

The Collector's Checklist of  
Exakta and other Ihagee  
Cameras Lenses and Accessories

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## INTRODUCTION

The introduction to our earlier Leica and Zeiss miniatures checklists point out that one of the problems of collecting anything is finding a means of knowing the range of items available for collection. This is no less true of the Exakta system. Exakta enthusiasts must necessarily be catalogue collectors, but unfortunately no catalogue is complete. Any catalogue represents the manufacturer's plans for the future, and omits to mention his errors of the past. Plans for new equipment often go astray. And, of course, catalogues rarely list obsolete equipment of any sort.

The Exakta story, like so many others, is complicated by a great and disastrous war, with long term repercussions on trade. The items available have more often been those which it was possible to make rather than those which the designers would like to have made, and which might have been made in other circumstances. Exakta cameras have been made under different regimes and in at least two countries. In fact, one finds that there is a staggering number of items to record when one sets out to list them!

As it stands, this checklist, despite the revisions that have been carried out, is only a beginning. The authors have had access to a reasonable variety of Exakta equipment but not to vast collections of Exakta on the scale of the Leica collections which now exist and which were available to us when the Leica checklist was written. Thus it has been a great help to us to have had many members of the Exakta Owners Club and other owners of Exakta cameras contribute to the information in this revised edition. We should particularly like to mention the part played by Mr. K.L. Allinson and Mr. David Wodinsky.

If you are able to supply additional information, or worthwhile additions please do write to us. We will research your additions/amendments, and use them to improve future editions of this checklist. We will be delighted because we are Exakta enthusiasts and are always delighted to learn more. We are sure that future editions of this checklist will once again prove our favourite axiom.

Nobody knows everything about the Exakta system.

Thoroughbred Books,  
Parkside,  
Maresfield,  
Sussex.

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## SECTION I. - BACKGROUND

The Ihagee company was started by a Dutchman, Mr. Steenbergen, (b. about 1895) who had previously started a wholesale camera business in den Haag and then moved into production in Dresden. The Paff patent in fact indicates that he was active in Dresden by Fall, 1920. During the 1920's the works was a single, fair sized modern building outside Dresden. A new factory at Dresden, Striesen 184, was opened in 1929 or thereabouts. Previously the business address had been at Schandauer Strasse 24, Dresden - A. 152 (1925), then at Dresden Striesen 152. It was an active business, and its trade with the U.K. was highly valued locally during the years of inflation when the mark was falling fast in value. (Mr. F. Radnik visited the firm at a time when the mark was falling from 400 to 1000 to the £. He speaks of dining with Mr. Steenbergen at a famous local restaurant, the Weissehirsch, and settling the bill for two with about three English shillings). The factory labour force was not large (30-35 persons) but the company's practice of buying in components made Ihagee far more important to the community than that figure suggests. Steenbergen himself was a pleasant, rather shy man, yet must have been a very competent businessman despite a rather reserved manner.

During the 1920's Mr. Simon Radnik's company was the U.K. importer for Ihagee equipment, and operated in this capacity at 52 Bunhill Road, London and at 4-5 Love Lane, London. These addresses were offices, the wholesale warehousing being elsewhere under the care of Mr. Otto Sickel. Some bulk orders (for example from Wallace Heaton) were despatched direct from Dresden to retailers.

A substantial part of Ihagee imports were represented by the Paff reflex, which sold well ("millions"), although Houghton-Butcher tried to prove (unsuccessfully) that their patents were infringed by it. Initially, Paff reflexes had a simple meniscus lens and cost 18/- wholesale, 32/6 retail. Later, Zeiss or Meyer lenses with iris diaphragms, but without focus movement, were fitted, and the shutter was always of a simple T/1 type. Other Ihagee products included a 620 rollfilm camera, a box form Ihagee series reflex camera (1926) and a folding Patent-Klapp reflex (1929). The latter was very complicated, and never sold well. One author has recently owned a folding 9x12 plate camera, and Mr. Radnik knows of at least one batch of Ihagee stereo cameras made to order for Wallace Heaton for sale under their trade name "Zodel".

Mr. Radnik senior ceased to trade in the late 1920's (1926?) and died in 1929. The Ihagee agency passed to Loveless and Hunter of 260 Tottenham Court Road, London W1, then to Garner and Jones of Polebrook House, Golden Square, London W1, and subsequently after the war, to K.G. Corfield, and later to Clarke and Jones of 41 George Street, London W1. They in their turn were followed by Luminos Limited (1963) and then by Photomarketing Limited (about 1965?).

In general, the Ihagee product line shows a progressive transition from the mass production of what was basically a superior box camera to the making of fine precision cameras. This must have involved considerable problems of labour training, the development of equipment and administration, which must in turn have created a great need for skilled management, a requirement for access to a local pool of skilled labour and an absolute need for location in an area in which there were other factories capable of producing components. One thing is quite clear. The fine workmanship of the Kine Exakta was not produced by the same techniques as made the competent but imprecise mechanism of the Paff!

During the 1930's, Ihagee launched three groups of cameras which marked a radically new departure in miniature camera design and which in

a sense proved to be the pioneers of the modern proliferation of single lens reflex cameras. These new designs all had in common a body of unique trapezoidal shape, and were all described as Exaktas. The introductions can be listed as follows:

- 1933 (a) The Vest pocket VP Exaktas for 8 exposures 4.0x 6.5cm on 127 rollfilm  
Note: K.L. Allison (35mm Exakta Handbook) quotes 1931 as the date of introduction of the VP Exakta. This statement is based on information from Ihagee which may possibly have referred to prototypes rather than production cameras.
- 1936 (c) The Kine Exakta for 36 exposures 24 x 36mm on 35mm Kine film
- 1939 (b) The 6 x 6 Exakta for 12 exposures 6 x 6cm on 120 rollfilm

This checklist is concerned with these prewar cameras and with their postwar successors. It is not clear whether the production of Exaktas has actually ceased at the time of this checklist, and it has been reported that the Exa 1A is still in production in 1978. However, large scale production at the Ihagee works at Dresden apparently ceased in about 1972, apparently because of poor sales, competition from other products for factory space and (probably) trade mark conflicts with manufacturers in West Germany.



# SECTION Ib. NON-EXAKTA CAMERAS (1920-1940)

The following Ihagee (or I.H.G.) cameras were listed in this period in the British Journal Almanac (BJA) or Amateur Photographer (AP) but the list may not be exhaustive. A considerable source of potential inaccuracy rests with the fact that Ihagee were one of the sources of "own brand" cameras sold by the bigger camera retailers. These own brand cameras were bespoke from Ihagee and delivered in bulk to the store by Radnik. The first advertisement for an Ihagee "own brand" camera in the BJA occurs in 1925.

Paff The Paff was a simple box-shaped camera, with a combined shutter/mirror unit, and relatively slow lens. The basic patent (No. 180350) was to John Steenbergen, 85 Gottfried Keller Strasse, Dresden, dated 19th November 1920 (BJP 14th July 1922). This must give an early date for the Dresden enterprise. The Paff was typically a mid-1920's item, the advertising for it running down by about 1928. (AP 28th July 1926, these prices listed). Frank Radnik thinks there was a version of the Paff Reflex with a Zeiss lens, but no details of this version have been found in the advertisements.

- (a) 2 1/4 x 2 1/4in., f6.8 Meyer Gorlitz lens, list £2.50; sale £2
- (b) 2 1/4 x 3 1/4in., f6.8 Meyer Gorlitz lens, list £4.50; sale £2.50
- (c) Meniscus lens (d) "Zeiss" version (?)

Note: One source refers to the Meyer lens as a "Trioplan". Also some variations in trim (absence of 'Sunburst' decal) or mirror lever may have occurred.

Ultrix Popular A compact folding roll film camera for 3 1/4 x 2 1/4in., with leather covered metal body and pull out front, with single extension. An f6.3 Anastigmat was fitted in a 3-speed shutter.

- (a) normal version at £3.30 (AP, 2nd March 1927)
- (b) de luxe version, with radial focussing arm and choice of f6.3 Triplex (£5.25), f4.5 Tessar (£10.25) and f4.5 Meyer Anastigmats in Ibsor or Compur shutters.

- (c) with f8 Rectilinear in 3-speed (BJA 1927 p. 648) at £2.63.

Version (b) became known as the Ultrix Special (21st Sept. 1927) and led to a series of Ultrix roll film cameras during the early 1930's. Of these, the Ultrix Duplex was a version taking both roll film and plate - a fairly common feature on the better cameras of the period. It was normally offered in 3 1/4 x 2 1/4in. (6 x 9cm.) with an f6.3 Tessar lens in Compur shutter. The Ultrix was offered in five sizes:

2 1/4 x 3 1/4in., 2 1/2 x 4 1/4in., 3 1/8 x 4 1/8in., 2 7/8 x 4 7/8in., and 3 1/4 x 5 1/4in.

The available lenses included Ihagee optics of apertures f6.8, f6.3, f4.5; Veraplan lenses of apertures f6.8 and f4.5, and a Zeiss Tessar of f4.5. Most combinations of lenses and shutters were possible!

By 1931 (BJA p. 649) the camera was listed as Model 2860, with brilliant finder, body frame finder and now a self-erecting front. (This may not have been for the first time in view of the complex front on the camera in the 1925 BJA p 758).

Prices in 1931 were:

£3.50 (f6.3 Ihagee); £5.60 (f4.5 Ihagee); £9.10 (f4.5 Tessar)

Meanwhile a Double Extension Ultrix still existed as follows:

<u>Lens</u>	<u>Film size(in.)</u>		
	2 1/4 x 3 1/4	2 1/4 x 4 1/4	3 1/2 x 4 1/8
f6.3 Ihagee	£5.25	£5.75	£7
f4.5 Ihagee	£5.70	£6.75	£8
f4.5 Veraplan	-	£9.50	£10.75
f4.5 Tessar	£9.30	£10.25	£11.50

The Auto Ultrix No. 2860 was an early (BJA 1931 p. 649, notice p. 297) self-erecting roll film camera of 3 1/4 x 2 1/4 in. format with leatherette covered aluminium body, frame and brilliant finders and helical focussing.

Prices were (a) f6.3 Ihagee in 3 speed, £3.50

(b) f4.5 Ihagee in Ibsor, £5.60

(c) f4.5 Tessar in Compur £9.10

(see also the New Autolette: an identical picture of what was now stated to be a VP camera with a choice of Fern lenses!). It is likely that the importer was in fact buying or advertising only part of the Ultrix range. The name was still present in the 1937 lists.

Later versions were the Auto Ultrix of 1937 (at £4.20-£5.50) and the New Autolette of the same year. The latter may be a later version of the camera listed e.g. in 1933 for VP rollfilm. An Ultrix Stereo with a longer body and a base board hinged along the long dimension was also listed in 1930-31. The Stereo camera had two separate bellows, with a frame finder and rack-and-pinion focus. It used film 7 1/4 x 12 1/2 cm.

Prices were:

2x Ihagee f6.8 lenses £10.35 (simple shutters)

2x Veraplan f4.5 lenses £17.80 )

2x Zeiss Triotar f6.3 lenses £18.70 ) with Compur shutters

2x Zeiss Tessar f6.3 lenses £22.90 )

The New Gold was (at least in UK) a 1930 offering. It was a plate camera with a "tropical" teak body, brass fittings and Compur shutter. It was offered in 6x9cm., 9x12cm., and 10x15cm. formats, with a choice of Ihagee f4.5, Trioplan f3.5 (or f3.8), Veraplan f6.8, Veraplan f4.5 and Tessar f4.5 lenses, at £15 to £28. It was apparently not a long lived item.

Another apparently short lived item of 1930 was the Auto Photoklapp - a plate or film-pack camera with a prominent side trellis to the self-erecting front. It was listed with brilliant and sports finders and spirit level, and a choice of Ihagee f6.8, f6.3 or f4.5; Meyer Double Veraplan f4.5 and Zeiss Tessar f4.5 lenses in simple, Ibsor or Compur shutters at £5 - £11 (BJA 1930 p.726).

Other small plate cameras (no details available) were the Pioneer 6 x 9cm. at £9 - £13 (1937) and the 9 x 12cm. Plate available in 1938 complete with plate holders or film pack adaptor and f4.5 Steinheil Unofokal lens in Compur at about \$50 (USA).

Two other plate cameras were the Victor (or Victrix) Popular, Standard and Special of 1927/1928. These had fittings in common with the Ultrix rollfilms, the Standard having radial focussing and the Special double extension rack focussing. Lenses included rectilinears, Triplex and Trioplan lenses in Zenith 3-speed, Ibsor or Compur shutters. Prices £2 - £11.

There were also some small roll film cameras. The chief were

(1) the Weeny Ultrix for 8-exposure on 127 film or 4.5 x 6cm. plates (from 1933 onwards, at choice). It had a rigid body, helical focus movement and folding finder (new in BJA 1932 p.625).

(2) the Parvola for either 4.5 x 6cm. or 3 x 4cm. exposures.

The Weeny was new in 1932 (BJA p.625) with the lens/shutter options as below.

Prices were:

Ihagee f4.5, Pronto £5.25; or Compur £7.25

Tessar f4.5, Compur £12.60; Tessar f3.5, Compur £12;

Xenar f3.5, Compur £10.50 (Xenar not listed 1933).

Large format cameras were offered by Ihagee continuously from 1925, and were among the first items listed in the BJA's from that year, especially the folding reflex.

Folding Patent Klapp or Focal Plane Duplex

This folding reflex camera was well known in the 1920's. It was normally made in 2 1/4 x 3 1/4 and 4 1/4 x 3 1/4 in. formats, had double extension stiffened by lazy tongs struts and a focal plane shutter 1/15 - 1/1000 sec. It was a nicely made camera and certainly very compact when folded. But it was very complex and not too reliable. As the camera developed, a 10 x 15cm. version was added (1930 BJA p.729) as well as a choice of f4.5 Meyer Veraplan, f4.5 Plasmal or f4.5 Tessar lenses. In 1931, the lenses also included the f3.5 Meyer Trioplan or f3.5 Veraplan at prices of up to £50 complete.

Prices were:

- (a) 3 1/4 x 2 1/4 in., f4.5 Meyer, £27.75 (1926)
- (b) 3 1/4 x 4 1/4 in., f4.5 Meyer, £32.75 (1926)
- (c) 10 x 15cm. (4 x 6 in.) from 1931

The name "Focal Plane Duplex" was also used (more correctly) for a double extension plate camera with both focal plane and blade (Ibsor or Compur) shutters, in three sizes (BJA 1930 p.730). This model thus gave shutter speeds from 1 sec. - 1/1000sec. as well as rising and cross fronts.

Leather covered body on aluminium was used.

Prices were:

	6 x 9cm.		9 x 12cm.		10 x 15cm.	
	Ibsor	Compur	Ibsor	Compur	Ibsor	Compur
f4.5 Ihagee	£13.35	£14.17	£15.38	£16.35	£16.35	£20.40
f3.5 Trioplan	-	£17.17	-	£21.05	£21.07	£27.75
f4.5 Veraplan	£14.70	£15.66	£16.87	£17.85	£17.85	£22.35
f4.5 Tessar	£15.66	£16.65	£17.87	£18.80	£18.83	£25.70
f3.5 Tessar	-	£22.27	-	£26.85	£26.85	£33.00

This or a similar camera was also listed as the "Combi".

Night Reflex

Another "big" reflex was the "Ihagee Night Reflex" of 1930 (BJA p.730). This was offered in 4.5 x 6cm. and 6.5 x 9cm. with f2 (Model a) and f1.5 (Model b) Meyer Plasmat, and there is a hint that it was not then new. It is possible that this was the source of the "A.O. Roth" reflex cameras of the 1920's, no longer listed by then. The "Night Reflex" appears to have been short lived, and is very uncommon.

Press cameras

Ihagee also offered Press cameras, with pull-out fronts much like the corresponding Zeiss Nettels. Typical models were the Sport (1930) and Press (1937). The focal plane shutters (1/15 - 1/1000 sec.) were probably as in the folding reflex, but apparently all were of 9 x 12cm. format. The range listed in the 1930 advertisement (BJA p.728) was as below.

Prices were

Ihagee f4.5, £15.30; Trioplan f3.5, £22.35; Veraplan f4.5, £18.60; Plasmat f4, £27.80; Tessar f4.5, £24; Tessar f3.5, £31.50. (Also listed 1931)

The press cameras continued at least to 1937 and probably until the war, but the range of lenses was more limited.

