Test & Evaluation

South Africa's New Sub Carbine

Sanna 77

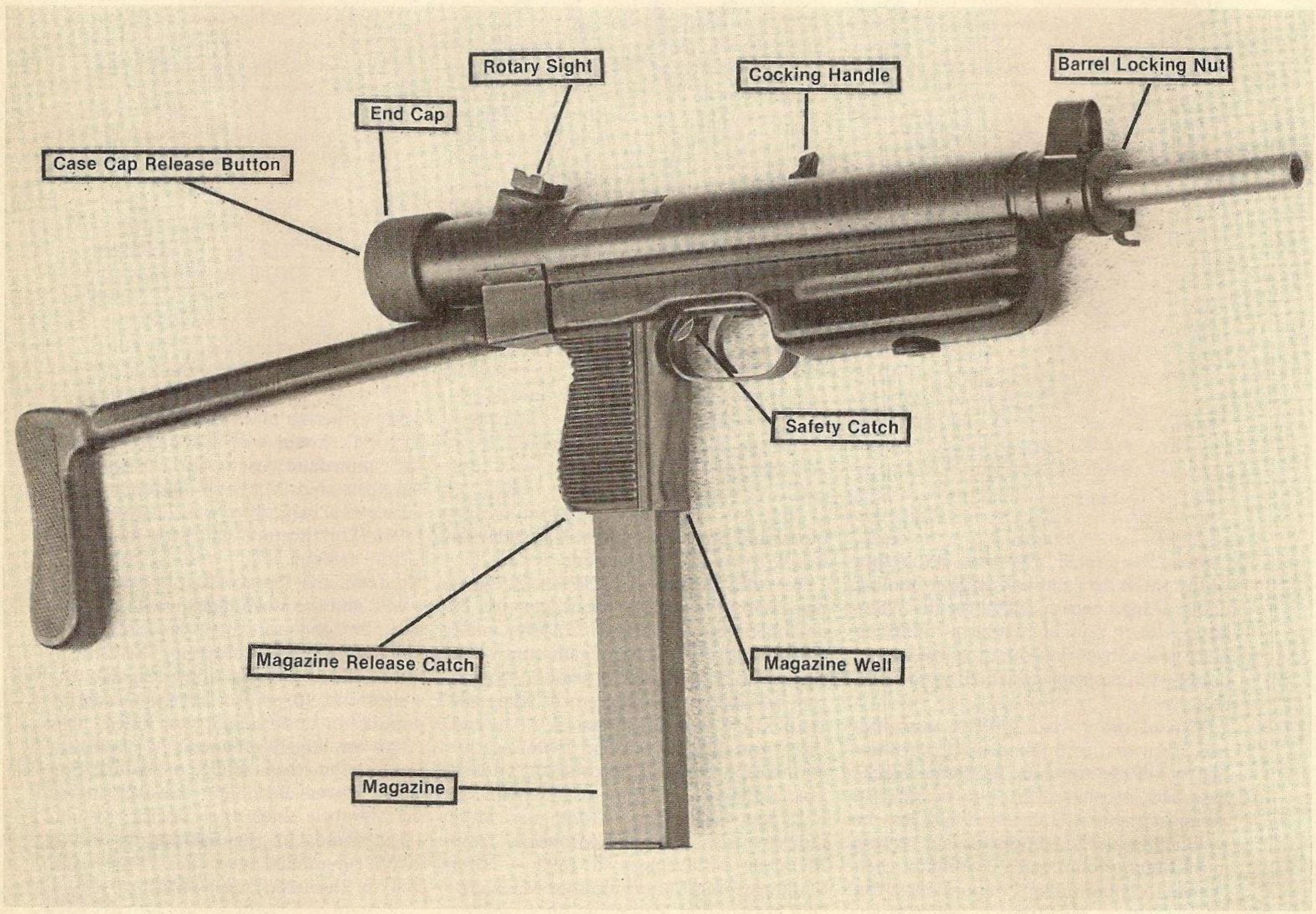
by Al J. Venter

If ever a development deserved the overworn cliche, "Necessity is the mother of invention," then the spate of new weapon production in South Africa as a result of a United Nations arms embargo falls into that category. For certainly, no other country in recent history — with the possible exception of Israel — has embarked on so many new weapon ventures in so short a time.

Just about every month, there is word on the grapevine of some new item of self-defense being produced by local manufacturers. The majority of hybrids are prototype; few of them reach full production stage. But occasionally there is one that attracts even overseas interest.

