

# Ultrascale Data Sheet

Issue: 001-100515

## Heljan Class 14 'Teddy Bear'



### Fitting Instructions:

The Heljan class 14 'Teddy Bear' conversion pack comes as a fully assembled set of wheels, axles, drive crank and gears. *(as shown above)*

Changing the wheels in this Heljan model is probably one of the easiest so far. All that is required is to pry up one end of the chassis keeper plate located between the chassis side frames using a small thin flat bladed screw driver. Using this screwdriver work along the chassis, releasing the keeper plate retaining clips located at each side of each of the axles, being careful not to break the keeper plate where it is thinnest next to the final drive gear.

Once the keeper plate has been removed the wheels along with the coupling rods can be removed from the chassis. At this stage put the model to one side, as we now have to remove the coupling rods from the original wheel set for use on the conversion wheels. The crank pins on this model are a push fit into the wheels and drive crank, so you will need to pull these out to remove the coupling rods. This can be done using a small pair of end cutters to grip the crank pin between the head of the crank pin and the coupling rod. Using a small backward and forward twisting motion pull the crank pin to remove it.

Having removed all the coupling rods, you will need to open the crank pin holes in them to a diameter of 1.7 mm. This can be done using a rat tail needle file (round file) and the back end of a 1.7 mm drill to check the hole size. Insert the file into the coupling rod hole and turn it anti-clockwise to broach out the hole, keep checking the hole at intervals with the drill until it just slides into the hole. Once this is done to all coupling rod holes they are ready to be fitted to the conversion pack wheels.

You are now ready to assemble the conversion pack. First remove all the crank pin nuts and front washers from the new wheels and put these to one side, as these items are all the same there is no need to keep them with the wheels that they have been removed from, however, do not remove the crank pin tubes and backing washers.

Now, assemble the coupling rods on the the new wheels, making sure that the rods are the correct way round and the right way up. Replace the front washers and nuts, doing the nuts up with a pair of small snipe nose pliers (do not over tighten). Once all the coupling rods have been fitted the wheel set is ready to be fitted into the chassis, but first check that the wiper pick ups are adjusted for the gauge wheels that you are fitting.

The wheels can now be dropped into the chassis, making sure that the wiper pick ups are correctly positioned and making contact with the tyre on the back of the wheel. Next replace keeper plate, this is easily replaced by just pushing it back into place. Once the keeper plate is back in position the model is ready to be test run before final completion. It is recommended that you only test run for a sort time just incase the crank pins work loose at this stage. Once the test run is complete and you are happy with it the 14 B.A. crank pin screws can be cut back to the crank pin nuts using a pair of side cutters. You should find that you will only need to cut the screws back on the wheels as the drive crank screw is already flush with the crank pin nut. After the screws have been cut, put a small amount of Loctite 603 on the end of each crank pin and allow to set. Make sure that it is a small amount as you do not want to lock up the entire crank pin assembly. Once set, wipe off excess Loctite and the conversion is complete.