



MGI's
HYDRA
QCB-D

A QUICK-CHANGE BARREL
GUN YOU CAN ACTUALLY
GET BARRELS FOR.

by David M. Fortier



The ability to change magazine wells is an interesting feature of this design that increases its flexibility.

ACCORDING TO GREEK MYTHOLOGY,

there was an entrance to the Underworld beneath the waters of the lake of Lerna in the Argolid. However, if an adventure should take you there you'd find it guarded by a fearsome many-headed chthonic water beast called the Lernaean Hydra (Λερναία Ύδρα). Facing the Hydra in mortal combat was enough to make even the most valiant warrior soil his armor. Even if you were a man of courage and smote one of its many loathsome heads, you'd find two more grow in its place. This multitude of regenerating, poison-belching heads was simply too much for anyone but the Son of Zeus to prevail against. Or so the story goes.

While the Hydra of Greek mythology had many heads, today's Hydra is a beast of many calibers. Produced by MG Industries, the Hydra is a very interesting design that raises the modular concept a notch above the expected. It accomplishes this by not only easily switching between barrels, but also magazine wells. In a matter of moments a rifleman can swap out barrels, changing to a different length in the same or even a different caliber. The magazine well is also easily changed to accommodate a caliber better fed from an entirely different magazine design. Better still, no tools are required.

I first learned of MGI's Hydra a number of years ago through my friend Jeff Zimba of Small Arms



With the handguard removed (four screws) you can see the two locking pieces operated by the two rotating levers. These securely lock the barrel into place.

Review. At the time, I resided in Mid-Coast Maine, Jeff was in the Northern part of the state and MGI's home at the time was Bangor. Jeff facilitated a first look at this very interesting design. I can remember being impressed by the concept, but I did not feel that production techniques were fully mature. Fast-forward to today, and the rifle I have sitting in front of me looks like a well-made production piece.

For those of you unfamiliar with this interesting rifle design, let's first take a quick look at the company that developed it. MG Industries was founded by a veteran of the U.S. Special Forces named Mack Gwinn Jr. Gwinn spent part of his youth as a member of a Special Forces Recon Team in the jungles of Vietnam. His service in Southeast Asia would have a profound effect on his view of firearms and their design. After he left Special Forces, he founded Gwinn Firearms, which evolved into Bushmaster Firearms in the early 1970s. He eventually sold this company and worked on a number of projects for other companies. His work includes designing the .50-caliber Quick



While the Hydra of Greek mythology, seen here locked in mortal combat with Heracles, had many heads, today's Hydra from MGI is a beast of many calibers.

Change Barrel for Fabrique Nationale, high-capacity 75- and 90-round magazines for MWG Company and the Counter Poise system with Jim Sullivan. Eventually, he developed the Hydra carbine. Today MG Industries is run by his son, Mack Gwinn III. Like his father, Mack Gwinn III served in a U.S. Special Forces unit and has a practical knowledge of fighting rifles.

My time with the MGI Hydra QCB-D seen on these pages began with a phone call from our editor. He asked if I'd be interested in reviewing a Hydra, seeing as I'm originally from Mid-Coast Maine and was familiar with the company. I agreed, and he shipped me a rifle he'd received for testing. Out of the box, MGI's Hydra QCB-D looked quite good. I received a standard 5.56x45mm model with a 16-inch Government profile barrel. This features a 1:9-inch twist, is not chrome-lined and is topped with a standard A2 flash suppressor. A traditional Stoner carbine-length gas system is utilized, so no fancy piston system



Standard AR-15 barrels can be installed or removed in a matter of seconds with no tools required. MGI's system is not only simple to use but has been in production for years.

here. The barrel is free-floated by an aluminum 1913 rail system. This features rails at 12, 3, 6 and 9 o'clock for attaching accessories. A flattop upper receiver is standard. Riding inside was an M16-type bolt carrier with a properly staked gas key and a "CM"-marked bolt. Fitted inside the lower is a standard trigger group with a heavy and crunchy break. An M4 carbine-style collapsible stock and A2 pistol grip are standard. Inside the receiver extension I found a standard weight buffer. Everything looked nicely machined and finished, but in a way, it actually looked rather...boring. At first glance it just appeared to be a plain-Jane AR carbine.

