



Nothing but **HEAVY DUTY.**<sup>TM</sup>



**SERVICE**

**WARRANTY GUIDELINES**



Nothing but **HEAVY DUTY**.™

## Milwaukee service form

Please fill out the form and send it as an attachment along with the machine. In order for a complaint to be dealt as warranty repair requires a copy of a valid proof of purchase. In case of extended warranty remember to send along the certificate as well.

**Dealer repair reference:**

**Purchase date (dd.mm.yyyy)\*:**

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**Valid warranty\*:**

- Yes  
 No

**Registered for extended warranty?\***

- Yes  
 No

**First point of contact\*:**

- Dealer  
End user

**Dealer name\*:**

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**Address\*:**

**Zip code & City\*:**

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**Dealer contact person\*:**

**Phone\*:**

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**End user name\*:**

**End user phone\*:**

--	--

**Machine type\*:**

**Serial number & production \*code\***

--	--

**Error description / what caused failure\*:**

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**If non-warranty\*:**

- Give repair estimate  
 Repair with max. cost (EUR):

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**PLEASE NOTE:** If a product has been sent in as warranty and determined to be out of warranty by the technician, the Service Center will charge the sender a fee for handling and error determination. Be aware and tick the corresponding action you choose above. The manufacturer does not cover any repair or transport costs if the product is out of warranty.

\* required fields

# WARRANTY CHECKLIST

For a tool to be repaired under warranty or extended warranty, the checklist must match all cells highlighted in green!

Is the tool within the warranty period?	<b>YES</b>	<b>NO</b>
Does the tool have the CE mark?	<b>YES</b>	<b>NO</b>
Has the damage been caused by a defect or workmanship?	<b>YES</b>	<b>NO</b>
Does the tool show excessive wear and tear or abuse?	<b>YES</b>	<b>NO</b>
Does the tool show damage caused by extremal force? (liquids, heavy impact)	<b>YES</b>	<b>NO</b>



Example of the CE mark



Example of excessive wear and tear



Example of an external force (heavy impact)

# PACKAGE CHECKLIST

Before sending the tool for servicing:

- Has the invoice or the copy of the invoice been enclosed within the package of the tool?
- If the tool was purchased more than a year ago, is the extended warranty certificate enclosed in the package?
- Is there a failure description?
- Are you sending the tool with all the attachments required? (i.e. handle, guard)
- Has the TTI Service Order been completed with the description, the serial number and the production code of the tool? (MILWAUKEE® Service Form – see previous page)

