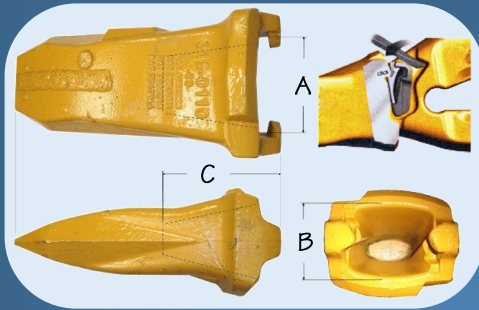


Hammerless Top Pin Connection

Very High Possibility



Caterpillar® (Esco®) K-Series System

Patented by Esco Corporation



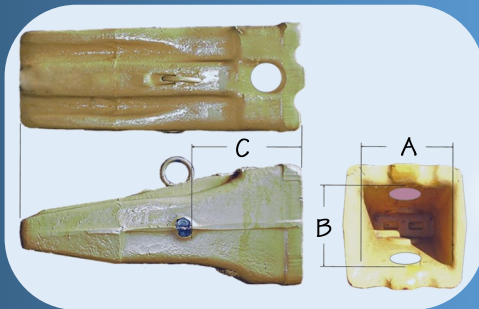
Caterpillar® K-Series® System			
Size	A	B	C
K-80	3.15"		
K-90	3.45"		
K-100	3.78"		
K-110	4.44"	3.50"	5.50"
K-130			
K-150			
K-170			

Caterpillar's K-series tooth system was patented by Esco® Corporation and leased to Caterpillar® Tractor Company.

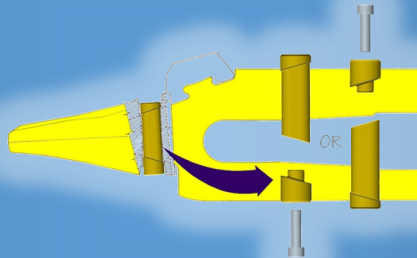
K-series GET are available from Caterpillar® Dealers only.

This product design is not offered by the H&L Tooth Company at this time.

Good Possibility



H&L® Mining 600-Series Tooth System



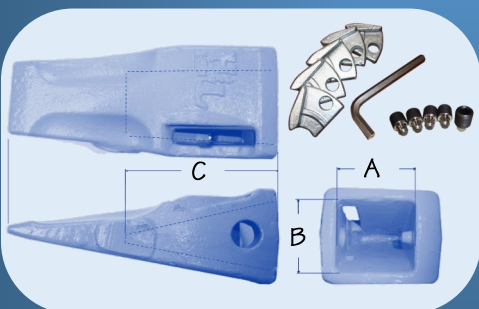
H&L® Flexhol® Series System			
Size	A	B	C
646	6.90"	7.10"	7.25"

H&L's "VP", Vertical Pin, was first introduced into the mining field in 1980, original patent #4,516,340. The Flexpin® was replaced with a hammerless *Insert and pin*.

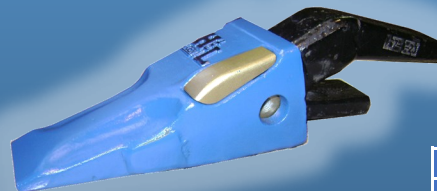
The new design uses a solid steel insert to attach the tooth to the mining base adapter nose. It utilizes the 46 series mining Whisler system nosepiece connection for the installation of a 646 series Mining tooth. H&L's 646 system is produced in Tulsa Oklahoma, **Made in the USA!**

Installation of the hammerless Insert into the mining adapter-to-tooth assembly then place the Cap on the insert body through the tooth hole. Thread the bolt into the Insert body, connecting the Cap to the Insert assembly

Fair Possibility



H&L® Kliploc® Hammerless System



H&L® Kliploc® System			
Size	A	B	C
233	1.81"	1.93"	2.75"

Patented by H&L Tooth Company

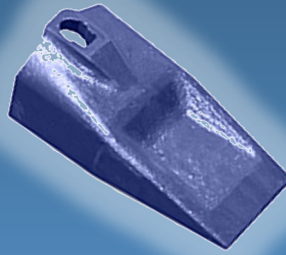
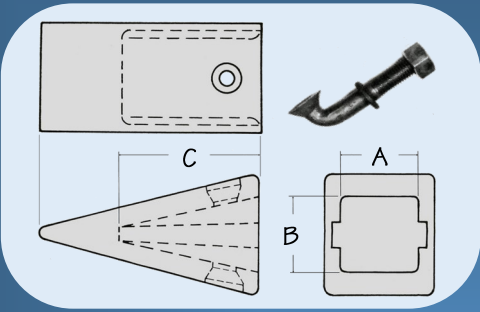
The 233 series Kliploc® system was designed to replace the sixty year old 23/230 tooth system. The original patent was granted in 2006 (8,347,530).

This hammerless system changes the original 230 series horizontal side Flexpin® connection to a vertical clip installation *without the need to change the existing adapters* on the bucket.

Hammerless Top Pin Connection

Hendrix® "J-Bolt" Hammerless System

Low Possibility



Hendrix® J-Bolt			
Size	A	B	C
A-104	2.31"	2.56"	3.75"
A-204	3.12"	3.31"	5.12"
A-404	3.38"	4.06"	5.31"
204	3.12"	3.12"	5.62"
304	3.12"	3.44"	5.94"
604	3.69"	4.06"	6.69"
804	3.94"	4.25"	6.38"

The J-Bolt connection has been obsolete for many years.
Very few aftermarket manufacturers exist today.

**This product design is not offered by
the H&L Tooth Company at this time.**