Skader på conductorer, drain pipe, fester mm på jacketer

Arne Kvitrud, Ptil 15.11.2020.

Mens det jacketer er et relativt lite antall innmeldte skader, er en økende andel av skadene knyttet til sekundære konstruksjonselementer som conductorer, drain pipe, fester mm. Næringen har et klart behov for forbedringer i denne sammenhengen. Antall rapporterte hendelser ser likevel ut til av avta noe over tid. De to andre viktige skadekildene er sprekker og kollisjoner.

Innmeldte skader i CODAM fra 2000 til 2020 er:

Ekofisk B (2017): A local conductor guide frame supporting conductor no. B-5, B-13 and B-21 were found to be detached from the structure at jacket elevation -65'. The consequence is increased span length and reduced capacity of the mentioned conductors to sustain wave loads (conductor analyses ongoing). Also, because of the movements of the mentioned conductors and local guide frame, some further damages have occurred to the adjacent structure supporting all conductors at the west side of the platform (12 in total). These additional damages are such that further deterioration of the conductor frame cannot be ruled out. The jacket integrity is however not considered jeopardized by this incident.

Heimdal HMP1 (2008): Conductor C1, C6 and C13 inspected with following result: C13 ok C1: two sections dropped. One section found on conductor frame at -41m level, one section found on seabed. C6: loose fittings at -14m and -40m .

Kvitebjørn (2003): After a period of harsh weather (hurricane) it was observed missing guides for firewater pump A at level -15m and -45m, a missing guide for seawater pump and A at level -15m and a loose guide for seawater pump at level -15m. No indications of loss of global strength and global integrity of the platform.

Oseberg C (2012): Cassion C-53 was fractured immediately underneath the guide at el. -13.8m. The lower part has fallen down to el. -39.8m, resting on member 3908. The guide at el. -39.8m was twisted partly loose from member 3908.

Oseberg sør (2003): Conductor guide support for wells F1/F2 is broken**.**

Oseberg sør (2007): Crack in conductorguide support for wells F9/F10 detected 2003 is growing after grinding and drilling of end holes.

Oseberg sør (2013): Crack in Conductorguide support for wells F25/F26 (20mm), F7/F11 (55mm), F9/F10 (3mm) and F5/F6 (20mm). Crack present after 5mm grinding.

Oseberg sør (2019): 2 indications found at 2 locations on conductor guides support for wells at elev. +10m: F9/F10 (100mm) and F5/F6 (8mm).

Oseberg øst (2003): Galvanisk korrosjon pga materialforskjeller mellom caisson og pumpen installert i caissonen.

Ula PP (2006): Due to installation of Blane caisson, outfall 18"-WS-4004 were disconnected at +20 m, and secured temporarely by slings. Wave impact broke the clamp at + 10m and approximately 18 m of pipework with an estimated weight of 2800 kg dropped.

Valhall IP (2007): Surface breaking crack indication in base metal of Caission guide C3. The indication was grinded 5mm and re-inspected by Eddy Current. The indication remained. An assessement of the crack and the severity has been performed. The location of the crack has a high fatigue lifetime. The crack may be due to loads in the prolonged installation phase where the guide acted as anchor.

Valhall IP (2008): Cassion support C7 - A crack-like indication was observed in the paint coating between approx. 0230 and 0300 o'clock on the guide side weld toe and estimated as approx. 150mm in length. The area was cleaned to bare metal by high-pressure waterjet and subjected to CVI using the ROV zoom camera, followed by photographs taken by a high-resolution digital stills camera. No crack-like indications were found in the metal surface between approx. 0230 and 0400 o'clock.

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Valhall PCP (2006): Riser protection frame/Bolted clamp connections - Crack in the bolted clamp connection connecting the extended riser protection frame to the original one. North clamp cracked both sides. South clamp cracked south side, north side not accessible at time of observation.