Standard Components - Series 150 Releasing and Circulating Overshots

Top sub - The top sub is the uppermost component of the assembly. It is equipped with a box connection, as specified by the customer, to assure proper make-up with the fishing string.

Bowl - The bowl is the major working component of the overshot. The upper end of the bowl is threaded for assembly with the top sub. The lower end is threaded for assembly with the standard guide. A helix-shaped configuration inside the overshot bowl provides a tapered spiral surface on which the grapple will be assembled. Once the grapple has engaged the fish, an upward strain will cause the grapple to be compressed by the movement of the matching tapers. The greater the pull, the stronger the grip. The strain is evenly distributed over the entire working surface of the bowl and the grapple. This minimizes any possible damage to the bowl or the fish.

Standard guide - The standard guide is the lowermost component of the assembly. It guides the fish into the overshot, allowing the internal gripping mechanism to properly engage and grip the fish. The guide also prohibits the entry of a fish that exceeds the maximum catch of the overshot. This minimizes any possible damage to the overshot assembly.

Oversized Guide - When the hole size is considerably larger than the diameter of the fish, there may be sufficient room for the overshot to pass alongside of the fish without engaging it. In this case, an oversized guide can be used to assure fish engagement and to properly guide the fish into the overshot.

Spiral Grapple - The spiral grapple is a left-hand helix that conforms to the inside of the overshot bowl. Especially hardened wicker threads assure a positive grip to engage the fish securely.

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Basket Grapple - The basket grapple is a slotted cylinder with an external helix that conforms to the interior of the overshot bowl. Especially hardened wicker threads assure a positive grip to engage the fish securely. Three types of basket grapples are available:

- The standard basket grapple is used to catch a fish with a uniform outside diameter. The fish passes completely through the grapple during engagement. This type of grapple is standard equipment.
- The long catch stop basket grapple has an internal shoulder at its upper end to prevent the fish from passing completely through the grapple. When engaging a coupling or upset section of a tool joint, this shoulder positions the control packer for optimum pack-off around the fish.
- The short catch stop basket grapple has two sets of internal wickers cut on different diameters. It is used to engage a coupling with a short section of pipe protruding above it. The upper or smaller diameter wickers catch the pipe above the collar, providing a stop against the coupling so that it can be caught by the lower set of wickers and packed-off by the control packer.

Grapple Controls - Grapple controls transmit torque from the overshot bowl to the grapple while allowing the grapple to move vertically inside the bowl.Spiral grapple controls are furnished without milling teeth or a pack-off mechanism. Basket grapple controls can be furnished plain, with pack-off capabilities, or with milling teeth and pack-off capabilities.

Pack-off Mechanism - A pack-off mechanism is necessary if circulation is required during the fishing operation. Packing off assures circulation through, rather than around, the fish. The pack-off system employed will depend on the type of grapple selected. If the overshot is equipped with a spiral grapple, a type A packer is used to seal between the overshot bowl and the fish. If a basket grapple is used, pack-off is achieved by the inner seal on the control packer.

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