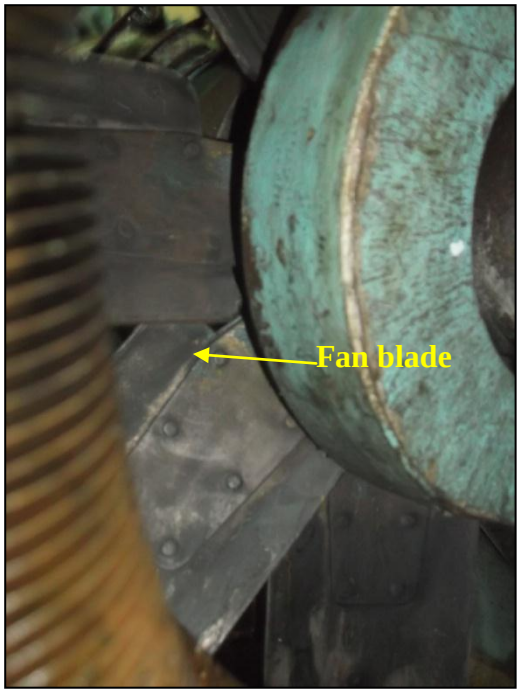
Marine Safety Forum – Safety Flash 12-18

Issued: 29th March 2012
Subject: Fingers Lacerated by Rotating Machinery

During the forenoon watch the Chief Engineer noticed that one of the clamps for the cooling pipes on main start air compressor No. l had fallen off, presumably because of vibration and was lying underneath the air compressor. The Chief Engineer had a conversation with 3rd Engineer, who was asked to remove the clamp from under the compressor and fit it during his watch if time permitted.

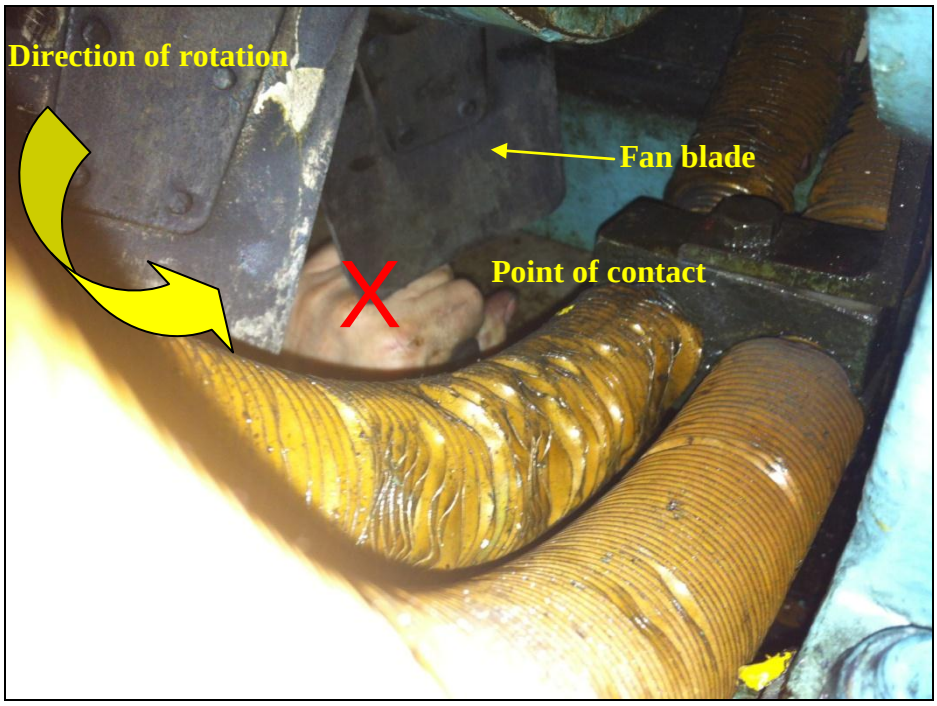
Compressor No. 1



Rotating parts (Fan Blade) within the working area

The task was to offer up the cooling pipe lower clamp from the underside of the compressor and to secure it in position with a single bolt / nut. A ring spanner was to be used to hold the upper bolt and a ratchet wrench to tighten the nut on the lower clamp.

The 3rd Engineer positioned himself on his left side on the Engine room plates to conduct the task. Using his right hand he positioned the ring end of the spanner in from the right side of the cooling pipes onto the bolt head. From the underside he offered up the clamp and put the nut onto the bolt, then proceeded to tighten using the ratchet wrench.



Point of hand contact

As the 3rd Engineer continued to tighten the nut with a ratchet wrench the compressor automatically started up (As set up to do so). This caused the fan blade to rotate at high speed making contact with his left hand, knocking it downward. As a result this caused lacerations of the finger which resulted in the vessel being re-routed back to port. The actual severity was restricted work case; however the potential severity could have resulted in permanent disability (loss of hand/fingers).

Findings

Critical Factors: Failure to assess and control hazards (Isolation / Secure the worksite).
Critical Factors: Incorrect positioning of body parts (Hand).
Contributing Factor: Not wearing any form of hand protection (may have reduced the extent of the injury).

The individual fully aware that he was taking a risk still decided to do the job resulting in a shortcut being taken. Isolation of the compressor was not conducted as he deemed the task to be a “Two minute job”. Instead of performing the work in accordance with Company procedures he failed to carry out a risk assessment and therefore failed to put appropriate controls in place to minimise the risk.

During the investigation interview the injured party stated that the compressor had just completed a cycle and, therefore, did not believe it would start again. From further conversations with the injured party he did state that he conducted a mental risk assessment.

Mental risk assessments are not worth the paper they are not written on!