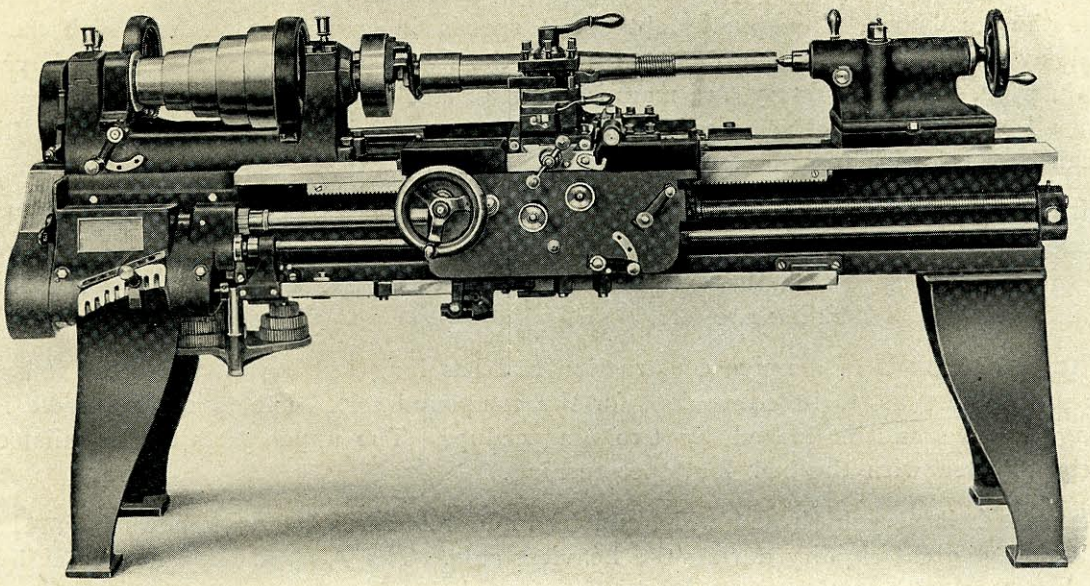
MUNKTELLS ESKILSTUNA

Munktell's Lathes.



Munktell's Lathes are manufactured in the following models:

AB High Speed Lathes with all-geared headstock and single belt pulley

Model	AB 40	AB 50	AB 60
Centre height inches	8	10	12

BB 5-step Cone Head Lathes

Model	BB 40	BB 50	BB 60
Centre height inches	8	10	12

CA Electrically driven High Speed Lathes

Model	CA 40	CA 50	CA 60
Centre height inches	8	10	12

Description.

The headstock of High Speed Lathes is specially powerful in construction inclosing all interchange gears and couplings for the different speeds of the spindle. The upper part can be raised, whereby the working parts are easily accessible for lubrication and inspection.

The Lathe Spindle is of high carbon steel, hollow, carefully finished, and rests in ample dimensioned bearings. End thrust is taken up by washers on the rear bearing. Trough the change gear in the headstock, the spindle obtains 8 speeds in geometrical series, wich can easily be changed by means of the levers on the front of the headstock. All change gears have carefully cut teeth, wich, where necessary, are manufactured of steel.

In all speeds, the lathe spindle obtains so great driving power, that the best high speed steels can be used with the greatest advantage.

The 5-step Cone Head of Lathe model BB is also of powerful construction but has 5-step cone pulley and backgearing, whereby the spindle obtains 10 speeds in uniform progression. Lathes of model BB are, with the exception of the headstock, exactly like model AB and are specially suitable for tool manufacture, etc.

The Tailstock is of massive construction and has long bearing on the bed. It is so shaped on the front side, as to be convenient for the compound rest. The tailstock spindle is of steel, has long motion, and is locked by two plug clamps. The upper parts of the tailstock can be angularly adjusted with the bed, for taper turning.

The Bed is very high and wide, and its interior is furnished with powerful ∩-shaped ribs, thus obtaining great rigidity during the heaviest cuts. The ∧-s are large and carefully finished. The rack has massive, cut teeth, and is made of steel.

The Carriage. The unusually rigid carriage has long bearing on the ∧-s of the bed and is held against these by clamps, both with the front and back ∧-s. Moreover, the carriage rests on the bed directly under the tool thrust, so that all vibration is prevented. The screw for cross feeding is furnished with a graduation plate divided for 1/10 millimeter.

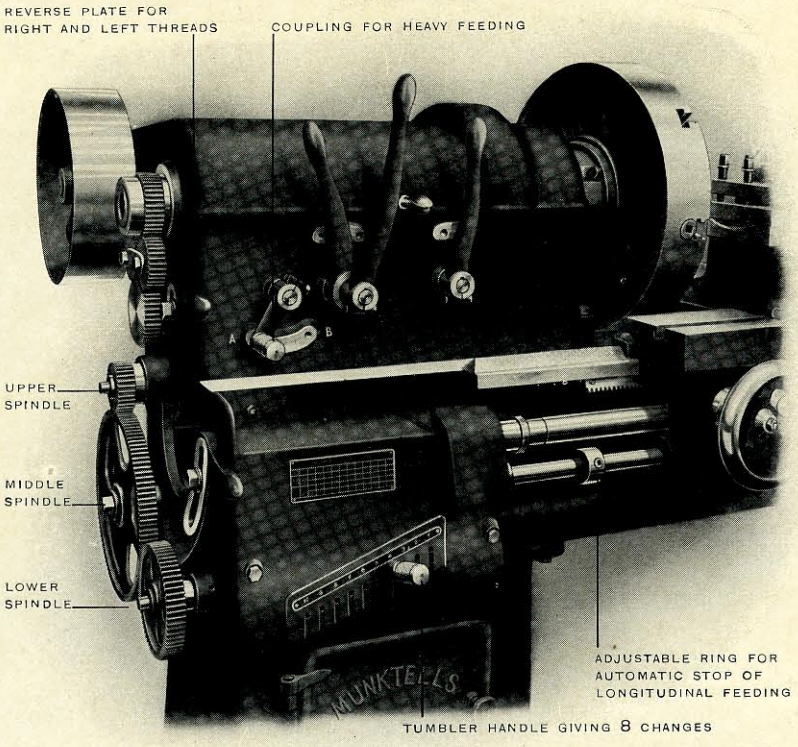
The Compound Rest is very rigid, and has broad wearing surfaces. The top slide is graduated for any angle up to 90 degrees and solidly locked by means of four bolts. The tool block can be turned round a centre, and the cutting tool is tightly clamped by two large set screws.

The Apron is very rigid, provided with heavy braces, and firmly bolted to the carriage. The rack pinion is furnished with double bearings. The gears have machine-cut teeth of heavy pitch and, where necessary, are made of steel. Longitudinal and cross feeds are coupled by friction clutches, so that the engagement is smooth and thrust-free. There is a special feed rod with automatic stop for longitudinal feed. The lead screw is used only for thread cutting and can be disengaged during ordinary turning. Thread cutting and feed cannot be coupled simultaneously.

