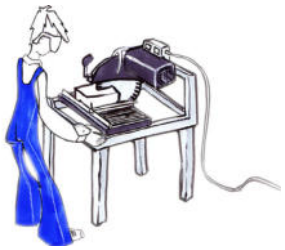
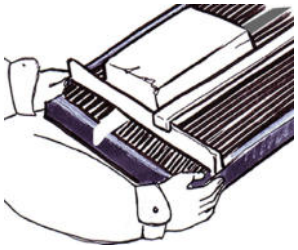
EMPRESA ALQUILADORA		
	EMPRESA:	TELÉFONO:
	DIRECCIÓN:	FAX:

1. CONSIDERACIONES GENERALES ...

MESA DE SIERRA CIRCULAR PARA MATERIALES DE CONSTRUCCIÓN





- ✓ Una **mesa de sierra circular** es una máquina diseñada para cortar materiales mediante avance manual de la pieza en obras de construcción al aire libre. Consta de una hoja de sierra circular (disco de corte) y de una mesa horizontal que están fijas durante la operación de corte.
- ✓ Esta ficha es válida para mesas de sierra circular para cortar materiales de construcción (adoquines, baldosas, ladrillos, etc.) accionadas por un motor eléctrico.
- ✓ Esta ficha muestra únicamente las **normas específicas de seguridad** que deberá seguir el operador de esta máquina para poder utilizarla de un modo seguro.
- ✓ Esta ficha **no sustituye** al manual de instrucciones del fabricante. Las normas contenidas son de carácter general, por lo que puede que algunas recomendaciones no resulten aplicables a un modelo concreto.
- ✓ Esta ficha está destinada a operadores de maquinaria alquilada, por lo que no se contemplan ni los riesgos generales existentes en una obra ni los riesgos derivados de las operaciones de transporte o mantenimiento de la máquina (operaciones que serán realizadas por las empresas de alquiler).
- ✓ En caso de que se conecte la máquina a un grupo electrógeno, esta ficha debe ser leída junto con la del grupo.
- ✓ La máquina sólo deberá emplearse para el fin al que ha sido destinada y siempre por **personal autorizado y formado** para su utilización.
- ✓ **El operador debe familiarizarse con el manejo de la máquina** antes de usarla por primera vez. Deberá conocer la función de cada interruptor y palanca, la forma de parar rápidamente el motor, las posibilidades y limitaciones de la máquina y la misión de los dispositivos de seguridad.
- ✓ Prestar una especial atención a todas las placas de información y advertencia dispuestas en la máquina.
- ✓ Las operaciones de mantenimiento, reparación o cualquier modificación de la máquina **sólo podrán ser realizadas por personal especializado perteneciente a la empresa alquiladora**.
- ✓ **No utilizar la máquina cuando se detecte alguna anomalía** durante la inspección diaria o durante su uso. En tal caso, poner la máquina fuera de servicio y avisar inmediatamente al servicio técnico de la empresa alquiladora.

2. ANTES DE COMENZAR A TRABAJAR ...

Riesgos	Medidas preventivas
✗ Caídas al mismo nivel. ✗ Vuelco de la máquina.	✓ Conocer las instrucciones de seguridad contenidas en el **Plan de Seguridad y Salud de la obra** para la realización de trabajos con este tipo de máquina. ✓ Informarse cada día de otros trabajos que puedan generar riesgos (falta de barandillas, etc.), de la realización simultánea de otros trabajos y del estado del entorno de trabajo (obstáculos, suciedad, hielo, etc.).
✗ Vuelco de la máquina. ✗ Caídas al mismo nivel. ✗ Caídas a distinto nivel. ✗ Proyección de objetos. ✗ Caída de la máquina desde altura. ✗ Caída de objetos sobre el operador. ✗ Golpes. ✗ Atropellos.	✓ Conocer la ubicación exacta donde se deberá situar la máquina. ✓ Situar la máquina en una superficie firme, nivelada y lo más limpia y seca posible. ✓ Mantener el entorno de la mesa de corte lo más limpio y seco posible durante el trabajo con la máquina. ✓ Mantener libre de obstáculos el espacio situado alrededor de la máquina. ✓ No situar la máquina cerca de los **bordes de estructuras, taludes o cortes del terreno**, a no ser que éstos dispongan de protecciones colectivas efectivas (barandillas, etc.). ✓ No situar la máquina bajo **zonas de circulación de cargas suspendidas** ni en zonas de paso de vehículos. En caso necesario, situar las protecciones adecuadas respecto a la zona de circulación de peatones, trabajadores o vehículos (vallas, señales, etc.).
✗ Incendio. ✗ Explosión.	✓ No utilizar nunca la máquina en **atmósferas potencialmente explosivas** (cerca de almacenamientos de materiales inflamables como pintura, combustible, etc.). ✓ No almacenar material inflamable en las cercanías del motor.

- ✗ Contacto eléctrico directo.
- ✗ Contacto eléctrico indirecto.

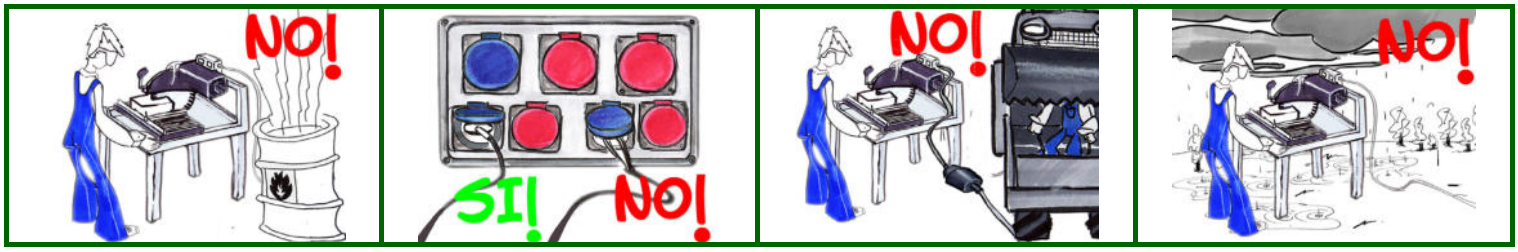
- ✓ Antes de conectar la máquina a la toma de corriente, verificar que la tensión y frecuencia coinciden con las indicadas en su placa de características.
- ✓ La conexión se debe realizar mediante clavijas estancas de intemperie. **No realizar conexiones directas hilo-enchufe**. No sobrecargar el enchufe empleando adaptadores.
- ✓ Comprobar que el punto de alimentación eléctrica dispone de interruptor diferencial, interruptor magnetotérmico y base con toma de tierra. **No anular nunca estos dispositivos**.
- ✓ El **interruptor diferencial** podrá ser de baja sensibilidad (300 mA) siempre que todas las masas de la máquina estén puestas a tierra, siendo ésta inferior a 80 ohmios. En caso contrario, el interruptor diferencial deberá ser de alta sensibilidad (30 mA). En caso de desconocer si la conexión a tierra es adecuada, consultar a un electricista.
- ✓ Cuando se empleen alargaderas, comprobar que son de la sección adecuada y que están provistas de hilo de tierra. **Verificar siempre la continuidad del cable de tierra**.
- ✓ Mantener el cable eléctrico desenrollado y alejado del calor, charcos de agua o aceite, aristas vivas o partes móviles.
- ✓ Proteger el cable eléctrico cuando discurra por zonas de paso de trabajadores o vehículos. Mantener elevado el cable siempre que sea posible.

- ✗ Cortes por falta de visibilidad.
- ✗ Caídas a distinto nivel.
- ✗ Contacto eléctrico indirecto.

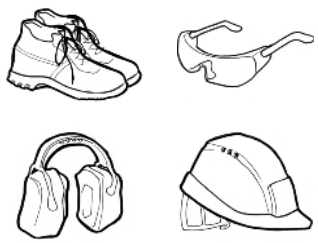
- ✓ Cuando la iluminación natural sea insuficiente, **deberá paralizarse el trabajo si no existe una iluminación artificial que garantice una adecuada visibilidad en el lugar de trabajo**.
- ✓ No utilizar la máquina a la intemperie bajo **condiciones climatológicas adversas** (lluvia, nieve, iluminación insuficiente, velocidad elevada del viento, etc.).

- ✗ Golpes por elementos de la máquina.
- ✗ Caída de objetos desde altura.

- ✓ Emplear el equipo de rodadura de la máquina para desplazarla distancias cortas.
- ✓ Para traslados a diferentes niveles de altura, **no colgar directamente la mesa del gancho de la grúa** mediante eslingado. Situarla sobre una base de dimensiones adecuadas (bateas, etc.) y fijarla fuertemente.



3. ROPA Y EQUIPOS DE PROTECCIÓN INDIVIDUAL …



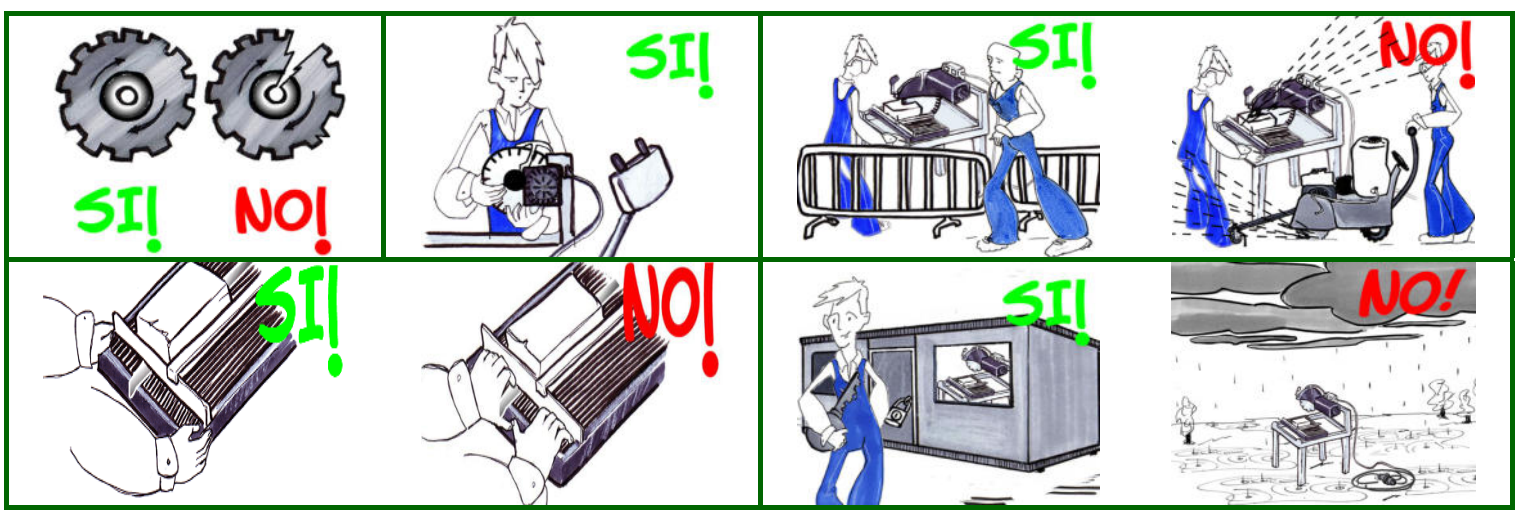
- ✓ Usar ropa de trabajo con puños ajustables. No es recomendable llevar colgantes, cadenas, ropa suelta, etc. que puedan engancharse con elementos de la máquina.
- ✓ Se deberán utilizar los equipos de protección individual que figuren en el **Plan de Seguridad y Salud** para las situaciones señaladas en el mismo. A continuación se muestra un ejemplo de los equipos que se suelen utilizar:
  - **Calzado de seguridad.** Su uso es obligatorio en una obra. Deberá poseer suela antiperforante/antideslizante.
  - **Gafas de protección.** Su uso es obligatorio al existir riesgo de proyección de objetos durante su utilización.
  - **Protectores auditivos.** Será obligatorio cuando el valor de exposición a ruido ($L_{Aeq,d}$) supere los 87 dB(A).
  - **Casco de protección.** Será obligatorio cuando exista riesgo de caída de objetos o de golpes en la cabeza.

4. COMPROBACIONES DIARIAS …

- ✓ Verificar que la máquina no posea daños estructurales evidentes y que se mantiene la estanqueidad del cuadro eléctrico.
- ✓ Comprobar que el resguardo de protección del disco y del eje de transmisión se encuentra en buen estado y está correctamente fijado.
- ✓ Verificar que el depósito está lleno con agua limpia y que el sistema de aportación de agua funciona correctamente.
- ✓ Verificar que se dispone de empujador y de guías longitudinales y transversales y que éstos se encuentran en buen estado.
- ✓ Verificar que el sistema de ruedas provisto para el transporte está en buen estado.
- ✓ Comprobar que el cable eléctrico y la clavija de conexión se encuentran en buen estado.
- ✓ Verificar que la longitud del cable eléctrico sea suficiente para poder conectar la máquina.
- ✓ Comprobar que las señales de información y advertencia permanecen limpias y en buen estado (por ejemplo, indicación del sentido de giro, etc.).

