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TITLE OF THE INVENTION

FISHING REEL HAVING A MOVEABLE THUMB REST

BACKGROUND OF THE INVENTION

A. FIELD OF THE INVENTION

The invention relates to a fishing reel having a thumbrest where the thumbrest is moveable.

B. DESCRIPTION OF THE RELATED ART

There are some fishing reel designs where the fishing reel is relatively small. During the casting process using such small fishing reels, it is possible to grasp both the fishing rod and a portion of the fishing reel with a single hand. With such a configuration, fisherman often put their thumb on a portion of the fishing reel in order to maintain a better grasp on the rod and reel. A problem arises in that the thumb often engages a portion of the fishing line spool when the rod and reel are held with a single hand.

Recently, a thumbrest has been added to a fishing reel at a portion of the reel housing corresponding to the typical position of the thumb's engagement with the reel. The thumbrest covers a portion of the spool to prevent the thumb from engaging the spool. Such a thumbrest is disclosed in Japanese publication number 6-7477, published on February 1, 1994 and originally Japanese application number 4-52925, filed on July 3, 1992. The fishing reel housing has a generally arcuate contour and an overall egg shaped profile when viewed from the side. The above thumbrest is slidable and slides along a generally straight pair of tracks formed in the fishing reel housing from a first position to a second position. In the first position, the thumbrest covers a portion of the line guide mechanism. In the second position, a portion of the thumbrest extends outside of the tracks and further extends outside of the fishing reel housing and beyond the profile of the fishing reel housing. The thumbrest is vulnerable to breakage when in the second position due to the thumbrest extending beyond edge of the tracks in the

housing. Further, the thumbrest limits and may even prevent access to the line guide for, for instance, inserting a new line through the line guide.

SUMMARY OF THE INVENTION

One object of the present invention is to provide a fishing reel with a thumbrest which does not limit access to the line guide of the fishing reel.

Another object of the invention is to provide a fishing reel with a slidable thumbrest which does not extend beyond the profile of a fishing reel housing regardless of the position of the thumbrest.

In accordance with one aspect of the present invention, a fishing reel for a fishing rod includes a reel housing. The reel housing has side portions formed with an arcuate profile. An attachment member is fixed to the reel housing for attachment to a fishing rod. A thumbrest is supported on the side portions. The thumbrest is configured for sliding movement with respect to the reel housing from a first position to a second position along a portion of the arcuate profile of the side portions.

Preferably, the thumbrest is configured to slide from the first position to the second position in a direction generally parallel to a length of the fishing rod.

Preferably, the side portions are configured to support a line spool therebetween. The side plates each are formed with a recess extending in a direction that is generally parallel to the arcuate profile. The thumbrest is formed with at least two opposing pins, each of the protrusions extending into a corresponding one of the recesses in a corresponding one of the side plates. Portions of the recesses define the first position and the second position.

Preferably, the recesses are formed with first and second pairs of humps, the humps being configured to engage the protrusions of the thumbrest thus defining the first and second positions.

Preferably, a level winding mechanism is supported on the side portions. The level winding mechanism extends between the side portions. The level winding mechanism has a line guide supported thereon. The line guide is at least partially covered by the thumbrest with the thumbrest in the first position, and the line guide is exposed with the thumbrest in the second position.

Preferably, the attachment member is attached to a first side of the reel housing and the thumbrest is supported on the reel housing on a second side of the reel housing, generally opposite from the first side.

Preferably, the pins and the thumbrest are formed homogeneously of a single material.

Preferably, the pins are made of a stainless steel material and are inserted into apertures formed in portions of the thumbrest.

These and other objects, features, aspects and advantages of the present invention will become more fully apparent from the following detailed description of the present invention when taken in conjunction with the accompanying drawings where like reference numerals denote corresponding parts throughout.

BRIEF DESCRIPTION OF THE DRAWINGS

Fig. 1 is a perspective view of a fishing reel showing a slidable thumbrest in accordance with a first embodiment of the present invention;

Fig. 2 is an underside view of the slidable thumbrest, on a slightly enlarged scale, shown removed from the fishing reel depicted in Fig. 1;

Fig. 3 is a part elevation, part cross-sectional side view of the fishing reel having another slidable thumbrest in accordance with a second embodiment of the present invention;

Fig. 4 is a perspective, exploded view of the fishing reel depicted in Fig. 3, with portions of the fishing reel are removed to provide greater clarity of features of the

fishing reel frame and second embodiment of the slidable thumbrest;

Fig. 5 is a cross-sectional side view of the fishing reel depicted in Figs. 1, 2, 3 and 4, showing the slidable thumbrest in a rearward position representative of both the first and second embodiments; and

Fig. 6 is a cross-sectional side view similar to Fig. 5, showing the slidable thumbrest in a forward position.

