

Arriflex camera – by Anna and Terry Vacani



Picture of our Arriflex camera production Number 1707



*Picture of our Arriflex camera production Number 1971
(The box is not from war time production)*

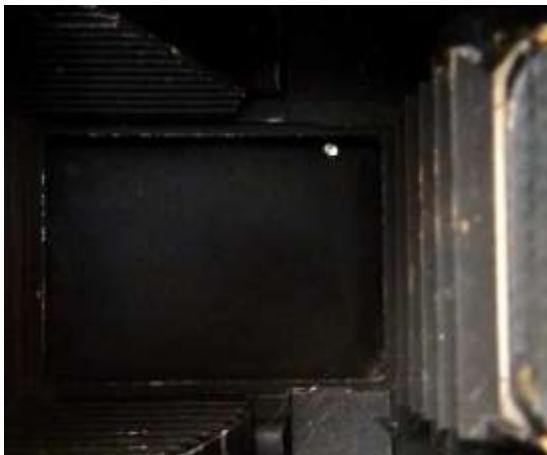
The camera was design before the war. As the single lens reflex camera come into the market in 1937 and was presented, in Germany, at the Leipzig exhibition.

It was the first reflex film camera built up before the war.
In the pictures below we can see the mirror shutter closed in first picture diverting light from the lens to the view finder system.



Reflex mirror shutter in our Arriflex camera

The shutter is opened in the next two pictures.



Aperture plate closed in our camera



Aperture plate opened in our camera

The unique reflex mirror shutter was designed by engineer Erich Kaestner. This technology engage a rotating mirror that allows a continuous motor to operate the camera while providing parallax free reflex viewing to the operator, and the ability to focus the image by eye through the viewfinder. This technology is still used today in almost every motion picture camera.

The factory is the largest worldwide supplier of movie, film equipment and cinematic light equipment to the present time.

On the site CinemaTchnic site we can read¹:

"The Arriflex 35 II is one of the most significant motion picture cameras of all time. It was designed and developed by Arnold & Richter, A.G. of Munich Germany, founded in 1917 as film laboratory equipment and accessory manufacturers. The name ARRI derives from the first two letters of each founder's name August Arnold and Robert Richter. ARRI introduced their first camera the Kinarri in 1924. 100 Kinarris were sold. After a great deal of research and development, they developed the mirror reflex viewing system in 1931.

After perfecting their mirror reflex system, ARRI introduced the Arriflex 35 in 1937. It was the world's first 35mm reflex motion picture camera. The mirror reflex viewing system it introduced was so superior that it is used on all professional motion picture cameras, in all formats, to this date."*

And further technical information on that site, and pictures of our camera parts:

"The inside of the camera is simply a film chamber with the gate, the single pull-down claw (no registration pin is used) and chrome plated brass film guides.



The film chamber in our camera

The film sprockets are part of the magazine, although they partially protrude into the camera when the magazine is fitted. The film transport and mirror shutter mechanism was designed by Erich Kastner, ARRI's chief engineer, and August Arnold. It incorporated a single claw acting on the perfs next to the 35mm soundtrack area. The claw was actuated by a cam that allowed the claw to dwell in the perf at the end of the stroke, just long enough to stabilize the film without the use of a registration pin. The gate has a spring-loaded side rail that applies pressure to the film edge to effect horizontal (weave) and vertical (jitter) stabilization. This design also made the 35-II compact and lightweight.

200 foot and 400 foot displacement magazines were designed for the camera. These magazines had the sprockets located at the magazine throat.



Picture of our magazine with film inside

Most cameras at the time had the sprockets inside the film chamber of the camera. The sprockets in the mags kept the film loop constant. Once the mag was properly loaded, it was very easy to thread the camera's film loop and start shooting. This allowed for much faster re-loads when shooting. The 35-II is one of the easiest to thread 35mm cameras ever made."

We can see, all process of the film loading into Arriflex 2 c camera, on YouTube². The loading process is the same as it is in our camera.

A unique technological design has the motor of the camera. It is placed in the camera hand grip.