In summary, the Ihagee range of cameras was normally of good quality, but the cameras were either rollfilm equipment that would not have been

easily marketable in the 1930's against the Zeiss Ikon Ikontas and Super Ikontas, or were in the dying large format field. Thus a new product range was urgently needed and was found in the compact, efficient and highly versatile Exakta range. It is likely that this became a major factory preoccupation. None of the other items has achieved the same long term interest. And by 1939 the UK Agents listed only the folding Autolette for 4.5 x 6cm. VP with 7cm f4.5 or f3.5 Ihagoe Anastigmat or 7cm f3.5 Xenar in Compur, at £5 - £8.75; and the 1939 version of the Auto-Ultrix for 6 x 9cm. with f4.5 Ihagee Anastigmat at £5 - £7.25 (Compur shutter). Everything else was Exakta.

## SECTION 2. VEST POCKET EXAKTA REFLEX

The Vest Pocket Exakta reflex marked a new stage in camera design, in that it was a genuinely compact reflex with horizontal film travel, - using 127 film. It seems to have been developed in 1932-33 for sale in mid 1933. (Ad. Am. Photog, 8/33). The number of prototype or pre-production cameras was probably small, and, as usual, they show differences of detail. Once the VP Exakta was in production, the bodies showed two areas of development. Firstly, there are detailed improvements in layout or trim made to all cameras as part of the development of the line, and secondly, there are "features", introduced to justify the marketing of a version with different sales appeal. Note: Initially the 'VP' Exakta body was merely described as the Exakta. By 1936, the Kine Exakta was distinguished by the prefix 'Kine', and by 1938 the VP model was denoted by the description 'standard'. However, the VP designation is the one now universally used.

The following classification has been developed by Mr. Stein Falchenberg and has been cross-checked with the VP Exaktas in the collection of the late Mr. Peter Marchant. The body numbers quoted are merely those seen, and further study in this field will still be worthwhile. All information concerning body numbers and variants of VP Exakta equipment will be received with interest.

1932/1933 Prototype and development models These were used for illustrations for some years' advertising (e.g. Am. Photog. 8/33, showing No. 330232). They can be distinguished by script engraving on the focus mount, later models being in print. Otherwise most features should be as the early commercial models.

1933 Commercial production of cameras began, but only standard 75mm lenses were listed. The 40mm throat of the camera resulted from this choice, and this narrow throat later caused problems in fitting real wide angle and very long focus lenses. But this could not be foreseen in 1933. Early commercial cameras had printed letters on mount, and the speeds on nickel speed dial (B, Z, 1/25, 1/50, 1/100, 1/200, 1/300, 1/600, 1/1000). The infinity catch was operated by the right hand, and was at 9 o/c around the lens mount. There was no cover to the red window, a stud on the back catch, and the camera had straight strap lugs. The lens mount was a 40 x 0.5mm thread (approx). The example described is No. 402844, and other similar cameras occur of numbers 408521, 410082 etc. On these cameras the original pressure plate was very short and had a black finish. Note: The Reflex hood was marked 'Ihagee' only, without the 'sun' symbol.

1933. Modified model This type had slightly S shaped strap lugs and the sunburst symbol on the reflex hood (seen at No. 410920).

1934. New model advertised with a range of interchangeable lenses. All bodies presumably now had the standard thread (40 x 0.75mm approx.) but the flange to film register is reputed to vary. This model now had the sliding cover over the red window, and a black speed knob, but still had knob wind and the infinity catch at 9 o/c for right handed operation. (seen at No. 418504). The reflex hood has both 'Ihagee' and the sunburst



Small nickel rivets were fitted by the cover hinge to steady it upright.

Model A - no slow speeds or delay action

Model B (new) - with slow speed and delay action (No. 418504 is a knob wind Model B)

1935. Leverwind models introduced at Leipzig fair. These can be recognised by leverwind + infinity release catch for left-hand operation at 3 o/c. Speed dials are sometimes black or possibly white metal. Models A and B were both modified as above and sold. (Examples: Model B at No. 431660; 467145; 468096; 487555; 466730 (white metal speed dial)).

1935 (Autumn) Flash Synchronisation added for use of the Vacublitz flash gun. Models A and B continued as before.

1936 Plate Model C introduced Essentially a Model B with a back adapted to take film or VP plates, the Model C had a flange to film register which differed by approximately 5mm. This was compensated for by inserting a ring (body serial numbered!) between the lens and its mount. Thus, lenses with a long thread section are required. Since backs are not easily exchanged, Model C's were a factory finished item. Examples seen have white speed dials, possibly nickel finished and matted. (Reported at No. 437412, 447607, 468710). The Model C had flash contacts, but no flashgun retainer socket. Patent claims can be found impressed inside the back at No. 447607. The Model C has a short bright plated pressure plate. Later Model C's have modifications as listed for Model B's below e.g. chrome trim and/or Vacublitz hole. Accessories included focus plates, a special pressure plate for the use of rollfilm, and plate holders in a flat leatherette case, normally black Ihagee type.

Patents No patents are stamped in the backs of early bodies (to No. 418504 at least). By No. 467145, there are claims to Brit. Pat. 410306, 414465, and Swiss Pat. 175376, 176059. Initially, there is no US Pat. claim (No. 466730) but later No. 467145, both US and German (D.R.P.) patents are marked, but the numbers left blank. One camera has no D.R.P. claim, the others being present (at No. 468096).

1937. New models with front cover plate ("Scutcheon")  
The above cameras had the name and focus movement mounted direct on the body casting, whose front was finished in enamel. From 1937, the casting was covered by a thin black enamel on brass cover, and four new screws were evident to retain it. This may have been connected with improved standard lens register or assembly procedures. The top line is curved.

Model A - no slow speeds as before

Model B - with slow speeds

Notes: i) Chrome trim was introduced at this time, probably on the Model B and reputedly never on Model A. Chrome B's include No. 51788X. At No. 572498, trim is chrome, but speed dial and focus mount are still nickel; lens is chrome.

ii) Kine Exaktas (and other cameras) were now in simultaneous production with serial numbers interspersed.

Exposed focus threads often wear badly (especially on Night Exaktas) and many of the focal plane shutter blinds are by now perished and either brittle or pervious to light. Also, the slow speeds tend to stick, often as a result of dirt on the long linkage of the two shutters, which runs across the camera back behind the finder screen.

A wide range of original standard lenses was available. The following table shows the 1938 catalogue options with prices in current sterling for camera and lens. Other lenses were undoubtedly occasionally fitted, including Corygons, Trioplan (Meyer) and Victars (Ludwig) but it is not clear to what extent these were factory approved. Most original Ihagee-offered lenses have standard filter mounts.

Notes: 1. The infinity register with some f2.8 Tessars is not the same as that of other Exaktas with f3.5 Tessar, or with some accessory lenses. Could it be that each camera was set up individually to the standard lens provided, or at least to 1937?

2. The original commercial camera was introduced at Leipzig March 1933, see Am. Photog. 17th May 1933.

Prices from 1938 British Catalogue and 1939 German List

	Model A	Model B*	Night Exakta	Model C
Cassar 7.0cm f3.5	Rml50	Rml83	-	-
Exakta 7.5cm f3.5	£15.00	£19.50	-	£24.00
Tessar 7.0cm f3.5				
Tessar 7.5cm f3.5	£19.00	£23.50	-	£28.00
Cassar 7.5cm f2.9	Rml72	Rm205	-	-
Tessar 7.5cm f2.8	£23.00	£27.50	-	£32.00
Xenar 7.5cm f3.5	-	£22.50	-	-
Makro Plasmal 7.5cm f2.7	Rm225	Rm205	-	-
Xenar 7.5cm f2.8	-	-	-	-
(also Xenar f2.9?)				
Primoplan 8cm f1.9	-	-	£41.00	-
Primotar 7.5cm f3.5	Rml54	Rml87	-	-
Xenon 8cm f2.0	-	-	£41.00	-
Super Six 8cm f1.9	**	-	£37.50**	-
Biotar 8cm f2.0	-	-	£49.00	-

Note: The 8cm f2 Biotar was a symmetrical design, and by removing the rear element and adding a special extension tube, the front section could be used separately as a 155mm lens of reduced aperture. (1939, UK Cat. p9).

\* Add £1.50 extra for chrome trim (1938)

\*\* This lens was made by Dallmeyer (UK), and may possibly have been available only in the UK. See BJA 1937 p.257. It was also available for the Model A at £31.50, in one source.

For lens options also see BJA 1935 p.594.

Accessories for VP Exaktas

a) Extension tubes A 1.5cm (focus at 13in.) at £0.30

B 3cm (focus at 8in.) at £0.30

(two B tubes + mount focus extension = 7.5cm, gives 1:1 ratio on film)



1938 or 1939 Body modified with a screw hole above the flash sockets to retain the Vacublitz flash gun.

Models A and B known in black and nickel.

(Model B black at 544X34, 544611)

Model B in chrome (No. 572498, 535199, 545052)

Note: This screw hole is actually present on what may be older bodies; thus it is a possible retrofit item after sale.

Night Exakta The Night Exakta (1935 onwards) was always a Model B body, but with the focus mount modified with a larger diameter finger grip to make the use of large aperture lenses easier. The focus movement is less, possibly to reduce wear on the mount. The examples seen have the same lens changing thread and take the same long focus and wide angle lenses on models A, B, C. It is likely that some fast lenses have been swapped onto normal B bodies, possibly especially with 8cm f1.9 Super Six lenses available direct from Dallmeyer in the U.K.

Type 1 from 1935, in black and nickel finish

Type 2 from 1937/8, in chrome finish

These bodies will have any other modifications e.g. Vacublitz sockets, made as standard at the period.

Exakta Junior A simplified Exakta A (engraved Exakta Jr.) (i.e. no slow speeds but with B, Z) and top speed is 1/500 sec. (Review: Min. Cam. Mag. 1939 p.555 when "new"). The lens was front cell focussing, and was carried on a short push-pull tube, locking with a turn-bayonet when pulled out. Lenses were not interchangeable. The body was trimmed either i) black enamel or ii) chrome. Synchronised, probably as A's. Lenses were either Ihagee (Meyer?) 7.5cm f4.5 or 7.5cm f3.5 Anastigmats. Prices at Port Said (1938) were Rm 100 and 110 respectively. E.g. black and some chrome trim to body, No. 470039, with 75mm f3.5 Ihagee Anastigmat No. 715432 with 'M' engraving, front cell to 1.5 metres. No filter thread, body: no scutcheon screws.

General All VP Exaktas wind film from right to left. Although lever wind was fitted, automatic spacing was never used. The slow speeds are essentially a separate timer at the right end, activated by the mirror lift and linked to the main shutter by a linkage in the back of the camera. Marked shutter speeds can vary. Later bodies seem to have 1/500 in place of 1/600. Speeds normally up to 1/1000 but only to 1/750 has been reported. The mirror is not instant - returns and fouls the focus mount if this is not first extended to infinity. The hood was provided with a 45° mirror and sports finder - but never (unfortunately) with a pentaprism. They were among the earliest cameras (by 1935) with built in flash sync. Some variations in knob finishing have been reported in addition to those noted above but maybe due to repairers. Production probably ceased in 1939 or 1940 and never restarted postwar - a pity since the 6x6 bodies were bigger, heavier, and did not really replace it.

VP Exaktas are relatively complex to repair. Thus while they are an attractive 'use' camera as long as 127 film is made, good condition items should command a premium.

- b) Plate back +focus screen to replace original plate holders
- c) Extension hood for viewing screen plain (£0.30) or with magnifier (£0.87)
- d) Lens hood i) for all 7.5cm lenses (£0.37)  
ii) for all 8cm lenses (on Night Exakta only) (£0.53)
- e) Focussing pin to screw into lens mount for easier focussing movement (£0.10)
- f) Large release button (for use in cold weather) (£0.10)
- g) Supplementary close-up lenses these were listed e.g. in the 1947 Focal Guide but may not have been original Ihagee items.  
i) 1 Diopter (38 - 19in. focus range)  
ii) 2 Diopter (19 - 13in. focus range)  
iii) 3 Diopter (13 - 9.5in. focus range)  
However a lens of about 1 Diopter was listed prewar at £0.40 (f3.5), £0.53 (f2.8) or £0.83 (f2, f1.9 lenses)
- h) Colour filters in 3 sizes for slip-on fit to:  
i) f3.5, ii) f2.8, iii) f2, f1.9 lenses (£0.60, £0.75, £1.25 respectively). Normally Light Yellow; Medium Yellow; Dark (deep) Yellow; Yellow Green or Green Red; Blue.
- j) Ever ready cases i) for Model A or B (? also Junior)  
ii) for Night Exakta  
iii) for Model C with plate back
- k) Solid cases (square) for camera and telephoto lens and filter  
i) for Model A and B  
ii) for Model C  
iii) for Night Exakta
- l) Attache case fitted any model
- m) Enlargers with VP lens mount. These were for wall mounting and i) and ii) were supplied without lens board.  
i) Standard Exakta for up to 4½ x 6cm; to 12 x 10in. (probably from 1937)  
ii) Lumimax for up to 6 x 6cm; to near 15 x 12in. (£4.50 - £6.50 with condensers in 1938).  
iii) Projection Lumimax, up to 6 x 6cm. Can be used for larger projection after 90° swing and as a lantern (£10.50).
- n) Microscope adaptor hinged for access to eyepiece (£5.97 1937)
- o) Flash gun (as for Kine Exakta but with "Sunburst" logo) and synch plug lead, as a small Vacublitz outfit or a large outfit (off camera bulb) at £2.25.
- p) Reproduction stand (= Frame) with base, column and arm for copying, £6.50.
- q) Small tripod with ball and socket head, £2.50, also two ball type ball and socket head, £0.33.

#### Interchangeable lenses for VP Exakta

Since the VP Exakta body incorporated a focussing movement, it was easy to mount lenses on a simple barrel for use on the camera. However the narrow throat (only 36mm approx.) caused vignetting with long lenses unless they were telephotos with rather small rear emission discs. And the presence of a reflex mirror limited wide angle lenses at a period when retrofocus designs were not normally used. Thus alien lenses are likely to be of 8 to 10cm focal length. The listed lenses were:

### Wide angle

55mm f8 Tessar (Zeiss, 4-glass) (BJA, 1935 p.594) £13.50 (Rm 122 in 1938)  
 56mm f6.8 wide-angle Anastigmat (Meyer)  
 60mm f11 wide-angle (Dallmeyer) 4-glass (?) (with focussing aperture of f6.5) £6.30

### Normal focus

75mm f4.5 Ihagee Anastigmat fixed on Junior, 3-glass  
 75mm f4.5 (?Serrac) by Dallmeyer, £16.80 (Model A) or £21 (Model B)  
 75mm f3.5 Dalmac by Dallmeyer £18 (Model A) or £22.50 (Model B)  
 75mm f3.5 Exaktar (Ihagee), 3-glass  
 75mm f3.5 Ihagee Anastigmat interchangeable, 3-glass  
 75mm f3.5 Tessar (Zeiss, 4-glass)  
 75mm f2.8 Tessar (Zeiss, 4-glass)  
 75mm f3.5 Xenar (Schneider, 4-glass)  
 75mm f2.8 Xenar (Schneider, 5-glass)  
 75mm f2.9 Pentac (Dallmeyer) £21 for Model A; £25 for Model B  
 \*80mm f2.0 Xenon (Schneider, 6-glass)  
 \*80mm f2.0 Biotar (Zeiss, 6-glass)  
 \*80mm f1.9 Primoplan (Meyer, 5-glass)  
 \*80mm f1.9 Super-Six (Dallmeyer, 6-glass) (BJA 1934 p.293 at £17)  
 83mm f1.9 Super-Six (£31.50 Model A; £36 Model B)  
 105mm f4.5 Exaktar (Ihagee, 73-glass) at £5.75 (1937)  
Note: in BJA 1935 p.594 this is given as 10.5-11cm f4.5  
 \* For Night Exakta only  
 105mm f4.5 Ihagee Anastigmat (black, at No. 103129)

Note: The standard quality lenses were the 4-glass Tessars and Xenars. It is likely that the 5-glass f2.8 Xenar out-performed the f2.8 Tessar and that its performance approached that of the two f3.5 lenses. The 3-glass lenses were normally less satisfactory as a result of limited design freedom and more hurried assembly, although good performance was certainly obtainable from some examples, especially when they were used at small apertures. (The author was once shown bitingly sharp negatives taken with a 3-glass Victor). The 6-glass speed lenses were costly state-of-the-art items but lacked the coating and special rare earth glasses used in modern designs. The 5-glass Primoplan represented a cost-cutting approach to a fast lens, and was less satisfactory.

Also: Occasional alien lenses occur in VP Exakta mount. Examples are the Eurynar (Rodenstock), Plasmat (Meyer), Coronar (Friedrich), Radionar (Schneider), Victor (Ludwig), Cassar (Steinheil), Trinar (Rodenstock).

