# GENERAL SAFETY INSTRUCTIONS.

- 1. Know your new lathe. Read and understand your Owner's Manual. Learn its application and limitations.
- If this machine is fitted with a power lead and electric switch, check that your supply voltage and earthing (grounding) are correct.
- Do not use the lathe in damp or wet locations. Keep clean and lightly oiled.
- 4. Make sure the belt and pulley are adequately guarded at all times.
- 5. Always remove wrenches, chuck keys, toggle bars, etc. as soon as they are finished with.
- 6. Keep the work area well lit and provide adequate surrounding work space and ventilation.
- 7. Young children and others should be kept at a safe distance.
- 8. Do not use blunt tools or force the machine to do more than it was designed for.
- Do not wear loose clothing, neckties, rings or jewellery which could get caught in revolving parts. Long hair should be restrained.
- Safety goggles should be worn at all times. Also use a face or dust mask during dusty operations and extended periods of operation.
- Fix all workpieces securely in the lathe, whether between centres, on faceplates or in chucks, etc.
- 12. Maintain tools correctly, keep them sharp, clean and free of rust for better and safer performance.
- Check the belt position (speed) of the lathe BEFORE Mounting any wood in the lathe.

#### RECOMMENDED TURNING SPEEDS FOR SOFTWOODS

DIAM. INCHES	DIAM. MM	RPM	These speeds can vary with different timber species and the skill of the operator. Hardwoods and unbalanced pieces generally one speed lower than the above recommended speeds.
0 - 1	0 - 25	2800	
1 - 3	25 - 75	1700	
3 - 6	75 - 150	1100	
6 - 8	150 - 200	700	

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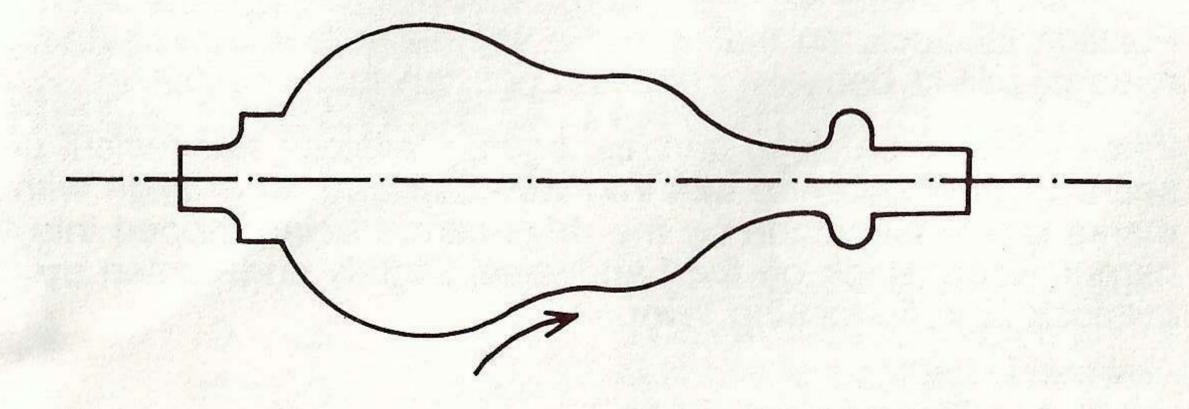
#### OPERATING INSTRUCTIONS

### SPINDLE TURNING OR TURNING BETWEEN CENTRES

(Grain in timber is parallel to centres of lathe)

- Check all material carefully for faults before placing in the lathe. Look for loose knots, loose bark, splits, windshake defects, decayed sections and foreign objects. Use only sound timber.
- 2. Mark the centres on the ends of the material and drill 1/8" diameter (3mm) holes 1/4" deep (6mm). Use centre finder, diagonal sawcuts, marking gauge or dividers to find the centres. Rough, round, log material should be centred so that it is not too far out of balance when placed in the lathe. If necessary, remove lumps, etc. with a small axe.
- 3. Determine which end of the wood should be positioned towards the headstock (the driving end). Various factors govern this.
- 4. Harder woods might need the drive centre set into the end of the wood. Do this by standing the piece on end and tapping the drive centre into the wood with a piece of hardwood or a wooden mallet.
  - **NEVER** use a hammer and **NEVER** drive wood onto the drive centre whilst it is in the lathe spindle as serious damage to the lathe can be caused.
- Square material should have the corners removed for greater safety and ease of turning.
- Lubricate the tailstock end of the wood with candle wax to reduce friction on the dead centre. Omit lubrication if a revolving (live) centre is to be used.
- 7. Check and correct the speed of the lathe for the job at hand.
- 8. Position tailstock, so that with the spindle screwed back, the material will fit between centres. Lock tailstock in position.
- 9. Place material between centres, tighten tailstock handwheel until spurs or driving centre bite into wood (softwood) or align with marks previously made by the drive centre being tapped into the harder wood. Back off the handwheel slightly and tighten up the tailstock spindle locking lever.

