

## 420 Series Eaton® Pumps

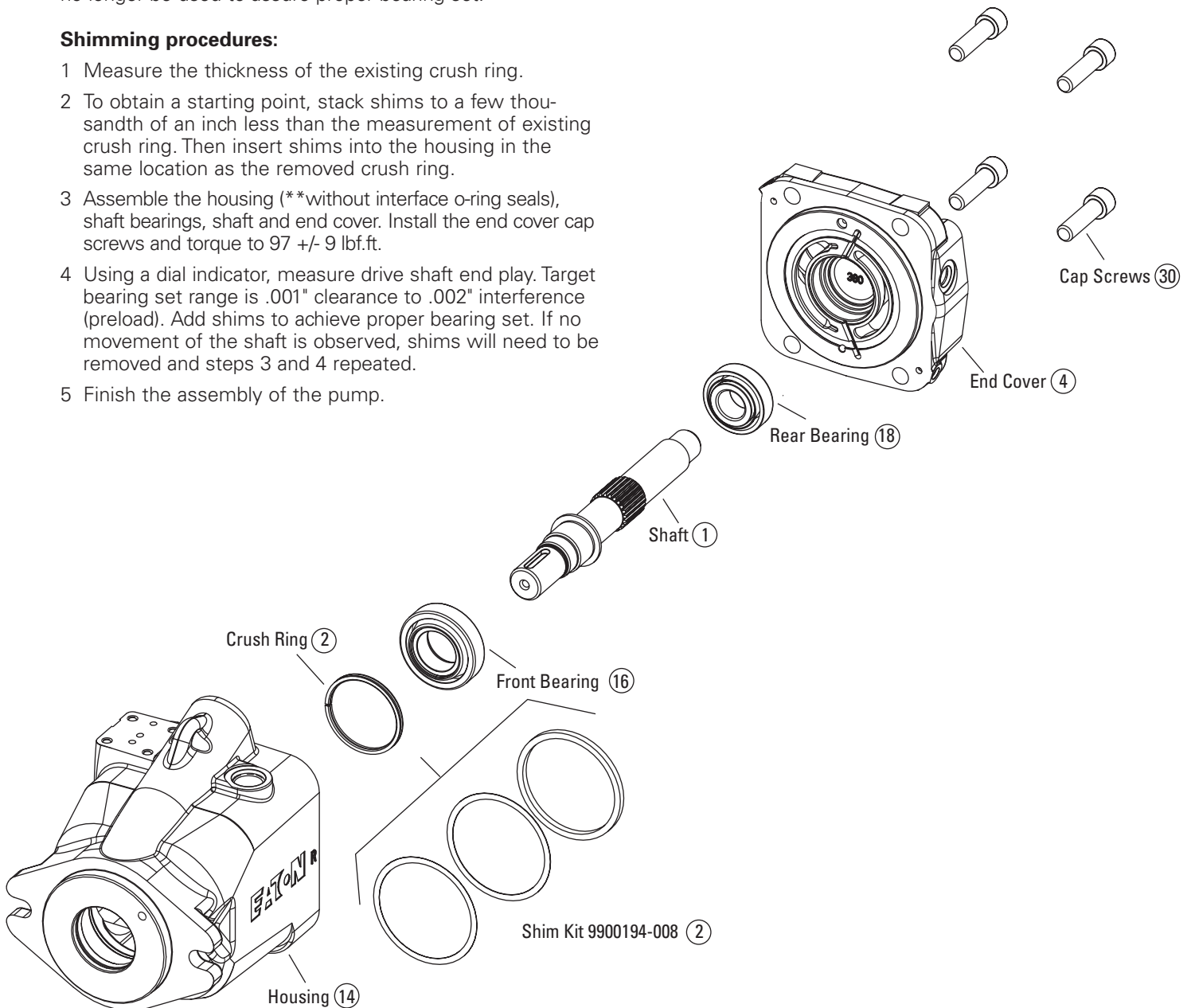
Kit 9900194-008 Shimming Process  
Installation Information

### Introduction

This shim kit is to replace the crush ring within the pump housing. If the housing, drive shaft, shaft bearings or end cover is replaced during servicing, the original crush ring can no longer be used to assure proper bearing set.

### Shimming procedures:

- 1 Measure the thickness of the existing crush ring.
- 2 To obtain a starting point, stack shims to a few thousandth of an inch less than the measurement of existing crush ring. Then insert shims into the housing in the same location as the removed crush ring.
- 3 Assemble the housing (\*\*without interface o-ring seals), shaft bearings, shaft and end cover. Install the end cover cap screws and torque to 97 +/- 9 lbf.ft.
- 4 Using a dial indicator, measure drive shaft end play. Target bearing set range is .001" clearance to .002" interference (preload). Add shims to achieve proper bearing set. If no movement of the shaft is observed, shims will need to be removed and steps 3 and 4 repeated.
- 5 Finish the assembly of the pump.



**Eaton**  
14615 Lone Oak Road  
Eden Prairie, MN 55344  
USA  
Tel: 952 937-9800  
Fax: 952 974-7722  
[www.hydraulics.eaton.com](http://www.hydraulics.eaton.com)

**Eaton**  
20 Rosamond Road  
Footscray  
Victoria 3011  
Australia  
Tel: (61) 3 9319 8222  
Fax: (61) 3 9318 5714

**Eaton**  
Dr.-Reckeweg-Str. 1  
D-76532 Baden-Baden  
Germany  
Tel: (49) 7221 682-0  
Fax: (49) 7221 682-788



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Printed in USA  
Document No. E-PUPI-T1006-E  
February 2004