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Lathe Machine Parts

In lathe machine a rotating work piece is held between the rigid supports while a stationary tool is used to cut the work piece to give the desired shape. It is very important machine for metal cutting. Different parts of lathe machine are needed to be known to conduct the machining work perfectly. So let's discuss in details –

Lathe Machine Parts

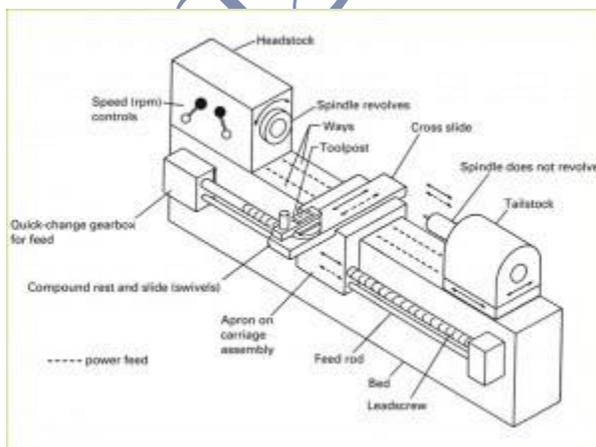
Bed: It is the part where different operational parts of the lathe machine is mounted. Generally it is single piece cast product made of hardened steel. If the lathe machine is large in size then the bed can consist of more than a single piece. Beds are heavy in construction that's the reason it can damp all the vibrations that occur while machining. The guides or slide ways are present on the bed for guiding the other parts like tail stock etc. The bed supports all other major components.

Carriage: It contains cross-slide, apron and cross slide, compound rest, saddle etc. It supports the tool and guides it along the desired direction for perfect feed.

Headstock – It works as a housing for the driving pulleys and gears. It is located at the left side of the lathe machine. It provides various drive speeds. Headstock holds the jaws and supplies power.

Tailstock – Tailstock is used for supporting the workpiece from the other side. Tailstocks can slide along the bed. It is an important lathe machine component.

Feed Rod and Lead Screw-Feed – Feed rod and lead screw almost serve the same purpose. Feed rod is used for basic turning. But lead screw is used for threading.



Lathe Machine components design and Terminology and functions

Let's discuss the assemblies of the most important lathe parts.

Bed – Beds are made of grey cast iron and used for vibration damping.

Headstock assembly – It consists of spindle, transmission and drive motor.

Tailstock assembly – The assembly of tailstock involves longitudinal way clamp, transverse way clamp and quill for cutting tools, live centers or dead centers.

Carriage Assembly

It includes cross slide, helps to hold the tool post at different orientations . It can provide longitudinal as well as transverse movement.

Quick-change gearbox

It provides power to the carriage assembly. It works along with the lead screw.

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