HiKOKI

冲击电扳手 Impact Wrench

WR 22SE • WR 25SE



保留备用 Keep for future reference



使用说明书 Handling instructions

目次

电动工具通用安全警告2	作业之前6
冲击电扳手安全警告4	
其它安全警告4	
符号5	
规格5	
选购附件(分开销售)6	

电动工具通用安全警告

▲警告!

阅读随电动工具提供的所有安全警告、说明、图示和规定。不遵照以下所列说明会导致电击、着火和/或严重伤害。

保存所有警告和说明书以备查阅。

在所有下列的警告中术语"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。

- a) 工作场地的安全
 - 1) **保持工作场地清洁和明亮。** 杂乱和黑暗的场地会引发事故。
 - 2) 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。
 - 3) 操作电动工具时,远离儿童和旁观者。 注意力不集中会使你失去对工具的控制。
- b) 电气安全
 - 1) 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降低电击风险。

- 2) 避免人体接触接地表面,如管道、散热片和冰箱。 如果你身体接触接地表面会增加电击风险。
- 3) 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电击风险。
- 4) 不得滥用软电线。绝不能用软电线搬运、拉动电动工具或拔出其插头。使 软电线远离热源、油、锐边或运动部件。 受损或缠绕的软线会增加电击风险。
- 5) 当在户外使用电动工具时,使用适合户外使用的延长线。 适合户外使用的电线将降低电击风险。

6)如果无法避免在潮湿环境中操作电动工具,应使用带有剩余电流装置(RCD)保护的电源。

RCD的使用可降低电击风险。

c) 人身安全

1)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。当你感到疲倦, 或在有药物、酒精或治疗反应时,不要操作电动工具。 在操作电动工具时瞬间的疏忽会导致严重人身伤害。

2) 使用个人防护装置。始终佩戴护目镜。

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

3) 防止意外起动。在连接电源和/或电池包、拿起或搬运工具前确保开关处于关断位置。

手指放在开关上搬运工具或开关处于接通时通电会导致危险。

- 4) 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。
- 5) 手不要过分伸展。时刻注意立足点和身体平衡。 这样能在意外情况下能更好地控制住电动工具。
- 6) 着装适当。不要穿宽松衣服或佩戴饰品。让你的头发和衣服远离运动部件。 宽松衣服、佩饰或长发可能会卷入运动部件。
- 7) 如果提供了与排屑、集尘设备连接用的装置,要确保其连接完好且使用得当。使用集尘装置可降低尘屑引起的危险。
- 8) 不要因为频繁使用工具而产生的熟悉感而掉以轻心,忽视工具的安全准则。 某个粗心的动作可能在瞬间导致严重的伤害。
- d) 电动工具使用和注意事项
 - 1) 不要勉强使用电动工具,根据用途使用合适的电动工具。 选用合适的按照额定值设计的电动工具会使你工作更有效、更安全。
 - 2) 如果开关不能通过或关断电源,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。
 - 3) 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/或卸下电池包(如可拆卸)。

这种防护性的安全措施降低了电动工具意外起动的风险。

4) 将闲置不用的电动工具贮存在儿童所及范围之外,并且不允许不熟悉电动工具和不了解这些说明的人操作电动工具。

电动工具在未经培训的使用者手中是危险的。

5)维护电动工具及其附件。检查运动部件是否调整到位或卡住,检查零件破损情况和影响电动工具运行的其他状况。如有损坏,应在使用前修理好电动工具。

许多事故是由维护不良的电动工具引发的。

中文

6) **保持切削刀具锋利和清洁。** 维护良好的有锋利切削刃的刀具不易卡住而且容易控制。

7) 按照使用说明书,并考虑作业条件和要进行的作业来选择电动工具、附件和工具的刀头等。

将电动工具用于那些与其用途不符的操作可能会导致危险情况。

8) 不要因为频繁使用工具而产生的熟悉感而掉以轻心,忽视工具的安全准则。 某个粗心的动作可能在瞬间导致严重的伤害。

e) 维修

1) 由专业维修人员使用相同的备件维修电动工具。 这将保证所维修的电动工具的安全。

注意!

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。

冲击电扳手安全警告

 在紧固件可能触及暗线或其自身软线之处进行操作时,要通过绝缘握持面来 握持工具。

紧固件碰到带电导线会使工具外露的金属零件带电从而使操作者受到电击。

其它安全警告

- 1. 在高处使用本工具时,应确认底下是否有人。
- 2. 长时间使用本工具时,请使用耳塞。
- 3. 要改变扳手的旋转方向时,只能在马达完全停止后才能打开倒向开关。
- 4. 使用长的延长线时,请使用升压变压器。
- 5. 为了断定确实是使用了正确的旋紧转矩,请在使用本工具之前,用转矩扳手确认旋紧转矩。
- 6. 请用插销和套环,将套筒正确地装进冲击扳手上。
- 7. 请确认套筒内是否有裂缝。
- 8. 操作时,请紧紧握住冲击扳手的手柄和侧把手。否则,所产生的反作用力会 导致不正确的操作,甚至会引起危险。

符号

警告!