It is DC (direct current) electric motor powered by battery. On the hand grip is mounted the cable connector to the battery.



Picture of our camera

During the war German Propaganda Unit was using a lot of this model, as hand held camera or placed on an Arriflex tripod, as we can see below, in the picture from Bundesarchiv.



Bundesarchiv, Bild 146-2007-0200
Foto: Jäger | 13. September 1940

France, St. Jean du Cardonnay, members of the Propaganda Kompany (PK) 612
Source: Bundesarchiv, Bild 146-2007-02003 / Jäger³

German Propaganda Units often placed two cameras in open cars to film special events.



Two cameras Arriflex and Askania placed on the car using one tripod - 1943
Picture source: BArch, N 1603 Bild-255 Image/Horst Grund⁴



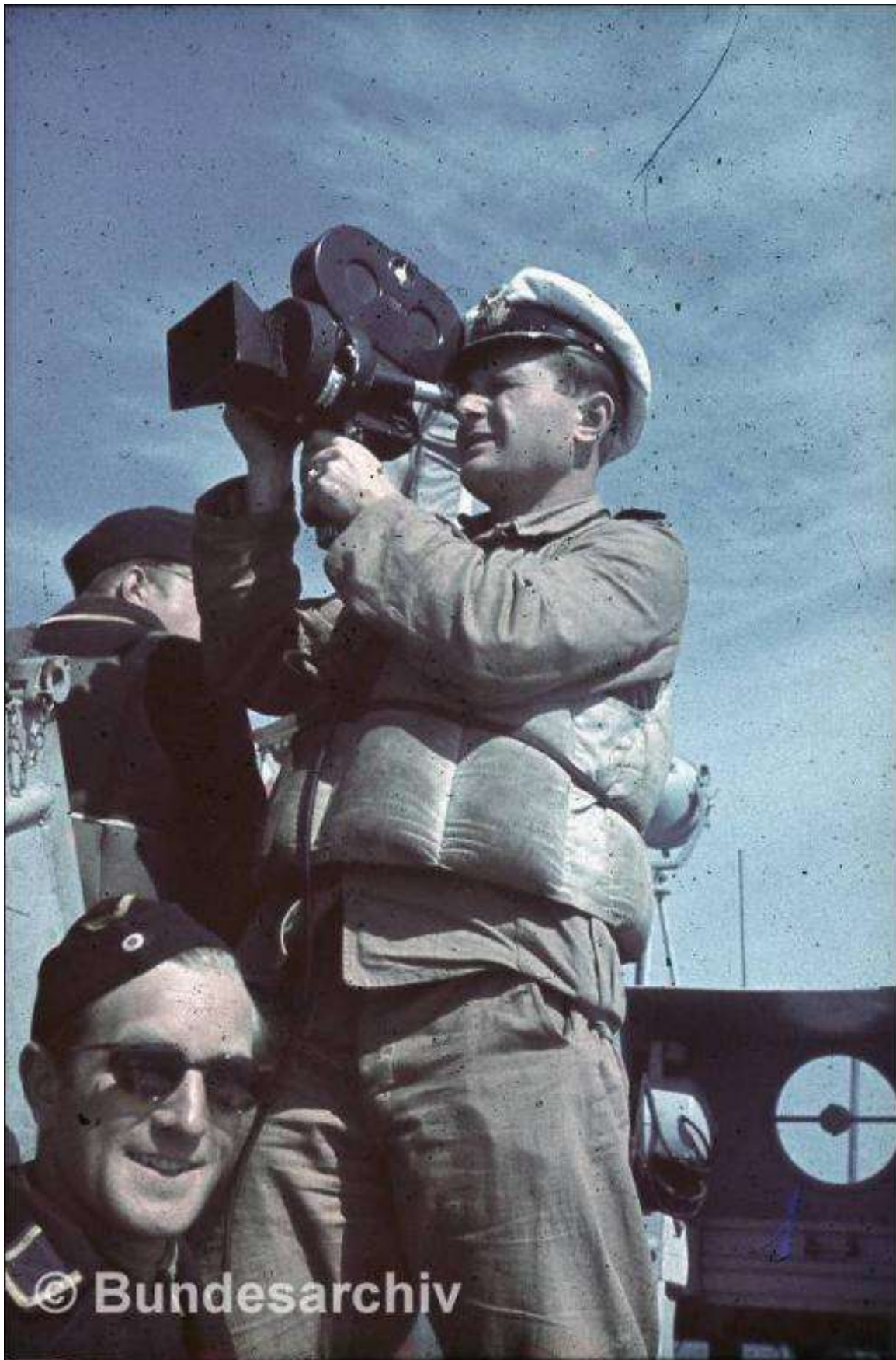
Picture from 'Signal' magazine Number 8H – 25 July 1940 page 23 (colour insert), in Dutch language. The magazine is in our collection

