

SUMMIT
MACHINE TOOL LLC



PRECISION ENGINE LATHES

20-4", 24-4" & 28-4" LATHES

The **Summit** 20-4", 24-4" & 28-4" Lathes combine accuracy, simplicity and affordability to bring you a proven industry leader. Tested under the most demanding work conditions, the **Summit** 20-4", 24-4" & 28-4" turn rings around other lathes in their range.

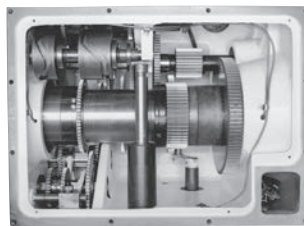
The 20-4", 24-4" & 28-4" lathes have just the right amount of engineering to afford simplicity of operation, coupled with plain and simple rugged reliability. In addition, built in safety features like the safety clutch in the apron that kicks out the feed and the feed/threading safety interlock eliminating the simultaneous engagement of the feed and threading motion, place these machines in a field of their own — unparalleled in performance.

A few of the outstanding features of the 20-4", 24-4" & 28-4" lathes are a cross ribbed headstock for added strength and stability, with anti-friction mounted shafts and dynamically balanced components; hardened and ground alloy steel gears, shafts and splines, and an oversized precision chrome alloy spindle with a big 4 1/8" thru hole that is mounted in double row angular contact thrust bearings and 2 double row roller bearings. These large spindle bearings give the 20-4", 24-4" & 28-4" greater radial and thrust capacities ensuring very precise turning capabilities.

Available in 40", 60", 80", 120", 160" and 200" center distances, the 20-4", 24-4" & 28-4" lathes feature hardened and precision ground bedways on a heavy one-piece closed grain cast bed that is fully ribbed for maximum stability and even thermal expansion. Standard on every machine is a quick-change gearbox for cutting Metric, Module and Diametral Pitch threads as well as standard American threads.

The engineering excellence, fine workmanship, materials and impressive specifications of the **Summit** 20-4", 24-4" & 28-4" Lathes assure you of greater production and easy, trouble free operation for years to come.

SUMMIT 20-4", 24-4" & 28-4" PRECISION ENGINE LATHES



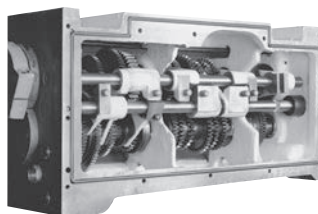
Headstock

Fully geared headstock provides fifteen spindle speeds in the 20" and twenty-one speeds in the 24" and 28" through precise, hardened and ground gears. Each gear is thoroughly tested for accurate tooth configuration and flank engagement to assure optimum quiet and smooth running, and is precision fitted on hardened and ground splined shafts for ease of speed selection. All shafts are mounted in ball or tapered roller bearings. Spindle drive is achieved through mechanical "multi-disc" clutches for forward and reverse rotation.



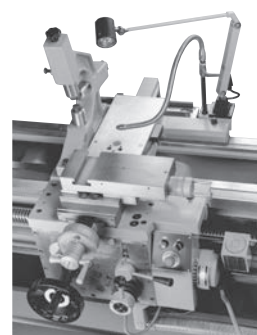
"Thru Hole"

Spindle is precision machined, hardened and ground from a massive one-piece forging. It features a full 4 1/8" thru hole, enabling large work pieces to be introduced without excessive overhang. The spindle is mounted in precision angular contact thrust bearings for accuracy and smooth running, and is supported by large diameter precision roller bearings for stability. Chuck mounting is standard D1-8 camlock and a reduction sleeve is provided to facilitate use of Morse taper tooling.