When we talk about modular rifles with quick-change barrel systems, the first two that come to mind are FN's SCAR and Bushmaster's ACR. Both of these are modern, sexy and eye-catching. Unfortunately, neither FN nor Bushmaster actually offers different barrels or caliber conversions for their designs. And



The standard AR-15 magazine well will accept a variety of cartridges. But it can also be swapped to allow AK-47, AK-74, M3 Grease Gun and other magazines to be utilized.

they've been out how long? Stop and think about that. There's not even smoke on the horizon.

MGI's Hydra may look like vanilla at first glance, but there's a lot more to the lope under the hood than a fouled plug. This design offers quick and easy barrel swaps, no tools required. To accomplish this, remove the magazine and verify the rifle is unloaded, and lock the bolt to the rear. Next, unsnap a U-shaped spring steel retainer located beneath the handguard. Then slide the rectangular keeper forward, exposing two levers. Rotate these two levers 90 degrees away from the barrel. You can now pull the barrel assembly out of the receiver. Installing a barrel is merely the reverse. With the bolt locked back, it only took me six seconds to remove a barrel and 13 seconds to install one. So yes, it's very quick and simple. Plus the Hydra accepts standard AR barrels. No proprietary parts required. Any standard AR barrel will drop right in.

While the quick-change barrel feature is slick, the interchangeable magazine wells will make you go hmm. A close examination of the lower receiver will reveal it's not a standard piece. Unlike a standard receiver, the MGI's lower receiver is a two-piece assembly. This consists of

HYDRA QCB-D

the rear receiver group, which is serialized, and the magazine well, which dovetails into it. Like the barrel, the magazine well is quickly and easily swapped out. To accomplish this make sure the rifle is unloaded and separate the lower receiver from the upper. Next depress the triggerguard detent and rotate it down. Then depress the magazine release and slide the magazine well up and off the lower receiver. A different magazine well can now be easily slid onto the lower and locked into place.

What do these two features offer? Basically, they allow you to switch quickly from one length of barrel to another and one caliber to another. With a standard 5.56x45mm bolt-carrier assembly and mag well installed you can swap different-length barrels in seconds. Plus you can also swap from 5.56x45mm to any caliber that utilizes a standard 5.56x45mm bolt, such as 6x45mm, .300 AAC and .300 Whisper. By changing both the barrel and bolt, a variety of additional cartridges can be utilized. These include 5.45x39mm, 6.5x38mm Grendel, 6.8x43mm SPC, 7.62x39mm, .450 Bushmaster, .458 SOCOM and .50 Beowulf.

Many have desired to feed their 5.45x39mm and 7.62x39mm rifles using standard Com Bloc Kalashnikov magazines. There are a number of reasons to want to do this. Chiefly, the Com Bloc-pattern magazines are very robust and reliable. In the case of the 7.62x39mm cartridge, while standard AR-pattern magazines are available in this caliber, reliability is hit or miss with them. Plus, many people who are interested in these calibers already own Kalashnikov rifles and thus a quantity of magazines. MGI solves this problem by offer-

ing dedicated magazine wells for both 5.45x39mm AK74 and 7.62x39mm AK47 type magazines. Magazines are released by a simple push button, just like with standard AR mags.

MGI also offers a mag well that accepts .45 ACP M3 Grease Gun magazines. Combined with their bolt carrier assembly and barrel, it allows conversion to .45 ACP. MGI also offers magazine wells that accept Glock pistol magazines in .45 ACP and 10mm. And for you 9x19mm fans, they offer a dedicated mag well for Colt-style 9mm subgun mags. So there are many options available.

What are the pros and cons of such a system? On the plus side you can easily swap barrels and calibers using one basic rifle. You don't need complete upper receiver assemblies, like with a standard AR. Plus it utilizes standard AR barrels. Not only can you swap barrels, but you can swap operating systems as well. That's right, you can install a piston assembly if you so choose. So you can easily set up the rifle exactly the way you need it. Plus, the carbine can be disassembled into a relatively small package. By removing the barrel from the upper, then popping the upper off the lower, you end up with three relatively short pieces. These will store neatly in a space you would not expect a 16-inch carbine to fit into. Then there is the ability to utilize a wide array of existing magazines in different calibers.

