

PENTACON SIX

— A Review

As many readers will be aware, this camera is an improved model of the well-known Praktisix roll film single lens reflex camera. There were two Praktisix models, the Praktisix and the Praktisix II, which were fully reviewed in the Journal.^{1,2} The earliest model was criticised by some users on shutter performance and film transport, and the second model incorporated a number of improvements in the shutter and transport mechanisms. The writer had the opportunity of questioning some East German press photographers, and they admitted to having had reservations about the first model, but that they were quite happy with the performance of the second. Now the Pentacon Six has arrived, which incorporates further improvements, mainly in controls and styling, and the new name gives the camera a fresh start. Improvements in appearance and function are particularly important at a time when there is a gradual resurgence of interest in the roll-film reflex. When the first model of the Praktisix was reviewed, it is interesting to note that it was virtually the only general out and about roll-film single lens reflex available outside the Hasselblad. Since then, several models have been placed on the market, and it is now well known that many of the world's leading manufacturers of 35 mm cameras have been working on prototypes of roll-film SLRs, some of which may well be seen at 'photokina' later

this year. Some of this activity was undoubtedly sparked off by the availability of 220 roll-film, but this does not seem to have been welcomed with open arms, partly, possibly, owing to the price.

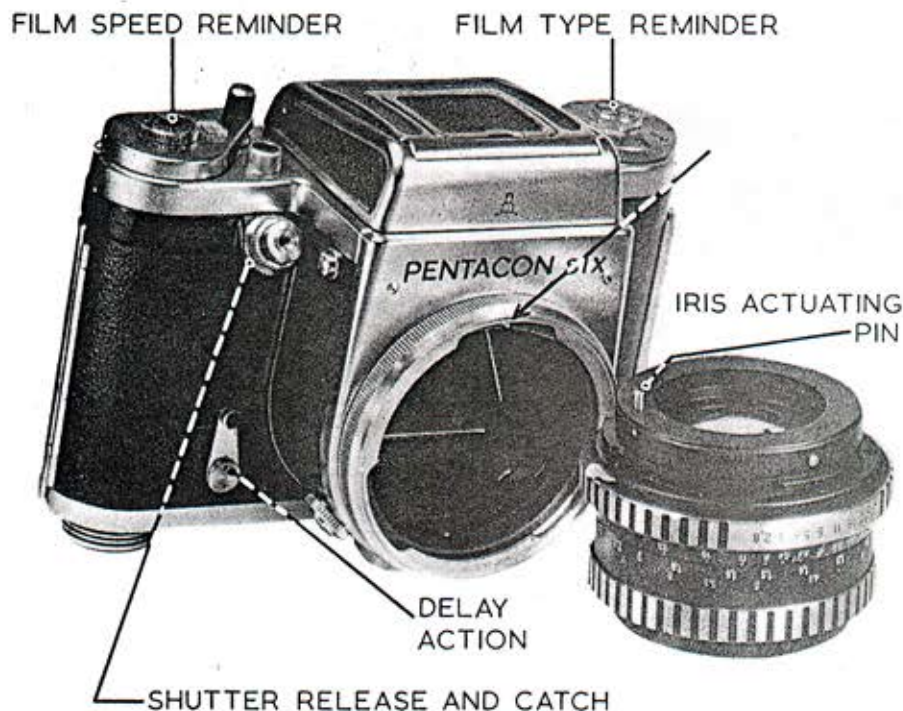
Although the Pentacon Six can no longer claim to be unique in this respect, it does remain unique, at the moment, in its general layout, which closely corresponds to that of a 35 mm single lens reflex. The qualification 'for the moment' is used, since the prototype shown by Asahi has earned the general response that it looked rather like a Praktisix.³ The advantages of having a roll-film SLR which handles similarly to a 35 mm camera are obvious, since the 35 mm camera is in theory designed for convenient handling. Apart from the Hasselblad and the Bronica, many design layouts for roll-film SLRs have tended to be modern metal versions, scaled down of course, of the classic focal plane single lens reflex cameras dating from before the first World War, which might be typified by the Thornton Pickard reflex. Examples of this basic design format are the Corfield 66, Kalimar 66, and the Kowa roll-film reflexes, whilst the Rittreck really is, in size and design, a modern version of the classic reflex camera. It would probably be fair to say that the Praktisix or Pentacon Six layout seems to be the form making the most headway over the years of these types.