The Countershaft has two large and powerful friction pulleys, which can run forwards and backwards, or in the same direction. When the pulleys run in the same direction one should have about 25 % greater speed than the other. The hangers are powerful and fitted with ball bearings.

Screw Cutting and Feeds.

By a practical arrangement for screw cutting and feeding a large number of changes of threads can easily and conveniently be obtained in inches or millimeters. The index plate is located on the feed box and clearly shows how to obtain each thread and feed. Special threads can be obtained by the use of extra change gears. Left hand threads are obtained by reversplate in the end of the headstock. Every lathe is supplied with a *thread indicator*. During thread cutting in inches the carriage can be drawn back by hand, and the half nut engaged in the correct thread shown by the indicator, without reversing the lathe. Countershaft friction pulleys can therefore run in the same direction, then the lathe spindle obtains the double number of speeds.



Thread gears arrangement for changes of threads in inches.

Changes of Threads.

Lathes of 8″ and 10″ centre height.

Threads per inch:

2, 2 1/4, 2 3/8, 2 1/2, 2 3/4, 3, 3 1/2, 3 3/4, 4, 4 1/2, 4 3/4, 5, 5 1/2, 6, 7, 7 1/2, 8, 9, 9 1/2, 10, 11, 12, 14, 15, 16, 18, 19, 20, 22, 24, 28, 30, 32, 36, 38, 40, 44, 48, 56, 60.

Metric pitches:

12, 11, 10, 9, 8, 7.5, 7, 6.5, 6, 5.5, 5, 4.5, 4, 3.75, 3.5, 3.25, 3, 2.75, 2.5, 2.25, 2, 1.75, 1.5, 1.25, 1, 0.75, 0.5.

Lathes of 12″ centre height.

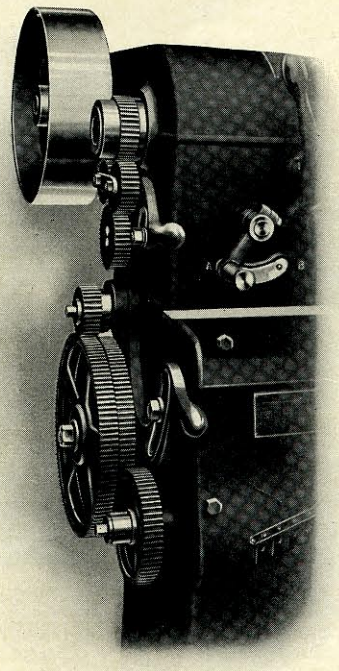
Threads in inch:

1, 1 1/8, 1 3/16, 1 1/4, 1 3/8, 1 1/2, 1 3/4, 1 7/8, 2, 2 1/4, 2 3/8, 2 1/2, 2 3/4, 3, 3 1/2, 3 3/4, 4, 4 1/2, 4 3/4, 5, 5 1/2, 6, 7, 7 1/2, 8, 9, 9 1/2, 10, 11, 12, 14, 15, 16, 18, 19, 20, 22, 24, 28, 30.

Metric pitches:

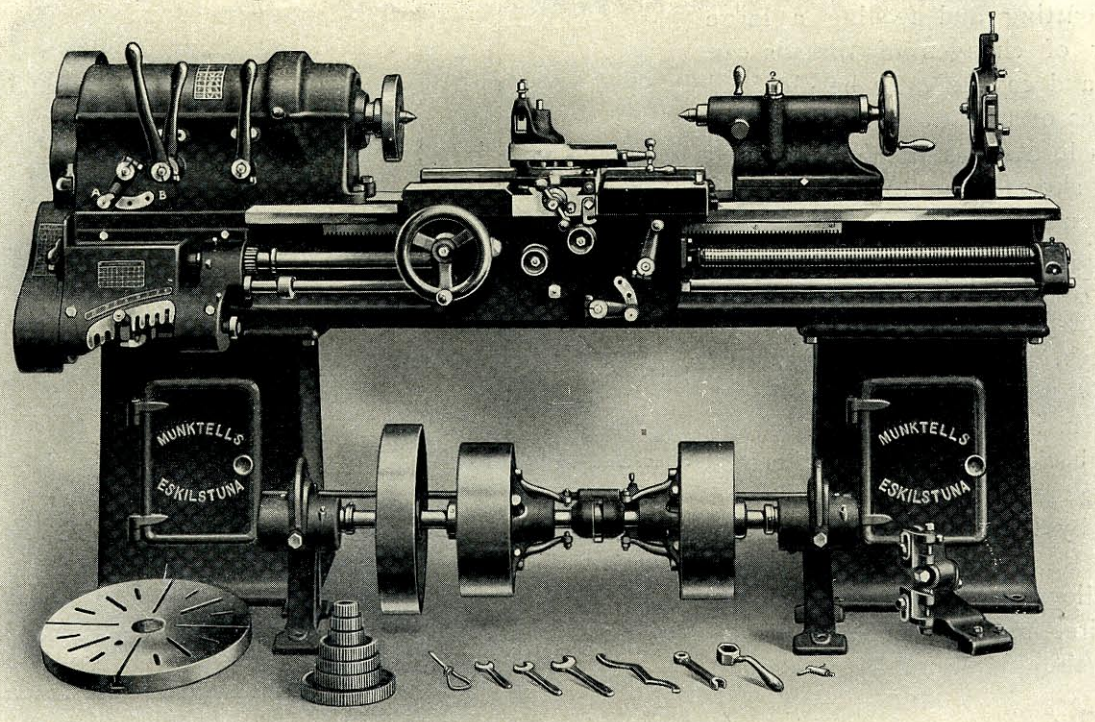
24, 22, 20, 18, 16, 15, 14, 13, 12, 11, 10, 9, 8, 7.5, 7, 6.5, 6, 5.5, 5, 4.5, 4, 3.75, 3.5, 3.25, 3, 2.75, 2.5, 2.25, 2, 1.75, 1.5, 1.25, 1.

For extra coarse threads see page 14.



Thread gears arrangement for metric pitches.

High Speed Lathes Model AB.



High Speed Lathes model AB 40.