### Telephoto lenses

120mm f6.3 Tele-Tessar (Zeiss)	£15.50
150mm f5.5 Tele-Megor (Meyer)	£12.00
150mm f5.5 Tele-Xenar (Schneider)	
150mm f5.6 Tele-Dallon (Dallmeyer)	£8.75
180mm f6.3 Tele-Tessar (Zeiss)	£24.00
180mm f5.5 Tele-Megor (Meyer)	
180mm f5.5 Tele-Xenar (Schneider)	
240mm f4.5 Tele Xenar (Schneider)	
250mm f6.3 Tele-Tessar (Zeiss)	£30.00
250mm f5.5 Tele-Megor (Meyer)	
300mm f5.6 Tele-Xenar (Schneider)	
360mm f5.5 Tele-Xenar (Schneider)	

Note: 1. An Exakta tele-lens adaptor was marketed for a) f3.5 and other 7.5cm lenses, except the f2.8 Tessar, b) f2.8, c) f1.9 or f2 lenses, at £1 to £1.50 (1937). It was used in connection with an extension tube and probably was a negative concave supplementary lens, increasing the focal length of the normal lens to about 10.5cm, and reducing maximum aperture of the lens by two stops. Definition was poor and the item was soon dropped from the catalogue.

2. The camera was returned to the factory or Agent for lens fitting, the above prices including the cost of this. This suggests that the flange to film distance was not standardised.

### SECTION 3. 6 x 6cm. Exaktas

#### Prewar

The first type of 6 x 6 ( 2 1/4" sq.) Exakta was marketed in 1937 (see Permutt p.157) probably only in Europe. The wind lever was 125mm long and on the baseplate. A modified camera was brought into the UK in 1939 just before the war, and had a shorter wind lever. The launch date (promised June 1939) meant that few accessories were ever produced for it although they were probably designed. It can be recognised by its trapezoidal shape, resembling an overgrown VP Exakta. Shutter speeds and shutter design resembled the VP model, but the lenses were bayonet mounted, and incorporated focussing and depth of focus scales. The 6 x 6 Exakta takes 120 film and has leverwind on the camera base, although visual film spacing is necessary. The camera was manufactured only in full chrome trim, and was described fully in an Amateur Photographer article in the 1950's. Film spacing was automatic after setting frame number one.

Lenses that were available for the 6 x 6 Exakta prewar were as follows:

8.5cm f3.5 Primotar

10cm f1.9 Primoplan

10cm f2 Biotar

75mm f3.5 TK Canter (see M. Auer, Ill. History)

8cm f3.5 Tessar

8cm f2.8 Tessar

8.5cm f3.5 Ihagee Anastigmat\*

8.5cm f3.5 Exaktar (Ihagee)

) It is unlikely that wide-angle or long  
) focus lenses were ever issued in the  
) UK owing to the war, but prototypes  
) doubtless existed.

\* The two Ihagee lenses may in fact be identical, but are listed as being different. The latter is actually described by a current owner.

The normal list was shown in Popular Photography July 1939.

Exchange lenses once advertised secondhand were:

65mm f6.5 wide angle Tessar

100mm f2 Biotar

180mm f6.3 Tessar

#### Post war - Exakta 66

The postwar Exakta 66 model, manufactured in the early 1950's ("new" in Feb. 1939) differed considerably from the prewar camera. It was a ta upright design, with a vertical film track. It had a die cast body, cloth focal plane shutter with speeds 12 - 1/1000 sec., flash synchronisation and a removable hood (which included a magnifier and a sports finder). The camera also had interchangeable focussing screens, removable backs and a counter for 6 x 6 or 35mm. Note: (the existence of the 35mm back has been seriously questioned as unknown to the USA importer). Either size could be preloaded but could not be interchanged in mid-roll. The postwar 66 also had a film reminder on the wipe clean PRINTATOR principle and a bayonet lens mount. The reflex focussing mirror was split and doubly hinged to give improved results with long focus and/or wide angle lenses.

There were apparently delays in the initial delivery of Exakta 66's, since it was actually apparently sold from about Feb. 1955, when it was said to have lens interchangeability from 56 - 400mm (Pop. Photo. Feb 1955).

The Exakta 66 was mainly exported to the USA and appears to be unusually rare in the UK. It was closed out at £130 in Aug. 1962 (Pop. Photo. p.131) with bulb and electronic synchronisation.

Two types, differing in finish are known:

Type I: which has a chrome surround to focussing hood etc. (normal type)

Type II: A version with black finger grips at the sides of the hood and blackening of the side catches has also been illustrated. (Collection M. Auer No. 313 but is apparently due to an owner modification). A very early camera photographed showed a modified foot rather like a strap lug.

Only one standard lens appears to have been available for the Exakta 66, i.e. 80mm f2.8 Tessar, (Jena, T-coated) with preset diaphragm.

Accessories included: ever ready case (pouch), flash gun, extension tubes, copying stand, bellows attachments, magnifier, pentaprisms ("in preparation") and special lenses.

Lenses for postwar 6 x 6 Exakta (Exakta Corp, Bronxville 1957) are listed below.

Prices were:

135mm f3.5 Meyer Primotar, P.D. \$99.50

180mm f3.5 Meyer Primotar, P.D. \$149.50

400mm f5.5 Meyer Primotar, P.D. \$319.50

6 x 6 camera with 80mm Tessar (P.D.) \$319.50

Bellows unit \$89.50

Ihagee Extension tubes + adaptors \$46

Ihagee 2 in 1 adaptor \$21

#### Some 'Stop Press' notes on the postwar Exakta 66

During the final production of this Checklist, one of the compilers had the good fortune to acquire an almost mint Exakta 66 of the postwar upright box-shaped variety. It therefore seemed appropriate to add some detailed notes on this beautifully engineered rare camera while the chance offered.

General description: The Exakta 66 is a 6 x 6cm SLR whose body has a rectangular front elevation, from which protrudes the mirror box assembly extending the full height of the camera (if a pillar beneath the mirror box designed to prevent the camera toppling forward is included). The front of the camera has a typically Exakta satin chrome finish with the word 'Exakta' (spelt with a 'k') in the same script as is found on early postwar Exakta II and VX cameras. Beneath the name is a catch to release the waist level finder hood (again as on VX 35mm models) with a '6' engraved either side of the catch to provide the '66' logo. Below the catch is engraved 'Ihagee Dresden'. The rest of the body is black leather covered with bright (not satin) chrome edges to all the dimensions. On the right hand side (i.e. where the right hand rests when the camera is in use) are the following:

i) Film counter top left.

ii) Main shutter speed dial with speeds 25/50/100/150/250/500/1000/B/T set by lifting and turning the dial (top right).

iii) Circular winding plate with 'wing nut' finger grips which winds the shutter and advances the film when turned approximately 180° and flies back with a return spring to 12 o/c/6o/c position.



iv) Slow speed/delayed action dial (bottom right) giving slow speeds (black figures on chrome) 1/10,  $\frac{1}{2}$ , 1, 2, 3, 4, 5, 6, 7, 8, 9, 11, 12 seconds, and delayed action (red figures on chrome) of 1/5, 1, 2, 3, 5, 6 seconds. As with other Exaktas, this is wound after the shutter, slow speeds operating with the main speed dial set to T.

v) A lever which when moved from 6 o/c to 12 o/c, locks the shutter button to prevent accidental exposure. (Slightly above and to the right of the slow speed dial).

vi) Top right of the side of the mirror box, a lever which lifts the focussing screen.

On the left hand side are:

i) A pull out recessed knob to make loading of take up spool possible. This knob is in fact on the film magazine.

ii) Top left, a variable flash synchronisation delay dial with delay apparently marked in milliseconds. '0' is for electronic flash - the flash socket in on top front of the camera.

iii) At the centre, a lever which, when pulled out slightly and turned from 6 o/c to 12 o/c, permits removal of the film magazine by sliding it to the left, away from the projecting plate of the camera body into which the magazine rests.

iv) A tripod bush on the side of the camera (odd on a square format camera unless intended for a flashgun bracket).

v) A neat erasable film type indicator, like a child's 'magic' sketch pad, on which the writing is erased by turning a knob which passes a bar between the top surface and the semi adhesive carbon surface beneath. This is on the side of the film magazine.

vi) The lens catch, on the left hand side of the mirror box.

On the back of the film magazine is a deep rectangular recess behind the pressure plate, the recess itself serving (apparently) no purpose. To the middle left of this recess is a clear glass window behind which a red pointer moves to indicate the added thickness of the start of the film on the backing paper when loading a film. When the pointer moves, you set the counter to '1' and start shooting. From then on, counting of frames and frame spacing are automatic. The height of the camera is 137mm, its width is 106mm, its depth is 150mm with lens and its weight is approximately 3 lbs 8 oz (1589 grams) with lens fitted. The body number of our example is 60107X (X being a digit suppressed for reasons of confidentiality).

The lens: The standard lens (and, as far as we know, the only lens ever supplied) is an 80mm f2.8 Carl Zeiss Jena 'T' coated Tessar, the number on our example being 3513XXX. This lens is in an alloy mount typical of postwar Jena lenses. It has a preset diaphragm with a spring loaded pull-back setting ring similar to the ring found on preset Biotars on Exakta Varex cameras. The lens focusses to approximately three feet, the example studied being marked in feet only. The lens mount is a simple but precise three tongue flat bayonet (male on the lens) which engages with the female bayonet and is locked home by an approximately 30° clockwise turn, after which a simple pin attached to the lens catch, slides forward into a hole in the lens bayonet.

The mirror is a non return mirror (as one would expect) and is of a unique two part construction. When the shutter button is pressed, the



front 14mm of the mirror recedes downwards into the base of the mirror box, the remainder swinging upwards in the conventional manner.

The shutter - speeds are described above - is a vertical running cloth blind self capping focal plane, the actual aperture of which measures 58.5mm x 56.5mm. The speeds on the example examined, once the shutter had been serviced, were described as remarkably accurate.

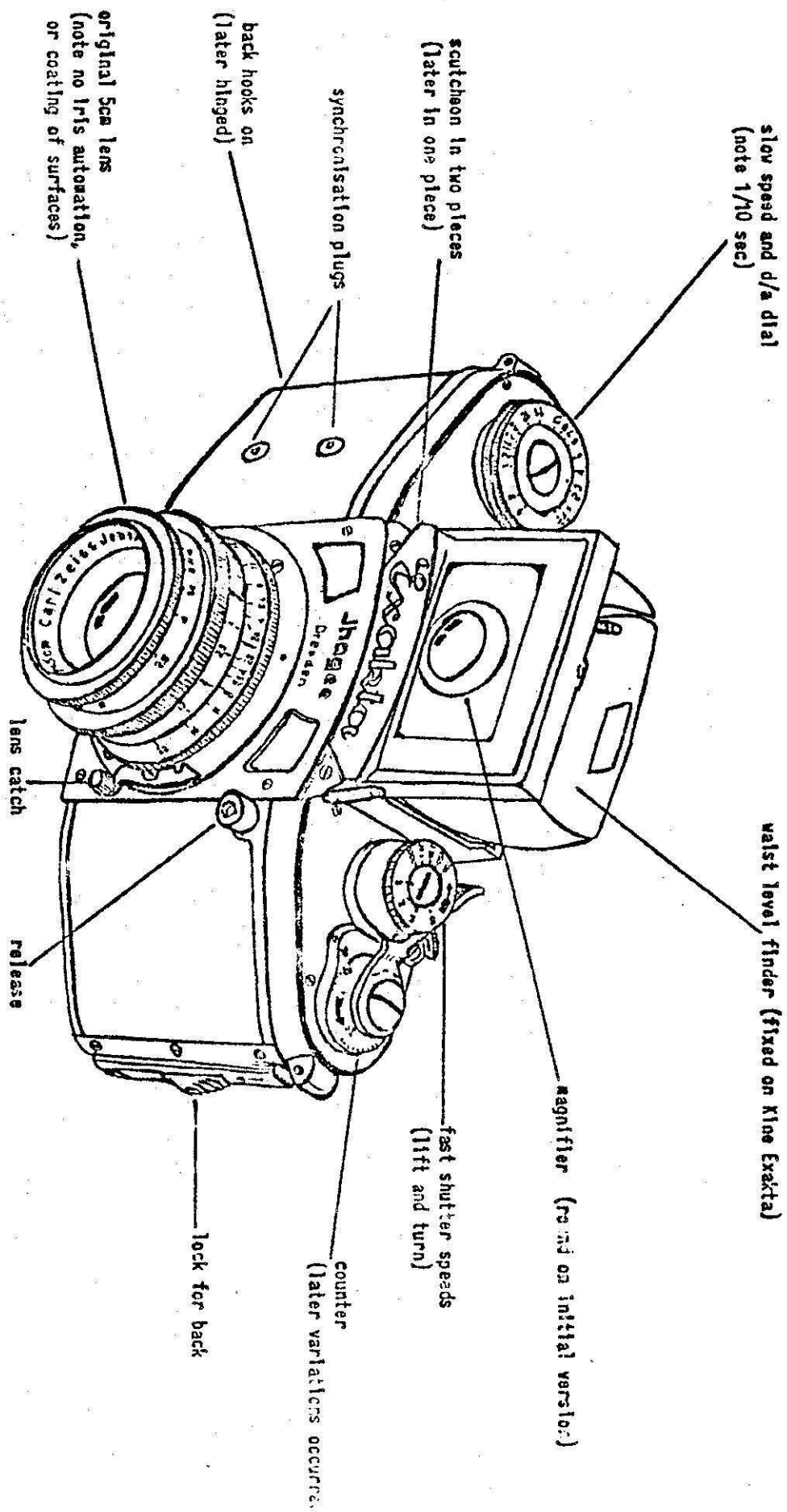
The film magazine is not of the Hasselblad/Bronica type with dark slides - it is as obviously intended only to facilitate the rapid changing of film by having magazines pre-threaded for changing during a session. The magazine incorporates both spools and the pressure plate, and has a ratcheted film transport system driven from the projecting part of the camera body against which the magazine slides when inserted sideways into its guides on the camera.

The viewfinder has a three leaf removeable chrome hood (neatly marked 1, 2, 3 to indicate the order of folding) with a well engineered large magnifier that covers the whole of the screen. Presumably, it was intended that alternative interchangeable finders would be offered. The screen is deeply curved as with 35mm Exaktas, and in our example is plain ground glass. As it is easily interchangeable, other screens would certainly have been intended, but were probably not marketed. There are carrying strap lugs to either side of the viewfinder hood on the top of the camera body.

The case has a drop front marked 'Ihagee' on the front of the lens protusion, but is not in any sense an 'ever-ready case' since it is impossible to do more than view and focus with the camera in the case. There is no fixing for case to camera despite there being tripod bushes (1/4" thread) on both bottom and side of the camera. There are no apertures for reaching the shutter button, winding on or viewing the film counter.

Summing up: The repairman who worked on our Exakta 66 said that it offered most that Hasselblad offered with comparable engineering. The camera handles well, has a bright clear focussing image and produces excellent crisp negatives. What a pity it is that so few were made, and that the accessories and other lenses seem never to have been produced.

Note: The camera described certainly has no 35mm film counter as mentioned in our short earlier description of the postwar 66. It seems possible that an earlier writer had confused the flash delay setting with an exposure counter, which it closely resembles.



Original 1035-type Kine Exakta

#### SECTION 4. Prewar 35mm (Kine) Exakta

##### Prewar Kine Exakta

During 1936, Ihagee launched the 35mm Kine-Exakta. This must represent one of the most innovative designs in miniature work, and the authors tend to place it along with the Leica (1924, 35mm) the Leica I (C) (1931, interchangeable lenses), Contax I (1932, bayonet mount) and the Contax S (1950) as representing a real change in the direction of design. In contrast, the years 1955 - 1978 have produced fewer startling changes, with the possible exceptions of the introduction by Konica of the first single lens reflex with automatic exposure long before any other manufacture attempted it, and the coming of through-the-lens metering.

The original Kine-Exakta offered many novel features. It had full reflex viewing with an enlarged image making possible accurate focussing for all lenses. It had lever wind, and built-in flash synchronisation (with non-standard plug). And it had a very wide range of shutter speeds (12 - 1/1000 sec.). The camera also had a neat built-in film cutting knife.

Furthermore, the lenses were easily changed on a bayonet mount and were generally of high optical quality. All models were manufactured in chrome trim.

##### 1. Kine Exakta Type A (1936 - November 1937) (Body numbers 455681 - 484258)

Distinguishing features of this original type were the circular magnifier glass in the viewfinder, and the scaling of the slow speed shutter from 1/10sec. to 12 secs. This model is rather scarce and very collectible (BJA 1937 p.258). The serial numbers (480 - 486,000 approx.) suggest only a few were made.

Supply of the second type to the UK market may have lagged somewhat and the advertising still shows this first model in 1938.

Early Ihagee pictures show a camera(s) with a third hole above the synchronising plugs to secure a flashgun (as on VP). This was a very early deletion if it was ever sold.

