

ESSENTIAL FUNCTIONS JOB ANALYSIS

STEVEDORE

This Essential Functions Job Analysis was obtained by an onsite visit and discussions with the workers in this position and their supervisors/foreman.

Additional resources that were used for this Essential Functions Job Analysis include the Dictionary of Occupational Titles (DOT), 1991 Volume II Fourth Edition (U.S. Dept of Labor 1991)

The following is a description of the occupation of a Stevedore I and Stevedore II. The DOT describes this occupation as follows:

“911.663-014 STEVEDORE I (Water Trans.)”

Operates material-handling equipment, such as power winch, grain trimmer, crane, and lift truck, to transfer cargo into or from hold of ship and about dock area: Operates crane or winch to load or unload cargo, such as automobiles, crates, scrap, and steel beams, using hook, magnet, or sling attached in accordance with signals from other workers. Moves controls to start flow of grain from spouts of grain trimmer, stopping flow and repositioning spout over each hatch when previous hatch is filled. Drive lift truck along dock or aboard ship to transfer bulk items, such as lumber, pallet-mounted machinery, and crated products within range of winch. Drives tractor to transfer loaded trailers from warehouse to dockside. May position and fasten hose lines to ships' cargo tanks when loading and unloading liquid cargo, such as animal fats, vegetable oils, molasses, or chemicals. May perform variety of manual duties, such as lashing and shoring cargo aboard ship, attaching slings, hooks, or other lifting devices to winch for loading or unloading, and signaling other workers to move, raise, or lower cargo. May direct activities of cargo gang consisting of STEVEDORE (Water trans) II. May be designated according to equipment operate as Lift-Truck Operator (water trans); Tractor Operator (water trans); Winch Operator (water trans).

The DOT lists the occupation of a STEVEDORE I as requiring the physical exertional level of Medium which is described as follows:

Lifting 50 pounds maximum with frequent lifting/carrying of objects weighing up to 25 pounds.

“922.687-090 STEVEDORE II (water trans):

Loads and unloads ships' cargoes: Carries or moves cargo by handtruck to wharf and stacks cargo on pallets or cargo boards to facilitate transfer to and from ship. Stacks cargo in transit shed or in hold of ship as directed by HEADER (water trans). Attaches and moves slings used to lift cargo. Guides load being lifted to prevent swinging. Shores cargo in ship's hold to prevent shifting during voyage. May be designated according to

area in which work is performed as a Stevedore, dock (water trans); Stevedore, Front (water trans); Stevedore, Hold (water trans).

The DOT lists the occupation of STEVEDORE II as requiring a physical exertion of Very Heavy, which is described as follows:

Lifting 100+ pounds maximum with frequent lifting/carrying of objects weighing up to 50 pounds.

*STEVEDORE position as is required in this job contains activities listed in both descriptions of the STEVEDORE I and STEVEDORE II occupations in the DOT.

Further analysis as follows:

Occasionally: Activity or condition exists 33% or less of the day.

Frequently: Activity or condition exists from 33% to 60% of the day.

Constantly: Activity or condition exists from 66% and above of the day.

PHYSICAL DEMANDS:

- | | |
|---------------------------------------|---|
| 1. Climbing: Frequently | 9. Bending of Head, Neck, & Trunk
Frequently to Constantly |
| 2. Balancing: Frequently | 10. Rotation/twisting of Head, Neck, &
Trunk: Frequently to Constantly |
| 3. Sitting: Occasionally | 11. Talking: Occasionally to Frequently |
| 4. Handling: Frequently to Constantly | 12. Kneeling, crouching, stooping:
Occasionally to Frequently |
| 5. Fingering: Frequently | 13. Standing/walking: Frequently to
Constantly |
| 6. Feeling: Frequently | |
| 7. Hearing: Frequently | |
| 8. Reaching: Frequently to Constantly | |

II JOB DESCRIPTION:

The Stevedore's major job depends upon the job site assigned to. All positions are labor intensive requiring the stevedore to work from a light to heavy level of work. Job sites are located on at various piers or on a ship/barge. They will load and discharge cargo from a ship/barge, secure the loads on a ship/barge, work with passengers and luggage for cruise ships, discharge raw materials such as aggregate/coal, load and discharge autos/vans/trucks/equipment, etc... The employee works on the average five to ten hour shifts, alternating day and night shifts. The employee may be assigned to the Wharf Gang where the rotation is every two weeks or a Ship Gang where the rotation is every three weeks. The employee will generally have a one-hour lunch.

