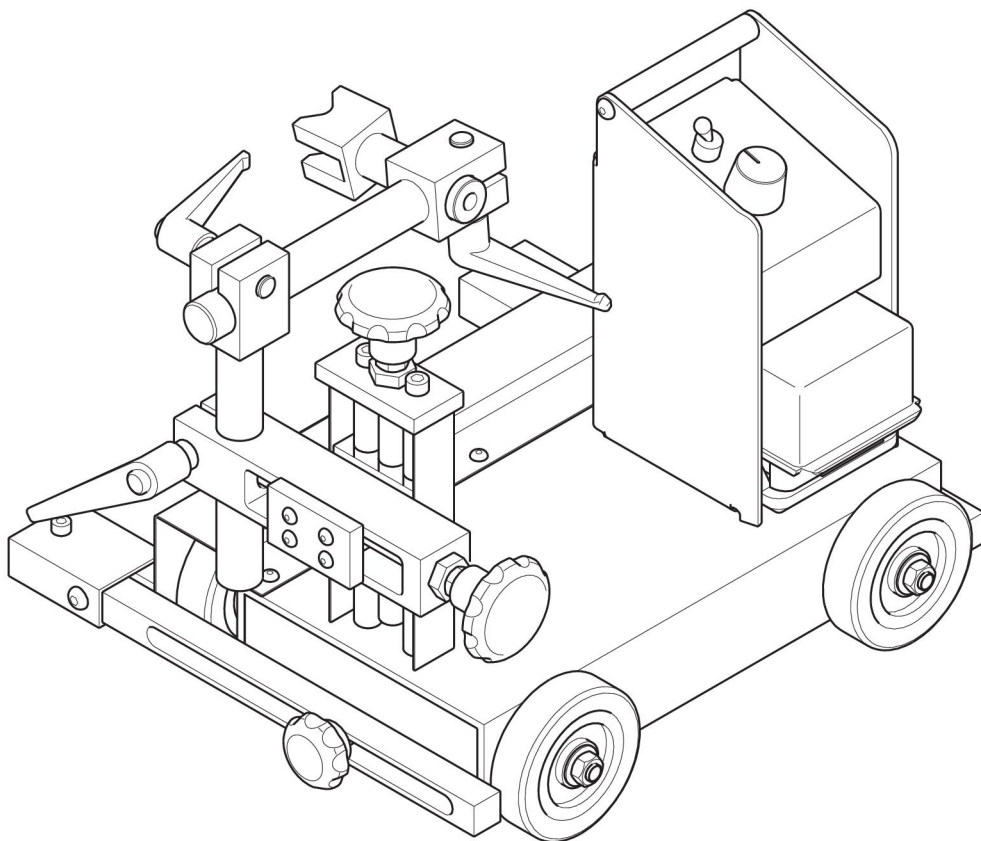


# ***Miggytrac™ B501***



## **Instruction manual**



## DECLARATION OF CONFORMITY

According to  
The Machine Directive 2006/42/EC, entering into force 16 January 2007  
The EMC Directive 2004/108/EC, entering into force 20 July 2007  
The RoHS Directive 2011/65/EC, entering into force 2 January 2013

**Type of equipment**

Welding tractor

**Type designation etc.**

Miggytrac B501, from serial number 1501 xxx

**Brand name or trade mark**

ESAB

**Manufacturer or his authorised representative established within the EEA**

**Name, address, telephone no:**

ESAB AB

Lindholmsallén 9, Box 8004, SE-402 77 Göteborg, Sweden

Phone: +46 31 50 90 00

**The following harmonised standard in force within the EEA has been used in the design:**

EN 12100-2, Safety of machinery – Part 2: Technical principles

EN 60204-1, Electrical Equipment of Industrial machines – Part 1: General requirements

EN 61000-6-3:2007, Electromagnetic compatibility (EMC) – Part 6-3: Generic standards – Emission standard for residential, commercial and light-industrial environments

EN 61000-6-2:2005, Electromagnetic compatibility (EMC) – Part 6-2: Generic standards – Immunity for industrial environments

Additional Information: Restrictive use, Class A equipment, intended for use in location other than residential

**By signing this document, the undersigned declares as manufacturer, or the manufacturer's authorised representative established within the EEA, that the equipment in question complies with the safety requirements stated above.**

**Date**

Gothenburg

2015-01-13

**Signature**

A handwritten signature in black ink, appearing to read "G. Ebrahimpur".