- 10. Position the tool rest about 1/8" (3mm) above lathe centre height and 1/8" (3mm) from the maximum swing of the material. Use the handwheel on the left of the headstock to rotate the wood and check clearance. Lock tool rest holder in position. The tool rest should always be as close as possible to the workplace and at different heights to suit the methods of cutting and the thickness of certain tools.
- 11. Tools should ALWAYS be correctly ground and sharpened.
- 12. Always position yourself to the left of the headstock when the lathe is switched on for the first time after mounting the wood in the lathe or the speed has just been increased.
  The handwheel on the headstock can be used as a brake after the lathe has been switched off.
- 13. Tools should be placed on the tool rest before commencing to cut the wood.
- 14. Always turn OFF the lathe when adjusting the tool rest position. Also never leave the lathe running unattended.
- 15. The drive centre spurs may become loose in the wood during "roughing down". If this happens, turn off the lathe, loosen the tailstock spindle locking lever, tighten up the tailstock handwheel and relock spindle locking lever.
- 16. Do not sand until ALL cutting is completed. Always remove the tool rest before commencing to sand the finished article.
- 17. Make certain that the No. 1 Morse tapered holes in the headstock and tailstock spindles are always CLEAN before inserting centres, drill chucks, etc.
- 18. Take care of the spindle thread. Do not accidentally damage it with tools whilst spindle turning.
- 19. When spindle turning, always cut from the larger diameters towards the smaller diameters. ("Down hill").