5. TRABAJANDO CON LA MÁQUINA …

Riesgos	Medidas preventivas
✕ Rotura del disco. ✕ Proyección de objetos. ✕ Cortes.	✓ Antes de poner en marcha la máquina, y periódicamente, **verificar visualmente el buen estado del disco de corte** girándolo a mano. Hacerlo con el cable eléctrico desconectado. ✓ Sustituir el disco cuando esté rajado, desgastado o le falte algún diente. Hacerlo con el cable eléctrico desconectado. Montar el disco teniendo en cuenta el sentido de rotación indicado en la máquina. ✓ Sólo se podrán utilizar discos de corte con un diámetro interno y externo igual al indicado por el fabricante y cuya velocidad de giro se corresponda con la de la máquina. ✓ **Verificar que el disco que se va a montar es adecuado para el material a cortar** (hormigón, etc.). ✓ Una vez se haya sustituido el disco, comprobar que todos los componentes se han montado correctamente y que los tornillos y tuercas están bien apretados. ✓ Verificar que se han retirado las llaves y útiles de reglaje antes de poner en marcha la máquina.
✕ Rotura del disco. ✕ Proyección de objetos. ✕ Cortes. ✕ Inhalación de polvo.	✓ **No permitir la presencia** de otros trabajadores dentro del radio de acción de la máquina durante su uso. ✓ Antes de conectar el cable eléctrico a la toma de corriente, verificar que el interruptor de puesta en marcha del motor está apagado. Una vez conectado el cable, pulsar el interruptor de puesta en marcha del motor. ✓ **Verificar que el disco gira en el sentido correcto y que no hace movimientos extraños.** ✓ **No retirar ni bloquear el resguardo del disco mientras se emplee la máquina.** ✓ Vigilar que se mantenga el aporte de agua durante el funcionamiento de la máquina.
✕ Proyección de objetos. ✕ Movimientos incontrolados. ✕ Cortes. ✕ Caída de objetos sobre los pies del operador. ✕ Vuelco de la máquina.	✓ **Con esta máquina sólo está permitido cortar materiales para construcción** (adoquines, baldosas, etc.). ✓ Colocarse siempre de frente a los mandos, por la zona de entrada del material a cortar. ✓ Utilizar el carro porta-piezas para desplazar la pieza a cortar. ✓ No empujar la pieza con las manos frente al disco y los dedos pulgares extendidos. **Mantener las manos alejadas lo más posible del disco de corte (al menos 20 cm)**. ✓ Utilizar siempre el empujador cuando la pieza sea de pequeñas dimensiones o se vaya a cortar el final de una pieza. Nunca emplear las manos directamente. ✓ En caso de piezas de gran tamaño, tener en cuenta la posible caída de las piezas cortadas de la mesa de corte así como el basculamiento de la propia mesa.
✕ Cortes. ✕ Quemaduras. ✕ Utilización de la máquina por personas no autorizadas. ✕ Caída de objetos sobre los trabajadores.	✓ **No abandonar la máquina mientras el motor permanezca en funcionamiento.** ✓ Pulsar el interruptor de parada para detener el motor. A continuación, desconectar el cable eléctrico de la toma de corriente. ✓ **No levantar el resguardo hasta que se haya detenido completamente el disco**. ✓ No tocar el disco de corte inmediatamente después de haber finalizado el trabajo. Esperar un tiempo prudencial hasta que se haya enfriado. ✓ Al final de la jornada, guardar la máquina en un lugar seguro donde no pueda ser usada por personal no autorizado. **No dejarla en suspensión del gancho de una grúa durante los periodos de inactividad**. ✓ La limpieza de la máquina debe llevarse a cabo con el motor parado y el cable de alimentación desconectado. Nunca emplear agua a presión, usar trapos húmedos.

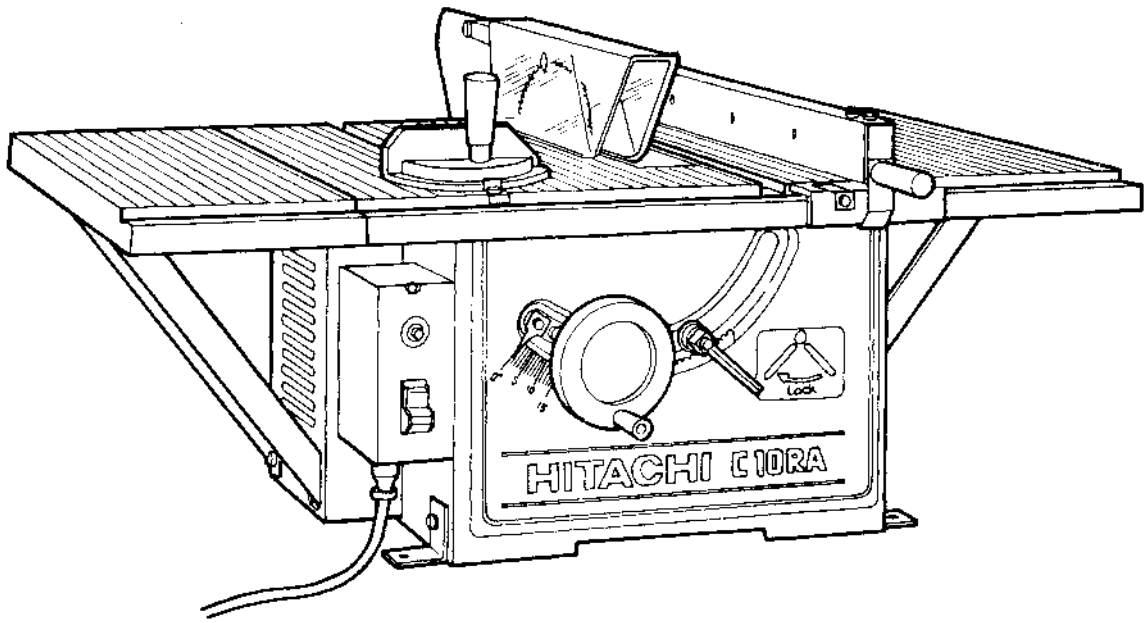


HITACHI

TABLE SAW

MODEL 10″ (255mm) C10RA

INSTRUCTION MANUAL



Important :
For your own safety, read this INSTRUCTION MANUAL before operating the POWER TOOL.
Keep this MANUAL available for convenient reference when using the POWER TOOL.

IMPORTANT INFORMATION

Read and understand all of the operating instructions, safety precaution and warnings in the Manual before operating or maintaining this power tool.
Most accidents that result from tool operation and maintenance are caused by the failure to observe basic safety rules or precautions. An accident can often be avoided by recognizing a potentially hazardous situation before it occurs and by observing appropriate safety procedures.
Basic safety precautions are outlined in the SAFETY section of this manual and in the sections which contain the operation and maintenance instructions.
Hazards that must be avoided to prevent bodily injury or machine damage are identified by WARNINGS on the tool and in this Manual.
Never use this tool in a manner that has not been specifically recommended by HITACHI, unless you first confirm that the planned use will be safe for you and others.

SAFETY

SAFETY RULES FOR POWER TOOLS.
READ ALL OF THE WARNINGS AND OPERATING INSTRUCTIONS IN THIS MANUAL BEFORE OPERATING OR MAINTAINING THIS TOOL :

⚠ **WARNING : When using this electric tool, take all necessary precautions to minimize the risk of electric shock or other personal injury.**
In particular, always comply with the following safety rules :

1. **ALWAYS KEEP GUARDS IN PLACE** and in working order.
2. **ALWAYS REMOVE ADJUSTING KEYS AND WRENCHES BEFORE STARTING TOOL.**
   Always confirm that all keys and adjusting wrenches have been removed from the tool before it is turned on.
3. **ALWAYS KEEP WORK AREA CLEAN.** Avoid injuries by not cluttering the work areas and work benches.
4. **NEVER USE TOOL IN HAZARDOUS ENVIRONMENTS.** Never use the power tool in damp or wet places and never expose it to rain. Always keep the work area well lighted.
5. **NEVER PERMIT CHILDREN OR OTHERS TO LOITER NEAR THE WORK AREA.** Keep all people (especially children) away from the work area. Always unplug unattended tools and keep the work place tamper-proof by installing locks on the doors and on the master switches. Always remove the safety key from the tool and store it in a secure place, when the tool is not in use.
6. **NEVER FORCE THE TOOL.** It will do the job better and more safely if it is operated at the rate for which it was designed.
7. **ALWAYS USE THE RIGHT TOOLS.** Never force a tool or an attachment to do a job for which it was not designed.
8. **ALWAYS WEAR PROPER APPAREL WHEN WORKING WITH THE TOOL.** Never wear loose clothing, gloves, neckties, rings, bracelets or other jewelry which may get caught in the moving parts. Always wear non-slip footwear, preferably with steel toes. Wear protective hair covering to contain long hair.
9. **ALWAYS USE EYE PROTECTION WHEN WORKING WITH THE TOOL TO PREVENT EYE INJURY.**
   Ordinary eyeglasses do not provide adequate protection because the lenses are not made of safety glass. Also, use a face mask for additional safety and wear a dust mask if the cutting operation produces dust.
10. **ALWAYS SECURE THE WORKPIECE TO THE FENCE OR THE TABLE.**
    Use clamps or a vise to hold the workpiece in place. It is safer than using your hand and it frees both hands to operate the tool.
11. **NEVER OVERREACH.** Always keep proper footing and balance when working with the tool.
12. **ALWAYS MAINTAIN TOOLS WITH CARE.** Always keep tools sharp and clean for best and safest performance. Always follow instructions for lubricating the tool and for changing accessories.

13. **ALWAYS DISCONNECT THE TOOL** before servicing and before changing blades or other accessories.
14. **NEVER RISK UNINTENTIONAL STARTING WHEN PLUGGING IN THE TOOL.**
    Always confirm that the switch is in the OFF position before inserting the power plug into the receptacle.
15. **ALWAYS USE RECOMMENDED ACCESSORIES ONLY WHEN OPERATING THIS TOOL.**
    Consult this instruction manual for descriptions of recommended accessories. To avoid personal injuries, use only recommended accessories in conjunction with this tool.
16. **NEVER STAND ON THE TOOL.** Prevent serious injury by not tipping the tool and by not risking unintentional contact with the saw blade.
17. **ALWAYS CHECK FOR DAMAGED PARTS BEFORE USING THE TOOL.** Always check the guard and all other components for damage before using the tool to assure that they will function properly. Check all moving parts for proper alignment, freedom from binding and other conditions that might affect proper operation. Always repair or replace any damaged guards or other damaged components before using the tool.
18. **ALWAYS CONFIRM THE ROTATION DIRECTION OF THE BLADE BEFORE USING THE TOOL.**
    Always feed work into the tool against the rotation direction of the blade in order to prevent possible injury.
19. **NEVER LEAVE THE TOOL RUNNING WHILE UNATTENDED. TURN POWER OFF.** Do not leave tool until it comes to a complete stop. Always turn the power off when the tool is not in use. Always unplug the power cord when the tool is not in use.
20. This tool was not designed to be used for mass-production applications and should not be used in mass-production environments.
21. When servicing this tool, use only authorized replacement parts.
22. Apply 115 volts AC only to this tool. Applying the wrong voltage or applying DC power can cause the POWER TOOL to operate improperly and cause serious personal injury or damage to the tool.
23. **PROPER GROUNDING.** This tool should be grounded while in use to protect the operator from electric shock.

Specific Safety Rules for Use of this Power Tool

⚠ **WARNING : The following specific operating instructions must be observed when using this POWER TOOL in order to avoid injury**

DO's

ALWAYS OBSERVE THE FOLLOWING RULES TO ASSURE SAFE USE OF THIS TOOL :

1. Review this Manual and familiarize yourself with the safety rules and operating instructions for this POWER TOOL before attempting to use it.
2. Always confirm that the POWER TOOL is clean before using it.
3. Always wear snug-fitting clothing, non-skid footwear (preferably with steel toes) and eye protection when operating the POWER TOOL.
4. Always handle the POWER TOOL carefully. If the POWER TOOL falls or strikes against a hard object, it might become deformed or cracked or sustain other damage.
5. Always cease operating the saw at once, if you notice any abnormality whatsoever.
6. Always confirm that all components are mounted properly and securely before using the tool.
7. When replacing the saw blade, always confirm that the rpm rating of the new blade is correct for use on this tool.
8. Always shut off the power and wait for the saw blade to completely stop rotating before doing any maintenance or adjustments.
9. Always make a trial run first before attempting any new use of the saw.
10. Always handle the saw blade with care when dismounting and mounting it.
11. Always confirm that the workpiece is free of nails or other foreign objects before beginning a cut.
12. Always keep your hands out of the path of the saw blade.

13. Always confirm that the saw blade guard is in the proper place before using the saw.
14. Always confirm that the saw blade guard does not obstruct the sliding motion of the saw before attempting cutting.
15. Inspect the tool power cords periodically.
16. Always confirm that the proper lengths and types of extension cords are being utilized, if necessary, before starting the tool.
17. Always confirm that the motor air vents are fully open before using the tool.
18. Always wait until the motor has reached full speed before starting a cut.
19. Always keep the handles dry, clean and free of oil and grease. Hold the tool firmly when in use.
20. Always use saw blade guard, spreader and anti-kickback pawls on all" through sawing" operations. Through sawing operations are those when the blade cuts completely through the workpiece as in ripping or cross cutting.
21. Always hold the workpiece firmly against the miter gauge or rip fence.
22. Always use a push stick for ripping narrow stock. Refer to ripping operations in instruction manual where push stick is covered in detail.
23. Remove the rip fence when cross cutting.
24. Provide adequate support to the rear and sides of the saw table for wide or long workpiece.
25. Avoid kickbacks (work thrown back toward you).
    Keeping saw blade sharp and keeping rip fence parallel to the saw blade.
    Keeping spreader and anti-kickback pawls and saw blade guard in place and operating, by not releasing work. Before it is pushed all the way past the saw blade, by not ripping work that is twisted or wraped or dose not have a straightedge to guide along the rip fence.
26. Avoid awkward operations and hand positions where a sudden slip could cause your hand to move into the cutting tool.
27. Permanently mount your table saw before performing any cutting operations.
    Refer to installation instructions.
28. Always use in a well ventilated area. Remove sawdust frequently.
    Clean out sawdust from the interior of the table saw to prevent a potential fire hazard.

DON' Ts

NEVER VIOLATE THE FOLLOWING RULES TO ASSURE SAFE USE OF THIS TOOL :

1. Never operate the POWER TOOL unless you fully understand the operating instructions contained in this Manual.
2. Never leave the POWER TOOL unattended without first unplugging the power cord.
3. Never operate the POWER TOOL when you are tired, after you have taken any medications, or have consumed any alcoholic beverages.
4. Never use the POWER TOOL for applications not specified in the instruction manual.
5. Never operate the tool while wearing loose clothing, a necktie or jewelry, or while your hair is uncovered, to protect against getting caught in the moving machinery.
6. Never reach around the saw blade.
7. Never touch any moving parts, including the blade, while the saw is in use.
8. Never remove any safety devices or blade guards; use of the tool without them would be hazardous.
9. Never lock the saw blade guard; always confirm that it slides smoothly before using the tool.
10. Never damage the power cord of the tool.
11. Never attempt to move a plugged - in POWER TOOL while your finger is on the starting switch.
12. Never use the POWER TOOL if the starting switch does not turn on and off properly.
13. Never use the POWER TOOL if the plastic housing or the saw blade guard is cracked or deformed.
14. Never use the POWER TOOL near flammable liquids or gases because sparking can cause an explosion.
15. Never clean plastic components with solvents because the plastic may dissolve.

16. Never operate the table saw unless the saw blade guard is in place.
17. Never raise the saw blade guard from the workpiece until it has first come to a complete stop.
18. Never use abrasive type saw blades on this table saw.
19. Never perform any operation "freehand" which means using your hands to support or guide the workpiece. Always use the rip fence or the miter gauge to position and the work.
20. Never stand or have any part of your body in line the path of the saw blade.
21. Never reach behind or over the cutting tool with either hand for any reason.
22. Never use the rip fence as a cut off gauge when cross cutting.
23. Never attempt to free a stalled saw blade without first turning the saw off.
24. Never cut metals or materials which may make hazardous dust.