Such a weapon is the Sanna 77, South Africa's newest addition to a growing arsenal. It comes at a time when it is increasingly difficult to get good quality handguns throughout much of the subcontinent.

The lines of the Sanna 77 provide that initial interest, for this semi-automatic 9mm Parabellum hand carbine is a light, handy weapon with all the attributes associated with personal survival. Examine the gun a little more closely and those of



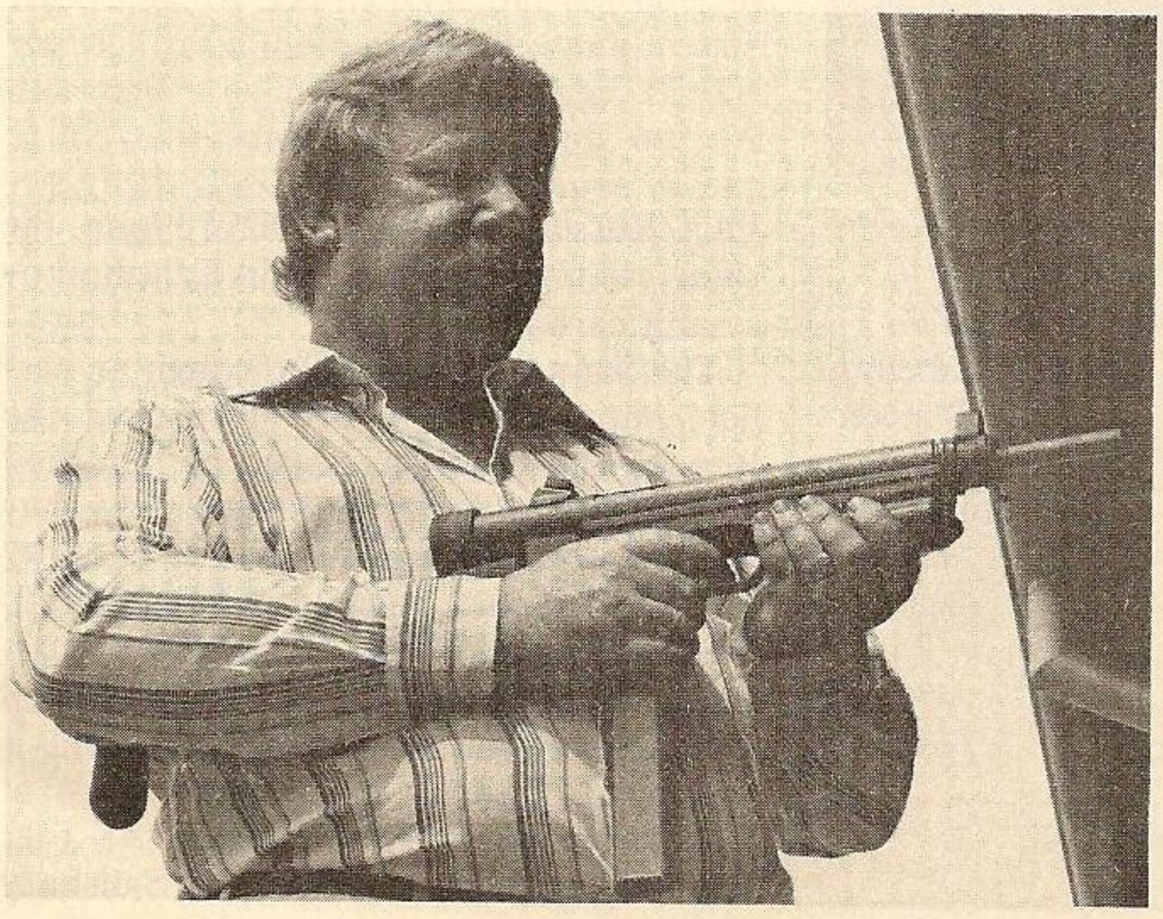
Disassembled Sanna: note simplicity.

us, who have had something to do with military weapons in the past, will recognize more familiar traits.

