

**SUMMARIES ENTERED ONTO FOCUS DATABASE SINCE PREVIOUS  
SSHSCC OF ACCIDENTS AND DANGEROUS OCCURRENCES  
INVESTIGATED IN SHIP AND BOAT YARDS**

**SUMMARY**

This paper introduces the summaries of accidents and dangerous occurrences investigated in ship and boat yards entered onto HSE's Focus database since the 44th SSHSCC.

**BACKGROUND**

1. At the 40th SSHSCC it was agreed that accident investigation summaries would be distributed with the agendas for the forthcoming meetings.

**ACTION**

2. Members are asked to note the content of the summaries detailed and to satisfy themselves where relevant, that they have adequate arrangements in place to prevent similar accidents from happening in their yards.

## **SUMMARIES ENTERED ONTO FOCUS DATABASE SINCE 44th SSHSCC MEETING OF ACCIDENTS & DANGEROUS OCCURRENCES IN SHIPBUILDING, SHIP-REPAIRING & BOAT YARDS INVESTIGATED BY HSE (APRIL 2002 - SEPTEMBER)**

### Machinery

1. IP was using a band saw, the guard was on, he placed a small piece of timber onto it and his right thumb went onto the blade.
2. IP (foreman responsible for wood working shop) was putting a bevel on a wedge shaped piece of plywood. The IP did not fit the bridge guards, which were available or use a jig. One of their hands made contact with the machines blades amputating a thumb in the process.

### Demolition

4. Contractor's employee killed when a bulkhead fell on him during bulkhead removal from a ship's section being dismantled for scrap.

### Confined spaces

5. 2 employees of a construction firm overcome by carbon monoxide fumes in a tented enclosure when using a petrol powered, road cutter during excavation work to lay concrete foundations for new machinery. The purpose of using the tent was to prevent dust from entering the rest of the workshop.

### Lifting operation

6. 2 electric overhead cranes were being used to remove a GRP boat out of its mould. A lifting plate with a delta ring attached was fibreglassed into the boat structure so that only the top triangle of the ring could be seen. A shackle was then placed through the ring, which in turn was attached to the lifting equipment. The 'D' ring split causing the load to fall. Possible underlying causes were operator error and rushing to get the job done quicker. It is thought the shackle was not turned to its proper position before lifting therefore placing further strain on the 'D' ring. All relevant employees have now been trained in the safe use of lifting equipment.
7. Lifting a large tent weighing 50 tons when the lifting accessories failed resulting in the tent being dropped approximately 1 meter. The lifting accessories selected (spreader beam, shackles, slings and grommets) all had an insufficient safe working load. The grommets had been left on the top of the tent since approximately 1996 and were not subject to a thorough examination and test. The weight of the load and a safe method of lifting have to be decided following consultation with the manufacturers. Recommendation made that the slingers attend a refresher training course.

## Chemical

8. IP spilt catalyst on his foot on the Friday afternoon. The head laminator and the employer both told him to go immediately to wash his foot and clothes. On the Monday morning the IP came to work with burns to his foot as instead of washing his foot when told to do so, he drove home with the catalyst still on his foot. The IP had been wearing his work shoes and had been provided with training in the use of the catalyst.

## Electricity

9. Incident occurred when the IP attempted to close a three-phase switch at the main switchboard. This was a fuse-switch-disconnector, which was used to isolate a circuit to a three-phase socket on a test bench in the adjacent workshop. It is likely that the electrical equipment involved was over 50 years old and possibly even part of the original 1930's installation. There were no maintenance records for the unit, which had not been maintained for at least 6 years. The most probable cause of the failure of the switch was a flashover of damaged wiring and contacts connecting the switch to the switchboard busbars. There was serious damage to the switch contacts, particularly on the busbar side. The IP suffered burns to his hand. More serious injury was not inflicted because the switch was at high level and access was restricted. It is recommended that the electrical wiring in the type of premise involved (heavy engineering and exposed to salt water and adverse environmental conditions) should be inspected once every three years.

## Miscellaneous

10. IP was painting two hydraulic accumulators both of which should have been fitted with plastic plugs at the oil end to prevent oil leakage. It is believed that the accumulator that caused the accident had for some reason been fitted with a steel plug whilst offshore and may have contained up to 1.5.gallons of oil. It is thought that the IP noticed the plug and started to remove it from one end of the accumulator believing there to be no pressure behind it when in fact it had been pressurised up to approximately 1500psi. The pressure would have arisen if the accumulator had been filled with gas whilst there was still a quantity of oil locked in by the plug at the other end. The oil would then be raised to the same pressure as the gas. It is believed that the IP injured his hand when it was lacerated by hydraulic fluid escaping under pressure. It has since been decided not to dismantle or repair any more accumulators.

11. IP sustained extensive injuries when a metal mooring cleat became detached from the deck of a boat and struck him in the face. The IP had been assisting in turning the boat to face the outgoing tide. The cause of the accident was due to corrosion of the holding bolts in the cleat. The cleat had not been subject to preventative maintenance.