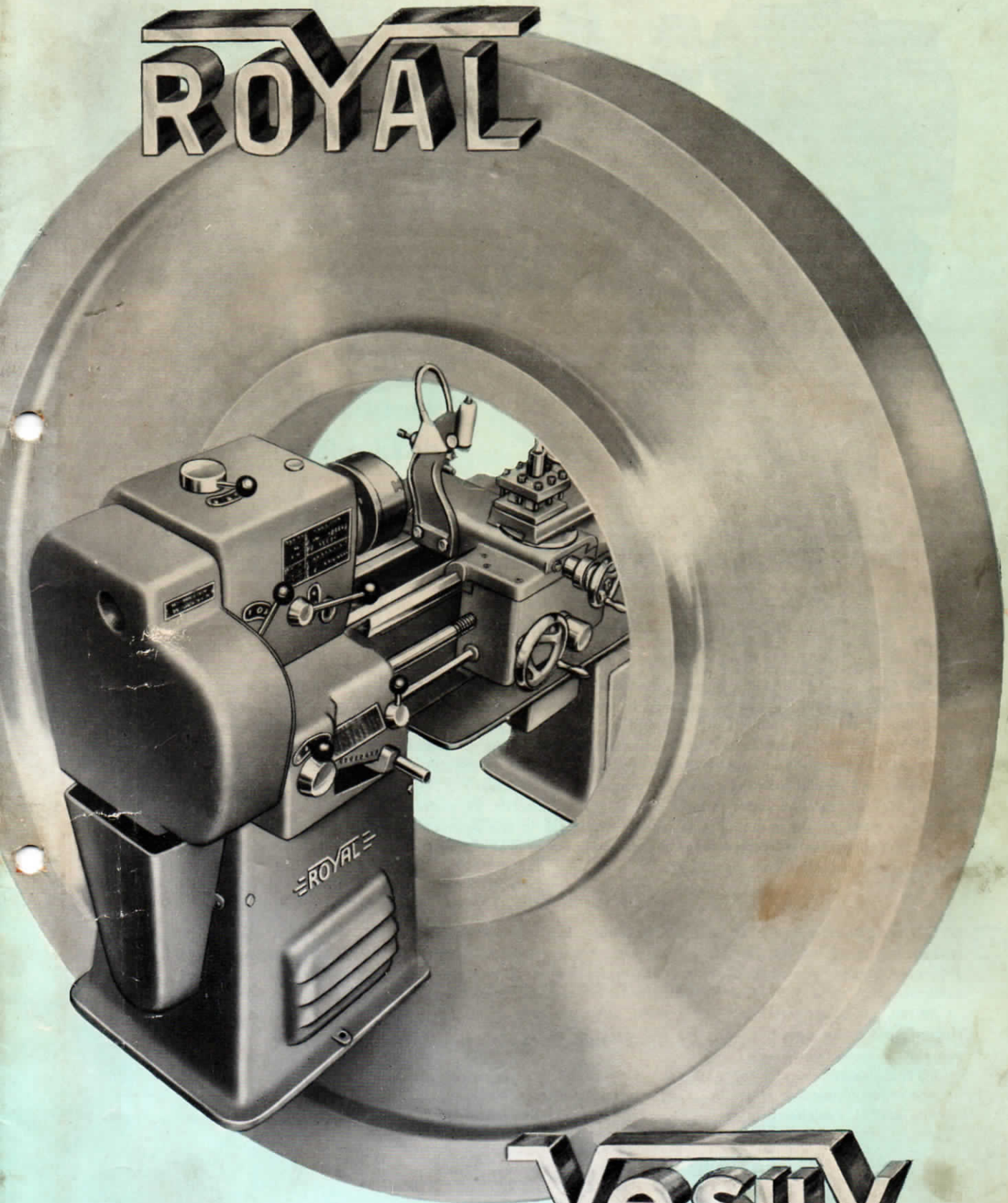
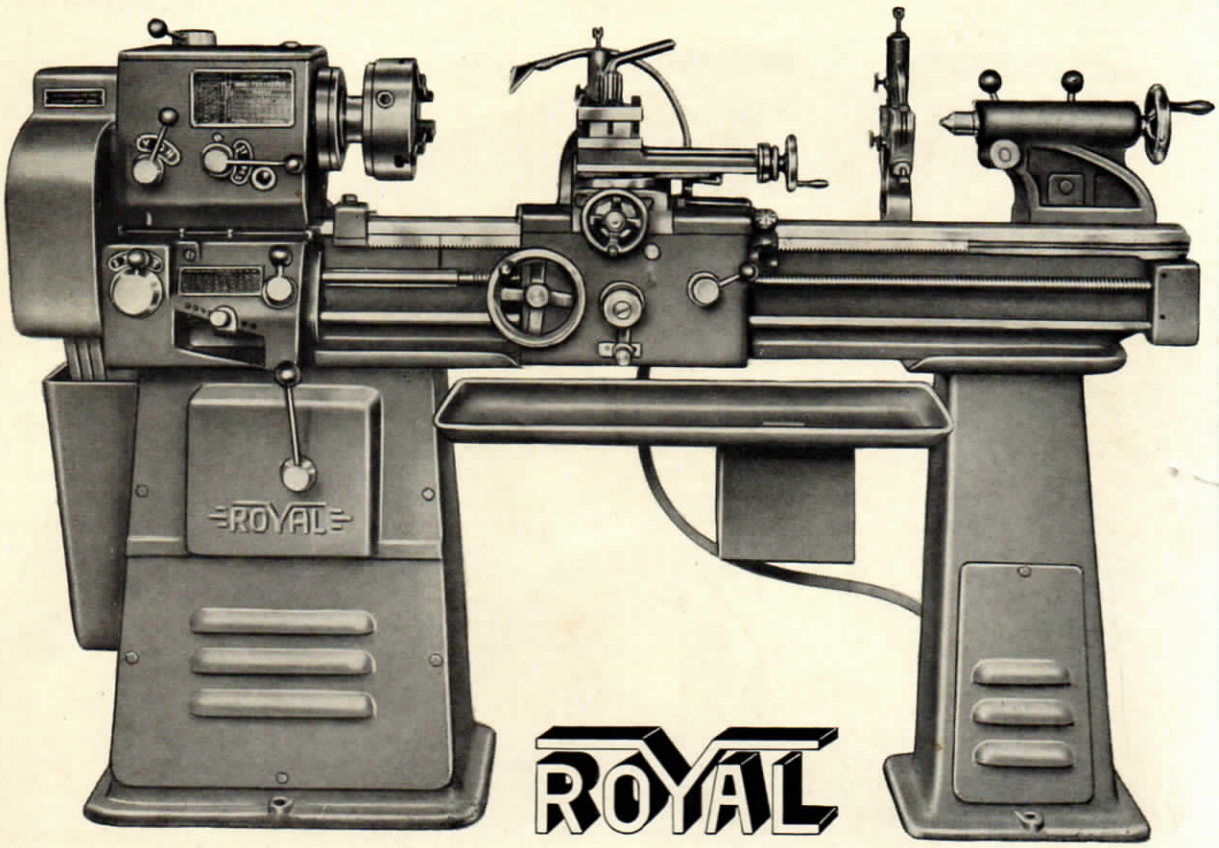
ROYAL



Vesuv



TYPE 160 F / 180 F

The ROYAL Precision Lathe is a modern, versatile quality machine tool of exceptional rigidity, strength and lightness. It is surprisingly powerful and has a speed interval ranging from 45 to 1350 r. p. m. making it suitable for effective machining of steel and other metals as well as synthetic materials. On account of its versatile quality equipment, the ROYAL Lathe is capable of coping successfully with tasks otherwise reserved for larger production lathes.

The ROYAL Precision Lathe is fitted with appropriately arranged handles making operation easy and convenient. Exact adjustment and careful working control is ensured by graduations and large, clear scales for all important operations.

The ROYAL Precision Lathe is built of high-grade materials. All shafts are ground and, like the gearwheels and couplings, made of the most suitable qualities of steel. In the production. jigs and fixtures are used throughout.

All ROYAL Lathes are tested according to the international norms by Professor Schlesinger. The final inspection of accuracy is recorded on a certificate.

ROYAL

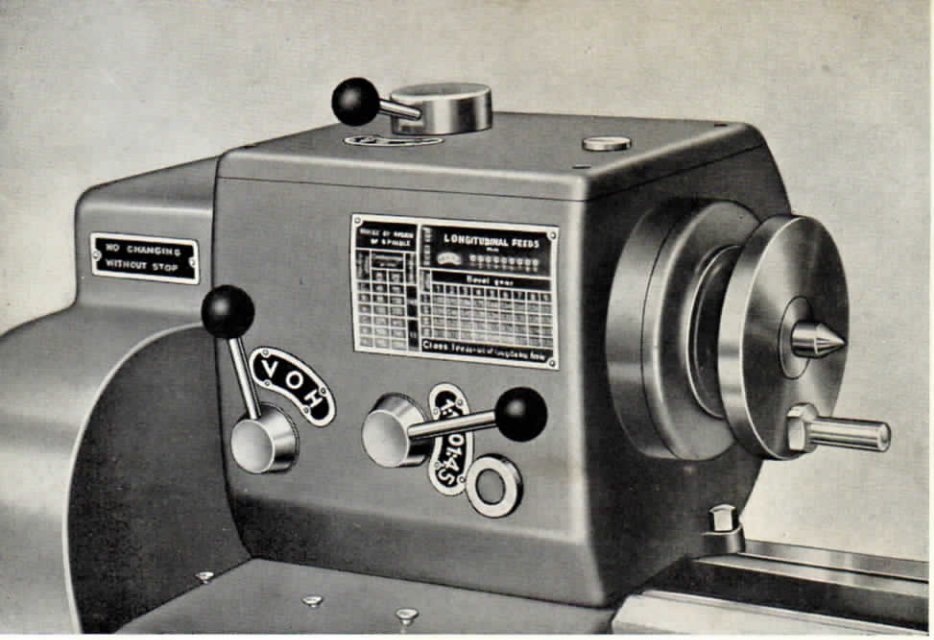
1

ROYAL præcisionsdrejebænk er en moderne, alsidig kvalitetsmaskine, som i paafaldende grad udmærker sig gennem stivhed, styrke og lethed. Den har en udpræget kraftig gennemtræksevne og besidder et hastighedsinterval fra 45 til 1350 o/m., som gør den egnet til rationel bearbejdning af saavel staal og metaller som kunststoffer. Gennem sit alsidige kvalitetsudstyr klarer ROYAL drejebænk overlegent opgaver, som ellers er større produktionsdrejebænke forbeholdt.

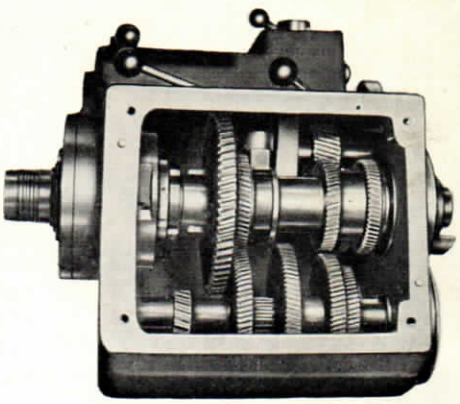
ROYAL præcisionsdrejebænk har praktisk anbragte greb og haandtag, som sikrer en let og bekvem betjening. Nøjagtig indstilling og omhyggelig arbejdskontrol er sikret gennem graderinger og store, let aflæselige skalaer for alle vigtige funktioner.

ROYAL præcisionsdrejebænk er bygget af de bedste materialer. Alle aksler er slebne, og disse, saavel som tandhjul og koblinger fremstilles af de bedst egnede staalkvaliteter. Ved produktionen anvendes overalt lærer og fixtures.

Alle ROYAL drejebænke afprøves efter Professor Schlesingers internationale normer og ledsages af prøvecertifikat.



The Headstock
Spindeldokken



Totally enclosed, modern design with powerful, built-in gearbox for 2 x 6 spindle speeds. The main spindle rests in large, adjustable SKF NN precision roller bearings ensuring vibrationless turning even at the highest speeds. A thrust bearing behind the front main bearing absorbs all axial stresses.

All gearwheels have helical teeth and are made partly of tough and hard chrome-nickel steel and partly of quality steel. The gearwheels run in an oil bath the level of which can be checked through a sight glass. Expediently arranged changing handles make operation quick and facile.

ROYAL

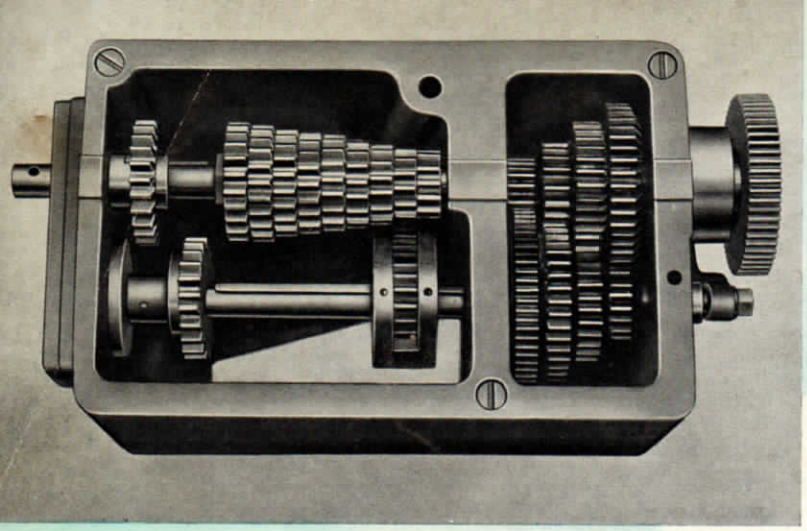
2 Helt lukket, moderne udførelse med kraftig, indbygget gearkasse for 2x6 spindelhastigheder. Hovedspindlen er lejret i store, efterspændelige SKF NN præcisionsrullelejer, som selv under de største hastigheder sikrer vibrationsfri drejning. Et trykleje bag forreste hovedleje optager alle aksialpaavirkninger.

Alle tandhjul er skraatskaarne og er udført dels i sejghærdet chromnikkelstaal, dels i kvalitetsstaal. Gearkassen arbejder i fuldt oliebad med synligt kontrolglas. De rationelt anbragte skiftehaandtag sikrer en let og hurtig betjening.