WARNING

For Your Own Safety Read This Instruction Manual Before Operating The Table Saw.

1. Always wear eye protection when using the table saw.
2. Always use saw blade guard and spreader for every operation for which it can be used, including all through sawing.
3. Always keep hands out of the path of the saw blade.
4. Always use a push stick when required.
5. Pay particular attention to instructions on reducing risk of kickback.
6. Never perform any freehand operation with the table saw.
7. Never reach around or over saw blade.

SAVE THESE INSTRUCTIONS

MEANINGS OF SIGNAL WORDS

⚠ **WARNING** indicates a potentially hazardous situation which, if ignored, could result in serious personal injury.

⚠ **CAUTION** indicates a hazardous situation which, if ignored, could result in a moderate personal injury, or could cause machine damage.

NOTE emphasizes essential information.

CONTENTS

FOREWORD

The information contained in this manual is designed to assist you in the safe operation and maintenance of the POWER TOOL. Some illustrations in this manual may show details or attachments that differ from those on your own POWER TOOL. Also, in some illustrations the guards and covers intentionally have not been shown for illustrative purposes only.

PART NAMES

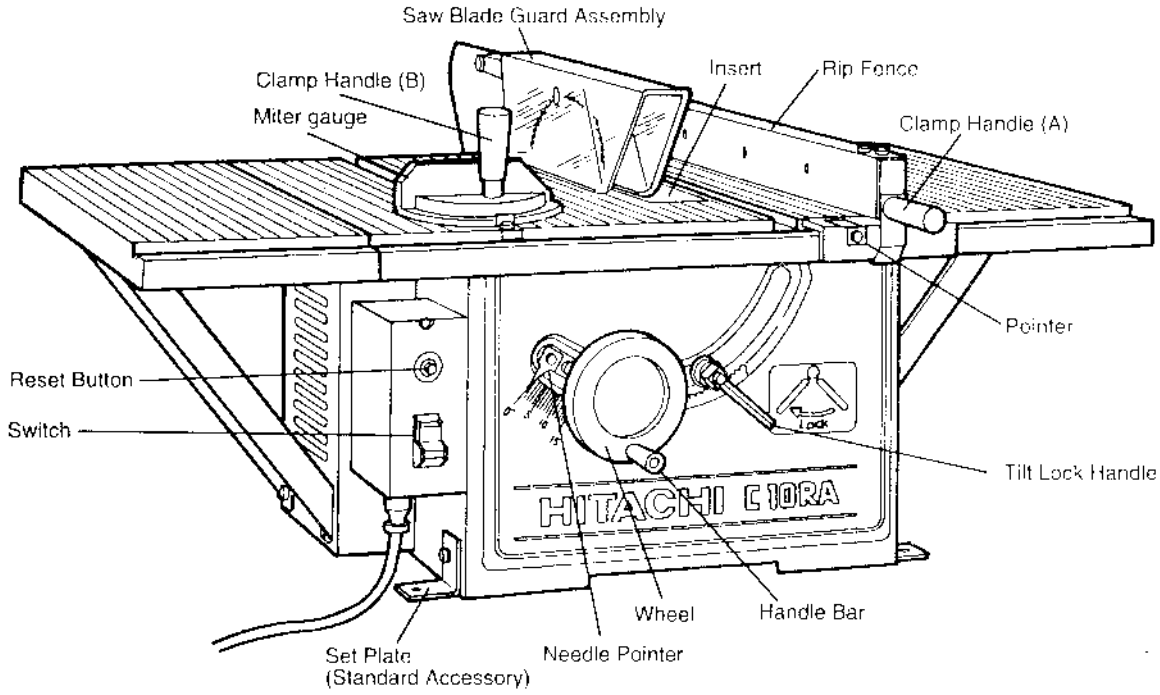


Fig.1

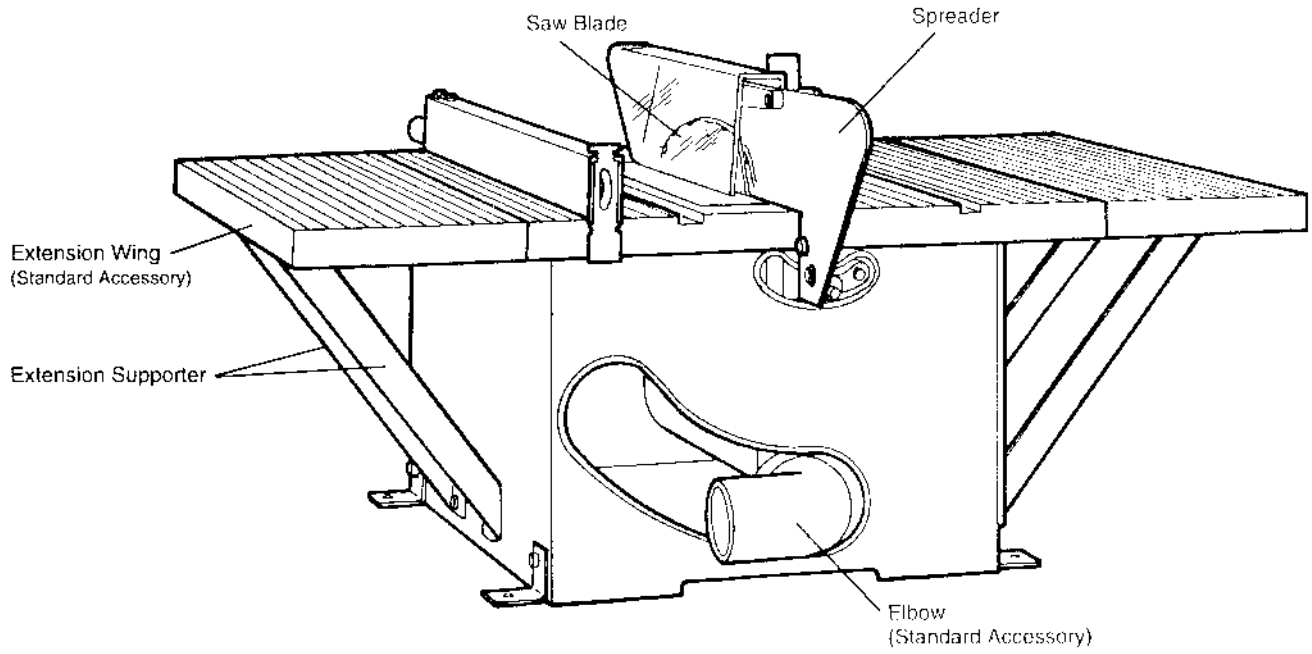


Fig.2

SPECIFICATIONS

Item		Model C10RA
Motor	Type	Series commutator motor
	Power source	Single - phase AC 60Hz
	Voltage(volts)	115
	Full-load current(Amp)	15
Applicable saw blade		Outside Dia. 10 ″ (255mm) Hole Dia. 5 / 8 ″ (15.9mm)
No load speed		5000rpm
Applicable workpiece materials		wood (hard or soft woods)
Max. sawing dimension		90° Max. Height 3″
		Bevel 45° Max. Height 2-1/2″
Net weight		56 lbs.(25.4kg)
Cord		3 conductor type cable 6.6 ft.(2 m)

STANDARD ACCESSORIES

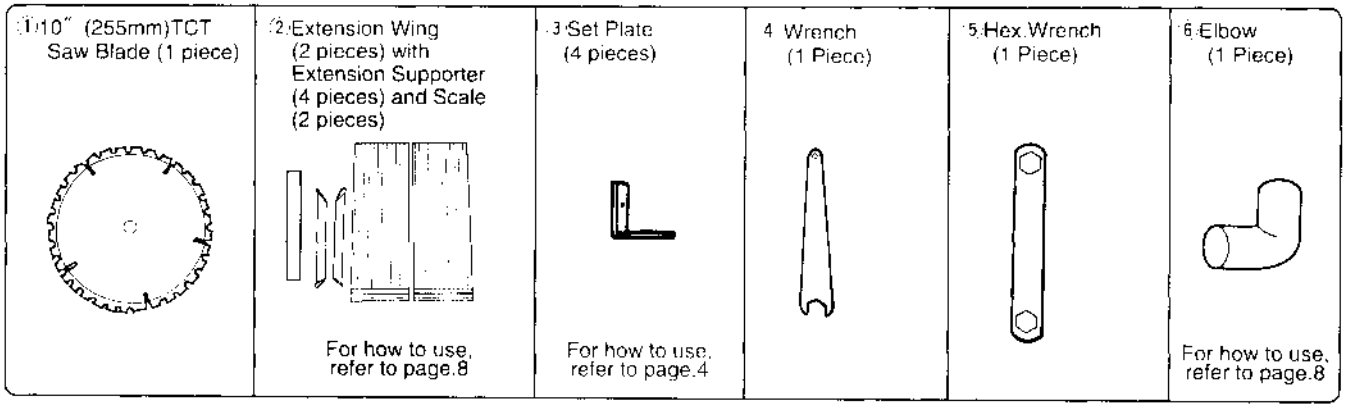


Fig.3

OPTIONAL ACCESSORIES

① Dado Insert (For dado cutter set) (Code No.314325) ····· Convenient for dado cutting. Refer to parts list.

② Push Stick (Code No.314324) ····· Convenient for ripping small pieces cutting. Refer to parts list.

③ Table Saw Stand (Code No.314819) ····· Convenient for setting the table saw. Refer to Fig.13 - c.

UNPACKING

The parts illustrated in Fig.4 described are packaged together with the tool main body.
When unpacking, carefully confirm that all parts are accounted for.

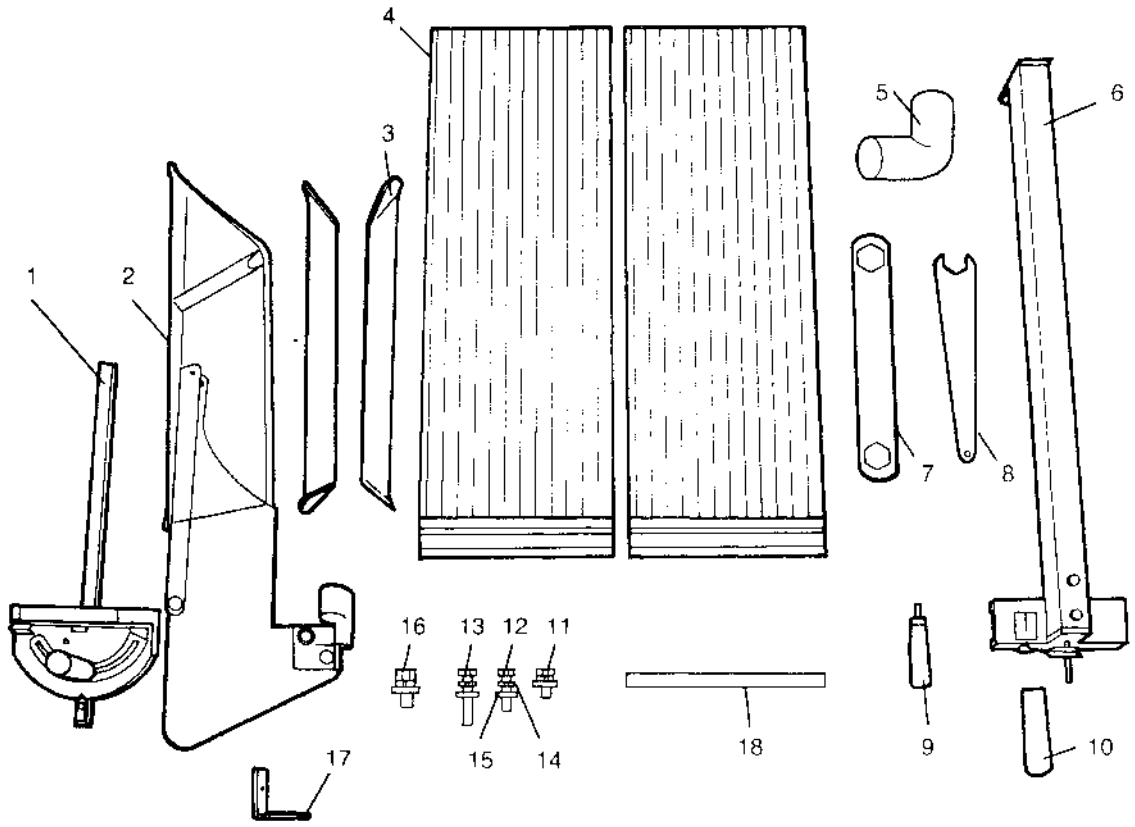


Fig.4

1. Miter Gauge (1 piece)
2. Saw Blade Guard and Spreader Assembly (1 piece)
3. Extension Supporter (4 pieces)
4. Extension Wing (2 pieces)
5. Elbow (1 piece)
6. Rip Fence (1 piece)
7. Hex. Wrench (1 piece)
8. Wrench (1 piece)
9. Handle Bar (1 piece)
10. Clamp Handle (A) (1 piece)
11. 6×20mm Bolt (with / washers) (6 pieces)
12. 6×35mm Bolt (1 piece)
13. 6×60mm Bolt (1 piece)
14. 6mm Spring Washer (2 pieces)
15. 6mm Flat Washer (2 pieces)
16. 8×20mm Bolt (with / washers) (12 pieces)
17. Set Plate (4 pieces)
18. Scale (2 pieces)

PREPARATION BEFORE OPERATION

Make the following preparations before operating the power tool :

1. Installation

The table saw must be properly secured to a sturdy workbench, stand or cabinet.

Casters (if provided) on the workbench, stand or cabinet must be locked during operation.

If there is any tendency for the table saw to move during operation, this must be corrected immediately.

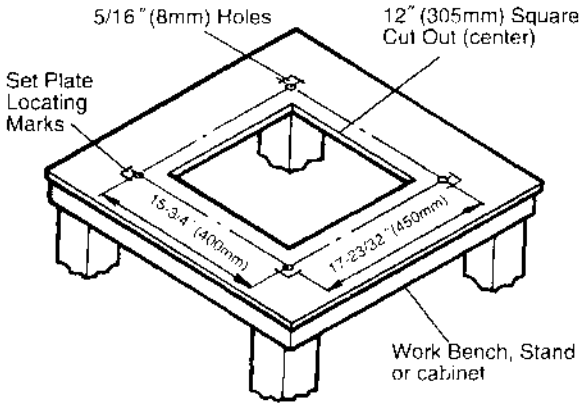


Fig.5

(1) Place the table saw in the desired location.
Make certain that is (or will be) adequate space on all sides of the table saw for the workpiece.
To allow maximum flexibility for sheet material and long boards, 9 foot (2745mm)clearance is recommended on all sides of the table saw.

