



REVIEW ON PREVENTIVE MAINTENANCE OF DRILLING MACHINE DURING THE OPERATION.

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Abstract- This paper is review on preventive maintenance during drilling operation. Today small industries are going towards the growth by increasing productivity and quality. When increasing productivity then required production time is less. This process is fast process. In fast process avoid the possible accident and machinable work by using preventive maintenance. Due to preventive maintenance know about machine, those machine is in workable condition or not. Preventive maintenance solves any machinable problem before machine operation due to this time required for the operation is less and operation perform smoothly. Preventive maintenance not only solves the machinable problem but also avoid the harmful accident with the worker.

I. INTRODUCTION

Drilling machine is one of the most important machine tools in a workshop. It was designed to produce a cylindrical hole of required diameter and depth on metal work pieces. Though holes can be made by different machine tools in a shop, drilling machine is designed specifically to perform the operation of drilling and similar operations. Drilling can be done easily at a low cost in a shorter period of time in a drilling machine. Drilling can be called as the operation of producing a cylindrical hole of required diameter and depth by removing metal by the rotating edges of a drill. The cutting tool known as drill is fitted into the spindle of the drilling machine. A mark of indentation is made at the required location with a centre punch. The rotating drill is pressed at the location and is fed into the work. The hole can be made upto a required depth.

Drilling machine is more use in industries than other machine. During a drilling operation worker face some accident or problem. This paper aim is avoid the accidents with worker and also avoid the machinable problem. This paper shows how to take precaution during drilling operation and how avoid the accidents during operation. Preventive maintenance decrease the losses of machine, increase life span of machine and smooth operation are performed.

II. GENERAL PRECAUTION TO BE OBSERVED WHILE WORKING

- Acquire full knowledge of the machine, read this manual carefully to understand operation safety devices and all necessary precautions. all this is to allow safe use if the machine.
- Wear appropriate clothing for the job.
- The operator must appropriate clothing to prevent the occurrence of unpleasant accidents.
- Maintain the machine with care.
- Always check the efficiency and integrity of the machine.
- Before connecting the machine to the mains, make sure that the rotating parts are not damaged or badly worn make sure that the switch is in the neutral position.
- Do not start the machine in an enclosed or poorly ventilated area or in the presence of a flammable and/or explosive atmosphere do not use the machine in damp and/or wet locations, or those exposed to rain.
- Before starting the machine, get used to ensuring that no remaining adjustment or maintenance wrenches have remained inserted.
- Keep the workplace tidy and free from hindrances; disorder causes accident.
- Make sure that the work environment is forbidden to children, non employees and animals.
- Do not perform tasks on the machine other than those for which it was designed only use the machine in the manner in which it was intended, as described in this instruction manual.
- Work without disturbances.
- Work areas must be well lit.
- Always wear eye protection and protective gloves while working if dust is produced, use the appropriate masks.

- Wear appropriate clothing, loose clothing, dangling jewelry, long hair etc. can get caught in the spindle and moving parts causing irreparable injury.
- Firmly secure the work piece before starting the drill.
- Always use the tool in an appropriate manner, perform only the work for which the tool is made, do not use the tool for inadequate work.
- Only use suitable resistance tools in relation to the work that is to be done, this is to avoid risky and unnecessary overloading for the operator, which may be harmful for the life of the tools themselves.
- Do not pick up moving tools or other moving parts to stop the spindle on the machine, always only use the stop command device.
- Do not remove the shavings from the table with hands, even at stand still to do this, use tongs or a palette knife.
- When the cutting tools need to be replaced or the speed needs to be changed, stop the motor and wait for the spindle to stop.
- Do not leave machine until the spindle and the tool are completely stopped.
- After the work is completed, clean the tool and check its efficiency.
- Replace worn and/or damaged parts, check that the guards and protection devices work properly before operating eventually, if necessary, have it checked by service staff. use only original space parts.
- Cut the mains voltage supply to the machine when-
- The machine is not being operated.
- Is left unattended.
- You are performing maintenance or adjustment because the machine does not work properly.
- You are replacing its tool.
- In case the machine is being moved to another location.
- You are cleaning the machine.
- Safety regulation regarding the electric system of machine tools
- Do not use the power cord to disconnect the plug.

III. CONCLUSION

This paper shows how to avoid the accidents during performing the operation on drilling machine and also solve the machinable problem. This paper show how to take precaution before starting the operation on drilling machine.

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