

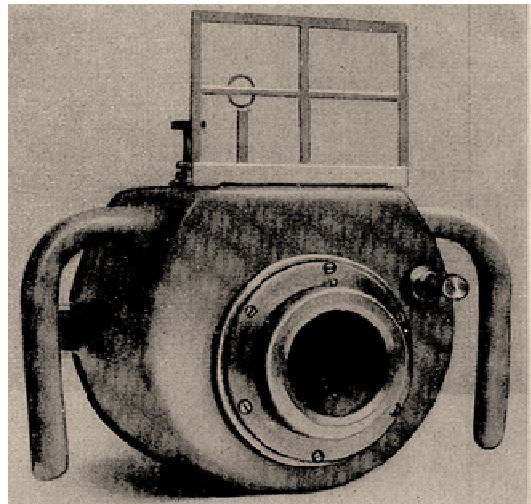
# Underwater Photography with an Exa

By *Hugo Ruys*

## The “Old Ones”: Exa-Marin I and II

The text about Exa-Marin is based on two articles, written by Friedrich-Karl Meyer from Warnemünde, (East) Germany.

The first model of the Examarin, a container to use the Exa under water, is mentioned in an article in the June 1955 issue of *Die Fotografie*, an East German magazine. This article covers underwater photography and containers in general. The Examarin I is made of sea water resistant “Hydrionalium”, an alloy of aluminium, and built by the author in 1954. The Exa inside has a Zeiss Tessar 3.5 (50mm I suppose). An underwater container should have at least two buttons or levers, to operate the film transport and the shutter. The author remarks that the light level under water is surprisingly high. A fixed shutter setting of 1/100 sec. usually suffices for a depth of 2-3 meters.



viewfinder, so that one can observe the distance and diaphragm settings on the lens.

The camera is operated with levers, running through bronze bushes. There are four levers: film transport, shutter release, distance setting and diaphragm setting. The body also has a

The second model, called EXA-MARIN II, is described in much more detail in the January 1957 issue of *Fototechnische Rundschau*, also an East German Magazine. The author describes the improvements of the EXA-MARIN II, built in 1956, over the first model, now called Exa-Marin.

The body is made of three pieces of 8mm hydrionalium, welded together, with two nuts. The camera is mounted on a bottom plate that is connected to the body with two bolts. The handles are welded to the body.

The window is 5mm thick crystal glass and has a diameter of 74mm, making it possible to use a 35mm wide-angle lens. This is useful because under water the focal length of a lens appears to be longer. The top plate has a viewfinder window of 4mm thickness. The window is larger than the waist level

flash contact. A lever for exposure setting is planned. The body is painted light grey to make it easy to find back when dropped; the frame viewfinder is white.

Such a container could also be built for the Exakta. The author however thinks that this is not very useful: one doesn't need shorter or longer exposure times than the Exa offers, and the Exa is cheaper and lighter. Klaus Wichmann in his book *EXA, die preiswerte Kleinbildreflex*, suggests that this Exa-Marin II was actually for sale.

The article is illustrated with several black-and-white pictures, originally taken in full colour.

## The “Golden One”: Revue Underwater Housing for Exa Ia

The Exa-Marins are theory to me, and probably only prototypes at best. The Revue Underwater Housing however is very real: I have seen several of them, I own one, and my daughter has tested my first one successfully. (See centre-fold colour pages i to iv.)

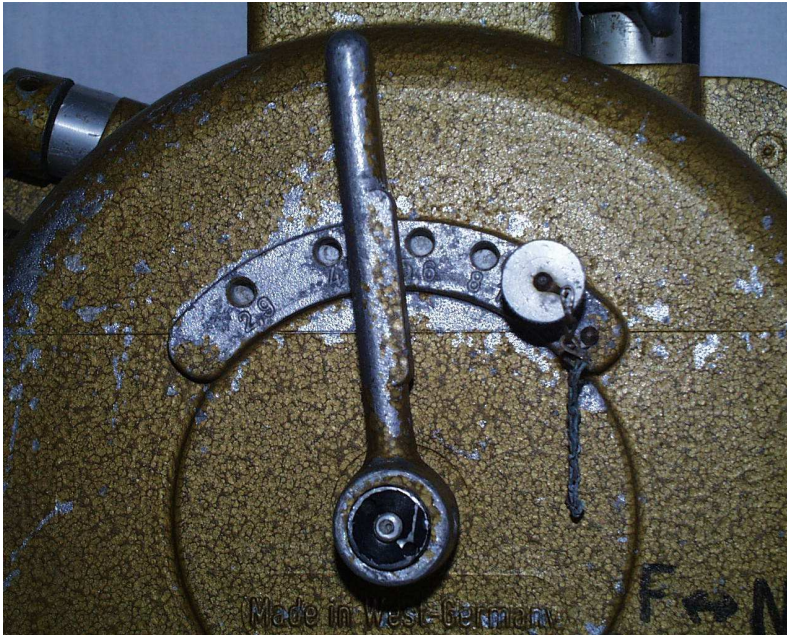


The Revue Housing was built by Heckenrainer & Co, Amalienstrasse 44 in Munich, Germany. In 1968 it was sold under the name Heco-Mar II, coloured blue, for DM 440. Mail order company Quelle sold the gold-coloured 'Revue' housing, with flash, for DM 349. It is designed to fit

the Exa Ia only. No other camera can be used. The Exa was very appropriate for this purpose, because it has a waist level view finder and a film transport lever, and because it was cheap. The only lens that fits this combination is one particular version of the Ludwig Meritar (see picture): the rings and cogwheels that connect the outside levers to the lens fit this lens only. As far as I know, there are no others.

