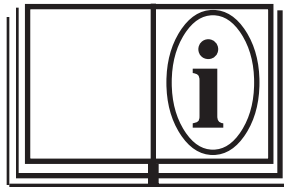




**TUBE LATHE
MODEL TL 2.0 & TL 4.0**

21-000-02, 04, 22, 24



	PIPE & TUBE	CE
	CUT-OFF MACHINES	
Mod. TL 2.0, 4.0 S/N: <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/>		
E.H. WACHS COMPANIES 100 Shepard St. Wheeling Il. 60090 ——— Patent Pending ———		

Part Number: 21-MAN-00

Revision No: 1



Revised:
Jan. '98

TUBE LATHE

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TUBE LATHE

SECTION I

STANDARD EQUIPMENT

21-000-02 Wachs Model TL 2.0

Portable Tube Cut-Off Lathe for 1/4" to 2" (6.35-50.8 mm) diameter, complete with split-type rotating and stationary frames, adjustable sealed bearing system, starwheel feed radial tool slide, Metabo 110v 50 hz/60hz electric drive motor, bench stand, custom fitted storage case, operating hand tools and manual.

21-000-22 Wachs Model TL 2.0

Same as above, but with Metabo 220v 50/60hz electric drive motor.

21-000-04 Wachs Model TL 4.0

Portable Tube Cut-Off Lathe for 1" to 4" (25.4-101.6 mm) diameter, complete with split-type rotating and stationary frames, adjustable sealed bearing system, starwheel feed radial tool slide, Metabo 110v 50 hz/60hz electric drive motor, bench stand, custom fitted storage case, operating hand tools and manual..

21-000-24 Wachs Model TL 4.0

Same as above, but with Metabo 220v 50/60hz electric drive motor.



TUBE LATHE

SECTION II

SAFETY INSTRUCTIONS

The E. H. Wachs Company takes great pride in manufacturing safe, quality products with user safety a priority.

The E.H. Wachs Company recommends that all users comply with the following safety rules and instructions when operating our equipment.



Read the Following thoroughly before proceeding.

	CAUTION Keep clear of rotating parts during operation. Hands and arms should be kept a minimum of 2' away from moving parts except during starting and stopping.
--	--

1. **READ THE OPERATING MANUAL!!** Reading the setup and operating instructions prior to beginning the setup procedures can save valuable time and help prevent injury to operators or damage to machines.
2. **INSPECT MACHINE & ACCESSORIES!** Prior to machine setup physically inspect the machine and it's accessories. Look for worn tool slides, loose bolts or nuts, lubricant leakage, excessive rust, etc. A properly maintained machine can greatly decrease the chances for injury.
3. **ALWAYS READ PLACARDS & LABELS!** All placards, labels and stickers must be clearly legible and in good condition. Replacement labels can be purchased from the manufacturer.
4. **KEEP CLEAR OF ROTATING PARTS!** Keep hands, arms and fingers clear of all rotating or moving parts. Always turn machine off before attempting any adjustments requiring contact with the machine or it's accessories.
5. **SECURE LOOSE CLOTHING & JEWELRY!** Loose fitting clothing, jewelry; long, unbound hair can get caught in the rotating parts on machines. By keeping these things secure or removing them you can greatly reduce the chance for injury.
6. **KEEP WORK AREA CLEAR!** Be sure to keep the work area free of clutter and nonessential materials. Only allow those personnel directly associated with the work being performed to have access to the area if possible.

For your safety and the safety of others, read and understand these safety recommendations and operating instructions before operating.

ALWAYS WEAR PROTECTIVE EQUIPMENT:

	WARNING Impact resistant eye protection must be worn while operating or working near this tool.
--	---

For additional information on eye and face protection, refer to federal OSHA regulations, 29 Code of Federal Regulations, Section 1910.133., Eye and Face Protection and American National Standards Institute, ANSI Z87.1, Occupational and Educational Eye and Face Protection. Z87.1 is available from the American National Standards Institute, Inc., 1430 Broadway, New York, NY 10018.

	CAUTION Personal hearing protection is recommended when operating or working near this tool.
--	--

Hearing protectors are required in high noise areas, 85 dBA or greater. The operation of other tools and equipment in the area, reflective surfaces, process noises and resonant structures can substantially contribute to and increase the noise level in the area. For additional information on hearing protection, refer to federal OSHA regulations, 29 Code of Federal Regulations, Section 1910.95, Occupational Noise Exposure and ANSI S12.6 Hearing Protectors.

	CAUTION Some individuals are susceptible to disorders of the hands and arms when exposed to tasks which involve highly repetitive motions and/or vibration. Disorders such as Carpal tunnel syndrome and tendonitis can be caused or aggravated by repetitious, forceful exertions of the hands and arms.
--	---

- Use minimum hand grip force.
- Keep wrists straight.
- Avoid prolonged, continuous vibration exposure.
- Avoid repeated bending of wrists and hands.
- Keep hands and arms warm and dry.

	CAUTION Gloves are not a form of protection and should not be worn while operating machinery. Chips and debris which are generated during operation should be disposed of in a safe manner. This should be done with the use of a dust pan and broom to avoid exposure to hands.
--	--

ANVISNING I SIKKERHED

DK

Siden 1883 har EH Wachs haft ry for deres kvalitet og varetagelse af kundtilfredshed og vil også gøre vort bedste for at sikre, at vore maskiner benyttes på en sikker og forsvarlig måde.

Vi har lavet en liste over påmindelser, der skal bidrage til at skabe det sikrest mulige arbejdsmiljø. Vi anbefaler, at sikkerhedsforanstaltningerne på listen omhyggeligt overholdes.



Læs følgende grundigt, inden der foretages andet

1. LÆS BRUGSANVISNINGEN!!

Hvis man læser anvisningerne i klargøring og drift, inden man begynder at gøre maskinen klar, kan man spare tid og forhindre person- og maskinskade.

2. INSPICÉR MASKINE OG Udstyr!

Inden maskinen gøres klar, skal man inspicere maskinen og udstyret. Se efter slide fittings, løse bolte og møtrikker, olie-lækager, rust osv. Når maskinen holdes i god stand, er der langt mindre risiko for personskade.

3. LÆS ALTID SKILTE OG ETIKETTER!

Alle skilte og etiketter skal være letlæselige og i god stand. Nye skilte og etiketter fås hos forhandleren.

4. HOLD AFSTAND TIL BEVÆGELIGE DELE!

Hold hænder, arme og fingre væk fra alle roterende og bevægelige dele. Man skal altid slukke for maskinen, inden man påbegynder justering, hvor man kommer i kontakt med maskinen eller udstyret.


5. BRUG IKKE LØSTHÆNGENDE TØJ OG SMYKKER!

Løsthængende tøj, smykker og langt, løsthængende hår kan blive fanget i maskinens bevægelige dele. Man kan i høj grad nedsætte risikoen for personskade ved ikke at bruge løsthængende tøj og smykker og ved at samle langt hår oppe på hovedet.

6. HOLD ARBEJDSSTEDET RYDDET!

Arbejdsstedet skal holdes ryddeligt og fri for materialer, der ikke hører til. Uvedkommende personer bør ikke have adgang til arbejdsstedet, hvis det er muligt.

BRUG ALTID BESKYTTELSESDUSTYR:

	ADVARSEL Man skal bruge slag-resistente sikkerhedsbriller, når man arbejder med eller i nærheden af denne maskine.
---	--

	FORSIGTIG Man skal altid bruge hørevæm, når man arbejder med eller i nærheden af denne maskine.
---	---

	FORSIGTIG Nogle mennesker er disponeret for lidelser i hænder og arme, når de udsættes for opgaver, der involverer stærkt repetitiv bevægelse og/eller vibration. Sygdomme, såsom karpal-tunnelsyndrom og ten-dinitis, kan forårsages eller forværres af repetitiv, kraftig brug af hænder og arme.
---	---

	FORSIGTIG Hold dig på afstand af roterende dele under drift. Hold hænder og arme mindst 60 cm væk fra bevægelige dele, undtagen ved start og stands fling.
---	--

	FORSIGTIG Handsker er ikke en form for beskyttelse. Gå ikke med handsker, mens maskinen betjenes. Spåner og findelt materiale, som udvikles under drift, skal bortskaffes på forsvarlig måde. Dette skal gøres ved brug af en fejebakke og en kost, for at undgå påvirkning af hænderne.
---	--

ΟΔΗΓΙΕΣ ΑΣΦΑΛΕΙΑΣ

GR

Από το 1883 η EH Wachs έχει δημιουργήσει μια φήμη ποιότητας και δέσμευση στην καινοτομία. Σίγουρα η Wachs πρέπει να αναλάβει την πρωτεύουσα ευθύνη να κοινοποιηθεί καλά και να σταφυλιστούν την ασφαλέστερη χρήση του εξοπλισμού μας.

Έχουμε καταρτίσει έναν κατάλογο υπομηχανών ασφαλείας που βοηθούν στη δημιουργία του ασφαλέστερου δυνατού χώρου εργασίας. Σηματοδοτεί την πιστή εφαρμογή των προληπτικών μέτρων που αναγράφονται παρακάτω.



Πριν προχωρήσετε διαβάστε όλες τις παρακάτω υποδείξεις

1. ΔΙΑΒΑΣΤΕ ΤΟ ΒΙΒΛΙΟ ΟΔΗΓΙΩΝ!

Η ανάγνωση των οδηγιών εγκατάστασης και χειρισμού πριν αρχίσετε τις διαδικασίες εγκατάστασης μπορούν να σας υποστηρίξουν πολύ με το χρόνο και να βοηθήσουν στην απρόσκοπτη λειτουργία των χειριστών ή βλάβης των μηχανών.

2. ΕΠΙΘΕΩΡΗΣΤΕ ΤΗ ΜΗΧΑΝΗ ΚΑΙ ΤΑ ΕΞΑΡΤΗΜΑΤΑ!

Πριν από την εγκατάσταση της μηχανής επιθεωρήστε τη φυσική κατάσταση της μηχανής και των εξαρτημάτων. Ελέγξτε για τυχόν φθορά στις γλίστρες των εργαλείων, αποκαταστήστε μπουλόνια ή παξιμάδια, διαφορώ λιπαντικά, υπερβολική σκουριά κτλ. Η μηχανή που συντηρείται κανονικά μπορεί να μειώσει σημαντικά τις πιθανότητες τραυματισμού.

3. ΠΑΝΤΑ ΔΙΑΒΑΣΤΕ ΤΙΣ ΠΙΝΑΚΙΔΕΣ & ΤΙΣ ΕΤΙ ΕΤΕΣ!

Όλες οι πινακίδες, ετικέτες και αυτοκόλλητα πρέπει να διαβάζονται καθαρά και να βρίσκονται σε καλή κατάσταση. Επιθεωρείστε ετικέτες μπορείτε να αγοράσετε από τον κατασκευαστή.

4. ΑΠΟΜΑΚΡΥΝΘΕΙΤΕ ΑΠΟ ΤΑ ΠΕΡΙΣΤΡΕΦΟΜΕΝΑ ΕΞΑΡΤΗΜΑΤΑ!

Ρυθμίστε χεράκια, βραχιόνες και δάχτυλα μακριά από όλα τα περιστρεφόμενα ή κινούμενα εξαρτήματα. Πάντα κλείστε τη μηχανή πριν επιχειρήσετε οποιαδήποτε ρύθμιση που απαιτείται πλησίον της μηχανής ή τα εξαρτήματά της.

5. ΜΑΖΕΨΤΕ ΤΑ ΛΥΤΑ ΡΟΥΧΑ & ΟΞΗΜΑΤΑ!


Τα ρούχα που δεν έχουν καλή εφαρμογή, τα κοσμήματα τα μακριά αυτά μαλλιά μπορεί να προσκολληθούν στα περιστρεφόμενα εξαρτήματα της μηχανής. Στερεώνοντας ή βγάζοντας τα μπορείτε να μειώσετε σημαντικά την πιθανότητα τραυματισμού.

6. ΔΙΑΤΗΡΕΙΤΕ ΕΛΕΥΘΕΡΟ ΤΟ ΧΩΡΟ ΕΡΓΑΣΙΑΣ!

Φροντίστε να διατηρείτε το χώρο εργασίας ελεύθερο από εσθλαστικά και εμπορεύματα. Επιθεωρείστε την είσοδο μόνο στους χώρους εργασίας με την εκτελούμενη εργασία αν είναι δυνατό.

ΝΑ ΦΟΡΑΙΕΤΑΙ Η ΟΡΘΗ ΠΡΟΣΤΑΣΙΑ:

	ΠΡΟΕΙΔΟΠΟΙΗΣΗ Να φοράτε ειδική προστασία των ματιών κατά της μπόσκρωσης όταν χειρίζεστε ή εργάζεστε κοντά στο εργαλείο αυτό.
---	--

	ΠΡΟΣΟΧΗ Χρειάζεται πάντοτε σωματική προστασία των αυτιών όταν χειρίζεστε ή εργάζεστε κοντά στο εργαλείο αυτό.
---	---

	ΠΡΟΣΟΧΗ Μερικά άτομα είναι ευαίσθητα στις διαταραχές των χεριών και των βραχιόνων όταν εκτελούνται ως εργασίες που συνδυάζονται εξαιρετικά επαναληπτικές κινήσεις και/ή κραδασμούς. Οι διαταραχές όπως το σύνδρομο καρπικής σήραγγας και η τενοντίτιδα μπορεί να ηρακλήθούν ή να επιδεινωθούν από τις επαναληπτικές, ισχυρές κινήσεις των χεριών και των βραχιόνων.
---	---

TUBE LATHE

SECTION III

EC DECLARATION OF CONFORMITY

Name and address of manufacturer (if different)

E.H. Wachs Company
100 Shepard St.
Wheeling, IL 60090 USA

Distributed in the EC by:

Business address:

We declare that the machine described below conforms with the EHSR of the machinery directive 89/392/EEC and amendments 91/368/EEC, 93/44/EEC and 93/68/EEC

Machine Title:

Tube Lathe 2.0 & 4.0

Model Number:

21-000-02, 22, 21-000-04, 24

Machine Description:

Portable machinery to cut tube & pipe
for weld preparation

Serial Number:

Harmonized Standards Used:

EN 50144, EN 55014, HD 400, EN 292,
EN 292-2, EN 294, EN 394

Other Safety Standards Used:

PR: EN 982, PR: EN 983 10/95 PR: EN
792-1, PR: EN 1050

Name of person authorized to sign on behalf
of the E.H. Wachs Companies:

Rodger P. Soeldner

Position:

Vice President/CFO

Signature:



Date:

January 15, 1998

TUBE LATHE

SECTION IV

MACHINE SPECIFICATIONS



Capacity: TL 2.0: 1/4" to 2" (6.35-50.8 mm) O.D. Tube
 TL 4.0: 1" to 4" (25.4-101.6 mm) O.D. Tube
Function: Tube Cut-Off
Material: Stainless Steel/Alloy
Wall Thickness: up to .125" (3.175 mm)
Clamping System: Stainless Steel Shoes with hand operating vise
Feed System: Starwheel Autofeed
Feed Rate: TL 2.0: .001" (.00254 mm)/revolution;
 TL 4.0: .002" (.00508 mm)/revolution
Drive Motor: Metabo 110v or 220v
Weight: TL 2.0: 18 lbs (8.13 kg); TL 4.0: 24 lbs (12.48 kg)
Finish: Corrosion resistant plating

MACHINE NOISE LEVELS:

NOTE: NOISE LEVELS HAVE BEEN MEASURED AT 1 METER HIGH AND 1.6 METERS AWAY.

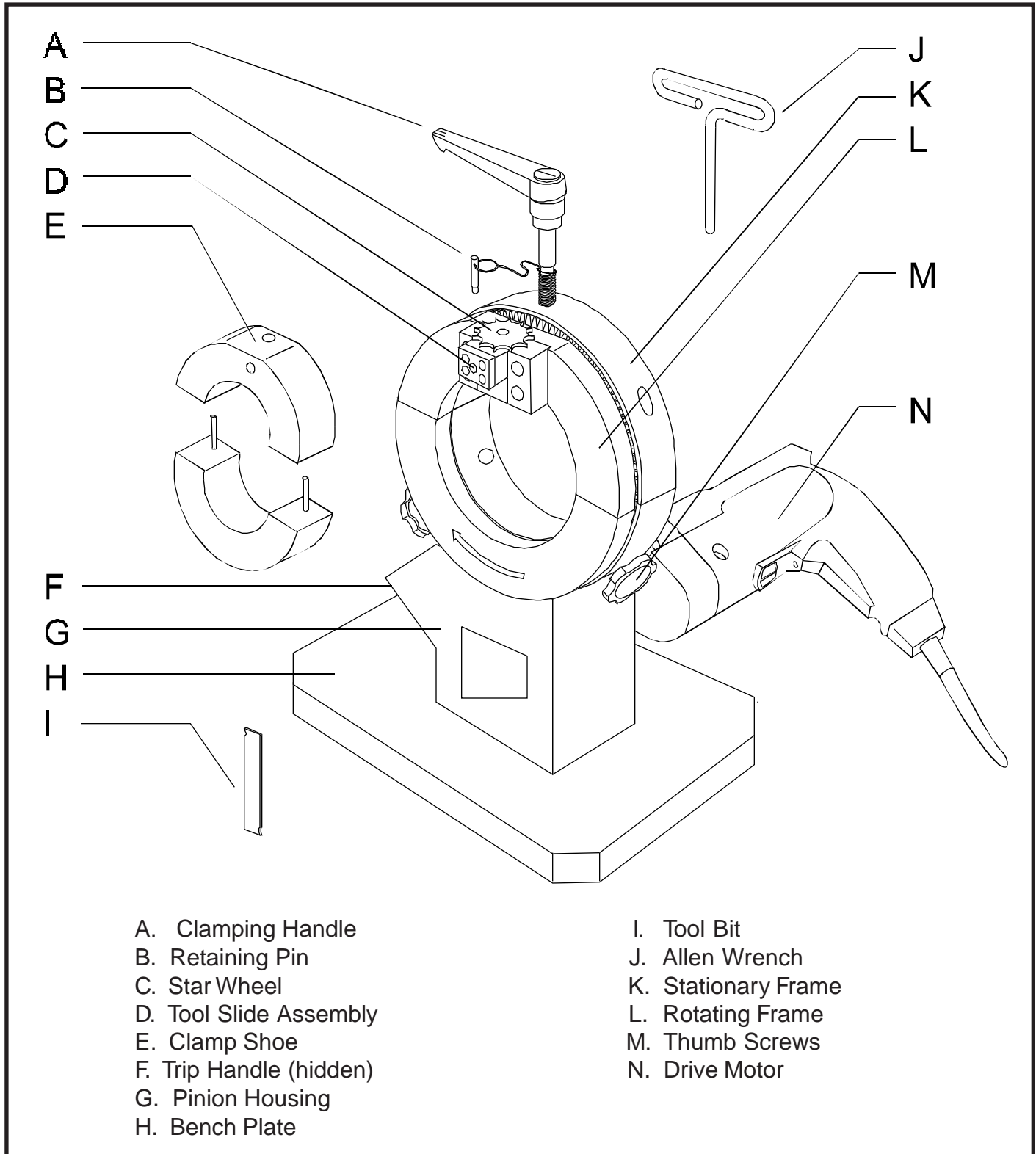
Machine Model	Average Sound Level (Decibels)	Maximum Sound Level (Decibels)
TL 2.0, TL 4.0	80dBA	90dBA

TUBE LATHE

SECTION V

SET-UP AND OPERATION

Tube Lathe Components (all models)



TUBE LATHE

SECTION V

SET-UP AND OPERATION (cont.)

A. Assembly of machine from case

1. Remove Tube Lathe, Drive Motor and Bench Plate from storage case.
2. Install two FHCS through Bench Plate into Pinion Housing using supplied Allen Wrench.
3. Install Drive Motor into the Pinion Housing and tension Clamp Bolt with Allen Wrench.
4. The Bench Plate can be removed for field or in-place use.

B. Clamp Shoe selection and installation

1. Select Shoe Set by referring to selection chart on page 22.

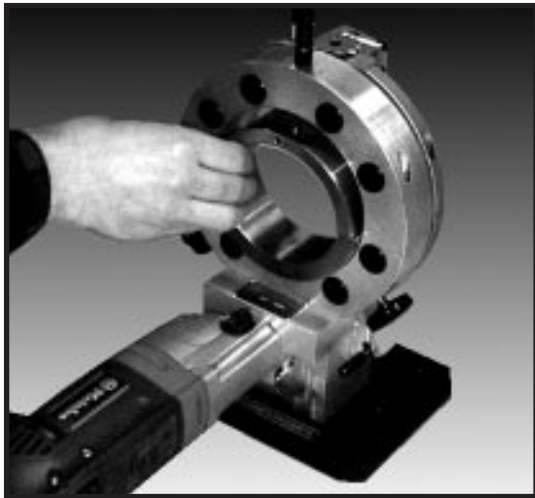


FIGURE 1

2. Place the Shoe Set into the back side of the machine with the size marks facing towards the motor (Figure 1).
3. Tension the two Thumb Screws on the lower half of the machine.
4. Rotate the clamping handle clockwise until contacts the upper shoe.
5. Slide the Retaining Pin into the hole on the back of the upper shoe.
6. Rotate Clamping Handle counterclockwise to open clamping shoes.

C. Workpiece Clamping

1. Open Clamp Shoes by rotating Clamping Handle.
2. Place workpiece into machine.
3. Rotate Clamping Handle clockwise to tension workpiece.

D. Splitting Frame Halves (for field or in-place use)

1. Loosen four bolts on rotating and stationary frames
2. Separate frame halves.

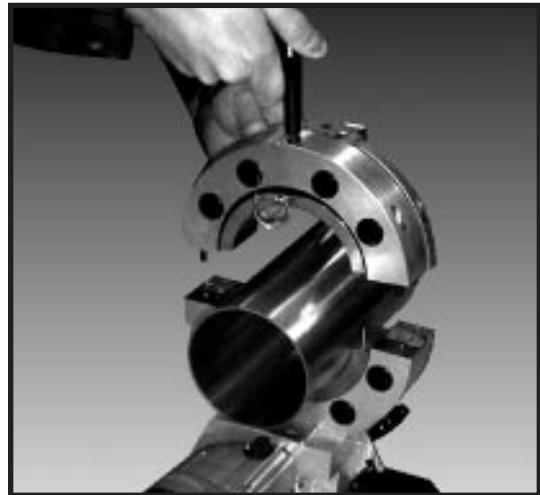


FIGURE 2

3. Position frame halves around workpiece (Figure 2).
4. Tension four bolts on rotating and stationary frames.

E. Tool Slide operation

1. Use supplied Allen Wrench on top of Starwheel and rotate clockwise to fully retract Tool Slide.
2. Rotate Starwheel counterclockwise slightly to remove Feed Screw backlash.
3. Align Starwheel's point to line on sticker as shown (Figure 3).
4. After completion of cutting operation, repeat steps 1 to 3.

TUBE LATHE

SECTION V

SET-UP AND OPERATION (cont.)

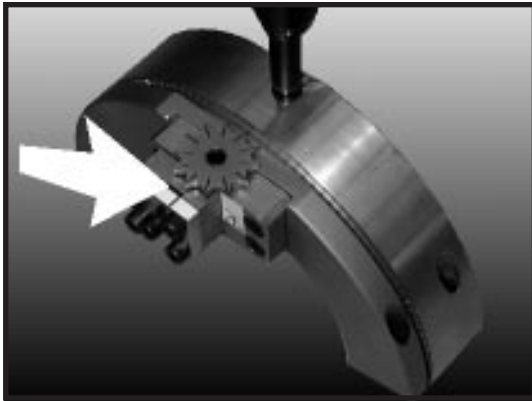


FIGURE 3

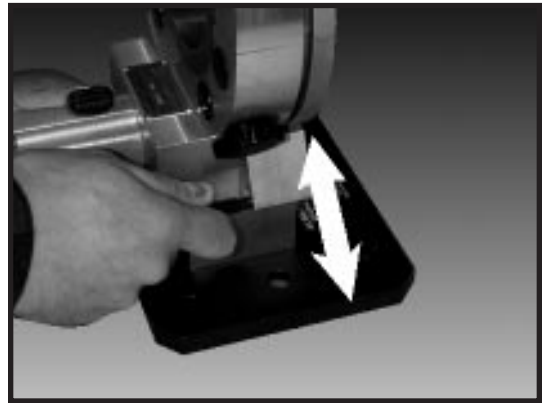


FIGURE 5

F. Tool Bit Installation

1. Follow steps 1-3 in section "E" to bring Tool Slide to its uppermost position.
2. Loosen center bolt on Tool Slide Cover Plate.
3. Slide Tool Bit in from top and position cutting edge approximately 1/16" off of workpiece O.D.



FIGURE 4

4. Tension center bolt on Tool Slide Cover Plate (Figure 4).

2. Slide Trip Handle inward to engage Starwheel Feed System on the Tool Slide. To pause cutting operation, pull Trip Handle outward (Figure 5).



CAUTION: Do not let tool slide travel past warning arrow.

3. At completion of cut, release motor trigger to stop machine rotation.

G. Machining Instructions



CAUTION: Beware of falling pipe when cutting long lengths.

1. Begin cutting operation by squeezing motor trigger. Set speed controller by using the chart on page 17.

TUBE LATHE

SECTION V

SET-UP AND OPERATION (cont.)

H. Drive Motor Speed Settings



CAUTION: Always start the motor with the speed controller on its slowest speed setting.

Speed Settings-TL 2.0

Tube Diameter	Speed Dial Setting
1/4"	D
3/8"	C
1/2"	C
3/4"	B
1	B
1-1/2"	A
2"	A

Speed Settings-TL 4.0

Tube Diameter	Speed Dial Setting
1"	C
1-1/2"	C
2"	B
2-1/2"	B
3	A
4"	A

TUBE LATHE

SECTION VI

MAINTENANCE-MACHINE ADJUSTMENTS

Tube Lathe maintenance is required periodically for cleaning and inspection of worn or damaged parts.

The following steps should be followed before placing machine back in its storage case:

1. The power cord should be inspected for damage and wear.
2. The Tool Slide should be inspected for Gib tension. If the Tool Slide is loose, Gib adjustment will be needed.

Gib Tensioning Procedure:

1. Adjust Gib by removing the two SHCS on the Leading Gib (the right-handed Gib as you face the machine, non-motor side).
2. Remove the Gib, there will be a series of shims behind the gib. Remove one shim (they are very thin) and replace the Gib.
3. Re-check Gib tension by rotating Starwheel. If there is a slight resistance the Gib is properly tensioned. If the Gib still feels too loose, repeat step 2.

Bearing System



CAUTION: DO NOT move bearings from their factory set position. Frame damage could result.

The Tube Lathe Bearing System is preset at the factory. Over time it may be necessary to re-adjust tension on the bearings. The Bearings may need adjustment if radial play can be noticed between the stationary and rotating frames. This adjustment should be performed only by an authorized Wachs Service Technician. Contact the factory or your local Wachs Representative for further assistance.

TUBE LATHE

SECTION VII

MISCELLANEOUS CHARTS AND GRAPHS

TL 2.0 Stainless Steel Shoe Sets

PART NUMBER	DESCRIPTION
21-402-10	TL 2.0 Shoe Set for 1/4" O.D.
21-402-20	TL 2.0 Shoe Set for 3/8" O.D.
21-402-30	TL 2.0 Shoe Set for 1/2" O.D.
21-402-40	TL 2.0 Shoe Set for 3/4" O.D.
21-402-50	TL 2.0 Shoe Set for 1" O.D.
21-402-60	TL 2.0 Shoe Set for 1-1/2" O.D.
21-402-70	TL 2.0 Shoe Set for 2" O.D.