Often it was used a special twin tripod for two cameras, with one mounting for two cameras: Askania and Arriflex for filming at the same time, by one cameraman:



The cameras: Arriflex and Askania on special tripod
Picture Source: BArch N 1603 Bild-265 Image/ Horst Grund⁵

The camera was heavily used in nearly every environment: on boats, on aeroplanes, etc. More pictures from above site:



Filming on a boat -1943

Picture source: BArch, N 1603 Bild-254 Image/Horst Grund⁶



Picture on board an aircraft in the Mediterranean Sea 1943
Picture source: BArch, N 1603 Bild-256 Image/ Horst Grund⁷



Picture: September 1943 on a tower
Picture source: BArch, N 1603 Bild-258 Image/ Horst Grund⁸



Picture from 'Signal' magazine Number 5, 15 July 1940 page 25, in German language; the magazine is in our collection



Ein Unteroffizier zu dem Kameramann: „Sie gehen am besten auf den kleinen Hügel vorn links, von da aus werden Sie das ganze Gefecht aufnehmen können.“

Picture from 'Signal' magazine Number 5, 15 July 1940 page 25, in German language; the magazine is in our collection



Picture from 'Signal' magazine Number F16, August 1941 page 12, in French language; the magazine is in our collection

Our camera production number – 1971 was last known of war time production. The factory was bombed in 1944.

This camera has variable speed depending what type of motor was fitted to the camera.



Frame speed counter on our camera

The camera was fitted with electric motor power by 16 volt battery.

On that picture, we can see the battery to the camera, placed under the tripod.



Filming in Morocco – 1960

Picture source: BArch, N 1603 Bild-375 Image/ Horst Grund⁹

The camera is taken two types of magazine: 200, 400 ft of film. The magazine is mounted on the top of the camera.



Picture of the magazine (200 ft-60 meters) fitted on our camera with the film counter



Picture of all our magazines- numbered: 1; 2; 3; 4

The number on the magazine let cameraman to remember what scenes were shot, on which magazine.

In the front of the camera are fitted 3 objectives, on the turret bayonet lens mount.



Our camera number 1707 has Schneider- Kreuznacht Xenon f: 2, F28 mm objective; focus 0 – 12 meters and infinite:



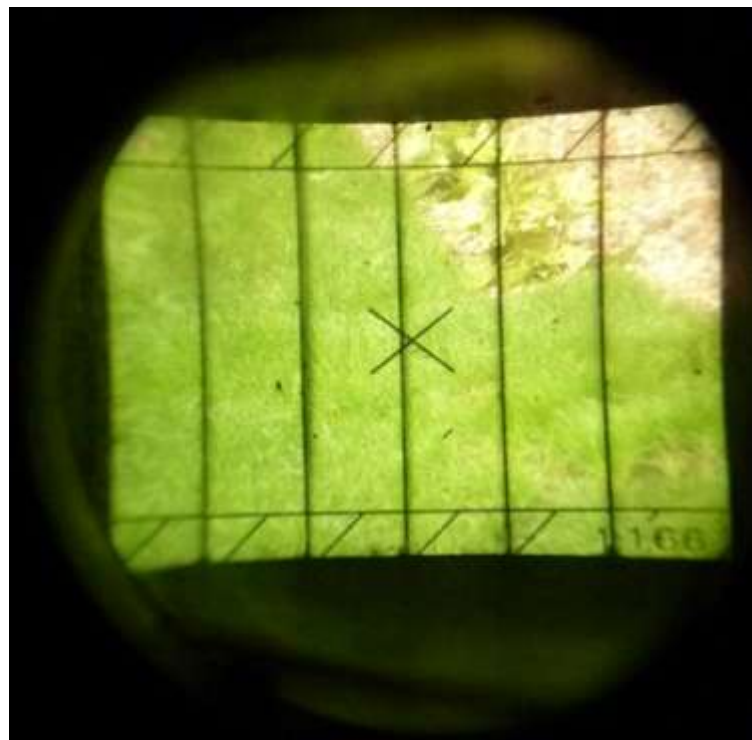
And Schneider- Kreuznacht Xenon f: 2, 3; F5 cm objective; focus 0 – 20 meters and infinitive:



Additional objective is Schneider- Kreuznacht, Arriflex-Cine-Xenon 1:2/75; focus 0 – 30 meters and infinitive:



Around every objective is a focus knob:



The picture seen through our camera viewfinder

The numbered production was begun from number 500.

After the war the factory was rebuilt in 1946 and begun to produce the Arriflex camera II 35. That cameras production number had started in from number 2000. The name of the camera was slightly different:

Model Arriflex 35 II - Produced in 1946 after the war.

Model Arriflex 35 IIA - Introduced in 1953 fitted with 180 degree shutter.

Model Arriflex 35 IIB: In 1960 this model arrived for the market with new design of claw's transport and with 180 degree shutter.

Model Arriflex 35 II BV: In this model (1960) was applied variable shutter from zero degree to 165 degree.

Model Arriflex 35 II HS: In the same year - 1960 was introduced this model with high speed version up to 80fps.

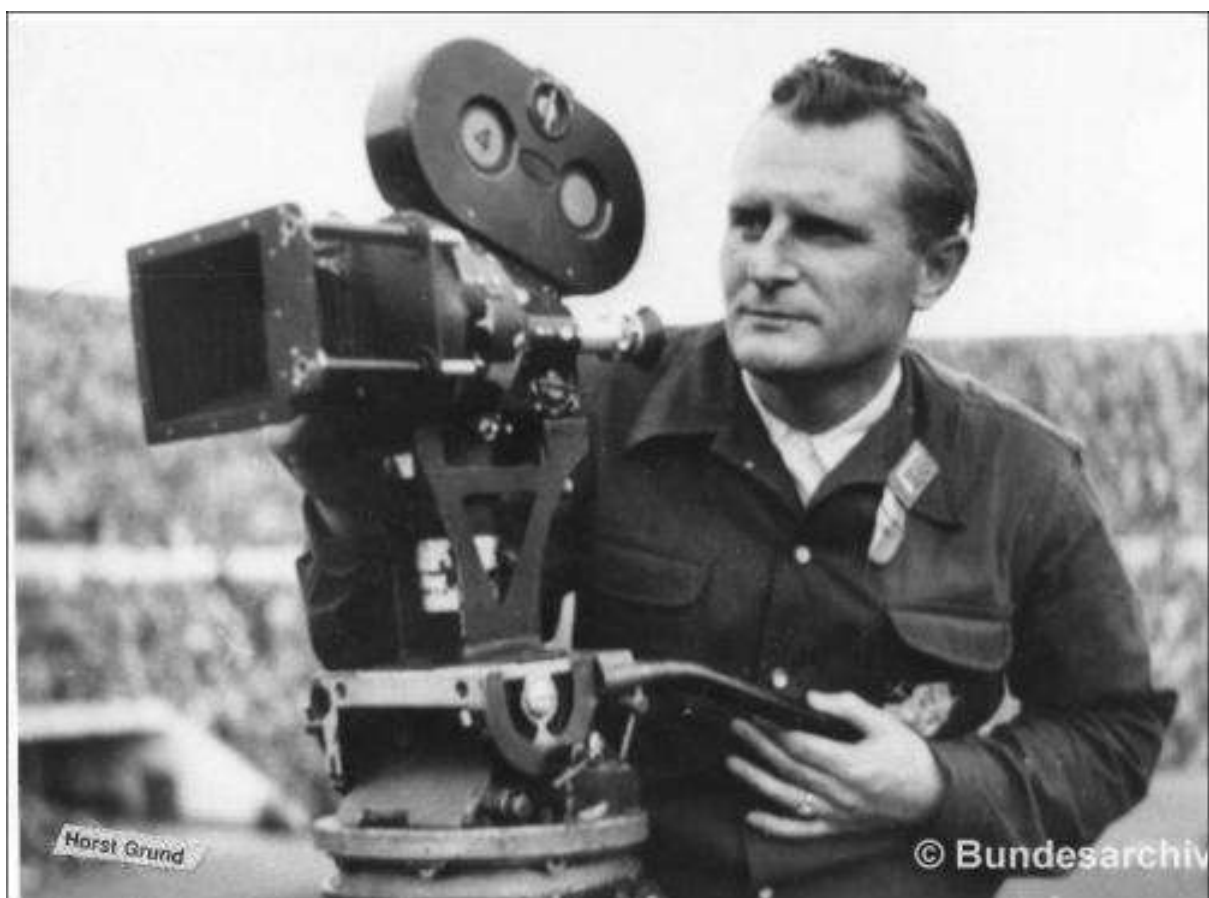
Model Arriflex 35 II C: In 1964 the new model with: improved viewing system with larger viewfinder optics which allows viewing of the full anamorphic format; interchangeable ground glass system; Interchangeable eyepiece. It became the most popular model.