DETAILED DESCRIPTION OF THE PREFERRED EMBODIMENTS

A fishing reel 1 is shown in Fig. 1 in accordance with a first embodiment of the present invention. The fishing reel 1 includes a left side plate 6 and a right side plate 7 which are attached to a frame 9. A handle assembly 2 and star drag 3 are supported by the frame 9 adjacent to the right side plate 7. Further, a spool 15 is also supported within the frame 9. An attachment member 10 is also provided under the frame 9 for attachment to a fishing rod (not shown).

A mechanism (not shown) is provided within the frame 9 which causes the spool 15 to rotate in response to rotation of the handle assembly 2 in a manner known in the art. A level wind guard 20 covers a portion of a worm shaft assembly (not shown). A line guide 21 is supported on the worm shaft assembly and level wind guard 20. The line guide 21 is configured to reciprocate back and forth between the left and right side plates 6 and 7 within the frame 9 in a manner well known in the art for guiding a fishing line (not shown) onto the spool 15.

A thumbrest 25 is supported on the frame 9 in a manner described below. Each side of the frame 9 is formed with generally parallel elongated recesses 30. In Fig. 1, only one of the recesses 30 is shown. The recesses 30 are more clearly shown in Fig. 4. Each recess 30 is formed with a plurality of protrusions 30a. Two of the protrusions 30a are positioned near the front of the recess 30 (left side of Fig. 1 and right side of Figs. 3 and 4), and a third

single protrusion 30a is located near a rearward end of the recess 30 (right side of Fig. 1 and left side of Figs. 3 and 4).

In the first embodiment (Figs. 1 and 2) the thumbrest 25 is formed on an underside with two generally parallel flanges 25a. Each flange 25a is formed with an aperture 25b. Two pins 35 are employed with the thumbrest 25, one pin 35 being inserted into each aperture 25b, each pin 35 further extending into a corresponding recess 30. The pins 35 secure the thumbrest 25 to the frame 9 but allow the thumbrest 25 to slide along the length of the recesses 30.

The thumbrest 25 may be manufactured from a generally rigid polymer material or may alternatively be made from a metallic material. The pins 35 may also be manufactured from a plastic or polymer material but, in a preferred embodiment, the pins 35 are preferably made of a stainless steel such that sliding within the recess 30 is generally smooth and friction free.

The recesses 30 and the protrusions 30a are shown more clearly with respect to Figs. 4, 5 and 6. Figs. 4, 5 and 6 depict a thumbrest 125 in accordance with a second embodiment, which is discussed in greater detail below. However, it should be appreciated that the frame 9 and corresponding recesses 30 are the same in both embodiments. Further, in Fig. 4, the left side plate 6 and the right side plate 7 have been removed from the frame 9 in order to provide a better view of the recesses 30.

The frame 9 is formed with a stopper surface 9a which is formed at the rear end of an upper recess 9b. A stopper surface 9a and upper recess 9b are formed on right and left sides of the frame 9 above the recesses 30. Each upper recess 9b has a generally arcuate contour, as is more clearly shown in Figs. 3, 4, 5 and 6. Correspondingly, the surfaces of the thumbrest 25 are likewise formed with arcuately contoured surfaces. The recesses 30 are formed with an arcuate contour such that the recesses 30 are

generally parallel with the upper recesses 9b. In other words, the recesses 30 are generally equidistantly spaced apart from corresponding upper recesses 9b.

A forward stopper 40 is attached to the front of the frame 9 as shown in the exploded view in Fig. 4. The forward stopper 40 is formed with upper legs 40a. The upper legs 40a cover the front ends of each recess 30.

Operation of the first embodiment is generally the same as the second embodiment and therefore, description of the operation of the second embodiment, which follows the description of the structural features of the second embodiment provided below, also applies to the first embodiment.

A second embodiment of a thumbrest 125 in accordance with the present invention is depicted in Figs. 3, 4, 5 and 6. Many features of the first embodiment are present in the second embodiment. For instance, the frame 9 supports the spool 15. A line L is shown extending from the spool 15 and further extending through the line guide 21.

A thumbrest 125 is installed on the upper surface of the frame 9 within upper recesses 9b, as shown in Figs. 3, 4, 5 and 6. The thumbrest 125 is formed with flanges 125a, as shown in Fig. 4. Each flange 125a is formed with a pin 125b. The thumbrest 125, flanges 125a and pins 125b may be manufactured from a generally rigid polymer material or may alternatively be made from a metallic material such as a stainless steel material such that sliding within the recess 30 is generally smooth and friction free. In the second embodiment, the thumbrest 125, flanges 125a and pins 125b are all manufactured as a single member from a single material. However, the pins 125b may alternatively be welded or otherwise adhered to the flanges 125a.