(2) Secure the four set plates to the saw base at its four corners with four 8×20 mm bolts (with / washers) and four 8 mm nuts.
Square the table saw to the workbench, stand or cabinet. Make certain that all controls are easily reached and there is at least 6"(152mm) behind the rear of the table to allow for the saw blade guard assembly.
Temporarily mark the location of the four base corners and set plate of the table saw.

(3) Remove the table saw, and locate a 11"(279mm) or 12"(305mm) square centered between the marks locating the body shell. Cut out and remove the square. This opening allows sawdust to fall out of the body shell.

⚠ **CAUTION : Failure to provide this opening can result in insufficient cooling air to the motor causing premature motor failure and a possible fire hazard.**

(4) Replace the table saw, aligning it with the marks made above. Trace hole positions on the four set plates on the workbench, stand or cabinet with a pencil or the like.

(5) Remove the table saw, and drill a 5/16"(8mm) hole in each location marked. Remove all sawdust or chips.

(6) Replace the table saw in the marked location. Check to see that the table saw does not lock on the workbench and all four set plates are in contact with the top of the workbench, stand or cabinet.

(7) Using suitable length four 2"(50mm)bolts, nuts, and flat washers (not provided) secure the table saw to the workbench, cabinet or stand. Place a spring washer and flat washer on the bolt, place the bolt through the hole in the set plate and the top of the workbench stand, or cabinet. Add another flat washer and a nut. Do not tighten the nut yet. Repeat this operation for the other three locations.
Tighten all nuts securely.

(8) Check the sturdiness of the resulting assembly.

2. Grounding Instructions

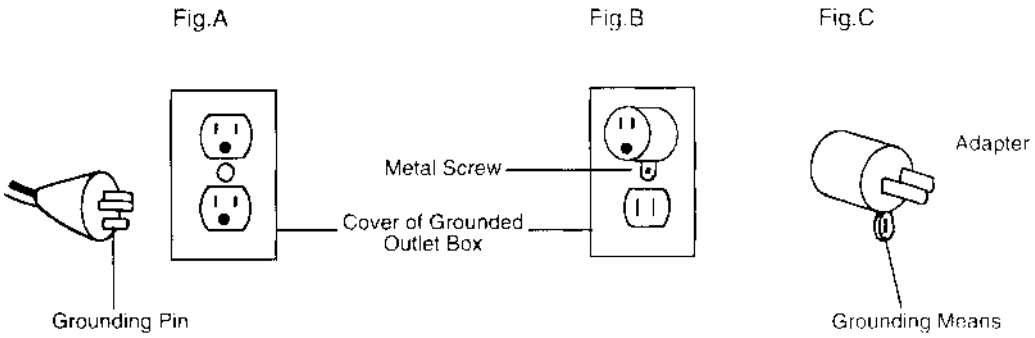
ALL GROUNDED, CORD-CONNECTED TOOLS : In the event of a malfunction or breakdown, grounding provides a path of least resistance for electric current to reduce the risk of electric shock. This tool is equipped with an electric cord having an equipment-grounding conductor and a grounding plug. The plug must be plugged into a matching outlet that is properly installed and grounded in accordance with all local codes and ordinances. Do not modify the plug provided - if it will not fit the outlet, have the proper outlet installed by a qualified electrician. Improper connection of the equipment -grounding conductor can result in a risk of electric shock. The conductor with insulation having an outer surface that is green with or without yellow stripes is the equipment grounding conductor. If repair or replacement of the electric cord or plug is necessary, do not connect the equipment-grounding conductor to a live terminal.

Check with a qualified electrician or service personnel the grounding instructions are not completely understood, or if it doubt as to whether the tool is properly grounded.

Use only 3-wire extension cords that have 3-prong grounding plugs and 3-pole receptacles that accept the tool's plug. Repair or replace damaged or worn cord immediately.

Grounded, cord -connected tools intended for use on a supply circuit having a nominal rating less than 150 volts : This tool is intended for use on a circuit that has an outlet that looks like the one illustrated in Figure A. The tool has a grounding plug that looks like the plug illustrated in Figure.A. A temporary adapter, which looks like the adapter illustrated in Figure B and C, may be used to connect this plug to a 2-pole receptacle as shown in Figure B if a properly grounded outlet is not available. The temporary adapter should be used only until a properly grounded outlet can be installed by a qualified electrician. The green-colored rigid ear, lug, and the like. extending from the adapter must be connected to a permanent ground such as a properly grounded outlet box.

GROUNDING METHODS



3. Extension Cord

Use only three-wire extension cords which have three-prong grounding -type plugs and three-pole receptacles which accept the tool's plug. Replace or repair damaged or worn cord immediately.

Make sure your extension cord is in good condition. When using an extension cord, be sure to use one heavy enough to carry the current your product will draw. An undersized cord will cause a drop in line voltage resulting in loss of power and overheating. Table 1 shows the correct size to use depending on cord length and nameplate ampere rating. If in doubt, use the next heavier gauge. The smaller the gauge number, the heavier the cord.

Check power cords and extension cords for loose or exposed wires and damaged insulation before using. Repair or replace as needed before using the power tool.

NOTE : The lower the wire size number means the heavier the wire and the further it will carry current to reduce a voltage drop.

⚠ WARNING : Never connect this unit to an electrical power source until all operating instructions have been read and understood.

Ampere rating (on nameplate)	15 Amp
Ext. cord length	Wire gauge size A.W.G(mm²)
25ft. (7.5m)	14A.W.G (2.0mm²)
50ft. (15m)	12A.W.G (3.5mm²)

Table 1. Minimum gauge for cord

ASSEMBLY PROCEDURES

⚠ WARNING : To avoid an accident or personal injury, always confirm that the switch is turned OFF and the power plug has been disconnected from the receptacle before assembly of this tool.

1. Assembly of Handle Bar

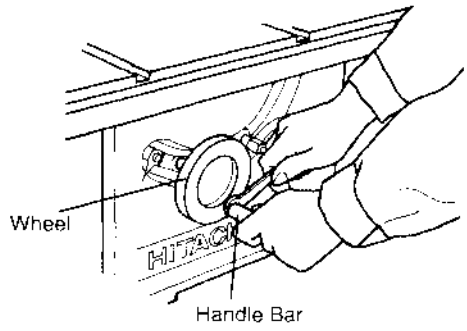


Fig. 6

The handle bar allows faster turning of the wheel.
When properly assembled it with rotate freely but with only a small amount of play,
(1) Tighten the screw of the handle bar until it hits against the wheel.
(2) Securely tighten the handle bar nut with a wrench.

2. Assembly of Rip Fence

⚠ CAUTION : The rip fence must be aligned parallel to the saw blade to minimize the kickback (refer to page15).

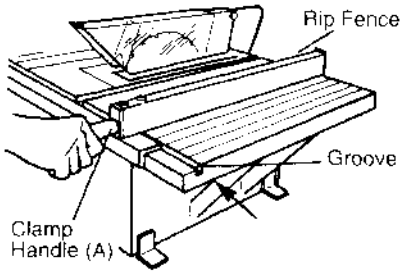


Fig. 7

The rip fence can be conveniently used to cut a workpiece into different pieces of precise width or into parallel pieces. It can be mounted on either the right or left side of the table.

(1) Align the groove in the front of the table with the groove in the fence bracket and slide it in the direction indicated by the arrow from the end of the table.
(2) Attach clamp handle (A) to the screw of fence bracket.
(3) When moving the rip fence, loosen clamp handle (A) to release the lock. To lock the rip fence, tighten clamp handle (A).

3. Assembly of Miter Gauge

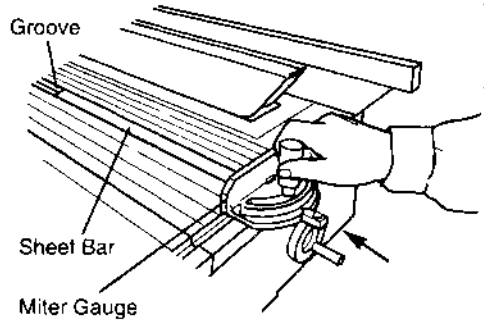


Fig.8

The miter gauge is convenient for cutting long or angular pieces which are difficult to work on with the rip fence. It can be mounted on either the right or left side of the table. Align the sheet bar of miter gauge with the table groove and slide it in the direction indicated by the arrow through the front of the table.

4. Mounting and adjusting Saw Blade Guard Assembly

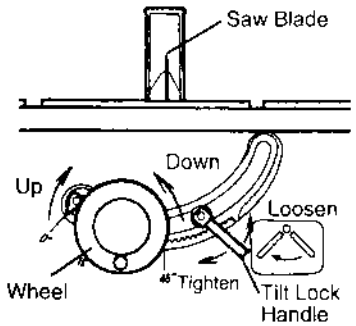


Fig.9- a

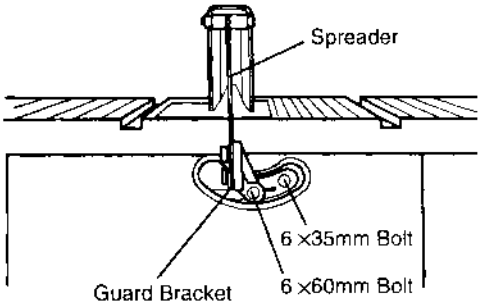


Fig.9- b

⚠ **CAUTION : The saw blade guard and spreader assembly must be aligned properly to the saw blade in order to prevent kickback.**

Mount the saw blade guard assembly, which includes the spreader and anti-kickback pawls (see Fig.9 -d).

(1) Mounting the spreader

① Loosen the saw blade tilt lock handle, move the saw blade tilting mechanism to the left and set the saw blade to 0° by means of the stopper. Tighten the saw blade tilt lock handle to lock it in position.

② Turn the wheel fully clockwise and set the saw blade to the maximum cutting height (see Fig.9 - a).

③ Put a 6 mm spring washer and a D13 flat washer on to the 6 x60 mm and 6×35 mm bolts.

④ Tentatively fasten the spreader on the rear section of the body using the two 6 mm bolts mentioned above (see Fig.9 -b). (The guard bracket must be attached to the spreader in advance.)

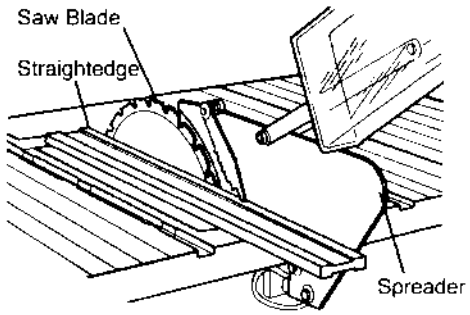


Fig.9- c

(2) Adjusting the spreader

① Use a straightedge to align the spreader with the saw blade (see Fig.9 -c).
Tighten the two 6×16mm bolts (see Fig.9 -d) with a wrench to lock the spreader.

② Check clearance between saw blade tip and spreader.
It should be less than 1/ 2" (12.7mm) at all positions. If not, loosen the two 6×16mm bolts securing the spreader to the guard bracket with a wrench and move the spreader up and down. After adjustment of the spreader is complete, firmly retighten the two 6×16mm bolts with a wrench
(see Fig. 9 - d).

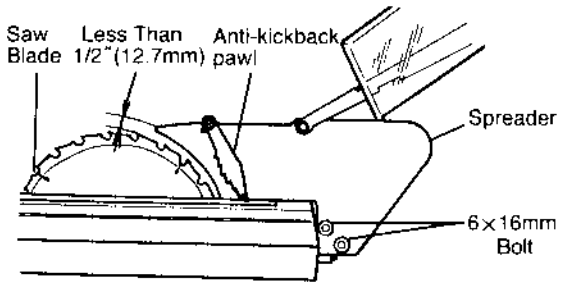


Fig.9- d

5. Mounting Table Insert

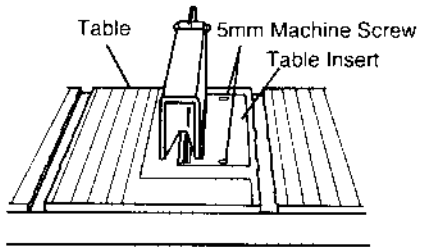


Fig.10

The table insert is mounted to the table with two 5mm machine screws.

⚠ **CAUTION : The table insert must be in place and securely fastened at all times.**

6. Mounting Elbow (Chip Extraction Duct) (Standard Accessory)

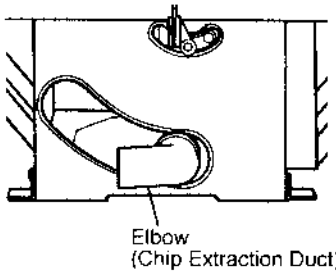


Fig.11

Connect a 2 - 9/16″ (65mm) hose of dust collector to the chip extraction duct to suck cutting chips away. Mount the chip extraction duct on the chip discharge outlet at the body rear of the body.

7. Assembly of Extension Wings (Standard Accessory)

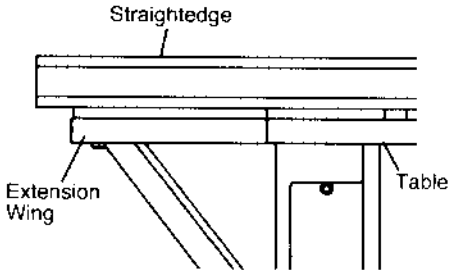


Fig.12- a

(1) Use a straightedge to ensure the extension wings are level with the table surface (see Fig.12 - a.).

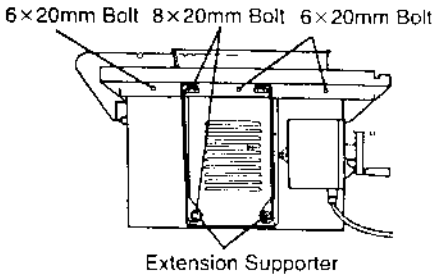


Fig.12- b

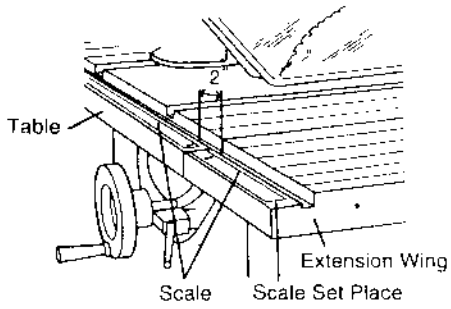


Fig.12- c

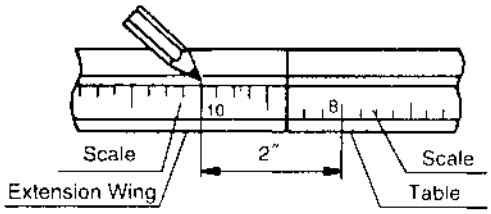


Fig.12- d

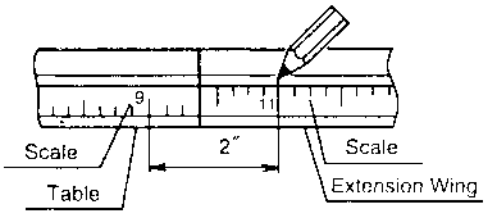


Fig.12- e

(2) Assembling the extension wings using the three 6×20mm bolts (with/washer)(see Fig.12 -b).