The Norton Gearbox - Nortonkassen

THREADS PR. INCH. WITH GEARS: 30 . 90 . 60 OIL TUMBLER									
	3	3¼	3½	4	4½	4¾	5	5½	5¾
	6	6½	7	8	9	9½	10	11	11½
	12	13	14	16	18	19	20	22	23
	24	26	28	32	36	38	40	44	46
	↓	↓	↓	↓	HEAVY	↓	↓	↓	↓

Standard range of the Norton gearbox
Nortonkassens standardstigninger

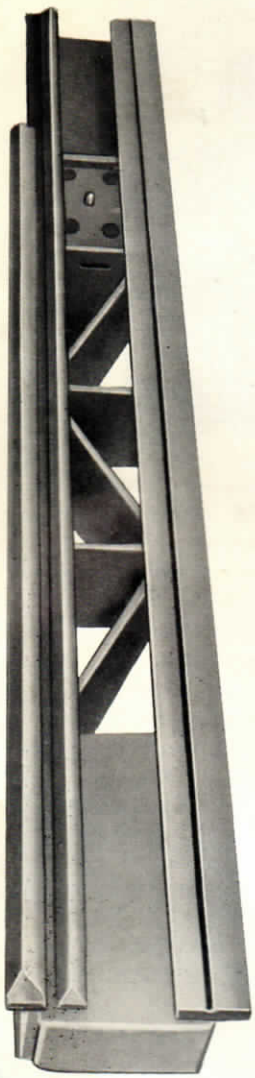


The Norton Gearbox
Nortonkassen

Full Norton gearbox in closed design with a sturdy outside ratchet control and two handles for convenient gearchanging All ordinary American and Whitworth standard threads with pitches between 3 and 46 threads per inch can be cut without using interchangeable gearwheels. When extra wheels are used, all metric threads between 0,5 and 12 mm pitch can be cut, also Löwenherz threads and international standard threads. With extra wheels it is furthermore possible to cut all normal modules between 0.5 and 5.

ROYAL

4 Fuld nortonkasse i lukket udførelse med kraftig udvendig palstyring og to haandtag til bekvem skiftning. Uden vekselhjul skæres alle normale US- og Whitworth standardgevind med stigninger mellem 3 og 46 gevind pr. eng. tomme. Med vekselhjul kan skæres alle millimetergevind med stigninger mellem 0,5 og 12 m/m, herunder Löwenherz-stigninger samt det internationale SI-gevind. Med vekselhjul kan ligeledes skæres alle modulstigninger mellem 0,5 og 5 modul.

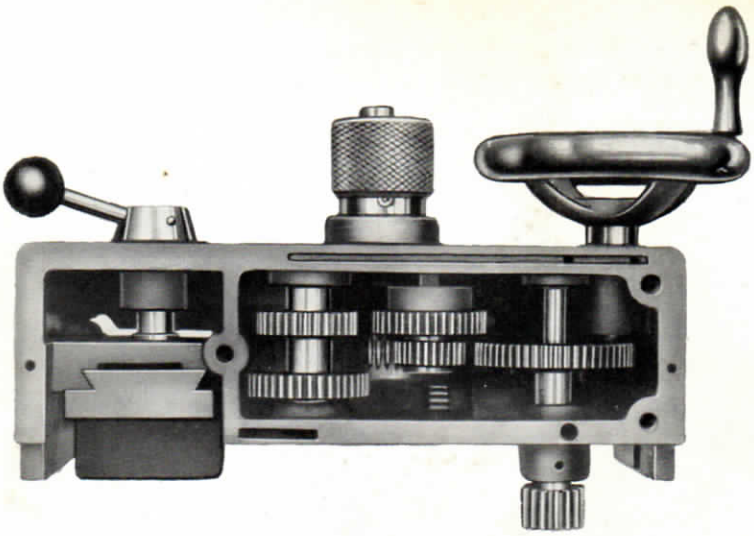


The Bed - Vangen

The bed is made of a special fine-grained cast steel alloy of about 210-220 Brinell and forms a substantial and rigid construction with strong V-shaped stiffeners and transverse ribs. The bed has double, accurately ground guide-vees and ways. A properly adapted bridge-piece fills the gap completely.

ROYAL

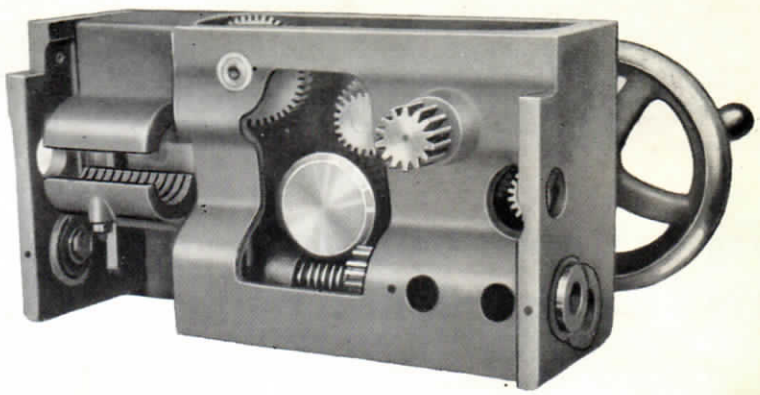
5 Vangen er fremstillet af fintkornet, legeret specialstøbegods med en Brinellhaardhed paa ca. 210-220 og danner en kraftig og stiv konstruktion med stærke V-formede afstivninger og tværribber. Vangen har dobbelte, nøjagtigt afslebne prismer og føringer. En korrekt tilpasset bro dækker hele aabningen.



The Apron
Forklædet

The apron is box-shaped, thus forming a double support for the shafts. It is provided with modern effective couplings and handles arranged in appropriate positions. Lubrication is effected partly by self-lubricating bearings, partly by forced feed. A safety device at the apron prevents simultaneous engagement of the feed and the thread-lock. The apron has an independent hexagon driving shaft. The thread-lock is used only during screw-cutting.

ROYAL

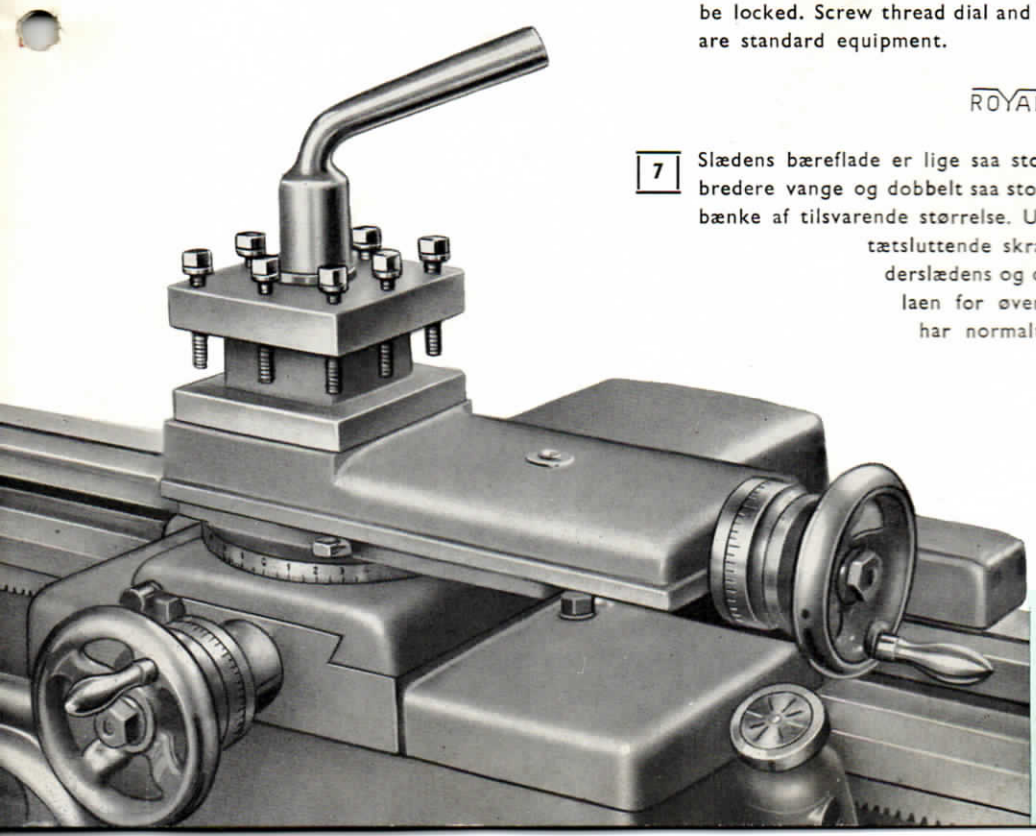


6 Forklædet er kasseformet og danner derved dobbeltlejring for akslerne. Det er forsynet med moderne, effektive koblinger og velplacerede betjeningsgreb. Smøring foregaar dels ved hjælp af selvsmørende lejer, dels gennem tryksmøring. En sikkerhedsanordning ved forklædet forhindrer, at tilspænding og gevindlaas kobles ind samtidigt. Forklædet har separat 6-kt. trækspindel. Gevindlaas anvendes kun ved gevindskæring.

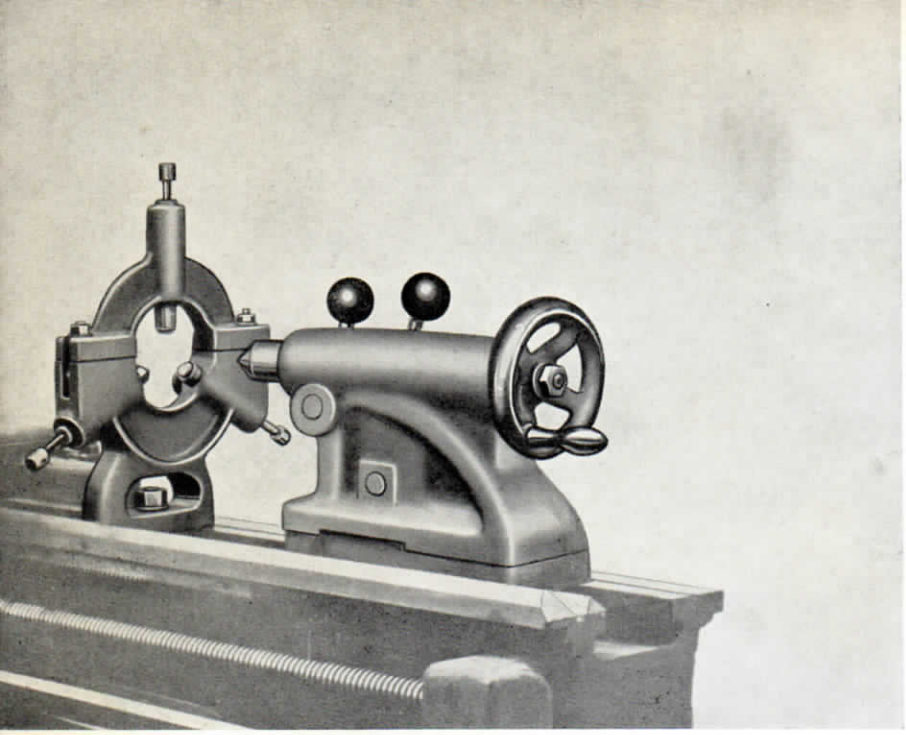
The Saddle
Slæden

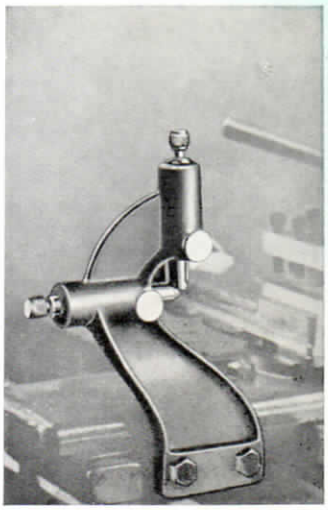
The bearing surface of the saddle is as large as on lathes with wider bed, and it is twice as large as in the case of ordinary lathes of similar size. The underside is provided with a tightfitting scraping shoe arrangement with felt inlay. The spindles of the bottom and the top slide as well as the scale for the cross feed of the top slide have millimetre graduation normally, but can be supplied with inch graduation. When the Lathe is used for surfacing, the whole saddle unit can be locked. Screw thread dial and four-side turret tool holder are standard equipment.

ROYAL



7 Slædens bæreflade er lige saa stor som paa drejebænke med bredere vange og dobbelt saa stor som ved sædvanlige drejebænke af tilsvarende størrelse. Undersiden er forsynet med tætsluttende skrabesko med filtindlæg. Underslædens og overslædens spindler og skalaen for øverste slædes plantilspænding har normalt millimeterinddeling, men kan leveres med inddeling af engelske tommer. Ved plandrejning kan hele slædepartiet laases. Gevindur og firesidet revolverstaalholder er standardudstyr.





Tailstock and Steady Rests
Pinoldok og Briller

Substantial, adequately shaped, solid headstock cast in specialised steel. The tail spindle is depth-graduated in millimetres and has Morse taper No. 3. Can also be supplied graduated in inches. The tailstock can be moved sideways for taper turning. It is secured to the bed by a single grip. A thrust bearing absorbs all axial stresses.

Both steady rests are properly constructed with readily adjustable knurled screws. The top part of the fixed steady rest can be opened or completely removed.

ROYAL

8 Kraftig, hensigtsmæssigt formet pinoldok fremstillet i eet stykke støbt specialgods. Pinolrøret er dybdegraderet i millimeter og har morse konus 3. Kan ogsaa leveres med gradering i eng. tommer. Pinoldokken er sideforskydelig for konusdrejning. Den fastspændes til vangen ved et enkelt haandgreb. Et trykleje optager aksiale paavirkninger.

Begge briller er gedigent udførte med let indstillelige fingerskruer. Øverste del af den faste brille kan aabnes eller helt fjernes.

Bed Stop
Vange stop 9

Live Centre
Kuglelejepinol 10

American Tool Holder
Amerikansk staalholder 11

Standard equipment for ROYAL Lathes:

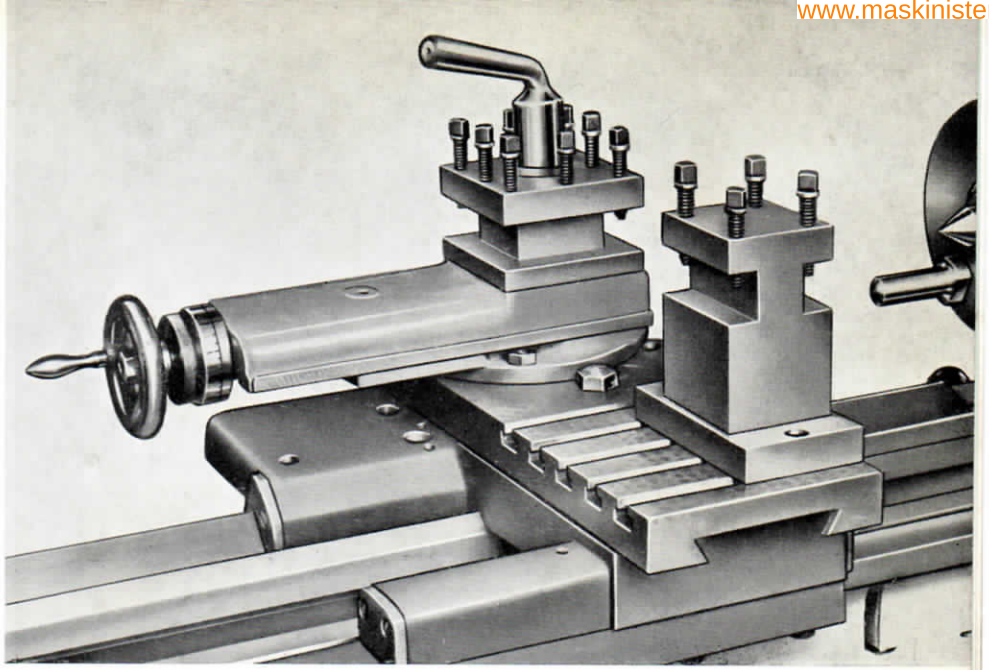
12

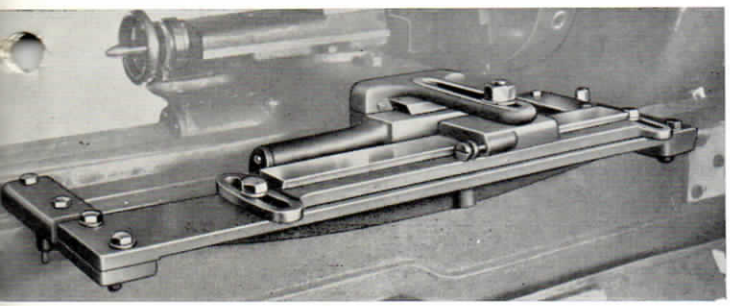
- 1 — four-sided turret tool holder.
- 1 — 305 mm (12") dia. face-plate.
- 2 — 190 mm (7½") dia. backplates.
- 1 — driving plate with stud.
- 1 — graduated centre bushing.
- 2 — centres with No. 3 Morse taper.
- 1 — screw thread dial.
- 1 — bed stop.
- 1 — fixed steady rest.
- 1 — travelling steady rest.
- 1 — set of water trays.
- 1 — set of spanners.
- 1 — set of tables.