Since the general points of the earlier

cameras have already been fully reviewed in the Journal,^{1,2} the present review will be mainly concerned with the new features.

General Features

The Pentacon Six measures 168 mm in width, 125 mm in depth, and 130 mm in height. This represents an increase of nearly 1 cm in height over the Praktisix, and is due to the location on the Pentacon Six of two pedestals at either end of the base plate. These are in fact spring-loaded grips with which to retract the lugs locating in the roll-film spool flanges. When pulled out, a small anti-clockwise turn locks them out, whilst the spools are being inserted, in the manner familiar from generations of roll-film cameras. Over the incorporation of this feature, the designers presumably faced a problem. In the Praktisix the feed and take-up spools are located by lugs on simple springs, to which access is gained by opening the camera back. When changing films in a hurry, the method seemed a little insecure, although in practice it works entirely satisfactorily. The method used in the Pentacon Six allows the spool chambers to be fully enclosed, but the pedestals formed by the lug retracting grips on the base plate upset what was a very useful feature of the Praktisix. Placed on a flat surface, the Pentacon Six leans forward on the tripod formed by the two pedestal grips



on the base plate and the front or focusing ring rim of the lens. The Praktisix, however, similarly placed on a flat surface, rests fair and square on its base plate and the tripod bush pedestal, which is placed under the optical axis, just behind the front 'scutcheon' of the camera. This feature was a very useful one, since it permitted the camera to be held steady in the taking position, with all controls operative, on any available suitable surface, or even on its side against an upright. On the other hand, when the Pentacon Six is in its ever-ready case, the base plate pedestals just project below the case, and form a tripod with the camera case retaining screw, and the camera will then sit very conveniently. In passing it may be mentioned that the flap of the Pentacon Six case is removable.

The overall appearance of the Pentacon Six has been considerably improved by the superior quality silver chrome finish, and greater attention paid to minor details in styling. Various controls have parts picked out in black or covered with small inset panels of black covering material. These small points build up to make for a greatly enhanced appearance of the camera body.

The film-type reminder dial is in the centre of the shutter speed dial, and the film speed reminder dial forms a hub to the transport lever. The shutter speed dial retains its excellent design with its rim almost flush with the left-hand rounded corner of the camera, so that it is extremely easy to set with the thumb and forefinger of the left hand. Each speed from B to 1/1000th second is click stopped, and the dial rotates continuously in either direction. The calibrations are engraved and inked.

The transport lever remains identical in design, with the frame counter re-

styled. The numerals are now shown under a Perspex window, instead of in the previous simple cut-out which was inclined to let the dust in. The Praktisix counter was reset by pressing a button on the back of the camera on the right hand end. On the Pentacon it is set by pushing over a small lever on the top of the right hand end of the base plate. This is a more secure method. The lever is used not only to reset the counter when loading in the film, but also to allow the counter to proceed up to 24 exposures, when 220 film is used.

