

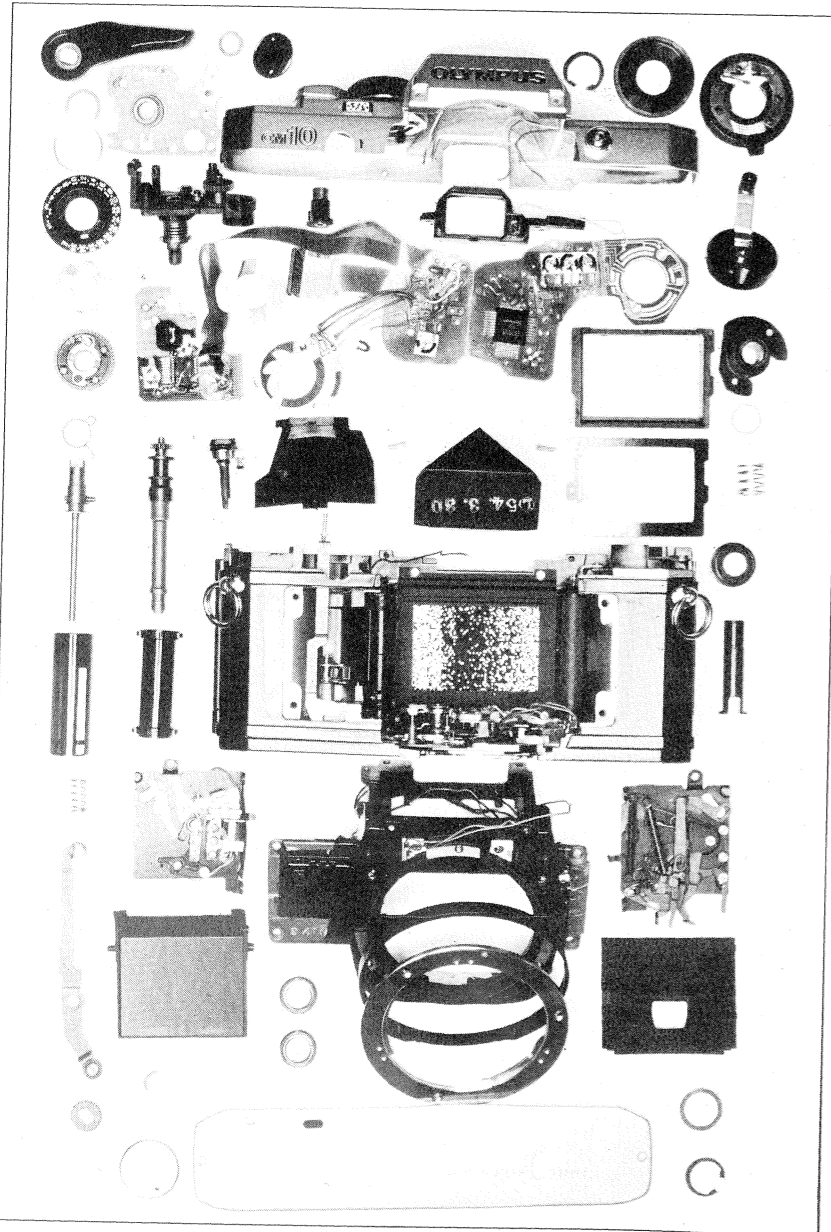
Lab Report

(continued)

Stripdown Report

	Interior	Exterior	
Material choice:	Note A	Good	Repair access: <i>Good</i>
Assembly, Finish:	Note A	Good	Seal against dirt: <i>Fair</i>

Do frequently made adjustments require major stripdown? *No*
 Modular construction? *Partly* Replace key parts easily? *Yes*
 Note A: *Good except shutter gears*