如下所示的符号用于本机。使用前请务必理解其含意。

	为降低伤害风险,用户必须阅 读使用说明书	min/min		运行时间 / 停机时间
V	额定电压		/min	每分钟转动次数
Α	电流	(F) 顺时针旋转		
W	瓦		逆时针旋	定转
n ₀	无负荷速度		二类工具	1.

规格

型式		WR22SE	WR25SE		
电压(根据地区) *	(110V、120V、220V、230V、240V)~			
电源输入*		800 W 900 W			
无负荷速度 / 冲!	設度	1400/2000 /min	1100/1500 /min		
四角传动		19 mm	25.4 mm		
容量	高抗拉螺栓	M16 — M22	M22 — M24		
(螺栓尺寸) 普通螺栓		M14 — M24	M22 — M30		
旋紧扭矩(最大)**		620 N·m	1000 N·m		
重量		4.6 kg	7.7 kg		

^{*} 因地区而异,故请务必确认产品上的标牌。

^{**} 在额定电压下不带外接电线地拧紧螺栓。

中文

选购附件(分开销售)

1. 各类插座

虽然HiKOKI的气动扳手在配送时仅附有一个标准插座,但是插座的种类足够满足各类尺寸及型号的螺栓进行气动紧固之用。

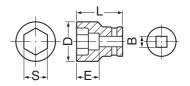


表 1

В			普通	插座		长插座					
_ \	尺寸 (mm) 尺寸 (mm)										
(mm)	S	D	Е	L	代码号	S	D	Е	L	代码号	
	23	38	15		874527						
	24	40	15		874528	24	34	23	60	955033	
	26	42	16	1.0	874529	26	38	25	85	955034	
19	27	43	10	10	55	874530	27	39	26	85	955035
19	30	47		55	874532	30	43	26	85	955037	
	32	50	19		874523	32	46	26	100	955038	
	35	52	19		874533						
	36	55			874534	36	55	26	55	955092	
25.4	36	58	40	72	956080						
25.4	41	63	38	68	873636						

2. 接长杆:代码号 873633

在非常狭小的空间内工作时,或者所提供的插座无法触及要进行旋紧的螺栓时,使用接长杆就显得很方便。



注意!

使用接长杆时,旋紧扭矩相比于普通插座会略微变小。因此就有必要在工具 上略微较远的位置进行操作,从而获得同样的扭矩。

作业之前

- 1. 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。
- 2. 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。

3. 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。 延伸线缆要尽可能地短些。

4. 检查插座

如果插头插人插座后非常松动, 就必须对插座进行修理。

联系持证电工,进行妥善修理。

如果使用这样的问题插座,可能会引起过热现象,进而造成严重危害。

5. 确认环境条件

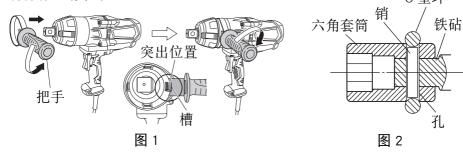
确认工作场所条件合适,且符合规定的预防措施。

6. 安装侧把手

松开把手后,将把手滑到主机上并拧紧把手,进行固定。滑到主机上时,确保将主机的突出位置与侧把手槽对准。(图 1)

7. 选择合适的套筒

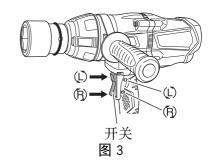
请选择一个大小与需要旋紧或者旋松的螺栓相配的套筒。将其插进扳手的铁砧后,再用插销和套环将其固定住。拆卸套筒时,请按照与上述相反顺序进行操作。(图 2)



使用方法

1. 开关的操作(图 3)

此工具上的开关具有开关马达及转换马达旋转方向的功能。将开关设于标志在把手上的"R"位置时,马达朝着顺时针方向旋转而旋紧螺栓。将开关设于"L"位置时,马达朝着逆时针方向旋转而旋松螺栓。而松开开关时,马达便停止旋转。



注意!

改变扳手的旋转方向之前,请关掉开关并等到马达完全停止。如在马达旋转 时进行开关操作的话,将就会烧毁马达。

中文

2. 旋紧或旋松螺栓

请事先选择一个与螺栓或螺母配套的六角套筒,然后将此套筒装配在铁砧上,并用六角套筒扣住所要旋转的螺母。将扳手对准螺栓,然后按下电源开关冲击螺母数秒钟。如果螺母一直不能被紧固地固定在螺栓上,则说明螺栓跟着螺母一起在转。这时,请停止冲击,用另一个扳手固定住螺栓头部然后再重新冲击或用手旋紧螺栓和螺母以防它们滑动。

