

MASCHINEN WASCHINEN

DE Betriebsanleitung Original
Übersetzungen / Translations

Metalldrehmaschine

EN User manual

Metal turning lathe



### **ED 750FD**

# Metalldrehmaschine Metal turning lathe



Bedienungsanleitung und Sicherheitshinweise lesen und beachten!

Read the operation manual carefully before first use!



Technische Änderungen sowie Druck- und Satzfehler vorbehalten!

Technical data subject to changes, errors excepted!

Ausgabe/Edition: 26.08.2015 - Revision 00 - GBR - DE/EN



### 2 SICHERHEITSZEICHEN / SAFETY SIGNS

**DE** SICHERHEITSZEICHEN BEDEUTUNG DER SYMBOLE **EN** SAFETY SIGNS **DEFINITION OF SYMBOLS** 



DE WARNUNG! Beachten Sie die Sicherheitssymbole! Die Nichtbeachtung der Vorschriften und Hinweise zum Einsatz der Maschine kann zu schweren Personenschäden und tödliche Gefahren mit sich bringen.

ΕN ATTENTION! Ignoring the safety signs and warnings applied on the machine as well as ignoring the security and operating instructions can cause serious injuries and even lead to death.



ANLEITUNG LESEN! Lesen Sie die Betriebs- und Wartungsanleitung DE Ihrer Maschine aufmerksam durch und machen Sie sich mit den Bedienelementen der Maschine gut vertraut um die Maschine ordnungsgemäß zu bedienen und so Schäden an Mensch und Maschine vorzubeugen.

READ THE MANUAL! Read the user and maintenance manual carefully EN and get familiar with the controls in order to use the machine correctly and to avoid injuries and machine defects.



**CE-KONFORM** - Dieses Produkt entspricht den EG-Richtlinien.

**EC-CONFORM** - This product complies with the EC-directives.



Allgemeiner Hinweis DE

ΕN General note



DE Schutzausrüstung!



ΕN Protective clothing!



DE Nur geschultes Personal!

Only trained staff! ΕN



Gefährliche elektrische Spannung!

High voltage! ΕN





DΕ Bedienung mit Schmuck verboten!

ΕN Operation with jewelry forbidden!



DE Bedienung mit Krawatte verboten!

ΕN Operation with tie forbidden!



DΕ Bedienung mit offenem Haar verboten!

ΕN Operation with long hair forbidden!



DE Maschine vor Wartung und Pausen ausschalten und Netzstecker ziehen!



EN Stop and pull out the power plug before any break and engine maintenance!



DE Nicht auf die Maschine klettern!

EN Do not climb onto the machine!



DE Warnung vor Schnittverletzungen!

ΕN Warning about cut injuries!



DE Sicherheitsabstand einhalten!

ΕN Keep safety distance!



DE Allgemeiner Hinweis

ΕN General note



Vor Nässe schützen! DE

ΕN Protect from moisture!



### 10 PREFACE

### **Dear Customer!**

This manual contains information and important instructions for the installation and correct use of the metal turning lathe ED 750FD.

Following the usual commercial name of the device (see cover) is substituted in this manual with the name "machine".

This manual is part of the product and shall not be stored separately from the product. Save it for later reference and if you let other people use the product, add this instruction manual to the product.

### Please read and obey the security instructions!



Before first use read this manual carefully. It eases the correct use of the product and prevents misunderstanding and damages of product and the user's health.

Due to constant advancements in product design construction pictures and content may diverse slightly. However, if you discover any errors, inform us please.

Technical specifications are subject to changes!

Please check the product contents immediately after receipt for any eventual transport damage or missing parts.

Claims from transport damage or missing parts must be placed immediately after initial product receipt and unpacking before putting the product into operation.

Please understand that later claims cannot be accepted anymore.

### Copyright

© 2015

This document is protected by international copyright law. Any unauthorized duplication, translation or use of pictures, illustrations or text of this manual will be pursued by law.

Court of jurisdiction is the Landesgericht Linz or the competent court for 4170 Haslach, Austria!

### **CUSTOMER SERVICE CONTACT**

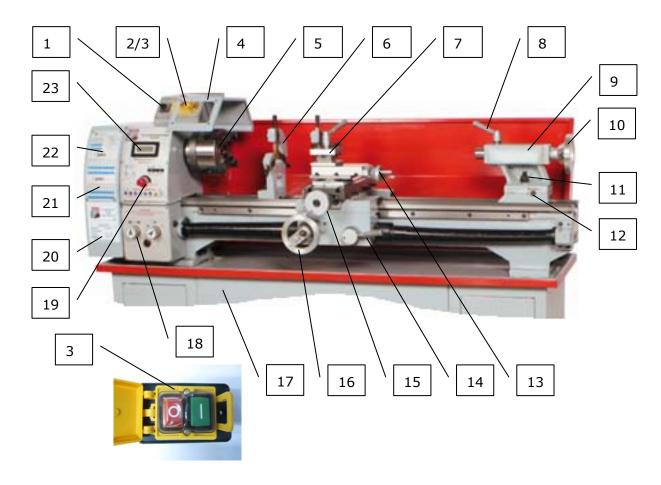
#### HOLZMANN MASCHINEN GmbH

A-4170 Haslach, Marktplatz 4 Tel 0043 7289 71562 – 0 Fax 0043 7289 71562 – 4 info@holzmann-maschinen.at



### 11 TECHNIC

### 11.1 Components and Controls



1	Direction of rotation switch L / R	13	Handwheel top slide
2	EMERGENCY OFF switch	14	Engaging lever feed / thread
3	Pushbutton On / Off	15	Handwheel cross slide
4	Lathe chuck protection	16	Handwheel bedslide
5	lathe chuck	17	Undercarriage
6	bezel	18	Setting feed / thread pitch
7	tool holder	19	Speed adjustment infinitely
8	tailstock clamping lever	20	protective cover headstock
9	tailstock	21	Thread pitches table
10	handwheel tailstock	22	feed table
11	Clamping screw tailstock	23	speed display
12	Adjusting tailstock		



### 11.2 Technical data

max. Diameter above the machine bed	250 mm
max. Swing over cross slide	150 mm
Distance between centers	750 mm
Width of bed	135 mm
Spindle bore	21 mm
Spindle taper	MK 3
Spindle speed "I"	50 - 1250 min <sup>-1</sup>
Spindle speed "II"	100 – 2500 min <sup>-1</sup>
Longitudinal feed	0,07 ~ 0,2 mm/U
Tailstock taper	MK 2 / MT 2
Thread pitch metric	0,4 ~ 3,5 mm/U
Thread pitch in inch	8 ~ 56 TPI
Dimensions (LxWxH	1350 x 480 x 550 mm
Weight (net)	126 kg
Mains voltage / frequency	230V / 50Hz
Motor power S1 / S6	0,73 kW / 1,0 kW



### 12 SAFETY GUIDELINES

### 12.1 Proper usage

HOLZMANN MASCHINEN cannot be held responsible for any injuries or damages if there was performed manipulation or adjustments to the machine.

For another usage and resulting damages or injuries HOLZMANN MASCHINEN doesn't assume any responsibility or guarantees.

Warning labels and/or other labels on the machine must be replaced when they were removed.



### NOTICE

In the following machine this guards are in effect:

- Emergency button on the control panel
- Shutdown when opening the motor pulley cover



- Keep your work area dry and tidy! An untidy work area may cause accidents. Avoid slippery floor.
- Make sure the work area is lighted sufficiently
- Do not overload the machine
- Provide good stability and keep balance all times
- Avoid abnormal working postures! Make sure you stand squarely and keep balance at all times.
- Keep away from the running drill!
- Always stay focused when working. Reduce distortion sources in your working environment. The operation of the machine when being tired, as well as under the influence of alcohol, drugs or concentration influencing medicaments is forbidden.



- Do not climb onto the machine!
- Attach the machine to the underground



- Respectively trained people only and only one person shall operate the machine.
- Do not allow other persons, particularly children, to touch the machine or the cable. Keep them away from your work area.
- Make your workshop childproof.



 Make sure there is nobody present in the dangerous area. The minimum safety distance is 2m







 Wear suitable work clothes! Do not wear loose clothing or jewelry as they might get caught in moving parts and cause severe accidents! Wear a hair net if you have long hair.

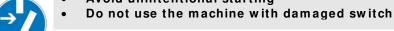


Use personal safety equipment: ear protectors and safety goggles when working with the machine.





- Never leave the machine running unattended! Before leaving the working area switch the machine off and wait until the machine stops.
- Always disconnect the machine prior to any actions performed at the machine.
- Avoid unintentional starting





- The plug of an electrical tool must strictly correspond to the socket. Do not use any adapters together with earthed electric tools
- Each time you work with an electrically operated machine, caution is advised!
   There is a risk of electric shock, fire, cutting injury;
- Protect the machine from dampness (causing a short circuit)
- Use power tools and machines never in the vicinity of flammable liquids and gases (danger of explosion)
- Check the cable regularly for damage
- When working with the machine outdoors, use extension cables suitable for outoor use
- . Do not use the cable to carry the machine or to fix the work piece
- Protect the cable from heat, oil and sharp edges
- Avoid body contact with earthed



- Before starting the machine remove any adjusting wrenches and screwdrivers
- Use a clip or clamping jaws to secure the workpiece
- · Do not fix the workpice with your hands
- Rotating parts can cause severe cut injuries
- Keep the drills sharp and clean, so they get stuck less often and are easier to guide
- Keep any machine that is not being used out of reach of children





### NOTICE

### **Emergency procedure**

A first aid kit in accordance with DIN 13164 should always be readily available for a possible accident. Initiate the violation in accordance with the necessary first aid measures. When requesting support, provide the following details:



1. Place of accident	2. Type of accident
3. Number of injured people	4. Injury type(s)



### 12.2 Intended Use

The machine must only be used for its intended purpose! Any other use is deemed to be a case of misuse. The machine is used for drilling in wood, plastic and metal.

To use the machine properly you must also observe and follow all safety regulations, the assembly instructions, operating and maintenance instructions lay down in this manual.

All people who use and service the machine have to be acquainted with this manual and must be informed about the machine's potential hazards.

It is also imperative to observe the accident prevention regulations in force in your area.

The same applies for the general rules of occupational health and safety.

Any manipulation of the machine or its parts is a misuse, in this case HOLZMANN-Machines and its sales partners cannot be made liable for ANY direct or indirect damage.

Even when the machine is used as prescribed it is still impossible to eliminate certain residual risk factors.



### WARNING

- Use only drills allowable for this machine!
- · Never use a damaged drill!
- Use the machine never with defective or without mounted guard
   HIGHEST RISK OF INJURY!

#### 12.2.1 Ambient conditions

The machine may be operated:

humidity max. 70%

temperature  $+5^{\circ}\text{C}$  to  $+40^{\circ}\text{C}$  ( $+41^{\circ}\text{F}$  to  $+104^{\circ}\text{F}$ )

The machine shall not be operated outdoors or in wet or damp areas.

The machine shall not be operated in areas exposed to increased fire or explosion hazard.

### 12.2.2 Prohibited use

- The operation of the machine outside the stated technical limits described in this manual is forbidden.
- Operation of the machine function without emergency stop button or impeller box with open doors is prohibited.
- The use of the machine not according with the required dimensions is forbidden.
- The use of the machine not being suitable for the use of the machine and not being certified is forbidden.
- Any manipulation of the machine and parts is forbidden.
- The use of the machine for any purposes other than described in 12.1 is forbidden.
- The unattended operation on the machine during the working process is forbidden!
- It is not allowed to leave the immediate work area during the work is being performed.



### 12.3 Specific requirements for metal lathes

Apart from the information in this manual and the relevant work safety regulations, you must follow the general operating and safety rules that are required when working with a metal lathe.

- When working with metal lathes no gloves.
   These may get caught in rotating parts and cause serious injury.
- Keep at work the technical limitations such as max. A diameter etc.
- Check before work, whether the tool holder etc. are always properly secured.
- Tighten only workpieces in a chuck , which are of  $\emptyset$  ago for this purpose.
- Edit the fly , that is, without tailstock support only short workpieces.
- If the workpiece 3 times longer than the diameter of the workpiece , the workpiece should be stored on each case, in addition to the tailstock.
- Avoid short as possible clamping conscious.
- Be always the technical limitations of your tools and clamping conscious.

  In particular, you should NEVER use any tool at speeds for which it is not permitted!
- Thread cutting and editing of imbalances objects should generally be carried out at very low speeds.

### 12.4 Remaining risk factors



### WARNING

It is important to ensure that each machine has remaining risks. In the execution of all work (even the simplest) greatest attention is required. A safe working depends on you!

Also in compliance with all safety regulations and when used properly, the following residual risks must be observed:

- Risk of injury to the hands / fingers through the rotating lathe chuck during operation.
- Risk of injury due to sharp edges of the workpiece, especially in non-fixed with a suitable tool
  / device workpiece.
- Risk of injury: hair and loose clothing, etc. can be captured and wound up by rotating lathe chuck! Severity of injury! Safety regulations must be observed with regard to clothing.
- Risk of injury due to contact with live electrical components.
- Risk of injury by tipping the machine.
- Risk of injury due to dust emissions, treated with harmful agents workpieces.
- Risk of being cut by drilling edges untrimmed.
- Risk of injury to the eye by flying debris, even with goggles.

These risks can be minimized if all safety rules are applied, the machine is properly maintained and serviced the machine as intended and is serviced by a trained service professional.

Despite all the safety devices and remains her good common sense and your corresponding technical suitability / training on the operation of a machine of the most important safety factor!



### 13 ASSEMBLY

### 13.1 Scope of delivery

The ED 750FD is delivered fully assembled in principle.

In addition, the tool is included in the case.

### 13.2 Preparatory activities

#### 13.2.1 The workplace

Choose a suitable place for the machine.

The workplace must:

- have sufficient lighting.
- a straight, flat, floor exhibit
- with minimal vibration values (such as concrete).
- The machine should be mounted on a solid work surface which also flat, straight and vibration (eg massive workbench)
- Allow sufficient space around the machine
- Provide a suitable freely accessible supply 230V / 50Hz and sufficient backup.

Observe the safety requirements of Chapter 12 as well as the dimensions of the machine.

You also need a minimum distance of **0.5** m around the machine completely secure to ensure safe working.

#### 13.2.2 Transport / unloading the machine



### **WARNING**

The lifting and transport of the machine must be performed by qualified personnel

Also make sure that the location can support the weight of the machine.

### 13.3 Assembly

### 13.3.1 Cleaning

Remove the anti-corrosion protection and grease before putting the machine through kerosene (paraffin) or turpentine of all tours and the transmission. Do not use thinner or other strong solvents. Lubricate all the bright faces of the machine directly after its cleaning. Do not use heavy oil or grease for the gearbox.

#### 13.3.2 Installation

Place the lathe on a solid surface. A concrete floor is the best foundation for the machine, if necessary, use a base. Make sure that you have enough space around the machine to optimally operate and maintain. Adjust the guides exactly a bed, then tighten the foundation bolts evenly and finally check the stand.



### 13.4 Electrical connection

### 13.4.1 Earthing connection

### **A** ATTENTION



When working on an ungrounded machine: Serious injury due to electric shock in the event of a malfunction possible!

Therefore: appliance must be grounded and operated on a grounded outlet can be

The electrical connection of the machine is ready for operation on a grounded outlet!

If a plug is supplied, this must only be connected to a properly fitted and grounded electrical outlet!

The plug (if supplied) must not be changed. If this does not fit or is defective, only a qualified electrical engineer may modify or replace the plug!

The grounding conductor is green-yellow!

In the event of repair or replacement of the grounding conductor must not be connected to an under voltage can!

Check with a qualified electrician or service that the grounding instructions are understood and the machine is grounded!

A damaged cable must be replaced immediately!

### 13.5 Before commissioning

- removing the mounted for the transportation and storage of corrosion inhibitors on the lathe . We recommend this petroleum.
- To clean, use any solvents, nitrocellulose thinner or other cleaning agents that might damage the paint of the lathe. Please read the information and instructions of the detergent manufacturer .Lubricate all a bare machine parts with an acid-free lubricating oil.
- Function of the movable and fixed parts of control
- Lubricate the lathe from according to lubrication chart.
- Check all screws for ease of movement .
- Check that the fixing screws of the chuck are tight.
- Clamp a workpiece in the lathe chuck , lathe or turning the clamping jaws of the chuck completely together before turning on the lathe.

#### 13.5.1 Retraction prior initial

The retraction should be performed with the lowest screw speed. Let the machine at this speed for about 1 hours walk. Check out irregularities, such as unusual noises, imbalances, etc. If everything is in order, gradually increase the speed.



### 14 OPERATION

### 14.1 Notes on Operation

b) Check the screw

Check all bolted connections and tighten them if necessary.

c) Checking the oil level

Check it the oil level and fill it if necessary after some oil

### 14.2 operation



### WARNING

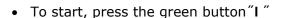
Setting each time you start speed control to the lowest level!

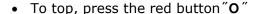
NOTE: Failure to comply results in damage to the engine and loss of warranty!



### 14.2.1 Engine starting / stopping

If you want to press the ON OFF switch, the combined **EMERGENCY STOP** switch must be in the open state. They pull to open the emergency **OFF** switch to the left









INFO: In the closed state of the main switch can be operated as an EMERGENCY STOP switch

### 14.2.2 Setting the direction of spindle rotation

Turn on the direction of rotation switch (1) to the position " $\mathbf{F}$ " for spindle mode counterclockwise, and in the position " $\mathbf{R}$ " for spindle mode clockwise. In the position " $\mathbf{O}$ " is switched to idle





### CAUTION

Wait at each change of direction necessarily, the machine stops, otherwise the machine may be damaged!



### 14.2.3 Setting the spindle speed

The speed (high / low) is selected by the speed adjustment ( 16). The set speed is displayed on the speed display (20).

### 14.2.4 Clamp Tool

The tool must be clamped.

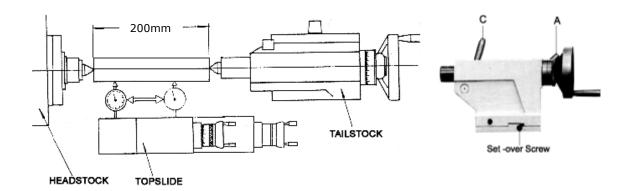
During the rotating operation of the tool has a tendency to bend away from the workpiece. Therefore, the tool overhang on the tool holder 3/8 " ( $\sim 9\,\text{mm}$ ) should not exceed. The cut angle is correct if the cutting edge is in line with the central axis of the workpiece. The correct height of the tool can be achieved by comparing the tool tip with the live center in the tailstock tip.

If necessary, the tool must be adjusted by using the same documents. ( Available from Holzmann under item number PU7TLG95 and PU7TLG150 )

### 14.2.5 Leveling tailstock to headstock

Tighten properly between spindle and tailstock up a 305 mm long solid piece of pipe.

Cock now in the tool holder has a digital Display one.





### 14.2.6 Speed change

The ED can 750FD within **2** speed ranges be operated. To change the speed range of operation, the drive belt must be allocated.

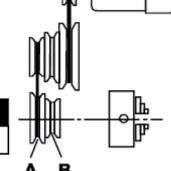
- Loosen and remove the two screws on the handle head headstock cover (20) and remove the gear cover.
- marked allen screw left behind drive wheelloosen and loosen Belt C.
- Place put the V-belt C on the respective pulleys.

There are 2 positions (siehe figure at right)

**Pos. A** (outer pulleys) for lower speed range.

**Pos. B** (inner pulleys) for high speed range.





Α	В
50-1250	100-2500

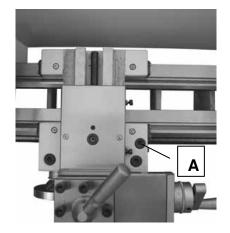
Tension after changing belt and mount cover.

### 14.2.7 Clamp bedslide -lock case-

For manual operation, the bed slide can be clamped as follows:

- Turn hex socket cap screw (A) clockwise and tighten to lock.
- Turn counter-clockwise and loosen to unlock.

**Caution:** carriage lock screw must be unlocked before engaging automatic feeds or damage to lathe may occur!



#### 14.2.8 Manual operation

The bedslide is moved by the handwheel (16), the cross slide with the handwheel (15) and the top slide through the hand wheel (13).



### 14.2.9 Longitudinal turning with the automatic feed

On the table (A) the desired feed speed is to be selected and the corresponding change gears combination and switch position (B) to adjust.

Optionally change gears must be changed.

-see 14.2.7- The combination of wheels is given in the feed and thread table.

**AUTION:** The clamping of the bed carriage must be unlocked before you turn on the automatic feed! -see 14.2.7-

#### **CAUTION!**

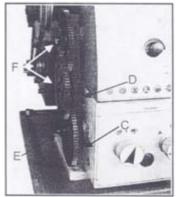
By turning on the lathe at a high speed dial and activated A-release lever, the saddle is moved at high speed.



• If lever of automatic longitudinal feed is pulled upward completed.

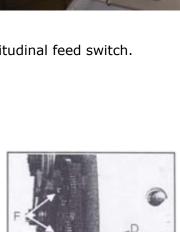
### 14.2.10 Replacing change gears

- 1. Disconnect the device from the power source.
- 2. Loosen the two fixing screws and remove the protective cover.
- 3. Loosen the locking screw (C) on the guadrant.
- 4. Swing the quadrant (**D**) to the right.
- 5. Remove the nut (**E**) and remove from the spindle or the nuts (**E**) and remove the change gears.
- 6. Install the new change gears.
- 7. Swing the quadrant to the left until the gearwheels have engaged again.
- 8. Fix the guadrant with the locking screw (C) again.
- 9. Install the protective cover of the headstock and reconnect the machine to the power supply.



### 14.2.11 Threading

During operation, rotates the lead screw. When placing the shift lever feed / thread (14) downward, driving the sleigh bed.





### 14.2.12 Setting for feed and thread pitches

Use to select the longitudinal feed, as well as for setting of metric and English threads, the relevant tables can be found on the machine left.

#### INFO:

the change gears are depicted as substituted the letters and numbers of the table after.

P	<u>М</u> м	10	<b>Z1</b>		Z2 Z3	Z1	Z2
Z1 Z2	25 70	30 60		The state of the s			
Z4 Z3	75 20	75 20	(N				
L	H 80	H 80	<b>Z4</b>		Ath	Z4	Z3
С	0.07	0.10		(3)			
А	0.14	0.20	L	Francis			
-				mm			
Z1 Z2	H 50	H 50	H 30	H 45	H 45	H 30	
Z4 Z3	20 75	30 80	50 80	50 80	60 80	70 80	
L	80 H	75 H	75 H	60 H	60 H	60 H	
С	0.2	0.3	0.5	0.62	0.75	0.88	
Α .		0.0	4	1.05	1.5	1 75	
А	0.4	0.6	1	1.25	1.5	1.75	1

Thread pitch 1,5mm				
Z1	Z2	Н	45	
Z4	Z3	60	80	
	L	60	Н	
В				
Α	X			
С				

- gear Z2 engages with gear Z3/4
- gear Z3/4 engages in gear L

"H" stands for white space (sleeve). Instead of a sleeve can also a smaller gear to be used with any of the other gear is engaged.

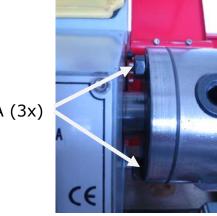
The switch (18) is provided with thread pitch 1,5mm here to "A"



### 14.2.13 Lathe chuck / faceplate assembly

If you mount the rotary chuck or chucks want to dismantle or, first make sure that the holding cams are fixed.

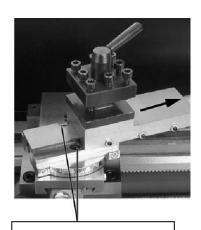
- Loosen the three screws (A) and lift off the lathe chuck.
- Now mount chuck or faceplate on the spindle head and tighten the bolts in sequence to.
- Do not replace food or face plates between different lathes, without checking the correct adjustment cams.



A(3x)

### 14.2.14 Top slide

For angular adjustment of the upper slide, loosen the screws, turn the carriage to the desired position and fix the carriage again with the screws.



Adjusting screws (1)

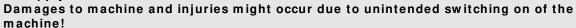


### 15 MAINTENANCE AND CARE

### **A** ATTENTION



Don't clean or do maintenance on the machine while it is still connected to the power supply:





Therefore: Switch the machine off and disconnect it from the power supply before any maintenance works or cleaning is carried out

On the device are only few of them serviceable components. It is not necessary to dismantle the machine. Repairs must only be performed by an expert!

Accessories: Use only recommended accessories HOLZMANN!

If you have any questions or problems, contact our customer service.

#### 15.1 Maintenance

All parts should be lubricated twice weekly.

### 15.1.1 Lubrication

By smearing:

- · reduces the wear and friction resistance
- enhancing the life
- protects metallic surfaces from corrosion

We recommend:

• for the purpose grease lubrication of the class 2NLGI

All 8 hours of operation is to grease the lathe. The lubrication points bed management, dovetail-cross slide dovetail-longitudinal slide and tailstock are using an oil can and a commercially available lubricating oil under back and forth because of the carriage or the guill, greased.

All other lubrication points at the designated grease nipples using a grease gun lubricated.

This should be controlled and repeated at regular intervals.

The gear once a month with the right engine oil or fat.

This should be controlled and repeated at regular intervals.

### 15.2 Cleaning

### NOTE

The use of solvents, harsh chemicals or abrasive cleaners leads to damage to the machine! Therfore: When cleaning water and mild detergent if necessary use.

Bare surfaces of the machine against corrosion impregnate ( with anti-rust WD40 )

### 15.3 Disposal

Do not dispose of the ED 750FD in residual waste. Contact your local authorities for information regarding the available disposal options. When you buy at your local dealer for a replacement unit, the latter is obliged to exchange your old



Seite 40



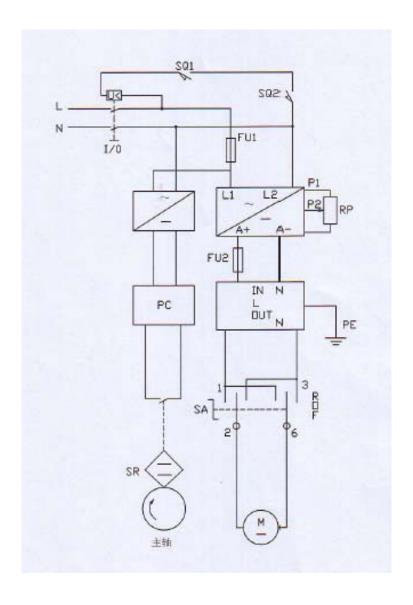
### 16 TROUBLESHOOTING

Disconnect the machine from the power supply prior to any checks performed at the machine itself!

Trouble	Possible cause	Solution
Machine does not start	<ul><li>machine is not connected</li><li>fuse or contactor broken</li><li>cord is damaged</li></ul>	<ul> <li>Check all electric connections</li> <li>Change fuse, activate the contactor</li> <li>Replace cable</li> </ul>
Machine does not come up to speed	<ul> <li>Extension cord too long</li> <li>Not suitable for existing motor voltage</li> <li>weak power grid</li> </ul>	<ul> <li>Exchange on optional extension cable, see wiring box cover for cor- rect wiring</li> <li>Contact the electrician</li> </ul>
The machine vibrates strongly	<ul><li>Stands on uneven ground</li><li>Engine mounting is loose</li></ul>	<ul><li>Reconstitute</li><li>Tighten the fixing screws</li></ul>
Turning tool has a short life	<ul><li>Hard casting skin</li><li>At high cutting speed</li><li>Too large an advance</li><li>Insufficient cooling</li></ul>	<ul> <li>Cast skin before break</li> <li>Select cutting speed lower</li> <li>Lower delivery (finishing allowance not more than 0.5 mm)</li> <li>More cooling</li> </ul>
Cutting breaks out	<ul> <li>Wedge angle is too small (heat congestion)</li> <li>Grinding cracks by improper cooling</li> <li>Excessive play in the spindle bearings (vibrations occur)</li> </ul>	<ul> <li>Choose wedge angle greater</li> <li>uniformly cool</li> <li>Adjust play in the spindle bearings. If necessary, replace tapered roller bearings.</li> </ul>
Twisted threads wrong	<ul> <li>Thread turning tool is incorrectly clamped or sanded wrong</li> <li>Incorrect pitch</li> <li>Wrong diameter</li> </ul>	<ul> <li>Setting the turning tool on center</li> <li>Grind angle correctly</li> <li>Set the correct slope</li> <li>Pre-turns workpiece to exact diameter</li> </ul>



### 17 ELEKTRISCHE SCHALTUNGEN / ELECTRIC DIAGRAM

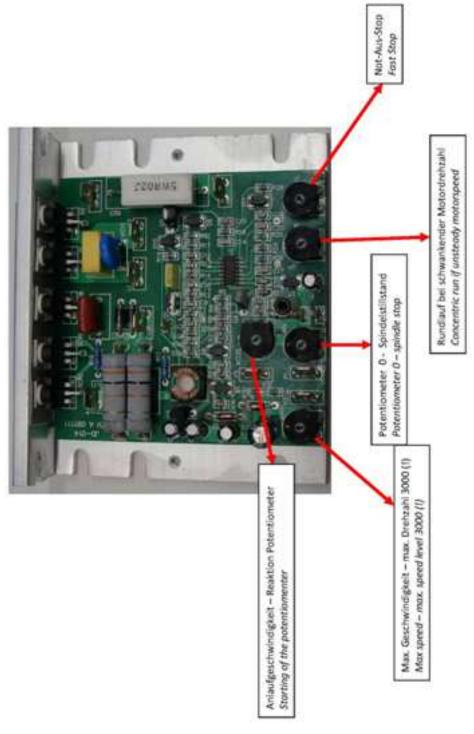




### 17.1 Grundeinstellung Potentiometer / basic adjustment potentiometer

Die Platine ist werksseitig voreingestellt und sollte nicht verändert werden. Bei einem Wechsel der Platine können diese Einstellungen vorgenommen werden.

The board is preset at the factory and should not be changed. When changing the board these settings can be made.





### 18 ERSATZTEILE / SPARE PARTS

### 18.1 Ersatzteilbestellung / spare parts order

Mit Holzmann-Ersatzteilen verwenden Sie Ersatzteile, die ideal aufeinander abgestimmt sind. Die optimale Passgenauigkeit der Teile verkürzen die Einbauzeiten und erhalten die Lebensdauer.

### HINWEIS

Der Einbau von anderen als Originalersatzteilen führt zum Verlust der Garantie! Daher gilt: Beim Tausch von Komponenten/Teilen nur Originalersatzteile verwenden

Beim Bestellen von Ersatzteilen verwenden Sie bitte das Serviceformular, das Sie am Ende dieser Anleitung finden. Geben Sie stets Maschinetype, Ersatzteilnummer sowie Bezeichnung an. Um Missverständnissen vorzubeugen, empfehlen wir mit der Ersatzteilbestellung eine Kopie der Ersatzteilzeichnung beizulegen, auf der die benötigten Ersatzteile eindeutig markiert sind.

Bestelladresse sehen Sie unter Kundendienstadressen im Vorwort dieser Dokumentation.

With original Holzmann spare parts you use parts that are attuned to each other shorten the installation time and elongate your products lifespan.

### IMPORTANT

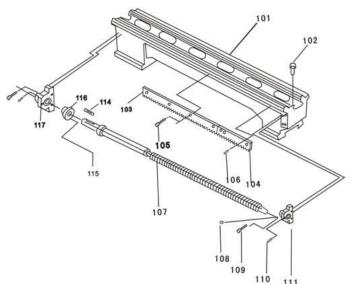
The installation of other than original spare parts voids the warranty! So you always have to use original spare parts

By the order of spare parts use the service formular that you can find at the end of this manual. Make always a note of the type, spare part number and a definition of the product. That there are no mistakes, we recommend to make a copy of the spare part list where you can mark with a pen the spare parts which you order.

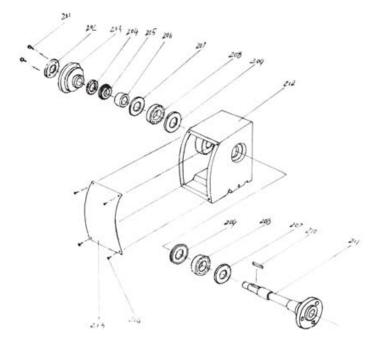
You find the order address in the preface of this operation manual.



## 18.2 Explosionszeichnungen und Stücklisten / Explosion drawings and spare part lists

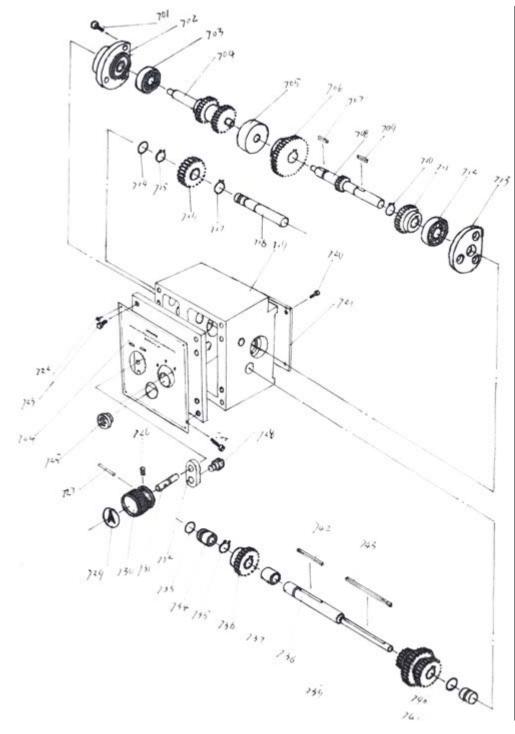


NO.	Name	Qty
101	Bed way	1
102	Screw	1
103	Gear rack	1
104	Gear rack	1
105	Screw	6
106	Pin	1
107	Leas screw	1
108	Oil seal	2
109	Screw	4
110	Pin	2
111	Right backup	2
114	Key	2
115	Screw	1
116	Connection plate	1
117	Left backup	1



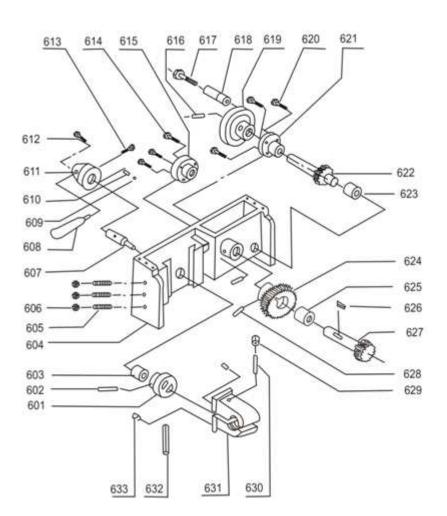
NO.	Name	Qty
201	Screw	2
202	Washer	1
203	Pulley	1
204	Gasket	1
205	Gear	1
206	Separator	1
207	Gasket	2
208	Bearing	2
209	Oil seal	2
210	Key	1
211	Spindle	1
212	Head stock	1
213	Label	1
214	Screw	6





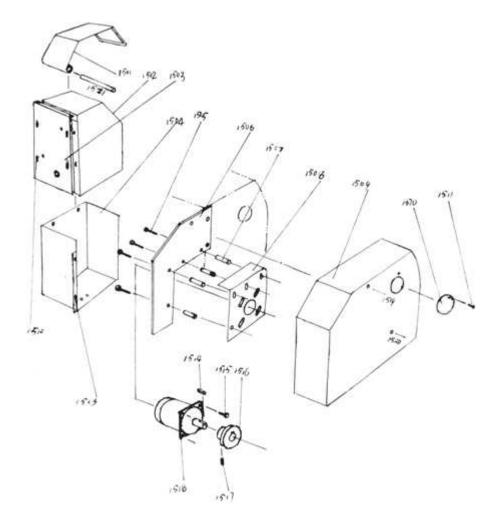
No.	Name	Qty
701	Screw	
701	Flange	6
702	Bearing	1
704	Gearshaft	1
704	Toggle	1
706	Gear	1
707	Key	1
708	Gearshaft	1
709	Key	1
710	Snap ring	1
711	Gear	1
712	Bearing	1
713	Flange	1
714	Oring	1
715	Snap ring	1
716	Gear	1
717	Snap ring	1
718	Shaft	1
719	Feed box	1
720	Screw	8
721	Back cover	1
722	Screw	4
723	Screw	5
724	Label	1
725	Oil window	1
726	Screw	2
727	Key	2
728	Fork	1
729	Label	2
730	Knob	2
731	Shaft	2
732	Bracket	2
733	O-ring	1
	Gasket	1
735	Snap ring	1
736	Gear	1
737	Shaftsleeve	2
738	Shaft	1
739	Gear	1
740	O-ring	1
741	Shaftsleeve	1
742	Key	1
743	Key	1
	Screw	4





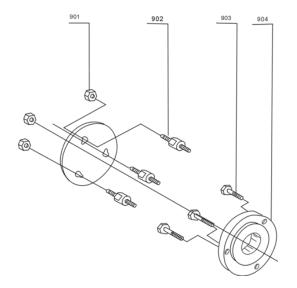
NO.	Name	Qty
601	Notched joint	1
602	Pin	1
603	Shaftsleeve	1
604	Apron	1
605	Screw	3
606	Nut	3
607	Shaft	1
608	Handle	1
609	Ball	1
610	Spring	1
611	Handle	1
612	Screw	1
613	Screw	1
614	Screw	3
615	Flange sleeve	1
616	Pin	1
617	Bolt	1
618	Handle sleeve	1
619	Hand wheel	1
620	Screw	3
621	Flange sleeve	1
622	Gearshaft	1
623	Shaftsleeve	1
624	Gear	1
625	Shaftsleeve	1
626	Key	1
627	Gearshaft	1
628	Screw	2
629	Nut	1
630	Screw	1
631	Half nut	1
632	Gib	1
633	Cylinder pin	2



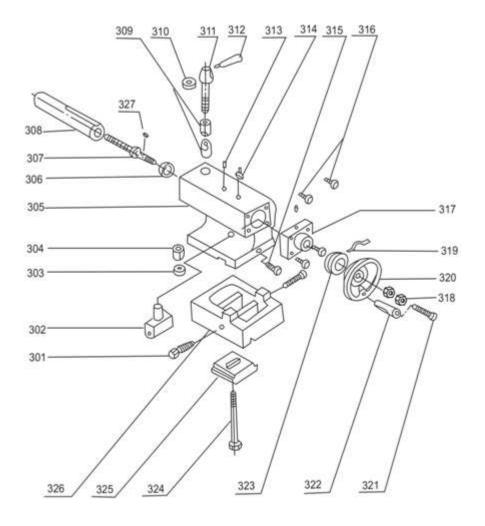


NO.	Name	Qty
1501	Chuck cover	1
1502	Electrical box	1
1503	Cover	1
1504	Cover	1
1505	Screw	4
1506	Bracket	1
1507	Bolt	4
1508	Bracket	1
1509	Cover	1
1510	Cover	1
1511	Screw	1
1512	Screw	4
1513	Screw	4
1514	Key	1
1515	Screw	4
1516	Motor pulley	1
1517	Screw	1
1518	Motor	1
1519	Bolt	1
1520	Bolt	1
1521	Shaft	1



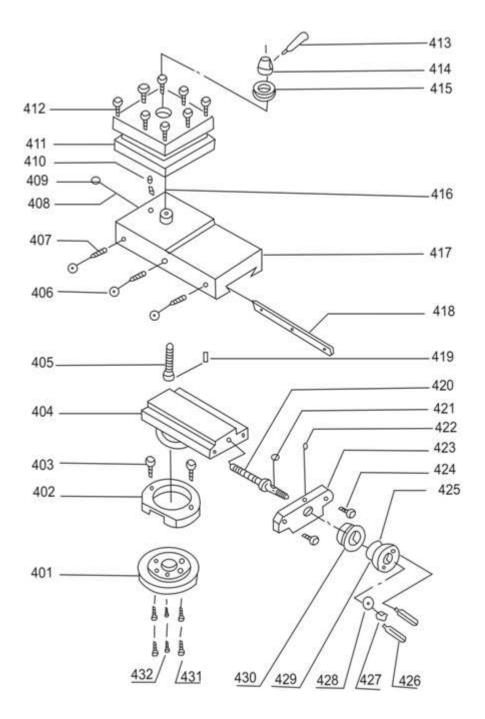


NO.	Name	Qty
901	Nut	3
902	Bolt	3
903	Bolt	3
904	Chuck base	1



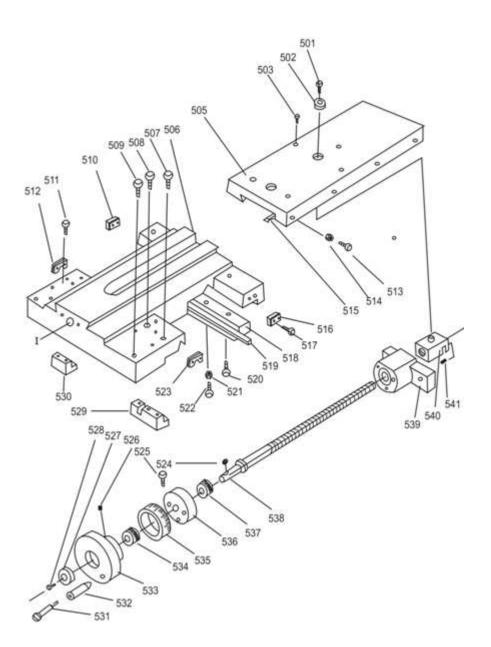
NO.	Name	Qty
301	Screw	2
302	Nut	1
303	Washer	1
304	Nut	1
305	Tail stock	1
306	Bearing	1
307	Leas scew	1
308	Sleeve	1
309	Toggle	1
310	Washer	1
311	Bolt	1
312	Handle	1
313	Oil cup	2
314	Key	
315	Screw	1
316	Screw	4
317	Cover	1
318	Pin	1
319	Spring washer	1
320	Hand wheel	1
321	Bolt	1
322	Sleeve	1
323	Graduated collar	1
324	Bolt	1
325	Clamping plate	1
326	Base	1





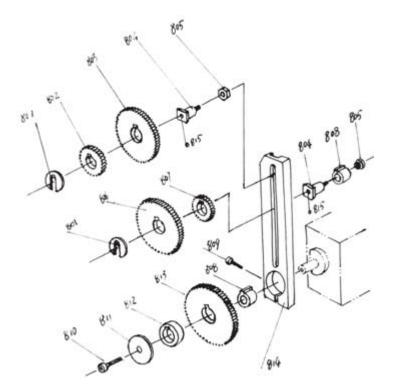
NO.	Name	Qty
401	Graduated collar	1
402	Clamping ring	1
403	Bolt	2
404	Swivel base	1
405	Bolt	1
406	Nut	3
407	Screw	3
408	Screw	1
409	Nut	1
410	Pin	1
411	Toolrest	1
412	Screw	8
413	Handle	1
414	Handle base	1
415	Washer	1
416	Spring	1
417	Tool slide	1
418	Gib.	1
419	Pin	1
420	Lead screw	1
421	Key	1
422	Oil cup	2
423	Bracket	1
424	Screw	2
425	Spring waher	1
426	Handle	2
427	Nut	1
428	Washer	1
429	Handle wheel	1
430	Graduated collar	1
431	Screw	4
432	Pin	2



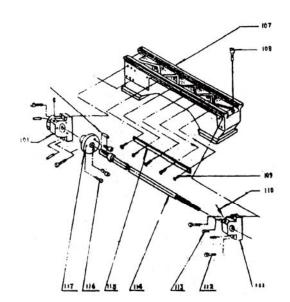


NO.	Name	Qty
501	Screw	1
502	Washer	1
503	Oil cup	9
504	Screw	2
505	Cross slide	1
506	Carriage	1
507	Screw	4
508	Screw	1
509	Screw	4
510	Wiper	2
511	Screw	2
512	Wiper	2
513	Screw	4
514	Nut	4
515	Gib	1
516	Wiper	2
517	Screw	8
518	Brake clip	1
519	Gib	1
520	Screw	4
521	Nut	5
522	Screw	5
523 524	Wiper	1
	Key	1
525	Screw	3
526	Spring washer	1
527	Washer	1
528	Screw	1
529	Brake clip	1
530	Brake clip	1
531	Handle	1
532	Handle sleeve	1
533	Handle wheel	1
534	Bearing	1
535	Graduated collar	1
536	Bearing base	1
537	Bearing	1
538	Lead screw	1
539	Screw base	1
540	Nut	1



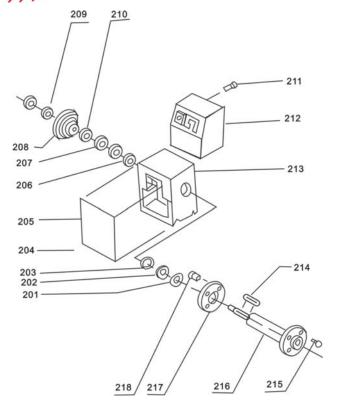


NO.	Name	Qty
801	Washer	2
802	Change gear	1
803	Change gear	1
804	Bolt	2
805	Nut	2
806	Change gear	1
807	Change gear	1
808	Shaftsleeve	3
809	Screw	1
810	Screw	1
811	Washer	1
812	Separator	1
813	Change gear	1
814	Bracket	1
815	Oil cup	2

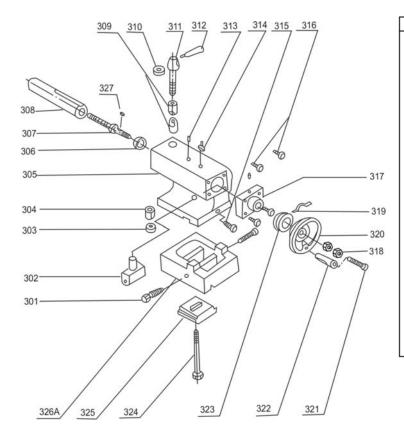


No.	Name	Qty
101	Left backup	1
102	Flat Key	1
107	Bed	1
108	Screw	1
109	Screw	
110	Oil Cup	2
111	Right support of lead screw	1
112	Screw	4
117	Adjusting Disc	1



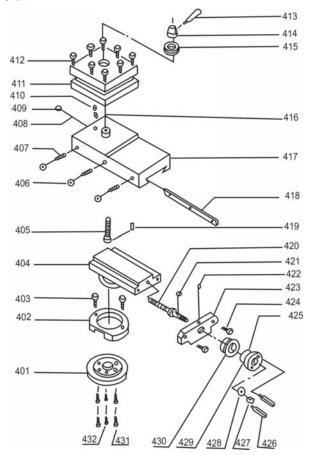


No.	Name	Qty
201	Front Oil Ring	1
202	Roller Bearing	2
203	Oil Ring	1
204	Screw	4
205	Rrong Panel	4
206	Rear Oil Ring	4
207	Tube Separator	4
208	Spindle Pulley	4
209	Nut	2
210	Spindle Gear	1
211	Screw	3
212	Control Switch	1
213	Headstock	1
214	Flat Key	1
215	Screw	3
216	Spindle	1



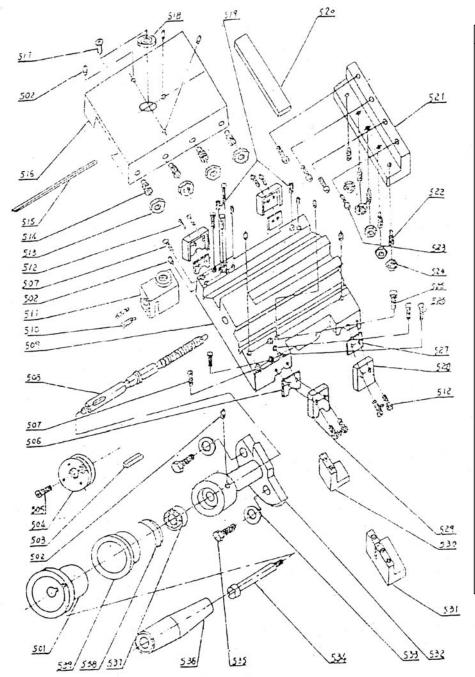
No.	Name	Otr
		Qty
301	Screw	1
303	Washer	1
304	Nut	1
305	Tailstock Body	1
306	Single Row Radial Ball Beaing	1
307	Tailstock Lead screw	1
308	Tailstock Sleeve	1
310	Washer	1
311	Bolt	1
312	Hand lever	1
313	Force Feed Oil Cup	2
314	T-type Flat Key	1
315	Screw	1
316	Screw	4
317	Tailstock End Cover	1
318	Cylinder Pin	1
319	Spring Bow	1
320	Hand wheel	1
321	Hand Lever bolt	1
322	Hand lever sleeve	1
323	Index Ring	1
324	Bolt	1
325	Tailstock clamp Plate	1
326	Base	1





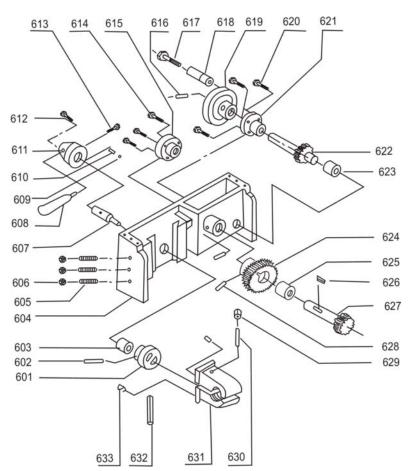
No.	Name	Qty
401	Nut	2
402	ldex piece	1
403		2
	Cutler rest Revolving Dise	1
405		1
406	Nut	2 1 1 3 3
407	Screw	3
408	Screw	
409		1
410	Position Pin	
	Square Cutter Rest	1
412	Screw	8
413	Hand lever	1
414	Hand Lever Base	1
415		1
416	Spring	1
417	Cutter Rest Carriage	1
418		1
419		1
420		1
421	Flat Key	1
422	Ferced Feed Oil Cup	2
423		1
	Screw	2
425		1 2
426		2
427	Nut	1
428		1
429		1
430		1 2
431	Idex Ring	
432	Screw Position Pin	1





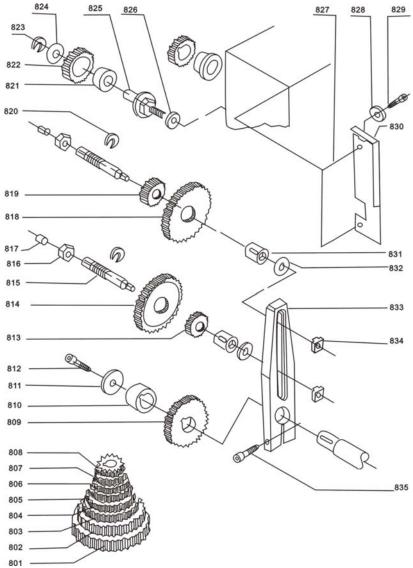
No.	Name	Qty
501	Handwheel	1
502	Oil Cup	10
503	Flat Key	1
504	Round Nut	1
505	Screw	1
506	Oil-stopping felt	2
507	Screw	4
508	Saddle lead screw	1
509	Saddle	1
510	Screw	2
511	Clearance-Eliminating Nut	1
512	Screw	8
513	Nut	4
514	Screw	4
515	Pad Iron	1
516	Saddle	1
517	Screw	1
518	Rear-clamp Plate Pad	1
519	Rear-clamp Plate	2
520	Screw	1
521	Screw	1
522	Nut	5
523	Screw	4
524	Screw	5
525	Nut	1
526	Screw	4
527	Screw	2
528	Oil-stopping Felt	2
529	Protecting Panel	2
530	Protecting Panel	1
531	Braking Plate	1
532	Lead screw Support	1
533	Washer	2
534	Hand lever Bolt	1
535	Bolt	2
536	Hand lever sleeve	1
537	Rolling Bearing	1
538	Spring Bow	1
539	Index Ring	1





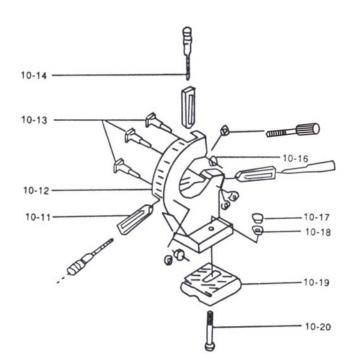
No.	Name	Qty
601	Slotted Dise	1
602	Taper Pin	1
603	Shaft Sleeve	1
604	Case	1
605	Bolt	3
606	Nut	3
607	Revolving Shaft	1
608	Hand lever	1
609	Steel Ball	1
610	Spring	1
611	Positioning lever	1
612	Screw	1
613	Screw	3
614	Screw	1
615	Flanged shaft Sleeve	1
616	Taper Pin	1
617	Hand Lever Sleeve	1
618	Hand Lever Sleeve	1
619	Hand wheel	3
620	Screw	1
621	Small Flanged Shaft Sleeve	1
622	Small Gear Shaft	1
623	Shaft sleeve	1
624	Gear	1
625	Shaft sleeve	1
626	Flat key	1
627	Gear shaft	1
628	Screw	2
629	Nut	1
630	Screw	1
631	Clasp-nut	1 set
632	Pad Iron	1
633	Cylinderial Pin	2



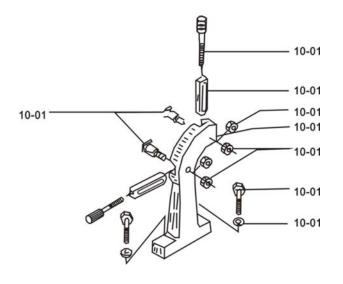


No.	Name	Qty
801	Change Gear	1
802	Change Gear	1
803	Change Gear	2
804	Change Gear	1
805	Change Gear	1
806	Change Gear	1
807	Change Gear	1
808	Change Gear	1
809	Change Gear	1
810	Washer	1
811	Check Ring	1
812	Screw	1
813	Change Gear	1
814	Change Gear	1
815	Shaft Bolt	2
816	Nut	2
817	Oil cup	3
818	Change Gear	1
819	Change Gear	1
820	Open washer	2
821	Rolling Bearing	1
822	Intermediate Gear	1
823	Check Ring	1
824	Outer washer	1
825	Fixed shaft Bolt	1
826	Washer	1
827	Screw	2
828	Washer	1
829	Screw	1
830	Cover	1
831	Slide Bearing	2
832	Washer	3
833	Change Gear Box	1
834	Square Nut	2
835	Screw	1



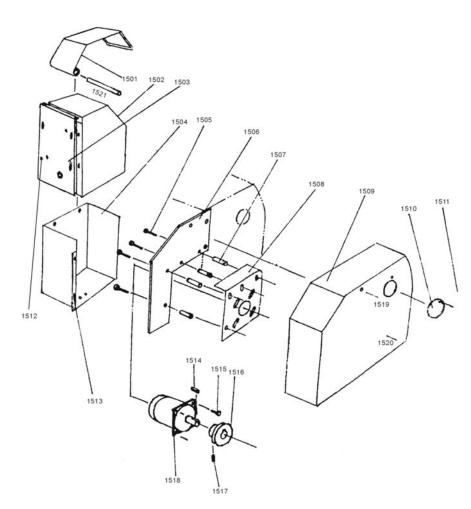


No.	Name	Qty
10-01	Clamp Screw	2
10-02	Adjusting Bolt	2
10-03	Supporting Feet	2
10-04	Washer	2
10-05	Follow Rest Body	1
10-06	Hexagonal Nut	2
10-07	Hexagonal Bolt	2
10-08	washeer	2



No	Name	Qty
10-11	Supporting Feet	3
10-12	Steady Rest Body	1
10-13	Clamp Screw	3
10-14	Adjusting Bolt	3
10-15	Washer	3
10-16	Nut	3
10-17	Nut	1
10-18	Washer	1
10-19	Tailstock Clamp Pancel	1
10-20	Square Head Bolt	1





No	Name	Qty
1501	Chuck cover	1
1502	Electrical box	1
1503	Cover	1
1504	Cover	1
1505	Screw	4
1506	Bracket	1
1507	Bolt	4
1508	Bracket	1
1509	Cover	1
1510	Cover	1
1511	Screw	1
1512	Screw	4
1513	Screw	4
1514	Key	1
1515	Screw	4
1516	Motor pulley	1
1517	Screw	1
1518	Motor	1
1519	Bolt	1
1520	Bolt	1
1521	shaft	1



### 19 KONFORMITÄTSERKLÄRUNG / CERTIFICATE OF CONFORMITY

( (

### Inverkehrbringer / Distributor

HOLZMANN MASCHINEN® GmbH A-4170 Haslach, Marktplatz 4

Tel.: +43 7289 71562-0; Fax.: +43 7289 71562-4

www.holzmann-maschinen.at info@holzmann-maschinen.at

Bezeichnung / name

Metalldrehmaschine / metal turning lathe

Type / model

ED 750FD

EG-Richtlinien / EC-directives

2006/42/EG 2006/95/EG

Angewandte Normen / applicable Standards

EN 60204-1/A1:2009, EN ISO 23125:2010

Hiermit erklären wir, dass die oben genannten Maschinen aufgrund ihrer Bauart in der von uns in Verkehr gebrachten Version den grundlegenden Sicherheits- und Gesundheitsanforderungen der angeführten EG-Richtlinien entsprechen. Diese Erklärung verliert ihre Gültigkeit, wenn Veränderungen an der Maschine vorgenommen werden, die nicht mit uns abgestimmt wurden.

Hereby we declare that the above mentioned machines meet the essential safety and health requirements of the above stated EC directives. Any manipulation or change of the machine not being explicitly authorized by us in advance renders this document null and void.

Gerhard Brunner

Techn. Dokumentation / techn. documentation HOLZMANN-MASCHINEN 4170 Haslach, Marktplatz 4 HOLZMANN MASCHINEN

Marktplatz 4, 4170 Haslach weiterer Standort: Gewerbeparkt 8, 4707 Schlüsslber

www.holzmann-maschinen.at

Klaus Schörgenhuber Geschäftsführer / Director

Haslach, 17.12.2013

Ort / Datum place/date