##### 2. Kine Exakta Type B (November 1937 - 1940) (BJA 1939 p.296) (Body numbers 495527 - 519771)

This second model was fitted with a rectangular magnifier showing more of the screen at a lower magnification. This type is fairly common and relatively easy to obtain although mint examples are scarce. These prewar models had black flock antifiare treatment to the film chamber.

2b. From 1940, the above camera was supplied (as above prototype!) with a socket to fit the Mark II Vakublitz flashgun, with an attaching screw below the slow speed knob. It has been said that early wartime cameras also had a larger size rewind knob, although the authors have no positive evidence of this. (Typical body numbers 532169 - 548582).

Notes: 1) Kine Exaktas were used by the Luftwaffe (normally engraved Luftwaffen-Eigentum) and by the Navy in U-boats (normally in twos with twin periscope oculars) to verify "kills". Variations such as an engraved "M" or special front mounts on marine versions are possible - details would be welcome from any quarter.

ii) Reloadable cassettes were available prewar.

iii) An early wartime camera has "T.M. Reg." (Trade Mark?) on the scutcheon.

### 3. Kine Exakta Type C (Early post war 1948)

(Body numbers 621656 - 646249)

In these early postwar cameras, mainly supplied for sale in the USA, the spelling of Exakta was with a c - 'Exacta'. The slow speeds were from 1/5sec. (not 1/10 sec.), the mirror chamber was baffled (not flocked) and the eyelets were modified. A camera of this type is shown in 'Directory of Collectable Cameras' p.16, and is classified as '1948 type'. It was advertised by Sterting-Howard (July 1950) at \$147.50 with f2 Biotar, and with clip-in prism at \$35.

#### Prices before the Second World War

(Prices where given are for items listed in the 1938 Garner and Jones Ltd. catalogue)

(1938)	Kine Exakta with 54mm f3.5 Exaktar	£27.50
	Kine Exakta with 50mm f3.5 Tessar	£34.50
	(this lens option appears to have been new in 1938)	
	Kine Exakta with 58mm f1.9 Primoplan	£45.00
	(Note - an early illustration shows lens No. 71897xx)	
	Kine Exakta with 58mm f2 Biotar	£55.00
	(this lens was not offered in 1937)	

#### Interchangeable lenses

##### Wide angle

40mm f4.5 Wide angle Tessar (Zeiss, 4-glass)	
40mm f4.5 Wide angle Anastigmat (Meyer)	£14.70

The Kine Exakta mirror action limited the use of wide angle foci to 40mm, although cameras modified by cutting into the mirror or by removing the mirror action may have existed before the war. Retrofocus wide lenses were restricted to movie use prewar; postwar retrofocus lenses should fit prewar cameras satisfactorily.

##### Normal focus

50mm f3.5 Tessar (Zeiss, 4-glass)	
50mm f2.8 Tessar (Zeiss, 4-glass) (from about No. 2000731)	
(50mm f3.5 Xenar (Schneider, 4-glass)*)	
50mm f2.8 Xenar (Schneider, 5-glass)	
54mm f3.5 Exaktar (Ihagee, 3-glass)	
58mm f2 Biotar (Zeiss, 6-glass)	
58mm f1.9 Primoplan (Meyer, 5-glass)	
58mm f1.9 Super Six (Dallmeyer, 6-glass)	
50mm f2 Xenon (Schneider, 6-glass) (BJA 1937 p.267)	

\*Existence of this option is questioned.

##### Long focus

75mm f1.9 Primoplan (Meyer, 5-glass)	
85mm f4 Triotar (Zeiss, 3-glass)	
100mm f5.6 Tele Dallon (Dallmeyer, 4-glass)	
105mm f2.8 Trioplan (Meyer, 3-glass)	
105mm f2.7 Makro-Plasmat (Meyer, 6-glass)	
120mm f4.5 Trioplan (Meyer, 3-glass)	
135mm f4 Triotar (Zeiss, 3-glass)	
150mm f5.6 Tele Dallon (Dallmeyer, 4-glass)	£10.75
150mm f5.5 Tele-Megor (Meyer, 4-glass)	£16.00
180mm f5.5 Tele-Megor (Meyer, 4-glass)	£20.00
180mm f6.3 Tele-Tessar (Zeiss)	£31.50
250mm f5.5 Tele-Megor (Meyer, 4-glass)	£30.00
250mm f6.3 Tele-Tessar (Zeiss)	
500mm f8 Fern Long Distance (Zeiss)	

Notes: i) It is likely that all the Zeiss Tele-Tessars and Fern are 4-glass constructions in 2 cemented pairs but little data is available. The Contax 18cm f6.3 Tele-Tessar K has two uncemented lenses at the front.

ii) The 500mm Fern Tessar was probably the same lens as was supplied for the Contax.

iii) It is likely that lens serial numbers run from about 2,000,xxx (Zeiss); 7,18x,xxx (Meyer) and perhaps 1,07x,xxx (Schneider) but further data is welcome.

Prewar Accessories for Kine-Exakta

1. Supplementary lenses for close up focus

- i) for f3.5 lenses
- ii) for f2.8 lenses
- iii) for f2 and f1.9 lenses  
(Probably available in 1, 2, 3 diopters)

2. Filters fittings as close-up lenses

Available in pale, medium and dark yellow, green, blue, red. Also Bernotar polarising filter, and 'Duto' soft focus discs.

3. Ball and socket tripod head

4. Extension box for focussing screen, of leather, with magnifier covering the whole screen, and keeping out light to allow a more brilliant image to be seen.

5. Large release button (Described as 'Aero' by Ihagee)

6. Lens hoods including up to 38mm dia.; up to 51mm dia.

7. Copying stand

8. Extension tubes

- i) Tube C (later Tube A). Shortest tube with 2 bayonets machined non-separable. Gives 5mm extension.
  - ii) Adapting bayonets (later Tube B). Screwed together these give an extension of 10mm.
  - iii) Extension tubes, threaded, as for VP Exakta to give extensions of 15 and 30mm.
- Since the focus movement on a typical 5cm lens (2.8 Xenar) was 5.5mm, these tubes gave a complete range of close-up focus to above 1:1 ratio.

9. Special plastic reloadable cassette

10. Microscope adaptor (hinged to allow access directly to the eyepiece)

11. Ihagee flashlight synchroniser (Vakublitz) flash gun, fits direct to camera, using flash contacts provided. Similar units fitted both VP and Kine models - and presumably the 6 x 6, although no positive evidence on this point is thus far available, although the 35mm unit was actually a different size and lacked the 'sunburst' logo.

12. Enlargers fitted for Exakta bayonet lenses

- i) Kine Exakta Enlarger No. 6040; as Lumimax for VP Exakta but without bayonet mount (square lamp housing)
- ii) Lumimax M1 No. 6402 (round lamp housing)
- iii) Lumi projection version (normally with 75mm f4.5 Ihagee Anastigmat)
- iv) A fixed focus enlarger for 35mm negatives was offered, with fixed 50mm f4.5 Trioplan (Meyer)

13. Film printer for 1:1 printing of film strip positives

14. Projection lantern with projection lens

15. Publications

- i) Annual catalogue e.g. Garner and Jones Ltd., (Polebrook House, Golden Square, London W1.
- ii) Standard (VP) Exakta Handbook (Gerhard Isert)
- iii) Kine-Exakta Manual (Gerhard Isert)

Dallmeyer lenses for Exaktas

Lenses by Dallmeyer were listed by the agents before the war as original equipment and similar lenses (coated and doubtless updated) have been available ever since. The range includes three types and is especially strong on Telephotos. Currently (1978) they are available to special order only.

They are now made only for Exakta/Exa bayonet mount, but could doubtless be adapted for 6 x 6 or VP models, since the author's example has an easily-exchanged back section carrying the bayonet mount.

Dallmeyer Super Six

Various focal lengths of up to 150mm (6in.) f1.9, and to 200mm (8in.) f2. (Normally supplied for TV, microfilming or projector use).

Wide angle

60mm f6.5 is still in production (VP size)

Telephoto

Two series are available, differing principally in their maximum aperture.

- i) Dallmeyer Telephoto: f5.6  
6in. (152mm); 9in. (229mm); 12in. (305mm); 14in. (356mm);  
17in. (432mm); 20in. (508mm); 24in. (610mm); 40in. (1016mm)
- ii) New Large Adon Telephoto: f4.5  
9in. (229mm); 12in. (305mm); 14in. (356mm);  
17in. (432mm); 20in. (508mm); 24in. (610mm)

Note: These lenses are normally in rectilinear (non-rotating head) mounts, finished in black with some chrome trim. Coating began late in the war, some of the 36in. (900mm) f6.3 Big Berthas being coated, and lightweight (14lb.). Filters were available for all lenses, as are hoods and caps as original equipment.

Wartime lenses These appear to be extremely scarce but Luftwaffe or comparable engravings have been reported on 40mm and 50mm Zeiss Tessars.

Wartime cameras Essentially, Exakta production was halted and the factory converted to the production of Luftwaffe gun-cameras. Steenbergen left for the USA for the duration of the war.



### SECTION 5. Post war Exakta 35mm Cameras

Post war Exaktas are not yet really collectors' items. The number of model changes is large and the actual differences are often small. There is little information on the quantities of each model that were produced, except for what can be deduced from the serial number data below. Postwar, Ihagee were 'active' by 1950 (AP 8th March 1950) overhauling and coating prewar equipment, and supplying Exaktas including the 'new' Zeiss prism for eyelevel use. There was also a new flashgun.

1. Exakta II (1949) This was very similar to the prewar versions, but had 'II' embossed on the scutcheon spring, which was all in one piece, and had a hinged cover for the (rectangular) magnifier. The camera also had an up/down rewind lever, and had no attachment socket for Vakublitz. List price about \$250 (1950), discounted to about \$180.

- i) Some early illustrations show the camera with black finish on the plated parts of the lens mount.

- ii) The Exakta II was probably normally produced with all chrome trim to the metal parts, except for (as in prewar) the narrow band at the top of the body, above the casting cover

- a) Body numbers (650289 - 655304) have straight edge to top of scutcheon. With Vakublitz hole.

- b) Later bodies (657432 - 672046) have a stronger rolled-over edge and lack the threaded attachment hole for the Vakublitz flashgun.

Notes: (1) The use of the description "Kine" was dropped in 1950. A special clip-in pentaprism was available for the Exakta II, and this is also useable on Kine Exakta I models.

- (2) In 1950, both Exakta II and Kine Exakta were on sale (USA)

2. Exakta Varex V (April 1950) The (original) slot in the top plate was modified so that the condenser/focus screen were removable and the normal waist level finder could be exchanged for an eyelevel pentaprism. It is likely that this was among the first eyelevel SLR's, along with the Contax S and D (Pentacon). The West German Zeiss Ikon SLR Contaflex was later (1953), perhaps owing to the time required to design a suitable Compur shutter. Body numbers 672307 - 690069.

We understand that the "Varex" name was dropped in USA owing to a trade name dispute with Argus, hence the VX terminology. The camera was listed Dec. 1957 as "Kine Exakta V".

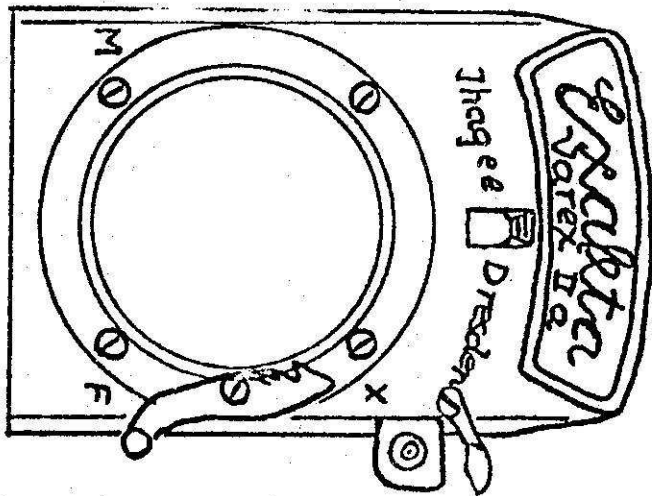
The Exakta Varex V was distinguished from earlier Exakta models by:

- i) 'Varex' on the scutcheon (except in the USA)
    - ii) Interchangeable finders
    - iii) Hinged back
    - iv) Base keys replaced by knobs
    - v) Swinging safety cover over release button (on some models at least)
    - vi) Split image rangefinder screen and electronic synchronisation

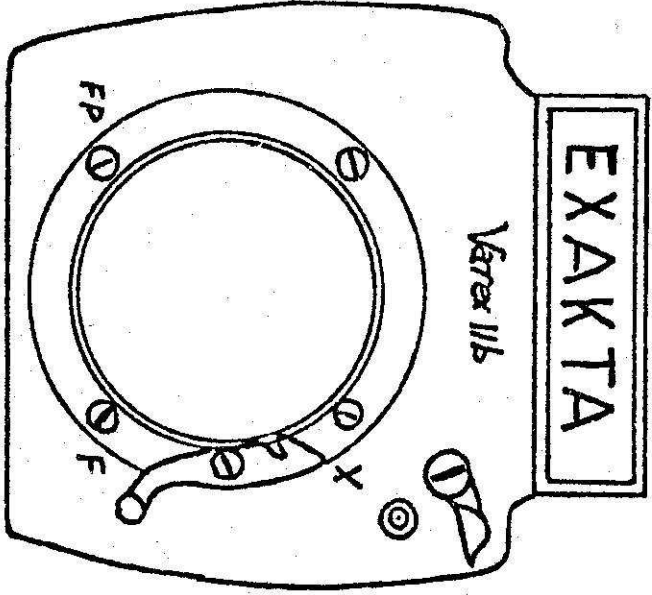
3. Exakta Varex VX (or Exakta VX in USA) (1951) This model had the film counter more enclosed with gear setting and modified two-pin flash sockets. It had a solid die cast body, and a removable hinged back. New auto lenses were launched with the camera - the first stage in the steady evolution of the automatic iris diaphragm. Notable early auto lenses were the auto Xenon and Westanar. Body numbers 752969 -



silver letters on black background

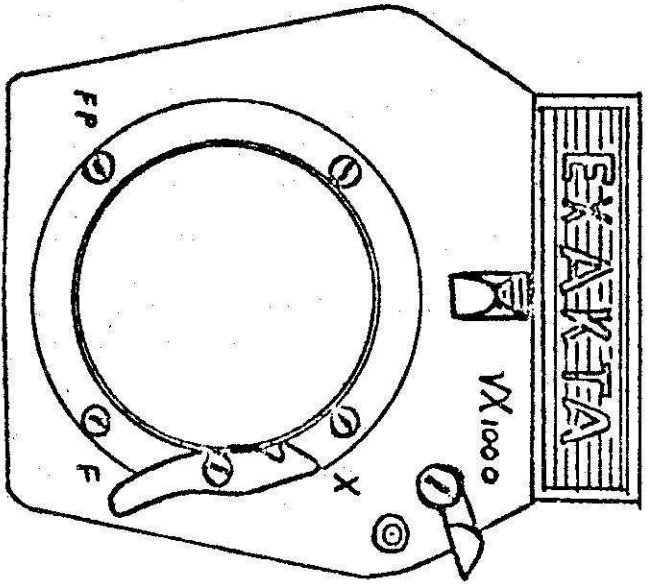


Exakta Varex IIa early version



SCUICHCENS (- Faceplates)

Late Exakta Varex II and all IIb's



Exakta VX 1000

4. Exakta Varex VX (1956) On this model the film counter was fully enclosed, with a knurled setting disc. The camera now had two coaxial flash sockets of standard size. By Dec. 1955, this model was listed with auto lenses e.g. 50mm f1.9 Xenon.

Body numbers 774385 - 812659.

Some prices in this period are of interest in suggesting relative lens prestige:

Varex (Dec. 1951)

with 50mm f3.5 Tessar \$199.50 - \$250 (preset lens 1953)

with 50mm f2.8 Tessar \$270 (preset)

with 50mm f2 Xenon \$227.50 (not preset)

with 50mm f1.9 Primoplan \$240 (preset \$290 in 1953)

with 50mm f2 Biotar \$313.75 (preset \$343 in 1953)

with 50mm f1.5 Angenieux \$375 (1953)

Exakta VX (Dec. 1955)

body only \$115

with 50mm f2.8 (?Domiplan) \$129

with 50mm f2.8 Tessar \$149.50

with 58mm f2 Biotar \$180

with 50mm f1.5 Angenieux \$200

with 50mm f1.9 Xenon \$200

Pentaprism: on all about \$35.45 extra

5. Exakta Varex II (1957) Now with 1/150sec. speed setting, name engraved and filled-in black.

Body numbers 823037 - 850880

i) Early examples have 3 coaxial flash sockets and an improved shutter and film counter mechanism.

ii) Late examples (1961) have improved waistlevel reflex hood with one finger closing, and interchangeable focussing screens. M.F.X. flash synchronisation.