Golaleh Ebrahimpur

**Position**

Vice President Global Automation

Clarification

CE 2015

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# 1 SAFETY

## 1.1 Meaning of symbols

As used throughout this manual: Means Attention! Be Alert!

**DANGER!**

Means immediate hazards which, if not avoided, will result in immediate, serious personal injury or loss of life.

**WARNING!**

Means potential hazards which could result in personal injury or loss of life.

**CAUTION!**

Means hazards which could result in minor personal injury.

**WARNING!**

Before use, read and understand the instruction manual and follow all labels, employer's safety practices and Material Safety Data Sheets (MSDSs).



Users of ESAB equipment have the ultimate responsibility for ensuring that anyone who works on or near the equipment observes all the relevant safety precautions. Safety precautions must meet the requirements that apply to this type of equipment. The following recommendations should be observed in addition to the standard regulations that apply to the workplace.

All work must be carried out by trained personnel well-acquainted with the operation of the equipment. Incorrect operation of the equipment may lead to hazardous situations which can result in injury to the operator and damage to the equipment.

1. Anyone who uses the equipment must be familiar with:
  - its operation
  - location of emergency stops
  - its function
  - relevant safety precautions
  - welding and cutting or other applicable operation of the equipment
2. The operator must ensure that:
  - no unauthorised person is stationed within the working area of the equipment when it is started up
  - no-one is unprotected when the arc is struck or work is started with the equipment
3. The workplace must:
  - be suitable for the purpose
  - be free from drafts

4. Personal safety equipment:

- Always wear recommended personal safety equipment, such as safety glasses, flame-proof clothing, safety gloves
- Do not wear loose-fitting items, such as scarves, bracelets, rings, etc., which could become trapped or cause burns

5. General precautions:

- Make sure the return cable is connected securely
- Work on high voltage equipment **may only be carried out by a qualified electrician**
- Appropriate fire extinguishing equipment must be clearly marked and close at hand
- Lubrication and maintenance must **not** be carried out on the equipment during operation



**WARNING!**

Arc welding and cutting can be injurious to yourself and others. Take precautions when welding and cutting.



**ELECTRIC SHOCK - Can kill**

- Install and ground the unit in accordance with instruction manual
- Do not touch live electrical parts or electrodes with bare skin, wet gloves or wet clothing
- Insulate yourself from work and ground.
- Ensure your working position is safe



**ELECTRIC AND MAGNETIC FIELDS - Can be dangerous to health**

- Welders having pacemakers should consult their physician before welding. EMF may interfere with some pacemakers.
- Exposure to EMF may have other health effects which are unknown.
- Welders should use the following procedures to minimize exposure to EMF:
  - Route the electrode and work cables together on the same side of your body. Secure them with tape when possible. Do not place your body between the torch and work cables. Never coil the torch or work cable around your body. Keep welding power source and cables as far away from your body as possible.
  - Connect the work cable to the workpiece as close as possible to the area being welded.



**FUMES AND GASES - Can be dangerous to health**

- Keep your head out of the fumes
- Use ventilation, extraction at the arc, or both, to take fumes and gases away from your breathing zone and the general area



**ARC RAYS - Can injure eyes and burn skin**

- Protect your eyes and body. Use the correct welding screen and filter lens and wear protective clothing
- Protect bystanders with suitable screens or curtains



**NOISE - Excessive noise can damage hearing**

Protect your ears. Use earmuffs or other hearing protection.

### MOVING PARTS - Can cause injuries



- Keep all doors, panels and covers closed and securely in place. Have only qualified people remove covers for maintenance and troubleshooting as necessary. Reinstall panels or covers and close doors when service is finished and before starting engine.



- Stop engine before installing or connecting unit.
- Keep hands, hair, loose clothing and tools away from moving parts.

### FIRE HAZARD



- Sparks (spatter) can cause fire. Make sure therefore that there are no inflammable materials nearby
- Do not use on closed containers.

