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ONE POUND

# guns review



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THE

guns  
review

# GUN REVIEW

## UZI. 45ACP CARBINE



The new .45 Uzi Carbine with 16 inch barrel and stock extended contrasted with the short barrel 9mm carbine with its stock folded.

**THE ISRAELI** Uzi sub machine gun was developed in 1949 after the Israeli armed forces found themselves desperately short of automatic weapons during their 1948 war. Uziel Gal clearly utilised his knowledge of Czechoslovak weapons and his final design was to reflect an association with the CZ sub machine guns. The Uzi, however, was peculiarly Israeli and rapidly established a reputation for reliability and effectiveness and for a very high standard of accuracy. The 9mm selective fire weapon could be had with 25 and 32 round magazines and, on full auto, had a cyclic rate of about 600 rounds per minute.

When the needs of the Israeli armed forces were filled, the Uzi was supplied to the armed forces and internal security units of many other countries and as these markets were satisfied, thoughts turned to civilian sales. There can be no doubt that the US market was very much in the minds of the IMI design team when they created their carbine for civilian sales. The 16 inch barrel complies with US import regulations and the modified action with Federal gun laws. The action underwent a major change from an open breech weapon capable of fully automatic fire to one which fires from a closed breech in the semi automatic mode only. The 9mm Uzi carbine was reviewed in the May 1985 issue of this magazine at page 332.

Other changes followed as the civilian market showed its desire for this class of weapon. The Uzi pistol was a one-hand contraction of the carbine which we reviewed in the September 1984 issue. Carbine users were then treated to a .22 rimfire conversion unit

which we also reported upon in 1985. Now the carbine is available in .45ACP for those who think that the 9mm does not have quite the same stopping power, or who simply prefer the bigger calibre. We can also reveal that yet another calibre, the .41, is about to emerge.

The .22 conversion slips into the standard body, utilising a different barrel, breech block and magazine. The .45ACP is available either as a complete carbine or as a conversion unit for an existing 9mm carbine. In fact, the body and its attachments are the same, but the model sold as a complete .45 carbine is so marked on the left side. The conversion unit consists of a 16 inch .45 barrel, a .45 breech block complete with firing pin and .45 magazines.

The carbine has a body of steel pressings which is more or less box shaped. The barrel is inserted into the front of the body and held in place by a locking nut which engages a spring loaded ratchet when fully home. It is usual to leave the ratchet in operation when fitting the barrel so that the clicking gives reassurance that the barrel is correctly installed. The barrel extends well into the body so that almost eight inches of it is behind the locking nut. When the shorter ten inch barrel is used, only a couple of inches protrude from the body.

The secret of the shortness of the Uzi lies in the wrap around breech block which is of square section and extends over almost four inches of the breech end of the barrel. On the semi automatic version, this breech block has been redesigned to fire from a closed breech. On firing, the breech block is forced back by recoil,



The .45 Carbine, full length.

extracting the fired case and ejecting it by means of a fixed ejector just to the rear of the magazine well. A plastic buffer at the rear of the body helps cushion the stopping of the breech block and the mainspring then pushes it forward when it strips a new round from the top of a box magazine which is in the pistol grip.

The firing pin runs through the rear of the breech block and is attached to what is really a slice of the breech on its lower left side. The trigger has twin sears and the left one engages the piece of the block, holding it to the rear whilst the main part of the block closes, chambering the round. The trigger has an automatic disconnecter so that, even if it is held to the rear, the sear still rises and will hold the firing pin back.

A spring loaded plunger at the rear of the block locks the firing pin until the bolt is fully closed. When the extractor stud is able to operate that catch, the firing pin can go forward when the trigger is pulled. This insures against firing before the bolt is fully closed.

A manual safety has only two positions, safe and fire. The military version has a third position for automatic fire, but this is absent on the carbine. A grip safety must be depressed before the bolt can be operated or the trigger pulled.

The metal stock folds away by depressing a catch at the rear of the body and then pinching the two parts of the stock together at its midpoint. The under part of the stock engages with a lug on the bottom of the body and, when folded, the stock is locked in place and can be used as a rear handgrip.