Note: The Varex II was the first Exakta normally offered with fully automatic preset iris lenses.

6. Exakta Varex IIa (late 1958)

i) The Exakta Varex IIa had a new dimpled pressure plate although some early examples lacked this feature e.g. at serial number 82951x. The 1/150sec. speed was deleted, and the name plate and pentaprism had the name in bright chrome. The camera was available with a selenium cell meter built into the pentaprism head. Another variation was in the front scutcheon. The original IIa models (believed to be body numbers 853999 - 870117) had the curved-top scutcheon of the Varex VX until about 1961 but were marked "VXIIa"; subsequently a square topped scutcheon was fitted, with a central catch at the front for the pentaprism. The older type was shown in some advertisements at least until 1966, thus confusing the date of the model change, which at the production level seems to have occurred when some 300,000 Exakta bodies had been produced. The pentaprism supplied changed from the original all-chrome type to one in chrome with leather panels at about this time. Some pentaprisms are said to be in nickel finished brass rather than chromed, but are otherwise standard. At about this time, the dimpled pressure plate was made interchangeable by modifying the leaf spring which now fitted into four locating pins inside the back.

Some options/prices were (UK):

Ila body £49

50mm f2.8 Tessar (F.A.D.) £72.25

50mm f2 Pancolor (F.A.D.) £88.90

50mm f2.8 Domiplan (F.A.D.) £55.30

50mm f2 Domiron £80.55

Prices with prism and rangefinder screen were approx. £14 greater.

The UK Agents were Luminos Ltd.

ii) In late 1959, the scutcheon was modified to one with raised chrome lettering (in place of ink filled), at body numbers 899040 - 913830. Some such scutcheons were retrofitted to type (i) cameras, probably in some cases before sale in the USA, to sell 1959 models in 1961.

iii) The Exakta Ila was, in late 1960, supplied with a modified film track, with a film guide that was absent from the next model. The mirror release was still bolt-type. A few prism and finder tops were finished with anodising (black and white lines) rather than leather. This serial number range may include updates or intermediate models. (Body numbers 939606 - 970328)

iv) Varex Ila with hook-type mirror release in place of bolt-type. Leather trim to finders. Body numbers 982416 - 987565.

7. Exakta Varex IIb (=VXIIb) (1963)

In production from 1963 to 1967 (about!) the IIb underwent several changes. Initially it was a late Ila, modified to give speeds in a geometric scale (1/30, 1/60, 1/125sec. etc.), with a rewind crank in the rewind knob, and no catch for the finder.

a) Early models of the Varex IIb have small screw heads, a shutter lock similar to that of the earlier model, a dark violet background to the slow speed dial, and a detente for the back at the fully open position. These models shaded in character into type (b) and it is likely that production was continuous with intermediates occurring. Body numbers 1010739 - 1055921.

b) This version had large screw heads, a shortened lock, a black background on the slow speed dial and no back detente.

Body numbers 1070323 - 1123230.

Note: One minor variant on VX/Varex cameras is in the index used for the film speed setting (which can be ASA/Weston or DIN). It seems that A was usually supplied on bodies with 1/4in. Whit. tripod boss and DIN with the metric size. Other minor engraving variants may also be related.

Note: Also referred to as VXIIb.

The Exakta Varex IIb was normally listed with black and chrome lenses only. Price in USA with 50mm f2 Pancolor was \$270 (1964).

8. West German Exakta Announced at Photokina 1963, this camera had left and right hand releases, a new external and the old internal bayonet, internal iris coupling, instant return mirror and the original pentaprism fitting. It was shown by "Exakta, Munich". (Pop. Photo. 1963 p.70).

9. Exakta VX1000 (1967) This was the first Exakta with an instant return mirror. (The name "Varex" was not used). It had the same basic body style as previous models but considerable internal changes. The top plate trim was taken outside the body casting. The VX1000 accepted all the accessories of the previous VX Exaktas, including the TTL meter/prism.

Body numbers 1126487 - 1164645.

Some variants included:

- a) Original, plain.
- b) Engraved "aus Dresden".
- c) Marked "Elbaflex" for sale in Germany. } Serial numbers  
1191262 - 1227000 approx.  
(cf. Photo Magazine with AP 13th November 1968)

It is possible that engravings (b) and (c) were the result of the success of the Munich company in registering the trade-name for their use in Germany and/or elsewhere. This organisation also resulted in the creation of camera 10 below.

Prices of VX1000 in USA were:

body \$70

with 50mm f2.8 Tessar (FAD) \$80

with 50mm f2 Pancolor (FAD) \$95

with 50mm f1.9 Xenon (FAD) \$120

10. Exakta Real (Spring 1967 - Spring 1968) (Review: Modern Photography)  
This was apparently derived from camera (8). The Exakta Real was again an original design with left and right hand releases, to accept established types of Exakta lenses. Little is known about production, but the components were reputedly imported into Berlin for assembly there. The lens mount took 46mm lenses or the original 37mm "Exakta" diameter with an adaptor. Shutter speeds were B, T, 2 sec. - 1/1000sec.

Price \$250 with 50mm f1.9 Xenon (Germany, 1967)

The designer was said to have something in common with the Edixa Reflex. Production was limited to "some hundreds".

11. Exakta VX1000 TL (1969)

This was essentially a marketing term for the VX1000 sold complete with the through the lens metering accessory prism. Normally marked "aus Dresden" or "Elbaflex". No "Ihagee" engraving was used, at least in the USA. The camera was available in the USA by Sept. 1970 at \$216 with the 50mm f2 Pancolor lens.

Body numbers 1191262 - 1191531. Late cameras have a plastic name plate. Early cameras for USA, imported by Exakta Photo. Prods. Corp. have the 'TL' left unfilled to distinguish them. About body number 1200635.

Note: All late Dresden Exaktas (at least from early VX types) were fitted both with the original internal bayonet and also with an external bayonet. The latter was designed for the mounting of very long focus lenses (security, absence of obscuring the small body aperture, etc.) but it was not developed as a means of mounting high speed lenses or to provide internal linkages for iris control as it might have been.

12. Exakta VX500

Body numbers: i) early type, 1501308 - 1504527

ii) late type, 1581284 - 1584973

This model was essentially a low priced VX1000 with the shutter speed range limited to 1/30 - 1/500 sec. + B. Otherwise it was exactly like a VX1000. Late cameras have a lightening flash symbol on the speed dial between 1/30 and 1/60 sec. The same camera may also have been sold with a 42mm screw mount. It was certainly shown with a Praktica screw mount at Chicago (1973).

13. VX500: marketing term for model (12) above when sold in Germany.

14. Exakta RTL1000 (1970 - -972) (Review AP 1st April 1970)

This camera has a radically different body, based on the Praktica cameras, and with a vertically running shutter with metal blinds, for speeds 8 - 1/1000 sec. The RTL1000 has two release points, the left for normal Exakta lenses, although minor adjustment is sometimes needed. But the camera could also take lenses with internal iris activation compatible with the normal Praktica design, which

could be used if the body was refitted with the screw flange of the Praktica. Quantity production of the screw thread version is uncertain (Chicago Show 1973). Most of the Exakta accessories fit except for the viewfinders, which are of the Praktica VLC type, as follows:

- a) waist level
- b) Eyelevel prism
- c) TTL prism, for RTL1000 only

Notes: i) Early models have RTL1000 engraved on the body (7209395 - 223755). Later ones on the scutcheon (RTL1000) or all on the scutcheon (Exakta RTL1000). (No. 238xxx - 240262).

ii) The frame area seen in the finder is reduced compared with the older cameras (see AP 1st April 1970)

15. RTL1000 - marketing term for (14) in Germany.

16. Exakta - West Twin TL (Ihagee, Japan, 1974)

Apparently from Cosina, Japan, the Exakta Twin TL was a Japanese made body, with the double-Exakta Real bayonet to accept both internal (with adaptors) and external bayonet lenses. The Twin TL had twin shutter releases, Cds ttl metering and a shutter speeded 1 - 1/100 sec (Metal, Copal focal plane type). Its electronic flash synchronisation extended to 1/125 sec., via the hot shoe or sync socket. In all black finish, until Dec. 1973, essentially the same body was sold by Peerless (USA) as the Carena MSTL at \$170, with 50mm f2.8 lens. Some delays in sale of these cameras were attributed to legal problems between USA, Dresden and West German interests. The relation of the various interests is unclear, but apparently the 46mm bayonet of the Exakta Real is still fitted to these suggesting continuity. Exakta Twin TL body numbers are from 5494 to 5569.

Apparently the screw thread version of this camera was sold as the Exakta 42 Twin TL until about 1974, and had English language engraving "open" for "auf". The German address was apparently Exakta K.G., Cine Herstellung und Vertrieb, D1000 Berlin 15 (West), Germany. Body numbers of the Exakta 42 Twin TL are reputed to be 18339 - 24756.

17. Exakta TL1000

A 1977 listing by the Exakta Camera Co., of 705 Bronx River Road, Bronxville, N.Y. 10708, USA. The Exakta TL1000 was stated to be perfect marriage of the great Exakta tradition with today's revolutionary special advances. However this camera (a modified model FTX) reputedly from Petri, Japan takes only 42mm Praktica screw-mount lenses and is thus not compatible with normal Exakta equipment.

18. Exakta FE2000

This was a marketing name for the Petri FH-1, again with M42 screw mount, and coupling for shutter preferred automation. Prices in the USA were about \$200 (1977), and about £160 in the UK.

#### EXAKTA BODY NUMBERING

Exakta cameras are normally numbered inside the back, above the film channel - not the best place if the customs want to check it! The number was of course, initially the maker's way of identifying the camera - its type, date, and in some cases, origin. In the case of Ihagee, it seems that the body numbers run on Exaktas from about 4028xx (where x is a digit suppressed for anonymity!) so that they probably take over from body numbers allotted previously to other Ihagee camera. This is not surprising.



The VP Exakta numbers available range from 40284x on a Model A to 57249x on a Type III (black and chrome) and a full chrome one is actually of lower number. Prewar Exakta 6 x 6's included 55416x and 55383x i.e. intermediate in numbers and the Kine Exakta numbers also overlapped as follows:

round windows - 48246x, 4851xx, 48564x  
 rectangular window - 48392x to 55888x  
 Exakta (C type) - 61723x

Thus it is likely that they were in simultaneous production, runs of numbers being used for each model in turn.

The postwar Exakta 66 can have numbers around 60033x, but only one number was available to us.

Subsequently, it is likely that Ihagee were only producing one Exakta at any one period, so that the numbers do not overlap.

Reliable data as to the body numbers has been made available by Mr. Dean (USA) and incorporated with his permission under the cameras. The following data from correspondents confirms it and may help to indicate cameras in use in the UK.

The lowest and highest numbers or that available to us are as listed below:

Exakta II	i)	number on scutcheon, cover to magnifier, black lens mount surround	66478x
	ii)	chromed lens mount surround	n/a
Exakta Varex V		interchangeable top, hinge back	n/a
Exakta Varex VX	i)	more enclosed film counter	n/a
	ii)	coaxial synch, sockets, autolenses	78990x - 80126x
Exakta Varex II	i)	3 flash sync sockets	n/a
	ii)	finder with interchangeable focus screens	n/a
1958 Varex IIa	i)	dimpled pressure plate, old lens panel(a)	82951x - 97114x
	ii)	with IIb type lens panel	96963x -100154x
1963 Varex IIb	i)	with geometric (1/30, 1/40, 1/125 sec. speeds) rewind lever	101477x -112235x
	ii)	with slow speed figures on black background	(b) 102563x -111327x
1967 VX1000		instant return mirror, otherwise as IIb	112751x -122950x
1967 Exakta Real		made in Berlin	n/a
1969 Exakta VX1000 TL		top marked "aus Dresden"	1178663 -12271xx
1969 Elbaflex		as above, for German sales	n/a
1969 Exakta VX 500		speeds to 1/500 sec.	(c) 30694x - 35695x
1970/2 Exakta RTL1000		Praktica type body	(d) 1349x - 28329x
1974 Exakta West-Twin TL		Japan	n/a
Exakta 42 Twin TL		Japan, screw-fit mount	n/a

n/a = none available

Notes: (a) Non-dimpled pressure plate  
 (b) These overlap with IIa (i)  
 (c) A VX500 of No. 151128x has been reported  
 (d) RTL1000 has No. 202770 on an early type body; and at least one unnumbered body has been reported.

This suggests that numbering was in sequence to about No. 1.3 million but that the VX500 dropped the million digit - and that the RTL1000 was renumbered from the beginning - possibly with numbers inter-running with Prakticas.

The above list was compiled with the invaluable help of some 40 Exakta owners, mainly members of the Exakta Owners Club, and some 80-90 "numbers". It is not exhaustive of course! But it is likely that the cameras marked "n/a" are uncommon at least in the UK, and that the commonest in use in the late seventies are the VX1000, the VX1000TL and the RTL1000.

### Conversions

Some updating of old Exaktas to later models has occurred, especially since the light alloy castings have changed little since the camera was first produced. (It is unlikely however that they are "original" since moulds have a limited life). A normal conversion was replacement of the old flash contacts with the X, M, F type (DIN 19003). Other rather casual repairers' exchanges can include the replacement of worn scutcheons by cannibalised parts. Also some bodies have had the slim bayonet flange replaced by a screw thread mount. This service was offered in the UK (BJP 9th April 1976) and the panels are available from SRB Services, 286 Leagrave Road, Luton, Beds, UK. The service was offered in the USA at the 1973 Chicago Show by the USA distributors. The flange was available as a replacement item from the US Agents in the 1960's, suggesting that it was easily changed in worn - but the casting thickness varies so that various thicknesses or packing under the new flange may be required.

## SECTION 6. Exa cameras

As the name suggests the Exa was a cut-down Exakta. It used the same original bayonet mount, reflex focussing and a simplified shutter, and provided Exakta users with a cheap housing for Exakta lenses. Two series were made, one with interchangeable finder and guillotine shutter (Exa I) and the other with fixed pentaprism and cloth blind shutter (Exa II). The Exa I was first made in 1950, but 1951 is the earliest published reference known to the compilers. The original factory designation was Exa O to distinguish these from the later models. Exa I was only a factory designation for a short time. In the USA the Exa was listed originally without a mark number. In 1956, it was listed with four sync plugholes as the Exa MX, or Exa Ia (below). In 1962, it was listed as Exa I (from £60) and Exa II (from £80) as in Europe. (The model series I, Ia, Ib, was also used but it is not clear if the marks were identical to those referred to in Europe. See listings below).

Exa I (1953) This has a vertical shutter partly formed from the mirror, giving speeds of 1/25 - 1/150 sec. and bulb. The Exa I had only a waist level finder, and a hinged back. Severe cut off is caused by the shutter function if the Exa I is used with lenses of longer than 100mm focus, or with extension tubes larger than 50mm. The version was "new" in USA in Feb. 1965, at \$90 with f2.9 lens, or \$30 for body only. From 1956, it was sold with 2 PC sync plugs, not 4 plug sockets. "Exa Ia" (in USA, 1956) was still very close to original but with PC sync.

Exa I (1961) An improved but not greatly altered model. Leather trimmed. Waist level finder, but still with hinged back. Price \$165 with f2.8 Auto Westanar.

Exa I (1962) This version had improved styling interchangeable finders, and the shutter speeds were set on dial rather than on lever moving front to back (as previously). Speeds were now 1/30 - 1/175 sec. and the camera had a single standard flash contact. This version had no lugs for straps and a black "leather" top to the waist level finder. Price £19.95 with f2.9 Meritar (UK). Essentially the same camera was sold as the Exa Ib in the USA (1964). Easy recognition is by speed setting by a setting wheel rather than a fore-and-aft lever ("stick-shift" in USA). Model apparently used a new casting.

Exa I (1964) This last Exa I had eyelets for straps, detachable back and leverwind, and came in two versions:

- a) with waist level finder, fixed
- b) with prism finder, fixed
- c) It was shown at Chicago (1973) with a screw thread mount.

### Notes:

- i) A compiler doubts the 1964 version, tho' listed by Allinson, and suggests that the 1965 version was the Ia with leverwind. Comments would be welcome!
- ii) The model Ia was listed in USA from 1956, initially with a wind knob, but later with a leverwind, described in a pamphlet dated 1965.
- iii) The UK price was £22.60 in 1966, with wind lever (from 1965 onwards) and waist level finder and f2.9 Meritar lens. With f2.8 Tessar the price was £27.65
- iv) Model Ia accepts Varex type finders made after the VXIIa. Earlier ones foul the top.
- v) Exa Ia is probably still produced (1977) for sale to Comecon countries, but we are told in 1978 is only sold with screw mount.

