UNITED STATES DEPARTMENT OF THE INTERIOR
BUREAU OF SAFETY AND ENVIRONMENTAL ENFORCEMENT
GULF OF AMERICA REGION

ACCIDENT INVESTIGATION REPORT

1. OCCURRED
   DATE: **27-AUG-2025** TIME: **1045** HOURS
2. OPERATOR: **Renaissance Offshore, LLC**
   REPRESENTATIVE:
   TELEPHONE:
   CONTRACTOR: **Fluid Crane and Construction**
   REPRESENTATIVE: TELEPHONE:

- [ ] STRUCTURAL DAMAGE
- [X] CRANE
- [ ] OTHER LIFTING
- [ ] DAMAGED/DISABLED SAFETY SYS.
- [X] INCIDENT >$25K **125,000**
- [ ] H2S/15MIN./20PPM
- [ ] REQUIRED MUSTER
- [ ] SHUTDOWN FROM GAS RELEASE
- [ ] OTHER

3. OPERATOR/CONTRACTOR REPRESENTATIVE/SUPERVISOR ON SITE AT TIME OF INCIDENT:

4. LEASE: **G37455**
   AREA: **WD** LATITUDE:
   BLOCK: **152** LONGITUDE:
5. PLATFORM: **A**
   RIG NAME:
6. ACTIVITY:
   - [ ] EXPLORATION(POE)
   - [X] DEVELOPMENT/PRODUCTION (DOCD/POD)
   - [ ] DECOMMISSIONING

7. TYPE:
   INJURIES:
   - [ ] HISTORIC INJURY

	OPERATOR	CONTRACTOR
[ ] REQUIRED EVACUATION		
[ ] LTA (1-3 days)		
[ ] LTA (>3 days)		
[ ] RW/JT (1-3 days)		
[ ] RW/JT (>3 days)		
[ ] FATALITY		
[ ] Other Injury		

   - [ ] POLLUTION
   - [ ] FIRE
   - [ ] EXPLOSION

   LWC
   - [ ] HISTORIC BLOWOUT
   - [ ] UNDERGROUND
   - [ ] SURFACE
   - [ ] DEVERTER
   - [ ] SURFACE EQUIPMENT FAILURE OR PROCEDURES

   COLLISION [ ] HISTORIC [ ] >$25K [ ] <=$25K

8. OPERATION:
   - [X] PRODUCTION
   - [ ] DRILLING
   - [ ] WORKOVER
   - [ ] COMPLETION
   - [ ] HELICOPTER
   - [ ] MOTOR VESSEL
   - [ ] PIPELINE SEGMENT NO.
   - [ ] OTHER
   - [ ] TEMP ABAND
   - [ ] PERM ABAND
   - [ ] DECOM PIPELINE
   - [ ] DECOM FACILITY
   - [ ] SITE CLEARANCE

9. CAUSE:
   - [X] EQUIPMENT FAILURE
   - [ ] HUMAN ERROR
   - [ ] EXTERNAL DAMAGE
   - [ ] SLIP/TRIP/FALL
   - [ ] WEATHER RELATED
   - [ ] LEAK
   - [ ] UPSET H2O TREATING
   - [ ] OVERBOARD DRILLING FLUID
   - [ ] OTHER _____

10. WATER DEPTH: **373** FT.
11. DISTANCE FROM SHORE: **28** MI.
12. WIND DIRECTION: **NE**
    SPEED: **6** M.P.H.
13. CURRENT DIRECTION: **SE**
    SPEED: **3** M.P.H.
14. SEA STATE: **3** FT.
15. PICTURES TAKEN:
16. STATEMENT TAKEN:

INCIDENT SUMMARY:

On 27 August 2025 at 1045 hours, an incident occurred at the West Delta (WD) 152 A platform. WD 152 A is a fixed leg platform located in the Gulf of America that is owned and operated by Renaissance Offshore, LLC. (Renaissance). During the incident, the WD 152 A platform crane was in the process of making a dynamic lift of a third-party Power Pack (Power Pack) from the Motor Vessel(MV) to the platform when the crane suddenly failed. During the crane failure, the crane's boom cable separated which caused the crane boom to fall uncontrollably. When the crane boom fell, it contacted the platform handrails under the crane boom as well as the MV below. There were no injuries caused by the incident but there was damage to the platform handrails, the crane, and the MV. There was also a small amount of hydraulic fluid that entered the Gulf of America due to broken hydraulic hoses and fittings.