操作时的注意事项

- 1. 在连续操作时不要接触减震器和电动锤 在连续旋转上紧过程中减震器和电动锤会变热,所以在这过程中务必要小心 不要接触它们。
- 2. 使用最佳旋紧转矩

最适合螺母和螺栓的旋紧转矩因螺母和螺栓的材料、尺寸而导。对小的螺栓施加过大的旋紧转矩会导致螺栓的变形或断裂。旋紧转距随着操作时间的增加而增大,请正确掌握对螺栓的操作时间。

3. 选择与螺栓相配的套筒

注意要选择使用与螺栓相配的套筒,使用不相配的套筒时,不仅会影响旋紧力,还会使套筒或螺母受损。

如使用已损坏了的、或已变形的六角或四角套筒,由于无法得到适当的旋紧力,因而会导致旋紧转矩的损失。

请注意套筒内部的磨损,并请在磨损程度加重之前更换之。和螺栓尺寸配套的套筒示于第 6 页的表 1。

套筒牌号处的数值表示六角型孔的一边到另外一边的距离(S)。

4. 扳手的拿法

请用双手紧紧地握住冲击扳手的主柄和边柄。并将扳手对准螺栓。 没有必要对扳手施加太大的力,只需施加可抵消冲击力的力即可。

5. 确保施紧转矩

以下各个因素与旋紧转矩相关。为了确保旋紧转矩,必须在开始操作之前先 用普通的扳手把螺栓旋紧。

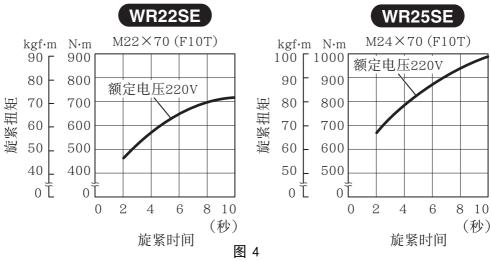
与旋紧转矩相关的因素如下:

(1)线电压

旋紧转矩会随着线电压的降低而减小。

(2) 操作时间

旋紧转矩会随着操作时间的增加而增大。但是,旋紧转矩达到临界值后,即 使操作时间再长旋紧转矩也不再增大。(请参考 图 4)



(3) 螺栓的直径

旋紧转矩会因螺母的直径而导。通常,螺母的直径越大,旋紧转矩便也越大。

(4) 旋紧条件

即使螺纹尺寸相同,旋紧转矩也因转矩率、螺栓的级别、及螺栓长度而异。 另外, 各螺栓的金属表面的状况不同也会导致各旋紧转矩相异。

(5) 洗购附件的使用

使用延长柄、万向接头、或长的套筒时, 旋紧转矩会相对减少。

(6) 套筒的障碍排除

如使用已损坏了的、或已变形的六角或四角套筒,由于无法得到适当的旋紧 力,因而会导致旋紧转矩的损失。

使用和螺栓不相配的套筒时,将不能获得足够得旋紧转矩。和螺栓尺寸配套 的套筒示于第6页的表1。

6. 保护功能

为了保护工具, 在发生任何问题时, 保护功能会启动, 自动停下本机。 (表2描述了可能会发生前述现象的每一种情况。)

表 2

所指示的情况 因负荷过大而启动自动停机(*1) 因工具内部温度超过指定温度水准而启动自动停机(*2)

中文

*1 负荷过大保护功能

对于过大的负荷,工具会停下以防损坏。 中断重载任务,拔出电源插座上的电源线。重 新将电源线插回插座时,工具将恢复正常。

*2 增加的温度保护功能

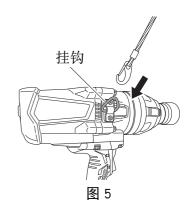
启动自动停机以防止因高温而受损。

对于使用大电流的作业或用于高温环境中时, 工具的内部温度会上升。

请让工具在继续运作前休息 10~15分钟。

7. 使用挂钩 (WR25SE)

使用挂钩时,要确保将绳或线牢牢紧固到挂钩上。(图 5)



注意!

切记,要使用非常坚韧的绳或线来支撑主机的重量,并承受下落冲击力。

维护和检查

警告!

在维护和检查期间,一定要"切断"电源,并将插座上的插头拔掉。

- 1. 套筒的检查
 - 如使用已损坏了的、或已变形的六角或四角套筒,由于无法得到适当的旋紧力,因而会导致旋紧转矩的损失。请对套筒内部的磨损程度紧行周期检查,必要时请换上新的套筒。
- 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. 更换电源线

如果需要更换电源线,则必须由此代理的生产厂商进行操作,以免发生危险。

5. 维修零部件一览表

注意!