(3) Adjust the tables so that the rip fence receiving groove at the table front is level with the rip fence receiving groove on the extension wings. The extension wings must be the same level as the table. If it is not same level, loosen 6×20mm bolts (with / washer) and readjust the extension wings.

(4) Mount the extension supporter while using the straightedge to make sure that the table surface is level with the surface of extension wings.
Tighten the four 8×20mm bolts (see Fig.12 - b).

(5) Apply the scale on the extension wings (see Fig.12 - c).
Before sticking the scale (right and left), mark on the extension wing scale set place with a pencil line, 2″ far from the 9″ (right), 8″ (left) indication on the table scale
(see Fig.12 - d and Fig.12 - e).
Then, stick the scale on the extension wing by aligning the 11″ (right), 10″ (left) indication of the scale with the marked line above.

8. Assembly of Table Saw Stand (Optional Accessory)

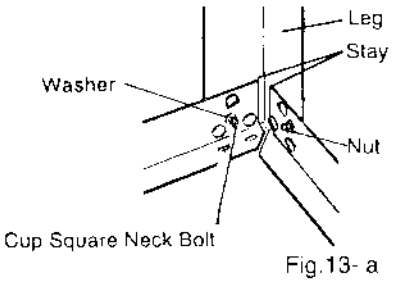


Fig.13- a

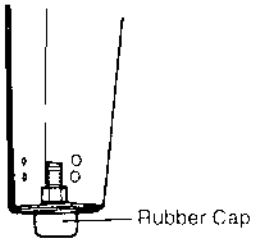


Fig.13- b

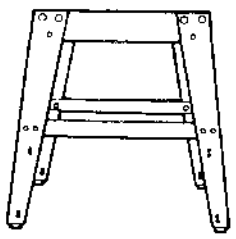


Fig.13- c

Assemble it with the stay and leg(s). Set the stays below and assemble the legs outside (see Fig.13 -c) .
Secure with cup square neck bolts and nuts (see Fig.13- a).
Then attach rubber caps underneath the legs (see Fig.13- b).

ADJUSTMENT

This tool is accurately adjusted before shipping from the factory.
Check the following accuracies and readjust them if necessary in order to obtain the best results in operation.

⚠ **WARNING : To avoid an accident or personal injury, always confirm that the switch is turned off and the power plug has been disconnected from the receptacle before adjustment of this tool.**

1. Adjustment of saw blade parallel to miter gauge groove.

This is the most probably difficult of the adjustments. Before shipment from the factory this adjustment was made but it should be rechecked and readjusted if necessary.

⚠ **CAUTION : This adjustment must be correct. Kickback could result and accurate cuts cannot be made.**

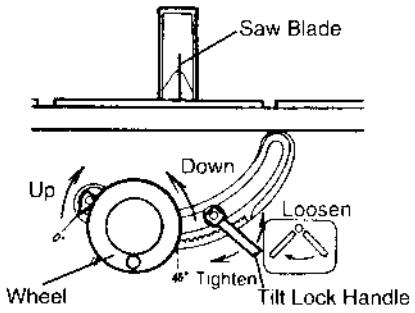


Fig.14- a

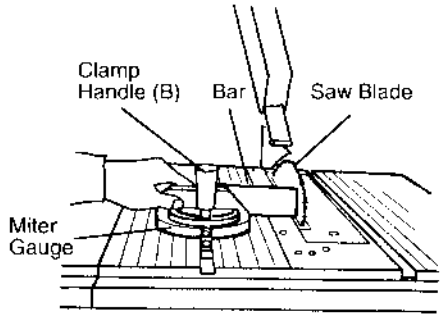


Fig.14- b

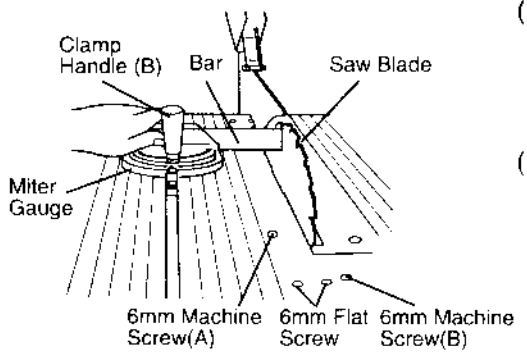


Fig.14- c

(1) Loosen the saw blade tilt lock handle by turning it counterclockwise. Move the saw blade tilting mechanism to the left and set the saw blade to 0° with the stopper.
(2) Turn the wheel fully clockwise and set the saw blade to the maximum cutting height (see Fig.14 -a).
(3) Select a tooth on the saw blade which is bent to the right.
(4) Mark that tooth with a pencil or permanent marker.
(5) Set the miter gauge to 90° and tighten the clamp handle (B) to lock it in that position. Place the miter gauge in the left hand groove in the table top (see Fig.14 -b).
(6) Rotate the saw blade to bring the marked tooth in the front and about 1/2″ (12.7mm) above the table top.
(7) Place the bar of square flat against the miter gauge.
(8) Move the bar of square toward the saw blade until it just touches the tip of the marked saw blade tooth.
(9) Without disturbing the bar clamped to the miter gauge, move the miter gauge to the center of the saw blade.
(10) Slide the miter gauge rearward until the clamped bar is closest to the tip of the marked saw blade tooth (see Fig.14 -c).
(11) If the bar just touched the tooth when the gauge was in the front position, it should just touch the tooth in the rear position. Likewise , if there was some clearance between the bar and the tooth tip at the front, the same clearance should be at the rear.
(12) If the front and rear clearance are not identical,
① Remove the miter gauge.
② Loosen four 6mm flat screws.
③ Move the body and adjust it so that a bar placed on the miter gauge is as wide as the clearance between the front and rear of the saw blade.
④ Tighten the four 6mm flat screws.

2. Adjusting 90° and 45° positive stops

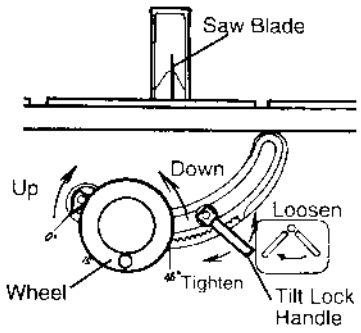


Fig.15- a

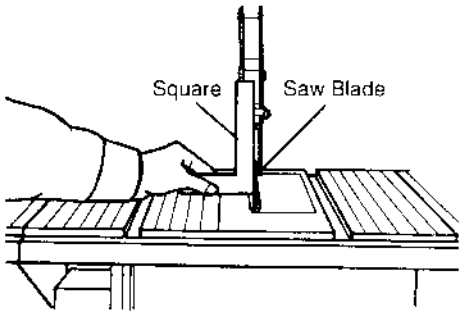


Fig.15- b

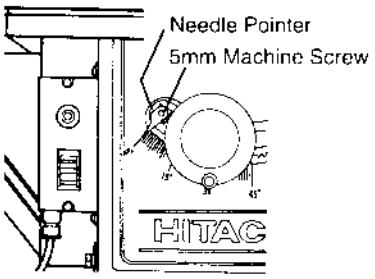


Fig.15- c

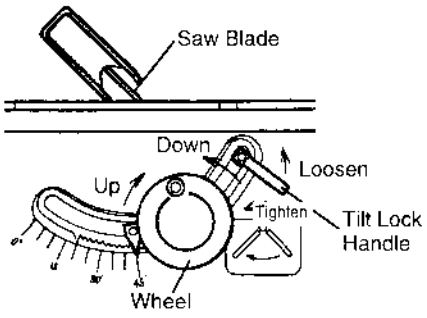


Fig.16- a

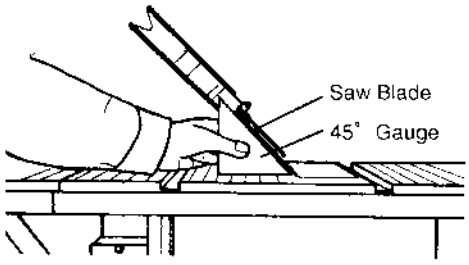


Fig.16- b

This tool is equipped with positive stops for rapid and accurate positioning of the saw blade at 90° and left bevel 45° to the table. Check and adjust the positive stops by the following procedures.

(1) To adjust positive stop at 90°.

① Turn the wheel fully clockwise and set the saw blade to the maximum cutting height.

② Loosen the saw blade tilt lock handle and move the saw blade tilting mechanism to the left until it hits against the stopper. Then tighten the saw blade tilt lock handle (see Fig.15 -a).

③ Use a square to check the saw blade is at a precise 90° (see Fig.15 -b).

④ If the saw blade is not at a precise 90°, loosen the saw blade tilt lock handle by turning it counterclockwise. Loosen the 6mm machine screw (A) (see Fig.14 -c) a few turns and move the saw blade tilting mechanism until the blade is at 90° to the table (see Fig.15 -b).

⑤ Tighten the saw blade tilt lock handle after adjustment.

⑥ Loosen the 5mm machine screw and set the needle pointer to 0°. On completion of adjustment, recheck the 90° of the saw blade and table (see Fig.15-c).

(2) To adjust positive stop at left bevel 45°

① Turn the wheel fully clockwise and set the saw blade to the maximum cutting height.

② Loosen the saw blade tilt lock handle and move the saw blade tilting mechanism to the right until it hits against the stopper.
Then tighten the saw blade tilt lock handle (see Fig.16- a).

③ Use a 45° gauge to check the saw blade is at a left bevel 45°(see Fig.16- b).

④ If the saw blade is not at a left bevel 45°,loosen the saw blade tilt lock handle. Loosen the 6mm machine screw (B) (see Fig.14- c) a few turns and move the saw blade tilting mechanism until the blade is at left bevel 45° to the table (see Fig.14- b).

⑤ After adjustment, tighten the saw blade tilt lock handle.

⑥ On completion of adjustment. recheck the left 45° bevel of the saw blade and table.

3. Adjustment of rip fence

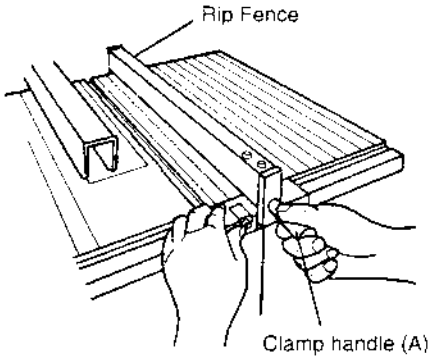


Fig.17- a

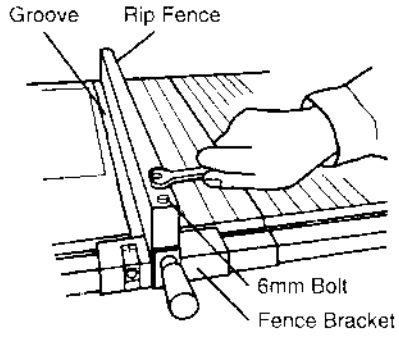


Fig.17- b

Before shipment from the factory the saw blade is set parallel to the miter gauge groove and the rip fence is adjusted parallel to the miter gauge groove. Check and adjust the parallel of the rip fence by the following procedures. In order to accurate work and prevent kickback when ripping.

(1) Loosen the clamp handle(A)(see Fig.17-a).

(2) Position the rip fence at one edge of the miter gauge groove.

(3) Lock the rip fence to the table by clamp handle(A). The edge of the rip fence should then line up parallel with the miter gauge groove.

(4) If the edge of the rip fence is not parallel with the miter gauge groove,

① Loosen the two 6mm bolts securing theparallel bracket to the fence bracket (see Fig.17-b).

② Loosen the clamp handle(A), align the rip fence parallel to the groove, and tighten the clamp handle(A).

③ While holding the parallel bracket to prevent movement, tighten the two 6mm bolts previously loosened.

④ Loosen the clamp handle (A), move and return the parallel bracket adjacent to the groove, tighten the clamp handle(A) and verify that the parallel bracket is parallel to the groove.

⑤ Repeat adjustment until it is parallel.

⑥ After adjustment, tighten two 6mm bolts.

⑦ On completion of adjustment, recheck the rip fence is parallel with the miter gauge groove.

4. Adjustment of pointer

The pointer is equipped to indicate the distance the rip fence is positioned away from the saw blade.
The pointer should indicate the accurate distance from the saw blade.
Check and adjust the pointer by the following procedures.

NOTE : The pointer will need to be readjusted whenever a different thickness saw blade is installed.

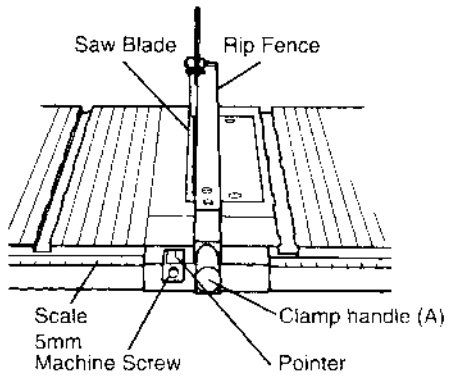


Fig.18

To adjust pointer 0 setting.

(1)Loosen clamp handle (A) and move the rip fence to bring it into tight contact with the side of the saw blade.

(2) Make sure that the point points to 0 on the scale provided on the table.

(3) If the pointer does not point to 0 on the scale,

① Tighten clamp handle (A).

② Loosen the 5mm machine screw holding the pointer (see Fig.18).

③ Adjust the pointer to the 0 position and retighten the 5mm machine screw.

④ After adjustment, recheck to see that the pointer now points to 0.

5. Adjustment of Miter Gauge

The miter gauge should be squareness to the saw blade.

Check and adjust the miter gauge the following procedures.

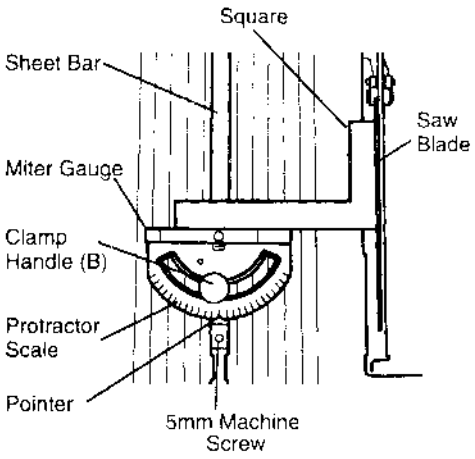


Fig.19

To adjust pointer 0 setting.

