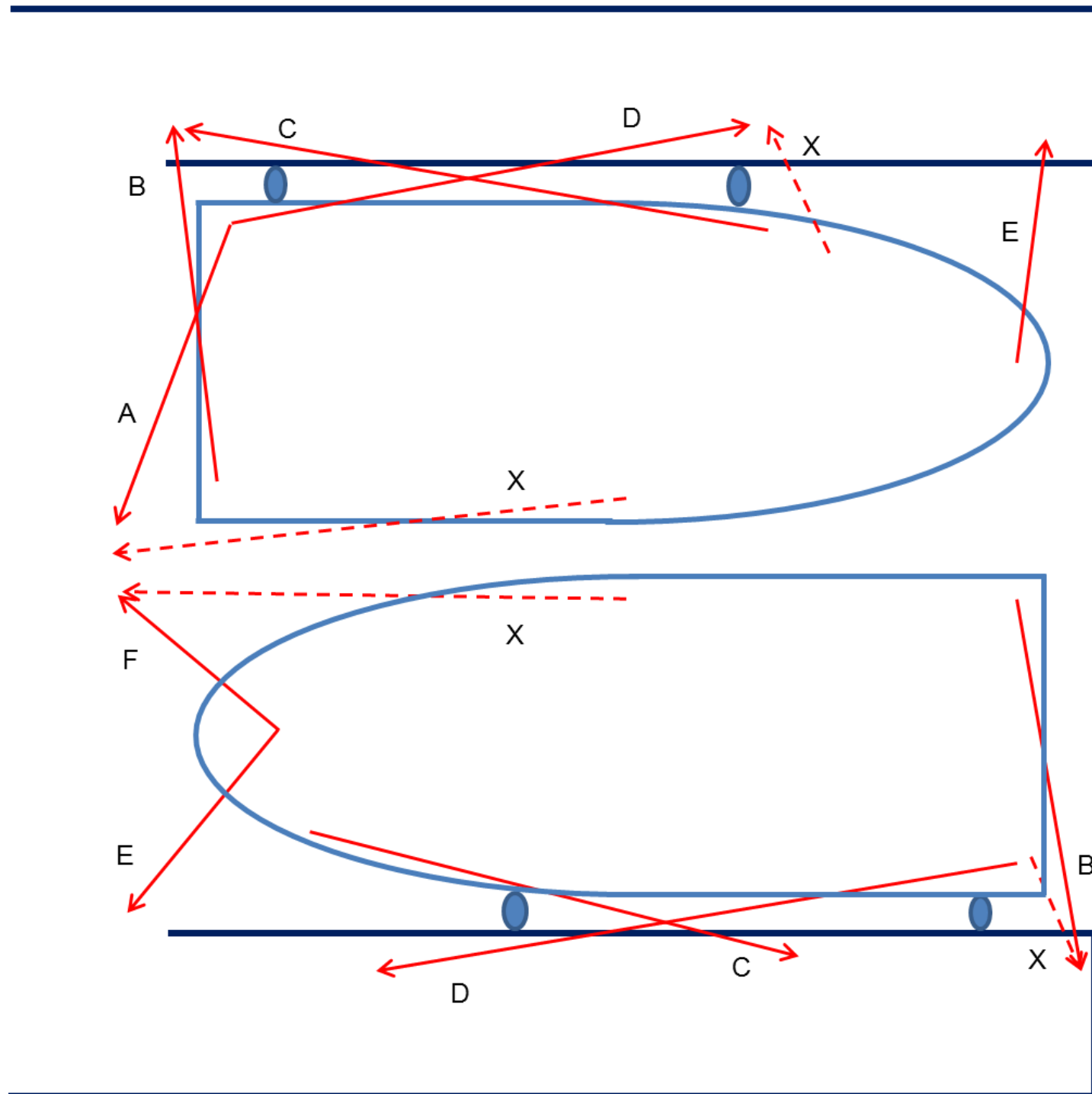


RECOMMENDED BERTHING LINE CONFIGURATION AND SIZE



LEGEND	
A	Port Stern line
B	Starboard Stern line
C	Bow Spring. Limits forward movement of Bow
D	Stern Spring. Limits aft movement of Stern. The combination of Bow and Stern Springs prevent the vessel from surging back and forth. Useful in loading operations.
E	Port Bow line
F	Starboard Bow line
X	Additional Breast and spring lines. For large boats. Optional for small boats, useful safety lines

General Considerations

1. Lines should be sized to allow for berthing stresses and shock loads, surface wear and tear, abrasion, UV degradation and salt water immersion as per point 3 below.
2. Lines should be stranded to allow splicing and be of split film polyethylene ('silver') and or nylon, sized for boat lengths as follows:
- 3.

Size of Boat (m)	Diameter (mm)
Up to 6.5	16
6.5 – 8	18
8-10	20
10-12	22
12-14	24
Over 14	26-28

4. Lines should not have knots in them as knots weaken lines. Loops should be spliced and appropriately sized so as to avoid the risk of detaching from cleats.
5. Lines should have a minimum of slack to reduce swinging and hence minimise shock loads on cleats and lines.
6. Lines should be as long as possible to provide the maximum flexibility to resist shock loads. This can be achieved by crossing stern lines and lengthening springs.
7. Doubled lines of smaller diameter than recommended should not be used as it is almost impossible to guarantee equal load sharing.
8. The attachment of lines to the portable sliding cleats from two boats should be avoided, especially from larger boats. This may result in damage to the tracks.
9. Attaching lines to cleats on the opposite side of the floating piers to which the boat is berthed should be avoided. This causes twisting of the pontoon and deck and may result in damage.
10. Splicing loops through pier cleats, such that they cannot be detached is not recommended. This can seriously delay movement of the boat in an emergency.