SEQUENCE OF EVENTS:

On 27 August 2025 at approximately 1045 hours, a Fluid Crane and Construction Crane Operator (Crane Operator) was performing crane operations with the platform crane on WD-152 A platform. During this operation, the Crane Operator lowered a cutting box from the platform to the MV. After lowering the cutting box to the MV, the Crane Operator notified the MV Captain by radio that his next lift was going to be a Power Pack weighing approximately 8,000 pounds. After notifying the MV Captain of the next lift, the MV Captain repositioned the MV so the Crane Operator could safely make the lift. The MV then moved too close to the platform for the Crane Operator to comfortably make the lift, so the Crane Operator asked the MV captain to move forward (away from the platform). Once the MV was positioned where the Crane Operator felt safe making the lift, the Deckhand then hooked the main line stinger to the Power Pack that was to be lifted.

While the Crane Operator was attempting to lift the Power Pack, the MV started drifting back towards the platform again. At this point, the Crane Operator waited until the Power Pack rigging tightened and the D-ring was directly over the lift and began to lift the Power Pack. As the Crane Operator started lifting the Power Pack, the Crane's boom cable separated and resulted in the Crane's boom falling. When the Crane's boom fell, it impacted and damaged the platform handrails and the stern of the MV. The Crane's load block, load cable and auxiliary cable also fell to the MV. The load block fell on a cutting box located just forward of the Power Pack being lifted. The cables fell to multiple places on the MV deck, and the Auxiliary ball broke loose and fell into the Gulf of America. The crane boom struck the stern of the MV causing damage to the stern handrails and buckling the center of the jump deck. A small amount of hydraulic fluid was witnessed dripping out of broken fittings and hydraulic hoses. The hydraulic fluid entered the Gulf of America creating a small visible sheen but quickly dissipated due to the small amount of fluid released.

After the incident occurred and all personnel were safe, Renaissance decided to secure the crane boom that was hanging off the side of the platform with ratchets and straps. This was performed to reduce the possibility of the crane boom or other components falling into the Gulf of America. Later, Renaissance removed the boom completely to prevent any possibilities of the crane boom falling. The boom, cables, load block, pendant lines, hoses, fittings and the bridle assembly were then placed on a boat and transported to third-party crane service facility for further investigation.

BSEE INVESTIGATIONS:

An electronic report was submitted on 27 August 2025 which provided a brief description of the incident, with limited detail as to the extent of the damage. The following morning of 28 August 2025, Renaissance called the Bureau of Safety and

Environmental Enforcement (BSEE) to notify them that a crane incident had occurred on WD-152 A on 27 August 2025. A follow-up email was sent at 1310 hours on 28 August 2025 providing additional details and photos of the incident.

On 28 August 2025, the incident was assigned to a BSEE Accident Investigator (AI). The AI then flew offshore on 05 September 2025 to investigate the incident and gather additional information. Additional information that was gathered on the initial visit by the AI consisted of past crane inspections, photographs, witness statements, certifications and crane pre-use documentation. After the initial visit, the investigation was then transferred to another AI to complete. After the transfer of the incident from one AI to another, a second on-site visit was conducted on 11 September 2025. During the second on-site visit at WD-152 A, the AI took additional photographs and requested additional documentation. The AI learned that the crane boom, wire ropes, and sheave packages had been sent to a third-party crane service to have further evaluation performed of the damage components.

On 12 September 2025, the AI traveled to the third-party crane service to meet with a Renaissance representative and crane service professionals. During the visit to third-party crane service, the AI was able to take photographs of the damaged crane boom, cables and all other damaged components. The crane boom cable bridle assembly was already disassembled when the AI arrived. While performing the investigation and consulting with the crane service professionals, attention was directed towards the boom cable sheave bridle. The crane service professionals and the Renaissance representative pointed out the damage that was identified on the boom cable bridle sheave pin. The sheave pin had been damaged due to excessive bearing wear on the sheave pin which was caused by a failed bearing. The bridle sheave pin is a 3-inch diameter pin and has an overall length of 20 inches. The pin was worn down to 2-1/2 inches where the failed bearing rested on the pin. This resulted in the bridle sheave pin losing approximately a 1/2-inch x 2-3/4-inch area of metal where the bearing was located on the pin.

During the AI’s investigation at the third-party crane service facility, there were multiple bridle sheaves damaged. The sheave with the most damage was the sheave that the failed bearing was attached to. The sheave that the failed bearing was attached to had been cut through by the boom wire rope approximately 160 degrees inside the sheave wire rope groove. This led to the wire rope cutting through the sheave all the way to the bearing that is pressed in the center of the sheave. Evidence shows signs of the cable cutting into the side of the sheave as well. The sheave’s side damage starts where the cable would have begun to contact the bearing in the center of the sheave.

