

Product review - Accurascale EM Wheels

Back in 2017 when Irish Railway Models were first planning the launch of their Accurascale UK outline brand, they approached the EMGS to take our advice on how they could ensure their models were as easy as possible to convert to EM. We saw this as a very positive step by a manufacturer and duly put forward our suggestions. As has been reported, their first model emerged in the form of the HUO hopper, which was successfully converted using commercially available EM wheelsets. Accurascale have now moved to provide their own range of 'ready to use' EM-specific wheelsets suitable for use in their models and indeed more generally. Stated to be of RP25/88 profile, we were supplied with samples of an all metal 3-hole disc wheel of 12mm diameter on 26mm pinpoint axles, insulated both sides by a plastic bush. Phil Tattershall kindly offered to make an evaluation and his report is reproduced here.

I was asked in mid 2019 by the EMGS Board to examine a new source of EM gauge wheels and give my opinion on their suitability. The new source was Accurascale and I compared the wheels with the profile drawing which appears as Section 2.1.2 (1) of the EMGS Manual. At the same time I decided to also examine several wheels which I had in "stock" (for up to about 15 years, ie taking their turn in the long and slowly moving queue to be eventually turned into working EM gauge models). If I had examined only the Accurascale wheels, this would have left the question "well, what about the others?", so looking at the range of offerings provides a broader view.

The wheels I had to hand are shown in the photograph and from left to right are Accurascale, Keen Maygib, Alan Gibson and Ultrascale. Unlike the others, the Ultrascale wheels I had available were bogie wheels for an LMS Duchess; I believe that my use of these instead of wagon wheels is a valid comparison. A Hornby OO gauge set is shown at the right hand side for comparison.

Perusal of the EMGS wheel profile drawing shows that all dimensions on it are nominal, ie no tolerances are given. It is therefore impossible to say categorically that a wheelset does or does not comply with the drawing, because how close is close enough? I looked at wheel thickness, flange depth, flange thickness and the root radius between flange and tread using vernier and micrometer measurements and macro photography.

Wheel thickness of all types (except for one rogue which I found - not an Accurascale) were within 0.03mm of the 2.29mm specified value and I believe are satisfactory.

Flange depths should be .068mm and the samples varied between 0.65 and 0.55mm. The latter (Keen Maygib) would perhaps be less tolerant of poor trackwork but all should be satisfactory on decently laid track.

Flange thickness is specified at 0.57mm and all samples were within a range of 0.53 to 0.55mm and would be satisfactory.

Root radius between flange and tread is difficult to measure without specialist equipment, but from enlarged photographs appears to be about 0.2mm for all wheels. The EMGS drawing value is badly specified here, as it is a smaller value than the rail head corner, so I judge that the wheels are better than the standard!

Most of the wheels supplied as pairs on axles (doesn't apply to the Ultrascale ones which I assembled), had back-to-back dimensions which were close to the 16.5mm nominal value given in Section 1.1.0 (1) of the EMGS Manual. I would stress here however that all wheelsets should be checked before use with back-to-back gauge and, if necessary, adjusted to give a sliding fit. The 16.5mm value should be a minimum; 0.05 to 0.10 greater than this would be satisfactory.

In conclusion, I believe that all the samples examined are suitable for use on EM gauge layouts, although I must stress that these judgements are my personal opinions and not necessarily those of the EMGS.

Phil Tattershall

November 2019



We are pleased to announce after analysis and discussions with **Accurascale**, we have issued the following statement to them:-

"The EM Gauge Society are happy to report that the wheelsets you provided us with were found to be fully compliant with the EMGS standards"

EMGS Board