TL 4.0 Stainless Steel Shoe Sets

PART NUMBER	DESCRIPTION
21-404-10	TL 4.0 Shoe Set for 1" O.D.
21-404-20	TL 4.0 Shoe Set for 1-1/2" O.D.
21-404-30	TL 4.0 Shoe Set for 2" O.D.
21-404-40	TL 4.0 Shoe Set for 2-1/2" O.D.
21-404-50	TL 4.0 Shoe Set for 3" O.D.
21-404-60	TL 4.0 Shoe Set for 4" O.D.

NOTE: For non-standard sizes, contact the factory for availability.

SECTION VIII

CONSUMABLE SELECTION CHART

PART No.	DESCRIPTION
21-700-01	Double sided 1/16" wide parting tool bit for TL 2.0 and TL 4.0. Zirconium Nitrate coated.

TUBE LATHE

SECTION IX

TROUBLE SHOOTING

Trouble	Possible Cause	Remedy
Machine won't run.	Power cord not connected.	Check power cord.
Workpiece shifts during cuttind operation.	Loose Shoe Clamp.	Check tension on Shoe Clamp Handle.
Poor end quality.	Dull or damaged Tool Bit.	Replace Tool Bit.
Machine chatters.	RPM too fast.	Refer to speed chart on page 17.
Tool Bit dives or jams.	Loose Tool Slide	Refer to Maintenance Section on page 20.
Tool Slide does not feed.	Broken Trip Pin.	Replace Trip Pin.

If a problem persists or is not listed in the abve chart, cease operation and consult the manufacturer for additional instructions.

