



H S E

HEALTH SAFETY ENVIRONMENTAL



Alert #: SA 45-25

Date: October 31, 2025

Air Spider Basket Failure

A Blaster/Painter was performing blasting operations while suspended in an Air Spider offshore positioned approximately 3 – 5 feet below the +10 deck and approximately 2 – 3 feet above the water to the bottom of the basket. During operation, the Air Spider basket fell out from under him and rapidly descended into the water below, leaving him suspended by his fall protection system with his lower body partially submerged to the waist. Responding rescue personnel deployed pre-staged 4:1 rescue system and were able to rescue the employee within under five minutes of the event.

Immediate Causes/Contributing Factors:

- Precursor event: Structural Failure – the overload bracket broke off the lower drum base. See image below. Visual indication of this type of failure is the misalignment of the overload brake plunger to the stop.
- Secondary event: Mechanical Failure – when the overload bracket broke, it shock loaded the bronze and steel worm drive gears causing the bronze gear teeth to completely shear off which resulted in the Air Spider free falling.

Corrective and Preventative Actions:

- **Critical Component Inspection Requirements** – cable tensioner, slings, overload bracket alignment, drum spool, oil level, and gear condition (look for **deformation** and the presence of **metal shavings**).
- **Verification** – equipment condition, function testing and legible service tags prior to shipping to location, when received at location and prior to use.
 - **Document** – equipment condition verifications.
- **Shipping** – ship Air Spiders to and from locations secured in baskets or other containments.

Key Takeaways:

- Even **mechanically sound operations can fail suddenly** always ensure **pre-use inspections** are performed and verified.
- **Never bypass inspection steps** due to familiarity or time pressure; mechanical integrity must be confirmed before use.
- **Rescue readiness saves lives**, pre-staged rescue equipment and practiced response procedures allowed for a rapid and successful recovery.

Remember: Stay Focused on Task – constant situational awareness during high-risk and daily operations can be the difference between injury and a safe outcome. Use **Safe-to-Start** before work and after breaks before work resumes.



SAFETY ALERT