

remove the hexagonal nuts from casing stud holding the casing cover (22000) to pump casing (10500).

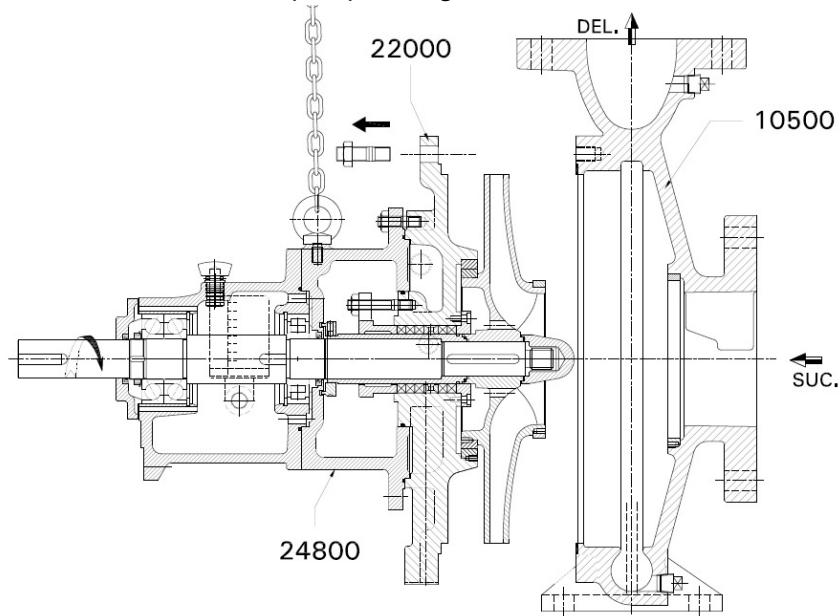


Fig. 11 Removal of back pull out assembly – casing cover is not sandwiched

- 5.2.1.1.12 Screw the release bolts provided in casing cover. Turn bolts evenly through a quarter turn at both sides.
- 5.2.1.1.13 Slightly pull out the driving unit till impeller (15100) clears the pump casing (10500).
- 5.2.1.1.14 Place this rotating unit on a table or clean and dry place for further dismantling.
- 5.2.1.1.15 Remove casing gasket (51101).
- 5.2.1.1.16 Unscrew the impeller nut (33000 / 33001). Remove the gasket between impeller and impeller nut (68201).

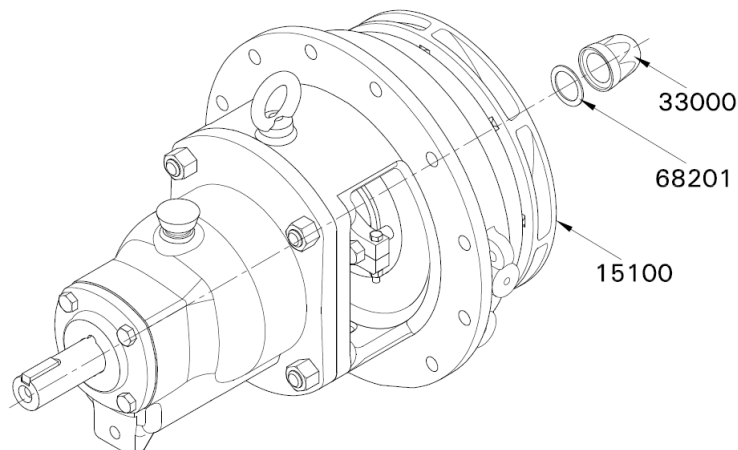


Fig. 12. Removal of impeller nut and gasket

- 5.2.1.1.17 Take out the impeller (15100) from pump shaft (18002). Remove the gasket between impeller and shaft sleeve (51501).