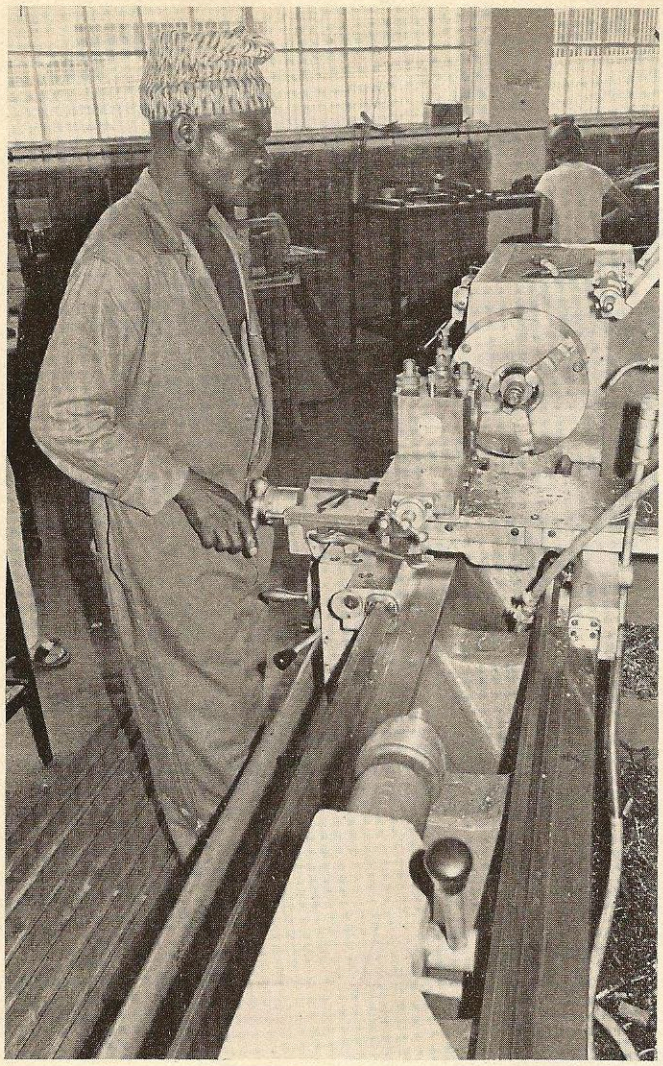
What they see are the lines of Czechoslovakia's tried and trusted Vz-25 fully automatic sub-machine gun, adopted by terrorist armies in Africa and Southeast Asia. This model (with a variety of modifications) is now being produced in quantity in South Africa.

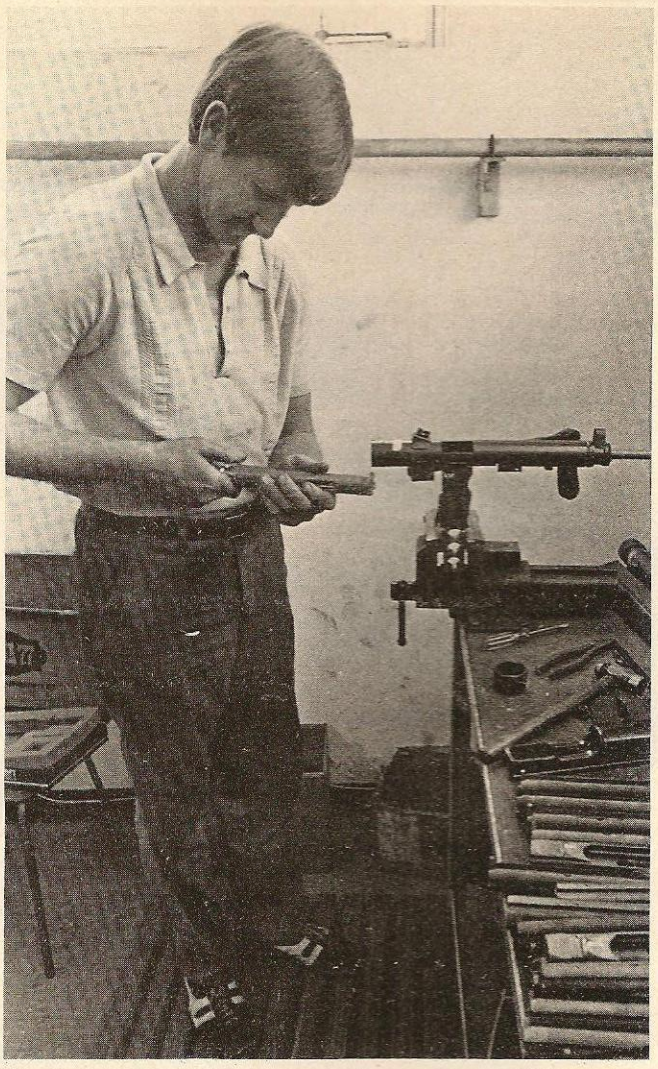
It is perhaps its extensive use in other wars that underscores the basic reliability of the Vz-25 and is probably also the reason why this gun was chosen for production, rather than dozens of others which

Dan Pienaar, owner and modifier of Vz-25 SMG with selector.

