

## IN LINE STRING MOTION COMPENSATOR SYSTEM

### Passive Heave Compensation

Customised and tailored to Client's drilling program

#### Passive Heave Compensators

The ICON Inline String Motion Compensator System (ILSM Compensator) is designed to be installed as part of the travelling block arrangement on a semi-submersible drilling rig. The ILSM Compensator is functionally similar in operation to a standard MODU drill string compensator, and because it mounts from the top drive unit, can be rapidly deployed as required on a drill rig.

The unit can operate simultaneously with or independently of the rig's string compensator, and functions to minimise hook load variations due to vessel heave.

During operating conditions where the loading conditions exceed the drilling rig's string compensator capacity, the rig's system is locked off and the ICON ILSM Compensator provides compensation for heave motion to load condition variations up to the maximum hook load capacity.



**Typical Passive Heave Compensator Installation**

#### Standard Features:

- **Installation**  
Installs directly to the top drive saver sub, for rapid deployment prior to or during drilling operations.
- **Remote Power Control Unit**  
The power unit is supplied with sufficient high pressure hose to enable the unit to be positioned on the main rig deck remote from the compensator unit.
- **Safety relief system**  
The power unit is equipped with an integral relief system to ensure that transmitted loads to the top drive unit do not exceed the equipment safe working load.
- **Safety System**  
The hydraulic control unit is equipped with safety lock off valves that sense sudden load release and safely arrest the sudden decompression of the compensator unit.
- **Infinitely variable load adjustment**  
Complete with adjustable load control valve, the developed compensation load can be fully adjustable to the maximum rated unit capacity
- **Fully self contained power unit**  
The Passive Heave Compensator system only requires rig air supply for system operation. No external power supply is required, making the system ideal for hazardous areas. The Active Heave Compensator requires a diesel driven HPU which is located adjacent to the rig floor and is fully self contained, skid mounted (containerised), and suitable for offshore transportation and deployment.
- **Remote Operation and Monitoring of System**  
All necessary instrumentation is provided to enable remote operation and monitoring of the Compensating System during use.
- **Lock off facility**  
The unit incorporates a lock off facility to hydraulically lock the Compensator unit during operations.
- **Low Maintenance Requirements**  
The use of corrosion resistant alloy components in the hydraulic system and cylinders ensure trouble free service in the harsh offshore environment.