Rowperfect

Test for a Main shaft that may be bent

Pull the chain out and hold the flywheel section stationary. Put your hand over the flywheel cage and touch your fingers onto the wheel itself and with a light finger pressure hold it still as you slowly recoil the chain.

You should be standing to the left side of the machine and looking at the flywheel from the rower's position (end on). While doing this look at the edge of the flywheel and feel with your finger

There should be no side to side movement of the flywheel itself. If you can see movement and feel the flywheel moving in and out of contact with your finger the main shaft is bent.

Replacement of sprockets, main shaft and main bearing block

Tools required:
Spanners sizes 8, 10, 13, 15 and 19 mm.
Tube wrench 17 mm
Soft hammer.

Disassembling procedure.

Remove the cover of the flywheel protecting cage.

With the tube wrench, unscrew the size 17 nut that holds the flywheel in place by turning it anti-clockwise, holding the flywheel by the vanes. Then, pushing the flywheel outwards off the shaft, tap gently with a soft hammer longitudinally on the shaft in the center of the flywheel to let the flywheel come loose. Take the flywheel off, and put it aside, making sure there is no dirt coming into the flywheel clutch.

Remove handle and U-bolt from chain-handle connector.

Move the chain to the left sprocket, furthest from the flywheel. Put a spanner size 15 on the flat recesses of the main shaft and turn the shaft anti-clockwise for some 30 degrees seen from the direction of the flywheel. The chain handle connector then comes free from the upper rim of the bearing block as well as a small piece of the chain. Fold the chain handle connector backwards over the chain, and use it to push the chain to fully engage with the teeth of the sprocket. (K1 photo).

Then, gently turning the main shaft further anti-clockwise will cause the reversed part of the chain and the chain handle connector to engage with the lower part of the chain and the lower rim of the

bearing block, and jam. Then put more force on turning the main shaft anti clockwise and unscrew the left sprocket for about two full turns. Swap the chain to the second sprocket and do likewise. Both sprockets now can be turned by bare hands. Put a size 19 spanner on the left hand nut of the main shaft, and holding the main shaft in position with the size 15 spanner, unscrew the nut completely.

Remove the flywheel cage by loosening the 4 M6 bolts with the 10 mm spanner. Note that the shortest bolts come from the main bearing block position. Put the flywheel cage and the bolts aside.
Remove the two M6 bolts holding the other side of the bearing block. and against the force of the chain, slide the main bearing block out of the main frame.

With the bearing block below the main frame let the chain recoil gently until it stops.
Holding both sprockets steady, unscrew both sprockets from the shaft, by turning the shaft anti-clokwise. If necessary, tap gently with the soft hammer longitudinally on the left side of the shaft to release it from its socket. Pull the shaft out completely, thus releasing the chain and the sprockets.

Replacement of sprockets, main shaft and main bearing block

Assembly procedure.

To assemble the new main shaft proceed as follows:

Put the bearing block on the main bar, below the main frame, with the open side pointing upwards, and the largest bearing facing the flywheel side. Take the loose end of the chain and lead it over and through the open side of the bearing block, away from the main frame.

Take the largest sprocket (11 teeth) with the rim pointing towards the flywheel side, and bring it into the open side of the main bearing block, over the chain. Fold the chain around the largest sprocket and use the chain to hold the sprocket in position. Partially insert the shaft, and put the second sprocket loosely around the shaft, also with its rim pointing towards the flywheel and to the first sprocket. Screw both sprockets onto the main shaft. Push the shaft in its final position and loosely screw the size 19 nut on.

Against the tension of the chain, pull the main bearing block out far enough to slide it back into its proper position in the main frame.

When correctly positioned, insert the two short M6 bolts into the left (non-flywheel) side, to keep the main bearing block in place.

Put the flywheel cage in its original position, insert the two short M6 bolts into the holes in the central disk and the main bearing block, and the two longer M6 bolts into the mounting plates and the main frame. Subsequently tighten all four M6 bolts.

Put the size 15 spanner on the flat recesses of the right side of the main shaft to hold the shaft while tightening the size 19 nut on the left side of the shaft. When tight, unscrew this nut for about 10 degrees to release tension.

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Mount the U-bolt and the handle. Put the handle behind the handle hook.

Put the chain on the largest sprocket, and with the size 15 spanner turn the shaft clockwise to tighten. Then do likewise with the smaller sprocket. Pull the chain out completely to check whether it is running correctly over all it's pulleys; make corrections if necessary.

Re-mount the flywheel , tighten the size 17 nut and subsequently unscrew for about 10 degrees to release tension.

Replace the cover of the flywheel cage, put a drop of superglue on the threaded part before screwing the size 8 domed cap nuts on.