

Hot Tapping - 3"-5" ALH System-Three



The **ALH System-Three** machine drills and taps 3", 4" or 5" NPT threads in steel or cast iron gas mains from 12" - 48" diameters at pressures up to 60 psig under Gas-Free* conditions in under 20-30 minutes, including set up time.

The System-Three platform is also capable of inserting or extracting plugs, deploying gas bags, and launching cameras.

The lightweight machine is mostly constructed of modular aluminum components making it easily handled by one person with no lifting equipment, even in the deepest of excavations.



Compact Design



Saddles for 12"-48 Main

Modular system installs on cast iron and steel main without special fittings.



Drill Head

(shown without motor)



Push Button

**Drive Setting:
Fwd—Rev**

**Speed Setting
Fast / Slow**

Push Button Cut and Tap



Rock Steady Valve Platform



**3"-5" Tap and Cutter
Cast Iron and Steel**

PLCS, LLC

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Hot Tapping - 3"-5" ALH System-Three

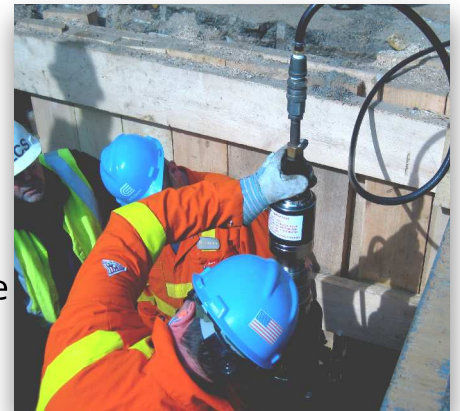


The System-Three platform attaches directly onto the main using a cast aluminum saddle to match each pipe size. A thick rubber gasket is vulcanized to the saddle. Vulcanization produces an extraordinary bond with a very long service life.

The platform is secured to the main by turnbuckle nuts on the double chain assembly, resulting in a rock steady base. The **Drill Head** is bolted to the valve platform. The **Air Motor/Torque Multiplier** slides up and down on guide bars that counter the torque from the motor.

The **HSS Shell Cutter** and **NPT Tap** are mounted together on the keyed drill shaft so cutting and tapping is done consecutively without removing the shaft. The equipment's design ensures perfect drill shaft alignment and a pilot drill is not needed.

The **Shell Cutter** removes a coupon from the pipe so it cuts around 70% less metal than a twist drill. This decreases cutting times dramatically. The coupon is held inside the shell cutter and is removed from it prior to its next use. The cutter also has exceptional wear resistance and can be re-sharpened multiple times at low cost. Shavings from the cut are collected by rare-earth magnets inside the shell cutter and do not drop into the pipe.



The **Air Motor/Torque Multiplier** two speed and reversible motor uses high speed for cutting and low speed for tapping. The whole operation is push button and very easy for the operator. The design produces fast, easy cuts with superior threads over and over again.

Other Capabilities



Install Plugs



Deploy Bags



Camera Launch

Taping and Cutting Paste



#45-A5314

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3"-5" ALH System-Three Bonded Technology

Save thousands on excavation cost by securing a special fitting on top of the pipe.



The system works by excavating the top of the main. A special entry saddle is bonded to a clean square section using a super strong adhesive. Now the main can be drilled and tapped, ready for maintenance operations.

- Tremendous excavation and labor savings.
- Only requires the crown of the main to be exposed.
- No chains needed.
- No impact on main support.
- Use on iron and steel mains up to 30 psi.
- Saddles for 12" - 48" diameter mains.
- Make 3" and larger tap holes.
- Center access hole is a standard 3"-5" tap .



