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# PACCAR MX-13 SERIES

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Sleeve Removal & Installation Manual

**IRONTITE PRODUCTS INC**

2525 18th Str. SW, suite D, Cedar Rapids, Iowa 52404 USA  
800-553-5953 · +1-319-377-9421 · [www.ironTite.com](http://www.ironTite.com)

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# **PACCAR MX-13**

## **STAINLESS STEEL INJECTOR SLEEVE REMOVAL & INSTALLATION KIT**



## The Complete PACCAR MX-13 Series Kit with Toolbox 450-6331-00

Image #	Description	Part #
1	"EA" Tap & Lube (8oz)	468-9910-08
2	Small Metal Tool Box	467-1950-25
3	Hex T-Handle Wrench for Tube Clamp Assembly	467-1612-03
4	Casting Cleaning Brush (Carbon Steel)	450-6951-02
5	Injector Tube Clamp Assembly	423-6334-40
6	Tap Guide Bushing	423-6331-32
7	Tap	423-6334-14
8	Removal Tool	423-6334-30
9	Drive in Tool	423-6332-10
10	Instruction Manual (not shown)	451-3550-06

## ADDITIONAL CONSUMABLE ITEMS AVAILABLE

Description	Part #
PACCAR MX-13 Stainless Steel injector Sleeve with O-Ring	423-6392-05
Permatex (#64000) High Heat Sealant (Sleeve Retainer)	468-9640-00

**Made in USA**

## Components of the Removal Tool



## Tube Clamp Assembly

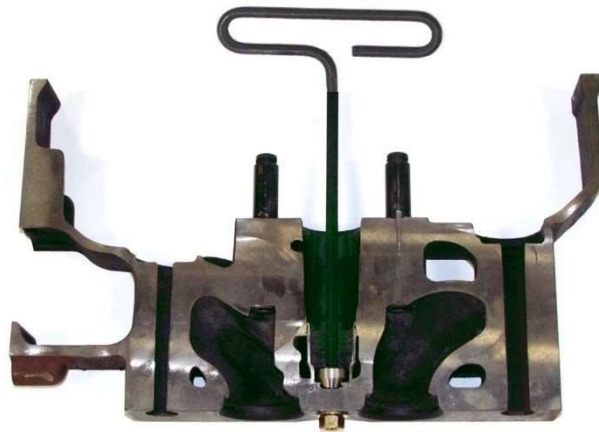


To install, remove nut and washer from the bottom and insert down into the old sleeve so that the threads appear out the other side. Replace the washer and nut. Hold the nut with a wrench and use the provided T-handle Allen Wrench down inside the old sleeve to tighten this clamp assembly to prevent the old sleeve from turning.

## REMOVAL and INSTALLATION

### Sleeve Removal

- 1) With valves removed, install the injector sleeve tube clamp (423-6334-40) though the inside of the sleeve. Install washer and nut onto stud sticking out from face of head and tighten with t-handle wrench (467-1312-03).
- 2) The injector tube clamp assembly will keep the sleeve from turning while tapping the sleeve.



- 3) Using tap (423-6334-14) and tap guide bushing (423-6331-32), lubricate the tap with "EA" Lube (468-9910-08) while tapping the injector sleeve about 3/8" to 1/2" deep.



- 4) Unbolt and remove the injector sleeve tube clamp assembly.

## **PACCAR MX-13** **STAINLESS STEEL INJECTOR SLEEVE REMOVAL & INSTALLATION KIT**

- 5) Insert the assembled sleeve remover (423-6334-30 shown on pg 3.) threaded puller screw down into the old sleeve. Thread the puller screw into the sleeve until it grips the sleeve tightly with the threads. Then reverse  $\frac{1}{2}$  turn to relax the threads allowing the sleeve to be much easier to remove from cylinder head and later the tool itself.

With the bushing in place between the puller nut and the face of the casting, and with the thrust bearing and the two thrust washers between the puller nut and the bushing, tighten the puller nut. This will pull out the old sleeve from the casting as shown below.



### Sleeve Installation

- 1) Use the carbon steel brush (450-6951-02) to clean the inside of the injector sleeve bore being sure to remove the old "O" ring and replace it with a new one, applying clean engine oil when doing so.
- 2) Apply a small amount of Permatex (64000) high heat sealant (sleeve retainer) or equivalent to lower nose section of the injector sleeve providing coverage all the way around the nose of the sleeve.
- 3) Use the Sleeve Drive-In Tool (423-6332-10) and a hammer to drive the Sleeve to the bottom of the casting. The sound of hammering will change when the sleeve is fully seated.





**Irontite Products Inc.**  
2525 18<sup>th</sup> Street SW, Suite D, Cedar Rapids, IA 52404 USA  
**800-423-3384**  
+1-319-377-9421  
FAX 319-377-9101  
**[www.irontite.com](http://www.irontite.com)**