Exa II (?) This model had an improved true focal plane shutter, made of cloth and vertical running, and a permanently fitted pentaprism. All Exakta lenses can normally be used on the Exa II.

Exa II (1959) Has an improved range of shutter speeds.  $\frac{1}{2}$  - 1/250 sec. + B, plus flash synchronisation, no delay action was fitted.

Prices (Exa II) in USA, July 1961:

body only \$70

with 50mm f3.5 Tessar (preset) \$80

with 50mm f2.8 Tessar (preset) \$100

with 50mm f3.5 Primotar (auto) \$85

with 50mm f2.8 Domiplan (auto) \$110

with 50mm f2.8 Tessar (auto) \$120

Exa IIa (1963) The IIa had a detachable back and improved film transport. A contributor suggests that it had no strap eyelets but it did have a "Lumifield" finder screen. Body price (USA) still \$70

Exa IIb (1965) This was the first Exa with an instant return mirror. It also had a warning signal in the finder which showed if the camera was not wound.

Exa 500 (1967, Pamphlet dated 1966) The Exa 500 had an improved pentaprism finder with microprisms and a fresnel screen. The shutter speeds were to 1/500. The camera was normally fitted with fully auto diaphragm lenses. (f2.8 Domiplan, f2.8 Tessar). It was sometimes listed in USA as the "Exakta 500" e.g. Sept. 1970 at \$75 including f2.8 Domiplan.

Notes:

- i) Quality and reliability rose quite a lot between the Exa II, IIb and 500 models; the last two were the nicest of the Exas to use.
- ii) At least some Exa Ia cameras were sold with 39mm screw thread Praktica lens mounts (Chicago 1973)

The official repair manuals distinguish:

Exa - lever shutter speed setting

Exa I - dial speed setting

Exa II - )

Exa IIa - ) as marked on front

Exa IIb - )

Exa 500 - )

Similar instructions with detailed modifications cover each type of model, but the repair material was largely individual for each model.

Postwar Exakta aliens

A number of alien cameras with nominal Exakta mounts were offered postwar. These included:

Corfield (UK) - Periflex Interplan (Model C?)

Note: Corfield were the UK Agents for Exakta

Japanese Firstflex

Plusflex

Tokyo Optical Co. "Topcon" - RE3 Auto

RE II

RE Auto (1963)

RE Super (1968?)

Super D (1972)

(black or chrome)

Phoenix (=Miranda)  
GH reflex (USA market)  
Caraflex (USA market)  
Mamiya Prisma (Japanese)

Some of these cameras used simple iris mechanisms. The Topcon is fitted only with the Exakta type inner bayonet but (in the case of FAD lenses) used external lever activation for the iris. Yet the release is apparently not positioned to use Exakta auto-iris lenses!

Exakta lenses on other cameras

Exakta lenses can be used with adaptors, to focus to infinity, on many cameras; iris coupling is normally impossible, and not all these adaptors are commercially available. Adaptors that have been encountered include:

Alpa	Miranda
Canonflex	Leica
Canon FX - FL	Phoenix (early Miranda name)
Minolta	Topcon (above)
Konica	Yashica Pentamatic

But there was apparently no adaptor for Praktica/Contax D 42 x 1mm thread cameras such as the Pentax, Fuji, Edixa etc. See note above.



## SECTION 7. Postwar Exakta lenses

The initial production was of lenses in plain iris mounts, much like the prewar lenses, but coated, the Zeiss ones having a red 'T' to indicate a factory coated lens. Postwar, Zeiss Jena continued the prewar lens numbering series, early postwar lenses having serial numbers of some 3,000,000. Zeiss Oberkochen (West Germany) did not offer lenses for Exakta.

From about 1951, lenses were offered with two iris control rings; the first was set as a stop, the second being quickly closed to the stop and actuating the iris (Preset Iris). It was still "new" in June 1952.

From about 1953, a mixture of preset and "automatic preset" lenses was available. In the latter, a spring was tensioned on opening the iris; release of the button on the lens base released the iris catch and the spring closed the iris automatically. (Automatic preset diaphragm, APD).

Subsequently, from about 1954, a series of lenses which did not require "winding" was available (Fully automatic preset diaphragm, FAPD or FAD). Understandably, different makers had different dates and design details.

Black finish mounts were introduced progressively in the mid-sixties, normally as a means of reducing cost. All the Zeiss lenses were in black by June 1964.

In East Germany, commercial logic has resulted in a progressive fusion of the products and facilities of Ihagee, Pentacon, Zeiss, Meyer and Ludwig and these companies progressively have functioned increasingly as one concern with different labels indicating compatibility or to some extent, quality and prestige.

Postwar Jena and Meyer lenses carry a code symbol such as a triangle with a figure e.g. 1 or S in it, or a Q with a 1 superimposed. The significance is uncertain but these are likely to be quality or factory of origin marks. e.g. first quality for IQ.

The following may be regarded as 'in-house' lenses from East Germany. Subsequently, the non-proprietary lenses known to us are listed. These lists are compiled from magazine and catalogue sources and are not complete, may not indicate all versions and prices in some cases maybe for secondhand items, being offered without any indication of their real nature.

Difficulties over the trade name "Zeiss" meant that many products of the old Zeiss factory were sold merely with the indication "aus Jena", and that the lens name bore the abbreviation "CZJ" and the lens code:

B	Biotar types
Bm	Biometar types
T	Tessar types
S	Sonnar types

It is probable that Ihagee are/were purely camera makers, and that "Exaktar" lenses and other optical components were bought-in items. Certainly the prism finders are usually referred to as "aus Jena, etc."

(a) Wide angle lenses

20mm f4 Flektogon (FAD), 10-glass. (July 1963, focus to 16cm., price \$200 in 1964)

25mm f4 Flektogon, 7-glass (£54, blackmount, 1963)

29mm f2.8 Orestegon (FAD, incl. RTL 1000, 7-glass, Meyer)

30mm f3.5 Lydith (manual iris, 5-glass, Meyer)

35mm f2.8 Flektogon (FAD, 6-glass)

Available in USA by 1950 (No. 534 Cat. 1958) at \$110 in 1956.

(a) chrome mount (b) black mount, about 1964

35mm f2.8 Makroflektogon (1968) focus to 4 in. (10cm)

35mm f4.5 Primogon (Manual, 4-glass, Meyer)

40mm f4.3 Tessar (Jena) Cat. No. 121 (1958)

(b) Normal focus lenses

50mm f2.9 Trioplan (3-glass, Meyer, Cat. No. 106 in 1958, 37mm filters)

50mm f3.5 Domiplan (3-glass, Meyer)

(Lens given by W. Wurst p.84 but not known otherwise)

50mm f3.5 Primotar-E (FAD), 4-glass, Meyer. 42mm filters, focus to 0.5m

50mm f2.9 Meritar (Manual, 3-glass, Ludwig)

Chrome to about 1965, Cat. No. 432 in 1958. Various later mount styles

50mm f2.8 Primotar (Manual, 4-glass, Meyer)

50mm f2.8 Domiplan (FAD, 3-glass, Meyer, \$20, 1963)

50mm f2.8 Macro-Extanar (Manual) 4-glass with removable lens head for 1:1 ratio, maker unknown

50mm f2.8 Tessar (= T, aus Jena, etc.), 4-glass

(a) Manual, Cat. No. 101 in 1958

(b) Preset iris, about 1952, still available 1965

(c) Autopreset iris, chrome

(d) FAD, black finish on VX11b etc.

(e) FAD, black and increased chrome, on VX1000

(f) Sunk iris mount, for bellows use, at infinity

(50mm f2 Biotar. This has been listed on a 1953 VX with preset mount but optical design principles make it certain that it is actually a misprint for 58 or 55mm)

50mm f2 Exaktar (FAD, 6-glass, Ihagee)

Listed on Exa II, 1967 in chrome mount

50mm f2 Domiron (FAD, 6-glass, Meyer)

(a) about 1962 on, in chrome (\$80)

(b) later in deep throw mount to 9in. focus

50mm f1.8 Oreston (FAD, 6-glass, Meyer) Black, 1970

50mm f1.8 Pancolor (6-glass)

(a) Black from 1962, at \$140

(b) Version for RTL1000

50mm f2 Pan Color (6-glass, black and chrome, from about 1962 at \$140)

55mm f2 Biotar, 6-glass

(a) Manual

(b) Preset iris, about 1952

(c) Automatic preset iris from about mid-1953

(d) Fully automatic iris, from about 1955 (USA, \$165)

58mm f2 Biotar. Various manual and preset iris forms from about 1950 to 1959 when replaced progressively by 55mm version. Both available 1959

58mm f1.9 Primoplan (5-glass, Meyer)

(c) Long focus lenses

75mm f1.9 Primoplan (Meyer, 5-glass, preset, 1953?)

Listed 1956 at \$135

75mm f1.5 Biotar (6-glass)

(a) Manual, at about \$216 in 1956

(b) Preset iris, listed 1966

Note: A 1964 catalogue shows this as the only all-chrome mount in a group of otherwise black lenses. This Biotar was occasionally mounted for other cameras, incl. Contax in coupled mount.

80mm f3.5 Primotar (Manual, 4-glass, Meyer)

80mm f2.8 Biometer (FAD, 5-glass; also preset iris, from 1956, \$70

Cat. No. 435, 1958)

80mm f2.8 Tessar (Manual, 4-glass, \$60 in 1956)

100mm f2.8 Orestor (FAD, 5-glass, Meyer)

100mm f2.8 Trioplan, 3-glass (Cat. No. 510 in 1958)

(a) Manual (1953 at \$82, 1958)

(b) FAD, £33 UK 1963

100mm f2.8 Trioplan-N. New high-refractive index glass version of previous lens, in FAD mount.

105mm Anonymous on Exa (see Bonotar?)

105mm f4.5 Bonotar, Cat. No. 136 in 1958. Low price item

100mm f5.5 Tele Megor. Manual, 4-glass, Meyer. (Listed but never seen - does it exist?)

120mm f2.8 Biometer (FAD, 5-glass, black and chrome, listed 1961 \$170)

135mm f3.5 Primotar (Manual, 4-glass, Meyer)

Takes 57mm filters, focus to 1.6m.

135mm f2.8 Orestor (Manual, 5-glass, Meyer)

135mm f4 Kine Triotar (T-coated, 1950, \$100-150)

135mm f4 Triotar (Manual, 3-glass)

(a) Manual iris

(b) FAD iris, Cat. No. 637 at \$95 (1956)

(c) For Kolpophot (preset, Cat. No. 437)

135mm f4 Sonnar (FAD, 4-glass)

(a) Manual iris

(b) FAD, chrome

(c) Black FAD mount, compensating iris, April 1964

Note: also for Kolpophot, or is (a) only in this version?

150mm f5.5 Tele Megor (\$56, 1956)

180mm f6.3 Tele Tessar

180mm f2.8 Sonnar (FAD, 5-glass, \$230 in 1956)

Note: From April 1964, in separable mount for either Exakta or Praktisix

180mm f3.5 Primotar (Manual, 4-glass, Meyer) \$150, 1956

180mm f5.5 Tele Megor (Manual, 4-glass, Meyer)

200mm f4 Orestegor (Manual, 5-glass, Meyer)

250mm f5.5 Tele Megor (Manual, 4-glass, Meyer, \$100, 1956)

300mm f4 Sonnar (Manual, 5-glass, Zeiss)

also black, preset iris mount, \$130 1962

400mm f5.5 Tele Megor (Manual, 4-glass, Meyer, \$200 (1953), also preset iris, £38, UK, 1963)

500mm f8 Fern (Manual, 2-glass)

500mm f5.6 Orestegor (Manual, 4-glass, Meyer)

500mm f4 Mirror lens

1000mm f5.6 Mirror lens

Note: A number of the Jena lenses are over from the prewar designs for the Contax rangefinder camera. These may well include the 58mm f2 and 75mm f1.5 Biotars as previously unissued designs.

(d) Non-proprietary lenses: wide angle

This list is obviously not complete and represents only a beginning. Prices: as above note. These lenses were normally offered on the open market rather than through the Exakta/Ihagee organisation. Some may have been handled in the USA through the Exakta channels however.

- 24mm f4 Ennalyt (£65, 1969)
- 24mm f4 Isco Westrogon (FAD, \$149, Black 1962)
- 25mm f3.5 Macro Actinar (Seymour's \$22.65, early 1960's)
- 25mm f3.5 Steinheil Auto Adapt (1969)
- 28mm Ennalyt
- 28mm f2.8 Vivitar (£65, 1969)
- 28mm f3.5 Angenieux Retrofocus, \$120, 1953  
also FAD, in chrome, 1962
- 28mm f4 Schneider Curtagon
  - (a) Original type
  - (b) Lightweight, from 1968
- 30mm f2.8 Rodenstock Eurygon, \$75 from about 1950
- 35mm f2.8 Vivitar (1969, \$45)
- 35mm f2.5 Angenieux Retrofocus (1953, \$100)  
(Issued 1950: see Modern Photog. July 1975, p.96)
- 35mm f2.8 Super Travegon (Schacht, 7-glass, FAD, 270Dm, Feb 1962)
- 35mm f2.8 Schneider Curtagon
  - (a) Original
  - (b) Lightweight mount (1968)
- 35mm f2.8 Xenon (6-glass, automatic, Schneider 1958)
- 35mm f3.5 Berogon, 4-glass on VX500
- 35mm f4 P.A. Curtagon (perspective adjustment) (Schneider), black, mid-1968
- 35mm f3.5 Travegon (Schacht, 6-glass, FAD) DM225, Feb. 1962
- 35mm f2.8 Makro Quinar, focus to 25m. Steinheil, \$120
- 35mm f4 Steinheil Culmigon (4-glass, 1958)
- 35mm f2.8 Steinheil Auto Adapt (1969)
- 35mm f2.8 Steinheil Quinaron (Ihagee listed 1964)
  - (a) Auto, chrome, with black annexe
  - (b) Auto, black, 1964, \$129
  - (c) Auto, chrome, green flash, (pre-1966?)
  - (d) Auto-D version, black, 1966
- 35mm f2.8 Steinheil Quinon (misprint for above?)
- 35mm f2.8 Soligor (\$40, 1966)
- 35mm f4 Radiogon (Schneider, 4-glass, 1958 list)
- 35mm f4.5 Lithagon
- 35mm f3.5 Westron (Isco)
- 35mm f4.5 Enna \$25 (?also Ennalyt?)
- 35mm f2.8 Travegon (FAD, from 1962) \$60
- 35mm f2.8 Accura (\$50, 1968)
- 38mm f5.7 Berthiot (\$40, 1954)
- 40mm f4.5 Tessar - continued ex-prewar, war, \$85 in 1956)
- 40mm f4.5 Schneider Isogon (1953, 1956 at \$85)
- 40mm f3.5 Steinheil Cassaron (\$54, 1954)
- 40mm f4.5 Meyer Helioplan (\$70, 1950)
- 40mm f4.5 Doppel (Black mount, \$95, 1953)

40mm f3.5 Macro Kilar (S80) (Kilfitt)

40mm f2.8 Makro Kilar (1956, Kilfitt)

Note: Also Makro Kilar D - letter indicates focus range available.  
E is to 4 in.; D to 2in. Both f3.5 and f2.8 lenses were made in D and E mounts.

(e) Normal focus lenses

50mm f2.8 Auto Westanar (1954 \$70)

50mm f2.8 Westar (1953)

50mm f1.9 Isco Westrocolor (1961 on VXIIa (2))

(By 1977, Exakta Camera Co. was listing this as 50mm f1.9 Automatic Schneider Isco lens. New merger?)