Standardudstyr for ROYAL drejebænk

- 1 stk. 4-sidet revolverstaalholder.
- 1 " 305 mm (12") glatplan.
- 2 " 190 mm (7½") bagflanger.
- 1 " medbringerskive med tap.
- 1 " pinolbøsning.
- 2 " pinoler med morse konus 3.
- 1 " gevindur.
- 1 " vangestop.
- 1 " fast brille.
- 1 " følgebrille.
- 1 sæt vandbakker.
- 1 " nøgler.
- 1 " tabeller.

The ROYAL- and VESUV Lathes can be mounted with extended Cross Saddle and Back Tool Holder, which can be applied either to a parting tool or a special turning tool, which in many cases gives a quicker work.





Taper Turning Attachment — Konuslineal **14**

13

ROYAL- og VESUV-drejebænkene kan monteres med forlænget tværslæde og bagstaalholder, der enten kan anvendes til et stikstaal eller et specielt drejestaal, hvilket i mange tilfælde giver en hurtigere bearbejdning.

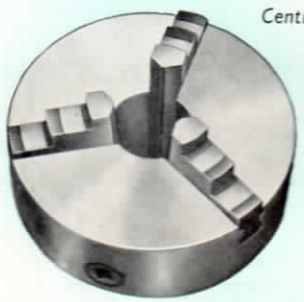
Extra Equipment
Ekstraudstyr

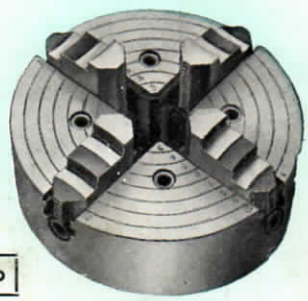
15

1 — electric motor.
1 — A. C. switch.
1 — D. C. switch.
Change-wheels for metric thread.
Change-wheels for module pitches.
Change-wheels for cutting screws with 27 threads per inch.
1 — Cooling water pump.
1 — American tool holder.
1 — universal chuck.
1 — independent chuck.
1 — taper turning attachment.
1 — extended Cross Saddle.
Electrical equipment in accordance with Lloyd's, Bureau Veritas' or Norske Veritas' requirements for ships.

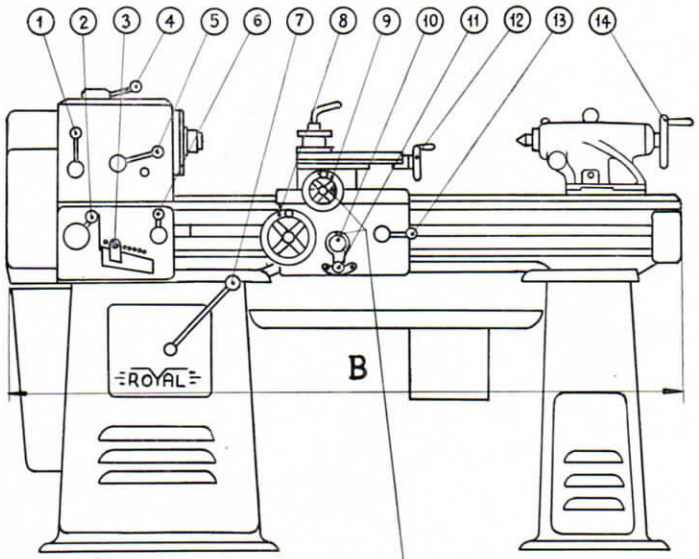
1 — Elektromotor.
1 — Elektrisk omskifter for vekselstr.
1 — Elektrisk omskifter for jævnstrøm.
Vekselhjul for millimetergevind.
Vekselhjul for modulstigninger.
Vekselhjul for skæring af gevind med 27 gev. pr. eng. tomme.
1 — Kølevandspumpe.
1 — Amerikansk staalholder.
1 — Centrerpatron.
1 — Kloplan.
1 — Konuslineal.
1 — forlænget tværslæde.
Elektrisk udstyr efter Lloyds', Bureau Veritas' eller Norske Veritas' fordringer til skibsbrug.

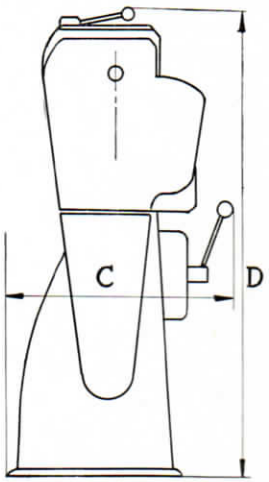
3-jaw Selfcentering Chuck
Centrerpatron **15 a**



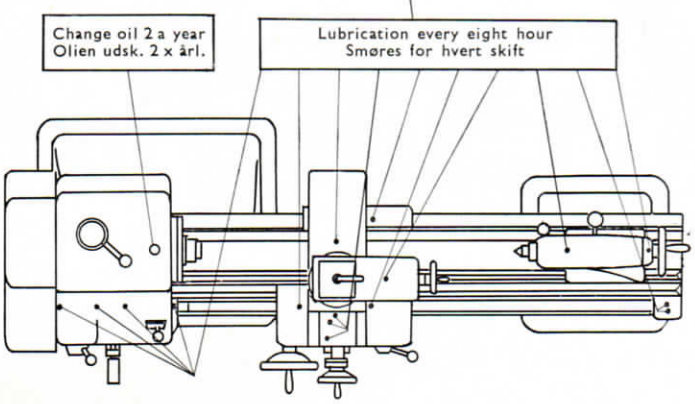


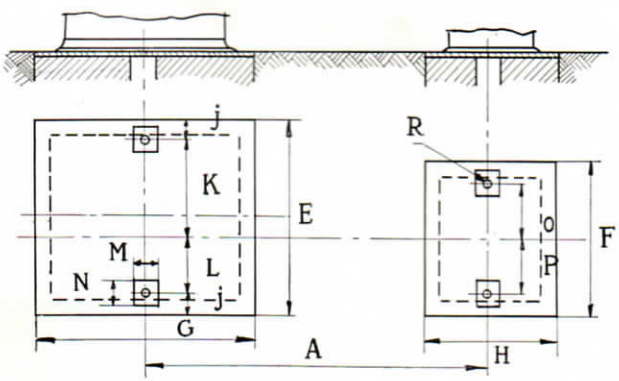
Independent Chuck
Klopan **15 b**





Dimensions - Dimensioner





Controls - Styreorganer

1) Right and left handle
Ledeskruens omdrejningsretning 17
2) Change handle
Skiftehaandtag
3) Tumbler handle
Tumblerhaandtag
4) Spindle speed change handle
Gearskiftningshaandtag
5) Exchange handle
Udvekslingshaandtag
6) Feed and leadscrew handle
Omkobl. af ledeskrue og trækspindel
7) Control lever
Manøvrehaandtag
8) Feed hand wheel
Fremføring af slædeparti
9) Cross-feed hand wheel
Fremføring af tværslæde
10) Hand feed lever
Haandtilspænding
11) Feed reverse
Haandtag for længde- og tværtilspænding
12) Compound rest hand wheel
Fremføring af overslæde
13) Half nut handle
Gevindhaandtag
14) Tailstock hand wheel
Fremføring af pinol

Dimensions - Dimensioner

Controls - Styreorganer

Lubricating Plan - Smøreplan

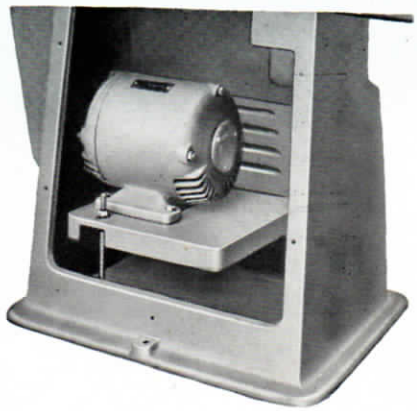
Foundation Plan - Fundamentsplan

Dimensions - Dimensioner

16

Centerdistance Pinolafstand	Length of bed Vangelængde	A	B
750 mm (30")	1445 mm (56 7/8")	845 mm (33 1/4")	1575 mm (62")
1000 mm (40")	1705 mm (67 1/8")	1095 mm (43 1/8")	1835 mm (72 1/4")
1250 mm (50")	1865 mm (73 7/16")	1350 mm (53 1/8")	2095 mm (82 1/2")
1500 mm (60")	2225 mm (87 9/16")	1610 mm (63 3/8")	2355 mm (92 11/16")

C	710 mm (28")	K	315 mm (12 3/8")
D	1210 mm (47 5/8")	L	175 mm (6 7/8")
E	620 mm (24 3/8")	M	80 mm (3 1/8")
F	486 mm (19 1/8")	N	80 mm (3 1/8")
G	700 mm (27 9/16")	O	175 mm (6 7/8")
H	465 mm (18 5/16")	P	175 mm (6 7/8")
J	65 mm (2 1/2")	R	13 mm (1/2")



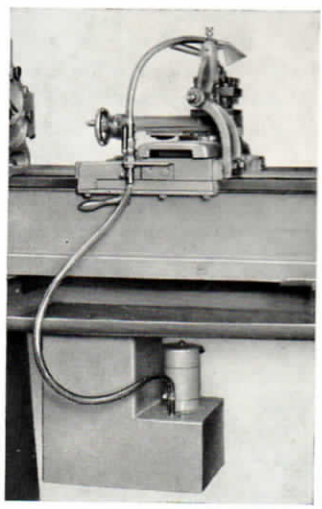
Arrangement of Motor
Motorens anbringelse

The motor is arranged in the left-hand trunk-shaped foot, on an adjustable tilting plate serving as belt tightener. The drive to the main spindle is through V-belts A-64 (13/8" x 1651 mm), which can be replaced in a few minutes. Whereas normally the motor has a speed of about 1400 r. p. m., a pole-changeable motor doubling the lathe speed may be used to advantage.

20 Motoren anbringes i venstre skabsfod paa en indstillelig vippeplade, der fungerer som remstrammer. Trækket til hovedspindlen foregaar gennem 2 kileremme A 64 (13/8 x 1651 mm), som kan udskiftes paa faa minutter. Medens motoren normalt har ca. 1400 O/M, kan med fordel anvendes en polomkobbelbar motor, som fordobler drejebænkens hastighedsantal.

ROYAL

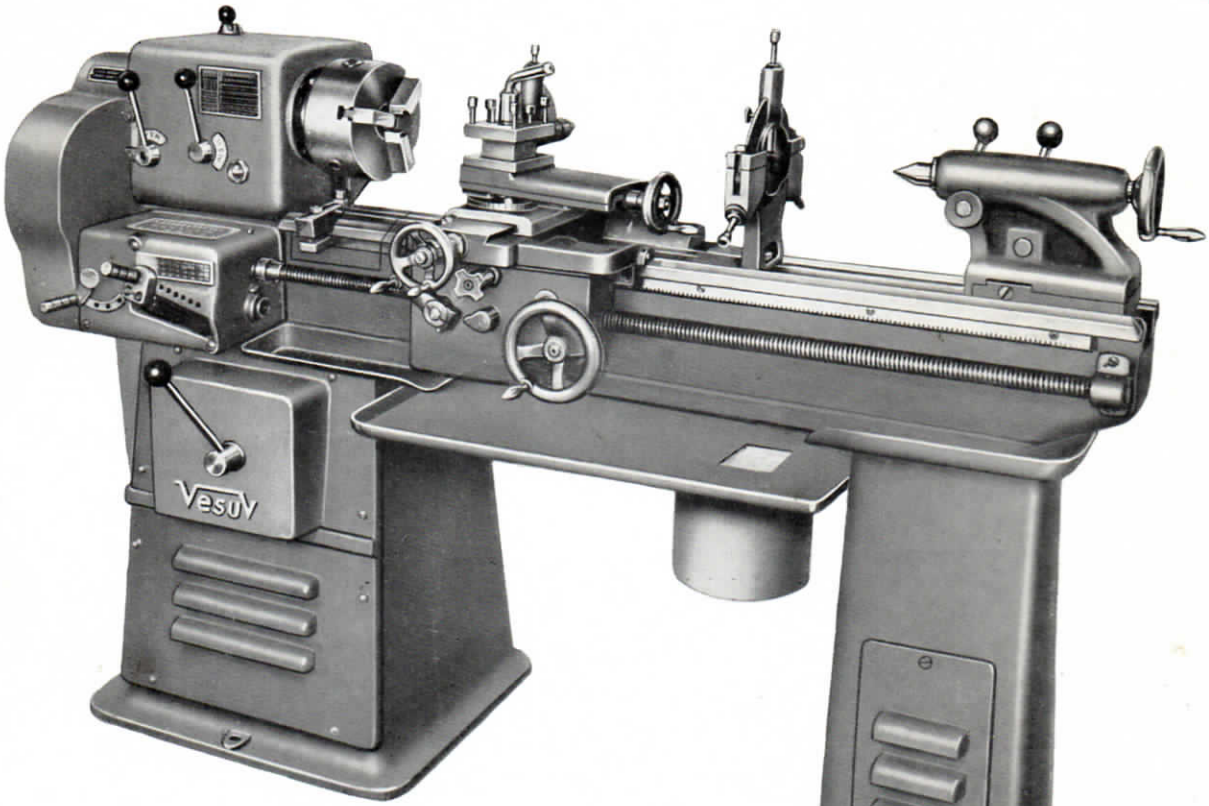
The Cooling Water Pump
Kølevandspumpen



A well dimensioned special pump, arranged in the collection - reservoir. By means of a flexible metallic hose with a special spout the most direct hosing of the turning tool is obtained.