**MALFUNCTION - Call for expert assistance in the event of malfunction.**

**PROTECT YOURSELF AND OTHERS!**



#### **NOTE!**

#### **Dispose of electronic equipment at the recycling facility!**

In observance of European Directive 2012/19/EC on Waste Electrical and Electronic Equipment and its implementation in accordance with national law, electrical and/or electronic equipment that has reached the end of its life must be disposed of at a recycling facility.

As the person responsible for the equipment, it is your responsibility to obtain information on approved collection stations.

For further information contact the nearest ESAB dealer.



## 2 INTRODUCTION

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The Miggytrac™ B501 is designed for MIG/MAG welding of plates and beams.

The Miggytrac™ B501 is a compact battery driven tractor on which a welding torch can be fitted. It is equipped with four wheel drive for good traction and a high torque stepper motor for stable welding speed. The Miggytrac™ is intended for welding with 4-stroke control mode.

As an option there is an easy fit magnet kit. The magnet kit can be attached at the bottom of the tractor to further stabilize the movement when welding slopes up to 45°.

A battery and a battery charger are not included in the delivery, refer to the "ACCESSORIES" chapter in this manual.

**ESAB's accessories for the product can be found in the "ACCESSORIES" chapter of this manual.**

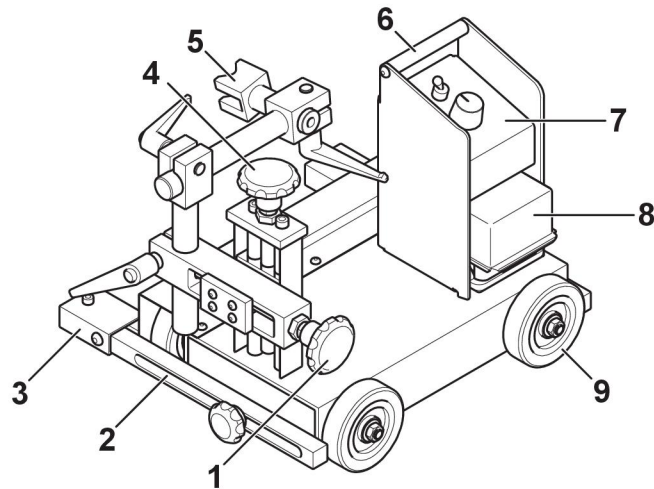
### 3 TECHNICAL DATA

<b>Miggytrac™ B501</b>	
Battery voltage	18 V DC
Operating time	8 hours
Weight	12 kg
Motor type	Stepper motor
Travel speed	10 - 130 cm/min
Slide adjustment, horizontal	±32 mm
Slide adjustment, vertical	±40 mm
Adjustment, front arm	±40 mm
High friction rubber wheel	75×20 mm, 4-wheel drive
Horizontal tensile force without magnet	12 kg
Horizontal tensile force with magnet	25 kg
Vertical tensile force at 45° with magnet	11 kg
Dimensions (l×w×h)	310 × 290 × 250 mm