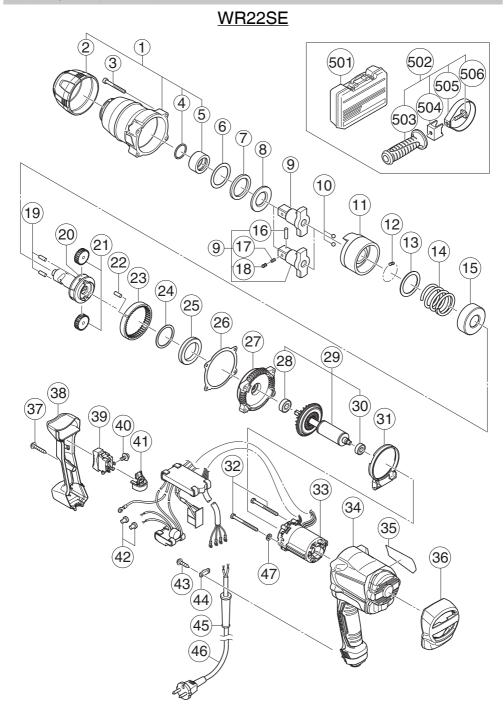
HiKOKI电动工具的修理、改动和检查工作必须由HiKOKI授权服务中心来做。

在请求进行修理或进行其他维护时,如果将所述维修零部件一览表与要修理的工具一同送到HiKOKI授权服务中心,将会很有帮助。在电动工具的操作和维护期间,必须遵守每个国家制定的安全条例和标准。

附加信息

生产月份和年份的数据见机器和包装的铭牌,以数字和字母编码的月份: 1-9 是 1-9 月、0 是 10 月、N 是 11 月、D 是 12 月,生产年份按当年度最后一位数字编码。

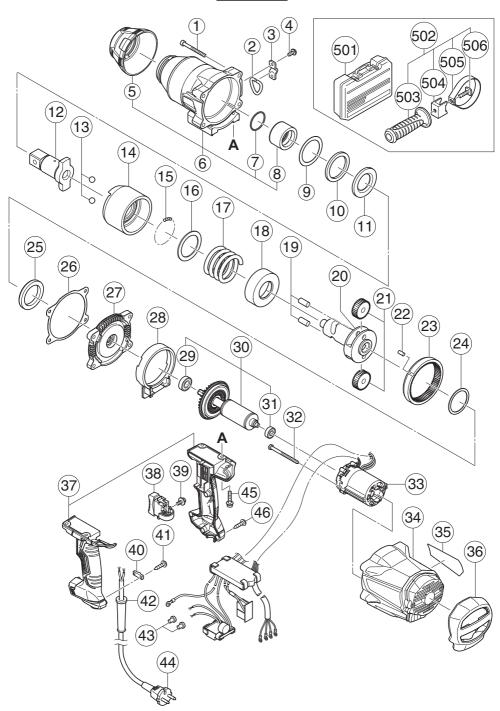
维修零部件一览表



-77:11		
项目 号	零件名称	数量
1	电动锤(D)总成	1
2	减震器 (D)	1
3	密封内六角螺栓M5	4
4	O型环	1
5	金属 (F)	1
6	垫圈 (D)	1
7	避震器(D)	1
8	垫圈 (F)	1
9	铁砧 (A)	1
9	铁砧(B)总成	1
10	钢珠D7.14	2
11	锤头 (D)	1
12	钢珠D3.969	38
13	锤头垫圈	1
14	弹簧	1
15	弹簧片	1
16	滚销D2×14	1
17	弹簧	1
18	柱塞	1
19	齿轮轴	2
20	锭子	1
21	惰齿轮	2
22	针辊D5×10	1
23	环状齿轮	1
24	垫圈(E)	1
25	金属(E)	1
26	填料 (D)	1
27	内盖 (D)	1
28	滚珠轴承	1
29	转子总成(D)	1
30	滚珠轴承	1
31	风扇导架 (D)	1
32	六角自攻螺丝 D4×60	2

项目 号	零件名称	数量
33	定子控制器(D)组	1
34	外罩 (D)	1
35	名牌	1
36	尾部减震器 (D)	1
37	自攻螺丝 (附法兰)	1
38	把手盖 (D)	1
39	开关	1
40	机用螺丝(附垫圈)	4
40	M3.5×5	4
41	开关适配器	1
42	连接器	2
43	自攻螺丝 (附法兰)	2
40	D4×16	
44	线夹	1
45	线保护壳	1
46	电线	1
501	塑料外壳	1
502	侧把手总成	1
503	侧把手	1
504	把手支架	1
505	把手环	1
506	方头螺栓 M8	1

WR25SE



구동 디		
项目 号	零件名称	数量
1	密封内六角螺栓M6×50	4
2	挂钩 (B)	1
3	挂钩(A)	1
4	密封螺螺丝 (附弹簧垫圈) M5×12	2
5	减震器 (C)	1
6	电动锤(C)	1
7	O型环(P-35)	1
8	金属 (B)	1
9	垫圈 (C)	1
10	避震器(C)	1
11	垫圈(B)	1
12	铁砧 (C)	1
13	钢珠D10.3	2
14	锤头 (C)	1
15	钢珠D4.76	35
16	锤头垫圈 (C)	1
17	锤头弹簧(C)	1
18	弹簧片 (C)	1
19	针辊	2
20	锭子 (C)	1
21	惰齿轮 (C)	2
22	针辊	2
23	环状齿轮(C)	1
24	垫圈 (A)	1
25	金属(A)	1
26	填料 (C)	1
27	内盖(C)	1
28	风扇导架(C)	1
29	滚珠轴承6001DDCMPS2L	1
30	转子总成	1
31	滚珠轴承608VV	1
32	六角自攻螺丝D5×70	2

