

October 1986

FIELD NOTE NO.: Water Transportation 1
Previous Note Reference Nos.: None (see TN-73)

SUBJECT: BOOMCHAIN SPECIFICATIONS

Boomchains are a critical element of coastal log transportation. Chain strength, and wear/corrosion resistance are the major considerations influencing service life. However, it is impossible to visually evaluate boomchain quality because of the variety of available grades and heat treatments used in fabrication. The problem is further complicated as used chains pass through a central transportation pool. Therefore, minimum strength standards are necessary to maintain boom security over chain service life.

FERIC was asked by our member companies to prepare a set of strength standards for new chain. Investigations of various international chain standards and discussions with boomchain users and suppliers led to the development of a Boomchain Specification Proposal.

These specifications are intended to provide guidance for both purchasers and manufacturers. They are not intended to stifle innovation and will be amended periodically as required.

SPECIFICATIONS:

- Type: Pacific Coast or Columbia River Pattern (Figure A).
- Material: Chain body and ring should be a carbon steel (AISI classification 1022) or high-tensile chain (high-strength, low-alloy steel; boron steel; or carbon/manganese steel).
- Toggles can be of flame-cut steel, forged steel, cast steel, or cast iron, providing the appropriate dimension is used (Figure B).

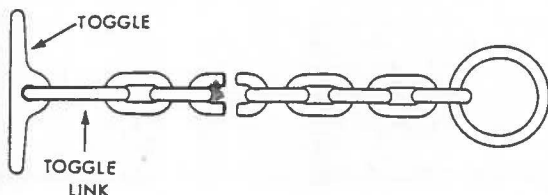


FIGURE A. Typical Pacific Coast Boomchain.



FIGURE B. Examples of Boomchain Toggles.

- Welding: All chain welds shall be free of welding defects and injurious imperfections.
- Ductility: Chain elongation at failure - 10% minimum (i.e., 21.3 cm (8.4 in.) for a 2.13-m (7 ft) chain).

