Dependable by design

Sales
01631 700209
sales@spartanclassicEV.co.uk

Spartan Classic EV Limited
PO Box 9683
Dalmally
Argyll
Scotland

www.spartanclassicEV.co.uk

AS31286: MORRIS MINOR TRANSMISSION BOX









KIT CONTENTS:
Transmission box assembly
Splined shaft for motor
Spline grease
Fasteners for attachment to motor mounting plate

INSTRUCTIONS:
The Morris Minor transmission box is a self-contained unit, which does not require assembly or adjustment. It is designed to be used in conjunction with our motor mount backplate, which is included in our following kits:

1) AS31320 Motor mount Netgain Hyper 9 SRIPM Morris Minor
2) AS31332 Motor mount HPEVS 'B' face motors Morris Minor
3) SK24868 Netgain Hyper 9 motor mounts pair
4) SK24873 HPEVS motor mounts pair

To fit the spline to your motor shaft
Your motor (whether Netgain or HPEVS) is supplied with a key, which fits in the groove in its output shaft to prevent rotation of the spline on the shaft. Fit the key to the motor by pressing it into the slot on the shaft.
The spline itself is much easier to fit onto the motor shaft if it is heated. A temperature of 300 degrees centigrade is sufficient. This can be achieved with a hot air gun, domestic oven or blow torch. We use a hot air gun for safety and ease. You will need a soft headed hammer (copper, rawhide etc.) to drift the spline onto the shaft. It will bottom out on the end of the shaft, not the shoulder at the bottom of the shaft, when the note the hammer makes will change, becoming much duller.
There is an M12 x 1.25mm pitch thread provided in the spline for removal from the output shaft if required.

To fit the transmission box into the car
Apply a modest amount of spline grease (supplied) to the output shaft spline. Do NOT use Copperslip or similar as this is primarily an anti-seize compound.
Put the PEEK insulating disc on the front of the transmission box so that it will be sandwiched between the box and mounting plate. Fit the transmission box and disc over the output shaft spline and secure them to the motor mount using the fasteners provided.
You can now fit your standard propshaft to the rear of the transmission box by slipping it onto the splines in exactly the same way as when fitting it to the original gearbox. Do not grease this spline as it is lubricated by the transmission box oil . A light coating of oil on the outside of the propshaft spline shroud helps it through the transmission box seal assembly. Once this is done reattach the propshaft to the bevel box in the normal way.
Fit the speedometer drive mechanism into the transmission box as normal.

OIL: The transmission box requires the same oil as the standard Minor 1000 gearbox, which is an engine oil, rather than a dedicated transmission oil. This lubricates the ball bearings, propshaft bush, propshaft splines and speedometer drive and aids cooling. The original specification was SAE 30 but a now more common 20W-50 is better. Use a classic oil rather than a modern or synthetic oil as these can damage bronze bushes due to their chemical make-up.
The transmission box has a filler plug/breather, an overflow plug and a drain plug, which are self-explanatory. Again, the standard precautions apply: make sure that the car is approximately level and let the oil settle for 10 minutes or so (especially on your first fill) as it can take time for oil to seep through to the propshaft spline.
As per original service manual check the oil level every 6,000 miles or 6 months and change the oil every 12,000 miles or annually.