

### Ambassadeur 6500C3 service

The ultracast Ambassadeurs are simple reels to service and routine maintenance can be carried out by anybody. It doesn't take long and your reel will thank you for it! The 4xxx, 5xxx and 6xxx series reels are all pretty much the same internally so if you can do one reel you should be able to do the others.



Pic 1

Dirty reel waiting for a service.

This particular Ambassadeur belongs to a friend of mine; as a thank you for a fishing trip in his boat I offered to give it a bit of a clean. It looks a bit rough and the drag was non-existent but Ambassadeurs can take a lot more abuse than this and still be brought back to top working condition. Just to illustrate how robust they are here's a couple of pictures from another reel I cleaned for him; for the last few years this reel lived in the bottom of a tinny left in his drive way:-



From this.....Photo i

Photo ii



Photo iii

....to this. It looked terrible but all it actually needed was a new IAR bearing, two spring washers and some drag washers. Still, if you know anyone like him better to lend him your other reels to trash (if you have any other makes) and keep your ABUs for yourself!

To carry out a service all you need are some decent screwdrivers (that won't mash up the screw heads) and a spanner for the handle nut. Choice of reel oil and grease varies as everyone will have their preference, there's nothing wrong with the oil supplied with your reel. For this service I've used Daiwa blue grease as it shows up nicely on the photos.

Kitchen towel and rags are useful and I find an old toothbrush great for removing ingrained dirt. Cotton buds and pipe cleaners also come in handy. I tend to use nothing more than washing up liquid to clean parts but as these contain wetting agents (salt) it is essential to rinse thoroughly and dry properly. When you've cleaned the parts you should feel happy that they are clean enough to dry on the tea towel (but we wouldn't do this). If grease and oil is stubborn then I will use lighter fuel or shellite (needed anyway for cleaning the bearings)—just be careful to keep any solvents away from plastic and rubber parts.

I'm certainly no expert but I carry out all my own maintenance on my ABUs. Please feel free to make comments or provide tips; I have picked up so much useful information from other people as everyone has their own way of servicing and tweaking their reels. This is how I do a basic service on my reels and hopefully you'll find it useful.

A nice clean well lit surface to work on is a bonus-it beats working on a sheet of bubble wrap on the dining room table!



Pic 2

Undo the three thumbscrews holding the right side plate to the frame and remove the right side plate and spool.



Pic 3

The spool can be pulled off the drive shaft.



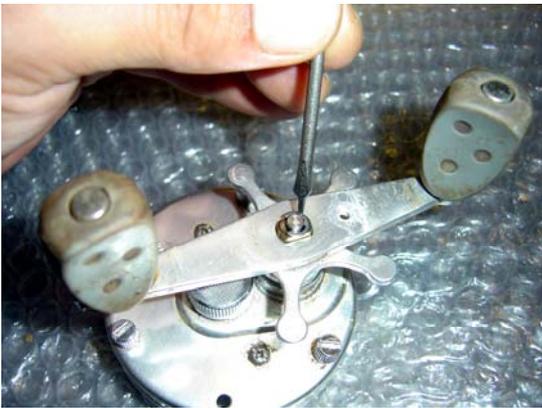
Pic 4

And with a firm pull the drive shaft can be pulled out – it's held in place with a plastic retaining clip in the right spool cap and may require a bit of a tug.



Pic 5

Remove the screw holding the handle lock plate in place and remove the lock plate and then the handle nut.



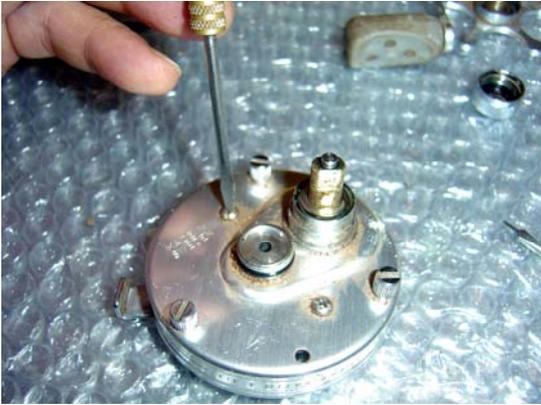
Pic 6

Remove the c-clip retaining the drive shaft. I have filed down an old screwdriver to fit and it makes the job nice and easy. These c-clips like to fly off into the distance so keep hold of it as you are removing it. Alternatively you could carry this out with the reel in a plastic bag!



Pic 7

Remove the handle and lift off the friction washer and unscrew the star drag. Remove the spool tension knob.



Pic 8

Remove the two screws holding on the side plate and the side plate should lift off. The two spring washers that sit under the star drag will lift off with the side plate, as may the sleeve for the IAR bearing



Pic 9

In this picture the sleeve is shown still sitting on the drive shaft.



Pic 10

The drive shaft and everything on it can be lifted off as a unit-just make sure that you don't lose the copper shim that sits on the bottom of the drive shaft-this is an important part!



Pic 11

Here is everything laid out in order from top to bottom (left to right).



Pic 12

Pull off the position holder and the pinion yoke can be lifted off.



