

## 1 COMMISSIONING

During the commissioning period the spindle gland and sealing joints could settle and it is essential therefore to follow up all clamping nuts to maintain the leak tight seal.

## 2 MAINTENANCE INSTRUCTIONS

2.1 Any leaks which appear at starting or during service should immediately be stopped by following up at the appropriate point, i.e. bonnet nuts, union nuts and spindle gland bolts.

2.2 The spindle on a RAV valve has a splined end. With double ended (13/3) or Weighted levers (13/2), the lever can be removed and repositioned to allow for wear.

### 2.3 Removing gauge

2.4 Type 956 - As this valve is connected so the gauge with a nipple it is necessary to remove the valves and gauge from the vessel.

2.3.1 With valves in the open position drain vessel to a level below that of bottom connection.

2.3.2 Relieve vessel and gauge of internal pressure.

2.3.3 Unscrew valves from gauges (standard Right Hand thread).

2.3.4 When re-assembling unit, follow gauge commissioning procedure to bring the gauge and valves back into service.

**Type 957** - This type of valve has a union nipple connection to gauge and therefore the gauge can be detached without removing valves from vessel.

2.3.1 Close top and bottom gauge valves, ensuring leak-tight seal.

2.3.2 Relieve gauge of internal pressure by means of drain cock or plug.

2.3.3 Release union nuts (part 21) and slide gauge from between valves.

2.3.4 Re assemble using new joint ring (part 22) following gauge commissioning procedure to bring the gauge and valves back into service.

### 2.4 Repacking Spindle Gland

2.4. With valves in the open position drain vessel to a level below that of bottom connection.

2.4.2 Relieve vessel and gauge of internal pressure

2.4.3 Close valve fully.

2.4.4 Remove handle ( part. 13 )

2.4.5 Remove gland nuts and studs (parts 11,12) And slide gland (part 9) up spindle.

2.4.6 Remove all the old packing

2.4.7 Insert new gland packing and re-assemble.

2.4.8 Follow gauge commissioning procedure to bring the gauge valves back into service.

## 2.5 Dismantling and Assembling Valve

2.5.1 With valves in the open position drain vessel to a level below that of the bottom connection.

2.5.2 Relieve vessel and gauge of internal pressure.

2.5.3 Unscrew and remove bonnet bolts (part 8)

2.5.4 Remove to assembly. This allows easy access to valve seat and spindle for examination and replacement if necessary.

2.5.5 To replace the seat (part 3), insert the washer (part 4) under the seat and tighten to 70 -80 Nm

2.5.6 To re-assemble - clean joint faces and renew joint ring (part 17).

2.5.7 Check that the spindle is in the fully open position, to avoid damage to spindle or seat

2.5.8 Replace top assembly and tighten bonnet bolts to 40 Nm

2.5.9 Follow gauge commissioning procedure to bring the gauge and valves back into service.

## 3 REFURBISHING

No refurbishing should be necessary other than the repacking of spindle gland

## 4 IMPORTANT INSTRUCTIONS

4.1 Use only original KLINGER replacement parts.

4.2 If primary isolation valves are fitted it is not necessary to drain the vessel or relieve it of internal pressure. With RAV valves in the open position close isolating valves and relieve gauge and cocks of internal pressure. Then continue as for standard procedure

## SPARES

When ordering spares please state of Mowing:

- Valve material
- Type number of valve
- Part number
- Part description

e.g. RAV956/1, FS/H, part 17, spiral joint gasket.