

TOOL POST GRINDER

## **HU 107 & HU 055** **Tool post grinder**

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# Tool post grinder - HU 107 & HU 055

## 1. General safety requirements

N.B.: Read the manual carefully to avoid problems.

As with all machines, this machine also involves hazards during the execution of work. Proper operation reduces these risks. In the event of non-compliance with safety regulations, risks are unavoidable. Please comply with the general safety regulations, as applicable.

The construction of the machine may not be changed in any way. If this nevertheless happens, this is entirely at the user's own risk.

1. Read the manual carefully before working with the machine .
2. Keep or do not remove protections etc. in place .
3. Electrically powered machines equipped with a plug should always be connected to a grounded socket.
4. Loose levers or actuators should always be removed. Make it a habit to always check the machine before use.
5. Keep the workplace clean. A cluttered workplace increases risk.
6. The machinery must not be set up in a hazardous environment, i.e. not in damp or wet rooms. Also, do not expose the machine to rain. Provide good lighting in the workplace.
7. Keep children and unauthorized persons away from the machine. They must always be kept at a safe distance from the machinery.
8. Make sure that the workshop cannot be entered by unauthorized persons. Install safety locks in the form of sliding locks, lockable main switches, etc.
9. The machine should never be overloaded. The capacity of the machine is greatest when it is loaded in the right way.
10. Use the machine only for the work for which it was made.
11. Wear the right work clothes. Do not wear loose clothes, gloves, nickers, rings, necklaces, bracelets or jewellery. These can grip in rotating parts. Wear footwear with rubber soles. Wear a hairnet in case of long hair.
12. Always wear safety glasses and proceed according to the safety regulations. For dusty work, a dust mask is advisable.
13. Always fasten workpieces well by means of a machine clamp or a tensioning device. This keeps both hands free for the operation of the machine.
14. Keep your balance at all times .
15. Always keep the machine in optimal condition. To do this, keep the cutting surfaces sharp and clean. Read the manual carefully and follow the instructions for cleaning, lubricating and changing tools.
16. Before commissioning, it must be ensured that the oil reservoirs are sufficiently filled !
17. Unplug the power cord from the power outlet before performing maintenance work or replacement of parts on the machine.
18. Only use the prescribed accessories. See manual. The use of improper accessories may entail certain risks.
1. Make sure that the machine cannot start suddenly. Always check that the on/off switch is set to OFF.
19. Never stand on the machine or tool. The machine may fall over or come into contact with the cutting tool.
20. Check for damaged parts. If there are damaged parts, you must replace or repair them immediately.
21. Never leave the machine unattended while it is running. Always switch off the machine, but only after it has come to a complete stop.
22. Alcohol, drugs, drugs. The machine should never be operated when you are under the influence of these agents.
23. Make sure that the machine is voltage-free before carrying out work on the electrical equipment, motor, etc.
24. Keep original packaging due to transport or relocation of the machine.
25. Machinery must not be used if protective caps or other safety devices have been removed. If protective caps are removed during transport (e.g. during repair), you must reattach them correctly before (re)commissioning of the machine.

## 2. Additional safety requirements

Always remember that:

1. in the case of maintenance and repair work, the machinery must be "OFF" and stress-free ,
2. tensioned workpieces may only be measured when the machine is switched off .

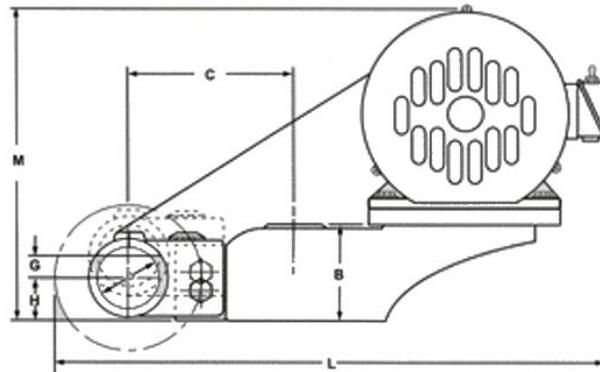
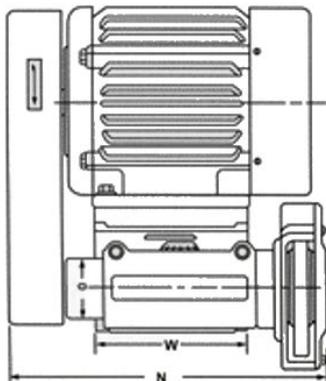
Do not hang over the machine, pay attention to loose clothes, ties, shirt sleeves, jewelry etc. and wear a hairnet. Do not remove protections or protective caps from the machine (never work with an open protective cap). When working with coarse material, safety glasses must be used. Blackberries should only be removed with a hand sweeper, never do this with your hands. Never leave the machine unattended.