项目 号	零件名称	数量
33	定子控制器(C)组	1
34	外罩 (C)	1
35	名牌	1
36	尾部减震器(C)	1
37	把手 (A) 、 (B) 组	1
38	开关	1
1 34 1	机用螺丝(附垫圈) M3.5×5	4
40 :	线夹	1
1 41 1	自攻螺丝(附法兰) D4×16	2
42	线保护壳D8.8	1
43	连接器50091	2
44	电线	1
1 45 1	内六角螺栓(附垫圈) M5×20	4
1 46 1	自攻螺丝(附法兰) D4×20	4
501	外壳(塑料)	1
502	侧把手总成	1
503	侧把手	1
504	把手支架	1
505	把手环	1
506	方头螺栓M8	1

CONTENTS	
GENERAL POWER TOOL SAFETY WARNINGS	
IMPACT WRENCH SAFETY WARNINGS	18
ADDITIONAL SAFETY WARNINGS	18
SYMBOLS	
SPECIFICATIONS	
OPTIONAL ACCESSORIES (sold separately)	20
PRIOR TO OPERATION	
HOW TO USE	
OPERATIONAL CAUTIONS	
MAINTENANCE AND INSPECTION	24
SERVICE PARTS LIST	26

GENERAL POWER TOOL SAFETY WARNINGS

MARNING

Read all safety warnings and all instructions.

Failure to follow the warnings and instructions may result in electric shock, fire and/or serious injury.

Save all warnings and instructions for future reference.

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

- 1) Work area safety
 - Keep work area clean and well lit.
 Cluttered or 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 or 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.
 - b) 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.
- 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.
- f) If operating a power tool in a damp location is unavoidable, use a residual current device (RCD) protected supply.
 - Use of an RCD reduces the risk of electric shock.

3) Personal safety

- 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 personal protective equipment. Always wear eye protection.

 Protective equipment such as dust mask, non-skid safety shoes, hard hat, or hearing protection used for appropriate conditions will reduce personal injuries.
- c) Prevent unintentional starting. Ensure the switch is in the off position before connecting to power source and/or battery pack, picking up or carrying the tool.
 - Carrying power tools with your finger on the switch or energising 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 dust collection 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 and/or the battery pack from the power tool 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.
- Maintain power tools. Check for misalignment or binding of moving parts, breakage of parts and any other condition that may affect the power tool's 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, taking into account the working conditions and the work to be performed.

Use of the power tool for operations different from those 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.

CAUTION

Keep children and infirm persons away.

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

IMPACT WRENCH SAFETY WARNINGS

O Hold power tool by insulated gripping surfaces, when performing an operation where the fastener may contact hidden wiring or its own cord.

Fasteners contacting a "live" wire may make exposed metal parts of the power tool "live" and could give the operator an electric shock.

ADDITIONAL SAFETY WARNINGS

- 1. When using the tool at a hight, make sure that there is nobody below.
- 2. Use earplugs if using for a long time use.
- 3. Switch the reversing switch only after the motor has stoped when it is necessary to change the direction of the rotation.
- 4. Use a step up transformer when a long extension cable is used.
- 5. Confirm the tightening torque by a torque wrench before use in order to assertain the correct tightening torque to be used.

- 6. Assemble the socket securely to the impact wrench with the socket pin and ring.
- 7. Confirm whether the socket has any cracks in it.
- 8. Always hold the handle and side handle of the impact wrench firmly. Otherwise the counterforce produced may result in inaccurate and even dangerous operation.

SYMBOLS

WARNING

The following show symbols used for the machine. Be sure that you understand their meaning before use.

	To reduce the risk of injury, user must read instruction manual.	min/min		Running Time/Down Time		
V	Rated voltage	/m	nin	revolutions per minute		
Α	Current	(F)	Clockwise rotation			
W	Watt	9	Counterclockwise rotation			
n ₀	No-load speed		Class II tool			

SPECIFICATIONS

Model		WR22SE	WR25SE	
Voltage (by areas)*	(110V, 120V, 220)	V, 230V, 240V) ∼	
Power input*		800 W	900 W	
No-load speed/lm	pact rate	1400/2000 /min	1100/1500 /min	
Square Drive		19 mm	25.4 mm	
Capacities	High tension bolt	M16 — M22	M22 — M24	
(size of bolts) Ordinary bolt		M14 — M24	M22 — M30	
Tightening Torque	e (Max.)**	620 N·m	1000 N·m	
Weight		4.6 kg	7.7 kg	

^{*} Be sure to check the nameplate on product as it is subject to change by areas.

^{**} Tightening the bolt without extension cord at rated voltage.

OPTIONAL ACCESSORIES (sold separately)

Variety of sockets
 Although the HiKOKI Impact Wrench i

Although the HiKOKI Impact Wrench is delivered with only one standard socket, ample sockets are available to cover impact tightening of various sizes and types of bolts.