Depending upon the gang that the stevedore is assigned to, will determine where they will work on any given day. Work may be done for commercial jobs or Matson.

III ESSENTIAL JOB FUNCTIONS:

According to the Americans with Disabilities Act, an Essential Function is a fundamental job duty of the employment position. The job function may be considered essential for several reasons. For example, the function may be essential because it is the reason the position exists; a limited number of employees are available to perform this function; the function is highly specialized.

Essential Functions can be determined by what the employer determines is essential, the amount of time spent performing the function, and/or the consequences of not being able to perform the function.

ESSENTIAL JOB FUNCTIONS: (Job functions depend upon the job site)

PIER 10 & 11: PASSENGER CRUISE SHIPS:

1. Provides ground transportation for discharging of luggage off of the cruise ships. May discharge the luggage directly from the ship or from the door of the hold on the ship to the area where the luggage is to be separated for its final destination. The luggage is loaded into metal cages when discharging from the ship. Luggage may also be loaded into/out of luggage boxes and onto/off of conveyor belts.
2. Luggage cages are brought to area where they will be loaded onto trucks for delivery. Stevedores will assist the truck companies in unloading the luggage from the cages/luggage boxes on to the edge of the truck.
3. Provides ground transportation for loading of luggage onto the ship. Stevedores will assist the truck companies in unloading the luggage from the trucks into the metal cages in preparation to load onto the ships. Also, assist with loading/unloading luggage into/out of luggage boxes and onto/off of conveyor belts.
4. Push/pulls cages on pallet jacks or dollies into terminal where they will unload the luggage from the metal cages into separated sections according to destination.
5. Assist the passengers to locate their luggage and assist them to their car, van, bus, etc..., and load the luggage for them.
6. Loading of supplies for the ships (cargo/food) from the delivery trucks to the ships loading hold door. May be done by forklift or manually by hand moving cargo/food to rollers or conveyor belts. May also use pallet jacks aboard the ship.

*Generally, the discharging of luggage from the ship to the trucks and terminal is the first phase, (approximately 1 ½ to 3 hours). The next phase is the loading of supplies for the ship, (approximately 1 ½ to 2 hours for smaller ships/ 6 – 10 hours for larger ships). The final phase is the reloading of luggage onto the ship.

MATSON: Wharf Gang/Ship Gang

INTER-ISLAND BARGES:

A. AUTO: Discharge/load:

1. Discharge of autos/buses/vans/equipment that can be driven off the barge. The vehicles are driven to a designated location with the Matson yard for processing.
2. Loading of autos/buses/vans/equipment driven onto the barge for transportation to the outer islands.

B. LASHING:

1. Discharge or unlash of containers, equipment, boats, trailer vans, rolling stock, etc... with or without wheels.
2. Loading or lashdown of containers, equipment, boats, etc... with or without wheels.

C. CONE:

1. Discharge of containers from the ships/barges with cranes. Unlocking of the locking cones located on the four bottom corners of the containers. Place the cones in a holding bin. Handles one to two cones at one time. One man on each side of the container.
2. Loading of the containers onto the ships/barges. Retrieving locking cones from the holding bin to lock onto the bottom corners of the container. Handles one to two cones at one time. One man on each side of the container.
3. Unlocking cones on the ship prior to discharging.
4. Discharge or load overheights.

MAINLAND SHIPS/BARGES:

A. CONE:

1. Discharge of containers from the ships/barges with cranes. Unlocking of the locking cones located on the four bottom corners of the containers. Place

- the cones in holding bin. Handles one to two cones at one time. One man on each side of the container.
2. Loading of the containers onto the ships/barges. Retrieving locking cones from holding bin to lock onto the bottom corners of the container. Handles two cones at one time. One man on each side of the container.
 3. Unlocking cones on the ship prior to discharging.
 4. Discharge or load overheights.

B. LASHING:

1. Discharge of the containers; unlashings of the rods, locks, chains, and nylon strapping from the containers.
2. Removal of rods, locks, chains, and nylon strapping to storage locations.
3. If container is stuck in hold of the ship for loading or discharge, they are required to assist with releasing the container.
4. Loading of containers; lashing of rods, chains, strapping, and locks (turnbuckles).

C. ROLL-ROLL LASH:

1. Discharge of wheeled cargo: equipment, large vehicles, etc... Unlocking of turnbuckles, rods, chains, and strapping (nylon).
2. Loading of wheeled cargo: equipment, large vehicles, etc... Locking of turnbuckles, chains, rods, and strapping.
3. Removal of portable ramps between sections.