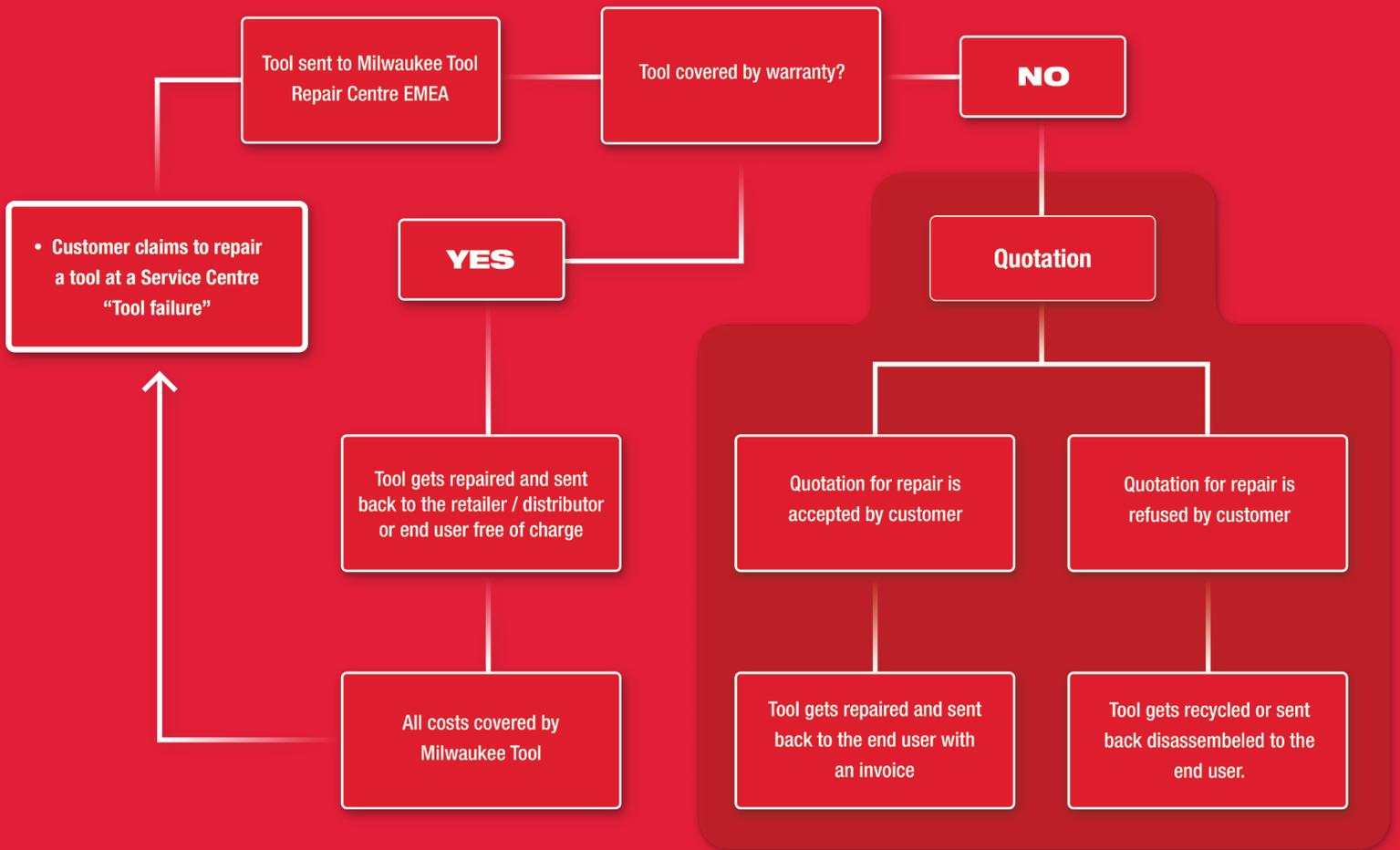


# REPAIR PROCESS

This booklet serves as a reference guide for the use of our customers / commercial partners and our service agents to assist in distinguishing between worn parts, misused parts and defective parts for warranty repair purposes. Furthermore, it gives an insight into the after sales service at Milwaukee Tool.

The warranty cases are only guidelines and do not identify all failure types.

The decision to authorise a warranty repair is that of the Authorised Service Agent.

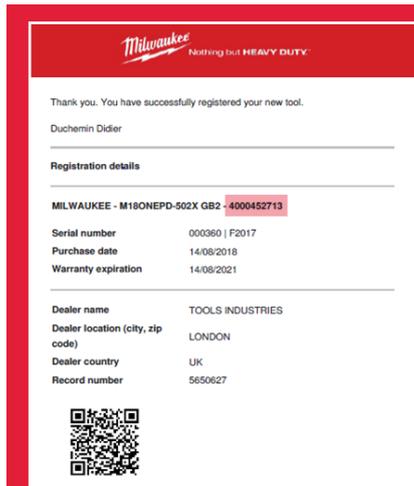


# WARRANTY CONDITIONS

## WARRANTY REGISTRATION / EXTENDED WARRANTY

It is required for the customer to register the tool within 30 days after date of purchase, to get the 3 years extended warranty. The date code is required, to ensure that the correct tool has been registered when originally purchased. With the registration, a certificate is provided (as shown below), which must match with the serial number on the rating plate.

**For all Warranty claims, the Type of tool, the Serial number and the Date code must be identified.**



Production codes are located on the rating label outside of the unit. The production code on the tool (shown above) should match the Warranty certificate (shown to the left).