(1) Loosen the clamp handle (B) and place a square against both the saw blade and miter gauge. The pointer should indicate 90° on the protracter scale on the miter gauge.

(2) If the pointer does not point to 0 on the miter gauge,

① Tighten clamp handle (B).

② Loosen the 5mm machine screw on the sheet bar.

③ Adjust the pointer to the 90° position and tighten the 5mm machine screw on the sheet bar (see Fig.19).

④ After adjustment,recheck to see that the pointer now points to 0.

BEFORE USING

1. Make sure the switch is turned OFF.

⚠ **WARNiNG : If the power cord is connected to the power source with the switch turned ON the power tool will start suddenly and can cause a serious accident.**

2. Make sure the power source is appropriate for the tool.

⚠ **WARNING : Never connect the power tool unless the available AC power source is of the same voltage as that specified on the nameplate of the tool.**
Never connect this power tool to a DC power source.

3. Check the saw blade for visible defects.

Confirm that the saw blade is free of cracks or other visible damage.

4. Confirm that the saw blade is attached securely to the power tool.

Using the supplied wrench, tighten the set nut on the saw blade spindle to secure the saw blade.
For details, see Fig.35 in the section on "Saw Blade Mounting and Dismounting"

5. Check the saw blade guard for proper operation.

Saw blade guard is designed to protect the operator from coming into contact with the saw blade during operation of the tool.

Always check that the saw blade guard cover moves smoothly.

⚠ **WARNING : NEVER OPERATE THE POWER TOOL if the saw blade guard does not function smoothly.**

6. Check the Power Receptacle

To prevent overheating , accidental stopping or intermittent operation, confirm that the power cord plug fits properly in the electrical receptacle and does not fall out after it is inserted. Repair or replace the receptacle if it is faulty.

7. Confirm the tool's power cord is not damaged

Repair or replace the power cord if an inspection indicates that it is damaged.

AFTER CONNECTING THE POWER PLUG TO AN APPROPRIATE AC POWER SOURCE, CHECK THE OPERATION OF THE TOOL AS FOLLOWS :

8. Trial Run

After confirming that no one is standing behind the power tool. start and confirm that no operating abnormalities exist before attempting a cutting operation.

9. Inspect the rotating stability of the saw blade

For precise cutting, rotate the saw blade and check for deflection to confirm that the blade is not noticeably unstable; otherwise vibrations might occur and cause an accident.

PRACTICAL APPLICATIONS

1. Switch operation

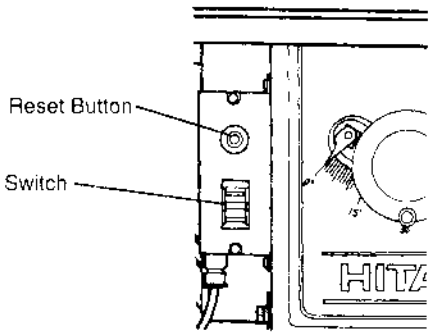


Fig. 20

To turn the table saw on, raise the red portion of the switch. To turn the table saw off, push the red portion of the switch. Try this operation without the saw being plugged in.

⚠ **WARNING : Always remove the safety key from the switch when the table saw is not in use. This will ensure that the table saw cannot be turned on accidentally or by someone (especially a child) who is not qualified to use the table saw . If the safety key is left in the switch serious personal injury can result.**

2. Overload protective device for motor

When the motor becomes overload, the overload protective device cuts off the current to stop the motor. In this case, push the reset button (after few minute later).

3. Raising and lowering saw blade

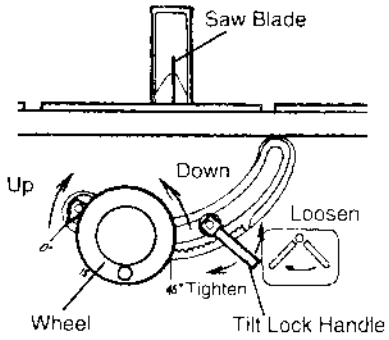


Fig. 21

(1) Raising saw blade.
Grasp the wheel and rotate it clockwise to raise the saw blade.

(2) Lowering saw blade.
Grasp the wheel and rotate it counterclockwise to lower the saw blade.

⚠ **CAUTION : Adjust the saw blade height so it is about 1/8" (3.2mm) above the top of the workpiece. Raising the saw blade much higher than the workpiece does not make it cut better. It is unsafe and provides less table surface in front of the saw blade. Never operate while saw blade rotating.**

4. Saw Blade Tilting Operation

The saw blade tilt lock handle is spring loaded and can be repositioned by pulling out on the handle and repositioning it on the serrated stud located underneath the handle.

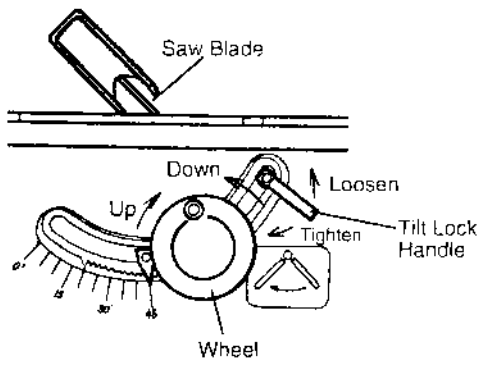


Fig. 22

⚠ **WARNING : The saw tilt lock handle must be locked during all cutting operations.**

Two methods are available tilting saw blade and are as follows.

(1) Rapid saw blade tilting.
Loosen saw blade tilt lock handle, move the wheel until the saw blade is at the desired angle and tighten saw blade tilt lock handle.

(2) Fine adjustment saw blade tilting.
①Loosen saw blade tilt lock handle.
②Push in wheel until teeth on hub of hand wheel engauge with segment gear.
③Turn wheel to tilt the saw blade to the desired angle and tighten saw blade tilt lock handle.

5. Rip Fence Operation

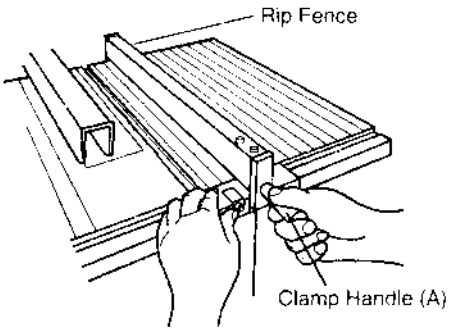


Fig. 23

The rip fence can be used on either side of the saw blade.
The pointer on rip fence indicates the distance between the saw blade and rip fence.

(1) Loosen clamp handle(A).
(2) Move the rip fence right and left while pressing the fence bracket against the table surface and set the desired distance from the saw blade.
(3) Tighten clamp handle (A) to lock the rip fence.

⚠ **CAUTION: Make sure that the rip fence is always in parallel with the groove on the table.**

6. Miter Gauge Operation

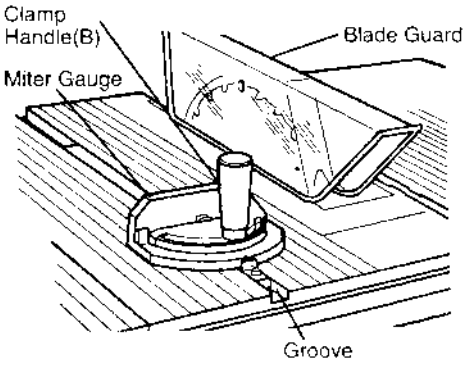


Fig. 24

The miter gauge can be used on either side of the grooves on the table. However, for bevel cutting (the saw blade is tilted), use the miter gauge in the right side groove to prevent hands or miter gauge from interfering with the saw blade guard. Miter gauge is accurately adjustable at 90° and 45° right and left in relation to the saw blade.
Intentional miter cut angle can be obtained easily.

(1) Loosen clamp handle (B).
(2) Turing the miter gauge to the desired angle.
(3) Tighten clamp handle (B) to lock the miter gauge.

WARNINGS ON OPERATION

Four your own safety carefully read and observe the following warnings and precautions in addition to the 「IMPORTANT INFORMATION」, 「SAFETY」 and 「WARNING」

1. The saw blade is firmly locked.
2. Never perform any operation "free hand" without using the miter gauge, rip fence, and or other auxiliary devices. To do so could cause accidents from kickback should the saw blade become locked in the workpiece material.
3. When miter gauge is used, remove rip fence from table.
4. When the miter gauge is used, securely tighten clamp handle (B).
5. When rip fence is used, remove miter gauge from table.
6. When the rip fence is used, securely tighten clamp handle (A).
7. If blade stalls or stops, TURN SWITCH OFF before releasing blade.
8. Never remove small cut-off pieces with your fingers. Remove them by pushing them clear with a long stick.
9. Never attempt to remove small cut-off pieces trapped inside the saw blade guard while the saw is running. Turn the switch "OFF", allow the saw blade to come to a complete stop, raise the saw blade guard, and remove the cut-offs.
10. Adjust the saw blade height so it is about 1/ 8″ (3.2mm) above the top of the workpiece. More exposure would be hazardous (see Fig.25) .
11. Never touch any cut-offs while saw blade is running.
12. Feed material slowly in order to make fine cut, keep accuracy, and avoid overloading.

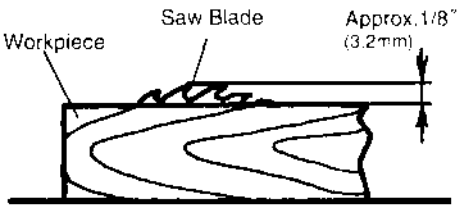


Fig. 25

OPERATING INSTRUCTIONS

There are two basic types of cuts. Ripping and cross cutting. In general, cutting with the grain is ripping and across the gain is cross cutting. Neither ripping or cross cutting may be done safely freehand. Ripping requires the use of the rip fence and cross cutting uses the miter gauge. Safety glasses are being worn.

ALWAYS USE EYE PROTECTION WHEN WORKING WITH THE TOOL TO PREVENT EYE INJURY.

Ordinary eyeglasses do not provide adequate protection since the lenses are not made of safety glass. Also, use a face mask for additional safety and wear a dust mask if the cutting operation produces dust.

1. Ripping

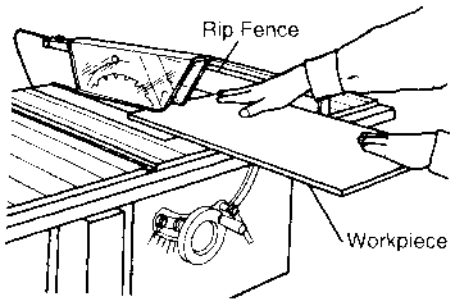


Fig. 26

Confirm the following items before ripping.

(1) Rip fence is parallel to saw blade.
(2) Rip fence is securely fixed.
(3) Remove the miter gauge.
(4) Spreader is properly aligned with saw blade.
(5) Anti-kickback pawls are functioning properly (see Fig.9 - d).

Cutting operation

① Adjust the saw blade height so it is about 1/8″ (3.2mm) above the top of the workpiece.
② Hold the workpiece flat on the table and against the rip fence. Keep the workpiece about 1″ (25mm) away from the saw blade.

⚠ **CAUTION : The workpiece must have a straightedge against the rip fence and must not be warped, twisted or bowed. Keep both hands away from the saw blade and away from the path of the saw blade.**

③Turn on the switch on and allow the saw blade to come up to speed.

④Keeping the workpiece against the table and rip fence, slowly feed the workpiece rearward all the way through the saw blade. Continue pushing the workpiece until it is clear of the guard and it falls off the rear of the table.

⑤When ripping long boards or large panels, always use an adequate support.
A simple support can be prepared by fixing a piece of plywood to a sawhorse or the like.

⑥When the width of rip is more than 6″ (152mm) feed the workpiece with one or both hands continusly until it is beyond the saw blade and anti-kickback pawls.

⚠ **CAUTION: Do not push the free piece that is cut off, merely guide it.**

⑦When the width of rip 2″(50mm) to 6″(152mm) wide, use a push stick to feed the workpiece.
(Push stick is optional accessory)

⑧When the width of rip is less than 2″ (50mm) wide, use an auxiliary guide a push block.

⑨When ripping thin material (such as veneer), the workpiece may slide or bind between the bottom of rip fence and the table surface resulting in impossible ripping. Make a board which has the same height and length of the rip fence surface by using a piece of 3/4″(19mm) thick plywood. Fix the board to the rip fence using four wood screws, so that the bottom of the board touches the table surface.

⚠ **WARNING : Never operate to pull the workpiece back with the saw blade turning. Turn the switch off, allow the saw blade to complete stop, raise the anti-kickback pawls (see Fig. 9-d) on each side of the spreader if necessary and slide the workpiece out.**

2. Bevel Ripping

This operation is the same as ripping except that the bevel angle is set to an angle other than 0°.

⚠ **WARNING : Only work with the workpiece and rip fence on the right side of the saw blade.**

3. Ripping small pieces

⚠ **WARNING : It is unsafe to rip small pieces. It is unsafe to put your hands close to the saw blade.**

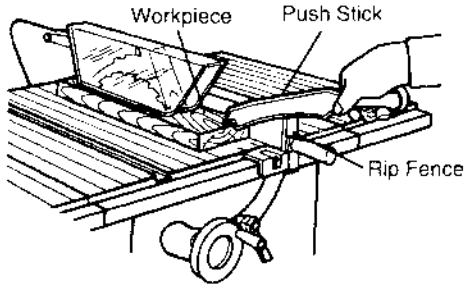


Fig. 27

When a small width is to be ripped and the hand cannot be safely put between the saw blade and rip fence, use one or more push sticks. Use them to hold the workpiece against the table and rip fence and push the workpiece fully past the saw blade.

4. Cross Cutting

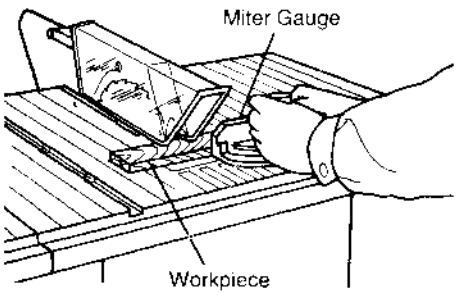


Fig. 28

Confirm the following items before cross cutting.

(1)Remove the rip fence.

(2)Spreader is properly aligned with saw blade.

(3)Anti-kickback pawls are functioning properly (see Fig.9-d).

Cutting Operation

①Adjust the saw blade height so it is about 1/ 8″(3.2mm) above the top of the workpiece.