## 4 INSTALLATION

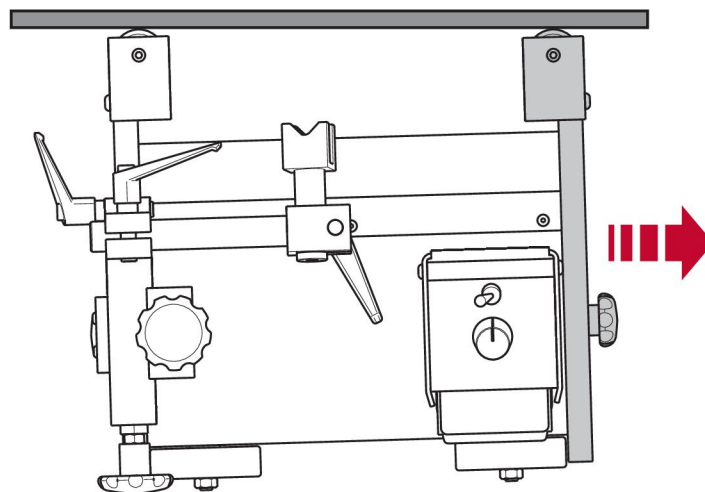
### 4.1 Assembly

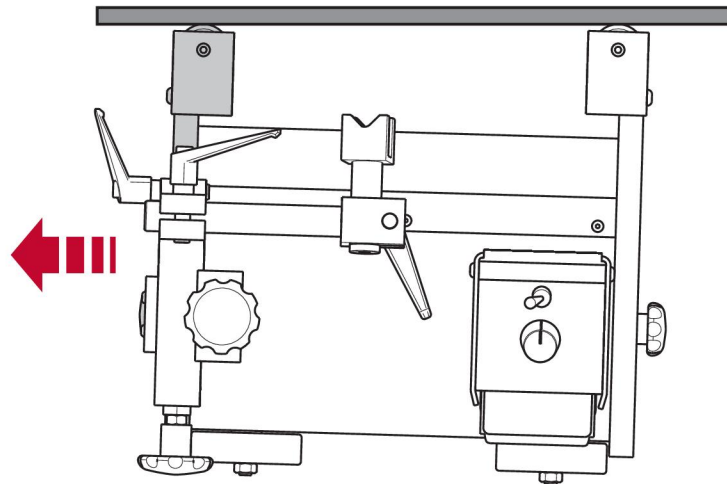


- 1 Knob, horizontal adjustment
- 2 Adjustable arm
- 3 Support wheel
- 4 Knob, vertical adjustment
- 5 Connection welding torch
- 6 Handle
- 7 Control panel
- 8 Battery
- 9 Driving wheels

### 4.2 Adjust the front arm

Adjust the front arm to be 10 mm shorter than the rear arm so that the Miggytrac™ goes diagonally along the plate.





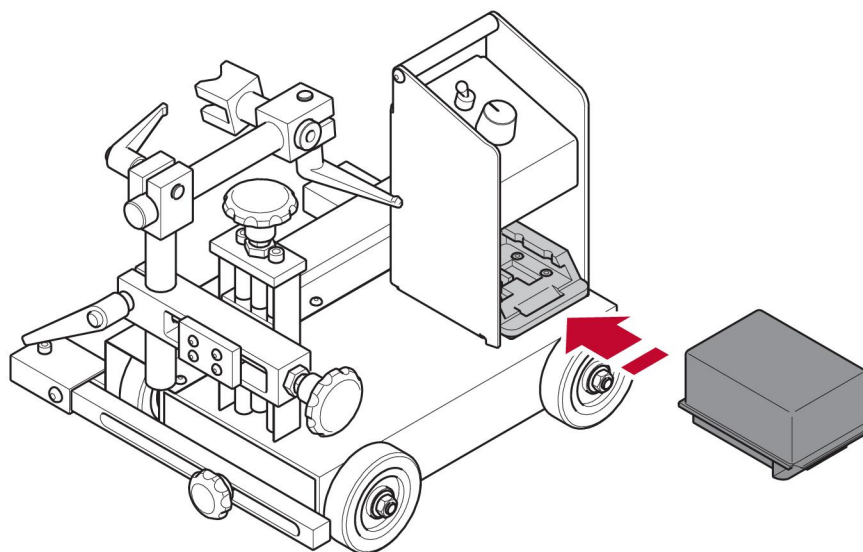
### 4.3 Install the battery

The Miggytrac™ is designed for a 18 volt battery with a capacity of 4 Ah.



