

切割机 Metal Cutting Saw

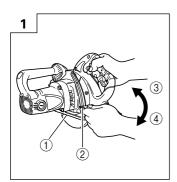
CD 7SA

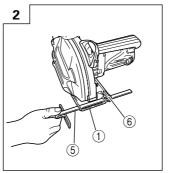
使用说明书 Handling instructions

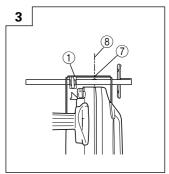


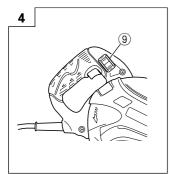
使用前务请详加阅读

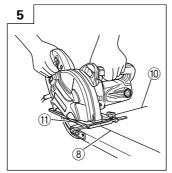
Read through carefully and understand these instructions before use.

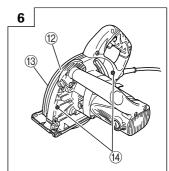


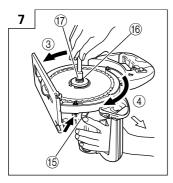


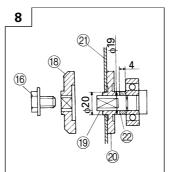


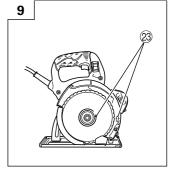


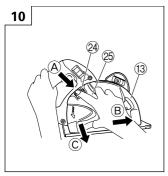


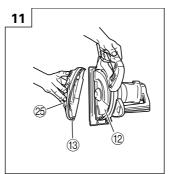


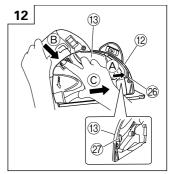


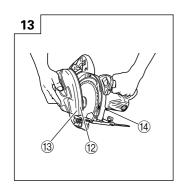


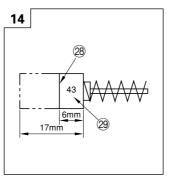












1	底座	Base
2	控制杆	Lever
3	拧松	Loosen
4	拧紧	Tighten
(5)	引导器	Guide
6	蝶形螺栓	Wing bolt
7	凹槽	Slit
8	锯切线	Cutting line
9	灯光开关	Light switch
10	工件	Workpiece
11)	底座引导器凹槽	Guide slit on the base seat
12	防尘罩 (A)	Dust cover (A)
13	防尘罩 (B)	Dust cover (B)
14)	特殊螺栓	Special bolt
15	锁紧杆	Lock lever
16	螺栓(带有垫圈)	Bolt (W/Washer)
17)	套筒扳手	Box wrench
18	垫圈 (B)	Washer (B)
19	主轴	Spindle
20	垫圈 (A)	Washer (A)
21)	硬质合金锯片	Carbide tipped saw blade
22	定距片	Distance piece
23	依箭头方向校准	Align in the direction of the arrow
24	插销	Latch
25	旋钮	Knob
26	卡钩孔	Hole for inserting the hook
27	卡钩	Hook
28	磨损极限	Wear limit
29	炭刷号	No. of carbon brush

一般安全规则

警告!

阅读说明

没有按照以下列举的说明而使用或操作将导致触电、 著火和/或严重伤害。

在所有以下列举的警告中术语"电动工具"指市电驱动(有线)电动工具或电池驱动(无线)电动工具。

保存这些说明

- 1) 工作场地
 - a) 保持工作场地清洁和明亮。 混乱和黑暗的场地会引发事故。
 - b) 不要在易爆环境,如有易燃液体、气体或粉尘 的环境下操作电动工具。
 - 电动工具产生的火花会点燃粉尘或气体。 c) 让儿童和旁观者离开后操纵电动工具。
 - 分心会使你放松控制。

2) 电气安全

- a) 电动工具插头必须与插座相配。 绝不能以任何方式改装插头。 需接地的电动工具不能使用任何转换插头。 未经改装的插头和相配的插座将减少触电危 险。
- b) 避免人体接触接地表面,如管道、散热片和冰箱。

如果你身体接地会增加触电危险。

- c) 不得将电动工具暴露在雨中或潮湿环境中。 水进入电动工具将增加触电危险。
- d) 不得滥用电线。

绝不能用电线搬运、拉动电动工具或拔出其插 头。

让电动工具远离热、油、锐边或运动部件。 受损或缠绕的电线会增加触电危险。

e) 当在户外使用电动工具时,使用适合户外使用的外接电线。

适合户外使用的电线将减少触电危险。

3) 人身安全

a) 保持警觉,当操作电动工具时关注所从事的操作并保持清醒。

切勿在有疲倦, 药物、酒精或治疗反应下操作 电动工具。

在操作电动工具期间精力分散会导致严重人身 伤害。

b) 使用安全装置。始终配戴护目镜。

安全装置,诸如适当条件下的防尘面具、防滑安全鞋、安全帽、听力防护等装置能减少人身伤害。

c) 避免突然起动。

确保开关在插入插头时处于关断位置。 手指放在已接通电源的开关上或开关处于接通 时插人插头可能会导致危险。 d) 在电动工具接通之前,拿掉所有调节钥匙或扳 手。

遗留在电动工具旋转零件上的扳手或钥匙会导 致人身伤害。

e) 手不要伸得太长。

时刻注意脚下和身体平衡。

这样在意外情况下能很好地控制电动工具。 f) **著装适当**。

·/ 目录是当。 不要穿宽松衣服或佩带饰品。

让你的头发、衣服和袖子远离运动部件。 宽松衣服、佩饰或长发可能会卷入运动部件。

g) 如果提供了与排屑装置、集尘设备连接用的装置,则确保他们连接完好且使用得当。 使用这些装置可减少碎屑引起的危险。

4) 电动工具使用和主意事项

a) 不要滥用电动工具,根据用途使用适当的电动工具。

选用适当的设计额定值的电动工具会使你工作更有效、更安全。

b) 如果开关不能接通或关断工具电源,则不能使 用该电动工具。

不能用开关来控制的电动工具是危险的且必须 进行修理。

c) 在进行任何调节、更换附件或贮存电动工具之前,必须从电源上拔掉插头和/或将电池盒脱 开电源。

这种防护性措施将减少电动工具突然起动的危险

d) 将闲置电动工具贮存在儿童所及范围之外,并 且不要让不熟悉电动工具或对这些说明不了解 的人操作电动工具。

电动工具在未经训练的用户手中是危险的。

e) 保养电动工具。检查运动件的安装偏差或卡 住、零件破损情况和影响电动工具运行的其他 各件

如有损坏,**电动工具必须在使用前修理好**。 许多事故由维护不良的电动工具引发。

f) 保持切削刀具锋利和清洁。

保养良好的有锋利切削刃的刀具不易卡住而且 容易控制。

g) 按照使用说明书以及打算使用的电动工具的特殊类型要求的方式,考虑作业条件和进行的作业来使用电动工具、附件和工具的刀头等。将电动工具用作那些与要求不符的操作可能会导致危险情况。