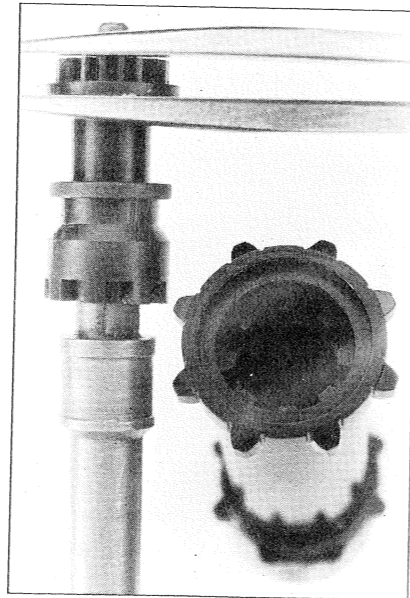
Closing curtain, seen at center of this stripdown parts layout, has white-on-black pattern that's darkest in middle, maybe as compensation for vignetting from single photocell, reading light reflected from curtain at beginning of exposure determination. As can be observed from above photograph, camera features widespread use of plastic parts.

This latest member of the OM family can almost be thought of as an exercise in cost reduction by substituting plastic parts for metal ones. Some of the substitutions are surprising, appearing in this camera as "firsts."

All the gears associated with the shutter are molded of plastic: tough, glass-fiber-filled polycarbonate. This is now widely used in many cameras and even some lens mounts.

The gears in question are low-force, high-speed gears. Some appear to be exact duplications of the metal gears that perform the same function in the OM-1 and OM-2 models. It's almost as though those metal gears had been used to make the molds from which the plastic gears are formed.

Cost advantages are clear, as we see how a gear is molded as an integral part of its associated shaft, rather than being a part of a two-piece assembly of separate gear and shaft. While the plastic gears probably won't have the life expectancy of the metal ones they substitute for, espe- /continued on page 132



Tweezers at top clamps film-drive sprocket coupling in rewind position. Unclamped, spring-loaded coupling slides down flats of its drive shaft, engages its teeth with those of sprocket. Gear at top and drive shaft (slipped out of film sprocket for photo) are hardened steel. Remaining parts are tough, slippery plastic.

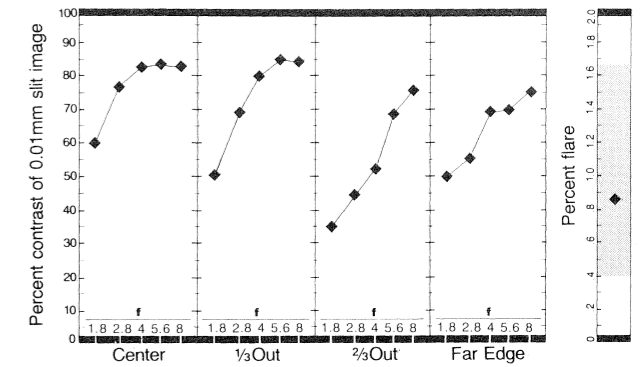
Lens Performance

See Lens Test Glossary on page 134

F. Zuiko Auto-S 50-mm f/1.8 Ser. No. 1245831

Dimensions: O.D.: 60.0 mm (2.4 in.), L.: 31.0 mm (1.2 in.) Weight: 177 g (6.2 oz.) Filter size: 49 mm
 Close working limit: 359 mm (14.1 in.) Close limit field size: 158x239 mm (6.2x9.4 in.)
 Focal length: Marked: 50 mm Measured: 52.00 mm f-number: Marked: f/1.8 Measured: f/1.89 T-number: T-1.95