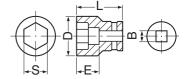
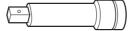


Table 1

		(rdinary	Socket		Long Socket						
B (mm)			imensio				C		on (mm)			
(mm)	S	D	Е	L	Code No.	S	D	Е	L	Code No.		
	23	38	4.5		874527							
	24	40	15		874528	24	34	23	60	955033		
	26	42	10	10	10		874529	26	38	25	85	955034
19	27	43	16	55	874530	27	39	26	85	955035		
19	30	47)))	874532	30	43	26	85	955037		
	32	50	10	10	19		874523	32	46	26	100	955038
	35	52	19		874533							
	36	55			874534	36	55	26	55	955092		
25.4	36	58	40	72	956080							
25.4	41	63	38	68	873636							

2. Extension bar: Code No. 873633

The extension bar is convenient for working in very restricted spaces or when the socket provided cannot reach the bolt to be tightened.



CAUTION

When the extension bar is used the tightening torque is reduced slightly compared with the ordinary socket. So it is necessary to operate the tool a little longer to get the same torque.

PRIOR TO OPERATION

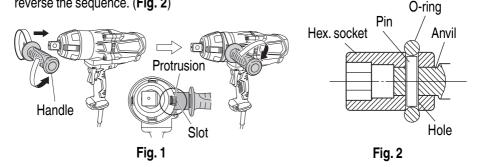
Power source

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

2. 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.

- 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.
- 4. Check the receptacle
 - If the receptacle only loosely accepts the plug, the receptacle must be repaired. Contact a licensed electrician to make appropriate repairs.
 - If such a faulty receptacle is used, it may cause overheating, resulting in a serious hazard.
- 5. Confirming condition of the environment
 - Confirm that the work site is placed under appropriate conditions conforming to prescribed precautions.
- 6. Mounting the side handle
 - After loosening the handle, slide it over the main unit and tighten the handle to secure it. When sliding over the main unit, make sure to align the unit's protrusion with the side handle's slot. (**Fig. 1**)
- 7. Mounting the socket
 - Select a socket matched to the bolt to be tightened or loosened. Insert the socket on the anvil of the wrench, and secure it with the pin and ring. When dismantling the socket, reverse the sequence. (**Fig. 2**)



HOW TO USE

1. Operation of switch (Fig. 3)

The switch in this machine functions as a motor switch and rotational direction selector switch. When the switch is set to R indicated on the handle cover, the motor rotates clockwise to tighten the bolt. When the switch is set to L, the motor rotates counterclockwise to loosen the bolt. When the switch is released, the motor stops.

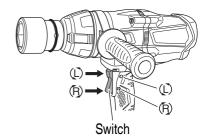


Fig. 3

CAUTION

Be sure to turn the switch OFF and wait until the motor completely stops before changing the direction of wrench revolution. Switching while the motor is rotating will result in burning the motor.

2. Tightening and loosening bolts

A hex socket matching the bolt or nut must first be selected. Then mount the socket on the anvil, and grip the nut to be tightened with the hex. socket. Holding the wrench in line with the bolt, press the power switch to impact the nut for several seconds. If the nut is only loosely fitted to the bolt, the bolt may turn with the nut, therefore preventing proper tightening. In this case, stop impact on the nut and hold the bolt head with a wrench before restarting impact, or manually tighten the bolt and nut to prevent them slipping.

OPERATIONAL CAUTIONS

- Do not touch the bumper or hammer case during continuous operation
 The bumper and hammer case become hot during continuous screw tightening so be careful not to touch them at that time.
- 2. Work at a tightening torque suitable for the bolt under impact
 The optimum tightening torque for nuts and bolts differs with material and size of the nuts
 and bolts. An excessively large tightening torque for a small bolt may strech or break the
 bolt. The tightening torque increases proportionally to the operating time. Use the correct
 operating time for the bolt.
- 3. Selecting the socket to be matched to the bolt

Be sure to use a socket which is matched to the bolt to be tightened. Using an improper socket will result not only in insufficient tightening but also in damage to the socket or nut. A worn or deformed hex or square-holed socket will not give an adequate tightness for fitting to the nut or anvil, consequently resulting in loss of tightening torque.

Pay attention to wear of socket holes, and replace before further wear developes. Matching socket and bolt sizes are shown in **Table 1** on page 20.

The numerical value of a socket designation denotes the side to side distance (S) of its hex hole.

- 4. Holding the tool
 - Hold the Impact Wrench firmly with both hands by the body handle and the side handle. In this case hold the wrench in line with the bolt.
 - It is not necessary to push the wrench very hard. Hold the wrench with a force just sufficient to counteract the impact force.
- 5. Confirm the tightening torque

The following factors contribute to a reduction of the tightening torque. So confirm the actual tightening torque needed by screwing up some bolts before the job with a hand torque wrench.