5) 维修

a) 将你的电动工具送交专业维修人员,必须使用 同样的备件进行更换。

这样将确保所维修的电动工具的安全性。

注意事项

不可让儿童和体弱人士靠近工作场所。 应将不使用的工具存放在儿童和体弱人士接触不到的 地方。

所有圆锯机之安全说明

危险:

a) 手部必须远离锯片与切割区域。另一手须握持辅助 把手或马达外壳。

如果双手皆握住圆锯机,双手便可免于锯片所伤。

- b) 不可碰触下方的工件。
 - 否则保护罩无法保护您免于锯片所伤。
- c) 调整工件厚度的相对锯切深度。
 - 在工件下方应可看到小于锯片全齿深之深度。
- d) 不可使用手按住或腿压住正在锯切的工件。必须将 工件固定于平稳的工作台。

减少身体的暴露、锯片卡住或失控,是正确的完成工作的重要凭借。

e) 在锯切工具可能接触到隐藏线路或其本身的线路之情况下进行操作时,须握持锯切工具的绝缘握持面。

否则接触到「有电」的线路与置身在电动工具的金属部位时,将会造成操作员触电的危险。

- f) 进行锯切时应使用锯切护罩或直线导向器。 此举可改善锯切的精确度并减少发生锯片卡住的机 会。
- g) 使用正确的轴孔尺寸与形状(菱形端或圆端)的锯片。

锯片安装不正确将有导致锯切失控的危险。

- h) 不可使用已损坏或不正确的锯片垫圈或螺栓。 锯片垫圈与螺栓是特别专为圆锯机所设计以提供最 佳的性能表现与最安全的操作。
- 不可使用任何砂轮砂轮所产生的爆裂会造成操作员或工作区附近的人员之严重伤害。

所有圆锯机之详细安全说明

反冲作用之发生原因与防止:

- 反冲作用是因锯片受夹住、卡住或不对准 而导致锯片失控举起或脱离工件而朝向操 作员的作用力;
- 当锯片紧固地夹住、卡住于切口时,此时 马达会有反向作用力朝向操作员;
- 锯切时锯片扭曲或不正,锯片后缘的齿部 便会戳入木材的上表面而造成锯片脱离切 口并回弹朝向操作员。

反冲作用是圆锯机误用与/或操作程序或条件不正确所造成的结果,以下所列的正确防范措施可以避免此类问题的发生。

a) 两手保持紧握圆锯机并且将手臂置于适当的位置以 抵抗反冲作用力。

身体须位于锯片的任一侧,身体与锯片不可成一直线。

反冲作用力会导致圆锯向后弹跳,但如果有采取适当的预防措施,反冲作用力是可以被操作者所控制。

b) 当锯片被夹住时或者由于某些原因中断时,请松开 扳机并且保持圆锯机不动,直到锯片作动完全停 止。

当锯片在运行中或者有可能发生反冲作用力时,决不可试图从工件上移开圆锯机或者将圆锯机向后 拉

须进行研究并且采取矫正措施以消除锯片夹住的原因。

c) 重新启动锯切工件时,须将锯片定位在切口中央并 检查锯片是否未夹入材料中。

如果锯片有夹入,则重新启动锯片时可能会造成工 件的移动或产生反冲作用力。

d) 采用大面板支撑座,使锯片受夹住或产生反冲作用 力的风险降到最低。

由于其自身重力,大面板支撑座趋于下陷。 支撑座必须置于面板两侧的下方,靠近锯切路径与 面板边缘。

e) 不要使用不锋利或已损坏的锯片。

装设不锋利或不正确的锯片会产生狭窄切口而造成 过大的磨擦力、锯片夹住以致产生反冲作用力。

f) 在进行锯切之前、锯片深度与斜度调整锁定控制杆 必须安全固定。

如果锯片调整装置在锯切时移动,可能会造成夹住并产生反冲作用力。

g) 在进行墙壁或其他隐蔽区域之锯切时请格外小 心。

锯片可能会锯切到足以产生反冲作用力的物体。

具有内部钟摆护罩的圆锯机安全 说明

a)在每次使用之前、先检查下罩是否能正确的关闭。如果下罩无法自由移动与立即关闭、决不可操作圆锯机。不可将下罩夹入或拴入开启位置。

如果圆锯机不慎掉落,其下罩可能会折弯。 使用缩回操作以升起下罩,并确定它可自由移动而 且在各种角度和深度之锯切皆不会接触到锯片或者 任何其他部位。 b) 检查下罩弹簧之作动状况。如果下罩与弹簧皆无法 正确的作动,请在使用之前必须先行将它们修复。

下罩可能由于零件损坏、黏胶沉淀, 残屑生成而造成作动迟滞。

c) 仅在使用「切入式锯切(plunge cuts)」与「复合式锯切(compound cuts)」之类的特殊锯切方式时才须使用手动缩回下罩。利用缩回把手可将下罩举起,当锯片开始锯切工件材料时,必须释放下罩。

所有圆锯机的下罩皆应可自动的作动。

d) 在将圆锯机置于工作台或地板上之前,先检查下罩 是否有覆盖于锯片上。

一个未受保护、限制的锯片将会导致圆锯机反向行进而产生任意锯切的情形。请务必明了在松开开关后至锯片完全停止时所需的时间。

使用切割机时应注意事项

- 1. 请勿使用破损或变形的锯片。
- 2. 请勿使用高速钢制造的锯片。
- 3. 请勿使用不符合本说明书规定特性的锯片。
- 4. 请勿按压圆盘侧面停止锯片操作。

- 5. 经常保持锯片锋利。
- 6. 确保较低的引导器移动顺畅自如。
- 请勿在切割机的下罩被固定在打开位置的状态下 使用切割机。
- 8. 确保防护系统的收回机制正确操作。
- 9. 请勿在锯片转向前面或转向侧面的状态下使用切割机。
- 10. 确保工件上无铁钉等任何异物。
- 11. 对于机种CD7SA而言,锯片直径应该是180mm至 185mm。
- 12. 对于机种CD7SA而言,须注意其制动反冲作用力。当开关被松开时,CD7SA机种便具有电力制动功能。

当启用制动功能时,会产生些许反冲作用力,请 务必安全紧握圆锯机本体。

- 13. 因为CD7SA机种是使用电力制动,所以当关闭开关时,有时会由于刹车而出现火花。不过,此现象并非机器有问题。
- 14. 对于机种CD7SA而言, 当刹车变得无效时, 请更 换新的碳刷。
- 15. 在进行任何调整、保养或维修之前,须先拔下插 座上的插头。

