



DYNAMIC POSITIONING SYSTEMS

ABS strengthens requirements for safer dynamic positioning systems with guidance that addresses a range of automation controls for marine vessels and offshore assets.

Dynamic Positioning (DP) systems, which are commonly found on a wide array of applications including offshore service vessels, drillships and shuttle tankers, enable vessels and offshore assets to maintain heading and position amid a variety of environmental conditions, such as wind, waves, currents, and sway, without deploying a conventional mooring or anchoring system.



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DP is provided by a control system that uses a vessel's thrusters, propellers, and sometimes even rudders to hold a vessel in one position and heading. The goal for DP is to be equally as safe as mooring systems and is used where typical mooring systems cannot be used. In the offshore world, DP is used by drilling units to enable drilling in deep water or other challenging areas. For logistics and service vessels, DP enables the support of offshore fields and installations.

ABS has been part of the dynamic positioning (DP) industry since its early development and even before the International Marine Organization (IMO) published its first DP guidance in 1994. To support the industry, the *ABS Guide for Dynamic Positioning Systems* addresses a range of topics including fault ride through, cross connections, direct current distribution systems and the application of batteries. ABS DPS notations meet and in some areas exceed IMO DP Guidelines, other Class society DP notations, and industry norms and standards.

Vessels with dynamic positioning are classed according to redundancy and single fault criteria. The redundancy in electrical systems, machinery, and control systems are analyzed in an FMEA and tested in DP Trials. ABS has experience with many designs and can assist with conceptual designs, risk assessments, and FMEA review process to identify capabilities and limitations of the vessel's DP system.

DP Basic Classification Notations

- **DPS-0, DPS-1, DPS-2, DPS-3**
- Aligned with IMO Guidelines for Vessels with Dynamic Positioning Systems

Station Keeping Notations

- **SKP**

Other Optional Enhanced System Notations

- **EHS-P** Enhanced power plant and thruster system
- **EHS-E** Enhanced electrical and power management systems
- **EHS-C** Enhanced control system
- **EHS-F** Fire and flood tolerance design

Remote Solutions: DP Remote Surveys now available! www.eagle.org/remotesurvey.

For additional assistance with Dynamic Positioning Systems, please contact globaloffshore@eagle.org



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