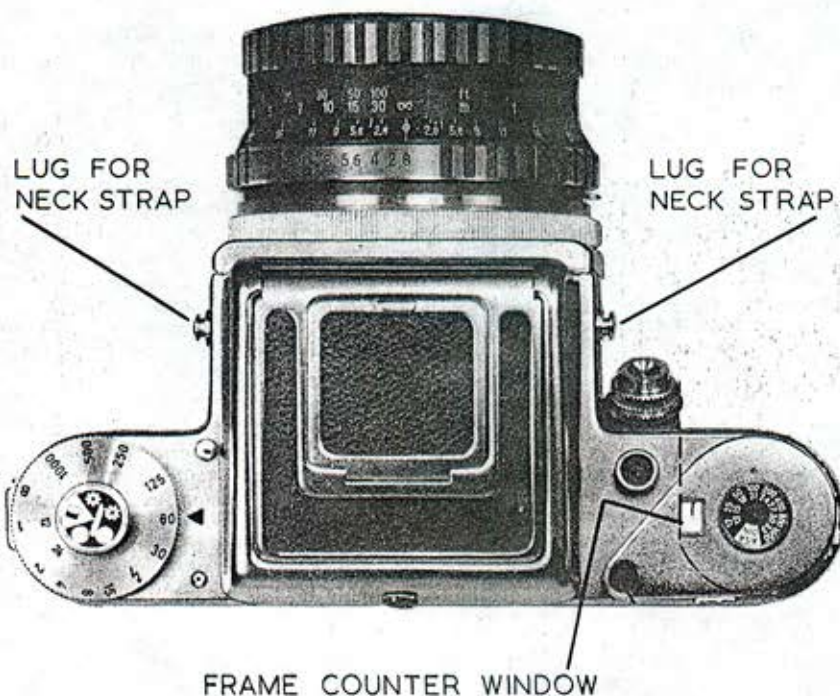
The 220 film facility makes a slight difference in operating the Pentacon Six. The film is loaded in, and the 'arrow'

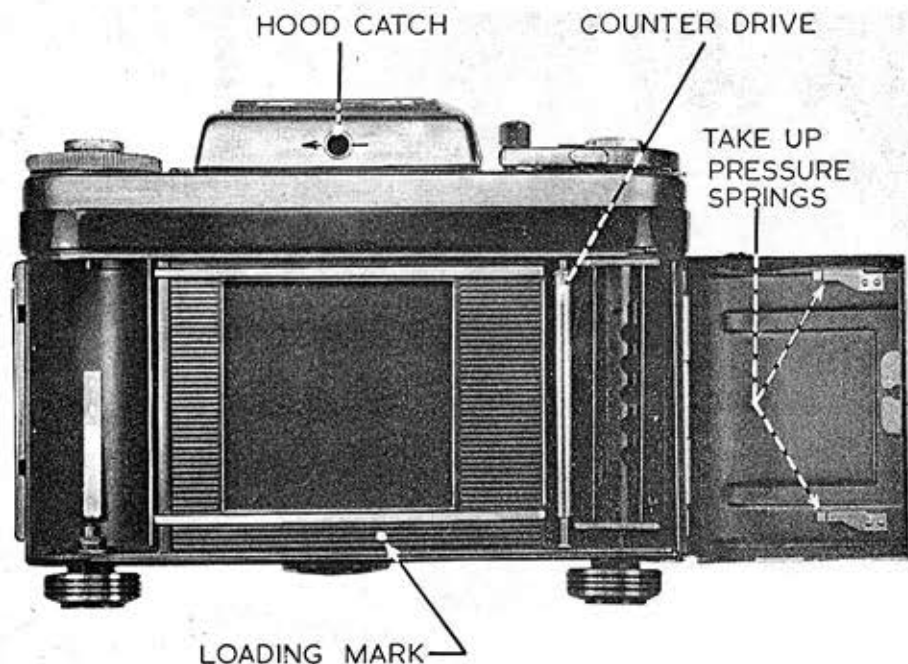
on the leader brought in line with a white dot opposite the film gate. The back is then closed and the counter set by pushing the lever. The transport lever is stroked and the shutter released until '1' appears on the counter. When '12' is reached, the transport mechanism locks automatically. If a 120 film is in use, the reset lever is pushed, and the film wound off by stroking the lever and releasing the shutter.

If 220 film is in use, when '12' is reached, pressing the lever will allow the film to be transported and the frame counter to continue showing up to 24. At this point the transport lever locks, and the trailer is wound off, as with 120 film, by pushing the reset lever, and then winding off as before.