TUBE LATHE

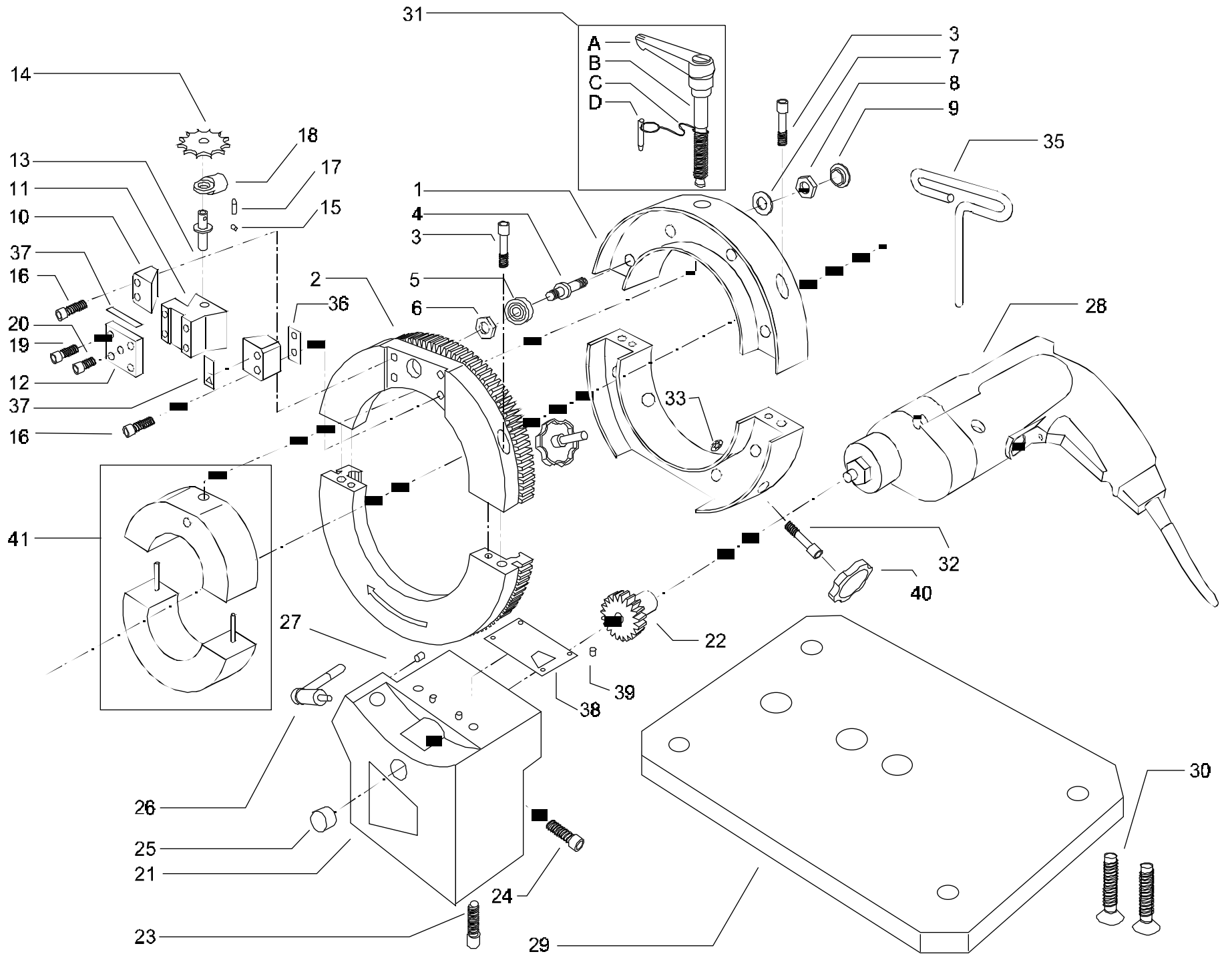
SECTION X

PARTS LISTS & EXPLODED VIEW DRAWINGS

TUBE LATHE

BILL OF MATERIALS TL 2.0 21-000-02, 21-000-22

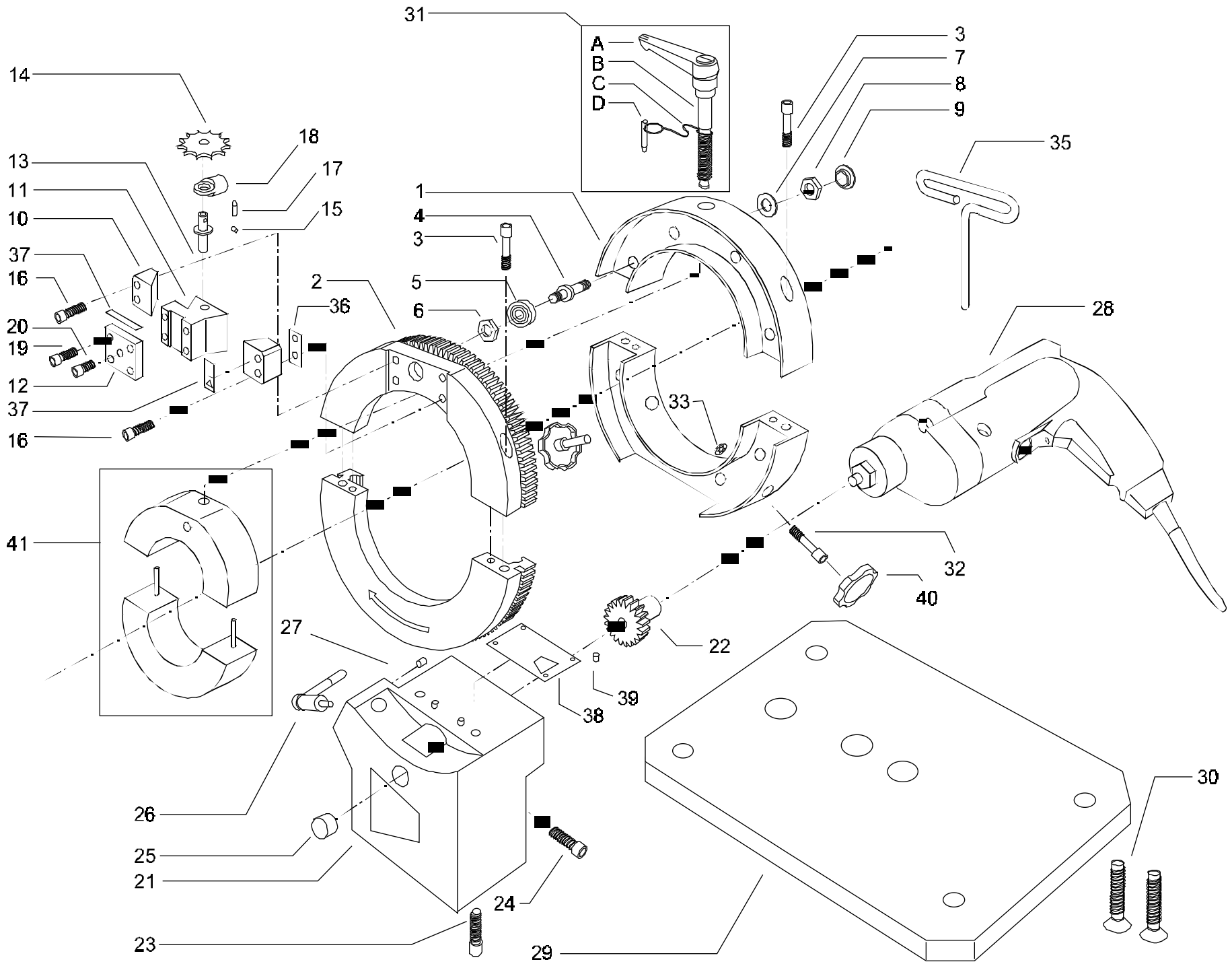
Ref. #	Part #	Qty.	Description
1	21-100-02	1	FRAME, 2" STATIONARY
2	21-101-02	1	RING, ROTATING - 2"
3	52-113-00	4	BOLT, CAPTIVATED
4	21-006-01	4	SHAFT, ECCENTRIC
5	43-006-00	4	BEARING, GUIDE WHEEL *
6	90-045-01	4	NUT, 10-32 JAM
7	90-055-54	4	WASHER, AN 1/4
8	90-055-02	4	HEX NUT, 1/4-28
9	21-021-00	4	PLUG, BEARING POCKET
10	21-008-00	2	V-GIB, TOOL SLIDE
11	21-009-00	1	SLIDE, MALE
12	21-010-00	1	COVER, MALE SLIDE
13	21-011-00	1	FEED SCREW
14	21-012-01	1	STARWHEEL, TL 2.0
15	90-016-55	1	PIN, ROLL 3/32 x 1/2
16	90-050-06	4	SHCS, 1/4-20 X 5/8
17	90-054-09	1	SSS, 1/4-20x3/8 CNTIP
18	52-181-00	1	SUPPORT, BAR
19	90-050-05	4	SHCS, 1/4-20 X 1/2
20	90-050-03	1	SHCS, 1/4-20 X 3/8
21	21-015-01	1	TL 2.0 HOUSING, PIN.
22	21-016-00	1	ASSEMBLY, PIN. GEAR
23	90-050-20	2	SHCS, 1/4-20 X 2
24	90-050-08	1	SHCS, 1/4-20 X 7/8
25	60-126-00	1	BEARING, PINION-FRNT*
26	21-022-00	1	ASSEMBLY, TRIP PIN
27	52-140-00	1	PLUNGER, BALL
28	20-031-00	1	MOTOR, METABO 110v
	30-031-01	1	MOTOR, METABO 220v (for 21-000-22)
29	18-035-00	1	BASE, STAND
30	90-063-12	2	FHCS, 5/16-18 x 1-1/4
31	21-025-00	1	ASSEMBLY, PIN-CABLE
A	19-055-00	1	LEVER, CHUCK ADJUST
B	21-013-00	1	SCREW, ADJUSTABLE
C	21-025-01	1	CABLE, .034 OD NYLON
C	21-025-02	2	CABLE, LOOP SLEEVE
D	21-018-00	1	PIN, .188 QUICK RELEASE
32	90-050-13	2	SHCS, 1/4 X 20 X 1 3/8
33	21-007-00	2	NUT, 1/4" PUSH
n/s	21-MAN-00	1	MANUAL, TUBE LATHE
n/s	21-023-01	1	TL 2.0 CASE ASSEMBLY
35	90-800-61	1	WRENCH, ALLEN 3/16 T HANDLE
36	21-019-00	varies	SHIM
37	21-020-00	1	DECALS, TUBE LATHE
38	21-014-00	1	PLATE, I.D.
39	90-049-01	4	SCREW, 3/16 U DRIVE
40	21-005-02	2	KNOB, 1/4" SCREW
41	21-402-xx	2	SHOE SET (see page 22)



