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Norseman Vortex Point

2ndGearRubber ·

Mar 15, 2021

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2ndGearRubber

Well-known member

Joined:

Mar 24, 2014

Messages:

8,859

Location:

Pittsburgh

Mar 15, 2021

#1

<https://www.harryepstein.com/norseman-vortex-point-drill-bit-set-moly-mechanics-length-3-flats.html>

Just as I was thinking I should buy a fresh index of bits for HJE day... Perhaps this was the source of the Matco hyper-step all along? \$195 for a set up to 1/2, by 64ths.



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Norseman Vortex Point

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Just as I was thinking I should buy a fresh index of bits for HJE day... Perhaps this was the source of the Matco hyper-step all along? \$195 for a set up to 1/2, by 64ths.







plinker
Well-known member
Joined: Feb 28, 2007
Messages: 4,161
Location: Northern Wi



Interesting, I dont think the hyper steps were/are US made though. They do work pretty good in general.



Regnar
Well-known member
Joined: Oct 9, 2010
Messages: 457

All I can think of is the poor bastard that has to sharpen these after using it on anything a little hard.



2ndGearRubber
Well-known member
Joined: Mar 24, 2014

Mar 16, 2021

#4

plinker said: ⬆

Interesting, I dont think the hyper steps were/are US made though. They do work pretty good in general.



Messages: 1,858

Pittsburgh

That was my thought as well. Whoever came up with that tip geometry had to have patented it. Perhaps Matco gets exclusive rights to distribute via the patent holder, and got someone in taiwan to make them? Or the patent ran out, but they last 20 years.... it's a mystery for sure.



Stedlin

Well-known member

Joined: May 29, 2019

Messages: 314

Location: Duluth, MN

Mar 16, 2021

#5

I used to grind drill points just like that back in the early 1970s for production of chromatographic valves and fittings. Never occurred to me to patent the idea.



Benito

Well-known member

Joined: Apr 10, 2018

Messages: 152

Mar 16, 2021

#6

All i know is our hyper-step set has a patent number and "additional patent pending" on it and these seem to have nadda. Good luck to them if that's the case



dnschmidt

Well-known member

Joined: Oct 3, 2014

Messages: 4,706

Location: Phoenix, AZ

Mar 16, 2021

#7

Actually ASTRO makes them for Matco under and exclusive arrangement. We know Astro for Astro tools but just as much of their company is private label as it is Astro. They have a lot of goodies that are proprietary to their main OEM customers that they are not allowed to sell as ASTRO.

 The Critic



Cryptic1911

Mar 16, 2021

#8

ooh I kinda like those



Well-known member

Joined: May 24, 2008

Messages: 2,884

Location: Willimantic, CT



2ndGearRubber

Well-known member

Joined: Mar 24, 2014

Messages: 8,859

Location: Pittsburgh

Mar 16, 2021

#9

dnschmidt said: ↗

Actually ASTRO makes them for Matco under and exclusive arrangement. We know Astro for Astro tools but just as much of their company is private label as it is Astro. They have a lot of goodies that are proprietary to their main OEM customers that they are not allowed to sell as ASTRO.

I knew this was the speculation, and believed it myself. Was this ever an official statement from either brand?



uart

Well-known member

Joined: Nov 17, 2011

Messages: 1,179

Location: Australia

Mar 16, 2021

#10

Apart from being nearly 2.5 times the price and impossible to re-sharpen, what advantages do these vortex points have over their regular hi moly bits?

Wouldn't you be better off with an index of the normal bits plus a few step drills for the few situations where they're needed.

attachment.php

Attachments



SP-29P.jpg

**2ndGearRubber**

Well-known member

Joined: Mar 24, 2014
Messages: 8,859
Location: Pittsburgh

Mar 17, 2021

#11

No need to pilot drill, smaller amount of material removal per cutting "level" on the bit. If you've ever seen the Matco hyper step bits, they just plunge through material.

I'm just as likely to pick up a fresh index of 3 flat moly.bits like I normally buy.

**uart**

Well-known member

Joined: Nov 17, 2011
Messages: 1,179
Location: Australia

Mar 17, 2021

#12

2ndGearRubber said:

No need to pilot drill, smaller amount of material removal per cutting "level" on the bit.

Ok thanks, that makes sense. So a bit like bullet points (in that they're self piloting but hard to sharpen), but these vortex ones cut even more aggressively.

Yeah I've been out of the loop for a while and hadn't seen the Matco hypers.

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**PelicanPines**

Well-known member

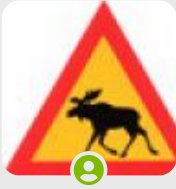
Joined: Apr 30, 2014
Messages: 28,151
Location: New Jersey, USA, Earth, My own reality

Mar 17, 2021

#13

Those drill bits are for those that want to be lazy... and who don't pay for their own supplies.



**4xdog**

Well-known member

Joined: Aug 18, 2012
Messages: 4,620
Location: Saint Louis MO

Mar 17, 2021

#14

plinker said: ⬆

Interesting, I dont think the hyper steps were/are US made though...

HJE do get an item's COO wrong once in a while.

**IndyGarage**

Well-known member

Joined: Apr 29, 2010
Messages: 7,360
Location: Indy

Mar 17, 2021

#15

The only advantage I can see would be for low power drill motors to get started in a hole.

On a drill bit, the depth of cut is basically the length of the "tooth". The power needed is that depth of cut x2 because it's drilling both halves at once. If you step the teeth, then it reduces the depth of cut and thus power needed - but only until you reach the next step - then the power need increases and when you reach the last step it's the same as a non-step bit.

I don't see any reason to use anything like that personally.

