SERVICE BULLETIN
Group: CO

THIS SERVICE BULLETIN IS MANDATORY!

Series/Parts Affected:

Machines Affected:
QP-4TZ S/N 4TZ-0003~4TZ-0052

SERVICE INFORMATION

Problem:
- Unbalanced impeller due to wrong components being installed on pump.

Remedy:
- Replace incorrect impeller components with impeller P/N KIT4TZIMP (Impeller Kit).

PARTS INFORMATION

<table>
<thead>
<tr>
<th>Item</th>
<th>Quantity</th>
<th>Part #</th>
<th>Description</th>
<th>Remarks</th>
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</thead>
<tbody>
<tr>
<td>1</td>
<td>1</td>
<td>KIT4TZIMP</td>
<td>KIT, IMPELLER</td>
<td>INCLUDES ITEMS 2 THRU 6</td>
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<tr>
<td>2</td>
<td>1</td>
<td></td>
<td>IMPELLER</td>
<td></td>
</tr>
<tr>
<td>3</td>
<td>1</td>
<td></td>
<td>KEY, SHAFT</td>
<td>IMPELLER</td>
</tr>
<tr>
<td>4</td>
<td>1</td>
<td></td>
<td>WASHER, LOCK</td>
<td>IMPELLER</td>
</tr>
<tr>
<td>5</td>
<td>1</td>
<td></td>
<td>BOLT</td>
<td>IMPELLER</td>
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<tr>
<td>6</td>
<td>1</td>
<td></td>
<td>WASHER, FLAT</td>
<td>IMPELLER</td>
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</table>
INSTALLATION INSTRUCTIONS

WORK SAFELY!
Only a qualified service technician with proper training should perform this installation.

Required Tools/Materials
- 3/8 Ratchet with 14 mm drive socket
- Rubber Mallet
- Chemsearch™ (Rust Lubricant)

Please make sure all parts are accounted for.

Safety Procedures
Perform the following before attempting installation:
1. Place the pump on level secure ground that is free of dirt and debris.
2. Wear safety glasses, steel toed boots and any other safety protection that might be required for the modification.

Impeller Replacement (Reference Figure 1)
1. Remove drain cover from pump casing by turning the locking knobs (Figure A) counterclockwise to loosen. Once the locking knobs have been loosened and folded back, pull the drain cover forward until it clears the pump casing. Set drain cover aside in a safe place.
2. Using a 3/8 ratchet with a 14 mm socket (Figure B), remove the impeller bolt from the engine shaft. Discard the impeller bolt it will not be used again.
3. Attached to the impeller bolt (Figure C) are the incorrect impeller washers. Discard all washers; they will not be used again.
4. Using a can of Chemsearch™ (Figure D) or equivalent, a moly-lubricant, spray the area around the shaft key. Tap the impeller with a rubber mallet to dislodge it from the engine shaft. Remove the impeller and shaft key. Discard the impeller and shaft key. They will not be used again.
5. Install the new impeller and shaft key onto the engine shaft as shown in Figure E.
6. Using the new impeller bolt, place the new impeller lock washer onto the bolt as shown in Figure F. Next, place the impeller washer with the key side (raised notch) facing outward onto the impeller bolt.
7. Insert impeller bolt along with associated hardware (Step G) into engine shaft. Be sure to align the notch on the impeller washer with the key-way on the engine shaft. This will lock the impeller washer in place. Tighten impeller bolt to 22 FT-LBS.
8. Reinstall drain cover (Figure H) back onto pump casing. Turn locking knobs clockwise to secure drain cover.
Figure 1. Impeller Replacement

A. DRAIN COVER LOCKING KNOB (2) (LOOSEN)
   DRAIN COVER (REMOVE)

B. 3/8 RATCHET
   14 MM SOCKET

C. EXISTING IMPELLER BOLT (DISCARD)
   EXISTING IMPELLER WASHER (DISCARD)
   EXISTING IMPELLER LOCK WASHER (DISCARD)

D. USE CHEMSEARCH, A MOLY LUBRICANT. FREES FROZEN BOLTS AND NUTS.
   EXISTING SHAFT KEY (DISCARD)

E. NEW IMPELLER (INSTALL)
   NEW SHAFT KEY (INSTALL)

F. NEW IMPELLER BOLT (INSTALL)
   NOTCHED SIDE
   NEW IMPELLER WASHER (INSTALL)

G. TORQUE TO 22 FT. LBS

H. DRAIN COVER LOCKING KNOB (2) (TIGHTEN)
   DRAIN COVER (INSTALL)

NEW IMPELLER WASHER (INSTALL)
NEW IMPELLER BOLT (INSTALL)
NEW IMPELLER (INSTALL)
EXISTING IMPELLER WASHER (DISCARD)
EXISTING IMPELLER LOCK WASHER (DISCARD)
EXISTING IMPELLER BOLT (DISCARD)
CHEMSEARCH MOLY LUBRICANT
EXISTING SHAFT KEY (DISCARD)
A DO NOTched SIDE

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If you have any questions regarding the procedure described in this service bulletin, please contact the Multiquip technical support department at 800-478-1244 for assistance!

<table>
<thead>
<tr>
<th>WARRANTY INFORMATION</th>
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<tbody>
<tr>
<td><strong>Campaign: Reference No. 20070807</strong></td>
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<tr>
<td>Multiquip will reimburse up to .5 hour of labor per machine for this repair.</td>
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<tr>
<td>Contact the Multiquip warranty department for claim number and warranty form.</td>
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**Multiquip Warranty Department**
800-421-1244
Chris Fairchild – Extension 279
Connie Ferrer – Extension 289
Wendy Sanchez - Extension 322