1. Clean work area and apply adhesive.



2. Fasten saddle.



3. Install System III



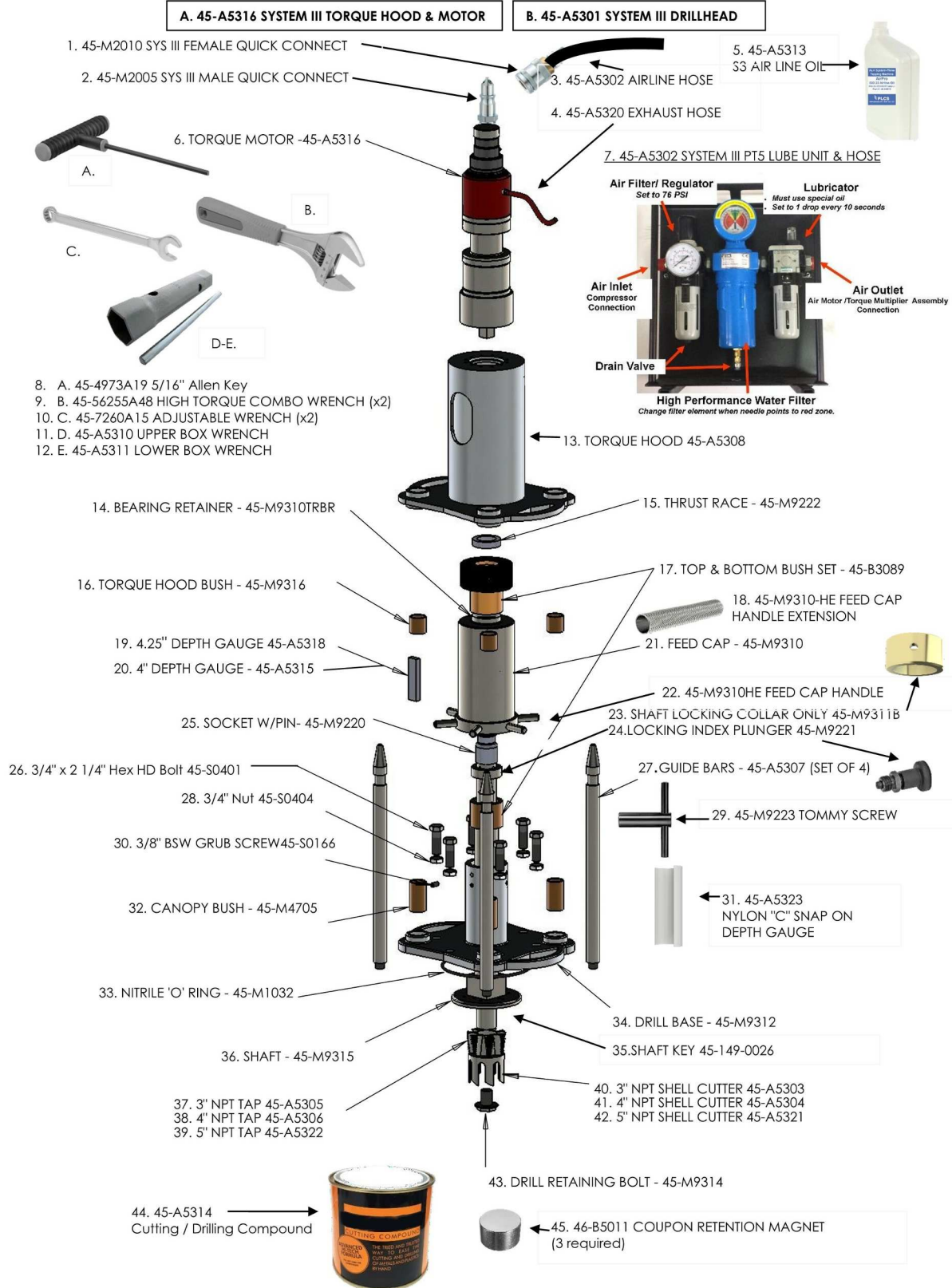
4. Perform maintenance.

