



STUBBY

Owners and Maintenance Manual

Omega **STUBBY** Lathes

GUARANTEE

All Omega STUBBY Lathes purchased from distribution channels are guaranteed against defects of material or workmanship for a period of two years from date of purchase. Service will be rendered, and defective parts will be replaced without cost to you within that period, provided the equipment does not show evidence of impact damage, mishandling, tampering, corrosion, operation contrary to operating instructions, or modification by an unauthorized persons. The manufacturer or its authorized representatives shall not be liable for any repair or alterations except those made with its written consent and shall not be liable for damages from delay or loss of use or from other indirect or consequential damages of any kind, whether caused by defective material or workmanship or otherwise; and it is expressly agreed that the liability of the manufacturer or its representatives under all guarantees or warranties, whether expressed or implied, is strictly limited to the replacement of parts as hereinbefore provided.

Omega **STUBBY** Lathes

Thank you for purchasing an Omega STUBBY Lathe. Our patented lathes are world leaders in innovation and have been designed to provide the user with a large choice of features not available on conventional machines. These features include an adjustable gap bed, swiveling bedway, auxiliary bed, bowl turning toolslide, and in-built through spindle vacuum port.

All STUBBY lathes have the above features and are of similar basic construction using common parts wherever possible to ensure readily available spares.

S A F E T Y

Please ensure that all electrical work is carried out by competent persons qualified and approved by your local electrical supply authority. We recommend that all users of Omega STUBBY Woodturning Lathes abide by applicable safety regulations and best practice woodturning techniques.

If the owner/user is not proficient in woodturning we advise that they attend a course of instruction from a professional wood turner before attempting any projects.

Commonsense should prevail at all times, as prevention is better than cure. There are also many books and videos available that may assist novice turners to learn the basics of woodturning.

PRODUCT OVERVIEW

Our products are made in Australia at our Carrum Downs, Victoria premises and use only locally manufactured castings and precision machined components to ensure accuracy, durability and quality. Electrical/electronic items are top quality European industrial products and “sealed for life” spindle bearings are also of European origin.

All Omega lathes are now fitted with two (2) speed range “Poly V” pulleys, with electronically controlled infinitely variable speed adjustment from 0-3300 rpm on high range and 0-1200 rpm low range, and are supplied with a remote stop/start station as standard.

Electrical equipment is 220/240V AC single phase 50/60 Hz supply and can generally be plugged into existing domestic power points depending on motor size selected.

Electronic speed variator (inverter) is not user repairable and should be returned to the manufacturer for service or replacement.

A mains isolator (on/off) switch is located at rear of machines and remote stop/start, mushroom “E” stop switch, potentiometer variable speed control from 0-100% and reversing switch are also fitted as standard.

Mechanical configuration of STUBBY lathes is unique in that the capacity can be altered to suit most projects by releasing a cam lock lever and/or detent pin and either sliding or swiveling the lathe bed to the most convenient/suitable position.

Banjo (toolslides) are reamed 1.00” dia. for standard 1.00” diameter tool rest posts and are fitted with cam locks for convenient positioning and a splined adjustable type kip lock for tool rest height locking.

Tailstocks are also locked in position by means of an adjustable position splined lever. Lift hub of lever and rotate lever to suitable position and release hub.

PRODUCT OVERVIEW (cont.)

Headstock & tailstock are drilled through 10mm dia. and are N^o. 2 Morse Taper.

Length wise and angular adjustment of the sliding bed is also made by a similar splined lever. Angular adjustment can only be made if the alignment detent pin is raised firstly.

An auxiliary bed is also provided to further enhance the versatility of STUBBY lathes. This bed can be attached to headstock at right angles to spindle axis to either enable turning back face of large diameter pieces, or fixed to headstock but parallel to lathe centre line to bridge gap for long spindle turning when bed is extended.

The auxiliary bed has 3 mounting faces and may also be attached to any of 4 locations on the main bed to suit almost any project requirement.

Spindle bearings are sealed non-adjustable and do not require lubrication – the lock ring and tab washer being fitted only to retain front inner bearing to spindle.

There is a 24 hole (15°) indexing ring provided on large pulley, with the indexing pin being spring loaded inwards i.e. pin must be pulled out of location holes to position/reposition spindle. – A detent groove is provided to lock index pin in disengaged position.