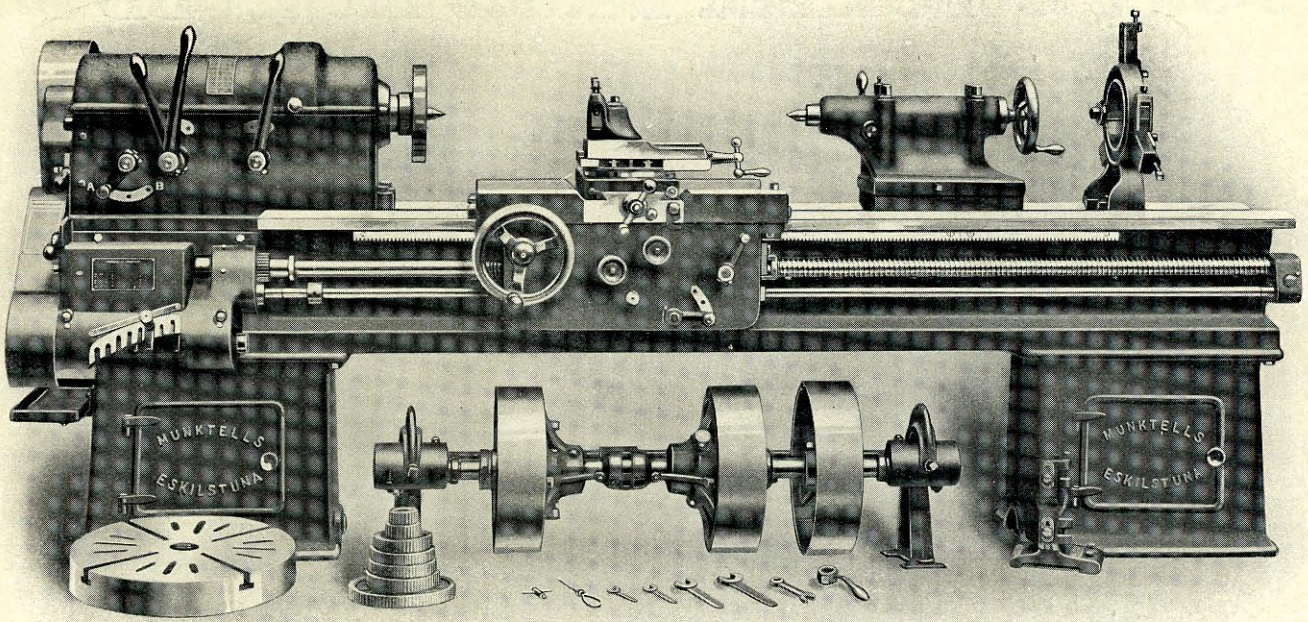
Dimensions etc.

Model		AB 40	AB 50	AB 60
Centre height	inches	8	10	12
Swings over shear	»	16 3/8	20 3/8	24 3/4
» » carriage	»	9 1/4	11 1/4	13 5/8
Front spindle bearing, diam. and length	»	3 1/4 × 5 5/8	3 13/16 × 6 5/8	4 5/8 × 8 13/16
Hole through spindle	»	1 1/2	1 3/4	2
Tailstock spindle diameter	»	2 1/16	2 3/8	3 1/4
Number of spindle speeds		16	16	16
Countershaft belt pulleys, diam. and width	»	13 3/16 × 4 3/8	16 × 4 3/8	18 × 6 5/8
Revs. per minute of countershaft, forward and reverse		300	300	300
» » » » » »		240 & 300	240 & 300	240 & 300
Belt pulley on lathe, diam. and width	»	12 × 3 1/4	14 × 4 3/8	18 × 5 3/8
» » » » revs. per minute		400	360	320
Steady rest takes in diam.	»	4 13/16	6 3/8	8 3/8
Follow » » » »	»	2 3/16	2 5/8	2 5/8

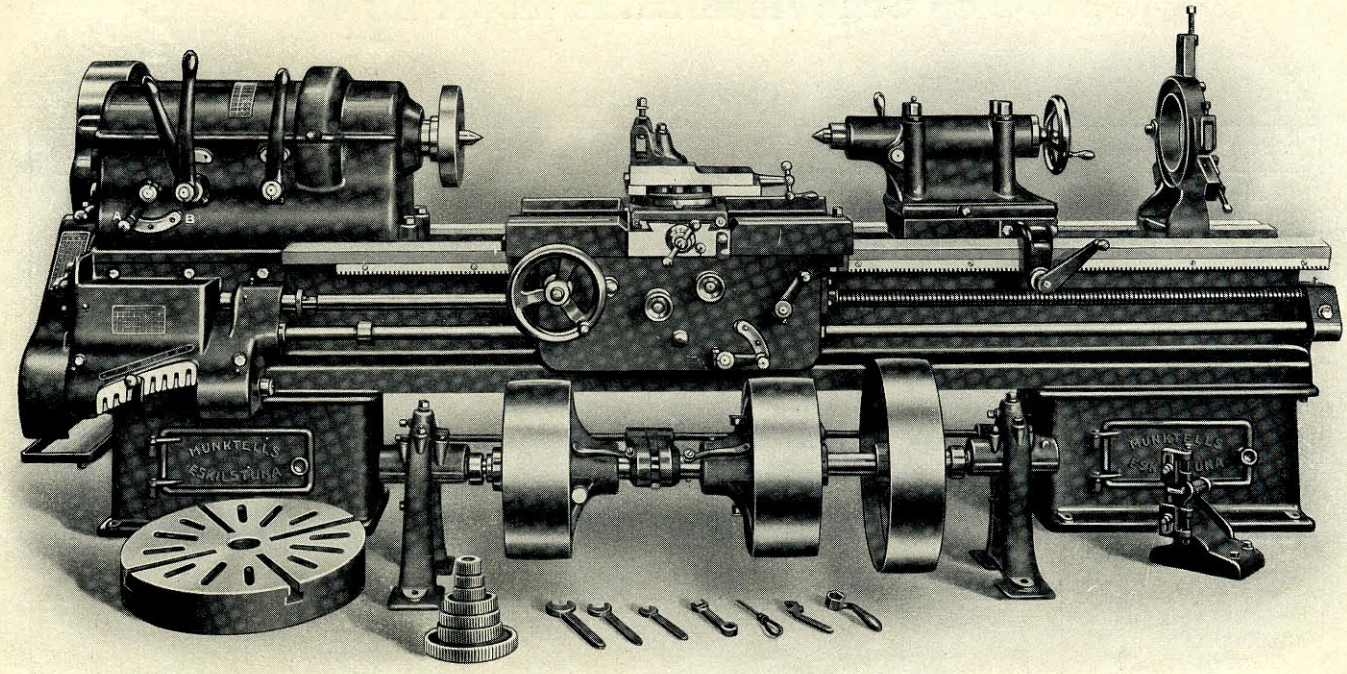
Longitudinal dimensions and weight.

Model	AB 40			AB 50			AB 60		
Code word	ABSOBAK	ABSOCEL	ABSODIM	ABTUFAK	ABTUGEL	ABTUTIM	ABVYJAK	ABVYKEL	ABVYLIM
Length of bed... inches	88	104	120	120	140	160	140	160	180
Admits between centres..... »	38 13/16	54 13/16	70 13/16	62	82	102	70	90	110
Floor space..... »	92 5/8 × 36 5/8	108 5/8 × 36 5/8	124 5/8 × 36 5/8	125 5/8 × 42	145 5/8 × 42	165 5/8 × 42	147 × 51	167 × 51	187 × 51
Weight net..... ca lbs	3090	3245	3380	4860	5145	5400	8390	8830	9225
» packed »	3750	4020	4260	5740	6135	6510	9500	10050	10560

In the prices are included: Large and small face plate, one steady and one follow rest, countershaft, and necessary wrenches.