②Hold the workpiece firmly against the miter gauge with the path of the saw blade in line with the desired cut distance.
Keep the workpiece about 1″(25mm) away from the saw blade.

⚠ **CAUTION : Keep both hands away from the saw blade and away from the path of the saw blade.**

③Turn the switch on and allow the saw blade to come up to speed.

④While keeping the workpiece against the face of the miter gauge, and holding the workpiece flat against the table, slowly push the workpiece through the saw blade.

⚠ **CAUTION : Never operate to pull the workpiece back with the saw blade turning. Turn the switch off, allow the saw blade to complete stop, raise the anti-kickback pawls on each side of the spreader if necessary and slide the workpiece out.**

5. Bevel Ripping

Cross Cutting

This operation is the same as cross cutting except that the bevel angle is set to an angle other than 0°

⚠ **WARNING : Only operate with the workpiece and miter gauge on the right side of the table.**

6. Mitering

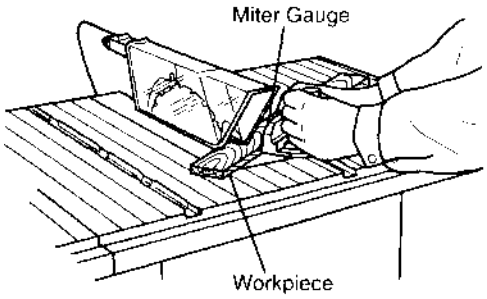


Fig. 29

This operation is the same as cross cutting expect that the miter gauge is locked at an angle other than 90°

⚠ **WARNING : Hold the workpiece firmly against the miter gauge and feed the workpiece slowly into the saw blade to prevent the workpiece from moving.**

7. Compound Mitering

This is a compound of bevel cross cutting and mitering. It is infrequently used. Follow the instruction for both bevel cross cutting and mitering.

8. Work Helpers

For certain operations, work helpers such as a push stick, push block, auxiliary fence, work support or the like should be used.

These helpers can be made by yourself using this table saw.

Refer to following figures which shows typical work helpers dimensions.

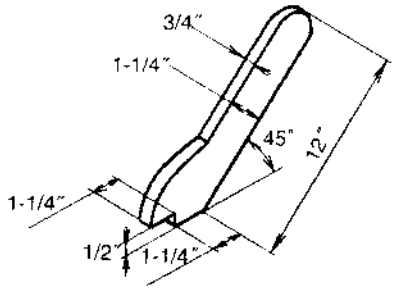


Fig. 30

(1)Push Stick

When the width of rip 2"(50mm) to 6"(152mm) wide, use a push stick to feed the workpiece.

A push stick is available as an optional accessory (refer to page.2).

A push stick can be easily made from a piece of 3/4"(19mm) thick plywood.

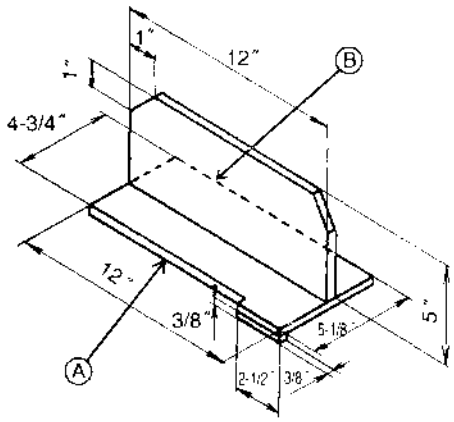


Fig. 31

(2) Push Block

When the witdh of rip is less than 2″(50mm) wide, use a push block.

① Use a piece of 3/8″(9.5mm) and 3/4″(19mm) thick plywood.

② Glue the small piece of wood 3/ 8″(9.5mm)×3/ 8″(19mm) ×2-1/ 2″(63.5mm).

③ Provide a grip in the center of the plywood and fix together with glue and wood screws.

④ Ⓐ and Ⓑ edges must be parallel.

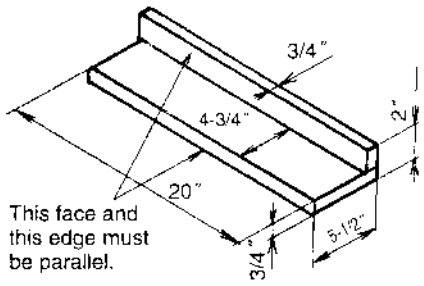


Fig. 32

(3) Auxiliary Fence

When the width of rip is less than 2″(50mm) the push stick cannnot be used because the saw blade guard (see Fig.24) will interfer with a push stick, use a auxiliary fence and push stick.

① Use a piece of 3/ 8″(9.5mm) and 3/4″(19mm) thick plywood.

② Fasten both together with glue and wood screws.

⚠ **CAUTION: The push block is used with the auxiliary fence. The 4-3/4″(121mm) dimension must be the same on both.**

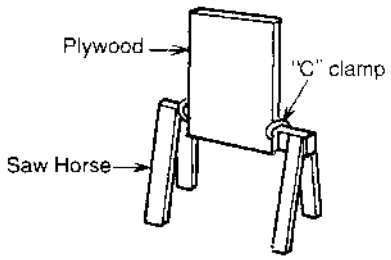


Fig. 33

(4)Work Support

① Clamp a piece of plywood to a sawhorse with "C" clamps.

② Adjust the height of the plywood to level it with the height of the table surface.

9. Dado Cutting

⚠ **WARNING: To prevent an accident or personal injury, always turn off the switch and disconnect the power plug from the receptacle before mounting or dismounting the dado blade set.**

Never attempt to stack dado blades thicker than 1/2″(12.7mm) thick. Never use the dado set for cut-offs. Never attempt bevel cuts when dadoing. Never use dado if there is vibration(flutter) or a strange noise. Never attempt dado in other than wood. Never put hands over the dado blade. Take every precaution to prevent kickback of the workpiece. Feed workpiece slowly, especially when cutting deep or wide grooves. When the dado head is hidden from view while cutting, your hands should never be on top of the workpiece. When using a dado blade, the saw blade guard assembly must be removed since there is not cut completely through the wood which will allow the spreader to pass through the workpiece.

⚠ **CAUTION: Use extreme caution when dado cutting.**

Always stop the tool and wait for dado blade to come to a complete stop. Then simply withdraw the wood. Use a push stick. Use rip fence or miter gauge. Be alert for potential kickback conditions. Follow the dado blade set manufactures recommendations. When using a dado blade set , the depth of cut is not indicated by the pointer. To know the depth cut. you must measure it with a ruler. Be sure to place the saw blade guard assembly back in its original position and check adjustments when the dado cuts are completed.

A groove cut into the workpiece is called dado. This dado does not extend completely through the workpiece. The dado can be made in various widths and depths according to the need. A typical use for a dado is to make the groove for a shelf. A saw blade can be used to make a dado of any width by marking multiple cuts side by side. However, it is much easier to use a dado blade. The first has to small blades and a series of chips to the remove scrap between the blades. The second type consists of a small thick blade which is caused to wobble by its mounting hubs. This saw will accept dado blades of the cutter chip type to 6″ (152mm) in diameter and 1/2″ (12.7mm) in which. Most wobble type blades are too wide fit on the saw blade spindle safely. A dado blade requires a table insert which has wider opening. This dado insert is available as an optional accessory (refer to page 2). Purchase the dado blade set separately.

Mounting the dado blade set

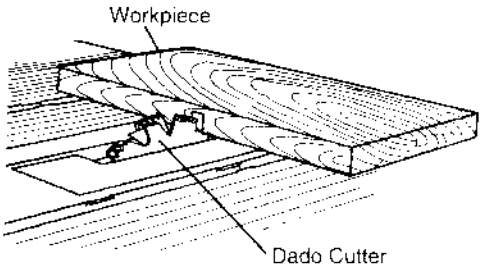


Fig. 34

Mounting the dado blade set (see Fig.35), procedures as follows :

1. Dado table insert instead of the table insert.
2. Remove the saw blade guard assembly with the spreader.
3. Dismount the saw blade.
4. Mount the dado blade with the teeth pointing down at the front of the table (Using the instructions with the dado blade set).

⚠ **CAUTION: While tightening the set nut (see Fig.35), be careful to maintain the even spacing between the tips of the inside cutters. Rotate the dado blade one turn by hand to make sure that it does not contact anything before operation.**

SAW BLADE MOUNTING AND DISMOUNTING

⚠ **WARNING: To prevent an accident or personal injury, always turn off the switch and disconnect the power plug from the receptacle before mounting or dismounting a saw blade.**

1. Mounting the saw blade

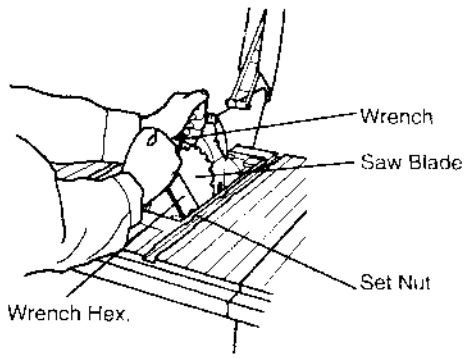


Fig. 35

(1) Turn the wheel(see Fig.1) fully clockwise and set the saw blade to the maximum cutting height (see Fig.15 - a).

(2) Tighten the saw blade tilt lock handle and lock the saw blade at 90° .

(3) Remove the table insert on the table.

(4) Mount the washer (A), saw blade and washer (A) in this order on the saw blade spindle. (The saw blade with the teeth pointing down at the front of the table.)

(5) Using the open end wrench and place the wrench on the flats on the saw blade spindle.Hold the saw blade spindle from turning and tighten nut using the remaining wrench by turning the set nut clockwise.

(6)Replace the table insert on the table.

⚠ **WARNING: Be sure to grip set nut carefully with the wrench. A serious injury can be sustained, if your grip should slip, the wrench come off the nut, and your hand strike the sharp blade edges.**

⚠ **WARNING : When mounting the saw blade, confirm that the rotation indicator mark on the saw blade and the rotation direction of the saw are properly matched.**

⚠ **CAUTION : Confirm that the spindle lock has returned to the retract position after installing or removing the saw blade. Tighten the set nut so it does not come loose during operation. Confirm the set nut (see Fig.35) has been properly tightened before the power tool is started.**

2. Dismounting the saw blade

Dismount the saw blade by reversing the mounting procedures described in paragraph 1 above.

MAINTENANCE AND INSPECTION

⚠ **WARNING : To avoid an accident or personal injury, always confirm that the switch is turned OFF and that the power plug has been disconnected from the receptacle before performing any maintenance or inspection of this tool.**

1. Inspecting the saw blade

Always replace the saw blade immediately upon the first sign of deterioration or damage.
A damaged saw blade can cause personal injury and a worn saw blade can cause ineffective operation and possible overload to the motor.

⚠ **CAUTION : Never use a dull saw blade. When a saw blade is dull, its resistance to the hand pressure applied by the tool handle tends to increase, making it unsafe to operate the power tool.**

2. Inspecting the carbon brushes (Fig.36 and Fig.37)

The carbon brushes in the motor are expendable parts. If the brushes become excessively worn, motor trouble might occur. Therefore, inspect the brushes periodically and replace them. Check the brushes after the first 50 hours of use for a new machine or after a new set of brush have been installed. After the first check, examine them after each about 10 hours of use until such time that replacement is necessary.
When the carbon on either brush is worn to 3/16″(5mm) in length or if either spring or shunt wire is burned or damaged in any way, replace both brushes (see Fig.36). If the brushes are found serviceable after removing , reinstall them in the same position as before removed. Also, keep the carbon brushes clean so that they will slide smoothly within the brush holders. The carbon brushes can easily be removed after removal of the brush caps (see Fig.37) with a slotted (minus) screwdriver.

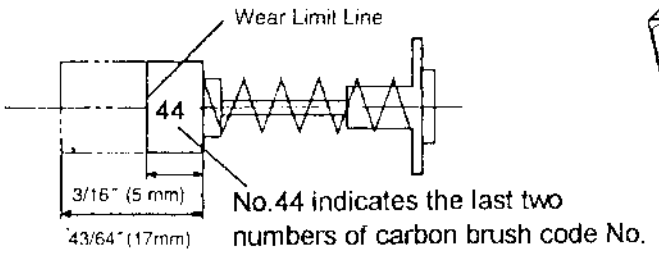


Fig. 36

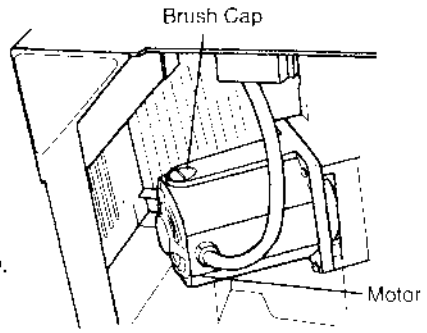


Fig. 37

3. Inspecting the mounting screws

Regularly inspect each component of the power tool for looseness.
Re - tighten mounting screws on any loose part.

⚠ **WARNING : To prevent personal injury, never operate the power tool if any components are loose.**

4. Inspecting the saw blade guard for proper operation.

Before each use of the tool, test the saw blade guard (see Fig.1) to assure that they are in good condition and that they move smoothly. Never use the tool unless the saw blade guard operate properly and unless they are in good mechanical condition. Ensure the anti-kickback pawls are always sharp so they dig into the workpiece and avoid kickbacks. If any damage has occurred, repair it promptly.

5. Frequently clean the saw blade guard.

Wipe off chips waste attached inside of the see -through saw blade guards with a soft cloth or the like from time to time. Chips and waste disturb safe operations. Do not use solvent (gasoline, thinner etc.) which damage plastic parts.

6. Storage

Confirm that the switch is turned OFF, that the power plug has been removed from the receptacle and that the safety key has been removed and has been in a secure place, after operation of the tool has been completed. When the tool is not in use, keep it stored in a dry place out of the reach of children.

7. Lubrication

Lubricate the following moving parts and rotating parts once a month to keep the power tool in good operating condition for a long time (see Fig. 1 and Fig.2). Use of machine oil is recommended.
Oil supply points :
Rotary and moving portion of handle

8. Cleaning

Periodically remove chips and other waste material from the surface of the power tool with a damp, soapy cloth. To avoid a malfunction of the motor, protect it from contact with oil or water.

