

## GB2/15 38:1 REDUCTION GEARBOX

with precision cut helical gears  
and steel worm with grub screw

For 1.5mm shaft diameter motors

### **IMPORTANT** - Please read these instructions before starting assembly

This gearbox has been especially designed for use with motors having either 8mm or 10mm fixing holes. Provision is made for an 'outrigger' motor shaft bearing (not supplied) for motors such as the DS10. All folds should be made with the half-etched line to the inside.

1. Carefully open out the axle bearing holes until the bearings are a close fit, taking care to avoid making the holes too big. This is best done using a five sided broach which will help to ensure that the bearing holes stay on centre.
2. Open out the motor front bearing hole and drill the screw fixing holes 1.4mm. File back any swarf from the motor mounting surface.
3. Solder the axle bearings in place with flanges to the inside. You may wish to file the bearings flush with the outer gearbox sides if space inside the frames is restricted.
4. Bend the gearbox to shape as per the sketch and reinforce the joints with solder. Take care that the gearbox sides are 90° to the back.
5. Fit the end plate to the gearbox and solder in position as per sketch. The assembly can now be washed in warm soapy water to remove any remaining soldering flux
6. Insert the motor shaft into the gearbox at an upward angle and thread on the steel worm. Screw the motor in place then tighten the grub screw, leaving a small space between the end of the worm and the front bearing to allow some end float. Temporarily fit the gear and driving axle then lubricate and test run the gearbox before assembly into the chassis.

The motor and gearbox can now be fitted into the chassis. Remember to file a flat on the axle for the grub screw to bed on.