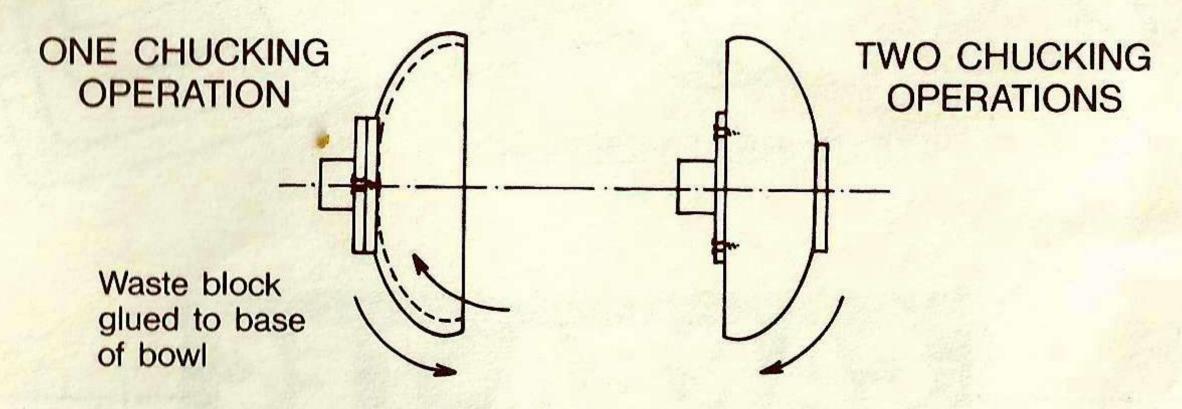


#### FACE PLATE TURNING — BOWL TURNING

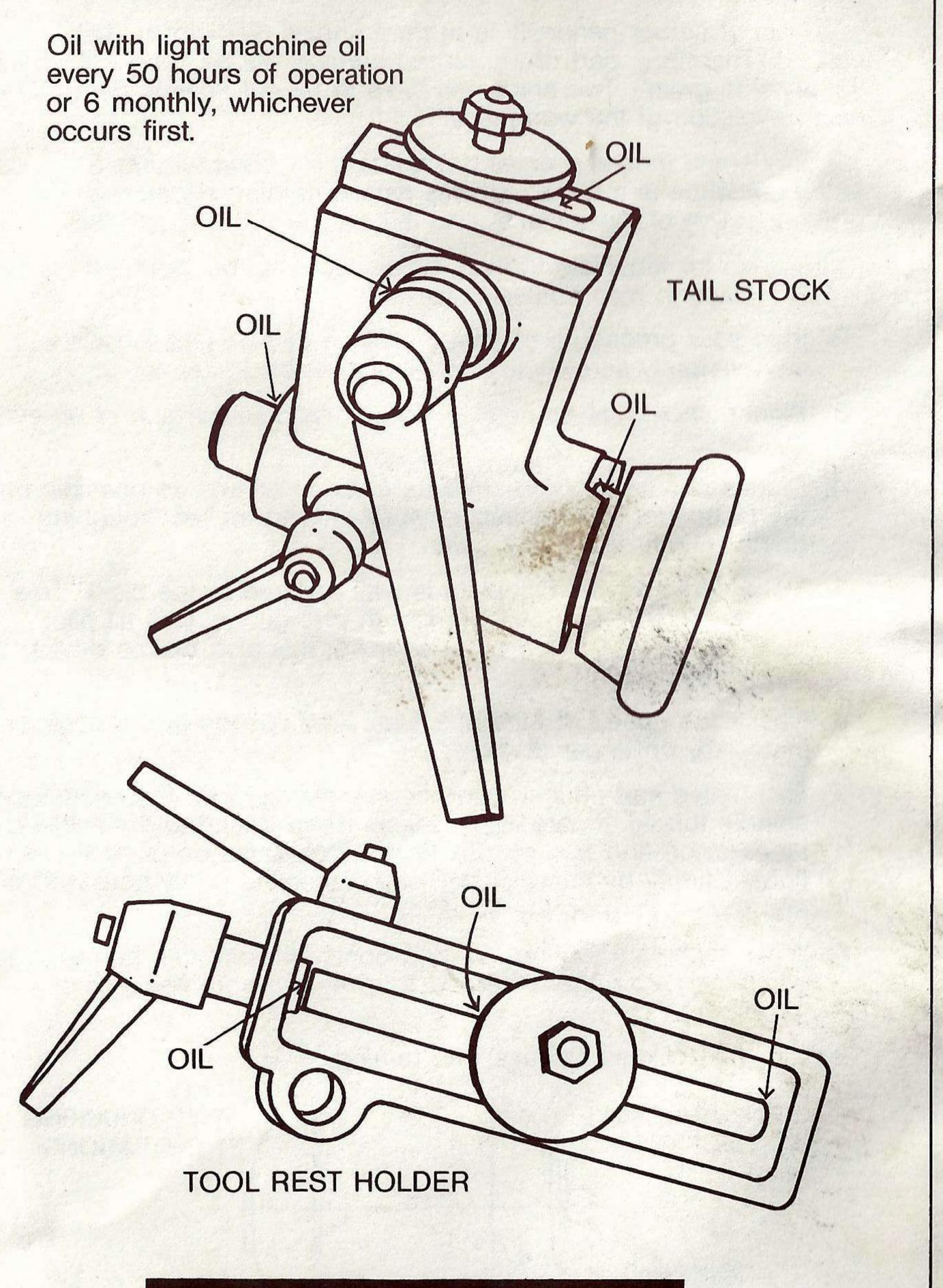
Grain of timber generally is at right angles (90°) to the lathe centres. Therefore, part of the turned surface will be "end grain" and some "side grain". Two areas will have to be cut against the grain in each revolution of the workpiece.

Only some timber species are suitable for bowl turning. More care and experience is required for this type of turning because of the grain direction of the material and the nature of the wood itself.

- Blanks for faceplate turning, bowls, etc. can be mounted on the faceplace in many different ways.
- 2. Plan your procedure so that the piece can be finished without any unsightly screwholes, etc. being visible.
- 3. Blanks should be as near to circular as possible and of an even thickness.
- 4. Blanks should be positioned as close to central as possible on the faceplate. This minimizes vibration and makes "roughing down" much easier and safer.
- 5. Make sure that the faceplate is well secured to the blank. Use enough screws of a suitable length and gauge. Drill all pilot holes in the wood to prevent splitting; this also makes driving the screws easier.
- 6. Check the speed of the lathe. Use slow speeds at the beginning especially on larger diameter pieces.
- 7. Faceplates and chucks can become overtight on the headstock spindle thread, if care is not taken. Keep thread and machined faces clean and free of rust. Screw faceplates on carefully and tighten firmly by hand. Never leave faceplate partly screwed on and then switch on the lathe.
- 8. When faceplate turning is being done, tailstock can be removed completely from the lathe bed to give you more freedom of movement.
- 9. Direction of cuts for faceplate turning.



#### LUBRICATION



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