**Always wear safety glasses!**

## 3. Technical specification

Model	HU-107	HU-055
Speed RPM	2750 rev/min	3750 rev/min
Grinding stone	180 x 19 x 31,75mm	125 x 19 x 41,27 mm
Dimensions l x w x h	485 x 300 x 270 mm	442 x 286 x 210 mm
Power	0,75 kW	0,37 kW
Weight	38 kg	26 kg
Voltage	3x 400 V	3x 400 V



Model	C	D	H	G	B	W	L	M	N	weight	Packing size
HU-107	100	60	40	10	75	102	485	270	300	38kg	550x400x440
HU-055	90	50	40	10	75	102	440	240	290	26kg	500x380x340

Model	Motor			External grinding			Internal grinding			Grinder swing on lathe	
	Power	Voltage	Pole	Size of wheel diaxwidthxbore (mm)	(RPM) No non-load speed 60hz 50hz		Size of wheel diaxwidthxbore (mm)	(RPM) No non-load speed 60hz 50hz			Grinding depth standard
HU-107	0,75kW	400V	2P	180x19x31,75	3300	2750	38x20x8	18000 12000	16800 11600	110mm	457-762mm
HU-055	0,37kW	400V	2P	125x19x41,27	4500	3750	25x16x6	23000 16500	19000 13700	90mm	330-508mm

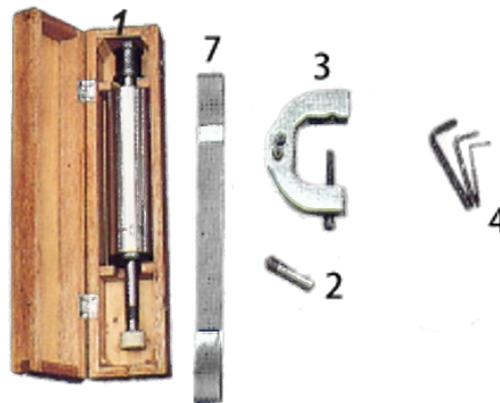
## 4. Features and accessories

### Features:

- Both main shafts have been specially deisnged and the precision bearing is used to fit the main shafts which are made of alloy steel heat -thrated for high wear resistance, precision, as well as maintaining to the lowest temperature for durability and stability.
- The motor base and the spindle bushing are adjustable.
- The motor is well designed with a special and nice appearance. The RPM of this motor varies depending on the size of the work piece.
- This grinder is capable of grinding a work piece to a minimum of 3mm in outer diameter and from 2mm up in inner diameter (bore) with a accuracy within 0.003mm and a well finished surface. (supplied with special attachements)
- The spindel bushing is made of cast iron and supported by three surfaces. Therefore, it si durable and elastic.
- Materials such as steel, iron, copper (brass), aluminum, cast iron, plastics, porcelain, marble, regardless of being heat threated, can be grinded with this tool post grinder which functions lie a cylindrical grinder. Therefore it lowers the cost of production.
- We assure you of high quality products.

### Standard Accessories:

- 1-Internal Spindle x 1 pce
- 2-Diamond tool x 1 pce
- 3-Holder for diamond tool x 1 pce
- 4-Key folds (8,5,3mm) x 3 pce
- 5- External spindle grinding wheel (8")
- 6- External spindle grinding wheel (1")
- 7- External spindle flat belt



## 5. How to use the tool post grinder

### 5.1 Remove the toolholder

Remove the toolholder from the tool slide

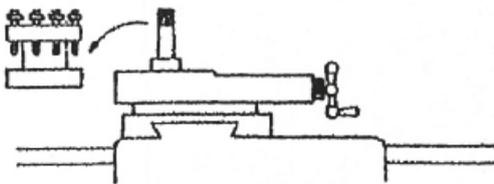


fig. 1

### 5.2 Install the tool post grinder

Install the tool slide onto the tool slide parallel with the bed ways. Be sure to align the tool post grinder with the bed ways of the lathe using a micro gauge.

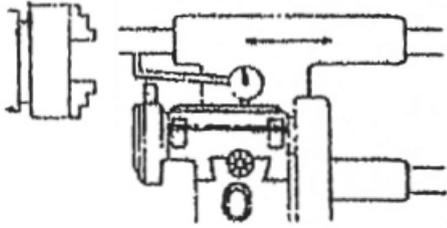


fig. 2

### 5.3 Adjust the centre height

Adjust the centre height equal to the centre of the lathe. Then loosen bolt (B) half a turn with a hexagon wrench. Then use a Allen key at dial (A) and turn it clockwise or anti clockwise to adjust the height to line-up both centres (0.125 mm for each mark of dial A), then tighten bolt (B) to fasten the tool post grinders position.

