Eyes in the back of your head

MSX1 Rear View Helmet

Reevu
$399.99
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Reviewed by Moshe K. Levy

So-called "smart helmets" have been in the news lately, mainly due to the spectacular failure of Skully, the now-defunct startup company that was leading the "smart helmet" charge. However, Reevu has been offering riders a viable rear-view system in its helmets for many years, and the latest MSX1 Rear View Helmet design boasts some features that make it a standout in the mid-priced full-face helmet class.

The primary functional benefit of this DOT-approved helmet is its internationally patented rear view system, which consists of a proprietary series of optical mirrors ensconced above the EPS liner in the bulge you see at the top of the helmet shell. Images transmit through a tinted, mirrored 4" x 5" polycarbonate window panel on the rear of the helmet, via the aforementioned optical mirrors, and onto a fully-adjustable 3.5" wide x 1" high rear view mirror located by the rider's upper forehead. This in turn allows the rider a readily-available 180-degree view of whatever is behind the bike. The Reevu's purely mechanical rear view system was originally patented in 2000; there are no electronics or batteries of any kind here.

The balance of features is notable within this price class. The exterior shell is constructed from a tri-composite carbon fiberglass, Kevlar, and synthetic "high-tenacity" fiber blend. Paint quality on our test model was excellent, with a flawless finish. The bulge that houses the optics mirrors at the top of the shell doubles as an added crumple zone, while the standard clear anti-fog face shield travels through seven detents which all remained stable at speed. The chin strap is a ratcheting quick-release type instead of the more common double-D rings. Air flow is channeled via a chin vent and a single forehead vent in front before exhausting through two rear ports on the outer perimeter of the polycarbonate window.

The interior uses a moisture-wicking microfiber-type material for the removable, washable liner and cheek pads. A chin skirt is also included, which helps to keep noise levels relatively low. Speaker cutouts are included in the liner, so adding a communications unit with external speakers is a breeze. I installed a sample Sena unit to check spacing, and there was plenty of room between the speakers and my ears. The overall internal shape feels like a comfortable cross between "intermediate oval" and "round"—a nice compromise that should fit the majority of American riders without causing hot spots or other fitment issues.

On the road, it takes some time to acclimate to the rear view system, and to set it up correctly. At first, it is a new source of data for the rider to process, and one cannot help but treat it like the rear view mirror in a car. However, that is not its intended purpose. Over time, I found that moving the rear view mirror farther away from my head (until it was nearly flush with the helmet liner) was most effective to leverage its true function, which is to continually enhance the rider's situational awareness.

Adjusting the rear view mirror is easy with the included hex key, and pays off once perfectly set to appear in the periphery rather than in the direct line of sight. The image itself is somewhat distorted, and there is a definite parallax effect since it is not in the rider's direct line of sight, but it's good enough to determine when an emergency is imminent. In this way, it naturally becomes part of the rider's periphery, and errant movements in that field of vision become instantly visible. Cars coming up from behind too fast at red lights, aggressive tailgaters, and even rapid lane changers behind the rider are now seen right away. The "noise" of normal traffic just blends into the periphery, while anything abnormal can now be dealt with that much faster, as I found out when a clueless distracted driver approached quickly from my rear while I was stopped at a red light. I was able to lurch forward in order to evade, thanks to the advanced warning I was afforded by the helmet's rear view. To get a feel for this device, you can watch a video of the "rear view mirror" in action on my YouTube channel at youtube.com/c/motomouthmoshe.

Nodding the head up and down changes the angle of the view; as such, riders who sit in an upright posture have an advantage since we hold our heads level. The rear polycarbonate window is tinted, so even when the sun is shining behind you during the day, or when car headlights are behind you at night, the mirror's view is not glaring. It's as though you're looking through a medium-tint pair of sunglasses. The mirror did not fog up during our testing period, nor was it particularly affected by rain.

The MSX1's overall performance as a commuter/touring helmet was very good. The quick-release chin strap was unusual at first, but I quickly grew to appreciate how easy it was to actuate with gloves on, unlike the traditional double D-ring straps. Seals around the face shield were stellar, with no wind or water leaks. The helmet was relatively quiet at speed, and the aerodynamic shape assured minimal buffeting on the highway. Likewise, ventilation was OK, although one can understand how difficult it must be to design a helmet with an elaborate optical system in the shell, which still must deliver airflow over the crown of the head. My only niggles with it were the vent tabs, which were rather small to actuate with gloves on, and weight, as my size L test model tipped the scale at 4.2 lbs. This is heavier than average, but totally forgivable given the safety benefits of a continuous 180-degree rear view at a glance.

The bottom line is this: All good riders have the habit of frequently checking their mirrors and turning their heads to maintain 360-degree awareness, but what the Reevu provides is sudden notice that fills in the blanks between the times you glance backwards. When seconds count, this can indeed be life-saving.