

Oil Separator Capillary Tube Breakages

MODELS AFFECTED:

GC65RCFX, GC55RCFX, GC48RCFX, GC48RCF, GC45RCX

SYMPTOM:

The capillary tube providing oil return from the oil separator back to the suction line on these units can crack if the tubing layout is not satisfactory. This Bulletin suggests a method of laying out the piping to minimize the risk of such cracks.

It is recommended that this layout be used whenever repairing or replacing broken capillary tubes. The layout can also be applied to units with unbroken capillary tubes.

RESOLUTION:

The diagram below shows the suggested layout.

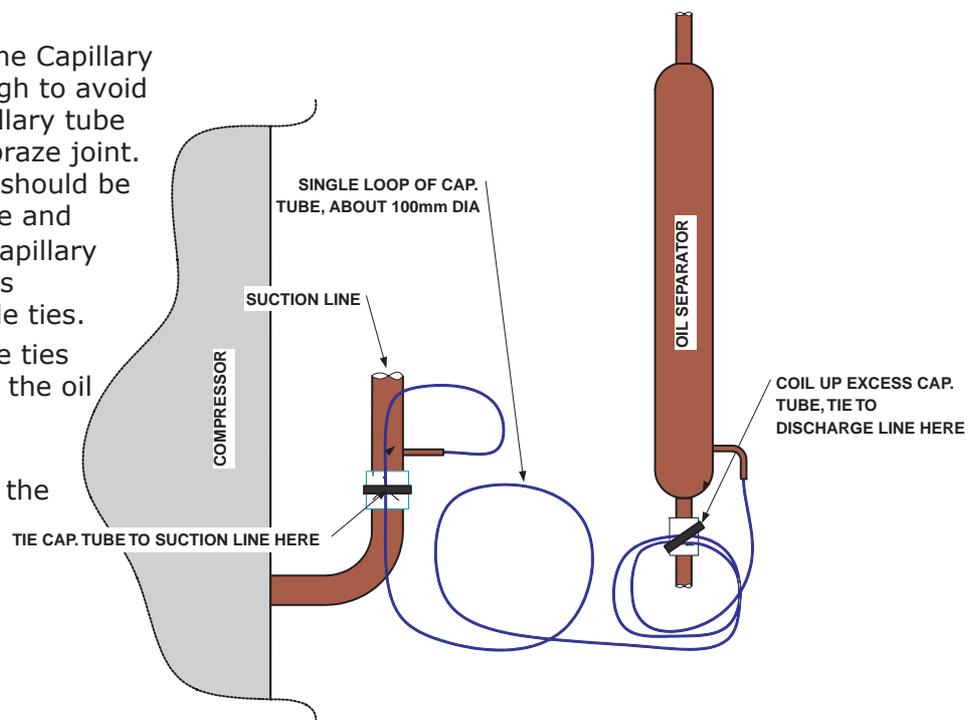
The capillary tube has to absorb the movement between the suction line and the discharge line. One cause of capillary tube fracture is allowing all the flexing of the capillary tube to take place where it has been annealed, where it is brazed into the Oil Separator or into the Suction Line. This can be avoided by ensuring that the required flexing takes place over a reasonable length of capillary tube, and avoiding this flexing from being focussed at the braze joints at either end of the capillary tube.

One way of doing this is to tie the capillary tube to the suction line just before the tube is brazed into the suction line, then form a single, large loop in the capillary tube. The rest of the capillary tube can be coiled, and that coil tied securely to the discharge line where it enters the oil separator.

The ties at either end of the Capillary tube should be tight enough to avoid the movement of the capillary tube being transmitted to the braze joint. A piece of tube insulation should be put around the suction line and discharge line under the capillary tube and the ties. The ties should be large nylon cable ties.

Two photo's over show the ties at the suction tube and at the oil separator respectively.

When replacing an Oil Separator/Capillary Tube, the capillary tube should be annealed over the length of the capillary tube that will be between the two ties.



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Tie at Suction Line



Tie at Oil Separator

