



EQUIPMENT SELECTION

Mooring Hawasers

When selecting hawsers, terminal operators should take into account not only strength but also energy absorption and fatigue performance. Detailed information can be found in the OCIMF 2000 'Guidelines for the Purchasing and Testing of SPM Hawsers'.

The NWBS (New Wet Break Strength), energy absorption and fatigue performance of hawsers will deteriorate during service under the influence of factors such as service life, cyclic load history, hawser type, construction, environmental conditions, damage and stowage arrangements between use. Terminal operators should take these factors into account when determining the appropriate hawser for the mooring system and hawser retirement criteria.

Chafe Chains

Each mooring hawser should terminate at its shipboard end with a chafe chain. The standard recommend size of the chafe chain has been established at 76mm base on the diameter of the material forming the common stud links. Terminal operators should select the appropriate chain by taking into account the designed SPM mooring arrangement, SWL required and the properties of the chain grade selected. Typically chafe chains form a single chain of approximately 8 metres or more in length, composed of 76mm stud link chain. If through-type chain support buoys are utilised the length of the chain may have to be increased. Each chain should terminate, at the shipboard end with an oblong plate for connecting the chain to the pick up rope bow shackle.

Weak Links

Weak links, if fitted, should be selected such that the recommended bow chain stopper, chafe chain, hawser or connection to the SPM



SPM do not constitute the weakest yield strength of MBL component of the entire system. Weak links, if fitted, should be designed, manufactured and tested under a certification scheme.

Support Buoys

When the berth is unoccupied, each chafe chain may be supported by flotation devices. One method is to use a swivel ended type support buoy that is connected by a short length of chain to the end link of the chafe chain, adjacent to the hawser. Another method is to use a through type chain support buoy. Support buoys should have reserve buoyancy equivalent to at least 20% of the weight in air of the material to be supported.

Pick-up / Messenger Rope

The pick-up rope is connected to the ship end of the chafe chain and typically consists of 150 metres of floating rope (generally polypropylene based) complete with an eye at each end. The rope can vary in length from 120 – 180 metres, and in diameter from 64 – 80 mm. At some terminals where the pick-up rope is not kept connected to the chafe chain when the berth is unoccupied, differing arrangements may be employed to facilitate connection / disconnection of the pick-up rope.

Taken from the OCIMF 4th Edition "Recommendations for Equipment Employed in the Bow Mooring of Conventional Tankers at Single Point Moorings"



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