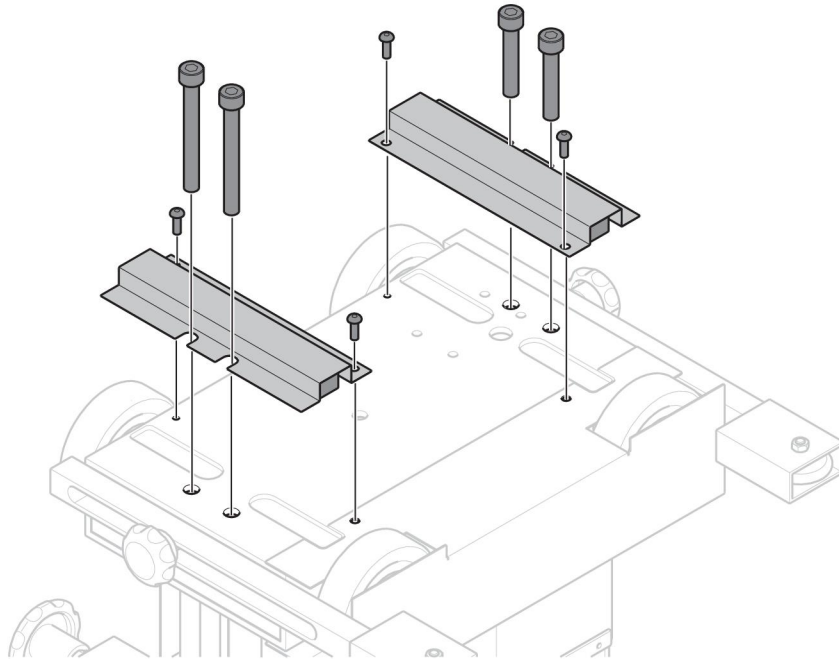
**NOTE!**

Charge the battery with an approved battery charger before use.



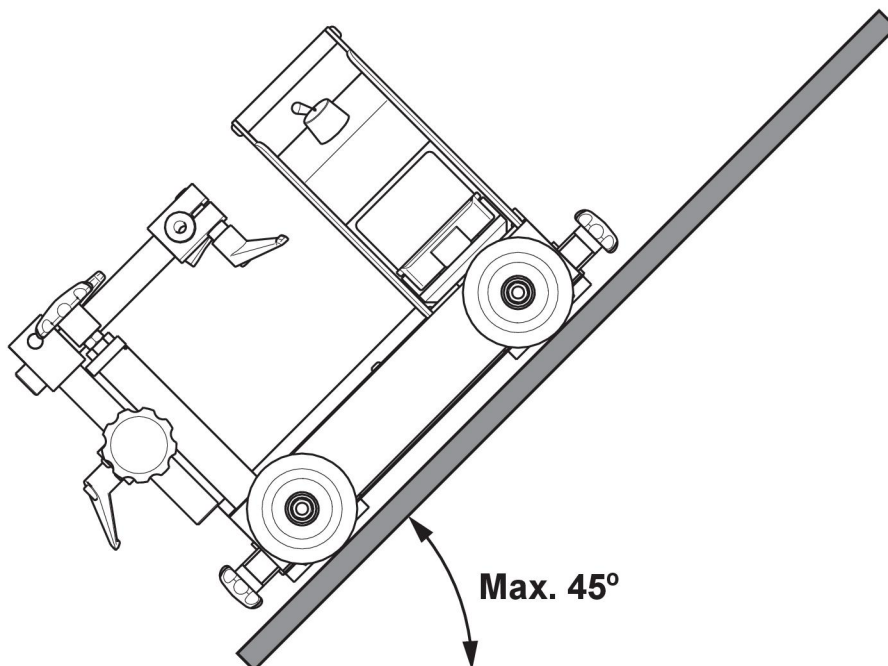
#### 4.4 Install the magnet kit (optional)

A magnet kit can be installed at the bottom of the tractor to further stabilize the movement and increase the friction between the drive wheels and the foundation.



**CAUTION!**

The maximum slope of the foundation is set to 45° for security reasons.



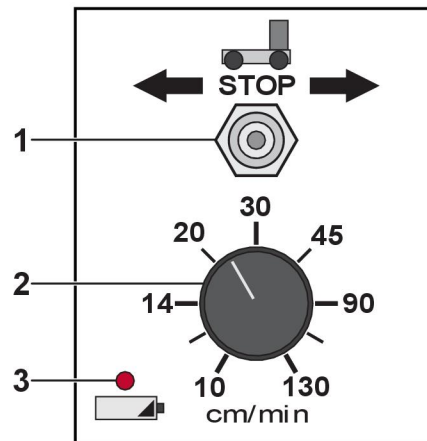
## 5 OPERATION

### 5.1 Weld operation

The tractor shall be used for welding with 4-stroke control mode.

Refer to the applicable documentation for the equipment you intend to connect.

### 5.2 Start and stop of tractor



Start and stop the tractor with the switch (1).

Adjust the tractor travel speed with the travel speed knob (2).

