

DRILL SHARPENING MACHINE

(SPONSORED BY K.S.C.S.T)

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ABSTRACT

Field observation shows that the drill sharpening by doing manually i.e holding and fixing by hand directly is clearly not effective, because it needs much time and the geometry result is not qualified with standard tool drill geometry. This technique also does not guarantee operator safety. In the field also found Jig and fixture for helping tool grinding, but the jig and fixture that was found is not qualified for helping tool drill sharpening. According to this fact it is important to do planning and developing for modification of the jig and fixture for helping tool drill sharpening. Based from testing and analysing result, jig and fixture have been modified to so called sharpening attachment, generally to complete sharpening of drill. An improved twist drill sharpening machine for sharpening two lip twist drills, said machine being capable of sharpening different diameter drill bits over the commonly used range of drill sizes and drill lengths, said machine having a Base Block, Swing head, Sleeve, Angle slider, Collets, Nut, Pin with roller balls. When these parts are assembled into the sharpening attachment, it is capable of sharpening drills of different diameters and lengths. This machine has an elegant & simple design along with greater accuracy & less maintenance. So the drill sharpening machine is an ideal machine which can provide grinding of worn out drill bits to make it reusable without any skilled worker and without consuming more time. Also drill sharpening machine is much more cost effective and almost 10 times cheaper than normal drill sharpening machine available in market.