The cons? Keep in mind that as you swap barrels you will need to rezero. The best solution would be to have an optic on a QD mount already zeroed for each barrel. Manufacturing tolerances need to be strictly held, or issues would appear. When not actually mounted in the rifle, the unsupported gas tube is sticking out of



To remove the magazine well you need to unsnap the trigger guard then depress the magazine release and lift the magazine well straight up and off the receiver.

the barrel. Care should be taken to ensure the gas tube does not get bent. When switching from one caliber to another you need to verify that you have the correct bolt and barrel installed before simply dropping the hammer. Additional mag wells are not cheap at \$275 a piece either.

Interested to see how MGI's Hydra QCB-D would perform, I gave it a thorough examination. Here I noticed the pistol grip was slightly loose, as was the castle nut. I tightened both of these and mounted an optic. MGI was founded by a Special Forces vet who served in Vietnam, so I selected a Hi-Lux/Leatherwood ART M-1000 scope to check accuracy. The ART M-1000 is a descendent of the famous Vietnam vintage Auto Rangefinding Telescope (ART) developed by Captain Jim Leatherwood and fielded on the U.S. Army's M21

sniper rifle. A 3-9X variable, it was intended to be extremely quick and easy to effectively employ out to 900 yards. To use you aimed at a man-size target and adjusted the magnification until two ranging brackets on the crosshair reticle subtended the target. Then you merely compensated for windage/lead and fired. The scope not only ranged the target, it also automatically compensated for the bullet's drop out to 900 yards. It accomplished this by a cam system attached to the magnification ring. As the magnification was increased/decreased, the rear of the scope body was cammed up/down to match the trajectory of the cartridge. U.S. Army Staff Sergeant Adelbert Waldron, the top-scoring sniper in Vietnam, wielded an ART-topped XM21, racking up 109 kills.

Hi-Lux's 2.5-10x44mm M-1000 ART consists of a fairly conventional scope fitted with a specialized integrated cam system and mount. Hi-Lux fits this model with its No-Math Mil-Dot reticle, located in the second focal plane. In addition to the standard Mil-Dots, this reticle also features ranging brackets on the vertical and horizontal stadia. These allow a rifleman to easily bracket 36-, 18- and 9-inch-tall/wide targets from 250 to 1,000 meters. The Mil reticle (set on 10X) can also be utilized for ranging and ballistic compensation. The M-1000 ART can be utilized the same as a conventional scope, or it can range and automatically compensate for the distance to the target. Price is a reasonable \$459.

I selected four loads for testing and began by firing four five-shot groups with each load at 100 yards. This was done from a benchrest to check accuracy. Per-



MGI's Hydra QCB-D is light, quick to the shoulder and fast handling. It performed well in a variety of drills.



With the bolt locked back and the barrel retaining levers rotated 90 degrees, slide the barrel into the receiver making sure the gas tube lines up properly.

formance from the bench was actually quite good. Despite a rather heavy and crunchy trigger pull, Black Hills 60-grain VMax load averaged 1.1 inches at 2,779 fps. Federal's 69-grain Gold Medal Match load also shot very well and averaged 1.4 inches at 2,520 fps. American Eagle's 62-grain FMJ load averaged a respectable 2.7 inches at 2,738 fps. Back of the pack was Wolf Performance Ammunition's 75-grain steel case load, which averaged 3 1/2 inches at 2,630 fps. Perhaps Wolf's 75-grain load was not to this particular 1:9-inch-twist barrel's liking.

Seeing as the heart of the Hydra is a quick-change barrel system, I proceeded to test this. Using Federal's 69-grain Gold Medal Match load, I fired an additional four five-shot groups. However, I removed and reinstalled the barrel between each shot. My tightest five shot group came in just over an inch, and my average was 1.4 inches. Crunching numbers, I was a bit surprised to see no difference in group size

when firing five-shot strings or when removing and reinstalling the barrel between each shot. I cannot comment on how the system holds up under heavy and/or long-term use. But initial testing looks quite acceptable.