D. AUTO:

1. Discharge of autos/vans/buses/equipment that can be driven off the barge/ship. The vehicles are driven to a designated area in the pier and parked for processing.
2. Loading of autos/buses/vans/equipment driven onto the ships/barges for transportation to the mainland.
3. Responsible for removal of trailers (boats, horse, etc...)-Rolling Stock.

PIER 1: “For Example”: Primarily Ship Gang

ACT (Barge service to and from Seattle-Honolulu-outer island)

PM & O (Foreign ship service for cargo/containers)

A. RORO BARGE:

1. Discharge of cargo, wood and wheeled equipment off the barge. Unlashing of cargo, wood, and wheeled equipment (turnbuckles, chains, and strapping).
2. Hooking up the cargo, wood, or wheeled equipment to be taken off the barge by crane. Guiding the crane’s sling/hooks to the load, guiding the load off the boat.
3. Blockmen: if assigned to this position, primary job is to place wooden blocks of various sizes under the loads to ensure that the ground equipment such as the forklifts are able to get under the load the transport the load to a designated location in the yard or placement for a customer. They may also remove the blocks on as the loads are moved from the barge or from one area to another. Stacking of blocks when work is completed onto flatracks.
4. Loading the barge with cargo, wood, or wheeled equipment. Hooking up the cargo, wood, or wheeled equipment onto the barge. Guiding the load to the designated place onboard the barge. Guiding the crane off the boat to bring in another load.
5. Lashing down the load with turnbuckles, strapping, and chains. Digging out dirt on deck to locate the hook that the containers, cargo, and wheeled equipment is lashed down to.

B. COMMERCIAL CONTAINER SHIP: Foreign ships with cargo, containers, and wheeled equipment.

1. Unlashing of containers, conventional cargo, and wheeled equipment (turnbuckles, chains, and strapping) for discharge off the ship.
2. Lashing of the containers, cargo, and wheeled equipment for reloading on the ship (turnbuckles, chains, and strapping).

C. BULK:

1. Shoveling/sweeping of bulk cargo (aggregate/coal/grain/gypsum) in the hold of the ship. Moving the cargo towards the center of the hold from the sides, in the corners, on the platforms, and stairs/ladders into the center of the hold or the bucket of the bulk unloader so it can be scooped out by the bulk unloader.

2. Utility man; in charge of cleaning the ship cargo hold ladders, assist in opening and closing of apron, conveyor belt covers, assist in cargo hold.

PERIPHERAL FUNCTIONS:

1. May be assigned to drive equipment forklifts.

IV: PHYSICAL DEMANDS:

- NEVER: The activity or condition does not exist.
- RARELY: Activity or condition exists less than 1% of the day.
- INFREQUENTLY: Activity or condition exists less than 5% of the day.
- OCCASIONALLY: Activity or condition exists less than 33% of the day.
- FREQUENTLY: Activity or condition exists less than 33% to 66% of the day.
- CONSTANTLY: Activity or condition exists 66% and above of the day.

1. Sitting: Rarely: Occurs if assigned to drive.
2. Standing: Frequently to constantly: Occurs when performing all tasks at assigned locations. Standing at various heights, uneven ground, and moving surfaces, i.e.: ships/barges.
3. Walking: Frequently to constantly: Occurs when performing all tasks at assigned locations. Walking at various heights, uneven ground, and moving surfaces, i.e.: ships/barges.
4. Stooping/bending: Frequently to constantly: Occurs when performing all tasks at assigned locations. Lashing, unlashng, lifting, and carrying.
5. Twisting: Frequently: Occurs when performing all tasks at assigned locations. Lashing, unlashng, lifting, carrying, and driving.
6. Squatting: Frequently: Occurs when performing all at assigned locations. Lashing, unlashng, lifting, and carrying.
7. Climbing: Occasional to Frequently: Occurs to get into and out off equipment/ and autos. May climb ladders/stairs (vertical or angled) to get on board the ship/barge or to different levels of the ship/barge (ascending/descending).
8. Crawling: Occasionally to Frequently: Occurs when unlashng or lashing of cargo, wheeled equipment, or containers. Locating where the chains or strapping is hooked onto for unlashng or finding a place to hook onto for lashing down the load.