The pins 125b extend into the recesses 30 and securely hold the thumbrest 125 against the surface of the upper recesses 9b. Likewise, with reference to the first embodiment, the pins 35 extend into the recesses 30 and

securely hold the thumbrest 25 against the surface of the upper recesses 9b.

With reference to Figs. 5 and 6, the operation of the thumbrest 125 (and the thumbrest 25) is described below. It should be appreciated that operation of the second embodiment and the first embodiment are generally the same. In Fig. 5, the thumbrest 125 is shown in a rearward position with a rear edge of the thumbrest 125 in engagement with the stopper surface 9a. In the rearward position shown in Fig. 5, the pins 125b are positioned at a rear portion of the recesses 30 and are retained in position by one of the protrusions 30a. The engagement of the protrusion 30a with the pins 125b locks the thumbrest 125 into the rearward position. It should be appreciated, however, that the protrusions 30a are given dimensions that allow movement of the pins 125b and the thumbrest 125 when the thumbrest 125 is provided with sufficient force.

The thumbrest 125 may be moved in directions indicated by the arrows A from the rearward position shown in Fig. 5 to a forward position shown in Fig. 6. In Fig. 6, the pins 125b are engaged between the two protrusions 30a within the recess 30. By applying a moderate amount of force to the thumbrest 125 (or the thumbrest 25), the thumbrest 125 can be moved easily between the forward and rearward positions.

With the thumbrest 125 or the thumbrest 25 in the rearward position, the line guide 21 is more easily accessible for, for instance, inserting the line L into the central opening thereof. With the thumbrest 125 or 25 in the forward position, as shown in Fig. 6, the line guide 21 is partially covered such that a fisherman can grasp both a fishing rod and the fishing reel 1, placing a thumb on top of the thumbrest 125 (or the thumbrest 25) in order to have better control over movement of both the rod and the fishing reel 1.

One advantage to the present invention is the support provided by a thumbrest such as the thumbrests 25 and 125.

Further, the sliding movement of the thumbrests 25 and 125 about an arcuate surface, such as the surface of the upper recesses 9, permits easy and simple access to the line guide 21 without disassembly of the frame 9 or removal of the thumbrests 25 and 125. The present invention provides a quick and easy way to access the line guide 21.

The thumbrests 25 and 125 are also completely protected along their respective edges by the sides of the fishing reel 1 and are not easily broken since the thumbrests 25 and 125 are always confined within the overall profile of the fishing reel 1 regardless of their slidable position.

Various details of the invention may be changed without departing from its spirit nor its scope. Furthermore, the foregoing description of the embodiments according to the present invention is provided for the purpose of illustration only, and not for the purpose of limiting the invention as defined by the appended claims and their equivalents.

CLAIM

1. A fishing reel for a fishing rod, the fishing reel comprising:

a reel housing, said reel housing having side portions formed with an arcuate profile;

an attachment member fixed to said reel housing for attachment to a fishing rod; and

a thumbrest supported on said side portions, said thumbrest being configured for sliding movement with respect to said reel housing from a first position to a second position along a portion of said arcuate profile of said side portions.

2. The fishing reel as set forth in claim 1, wherein said thumbrest is configured to slide from the first position to the second position in a direction generally parallel to a length of the fishing rod.

3. The fishing reel as set forth in claim 1, wherein:
said side portions are configured to support a line spool therebetween, said side plates each being formed with a recess extending in a direction that is generally parallel to said arcuate profile; and

said thumbrest is formed with at least two opposing pins, each of said protrusions extending into a corresponding one of said recesses in a corresponding one

of said side plates, and portions of said recesses defining the first position and the second position.

4. The fishing reel as set forth in claim 3, wherein said recesses are formed with first and second pairs of humps, said humps being configured to engage said protrusions of said thumbrest thus defining said first and second positions.

5. The fishing reel as set forth in claim 1, further comprising:
a level winding mechanism supported on said side portions, said level winding mechanism extending between said side portions, said level winding mechanism having a line guide supported thereon; and

wherein said line guide is at least partially covered by said thumbrest with said thumbrest in said first position, and said line guide is exposed with said thumbrest in said second position.

6. The fishing reel as set forth in claim 1, wherein said attachment member is attached to a first side of said reel housing and said thumbrest is supported on said reel housing on a second side of said reel housing, generally opposite from said first side.

7. The fishing reel as set forth in claim 3, wherein said pins and said thumbrest are formed homogeneously of a single material.

8. The fishing reel as set forth in claim 3, wherein said pins are made of a stainless steel material and are inserted into apertures formed in portions of said thumbrest.