21

En kraftigt dimensioneret specialpumpe anbragt i opsamlingsbeholderen. Ved hjælp af en flexibel metalslange med speciel tud opnås den mest direkte bestraaling af drejestaalet.



TYPE 160 S/180 S

The VESUV Lathe is a well-dimensioned lathe of medium size. Its modern and sturdy design, in conjunction with its versatile equipment, makes it well suited for repair work as well for production.

In respect of precision and high-grade workmanship, the VESUV Lathe is on a level with the ROYAL Lathe. All VESUV Lathes are tested according to the international norms by Professor Schlesinger, and the final inspection is recorded on a certificate.

The VESUV Lathe has a combined, closed headstock with special roller bearings and six speeds ranging between 45 and 900 r. p. m. Gear-changing is effected easily by means of a handle on top of the headstock. The gearwheels run in an oil bath the level of which can be checked through a sight glass.

The VESUV Lathe has a full Norton gearbox capable of cutting all Whitworth pitches between 3 and 44 threads per inch without wheel changing. Also all British and American standard threads can be cut without the use of extra wheels.

The standard range of the Norton gearbox is:

VESUV drejebænk er en veldimensioneret drejebænk i mellemstørrelsen. Dens moderne og kraftige konstruktion i forbindelse med et alsidigt udstyr gør den egnet til saavel reparationsarbejde som produktion.

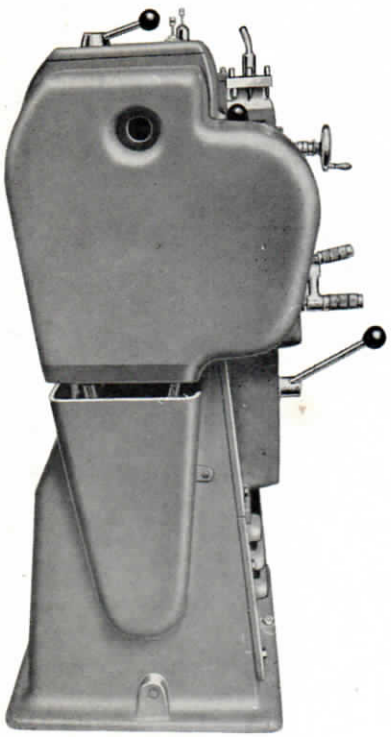
VESUV drejebænk ligger med hensyn til præcision og gedigen udførelse paa højde med ROYAL præcisionsdrejebænk. Alle VESUV drejebænke er afprøvet efter Professor Schlesinger's internationale normer og leveres med prøvecertificat.

VESUV drejebænk har kombineret, lukket spindeldok med specialrullelejer og trykleje og præsterer 6 hastigheder mellem 45 og 900 o/m. Gearskiftning foretages bekvemt ved hjælp af et haandtag oven paa spindeldokken. Tandhjulene gaar i oliebad, som kan kontrolleres gennem et skueglas.

VESUV drejebænk har fuld nortonkasse, der uden hjulomskiftning kan skære alle Whitworthstigninger mellem 3 og 44 gevind pr. eng. tomme. Ligeledes kan alle engelske og amerikanske standard-gevind skæres uden anvendelse af vekselhjul.

Nortonkassens standardrække er:

OIL TUMBLER								
3	3 1/4	3 1/2	4	4 1/2	4 3/4	5	5 1/2	THREADS PR. 1 INCH WITH GEARS 30 90 60
6	6 1/2	7	8	9	9 1/2	10	11	
12	13	14	16	18	19	20	22	
24	26	28	32	36	38	40	44	
			NB | AE					



With extra wheels it becomes possible to cut all metric pitches between 0.5 and 12 mm. including Löwenherz pitches as well as international standard threads. With extra wheels it is furthermore, possible to cut all normal modules between 0.5 and 5.

The saddle unit is equipped with conveniently placed operating handles. The large bearing surface of the guide-vee and the spreading of the tool pressure tend to make both slide and bed highly resistant to wear.

The apron is cast in box-shape, forming double shaft bearings. The thread-lock is used only during screw-cutting. A combined driving shaft and lead screw is used but since the drive from lead screw to apron gear takes place without any wear on the thread of the lead screw the apron has the same functions as in the case of lathes with a lead screw and independent driving shaft.

Steady rests and tailstock are of the same designs as for ROYAL Lathes.

Main dimensions and lubricating system do not differ much from those of the ROYAL Lathe.

VESUV Lathes are supplied with the same standard equipment and extras as ROYAL Lathes.

Vesuv

Med ekstrahjul kan skæres alle millimeterstigninger mellem 0,5 og 12 m/m, herunder ogsaa Löwenherzstigninger samt det internationale SI-gevind. Med ekstrahjul kan ligeledes skæres alle normalmodulstigninger mellem 0,5 og 5 modul.

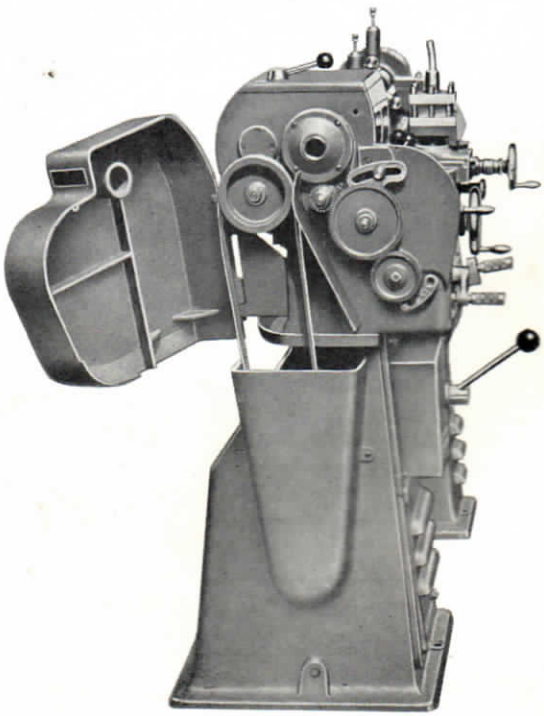
Slædepartiet har praktisk placerede betjeningsgreb. Føreprismets store bæreflade og staaltrykkets fordeling giver baade slæde og vange største modstandsdygtighed mod slid.

Forklædet er støbt i kasseform og danner dobbelte akselbæringer. Gevindlaasen anvendes kun ved gevindskæring. Der er anvendt kombineret trækspindel og ledeskrue, men da trækket fra ledeskrue til forklædets tandhjul foregaar uden slidtage paa ledeskruens gevind, har forklædet samme funktioner som ved drejebænke med ledeskrue og selvstændig trækaksel.

Briller og pinoldok er af samme udførelse som for ROYAL drejebænke.

Hovedmaal og smøresystem afviger ikke væsentligt fra ROYAL drejebænk.

VESUV drejebænke leveres med samme standardudstyr og ekstraudstyr som ROYAL drejebænke.



Specifikations

Specifikationer

			type	ROYAL 160-F	ROYAL 180-F	Vesuv 160-S	Vesuv 180-S
A	Height of centres *Pinolhøjde over vangen*		inches mm	$6^{5}/_{16}$ 160	$7^{3}/_{32}$ 180	$6^{5}/_{16}$ 160	$7^{3}/_{32}$ 180
B	Width of bed *Vangebredde*		inches mm	$8^{1}/_{4}$ 210	$8^{1}/_{4}$ 210	$8^{1}/_{4}$ 210	$8^{1}/_{4}$ 210
C	Width of gap *Bredde af broaabning*		inches mm	$7^{3}/_{32}$ 180	$7^{3}/_{32}$ 180	$7^{3}/_{32}$ 180	$7^{3}/_{32}$ 180
D	Swing in gap *Sving i broaabning*		inches mm	$17^{3}/_{4}$ 450	$19^{5}/_{16}$ 490	$17^{3}/_{4}$ 450	$19^{5}/_{16}$ 490
E	Swing over bed *Sving over vange*		inches mm	$12^{19}/_{32}$ 320	$14^{3}/_{16}$ 360	$12^{19}/_{32}$ 320	$14^{3}/_{16}$ 360
F	Swing over saddle *Sving over slæden*		inches mm	$6^{11}/_{16}$ 170	$8^{1}/_{4}$ 210	$6^{11}/_{16}$ 170	$8^{1}/_{4}$ 210
G	Bore of spindle *Spindeludboring*		inches mm	$1^{25}/_{64}$ 36	$1^{25}/_{64}$ 36	$1^{25}/_{64}$ 36	$1^{25}/_{64}$ 36
H	Diameter of tail spindle *Pinolrørets diameter*		inches mm	$1^{13}/_{16}$ 46	$1^{13}/_{16}$ 46	$1^{13}/_{16}$ 46	$1^{13}/_{16}$ 46
I	Travel of tailstock sleeve *Pinolrørets længdebevægelse*		inches mm	$5^{1}/_{2}$ 140	$5^{1}/_{2}$ 140	$5^{1}/_{2}$ 140	$5^{1}/_{2}$ 140
J	Opening of fixed steady rest *Faste brilles aabning*		inches mm	$3^{5}/_{8}$ 90	$3^{5}/_{8}$ 90	$3^{5}/_{8}$ 90	$3^{5}/_{8}$ 90
K	Travel of cross slide *Tværslædens vandring*		inches mm	$6^{11}/_{16}$ 170	$6^{11}/_{16}$ 170	$6^{11}/_{16}$ 170	$6^{11}/_{16}$ 170
L	Diameter of faceplate *Diameter af glatplan*		inches mm	12 305	12 305	12 305	12 305
M	Diameter of backflanges *Diameter af bagflanger*		inches mm	$7^{1}/_{2}$ 190	$7^{1}/_{2}$ 190	$7^{1}/_{2}$ 190	$7^{1}/_{2}$ 190
N	Number of spindle speeds *Antal spindelhastigheder*			2 x 6	2 x 6	6	6
O	Range of spindle speeds *Spindlens omdrejningstal*		RPM O/M	45—1350	45—1350	45—900	45—900
P	Pitch of leadscrew *Ledeskruens stigning*	threads pr. inch *gevind pr. 1"*		4	4	4	4
Q	Number of metric threads *Antal millimetergevind*			38	38	38	38
R	Number of Whitworth threads *Antal Whitworth gevind*			36	36	32	32
S	Power of motor *Motorstørrelse*		HP HK	2	2	$1^{1}/_{2}$	$1^{1}/_{2}$
T	Speed of motor *Motorens omdrejningstal*		RPM O/M	1400	1400	1400	1400
U	**Centerdistance 30" Pinolafstand 750 mm**	V Net weight cwts. *Nettovægt kg*		$11^{1}/_{2}$ 590	12 610	$11^{1}/_{2}$ 590	12 610
		X Gross weight cwts. *Bruttovægt kg*		15 770	$15^{1}/_{2}$ 790	15 770	$15^{1}/_{2}$ 790
	750	Y Volume of export packing cub.ft. *Rumfang af exportemballage m^3*		71 2,00	74 2,10	71 2,00	74 2,10
U	**Centerdistance 40" Pinolafstand 1000 mm**	V Net weight cwts. *Nettovægt kg*		$12^{1}/_{2}$ 630	13 650	$12^{1}/_{2}$ 630	13 650
		X Gross weight cwts. *Bruttovægt kg*		16 815	$16^{1}/_{2}$ 835	16 815	$16^{1}/_{2}$ 835
	1000	Y Volume of export packing cub.ft. *Rumfang af exportemballage m^3*		81 2,30	85 2,40	81 2,30	85 2,40
U	**Centerdistance 50" Pinolafstand 1250 mm**	V Net weight cwts. *Nettovægt kg*		13 660	$13^{1}/_{2}$ 680	13 660	$13^{1}/_{2}$ 680
		X Gross weight cwts. *Bruttovægt kg*		17 850	$17^{1}/_{2}$ 870	17 850	$17^{1}/_{2}$ 870
	1250	Y Volume of export packing cub.ft. *Rumfang af exportemballage m^3*		95 2,70	98 2,80	95 2,70	98 2,80
U	**Centerdistance 60" Pinolafstand 1500 mm**	V Net weight cwts. *Nettovægt kg*		$13^{1}/_{2}$ 690	14 710	$13^{1}/_{2}$ 690	14 710
		X Gross weight cwts. *Bruttovægt kg*		$17^{1}/_{2}$ 890	18 910	$17^{1}/_{2}$ 890	18 910
	1500	Y Volume of export packing cub.ft. *Rumfang af exportemballage m^3*		106 3,00	110 3,10	106 3,00	110 3,10

The illustrations are not binding / *Illustrationerne er ikke bindende*

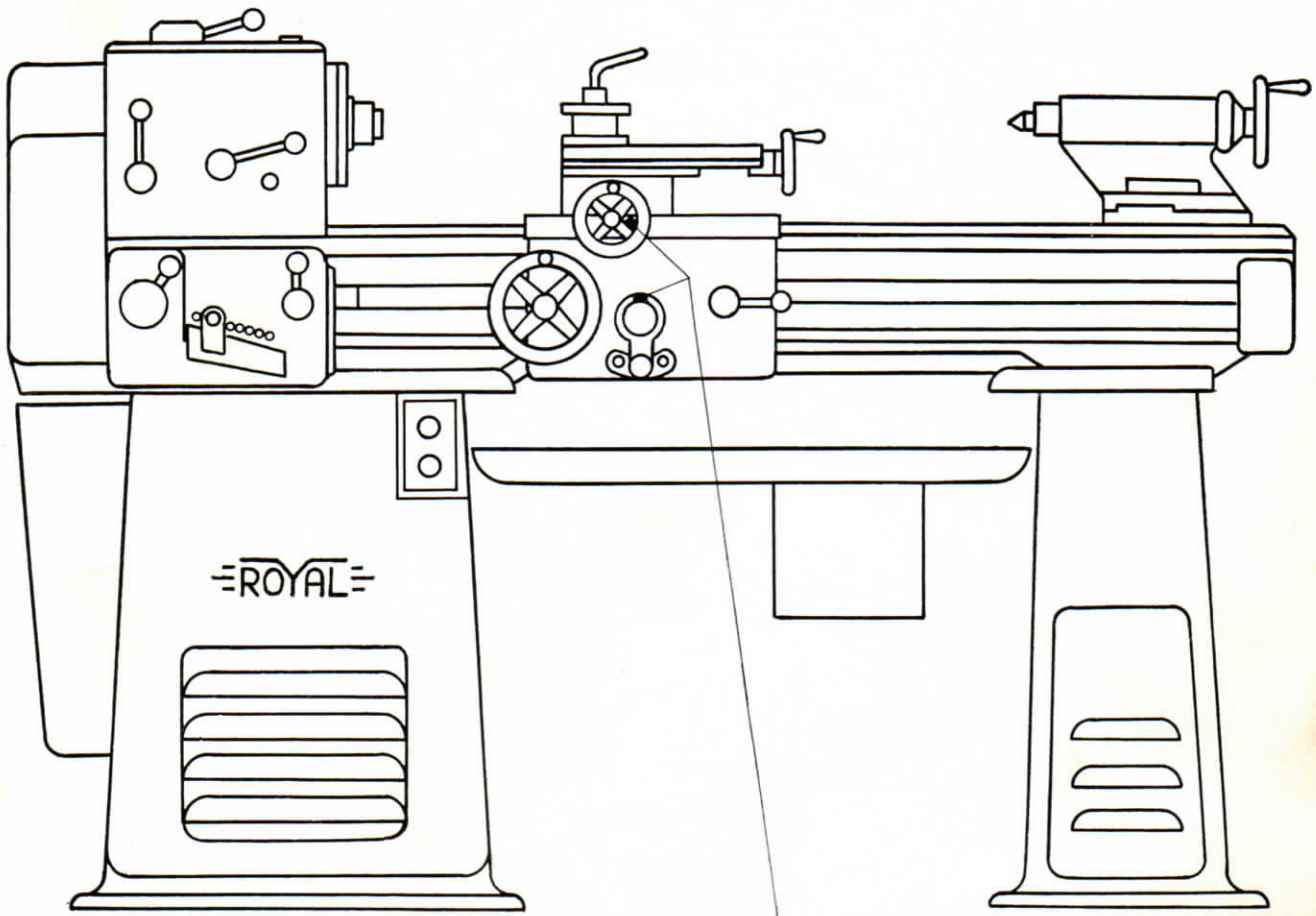
EXPRES-TRYKKERIET - ODENSE

BENT RASMUSSEN
ODENSE - TLF. 11 52 83

Vesuv

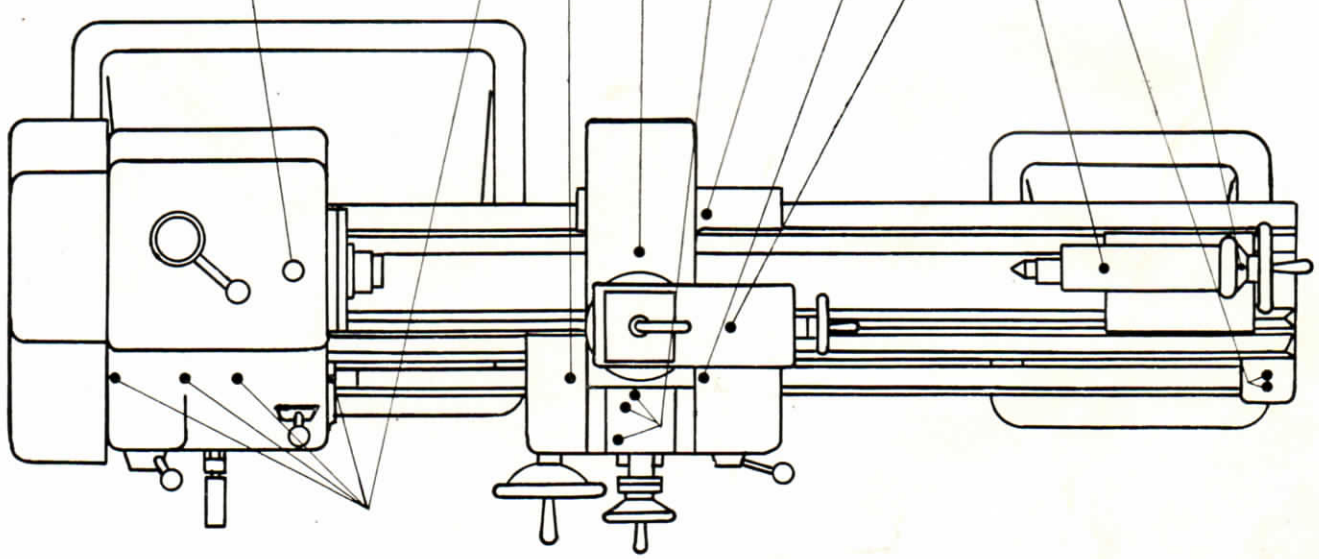
SMØREPLAN FOR DREJEBÆNK
TYPE 160-F

Postbox 9
ODENSE
DANMARK



Olien udskiftes
2 gange årligt

Smøres for hvert skift

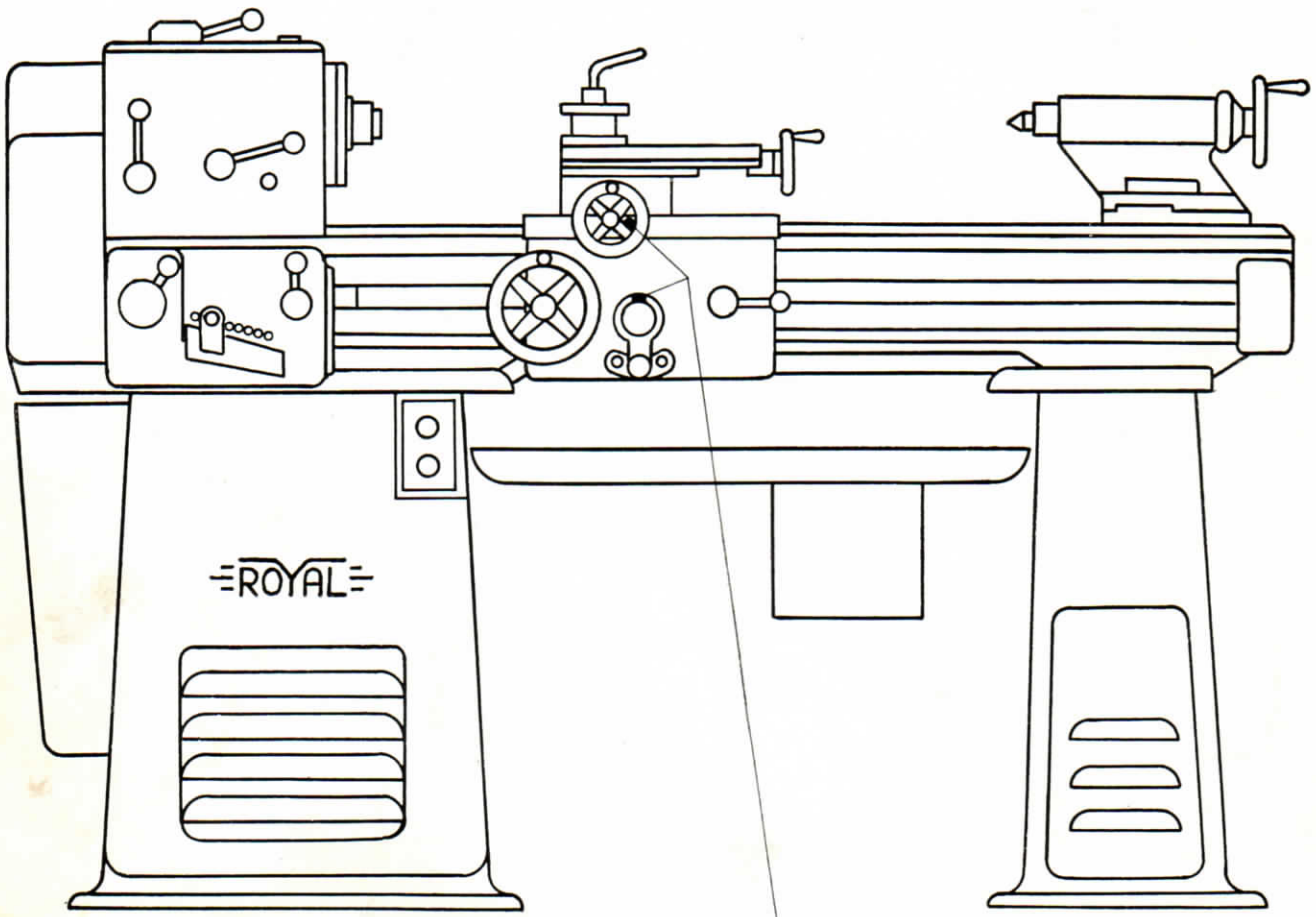


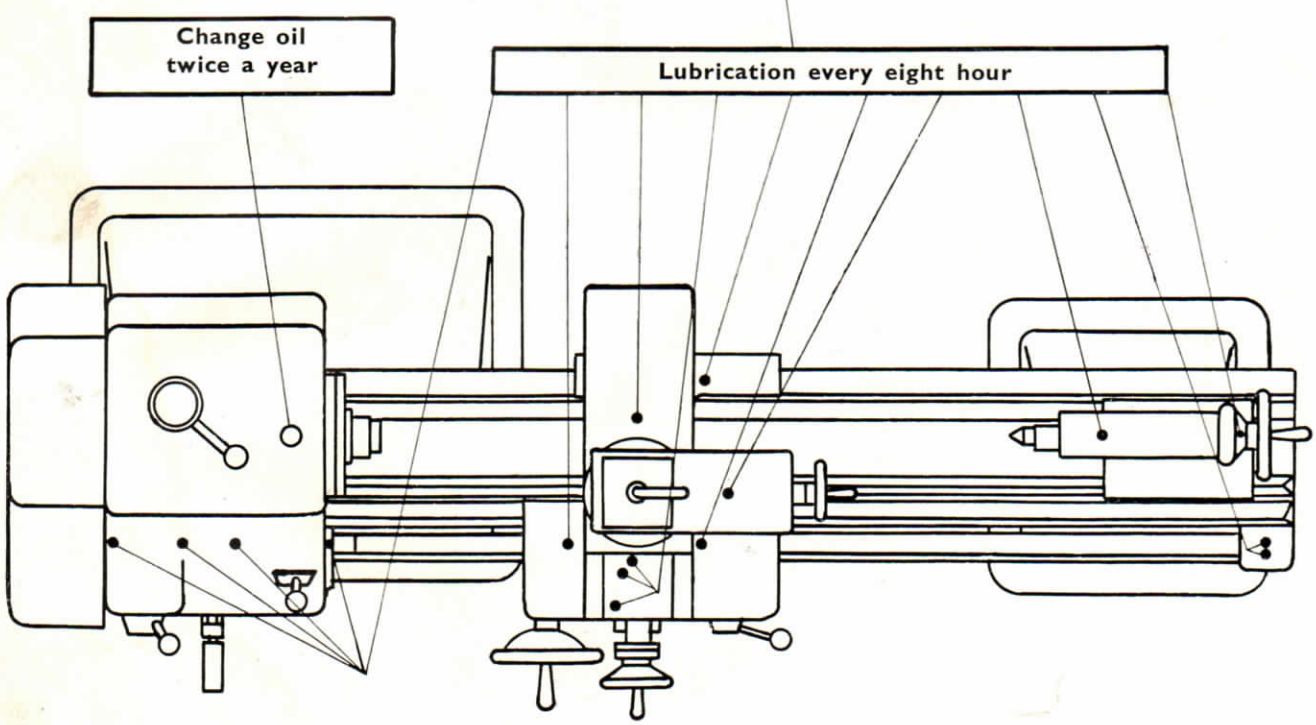
FYENS STIFTSBOGTRYKKERI

Vesuv

LUBRICATING PLAN FOR LATHE
TYPE 160-F

Postbox 9
ODENSE
DENMARK

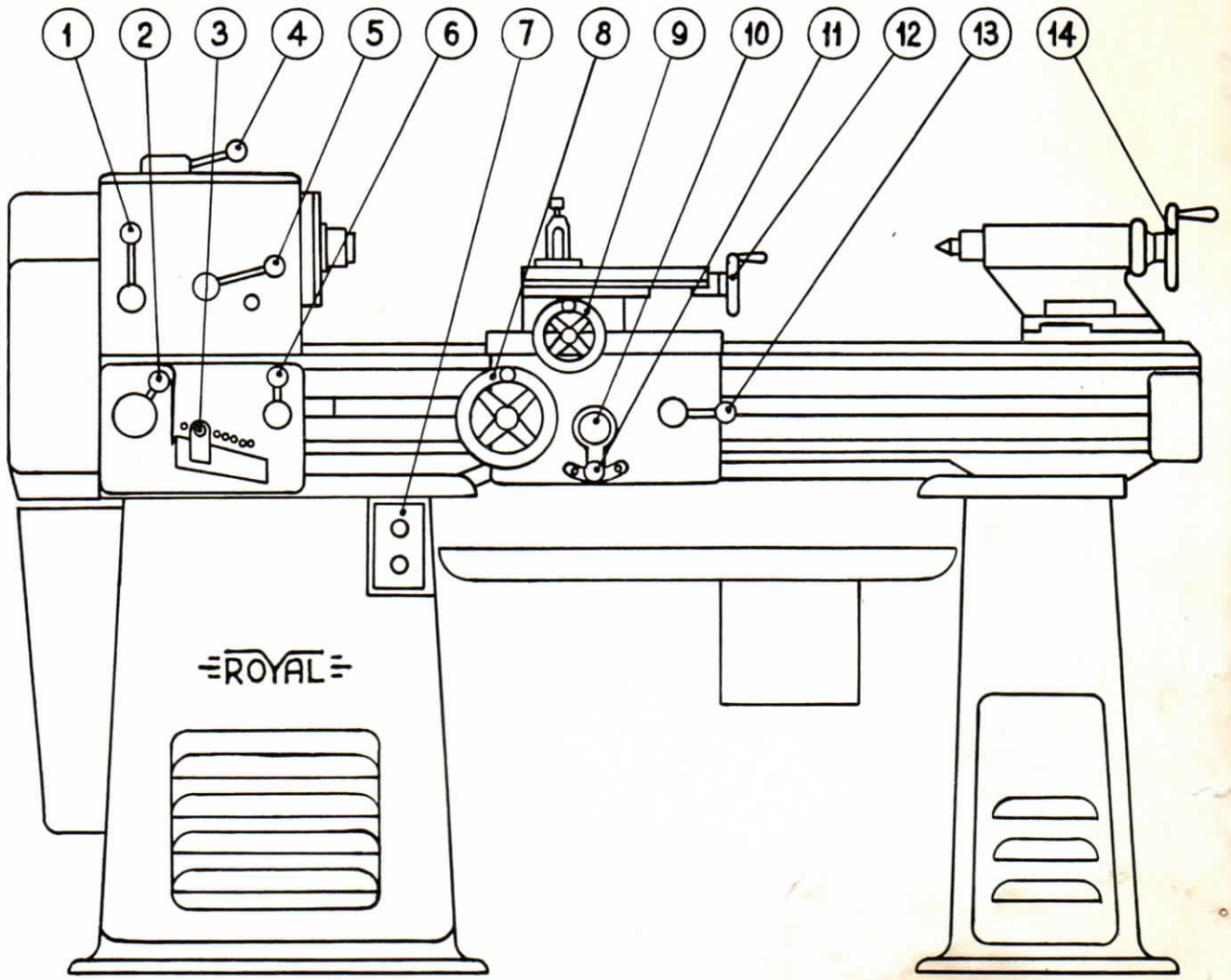




Vesuv

STYREORGANER FOR DREJEBÆNK TYPE 160-F

Postbox 9
ODENSE
DANMARK



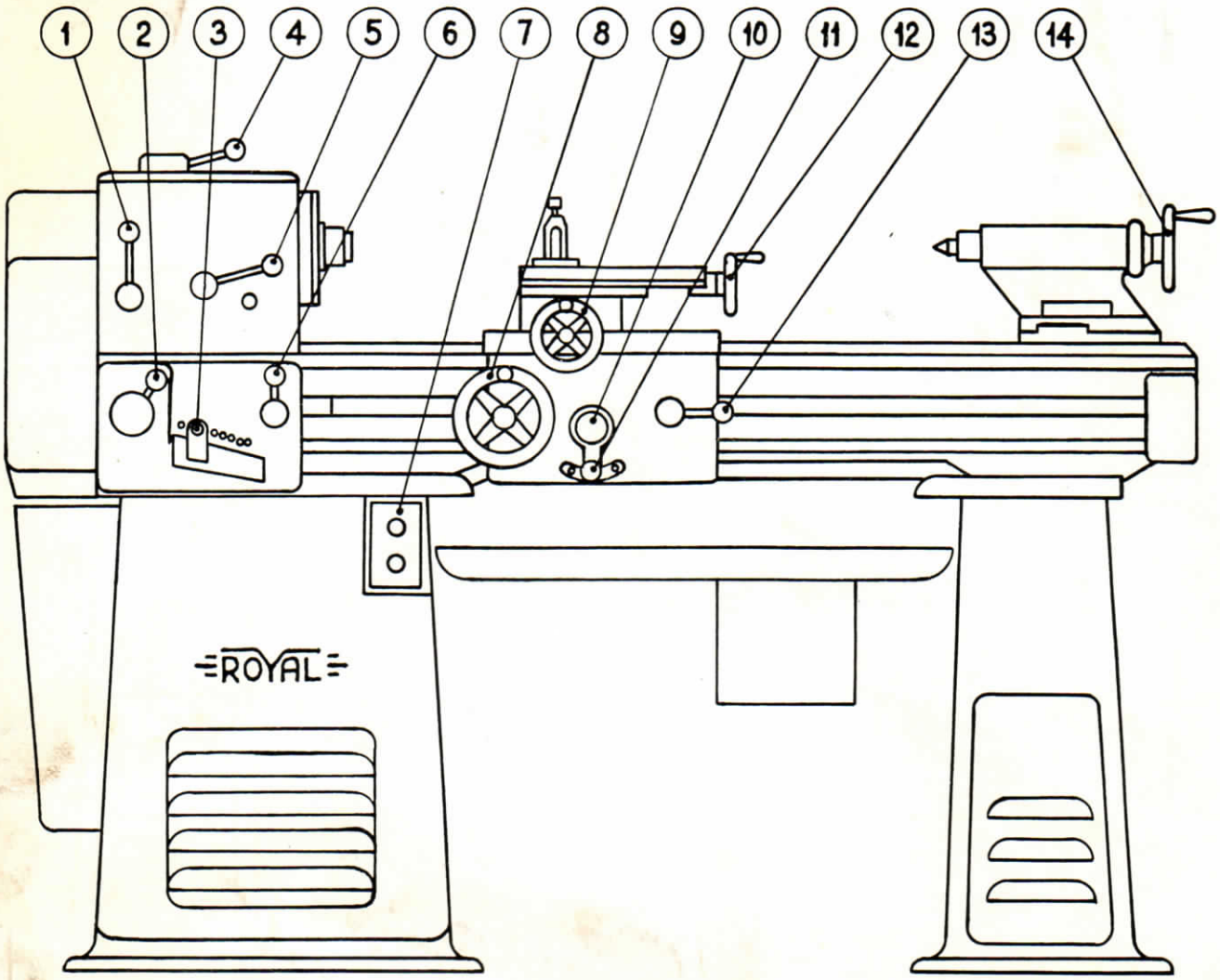
1	Ledeskruens omdrejningsretning	8	Fremføring af slædeparti
2	Skiftehåndtag	9	Fremføring af tværslæde
3	Tumblerhåndtag	10	Håndtilspænding
4	Gearskiftningshåndtag	11	Håndtag for længde- og tværtilspænding
5	Udvekslingshåndtag	12	Fremføring af overslæde
6	Omkobling af ledeskrue og trækspindel	13	Gevindhåndtag
7	Manøvrehåndtag	14	Fremføring af pinol

FYENS STIFTSBOGTRYKKERI

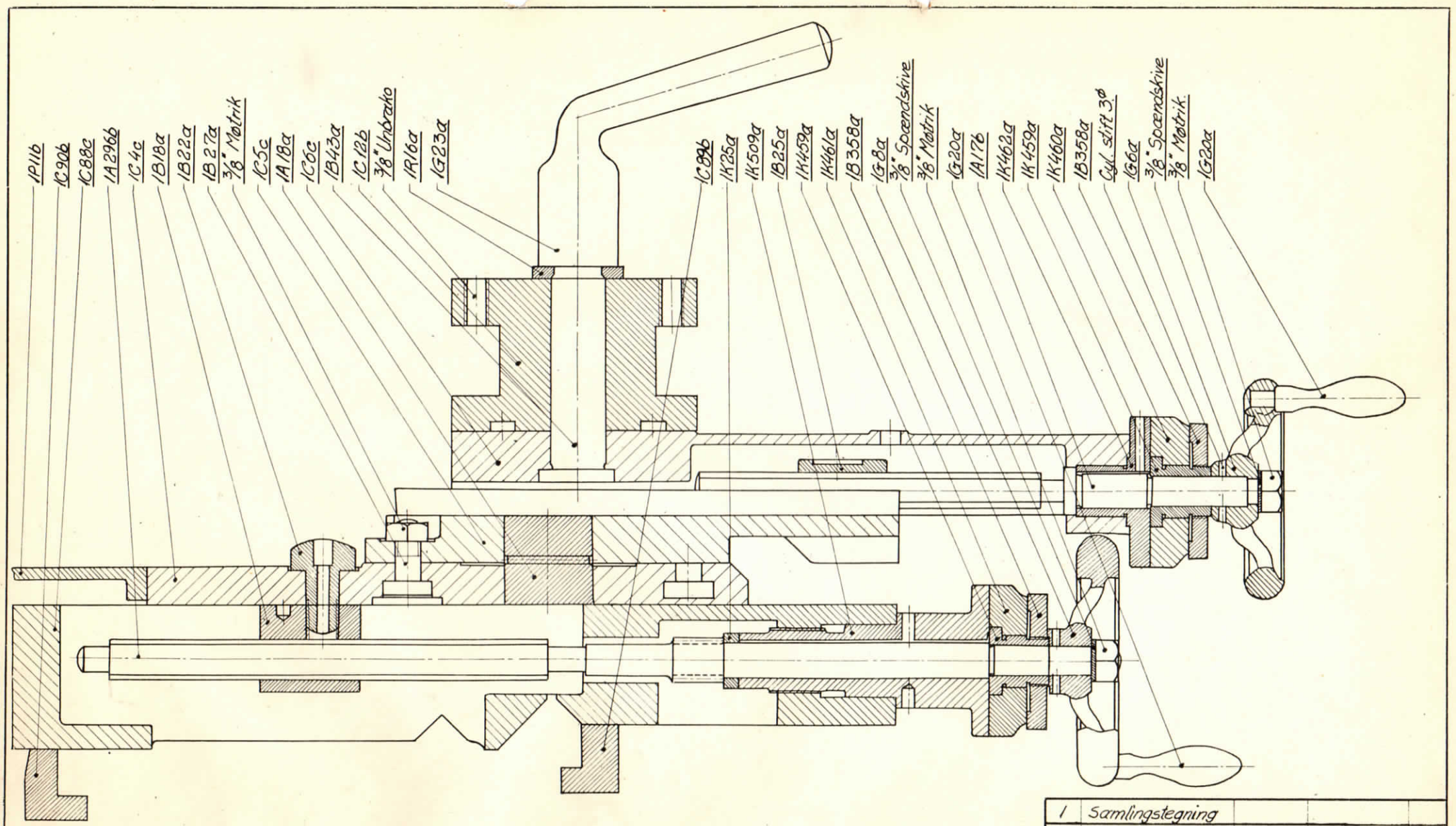
Vesuv

CONTROLS FOR LATHE
TYPE 160-F

Postbox 9
ODENSE
DENMARK



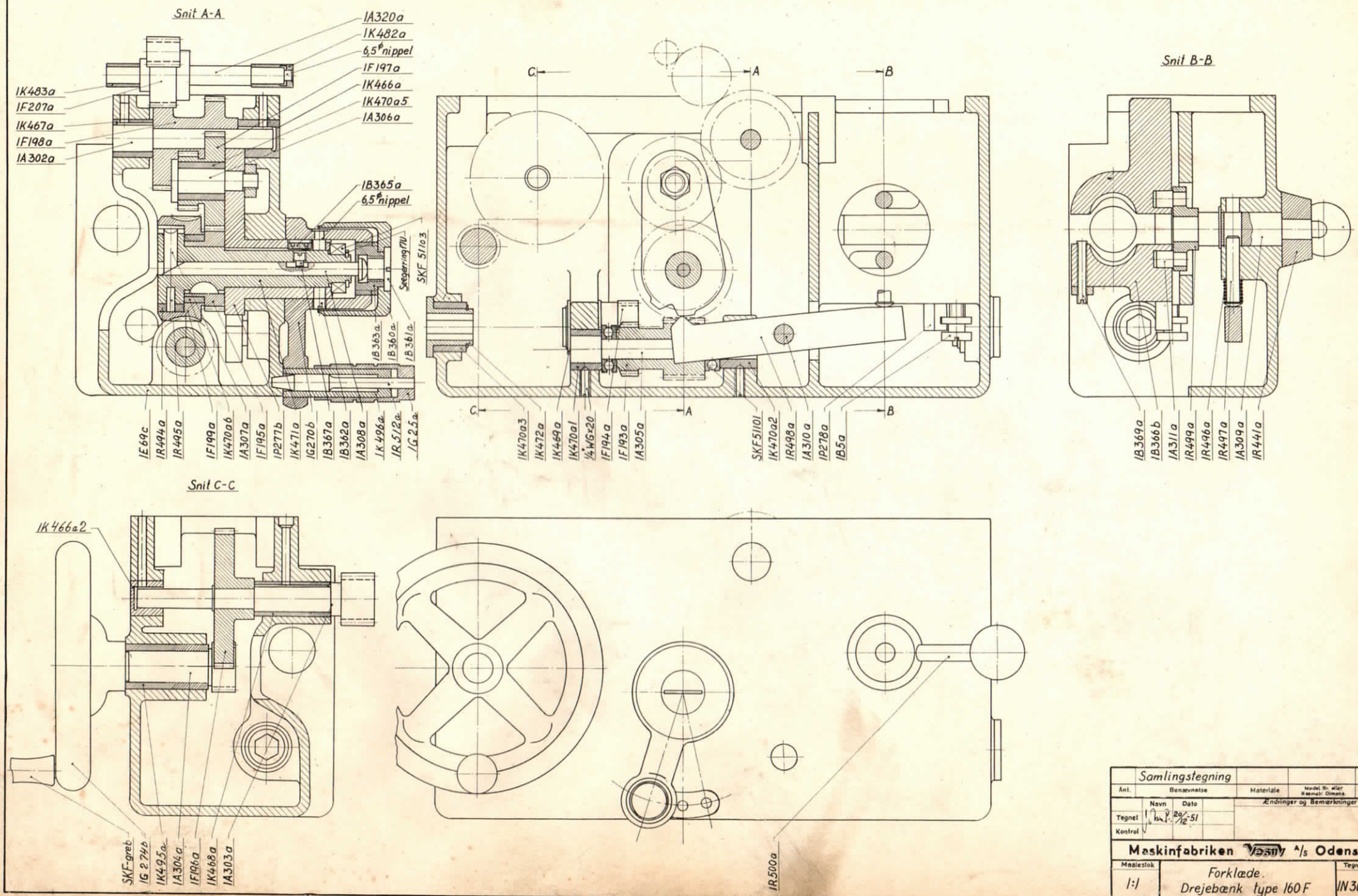
1	Right and left handle	8	Feed hand wheel
2	Change handle	9	Cross-feed hand wheel
3	Tumbler handle	10	Hand feed lever
4	Spindle speed change handle	11	Feed reverse
5	Exchange handle	12	Compound rest hand wheel
6	Feed and leadscrew handle	13	Half nut handle
7	Control lever	14	Tailstock hand wheel



1	Samlingstegning				
Ant.	Benævnelse			Materiale	Model Nr. eller Raamatr. Dimens.	Raa Vægt
	Navn	Dato	Udlev. til Værkst.	Ændringer og Bemærkninger	
Tegnet	Fabricius	9/2 1954			
Kontrol					

Maskinfabriken Vagn Jørgensen A/s Odense

Maalestok		Tegn. Nr.
1:1	Slædeparti Drejebænk type 160F	1N402 c


Snit A-A
1A320a
1K482a
6,5ϕ nippel
1F197a
1K466a
1K470a5
1A306a
1K483a
1F207a
1K467a
1F198a
1A302a
1B365a
6,5ϕ nippel
Segerring fru
SKF 51103
1B363a
1B360a
1B361a
1E69c
1R494a
1R495a
1F199a
1K470a6
1A307a
1F195a
1P277b
1K471a
1G270b
1B367a
1B362a
1A308a
1K496a
1R512a
1G25a
C
A
B
1K470a3
1K472a
1K469a
1K470a1
¼"WG x 20
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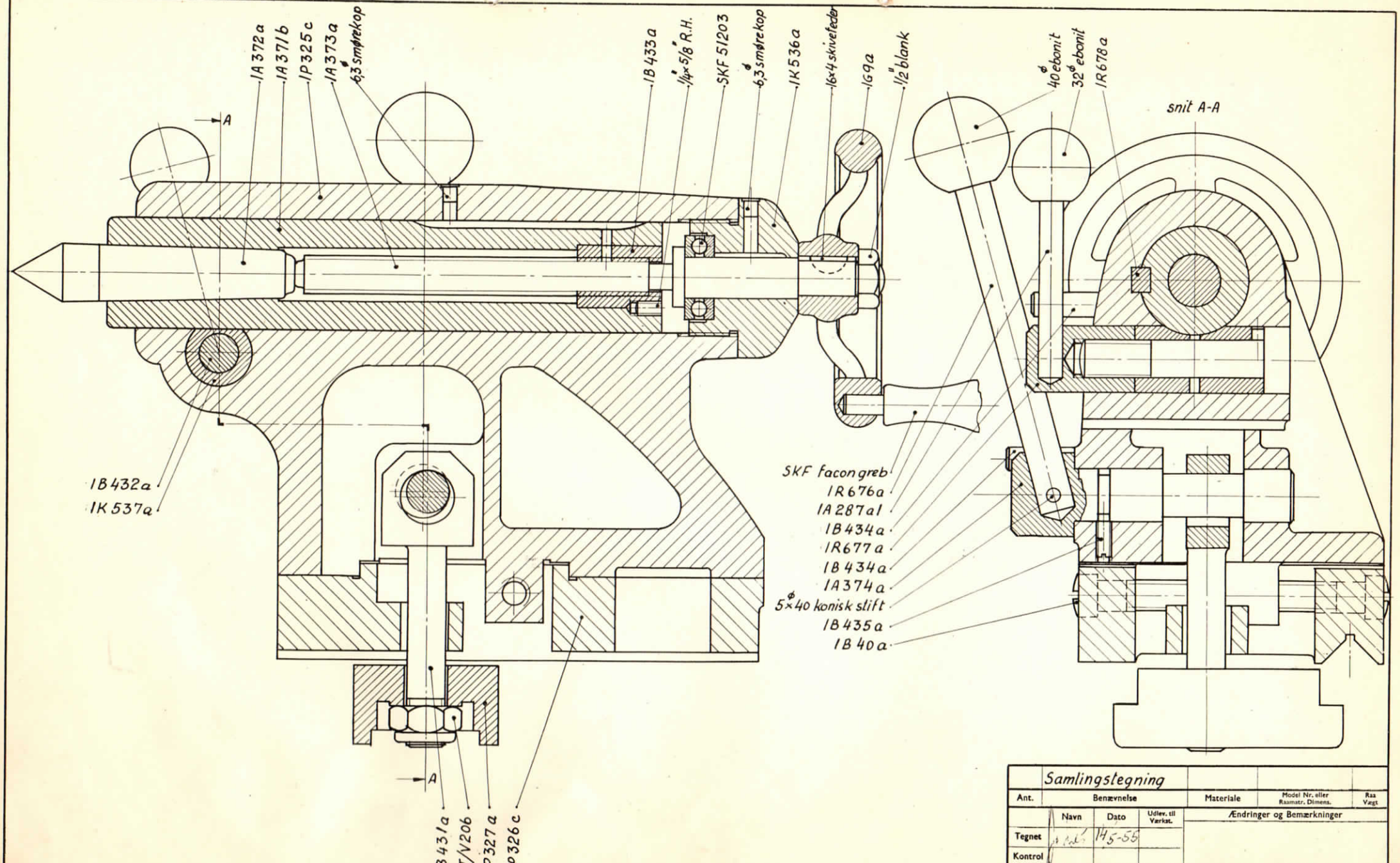
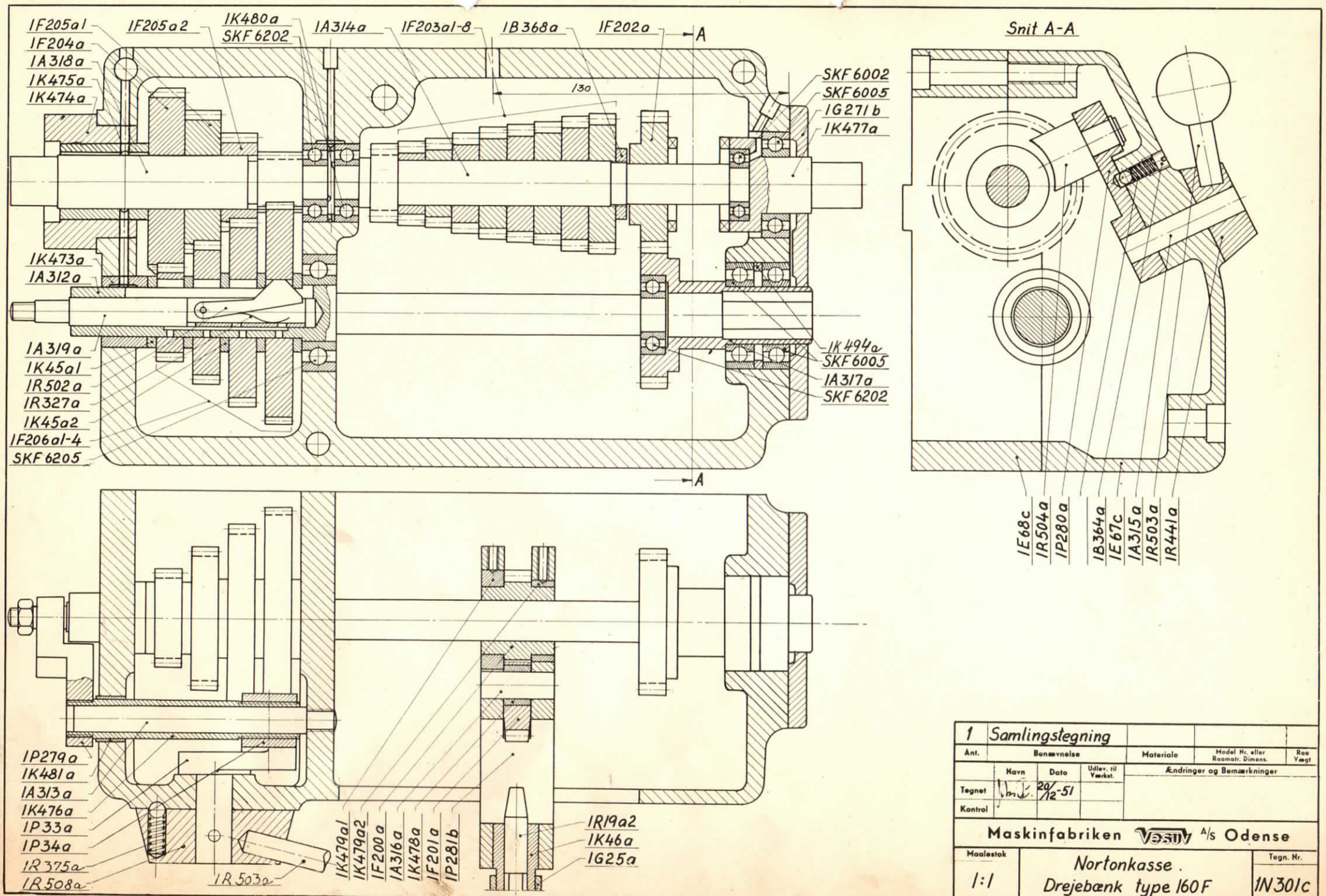
1F193a
1A305a
SKF 51101
1K470a2
1R498a
1A310a
1P278a
1B5a
Snit B-B
1B369a
1B366b
1A311a
1R499a
1R496a
1R497a
1A309a
1R441a
Snit C-C
1K466a2
SKF-greb
1G 2742
1K495a
1A304a
1F196a
1K468a
1A303a
1R500a
Samlingstegning
Ant.
Benævnelse
Materiale
Model Nr. eller Haemskr. Dimens.
Hos Vægt
Navn
Dato
Ændringer og Bemærkninger
Tegnet
Kontrol
20/12-51
Maskinfabriken Vosuv A/S Odense
Maalestok
1:1
Forklæde.
Drejebænk type 160 F
Tegn. Nr.
IN 300d



	Samlingstegning				
Ant.	Benævnelse			Materiale	Model Nr. eller Raamatr. Dimens.	Raa Vægt
	Navn	Dato	Udlev. til Værkst.	Ændringer og Bemærkninger	
Tegnet		14-5-55			
Kontrol					

Maskinfabriken Vosby A/S Odense

Maalestok		Tegn. Nr.
1:1	Pinoldok Drejebænk 160 S-F.	1N 433 c

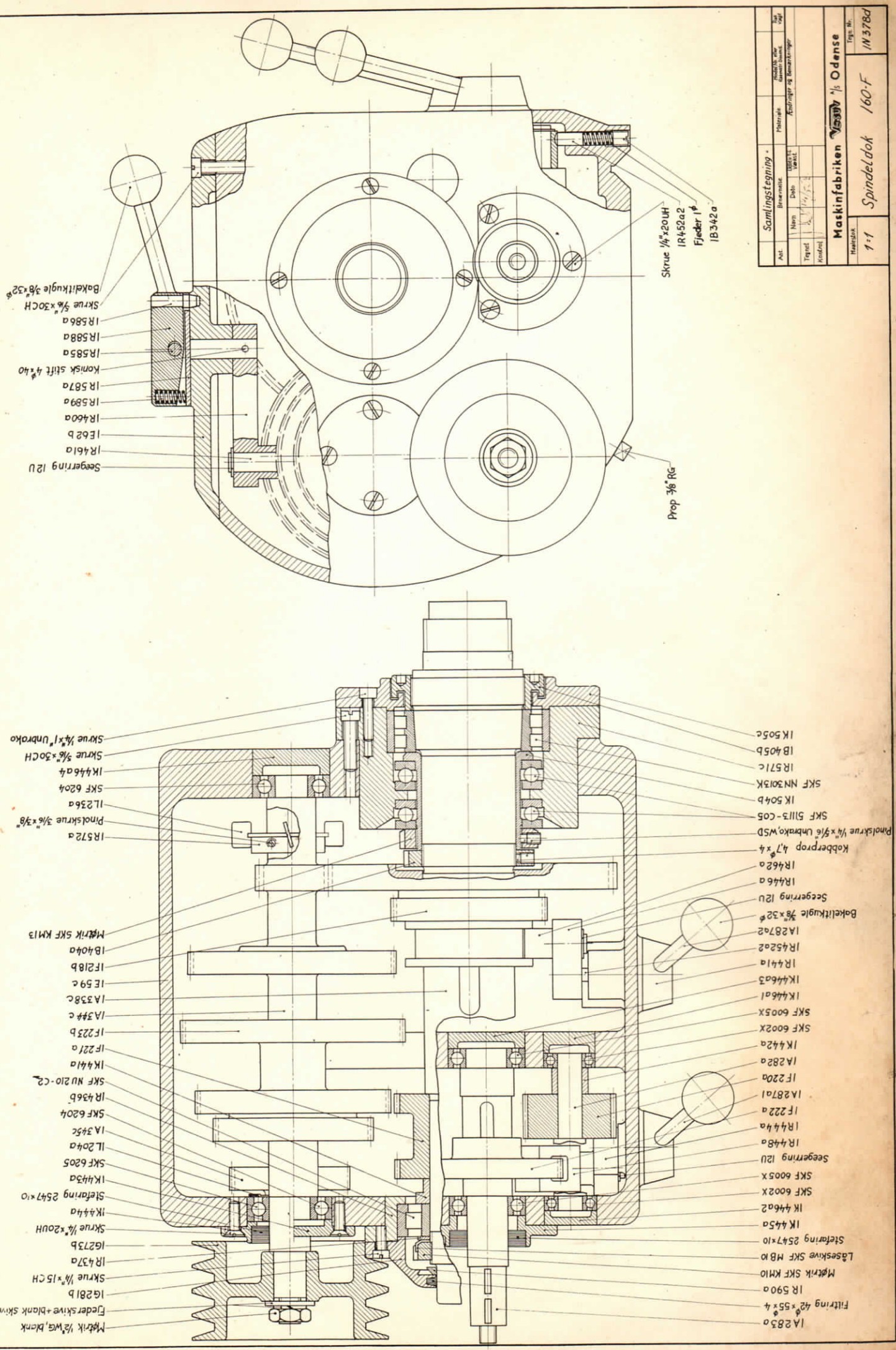


1	Samlingstegning			
Ant.	Benævnelse	Materiale	Model Nr. eller Raamatr. Dimens.	Raa Vægt

	Navn	Dato	Udlev. til Værkst.	Ændringer og Bemærkninger
Tegnet		20/12-51		
Kontrol				

Maskinfabriken Vasby A/S Odense

Maalestok		Tegn. Nr.
1:1	Nortonkasse. Drejebænk type 160F	1N301c



Range of speeds of spindle

Position of handle	RPM		Gear ratio
	⌀	⌀	
C	45	70	
B	85	120	1:4,5
A	150	220	
C	275	410	
B	500	740	1:1
A	900	1350	

30 / 60 — I II III IV

Longitudinal feeds mm

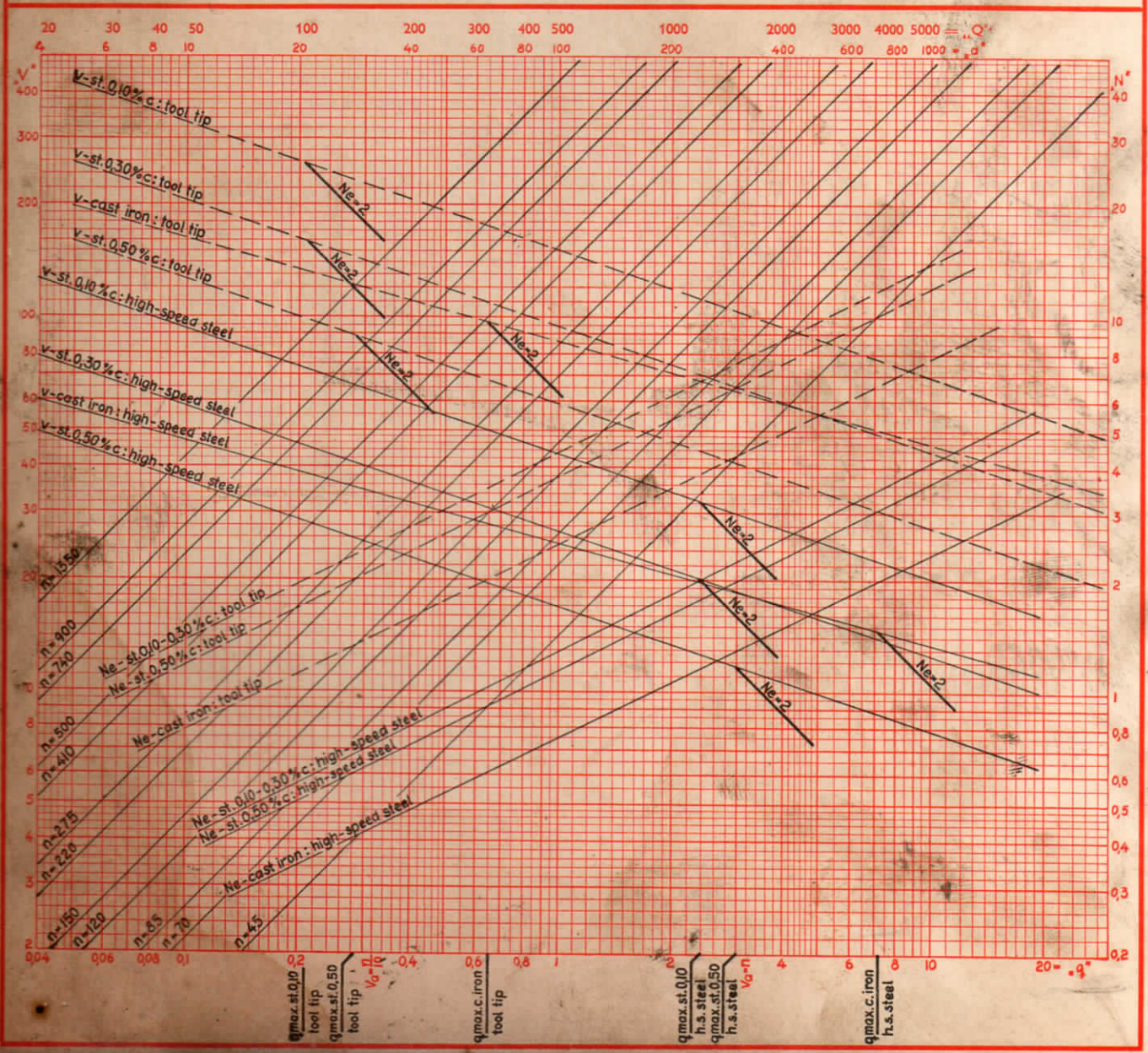
○ ○ ○ ○ ○ ○ ○ ○ ○
1 2 3 4 5 6 7 8 9

Position of handle	Bevel gear								
	1	2	3	4	5	6	7	8	9
I	1,00	0,92	0,86	0,75	0,68	0,64	0,60	0,56	0,52
II	0,50	0,46	0,43	0,38	0,34	0,32	0,30	0,28	0,26
III	0,25	0,23	0,22	0,19	0,17	0,16	0,15	0,14	0,13
IV	0,13	0,12	0,11	0,10	0,09	0,08	0,07	0,07	0,06

Cross feeds = 0/4 of longitudinal feeds

Instruction:

Explanation of the curves: Go up from the chosen cross-section of chip, „q" to the „v"-line of the material concerned and thence horizontally to either side until this line is intersected by a vertical line through the given diameter „d". „v" is the cutting speed in metres per minute. „n" is r. p. m., and „q" is the cross section of chip in square millimetres (feed × depth of chip). „Q" is the quantity of chip in cm³ per minute. Ne is brake horsepower.



