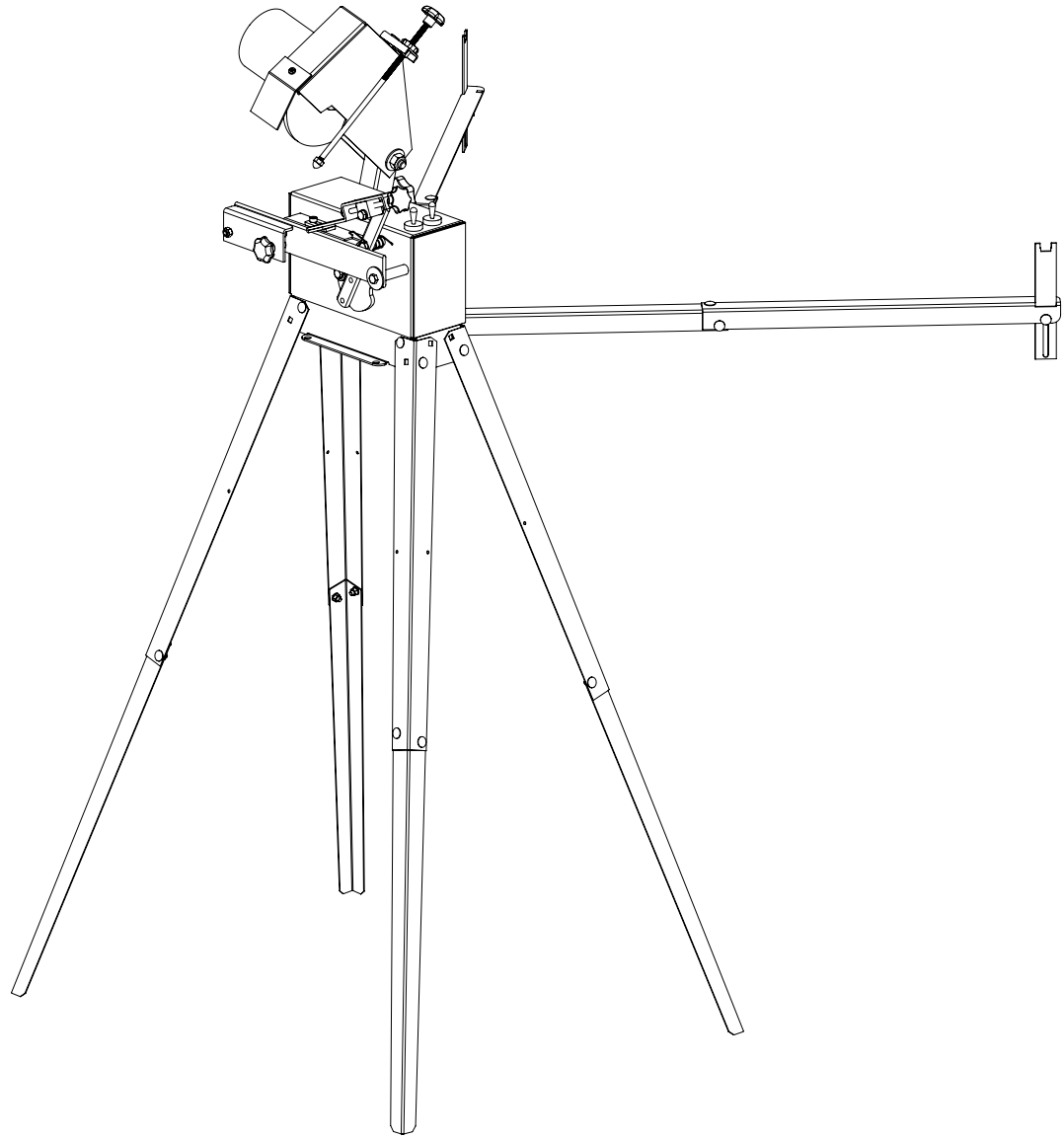


# GRINDLUX SHARPENER



## OPERATOR'S MANUAL



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# INTRODUCTION

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## Introduction

This operator's manual describes in detail how the bandsaw blade sharpener is used and maintained and how servicing is to be carried out. It also describes the measures to be taken for maximum safety and how the safety features are designed and function, as well as how they are inspected, maintained, and repaired if necessary.

**NOTE! The section dealing with safety must be read and understood by all those who install, use, or repair the sharpener.**

The operator's manual comprises installation, usage, and the different maintenance procedures that can be performed by the operator. More comprehensive servicing or troubleshooting should not be performed unless instructed by a service technician.

The operator's manual describes all the requisite safety features and should be read and understood by the user before the sharpener is assembled.

Symbols and warning signs shown on this page can be found in this operator's manual and on the sharpener. If a decal on the sharpener has been damaged or is worn, a new warning decal must be applied as soon as possible in order to ensure the greatest possible safety when using the sharpener.

The bandsaw blade sharpener shall only be used for bandsaw blades with hardened saw teeth. The bandsaw blade width shall be 1.25" (32 mm).

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## KEY TO SYMBOLS

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### Symbols

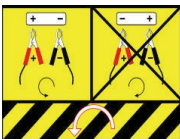
The symbols below are used in this operator's manual.



Eye protection should be used.



Protective gloves should be worn.



Polarity reversal of the bandsaw blade sharpener when connected to a 12-volt battery.

### Warning Signs

The decal with the symbols below is found on the bandsaw blade sharpener.



Read this manual carefully and make sure you understand it before attempting to use the bandsaw blade sharpener.



Exercise caution.

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## SAFETY REGULATIONS

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### Sharpener

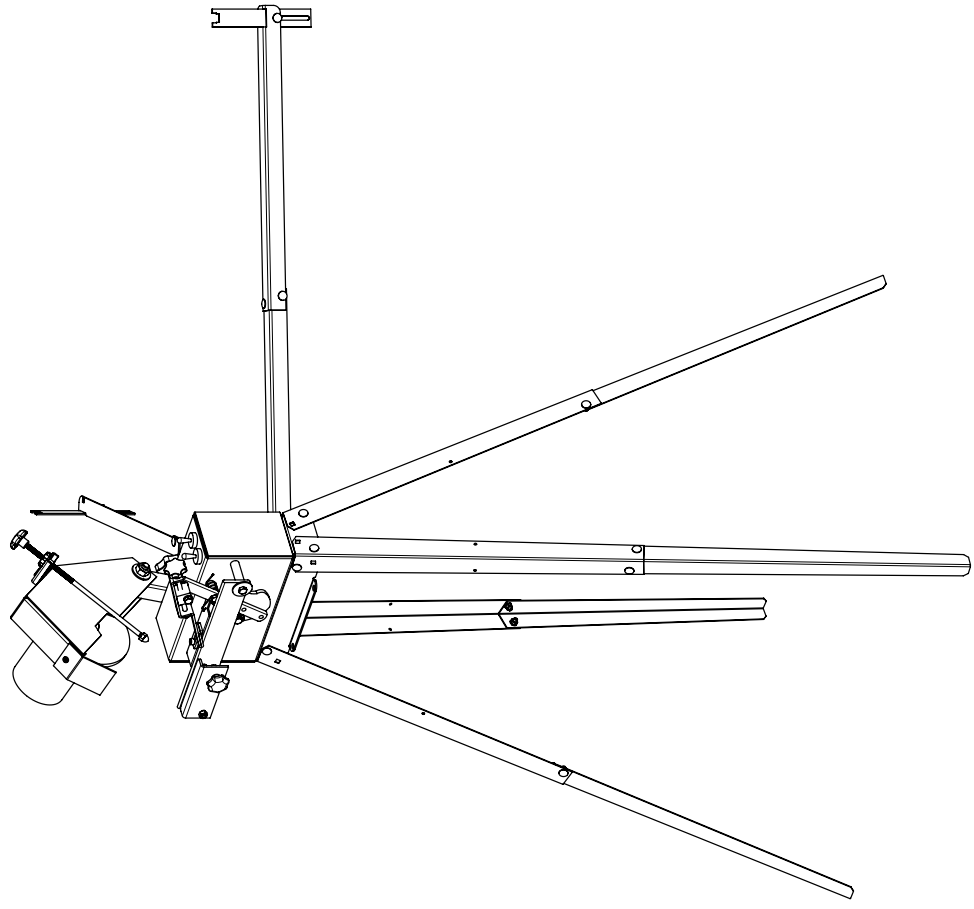


The following safety regulations apply to the sharpener:

- Do not store gasoline/petrol in the vicinity of the sharpener. Sparks from the grinding disc or the electrical connection can ignite.
- The bandsaw blade is sharp and can cause injury. Wear protective gloves whenever you handle the bandsaw blade!
- The grinding disc must not be running when adjusting the sharpener.
- The grinding disc can come loose and cause personal injury if it rotates in the wrong direction.
- Check that the grinding disc shows no signs of cracking and that it is secured to the spindle. Stop the grinding disc immediately if abnormal vibrations occur.
- Wear protective glasses while grinding!