50mm f1.9 Schneider Xenon

(a) Plain iris mount (1953)

(b) Preset iris (1954)

(c) Auto iris, \$342 on Varex 1954 (lens \$160)

(d) Black finish, 1962 (\$150)

(e) New lightweight mount (July 1968)

50mm f1.9 Steinheil Makro Aninar, foc. to 1.5in. \$150

50mm f1.9 Steinheil Auto Quinon, chrome, FAD, 1962 at \$140

50mm f1.8 Travelon (Schacht, \$60, 1969)

also as Super Travelon (6-glass, Feb. 1962 at DM230)

50mm f3.5 Isconar (for Exa, 1961)

50mm f2.9 Trioplan (Meyer)

50mm f1.9 Heligon (Rodenstock, 6-glass)

50mm f2.8 Makro Extanar (black mount, foc. to 2in., 1962, \$80)

50mm f3.5 T-Tessar, early postwar

(a) Plain lens mount to 1955

(b) Preset, from 1952

(c) Auto iris, about 1953 (unusual version)

50mm f2.8 Will Wetzlar (1954)

50mm f2.8 Ennalyt

50mm f2.8 Isco Westanar (\$70)

50mm f2 Heligon (Rodenstock, 6-glass)

50mm f2 Isco Westagon (Auto, \$110, 1954, 1956)

50mm f1.5 Angenieux

(a) Plain iris (\$90, 1951)

(b) Preset, about 1953, at \$385 incl. Exakta VX

50mm f2.8 Xenar (Schneider)

55mm f1.9 Quinon (Steinheil, 1963, Auto, \$170)

(In 1959, chrome with black annexe, auto)

55mm f1.8 Steinheil Auto Adapt (1969)

55mm f1.4 Steinheil Auto Adapt (1969)

58mm f1.2 Taika Harigon (Seymour, 1963 at \$169.50 for VXA)

(f) Long focus lenses

80mm f2.8 Tessar

80mm f2 Xenon (Schneider, 1956, \$160)

85mm f2.8 Schacht Travenar (4-glass, 1962, FAD)

85mm f2.8 Culminar (Steinheil, 1953, \$68)

85mm f1.5 Lithagon (1956, \$94)



- 90mm f4 Sola (1950 at \$30)
- 90mm f2.8 (also ?f3.5) Makro Kilar (Kilfitt), Preset, foc. to 20cm.
- 90mm f4 Sun (Dec. 1954)
  - plain iris at \$50; preset at \$65
- 90mm f3.5 Tele Xenar (4-glass, 1958 list)
- 90mm f2.5 Angenieux Y1
- 90mm f2.8 Travenar (Schacht, 4-glass, FAD, DM177, 1962)
- 90mm f2.8 Angenieux (reputed)
- 90mm f2.8 Ennalyt
- 90mm f1.8 Angenieux P1 (USA, 1955, about \$150)
- 90mm f3.5 Steinheil Auto Adapt (1969)
- 100mm f4 Rotelar (Rodenstock, 1950)
- 100mm f3.5 Trinol (a) complete and (b) as short head lens (1950's, from Lewis Newcombe)
- 100mm f4.5 Exa Tele
- 100mm f4 Isconar
- 100mm f4.5 Elgeet
- 100mm f3.3 Travegar (Schacht, preset, DM138, Feb 1962)
- 100mm f3.5 Auto Quinar (Steinheil, 1965)
  - (a) Chrome, black annexe (1959)
  - (b) All black (1965)
- 100mm f4.5 Kine Britar (1950, about \$62)
- 101mm f4.5 Wollensak Raptar (USA, 1950, plain iris)
- 105mm f2.5 Komura (T-mount adaption)
- 105mm f2.4 Lumax (Vines)
- 105mm f4.5 Xenar (Schneider, 1956, \$70)
- 105mm f4.5 Culminar (Steinheil, short head lens for bellows use, with Novoflex, USA 1955 at \$106)
- 105mm f4.5 Telepar (1956, \$20)
- 125mm f2.3 Astro (1954)
- 135mm f2.8 Tele Iscaron (black, auto, 1962, \$150)
- 135mm f3.5 Auto Quinar
  - (a) chrome, preset (not auto!)
  - (b) chrome to 1964
  - (c) black from 1964
- 135mm f2.8 Accura
- 135mm f2.5 Angenieux (\$106, 1955)
- 135mm f3.5 Colinar (preset)
- 135mm f4.5 Travegon (\$30, May 1956)
- 135mm f4.5 Travenar (\$33, 1956)
  - (a) preset version
  - (b) also auto version, \$50, 1956)
- 135mm f4.5 Travenon (Manual, 4-glass, \$17.50 in 1963)
- 135mm f3.5 Travenar (FAD, 4-glass, DM220)
- 135mm f2.8 Super Travegon (lens made in Japan, apparently a special auto iris mounting of a popular other brand series - source unknown)
- 135mm f4 Sun, plain iris, \$35, preset iris \$65 (Dec. 1954)
- 135mm f3.8 Sun plain iris \$50, preset iris \$75 (1956)
- 135mm f2.8 Steinheil Auto Adapt (1969)
- 135mm f2.8 Vivitar (Auto, 1969, \$60)
- 135mm f3.5 Tele Ennalyt
- 135mm f2.8 Tele Ennalyt (preset or plain iris on some)
- 135mm f3.5 Soligor (\$43, 1956)
- 135mm f4 Rotelar (Rodenstock, 1950)
- 135mm f4.5 Albinar (\$40, 1955)

135mm f3.5 Yronar (Rodenstock)  
135mm f3.5 Votar (for Exa, early 1960's)  
135mm f2.8 Quinar (Steinheil, 5-glass, telephoto design)  
    (a) Preset, 1954  
    (b) Auto, chrome, about 1960, \$100  
    (c) Black mount, about 1964  
    (d) Macrofocussing, 1968 at \$170  
135mm f3.5 Angenieux (\$76, 1953)  
135mm f4.5 Culminar (Steinheil)  
    (a) Lens in tube, \$60 in 1951  
    (b) Shorthead lens for bellows use - Novoflex \$60, 1953  
135mm f4.5 Tele Xenar (Schneider)  
135mm f3.5 Tele Xenar (Schneider), 4-glass  
    (a) Original, PD (1958)  
    (b) Original, auto, (1958)  
    (c) Lightweight design, auto, from 1968  
135mm f2 Komura (1968, \$90)  
150mm f1.8 Astro (1955, \$350)  
150mm f2.3 Astro (1954)  
150mm f4.5 Westanar  
155mm f5.5 Tele Xenar (Schneider, \$65, 1955)  
180mm f4.5 Rotelar (Rodenstock, 1950), semi auto iris  
180mm f4.5 Angenieux (1955, \$68)  
180mm f5.5 Tele Xenar (\$85, 1956)  
180mm f5.5 Tele Picon (\$48, 1956)  
180mm f3.5 Primotar (preset £30 UK, 1963)  
180mm f2.8 Tele Iscaron (black, preset, \$200, 1962)  
200mm f3.5 Juplen (preset, \$47)  
200mm f4 Quinar (preset, 1955, \$150)  
200mm f3.5 Vivitar (auto, 1969 \$80)  
200mm f3.5 Steinheil Auto Adapt (1969)  
200mm f4.5 Tele-Ennalyt  
200mm f4.5 Tele Quinar (Steinheil), about 1959, chrome, preset,  
    lenshead of 5-glass telephoto removable for bellows use.  
200mm f5.5 Tele Xenar (4-glass, 1958 list)  
240mm f5.5 Tele Xenar (\$125, 1956)  
240mm f4.5 Tele-Ennalyt  
250mm f5.5 Tele Picon (preset, \$80)  
250mm f4.5 Fallo Focus (Novoflex?)  
300mm f3.5 Telagon (Tewe)  
300mm f4.5 Tele Quinar  
300mm f4 Pan Kilar (Killfit)  
300mm f5 Super Travenar (Japanese lenshead)  
300mm f5 Astro (Berlin)  
    (also various f5 Astro lenses 300-800mm)  
360mm f5.5 Tele Xenar (\$125, 1956)  
400mm f5.6 Fallo Focus  
400mm f5.6 Novoflex (cf. above?)  
400mm f5 Astro (new, 1951, \$250 in 1954)  
400mm f5.5 Anonymous  
400mm f4.5 Tele Ennalyt  
500mm f5 Telon (Tewe)  
500mm f8 Zeiss Tessar (cf Fern, above?)  
600mm f5.6 Pan Kilar (Killfit)  
600mm f5 Telon (Tewe)  
640mm Novoflex

800mm f6.3 Telon (Tewe)  
800mm f5 Astro (Berlin)  
1000mm f6.3 Astro (Berlin)

Notes: 1. Many "other brand" Japanese lenses exist with interchangeable T-mount and other rear ends - these have not normally been listed as of no especial Exakta relevance.  
2. Enna (Munich) offered a short mount FAD socket to accept a wide range of lens heads. Available to about 1973 in UK.  
3. Topcon lenses included 35mm f2.8, 58mm f1.8, 100mm f2.8, 90mm f3.5, 135mm f3.5, f2, 300mm f2.8. But it is unclear if all are useable on Exakta. (Topcors and auto Topcors)

(g) Zooms

85mm - 250mm f4 Anon. 1962 at \$220  
85mm - 250mm f4 Enna Zoom, 1968 at \$100  
45mm - 100mm f2.8 Variogon Zoom (Schneider, FAD)  
85mm - 205mm f3.8 Auto Vivitar Zoom (\$140)  
80mm - 250mm f4 Schneider (1967 for Exakta Real)

Lenses current in 1974 for the Exakta West Twin TL were:

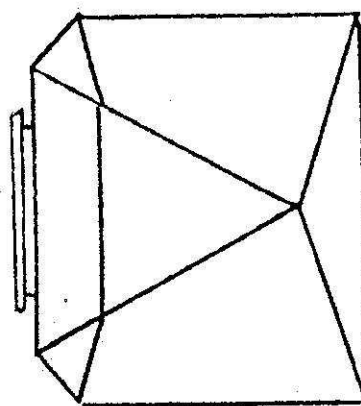
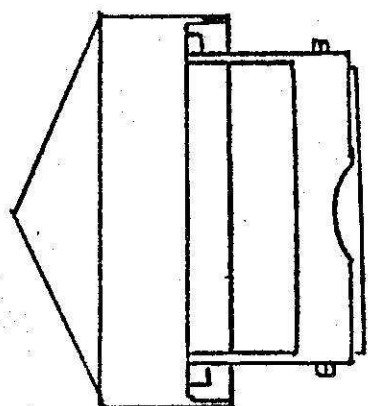
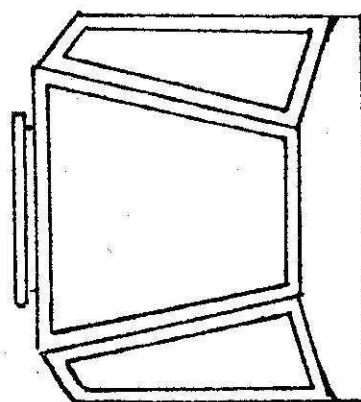
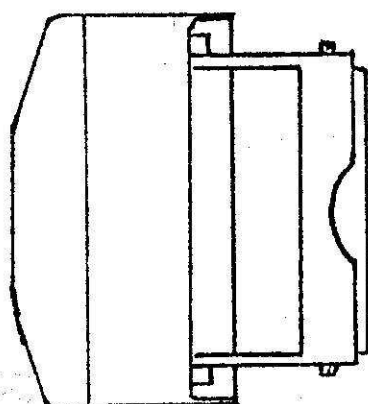
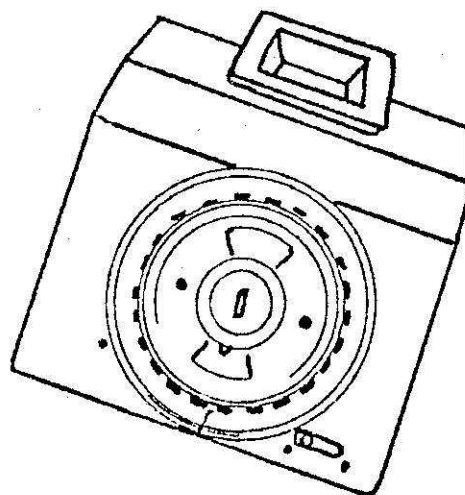
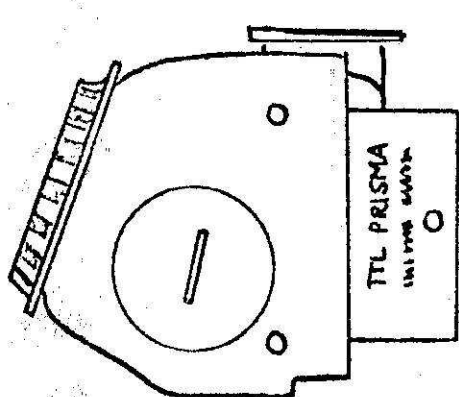
<u>Wide angle:</u>	Schneider f4 28mm Schneider f2.8 35mm Exaktarf2.8 35mm
<u>Standard:</u>	Exaktar f1.8 50mm Exaktar f1.4 50mm
<u>Telephoto:</u>	Exaktar f2.8 135mm Schneider f3.5 135mm Exaktar f3.5 200mm Exaktar f5 300mm
<u>Zooms:</u>	Exaktar f3.5 45 - 135mm Exaktar f3.5 78 - 205mm

Further details could be had from: Exakta Sales Inc.,  
1180 Raymond Blvd.,  
Newark,  
New Jersey 07102, USA.

The absence of a built-in exposure meter in the Exakta led to lenses with built in exposure meters:

Schneider Curtagon LM 35mm f2.8  
Schneider Xenon LM 50mm f1.9  
Schneider Tele Xenar LM 135mm f3.5  
Isco-Mat LM 35mm f2.8  
Isco-Mat LM 50mm f1.9

The current 1977/78 lens offerings seem to be limited to Japanese made Super Travenars in various focal lengths. The last German offerings were probably from Schneider (available in 1974 at least, including a motorised zoom), Enna, and probably Jena. There are still rumours that Exas are made for sale in Comecon countries, and presumably they have lenses and accessories. It is likely that true Exakta accessories are also available in Comecon countries at least for hospitals or research owing to the high cost of re-equipping.



PENTAPRISMS

Har. 1x Exeat TTL head

post 1961

pre 1961

## SECTION 8. Postwar accessories for Exakta 35mm cameras

The postwar continuation of production in the prewar plant in Dresden meant that early postwar accessories were often very like prewar ones. Once the immediate postwar years were over, changes occurred, typically in the fifties. Postwar accessories were normally characterised by the replacement of brass with light aluminium alloy, and by some decrease in quality. A prime example is the chrome plated finish in the 1950's. Poor machining was also evident on some bayonet mounts in the early Varex series cameras, and there was a progressive lowering of the standard of finish on some internal camera mechanical gears, although it is hard to say if the reliability of the finished article suffered in any way.

### 1. Accessories for viewfinder

- a) Prismatic (pentaprism) finder to clip on Kine-Exakta II; it incorporates right-way-round vision, over the whole screen of K-E II, and subsequent waist level finders for Varex. Fits K-E I but only part of the screen is then visible. \$48 (1953, USA). Trade name Pentagon by Carl Zeiss, in black crackle finish.
- b) Waist level finder i) Drop-in unit for Varex series camera; also for Exa I. (Various changes in design detail). About \$30 in USA, 1953. (a) Chrome, with magnifier (b) Modified version of (a) about 1958 (c) Striped top cover (May 1963, on VXIIa). ii) For RTL 1000 (different fitting).
- c) Magnear Finder Also a vertical finder, but fitted with a top bayonet to take an Exakta-bayonet lens as magnifier giving a highly corrected, clear image. Lenses of 40mm focus or less give vision of only part of the screen. Normal or long focus lenses give complete vision at decreasing magnification (50mm, 5.4 x; 100mm, 2.8 x; 135mm 2.1 x). A pocket telescope (e.g. Tellup, 2.5x) could be used in combination with these. A special magnifier lens with Exakta bayonet was also offered with magnear.
- d) Pentaprism head for Varex cameras. With Zeiss prism for lateral correction. i) With fixed screen (to 1960 approx) ii) With interchangeable bases (from 1961, Varex IIa) iii) With black plastic finish for RTL 1000 (Zeiss, prism). Different fitting to Varex. Focus screen is spring loaded in camera socket. Price less screen, \$50 (USA).

Note: External trim on pentaprism varied: any details?

- i) Was plain chrome on IIa (?), ii), iii) leather trimmed, on VX 1000.

Also: Right angle finders for use on VX 1000 and RTL 1000 (Dioptré adjustment; allow use of the meters at waist/top viewing).

- e) Interchangeable focussing screens (Prices USA, 1955 ranged \$15 - \$35 for rangefinder screen)
  - i) Plain ground glass (Part No. 308.22)
  - ii) Rangefinder (split-image type) on i) 'New' type in 1953
  - iii) Rangefinder with fresnel screen surround
  - iv) Clear glass, for microscope and macrophotography
  - v) 3mm clear centre with ground glass surround (Part No. 302.03)



- vi) Or 10mm dia. clear spot with ground glass surround (original type). (Part No. 302.04)
- vii) Clear with centre hairline (Part No. 302.10)
- viii) Ground glass with clear centre with hairline cross (original type, Part No. 301.10)
- ix) Hairline square divisions e.g. for copying or architectural work. (Various spacings)
- x) Hairline cross (24 x 36mm) engraved as graticule (1mm or 1/16in., Part No. 302.05)
- xi) Microprism centre spot, with fresnel lens surround, early examples also having ground glass ring round spot.
- xii) Microlite exposure meter screen (Alien?, USA, 1964)
- xiii) Ground glass, 3mm clear centre spot. (Part No. 301.03)
- xiv) Ground glass, 10mm clear centre spot. (Part No. 301.04)
- xv) Ground glass, hairline cross and graticule (mm. Part No. 301.05)
- xvi) Screen with lines for 135, 180, 300mm lens outline when 50mm lens is in use. (Press and Sports screen)  
Part No. 312.308.01, \$25.50 (1953), (less lens)  
Special flat Magnear screens were available as  
(a) ground glass (b) ground glass and centre cross  
(c) ground glass, squared.