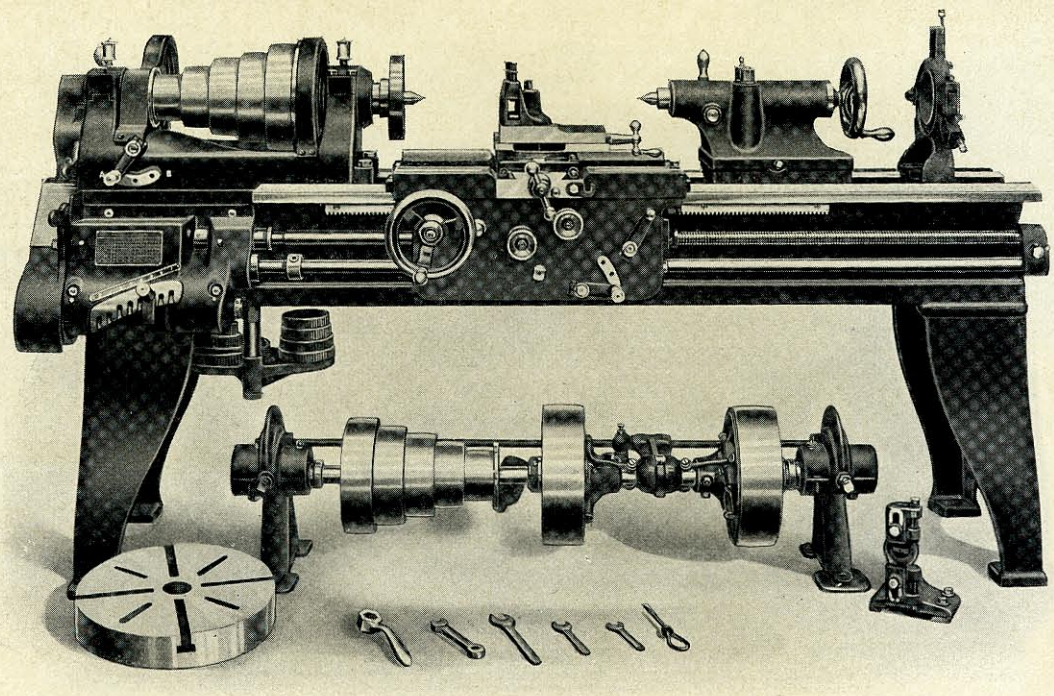


High Speed Lathe model AB 50.



High Speed Lathe model AB 60.

5-Step Cone Head Lathes model BB 40.



5-Step Cone Head Lathe model BB 40.

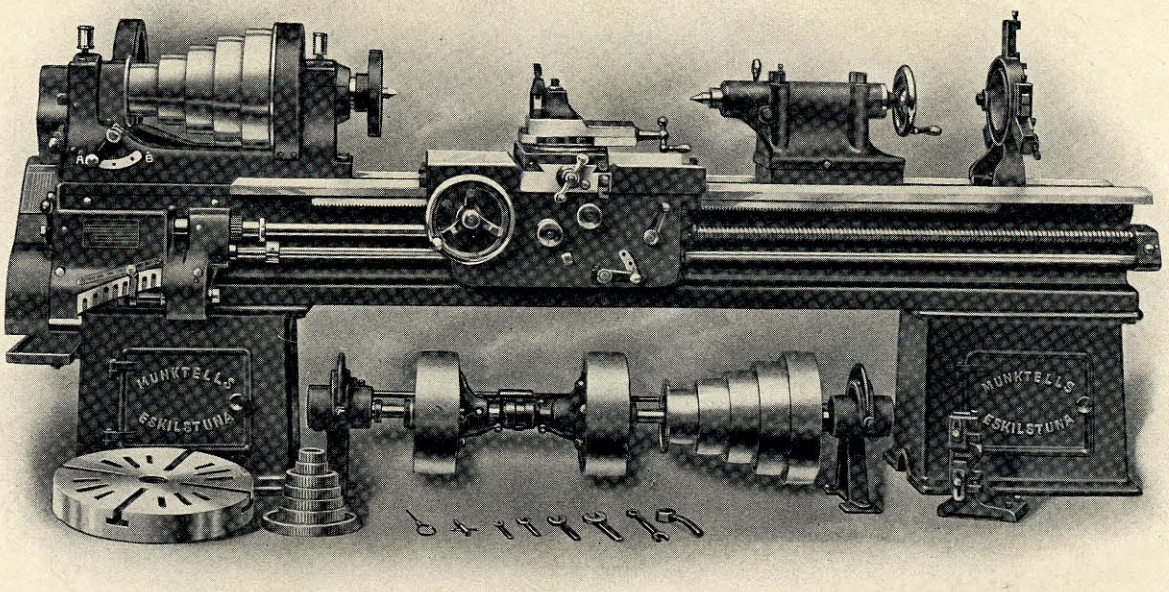
Dimensions etc.

Model		BB 40	BB 50	BB 60
Centre height	inches	8	10	12
Swings over shear	»	16 3/8	20 3/8	24 3/4
» » carriage	»	9 1/4	11 1/4	13 5/8
Front spindle bearing, diam. and length	»	3 1/4 × 4 13/16	3 13/16 × 5 5/8	4 5/8 × 7 5/8
Hole through spindle	»	1 1/2	1 3/4	2
Tailstock spindle diameter	»	2 1/16	2 3/8	3 1/4
Number of spindle speeds		20	20	20
Countershaft belt pulleys, diam. and width	»	12 × 3 3/4	13 3/16 × 4 3/8	16 × 4 13/16
Revs. per minute of countershaft, forward and reverse		175	160	150
» » » » » »		140 & 175	125 & 160	120 & 150
Steady rest takes in diam.	»	4 13/16	6 3/8	8 3/8
Follow » » » «	»	2 3/16	2 5/8	2 5/8

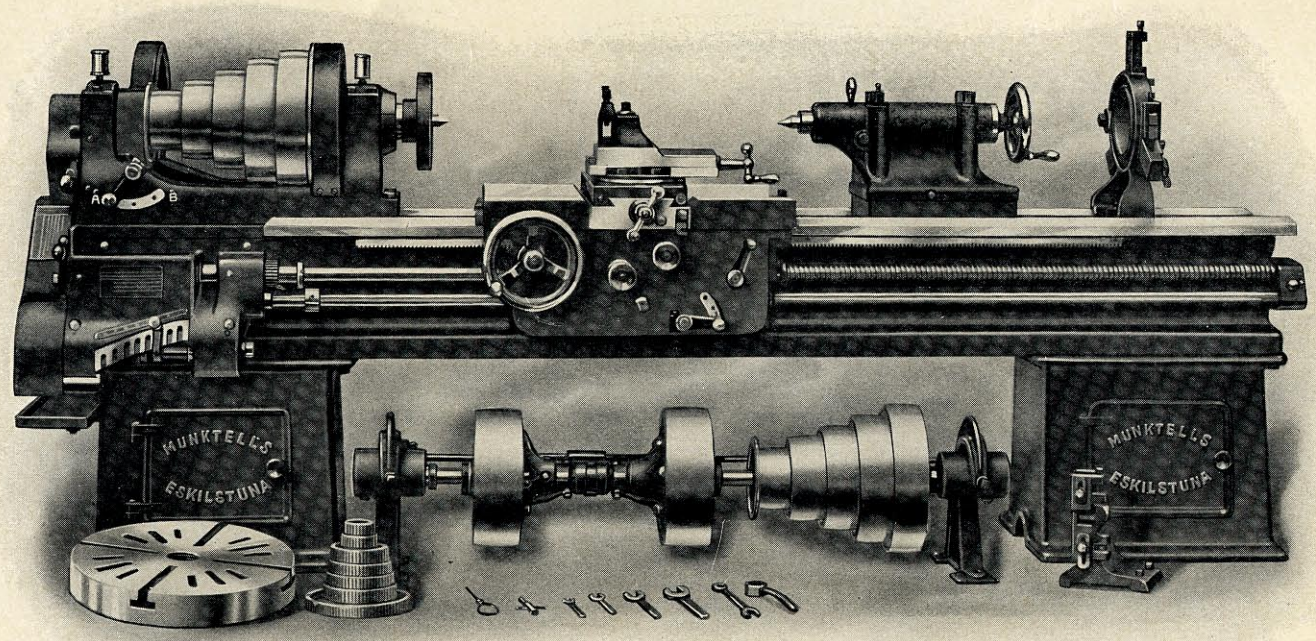
Longitudinal dimensions and weight.