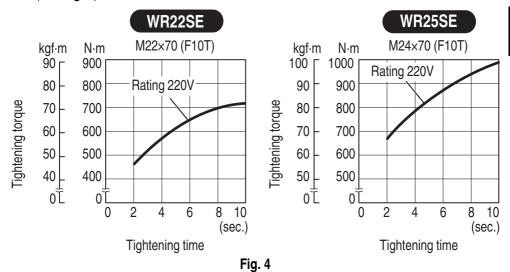
Factors affecting the tightening torque are as follows.

(1) Line voltage:

The tightening torque decreases when the line voltage becomes low.

(2) Operating time:

The tightening torque increases when the operating time increases. But the tightening torque does not increase above a certain value even if the tool is driven for a long time (See **Fig. 4**).



(3) Diameter of bolt:

The tightening torque differs with the diameter of the bolt. Generally a larger diameter bolt has a larger tightening torque.

(4) Tightening conditions:

The tightening torque differs according to the torque ratio; class, and length of bolts even when bolts with the same size threads are used. The tightening torque also differs according to the condition of the surface of metal through which the bolts are to be tightened.

(5) Using optional parts:

The tightening torque is reduced a little when an extension bar, universal joint or a long socket is used.

(6) Clearance of the socket:

A worn or deformed hex or a square-holed socket will not give an adequate tightness to the fitting between the nut or anvil, consequently resulting in loss of tightening torque. Using an improper socket which does not match to the bolt will result in an insufficient tightening torque. Matching socket and bolt sizes are shown in **Table 1** on page 20.

6. The protection function

To protect the tool, the protection function will be activated, automatically shutting down the unit in the event of any problems. (**Table 2** on page 24 describes each situation for which the aforementioned may occur.)

Table 2

ı	ام مرا	:	ام ما	C:T	iation	
ı	เทก	IICA	naı	SITI	lation	۱

Automatic shutdown initiated by excessive load (*1)

Automatic shutdown initiated due to the tool's internal temperature exceeding the specified temperature level (*2)

*1 Excessive load protection function

For excessive load conditions, the tool will shutdown to prevent damage.

Discontinue the heavy load task and unplug the power cord from the outlet. When the cord is plugged back in, the tool will recover.

*2 Increased temperature protection function

Automatic shutdown is activated to prevent damage from high temperatures.

The tool's internal temperature will increase for tasks involving the use of large currents of electricity, or when used in high temperature environments.

Please allow the tool to rest for 10 to 15 minutes before continuing a task.

7. Using the hook hanger (WR25SE)
When using the hook hanger, make sure the rope or wire is securely fastened to the hanger. (Fig. 5)



Fig. 5

CAUTION

Always make sure to use a rope or wire with sufficient strength to support the weight of the main unit and withstand impact from dropping.

MAINTENANCE AND INSPECTION

WARNING

Be sure to switch power OFF and disconnect the plug from the receptacle during maintenance and inspection.

1. Inspecting the socket

A worn or deformed hex or a square-holed socket will not give an adequate tightness to the fitting between the nut or anvil, consequently resulting in loss of tightening torque. Pay attention to wear of socket holes periodically, and replace with a new one if needed.

- 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.

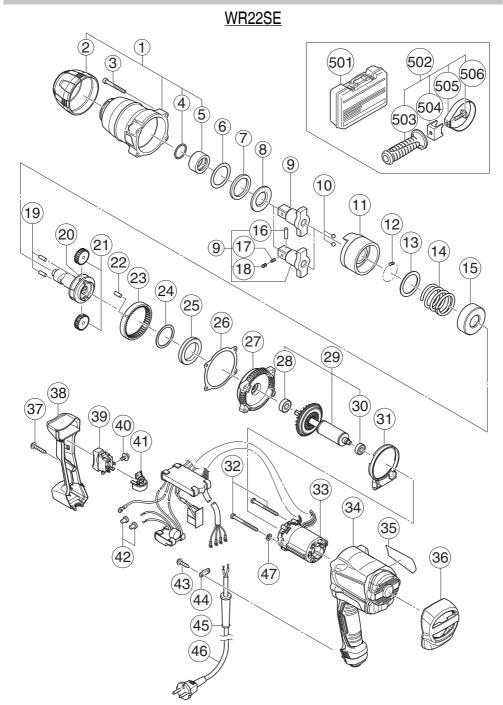
- 4. Replacing supply cord
 If the replacement of the supply cord is necessary, this has to be done by the manufacturer
 of this agent in order to avoid a safety hazard.
- Service parts list

CAUTION

Repair, modification and inspection of HiKOKI Power Tools must be carried out by a 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.

