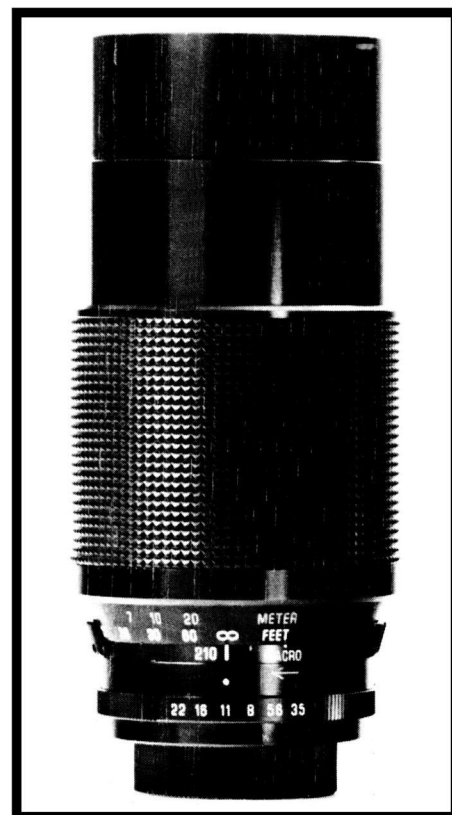
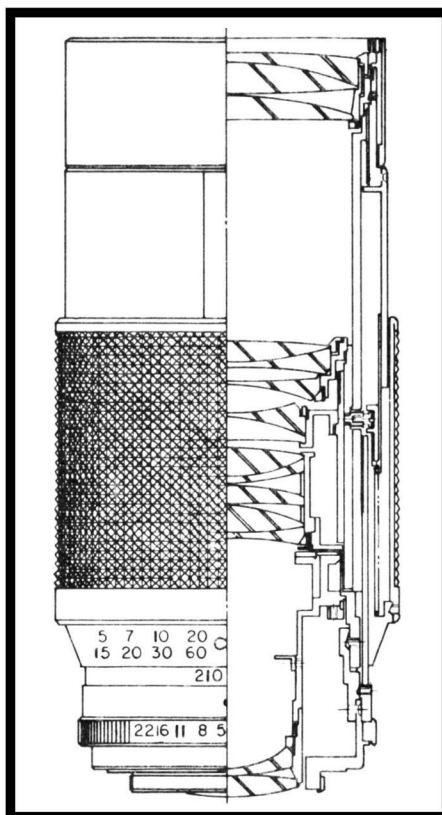


ON TEST

VIVITAR 70 to 210 mm zoom lens



THIS rather exciting optic was first introduced to camera enthusiasts at the last Photokina in Cologne. It is a slide action zoom where the operator changes the focal length by sliding a large diameter focusing ring up and down the barrel. The convenient focal length range from 70mm to 210mm makes a standard lens almost superfluous. The 70-105 or 135mm part is useful for work such as portraiture, while the longer focal length is ideal for action photography and for instances where the photographer is some way away from his subject. At 210mm the camera and lens combination can still be hand-held at moderately slow shutter speeds. Of course, the lens is not as light as an ordinary telephoto lens of the same focal length, but this is to be expected with the extra amount of glass within its make-up. In fact, it is a fifteen element design with these arranged in ten groups, the outer one being 67mm in diameter. The moderate zoom ratio of 3:1 is not particularly high by today's standards with some movie lenses getting up to 8 or 10:1, and consequently it does not extend the designers too much. Optical quality is excellent at

all focal lengths at both centre and edge of frame. Even at maximum aperture (f/3.5) definition and image contrast are excellent and resolution similarly good.

The lens is manufactured for Vivitar in Japan and a number of different camera fittings are provided, and they have even catered for the EE exposure cameras such as the Konica Autoreflex T and T3 models. This particular lens type has a few modifications over the standard Pentax fitting model. For example, its minimum aperture is f/16 compared with f/22 with the Pentax model which, incidentally, was tested by 'Camera User' for this review.

Construction

There is no doubt about it, this lens is well finished. It has an overall black appearance with no chrome whatsoever. All the reference marks and figures are engraved into the barrel and the engravings have been filled in with white and green enamel with red and yellow reference spots and lines. There are no confusing secondary sets of figures for depth of field or the like, just the essential ones. Zooming and focus-

Above: The diagrammatic layout of the 70mm to 210mm Vivitar zoom. It has 15 elements in 10 groups. Below: A series of shots showing the effective coverage of the zoom from 70mm focal length through to 210mm.

ing are done with the single control. To change the focal length of the lens you simply slide the focusing ring up and down the barrel. Unlike some designs, the Vivitar lens is at its shortest focal length when the focusing ring is furthest from the camera. Sliding action is fairly stiff, but this is essential to prevent movement from one focal length to another while focusing is being carried out. It is not, however, objectionably stiff. The sliding action makes the lens quick to operate and also permits special effects in picture taking, similar to the ones illustrated here. Focusing from infinity to the closest focusing distance of under six feet requires a 180° turn of the focusing ring.

But now let's deal with one of the unique features of this lens. As well as being a zoom optic Vivitar have incorporated a



special macro construction which is brought into play by turning a ring towards the base of the lens. This converts the lens into a macro optic of superb versatility. When the lens is being used for macro work the zoom slider can be used for changing either magnification or focus and this makes action very rapid. With the focusing ring slid fully forward very close focusing distances are possible. An example of the sort of macro image size possible is demonstrated elsewhere in this article.



Above: The Vivitar zoom has a special macro facility built in which is brought into play by turning the ring around the barrel of the lens (see picture on this page). With this adjustment the close focusing distance is brought very near indeed. Below: The 70mm to 150mm region is useful for portraiture. The photographer does not need to chase about after the subject in order to keep it at maximum size within the frame, but rather he just changes the zoom power by a simple sliding motion.

This new Vivitar 70-210mm zoom is available in a number of fittings, bayonet ones for Canon, Nikon, Minolta and Konica cameras, plus a screw thread fitting for Pentax models. The bayonet fitting versions cost £205 while the screw thread one comes out at £195. This price does not include a case or any other accessories.

To sum up, the performance and quality of finish cannot be criticised. The price perhaps is a little beyond some people's budgets.

Vivitar lenses are imported into this country by David Williams Cine Equipment Ltd, 5-9 Glasshouse Yard, London EC1. □

Specifications

Focal Length: 70mm to 210mm.
Minimum Focal Length of Macro: 54mm.
Zoom Ratio: 3:1.
Angle of Acceptance: 34° at 70mm; 12° at 210mm.
Optical Construction: 15 elements in 10 groups.
Aperture Range: f/3.5 to f/22 (EE coupled lenses to f/16 only).
Minimum Focusing Distance from Film Plane in Zoom: 6ft 6½in (2 metres).
Minimum Focusing Distance from Front Element in Macro: 3in (80mm).
Maximum Magnification in Macro: 1:2.2.
Length at ∞: 6½in (157.5mm).
Maximum Barrel Diameter: 3¼in (77.8mm).
Weight: 31oz (879gr).
Accessory Size: 67mm.
Accessories included: Front and rear lens caps, silica gel packet.