

DISASSEMBLY & ASSEMBLY OF AUSSIE QP PUMPS

Centrifugal Transfer Pumps

Check Valve

1. Unscrew suction cover bolts and remove the suction cover.
2. Remove old and insert new check valve ensuring that flat surface is placed against the suction cover and that hinge is on the top.
3. Re-install the suction cover ensuring larger internal lip is at the bottom.



Volute Casing

1. Unscrew the casing cover bolts, and remove the front casing.
1. Remove the volute casing.
2. Install the new volute casing with o-ring or packing into the casing cover in correct position. Ensure the rubber ring is still on the volute and the orientation of the volute is correct.
3. Adjust the clearance between front surface of impeller and the volute casing to be within 0.5 to 1mm. Clearance can be adjusted with the use of shims on the engine shaft.
4. Reinstall casing cover. The casing cover applies pressure to volute casing and the impeller may jam if insufficient clearance remains.

Volute in position



Note position of casing o-ring



Check clearance



Use shims on engine shaft to adjust clearance of impeller

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Centrifugal Transfer Pumps continued

Impeller

1. Expose the impeller by removing the volute casing the same way as above.
2. Loosen the impeller by tapping gently with a mallet in a counter clockwise direction. Turn impeller counter clockwise, and remove from shaft.
3. Remove the mechanical seal from the impeller, and set it at the back side of new impeller. Use silicon spray.

DO NOT USE A HAMMER IT WILL BREAK.
4. Screw the new impeller on engine shaft by turning in the clockwise direction, and make it tight by tapping gently with mallet in a clockwise direction.
5. Set the volute casing and casing as mentioned above.



QP205SE impeller shown



Transfer mech seal to new impeller



Check clearance

Mechanical Seal

1. Remove the impeller as mentioned above
2. Replace with a new mechanical seal at the back side of removed impeller and at the seat of casing cover.
3. Check the ceramic surfaces of mechanical seal are free from dust, and set the impeller, volute casing and casing as described above.



Rejuvenation Kit / O-ring replacement

Use above instructions to remove casing, volute & impeller to expose the o-ring, liner rings and mechanical seals. Kit contents vary by pump model and in some cases contain extra adjustable liners to make the kit suit more than one model.

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For Trash Pumps

Clogged Impeller

1. Unscrew drain set handles and remove the drain cover from casing.
2. Dismantle volute casing.
3. Wash impeller, o-rings and sealing surface with water.
4. Replace impeller, volute casing o-ring, drain cover o-ring and drain cover. Screw drain cover set handle evenly at right and left side.



Impeller

1. Dismantle the drain cover and remove volute casing as described above.
2. The impeller is now exposed
3. Impeller is attached to the engine shaft with on a screwed shaft.
4. Tap the impeller at the lead part in counter-clockwise direction with a mallet.
5. Screw new impeller on shaft by hand, and tighten by using a mallet, tapping at the lead part of the impeller in a clockwise direction.

Check Valve

1. Unscrew suction cover bolts and remove suction cover.
2. Replace check valve and re-assemble.

Mechanical Seal

1. Dismantle the impeller as above.
2. Remove the mechanical seal sleeve from the shaft.
3. Mechanical seal rotary section and spring will be removed with the sleeve.
4. Remove mechanical seal stationary section from the seat of casing cover.
5. Set the new mechanical seal sleeve to the shaft after assembled with new rotary section spring. (Check to see if the mechanical seal O-ring is placed correctly to the seat)
6. Set new mechanical seal rotary section and spring with the sleeve to fit the slit of the sleeve with spring stopper.
7. Screw the impeller as described above.

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Trouble Shooting Guide

Symptoms	Cause	Action
Pump does not turn over	Impeller jamming	Adjust impeller spacing, disassemble and clean
Failure to pump	Suction air leak	Check and correct hose and couplings
	Pump not properly primed	Prime pump correctly
	Speed too low or head too high	Consult pump specialist
	Not enough head to open check valve	Consult pump specialist
	Air leak	Check and rework suction line
	Blocked suction	Unblock suction
	Excessive suction lift	Consult pump specialist
Reduced performance	Air pockets or small air leaks in suction line	Locate and correct
	Obstruction in suction line or impeller	Remove obstruction
	Insufficient submergence of the suction pipe	Consult pump specialist
	Excessively worn impeller or wear ring	Replace impeller and/or wear ring
	Excessive suction lift	Consult pump specialist
	Wrong direction of rotation	See start-up instructions
Engine or motor over-loaded	Speed higher than planned	Reduce speed
	Liquid specific gravity too high	Consult pump specialist
	Liquid handled of greater viscosity than water	Consult pump specialist
	Too large an impeller diameter	Trim impeller
	Low voltage	Consult power supplier
	Stress in pipe connection to pump	Support piping properly
	Packing too tight	Loosen packing gland nuts
Excessive noise	Misalignment	Align all rotating parts
	Excessive suction lift	Consult pump specialist
	Material lodged in impeller	Dislodge obstruction
	Worn bearings	Replace bearings
	Impeller screw loose or broken	Replace
	Cavitation (improper suction design)	Correct suction piping
	Wrong direction of rotation	See start-up instructions
Premature bearing failure	Balance line plugged or pinched	Unplug or replace
	Worn wear rings	Replace
	Misalignment	Align all rotating parts
	Suction or discharge pipe not properly supported	Correct supports
	Bent shaft	Replace shaft
	Water or contaminants entering bearings	Protect pump from environment
	Lubrication to bearings not adequate	Check manual
Wrong type of lubrication	Check manual	
Electric motor failure	High or low voltage	Check voltage with voltage metre
	High electric surge	Monitor voltage and consult power supplier
	Poor electric connection	Turn power off, clean and check connections
	Overloads	Check amperage. Do not exceed nameplate full load amperage
	Bearing failure	Change bearings in motor
	Cooling vent plugged (rodent, leaves, dirt, etc.)	Install proper screens
	Moisture or water in motor	Protect pump from environment
Rapid wear on coupling cushion	Misalignment	Align
	Bent shaft	Replace shaft