**Stedlin**

Well-known member

Joined: May 29, 2019
Messages: 314
Location: Duluth, MN

Mar 17, 2021

#16

I believe the biggest advance when used for drilling standard holes is much better heat dissipation.

**Benito**

Mar 17, 2021

#17

All these hypotheticals and assumptions from people just looking at a picture and supposing but haven't used these the Hyper-Steps. You'll know it when you use it, that's all I have to say.



Well-known member

Joined: Apr 10, 2018
 Messages: 152

I haven't opened the index for my regular cobalt drill bits in almost a year.
 It's not pixie dust.
 But yeah, if i didn't have a guy who came around I could swap new ones out for free , that would be a bummer. Not that they go bad faster or anything, it would just suck.

**bwringer**

Well-known member

Joined: Jan 1, 2013
 Messages: 6,684
 Location: Indianapolis

Mar 17, 2021

🔗 #18

Neat!

HJE doesn't seem to have these in individuals or smaller sets, but I found individuals at Albany County Fasteners:

<https://www.albanycountyfasteners.com/Drill-Bits-Fractional-Sizes-p/1052-348.htm>

I saw whatshisname on the SMA Youtube channel drill out a lug nut and stud with one of these (the Matco version, I think) the other day, and it was pretty impressive how it stayed centered and chewed metal. I don't need another damn drill index, but I might pick up a few of these for those nasty crusty sorts of jobs.

**Stedlin**

Well-known member

Joined: May 29, 2019
 Messages: 314
 Location: Duluth, MN

Mar 17, 2021

🔗 #19

I used to make drills that looked almost identical to those a long time ago.

I asked my Cleveland Twist Drill rep to give me a quote.

They no quoted them. I used to grind the points on a Hybco tool and cutter grinder.

The effective included angle was 40 degrees.

They worked well on Hastelloy C, and other high temperature alloys.

**plinker**

Well-known member

Joined: Feb 28, 2007

Mar 17, 2021

🔗 #20

uart said: ⬆

Apart from being nearly 2.5 times the price and impossible to re-sharpen, what advantages do these vortex points have over their regular hi moly bits?



Messages:

Northern161

Wouldn't you be better off with an index of the normal bits plus a few step drills for the few situations where they're needed.

Normal step drills aren't always long enough to do what these bits do. They are pretty durable as well. The 1/8 works really good for drilling out cotter pins I find.

One story, I had to drill out a bolt for a control arm one time that the customer had attempted to drill out (and also broke a drill bit off in, which wasn't mentioned, though obvious by the pieces I removed), The hole was off center and the boss had gotten a set of hyper steps a couple weeks previously. I was able to center the new hole in the bolt with the hyper step bit which is something I could not have done with a normal split point 118°/135° bit. After that I could use a normal bit.

I had it drilled and threads cleaned in decent time for what I had to do and the customer had the nerve to complain about the cost/time/etc... Kinda hit a nerve with me at the time.

**2ndGearRubber**

Well-known member

Joined: Mar 24, 2014
Messages: 8,859
Location: Pittsburgh

Mar 17, 2021

🔗 #21

bwringer said: ⬆

Neat!

HJE doesn't seem to have these in individuals or smaller sets, but I found individuals at Albany County Fasteners:

<https://www.albanycountfasteners.com/Drill-Bits-Fractional-Sizes-p/1052-348.htm> Click to expand...

Thank you for linking that. I should grab some singles to play with. I can see them working very well to clean caliper slide pin bores. Normally you don't want to use a drill, due to the aggressive self-feed which happens from cutting with just the edge of the bit. Looks like these may solve that issue.



plinker said: ↑

Normal step drills arent always long enough to do what these bits do. They are pretty durable as well. The 1/8 works really good for drilling out cotter pins I find.

One story, I had to drill out a bolt for a control arm one time that the customer had attempted to drill out (and also broke a drill bit off in, which was not mentioned, though obvious by

[Click to expand...](#)

Thanks for the real world hyper-step info. I don't have a matco driver myself, and real world feedback like yours can be tough to get.

As for the last paragraph... ain't that always how it goes? Either you're taking too long because you lack skill, or if you're making time you're a scammer. Nobody will pay if it takes longer, but they're always asking about discounts if it takes less. Same 'ol song and dance.



uart

Well-known member

Joined: Nov 17, 2011
Messages: 1,179
Location: Australia

Mar 17, 2021

#22

IndyGarage said: ↑

The only advantage I can see would be for low power drill motors to get started in a hole.

Yeah that also makes sense. So it seems that these would be particularly useful in a hand drill (not that they're under powered these days, but there's only so much force you can apply and keep in control).

I'm thinking for example of drilling 1/2 inch holes in 1/4" plate by hand. The drill would be through the other side before the hole was much larger than 1/4", and after that it's basically just reaming. I can see how that would cut efficiently with a lot less pressure than a regular bit.





2ndGearRubber
Well-known member

Joined: Mar 24, 2014
Messages: 8,859
Location: Pittsburgh

Mar 17, 2021

🔗 #23

uart said: ⬆

Yeah that also makes sense. So it seems that these would be particularly useful in a hand drill (not that they're under powered these days, but there's only so much force you can apply and keep in control).

I'm thinking for example of drilling 1/2 inch holes in 1/4" plate by hand. The drill would be through the other side before the

Click to expand...

I think a lot of guys forget we all don't have the luxury of securing work in a drill press. I'm often crammed in a tiny space using wrist power only to provide down force.

Yeah, on a proper drill press with good power a decent HSS drill bit can cut a lot. You ain't getting the same results drilling with outreached arms, or with your head at a 90 degree angle and one foot off the ground.



Zewnten
Well-known member

Joined: Jun 11, 2017
Messages: 1,060

Mar 18, 2021

🔗 #24

These worked great drilling out grade 8 bolts on body pans who's heads had sheared off from rust.

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