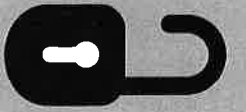


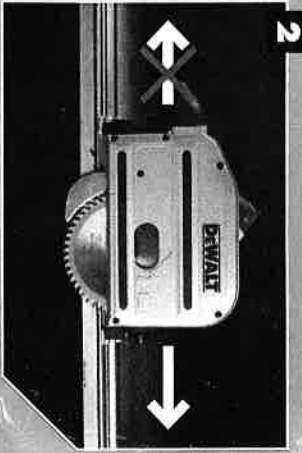
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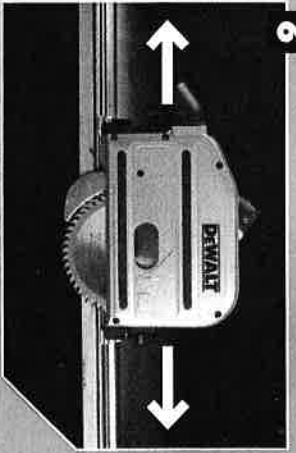
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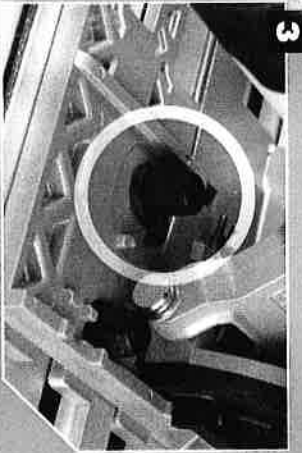
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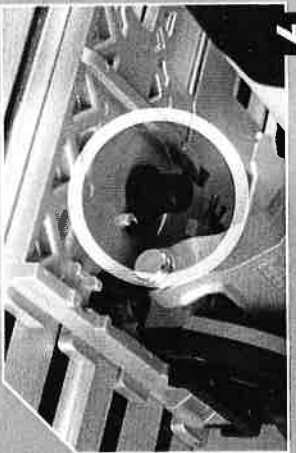
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4



8



FIG. 1

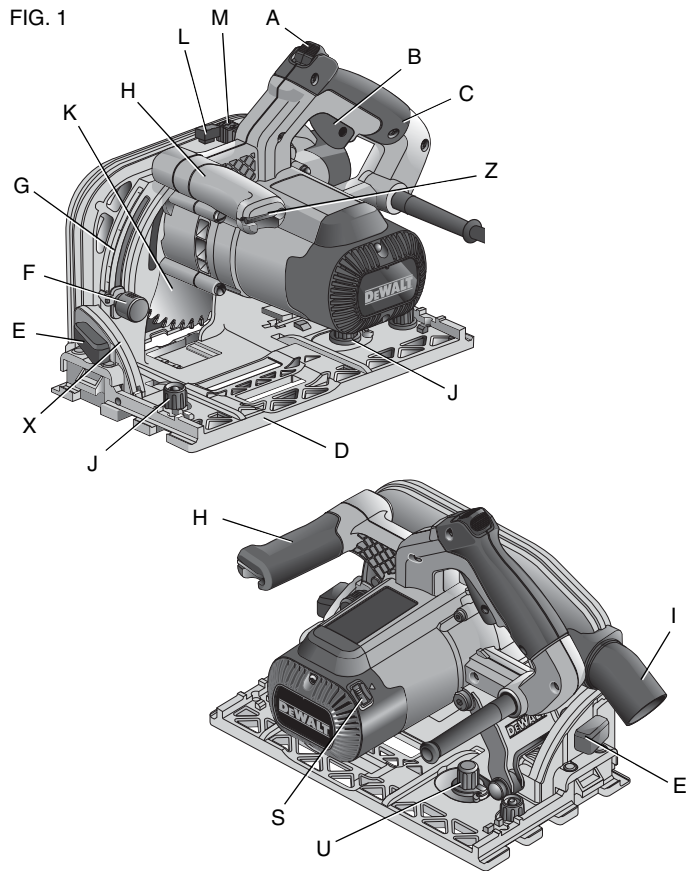
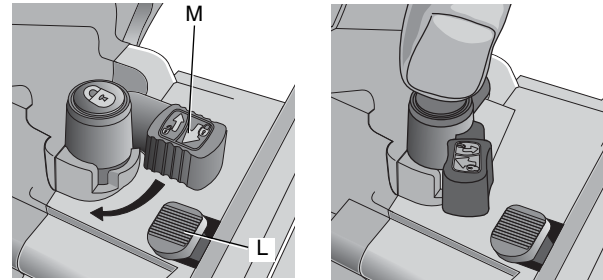


FIG. 2



English

INTENDED USE

The DWS520 track saw is designed to cut wood. Do not use this saw to cut solid-surface countertops (i.e., Corian®).

⚠ WARNING: To reduce the risk of serious personal injury, do not use this saw to cut solid-surface countertops. Material build-up may inhibit proper function of the plunge return, leaving the blade exposed.