Next I switched to shooting on steel from 200 to 530 yards. This was done both in the Hi-Lux's Auto/Range Mode and by using the Auto/Range Mode and then disconnecting the range ring and increasing the magnification. Ammunition utilized during this portion of testing was Federal's 69-grain Gold Medal Match load. Firing from the prone position, MGI's carbine made quick work of my steel targets and provided rapid hits. However, I noted I had the most difficulty bracketing targets in the 300- to 400-yard range, due to the low magnification of 3X to 4X. Past this ranging became easier as magnification increased. Hi-Lux's Auto/Range Mode is intended to provide quick hits on a man-size target, and it did. Hits might not be exactly to point of aim, but they were there. It was also fairly simple to bracket a target and then disengage the range ring

Removing the barrel and reinstalling between every shot didn't change group size. This 100-yard group was fired using Federal's 69-grain Gold Medal Match.



SPECIFICATIONS

MG Industries, Inc. Hydra QCB-D
Action rotating bolt via direct gas

CALIBER	5.56x45mm
BARREL	16 inch Gov profile
RIFLING	6 groove 1-9 inch twist
OVERALL LENGTH	35.7 inches w/stock fully extended
TRIGGER	Standard single-stage
FEED	Detachable box magazines
FRONT SIGHT	A2 post
REAR SIGHT	None, Mil Std 1913 rail
WEIGHT	6.9 pounds w/out mag
FINISH	Parkerized
PRICE	\$1,250

ACCURACY RESULTS

Load	Velocity (fps)	100 yards (in.)
Black Hills 60-grain VMAX	2,779	1.1
American Eagle 62-grain FMJ	2,738	2.7
Federal 69-grain Match	2,520	1.4
Wolf 75-grain HP	2,630	3.5

Notes: Groups are an average of four 5 shot groups fired from a rest at 100 yards. Velocity readings measured 12 feet from the muzzle at an ambient temperature of 50 degrees F 1030 feet above Sea Level with an Oehler 35P.

HYDRA QCB-D

and quickly zoom up in magnification. To get the most out of the ART system, I highly recommend taking the time to fine tune the cam to your specific load. This requires a bit of work but is well worth the effort.

Swapping to an Aimpoint T-1 red dot sight, I next ran the Hydra QCB-D through a variety of drills inside 50 yards. Here it again performed well, and no issues were encountered. It simply ticked along nicely. Last, I ran a drill that started with the Hydra disassembled in a Blackhawk messenger bag. The components were reassembled, the carbine loaded and a number of targets engaged. If I did things smoothly, I found that the Hydra could be accessed and reassembled fairly quickly. I could do it in less than 15 seconds.

I have to say that the Hydra QCB-D managed to perk my interest. Here's a design with all the strengths of the AR but with a quick-change-barrel feature.

Not only that, but any standard AR barrel will drop right in. So you can get whatever you want for a barrel, right now. No waiting years for some bureaucracy to decide whether to offer the proprietary barrel you want. A surprising amount of calibers will fit in the standard AR mag well. But if you need more, the Hydra will oblige. While I didn't have a chance to test any other magazine wells, the design appears straightforward enough. What killed interest in the Hydra for many in the past was simply price. However, MGI has worked hard to improve production techniques and bring this down. Today the suggested retail on the Hydra QCB-D is a reasonable \$1,250. Compare that with any other quick-change-barrel system on the market. Do you need an AR with the ability to swap barrels and mag wells? That's up to you to decide. But if such a beast appeals to you, this is one to consider. **AR-15**



Snap the upper onto the lower receiver as you would a standard AR-15.



SOURCES:

MG INDUSTRIES
207-817-3280
www.mgi-military.com

BLACK HILLS AMMUNITION
605-348-5150
www.black-hills.com

FEDERAL CARTRIDGE COMPANY
800-831-0850
www.federalpremium.com

HI-LUX OPTICS
888-445-8912
www.hi-luxoptics.com

WOLF PERFORMANCE AMMUNITION
888-757-9653
www.wolfammo.com

Practical accuracy was very good as this 100-yard group fired using Black Hills' 60-grain Vmax load demonstrates.

MGI's Hydra QCB-D, seen here with an ART M-1000, is an interesting, and reasonably priced, evolution of the AR-15 which adds the ability to quickly change barrels and magazine wells.