Pic 13

The pinion gear simply pulls out of the yoke (position holder shown at left of picture).



Pic 14

The clutch arm, release trigger and the link arm can then be removed (in that order).

Now is the time to give everything a good clean-remove all of the old grease and oil and attend to any signs of corrosion. For the drag washers (fibre and metal), I wipe them down with a clean rag with some lighter fluid on. An old toothbrush is great for removing all of the crud from the gears. Everything should be squeaky clean and dry before you start reassembling. I find a cotton bud soaked in lighter fuel good for cleaning the ring that the centrifugal brakes contact (on the other side of the brake plate).



Pic 15

First part to go on the brake plate is the link arm. Give a light coat of grease to the side that sits on the brake plate and a light coat of grease to the stud it sits on.



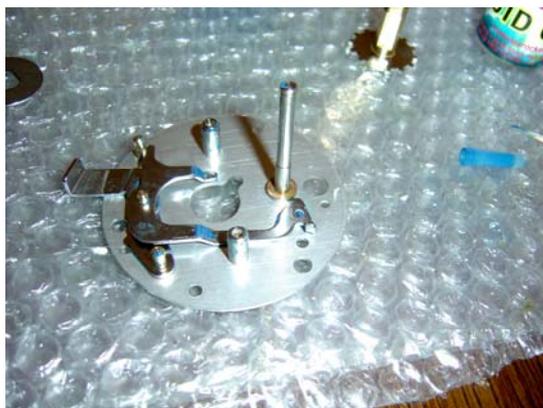
Pic 16

Next part is the release trigger-again a light coat of grease where it sits on the link arm and where it contacts the brake plate.



Pic 17

Put a light coat of grease on the clutch arm where it sits on the brake plate and the release trigger.



Pic 18

And also some where it comes into contact with the pinion yoke.



Pic 19

The pinion gear pops back into the yoke (note correct orientation) and add a dab of liquid grease where the two surfaces contact. I like to turn the pinion gear with my fingers to make sure the grease is spread around.



Pic 20

Put a thin smear of grease on the studs the pinion yoke sits on and then put the pinion yoke on followed by the position holder (ignore the drive shaft in this photo!).



Pic 20a

Add a dab of liquid grease to the base of the drive shaft stud and add the copper shim (don't worry that everything that we just put on the brakeplate has disappeared-I took these photos out of sequence!).

Add a smear of liquid grease to the drive shaft stud (I find oil too thin and grease too thick).



Pic 20b

And on goes the driveshaft.

Everyone has their preference regarding dry drags and greased drags. I personally like to run my drags dry but in this instance I will be greasing them-I know that this reel will get wet and dirty (and not maintained!) and so to minimize water intrusion into the drag stack it will be greased. It should be noted that the base drag washer should be greased regardless if the other washers are run dry or not.



Pic 21

A drag specific grease should be used. The washers should be coated lightly and excess grease removed. Less is definitely more and I like to be able to *just* see my fingerprints when I touch the greased washers. A greased washer and dry washer should look pretty much the same-just for comparison in this photo all the washers are greased apart from the far left one. This will be greased before going in the drag stack.



Pic 22

The first washer to go on is the smallest one. In some cases the washer may be the same size as the others but of a different material. Put a smear of grease (the same drag grease) on the drive shaft where it contacts the main gear-THIS IS IMPORTANT (if you want your drag to work properly)! I find a toothpick or a matchstick useful for this.



Pic 23

Add the main gear and a drag washer.



Pic 24

Then add the base metal washer.



Pic 25

Then a fibre washer followed by the metal washer with the two 'ears' and another fibre washer.



Pic 26

And the finally top washer on top!



Pic 27

Add a light coating of grease to the main shaft, especially the threads.



Pic 28

And then slide on the IAR bearing sleeve. Some sleeves on older Ambassadeurs may only be keyed at one end, if that is the case then the keyed end should sit on top of the drag plate.



Pic 29

Add a light coating of grease to the gears, I like to spin the gears with my fingers to ensure good coverage at the base of the teeth and then wipe off any excess. Make sure that you don't have so much grease that it spills into the drag washers.



Pic 30

When adding the side plate make sure that the 'ears' of the middle metal drag washer are sitting properly in the grooves of the main gear. Add some grease to the screws and snug up tight-but don't over tighten.

If your anti-reverse is a bit iffy and you have back play in your handle then the bearing may need a clean before attaching the side plate. I use a cotton swab soaked in lighter fuel and run it round the inside of the rollers. When it is clean I let it dry and then run another swab with a few drop of oil on around the rollers. It is important not to over lubricate as the bearing relies on friction to work.



Pic 31

Lightly grease the two spring washers and add them to the drive shaft. They should sit like ( ) on the shaft. Add a drop of oil to the inside of the spool tension knob. Grease the threads and o ring for the spool tension knob with some o ring friendly grease and reattach the knob. Don't tighten it down too far as you will need space to attach the spool axle.



Pic 32

Add the star drag and the friction washer-note the correct washer orientation and don't forget to give a light coat of grease. Sometimes the star drag will stick as you are attaching it-just grab the top of the drive shaft to stop it turning and you will be able to tighten up the star drag.