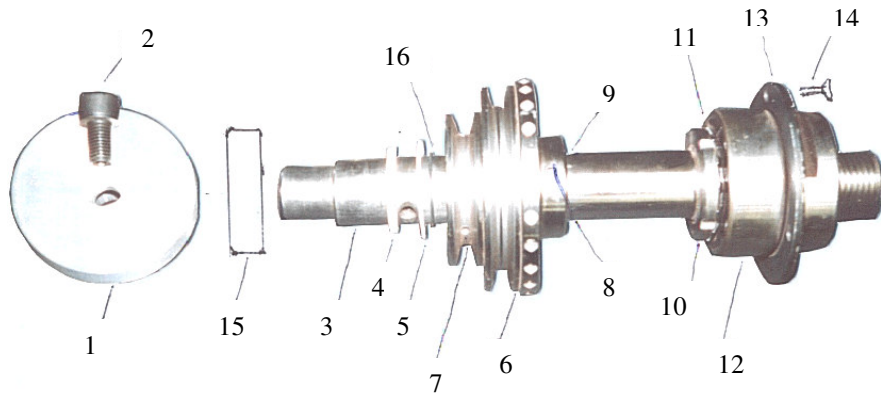
A special feature of all Omega STUBBY lathes is the in built patented vacuum port (¼ BSP) located at rear of headstock adjacent to indexing mechanism. To use this port as a means of providing through spindle vacuum access to vacuum plate or chuck, the 10mm dia. hole through centre of handwheel locking bolt must be sealed off by a suitable wooden or plastic plug just pressed in by hand.

A suitable vacuum source and bleed system is then connected directly to the port without rotary adapters.

SPINDLE ASSEMBLY

(Typical all models)

Parts List	Part N°.	Parts List	Part N°.
1. Handwheel	0008-014	9. Drive Key	0008-016
2. Retaining Screw Handwheel	S0008-015	10. Bearing Lock Nut	0008-007
3. Spindle	0008-003	11. Bearing Lock Washer	0008-006
4. Vacuum Seal Rear	0008-012A	12. Front Bearing	0008-004
5. Vacuum Seal Front	0008-011A	13. Front Bearing Retainer	0008-002
6. Pulley	0008-008	14. Front Bearing Ret. Screws (3)	
7. Pulley Grub Screws M6x8 (3)	S0008-010	15. Rear Bearing	0008-013
8. Pulley Grub Screws M8x10 (3)	S0008-009	16. "O" Ring	0008-018
		17. Belt A26 or 280 J 8	0008-017



MAINTENANCE PROCEDURES

1. Replace drive belt
2. Remove/Replace spindle from headstock
3. Remove/Replace front bearing

NOTE

Pulley may be "A" section or Poly "V" section

SPINDLE ASSEMBLY

MAINTENANCE

1. Replace Drive Belt

Safety: Unplug electric power supply to lathe and loosen drive belt. Disengage indexing pin from holes in pulley.

Procedure

1. Remove 3 – 6mm CSH screws Item #14 from front bearing retainer Item #13.
2. Remove 1 – M16 retaining screw Item #2 from handwheel Item #1 and remove handwheel.
3. Insert M16 x 150 long bolt into handwheel end of spindle in place of Item #2.
4. Drive spindle assembly forward until front & rear bearing journals are clear of housing and spindle respectively.
5. Spindle assembly can then be moved forward enough to allow belt to be passed over end of spindle for removal/replacement.
6. Replace drive belt and assemble spindle by reverse of above steps i.e. 5,4,3,2,1

2. Remove/Replace Spindle

Procedure

Carry out steps 1 to 5 inclusive above

1. Remove vacuum seal Item #5 and "O" ring Item #16.

NOTE: Rear bearing Item #15 and vacuum seal rear Item #4 will stay located in headstock housing. A bearing puller should be used for rear bearing removal and subsequent vacuum seal replacement.

2. Remove 3 – M6 grub screws Item #7.
3. Remove 3 – M8 grub screws Item #8.
4. Gently drive spindle forward & out of pulley Item #6 – **WARNING** – support pulley to prevent dropping.
5. Front bearing assembly and spindle may be then slid forward and out of headstock.

3. Remove/Replace Front Bearing

Procedure

With spindle removed from headstock, proceed as follows.