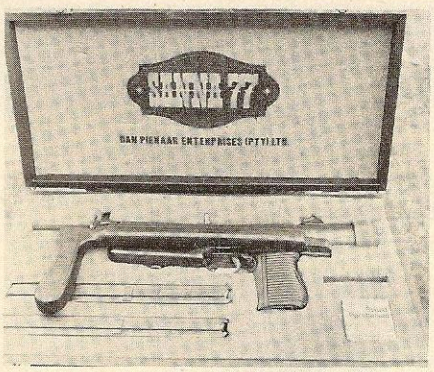


After final fitting in factory near Jo'burg, guns are test-fired in chamber at rear.





Machinist fabricates Sanna 77 parts on lathe. Weapon as it comes with presentation case. Final stages of production take place here in fitting shop.



at first glance look equally adaptable to local circumstances.

Certainly, one of the prime considerations lies in the simplicity of the original version; it is a relatively simple matter for the factory to convert to full auto fire should the need arise and, of course, the necessary government authorization be forthcoming.

Designed in 1949 by Czech national Vaclac Holek, the Vz-25 was, for a while, standard issue to all Czech elite forces. Change came only after Russia forced all its satellite nations (the Czechs included) to conform to the standard Warsaw Pact/Russian cartridge, 7.62 x 39mm, the same cartridge that is used in Kalashnikov assault carbines.

Specifications of the Sanna 77

Caliber	9mm Parabellum
Effective Range	300 meters
Magazine Capacity	40 rounds 30 recommended
Barrel Length	289 mm
Rifling	6 groove
Weight	2.8 kg.
Length	450 mm
Length with butt extended	650 mm
Recoil	None Can be shot with one hand

The Sanna then passed through an earlier, initial phase before it reached the Republic of South Africa to be modified and put into regular production by erstwhile South African Air Force chopper pilot-turned-entrepreneur and industrialist, Dan Pienaar.

The first time I spotted the South African configuration of the weapon, it was being used by Rhodesian troops at that country's "Sharp End." At that stage, it was being produced at a Salisbury

factory and was known among those that needed to know as the GM-15. Unlike the South African version, it was fully automatic as it emerged from the works.

Several members of Rhodesia's crack Special Air Services force who had used the GM-15 in combat situations remarked at the time that they regarded it as probably the most reliable small auto weapon available; the breech block was then being cast by a Johannesburg firm which specializes in that kind of work.

I spent half a day in Dan Pienaar's factory where the Sanna 77 is being produced; and what a change it was from the usual chaotic mess associated with arms production. Accompanied by Dave Sheer, one of South Africa's top gunsmiths, the experience was instructive.

Sheer commented that the last factory he had visited was the Sig-Hammerli complex in Switzerland and Pienaar's enterprise, in comparison, he found, was far more modern. It also appeared to have the edge on efficiency, since the Swiss were using systems that were already generations old, Sheer observed.

All production is centered on one factory floor which is tidy and well planned throughout.