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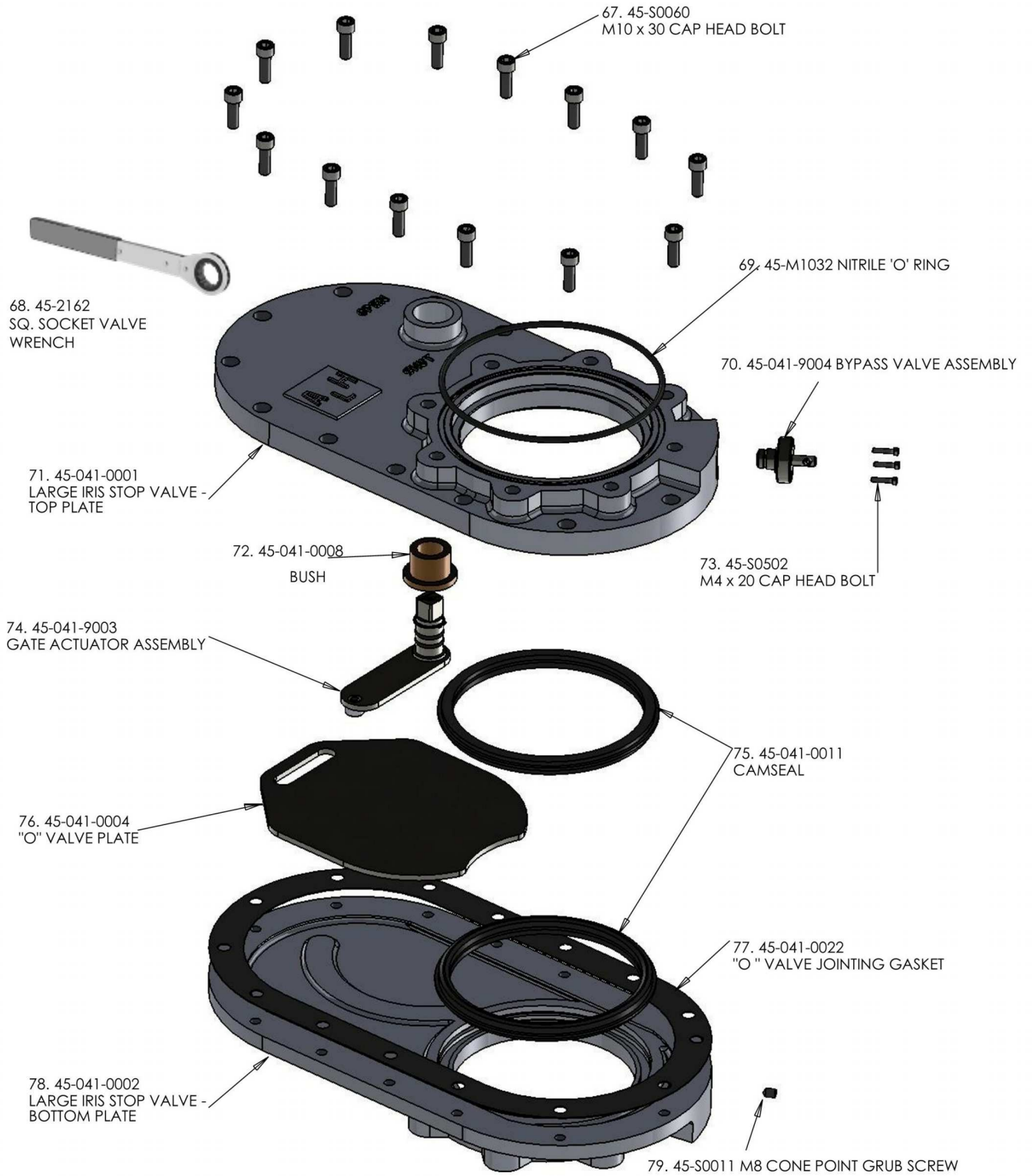
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Hot Tapping - 3"-5" ALH System-Three Parts