The Camera Interior

Apart from the difference already referred to—the retractable lugs—a major change has been necessary in the transport system in order to accommodate the 220 film facility. The Praktisix counted frames from the rotation of the take-up spool, whilst the Pentacon Six uses a roller with serrated fine teeth bearing on the film at either edge. Two springs on the camera back ensure that the film bears down over this roller, which is located at the right end of the film register rails, just before the take-up spool. This method of frame counting has solved once and for all the problem of accurate transport in the camera, and there should now be no question at all of occasional overlap found with the first model of the Praktisix, if the film did not wind tightly on the take-up spool. It is, of course, related to the counter mechanism used on Rolleis, but is driven from both edges of the film. It is interesting to take this a stage further, and consider that what we have in the Pentacon Six is something on the way towards the transport sprocket wheel of the 35 mm camera.





In General

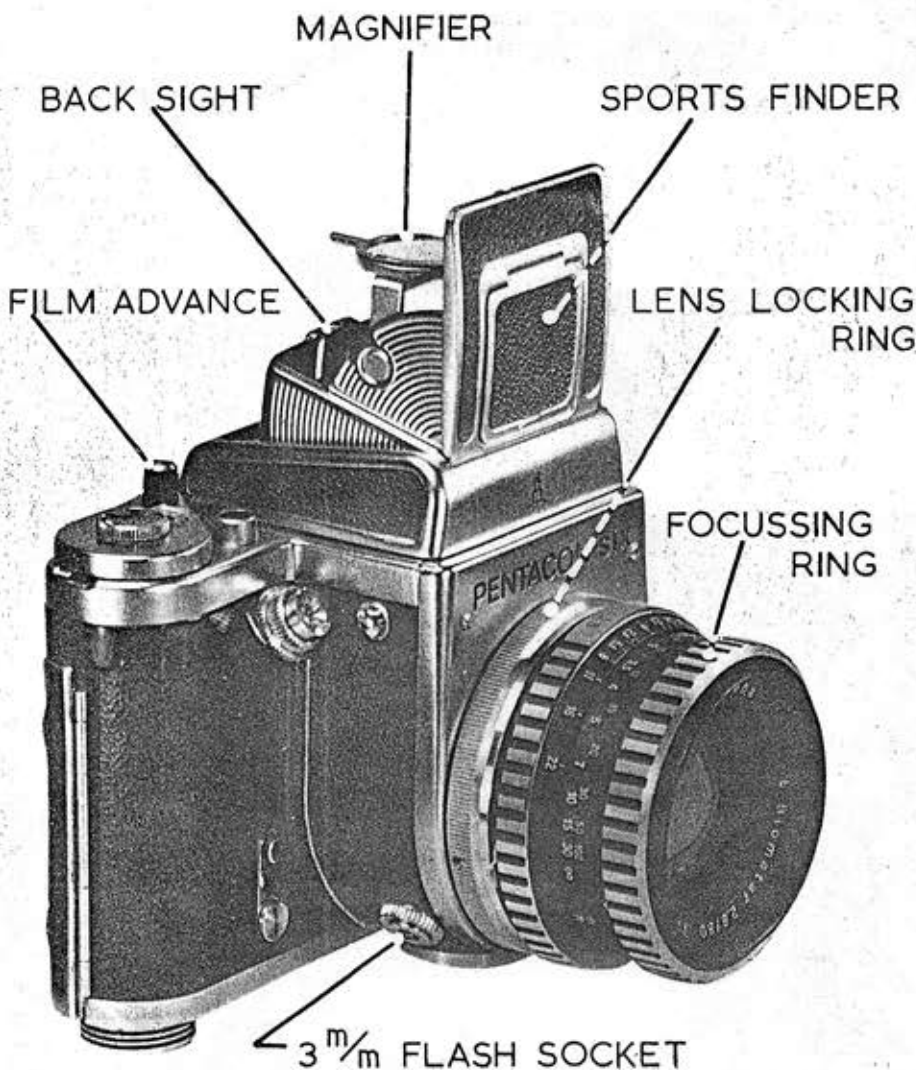
The differences described here account for the major changes in design of the Pentacon Six over the earlier Praktisix. It should be emphasised that the Pentacon Six is a new camera, and the decision to give it a new name must be accounted entirely valid, although the same die-casting is used. The design has been tightened up; the camera now ranks fully professional in layout and mechanism. Pentacon have obviously realised the immense potential of their camera. The claim that the Pentacon Six handles like a 35 mm camera is fully justified, even if it is a little bigger than some. Looking to the future, there are really only two design points which are significant. Firstly, the provision of an instant return mirror would be a most welcome feature of the camera and hasten its general professional acceptance, as well as increasing its specialist potential as a press camera. Secondly, the design of the transport lever seems capable of improvement. It works perfectly well and is quite convenient, but somehow, one