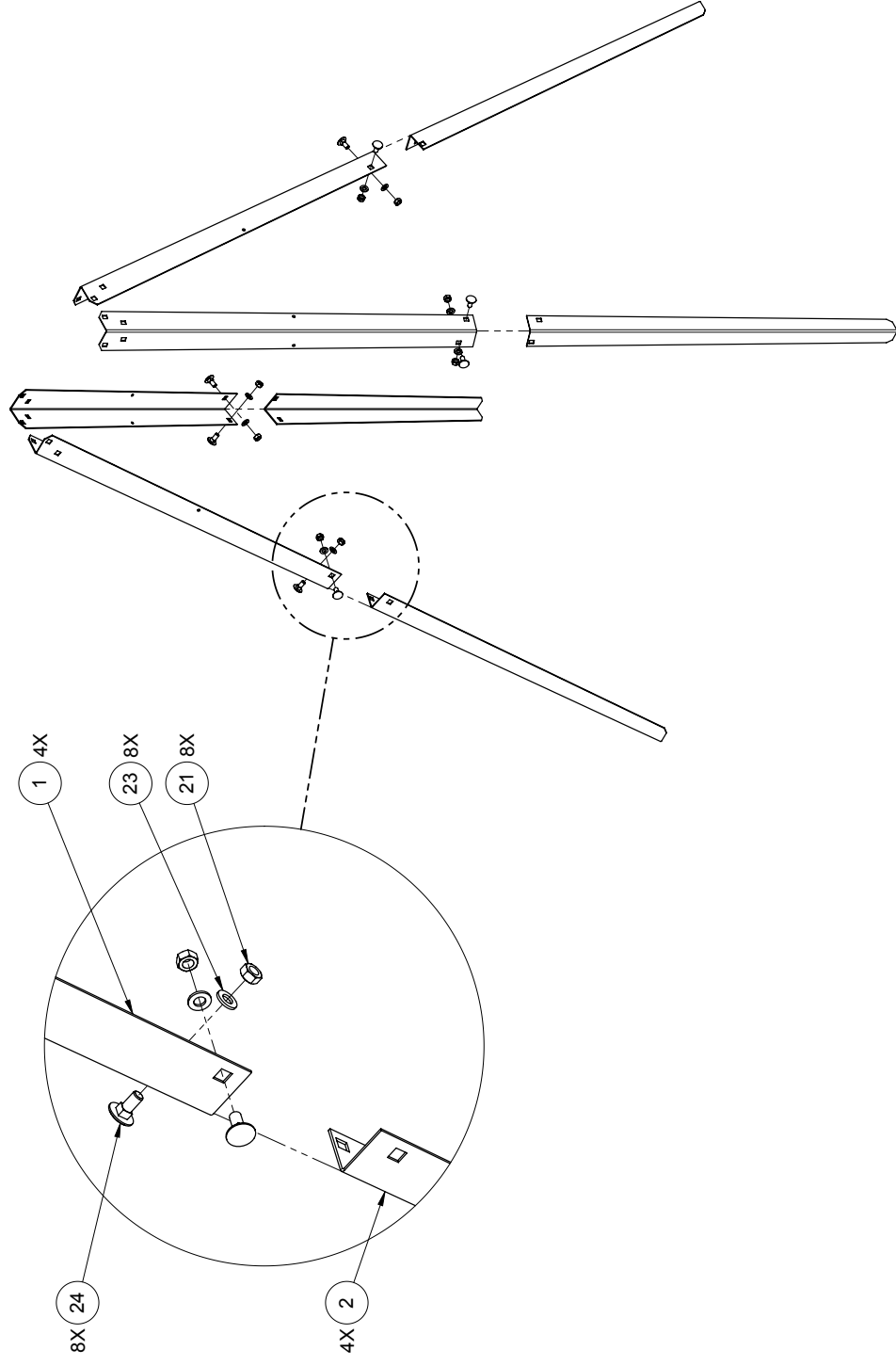
# PARTS LIST

PARTS LIST				
ITEM	QTY	PART NO	DESCRIPTION	
1	4	0001557	LEG PIECE A	
2	4	0001558	LEG PIECE B	
3	1	0001554	MOUNTING FLANGE	
4	2	0001555	BLADE SUPPORT A	
5	2	0001556	BLADE SUPPORT B	
6	1	0001583	CONTROL BOX ASSEMBLY	
7	2	0001559	BLADE GUIDE PLATE	
8	1	0001600	GRINDING HEAD ASSEMBLY	
9	1	0001567	MOUNTING ARM	
10	1	0001553	GRINDING DISC, 6in OD, 1/4in THICK	
11	1	0001570	GRINDING DISC NUT	
12	1	0001579	M6 X 1.0 THREADED STUD	
13	1	0001562	GRIND SHIELD	
14	1	0001601	FEED LINK ASSEMBLY	
15	1	0001751	KNOB, MULTI-LOBE, 50 mm OD, M10 X 1.5, 40 mm LG	
16	2	6000-2RS	BALL BEARING, DOUBLE SEALED, 6000-2RS, 10 mm BORE, 26 mm OD, 8 mm WIDE	
17	1	HDW	LOCK NUT, M10 X 1.5	
18	3	HDW	FLAT WASHER, M10	
19	2	HDW	FENDER WASHER, M10, 28 mm OD	
20	1	HDW	HEX BOLT, M10 X 1.5, 65 mm LG, 26 mm LG THD	
21	20	HDW	HEX NUT, M5 X 0.8	
22	2	HDW	PRESSED WING NUT, M5 X 0.8	
23	22	HDW	FLAT WASHER, M5	
24	22	HDW	CARRIAGE BOLT, SQ NECK, M5 X 0.8, 12 mm LG	
25	1	HDW	ACORN NUT, M6 X 1	
26	1	HDW	HEX NUT, M6 X 1	
27	1	HDW	KNOB, MULTI-LOBE, 32mm OD, M6 X 1.0, 12mm DEEP	
28	1	HDW	KNOB, CIRCULAR KNOBBED, M6 X 1.0, THROUGH HOLE	
29	2	HDW	HEX BOLT, M6 X 1, 15 mm LG	
30	1	HDW	KNOB, 4 LOBE, 32mm OD, M6 X 1.0, 16.5mm LG	
31	1	HDW	SCREW, TRH, No.8 X 3/8in LG	

