

Sky-Watcher's

Nick Howes looks at a unique new take on a classic telescope design – the Sky-Watcher Skyliner-250PX FlexTube Auto.

carrying handles to facilitate easy movement. The mount also has eyepiece holders to keep a few of your favourites to hand. Where it starts to differ are the two motors fitted to the altitude and azimuth axes, along with a capacious battery pack, which takes 8 x D cell batteries.

The innovation with this telescope comes in two forms. The first being the hand controller that comes with the mount, which can slew the telescope to almost any position you wish it to go to at speeds up to a staggering 600 times sidereal rate. The telescope is really nippy but despite the size of the OTA it's moving, it is remarkably quietly. Not as quiet as something like the EQ6, but still not deafening and perfectly usable in a garden with neighbours close by. The handset can, via varying key combinations and presses, set your latitude location to enable more accurate tracking, and inform you of both a successful action or any errors via a series of flashing LEDs. The automatic mode has a unique and patented override, which allows you to manually move the telescope to a position and retain the tracking when you get there. This in practice works incredibly well.

The second innovation comes in

the form of the OTA itself. Newtonian telescopes are typically some of the heaviest around, and to achieve the focal lengths that planetary or deep sky observers desire, they have to be relatively long, if the aperture (as was the case with the f/5, ten-inch model under test) is large. Ingeniously, not only have Sky-Watcher circumvented this with a truss tube configuration, reducing the weight, but this truss tube literally just slides into position and locks down, saving a huge amount of set-up time. Three locking bolts, which are finger adjustable, hold the tube in place either in the extended or contracted position. In use this configuration, when used for imaging, does require additional collimation steps, common with truss tubes, but with a simple laser collimator to hand this process took only a few seconds.

Dual focuser

The truss tube approach does leave the telescope more susceptible to stray light, and it could benefit possibly from a shroud around the truss tubes to combat this, which some UK suppliers have already started to supply as an optional extra. Being a bit more open to the elements, storage and maintenance of the mirror should be something a prospective owner should consider (unlike say with a closed tube

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Ever since John Dobson revolutionized the amateur telescope with his simple, yet brilliant, alt-azimuth system that lets amateurs put quite enormous Newtonian instruments on relatively low cost mounts, companies have been keen to embrace this as a way to provide huge light grasp at a reasonable cost. Sky-Watcher's new collapsible system is the latest attempt to up the ante in the Dobsonian market.

The Skyliner FlexTube Auto 250 arrives in two rather huge boxes, which belie the fact that the components supplied will really fold down into a compact solution. The design of the base mount will be familiar to anyone who has used a Dobsonian before, with the circular base allowing 360-degree rotation, augmented with well-positioned

■ The FlexTube's dual Crayford focuser. Image: Nick Howes.



■ The Skyliner's tracking handset.

Dobsonian evolution

■ The globular cluster M13 imaged with the Skyliner-250PX FlexTube. Image: Nick Howes.

system like the Sky-Watcher 190MN).

In contrast to the aforementioned 190MN, where I found the focuser to be a bit of a let down against the simply exquisite optics, the single speed two-inch focuser on the Skyliner was really in keeping with the overall design. However, the rather curious two-inch adapter fitting made it impossible to reach focus with my DSLR attached to a standard two-inch T-Mount adapter, as it has a slight ridge inside. However, all of the eyepieces tested on the dual 1.25-inch and two-inch focuser had no problems at all. For imagers, additional adapters for DSLR use may be required.

The tracking was good but not good enough to do any serious long exposure deep sky photography. However, for visual use, not having to constantly move the telescope will keep those deep sky beauties in the field of view for quite considerable lengths of time. It is a shame that the planned GOTO upgrade for this telescope that was initially advertised will now no longer be available. Nevertheless, for lunar and planetary imagers this is a fantastic system once collimated, taking quite extreme levels of magnification that easily shows clear views of the Moon using a 4mm eyepiece during a period of good seeing. Views of the Moon during the Spring Moonwatch week had neighbours and family members enthralled.

The tracking kept Saturn in the eyepiece view of a 12mm Plössl for a good hour, and it is sturdy enough to take a Lumenera or similar planetary camera for imaging. Sky-Watcher

supply 25mm and 10mm eyepieces, which are good considering they are bundled in with the telescope, but when you put better and wider-field eyepieces in, the views really are knockout. Through a 40mm wide-field eyepiece, deep sky objects like M31, M51 and some of spring's globular clusters were jaw-dropping with impressive detail.

Were I to have any reservations about the overall design, they would be that the base unit could benefit from having an integrated bubble level to save you having to find your own for accurate set-up, that the telescope should have come with a suitable power supply, and possibly the aforementioned shroud, but for the price, with tracking, it's good value for money. As with most Newtonian-design telescopes, the edges on the Skyliner do suffer with some degree of coma, but it's only noticeable if you really do look for it.

All in all, this is a great grab and go set-up, with the light grasp of some of my largest telescopes, yet it can be assembled and disassembled with lightning speed, dropping down to a size that can be put away in the corner of a room or garage and lifted by just one person. A lightweight guidescope can also be fitted to the tube, if required. The tracking handset is a great addition and, while this and the collapsible nature of the system may not be in keeping with Dobson's original design, they are a marvellous evolution of it.

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▲ The crater Plato imaged on the Moon with the Skyliner-250PX FlexTube. Image: Nick Howes.

► The Skyliner-250PX FlexTube in compact mode.

