

# Ultrascale Data Sheet

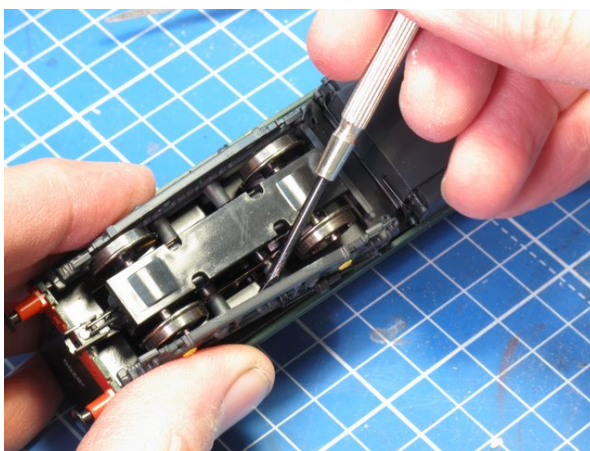
Issue: 001-100501

## Heljan Class 15 Ultrascale Conversion for EM Gauge



### Fitting Instructions:

The conversion kit comprising four axles with gearsets can be fitted without requiring to remove the locomotive body.



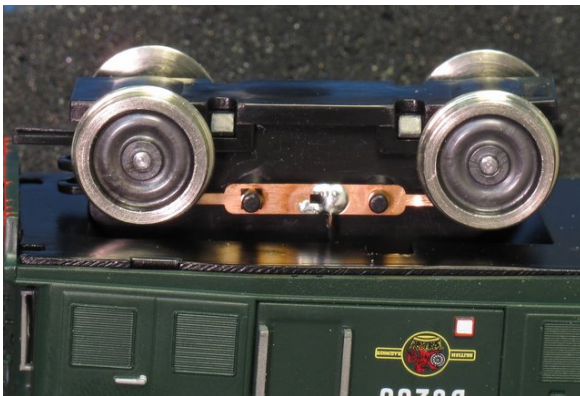
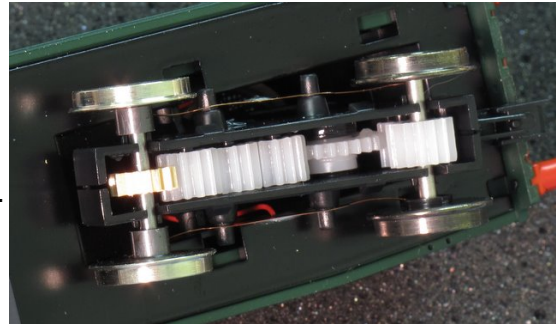
The first items to remove are the Bogie sideframes and like many of the Heljan products they are a simple push fit onto two locating pins on the side of the bogie chassis. On the test model the two sides were attached by a stretcher bar on the inner ends of the bogies. One had not been glued, the other had. This doesn't make a significant difference to removing the bogie sides. Using a small screwdriver as a lever start at the outer chassis end of the bogies and gently work one side loose, there is sufficient flex in the bogie end

stretcher to allow one side to disconnect. Once you've achieved this turn your attention to the other side and repeat the process. Put the bogie frames to one side, no additional work is required on them.



The axles are held in place by a keeper plate on the bottom of the bogie, this can be removed again with a small screwdriver. There are four clips, two per side, which need releasing, and these are on the central section of the keeper plate. Place the blade behind a clip and gently rotate to about 45 degrees or so, and the clip will come free, repeat the process on the same side of the bogie for the next clip. Once one side is undone the clip will lift off allowing access to the gear train.

The wheelsets are a straightforward replacement. No spacer washers are required as the Ultrascale wheels have a spacer included in the wheel and axle assembly, which automatically centres the gearwheel and prevents excessive sideplay. As the wheels are replaced make sure the electrical pick up strips are behind the face of the wheel, they may need a gentle adjustment to ensure contact with the rear face of the wheel.



The keeper plate can be replaced, there is an arrow molded on the inner face, make sure that is aligned pointing to the outer end of the locomotive chassis. Make sure two clips on the keeper plate are aligned with the mountings on the bogie chassis, press gently and firmly downwards and the keeper plate will snap into place. Replace the bogie sides and the conversion is complete.



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