## WARRANTY CONDITIONS:

The warranty covers all defects of the product during the warranty period, due to faults in workmanship or material at the purchase date. The warranty is limited to repair and/or replacement and does not include any other obligations including, but not limited to, incidental or consequential damages. The warranty is not valid if the product has been misused, used contrary to the instruction manual, or has been incorrectly connected to a power supply.

### This warranty does not apply to:

- Any damage to the product that is the result of improper or lack of maintenance
- Any product that has been altered or modified
- Any product where original identification (trademark, serial number) markings have been defaced, altered or removed
- Any damage caused by non-observance of the instruction manual
- Any product not displaying the CE approval mark on the rating plate
- Any product which has been attempted to be repaired by non-authorized service station or without prior authorisation by Techtronic Industries
- Any product connected to an improper power supply (amps, voltage, frequency)
- Any damage caused by external influences (water, chemical, physical, shocks) or foreign substances
- Normal wear and tear spare parts
- Inappropriate use, overloading of the tool
- Use of non-approved accessories or parts
- Accessories provided with the tool or purchased separately. Including but not limited to: *screwdriver bits, drill bits, abrasive discs, sand paper, blades and lateral guide, blades, saw chains, cutting lines.*
- Components (parts and accessories) subject to natural and normal wear and tear, including but not limited to: *Service & Maintenance Kits, carbon brushes, bearings, chuck, SDS drill bit attachment or reception, power cord, auxiliary handle, transport carry case, sanding plate, dust bag, dust exhaust tube, impact wrench pins & springs, drive belts, felt washers, hitch pins, vacuum bag, hoses, connector fittings, wheels, fix-tech adaptors, bump knobs, drive belts, clutches, blades of brush cutters, hedge trimmers or lawn mowers, harnesses, cable throttle, tines, felt washers, hitch pins, blower fans, blower and vacuum tubes or nozzles, blower vacuum bags and straps, guide bars, saw chains, hoses, connector fittings, spray nozzles, wheels, spray wands, inner reels, outer spools, cutting lines, vacuum mulching blades, etc.*



## GUIDELINES

### DEFECTIVE MATERIALS OR WORKMANSHIP

Milwaukee Tool applies high-quality standards to its suppliers and manufacturing operations, and 100% of all products are tested prior to leaving the factory, there are however, rare occasions where a product defect occurs.

Where it can be verified to your satisfaction that a defect was caused by either:

1. Incorrect assembly or,
2. One or more components were not manufactured to design specification limits.

**Milwaukee Tool's Warranty provides for the repair of such a defect to the product at no charge to the user**

### WEAR AND TEAR

Milwaukee Tool's warranty does not cover components that are subject to "Excessive Wear and Tear" or which are subject to natural wear and tear, caused by use in accordance with the instructions for use. The term "wear and tear" is in relation to the number of hours a product is used and the environment it is used in. This will be determined by the Service Centre.

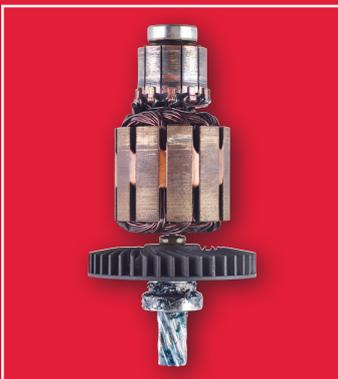
The following parts are subject to wear & tear and are therefore not covered if the product has had excessive use in relation to the application and the environment for which it was designed:

*armature commutators, bearings, switches, beat pieces and rams, clutches and parts which interact in general.*

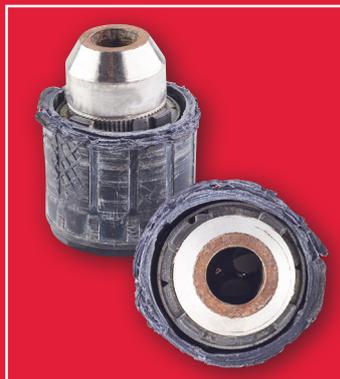
Additionally, with the following parts/components, wear and tear is expected due to the nature of the performance of the component, when the product is used for the application and in the environment for which it was designed:

