

Passive Heave Compensation System

Oil & Gas

Overview

OceanWorks International designs and manufactures Passive Heave Compensation Systems (PHCS) which mitigate vessel induced loads and motion on ROV Tether Management Systems (TMS) and other subsea packages. The Heave Compensator pays out or pays in the umbilical or lift cable without active controls. The passive nature of the system allows it to react to both periodic and non-periodic motion giving it more robust control than a strictly actively compensated solution. In addition, the Passive Heave Compensation System can be coupled with an active drive system to provide a lower powered actively compensated system with the snap load alleviating capabilities of a passive system. This system is also suitable for retrofit applications and has a very small deck footprint to allow insertion between the existing winch and A-Frame elements. OceanWorks also provides custom design services for heave compensation for a variety of applications.

Standard Features

- ▶ Attached operations control panel
- ▶ Transportable in standard 20 ft open top container

Options

- ▶ Remote control panel
- ▶ Customized sheaves for various umbilical sizes
- ▶ Customized unit design for larger or smaller applications
- ▶ Compressor
- ▶ Sheave cover.

Specifications

Ratings and Capacity - Typical

(Ratings & capacity can be varied for custom applications)

- ▶ Safe working load: 42,474 lbs (19,266 kg)
- ▶ Min. compensated load rating: 4,600 lbs (2,087 kg)
- ▶ Maximum compensated load rating: 42,474 lbs (19,266 kg)
- ▶ Vertical compensation range: ± 9 ft (± 2.74 m)
- ▶ Sheave tread diameter 60 in. (1.52 m)
- ▶ Sheave groove diameter: 1.64 in (41.7 mm)

Custom Package

- ▶ Rating, capacity & dimensions can be varied to meet specific requirements



Dimensions - Typical

- ▶ Length: 7 ft. 9 in. (2.36 m)
- ▶ Width: 6 ft. 8 in. (2.03 m)
- ▶ Height: 17 ft. 1 in. (5.21 m)
- ▶ Weight: 16,000 lbs (8 tons)