Groundfish Trawl Gear
Small Entity Compliance Guide
(CFR 660 Subpart C and D)

This guide explains updated gear regulations in the groundfish fishery, including revisions to the chafing gear restrictions for midwater trawl.

Guide Updated 12/3/2014

Types of Trawl Gear

Groundfish Trawl Gear

Groundfish trawl gear meets the requirements at 660 Subpart C and D and is fished on a vessel registered to a limited entry permit with a trawl endorsement.

Groundfish trawl gear falls into two main categories; midwater trawl and bottom trawl. Midwater trawl is a trawl in which the otter boards and footrope of the net remain above the seabed. Midwater trawl may be used for both pelagic and off bottom fishing, and includes pair trawls if fished off the bottom. Bottom trawl is a trawl in which the otter boards or the footrope of the net are in contact with the seabed. Any trawl not meeting the requirements for a midwater trawl is considered to be a bottom trawl.

Bottom trawl is further divided into large footrope and small footrope trawl gear and includes pair trawls fished on the bottom, selective flatfish trawl, and demersal seine gear (also called demersal trawl), Scottish seine or Danish seine).

Non-groundfish Trawl Gear

The open-access sector of the Pacific groundfish fishery, including pink shrimp trawl, ridgeback prawn trawl, California halibut trawl south of Pt. Arena, and sea cucumber trawl south of Pt. Arena are not subject to the regulations in this guide. Non-groundfish trawl gear is allowed to be used in those fisheries, which are subject to state regulations.

Bottom Trawl Gear Configurations

Large footrope is bottom trawl gear with a footrope diameter larger than 8 inches (20 cm,) and no larger than 19 inches (48 cm) including any rollers, bobbins, or other material encircling or tied along the length of the footrope. Lines or ropes that run parallel to the footrope may not be augmented with material encircling or tied along their length such that they have a diameter larger than 19 inches (48 cm).

Small footrope is a bottom trawl gear with a footrope diameter of 8 inches (20 cm) or smaller, including rollers, bobbins, or other material encircling or tied along the length of the footrope.

Demersal Seine Gear

Demersal seine is a type of bottom trawl gear designed to encircle fish on the seabed. Demersal seine is characterized by having its net bounded by lead-weighted ropes that are not encircled with bobbins or rollers. Demersal seine gear is fished without the use of steel cables or trawl doors. Scottish and Danish Seines are types of demersal seines. Purse seines are not demersal seines.

Selective Flatfish Trawl Gear

Selective flatfish is a type of small footrope trawl gear where the net must be a two-seamed net with no more than two riblines, excluding the codend. The breastline may not be longer than 3 ft (0.92 m) in length. There may be no floats along the center third of the headrope or attached to the top panel except on the riblines. The footrope must be < 105 ft (32.26 m) in length. The headrope must be not less than 30 percent longer than the footrope. For enforcement of headrope restrictions, the headrope shall be measured along the length of the headrope from the outside edge to the opposite outside edge.

This small entity compliance guide was prepared pursuant to section 212 of the Small Business Regulatory Enforcement Fairness Act of 1996 (SBREFA), Pub. L. 104-121. The statements in this document are intended solely as guidance. This document is intended to provide a plain-language summary of how small businesses can comply with regulations. Any discrepancies between this guide and the Federal Register will be resolved in favor of the Federal Register.

Effective January 1, 2015
Enforcement of footrope restrictions: the footrope is measured in a straight line from the outside edge to the opposite outside edge at the widest part on any individual part, including any individual disk, roller, bobbin, or any other device.

**Chafing Gear:**
Chafing gear is webbing or other material attached to the codend to protect the codend from wear.

Restrictions on chafing gear affect the proportion of the codend that can be covered, size of chafing gear sections, and attachment methods. Because doublewalled codends are prohibited, chafing gear may not be used to create a double-walled codend.

**On bottom trawl gear,** chafing gear may encircle no more than 50% the net's circumference and may be in one or more sections. Chafing gear may be used only on the last 50 meshes, measured from the terminal (closed) end of the codend. Only the front edge (edge closest to the open end of the codend) and sides of each section of chafing gear may be attached to the codend; except at the corners, the terminal edge (edge closest to the closed end of the codend) of each section of chafing gear must not be attached to the net. Chafing gear must be attached outside any riblines and restraining straps.