*Chucks, Motor, Brushes, Cordset*

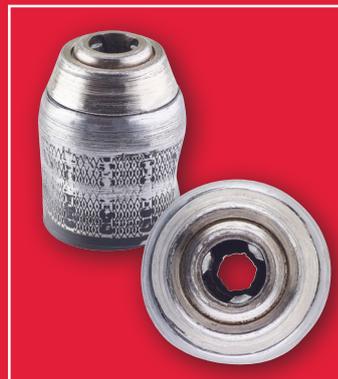
**Cases of wear and tear must be determined by the service agent.**



Burnt motor due to overload



Broken due to heavy impact



Broken chuck due to misuse



Rusty electronics



## GUIDELINES

### BATTERY PACKS – GENERAL CARE

Where it is clear that these guidelines have not been followed, any resultant damage to the battery or low performance is not covered by the Warranty.

#### Batteries:

To ensure the maximum life from of a battery pack, there are some best practices which should be followed as a general guide. Check that the user has adhered to the following guidelines:

1. The battery will perform best if it is charged at room temperature. It should not be charged at temperatures below  $-10^{\circ}\text{C}$  or above  $66^{\circ}\text{C}$ . Under these conditions, the battery will not take a full charge, and may be permanently damaged. If the battery is hot, the user should let it sit out of the charger for at least 2 hours until the battery is at room temperature. The user should not try to discharge the battery beyond the point where the tool no longer performs with the power and torque needed for the job, as this may cause permanent damage, preventing the battery from taking a full charge.
2. The battery must be stored in a cool, dry place. If temperatures exceed  $49^{\circ}\text{C}$ , it may reduce the battery life.
3. Periodically the user should charge the battery overnight to take full advantage of charging system for optimum runtime and battery life.

#### Failure modes:

The warranty does not cover damage to the battery or poor battery performance when it results from:

1. Failure to protect battery terminals when not in use
2. If the battery has extreme contamination of battery latches, affecting the latching of the battery into the tool.
3. Water ingress

### PACKAGING

The packaging used must be appropriate for safe transportation.

Milwaukee Tool have the right to refuse warranty claims if products/packaging arrive damaged in our repair centres due to inadequate packaging. In order to protect the tool from any damage during transportation, it is advisable to send it back in its original packaging, including the kit box, or in packaging sufficient for safe transportation.

Visit the following link for instructions regarding safe packing of tools, when sending back for servicing.

<https://www.milwaukeetool.eu/service/lithium-ion-batteries/>



Example of an extreme drop or impact of a MILWAUKEE® battery

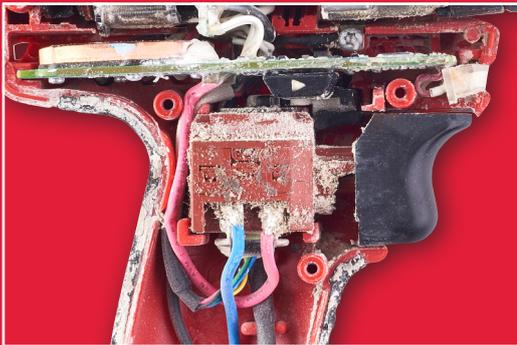


## GUIDELINES

### TOOL MISUSE

**Examples of tool misuse include:**

- Extreme impact or drops
- Ingestion of foreign objects, for instance nails, screws, sand, dirt
- Using the wrong tool for the application
- Any modification to a tool
- Prolonged exposure to the environment, causing rust, corrosion, etc.
- Wrong voltage delivered to the tool
- Using incorrect accessories or batteries
- Lack of recommended service (especially hammers)
- Use of incorrect grease
- Lack of lubrication
- Water ingress



Switch could not be activated due to debris in tool



Spring assembled externally, proving unauthorised opening of tool

### SERVICE ATTEMPT BY PRIVATE CUSTOMER OR UNAUTHORISED PERSON

**Under no circumstances during the warranty period should a customer attempt to service their own tool. Any such attempt invalidates the Warranty for said tool.**

Warranty repairs should only be carried out through an Authorised Milwaukee Tool Service Agent. Examples of improper repairs include: incorrectly wired units, pinched lead wires, incorrect screw torque and assembly.