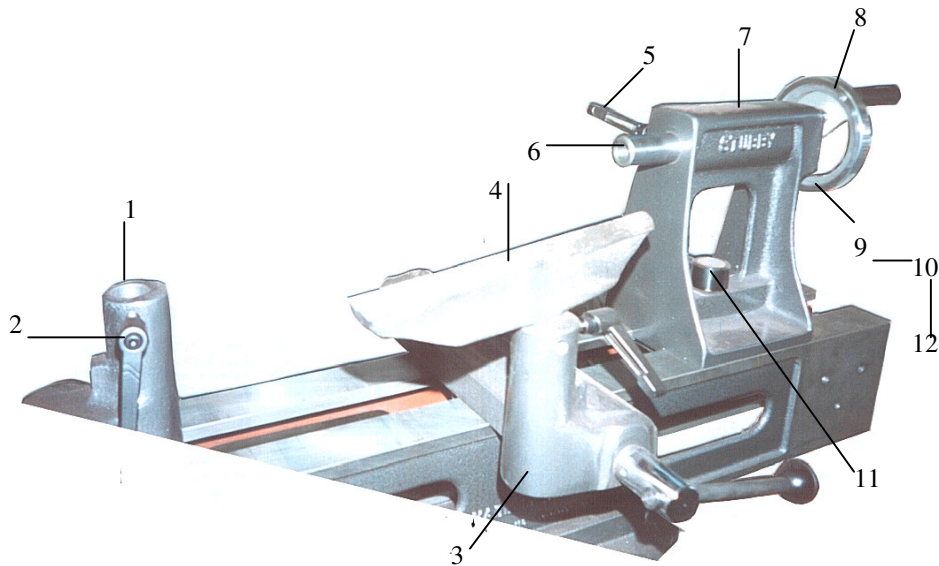
1. Disengage lock tab of Item #11 from slot in Item #10.
2. Unscrew lock nut Item #10 and slide lock nut and lock washer from spindle.
3. Using a block of wood as a dolly, gently hammer Item #13 front bearing retainer to remove bearing.
4. Reassemble in reverse order.

TOOLSLIDES, TAILSTOCK ASSEMBLIES

Parts List

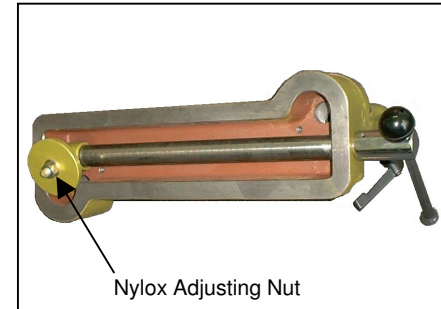
Part N°.

- | | | | |
|-----|------------------------------|------------|--------------|
| 1. | Banjo (Reverse Boss 1" Bore) | 0009-001 | (S750/S1000) |
| 2. | Kiplock M10 x 25 | 0003-010 | |
| 3. | Banjo 1" Bore | 0009-001 | (S750) |
| | | 0009-001A | (S1000) |
| 4. | 12" Toolrest x 1" Shank | 0009-012 | |
| 5. | Kiplock M10 x 25 | 0003-010 | |
| 6. | Tailstock Quill | 0003-002 | |
| 7. | Tailstock Casting | 0003-001A | (S750) |
| | | 0003-001B | (S1000) |
| 8. | Handwheel & Screw Assembly | 0003-003 | |
| 9. | Tailstock Screw End Plate | 0003-012 | |
| 10. | Retainer Screws (4) | S0005-008 | |
| 11. | Tailstock Lock Lever | 0003-005 | |
| 12. | Handwheel Lock Nut | S0003-004A | |