Stripping the Uzi carbine is very simple. The top of the body is a

single plate which incorporates the cocking handle. The handle is not mechanically connected to the breech block but simply contacts the front of it. The top plate is removed by pushing back on a latch immediately ahead of the rearsight. The breech block fits up to the rear of the barrel housing but there is plenty of room for the fingers in front of it. The breech block is pushed back slightly and then lifted out. The barrel is removed by depressing a catch on the ratchet and unscrewing the barrel retaining nut. The firing pin with its spring simply slips out of the breech block.

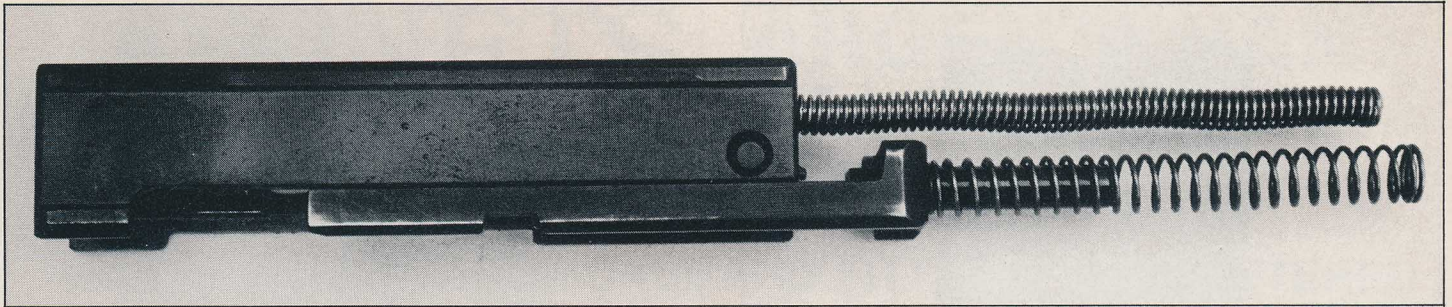
The sights are battle sights. The rearsight is an 'L' shaped leaf giving two different apertures and is adjustable for windage by means of a screw on the left. The foresight is a post, the base of which has four notches, one of which engages with a spring loaded plunger. Elevation adjustment is achieved by screwing the sight up or down, having released the locking plunger. The sights are easy to use but, as one would expect with battle sights, not ultra fine.

A sling attachment is fitted on the left side of the buttstock and a swivel on the left of the body, near the handgrip.

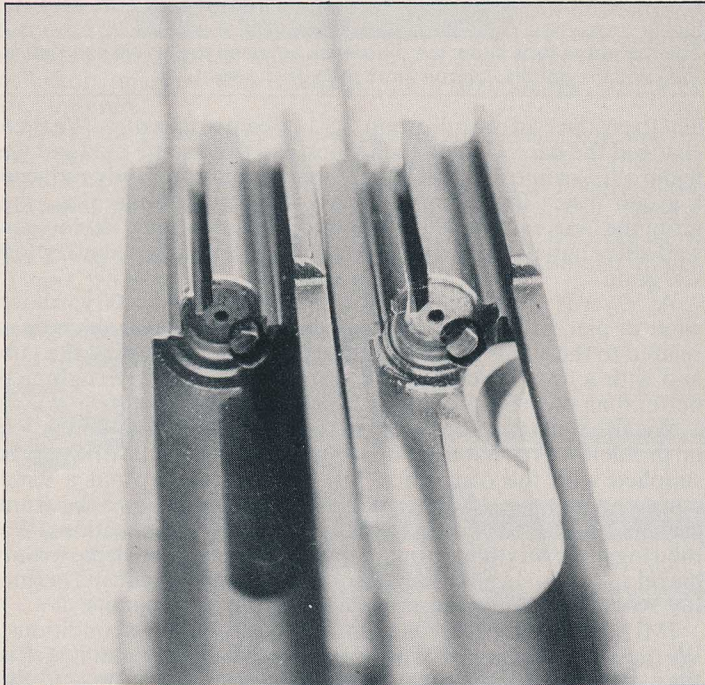
Box magazines for 20, 25 and 32 shots fit into the centre of the pistol grip. This location makes it easy to feed magazines without looking, the magazine is fed by one hand into the centre of the other. The magazine catch is at the bottom of the left side of the