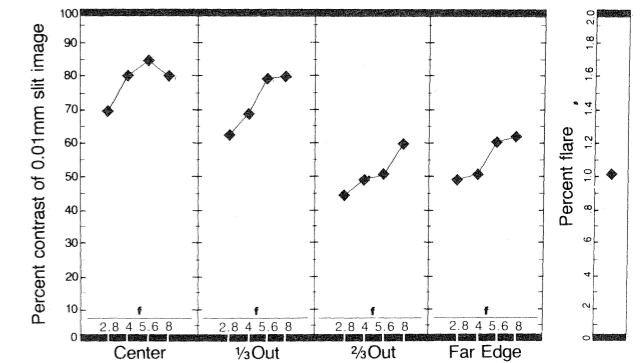
Aberration	1/3 out	2/3 out	Far edge	Notes
Coma	2.8	2.8	4.5	Critical f-stops
Astigmatism	4	6.3	2.8	
Lat. chrom.	None	None	None	Focus shift
Long. chrom.	blue — red = 0.05 mm			
Spherical	f/1.8 — f/5.6 = 0.00 mm			
Distortion	Slight barrel			
Vignetting	None beyond f/3.5			
Centering	Perfect			



G. Zuiko Auto-W 35-mm f/2.8 Ser. No. 222680

Dimensions: O.D.: 60.0 mm (2.4 in.), L.: 33.0 mm (1.3 in.) Weight: 179 g (6.3 oz.) Filter size: 49 mm
 Close working limit: 213 mm (8.4 in.) Close limit field size: 139x211 mm (5.5x8.3 in.)
 Focal length: Marked: 35 mm Measured: 35.51 mm f-number: Marked: f/2.8 Measured: f/2.73 T-number: T-2.94

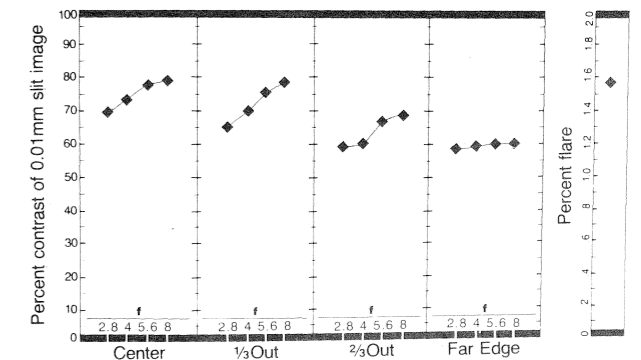
Aberration	1/3 out	2/3 out	Far edge	Notes
Coma	4	4.5	6.3	Critical f-stops
Astigmatism	2.8	2.8	2.8	
Lat. chrom.	None	V. slight	V. slight	Focus shift
Long. Chrom	blue — red = 0.02 mm			
Spherical	f/2.8 — f/8 = +0.06 mm			
Distortion	Slight barrel			
Vignetting	None beyond f/4.5			
Centering	Perfect			



E. Zuiko Auto-T 100-mm f/2.8 Ser. No. 162324

Dimensions: O.D.: 60.0 mm (2.4 in.), L.: 48.1 mm (1.9 in.) Weight: 234 g (8.2 oz.) Filter size: 49 mm
 Close working limit: 873 mm (34.4 in.) Close limit field size: 183x275 mm (7.2x10.8 in.)
 Focal length: Marked: 100 mm Measured: 101.46 mm f-number: Marked: f/2.8 Measured: f/2.89 T-number: T-3.04

Aberration	1/3 out	2/3 out	Far edge	Notes
Coma	2.8	2.8	2.8	Critical f-stops
Astigmatism	2.8	2.8	8	
Lat. chrom.	Slight	Moderate	Moderate	Focus shift
Long. Crom	blue — red = 0.12 mm			
Spherical	f/2.8 — f/8 = +0.02 mm			
Distortion	None			
Vignetting	None beyond f/4.5			
Centering	Near perfect			



Mechanical: None of the three lenses tested employ floating elements, so the focusing mounts are uncomplicated by this feature. The helicoids are all-aluminum, with single parallel-focusing guide arms in the two shorter lenses, and a twin set of arms in the 100-mm f/2.8. Latter could benefit from more

care in blackening the edge of a diaphragm-mechanism plate that probably contributes measurably to the flare level. The three lenses share the same strong, simple autodiaphragm mechanisms whose actuating arms are cushioned with resilient plastic bumpers against noise and vibration.