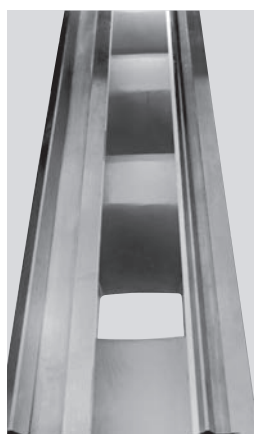
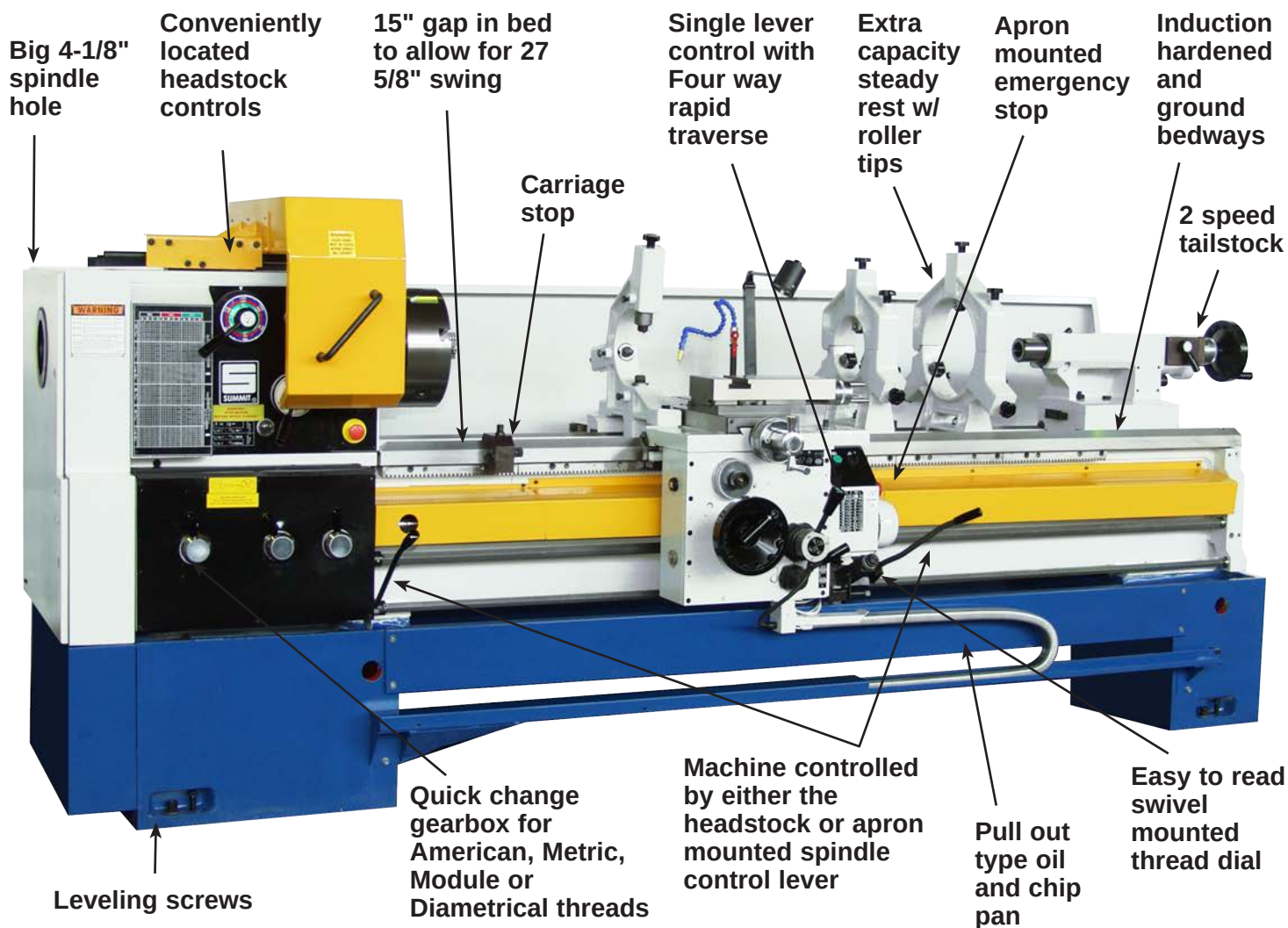
Norton Control Box

Totally enclosed, quick change feed gearbox allows easy selection of most standard and metric threads and feeds without use of change gears. All gears and splined shafts are of hardened and ground alloy steel, precision fitted for ease of shifting and mounted in high precision anti-friction bearings. The feed gearbox assembly is oil bath lubricated for smooth operation and quiet running.



Carriage

Carriage assembly features extended cross slide for accommodation of special tooling, tracer attachments, etc. The cross slide is constructed of high quality cast iron and incorporates externally adjustable nuts to provide for backlash elimination. The rugged, heavy duty taper attachment is capable of generating tapers of ± 10 degrees up to 15 3/4 inches long and is graduated in degrees for convenience of operation.



Bedway

The bed is constructed of high grade, alloyed cast iron, normalized and aged to achieve maximum stability. The design features heavy cross ribbing for rigidity and vibration dampening and utilizes hardened and ground bedways.

INCLUDED ACCESSORIES

- Thread dial
- Standard steady rest with roller tips
- Extra capacity steady rest with roller tips
- Follow rest
- Coolant system
- Taper attachment
- 3-Jaw chuck with 2 piece rev. jaws
- Carriage stop
- Work light

All included accessories at no charge when ordered with lathe.

OPTIONAL EQUIPMENT

- Quick change tool post
- Faceplates
- Electronic DRO
- Premium chucks
- Other workholding devices & tooling available on request

STANDARD FEATURES

- Hardened and ground bedways
- Big 4 1/8" thru hole
- Removable gap
- Inch/metric threads
- Conveniently located controls
- Forced lubrication to the headstock, carriage and bedways
- Cuts most American & Metric threads without change gears
- Complete accessory package
- Crossfeed and threading safety interlock
- Feed reversing at the apron
- Hardened and ground cross slide ways
- 4-way rapid traverse
- Heavily ribbed bed
- Single lever control for feeds and rapids
- Full length chip and coolant guard
- 2 speed tailstock

