



## TABLE OF CONTENTS

- 1.0 Introduction
- 2.0 Discussion
- 3.0 Disassembly
- 4.0 Standard removal tools

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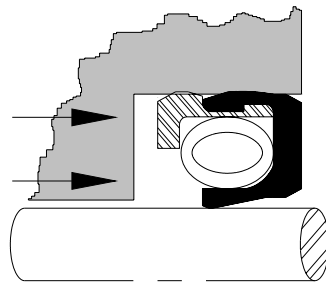
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## 1.0 INTRODUCTION

This report provides reference for commercially available tools that may be used for the removal of 'K' SERIES ROTARY Bal Seal® spring-energized seals which are assembled into the housing/bore.

## 2.0 DISCUSSION

A Bal Seal assembled in a through bore may be removed by forcing the seal out with a tool smaller in diameter than the bore diameter. However, a Bal Seal in the blind bore may require a special tool for removal. See Figure 1 of the KSX series assembled Bal Seal in a blind bore.

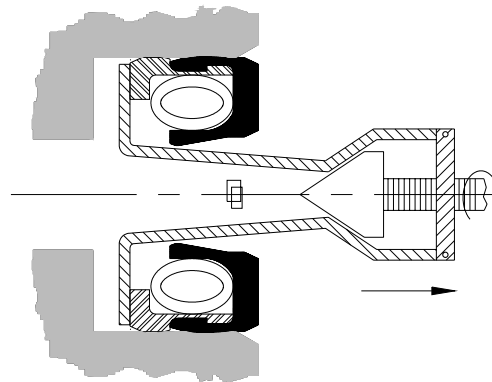


**FIGURE 1: KSX Bal Seal in a blind bore**

## 3.0 DISASSEMBLY

Typical Procedure for removing seal from bore. (See Figure 2)

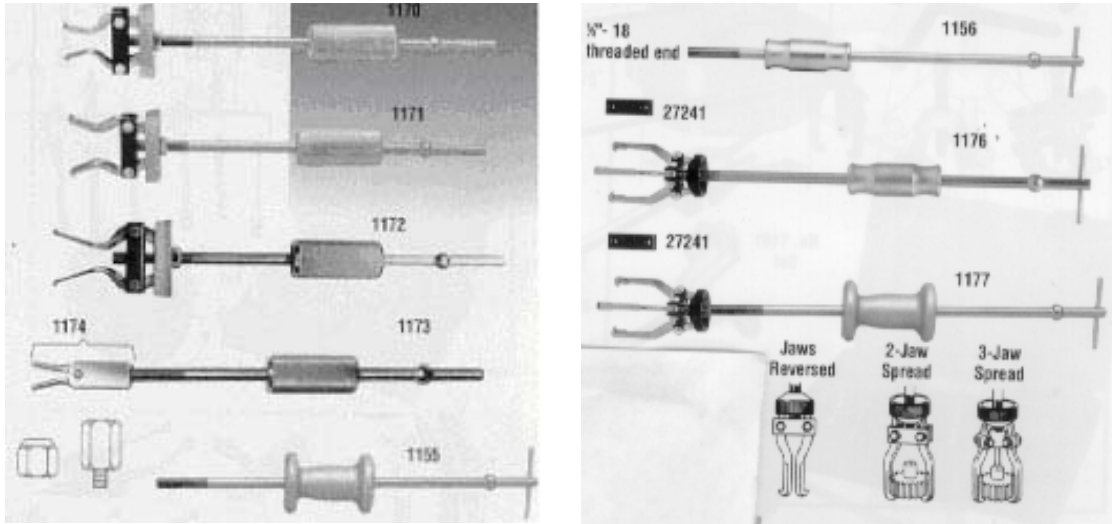
Extend the narrow jaws of an internal puller through the center of the seal to be pulled out. Make sure that the grip of the seal is secure. Then pull out seal using appropriate method.



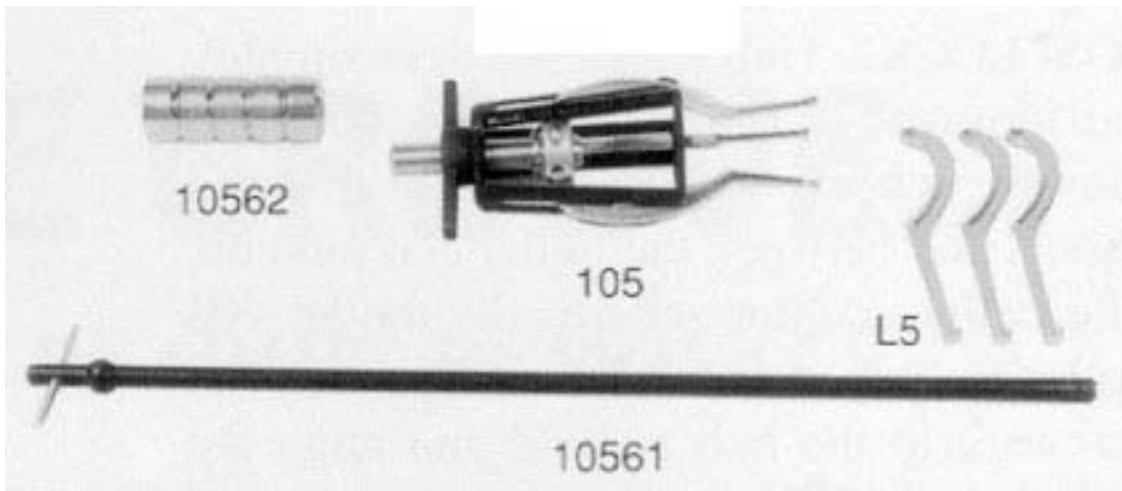
**FIGURE 2: Removing a Bal Seal**

#### 4.0 STANDARD REMOVAL TOOLS

There are various pulling tools, available commercially, for removing assembled seals as noted in Figures 3 and 4.



**FIGURE 3: Pulling tools from SPX Power Team, Owatonna, MN, [www.powerteam.com](http://www.powerteam.com)**



**FIGURE 4: Puller set from Posi Lock Puller, Inc., Cooperstown, ND, [www.posilock.com](http://www.posilock.com)**