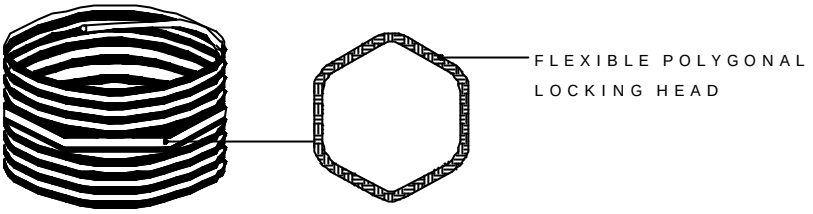
6.3.16 Insert the helicoil lock insert (47900) at NDE of shaft fro 7 unit and tighten impeller screw (66900) in shaft by holding the coupling.

For 9 & 11- unit insert the helicoil screwlock insert (47900) in impeller nut (33200) and tighten it on the shaft at NDE.

For 13-unit nut lock nut arrangement is used for impeller locking.

a) Tighten impeller nut (33002) fully.
b) Tighten impeller lock nut (33001) fully.
c) Hold impeller lock nut firmly in position and slightly loosen impeller nut. This will ensure positive locking of impeller.



HELICOIL-SCREW LOCK INSERT
Fig.6

6.3.17 Slide this complete backpullout assembly into pump casing (10500). Insert studs in the pump casing (10500) and casing cover (22000). Tighten all nuts on the stud firmly and evenly.

6.3.18 **Pump with Gland Packing**

6.3.18.1 In case of pumps with gland packings only, insert the gland packing (43001) and lantern ring in two halves (22700) in the order of 2+L+3.

6.3.18.2 Put the split gland in two halves (22900) with clamping plate (22400) and tighten the gland stud nuts.

6.3.19 **Piping Connection**

6.3.19.1 Rotate the shaft by hand and ensure free rotation.

6.3.19.2 Fit all accessories such as sealing water, flushing water, cooling water connections as per order.

6.3.19.3 Make suction and delivery piping connections properly.

PART CODE	PART DESCRIPTION
*51202	Gasket for cooling chamber outside
*51400	Metallic gasket for cartridge
*51401	Gasket for bearing cover
*51500	Gasket for impeller and shaft sleeve
*51600	Gasket for inspection hole cover
*52201	‘O’ ring for wear plate
*52202	‘O’ ring for wear plate
*52300	‘O’ ring for bearing cartridge
*52500	‘O’ ring for casing cover and cooling chamber
53001	Pipe nipple for casing cover sealing inlet
53002	Pipe nipple for casing cover sealing outlet
53101	Pipe nipple for cooling chamber inlet
53102	Pipe nipple for cooling chamber outlet
54001	Socket for sealing pipe nipple
54002	Socket for sealing pipe nipple
58100	Hex. nut for casing stud
58201	Hex. nut for stud of casing cover/bearing holder
58202	Hex. nut for stud of gland
59000	Stud for casing
59101	Stud for casing cover/bearing holder
59102	Stud for gland
59400	Stud for wear plate
59600	Stud for inspection hole cover
60001	Pipe plug for suction gauge connection
60002	Pipe plug for delivery gauge connection
60100	Pipe plug for casing drain
60200	Pipe plug for sealing pipe nipple outlet
60500	Pipe plug for brg. Housing drain
60900	Pipe plug for flushing
61000	Cylindrical pin for casing cover
62600	Washer for accorn nut of wear plate
63001	Hex. screw for casing cover release
63002	Hex. release screw for bearing cartridge
63100	Hex. screw for bearing cover
63200	Hex. release screw for bearing cartridge
*65000	Hex. socket grub screw for casing wear ring
65400	Hex. socket grub screw for liquid deflector
65900	Hex. screw for bearing cartridge
66600	Cap screw for stuffing box bush
*66900	Screw for impeller (7 unit)
67101	Cooling name plate inlet
67102	Cooling name plate outlet
67601	Sealing name plate inlet
67602	Sealing name plate outlet
*68200	Gasket for impeller screw/ impeller nut
*68201	Gasket for impeller locknut
*68400	Gasket for accorn nut of wear plate

* Recommended spares for two year normal working.

b. The top surfaces of the sole plates be leveled to the accuracy of 0.05 mm/m. First of all one sole plate should be adjusted for height and leveled by putting shims below them. Then other sole plate should be leveled with respect to this sole plate with the help of straight edge and spirit level.

c. Before allowing the concrete to set check the level of sole plates individually and in combination as there is a possibility of distortion while pouring concrete.

d. After setting of the concrete, recheck the levels on surfaces of sole plates. Bring the sole plates in levels to the accuracy of 0.05 mm/m by grinding or filling if distortion has taken place due to setting.

e. If the sole plates are produced by the client directly at their end, then ensure that the sole plates are machined to close tolerance and polished.

2.4 Checking of the level:

Check the level of the sole plates frequently whenever the pump is dismantled for overhauling.

3. PROCEDURE FOR DISMANTLING AND RE-ASSEMBLY

3.1 Overhauling-

With normal daily operation the pump will be due for overhaul after about one year. This work is to be done by skilled personnel. Complete pump is to be taken out from support plate.

3.2 Dismantling:

3.2.1 Remove the delivery and suction piping holding down bolts and nuts.

3.2.2 Remove all external piping connections such as:
a. Sealing
b. Cooling water connections (if applicable)
c. Flushing etc.

3.2.3 Remove shafting by adopting procedure given in section 4.1, 4.2 of this booklet.

3.2.4 Remove the nuts from the support plate and pump casing.

3.2.5 Remove the pump from support plate and take it on to a table for stripping.

3.2.6 Unscrew and remove the nuts holding the casing with casing cover and/or with bearing housing.

3.2.7 Lifting the rotating unit sub-assembly by the hook provided on bearing housing and remove it from delivery casing (10500).

3.2.8 Hold the pump coupling and unscrew the impeller nut (33001) for SHVT 9 & 11 unit pumps. For SHVT 7 unit pumps remove impeller screw (66900) and for SHVT 13 unit pumps unscrew lock nut (33002) as well as impeller nut.

3.2.9 Remove impeller from shaft by using a puller. The plate of puller is to be fixed to impeller wearing ring boss and screw to be held in shaft end.