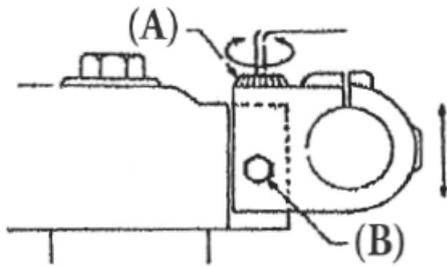


fig. 3

### 5.4 Adjust belt tension

Adjust the V-belt tension each time the tool grinder is installed to ensure a safe and accurate use of the tool post grinder. To do so, loosen both bolts (C) a bit, then use handwheel (B) to adjust the V-belt tension. A correct tension is, that you can either push the V-belt for roughly 10mm in the middle of the two pulleys.

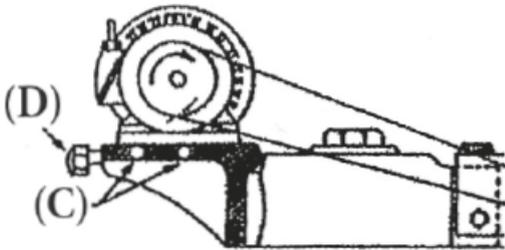


fig.4

### 5.5 Dressing the grinding stone

To dress a grinding stone, use a diamond dressing tool that can be clamped into the chuck (position E) of the lathe. Then move the tool post grinders stone close to the diamond tool and switch on the tool post grinder. Then move the stone towards the diamond tool until it touches the stone. Move the tool post grinder longitudinal along the diamond dressing tool a few time. Then move the tool post grinder inwards but no more than 0.03mm and repeat the longitudinal movement. Repeat these action until the diamond dressing tool touches the whole surface of the stone.

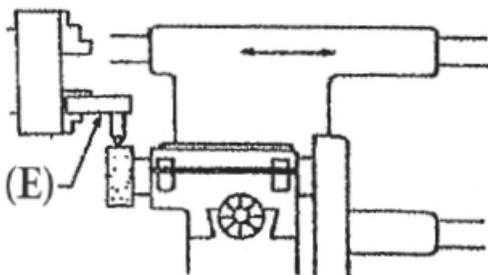


fig. 5

## 5.6 Exchange spindle for internal grinding *(optional)*

When internal grinding desired the grinding spindle must be exchanged for a internal grinding spindle. To do this follow the steps as indicated below.

1. Unscrew the grinding cover (1)
2. Disassemble the V-belt and pulley (2)
3. Remove and disassemble the grinding wheel or sanding belt (3)
4. Disassemble the spindle screw (F), and pull the spindle toward the “IN” sign on the tool post grinder.  
The tighten screw (F) again.

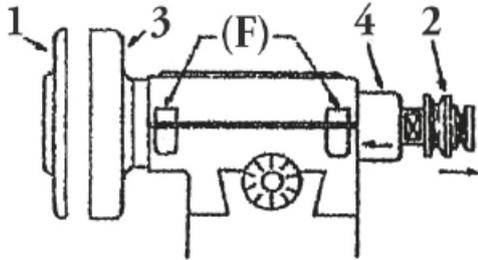


fig. 6

## 5.7 Insert and assemble internal spindle

Insert the internal grinding spindle into the spindle taper, change the belt and belt pulley for internal grinding, adjust the belt pulley for internal grinding, adjust the belt to proper tightness, and tighten screw (F) for internal grinding.

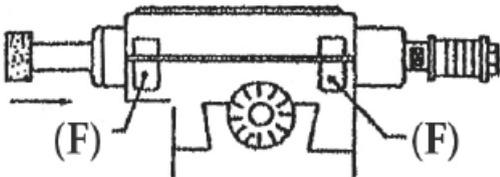


fig. 7



*Make sure that the machine is disconnected from the mains voltage, before service or starting maintenance.*

Always uphold a good position behind the machine and wear suitable PPE's (Personal Protective Equipment)



## 6. Electrical connection

The tool post grinder is supplied with a connection cable and on/off switch at the motor. Meaning the tool post grinder can operate as a standalone apparatus. However, it is recommended the tool post grinder connected to the lathe controls in order to have an interface in terms of safety.