The housing is opened and closed with four winged nuts. The front cover has a big rubber O-ring that seals the machine. 35 years old, this ring still looks and feels good, and it has been proven to be good. The carrying strap is white nylon but covered with a “golden” plastic tube, so it looks golden too.

On the outside, the housing has a lever for film transport, connected to the transport lever of the Ia, a lever to set the aperture and one to release the shutter. A knob operates the focussing ring of the lens. The Meritar is of the pre-set type, but that function of the lens can't be used



from the outside. Nevertheless, the housing does offer a pre-set function. The long aperture lever can be turned along a quarter-circle metal rim with six holes. A pin, connected to the housing by a little safety chain, can be put in the appropriate hole (2.9 – 4 – 5.6 – 8 – 11 – 16). Without looking, one can turn the diaphragm open or shut. Left is open, right to stop against the pin is closed. The maximum aperture of 2.9 already suggests the use of a Meritar, even

without a camera present.

The flash looks nice but isn't very useful. It connects with a normal plug to a socket on the front cover. Inside is the usual contraption to ignite a flash bulb. I didn't test it. I've been told that in muddy waters like in my country, a flash so close to the lens is useless: the mud particles will reflect most light back into the lens. Even in tropical waters it is recommended to use a flash with a much longer arm, and better still two of them. The former owner of my first Revue underwater housing has used a more professional looking, but nameless flash with a length of about 50 cm (20 inches for those without a calculator). He had screwed a special connector onto the housing to fit the flash. My current Revue is in its original state.



An accessory of this machine was a Viewer Lamp (Sucherlampe as described in the German manual) to support focussing under unfavourable lighting

conditions. It is supposed to have its own two 1.5 V batteries. I own only a photocopy of the three-page manual.

Of course I wanted to know if this thing still works. On the other hand, you will never find me under water, so I had to find somebody else for the test! Luckily, my youngest daughter and



her husband are enthusiastic scuba divers. For one of my holidays she gave me a frame with three pictures, taken with available light in the Dutch muddy waters, showing a little pike swimming by. This has shown me that not only the O-ring was alright but also the gaskets of the levers were still waterproof.

This frame has been part of the big camera exhibition I helped to organise in the towns of Maastricht and Zoetermeer between October 2002 and January 2003. In the special display for underwater cameras and housings, showing the Revue housing (and others), it showed the only pictures taken underwater.

### The “Red One”

The other underwater housing I own is nameless, but very red, so I call it the Red One. Its construction is completely different from the Revue housing. It opens at the top and is sealed with a flat rubber gasket. The whole interior can be lifted out, showing levers, cogwheels and the Exa, this time an older version with engraved nameplate. The camera has been adapted to drive the film transport: there is a cogwheel attached instead of the normal transport knob.



The interior is rusty and stinks, so the seals are clearly not what they ought to be. The focussing mechanism is quite complicated, with five cogwheels and a corrugated iron band around the lens. The first two cogwheels were connected by a chain, but unfortunately that is rusted and broken.

The Red One has a built-in flash mechanism. A capacitor, a resistor and a place for a battery are visible. The front has two connectors for a cable to the flash itself. Any underwater flash could be used but I don't see how it could be connected to this housing.

The top shows an enormous perspex cover and a magnifier. The user can clearly see the viewfinder image and the shutter speed setting. Neither the speed setting nor the diaphragm setting can be controlled from the outside.

All in all it looks like a one-of-a-kind contraption. A friend of mine suggested that it was built from an underwater switch container. He might be right.

### The “Blue One”

I don't know much more about this Blue One than we can see in the images, found on eBay. I made a note of the brand “Stahl” (steel in German), but that doesn't mean much. I have no idea what the orange block in the position of the viewfinder is.



### The “Expensive One”



This Expensive One has been for sale on eBay since 2007 and was still available at the end of June 2009. The company Foto-Herbst, established in 1955 in Dittersdorf in East-Germany (see [www.fotoherbst.de](http://www.fotoherbst.de)), is still hoping to sell it for €995. They believe it was produced by Ihagee, but I think that is impossible; we would have known about that for a long time. The lamp carries the trade mark Aqua Elektronik and the type name SL4.

It looks as if the Exa in this underwater house has a special mirrored viewfinder, to allow viewing the image from behind and from a distance.

### More for Exa?

Klaus Wichmann in his above mentioned book indicates two more suppliers of underwater houses for the Exa: Hugy-fot (R. Hugenschmidt, Thalwil/Switzerland) and H. Brodthagen (Berlin). If you know anything about those products or any other underwater housing for Exa(ka), please let me know.



## The “Different One”

The last but one underwater housing I can show you is quite different. The other ones are all made of sound metal and very heavy. The Revue weighs 4 kg, the Red One 7 kg! This one is all transparent plastic and is certainly much lighter. Besides that, it's made for the Exakta VX500, not for Exa.



## The “Last One”



I call this the Last One, because it is made for, or at least uses an Exa Ib. I suppose an Exa Ic can be used also. I only have the pictures, provided by Michel Rouah. The rear side shows that the user has to adapt the viewfinder by removing the top part.

I don't know much about underwater houses for other camera types, but nevertheless I think we can conclude that the Exa has been a very popular camera for underwater house designers.