The last crane inspection, other than a crane pre-use, that was performed on the crane prior to the incident was an annual inspection on 01 August 2025. During this inspection, the Crane Inspector checked off in his paperwork that the bridle sheaves and boom cable were in good condition at the time of the inspection. The Crane Inspector also performed a pull test on the crane on 02 August 2025 which successfully pulled 30,900 pounds at a 74-degree boom angle and a 25-foot radius according to the inspector’s paperwork.

On 05 November 2025 at 1154 hours, the AI was able to conduct a phone interview with the third-party Crane Inspector that had recently performed the annual crane inspection on 01 August 2025. During the phone interview, the Crane Inspector stated that he did inspect the boom cable bridle assembly and sheaves during the annual crane inspection. The crane inspector stated that during the inspection of the bridle sheaves, he lowered the bridle to the crane boom and provided slack in the boom cable to allow him to move the sheaves freely. He then rolled/turned the sheaves to ensure they moved freely without cable tension. He stated that he greased the sheaves by using the greasing points on the sheave pin. The Inspector also stated that he did not remove the sheave pin to inspect it. The crane inspector stated he was not required to remove the sheave pin per company policies and the API RP 2D Sixth edition that they follow.

The third-party crane service provided their sheave inspection training guide, and the training did not specify the removal of the sheave pin during sheave inspections. The third-party crane's "Crane Sheave-Sheave Bearing-Sheave Pin Inspection Report" identifies a method of checking for bearing wear is "by attempting to "Tilt" Sheaves. Observing excessive Tilt may be an indication that the Sheave Bearing and/or Sheave Pin are Worn." Another method is to "check and ensure all sheaves are in the same alignment. Sheaves that are out of alignment may be an indication that the sheave pin/ bearings are worn." Neither method recognizes pulling the bridle sheave pin as part of the inspection. The API RP 2D Sixth Edition section G5.1.2d (Sheave Inspection Criteria) also does not specifically require removing the sheave pin as part of the sheave inspection criteria.

During the initial visit on 05 September 2025, by the first AI on-site, the investigation findings also revealed that the crane operator was operating the crane at 61–65-degree boom angles when the incident occurred. The crane's load chart states that at a 61-degree boom angle, the crane's dynamic Safe Working Load (SWL) is 12,200 pounds, placing the load being lifted well within the crane's capacity at the angle during the time of the incident.

Renaissance elected to send the sections of the boom cable that were broken during the incident to have the cable tested and analyzed at a third-party laboratory. The third-party laboratory received a portion of the 5/8-inch 6 x 26 Regular Right Lay (RRL) boom cable from West Delta-152 A. The analysis report drafted by third-party laboratory concluded that the wire rope showed no signs of corrosion near the failed cable areas or any physical damage such as kinks, abrasions, heat or flat spots. The analysis did however reveal features of ductile failure that included micro void coalescence, shear dimples, and localized plastic deformation with necking. The features that were noted suggest that the wire rope failed under slow strain rate when applied service loads exceeded their load-bearing capacity. The report also identified that the main causes could include wear and abrasion from friction against drums, sheaves, or other external objects and fatigue caused by repeated loading cycles and excessive overloading which causes stretching and weakening. Other contributing factors could include shock loading, corrosion, improper handling, improper lubrication, incorrect size or damage to sheave and or lack of routine maintenance. The analysis report also mentions the possible causes of the wire rope failure as follows; Prior damage from equipment (bearings, sheaves etc.), cumulative damage (repeated loading, bending, abrasions, corrosion, fatigue, etc.), shock loading, and overloading.

IN CONCLUSION:

On 27 August 2025, the WD-152 A platform crane suffered extensive damage due to a mechanical failure of a boom cable bridle sheave bearing. Evidence collected from the investigation suggests that the bearing had become seized and could not spin freely as designed. Once the bearing became seized, the inner race began to spin on the sheave pin, ultimately wearing through the pin approximately 1/2-inch. Due to this wearing pattern, the sheave and bearing became locked up and were unable to spin any further. When this occurred, the boom cable was still moving back and forth on the sheave. Because the sheave was of a Nylatron (Silicon) material, it was much softer than the crane cable which allowed the cable to cut through the sheave.

The damage on the side of the sheave indicated that the cable cut through the sheave down to the hardened outer-race of the bearing. Once it contacted the bearing, the cable started cutting through the side of the sheave. The lab analysis indicated that the cable broke from a slow strain rate that suggested the cable at some point became jammed on the sheave which caused the slow strain pull during the crane operations. Once the cable became unable to move while the crane was still performing functions, the force caused the cable to break. Once the cable broke, the crane boom cable could no longer support the crane boom, which led to the crane boom falling and striking the handrails under the boom, as well as the MV.