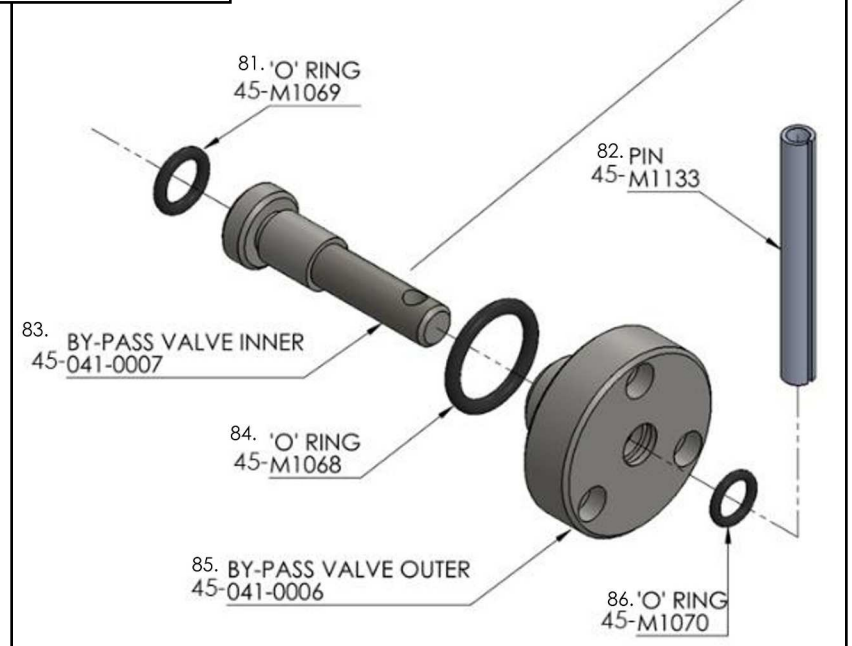
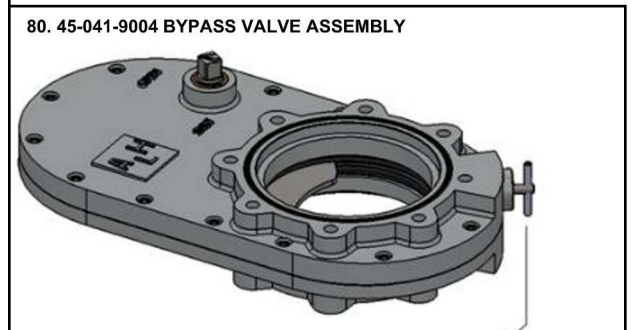
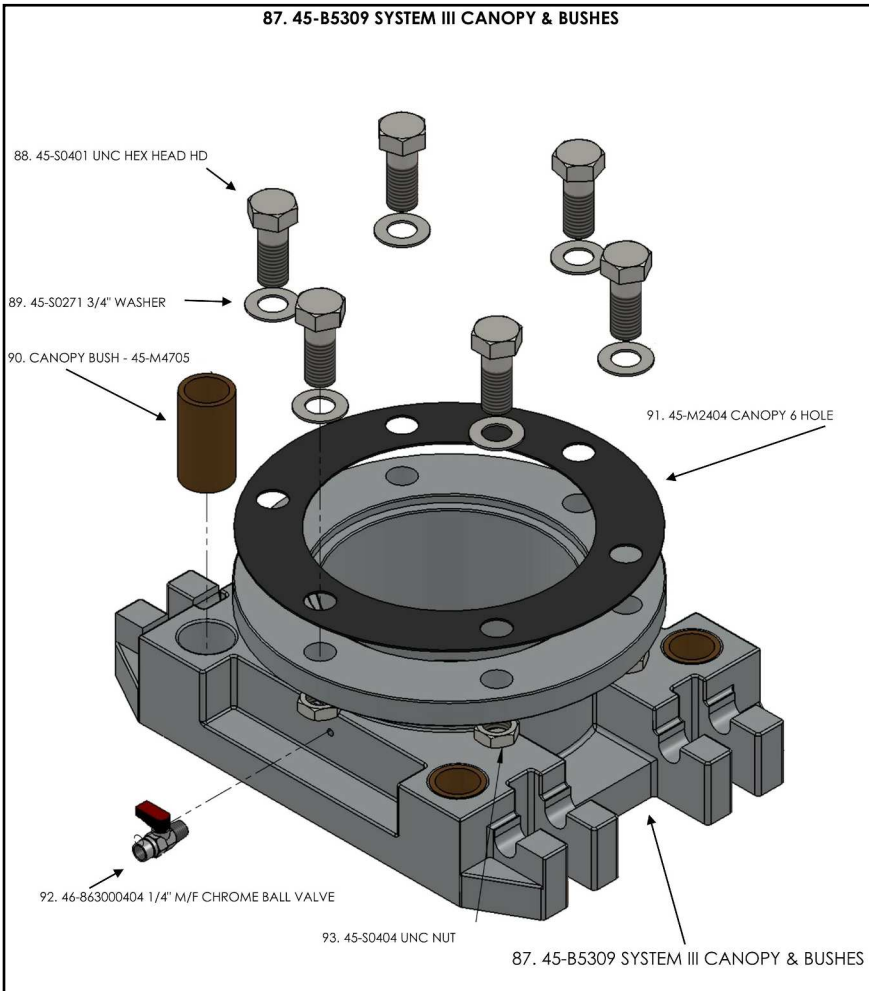