9. Kneeling: Frequently to Constantly: Occurs when unlashng or lashing of cargo, wheeled equipment, or containers. Locating where the chains or strapping is hooked onto for unlashng/lashing the load.
10. Balancing: Frequently to Constantly: Occurs when climbing and working on the piers, ships/barges, and on various machines/equipment.
11. Work on uneven surfaces; Frequently to Constantly: Occurs on ships/barges and on the pier.
12. Work above ground level: Frequently: Occurs when working on the ships/barges and on various machines/equipment.
13. Push/pull: Frequently to Constantly: Occurs when lashing/unlashng of containers, cargo, machines, equipment, and controls for equipment or machines.
14. Lift/carry: 0-30 pounds: Constantly 30-50 pounds: Frequently 50-75 pounds: Occasionally 75+ pounds: Never
Objects lifted/carried: Binders, turnbuckles, chains, straps (nylon), wood blocks (various sizes), luggage/boxes, shoveling aggregate/coal/grain/gypsum/other bulk commodities, rods (various heights), tools to assist with lashing/unlashng (butter knife-metal pipe with flat end), wires (for securing a load), and locking cones.
15. Simple grasping: Frequently to Constantly: Occurs when operating machines/equipment/vehicle controls.
16. Firm grasp: Frequently to Constantly: Occurs when performing lashing/unlashng of containers/equipment/machines/vehicles, lifting/carrying, shoveling, and unlocking/locking cones for the containers.
17. Fine finger manipulation: Frequently to Constantly: Occurs when operating controls controls for equipment/machines/vehicles and lashing/unlashng.
18. Reaching above the shoulder level: Frequently to Constantly: Occurs when operating controls of equipment/machines/vehicles, lashing/unlashng, and lifting/carrying.
19. Reaching at the shoulder level: Frequently to Constantly: Occurs when operating controls for equipment/machines/vehicles, lashing/unlashng, lifting/carrying, and locking/unlocking cones.
20. Reaching at below the shoulder level: Frequently to Constantly: Occurs when operating controls for equipment/machines/vehicles, lashing/unlashng, and lifting/carrying, and shoveling.

21. Driving: Frequently to Constantly: Occurs when assigned to the auto gang for discharge or loading of vehicles/equipment on the barge/ship. May also drive equipment such as a forklift for a job.
22. Operating controls: Frequently to Constantly: Occurs when operating equipment/machines/vehicles.

V. WORK ENVIRONMENT: Works 90-100% outside.

Temperature: Exposed to outdoor temperature (varies with the job site)

Noise: Exposed to noise of machines/equipment/ships/barges/and vehicles.

Dust/substances: Exposed to dust/aggregate/coal particles.

Vibrations: Exposed to vibrations from the machines/equipment/ships/barges/vehicles.

Humidity: Exposed to weather humidity.

Hazards: Exposed to various hazards at each job site, moving equipment/machinery, heights, uneven/moving surfaces, and decreased light (night work).

VI. WORKSITE MEASUREMENTS:

1. Lift/carry up to 75 pounds (luggage, wooden blocks)
2. Climb up to 80 feet in height: (top level of barges, into ships holds)
3. Push/pull force: up to 274 pounds of force (lashing/unlashing, pulling chains/wires).
4. Reaching forward, side to side, above up to six feet (metal luggage cages, lashing, unlashing, operating controls, climbing ladders).
5. Handling/fingering, lifting/carrying chains, turnbuckles, binders, locking cones, strapping (nylon), cone poles on a frequent basis up to 36 ½ pounds.
6. Handling of cone poles of various lengths from 11-½ ft to 21-½ ft.

VII. PHYSICAL REQUIREMENTS:

1. Vision: 20/40 or better, depth perception, full field, color, exposure to foreign body.
2. Hearing: Must hear quiet conversation, may have hearing impairment, and must hear in both ears to localize sound source.

VIII. TOOLS & EQUIPMENT:

- various machines/equipment
- binders, turnbuckles, chains, straps, cones, rods, butter knife
- various vehicles
- shovel, broom, hammer

IX. PERSONAL PROTECTIVE EQUIPMENT: (PPE)

- hard hat
- safety goggles
- ear plugs
- gloves
- ankle height, leather work shoes
- respirator: (model 8710/7800)
- full face respirator
- mask/dust
- clothing: overalls, long pants, t-shirt
- head to toe coveralls/booties (Barbers Point Harbor)

Wendy Aruga-Goto, OTR
Registered Occupational Therapist

Date: