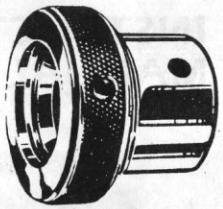
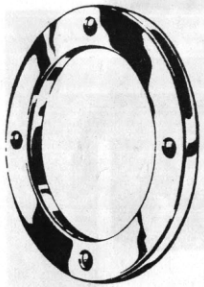
RECORD POWER
RP3000X KIT

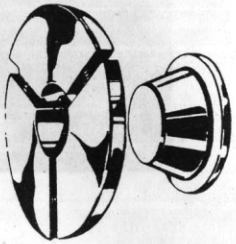
COMPRESSION JAWS
1" PARALLEL – 3" DOVETAIL



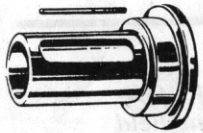
BODY UNIT &
CLAW SPANNER



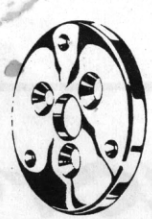
FACEPLATE RING



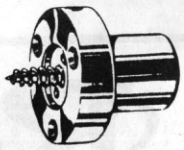
3" EXPANSION JAWS
& LARGE PLUG



1" PIN CHUCK

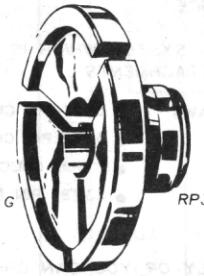


2.7/8" SCREW
CHUCK RING

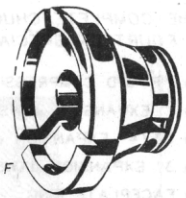


1.3/4" SCREW CHUCK
& LOCK KEY

RECORD POWER
POWER CHUCK ACCESSORIES



RP3000 G

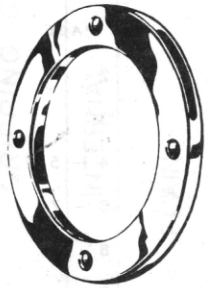


RP3000 F

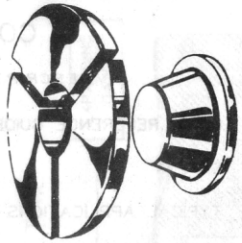
COMPRESSION JAWS – 4 SIZES

UNIT NO.	DESCRIPTION
RP3000 D	3/8" PARALLEL – 5/8" DOVETAIL
RP3000 E	5/8" PARALLEL – 1.1/4" DOVETAIL
RP3000 F	3/4" PARALLEL – 2" DOVETAIL (ILLUS.)
RP3000 G	1" PARALLEL – 3" DOVETAIL (ILLUS.)

BODY UNIT &
CLAW SPANNER
UNIT NO. – RP3000 A

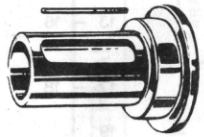


4.1" FACEPLATE RING
UNIT NO. – RP3000 K



EXPANSION JAWS – 3 SIZES

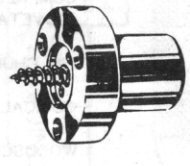
UNIT NO.	DESCRIPTION
RP3000 H	1" JAWS & SMALL PLUG
RP3000 I	1.3/4" JAWS & LARGE PLUG
RP3000 J	3" JAWS & LARGE PLUG (ILLUS.)



PIN CHUCKS – 4 SIZES

UNIT NO.	DESCRIPTION
RP3000 L	5/8" CHUCK
RP3000 M	3/4" CHUCK
RP3000 N	1" CHUCK (ILLUS.)
RP3000 O	1.3/8" CHUCK

2.7/8" SCREW
CHUCK RING
UNIT NO. – RP3000 C



1.3/4" SCREW CHUCK
& LOCK KEY
UNIT NO. – RP3000 B

DEAR CUSTOMER,

THANK YOU FOR INVESTING IN RECORD "POWER CHUCK" SYSTEM. LIKE ALL OUR PRODUCTS, IT IS MADE TO THE HIGHEST PRODUCTION STANDARDS AND IS DESIGNED TO GIVE YOU YEARS OF SATISFYING SERVICE.

THIS INSTRUCTION BOOK COVERS THE COMPLETE CHUCKING SYSTEM WHICH IS COMPOSED OF THE CHUCK BODY AND FOURTEEN SPECIAL ATTACHMENTS :

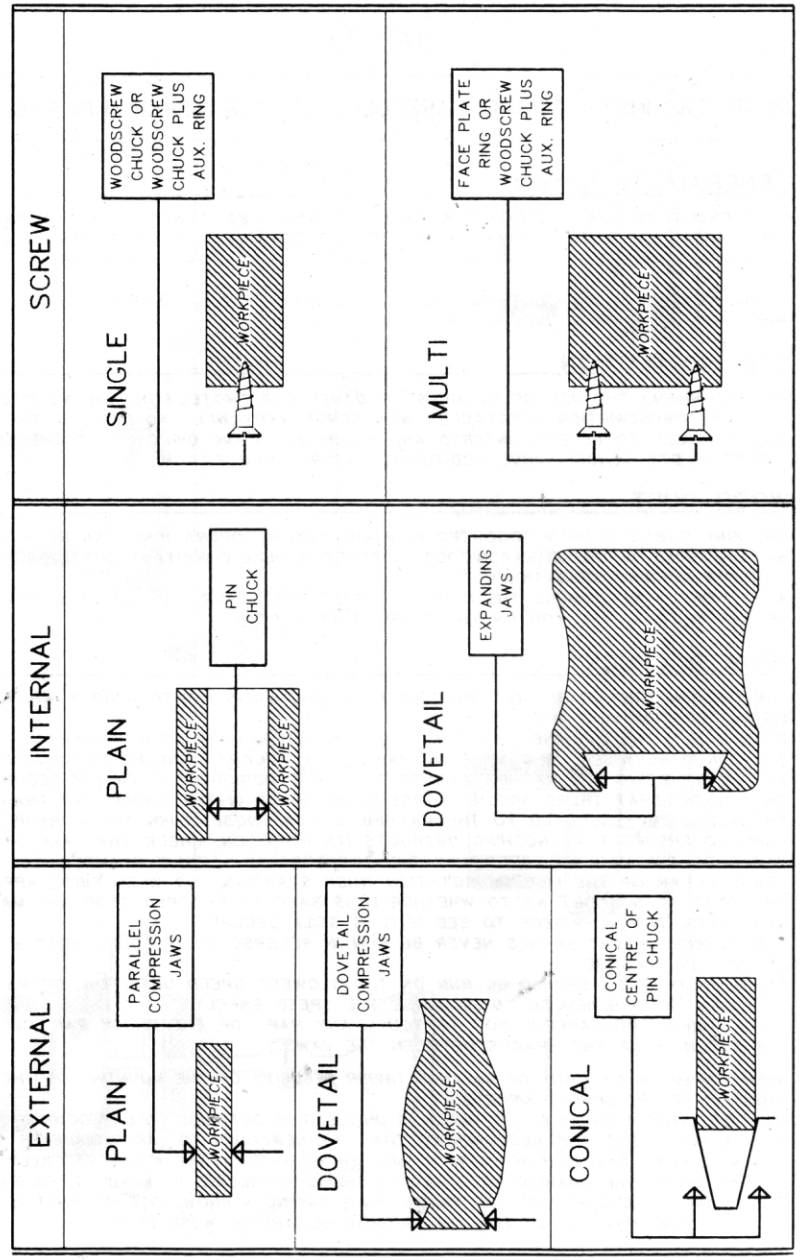
- 1.3/4" SCREW CHUCK
- 2.7/8" SCREW CHUCK RING
- 3/8"P–5/8"D COMPRESSION JAWS
- 5/8"P–1.1/4"D COMPRESSION JAWS
- 3/4"P–2"D COMPRESSION JAWS
- 1"P–3"D COMPRESSION JAWS
- 1" EXPANSION JAWS
- 1.3/4" EXPANSION JAWS
- 3" EXPANSION JAWS
- FACEPLATE RING
- 5/8" PIN CHUCK
- 3/4" PIN CHUCK
- 1" PIN CHUCK
- 1.3/8" PIN CHUCK

ALL OF THESE ATTACHMENTS CAN BE BOUGHT SEPARATELY OR YOU CAN CHOOSE THE RP3000X KIT WHICH CONTAINS THE SIX MOST POPULAR ATTACHMENTS AND THE CHUCK BODY, ILLUSTRATED ON INSIDE FRONT COVER.

THE EIGHT ATTACHMENTS NOT INCLUDED IN THIS KIT CAN THEN BE PURCHASED AS OPTIONAL ACCESSORIES AS WHEN YOU NEED THEM.

CONTENTS

QUICK REFERENCE GRIPPING GUIDE



2. SAFETY

READ THE INSTRUCTIONS CAREFULLY BEFORE USING THIS PRODUCT

GENERAL

IT IS ESSENTIAL THAT ADEQUATE KNOWLEDGE SHOULD BE GAINED IN THE OPERATION AND SAFETY OF WOOD TURNING LATHES, EITHER THROUGH A TURNING MANUAL OR BY INSTRUCTION FROM AN EXPERIENCED TURNER BEFORE USING THE MACHINE.

AVOID WEARING LOOSE CLOTHING, TIES, LOOSE SLEEVES AND LONG HAIR ETC. WHEN OPERATING ROTATING MACHINERY.

EYE PROTECTION

WE RECOMMEND THE USE OF GOGGLES OR OTHER EYE PROTECTION FOR WOODTURNERS. ORDINARY PRESCRIPTION SPECTACLES WILL SERVE VERY WELL TO DEFLECT THE SORT OF WASTE LIKELY TO BE ENCOUNTERED AND WHICH MAY COME DIRECTLY AT THE LINE OF SIGHT. SAFETY GLASSES GIVE ADDITIONAL LATERAL PROTECTION.

WOOD DUST

THE FINE PARTICLE DUST PRODUCED IN WOOD CUTTING OPERATIONS CAN BE A HEALTH HAZARD. SOME IMPORTED HARDWOODS GIVE OFF A HIGHLY IRRITANT DUST WHICH MAY CAUSE A BURNING SENSATION.
WE STRONGLY RECOMMEND THE USE OF A DUST COLLECTOR. OUR SALES DEPT. WILL BE HAPPY TO ADVISE YOU ON THE CORRECT COLLECTOR

"POWER CHUCK"

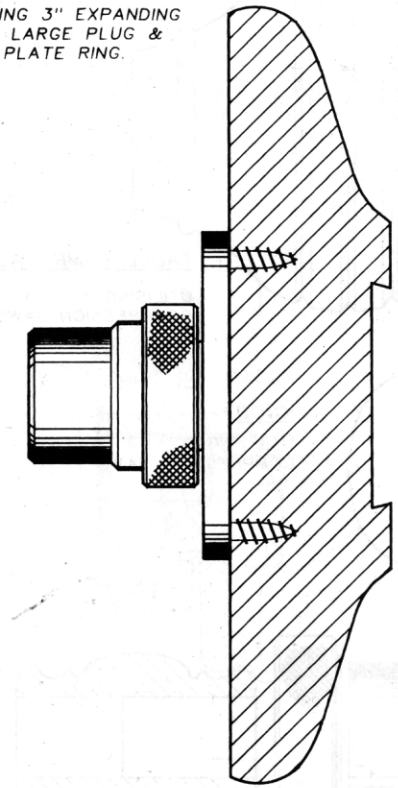
THE MACHINE SHOULD BE DISCONNECTED FROM THE MAINS POWER SUPPLY WHEN FITTING OR REMOVING THE CHUCK.
DO NOT RUN THE MACHINE WITH THE CHUCK MOUNTED UNLESS THE WORKPIECE IS IN POSITION OTHERWISE THE COMPONENT PARTS MAY BECOME DANGEROUSLY LOOSE.
BEFORE STARTING THE MACHINE ENSURE THAT THE WORKPIECE IS FIRMLY SECURED BY THE CHUCK, THAT THERE ARE NO LOOSE COMPONENTS IN THE CHUCK AND THAT THE CHUCK IS FIRMLY SECURED TO THE MACHINE SPINDLE NOSE, TURN THE WORKPIECE BY HAND TO ENSURE THAT NOTHING OBTRUCTS ITS ROTATION, CHECK THAT ALL OTHER PARTS OF THE MACHINE ESPECIALLY THE TOOLREST ARE FIRMLY CLAMPED.
STAND CLEAR OF THE LINE OF ROTATION WHEN STARTING AND WHEN FIRST APPLYING THE TOOL. IF IN DOUBT AS TO WHETHER IT IS SAFE TO PROCEED STOP THE MACHINE AND CHECK THE WORKPIECE TO SEE IF IT IS STILL SECURE.
THE "POWER CHUCK" SHOULD NEVER BE RUN IN REVERSE OR IT COULD BECOME DANGEROUSLY LOOSE.
LARGE WORKPIECES SHOULD BE RUN ON THE SLOWEST SPEED UNTIL THE OPERATOR IS SUFFICIENTLY EXPERIENCED TO INCREASE THE SPEED SAFELY.
WHEN TURNING BE CAREFUL NOT TO TOUCH ANY PART OF THE CHUCK PARTICULARLY IN THE VINCINITY OF THE SPACES BETWEEN THE JAWS.

WHEN TURNING HEAVY, OUT OF BALANCE TIMBER SECURITY OF THE MOUNTING OF THE TIMBER IS OF THE UPMOST IMPORTANCE.
HOWEVER, SINCE EACH PIECE OF TIMBER IS UNIQUE IT IS DIFFICULT TO LAY DOWN PRECISE RULES. BUT IT IS RECOMMENDED THAT THE NEWCOMER TO LARGE DIAMETER TURNING SHOULD GAIN EXPERIENCE WITH SMALLER WORK TO START WITH, GRADUALLY WORKING UP TO THE MAXIMUM SIZE THAT HE/SHE IS INTERESTED IN, MAKING FREQUENT CHECKS ON THE SECURITY OF THE TIMBER, THUS GAINING A KNOWLEDGE OF WHAT IS ADEQUATE AND WHAT IS NOT FOR THE PARTICULAR TYPE OF WORK BEING DONE.

3. TYPICAL APPLICATIONS

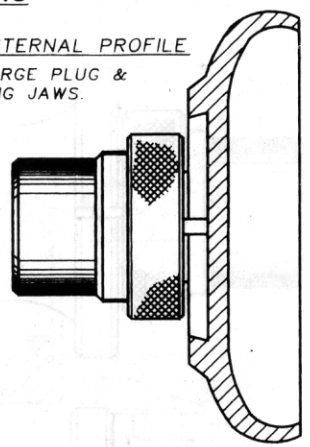
LARGE DIAMETER BOWL – EXTERNAL PROFILE

UTILISING 3" EXPANDING JAWS, LARGE PLUG & FACE PLATE RING.



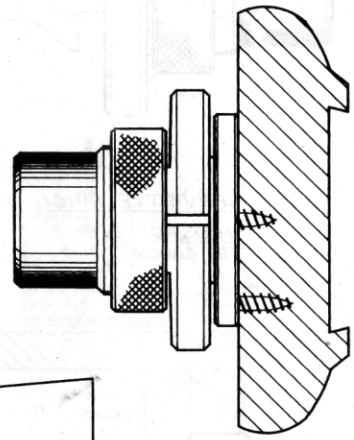
BOWL – INTERNAL PROFILE

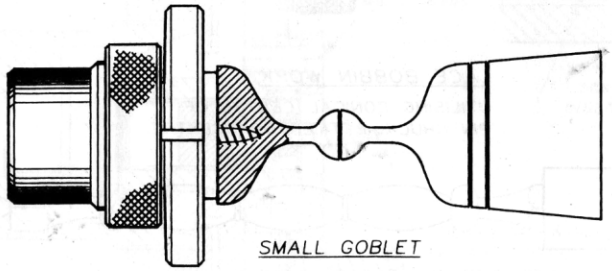
UTILISING LARGE PLUG & 3" EXPANDING JAWS.



BOWL – EXTERNAL PROFILE

UTILISING 1" – 3" COMP. JAWS, 1.3/4" WOOD SCREW CHUCK & 2.7/8" W/SCREW CHUCK RING.





SMALL GOBLET

UTILISING 1" – 3" COMP. JAWS & 1.3/4" WOOD SCREW CHUCK.

3.

TYPICAL APPLICATIONS

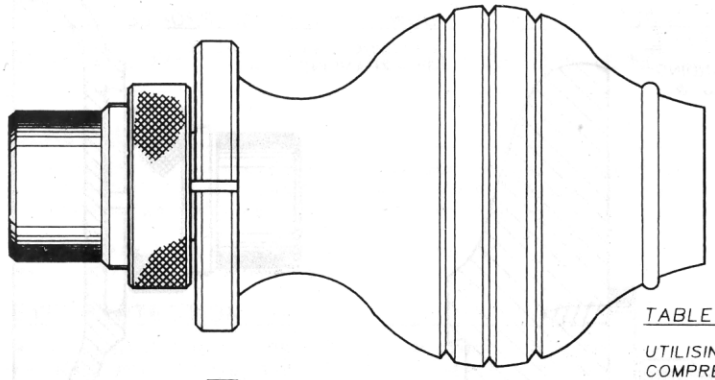
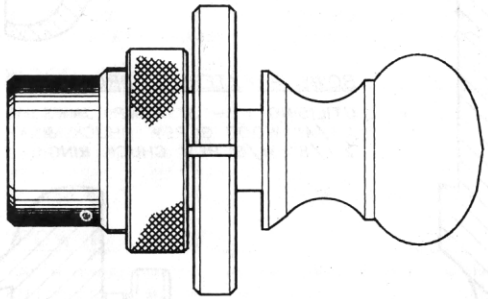


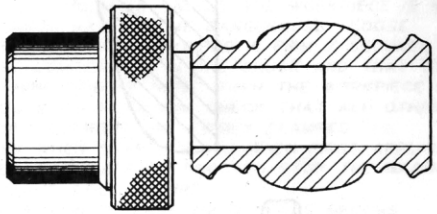
TABLE LAMP BASE

UTILISING 1" – 3"
COMPRESSION JAWS.



KNOB

UTILISING 1" – 3"
COMPRESSION JAWS.

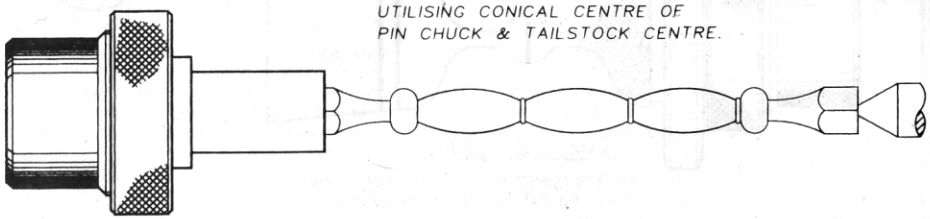


SERVIETTE RING

UTILISING 1.3/8"
PIN CHUCK.

LACE BOBBIN WORK

UTILISING CONICAL CENTRE OF
PIN CHUCK & TAILSTOCK CENTRE.



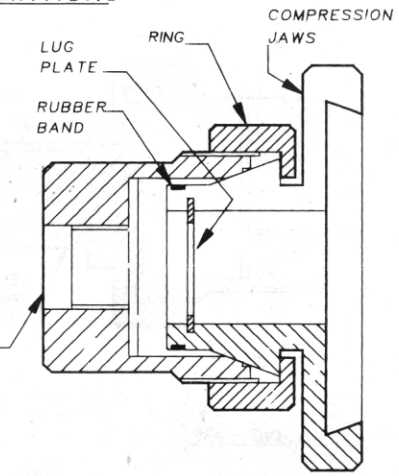
4.

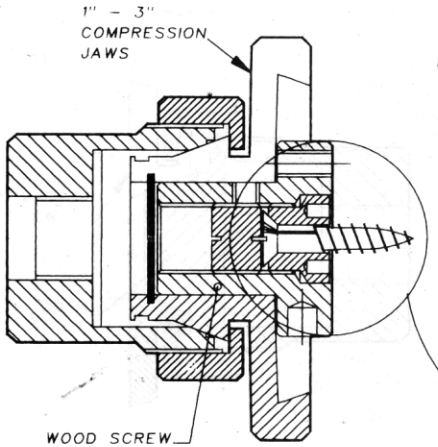
CHUCK CONFIGURATIONS

COMPRESSION JAW – JAW SIZES

PARALLEL – DOVETAIL

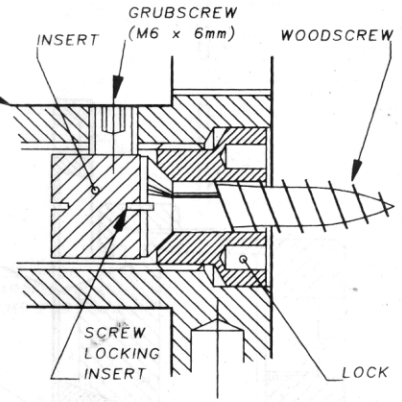
3/8" – 5/8" (9.5mm – 15.9mm)
5/8" – 1.1/4" (15.8mm – 31.7mm)
3/4" – 2" (19.0mm – 50.8mm)
1" – 3" (25.4mm – 76.2mm) –ILLUSTRATED

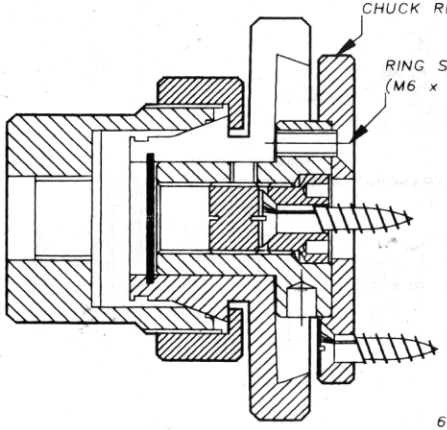




WOODSCREW CHUCK

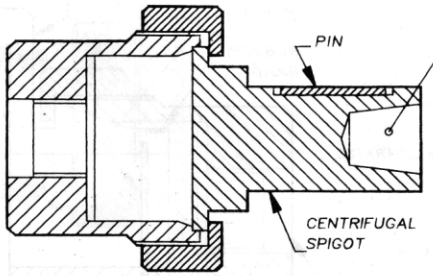
THE 1.3/4" WOOD SCREW CHUCK
SHOWN MOUNTED IN THE
1" PARALLEL JAWS.





THE 1.3/4" WOOD SCREW CHUCK
SHOWN FITTED WITH 2.7/8"
WOOD SCREW CHUCK RING.

4. CHUCK CONFIGURATIONS (CONT.)

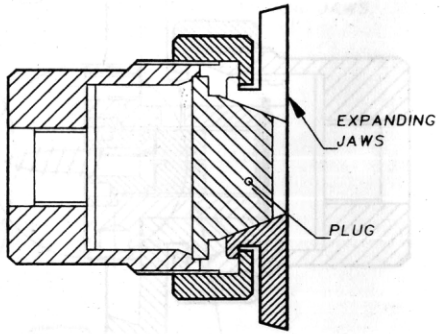


PIN CHUCK

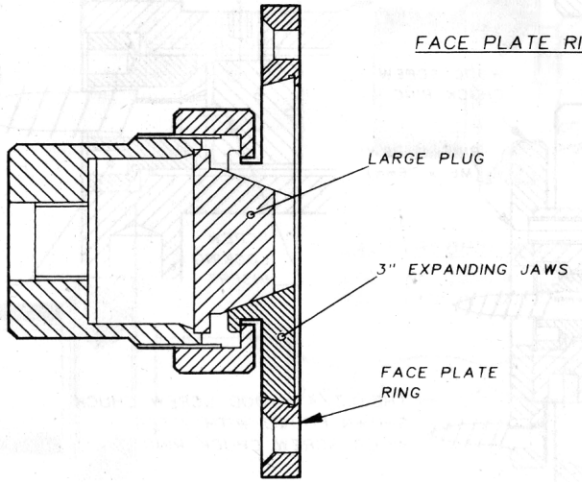
SIZES AVAILABLE :-
5/8" (15.9mm)
3/4" (19.0mm)
1" (25.4mm)
1.3/8" (34.9mm)

EXPANDING JAW

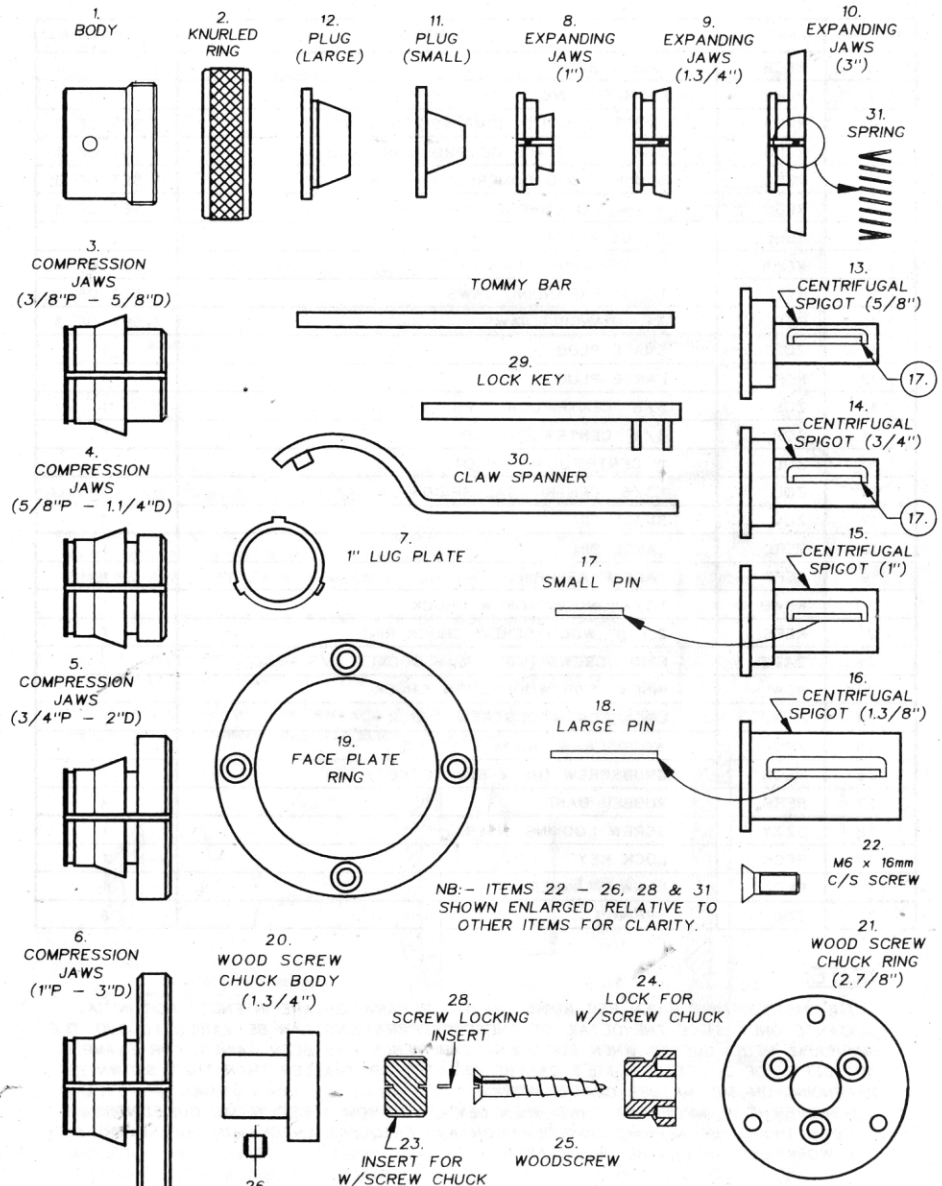
SIZES AVAILABLE :-
1" (25.4mm) — SMALL PLUG
1.3/4" (44.5mm) } — LARGE PLUG
3" (76.2mm) }



FACE PLATE RING



5. COMPONENT GUIDE



6. PARTS LIST

REF. No.	PART No.	DESCRIPTION	QUANTITY
1	RECB	CHUCK BODY	1
2	REKR	KNURLED RING	1
3	REDA	3/8"P – 5/8"D COMPRESSION JAWS	1 SET OF 3
4	REDB	5/8"P – 1.1/4"D COMPRESSION JAWS	1 SET OF 3
5	REDC	3/4"P – 2"D COMPRESSION JAWS	1 SET OF 3
6	REDD	1"P – 3"D COMPRESSION JAWS	1 SET OF 3
7	RELP	1" LUG PLATE	4
8	REEA	1" EXPANDING JAWS	1 SET OF 3
9	REEB	1.3/4" EXPANDING JAWS	1 SET OF 3
10	REEC	3" EXPANDING JAWS	1 SET OF 3
11	ZQK	SMALL PLUG	1
12	REPL	LARGE PLUG	1
13	ZQS	5/8" CENTRIFUGAL SPIGOT	1
14	ZQR	3/4" CENTRIFUGAL SPIGOT	1
15	ZQQ	1" CENTRIFUGAL SPIGOT	1
16	ZQL	1.3/8" CENTRIFUGAL SPIGOT	1
17	ZQM	SMALL PIN	3
18	RERL	LARGE PIN	1
19	REFP	FACE PLATE RING	1
20	REWB	1.3/4" WOOD SCREW CHUCK	1
21	REFS	2.7/8" WOOD SCREW CHUCK RING	1
22	ZADE	RING SCREWS (M6 x 16mm SOCKET C/S HEAD)	3
23	REWI	INSERT FOR WOODSCREW CHUCK	1
24	REWL	LOCK FOR WOODSCREW CHUCK	1
25	ZPC	WOODSCREW (NO.14 x 1.1/4")	1
26	REGS	GRUBSCREW (M6 x 6mm SOCKET)	1
27	RERB	RUBBER BAND	4
28	ZZZY	SCREW LOCKING INSERT	1
29	RECK	LOCK KEY	1
30	RECC	CLAW SPANNER	1
31	ZQC	SPRINGS	9

NOTE:

THE INSTRUCTIONS GIVEN REGARDING TIMBER PREPARATION ARE INTENDED FOR INITIAL GUIDANCE ONLY SINCE THE DETAIL OF THESE PREPARATIONS CAN BE VARIED TO SUIT THE INDIVIDUAL REQUIREMENTS WHEN SUFFICIENT EXPERIENCE HAS BEEN GAINED. FOR EXAMPLE THE DEPTH OF DOVETAIL IN Fig.5 CAN BE GREATER OR SMALLER THAN THAT SHOWN DEPENDING ON THE NATURE OF THE WORK.

HOWEVER IT IS IMPORTANT THAT WHEN DEVIATING FROM THESE INITIAL GUIDELINES, SAFETY SHOULD BE A PRIME CONSIDERATION AND FREQUENT CHECKS ON THE SECURITY OF THE WORKPIECE SHOULD BE UNDERTAKEN.

7. EXPANDING JAWS

APPLICATION

EXPANDING JAWS ARE COMMONLY USED TO MOUNT BOWL TYPE PROJECTS SIMILAR TO THAT SHOWN IN fig.1 WHERE THE GRIPPING AREA NEEDS TO BE SHALLOW OR WHERE NEATNESS IS IMPORTANT IN THE GRIPPING AREA WITH AN ABSENCE OF FIXING SCREW HOLES OR WHERE RE–MOUNTING TRUE IS REQUIRED. THESE JAWS CAN BE USED FOR A WIDE RANGE OF TYPES AND SIZES OF PROJECT FROM BOWLS TO CANDLESTICKS.

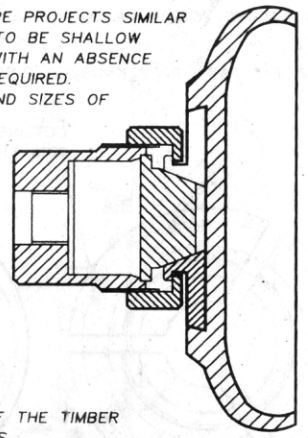


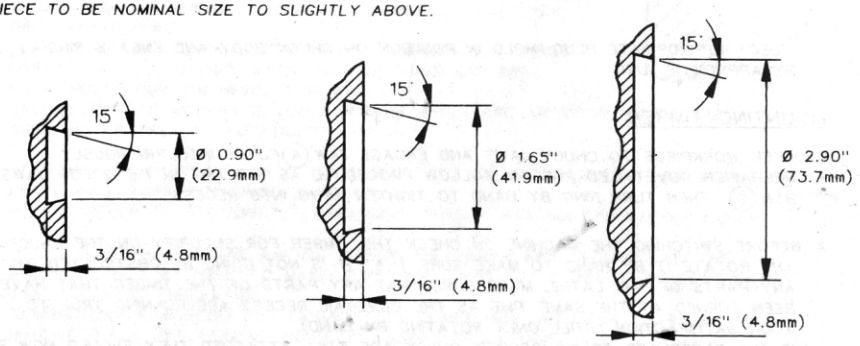
Fig. 1 – EXPANDING JAWS

THE ILLUSTRATION SHOWS THE CHUCK FITTED WITH THE 3" EXPANDING JAWS HOLDING A COMPLETED BOWL.

PREPARING BOWL

THE OBJECT OF THIS EXERCISE IS TO RENDER THAT PART OF THE TIMBER THAT IS TO BE GRIPPED, RECEPTIVE TO THE EXPANDING JAWS.

1. *PREPARE THE SELECTED PIECE OF TIMBER IN SUCH A WAY THAT IT CAN BE FASTENED TO FACEPLATE OR MOUNTED ON A WOODSCREW CHUCK, THE LARGER TIMBERS ARE MORE SAFELY MOUNTED ON THE FACEPLATE. (SEE SECTIONS 8 & 12)*
2. *MOUNT SECURELY TO THE FACEPLATE OR WOODSCREW CHUCK.*
3. *TURN A CIRCULAR DOVETAIL RECESS IN THE FACE OF THE TIMBER TO THE DIMENSIONS GIVEN BELOW ACCORDING TO THE SIZE OF JAWS SELECTED.*
4. *FOR OPTIMUM CHUCK PERFORMANCE THE OPERATOR SHOULD IDEALLY AIM FOR THE WORK–PIECE TO BE NOMINAL SIZE TO SLIGHTLY ABOVE.*



5. *REMOVE THE TIMBER FROM THE LATHE, IT IS SOMETIMES PRUDENT TO LEAVE THE TIMBER FIXED TO THE FACEPLATE OR WOODSCREW CHUCK UNTIL CORRECT MOUNTING ON THE EXPANDING JAWS IS CONFIRMED THUS ALLOWING REWORKING OF THE DOVETAIL IF THE FIT IS INADEQUATE THE FIRST TIME.*

VARIATIONS FROM THE ABOVE DIMENSIONS ARE PERMISSABLE ONCE EXPERIENCE HAS BEEN GAINED WITH RESPECT TO WORK PIECE SECURITY.

7. EXPANDING JAWS (CONT.)

JAW ASSEMBLY

1. SECURE POWER CHUCK BODY ONTO LATHE SPINDLE IF YOU HAVE NOT ALREADY DONE SO.

2. FIT JAWS INTO KNURLED RING AS ILLUSTRATED BELOW.

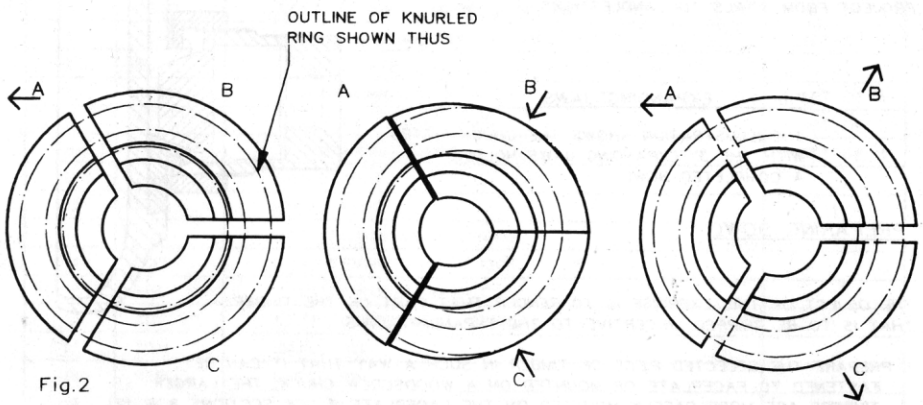


Fig.2

STAGE 1

ENGAGE JAW (A) THROUGH RING AND IN DIRECTION OF ARROW.

STAGE 2

PUSH JAWS (B) & (C) IN DIRECTION OF ARROWS AND ENGAGE THROUGH THE RING.

STAGE 3

ONCE ALL JAWS ARE ENGAGED THROUGH RING, RELEASE PRESSURE ON JAWS AS INDICATED.

3. SELECT APPROPRIATE PLUG, HOLD IN POSITION ON CHUCK BODY AND ENGAGE RING BY APPROX. 1 TURN.

MOUNTING TIMBER

1. OFFER WORKPIECE TO CHUCK JAWS AND ENGAGE JAW (A) FULLY INTO PREVIOUSLY PREPAIRED DOVETAILED RECESS. FOLLOW PROCEDURE AS SET OUT IN fig. 2 FOR JAWS (B) & (C), THEN TURN RING BY HAND TO TIGHTEN JAWS INTO RECESS.

2. BEFORE SWITCHING THE MACHINE ON CHECK THE TIMBER FOR SECURITY ON THE CHUCK AND ROTATE IT BY HAND TO MAKE SURE THAT IT IS NOT GOING BE OBSTRUCTED BY ANY PARTS OF THE LATHE, MAKE SURE THAT ANY PARTS OF THE TIMBER THAT HAVE BEEN TURNED AT THE SAME TIME AS THE DOVETAIL RECESS ARE RUNNING TRUE TO YOUR SATISFACTION (STILL ONLY ROTATING BY HAND).
IF THE FACEPLATE OR WOODSCREW CHUCK ARE STILL ATTACHED THEY SHOULD NOW BE REMOVED. TURNING CAN NOW BEGIN BUT ENSURE FULL COMPLIANCE WITH THAT PART OF THIS MANUAL UNDER THE HEADING "SAFETY" BEFORE PROCEEDING.

8. FACE PLATE RING

APPLICATION

FACE PLATE RINGS ARE TYPICALLY USED FOR MOUNTING RELATIVELY LARGE OR HEAVY PIECES OF TIMBER WHEN CARRYING OUT THE "ROUGHING OUT" STAGE.

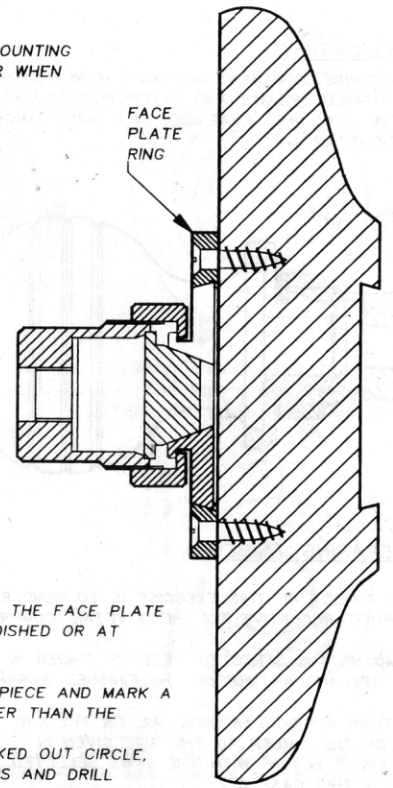


Fig. 3 – FACE PLATE RING

THE ILLUSTRATION SHOWS THE FACE PLATE RING FITTED ON THE EXPANDING JAWS CARRYING OUT INITIAL OPERATION ON A LARGE BOWL.

PREPARING AND MOUNTING TIMBER

1. THE FACE OF THE TIMBER TO BE SCREWED TO THE FACE PLATE RING SHOULD WHERE POSSIBLE BE SLIGHTLY DISHED OR AT LEAST FLAT.

2. FIND THE APPROXIMATE CENTRE OF THE WORKPIECE AND MARK A CIRCLE WHICH IS SLIGHTLY LARGER IN DIAMETER THAN THE FACE PLATE RING.
PLACE THE RING CENTRALLY WITHIN THE MARKED OUT CIRCLE, USING IT AS A TEMPLATE MARK THE POSITIONS AND DRILL PILOT HOLES FOR THE WOOD SCREWS.
SECURE RING TO WORKPIECE USING SCREWS WHICH ARE APPROPRIATE TO THE SIZE AND NATURE OF THE TIMBER.

3. FIT POWER CHUCK BODY AND 3" EXPANDING JAWS TO LATHE SPINDLE AND MOUNT FACE PLATE RING/WORKPIECE ONTO JAWS.
PLEASE REFER TO SECTION 7 – EXPANDING JAWS – ASSEMBLY/MOUNTING TIMBER.

4. BEFORE SWITCHING ON THE MACHINE CHECK THE TIMBER FOR SECURITY ON THE CHUCK AND ROTATE IT BY HAND TO MAKE SURE THAT IT IS NOT GOING TO BE OBSTRUCTED BY ANY PARTS OF THE LATHE.
TURNING CAN NOW BEGIN BUT ENSURE FULL COMPLIANCE WITH THAT PART OF THIS MANUAL UNDER THE HEADING "SAFETY" BEFORE PROCEEDING.

9. DOVETAIL COMPRESSION JAWS

APPLICATION

COMPRESSION JAWS ARE USED FOR GRIPPING PREVIOUSLY ROUNDED TIMBER SUCH AS TURNED SPIGOTS AND EXTERNAL CIRCULAR DOVETAILS AS SHOWN IN FIG.3. THESE JAWS ARE AVAILABLE IN A WIDE RANGE OF SIZES FROM 5/8" DOVETAIL TO 3" DOVETAIL.

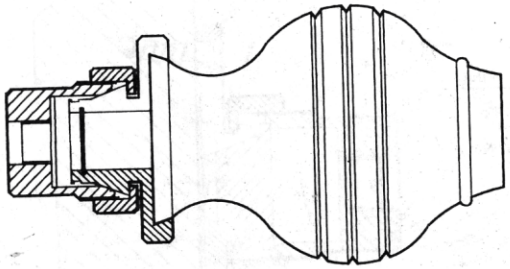


Fig. 4 –
DOVETAIL COMPRESSION JAWS

THE ILLUSTRATION SHOWS THE CHUCK FITTED WITH THE 3" DOVETAIL COMPRESSION JAWS HOLDING A COMPLETED LAMP BASE.

PREPARING TIMBER

THE OBJECT OF THIS EXERCISE IS TO RENDER THAT PART OF THE TIMBER THAT IS TO BE GRIPPED, RECEPTIVE TO THE DOVETAIL COMPRESSION JAWS.

1. MOUNT THE SELECTED PIECE OF TIMBER IN SUCH A WAY THAT IS APPROPRIATE TO ITS SIZE AND NATURE OF THE FINISHED WORKPIECE.

2. TURN A CIRCULAR DOVETAIL ON THE END OF THE TIMBER TO THE SIZE GIVEN IN Fig. 5 IN LINE WITH THE JAWS SELECTED, (IN THIS CASE 3"). THE OPERATOR SHOULD AIM TO WORK WITHIN A TOLERANCE OF 3mm IE: NOMINAL DIA. ±1.5mm.

3. FOR OPTIMUM CHUCK PERFORMANCE THE OPERATOR SHOULD AIM IDEALLY FOR THE WORKPIECE TO BE NOMINAL SIZE TO SLIGHTLY BELOW.

4. CHECK THE WORKPIECE TO SATISFY YOURSELF THAT THE JAWS YOU HAVE CHOSEN WILL FIT THE DOVETAIL

5. SEE SECTION ON JAW ASSEMBLY – (PAGE 14) BEFORE PROCEEDING.

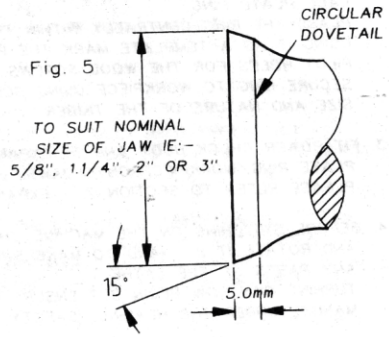
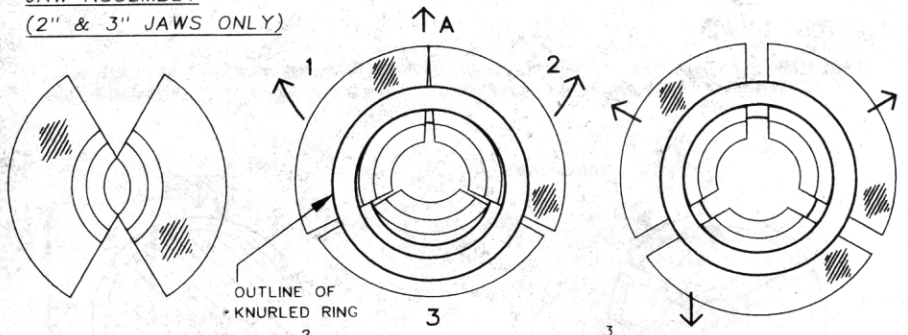


Fig. 5

9. DOVETAIL COMPRESSION JAWS (CONT.)

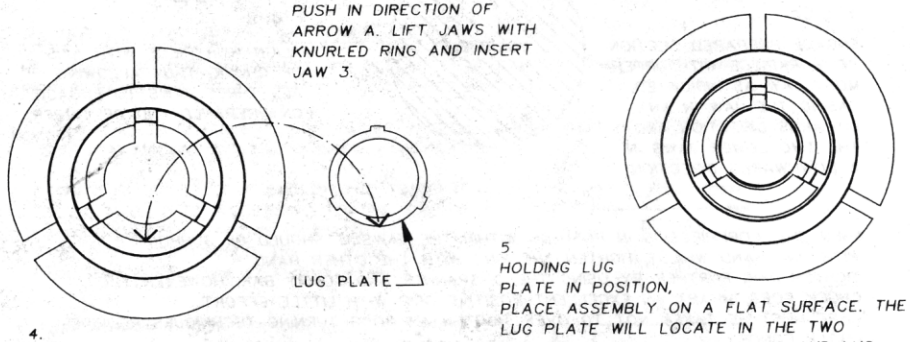
JAW ASSEMBLY (2" & 3" JAWS ONLY)



1. SET 2 JAWS FACE DOWN ON A FLAT SURFACE.

2. PLACE KNURLED RING OVER REAR OF JAWS (THREAD – UPPERMOST). OPEN JAWS 1 & 2 THEN PUSH IN DIRECTION OF ARROW A. LIFT JAWS WITH KNURLED RING AND INSERT JAW 3.

3. PLACING JAWS/KNURLED RING ON A FLAT SURFACE, OPEN JAWS TO THE MAX. WITHIN THE KNURLED RING.



4. CAREFULLY LIFT KNURLED RING CAUSING JAWS TO PIVOT AND OPEN WIDER AT THE REAR. INSERT LUG PLATE INTO GROOVE INSIDE REAR OF JAW, LOCATING LUGS EITHER SIDE OF JAW.

5 HOLDING LUG PLATE IN POSITION, PLACE ASSEMBLY ON A FLAT SURFACE. THE LUG PLATE WILL LOCATE IN THE TWO REMAINING JAWS. SECURE JAWS AND LUG PLATE TOGETHER USING RUBBER BAND LOCATING IT IN THE GROOVE AROUND THE REAR OF THE JAWS.

6. ENGAGE RING/JAW ASSEMBLY ONTO CHUCK BODY SCREWING RING ON BY APPROX. 1 TURN. THEN REFER TO "MOUNTING TIMBER" ON PAGE 15.

JAW ASSEMBLY – (5/8" & 1.1/4" JAWS)

1. PLACING JAWS FACE DOWN ON A FLAT SURFACE, ASSEMBLE ALL THREE JAWS AROUND THE LUG PLATE LOCATING LUG PLATE IN GROOVE AS OUTLINED IN NOTE 4 ABOVE.

2. LOCATE RUBBER BAND IN GROOVE AROUND REAR OF JAWS.

3. PLACE JAW UNIT INTO CHUCK BODY AND WHILST HOLDING IN POSITION ENGAGE AND SCREW ON KNURLED RING BY APPROX. 1 TURN BEFORE ATTEMPTING TO GRIP WORKPIECE IN CHUCK.

9. DOVETAIL COMPRESSION JAWS (CONT.)

MOUNTING TIMBER

1. PLACE THAT PART OF THE WORKPIECE TO BE GRIPPED INTO THE JAWS AS SET OUT IN THE SEQUENCE OF DIAGRAMS (Fig.6a & Fig.6b).

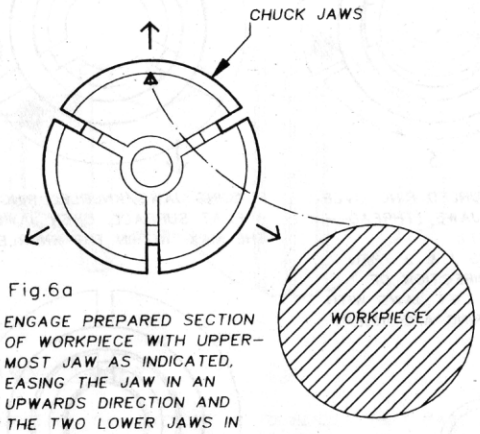


Fig.6a

ENGAGE PREPARED SECTION OF WORKPIECE WITH UPPER-MOST JAW AS INDICATED, EASING THE JAW IN AN UPWARDS DIRECTION AND THE TWO LOWER JAWS IN A DOWNWARDS DIRECTION.

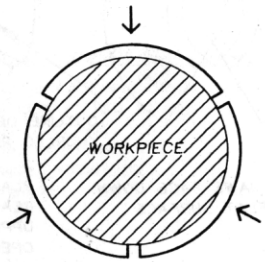


Fig.6b

ALIGN WORKPIECE WITH AXIS OF CHUCK, THUS ALLOWING ALL THREE JAWS TO ENGAGE ON PREPARED END OF TIMBER.

2. WHEN THE WORKPIECE IS IN POSITION WITHIN THE JAWS IT SHOULD BE SUPPORTED WITH ONE HAND WHILST TIGHTEN THE RING WITH THE OTHER HAND.
TIGHTEN RING FURTHER BY USING THE C-SPANNER AND TOMMY BAR, HOWEVER THE CHUCK DOES IMPART AN EXCELLENT POSITIVE GRIP WITH LITTLE EFFORT.
CARE MUST BE TAKEN NOT TO OVER TIGHTEN AS GOOD TURNING TECHNIQUES REQUIRE LITTLE FORCE.
FORCE REQUIRED DEPENDS TO A CERTAIN EXTENT ON THE NATURE OF THE WORK PIECE.
SOME EXPERIMENTATION WILL HELP THE USER TO GET THE CORRECT "FEEL" FOR IT.

3. BEFORE SWITCHING ON THE MACHINE CHECK THE TIMBER FOR SECURITY IN THE CHUCK AND ROTATE IT BY HAND TO MAKE SURE THAT IT IS NOT GOING TO BE OBSTRUCTED BY ANY PARTS OF THE LATHE. MAKE SURE THAT ANY PARTS OF THE TIMBER THAT HAVE BEEN TURNED AT THE SAME TIME AS THE SPIGOT RUN TRUE TO YOUR SATISFACTION (STILL ROTATING BY HAND). TURNING CAN NOW BEGIN BUT ENSURE FULL COMPLIANCE WITH THAT PART OF THIS MANUAL UNDER THE HEADING "SAFETY" BEFORE PROCEEDING.
IN THE EVENT OF THE WORK PIECE NOT RUNNING SUFFICIENTLY TRUE AFTER THE FIRST TIGHTENING THEN STOP THE MACHINE, SLACKEN THE RING, ROTATE THE WORK PIECE A FRACTION OF A TURN WHILST KEEPING THE COMPRESSION JAWS STILL, THEN TIGHTEN UP AGAIN AND RE-TRY.

9. PARALLEL COMPRESSION JAWS

APPLICATION

PARALLEL COMPRESSION JAWS ARE USED FOR GRIPPING PREVIOUSLY ROUNDED TIMBER SUCH AS DOWELLING AND SPIGOTS AS SHOWN IN Fig.7. THESE JAWS ARE AVAILABLE IN A WIDE RANGE OF SIZES FROM 3/8" PARALLEL TO 1" PARALLEL.

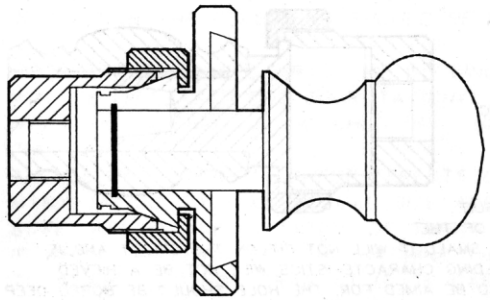


Fig. 7 –
PARALLEL COMPRESSION JAWS

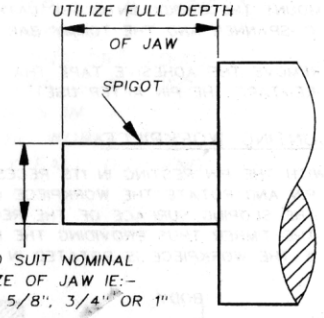
THE ILLUSTRATION SHOWS THE CHUCK FITTED WITH THE 1" PARALLEL COMPRESSION JAWS HOLDING A COMPLETED DOOR KNOB.

PREPARING AND MOUNTING TIMBER

THE OBJECT OF THIS EXERCISE IS TO RENDER THAT PART OF THE TIMBER THAT IS TO BE GRIPPED, RECEPTIVE TO THE PARALLEL COMPRESSION JAWS.

1. MOUNT THE SELECTED PIECE OF TIMBER IN SUCH A WAY THAT IS APPROPRIATE TO ITS SIZE AND NATURE OF THE FINISHED WORKPIECE.

2. TURN A SPIGOT ON THE END OF THE TIMBER TO THE SIZES GIVEN HERE ACCORDING TO THE SIZE OF JAWS SELECTED, (IN THIS CASE 1").
THE OPERATOR SHOULD AIM TO WORK WITHIN A TOLERANCE OF 1.5mm IE; (-.5mm +1.0mm).



3. FOR OPTIMUM CHUCK PERFORMANCE THE OPERATOR SHOULD IDEALLY AIM FOR THE WORKPIECE TO BE NOMINAL SIZE TO SLIGHTLY ABOVE.

4. WHEN TURNING A SPIGOT OR USING READY ROUNDED TIMBER, THE TURNED SECTION SHOULD BE AS NEAR TO THE NOMINAL SIZE OF THE JAW AS PRACTICAL, BE ROUND AS PRACTICAL AND SHOULD NOT BE TAPERED.
THE ROUND PART OF THE TIMBER SHOULD BE LONG ENOUGH TO UTILISE THE FULL LENGTH OF THE JAWS.

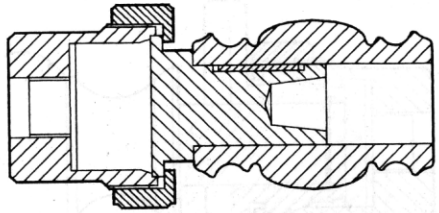
5. FOLLOW THE PROCEDURE FOR JAW ASSEMBLY, MOUNTING WORKPIECE AND STARTING UP AS OUTLINED FOR DOVETAIL COMPRESSION JAWS.

10. PIN CHUCK

APPLICATION

PIN CHUCKS ARE USED FOR MOUNTING PREVIOUSLY BORED TIMBER , THEY ARE PARTICULARLY USEFUL WHERE THE OUTER SURFACE OF THE WORKPIECE GIVES LITTLE SCOPE FOR GRIPPING USING OTHER METHODS.

Fig. 8 – PIN CHUCK



THE ILLUSTRATION SHOWS THE CHUCK FITTED WITH THE 1" PIN CHUCK HOLDING A COMPLETED SERVIETTE RING.

PREPARING TIMBER

1. THE TIMBER SHOULD BE BORED TO SUIT THE SPIGOT BEING USED. THE SIZE OF THE BORE IS IMPORTANT FOR IF IT TOO SMALL IT WILL NOT FIT ON THE SPIGOT AND IF IT IS LARGE THE OPTIMUM WORKHOLDING CHARACTERISTICS WILL NOT BE ACHIEVED. A CLOSE FIT WITHOUT PLAY SHOULD BE AIMED FOR. THE HOLE SHOULD BE BORED DEEP ENOUGH FOR THE WHOLE OF THE SPIGOT TO PENETRATE INTO THE WORKPIECE. THE HOLE SHOULD NOT BE TAPERED.

CHUCK ASSEMBLY

1. PLACE THE SPIGOT INTO THE BODY RECESS AS SHOWN IN Fig.9
2. SCREW THE KNURLED RING ONTO THE BODY AND TIGHTEN BY HAND.
3. MOUNT THE CHUCK ONTO THE LATHE SPINDLE AND TIGHTEN THE RING USING THE C–SPANNER AND THE TOMMY BAR ON THE BODY.
4. REMOVE THE ADHESIVE TAPE THAT SECURES THE PIN TO THE SPIGOT (REMEMBER TO RE–TAPE THE PIN AFTER USE).

MOUNTING WORKPIECE

1. WITH THE PIN RESTING IN ITS RECESS, SLIDE THE WORKPIECE OVER THE SPIGOT AND PIN AND ROTATE THE WORKPIECE CLOCKWISE, THIS WILL CAUSE THE PIN TO CLIMB UP THE SLOPING SURFACE OF THE RECESS AND LODGE TIGHT BETWEEN THE SPIGOT AND THE TIMBER THUS PROVIDING THE NECESSARY DRIVE. IF THE WORKPIECE IS ROTATED IN THE OPPOSITE DIRECTION THIS WILL FREE IT.

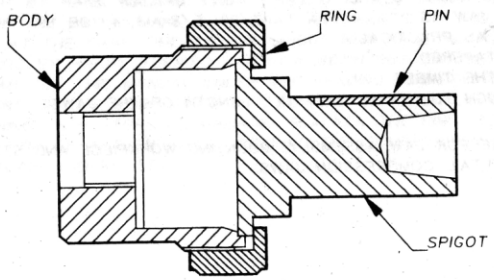


Fig. 9

10. PIN CHUCK – (CONT.)

7. BEFORE SWITCHING ON ROTATE THE WORKPIECE BY HAND TO ENSURE IT IS NOT GOING TO BE OBSTRUCTED BY ANY PARTS OF THE LATHE. TURNING CAN NOW BEGIN BUT ENSURE FULL COMPLIANCE WITH PART OF THIS MANUAL UNDER THE HEADING "SAFETY" BEFORE PROCEEDING.

IN ADDITION THE FOLLOWING SHOULD BE BORNE IN MIND :

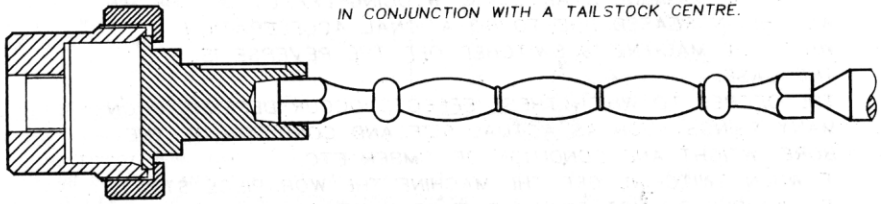
WHEN THE MACHINE STARTS THE WEDGING EFFECT OF THE PIN WILL BE INCREASED DUE TO ROTATIONAL ACCELERATION. WHEN THE MACHINE IS SWITCHED OFF THE REVERSE IS THE CASE.
THE DEGREE TO WHICH THESE EFFECTS OCCUR DEPENDS UPON MANY THINGS SUCH AS ACTUAL SIZE AND CONDITION OF THE BORE, WEIGHT AND CONDITION OF TIMBER ETC.
IF WHEN SWITCHING OFF THE MACHINE THE WORKPIECE STARTS TO WOBBLE DO NOT GRAB AT IT OR CARRY OUT ANY ILL CONSIDERED ACTION THAT COULD MAKE THE SITUATION WORSE OR DANGEROUS.
ALWAYS BE PREPARED FOR THIS OCCURANCE BEFOREHAND.
IF THE WOBBLE IS SLIGHT THE WORKPIECE CAN BE LEFT TO RUN DOWN UNTOUCHED BUT IF IT IS IN DANGER OF COMING OFF THE SPIGOT, A SLIGHT AXIAL PRESSURE WITH A STICK OF SOMETHING THAT WILL NOT MARK THE WOOD NEAR THE CENTRE OF ROTATION SHOULD BE SUFFICIENT TO KEEP THE WORKPIECE ON THE SPIGOT UNTIL THE MACHINE HAS STOPPED.
THERE SHOULD OF COURSE BE NO PROJECTIONS OR RADIAL RECESSES IN THE AREA WHERE THE PRESSURE IS APPLIED.
IT IS ADVISABLE TO ENSURE THAT THE PIN IS IN THE UPPERMOST POSITION BEFORE REMOVING THE WORKPIECE FROM THE SPIGOT OTHERWISE THE PIN MAY FALL OUT AND BE LOST AMONGST THE WOOD SHAVINGS.

11. CONICAL CHUCK FACILITY

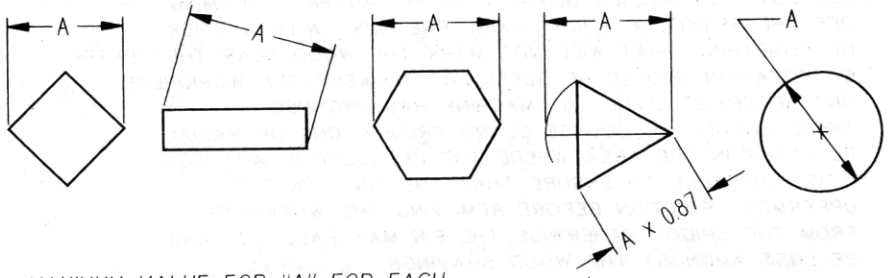
APPLICATION

A CONICAL CHUCK IS INCORPORATED INTO EACH SPIGOT WHICH CAN BE USED FOR SUPPORTING SPINDLE WORK AT THE HEADSTOCK END, THE OTHER END BEING SUPPORTED BY A TAILSTOCK ACCESSORY. THE CONICAL CHUCK DRIVES BY FRICTION ON THE DIAMETER OF THE WORKPIECE WHERE IT MEETS THE END OF THE TIMBER, THE TIMBER NEED NOT BE ROUND HOWEVER, IT CAN BE SQUARE, TRIANGULAR, RECTANGULAR OR POLYGONAL ETC.

THE ILLUSTRATION SHOWS THE CONICAL CHUCK FACILITY IN CONJUNCTION WITH A TAILSTOCK CENTRE.



THE FOLLOWING ILLUSTRATIONS ARE TYPICAL SECTIONS OF TIMBER THAT CAN BE HOUSED USING THE CONICAL CHUCK FACILITY.



MAXIMUM VALUE FOR "A" FOR EACH SIZE OF CENTRIFUGAL SPIGOT.

CENTRIFUGAL SPIGOT SIZE	CONICAL CHUCK CAPACITY "A" (MAX.)
5/8"	11/32" (8.7mm)
3/4"	15/32" (11.9mm)
1"	23/32" (18.3mm)
1.3/8"	1.3/32" (27.8mm)

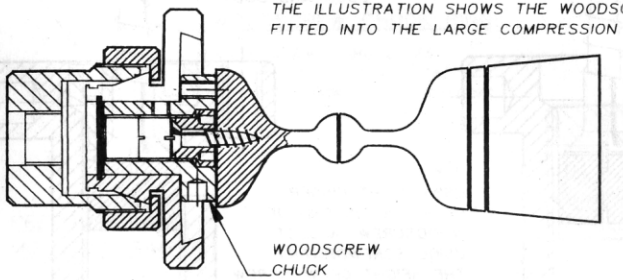
12. WOODSCREW CHUCKS

APPLICATION

WOODSCREW CHUCKS ARE MOST SUITED FOR SECURING TIMBER THAT IS OF AN IRREGULAR PERIPHERAL SHAPE. THIS IS USUALLY THE CASE WHEN CARRYING OUT THE INITIAL OPERATIONS ON A NEW PIECE OF TIMBER, THE BASIC WOODSCREW CHUCK IS 1.3/4" DIA. WITH AN ADAPTOR RING AVAILABLE FOR LARGER PIECES OF TIMBER.

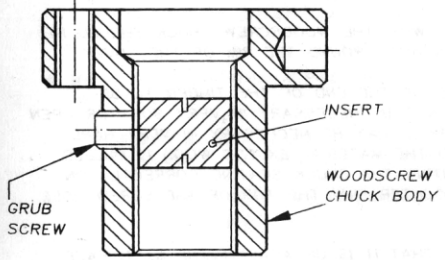
Fig.10 – WOODSCREW CHUCK

THE ILLUSTRATION SHOWS THE WOODSCREW CHUCK FITTED INTO THE LARGE COMPRESSION JAWS

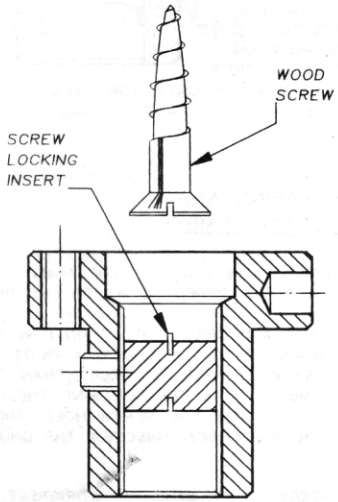


WOODSCREW CHUCK ASSEMBLY

ASSEMBLE WOODSCREW CHUCK AS SHOWN IN Fig. 11 (i – iv).

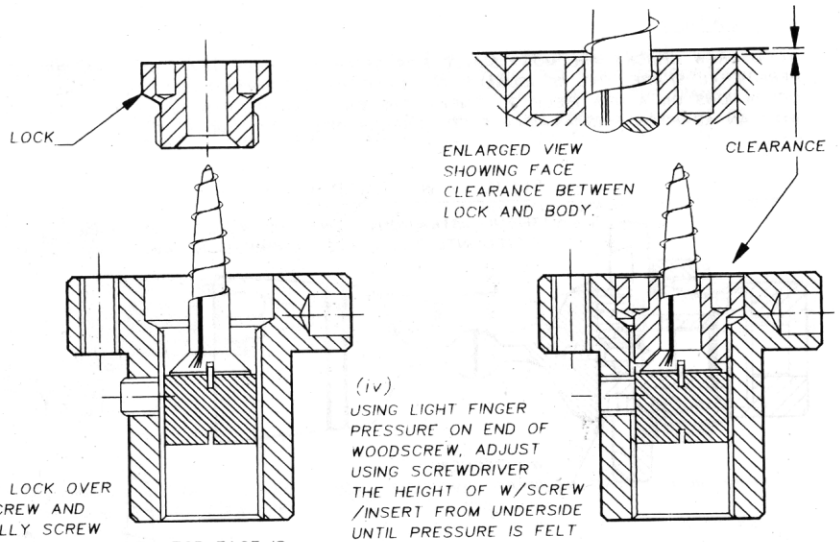


(i)
HOLDING CHUCK VERTICALLY AS SHOWN ABOVE
PLACE INSERT INTO CHUCK BODY (FROM FACE SIDE) AND SCREW IN BY APPROX. 5 TURNS.
ENSURE THAT CRUBSCREW IS IN THE UNLOCKED POSITION.



(ii)
STILL HOLDING WOODSCREW CHUCK VERTICALLY, POSITION SCREW LOCKING INSERT IN TOPSIDE OF SLOTTED INSERT. PLACE WOODSCREW OVER SCREW LOCKINC INSERT.

WOODSCREW CHUCKS – (CONT.)



(iii)
ENGAGE LOCK OVER WOODSCREW AND CAREFULLY SCREW INTO CHUCK BODY, UNTIL TOP FACE IS JUST BELOW FRONT FACE OF CHUCK.

(iv)
USING LIGHT FINGER PRESSURE ON END OF WOODSCREW, ADJUST USING SCREWDRIVER THE HEIGHT OF W/SCREW /INSERT FROM UNDERSIDE UNTIL PRESSURE IS FELT AGAINST THE LOCK. UNSCREW INSERT TO ALIGN NEAREST FLAT WITH GRUBSCREW, ENSURING THAT THE GRUBSCREW IT ENGAGES SQUARE WITH AND ON THE CENTRE OF THE FLAT. TIGHTEN GRUBSCREW, THEN TIGHTEN LOCK UNTIL WOODSCREW IS FULLY SECURE.

PREPARING AND MOUNTING TIMBER

1. IDEALLY THE FACE OF THE TIMBER IN CONTACT WITH THE WOODSCREW CHUCK SHOULD BE SLIGHTLY DISHED SO AS TO ENSURE FULL CONTACT AROUND THE RIM OF THE CHUCK.
2. MARK AND DRILL A PILOT HOLE IN THE CENTRE OF THE END OF THE TIMBER TO BE MOUNTED TO THE CHUCK. A PILOT HOLE MAY NOT BE NECESSARY IN VERY SOFT OR OPEN GRAINED TIMBER, A LARGER THAN STANDARD HOLE MAY BE NECESSARY IN VERY HARD TIMBERS. IF AFTER SCREWING THE CHUCK INTO THE MATERIAL EXCESS WOOD IS PULLED OUT AROUND THE SCREW HOLE, THUS PREVENTING THE CHUCK SEATING CORRECTLY ON THE WORKPIECE. UNSCREW THE CHUCK AND COUNTER SINK THE TOP OF THE SCREW HOLE.
4. SCREW CHUCK INTO THE WORKPIECE, ENSURING THAT IT IS UP AGAINST THE BACK FACE OF THE TIMBER IN ORDER TO PREVENT UNDUE MOVEMENT DURING OPERATION.
5. FIT RP3000 BODY WITH 1" PARALLEL JAWS (SEE SECTION 8) AND SECURE TO LATHE USING TOMMY BAR. PLACE WOODSCREW CHUCK INTO JAWS AND TIGHTEN RING USING THE C-SPANNER AND TOMMY BAR.
6. BEFORE SWITCHING ON THE MACHINE CHECK THE TIMBER FOR SECURITY IN THE CHUCK AND ROTATE IT BY HAND TO MAKE SURE THAT IT IS NOT GOING TO BE OBSTRUCTED BY ANY PARTS OF THE LATHE. TURNING CAN NOW BEGIN BUT ENSURE FULL COMPLIANCE WITH THAT PART OF THIS MANUAL UNDER THE HEADING "SAFETY" BEFORE PROCEEDING.

WOODSCREW CHUCK RING

APPLICATION

WOODSCREW CHUCK RINGS ARE USED WHEN A LITTLE MORE SECURITY WITH REGARD TO HOLDING THE WORKPIECE IS REQUIRED THAN CAN BE ACHIEVED BY USING THE WOODSCREW CHUCK ON ITS OWN.
DEPENDING ON THE NATURE OF THE WORKPIECE THEY CAN BE USED FOR PRIMARY MOUNTING ONLY AS SHOWN IN Fig 12 OR FOR BOTH PRIMARY AND FINISH MOUNTING.

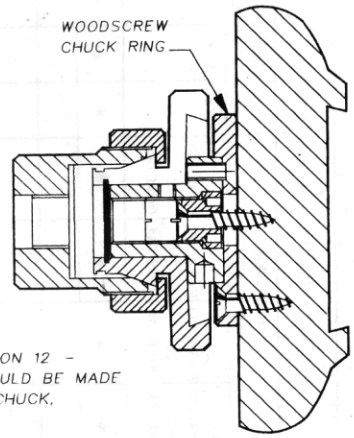


Fig. 12 – WOODSCREW CHUCK RING

THE ILLUSTRATION SHOWS THE 2.7/8" WOODSCREW CHUCK RING UTILISING THE SCREW IN THE WOODSCREW CHUCK HOLDING AN INTERMEDIATE SIZED BOWL.

PREPARING AND MOUNTING TIMBER

1. ASSEMBLE WOODSCREW CHUCK AS DESCRIBED IN SECTION 12 – WOODSCREW CHUCKS – PROCEDURE. ALLOWANCE SHOULD BE MADE WHEN SELECTING THE WOODSCREW FOR USE IN THE CHUCK, FOR THE THICKNESS OF THE CHUCK RING.
2. ENGAGE FACE OF WOODSCREW CHUCK WITH RECESS IN CHUCK RING AND SECURE USING THE 3 – M6 x 16mm C/S SCREWS.
3. THE FACE OF THE WORKPIECE TO BE FASTENED TO THE CHUCK SHOULD IDEALLY BE SLIGHTLY DISHED OR AT LEAST FLAT SO AS TO ENSURE FULL CONTACT AROUND THE RIM OF THE CHUCK.
4. MARK AND DRILL WITH A PILOT HOLE THE APPROXIMATE CENTRE ON THE FACE OF THE WORKPIECE.
5. SCREW IN THE WOODSCREW CHUCK/RING ASSEMBLY SO THE FACE OF THE RING IS UP TIGHT AGAINST THE FACE OF THE WORKPIECE.
6. MARK AND DRILL PILOT HOLES THROUGH THE HOLES IN THE RING AND SCREW IN THE APPROPRIATE WOODSCREWS.
7. FIT RP3000 BODY WITH 1" PARALLEL JAWS (SEE SECTION 9) AND SECURE TO LATHE USING TOMMY BAR. PLACE WOODSCREW CHUCK/RING/WORKPIECE INTO JAWS AND TIGHTEN RING USING THE C-SPANNER AND TOMMY BAR.
8. BEFORE SWITCHING ON THE MACHINE CHECK THE TIMBER FOR SECURITY ON THE CHUCK AND ROTATE IT BY HAND TO MAKE SURE THAT IT IS NOT GOING TO BE OBSTRUCTED BY ANY PARTS OF THE LATHE. TURNING CAN NOW BEGIN BUT ENSURE FULL COMPLIANCE WITH THAT PART OF THIS MANUAL UNDER THE HEADING "SAFETY" BEFORE PROCEEDING.

14. RP3000 POWER CHUCK

BASIC KIT	UNIT	DESCRIPTION	UNIT REQUIREMENT FOR EACH MODE													
			EXPANSION JAW MODE			COMPRESSION JAW MODE				PIN CHUCK MODE				SCREW CHUCK MODE		FACE PLATE MODE
			1" DOVETAIL	1.3/4" DOVETAIL	3" DOVETAIL	3/8" PARALLEL 5/8" DOVETAIL	5/8" PARALLEL 1.1/4" DOVETAIL	3/4" PARALLEL 2" DOVETAIL	1" PARALLEL 3" DOVETAIL	5/8"	3/4"	1"	1.3/8"	1.3/4"	2.7/8"	
*	RP3000 A	BODY UNIT	*	*	*	*	*	*	*	*	*	*	*	*	*	*
*	RP3000 B	1.3/4" SC. CHUCK UNIT												*	*	
*	RP3000 C	2.7/8" SC. CHUCK RING UNIT													*	
	RP3000 D	3/8"P-5/8"D COMP. JAWS UNIT				*										
	RP3000 E	5/8"P-1.1/4"D COMP. JAWS UNIT					*									
	RP3000 F	3/4"P-2"D COMP. JAWS UNIT						*								
*	RP3000 G	1"P-3"D COMP. JAWS UNIT							*					*	*	*
	RP3000 H	1" EXP. JAW UNIT	*													
	RP3000 I	1.3/4" EXP. JAW UNIT		*												
*	RP3000 J	3" EXP. JAW UNIT			*											
*	RP3000 K	FACEPLATE RING UNIT														*
	RP3000 L	5/8" PIN CHUCK UNIT								*						
	RP3000 M	3/4" PIN CHUCK UNIT									*					
*	RP3000 N	1" PIN CHUCK UNIT										*				
	RP3000 O	1.3/8" PIN CHUCK UNIT											*			

NOTES