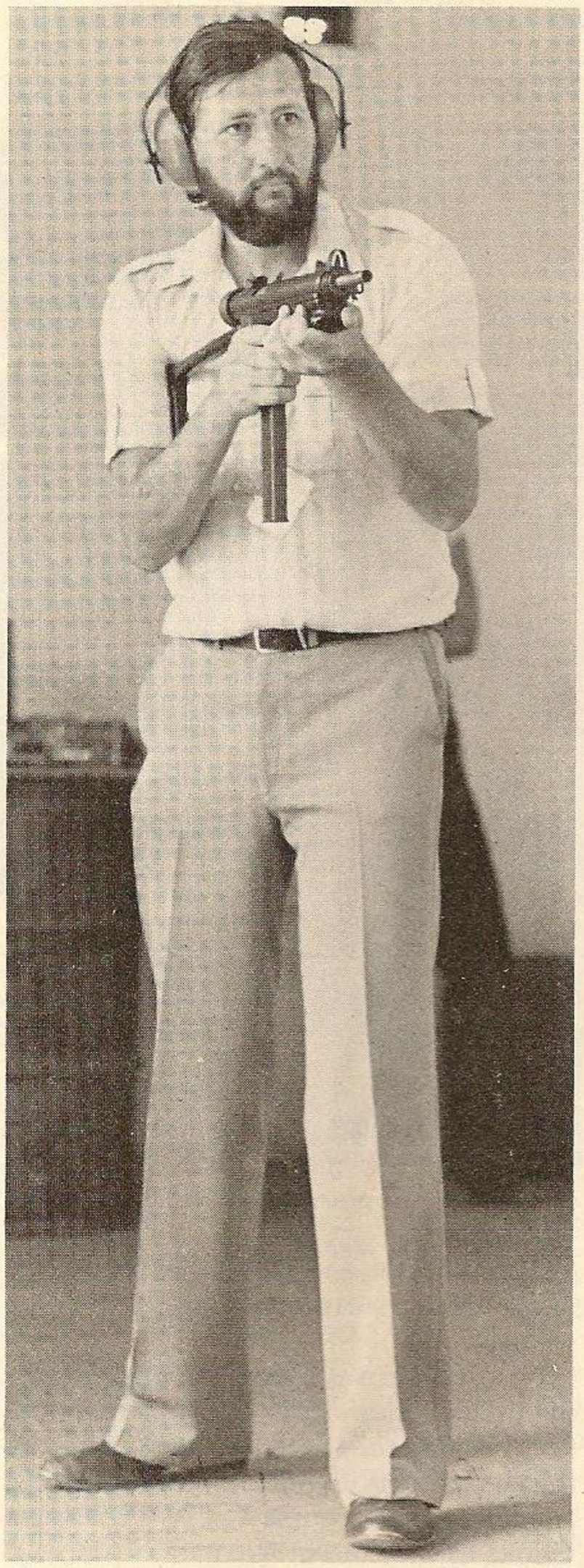
Finished guns end up at an assembly room where specialists add the final touches and test fire the completed weapon. The entire process moves through about a dozen stages, and quality control, we saw, was stringent enough to result in those with flaws being discarded along the way; a minor fault in the Pienaar factory results in automatic rejection.

The assembled gun with its Gun Kote sheen — a non-corrosive and self-lubricating protective finish which is regarded as the most up-to-date military-type weapon protection available today — is then packed in its own compact briefcase-type container for handy carriage and storage.

The manufacturers of the Sanna maintain that the weapon — it's a fixed-striker. blowback-operated gun — has an effective range of 300 meters. But considering that it fires a 9mm round, I would regard 200 meters as an optimum range. Strikes at a greater distance are feasible but not practical. Close contact, of course, would be ideal; the weapon as it was originally designed in Europe was for close-quarter work.

As produced, the Sanna comes with two magazines each, with 40-round capacity, although 30 rounds are recommended by the manufacturers. The magazine well is situated in the pistol grip and provides excellent support. Unfolding the forward hand grip forms a shoulder butt.

A safety catch is situated directly behind the trigger in an easily accessible position. It is applied by moving it from left to right for "safe." Sights can be adjusted from 50 up to 200 meters.



Author prepares to test Sanna 77.

What makes the Sanna such a practical weapon is its overall length — only 450mm; with butt extended this is increased by a little more than a third. This compact design is achieved by the hollow breech block telescoping the rear of the barrel and results in ejection port being closed at all times except on case ejection.

Dan Pienaar's Sanna is designed around an astonishingly simple system. With the bolt in the rear (and ready) position, the trigger is squeezed. This depresses the sear and the breech block is driven forward by the recoil spring stripping a round from the magazine and forcing it into the chamber of the barrel.

The extractor engages in the extracting groove as the round is chambered and fired by the firing pin striking the primer. Blowback then drives the breech block rearwards; the empty case is pulled from the chamber, strikes the ejector, and is pushed out through the open port.

The most important safety feature of the Sanna is that when the magazine is removed the weapon is clear. No round is retained in the chamber. In one sense, this is foolproof and ideal for women and children handling under adverse conditions.

Stripping the gun is a simple operation. The magazine is first removed. The button in the center of the rear cap is depressed, turned 1/8th to the right or left and unlocked.

Once the cap has been pulled off, it is possible to slide the breech assembly rearwards by means of the cocking handle. The trigger is pulled and the breech block assembly slid out of the gun. That done, unclip the front grip, place the breech block over the barrel with the slots in the face engaging the lugs on the barrel locking nut. The nut is unscrewed by turning the block anti-clockwise. The barrel can now be pulled forward.

Dan Pienaar makes the point that it is not necessary to remove the barrel for cleaning purposes; in fact, he says, do not strip the Sanna unnecessarily.

The company recommends — as with most weapons in this range — that only high velocity ammo be used, that which achieves at least 1,200 feet (366 meters) per second. Inferior ammo, it is stated, can cause malfunctions.

The gun retails at a recommended selling price of about $600 at current market rates, but since the factory produces only 500 Sannas a month, the demand is such that the weapons are not always available.

At the present stage an export potential is being examined.