Hot Tapping - 3"-5" ALH System-Three Parts

66. 45-041-9001 SYSTEM III 'O' VALVE



Hot Tapping - 3"-5" ALH System-Three Parts



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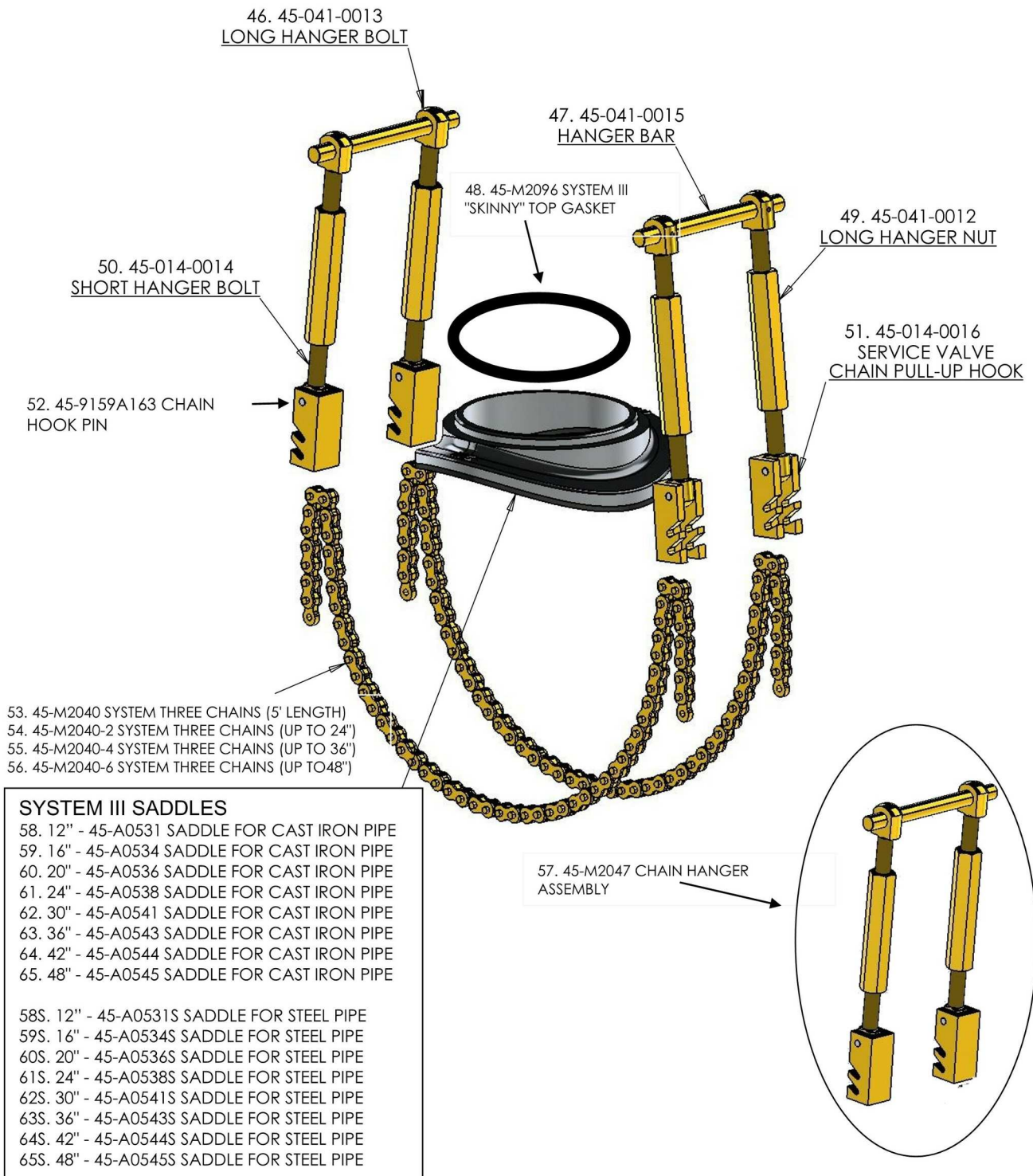
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Hot Tapping - 3"-5" ALH System-Three Parts

