

SAFETY ALERT



Blind Shear Door Blown Off BOP Body

Alert 7-21

WHAT HAPPENED:

During a high-pressure test of the Blow Out Preventer (BOP), one of the Blind Shear Ram (BSR) doors blew off the BOP body. The door was found resting on top of an adjacent equipment container, approximately 5 meters (16 feet) to the port side of the BOP.

The pressure test took place using the cement unit after nipple up of the BOP. The test started with a low-pressure test to 20 bars (290 psi) and held for 5 minutes. While increasing the pressure to a planned 570 bars (8,267 psi), the BSR door blew off when the pressure reached 109 bars (1,580 psi).

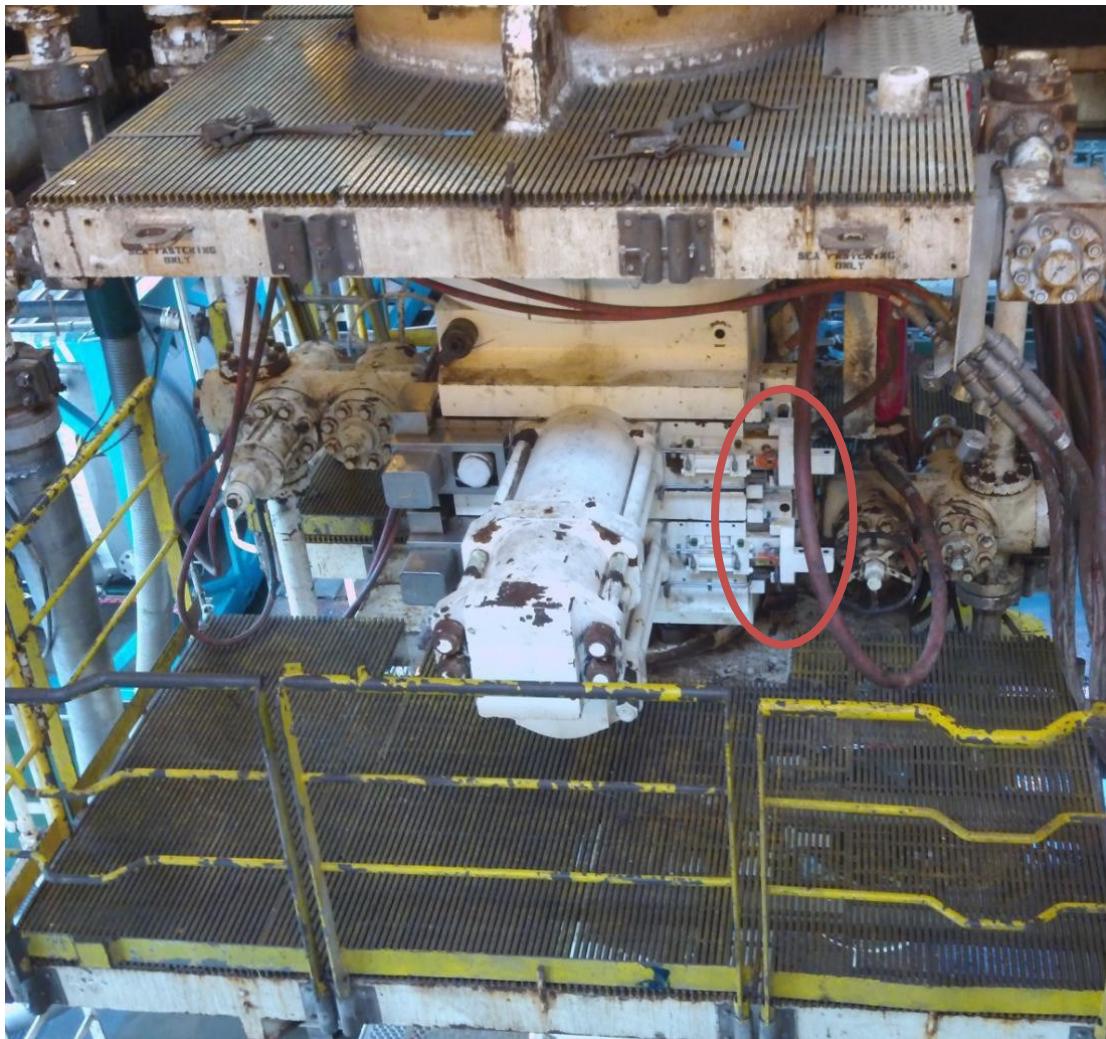
Before the pressure test, the BOP doors were opened for inspection and replacement of the middle pipe RAMS was carried out. During the reassembly of the BOP doors, the anti-rotation bars were not engaged.



Picture 1: BOP Door and Ram on Top of Container



Picture 2: BOP Body Where Door Separated



Picture 3: BOP with Anti-Rotation Bar Disengaged



Picture 4: Anti-Rotation Bar in Unlocked Position



Picture 5: Anti-Rotation Bar in Locked Position

A Safety Alert can consist of any type of health, safety & environment (HSE) notification or Near Miss/Near Hit alert. Proactive Alerts on jobs well done are also encouraged.

CONTRIBUTING FACTORS:

- Incorrect use of locking system – Maintenance personnel did not engage the anti-rotation bar after reassembling BOP as described in the work instruction.
- No independent verification of correct locking – Drill crew did not conduct second verification of BOP before the pressure test as required by the work instruction.

LESSONS LEARNED:

- Ensure BOP maintenance personnel are knowledgeable of BOP door locking mechanism.
- Ensure BOP maintenance and testing procedures mandate second verifier for BOP door secondary lock activation.
- Work with manufacturer and human factor specialist to enhance the secondary lock design and mitigate the risk of human error.