The LED (3) indicates the battery charge level:

Indication	Charge level
Green light	100%
Yellow light	60%
Yellow blinking light	30%
Red light	15%
Red blinking light	7%
Red rapidly blinking light	0%



**NOTE!**

Charge the battery after a working day.



**NOTE!**

Make sure to have at least two charged batteries as back-up if welding in two shifts.

## 6 MAINTENANCE

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### CAUTION!

All warranty undertakings from the supplier cease to apply if the customer attempts any work to rectify any faults in the product during the warranty period.

### 6.1 Daily

- Charge the battery after each working day.
- Clean the guide wheels, the drive wheels and the bottom of the Miggytrac™ with compressed air.

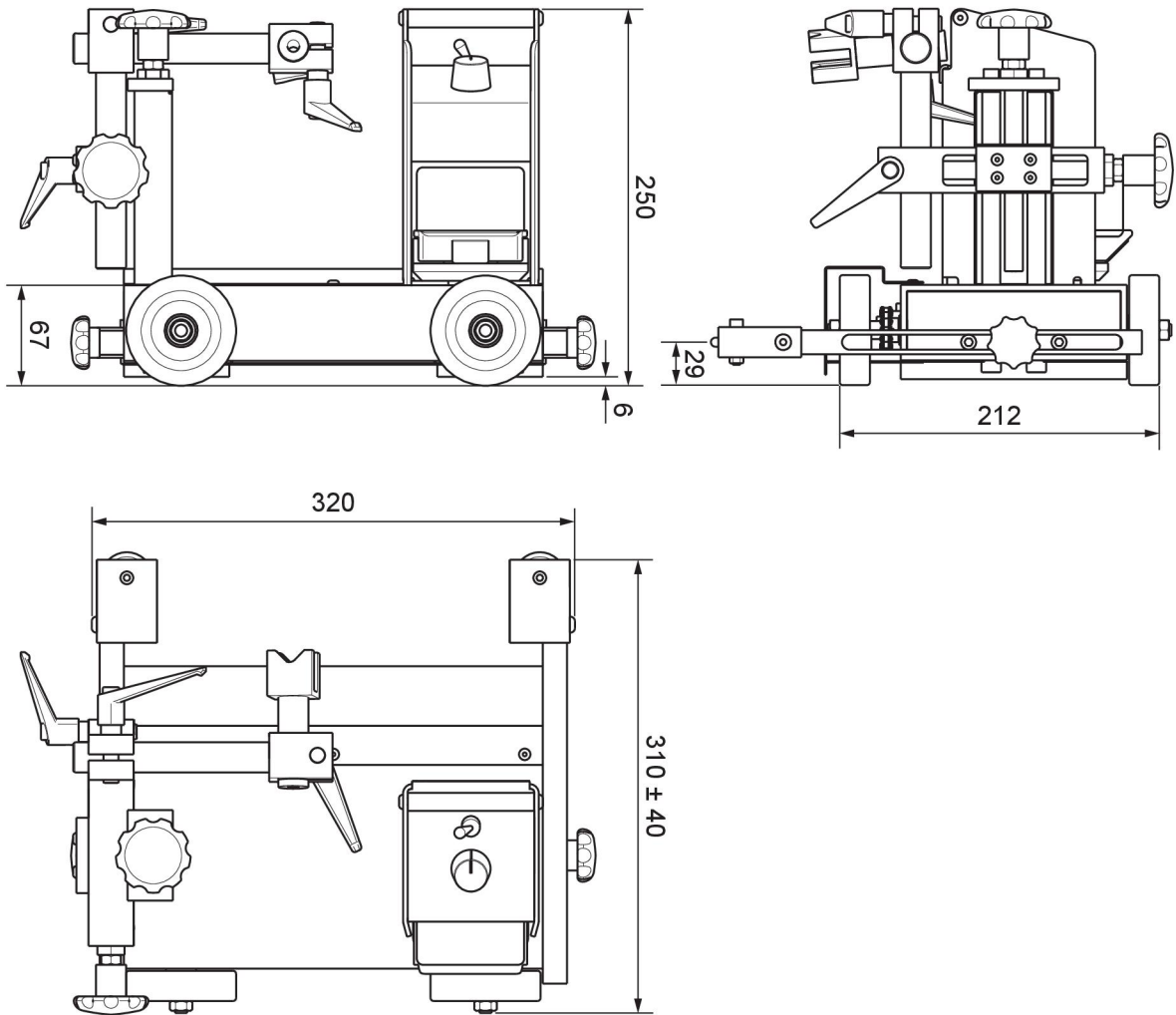
## **7 ORDERING SPARE PARTS**

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The Miggytrac™ B501 is designed and tested in accordance with international and european standards IEC/EN 60204-1, ISO/EN 12100-2 and IEC/EN 60974-10. On completion of service or repair work, it is the responsibility of the person(s) performing the work to ensure that the product still complies with the requirements of the above standard.

