

Single Point Mooring (SPM)

Catenary Anchor Leg Mooring (CALM) Buoy

DESCRIPTION

Single Point mooring (SPM) are particularly suited to the handling of large tankers at offshore locations. The tanker is moored to a single buoy by one or two hawsers, with the buoy moored to the seabed by one or more anchor legs. A flexible hose system is used at an SPM to transfer cargo between the tanker and the seabed pipeline end manifold (PLEM), which allows a moored tanker to weathervane around the SPM.



CALM Bouy are moored to the seabed, typically using six or eight chains. The buoy and the tanker's midship are connected by a floating hose system, and the buoy and the PLEM are connected by a submarine hose system.

The turntable buoy has a fixed body with anchor chains around its perimeter. Heavy duty slewing bearing supports a rotating turn table on top of the buoy. All mooring force will be transferred through this three-race roller bearing (main bearing). The turntable typically carries three platform:

- The mooring platform connects the mooring hawser. Mooring platform accommodates the mooring bridle and load pin. Hawser system is connected to the mooring bridle to transfer the mooring load from the tanker to the turntable.
- Cargo piping support and/or hose piping platform.
- Counterbalance and/or boat landing platform.

Cargo piping passes through the buoy central space via a cargo swivel, over the turntable, and overboard to the floating hose arrangement. The centre well is normally open at the bottom, providing a moon pool in the centre of the buoy.

TECHNICAL SUPPORT SERVICES

PT. Lintech Duta Pratama is an experienced company in providing fabrication **services for marine work, shipbuilding & ship repair, offshore and onshore structures** and modules by establishing the required safety, quality and work procedure. This includes pipe and pipe spool fabrication and installation as well as structure steel fabrication for our clients in the marine and renewable sectors. Lintech provides **SPM inspection, maintenance, engineering, new build, repair, and refurbishment services.**

Our sales engineering support team provides valuable technical support to all customers as part of our commitment to quality and service excellence. Our services range from providing telephone advice on the best system for your needs to visiting operational terminals worldwide and recommending cost-effective solutions to in-service problems.

Our technical department, responsible for research, design and development, product engineering and quality data management.

REPAIR SINGLE POINT MOORING



SPM SO1179 before repairs



SPM SO1179 after repairs

NEW BUILD SPM

LINTECH SPM SPECIFICATION

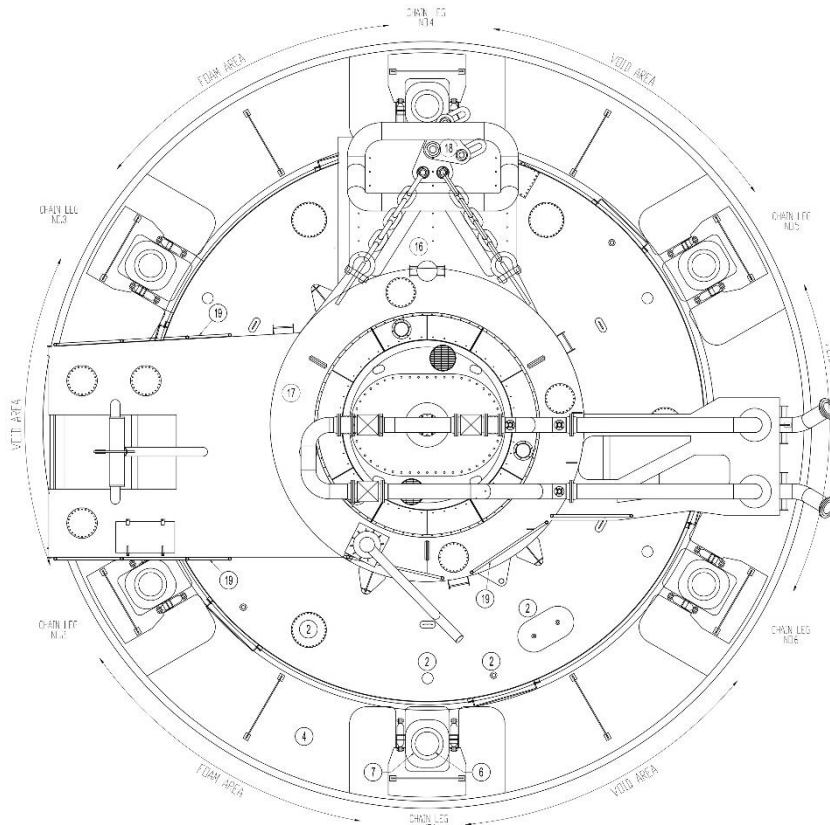
Water Depth : 10 – 70 m

Design Environmental Condition

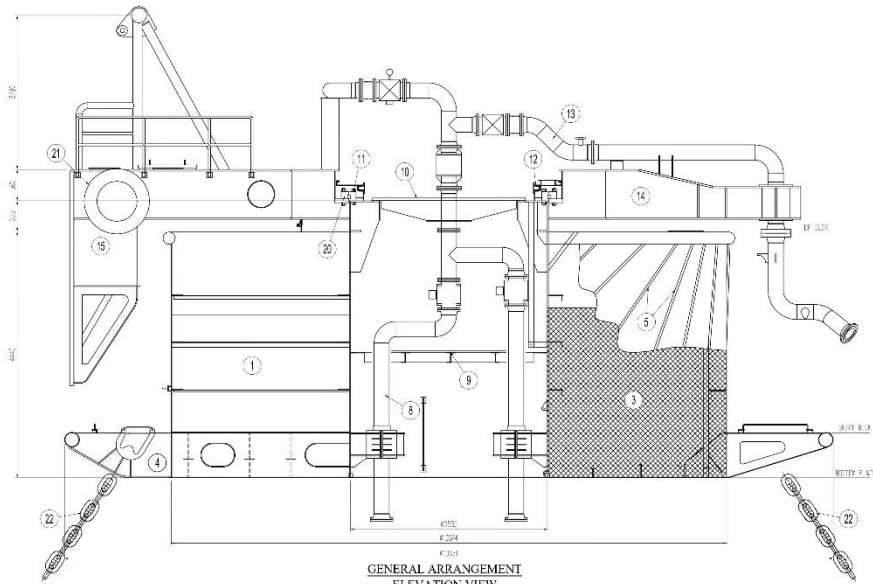
- Significant wave height : 1.48 – 6.8 m
- Current (various depth) : 0.14 – 2.36 m/s
- Wind speed (1hr mean) : 21.36 m/s

TECHNICAL DATA

Nominal Vessel Size [DWT]	35.000	250.000
Outside Hull Diameter [m]	8	10
Inside Hull Diameter [m]	1.15	3.55
Skirt Size [m]	11.25	13.87
Buoy Height [m]	3.7	4.4
Main Bearing	Triple Row Roller	
Fluid Transfer on Buoy [inch]	2 x 12"	2 x 10"
Fluid Transfer on Turn Table [inch]	16"	2 x 10"
Number of chain leg	4	6



GENERAL ARRANGEMENT
PLAN VIEW



GENERAL ARRANGEMENT
ELEVATION VIEW