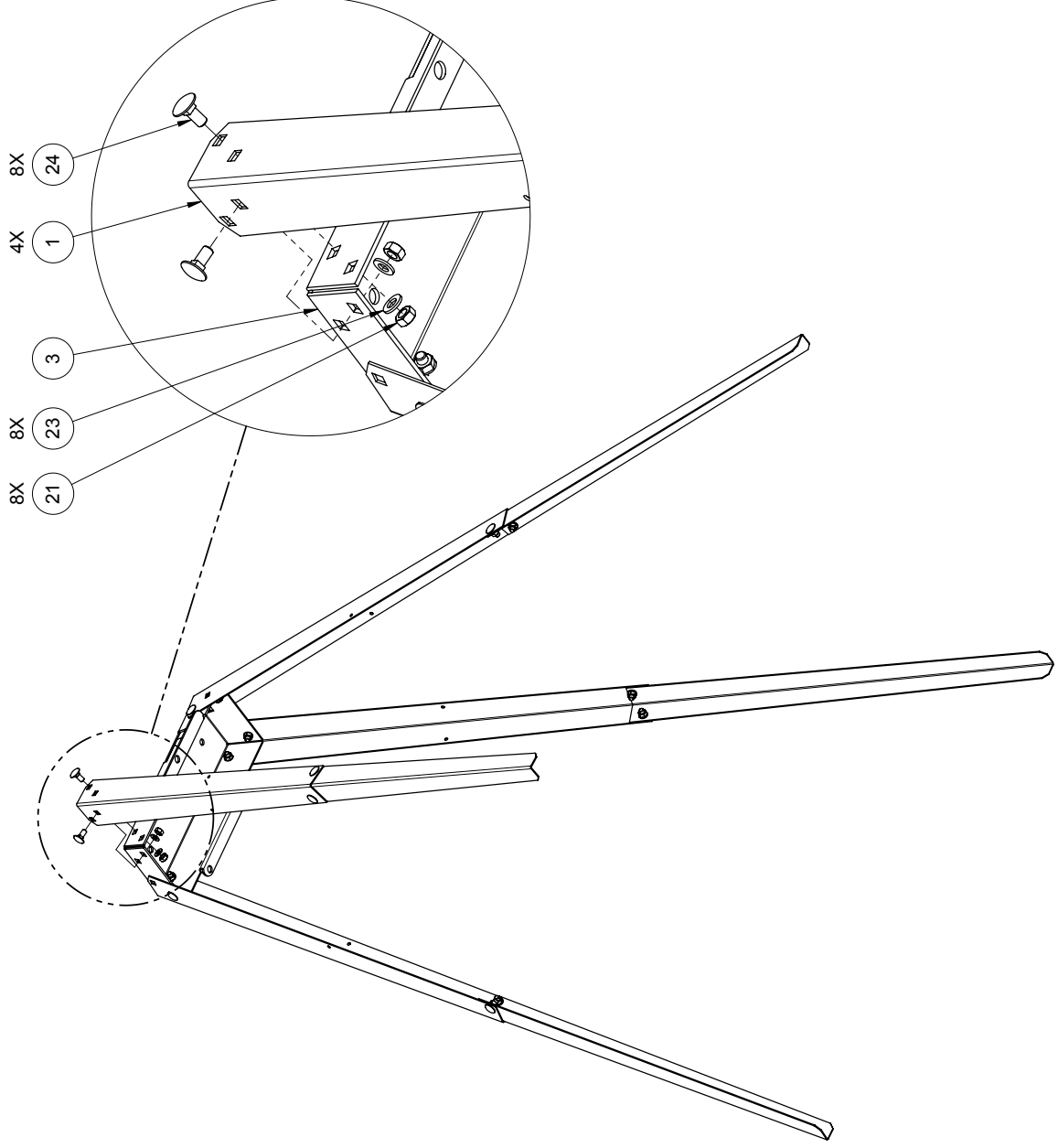




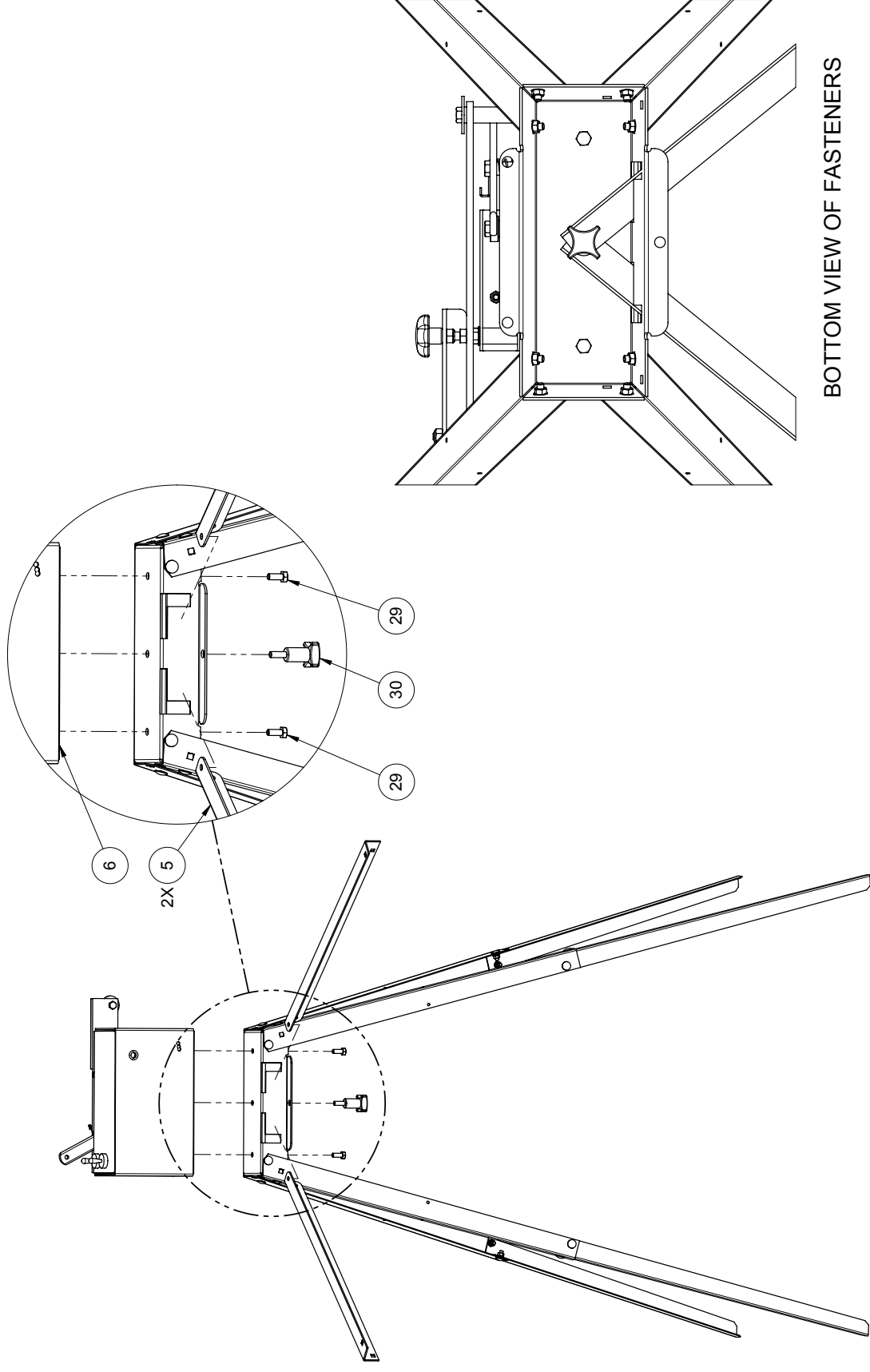
# LEG ASSEMBLY



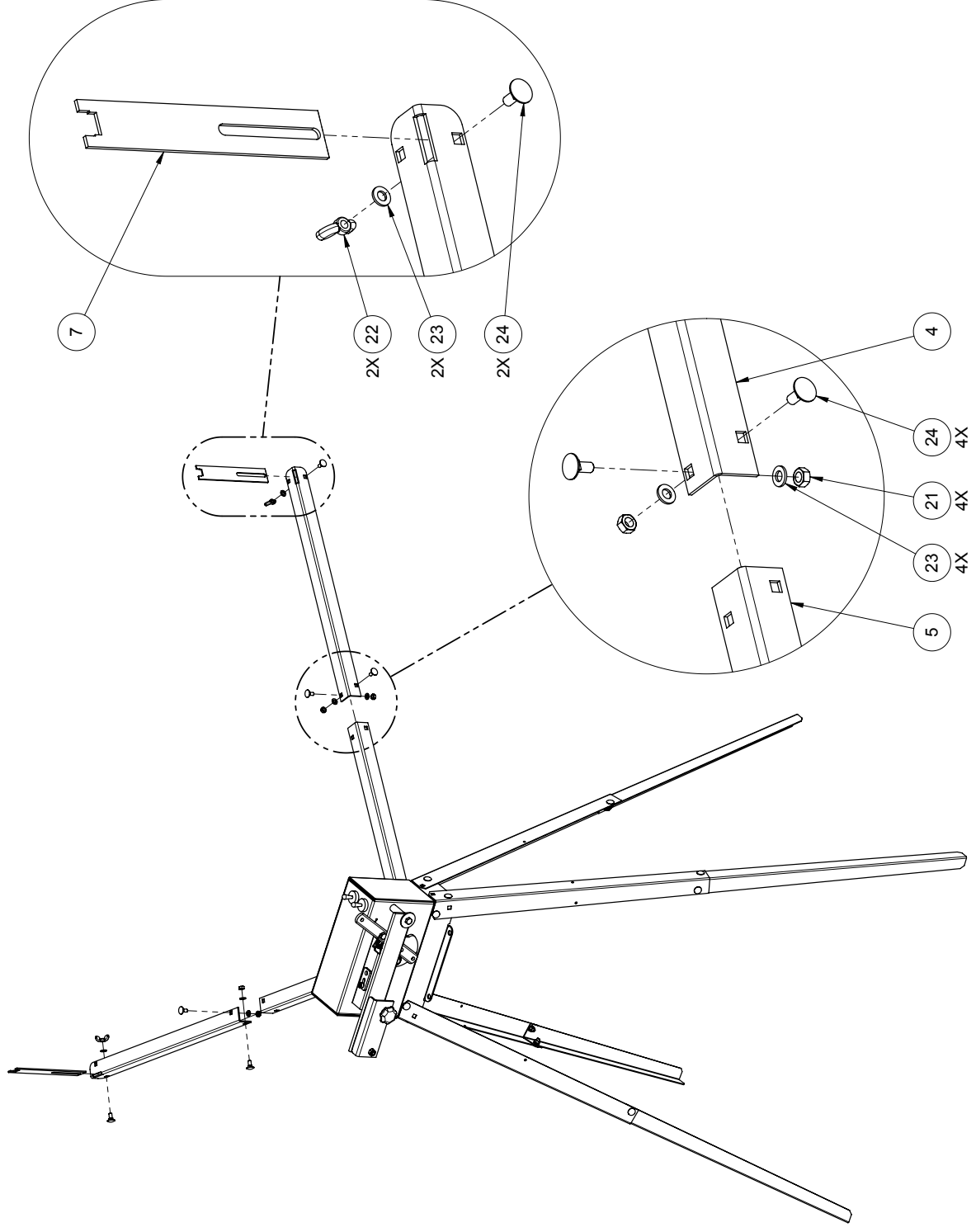
# FRAME ASSEMBLY



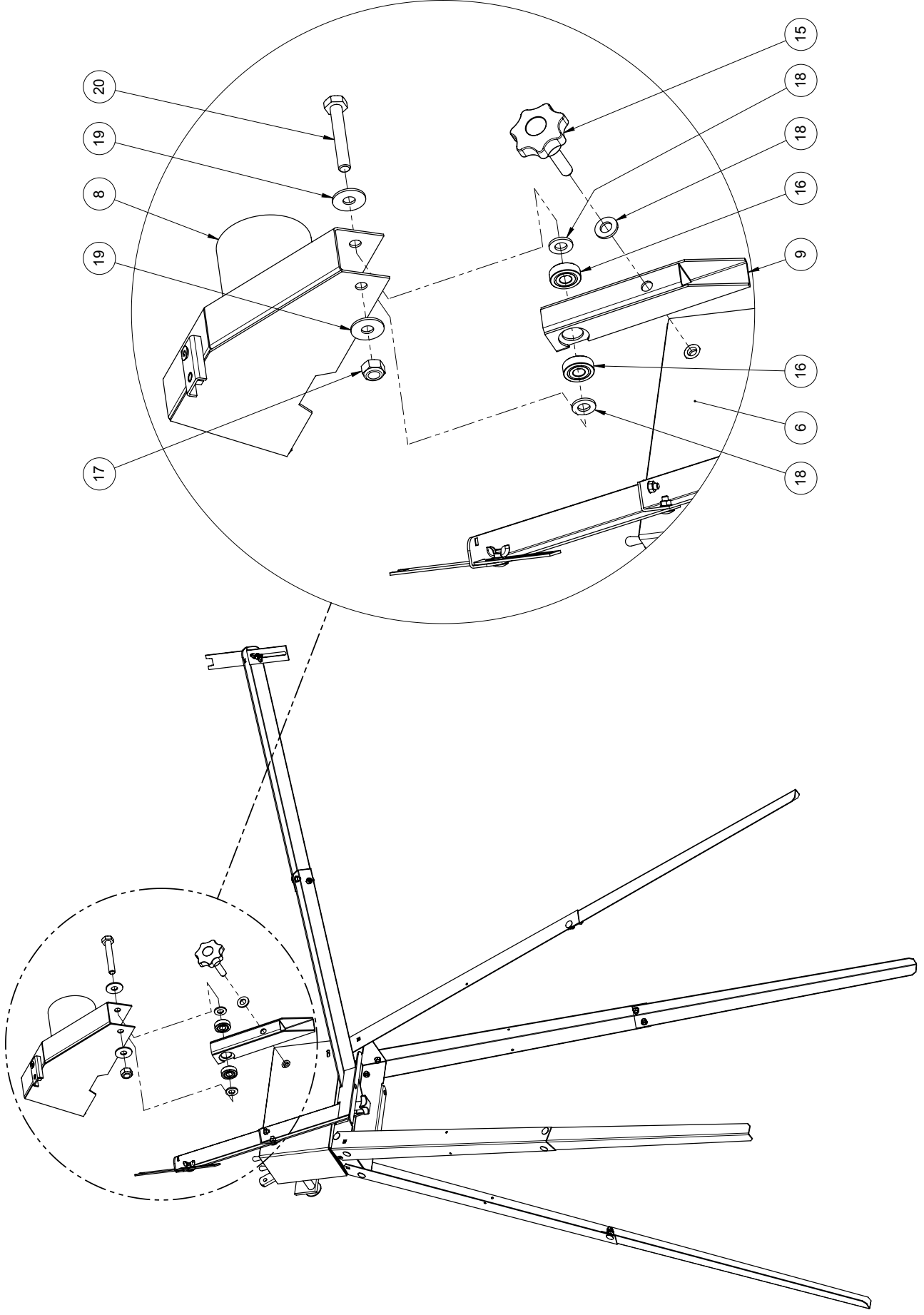
# CONTROL BOX & SUPPORT ARM ASSEMBLY



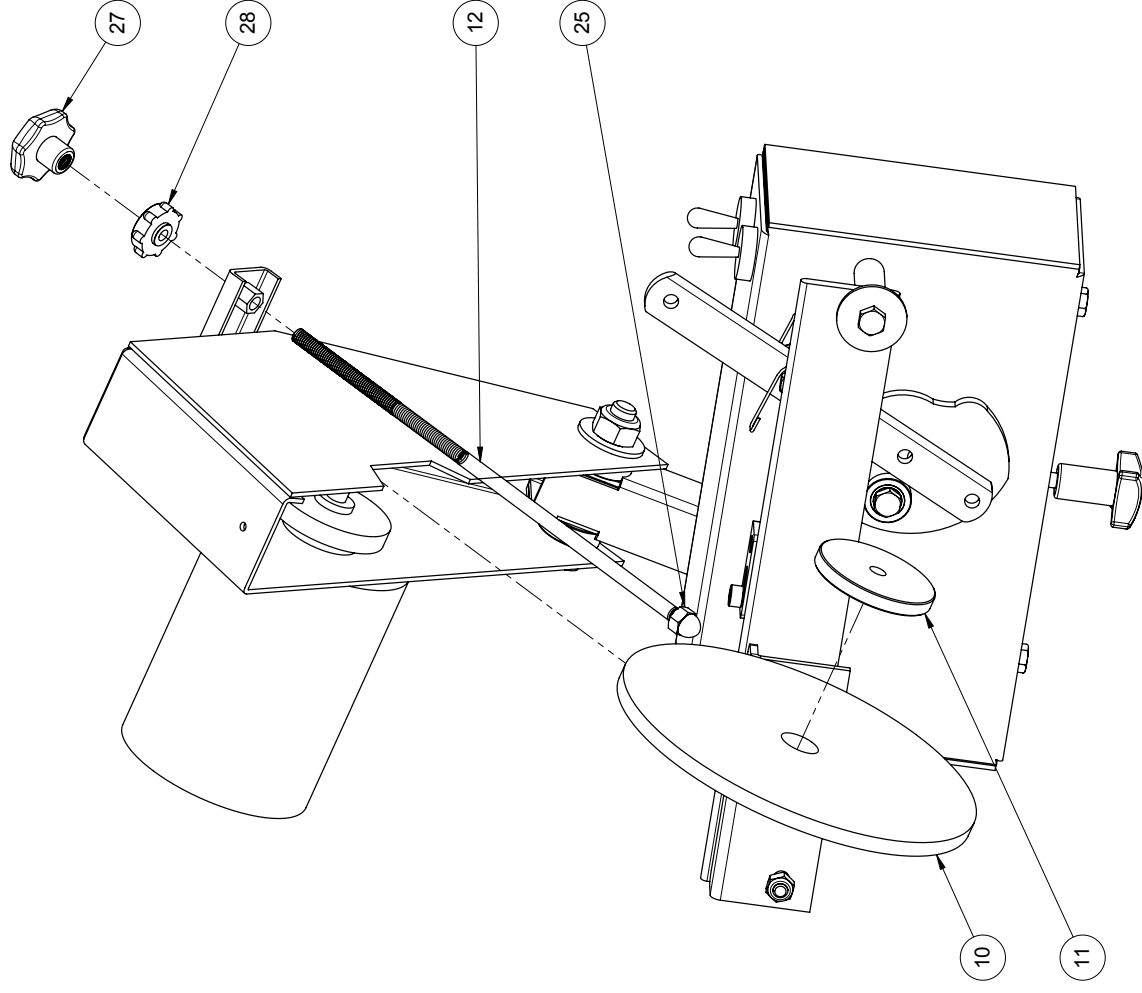
# BLADE SUPPORT ASSEMBLY



# GRINDING HEAD & ARM ASSEMBLY

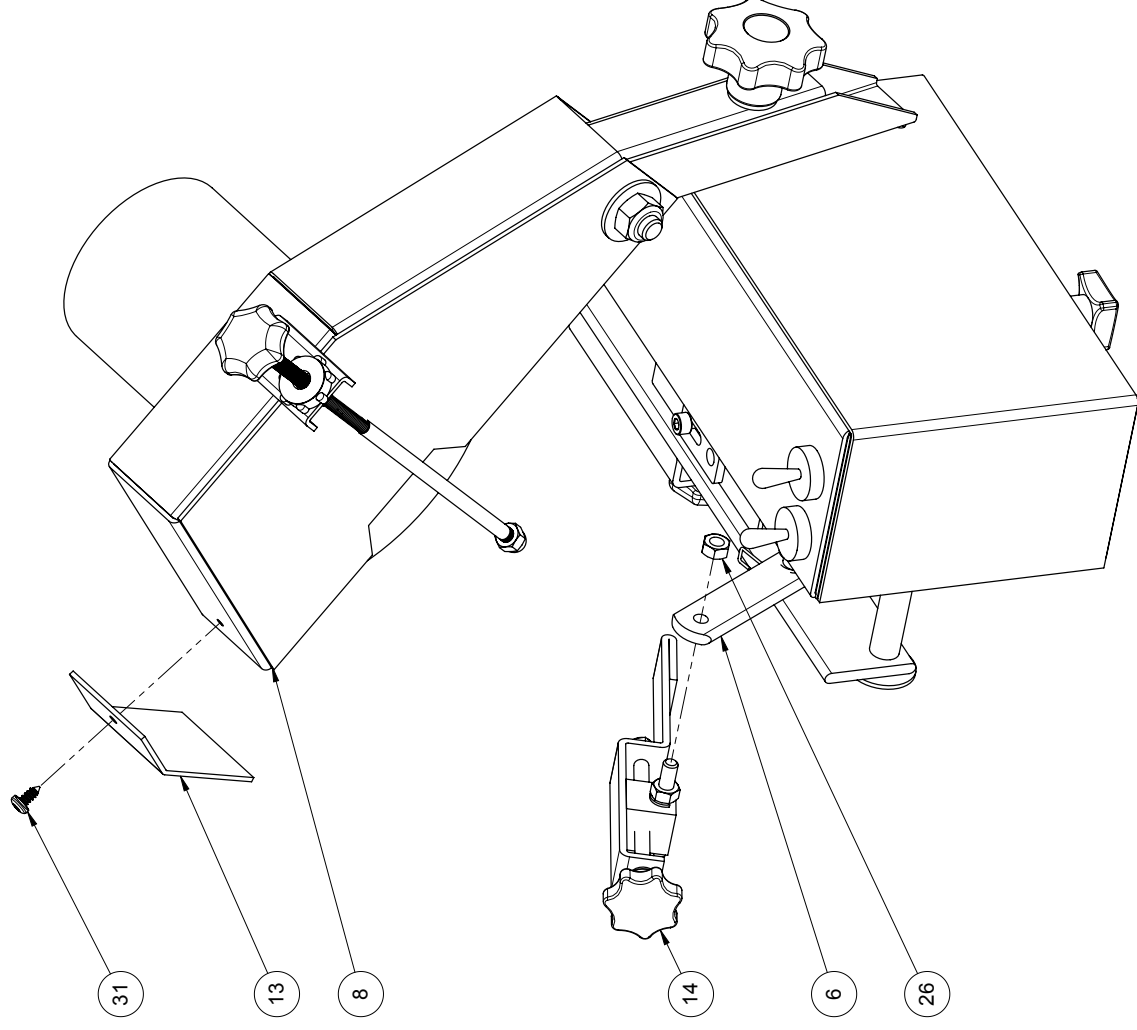


# GRINDING WHEEL & STOP ASSEMBLY





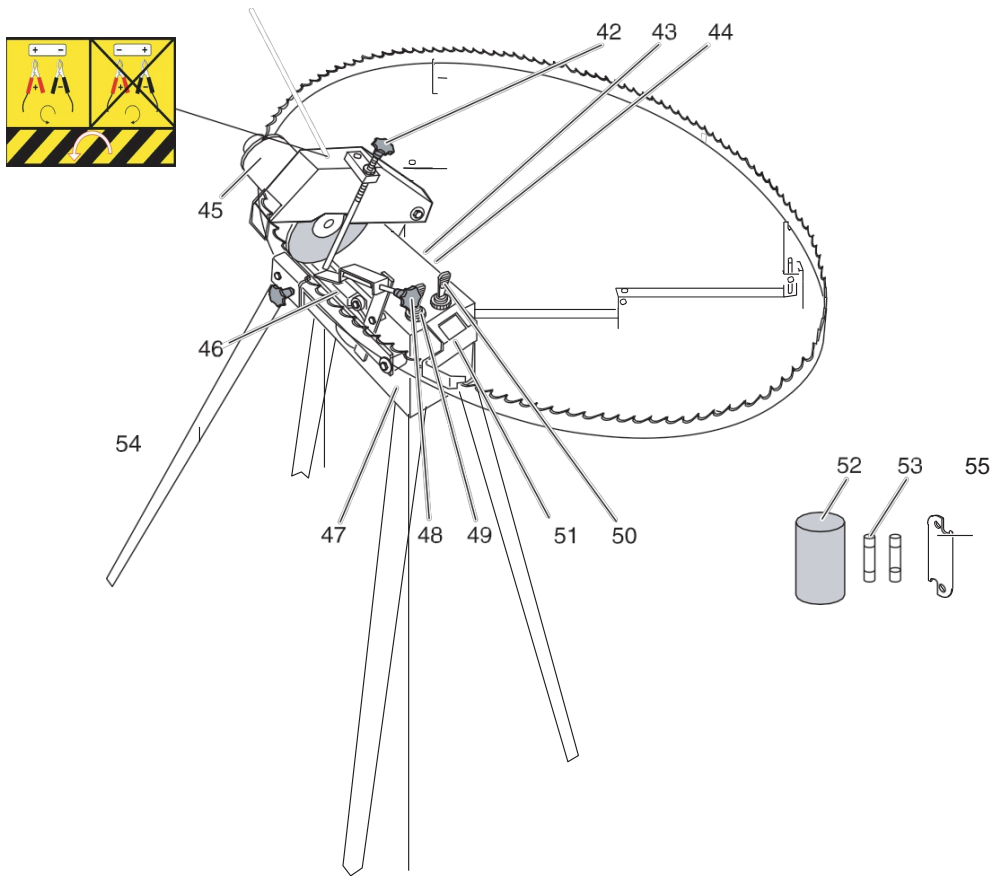
# ADJUSTMENT BRACKET ASSEMBLY



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## DESCRIPTION

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### **Bandsaw Blade Sharpener**

- 42. Grinding depth adjuster
- 43. Cutting angle lock
- 44. Pin for securing the cutting angle
- 45. Sharpener motor
- 46. Feed mechanism
- 47. Fixed section
- 48. Feed position adjuster
- 49. Feed switch
- 50. Grinding disc switch
- 51. Stop plate
- 52. Whetstone
- 53. Bandsaw blade sharpener fuses
- 54. Frame
- 55. Grinding Disc Profile Template

## DESCRIPTION

### Sharpener

The sharpener consists of the following parts:

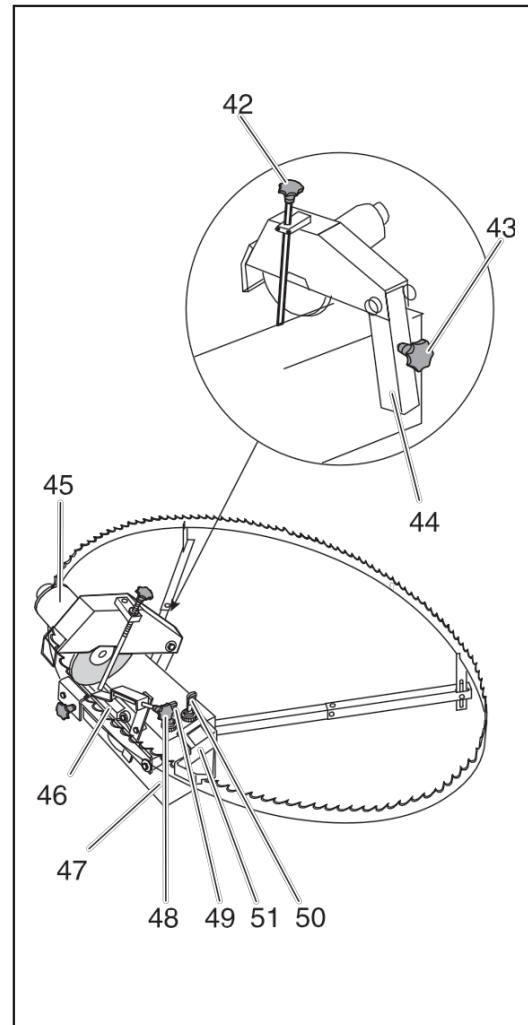
- A fixed section.
- Sharpener motor.
- Feed mechanism.

The fixed section houses a motor for the bandsaw blade feed and three folding support arms, which form a stable platform for the sharpener set-up. The support arms also secure the bandsaw blade while grinding.

The moving section houses the motor, the grinding disc, and arms for its suspension. The moving section can be adjusted to grind three different cutting angles: 7°, 10°, and 14°.

The feed mechanism consists of a cam disc and levers. The cam disc is driven by the feed motor on the fixed section. The cam disc actuates the two levers, which in part feed the bandsaw blade forwards and in part lower and lift the grinding disc while grinding.

- 42. Grinding depth adjuster
- 43. Cutting angle lock
- 44. Pin for securing the cutting angle
- 45. Sharpener motor
- 46. Feed mechanism
- 47. Fixed section
- 48. Feed mechanism adjuster
- 49. Feed switch
- 50. Grinding disc switch
- 51. Stop plate



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# MAINTENANCE