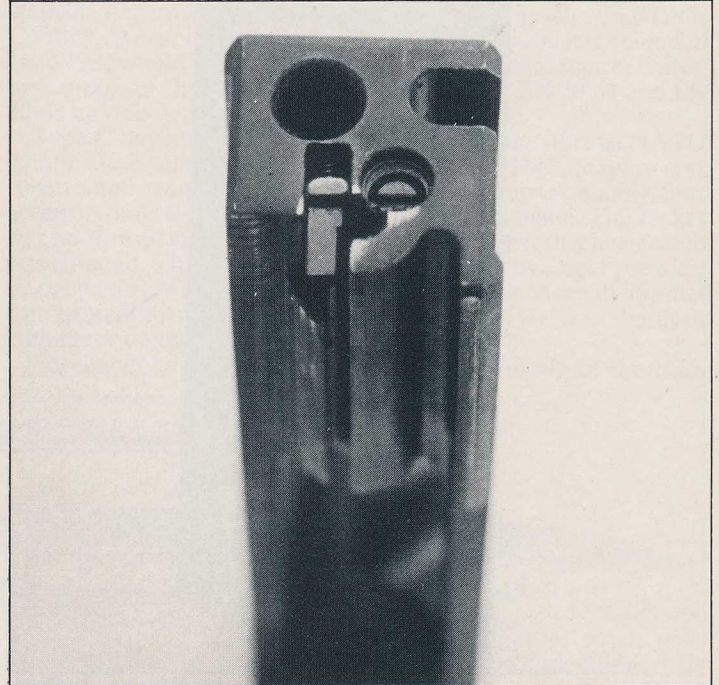
The carbine field stripped.



The breech block. The cutaway portion on the lower left is connected to the firing pin. The notch along the side is its bent.



The two breech blocks showing the differing faces of the 9mm (left) and the .45 ACP.



The spring loaded plunger in the rear of the breech block stops the firing pin going forward in its run until the bolt is closed when the ejector pushes the plunger clear to allow the striker to go forward.

grip and is so designed that simply sliding the hand down the grip operates the catch, the hand can then move on to take the magazine out. The carbine user should not be too keen to use the largest magazines which extend well below the grip. They will touch the ground when the carbine is shot from the prone position. The shorter magazines are more useful.

The standard barrel on the carbine is 16 inches long to conform to American law. Users in this country can obtain the ten inch barrel in 9mm and may have the 16 inch barrel shortened by the importers. This must be done by the importers themselves. Shortening by anyone else could void the warranty entirely. The shorter barrel reduces muzzle velocities by only about 30 feet per second or so in 9mm but might also reduce accuracy slightly.

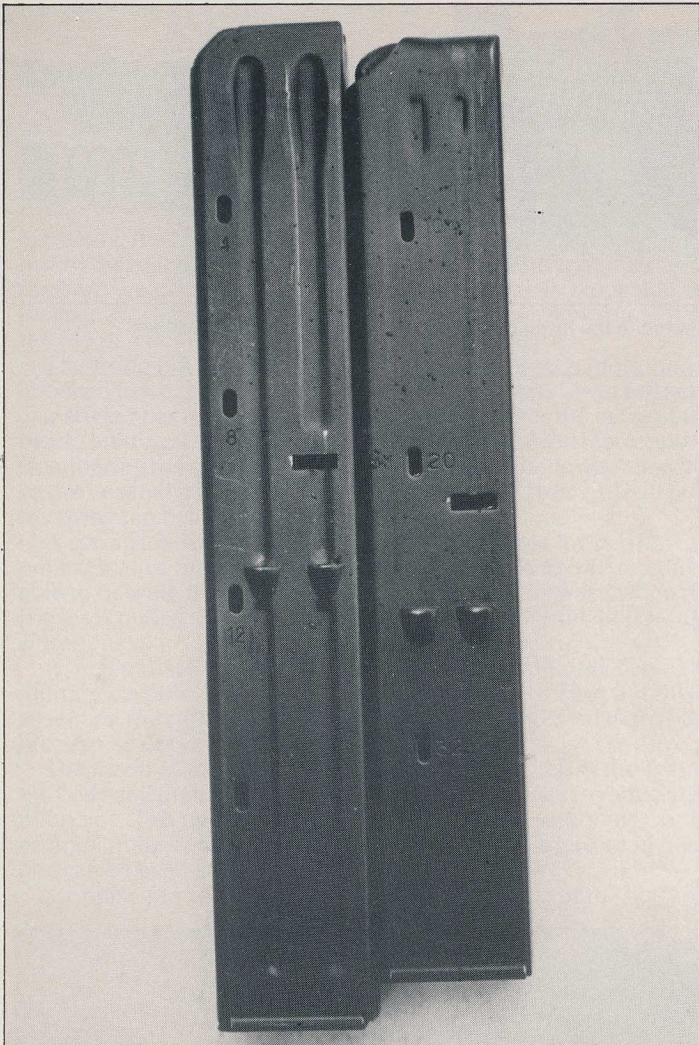
For our tests we were equipped with a complete 9mm carbine and a complete .45ACP carbine, the former had both long and short barrels. Arguments about the relative effectiveness of 9mm and .45ACP ammunition have raged and will rage and the figures are either accepted blindly or rejected out of hand. Using 16 inch barrels in both weapons we achieved an average of 1339 fps with the 9mm, using a 115 grain bullet. In .45ACP we obtained 1044 fps with the 230 grain full metal jacketed bullet and 994 fps with the 185 grain jacketed semi wadcutter, both by Samson. Converted by the usual  $MV^2$  calculation that gives the 9mm 457 foot pounds at the muzzle. The 230 grain .45ACP creates 556 foot pounds and the 183 grain semi wadcutter 406 foot pounds. In theory, then, the 9mm has slightly less energy than the 230 grain and slightly more than the 183 grain .45ACP bullets.