23	24100	Bearing Cartridge,Unit-7qf
25	24800	Lantern Bracket
26	25100	Support Foot
27	25200	Bearing Housing (With Cooling Arrg.)
28	26000*	Deep Groove Ball Bearing (De & Nde)
29	26300*	Angular Contact Bearing (De)
30	26400*	Cylindrical Roller Bearing (Nde)
31	27000	Bearing Cover (De)
32	27100	Bearing Cover (Nde)
33	28501	Taper Piece (CONCENTRIC)- DEL
34	28501	Taper Piece (ECCENTRIC)- SUC.
35	30000	Lifting Eye Bolt
36	31100*	Shaft Sleeve (Gland Packed Arrangement)
Sr. No.	Part no	Description
37	31500*	Shaft Sleeve (Mechanical Seal Arrangement)
38	32000	Key For Impeller
39	32100	Key For Coupling
40	33000*	Impeller Nut
41	33001*	Impeller Lock Nut
42	33600*	Bearing Lock Nut
43	33601	Lock Nut For CLM PAD COOLING PIPING
44	35000*	Stuffing Box Bush
45	36000	Quenching Bush
46	36700	Oil Well Cover
47	37000	Cooling Coil
48	38401	Fabricated Pad
49	41500*	Lock Washer For Bearing Lock Nut
50	43001*	Gland Packing
51	44100	Grease Nipple
52	44300	Constant Level Oiler
53	44400	Oil Feeding Plug
54	45000	Vent Valve
55	46000*	Wear Plate-QF
56	47900*	Helicoil Insert
57	48500*	Internal Circlip
58	49000*	Flange For Csg Drain
59	50000*	Oil Seal D.S
60	50001*	Oil Seal P.S.
61	51101	Gasket For Csg & Csg Cover
62	51400*	Gasket For De Bearing Cover
63	51500*	Gasket For Sleeve & Imp.



- 5.1.10 Remove the hex nuts from casing studs holding the bearing housing (24000) in case of KPD 20/13 QF pump. Remove the hex nuts from casing studs holding the casing cover (22000) in case of KPD 20/16 QF and KPD 20/20 QF pumps.
- 5.1.11 Screw the release bolts provided in the casing cover. Turn the bolts evenly through a quarter turn at both sides.
- 5.1.12 Slightly pull out the driving unit, till impeller (15300) clears the pump casing (10500/10600).
- 5.1.13 Place this rotating unit on a table or clear place for further dismantling.
- 5.1.14 Remove casing gasket (51101).
- 5.1.15 Unscrew the impeller (15300). Remove the gasket between impeller and shaft sleeve (51500) after taking out the impeller from pump shaft (18000).
- 5.1.16 Removal of stuffing box with gland packing:  
For this, following steps should be taken:
  - a. Remove the split gland (22900) by taking out the bolts for clamping of the split positions.
  - b. Take out the casing cover (22000) along with stuffing box bush (35000), gland packing (43000), and lantern ring (22700), 'O' ring (52501) will also come out along with it.
  - c. Take out 'O' ring (52502) for bearing housing.
  - d. Unscrew the hex socketted screw clamping stuffing box bush (35000) to casing cover (22000) and remove the stuffing box bush (35000).
  - e. Remove gland packing rings (43000) and lantern ring (22700).
  - f. Remove shaft sleeve (31100) and key(32000) along with liquid deflector (23600).
- 5.1.17 Removal of stuffing box with mechanical seal.  
(Applicable for single and double mechanical seals). Follow the steps given below:
  - a. Unscrew the hex socketted cap screw clamping the stuffing box bush (35000) to the casing cover (22000) and remove the stuffing box bush.
  - b. Seal seat will come out along with the throat bush (35000) in case of double mechanical seal.
  - c. Pull shaft sleeve under mechanical seal (31500). Use the groove on the shaft sleeve for pulling it out. Be careful while removing shaft sleeve since sleeve comes out alongwith rotating unit of the mechanical seal.
  - d. Remove the mechanical seal from the shaft sleeve and keep it in a clean place.
  - e. Remove hex nuts from casing cover (22000) studs, for 20/16 QF and 20/20 QF pumps. For 20/13 QF pump no necessity of studs is there because the casing cover is of sandwich type.
  - f. Take out the casing cover (22000) along with the mechanical seal cover taking care of mating ring face. 'O' ring for casing cover (52501) will also come out along with it.
  - g. Unscrew the nuts of mechanical seal cover studs and remove mechanical seal cover studs and remove mechanical seal covers (23100) from casing cover (22000).