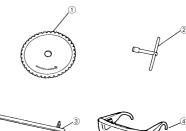
规格

电压	220 伏∿
最大锯切深度	63 毫米
输入功率*	1140 瓦
空载转速	3,700 / 分
重量(不含线缆)	4.0 公斤

标 准 附 件

- ① 硬质合金锯片 1 ② 套筒扳手 1

标准附件可能不预先通告而径予更改。





选购附件(分开销售)

硬质合金锯片

锯片	外径	孔径	锯齿宽度	锯身厚度	齿数
软钢材的锯切	180 mm	20 mm	1.8 mm	1.5 mm	34 枚
47 N3/13 H3 M3 93	185 mm	20 mm	2.0 mm	1.6 mm	38 枚
软钢材的锯切(低噪音)	185 mm	20 mm	2.0 mm	1.6 mm	38 枚
薄壁软钢材的锯切	185 mm	20 mm	2.0 mm	1.6 mm	48 枚
薄壁软钢材的锯切(低噪音)	103 11111	20 11111	2.0 111111	1.0 11111	10 /2
铝窗格的锯切	185 mm	20 mm	2.0 mm	1.4 mm	60 枚
不锈钢的锯切	180 mm	20 mm	1.8 mm	1.4 mm	56 枚

选购附件可能不预先通告而径予更改。

用途

	刀具	用途
标准附件	软钢材用锯片	○ 各种软钢材的锯切 扁钢、钢管、槽钢 (C形槽钢)角钢
选购附件	锯片: 软钢材的锯切 软钢材的锯切 (低噪音) 锯片: 薄壁软钢材的锯切 薄壁软钢材的锯切	(L形角钢)等 (L形角钢)等 (X)
l ''	(低噪音)	之类的硬质钢材。
	铝窗框用锯片	○ 铝窗框的锯切 ※铝窗框专用。
	锯片:	○ 不锈钢的锯切
	不锈钢材用于锯切	※扁钢、圆形钢管等

○ 请参阅第8页"各种工件适用锯片的选择方法"一 节。

作业之前

 本产品采用双重绝缘结构,但是为了防止万一发 生触电事故,建议您将其连接在带有漏电断路器 的电源上。

2. 电源

确认所使用的电源与工具铭牌上标示的规格是否 相符。

3. 电源开关

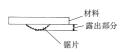
确认电源开关是否切断。若电源开关接通,则插 头插入电源插座时电动工具将出其不意地立刻转 动,从而招致严重事故。

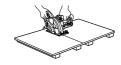
4. 延伸线缆

若作业场所移到离开电源的地点,应使用容量足够、铠装合适的延伸线缆,并且要尽可能地短些。

5. 工作台(木制)的布置







锯片在锯切过程中会从材料的下面露出,因此请将 材料放在工作台上进行锯 切。

另外,请务必小心不要让 锯片和下罩接触到工件下 可或地面、地板等)。为 确保避免发生这种情况, 工件(要切割的材料)高 出工件下方平面的距离必 供底面的距离(高度)的3 倍以上。 此时如果用固定钳固定好材料则更为安全,并可用双 手同时进行作业。

如果材料的切除部分较大,则为了避免锯片在锯切过程中因材料本身的重量而被夹住,请将稳定性好的台子或方棒料放在切除部分的下面。

用切割机切割材料时,如果工作台发生晃动或移位,则很危险。

6. 确认锯片是否紧固

请确保锯片已经完全紧固妥贴。 详情请参阅第9页"锯片的安装和拆卸"一节。

7. 确认控制杆是否紧固

如果锯切调整用控制杆变松,则会造成人身伤害,因此请确保其充分紧固。

8. 确认下罩可以活动

注意:切勿固定下罩。

还应确保下罩可以平滑自如地活动。 如果锯片露出,则会造成人身伤害。

下罩是用来防止身体与锯片接触的。为了能够遮挡住锯片,必须确保其能够平滑顺畅地活动。

万一下罩不能平滑顺畅地活动,则切不可继续使 用切割机。

此时请与HiKOKI公司授权的维修中心联系修理。

9. 使用切割机前的调整

(1) 锯切厚度的调整(图1)

注意:如果锯切调整用控制杆变松,则会造成人身 伤害。

调整后请紧固妥贴。

放松控制杆并活动底座便可调整锯切厚度。

(2) 引导器的安装和调整(图2)

拧松蝶形螺栓,并将附带的引导器插入底座的 孔中。左右活动引导器,调整锯切位置。 调整后请将蝶形螺栓拧紧妥贴。

10. 确认刹车已经处于制动状态

本机采用在切断电源开关的同时制动作用随之生效的结构。

使用前请检查刹车是否在起作用。万一刹车作用 失常,则应委托HiKOKI公司授权的维修中心予 以修理 。

注意:请注意刹车动作时的回弹力。

机体摔落会伤及身体。

11. 电源插座的检查

如果插头在插入后发生晃动或很快就要脱出,则 必须进行修理。此时请与附近的电气商店等联 系。

如果照用不误,则会因过热而引发事故。

各种锯切材料适用锯片的选择方法

为了充分发挥本机的性能,并进行高效作业,选择使用适合于锯切材料的锯片是非常重要的。请参照下表来使用适合锯切材料种类和板厚的锯片。

各种锯切材	材料适用锦	居片的选择方法			最适合 适合
锯	片的种类	软钢材用锯片 低噪音锯片	薄壁软钢材用锯片 低噪音锯片	铝制框架用锯片	不锈钢材用锯片
		-JJT	707		707
锯切材料 板厚	£(mm)	「外径185mm 」 齿数38枚 「外径180mm 」 齿数34 枚	外径185mm 齿数48枚	外径185mm 齿数60枚	外径180mm 齿数56枚
带缘槽钢	1.6 ~ 3.2	0	0	_	_
直槽钢	1.6 ~ 2.3	0	0	_	_
TAC	3.2	0	0	_	_
钢制底材 T——	$0.5 \sim 0.8$	0	0	_	_
角钢	3	0	0	_	_
T-€	4 ~ 6	0	_	_	_
钢板	4 ~ 12	0	_	_	_
方形钢管	1.2 ~ 2.3	0	0	_	_
T	3.2 ~ 3.5	0	0	_	_
圆形钢管 (结构用管道、	1.2 ~ 2.8	0	0	_	_
压力管用) T 一〇	3.2 ~ 3.5	0	0	_	
				0	
不锈钢板材	2	_	_	_	0
不锈钢圆管 T—	<u>5</u> 2	_	_	_	0

使 用 方 法

注意:

- · 如果在使用过程中锯片停止运转或出现异常声音,请立即切断电源开关。
- · 锯切时请勿涂抹锯切油。 锯切油、磨削液以及蜡等种类的物质有时会因切 割时所产生的火花而起火。
- 锯切时务请戴上护目镜。
- · 请固定稳妥锯切材料。如果没有固定好,则会使 锯切材料飞散开去或损坏锯片。
- · 作业结束后务请切断电源开关,并拔掉电源插 头。
- · 请注意不要被转动的锯片切断线缆。
- 请在锯屑盛满前及早将其倒掉。

如果在防尘罩内已经积满锯屑的情况下继续使用本锯,则会降低集尘性能,使防尘罩(B)产生高温,并使防尘罩(C)发生变形甚至熔化。

- 为了保护耳朵免受噪音的侵扰, 请戴上耳塞。
- · 如果在使用过程中使锯切厚度变薄,则由于刀口 空开,从而使集尘性能下降。
- · 当锯切壁面时,防尘罩内锯屑的蓄积状态会发生 变化,从而降低集尘性能。
- 请使用适合干锯切材料的锯片。
- 锯切时请笔直地向前推, 而不要扭转或硬撬。
- 锯切时,特别是在锯切开始和结束时请慢慢推 进。
- · 请勿在锯片紧贴锯切材料的情况下打开电源开 关。请勿在锯切过程中断开电源开关。如果要在 中途停止锯切,请在锯片继续旋转的情况下退出 机身,并在锯片离开锯切材料后切断电源开关。
- 请勿锯切叠起来的锯切材料。
- 将机身主体(底座)放在被锯切材料上,并用底 座前端的凹槽对准锯片和划线。

将防尘罩(A)凸出部分上的箭头正对著底座的凹槽,因此在校准切割机位置时请使用该箭头。(图3)

如果在暗处工作时难以看清划线,请打开LED灯,然后用划线对准底座前端的凹槽。(图4)

2. 在锯片尚未触及被锯切材料的状态下接通电源开 关。当达到全速旋转后,将本机缓缓推向前方, 请保持这种状态直至本次锯切结束。 为使锯切面保持平滑,请按一定速度笔直推进。 底座侧部的凹槽用来指示最大锯切深度时锯片的 锯齿位置。该凹槽为将材料锯切到中途为止等场 合提供了方便。(图5)

锯片的安装和拆卸

注意:

- · 为了防止万一发生事故,务请切断电源开关,并 拔下电源插头。
- 如果使用本机附带的套筒扳手以外的工具来拆卸 和安装带垫圈的螺栓,则会出现紧固过度或紧固 不足,并造成人身伤害。

1. 拆卸方法

- (1) 拧松蝶形螺栓(2个),拆下防尘罩(A)和(B)。 (图6)
- (2) 使锯切厚度达到最小,并将锯片圆锯机放在稳定 的地板上。(图7)
- (3) 在推入锁紧杆的同时,用附带的套筒扳手慢慢转动螺栓。
- (4) 当固定好转轴以后,沿逆时针方向转动套筒扳手,然后卸下螺栓和垫圈(B)。
- (5) 沿(A)方向取出锯片。
- 2. 安装方法

注意:

- · 请注意,锯切作业之后,锯片和防尘罩(A)和(B) 会发热。
- · 请勿忘记放入定距片(宽4mm)。
- · 在插入电源插头前,请确保锁紧杆已返回原处, 同时锯片也能旋转自如。
- (1) 请按与拆卸方法相反的步骤进行安装。
- (2) 擦净附在转轴和垫圈上的锯屑。
- (3) 安装孔径为20mm的锯片时,请将垫圈(A)的凹陷部分较浅的一方作为锯片的一侧。

安装孔径为19mm的锯片时,应将垫圈(A)的凹陷部分较深的一方作为锯片的一侧。

另外,不论在哪种情况下,都应将垫圈(B)的凹陷部分作为锯片的一侧。(图8)。

- (4) 锯片的箭头应当与齿轮罩的箭头方向保持一致。 (**图9**)
- (5) 请充分拧紧螺栓。

锯屑的清除方法

注意:

- · 为了防止万一发生事故,务请切断电源开关,并 拔下电源插头。
- · 金属锯屑会产生高温, 防尘罩(A)和(B)也会随之 发热。请勿用手直接接触锯屑或防尘罩(A)和 (B)。
- · 操作时应当小心谨慎, 以免使防尘罩(A)和(B)发生变形。

如果发生变形,则积蓄在防尘罩内部的锯屑会很容易漏出。

1. 锯屑的清除方法

如果防尘罩(A)和(B)内锯屑积蓄过多,集尘性能将会减弱。请在积满前提早倒掉锯屑。

- (1) ①握住(树脂)旋钮,下压插销,解除锁定。 (图10 (A))
 - ② 向后拉防尘罩(B) 将其取下。(**图10** B), ©)
 - ③ 卸下防尘罩(B), 然后倒掉锯屑。(图11)
- (2) 清除附在防尘罩(A)和(B)上的锯屑,再用抹布擦净。
- (3) ① 将防尘罩(B)卡钩插人防尘罩(A)上的卡钩孔中。 (**图12** (A))
 - ② 下压插销。(图12 B)
 - ③ 将防尘罩(B) 推回原位。(图12 ©) 将防尘罩推回原位后,请确认锁定已牢固啮 合。
- 拧松两颗蝶形螺栓后,可在锯屑仍在其内部时卸下防尘罩(A)和(B)。(图13) 然后可倒掉锯屑,而不会将其洒落。

维护和检查

1. 检查硬质合金锯片

因为使用变钝的锯片容易引起马达的故障和老 化,若其磨损显著,请及时用新的更换。

2. 检查安装螺钉

要经常检查安装螺钉是否紧固妥善。若发现螺钉 松了,应立即重新扭紧,否则会导致严重的事 故。

3. 电动机的维护

电动机绕线是电动工具的心脏部。应仔细检查有 无损伤,是否被油液或水沾湿。

4. 检查碳刷(图 14)

马达使用碳刷,它是消耗部品,因为使用过久的碳刷将会导致马达故障,用具有相同碳刷号的新碳刷去更换旧的,碳刷编号用数字表示碳刷何时用旧或接近于磨损极限,此外,要经常保持碳刷清洁以及保证它在刷握里能自由滑动。

5. 更换碳刷

用无头螺丝刀卸下碳刷盖,然后可以很容易地取下碳刷。

6. 维修零部件一览表

注意:

HiKOKI牌电动工具的维修、改造和检查须由经 HiKOKI公司授权的维修中心进行。

当要求维修或其他保养服务时,若将此零部件一览 表与电动工具一起呈交给经HiKOKI公司授权的维 修中心,将有助于维修或保养工作。

在操作和维修电动工具时,必须遵守贵国制定的安 全的有关规则和标准。

改诰:

HiKOKI牌电动工具经常加以改善和改造以采用最新的先进技术。

因此,某些零部件可能变更,恕不另行通知。

注意:为求改进,本手册所载规格可能不预先通告 而径予更改。

GENERAL SAFETY RULES

WARNING!

Read all instructions

Failure to follow all instructions listed below may result in electric shock, fire and/or serious injury.

The term "power tool" in all of the warnings listed below refers to your mains operated (corded) power tool or battery operated (cordless) power tool.

SAVE THESE INSTRUCTIONS

1) Work area

- a) Keep work area clean and well lit.
 - Cluttered and dark areas invite accidents.
- b) Do not operate power tools in explosive atmospheres, such as in the presence of flammable liquids, gases or dust. Power tools create sparks which may ignite the dust of fumes.
- Keep children and bystanders away while operating a power tool.

Distractions can cause you to lose control.

2) Electrical safety

- a) Power tool plugs must match the outlet. Never modify the plug in any way.
 - Do not use any adapter plugs with earthed (grounded) power tools.
 - Unmodified plugs and matching outlets will reduce risk of electric shock.
- Avoid body contact with earthed or grounded surfaces such as pipes, radiators, ranges and refrigerators.
 - There is an increased risk of electric shock if your body is earthed or grounded.
- c) Do not expose power tools to rain or wet conditions.

 Water entering a power tool will increase the risk of electric shock.
- d) Do not abuse the cord. Never use the cord for carrying, pulling or unplugging the power tool. Keep cord away from heat, oil, sharp edges or moving parts.
 - Damaged or entangled cords increase the risk of electric shock.
- e) When operating a power tool outdoors, use an extension cord suitable for outdoor use.

Use of a cord suitable for outdoor use reduces the risk of electric shock.

3) Personal safety

- a) Stay alert, watch what you are doing and use common sense when operating a power tool. Do not use a power tool while you are tired or under the influence of drugs, alcohol or medication. A moment of inattention while operating power tools may result in serious personal injury.
- b) Use safety equipment. Always wear eye protection.
 - Safety equipment such as dust mask, non-skid safety shoes, hard hat, or hearing protection used for appropriate conditions will reduce personal injuries.
- c) Avoid accidental starting. Ensure the switch is in the off position before plugging in.
 - Carrying power tools with your finger on the switch or plugging in power tools that have the switch on invites accidents.

- d) Remove any adjusting key or wrench before turning the power tool on.
 - A wrench or a key left attached to a rotating part of the power tool may result in personal injury.
- e) Do not overreach. Keep proper footing and balance at all times.
 - This enables better control of the power tool in unexpected situations.
- f) Dress properly. Do not wear loose clothing or jewellery. Keep your hair, clothing and gloves away from moving parts.
 - Loose clothes, jewellery or long hair can be caught in moving parts.
- g) If devices are provided for the connection of dust extraction and collection facilities, ensure these are connected and properly used.

Use of these devices can reduce dust related hazards.

4) Power tool use and care

- a) Do not force the power tool. Use the correct power tool for your application.
 - The correct power tool will do the job better and safer at the rate for which it was designed.
- b) Do not use the power tool if the switch does not turn it on and off.
 - Any power tool that cannot be controlled with the switch is dangerous and must be repaired.
- c) Disconnect the plug from the power source before making any adjustments, changing accessories, or storing power tools. Such preventive safety measures reduce the risk
 - of starting the power tool accidentally.
- d) Store idle power tools out of the reach of children and do not allow persons unfamiliar with the power tool or these instructions to operate the power tool.
 - Power tools are dangerous in the hands of untrained users.
- e) Maintain power tools. Check for misalignment or binding of moving parts, breakage of parts and any other condition that may affect the power tools operation.

If damaged, have the power tool repaired before use.

Many accidents are caused by poorly maintained power tools.

- f) Keep cutting tools sharp and clean.
 - Properly maintained cutting tools with sharp cutting edges are less likely to bind and are easier to control.
- g) Use the power tool, accessories and tool bits etc., in accordance with these instructions and in the manner intended for the particular type of power tool, taking into account the working conditions and the work to be performed.

Use of the power tool for operations different from intended could result in a hazardous situation.

5) Service

Have your power tool serviced by a qualified repair person using only identical replacement parts.

This will ensure that the safety of the power tool is maintained.

PRECAUTION

Keep children and infirm persons away.

When not in use, tools should be stored out of reach of children and infirm persons.

SAFETY INSTRUCTIONS FOR ALL SAWS

DANGER:

 Keep hands away from cutting area and the blade. Keep your second hand on auxiliary handle, or motor housing.

If both hands are holding the saw, they cannot be cut by the blade.

b) Do not reach underneath the workpiece.

The guard cannot protect you from the blade below the workpiece.

 Adjust the cutting depth to the thickness of the workpiece.

Less than a full tooth of the blade teeth should be visible below the workpiece.

- d) Never hold piece being cut in your hands or across your leg. Secure the workpiece to a stable platform. It is important to support the work properly to minimize body exposure, blade binding, or loss of control.
- e) Hold power tool by insulated gripping surfaces when performing an operation where the cutting tool may contact hidden wiring or its own cord.

Contact with a "live" wire will also make exposed metal parts of the power tool "live" and shock the operator.

f) When ripping always use a rip fence or straight edge guide.

This improves the accuracy of cut and reduces the chance of blade binding.

g) Always use blades with correct size and shape (diamond versus round) of arbour holes.

Blades that do not match the mounting hardware of the saw will run eccentrically, causing loss of control.

 Never use damaged or incorrect blade washers or bolt.

The blade washers and bolt were specially designed for your saw, for optimum performance and safety of operation.

O Never use any abrasive wheels

Burst of abrasive wheel cause serious injury of operator or persons around the working area.

FURTHER SAFETY INSTRUCTIONS FOR ALL SAWS

Causes and operator prevention of kickback:

- kickback is a sudden reaction to a pinched, bound or misaligned saw blade, causing an uncontrolled saw to lift up and out of the workpiece toward the operator;
- when the blade is pinched or bound tightly by the kerf closing down, the blade stalls and the motor reaction drives the unit rapidly back toward the operator;
- if the blade becomes twisted or misaligned in the cut, the teeth at the back edge of the blade can dig into the top surface of the wood causing the blade to climb out of the kerf and jump back toward the operator.

Kickback is the result of saw misuse and/or incorrect operating procedures or conditions and can be avoided by taking proper precautions as given below.

 Maintain a firm grip with both hands on the saw and position your arms to resist kickback forces.
 Position your body either side of the blade, but not in line with the blade.

- Kickback could cause the saw to jump backwards, but kickback forces can be controlled by the operator, if proper precautions are taken.
- b) When blade is binding, or when interrupting a cut for any reason, release the trigger and hold the saw motionless in the material until the blade comes to a complete stop.

Never attempt to remove the saw from the work or pull the saw backward while the blade is in motion or kickback may occur.