to page 10

Another interesting change has been made in the film gate itself. This consists of abandoning the diamond-shape studs forming the film register for conventional continuous register rails. The diamond-shaped register studs were angled outwards in the Praktisix, with herring-bone ridges on the pressure plate. The theory seemed to be that as the film transported, these studs tended to stretch the film flat across the gate, which represented an interesting design feature. The change may again be due to the 220 film facility, since this stock does not use backing paper. For the same reason presumably, the pressure plate has been redesigned, and the rivets which hold the leaf spring providing the pressure are now well recessed in the surface of the pressure plate. The absence of backing paper naturally requires perfect light tighting, and the Pentacon Six back has latex foam light tighting right round it, at the points where it locates home when shut to.

Viewfinder Fitting

The Pentacon Six, like its predecessors, has interchangeable viewfinders. The camera is fitted with a waist-level finder, which has a sports finder consisting of a flap which opens in front of the hood, and a rear-sight which can be pushed up at the back. With the Praktisix, the waist-level finder or eye-level pentaprism were merely located on four posts on the camera top-plate, and pushed forward. Although it rarely happened, it was possible for them to come adrift, since no locking device was provided. The Pentacon Six now has such a device, which consists of a button just to the left of the viewfinder on the top plate, and this must be depressed before either of the finders can be removed.



PENTACON SIX

from page 7

feels, not as convenient as it might be. The provision of a lever with too much purchase might be thought undesirable for transporting roll film with backing paper, so that this present short low-leverage arm may put safety first. On the other hand, without losing sight of this point, it should be possible to design just a little more comfortable and handy grip, possibly one with a hinged tip as on the Leica M4.

80 mm f/2.8 Biometar

The styling of this lens has been improved, and the focusing ring, which is on the front rim of the lens, is now in metal, broader and with wide milling to give a firm grip. The aperture setting ring has similarly been enlarged, also making for a much speedier grip and firmer control than the previous design.

The lens is a five-glass construction, being the East German equivalent of the 80 mm f/2.8 Planar. At full aperture f/2.8, contrast is excellent and the field covered almost to the corners with crisp

fine detail. At 1/4 the lens achieves crisp rendering of microscopic detail over most of its field, and at 1/5.6 achieves an outstanding result in resolving power and sharpness. It is entirely free from flare and linear distortion, and is of medium high contrast. It is fully capable for all scientific work in addition to general purpose photography, and is an outstanding modern design.

Conclusions

In summing up, little can be added to what has already been said in the course of this review. The Pentacon Six is fully up to date optically, and functionally, and makes a most important contribution to advanced amateur and professional photography. It is the type of camera which will wean people away from 35 mm, by showing them the advantages of the larger format, whilst still retaining much of the feel and appeal of the 35 mm camera. A wide range of lenses and accessories are available, and at the same time, it should not be lost

sight of that, since the camera has a focal plane shutter, it is not a difficult task to adapt any favourite older lens to fit the camera. Many of these, now available for a few pounds, may work perfectly well on the 6 x 6 cm format, and also save the user quite a lot of money, unless he needs the advantages of automatic diaphragms and the general speedier working of a modern lens tailored to fit a certain camera. All in all, it is an excellent piece of equipment, which, by its workmanlike layout and absence of unnecessary frills, is very definitely a 'photographer's camera.'

The Pentacon Six is manufactured in East Germany by VEB Pentacon, and distributed in this country by Carl Zeiss Instruments Limited, London. The camera, complete with ever-ready case, retails at £169:17:9d. GEOFFREY CRAWLEY

References

1. Brit.J.Phot. 110. 4 January 1963.
2. Brit.J.Phot. 112. 10 December 1965.
3. Brit.J.Phot. 113. 14 October 1966. pp 911-912.