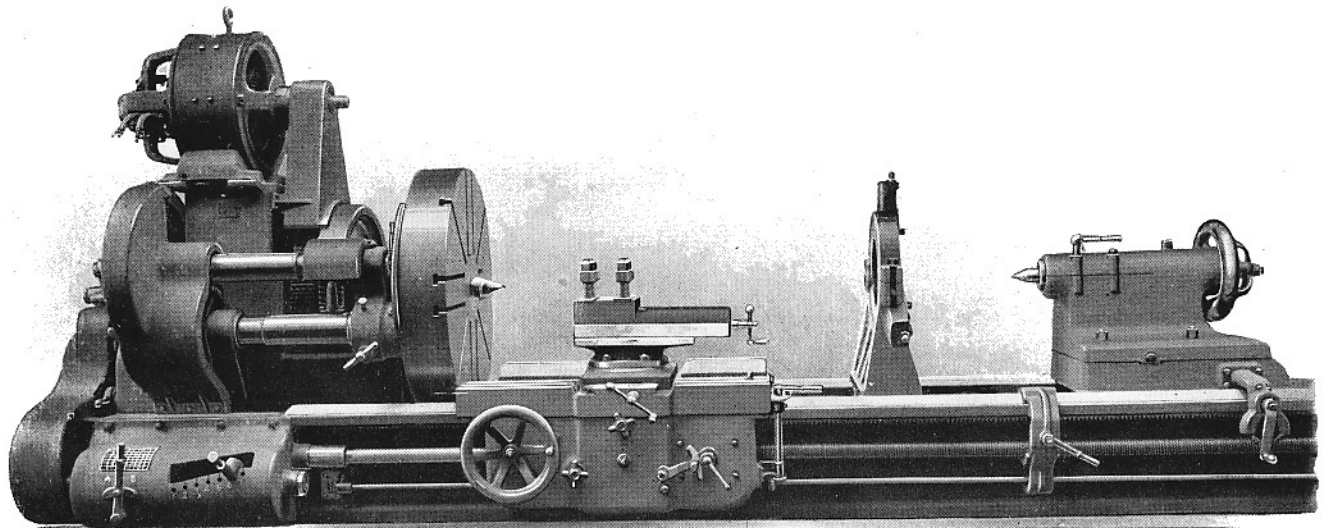

PITTSBURGH
—FIFTY INCH—
TRIPLE GEARED LATHE
MOTOR DRIVE

Bulletin

PITTSBURGH MACHINE TOOL COMPANY
BRADDOCK, PENNSYLVANIA



Specifications for 50" x 18' Triple Geared Lathe

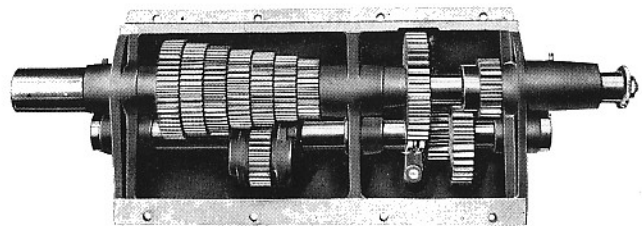
Swing over the ways 51". Swing over the carriage 35". Distance between centers 7 ft.

Head Stock Head Stock is of the triple geared type, of heavy construction and exceptionally stiff design. All bearings are made of the best material obtainable, and the head is so constructed that it can be easily dismantled.

The ratio of gearing in the Head is $68\frac{1}{2}$ to 1. The back gear sleeve is steel bushed with bronze. Triple gear pinion is steel.

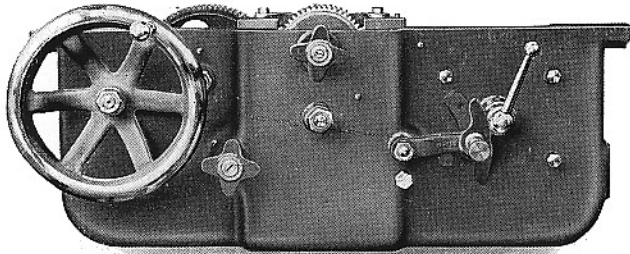
Bearings are 6 to 1 copper and tin and the main spindle is 50-60 carbon open hearth steel. Bearings are accurately lapped. Spindle is 8" in diameter, 12" long in the front bearing.