Investigate and take corrective actions to eliminate the cause of blade binding.

c) When restarting a saw in the workpiece, centre the saw blade in the kerf and check that saw teeth are not engaged into the material.

If saw blade is binding, it may walk up or kickback from the workpiece as the saw is restarted.

 Support large panels to minimize the risk of blade pinching and kickback.

Large panels tend to sag under their own weight. Supports must be placed under the panel on both sides, near the line of cut and near the edge of the panel.

e) Do not use dull or damaged blades.

Unsharpened or improperly set blades produce narrow kerf causing excessive friction, blade binding and kickback.

f) Blade depth and bevel adjusting locking levers must be tight and secure before making cut. If blade adjustment shifts while cutting, it may cause binding and kickback.

g) Use extra caution when making a "plunge cut" into existing walls or other blind areas.

The protruding blade may cut objects that can cause kickback.

SAFETY INSTRUCTIONS FOR SAWS WITH INNER PENDULUM GUARD

Check lower guard for proper closing before each use.
Do not operate the saw if lower guard does not move freely and close instantly. Never clamp or tie the lower guard into the open position.

If saw is accidentally dropped, lower guard may be bent.

Raise the lower guard with the retracting handle and make sure it moves freely and does not touch the blade or any other part, in all angles and depth of cut

 b) Check the operation of the lower guard spring. If the guard and the spring are not operating properly, they must be serviced before use.

Lower guard may operate sluggishly due to damaged parts, gummy deposits, or build-up of debris.

c) Lower guard should be retracted manually only for special cuts such as "plunge cuts" and "compound cuts". Raise lower guard by retracting handle and as soon as blade enters the material, the lower guard must be released.

For all other sawing, the lower guard should operate automatically.

d) Always observe that the lower guard is covering the blade before placing saw down on bench or floor.

An unprotected, coasting blade will cause the saw to walk backwards, cutting whatever is in its path. Be aware of the time it takes for the blade to stop after switch is released.

PRECAUTIONS ON USING METAL CUTTING SAW

- Do not use saw blades which are deformed or cracked.
- 2. Do not use saw blades made of high speed steel.
- Do not use saw blades which do not comply with the characteristics specified in these instructions.
- Do not stop the saw blades by lateral pressure on the disc.
- 5. Always keep the saw blades sharp.
- Ensure that the lower guard moves smoothly and freely.
- 7. Never use the metal cutting saw with its lower guard fixed in the open position.
- Ensure that the retraction mechanism of the guard system operates correctly.
- Never operate the metal cutting saw with the saw blade turned upward or to the side.
- Ensure that the material is free of foreign matters such as nails.

- 11. For model CD7SA the saw blades should be from 180mm to 185mm.
- 12. For model CD7SA, be careful of brake kickback. Model CD7SA features an electric brake that functions when the switch is released. As there is some kickback when the brake functions, be sure to hold the main body securely.
- Sparks can sometimes appear caused by braking operation when the switch is turned off since model CD7SA employ electric brakes. Be informed, however, that this phenomenon is not a machine trouble.
- For model CD7SA, when the brake becomes ineffective, replace the carbon brushes with new ones
- Disconnect the plug from the receptacle before carrying out any adjustment, servicing or maintenance.

SPECIFICATIONS

Voltage	220V √
Max. cutting depth	63 mm
Power Input*	1140 W
No-Load Speed	3700 / min
Weight (without cord)	4.0 kg

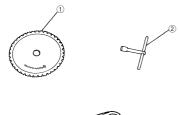
STANDARD ACCESSORIES

 ① Carbide Tipped Saw Blade
 1

 ② Box Wrench
 1

 ③ Guide
 1

 ④ Eye Protection
 1





Standard accessories are subject to change without notice.

OPTIONAL ACCESSORIES (sold separately)

Carbide tipped saw blade

Blade	Outer diameter	Hole diameter	Tip width	Thickness of saw blade	Number of teeth
For cutting soft steel materials	180 mm	20 mm	1.8 mm	1.5 mm	34 teeth
Tor cutting soit steer materials	185 mm	20 mm	2.0 mm	1.6 mm	38 teeth
For cutting soft steel materials (Low noise type)	185 mm	20 mm	2.0 mm	1.6 mm	38 teeth
For cutting thin, soft steel materials	185 mm	20 mm	2.0 mm	1.6 mm	48 teeth
For cutting thin, soft steel materials (Low noise type)	100 111111	20 111111	2.0 111111	1.6 111111	40 (66(1)
For cutting aluminium sash materials	185 mm	20 mm	2.0 mm	1.4 mm	60 teeth
For cutting stainless steel materials	180 mm	20 mm	1.8 mm	1.4 mm	56 teeth

Optional accessories are subject to change without notice.

APPLICATION

	Blades	Uses
Standard accessories	Soft steel use blade	For cutting various types of soft steel materials such as flat steel strips, pipe, steel channels ("C" channels, "L" angles,
	Tipped saw blades: For cutting soft steel materials For cutting soft steel materials (Low noise type)	etc.).
Optional accessories	Tipped saw blades: For cutting thin, soft steel materials For cutting thin, soft steel materials (Low noise type)	Caution: Cannot be used for cutting tempered steel materials.
Optional	Tipped saw blades: Aluminum sash material cutting use	O For cutting aluminum sash materials only.
	Tipped saw blades: Stainless steel material cutting use	For cutting stainless steel materials such as flat steel sheets, round pipes, etc.

 Refer to Page 16: "Selecting the proper tipped saw blade for different materials"

PRIOR TO OPERATION

 This product has double insulation. However, to avoid electric shocks, be sure to use a power source that is equipped with a circuit breaker to cope with power leakage and sudden surges.

2. Power source

Ensure that the power source to be utilized conforms to the power requirements specified on the product nameplate.

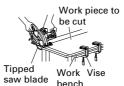
3. Power switch

Ensure that the power switch is in the OFF position. If the plug is connected to a receptacle while the power switch is in the ON position, the power tool will start operating immediately, which could cause a serious accident.

4. Extension cord

When the work area is removed from the power source, use an extension cord of sufficient thickness and rated capacity. The extension cord should be kept as short as practicable.

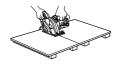
5. Preparing a wooden work bench



Work piece with the surface below the Projection distance of of the work bench or the Tipped saw blade saw blade do not come into contact with the surface below the work piece (e.g., the surface of the work bench or the ground, floor, etc.). To make sure that this does

The outer edge of the tipped saw blade projects from the bottom of the work piece being cut. Therefore, the material should be placed on a work bench when cutting. In addition, care should be taken to see that the tipped saw blade and lower guard

distance of of the work bench or the the tipped ground, floor, etc.). To make sure that this does not happen, the work piece (material to be cut) should be at a height above the surface below the work piece that is equal to at least three times the distance (width) that the blade projects below the work piece.