TUBE LATHE

BILL OF MATERIALS TL 4.0 21-000-04, 21-000-24

Ref. #	Part #	Qty.	Description
1	21-100-04	1	MCH FRAME, 4" STATIONARY
2	21-101-04	1	MCH RING, ROTATING - 4"
3	52-113-00	4	BOLT, CAPTIVATED
4	21-006-01	8	SHAFT, ECCENTRIC
5	43-006-00	8	BEARING, GUIDE WHEEL *
6	90-045-01	8	NUT, 10-32 JAM
7	90-055-54	8	WASHER, AN 1/4
8	90-055-02	8	HEX NUT, 1/4-28
9	21-021-00	8	PLUG, BEARING POCKET
10	21-008-00	2	V-GIB, TOOL SLIDE
11	21-009-00	1	SLIDE, MALE
12	21-010-00	1	COVER, MALE SLIDE
13	21-011-00	1	FEED SCREW
14	21-012-02	1	STARWHEEL, TL 4.0
15	90-016-55	1	PIN, ROLL 3/32 x 1/2
16	90-050-06	4	SHCS, 1/4-20 x 5/8
17	90-054-09	1	SSS, 1/4-20x3/8 CNTIP
18	52-181-00	1	MCH SUPPORT, BAR
19	90-050-05	4	SHCS, 1/4-20 x 1/2
20	90-050-03	1	SHCS, 1/4-20 x 3/8
21	21-015-02	1	TL 4.0 HOUSING, PIN.
22	21-016-00	1	ASSEMBLY, PIN. GEAR
23	90-050-20	2	SHCS, 1/4-20 x 2
24	90-050-08	1	SHCS, 1/4-20 x 7/8
25	60-126-00	1	BEARING, PINION-FRNT*
26	21-022-00	1	ASSEMBLY, TRIP PIN
27	52-140-00	1	PLUNGER, BALL
28	20-031-00	1	MOTOR, METABO 110v
	30-031-01	1	MOTOR, METABO 220v (for 21-000-24)
29	18-035-00	1	MCH BASE, STAND
30	90-063-12	2	FHCS, 5/16-18 x 1-1/4
31	21-025-00	1	ASSEMBLY, PIN-CABLE
A	19-055-00	1	LEVER, CHUCK ADJUST
B	21-013-00	1	SCREW, ADJUSTABLE
C	21-025-01	1	CABLE, .034 OD NYLON
C	21-025-02	2	CABLE, LOOP SLEEVE
D	21-018-00	1	PIN, .188 QUICK RELEASE
32	90-050-13	2	SHCS, 1/4 x 20 x 1 3/8
33	21-007-00	2	NUT, 1/4" PUSH
n/s	21-MAN-00	1	MANUAL, TUBE LATHE
34	21-023-02	1	TL 4.0 CASE ASSEMBLY
35	90-800-61	1	WRENCH, ALLEN 3/16T HANDLE
36	21-019-00	15	SHIM
37	21-020-00	1	DECALS, TUBE LATHE
38	21-014-00	1	PLATE, I.D.
39	90-049-01	4	SCREW, 3/16 U DRIVE
40	21-005-02	2	KNOB, 1/4" SCREW
41	21-404-xx	2	SHOE SET (see page 22)



TUBE LATHE

SECTION XI

ORDERING INFORMATION

To place an order or to get more detailed information on any E.H. Wachs products, call us at:
1-800-323-8185.

ORDERING REPLACEMENT PARTS

Please use parts list provided in manual. Have part description and part number of required replacement part or parts to help expedite order and insure proper parts are being ordered.

REPAIR INFORMATION

Please call E.H. Wachs Company prior to returning any equipment for repair. We will advise you of shipping and handling. Please enclose with equipment to be repaired your name, address, phone number and a brief description of problem or work to be done or estimated.

All repair work done at our plant will be estimated and the customer advised of cost and time required to complete repair.

WARRANTY INFORMATION

Enclosed with the manual is a warranty card. Please fill out the registration card and return to E.H. Wachs. Retain the owners registration record and warranty card for your information.

RETURN GOODS ADDRESS

E.H. Wachs Company
100 Shepard Street
Wheeling, Illinois 60090



Call or Write:

E.H. Wachs Company
P.O. Box A
100 Shepard Street
Wheeling, Illinois 60090

847-537-8800

FAX: 847-520-1147 • 847-520-1168

Toll-Free: 1-800-323-8185

	PIPE & TUBE	
	CUT-OFF MACHINES	
Mod. TL 2.0, 4.0 S/N: <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/>		
Enter Your Machines Serial Number Here For Proper Record Keeping and Ordering Reference.		