But there is something wrong with that simplistic approach. Firstly, muzzle energy cannot be translated directly to stopping power. Matters such as the cross sectional area of the bullet, its capacity to deform and so on, come into play. The bullets in use in the tests were full jacketed, but the use of hollow or soft point bullets would affect the equation. The cross section of a 9mm bullet

is .099 square inch whilst that of the .45 is .1605, 65% greater. Further, the 45 is going a bit slower and therefore will spend more time in the target. In short, when all factors are taken into account, the stopping power of the .45ACP must be considerably better, with the same bullet type, than that of the 9mm. Many of the recent studies claim that the 9mm is equal to or better than the .45ACP in stopping power. The mathematics might be unarguable, if they had taken account of all the factors.

There was another test we conducted with these two weapons which proved most interesting. The 9mm carbine is comfortable to fire with the metal stock, even when the cheek is resting on it. The .45ACP had considerably more felt recoil. It was not unpleasant but the difference was very noticeable. Without comment we asked a number of shooters, of varying degrees of experience, to fire a few rounds of each, one after the other. We restricted most of them to five rounds of each, though many pestered for a lot more! No-one was told why we asked them, yet every one of them commented on the greater recoil of the .45ACP. Now recoil, according to our old friend Mr Newton, reflects precisely the energy being projected forward. Both guns were of the same weight. Yet the .45 had more recoil with both types of bullet, the one giving a theoretically lower muzzle energy than the 9mm!

The .45ACP magazines have the same external configuration as the 9mm. Ammunition lies in a single column instead of the staggered double column of the 9mm. Thus, a 32 shot 9mm magazine is slightly shorter than a 16 shot .45 mag. From time to time we had some difficulty in filling the longest .45 magazine, and a little extra pressure was needed. We had no difficulty in emptying them. They fed faultlessly, even when we had deliberately been sloppy in loading. The only problem we encountered was that every .45ACP case was found to have a dent in the case mouth.



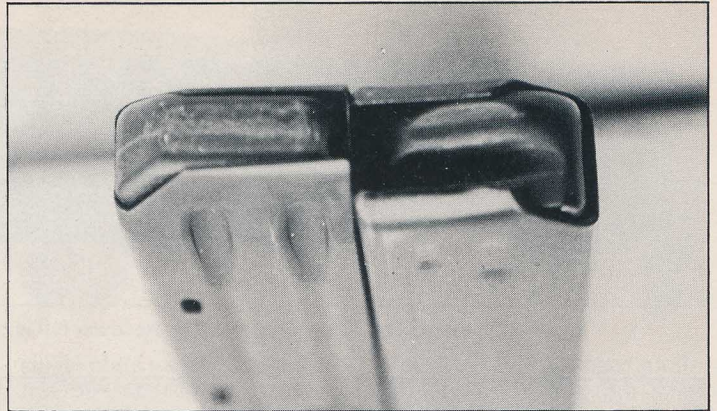
The 32 shot 9mm magazine (left) is shorter than the 16 shot .45 mag. Note the marked 'windows' to show the number of rounds loaded.