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## Bandsaw Blade



**WARNING!**  
The bandsaw blade is sharp  
and can cause injury. Wear  
protective gloves whenever you  
handle the bandsaw blade.

The bandsaw blade should be set and sharpened regularly to give optimal performance. During normal sawing of most species of wood this should be done at intervals of approx. 2 hours of **effective cutting time**. Effective cutting time only refers to the time that the bandsaw blade actually works. The bandsaw blade should be sharpened more frequently when cutting those species of wood with a high sand content.

### Cleaning and Inspection

Clean sawdust and any coating from the bandsaw blade.

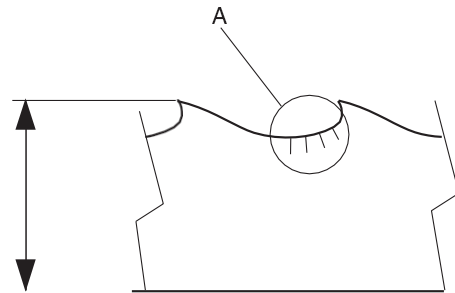
Check whether there are any cracks in the gullets (See Fig. 1. A). Small cracks can be ground away when sharpening the bandsaw blade. If the cracks are so large that they cannot be ground away, the bandsaw blade should be discarded.

Cracks in the gullets (A) are the most common cause of bandsaw blade breakage.