Feeds Quick change feed is supplied for either English or metric threads. The table attached gives the number of threads per inch that can be cut. Feed Box is heavily constructed and is exceedingly simple.



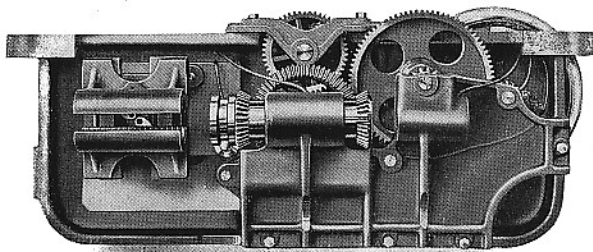
Inside View of Feed Box

Tail Stock Tail Stock is of extra heavy construction. Tail Stock is provided with pawl engaging in rack, cast in center of the bed. Tail Stock is moved by gearing. Tail spindle is 6" in diameter.



Apron

Apron The Apron is of double plate construction. Studs are case hardened and ground. Apron gears are all steel except the friction gears which are semi steel. The shear nut is of solid cast iron, of extra length. Feeds are driven by splined screw. A locking device is provided for the prevention of throwing in two feeds at once.



Inside View of Apron

Carriage The Carriage is of heavy design; is furnished with wipers that ride on the vees, to keep the same clean and well oiled. Carriage has bearing on the ways of 58". Carriage is provided with Compound Rest of heavy construction.

The tools are held by four large studs with heavy binders. All slides are furnished with taper gibs scraped to a fit. Carriage can be supplied with automatic angular feed when ordered extra.

Bed The Bed is 42½" wide, 22" deep. It is provided with ample cross girts. The vees on the bed are exceptionally large; all bearings being scraped.

Motor Drive Motor Drive can be supplied for either A.C. or D.C. motor, with motor control lever at right hand side of the carriage.

With A. C. drive the speed changes are in the gear box located over the Head. The drive from the motor to the gear box is by belt or Morse silent chain.

With D. C. drive the speed changes are made by variable speed motor and multiple speed type controller, as illustrated above; the drive to the main spindle sleeve is by Morse silent chain.

Taper Attachment The Taper Attachment is of stiff construction. Sliding bracket is machined to fit the slide at the rear side of the bed. Suitable graduations are furnished for cutting the necessary tapers.

Taper Attachment is quoted as an Extra.

Accuracy Lathe is guaranteed to bore straight and face square within .0015" to the foot.

Weight Weight, 18' bed—32,000 lbs.
Extra 3 ft. of bed—1,900 lbs.

TABLE OF THREADS THAT CAN BE OBTAINED ON 50 INCH TRIPLE GEARED LATHE

Threads per Inch (English)			Pitch in M. M.		Metric
1	4	16	14	3.5	.875
1 $\frac{1}{8}$	4 $\frac{1}{2}$	18	13	3.25	.8125
1 $\frac{1}{4}$	5	20	12	3	.75
1 $\frac{3}{8}$	5 $\frac{1}{2}$	22	11	2.75	.6875
1 $\frac{1}{2}$	6	24	10	2.5	.625
1 $\frac{5}{8}$	6 $\frac{1}{2}$	26	9	2.25	.5625
1 $\frac{3}{4}$	7	28	8	2	.5
2	8		7	1.75	
2 $\frac{1}{4}$	9		6.5	1.625	
2 $\frac{1}{2}$	10		6	1.5	
2 $\frac{3}{4}$	11		5.5	1.375	
3	12		5	1.25	
3 $\frac{1}{4}$	13		4.5	1.125	
3 $\frac{1}{2}$	14		4	1	