MAERSK SUPPLY SERVICE

Maersk Feeder – Collision with Thistle Platform

What happened and lessons learned

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Introduction

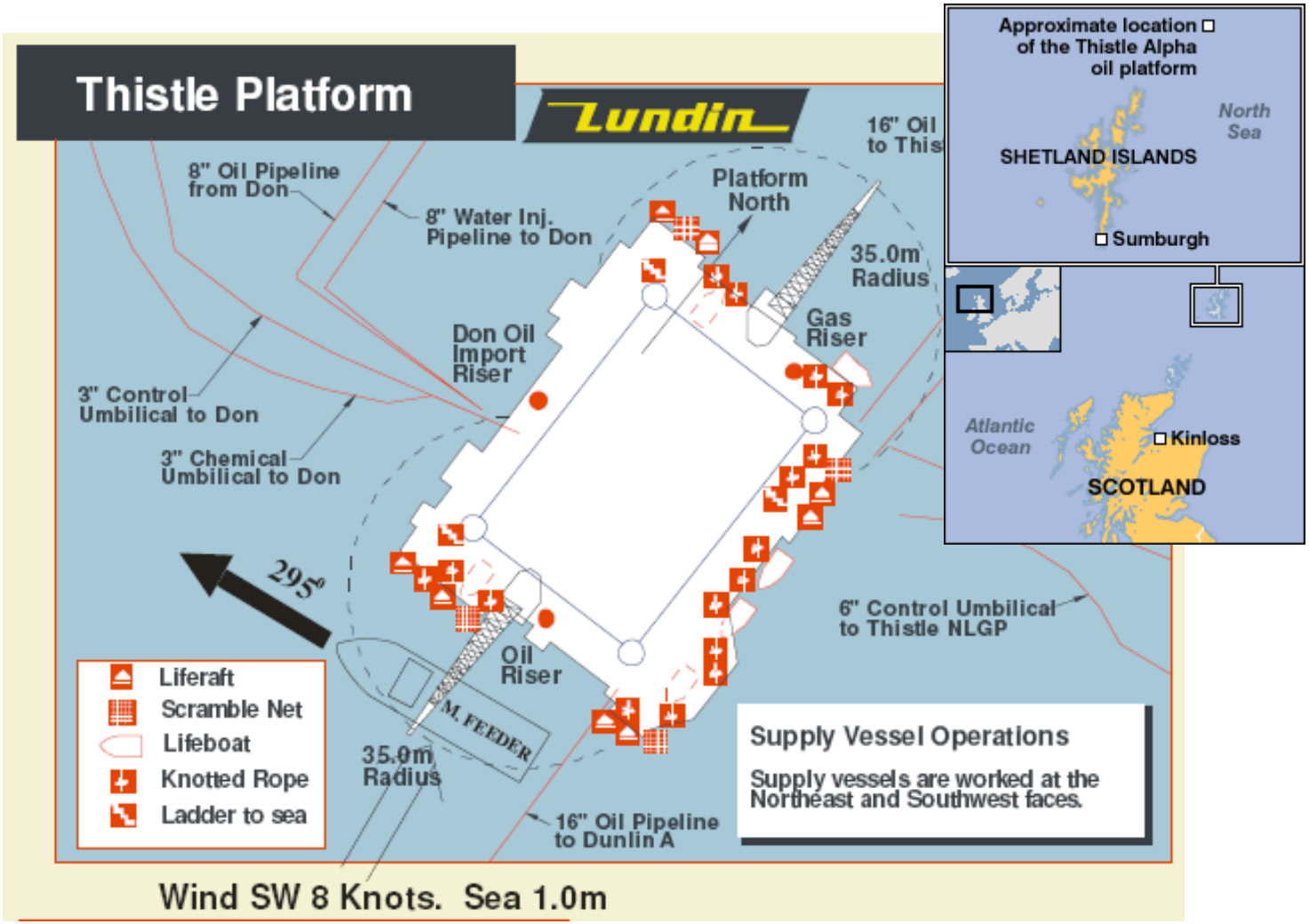
- Maersk Feeder
  - Platform Supply Vessel
  - Built: Ulstein Verft A/S, Norway, 1993
  - Propulsion / Manoeuvring:
    - 2 main propellers
    - 2 stern thrusters
    - 1 bow thruster
    - 1 azimuth thruster
    - 2 alternators driven from main engines

Incident Details

3rd May 2009

- *12:48* – Arrive Thistle Alpha platform 500m zone
- *12:51* – 500m checks completed (including thruster test)
- *13:12* – Alongside SW crane (weather side) call ready to commence
- *13:15* – 2nd Officer takes control from Chief Officer
- *13:18* – Discharging potable water

- Weather conditions – SW 8kts / Sea 1.0m


Thistle Platform
Lundin
16" Oil
to This
8" Oil Pipeline
from Don
8" Water Inj.
Pipeline to Don
Platform
North
35.0m
Radius
Gas
Riser
Don Oil
Import
Riser
3" Control
Umbilical to Don
3" Chemical
Umbilical to Don
295°
Oil
Riser
M. FEEDER
35.0m
Radius
6" Control Umbilical
to Thistle NLGP
16" Oil Pipeline
to Dunlin A
Liferaft
Scramble Net
Lifeboat
Knotted Rope
Ladder to sea
Supply Vessel Operations
Supply vessels are worked at the
Northeast and Southwest faces.
Wind SW 8 Knots. Sea 1.0m
Approximate location
of the Thistle Alpha
oil platform
North
Sea
SHETLAND ISLANDS
Sumburgh
Atlantic
Ocean
Kinloss
SCOTLAND