**WARNING!**  
Never use a damaged bandsaw  
blade.

**FIG 1**



# MAINTENANCE

## Sharpening



**WARNING!**  
The bandsaw blade is sharp and can cause injury. Wear protective gloves whenever you handle the bandsaw blade.

The more accurate the sharpening, the straighter and smoother the bandsaw blade runs when cutting the log.

### Radii

The radius in the area (A) (Fig 2) should be 1- 3 mm.

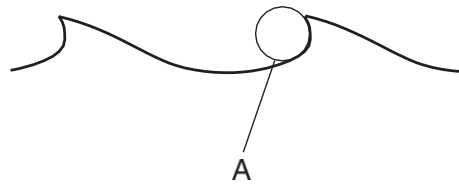
- A radius under 1 mm increases the risk of cracking.
- A radius over 3 mm means that the chips are not broken.

### Angles

The clearance angle should be 10-12° (see Fig 3) and the cutting angle (F) (see Fig 4) varies depending on the species of wood as follows:

Hardwoods or frozen timber	7°
Medium hardwoods	10°
Softwoods	14°

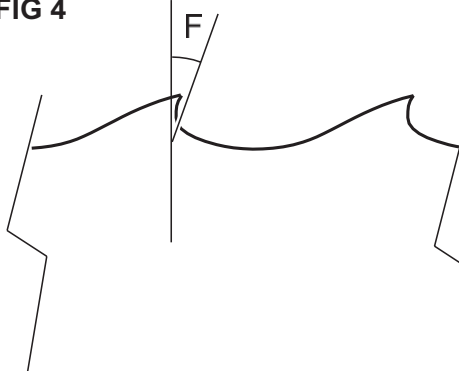
**FIG 2**



**FIG 3**



**FIG 4**



# MAINTENANCE

## Setting Up the Sharpener

**WARNING!**  
Do not store gasoline/petrol in the vicinity of the sharpener. Sparks from the grinding disc or the electrical connection can ignite.