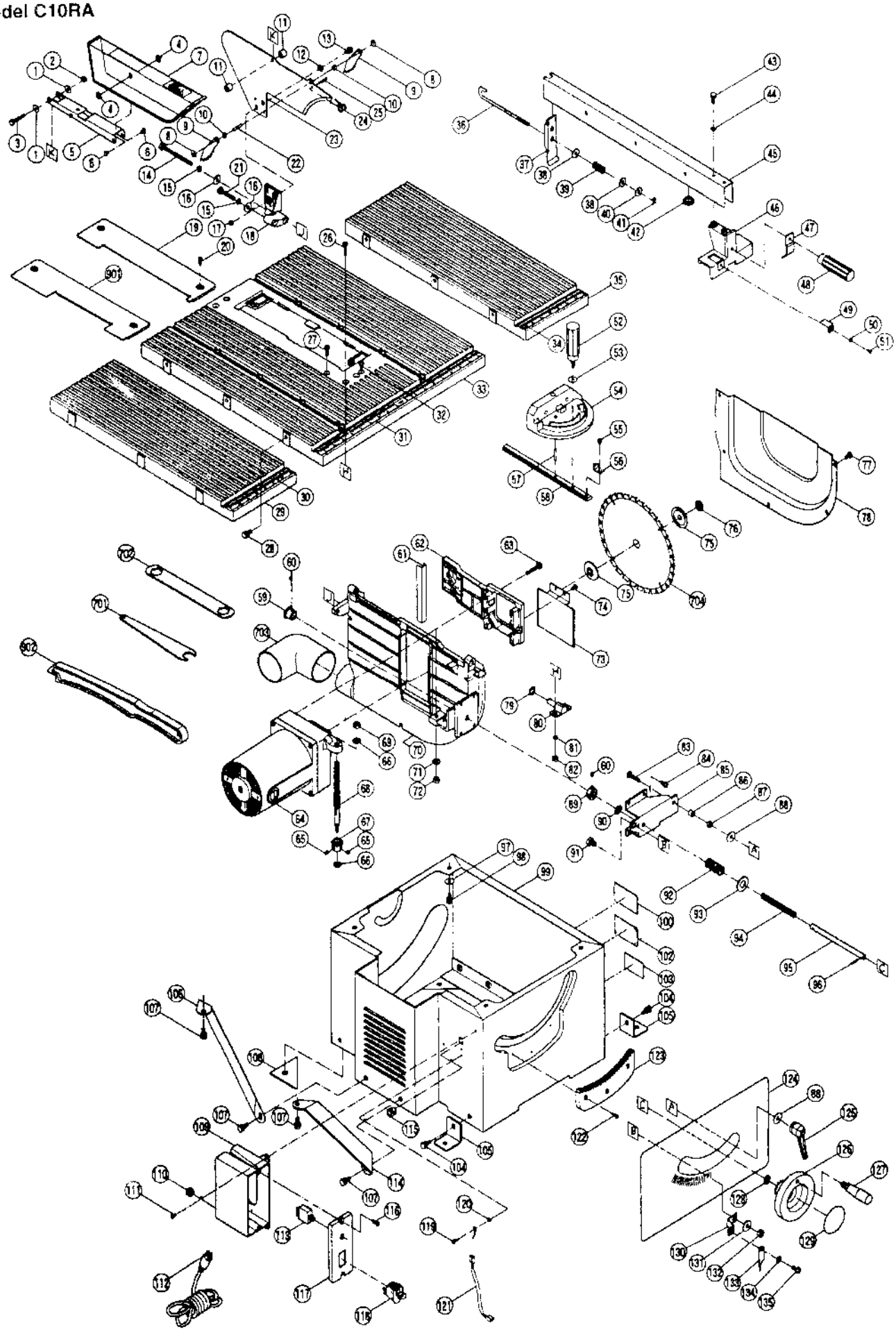
SERVICE AND REPAIRS

All quality power tools will eventually require servicing or replacement of parts because of wear from normal use. To assure that only authorized replacement parts will be used and that the double insulation system will be protected, all service (other than routine maintenance) must be performed by an AUTHORIZED HITACHI POWER TOOL REPAIR CENTER ONLY.

⚠ **NOTE : Specifications are subject to change without any obligation on the part of HITACHI.**

PARTS LIST

Model C10RA



Model C10RA

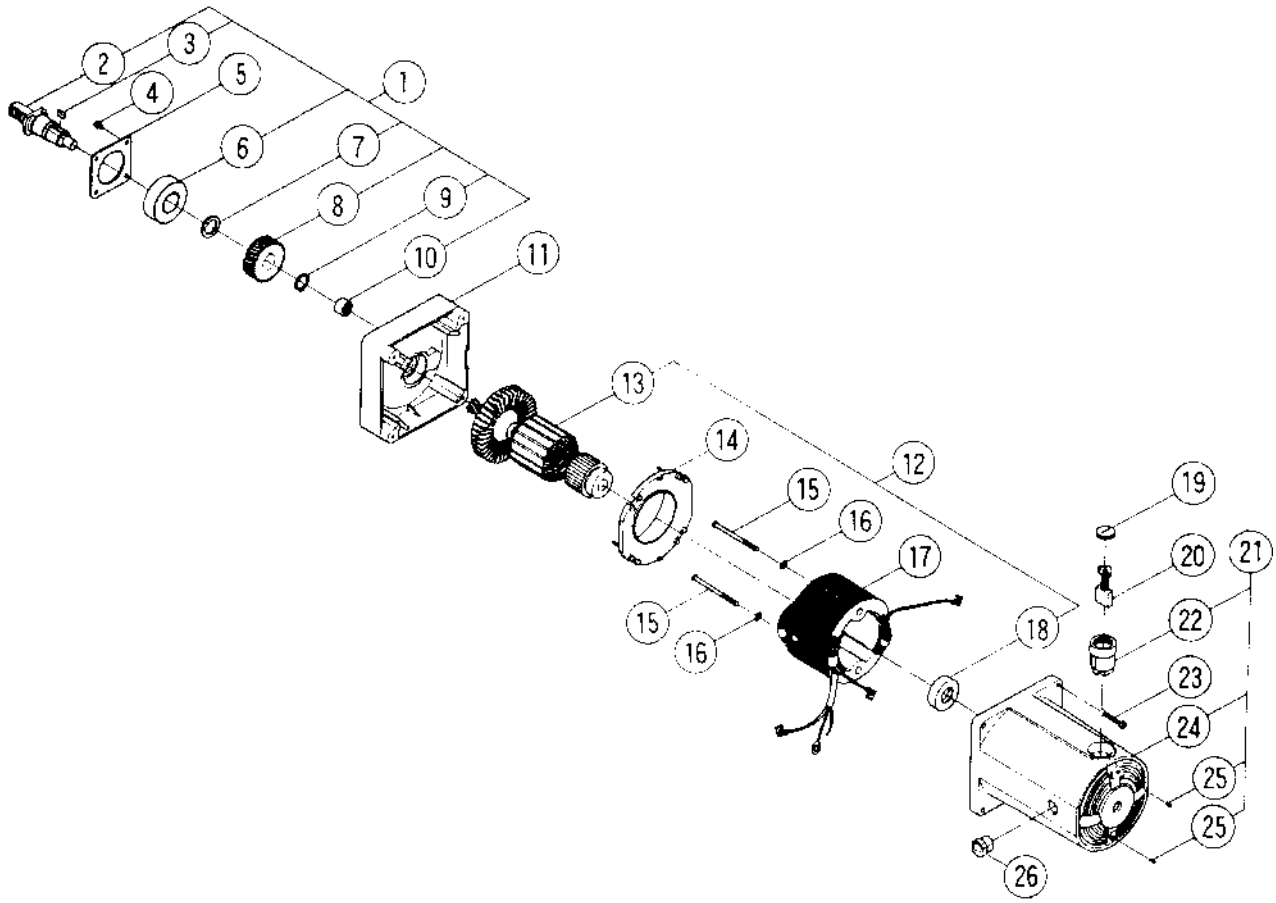


Table Saw Parts List

ITEM NO.	PART NAME	ITEM NO.	PART NAME
1	FLAT WASHER D13Xd6Xt1	64	MOTOR ASSEMBLY
2	NUT CHUCK M6	65	HEX. SOC. SET SCREW M6X6
3	HEX. HD. BOLT M6X40,	66	FLAT WASHER 5/16" X9/16" X1/16"
4	SELF-LOCKING RING	67	BEVEL GEAR
5	ARM	68	SCREW BAR
6	RIVET D8X9	69	NUT CHUCK M8
7	BLADE GUARD	70	BODY
8	SELF-LOCKING RING	71	FLAT WASHER 1/4" X1/2" X3/32"
9	KICKBACK PAWL	72	NUT CHUCK M6
10	BUSH	73	GUARD
11	BUSH	74	MACHINE SCREW (W/SPRING WASHER) M6X12
12	WASHER D18Xd6.5Xt1	75	WASHER (A)
13	HEX. HD. SCREW AND WASHER M6X16	76	SET NUT
14	HEX. HD. BOLT M6X60	77	MACHINE SCREW (W/SPRING WASHER) M6X12
15	SPRING WASHER M6	78	BLADE GUARD
16	BOLT WASHER M6	79	FLAT WASHER D15Xd8Xt1
17	NUT M6	80	PIVOT SUPPORT
18	GUARD BRACKET	81	SPRING WASHER M6
19	INSERT	82	NUT M6
20	MACHINE SCREW M5X8	83	CAP HD. SQ. NECK BOLT M6X35
21	HEX. HD. BOLT M6X35	84	MACHINE SCREW (W/SPRING WASHER) M6X12
22	ROLL PIN D6X25	85	BRACKET
23	SPREADER	86	SPACER D10Xd7XH8.5
24	SPRING	87	NUT M6
25	ROLL PIN D4X22	88	FLAT WASHER D25Xd6Xt4
26	FLAT SCREW M6X25	89	ANCHOR BLOCK D20Xd10
27	CR. RE. PAN HD. SCREW M6X20	90	FLAT WASHER 3/8" X3/4" X5/64"
28	HEX. HD. SCREW AND WASHER M6X20	91	HEX. HD. BOLT M8X16
29	EXTENSION WING (LEFT)	92	COMPRESSION SPRING D22XL20
30	SCALE (LEFT)	93	FLAT WASHER 5/8" X1-1/4" X5/64"
31	SCALE	94	COMPRESSION SPRING D12.8XL57
32	CR. RE. PAN HD. SCREW M6X10	95	HEIGHT REGULATING BOLT L=174.5
33	TABLE	96	ROLL PIN D3X18
34	SCALE (RIGHT)	97	WASHER D18Xd6.5Xt1
35	EXTENSION WING (RIGHT)	98	HEX. HD. BOLT (W/WASHERS) M6X12
36	LOCKING ROD	99	BODY SHELL
37	REAR CLAMP	100	WARNING LABEL (B)
38	FLAT WASHER 21/64" X3/4" X1/16"	101	
39	COMPRESSION SPRING D12.8XL38	102	WARNING LABEL (A)
40	FLAT WASHER 5/16" X9/16" X3/64"	103	NAMEPLATE
41	RETAINING RING (E-TYPE) FOR D6 SHAFT	104	HEX. HD. BOLT (W/WASHERS) M8X20
42	CUP	105	SET PLATE
43	HEX. HD. BOLT M6X12	106	EXTENSION SUPPORTER (RETAINING CLIP) LEFT
44	EXTERNAL TOOTH LOCK WASHER D6	107	HEX. HD. BOLT (W/WASHERS) M8X20
45	PARALLEL BRACKET	108	SPONGE
46	WIDTH BODY	109	SWITCH BOX
47	FRONT CLAMP	110	STRAIN RELIEF
48	CLAMP HANDLE (A)	111	CR. RE. TRUSS HD. TAPPING SCREW M4X10
49	POINTER	112	POWER CABLE
50	BOLT WASHER M5	113	CIRCUIT BREAKER SWITCH
51	MACHINE SCREW M5X6	114	EXTENSION SUPPORTER (RETAINING CLIP) RIGHT
52	CLAMP HANDLE (B)	115	STRAIN RELIEF
53	FLAT WASHER 1/4" X3/4" X3/64"	116	CR. RE. TRUSS HD. TAPPING SCREW M5X16
54	MITER GAUGE	117	SWITCH MTG. PLATE
55	CR. RE. ROUND WASHER HD. SCREW M5X6	118	ROCKER SWITCH
57	ANGLE POINTER	119	CR. RE. TRUSS HD.TAPPING SCREW M4X10
58	PIN D4.7X20	120	EXTERNAL TOOTH LOCK WASHER D4
58	SHEET BAR	121	LEAD WIRE
59	BEVEL GEAR	122	CR. RE. PAN HD. TAPPING SCREW M4X12
60	HEX. SOC. SET SCREW M6X6	123	SEGMENT GEAR
61	SLIDE PLATE	124	DECORATION PLATE
62	SPREADER BRACKET		
63	HEX. HD. SCREW AND WASHER M6X35		

Table Saw Parts List

ITEM NO.	PART NAME	ITEM NO	PART NAME
125	TENSION HANDLE	131	BOLT WASHER M8
126	WHEEL	132	NUT M8
127	HANDLE	133	NEEDLE POINTER
128	FLAT WASHER 3/8" X3/4" X5/64"	134	EXTERNAL TOOTH LOCK WASHER D5
129	LABEL	135	MACHINE SCREW M5X8
130	POINTER BRACKET		

Motor Parts List

ITEM NO.	PART NAME	ITEM NO	PART NAME
1	SPINDLE ASSEMBLY (INCLUD.2.3.6 ~10)	14	BAFFLE
2	SPINDLE	15	CR RE.PAN HE. TAPPING SCREW M5
3	PARALLEL KEY 4X12	16	EXTERNAL TOOTH LOCK WASHER D5
4	MACHINE SCRW (W/SPRING WASHER) M4X12	17	STATOR ASSEMBLY 115V
5	BEARING RETAINER	18	BEARING BUSHING
6	BALL BEARING 6204VVCM	19	BRUSH CAP
7	COLLAR	20	CARBON BRUSH
8	HELIX GEAR	21	HOUSING ASSEMBLY (INCLUD 22.24.25)
9	RETAING RING (C-TYPE) FOR D17 SHAFT	22	BRUSH HOLDER
10	NEEDLE BEARING	23	MACHINE SCRWE (W/SPRING WASHER) M5X30
11	BRACKET	24	MOTOR HOUSING
12	AMATURE ASSEMBLY 115V (INCLUD.13.18)	25	HEX.SOC.SET SCREW M5X8
13	AMATURE 115V	26	STRAIN RELIEF

Standard Accessories

ITEM NO.	PART NAME	ITEM NO	PART NAME
701	WRENCH		
702	WRENCH HEX.		
703	ELBOW		
704	BLADE		

Optional Accessories

ITEM NO.	PART NAME	ITEM NO	PART NAME
901	DADO INSERT		
902	PUSH STICK		
903	TABLE SAW STAND		

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HITACHI KOKI U.S.A., Ltd.

3950 Steve Reynolds Blvd.
Norcross, GA30093

A704
No.993165-11
Printed in Taiwa