Investigation findings revealed the lack of inspection of the sheave pins during crane inspections. Renaissance stated that they failed to include scheduled inspection intervals of specific sheaves, pins, and bearings in their crane inspection policy. Renaissance has stated that they will be updating their crane safe work practices on inspection guidelines to require the annual removal of sheaves and sheave pins for inspection. Because the sheave pins were not removed during past annual inspections, there is no definitive conclusion as to whether the pin was worn prior to or after the annual inspection performed on 01 August 2025. Future removal of the sheave pins during the inspections will provide a more thorough examination of the sheave pins and hopefully prevent similar incidents from occurring in the future. The third-party crane service has stated that they will not be updating their policy on removing sheave pins during inspections aligning with API RP 2D standards. They will, however, be re-writing their procedures and removing the pins for inspections as per customer requests.

18. LIST THE PROBABLE CAUSE(S) OF ACCIDENT:

Equipment Failure: (Failed Bearing) Inadequate equipment inspection- Due to not removing the crane boom cable bridle sheave pin, there was no way to properly identify the sheave pin wear. The failed sheave bearing was also unidentified.

19. LIST THE CONTRIBUTING CAUSE(S) OF ACCIDENT:

Personnel Training: Inadequate training- Training provided by the third-party crane service company does not specify the removal of sheave pins to inspect sheave bearings.

Management Systems: Inadequate training documentation- Third-party crane service company failed to incorporate removing the sheave pin in its “Crane Sheave-Sheave Bearing-Sheave Pin Inspection Report” and sheave inspection training.

Management Systems: Inadequate crane maintenance policy- Operator failed to include the removal of sheave pins as part of their Crane safe work practices on inspection guidelines.

20. LIST THE ADDITIONAL INFORMATION:

Dates of Onsite Investigations:

05 September 2025
11 September 2025
12 September 2025

21. PROPERTY DAMAGED:	NATURE OF DAMAGE:
Platform handrails, handrails and jump deck of MV, crane boom assembly, crane wire rope cables, bridle assembly.	**Broken, bent, worn beyond use**

ESTIMATED AMOUNT (TOTAL): **$125,000**

22. RECOMMENDATIONS TO PREVENT RECURRANCE NARRATIVE:

BSEE New Orleans District Recommends the Office of Incident Investigations should consider issuing a Safety Alert regarding the incident.

23. POSSIBLE OCS VIOLATIONS RELATED TO ACCIDENT: **NO**

24. SPECIFY VIOLATIONS DIRECTLY OR INDIRECTLY CONTRIBUTING. NARRATIVE:

25. DATE OF ONSITE INVESTIGATION:

12-SEP-2025

26. Investigation Team Members/Panel Members:

27. OPERATOR REPORT ON FILE:

28. ACCIDENT CLASSIFICATION:

29. ACCIDENT INVESTIGATION PANEL FORMED: **NO**

OCS REPORT:

30. DISTRICT SUPERVISOR:

Michael J. Saucier

APPROVED DATE: **11-DEC-2025**

INJURY/FATALITY/WITNESS ATTACHMENT

[ ] OPERATOR REPRESENTATIVE
[X] CONTRACTOR REPRESENTATIVE
[ ] OTHER _____

[ ] INJURY
[ ] FATALITY
[X] WITNESS

NAME:
HOME ADDRESS: **Crane Operator**
CITY: STATE:
WORK PHONE: TOTAL OFFSHORE EXPERIENCE: YEARS

EMPLOYED BY:
BUSINESS ADDRESS:

CITY: STATE:
ZIP CODE:

[ ] OPERATOR REPRESENTATIVE
[X] CONTRACTOR REPRESENTATIVE
[ ] OTHER _____

[ ] INJURY
[ ] FATALITY
[X] WITNESS

NAME:
HOME ADDRESS: **MV Deckhand**
CITY: STATE:
WORK PHONE: TOTAL OFFSHORE EXPERIENCE: YEARS

EMPLOYED BY:
BUSINESS ADDRESS:

CITY: STATE:
ZIP CODE:

☐ OPERATOR REPRESENTATIVE	☐ INJURY
☒ CONTRACTOR REPRESENTATIVE	☐ FATALITY
☐ OTHER _____	☒ WITNESS

NAME:

HOME ADDRESS: **Crane Inspector/Mechanic**

CITY: STATE:

WORK PHONE: TOTAL OFFSHORE EXPERIENCE: YEARS

EMPLOYED BY:

BUSINESS ADDRESS:

CITY: STATE:

ZIP CODE: