

RP 003 | PROVISION, RATING AND USE OF HELICOPTER TIE-DOWN STRAPS

1. PURPOSE

During recent helideck inspections it has become apparent on many offshore assets the number, the SWL, the end fittings and the use of tie-down straps for securing a helicopter which has shut down on a helideck is varied and/or inadequate. The purpose of this HCA Recommended Practice is to ensure that every offshore asset complies with CAP 437 - Standards for offshore helicopter landing areas Section 3 paragraph and the helicopter type flight manual

- 3.48 Tie-down straps held on the installation or vessel should be compatible with the bar diameter of the helideck tie-down points. Tie-down points and straps should be of such strength and construction so as to secure the helicopter when subjected to weather conditions pertinent to the installation design considerations. The maximum bar diameter of the tie-down point should be 22 mm in order to match the strop hook dimension of typical tie-down straps. Advice on recommended safe working load requirements for strop/ring arrangements for specific helicopter types can be obtained from the helicopter operator.

2. NUMBER OF TIE DOWN STRAPS

Depending on the helicopter type used the asset should determine the number of tie-down straps required. The number of straps required will be dependent on the forecast wind speed. Exact tie-down strap numbers required for each helicopter type, depending on forecast windspeed over the helideck, should be advised by the helicopter operator on initiation of the support contract.

However the number should always reflect the largest aircraft acceptable to that helideck depending on "t" and "D" Values, example (for windspeeds up to 50knts):

Aircraft Type	Minimum Number of Straps Required	SWL
S92	6	5000 kgs
H175	4	5000 kgs
AW189	4	5000 kgs
AW139	4	5000 kgs
AW169	4	3000 kgs

3. CONNECTIONS

The end connections of the tie-down straps should be compatible with the tie-down points on the helideck, these can either be bars or rings. The end connections should be checked initially and at each time a strap is changed out to ensure correct fitment e.g. the hook on the helideck end of the strop should fit the tie-down point on the helideck. Suitable SWL rated shackles between tie-down point and strap hook is also acceptable. The aircraft end of the strap should be complimentary to the aircraft tie-down point (normally a ring).

4. STRAPS

Straps should be to BSEN 12195-2 standard (or equivalent), have a ratchet type tension device and rated to the correct SWL. The straps should be free from cuts, knots or fraying, be kept clean, ratchets should be lubricated and the complete assembly stored in a weatherproof container easily accessible to the deck crew. Ensure the straps are in date and the ratchet is function tested on a regular basis.

5. SECURING THE AIRCRAFT

When securing the aircraft provision should be made for the ratchet unit to be closer to the helideck tie-down than the aircraft.

The ratchets should be used to tighten just enough to take up the slack in the strap. Compressing the landing gear oleo struts or tyres would be deemed excessive.

Note: Pilot's direction/approval is required before anything is attached to the aircraft.

Securing the helicopter rotor blades to the aircraft is the responsibility of the helicopter pilots and should not be attempted by helideck crew unless under the direction of the pilots. Blade socks and attachment poles should be carried on the helicopter as part of its own equipment list.

6. TRAINING

Bear in mind that an aircraft shutdown on a helideck is an unusual event which may occur during inclement weather, in the dark or in high winds (or all 3!!). HLO's should ensure they, and their deck crew, are familiar with the tie-down straps, the ratchet assemblies and be trained how to use them.

The provision and use of tie-down straps, end connections, ratchets and deck tie-downs points form part of the biennial helideck inspection

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