Pic 33

Add the handle and the c-clip. You can now put on the handle nut and attach the locking plate and screw. Put this 'finished' right hand plate to one side while we continue with the rest of the reel.



Pic 34

Remove the three screws holding on the left side plate and it will lift off.



Pic 35

Remove the line carriage nut and lift out the pawl.



Pic 36

Remove the carriage screw lock.



Pic 37

The carriage screw (worm gear) and worm guard will slide out of the left hand side of the frame. Doesn't look like much lubrication here!



Pic 38

Everything is ready for a good clean before reassembly.



Pic 39

Put a drop of oil on the carriage screw at both ends-where it contacts the plastic bush in the cover and also near the gear where you need to let it soak past the plastic bushing. Assembly in the frame is the opposite of removal.



Pic 40

Make sure the pawl sits properly in the worm gear before adding the line carriage nut. Grease the threads and tighten the nut. Add a few drops of oil to the worm gear-one either side and one in the middle should be fine. Turn the cog at the end of the worm gear to make sure the oil is spread evenly in the grooves.



Pic 41

Add a drop of oil to the cog wheel where it sits on the side plate. I don't like to add grease to the gear teeth if they are plastic and there doesn't appear to be any increased wear- I can live with the extra noise! Liquid grease or a light grease would be good here if you prefer to grease them.



Pic 42

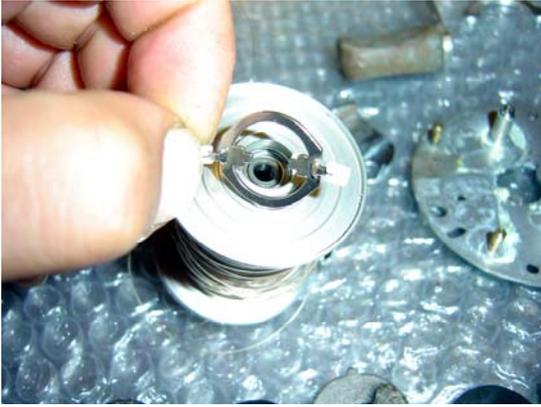
Then add the side plate to the frame, grease the screws and tighten them up (snug but not too tight). Put the frame to one side while we attend to the spool.

Ideally you should do the spool at the start of your reel service-this will give the bearings time to get clean soaking in solvent while you work on everything else.



Pic 43

Remove the snap ring from the right hand side of the spool.



Pic 44

The clutch washer holding the centrifugal brakes will lift out.



Pic 45

Remove the bearing. I use a bent paperclip and it works well.



Pic 46

Note the copper spring washer that sits under the bearing (note how contaminated the drag washers in the background were before cleaning-excess oil has found its way in).



Pic 47

The spool pinion gear simply pulls out of the other side of the spool as it is friction fit.



Pic 48

Remove the other bearing.



Pic 49

Leave the bearings to soak in lighter fluid. You can gently agitate the container to help loosen dirt. I find old film canisters useful as containers and the lid keeps the fumes down. Keep changing the fluid until it remains clear and no further old oil and dirt come out. You can see that these bearings are pretty dirty. You can check the bearings are clean by placing them on the tip of a pencil and rotating them-they should be nice and

smooth with no binding. Give them a spin and see what they are like. If they still feel rough put them back to soak some more. If it seems impossible to get them clean and smooth they may need to be replaced. If you're happy with the bearings leave them to dry on a piece of kitchen towel.

NOTE: The tension knob on the right side plate should not be used to apply tension to the spool to help with casting. Screwing this down is in effect applying tension to one side of the bearing. This does your bearings no good at all and will cause them to wear out prematurely. The tension knob should be set so that in free spool if you grasp the spool and try to push it from side to side there is just a slight 'knocking'.



Pic 50

When the bearings are completely dry add a drop or two of oil of your choice to each one and let it soak in past the races. I find Rocket Fuel Red Label nice and controllable for non mag reels.



Pic 51

Add the bearing to the left hand side of the spool and pop in the spool pinion gear.



Pic 52

Add the copper washer to the right side of the spool and then add the bearing.



Pic 53

Add the clutch washer and the snap ring. Make sure that snap ring is seated properly and ensure that the open part of the snap ring does not sit on the open part of the lip it sits under.



Pic 54

Put some oil on the spool shaft where it contacts with the pinion gear and pop it into the right side plate-it will probably appear stiff but it will 'click' into place.



Pic 55

Slide the spool onto the drive shaft. Make sure that the centrifugal brakes are pushed in. You may find it easier if you depress the free spool button to get the spool to sit properly. Add a drop of oil to the end of the spool pinion gear where it contacts the left side plate and the spool shaft.



Pic 56

Grease the studs on the right side of the frame and slide the whole assembly in. Snug up the thumb screws, and set the spool tension. A couple of drops of oil or liquid grease for the handle knobs and you're done!



Before (Pic 1)

After (Pic 57)

It certainly looks cleaner on the outside after its service but it's the difference on the inside that counts.

Have a beer to congratulate yourself secure in the knowledge that you have no one to blame but yourself if your reel fails when you have that fish of a lifetime on!

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