SYSTEM III SADDLES AND CHAINS



Hot Tapping - 3"-5" ALH System-Three Parts

SYSTEM III PLUG INSERTION TOOLS

94. 45-A0153 PLUG INSERTION TOOL (A,B,C,D)

- 95. A. 45-A0153-B3201 SYSTEM III FITTING SPINDLE
- 96. B. 45-1359001 CARRIER FLANGE
- 97. C. 45-A0153-B3202 SYSTEM III RETAINING SPINDLE
- 98. D. 45-A0153-B3203 LOW PROFILE PLUG ADAPTER
- 99. E. 45-A0162 LOW PROFILE PLUG TORQUE & REMOVAL WRENCH
- 100. F. 45-1359002 PLUG CARRIER SHAFT (STD. MALLE)
- 101. G. 45-1359003 3" MAGNETIC PLUG CARRIER
- 102. H. 45-1359004 4" MAGNETIC PLUG CARRIER
- 103. I. 45-1359005 5" MAGNETIC PLUG CARRIER



- 111. 46-M8024 3" Low Profile Plug Body
- 112. 46-M8025 4" Low Profile Plug Body
- 113. 46-M8026 5" Low Profile Plug Body

- 104. 46-S0278 3",4" LOW PROFILE BOLT
- 105. 46-S0279 5" LOW PROFILE BOLT

- 106. 46-A0111 3" CAP ONLY 16"-24" PIPE
- 107. 46-M8022 4"CAP ONLY 20"-24" PIPE
- 108. 46-M8023 4" CAP ONLY 30"-42" PIPE
- 109. 46-M8027 5" CAP ONLY 20" - 24" PIPE
- 110. 46-M8028 5" CAP ONLY 30"-48" PIPE

- Low Profile Canopy Plugs**
- 117. 46-A0113 3" Plug/Cap to fit 16"-20" Cast Pipe Profile
 - 118. 46-A0116 4" Plug/Cap to fit 20"-24" Cast Pipe Profile
 - 119. 46-A0120 4" Plug/Cap to fit 30"-42" Cast Pipe Profile
 - 120. 46-A0122 5" Plug/Cap to fit 20"-24" Cast Pipe Profile
 - 121. 46-A0124 5" Plug/Cap to fit 30"-48" Cast Pipe Profile

- 114. 46-M1068RM 3" LOW PROFILE O-RING
- 115. 46-M1069RM 4" LOW PROFILE O-RING
- 116. 46-M1070RM 5" LOW PROFILE O-RING