Model	BB 40			BB 50			BB 60		
Code word	BESOMAK	BESONEL	BESOPIM	BETURAK	BETUSEL	BETUTIM	BEVYVAK	BEVYXEL	BEVYZIM
Length of bed... inches	88	104	120	120	140	160	140	160	180
Admits between centres..... »	38 13/16	54 13/16	70 13/16	62	82	102	70	90	110
Floor space..... »	92 5/8 × 31 5/8	108 5/8 × 31 5/8	124 5/8 × 31 5/8	124 3/4 × 39	144 3/4 × 39	164 3/4 × 39	146 × 45 5/8	166 × 45 5/8	186 × 45 5/8
Weight net..... ca lbs	2695	2850	2980	4415	4700	4970	7725	8170	8500
» packed »	3360	3620	3865	5300	5700	6070	8830	9380	9820

In the prices are included: Large and small face plate, one steady and one follow rest, countershaft, and necessary wrenches.



5-Step Cone Head Lathe model BB 50.

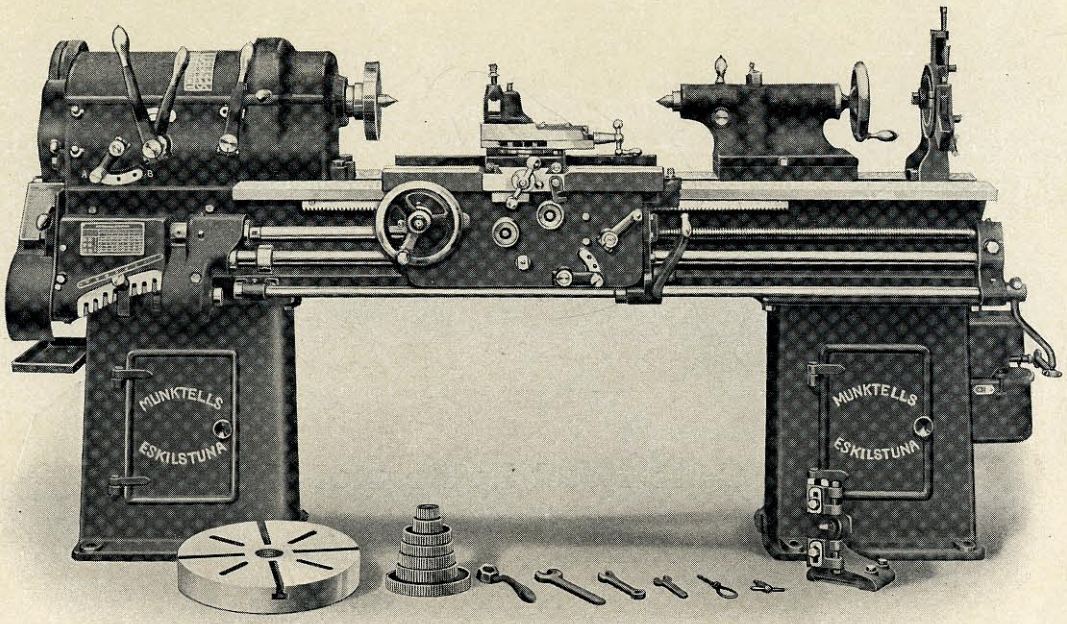


5-Step Cone Head Lathe model BB 60.

MUNKTELLS ME ESKILSTUNA

Electrically Driven High Speed Lathes

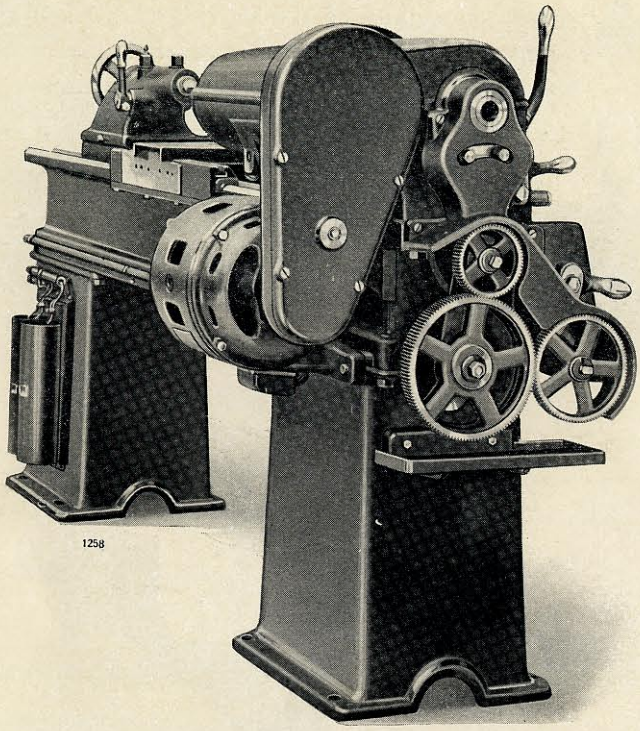
Model CA.



Longitudinal dimensions, etc. For other dimensions see model AB.

Model	CA 40			CA 50			CA 60		
Code word	CASODAK	CASOFEL	CASOGIM	CATUHAK	CATUJEL	CATUKIM	CAVYLAK	CAVYMEL	CAVYNIM
Length of bed..... inches	88	104	120	120	140	160	140	160	180
Admits between centres »	$38^{13}/_{16}$	$54^{13}/_{16}$	$70^{13}/_{16}$	62	82	102	70	90	110
Floor space..... »	96×38	112×38	128×38	128×44	148×44	168×44	152×51	172×51	192×51
Required driving power, H. P.	3	3	3	5	5	5	7.5	7.5	7.5
Revs. of motor per minute...	1420	1420	1420	1420	1420	1420	1420	1420	1420
Weight net incl. of motor ..... c:a lbs	3390	3550	3675	5225	5500	5775	9375	9820	10210
Weight packed incl. of motor..... » »	4070	4320	4560	6100	6500	6875	10475	11000	11550

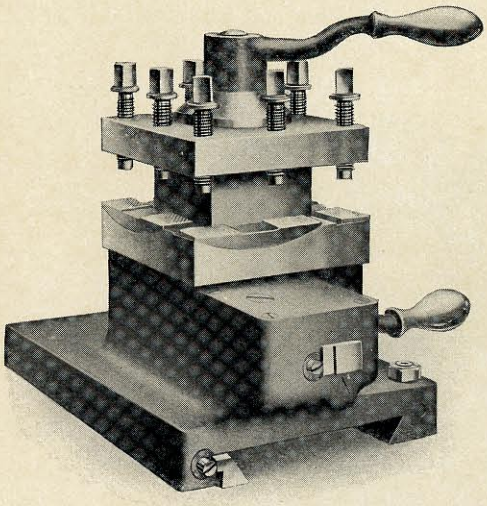
In the prices are included: Large and small face plate, one steady and one follow rest, and necessary wrenches.