Place the sharpener on a level and sturdy surface.

Connect the cables to a 12-volt power source. The power source can be a battery or a battery charger.

The red cable is connected to + and the black to -. If the cables are interchanged, the grinding disc and feed motor will run in the wrong direction.

## Sharpening with the Sharpener



The sharpener can be used on bandsaw blades with a pitch of  $\frac{3}{4}$ " – 1" (19 – 32mm). The grinding disc may need to be redressed for other tooth profiles.

**WARNING!**  
The bandsaw blade is sharp and can cause injury. Wear protective gloves whenever you handle the bandsaw blade!

1. Loosen the knob (43) and set the correct cutting angle (F). See Fig. 5.
2. Tighten the knob (43).
3. Check that the grinding disc has the correct-profile. Use the metal profile tool that was provided.  
CAUTION! A new grinding disc must be shaped before use. Use the supplied whetstone (52).
4. Fold up the grinding motor (45), hold up the feed link (H), and insert the bandsaw blade. The bandsaw blade should lie in the cut-outs in the support arms.
5. Check that the bandsaw blade rests on the two supports. The support arms can be bent if the bandsaw blade does not lie against both the supports.
6. Adjust the bolt (J) so that the bandsaw blade runs freely and at the same time is held securely.

FIG 5

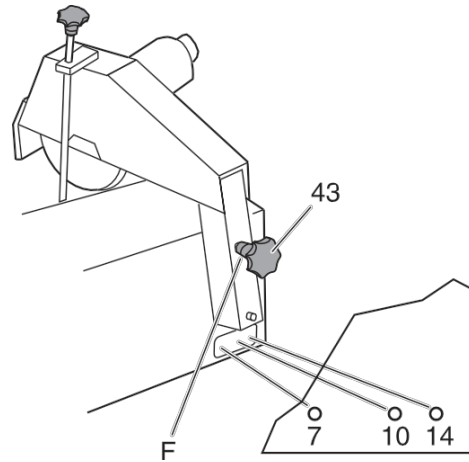


FIG 6

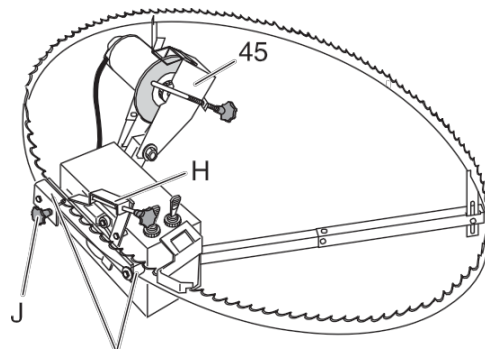
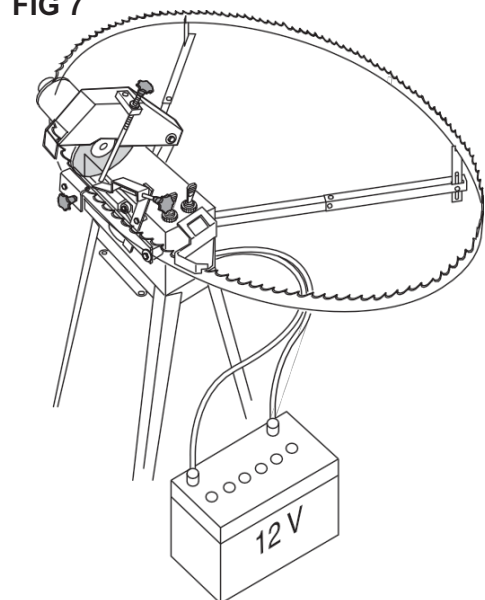


FIG 7





## MAINTENANCE



**WARNING!**  
Risk of the grinding disc coming loose and causing personal injury. Ensure the power supply is connected so that the grinding disc rotates in the right direction, that is, sharpening is performed downwards / backwards.

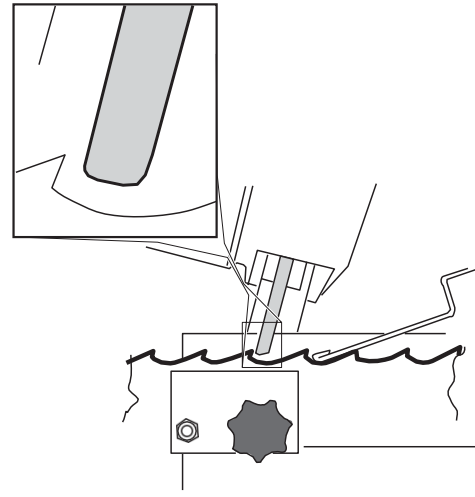


**WARNING!**  
Risk of damaging the grinding disc or bandsaw blade, can result in personal injury. The grinding disc must not be running during the procedure set out in points 8-11 below.

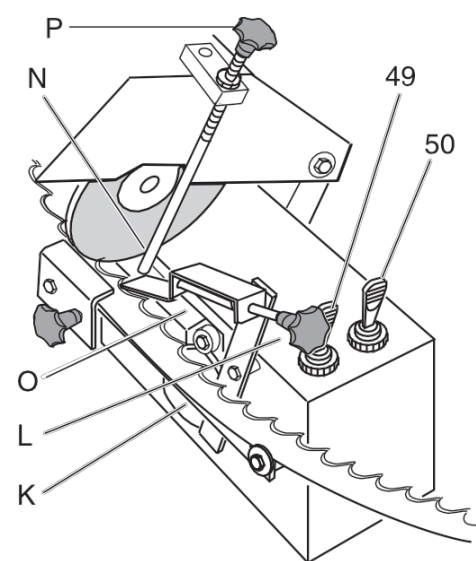
7. Start the feed with the power switch (49). The feed cam wheel (K) should rotate counter clockwise. If this is not the case, the connection cables have been interchanged.
8. Stop the feed and check where the grinding-disc goes down against the bandsaw blade.
9. Adjust the knob (L) until the grinding disc just touches the inside of the saw tooth (M). Points 7 and 8 above may need to be repeated.
10. Insert the lifter (N) in the appropriate hole in the lever (O) and start the feed. Adjust the knob (P) until the grinding disc just touches the entire tooth valley while fed.
11. Install the aluminum plate on the sharpener as shown in Fig. 11. Note that it is slotted so that it can be moved left or right. Doing this will adjust the profile or sweep that the grinding wheel follows.
12. Stop the feed and turn both knobs 1/2 turn counter clockwise.

**CAUTION!** Do not grind too heavily. This can destroy the hardening of the teeth. Each turn of the adjuster screws corresponds to a grinding depth of 0.75 mm. The maximum grinding depth per sharpening is 0.1-0.2 mm. If the bandsaw blade is very worn, grind several times.

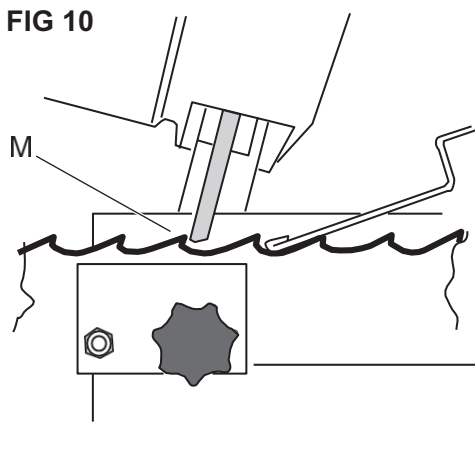
**FIG 8**



**FIG 9**



**FIG 10**



## MAINTENANCE



**WARNING!**  
Check that the grinding disc shows no signs of cracking and that it is secured to the spindle. Stop the grinding disc immediately if abnormal vibrations occur.