## FURTHER ADVICE

### BEARINGS

Power tools may be fitted with various types of bearings such as ball, needle or plain etc. In general, bearings act as an interface between a shaft or component and its housing, allowing relative movement between the two.

Bearing failure may manifest itself by increased shaft run out (wobble), slack fitting components or in extreme cases, seizure. Bearings may also become dislodged from their housings due to abuse. Bearing failure may necessitate the replacement of the bearing, as well as its mating parts. Bearings which have failed as a result of fair wear and tear or excessive wear and tear, in relation to use of the product in accordance with its instructions for use in the application and in the environment for which it was designed are not covered by the warranty.

### CHUCKS

The chuck tightly secures the tool (normally a drill bit) causing it to rotate and follow the same action as the output spindle of the drill.

Chucks may be 'keyless' meaning they can be tightened and released by hand, or 'keyed' requiring the use of a separate chuck key. Chucks fitted to percussion drills may differ from those fitted to rotary only drills, as the former must be capable of withstanding the increased stress induced by the percussion (hammering) action.

Chuck damage may occur due to inappropriate applications, abuse, or lack of care. For example:

- Bit slippage due to incorrect tightening of the bit in the chuck.
- Operating the drill with the chuck running against masonry or other hard surfaces which causes wear.
- Rust caused by inappropriate prolonged exposure to dampness.
- Allowing a build-up of dust on the chuck.

Chucks are normally not covered by warranty unless they were not manufactured to design specification limits.

### MOTORS

The main part of an electrical tool is the motor. To operate long-term without problems, the motor is equipped with a cooling fan, fixed to the armature shaft. The efficiency of this cooling system is directly related to the speed of the

armature. The greater the stress placed on a motor, the more energy required to sustain the rated RPM. Eventually, the motor speed drops and the cooling effect decreases so rapidly, that the temperature increase results in critical overheating. To avoid overheating, the motor should at all times be able to rotate at its rated RPM, and therefore allow the cooling system to work efficiently during the operating time of the tool.

An overheated motor, which is never a case of warranty, is almost always an indication of incorrect application of a tool (conscious or non-conscious), or incorrect choice of tool for a specific application.

### SWITCHES

All power tools are controlled by a switch. The actuation of a power tool mains switch is either in the form of a trigger, slider or rocker, which in some cases can be locked in the on or off position. Short term problems with switches are normally due to damage to the actuator or lock mechanism, from tools being dropped. Other early problems are with the switch connections, i.e. terminal screws loose or not tightened sufficiently, or over tightened, cutting the wire connection.

Longer term, switches can get stuck in the on or off position due to wood or concrete dust ingress. In extreme cases, the dust can affect the switch internal connections causing contacts to burn and arc, leading to intermittent operation.

### PCB & ELECTRONICS

PCB's can be static sensitive parts. As such, they should always be stored & fitted using appropriate static protection. Note: switches & PCB's are sensitive to high current & heat caused by overload of the tool. These failures are never covered under Warranty. Failure on electronics/PCB's with dust accumulation is not covered under warranty.

### BRUSHES

Carbon brushes are used to connect the stator coils to the armature, in an electric motor. They need to keep a positive connection on a rotating surface, through the normal life of a tool. On a power tool the brushes can wear to a point when the unit will stop. At this point they will need replacing. Conditions that can affect the wear rate of a brush are normally, Environmental - Temperature, Humidity Application - Overload, dust ingress.

Excessive brush wear can be caused by other issues in the motor, E.g. armature open or short circuit, field short circuit, incorrect armature and or field fitted.

Brushes which have failed as a result of fair wear and tear, or excessive wear and tear in relation to use of the product in accordance with its instructions for use in the application and in the environment for which it was designed are not covered by the Warranty.



# Milwaukee<sup>®</sup>

## SERVICE

YOUR MILWAUKEE SPECIALIST



Nothing but **HEAVY DUTY.**<sup>™</sup>

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