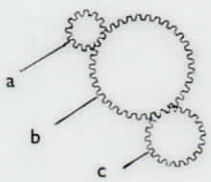
Vesuv

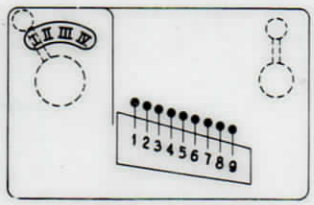
GEVIND-TABELLER FOR DREJEBÆNK
TYPE 180-F

Postbox 9
ODENSE
DANMARK
Telf. 12 70 97

U. S. STANDARD RØRGEVIND

Keglehjul	Håndtag-stilling	Udvekslingshjul a	b	c	Antal gev. pr. tomme
5	I	40	100	60	3 3/8
5	II	40	100	60	6 3/4
5	III	40	100	60	13 1/2
5	IV	40	100	60	27
7	II	40	100	60	7 1/2



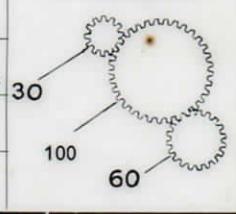


Bænken kan med standard udvekslingshjul skære alle normale whitworthgevind og alle U. S. standard-gevind. Desuden kan med udvekslingshjul 40 skæres alle normale U. S. standard rørgevind.

ANTAL GEVIND PR. TOMME

Keglehjul		1	2	3	4	5	6	7	8	9
Håndtagstilling	I	3	3 1/4	3 1/2	4	4 1/2	4 3/4	5	5 1/2	5 3/4
	II	6	6 1/2	7	8	9	9 1/2	10	11	11 1/2
	III	12	13	14	16	18	19	20	22	23
	IV	24	26	28	32	36	38	40	44	46

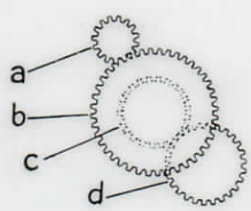
Standard udvekslingshjul



ANTAL MILLIMETERSTIGNINGER

Millimeterstigning	Udvekslingshjul a	b	c	d	Håndtagstilling	Keglehjul
0,50	30	127	55	60	III	8
0,60	60	127	55	50	IV	8
0,70	35	127	60	50	IV	8
0,75	50	127	90	60	IV	7
0,80	40	127	90	50	IV	5
0,90	60	127	75	50	IV	7
1,00	60	127	75	50	IV	5
1,25	50	127	90	60	IV	1
1,50	60	127	75	50	IV	1
1,75	35	127	90	60	III	1
2,00	60	127	75	50	III	5
2,25	60	127	75	50	III	4
2,50	50	127	90	60	III	1
2,75	55	127	90	30	IV	1
3,00	60	127	75	50	III	1
3,50	35	127	90	60	II	1
4,00	60	127	75	50	II	5
4,50	60	127	75	50	II	4
5,00	50	127	90	60	II	1
5,50	55	127	90	30	III	1
6,00	60	127	75	50	II	1
7,00	35	127	90	60	I	1
7,50	50	127	90	60	I	4
8,00	60	127	75	50	I	5
9,00	60	127	75	50	I	4
10,00	50	127	90	60	I	1
11,00	55	127	90	30	II	1
12,00	60	127	75	50	I	1

Standard udvekslingshjul



ANTAL MODULSTIGNINGER

Keglehjul	Håndtagstilling	Udvekslingshjul a	b	c	d	Modulstigninger
5	IV	45	95	94	40	0,50
1	IV	45	95	94	40	0,75
5	III	45	95	94	40	1,00
4	III	50	95	94	40	1,25
1	III	45	95	94	40	1,50
4	II	35	95	94	40	1,75
5	II	45	95	94	40	2,00
4	II	45	95	94	40	2,25
4	II	50	95	94	40	2,50
4	II	55	95	94	40	2,75
1	II	45	95	94	40	3,00
4	I	35	95	94	40	3,50
5	I	45	95	94	40	4,00
4	I	45	95	94	40	4,50
4	I	50	95	94	40	5,00

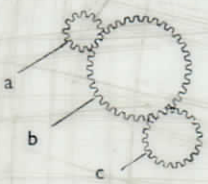
Vesuv

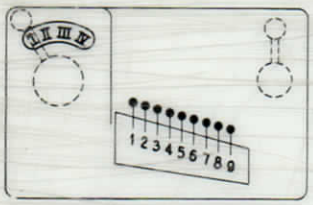
Postbox 9
ODENSE
DENMARK
Telf. 12 70 97

THREAD-TABLES FOR LATHE
TYPE 180-F

U. S. STANDARD PIPE THREADS

Bevel gear	Position of handle	Change wheels a	b	c	Threads pr. inch.
5	I	40	100	60	3 3/8
5	II	40	100	60	6 3/4
5	III	40	100	60	13 1/2
5	IV	40	100	60	27
7	II	40	100	60	7 1/2



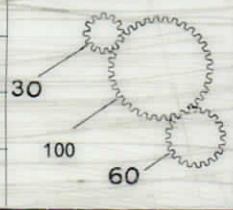


With change wheels the lathe is able to cut all normal Whitworth threads and all U. S. standard threads. Besides can all normal U.S. standard pipe threads be cut with change wheel 40.

NUMBER OF THREADS PR. INCH.

Bevel gear		1	2	3	4	5	6	7	8	9
Position of handle	I	3	3 1/4	3 1/2	4	4 1/2	4 3/4	5	5 1/2	5 3/4
	II	6	6 1/2	7	8	9	9 1/2	10	11	11 1/2
	III	12	13	14	16	18	19	20	22	23
	IV	24	26	28	32	36	38	40	44	46

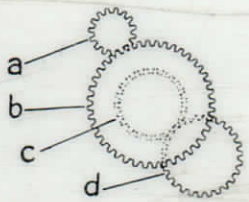
Standard change wheels



NUMBER OF PITCHES IN MILLIMETERS

Pitches in millimeters	Change wheels a	b	c	d	Position of handle	Bevel gear
0,50	30	127	55	60	III	8
0,60	60	127	55	50	IV	8
0,70	35	127	60	50	IV	8
0,75	50	127	90	60	IV	7
0,80	40	127	90	50	IV	5
0,90	60	127	75	50	IV	7
1,00	60	127	75	50	IV	5
1,25	50	127	90	60	IV	1
1,50	60	127	75	50	IV	1
1,75	35	127	90	60	III	1
2,00	60	127	75	50	III	5
2,25	60	127	75	50	III	4
2,50	50	127	90	60	III	1
2,75	55	127	90	30	IV	1
3,00	60	127	75	50	III	1
3,50	35	127	90	60	II	1
4,00	60	127	75	50	II	5
4,50	60	127	75	50	II	4
5,00	50	127	90	60	II	1
5,50	55	127	90	30	III	1
6,00	60	127	75	50	II	1
7,00	35	127	90	60	I	1
7,50	50	127	90	60	I	4
8,00	60	127	75	50	I	5
9,00	60	127	75	50	I	4
10,00	50	127	90	60	I	1
11,00	55	127	90	30	II	1
12,00	60	127	75	50	I	1

Standard change wheels



NUMBER OF MODULE PITCHES

Bevel gear	Position of handle	Change wheels a	b	c	d	Module pitches
5	IV	45	95	94	40	0,50
1	IV	45	95	94	40	0,75
5	III	45	95	94	40	1,00
4	III	50	95	94	40	1,25
1	III	45	95	94	40	1,50
4	II	35	95	94	40	1,75
5	II	45	95	94	40	2,00
4	II	45	95	94	40	2,25
4	II	50	95	94	40	2,50
4	II	55	95	94	40	2,75
1	II	45	95	94	40	3,00
4	I	35	95	94	40	3,50
5	I	45	95	94	40	4,00
4	I	45	95	94	40	4,50
4	I	50	95	94	40	5,00

VESUV

Machine card for lathe no. 3039.

Type Royal 180-F Built in 19 62.

Main dimensions of machine	
Height of centres over bed	180 mm
Distance between centres	mm
Morse taper in tailstock	morse no. 3
Morse taper in headstock	morse no. 5/3
Bore of spindle	36 mm
Leadscrew	4 threads per inch
Swing over bed	360 mm
Swing over cross slide	210 mm
Swing in gap	490 mm
Radius for facing	180 mm

Tool holder for 4 tools 16×25 mm

2 "V" belts, 13/8×1651 mm for headstock

Main drive motor	2 hp
Pump motor	hp

Accessories		
1	driving plate	
1	fixed steady rest	
1	travelling steady rest	
2	backplates	175 mm
	drill chuck(s) for tailstock	mm drill
1	face-plate	305 mm
	lathe chuck(s)	mm
	universal chuck(s)	
2	centres	morse no. 2

The machine is attended by operator:

The machine has the following special tools, etc.

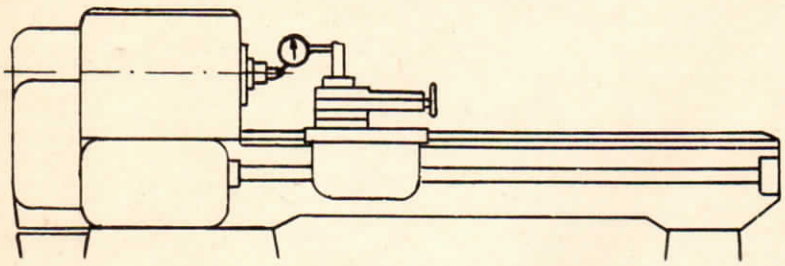
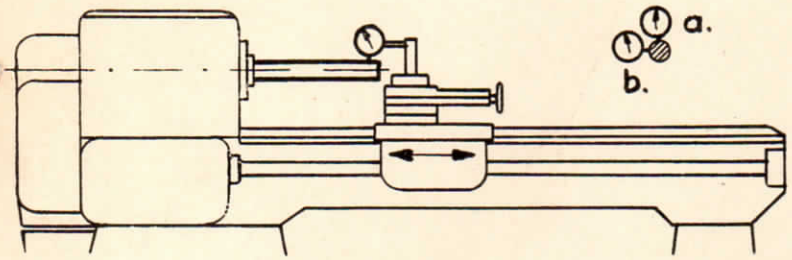
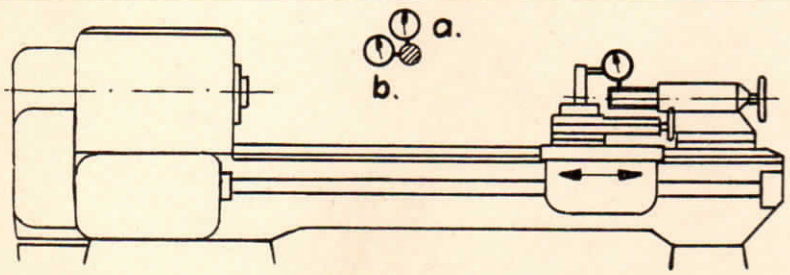
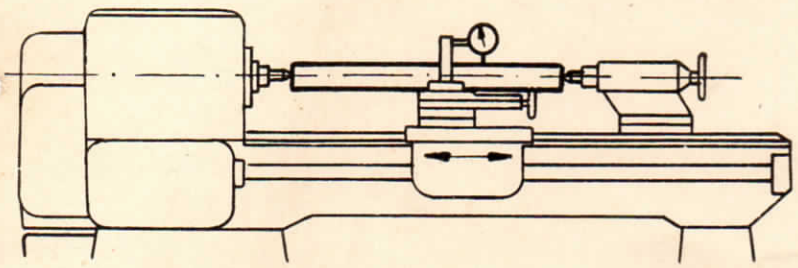
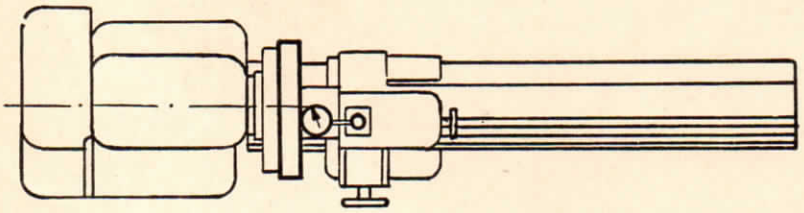
The machine is used mainly for:

Remarks

Vesuv

Test Certificate for Lathe No. 3039.

Type 180-F. **Distance between Centres:** 1500 **mm**

Control at mounting		Admitted Tolerance mm	Control
	Centre wobble	0,01	0,01
	Guidebelt wobble	0,01	0,01
	Guidebelt axial wobble	0,01	0,01
	a: Main spindle parallel with bed (increasing towards free end of arbor)	0,02/300	0,01
	b: Main spindle parallel with bed (+ towards press side of steel)	0,01/300	0,01
	a: Tail spindle parallel with bed (increasing only)	0,02 lengthwise	0,02
	b: Tail spindle parallel with bed (+ towards press side of steel)	0,01 lengthwise	0,01
	Arbor parallel with bed (increasing towards tailstock)	0,02	0,02
	Lathe turning plane (hollow only)	0,015/300	0,015
	Lathe turning round	0,005	0,005
	" " cylindrical (in Chuck)	0,01/150	0,01
	" " " (between centres)	0,01/300	0,01

Odense, 26/11 1962. by J. Christensen.

FYENS STIFTSBOGTRYKKERI