**WARNING!**  
Wear protective glasses while grinding!

1. Fit the stop plate (Q).
2. Start the grinding disc and feed using the power switches (49 and 50).
3. When the sharpener stops automatically, re- move the stop plate.
4. Fold up the grinding motor and remove the bandsaw blade.

### Changing the Grinding Disc



**WARNING!**  
Before changing the grinding disc, disconnect the power supply to the sharpener!

1. Fold up the top section of the sharpener.
2. Hold the grinding disc and loosen the nut (R) using a pair of pliers.
3. Remove the old grinding disc and fit the new disc. Tighten the nut (R) lightly using a pair of pliers.

FIG 11

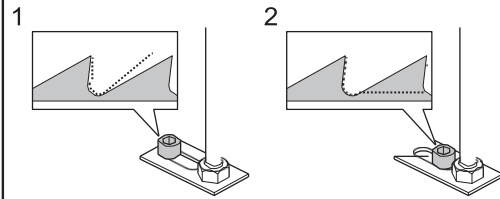


FIG 12

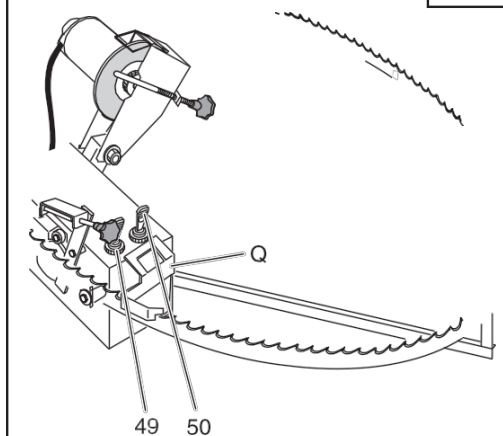
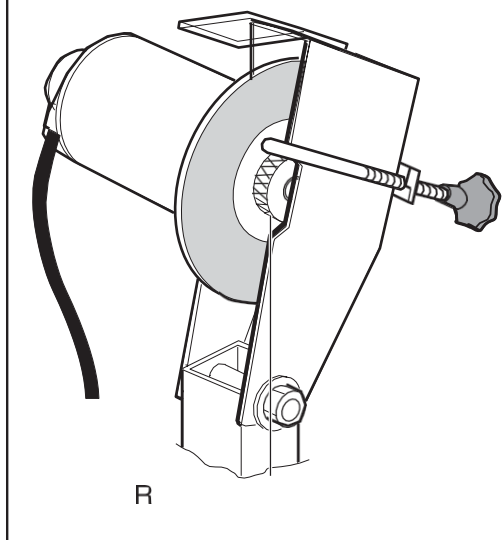


FIG 13



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## TECHNICAL DATA

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### Motor Data Grindlux 4000

#### Motor

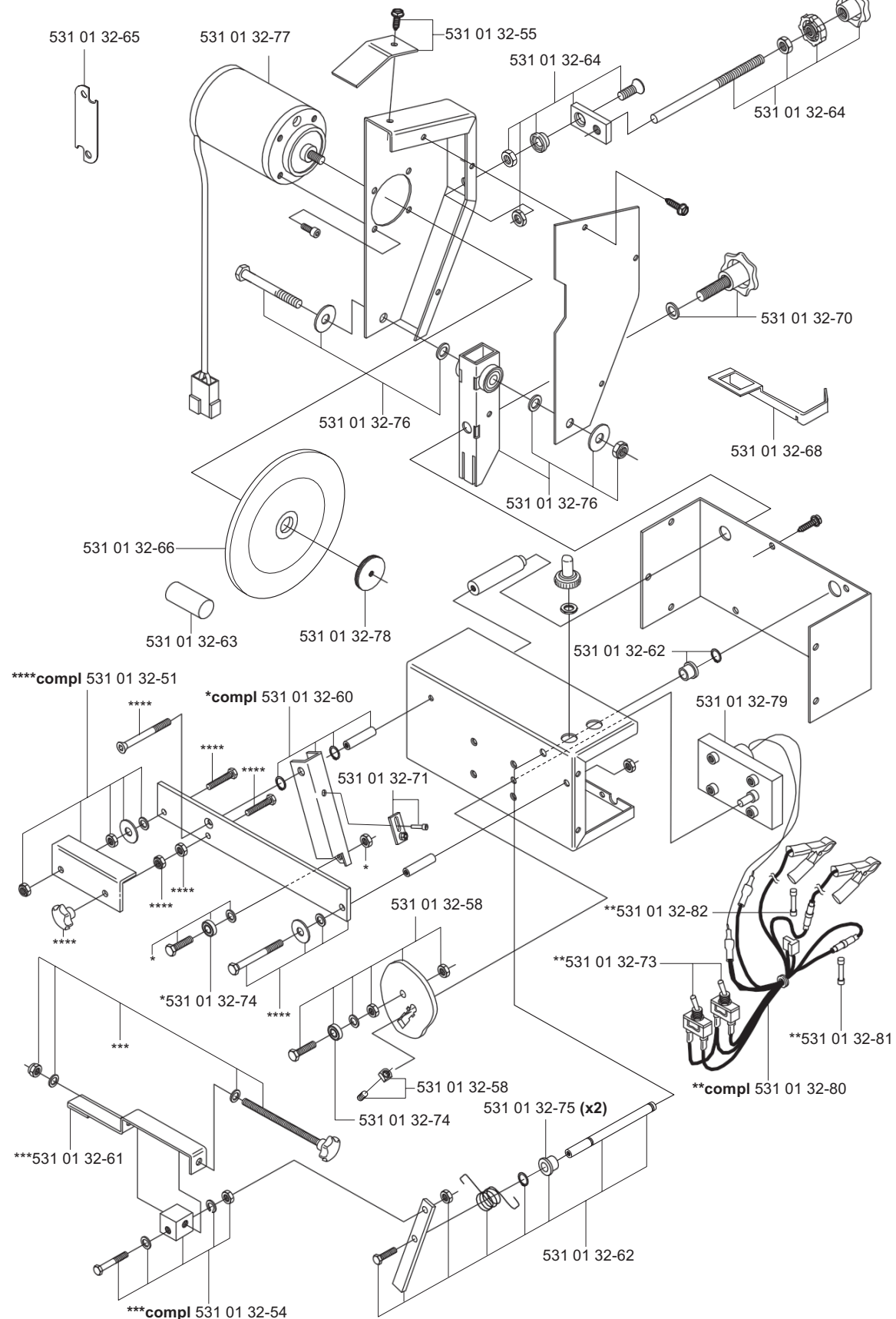
Voltage, V:	12
Speed, rpm:	2800
Peripheral speed, m/s:	22
Power, W:	90
Amperage, A:	7,5
Grinding disc, mm:	150x6x16 (531 01 32-66)
Fuse, A:	15 / 0,5
Weight, kg:	8,24
Whetstone:	531 01 32-63

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PART NUMBER SQUARE NOTE

503 23 00-31	H
531 01 32-51	G
531 01 32-54	G
531 01 32-55	G
531 01 32-58	G
531 01 32-58	G
531 01 32-60	G
531 01 32-61	G
531 01 32-62	G
531 01 32-62	G
531 01 32-63	G
531 01 32-64	G
531 01 32-64	G
531 01 32-65	G
531 01 32-66	G
531 01 32-68	G
531 01 32-69	G
531 01 32-70	G
531 01 32-71	G
531 01 32-73	G
531 01 32-74	G
531 01 32-74	G
531 01 32-75	G
531 01 32-76	G
531 01 32-76	G
531 01 32-77	G
531 01 32-78	G
531 01 32-79	G
531 01 32-80	G
531 01 32-81	G
531 01 32-82	G
531 01 32-84	H
531 01 32-85	H
531 01 32-86	H
531 01 32-87	H
531 01 32-88	H
531 01 32-89	H
531 01 94-86	G
725 23 68-5	H
731 23 14-01	H
732 21 14-01	H

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