

1 Tip seal replacement

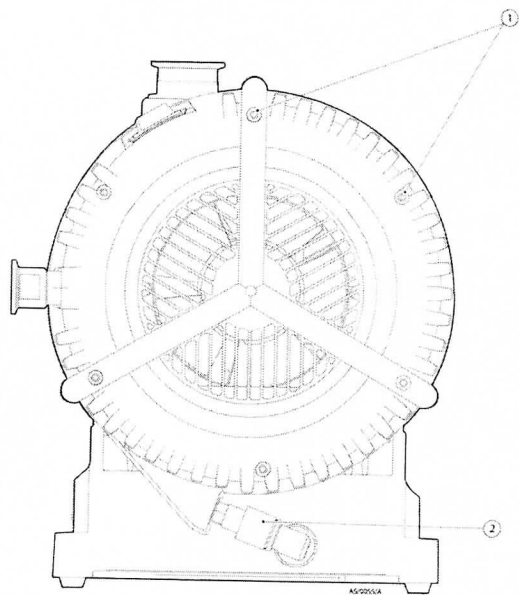
This instruction is applicable to the XDS 35i replacement tip seal kit, code number A73001801.

CAUTION

Take care when removing the fixed scroll assembly that once all fixings are released the assembly is not dropped.

1. Switch off the pump, isolate the electrical supply and allow it to cool. Vent the pump using the gas ballast control set to position 2.
2. Undo the fan connector, and release the six fixed scroll retaining screws, as shown in Figure 1.

Figure 1 - Fan end view of the XDS 35i

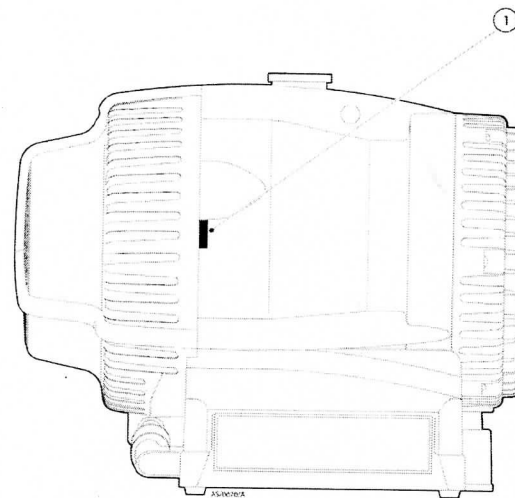


1. Fixed scroll retaining screws (6)
2. Fan connector

3. Carefully remove the fixed scroll assembly using a lever in the slot provided to ease it from the motor body as shown in Figure 2.

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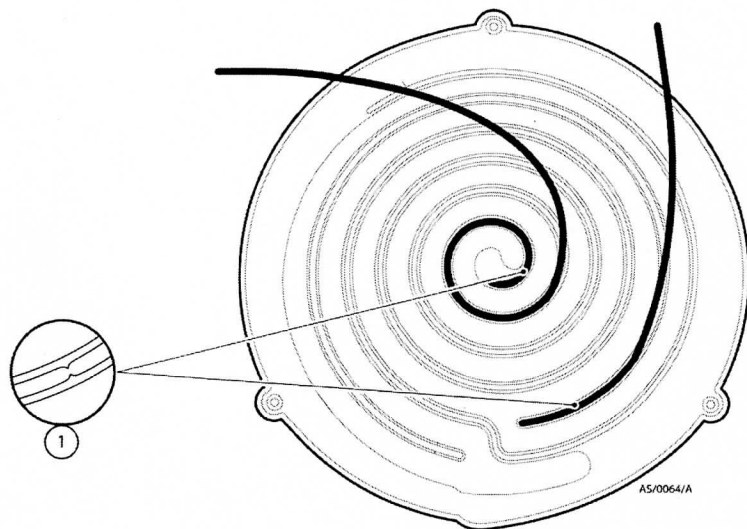
Figure 2 - Fixed scroll lever slot