In situations like this, it is safer to make sure that the material is firmly secured in place using a vise so that both hands can be used to operate the metal cutting saw. If the piece to be cut off is large in size, care must be taken to see that the weight of the piece being cut off does not press on the saw blade. To prevent the saw blade from being caught between the two pieces, the piece being cut off should be supported using a stable bench or braced in place using wooden supports.

If separate wooden supports are to be used to support the piece being cut off, when cutting at a work bench, they should be positioned on a flat surface and fixed in place. It is dangerous to allow the work bench to wobble or shift position while cutting materials with the metal cutting saw.

6. Checking to see that the tipped saw blade is attached firmly in position

Always check to see that the tipped saw blade is attached firmly in position. For details, see Page 17: "Attached and removing the tipped saw blade".

- Check the lever to see that is properly tightened. Insufficient tightening of the cutting adjustment lever may cause personal injury.
 - Be sure to check that it is firmly tightened.

8. Check to see whether the lower guard moves. CAUTION

Do not fasten the lower guard permanently in one position. Make sure that it can move smoothly. Leaving the tipped saw blade exposed can result in accidents.

The lower guard is used to prevent the body of the user from coming into contact with tipped saw blade. Be sure that the lower guard can be moved into place and is covering the blade. If for any reason, the lower guard will not move into position to cover the blade, discontinue the use of the metal cutting saw. Please contact an Authorized HiKOKI Service Center for repair.

9. Making adjustments before using the metal cutting saw

(1) Adjusting the cutting depth (Fig. 1)

CAUTION

If the cutting depth lever is not firmly tightened, accidents may result. After adjusting the cutting depth, make sure to tighten the cutting depth lever firmly.

Loosen the lever and move the base, then you can adjust the depth of cutting.

(2) Attaching and adjusting the guide (Fig. 2)

Loosen the wing bolt and slide the guide into the slot at the base. Move the guide left or right to adjust the location of the cut to be made. After adjusting the quide, fix it firmly in place by tightening the wing bolt.

10. Check to see that the brake is functioning properly This metal cutting saw is designed so that when the switch is turned off, the brake automatically

the switch is turned off, the brake automatically functions. If for any reason the brake fails to operate, please contact an Authorized HiKOKI Service Center for repair.

CAUTION

The metal cutting saw will recoil when the brake operates.

This can cause the operator to drop the metal cutting saw, resulting in accidents.

11. Check the power plug

If the power plug is loose or pulls out easily from the socket, call your local electric repair service and have the connection repaired.

SELECTING THE CORRECT TIPPED SAW BLADE FOR DIFFERENT MATERIALS

In order to get the best performance from your metal cutting saw, it is important to select the correct type of tipped saw blade for the type of material to cut.

Please use the blades best suited for cutting different thickness of different materials as shown below.

Selecting	the best	blade by type of mat	erial to be cut	-	Most suitable Guitable
	ped saw ade type	Blades for cutting soft steel materials	Blades for cutting thin, soft steel materials	Blade for cutting aluminum sash materials.	Blades for cutting stainless steel materials
		-JJT			707
Material T (mm	1)	Outer diameter: 185mm Number of teeth: 38 Outer diameter: 180mm Number of teeth: 34	Outer diameter: 185mm Number of teeth: 48	Outer diameter: 185mm Number of teeth: 60	Outer diameter: 180mm Number of teeth: 56
Lip channels	1.6 ~ 3.2	0	0	_	_
Light U channels	1.6 ~ 2.3	0	0	_	_
TA	3.2	©	©	_	_
Steel base support forms	0.5 ~ 0.8	0	0	_	_
Angle forms	3	0	0	_	_
T-	4 ~ 6	0	_	_	_
Steel plate	4 ~ 12	0	_	_	_
Square pipe	1.2 ~ 2.3	0	0	_	_
T-D	3.2 ~ 3.5	0	0	_	_
Round pipe (Structural use, wiring conduit use, pressure use)	1.2 ~ 2.8	0	0	_	_
T-6	3.2 ~ 3.5	©	0	_	_
Aluminum sashes	إبابا	_	_	©	_
Stainless plate T	2	_	_	_	0
Stainless pipe (round) T	2	_	_	_	0

HOW TO USE

CAUTION:

- If the tipped saw blade stops suddenly, makes an abnormal sound, etc., immediately turn off the switch.
- O Do not use cutting oil on the blade.
 - Such substances as cutting oil, polishing oils and waxes can catch fire from sparks when cutting.
- When using the metal cutting saw, always wear eye protection.
- Be sure that the materials are secured firmly in position. If the materials are not properly secured in position, they may fly about causing damage to the tipped saw blade.
- When cutting is finished, immediately turn off the power and unplug the metal cutting saw.
- Be careful as not to cut the unit cord with the rotating tipped saw blade.
- Discard cutting dust before the dust cover becomes completely full.
 - If the metal cutting saw is used when the cutting dust is pressed against the dust cover, the

- performance of the dust collector will drop and the temperature of the dust cover (B) will rise. This may cause dust cover (C) to warp or melt.
- Wear ear plugs to protect ears from effects of the sound.
- If the cutting depth adjustment is too shallow, the cut may tend to open lowering the performance of the cutting dust collector.
- When cutting the surface of a wall, the rate of accumulation of cutting dust inside the dust cover may change and may lower the performance of the cutting dust collector.
- Use a tipped saw blade that is suitable for the material being cut.
- When cutting, push the blade straight and forward without letting the blade curve to the left and right.
- Push the blade forward slowly, especially when beginning to cut and when coming to the end of the cut.
- Do not turn on the metal cutting saw with the blade pressed against the cutting material. Do not turn off the metal cutting saw in the midst of cutting

- a piece of material. In a case where it is absolutely necessary to turn the metal cutting saw off in the middle of cutting a work piece, pull the chip saw back with the blade still turning and after it is no longer in contact with the work piece material, then turn the power switch off.
- Do not to try to cut the same work piece two times in the same location.
- 1. Place the main body (base) on the surface of the work piece and align the slit on the forward edge of the base with the sighting line. The arrow mark on the projection in the dust cover (A) and the slit in the base will be aligned and can be used for positioning the metal cutting saw. (See Fig. 3) If the sighting line is hard to see when working in a dark place etc., turn on the LED light and align the sighting line with the slit in the forward edge of the base. (See Fig. 4)
- Without allowing the blade to touch the material, turn on the power switch. When the blade has attained its maximum speed, push the metal cutting saw slowly forward and maintain the same speed until the cut is completed.
 - To keep the cut clean, push the saw forward at the same speed.
- The slit in the base indicats the position of the edge of the blade at further end of the cut. This is useful when cutting the work piece to a mid-way point. (See Fig. 5)

ATTACHING AND REMOVING BLADES

CAUTION:

- Always turn the power switch off first and remove the plug from the socket.
- Use the box wrench that is supplied with the metal cutting saw. Do not use other tools as this may result in over-tightening or in sufficient tightening of the wing bolt that holds the blade in place causing accidents.
- 1. Removing the blade
- (1) Loosen the two special bolts and remove dust covers (A) and (B). (See **Fig. 6**).
- (2) Adjust the cutting depth of the blade to the minimum position and place the tipped saw cutter on a flat, stable surface. (See Fig. 7).
- (3) While pushing in the lock lever, slowly unscrew the bolt using the box wrench provided.
- (4) Holding the spindle in position, turn the box wrench counter-clockwise and remove the bolt and the washer (B).
- (5) Remove the tipped saw blade in direction (A).