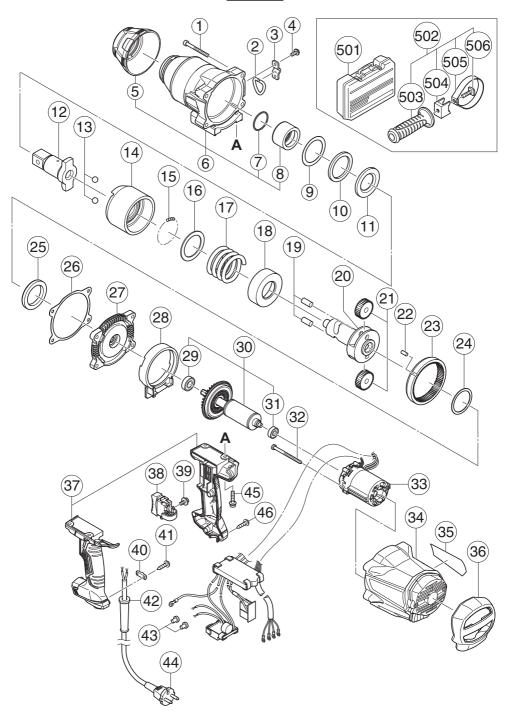
SERVICE PARTS LIST



ITEM NO.	PART NAME	Q'TY
1		
2	, ,	
3	SEAL LOCK HEX. SOCKET HD. BOLT M5	4
4	O-RING	1
5	METAL (F)	1
6	WASHER (D)	1
7	DAMPER (D)	1
8	WASHER (F)	1
9	ANVIL (A)	1
9	ANVIL (B) ASS'Y	1
10	STEEL BALL D7.14	2
11	HAMMER (D)	1
12	STEEL BALL D3.969	38
13	HAMMER WASHER	1
14	SPRING	1
15	SPRING SHEET	1
16	ROLL PIN D2×14	1
17	SPRING	1
18	PLUNGER	1
19	GEAR SHAFT	2
20	SPINDLE	1
21	IDLE GEAR	2
22	NEEDLE ROLLER D5×10	1
23	RING GEAR	1
24	WASHER (E)	1
25	METAL (E)	1
26	PACKING (D)	1
27	INNER COVER (D)	1
28	BALL BEARING	1
29	ROTOR ASS'Y (D)	1
30	BALL BEARING	1
31	FAN GUIDE (D)	1
32	HEX. HEAD TAPPING SCREW D4×60	2

ITEM NO.		
33		
34		
35	NAME PLATE	1
36	TAIL BUMPER (D)	1
37	TAPPING SCREW (W/FLANGE)	1
38	HANDLE COVER (D)	1
39	SWITCH	1
40	MACHINE SCREW (W/WASHER) M3.5×5	4
41	SWITCH ADAPTER	1
42	CONNECTOR	2
43	TAPPING SCREW (W/FLANGE) D4×16	2
44	CORD CLIIP	1
45	CORD ARMOR	1
51	CORD	1
501	PLASTIC CASE	1
502	SIDE HANDLE ASS'Y	1
503	SIDE HANDLE	1
504	HANDLE HOLDER	1
505	HANDLE RING	1
506	SQUARE BOLT M8	1

WR25SE



ITEM NO.	PART NAME	Q'TY
1	1 SEAL LOCK HEX. SOCKET HD. BOLT M6X50 2 HANGER (B)	
2		
3	HANGER (A)	1
4	SEAL LOCK SCREW (W/SP. WASHER) M5×12	2
5	BUMPER (C)	1
6	HAMMER CASE (C)	1
7	O-RING (P-35)	1
8	METAL (B)	1
9	WASHER (C)	1
10	DAMPER (C)	1
11	WASHER (B)	1
12	ANVIL (C)	1
13	STEEL BALL D10.3	2
14	HAMMER (C)	1
15	STEEL BALL D4.76	35
16	HAMMER WASHER (C)	1
17	HAMMER SPRING (C)	1
18	SPRING SHEET (C)	1
19	NEEDLE ROLLER	2
20	SPINDLE (C)	1
21	IDLE GEAR (C)	2
22	NEEDLE ROLLER	2
23	RING GEAR (C)	1
24	WASHER (A)	1
25	METAL (A)	1
26	PACKING (C)	1
27	INNER COVER (C)	1
28	FAN GUIDE (C)	1
29	BALL BEARING 6001DDCMPS2L	1
30	30 ROTOR ASS'Y	
31		
32	HEX. HD. TAPPING SCREW D5×70	2

		9
ITEM NO.	PART NAME	Q'TY
33	SEI	
34		
35	NAME PLATE	1
36	TAIL BUMPER (C)	1
37	. ,	
38	SWITCH	1
39	MACHINE SCREW (W/WASHER) M3.5×5	4
40	CORD CLIP	1
41	TAPPING SCREW (W/FLANGE) D4×16	2
42	CORD ARMOR D8.8	1
43	CONNECTOR 50091	2
44	44 CORD	
45	HEX. SOCKET HD. BOLT (W/WASHERS) M5X20	4
46	TAPPING SCREW (W/FLANGE) D4×20	4
501	CASE (PLASTIC)	1
502	SIDE HANDLE ASS'Y	1
503	SIDE HANDLE	1
504	HANDLE HOLDER	1
505	HANDLE RING	1
506	SQUARE BOLT M8	1





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110

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