The screens and part numbers in a repair material list were:

	<u>For old</u>	<u>Prism</u>	<u>Factory</u>	<u>Flat</u>
	<u>bodies</u>	<u>heads</u>	<u>fit for</u>	<u>ground</u>
			<u>Exa II</u>	<u>plates</u>
(a) plain ground glass	301.01.8	302.01.16	370.01.25	308.22
(b) 3mm clear spot + cross on ground glass	301.03	302.03	371.03	-
(c) 10mm clear spot + cross	301.04	302.04	371.04	-
(d) overall cross at 90°mm graduations	301.05	302.05	371.05	308.24
(e) as (d), 1/16in.grad.	301.06	302.06	371.06	-
(f) overall 5mm square	301.07	302.07	371.07	308.25
(g) overall 1/8in square	301.08	302.08	371.08	-
(h) overall plain cross	301.09	302.09	371.09	308.23
(i) clear screen with overall cross	301.10	302.10	371.10	-
(j) clear screen	301.11	302.11	371.11	-
(k) ground glass with 3mm clear spot	301.12	302.12	371.12	-
(l) ground glass with 10mm clear spot	301.13	302.13	371.13	-
(m) clear screen with large mm cross	301.14	302.14	371.14	-
(n) clear screen with 1/8 in squares overall	301.15	302.15	371.15	-
(o) as m but 1/16in. grad.	301.16	302.16	371.16	-
(p) ground with field for 135,180,300mm	301.17	302.17	371.17	-
(q) clear with 5mm squares	301.18	302.18	371.18	-

This list is not necessarily complete. Screens were also made in this fitting in the Orient and typically were plastic with fresnel and rangefinder.

Note: RTL 1000 screens are not interchangeable, being somewhat smaller than the earlier Varex type. Japanese screens for the RTL 1000 are 45° split image centre, surrounded by microprism and ground glass rings, then Fresnel lens

- f) Rubber (rotating) Eyeshield Accepts eyesight correction lenses. Required with the metering heads to prevent extraneous light affecting the meter.
- g) Critical magnifier For use with VX 1000 and RTL 1000 pentaprisms for magnified image of the centre of the screen.
- h) Exposure meter heads Eyelevel prismatic units with built-in CdS meters, measuring light through the lens. Not coupled to the camera lens or shutter.
  - i) Schacht Travemat, for Varex or Exa. Also for VX1000 T2 at \$40 (1970)
  - ii) Examat (Harwix, Berlin) ttl unit. (Mallory PX13 cell). Available 1969 at \$80 in USA. A special case was made for camera and head. Two versions of engraving exist  
1) Examat 2) Ttl Prisma
  - iii) Pentaprism meter for RTL 1000. TTL metering with coupling to shutter but the lens aperture requires to be manually set (or stop down technique) Battery: Mercury Oxide 625.
  - iv) Selenium cell units (one author believes that various versions of these were offered including one for the Varex IIa and these include Ihagee Selenium type, on prism finder, listed at \$60 in 1962 inc. prism. (Pop. Photo., Aug. 1962 p.13) This was not ttl)
  - v) The Magnear head was modified to accommodate a Weston Master meter but only as a repairing job. (not officially).
- i) Lenses with built-in exposure meters
  - 1) Schneider lenses included:  
Curtagon LM 35mm f2.8  
Xenon LM 50mm f1.9  
Tele Xenar LM 135mm f3.5
  - 2) Isco lenses listed as Isco Electrics in 1961 included:  
50mm f1.9 Iscomat FAPD  
35mm f2.8 Iscomat FAPD  
135mm f3.5 Iscomat FAPD  
This was an external, lens mounted selenium meter, apparently uncoupled and interchangeable between lenses.
  - 3) Ihagee Macro-Micro Photocell meter. This was slipped into the optical path, altering the register by 20mm.  
Price: USA 1964 \$37 (cell) + \$20 (microammeter)
- j) Accessory shoe, to clip over eyepiece.
- k) Rubber eyecup, as light shield and to hold eyesight correction lens.
  - l) Stereo head - see stereo
- m) Hood extensions Essentially a prewar unit, whose manufacture was continued after the war.

## II. Accessories for front lens

- a) Filters Normally in Yellow (pale, medium, dark (deep)); Green (light, medium); Orange (light, dark (deep)); Red (light, dark (deep)); Blue; Polarising (effect visible on screen); Colour corrections.

Fittings varied widely with the range of lenses, but the commonest are:

<u>Maker</u>	<u>Push-on</u>	<u>Screw-in</u>
Z	80mm	77mm
Z, M	51mm	49mm
Z, M	60mm	58mm
M	85mm	82mm
Z, M	70mm	67mm

(M = Meyer, Z = Zeiss)

- b) Postwar Ihagee supplied square fronted hoods to fit (screw) into 50mm lens of 35.5, 40.5 and 49mm dia. They were also made for the wide angle 35mm f2.8 Flektogon but apparently not for the 25 or 20mm lenses. Zeiss supplied hoods for the 75mm f1.5 Biotar, 120mm Biometar and 300mm f4 Sonnar (58, 67 and 72mm dia. x 0.75mm pitch)  
With the lens reversed, the female bayonet ring + the 5 or 15mm extension tube should be used.
- c) Close up lenses were normally available in 1, 2, 3 diopetre, although the use of extension tubes was normally recommended (!), and are probably more efficient optically.

## III. Stereo equipment

Zeiss Stereo equipment was available for taking, viewing and projecting stereo pairs 24 x 18mm.

- a) Prism attachment A for Exakta lens. Screws into normal lens, provides prism pair front to give images of subjects at 2 to 0.2 distance, with separation 12mm. Part No. 313.  
Supplementary lenses were made of focus 500mm, 333mm, 200mm, as Part No. 313/1, 313/2, 313/3.
- b) As a) but with prismatic units to increase separation to 65mm for subjects at infinity to 2mm. Part No. 314

Note: Care is required to set these units absolutely in the vertical position! Reducing rings No. 314/3 and 314/2 are required to mount these 49 x 0.75mm accessories on smaller lenses.

- c) A unique Stereoflex finder was made to replace the Varex viewfinder, to give stereoscopic viewing during viewing and focussing.
- Original Stereoflex, rounded curves
  - Focal Guide shows squarer units - is this real?
- d) The Stereoflex could also be used for viewing transparencies. Part No. 306.
- e) Various Zeiss stereo projectors were made, including West German ones (any details?)

## IV. Release knob accessories

- a) Cable release(s)?  
Double cable release - for use with auto lenses on tubes or bellows permitting fully auto use of lenses.
- b) Large release knob (= Giant Release Button) Cat. No. 151 (1958)

- c) Adaptor for RTL 1000 to enable Varex auto lenses to be used on RTL 1000 body. Screws into cable release socket on left hand release button and extends release out to meet back of auto mechanism on lens.
- d) Auto coupler rods (for use with extension tubes)

#### V. Microscope Adaptor

There were two postwar types:

- i) with hinged movement to allow access to the microscope eyepiece. (Type I, about \$30, U.S.A. 1953)
- ii) with bayonet mount in the middle of the adaptor to allow easy removal of the camera plus tube. (2-piece adaptor, Type 2, \$36, USA 1953) Cat. No. 153.

Note:

- 1) Both can have problems but these are minimized by solid mounting of the microscope and/or use of the Vielzweck equipment to steady it
- 2) The adaptor fits the Zeiss K, L, M stands nicely, but some UK microscopes are too thick, and the adaptor requires remachining a trifle. The adaptor in (b) is the standard Zeiss-Jena/USSR fitting used elsewhere in endoscopes, telescopes etc.
- iii) For magnifications of above 5X, but without a microscope, an adaptor ring for Photomicrographic lenses was sold. Used in tubes, or bellows with special lenses.
  - a) Thread for lens 0.8in. x 1/36in. (Cat. No. 193/1)
  - b) For Jena lenses type 'M' (M26.5 x 0.5mm thread No. 193/2)

#### VI. Close-up Equipment

- a) Extension tubes, as prewar, but often alloy not brass. (about \$24, USA, 1953) Combined tube for minimum extension. \$10 (£4.40 UK, 1963)

Note:

Tubes made by "alien" makers, often of variable quality, and with screw-threads not matching the original VP thread. Male bayonet, Cat. No. 181 ) Together 10mm. Useful thickness. Female bayonet, Cat. No. 183 ) Tubes; 5mm No. 184, 15mm No. 185, 30mm No. 186. Also 60, 90mm tubes, listed 1950 advertisements in USA. Combined bayonet (above) No. 187, 5mm effective thickness. Full set Cat. No. 180. Late versions of the double bayonet have a slip ring to allow the rotation of the front to give alignment to the body for use of the auto coupler rods. (Present by "Varex" lists). Auto coupler rod, to link lens auto iris release to the body. Focussing extension tube (Seymours, April 1964 \$9.95) with 4in. rod (COBRA). Some USA tubes had Leica thread on the tubes (1950). A late tube set by Schacht was in black and allowed lens rotation. Automatic lens release "CLOSAL" for use with extension tubes.

b) Bellows Units

- i) Miniature bellows for 3.5 to 12.5cm extension (U.K. £9.60, 1963)  
(This normally gave reproduction ratios of 0.7 - 2.5x with 50mm lenses, but a deep sunk "T 50mm f2.8" lens was made for use to infinity)
- ii) Vielzweck unit for 3.5 to 22cm. extension (iii and iv, below) for use with the slide rail (Cat. No. 155.10)
- iii) With slide copier ("Versal" assembly) Price \$170 (1956)  
Also alien bellows, such as:
  - iv) Novoflex bellows, available in USA from 1951, as single bellows. EBAZ \$45; double bellows, EBIG \$75 (1953).
  - v) Multiscope USA, 1951 at \$50.
  - vi) Multiscope (Seymour, USA, 1961)  
Bellowscope (Spiratone, 1963)

c) "Vielzweck" - Multipurpose (Cat. No. 155.17)

Finish to Vielzweck varied, and at least 1 unit has been seen in black.

The complete Vielzweck consisted of:

- i) Wooden baseboard with column fitting )
- ii) Column sections ) copying stand
- iii) Focussing slide (Guide rail for focussing device, with holder, (Cat. No. 15501)
- iv) Bellows assembly as b) ii) above (Cat. No. 15502)
- v) Swing angle attachment; tripod plate for above
- vi) Transparency copier
- vii) Swing angle attachment (Cat. No. 155.03; 155.08)

Also: Small fittings e.g. fixing screws etc.

Apart from its versatility, this unit was valuable in providing movement separately of lens or camera, or of the whole assembly relative to the tripod bush. This was especially valuable in extreme close-up work. It was used in the special Kolpophot unit (below).

d) Copymat I

Copymat II

These were "optical bench systems" listed in 1953 at \$100. They apparently consisted of a 22in. (55cm) vertical copying stand in steel, with two vertical rods, plywood cover to the base and lamps.

Sub-assemblies were listed as:

- Cat. No. 155.16. Copying stand
- Cat. No. 155.10. Bellows attachment
- Cat. No. 155.04. Transparency copying unit  
(cf. 'Versal' unit, above)

e) Lens reversal mounts

For mounting Exakta lenses in reverse, for making close-ups

- M 35.5 x 0.5mm Cat. No. 159/37
- M 40.5 x 0.5mm Cat. No. 159/42
- M 49 x 0.75mm Cat. No. 159/51

- f) "Z" ring for RTL 1000 lenses. With double cable release this allows fully auto iris operation of RTL lenses on bellows or tubes.



- g) Kolpophot Close-up assembly based on Vielzweck bellows, 135mm f4 - f45. Triotar (or later, Sonnar) with electric pilot light for focus and electronic ring flash for exposure. Specially designed for medical and other close-up photography. Cat. No. 155.11.
- i) Ihagee RB1 ring flash unit, for 100-135mm lenses. Cat. No. 196, small dia.
  - or ii) Ihagee RB2 ring flash unit, for 50-80mm lenses. Cat. No. 197, larger dia.
  - iii) Filter holder for RB2 with grey filter discs Cat. No. 197.030.00.
  - iv) Ring shaped grey filter discs. Cat. No. 197.030.04.

Note:

- i) and ii) were also sold separately.
- h) Endoscopes An Endoscope adaptor was available for the Exakta (e.g. Varex) and could accept various endoscopes for photography of animal cavities e.g.

- i) Cytoscope
- ii) Thorakoscope
- iii) Gastrascopes
- iv) Koloscope

v) Relatoskope. See Wurst (p.356), this unit is for photography of artist models, gives a 11mm dia. image on the film. (from Deutsche Endoskopbau ges. Sass. Wolff und Co., Berlin SW68).

In general, Endoscope units fit to the 50mm lens by adaptor, Cat. No. 189, giving an image diameter varying with the lens. Apparently the units mainly were "aus Jena", Ihagee making the adaptor. During the exposure, a special switch (Cat. No. 117) could be used to over run the lights.

- i) Ihagee Macro-Micro Photometer (Cat. No. 167)

See above. This functions as a 20mm extension tube for close-up work, as well as being a photometer. The external microammeter is very accurate but the whole item is clumsy except for a fixed set-up such as microscope use.

VII.

Other

- a) Telescope adaptor in two parts for fitting i) to camera and ii) to telescope, with quick action device to join/separate them.

VIII.

Flash

Note:

All 35mm Exaktas are synchronised for flash.

1. K.E. I: Bulbs at low speeds (normally 1/25 sec)  
K.E. II, V and VX: M (or V) for bulbs (long duration flash at high speeds (1/100 - 1/1000 sec)  
X (or E) for electronic (1/50 sec) or "M" bulbs on slow speeds (e.g. 1/5 sec)
2. Standard coaxial sockets were introduced on Varex models. Varex IIa, IIb, VX 1000 as above, plus a third socket 'F' for small bulbs at 1/25 exposure.  
RTL 1000 one socket for electronic flash (as 1/125 sec) or flash bulbs (at 1/30 sec).  
Flash guns, (etc) were apparently made by Ihagee after the war. Information welcome!  
e.g. Ihagee flashgun at USA \$30 (1953).  
Other brand at \$15.50 + adaptor plug \$3

IX. Miscellaneous items (some not Ihagee but USA agents)

- a) Rewind knob. Non-Ihagee. Fits rewind knob, this has a folding lever and was made in two types.
  - i) for Exakta I, II and V at \$2 (1950, 1953)
  - ii) for Varex models, \$2.95 (1964)
- b) Third hand Bayonet socket to screw to tripod socket and accept exchangeable lenses.
- c) Body cap \$1.75 (1968)
- d) Underwater housing Listed by Würlst (p. 369) as made for Exa by H. Brodthagen (Berlin) and for Exa and Exakta by Hugy-Phot, Erno or R. Hugenschmidt, Thalwil, Switzerland.
- e) Camera clamp (\$4, 1953) for camera mounting.
- f) Double cable release to release lens and body in that order when separated e.g. on bellows.
- g) Lens adaptors Exakta to C-mount movie, Leica, other SLR's. Only the first was an agent's item.
- h) An external spring driven auto-iris unit for older lenses was offered as a bolt-on goody by Ace Labs, 10459 Montana Avenue, Southgate, California for 50mm lenses, at \$44.85 (Pop. Photo. about 1955).

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ISERT, Gerhard "Exakta Handbook (V.P.)" (Prewar)

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"Exakta, die Ideale Kleinbild-Reflex", Dresden 1935.

(also English Edition "Exakta, the perfect miniature reflex")  
(USA (?), "Exakta reflex camera for small pictures")

"Exakta, the most versatile miniature Focal Plane Reflex", Garner and Jones Limited, London 1939.

"Gutachtsammburg Über die Exakta", Dresden 1935.

"Exakta, Die Vielseitige", Dresden, 1935.

"Ihagee Kameras", May 1935, 20pp; 1939, 31pp; also English editions, Ihagee Cameras.

"Provisorische Beschreibung der Ihagee-Kine-Exakta 24/36mm" (etc.), 4pp. A4, 1936

"Kine Exakta 24 x 36mm, die vortreffliche Kleinfilm-Spiegel reflex", Dresden, 1936.

"Standard Exakta, Die Ideale Kleinbild-Reflex 4 x 6.5cm", Dresden 1939, 12pp.

also

"The V.P. 4 x 6.5cm Exakta", Bell and Howell Co., USA, 1939

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