Model CA.

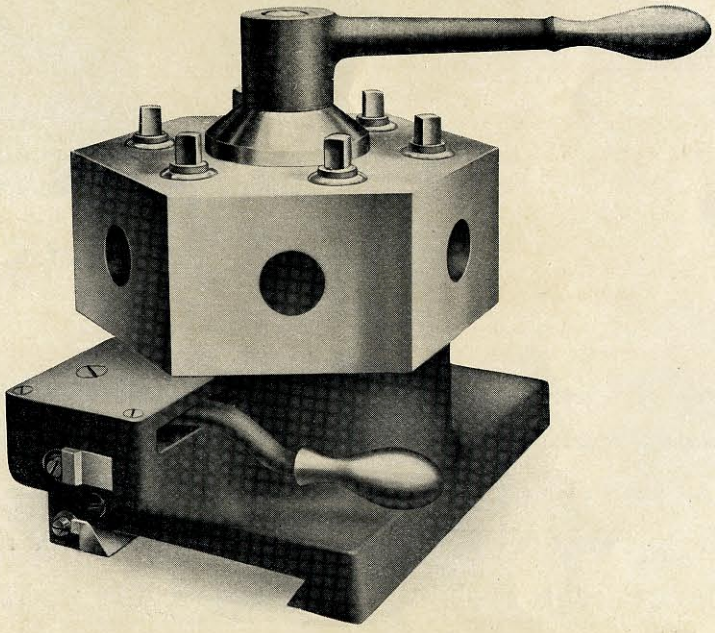
In this construction **the driving power is communicated direct to the lathe** from a **substantially mounted** electric motor. The lathe spindle obtains 8 speeds in geometrical serie. All speeds easily changed by levers on the front side of the headstock. Electrical starting forward or backward is effected by means of a lever on the right hand side of the apron. For this arrangement are three-phase motors necessary to be used.

Turret Heads.



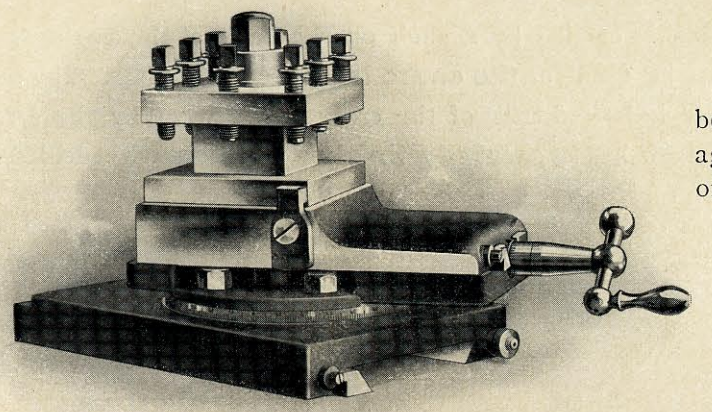
These turret heads are to be placed on the cross slide of the carriage, and are **specially time saving** in work where several tools can be used. The turret is locked exactly in its position by a sliding key.

Centre height ..... inches	8	10	12
Code word	**REVARSO**	**REVARTU**	**REVARVY**
Width of turret from face to face ..... inches	5 1/4	6 3/8	8
Size of tool..... »	1 1/4 × 1	1 1/4 × 1	1 5/8 × 1 1/4
Weight net ..... c:a lbs	80	115	265



Centre height ..... inches	8	10	12
Code word	**REXELSO**	**REXELTU**	**REXELVY**
Width of turret from face to face inches	8	10	12
Diameter of hole for tool ..... »	1 1/4	1 5/8	2
Weight net ..... c:a lbs	120	190	355

Tool Block for 4 Tools.

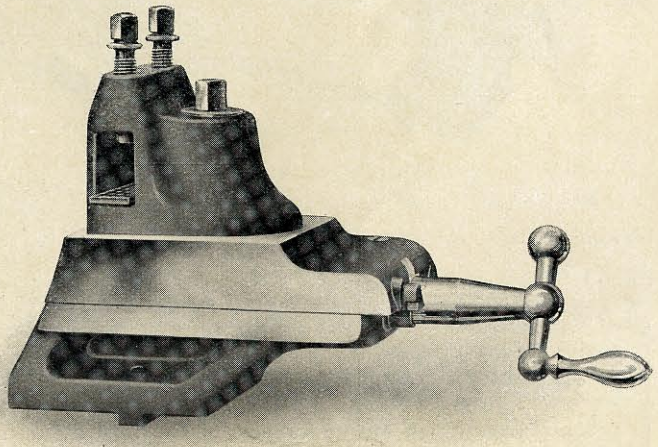


The Tool Block of this model can be turned about a centre and stopped against a lock on the slide. It is made of steel and very strong.

Centre height ..... inches	8	10	12
Code word	**STALSOB**	**STALTUG**	**STALVYM**
Weight net..... c:a lbs	18	35	55

Extra Slide for Large Cutting Diameter.

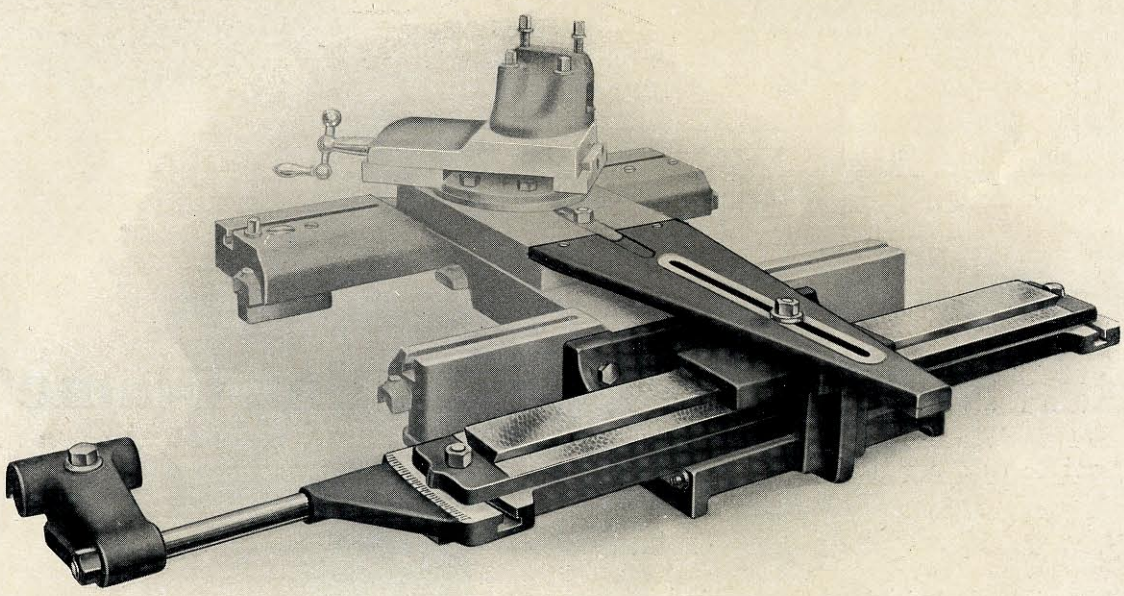
This slide is bolted to the carriage by the side of the cross slide and is used for turning large work which cannot be taken over the cross slide. It has a **powerful tool block** with two screws for holding the tool. The slide screw is graduated for 1/10 mm.