### HU-107 - Tool post grinder

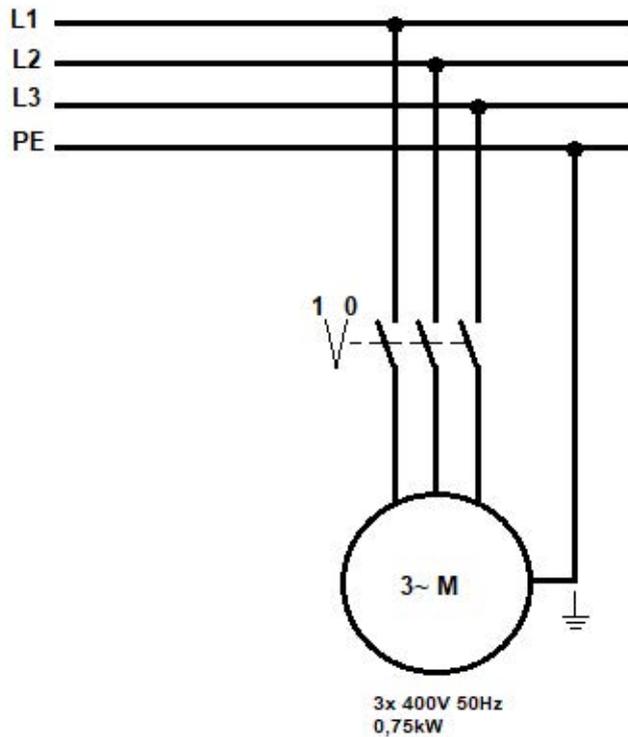


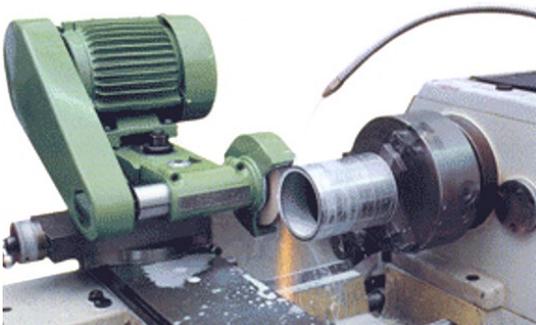
Fig. 7

Always let a qualified and certified person connect the tool post to your lathe in order to avoid issues or damaging of the tool post grinder and lathe, but most of all personal injuries.

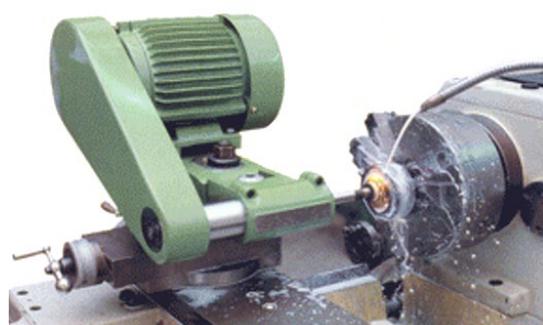
## 7. Extra Information

Bear in mind that this tool post grinder is an accessory for lathes and depending on how it is connected to a power source, it has its risks regarding stopping. As mentioned earlier, it is our recommendation to have the tool post grinder connected with a good interface with your lathe. Using the tool post grinder, always be aware to follow the correct working method. Meaning, never to touch workpiece and grinding stone with each other when either one isn't rotating. Always, grind in little steps, never use rapid traverse when both workpiece and grinder are close to each other. Follow the correct procedures according chapter (5) and never misuse or alter the tool post grinder other than what it is intended for.

External grinding



Internal grinding



Our products are constantly being developed and improved and it is possible that the latest changes have not yet been included in this manual. Always mention the year of construction, type and serial number of your machine in correspondence.

Neither the manufacturer nor the importer can be held responsible for defects caused by not carefully reading this manual or by incorrect use of the machine. No rights can be derived from this manual.

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# CE DECLARATION OF CONFORMITY

*(in accordance with supplement II A of the Machinery Directive)*

Huvema bv, Kennedylaan 14, 5466 AA Veghel, the Netherlands,  
Declares that the product described below, to which this declaration of conformity refers to, is in  
conformity with the essential requirements of the following legislation:

**Machine: Tool post grinder**

**Type: HU 107-4 & HU 055-4**

**Serial number:**

As described in the:

- Machine Directive 2006/42/EG
- Electromagnetic Compatibility Directive 2014/30/EU
- Safety requirements Low Voltage Directive 2014/35/EU

Through the technical standards/specifications specified below:

NEN-EN-ISO 12100:2010, NEN-EN-IEC 60204-1:2018, NEN-EN-IEC 61000-6-4:2019,  
NEN-EN-IEC 61000-6-2:2019, NEN-EN-ISO 16089:2016

Veghel, the Netherlands,  
Date: January 2022

R. Verberkt,  
Managing director