Incident Details

3rd May, 2009 - *14:54*

- Low air pressure alarm (port side gearbox)
- Control of vessel retaken by Chief Officer
- Loss of air pressure to port gearbox clutch
  - Loss of port propeller
  - Loss of 2 forward thrusters (azimuth and tunnel)
  - 1 aft thruster
  - Loss of power to emergency switchboard
- Emergency generator auto-starts
  - Power restored to emergency switchboard
  - Auto-start of auxiliary generator restores hotel services
- Deck crew instructed to clear deck
- Stbd propeller moved to ahead to clear platform (bridge thought all thrusters lost)
- Vessel Master arrives on the bridge

Incident Details

- *14:55*
  - Contact with platform protruding from Thistle A
  - Manoeuvred clear
- *14:56*
  - Potable water hose torn off at platform manifold.
- *14:57*
  - Vessel moving clear of Thistle A
  - Stbd propeller declutched to prevent pot water hose fouling
- *15:12*
  - Vessel clear of 500 metre zone
- *15:18*
  - Pot water hose recovered to deck

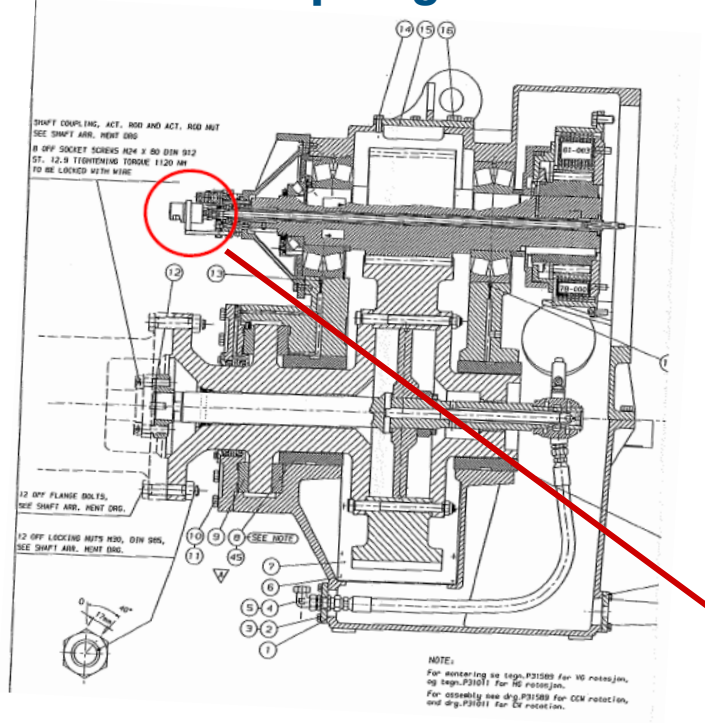
Consequences

- Slight damage to platform
  - Redundant dive control area
- Significant damage to vessel
  - Main mast
  - Communications aerials
- No personal injuries

Causes

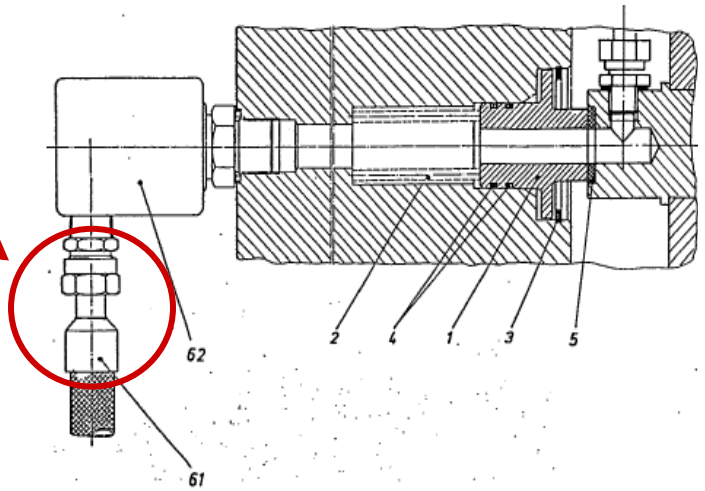
- **Immediate Causes**
  - Failure of Rotoflex coupling seal on port gearbox
- **System causes**
  - No change out period in maintenance system
  - Azimuth locking PLC power loss

Rotoflex Coupling



Technology

- Fitting to connect air line failed
- Gearbox declutches alternator and prop lost
- Fitting had not been replaced
- Not part of maintenance system



Actions

- Vessel crew commended for professional response
- All Rotoflex unit renewed (all F-types)
- Safety Flash issued to Maersk fleet
- Proving trials to Master and charterer satisfaction
- Maintenance system updated
  - Renewal every 3 years (less than manufacturer recommendations)
- 24V – 220V inverter fitted to power Azimuth locking PLC
- Maersk inform ship builders of incident and modifications