Spare parts may be ordered through your nearest ESAB dealer, see the last page of this document.

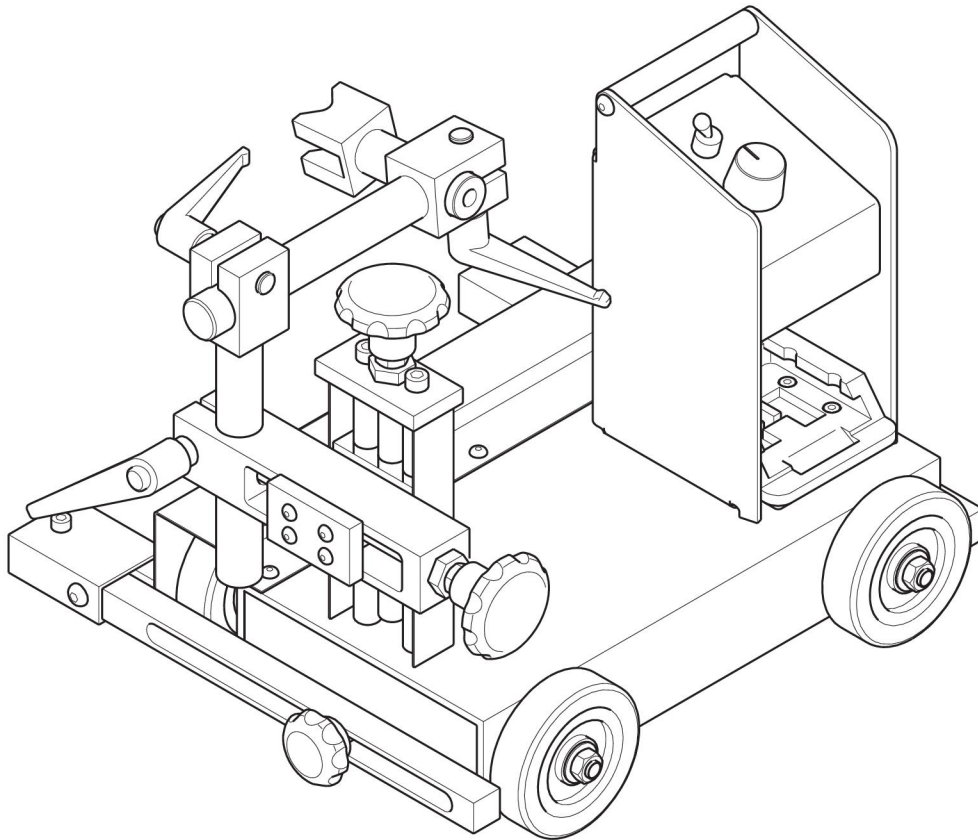
# DIMENSION DRAWING



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**ORDERING NUMBERS**

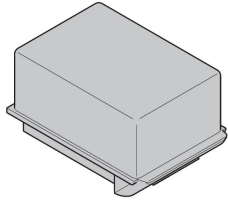
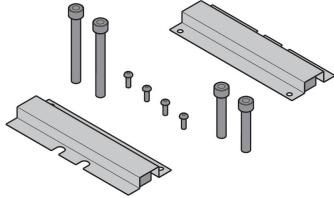
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Ordering number	Denomination	Type	Notes
0457 357 882	Miggytrac™ B501		Battery excluded



**ACCESSORIES**

0457 468 070 0457 468 072 0457 468 073	Battery, Makita 18V 4 Ah Battery charger, Makita Battery (18 V) and battery charger kit, Makita	
0457 357 131	Magnet kit	

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