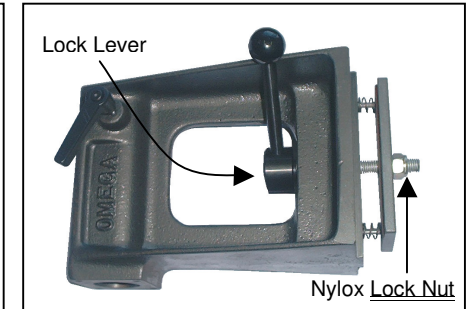


TOOLSLIDES, TAILSTOCK and TURNTABLE ASSEMBLIES MAINTENANCE

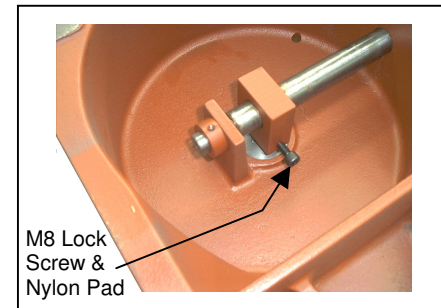
1. Banjo/Toolslide - Under



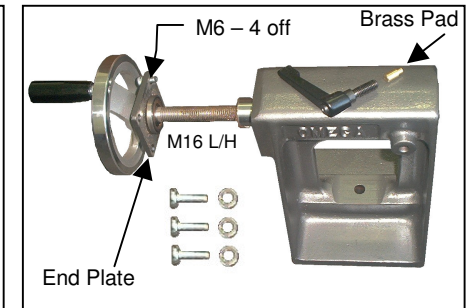
2. Tailstock - Under



3. Turntable - Under

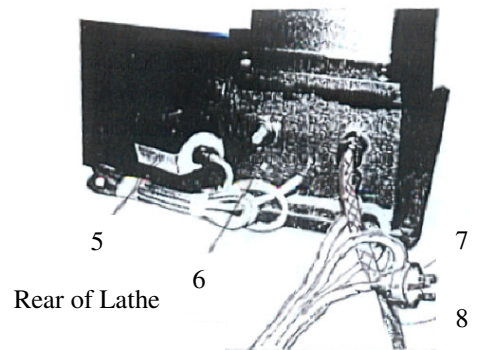
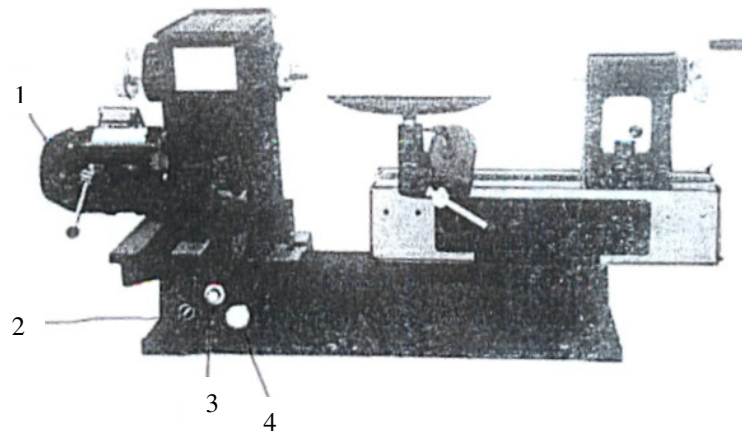


4. Tailstock Quill & Screw



1. Toolslide (Banjo) lock up and position of lever can be adjusted by tightening/loosening Nylox nut.
2. Nylox nut must be locked tight onto locking plate for satisfactory operation. Position of locking lever Item #11 can be adjusted by raising boss and turning to required location and releasing.
3. Turntable lock cam and yoke – tightness of lock up can be made by adjusting M14 socket head bolt from top of turntable between lower bedways.
4. Tailstock quill and screw assembly. – Grease end plate face and M16 L/H threads as necessary for smooth operation.

ELECTRICS



General Notes

- A.** All Omega lathes will require 220/240 Volt A.C single phase 50/60 Hz power supply.
- B.** Mains isolator switch Item #6 should be "OFF" if lathe is left unattended for long periods or overnight. Electronic speed control "inverter" remains active if switch Item #6 "ON" – A slight humming sound will be evident from the cooling fan whilst "ON".
- C.** Speed control potentiometer Item #3 has linear graduations. i.e. #5 = 50% of max. revs for each range Hi/Lo, #1 = 10% max. revs, #8 = 80% max. revs.
- D.** Reversing switch should only be operated whilst lathe spindle is stationary to avoid unscrewing of chuck/face plate.
- E.** Emergency mushroom stop switch Item #4 cuts all power to lathe and must be purposely reset by twisting knob once hazard is corrected.
DO NOT use this switch for normal Stop/Start.

ELECTRICAL ASSEMBLY

Parts List

Part N°.

- | | | |
|----|------------------------|---------------------|
| 1. | Motor | 0006-102 |
| 2. | Forward/Reverse Switch | 0006-011 |
| 3. | Speed Control | 0006-009 & 0006-010 |
| 4. | Mushroom "E" Stop | 0006-013 |
| 5. | Remote Stop/Start | 0006-007 |
| 6. | Mains Isolator Switch | 0006-008 |
| 7. | Mains Supply Plug | 0006-025 |
| | *MUST BE EARTHED* | |
| 8. | Shielded Motor Cable | 0006-104 |

SAFETY

Installation and electrical repairs or fault finding should only be carried out by suitably qualified persons as approved by your local electrical authority.

MAINTENANCE

Please refer to your local sales department and electrician for supply and fitting instructions of replacement switches and electrical components.

EC Declaration of Conformity

In accordance with EN 45014:1998

We ***Omega Tool & Engineering Pty Ltd.***

Of ***Unit 5/32 Frankston Gardens Drive
CARRUM DOWNS VIC 3201
AUSTRALIA***

declare that:

Equipment ***Woodturning Lathes***
Model name/number ***“STUBBY” S500 S750 S1000***
Serial number

in accordance with the following Directives:

Low voltage electrical safety, Directive 72/73/EEC (OJL77.26/3/1973)
As amended by Directive 93/68 EEC (OJL220 30/8/1993)

Electromagnetic Compatibility, Directive 89/336/EEC (OLJ139 23/5/1989)
As amended by Directive 92/31/EEC (OLJ126 12/5/1992) and 93/68 EEC
(OJL220 30/8/1993)

The Machinery Directive 98/37/EC and it's amending Directives

has been designed and manufactured to the following specifications:

I hereby declare that the equipment named above has been designed to
comply with the relevant sections of the above referenced specifications.
The unit complies with all essential requirements of the Directives.

Signed by:

Name: Robert J. Caddaye

Position: Director

Done at ***Unit 5/32 Frankston Gardens Drive, VIC, AUSTRALIA***

On 11/08/03