Centre height ..... inches	8	10	12
Code word	**SLIDSOD**	**SLIDTUF**	**SLIDVYG**
Weight net..... c:a lbs	53	71	100

Taper Attachment.

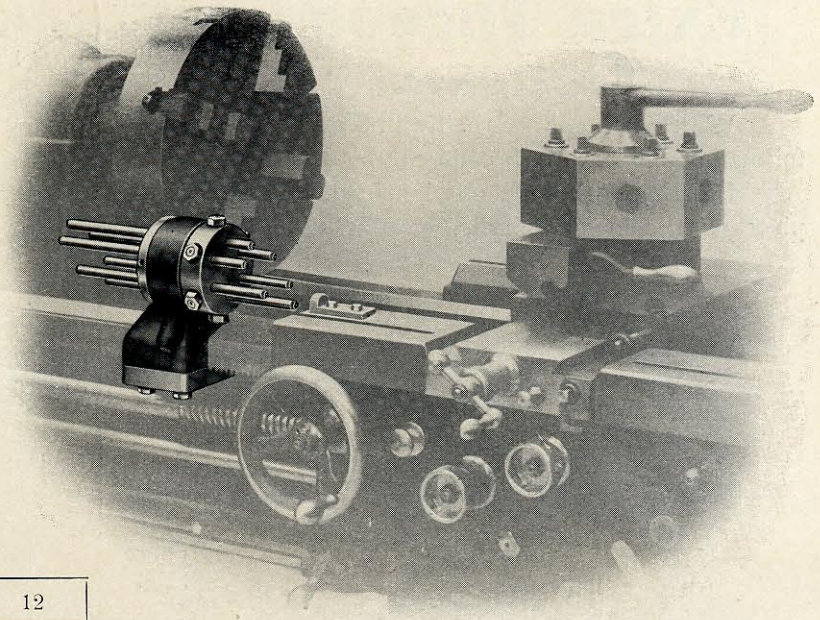
The Taper Attachment as illustration is carried by a shelf on the back of the carriage. It is adjustable by careful graduation, and can be used for **the entire length of the lathe.** The motion is conducted direct to the compound rest, independently of the cross screw, whereby the arrangement works very accurately. Every carriage has a **carefully finished surface,** with drilled holes for the taper attachment, whereby this can be applied on the lathe without extra work.



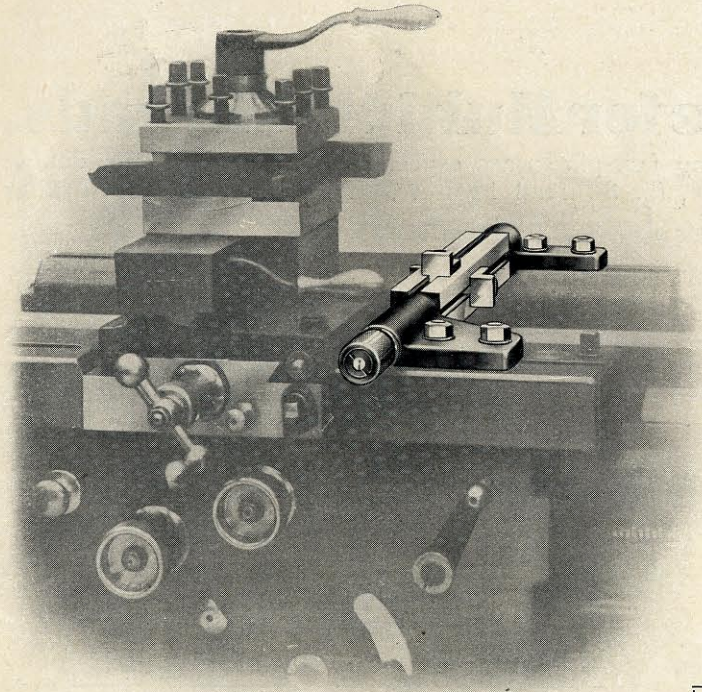
Centre height ..... inches	8	10	12
Code word	KONSOK	KONTUL	KONVYM
Longest taper which can be inserted of one time ..... inches	20	24	28
Greatest conicity obtained ..... »	28 : 100	28 : 100	28 : 100
Weight net ..... c:a lbs	150	212	330

Longitudinal Stop.

The stop for the longitudinal motion of the carriage as per illustration is greatly used in duplicate work, especially when the turret head is in use. It is usually made for 6 different stop points.



Centre height inches	8	10	12
Code word.....	**STOPSOP**	**STOPTUR**	**STOPVYS**
Weight..... c:a lbs	40	51	66



Diameter Stop.

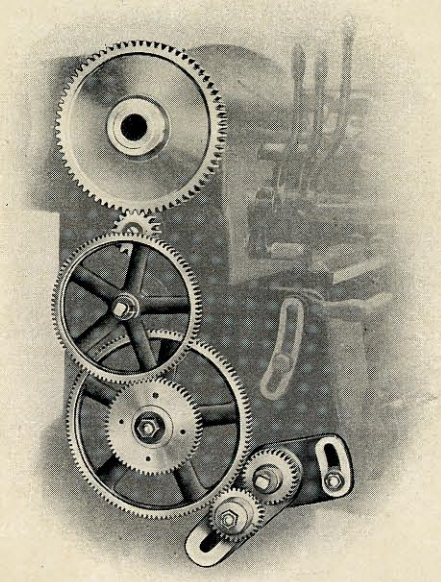
This stop attachment is applied on the carriage, and has 4 stop blocks which can be accurately fixed for the various diameters. By a handle on front of carriage the desired stop block can be turned in position and locked.

Centre height inches ...	8	10	12
Code word	**TVÄRSOT**	**TVÄRTUR**	**TVÄRVYX**
Weight..... c:a lbs	22	26	35

Extra Threads Coarse.

With extra gears as below illustrated, the following change of threads can be obtained.

Left hand threads obtains by a reverse plate on the lower spindle.



