Workers/persons engaged in vehicle loading shall wear reflective jackets for visibility.

### **(G) SOP FOR USE OF GEARS**

- (a) Gears shall be of apt for the type of cargo handled.
- (b) Gear shall be made of sound material and have adequate strength.
- (c) Each gear to be used in cargo handling shall be tested for Safe Working Load (SWL) by a competent person.
- (d) Gears used in cargo handling shall not be over loaded.
- (e) A responsible person shall regularly inspect gears used in cargo handling and if any defect is noticed during work, it should be reported to the supervisor immediately.
- (f) Tandem lifting should be done preferably in day shift only under strict supervision.
- (g) Gears shall possess SWL marks and serial number.

## **(H) SOP FOR USE OF CRANES**

- (a) A crane should not be loaded beyond its rated load capacity.
- (b) The load should be attached to the hooks by means of tested slings or other devices approved by a competent person.
- (c) The load should be well secured and balanced in the sling or lifting device before it is being lifted.
- (d) While handling, care should be taken that there is no sudden acceleration or deceleration of the load and also that load does not cause any obstruction.
- (e) The operator should test the brake each time by raising the load a few inches and applying the brakes.
- (f) The crane should not be used for side pulls.
- (g) Before hoisting / lifting a load, the operator should ensure that slingers and other workers/persons are well clear off the load.
- (h) The load should not be lowered below the point where less than two full turns of rope remain on the drum. ( for winch )
- (i) The operator should not leave his position at the control while the load is suspended.
- (j) The hoist limit switch should never be used as an operating control.
- (k) Only one person should be authorized to give signals to the crane operator even in tandem lifting.
- (l) Before commencing travelling or when the hook approaches near or over personnel, warning signal should be sounded.
- (j) Mobile crane or fork lift truck shall not be repaired while the equipment is being operated for cargo handling. Extra precautions shall be taken at the movement of counter load of mobile crane.
- (k) No additional load should be fixed on counter load to raise its lifting capacity.

## **(I) SOP ON HOUSE KEEPING**

- (a) Every employee/worker is responsible to maintain good housekeeping at his work place. A clean place is necessary for safe working.
- (b) Report all oil leaks, chemical leaks or water pipe line leaks promptly to the concerned departments.
- (c) Ensure to pick up tripping hazards such as nails, pieces of wires, scrap etc. and dispose them to a safer place.
- (d) A slip can cause a serious accident. Spillage of oil, water or chemical should be immediately cleaned.
- (e) Report wherever conduits/pipes/materials projected or running on the work area to the section heads or maintenance personnel. This will help them to embed and avoid tripping hazard.
- (f) Keep your lockers clean and tidy.
- (g) Report worn out / broken work areas and steps of the stairs. They should be repaired promptly.



## **(J) SOP FOR USE OF LADDERS**

- (a) Get a ladder for any work that you cannot reach. But be sure that you are using required type of ladder and it is properly secured.
- (b) Do not ever climb on machinery or use make-shift ladder like boxes, drums or barrels.
- (c) Before using a ladder, inspect for missing cleats or cracked rungs or broken spreaders.
- (d) Before using a straight ladder, the distance from the base to the wall should always be maintained at a quarter of the length of the ladder itself.
- (e) While ascending or descending a ladder, the person should hold the body in position facing the ladder, and have a firm grip on the ladder with the hands and should ensure proper feet contact with the rungs.
- (f) Step ladder of more than 10 feet high should be held at ground by another person. Do not step on the last rung from the top.
- (g) When working on a ladder, the person should not work farther than permissible reach. Excessive leaning or sidewise movements should be avoided.
- (h) After work, do not leave the ladder at the work place.
- (i) Do not use two short ladders together to make a long ladder. Extension ladder only may be used in such a case.
- (j) Ladder should not be painted.
- (k) Metallic ladders should not be used during repairing of electrical equipment.

## **(K) SOP FOR HANDLING OF MATERIALS**

- (a) Inspect the object you are going to lift to determine its size, weight, etc.
- (b) A good pair of hand gloves should be used in preventing hand injuries while handling materials.
- (c) Before lifting a material make a trial to ascertain whether you can lift it without strain. If you can't get a good grip, keep your feet apart and bend your knees. Then keep your back relatively straight and lift by strengthening your legs in order that your strong leg muscles do the job rather your back muscles.
- (d) When the material is heavy, call for help/assistance.
- (e) Where crane is used for material handling, all the persons working there should be kept away from the swing circle area of the crane and path of the cargo being moved.
- (f) Never stand under a load carried by cranes.
- (g) Only authorized persons should handle / operate the cranes.
- (h) While handling materials, wear hand gloves, goggles, helmet and safety shoes.
- (i) If more than two persons are involved in material handling, there should be good co-operation and team spirit.

## **(L) SOP FOR HANDLING OF TIMBER LOGS**

- (a) Wire ropes/slings in good condition, properly tested and certified by a competent person should only be used for cargo handling.
- (b) The wire rope slings should have tag / punch mark indicating its safe working load.
- (c) Timber Logs shall be safely slung before being hoisted and while swinging it should be kept horizontal to ground.
- (d) Timber logs inside the hatch must be discharged in a leveled manner to avoid formation of ditch, which results in rolling over of logs. This should be ensured by Cargo Supervisor/Hatch Tindel.
- (e) Trailers used for transportation should be of good condition and must be driven by an authorized driver only.
- (f) Place the timber properly on the trailer and lash by means of rope to avoid falling / rolling on wharf and roads.
- (g) Use of stanchion of a minimum height of 90 cms. of at least three at each side of trailer is compulsory.
- (h) Use of red flag / light indicating danger for the logs projecting beyond the trailer platform is compulsory.
- (i) Speed limit of trailers should not exceed 20 Kmph inside the roads in docks and 8 Kmph on wharf.
- (j) Use of personal protective equipment like safety helmet, safety shoes and hand gloves etc. is compulsory.
- (k) Better co-ordination between Crane Operator, Signaller, Supervisory staff and workers should be maintained.
- (l) Private vehicles or person not connected with cargo handling operations should remain away from the work place.

## **(A) SOP FOR HANDLING HAZARDOUS CHEMICALS**

- (a) Acids and alkalis are highly corrosive. If a chemical falls on the skin, it may cause burns. Do not handle them without wearing proper protective equipment.
- (b) When there is an acid or alkali splash, flush it with lot of cold water and thereafter get medical attention.
- (c) Absorb acid spillages with a mixture of sand and soda ash only.
- (d) Do not smoke or carry open flame where inflammable solvents/chemicals are handled or stored.
- (e) Before starting maintenance work on chemical / gas pipelines, etc. where chemicals are handled or stored, ensure utmost safety precautions.
- (f) A person required to work in a gas tank/holder where there is possibility of poisonous gas existing, MUST wear Gas Mask with life belt attached with a safety line and at least one man at the top of gas tank/holder should stay as a watchman who can control the safety line, if it is necessary to pull him out.
- (g) When you are suspect existence of a poisonous gas, do not enter the area without wearing suitable gas mask.
- (h) If any gas leakage occurs or is suspected, immediately inform the concerned authority.
- (i) If light is required in a chemical/gas tank for maintenance work, use only a 6V torch or flameproof light.

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