1. Fixed scroll lever slot

4. Gently move the fixed scroll assembly aside so that the fan connector can be accessed. This is fitted at the underside of the fan cowl and must be separated in order to remove the fixed scroll completely.
5. Place the fixed scroll assembly on a flat surface so that the scroll is facing upwards.
6. Remove the tip seals. Dispose of all waste materials in accordance with local and national environmental safety requirements. If the exhaust valve is to be replaced, go to Step 7; if not move straight on to Step 10.
7. Remove the three screws that secure the fixed scroll into the fan cowl. Remove the gas ballast control knob and spring. Remove the exhaust flange, (requires a 24 mm A/F spanner). Separate the fixed scroll from the fan cowl, disconnecting the wires to the thermal snap switch.
8. Place the fixed scroll face down taking care not to damage the tops of the tip seal walls. Remove exhaust valve cap and lift out and replace the exhaust spring and valve pad.
9. Reconnect the thermal snap switch and reassemble the fan cowl, gas ballast knob and exhaust flange.
10. Make sure there is no debris visible on the inside of the scrolls, especially in the tip seal slot. Wipe with a soft, dry, lint free cloth to remove any dust etc.
11. The tip seal must be cut into three separate pieces for both scrolls. Each scroll tip seal groove has indicator marks to show where the tip seal must be cut (refer to Figure 4). Ensuring that the smoothest side of the seal is uppermost, fit the seal into the scroll. Start at the centre of the orbiting scroll and fit the seal into the groove (refer to Figure 3). The seal should start as close to the end of the groove as possible. When the indicator mark is reached cut the seal to the mark. This allows an area into which the seal can expand. Repeat for all sections in both scrolls. Ensure that the tip seal is pushed fully home with finger pressure, particularly at the pinch-points, before re-assembly.

Figure 3 - Fitting the tip seals

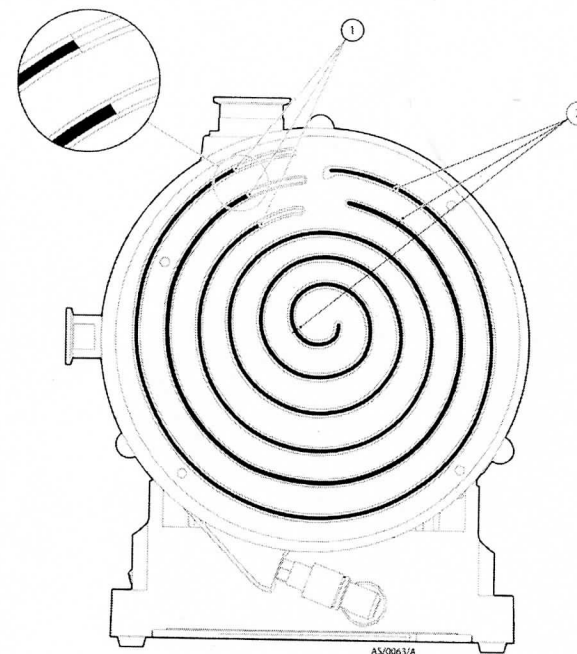


1. Pinch points

Notes: Start at the centre and push the tip seal into the groove, polished side up.

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Figure 4 - Tip seal length



1. Length indicator mark
2. Pinch points

12. Re-assemble, making sure the tip seals do not fall out. Reconnect the fan connector, then re-fit the scroll assembly taking care to tighten the six fixing screws progressively and evenly.
13. Some period of running-in may be required before optimum performance is reached. Depending on the application, the vacuum achieved directly following a tip seal replacement may be sufficient for your requirements. Typically, this will improve by up to a decade when the tip seal has bedded in. During run in, a small amount of tip seal dust will be produced. An exhaust silencer can be used to collect the tip seal dust (Part number A505-97-001). If possible, occasional venting through the gas ballast control or valve on the inlet is recommended.