The model Arriflex 35 II was used by the BBC; Polish News and Cinematography; the Italian RAI and the US Military.

During WWII the USA designed a close copy of the Arriflex – named Cineflex, recognizable by the motor being mounted on the side of the camera.

Such was the popularity, China and Russia begun to produce very close copies of Arriflex 35 II.

The next pictures taken after the war are from Bundesarchiv site as well.



July-August 1952 Helsinki XV Olympics Summer Game;

The cameraman - Horst Grund was awarded for his outstanding film performance with a bronze medal

Picture source: BArch, N 1603 Bild-372 Image/ Horst Grund¹⁰

During the war, the cameraman was filming with camera fitted to a tripod or handed camera.



Our camera from 1944 on the tripod produced after the war

After the war except that methods, it was additionally produced a special supporter for the professional cameras, which cameraman placed on his shoulder.



Shoulder supporter to the Arriflex camera post-war production

A short history of Arriflex was placed in the report on DW-TV (Deutsche Welle)¹¹
The pictures from war time are published by permission of Bundesarchiv.

We hope the readers of that article will become new collectors of that marvellous camera.

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- ¹ http://cinematechne.com/resources/arri_35-2.html
 - ² <http://www.youtube.com/watch?v=RbisCDXTCz0&feature=related>
 - ³ <http://www.bild.bundesarchiv.de/archives/barchpic/search/?search%5Bform%5D%5BSIGNATUR%5D=Bild+146-2007-0200>
 - ⁴ http://www.bundesarchiv.de/oeffentlichkeitsarbeit/bilder_dokumente/00997/index-5.html.de
 - ⁵ http://www.bundesarchiv.de/oeffentlichkeitsarbeit/bilder_dokumente/00997/index-28.html.de
 - ⁶ http://www.bundesarchiv.de/oeffentlichkeitsarbeit/bilder_dokumente/00997/index-31.html.de
 - ⁷ http://www.bundesarchiv.de/oeffentlichkeitsarbeit/bilder_dokumente/00997/index-10.html.de
 - ⁸ http://www.bundesarchiv.de/oeffentlichkeitsarbeit/bilder_dokumente/00997/index-1.html.de
 - ⁹ http://www.bundesarchiv.de/oeffentlichkeitsarbeit/bilder_dokumente/00997/index-37.html.de
 - ¹⁰ http://www.bundesarchiv.de/oeffentlichkeitsarbeit/bilder_dokumente/00997/index-40.html.de
 - ¹¹ <http://www.youtube.com/watch?v=mi762uteKfc&feature=related>