Lathes with 8″ centre height

Threads per inch:
1/2, 9/16, 5/8, 11/16, 3/4, 13/16, 7/8, 15/16, 1, 1 1/8, 1 1/4, 1 3/8, 1 1/2, 1 5/8, 1 3/4, 1 7/8, 2.

Metric pitches:
12, 13, 14, 15, 16, 18, 20, 22, 24, 25, 26, 28, 30, 32, 35, 36, 40, 44, 45, 48, 50.

Lathes with 10″ centre height

Threads per inch:
1/2, 9/16, 5/8, 11/16, 3/4, 13/16, 7/8, 15/16, 1, 1 1/8, 1 1/4, 1 3/8, 1 1/2, 1 5/8, 1 3/4, 1 7/8, 2, 2 1/4, 2 1/2, 2 3/4, 3.

Metric pitches:
12, 13, 14, 15, 16, 18, 20, 22, 24, 25, 26, 28, 30, 32, 35, 36, 40, 44, 45, 48, 50, 54, 55, 60, 65, 66, 70, 72, 75.

Lathes with 12″ centre height

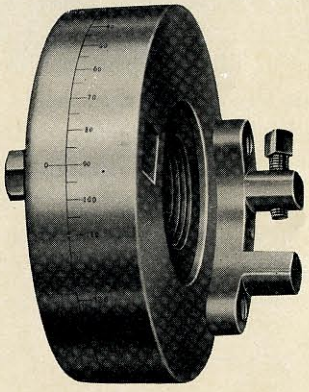
Threads per inch:
1, 1 1/8, 1 1/4, 1 3/8, 1 1/2, 1 5/8, 1 3/4, 1 7/8, 2, 2 1/4, 2 1/2, 2 3/4, 3, 3 1/2, 4, 4 1/2, 5, 5 1/2, 6.

Metric pitches:
24, 25, 26, 28, 30, 32, 35, 36, 40, 44, 45, 48, 52, 55, 56, 60, 64, 65, 70, 72, 75, 80, 88, 90, 96, 100, 108, 110, 120, 130, 132, 140, 144, 150.

Centre height..... inches	8	10	12
Code word	GANGSO	GANGTU	GANGVY
Weight net..... c:a lbs	44	55	88

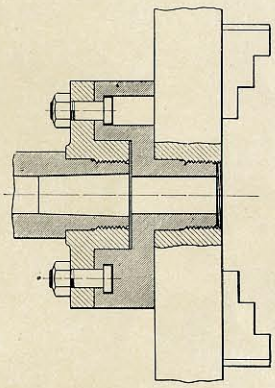
Indexing Face-Plate for Multiple Threads.

In cutting multiple threads these indexing face-plates are especially time saving. For double threaded screws the outer disk is turned 180°, for 3-thread 120° etc. They are made for turning between centres and in chuck.



Indexing face-plate for turning between centres.

Centre height..... inches	8	10	12
Code word	DELSOD	DELTUF	DELVYG
Weight net..... c:a lbs	26	48	88

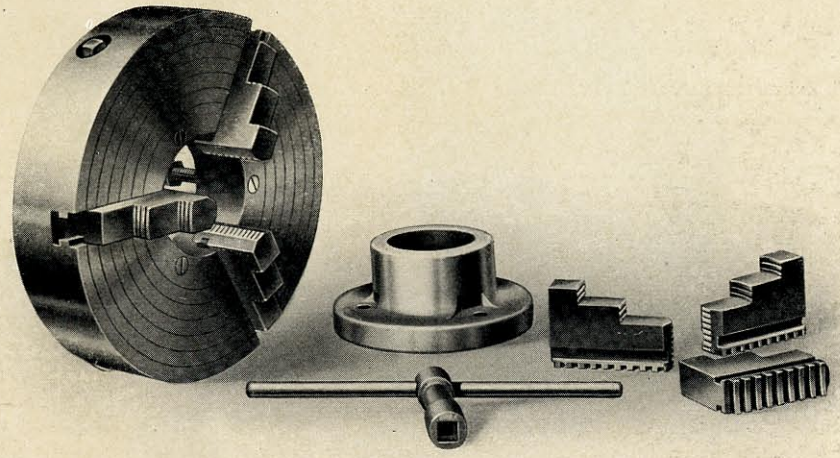


Indexing face-plate for chuck.

Centre height..... inches	8	10	12
Code word	DEBSOJ	DEBTUM	DEBVYK
Weight net..... c:a lbs	40	68	104

Lathe Chucks,

selfcentering, with 3 jaws.



A.-B. Bergmans chucks Whiton's model.

Diameter..... inches	7 1/2	9	10 1/2	12	15
» of hole ..... »	2	2 5/8	2 5/8	4	4
Weight net..... c:a lbs	22	44	62	82	128

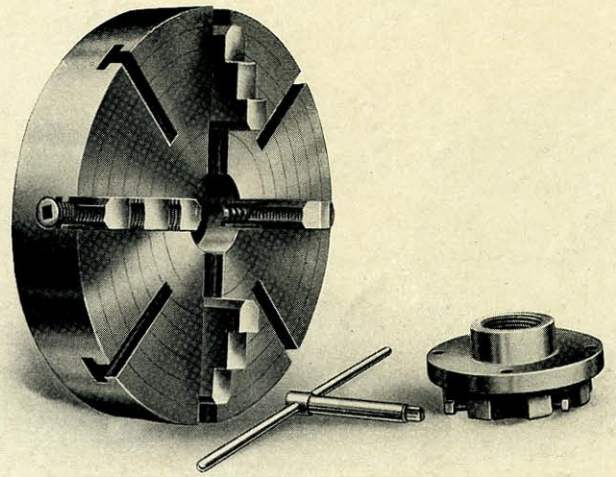
Original Whiton's model W. S.

Diameter..... inches	7 1/2	9	10 1/2	12	15
Takes in ..... »	8 1/2	10 1/2	11 1/2	13 1/2	16 1/4
Diameter of hole ..... »	2	2 5/8	3	4	3 5/8
Weight net..... c:a lbs	22	33	42	57	95

MUNKTELLS ME ESKILSTUNA

Lathe Chucks

with 4 separate interchangeable and adjustable jaws.



A.-B. Bergmans chucks Whiton's model.

Diameter.....	inches	9	12	15	16	18	20	24
Takes in	»	11 1/2	14 1/2	18	19	21	23	27
Dia. of hole	»	2 5/16	2 15/16	3 1/8	3 1/8	3 7/8	3 7/8	3 7/8
Weight	c:a lbs	42	77	110	123	167	196	258

Original Whiton's model W. B.

Diameter.....	inches	9	10	12	14	15	16	18	20	21	22	24
Takes in.....	»	11 3/4	12 3/4	14 1/2	16 1/2	18	19	21	23	24	25	27
Diameter of hole	»	2 5/16	2 5/16	2 15/16	2 15/16	3 1/8	3 1/8	3 7/8	3 7/8	3 7/8	3 7/8	3 7/8
Weight	c:a lbs	37	46	62	79	100	114	130	147	160	174	194

Munktells Verkstads Nya Aktiebolag

Eskilstuna — Sweden

Works founded in 1832.