



- **Proper rigging is not used for lifting loads underwater.**
- **The JSA is not followed.**
- **Divers and crane operator do not properly monitor the load.**

THIS MIGHT HAPPEN TO YOU



Incident Description

A diver working in 120' of water removed two pipeline flushing sleeves. Three wraps of 3/8" poly rope were used as slings to secure the sleeves (40 pounds each). The load was moved away from the diver and then raised to the surface. As the load was raised, it became tangled with a long section of slack in the crossover line. The entanglement caused the relatively light load to be pulled back over the diver. The rope slings failed and the clamps fell just before the load reached the surface. One clamp hit the diver on the back of his diving helmet causing it to unlock from the neck dam. The diving helmet came off when the diver attempted to purge it. He made an emergency ascent using the bail-out whip.

What Went Wrong

- **Use of incorrect equipment:** Nylon straps or wire rope slings were not used to secure the load.
- **Did not adhere to the JSA:** The JSA specified using the nylon straps that were sent to the diver.
- **Proper line management:** Many lines and hoses are involved with diving operations. Excess slack should be removed from the lines and hoses.
- **Communication link between dive crew and crane operator:** Inadequate monitoring led to the entanglement that caused the load to be pulled over the diver.

Lessons Learned

- Use the proper rigging, regardless of the size of the load.
- The lifted load must be swung far from the diver and its motion and position carefully monitored from topside.
- In the event of an emergency, the diver(s) will be physically exhausted. Having a dive stage basket will help to transport them on to the liftboat.

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