



# PRODUCT UPDATE

Number 5  
Revision 1

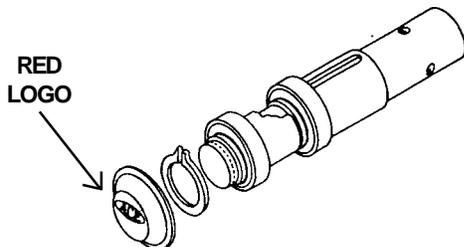
## BAC-31 BEARING CHANGE ON BAC-10 PTO DRIVE SHAFT

In 1964 ACE Pump Corporation introduced the first PTO driven centrifugal pump. In the ensuing 28 years, the PTOC pump has been the best selling centrifugal pump in the Ag Spraying industry.

When the PTOC pump was designed, the BAC-31 sealed ball bearing was selected for its excellent load ratings and its low cost. At the time, the bearing was manufactured in large quantities and widely distributed since it was used on many automotive applications, the most notable of these being the rear axle of the Falcon 500 by the Ford Motor Company.

Over the years, the BAC-31 bearing has become increasingly scarce, more expensive, and now is no longer in production. ACE Pump changed to a slightly different, more widely distributed BAC-31-1 bearing with the same load ratings as the BAC-31 bearing. This change enabled ACE Pump to continue to offer the economical PTOC pump. The new bearings were incorporated into pumps beginning in the fall of 1992. Ace has continued to stock the old style bearings and spacer since the change. The BAC-31 bearing will not be available after June 1999. A retrofit kit (BAC-31-RETRO) will be offered to convert the old style bearings to the new BAC-31-1 bearings.

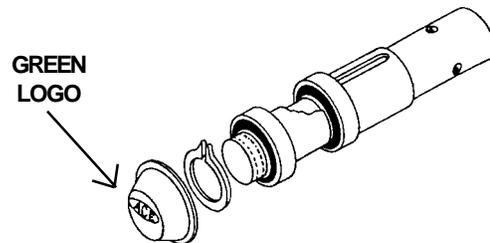
### OLDSTYLE SHAFT ASSEMBLY



The difference in the two bearings can be observed in the two illustrations of the PTO shaft assembly on this page. The old BAC-31 bearing has an inner race that is wider than the outer race. On the new BAC-31-1 both races are the same width.

Several changes had to be made to the PTOC shaft assembly to allow the new bearing to be used in the existing BAC-15 upper bearing housing. A new, BAC-38-1 spacer is required. This new spacer is 1.5" long compared to the old BAC-38 spacer which is 1.19".

### NEWSTYLE SHAFT ASSEMBLY



To accommodate the new bearings and spacer, the BAC-10 PTO drive shaft and BAC-27 nameplates were modified. The BAC-10 drive shaft now has two snap ring grooves on the end to accommodate either set of bearings. The BAC-27 nameplates now have a deeper dish and green ACE logo. These two modified parts can be used with the old bearings and spacer, and they must be used with the new BAC-31-1 bearings and BAC-38-1 spacer.

How does your customer know which parts are in his pump? The quickest indication will be to look at the color of the logo on the nameplate. Pumps with the green logo or date code of 792 or later will most likely have the new bearings.

A parts change summary is printed on the reverse side of this issue of UPDATE.

**PARTSCHANGE SUMMARY**

<b><u>OLD PART #</u></b>	<b><u>NEW PART #</u></b>	<b><u>DIFFERENCE BETWEEN OLD AND NEW PARTS</u></b>
<b>BAC-31 40780 (obsolete)</b>	<b>BAC-31-1 40781</b>	<b>New bearing inner and outer races are the same width.</b>
<b>BAC-38 40900 (obsolete)</b>	<b>BAC-38-1 40905</b>	<b>Old spacer is 1.19" long, new spacer is 1.5" long.</b>
<b>BAC-10</b>	<b>same</b>	<b>Second snap ring groove added.</b>
<b>BAC-27</b>	<b>same</b>	<b>Green logo and deeper dish.</b>
<b>BAC-15</b>	<b>same</b>	<b>No change in upper bearing housing.</b>