**On midwater trawl gear,** chafing gear may cover the bottom and sides of the codend in either one or more sections. Only the front edge (edge closest to the open end of the codend) and sides of each section of chafing gear may be attached to the codend; except at the corners, the terminal edge (edge closest to the closed end of the codend) of each section of chafing gear must not be attached to the net. Chafing gear is not permitted on the top codend panel except a band of mesh (a “skirt”) may encircle the net under or over transfer cables, lifting or splitting straps (chokers), riblines, and restraining straps, but must be the same mesh size and coincide knot-to-knot with the net to which it is attached and be no wider than 16 meshes.

**Footropes larger than 19 inches (48 cm) like the one pictured above are prohibited (660.313(a)(3)).**

**Midwater Trawl Gear**
Midwater trawl gear must have unprotected footropes at the trawl mouth, and must not have rollers, bobbins, tires, wheels, rubber discs, or any similar device anywhere on any part of the net. The footrope of midwater gear may not be enlarged by encircling it with chains or by any other means. Ropes or lines running parallel to the footrope of midwater trawl gear must be bare and may not be suspended with chains or any other materials. Sweep lines, including the bottom leg of the bridle, must be bare. For at least 20 ft (6.15 m) immediately behind the footrope or headrope, bare ropes or mesh of 16-inch (40.6-cm) minimum mesh size must completely encircle the net.

**Mesh and Mesh Size**
Minimum mesh sizes are intended to reduce the catch of juvenile and small unmarketable fish.

These rules include:
- **Bottom trawl net,** codend and chafing gear meshes can be no smaller than 4.5 inches (11.4 cm).
- **Midwater trawl net,** codend and chafing gear meshes can be no smaller than 3.0 inches (7.6 cm).

Enforcement: Minimum trawl mesh size requirements are met if a 20-gauge stainless steel wedge, less one thickness of the metal wedge, can be passed with only thumb pressure through at least 16 of 20 sets of two meshes each of wet mesh. (660.130(2)).

**Double bar mesh** (double twine tied into a single knot) is allowed in both midwater and bottom trawl. However, only single-walled codends may be used in any trawl. Double-walled codends (constructed of two walls / layers of webbing) are prohibited.

**Other Prohibited Gear**

**Beam Trawls and dredges are prohibited (660.12(a)).**
Breastline: a rope or cable that connects the end of the headrope and the end of the trawl fishing line along the edge of the trawl web closest to the towing point.

Beam Trawl Gear: uses a beam to hold the trawl open during fishing rather than otter boards or doors and is prohibited in the groundfish fishery Chafing Gear: webbing or other material attached to the codend of a trawl net to protect the codend from wear.

Codend: the terminal, closed end of a trawl net.

Double-walled codend: a codend constructed of two walls (layers) of webbing.

Single walled codend: a codend constructed of a single wall of webbing knitted with single or double-bar mesh.

Double bar mesh: webbing comprised of two lengths of twine tied into a single knot.

Footrope: a chain, rope, or wire attached to the bottom front end of the trawl webbing forming the leading edge of the bottom panel of the trawl net, and attached to the fishing line.

Headrope: a chain, rope, or wire attached to the trawl webbing forming the leading edge of the top panel of the trawl net.

Rollers or bobbins: devices made of wood, steel, rubber, plastic, or other hard material that encircle the trawl footrope. These devices are commonly used to either bounce or pivot over seabed obstructions, in order to prevent the trawl footrope and net from snagging on the seabed.

Trawl fishing line: a length of chain, rope, or wire rope in the bottom front end of a trawl net to which the webbing or lead ropes are attached.

Ribline: a heavy rope or line that runs down the sides, top, or underside of a trawl net from the mouth of the net to the terminal end of the codend to strengthen the net during fishing.

Selective flatfish trawl gear: a type of small footrope trawl gear. Lines or ropes that run parallel to the footrope may not be augmented with material encircling or tied along their length such that they have a diameter larger than 8 inches (20 cm).