The folding stock part closed. The stock is locked in the short position by means of the lug seen under the body behind the pistol grip.

Nothing very serious or large, but enough to attract comment. We use a number of case spinners, metal shanks with a slight taper to fit a number of different rounds. The spinner is chucked in an electric drill and the case is fed onto it until it spins. The spinners are used for many different jobs. For this job, we fed the cases on but did not let them spin and ironed out the dent without difficulty.

We fired groups from the .45ACP carbine at 25 yards, using the 230 and 185 grain bullets. The results were most impressive. One group with the 230 grain bullet had seven shots within 1" vertical and 1/2" horizontal with three shots a little off to the left in a clover



The magazine tops show the difference between the single column .45 mag and the double column 9mm mag on the right.

leaf to produce an overall group 1" x 1 1/4" centre to centre. We then changed the barrel and breech block and fired some old (and we mean old — some of it was 1942!) 9mm ammunition and produced a group just a little larger. With good 9mm ammunition, the grouping was excellent. To our surprise, the target style semi wadcutter bullets did not seem to shoot as well as the round nosed 230 grain.

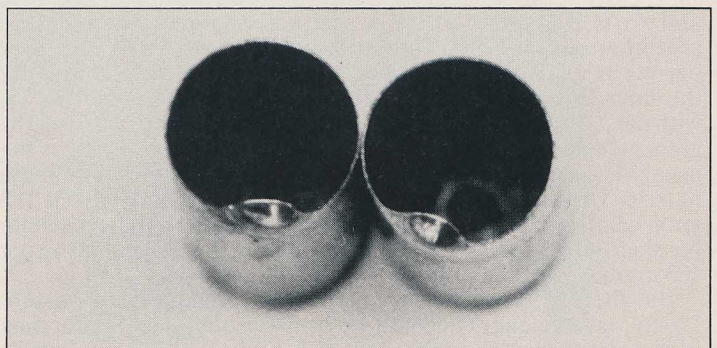
At 50 yards we maintained three inch groups but at 100 yards we went to pieces a little. We were satisfied that the problem was related to the sights rather than the inherent accuracy of the gun and with a low power scope we would expect something much better than the 6 inches or so we were able to achieve.

We also interchanged firing pins between the blocks and noted no problems. That left us wondering why an additional firing pin is supplied with the conversion kit. As a check, we put a 9mm magazine into the .45 carbine, and a .45 magazine into the 9mm carbine. Neither would feed and there were no complications. We then juggled everything around, the wrong breech block the wrong barrel and so on. In no case could one create any difficulty. The gun just wouldn't work unless it had all the right components.

IMI boast that the Uzi will keep on firing in the worst conditions. We did not repeat tests that have previously satisfied us that such is the case. We have seen them run over by trucks, buried in sand and mud or immersed in water and we have seen them keep on shooting as though nothing had happened.

The purists will tell us that there are no serious competitions for such guns. We can tell you that whenever the Uzi appeared on a range, everyone wanted to try it. When it did not appear, everyone asked where it was and when it would next appear. We have not met a shooter who did not enjoy it, even though some claimed to be "serious shooters" not given to such frivolity. Shooting should be fun and there is no reason to restrict club activities to UIT events. Carbine matches, even at club level would be great fun, but straight forward shooting for pleasure should not be the crime that some chief constables try to suggest it is. When it comes to shooting for pleasure, this Uzi carbine in either calibre fits the bill very well.

All Israel Military Industries weapons are imported by Conjay Firearms and Ammunition Ltd, PO Box 582, London NW10 5NZ (01-965 7116) and are available through normal retail outlets. The price of the .45ACP carbine is around the £500 mark and a conversion kit will be about £180.



Ejected .45 rounds have a dent at their mouth. No such damage is caused to 9mm rounds. The dents were easily ironed out with a case spinner chucked in an electric drill.