2. Attaching the blade

CAUTION:

- After using the tipped saw blade, dust covers (A) and (B) may become hot. Take caution when handling.
- O Do not forget to use the distance piece.
- Before plugging in the metal cutting saw, be sure to check to see whether the lock lever has been returned to its original position and that the tipped saw blade can rotate smoothly.
- (1) Follow the blade removal routine in reverse.
- (2) Remove any cutting dust that may have adhered to the spindle or the washers.

- (3) When a chip saw blade with a 20mm diameter is to be attached, place washer (A) with the shallow recessed portion turned toward the blade side. When the hole diameter is 19mm, place the side of washer (A) with the more deeply recessed portion toward the blade.
 - For both cases, the (B) washer is used with its recessed portion facing toward the blade. (See Fig. 8)
- (4) Make sure that the arrow mark on the side of the blade is aiming the direction as the direction of arrow on the gear cover. (See Fig. 9)
- (5) Be sure to tighten the bolt sufficiently.

THROWING AWAY THE CUTTING DUST

CAUTION:

- To prevent possible accidents, always turn the metal cutting saw off and unplug before attempting to empty out the cutting dust.
- Cutting dust from metal materials may be very hot.
 Do not touch the cutting dust or dust covers (A) or (B) with bare hands.
- Be careful when handling dust covers (A) and (B) as not to bend them. If they become bent, cutting dust may spill out.

1. Throwing away the cutting dust

If too much cutting dust accumulates inside dust covers (A) and (B), the performance of dust collector may decrease. Be sure to empty out the cutting dust before the dust receptacle becomes full.

- (1) ① Hold the (resin) knob and push the latch down to disengage the lock. (See Fig. 10 (A))
 - ② Pull dust cover (B) back to remove. (See Fig. 10 (B), (C))
 - ③ Remove dust cover (B) and throw away the cutting dust. (See Fig. 11)
- (2) Remove any cutting dust that has adhered to dust covers (A) and (B) and wipe them with a rag, etc.
- (3) ① Insert the dust cover (B) hook into the hole for inserting the hook in dust cover (A). (See Fig. 12 (A)
 - 2 Push the latch down. (See Fig. 12 (B))
 - ③ Push dust cover (B) forward to replace. (See Fig. 12 ©)

After replacing the dust cover, check that the lock is securely engaged.

 When the two special bolts are loosened, dust covers (A) and (B) can be removed with the cutting dust still inside. (See Fig. 13)

The cutting dust can then be thrown away without spilling it.

MAINTENANCE AND INSPECTION

1. Inspecting the carbide tipped saw blade

Since use of a dull saw blade will cause motor malfunctioning and degraded efficiently, replace with a new one without delay when abrasion is noted.

2. Inspecting the mounting screws

Regularly inspect all mounting screws and ensure that they are properly tightened. Should any of the screws be loose, retighten them immediately. Failure to do so could result in serious hazard.

3. Maintenance of the motor

The motor unit winding is the very "heart" of the power tool

Exercise due care to ensure the winding does not become damaged and/or wet with oil or water.

4. Inspecting the carbon brushes (Fig. 14)

The motor employs carbon brushes which are consumable parts. Since an excessively worn carbon brush can result in motor trouble, replace the carbon brushes with new ones having the same carbon brush No. shown in the figure when it becomes worn to or near the "wear limit". In addition, always keep carbon brushes clean and ensue that they slide freely within the brush holders.

5. Replacing carbon brushes

Disassemble the brush caps with a slotted-head screwdriver. The carbon brushes can then be easily removed.

6. Service parts list

CAUTION

Repair, modification and inspection of HiKOKI Power Tools must be carried out by an HiKOKI Authorized Service Center.

This Parts List will be helpful if presented with the tool to the HiKOKI Authorized Service Center when requesting repair or other maintenance.

In the operation and maintenance of power tools, the safety regulations and standards prescribed in each country must be observed.

MODIFICATIONS

HiKOKI Power Tools are constantly being improved and modified to incorporate the latest technological advancements.

Accordingly, some parts may be changed without prior notice.

NOTE

Due to HiKOKI's continuing program of research and development, the specifications herein are subject to change without prior notice.

BASE RETAINING RING (E-TYPE) FOR D8 SHAFT INCLEVER HEX. SOCKET SET SCREW MEx8 TAPPING SCREW D2.6x10 LED COVER (B) LED COVER (B) LED HOLDER CARBON BRUSH BRUSH HOLDER CARBON BRUSH BRUSH CAPPING SCREW MICH INCLUDER CARBON BRUSH BRUSH CAP NAME PLATE SIDE HANDLE (A)
50
BRAND PLATE SEAL LOCK FLAT HD. SCREW M5x12 WASHER BALL BEARING 6202VVCMPS2L LOWER GLARD BEARING CAP MACHINE SCREW (WSP. WASHER) M4x10 NICTAINCE BICCE
HD. SCREW M5x12 8202VVCMPS2L 8XSP. WASHER) M4x10
HD. SCREW MB×12 3 S202VVCMPS2L 1 S202VVCMPS2L 1 MSP. WASHER) M4×10 3
55 5202VVCMPS2L 1 56 56 57 57 57 57 57 57 57 57 57 57 57 57 57
MSP. WASHER) M4×10 3 59
3 59
3
200 - C - C - C - C - C - C - C - C - C -
1 62
1 63
1 64
1NG 1 65
1 66
ADE 1 67
1 68
1 69
MACHINE SCREW (W/WASHERS) M5×40 4 /0 SWITCH (W/COVER)
R 1 72
1 73
STATOR ASS'Y 1 74 NOISE SUPPRESSOR
1 75
1 76
1 77
2 78
W (W/WASHERS) M4×10 2 79
/ER 1 80
1 201
1 502
BALL BEARING 6001VVCMPS2L 1 503 SAFETY GLASSES
BRUSH TERMINAL 2
HEX. HD. TAPPING SCREW D5×70 2
SPRING 1
ROLL PIN D6x32
WING BOLT M6×12
SPECIAL BOLT MB

Koki Holdings Co., Ltd.

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