ADJUSTMENTS AND SET-UP

⚠ WARNING: To reduce the risk of injury, turn unit off and disconnect it from power source before installing and removing accessories, before adjusting or when making repairs. An accidental start-up can cause injury.

⚠ WARNING: Before using the track saw, ALWAYS make sure all functions are working properly!

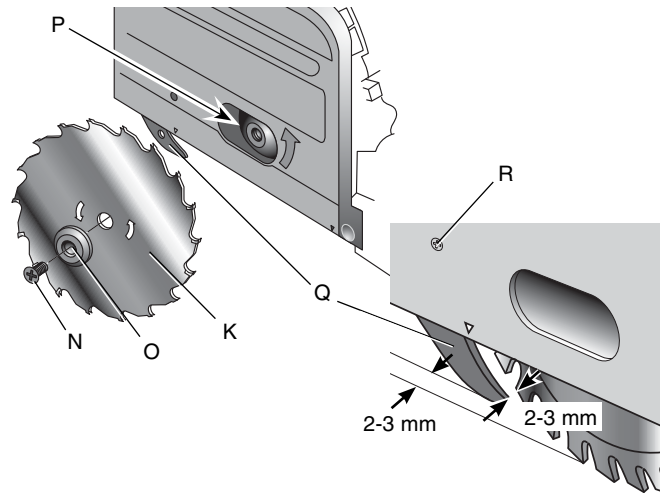
Bevel Adjustment (Fig. 1)

The bevel angle can be adjusted between 0° and 47°.

1. Loosen the bevel adjustment knobs (E).

2. Set the bevel angle by tilting the saw shoe (D) until the mark indicates the desired angle on the bevel scale (X).
3. Tighten the bevel adjustment knobs (E).

FIG. 3



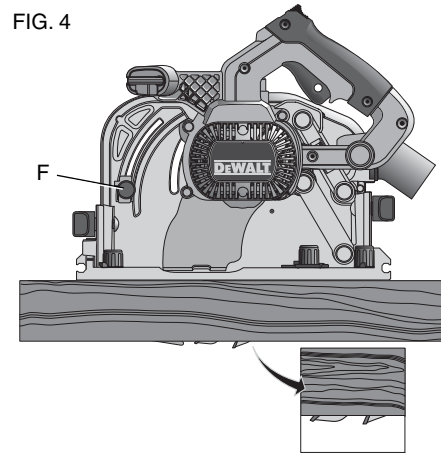
Adjusting the Riving Knife (Fig. 3)

For the correct adjustment of the riving knife (Q), refer to the Figure 3. Adjust the clearance of the riving knife after changing the saw blade or whenever necessary.

1. Follow *Changing the Saw Blade* steps 1–4.
2. Loosen the riving adjustment screw (R) with an hex wrench (Z) and set the riving knife as shown in Figure 3.
3. Tighten the riving knife screw (R).

4. Turn the lock lever (M) counterclockwise until it stops.
5. Move the track saw back to top position.

FIG. 4



Cutting Depth Adjustment (Fig. 4)

The cutting depth can be set at 0–2-5/16" (0–59 mm) without track attached; with the track attached: 0–2-1/8" (0–55 mm).

1. Loosen the depth adjustment knob (F) and move the pointer to obtain the correct depth of cut.
2. Tighten the depth adjustment knob (F).

NOTE: For optimal results, allow the saw blade to protrude from the workpiece by about 1/8" (3 mm).

OPERATION

⚠ WARNING: To reduce the risk of injury, turn unit off and disconnect it from power source before installing and removing

accessories, before adjusting or when making repairs. An accidental start-up can cause injury.

Switching On and Off (Fig. 1)

Pull the On/off switch (B) to turn the motor on. Releasing the trigger turns the motor off. This tool has no provision to lock the switch in the on position, and should never be locked on by any other means.

Changing the Saw Blade (Fig. 1–3)

⚠ WARNING: *To reduce the risk of injury, turn unit off and disconnect it from power source before installing and removing accessories, before adjusting or when making repairs. An accidental start-up can cause injury.*

⚠ CAUTION: *Avoid contact with the blade teeth to prevent personal injury.*

CAUTION: *Never engage the blade lock while saw is running or engage in an effort to stop the tool. Never turn the saw on while the blade lock is engaged. Serious damage to your saw will result.*

1. Press the lock button (L).
2. Press the track saw down to stop (blade change position).
3. Turn the lock lever (M) clockwise until it stops.
4. Press the lock lever (M) down and rotate the blade until the lock position is found.

NOTE: The blade (K) is now locked and cannot be turned by hand.

5. Turn the blade clamping screw (N) counterclockwise to remove.
6. Remove the outer flange (O) and used blade (K). Place the new blade on the inner flange (P).
7. Replace the outer flange (O) and blade clamping screw (N). Turn the screw clockwise by hand.

⚠ CAUTION: *The direction of rotation of the saw blade and the rotation of the track saw MUST be the same.*

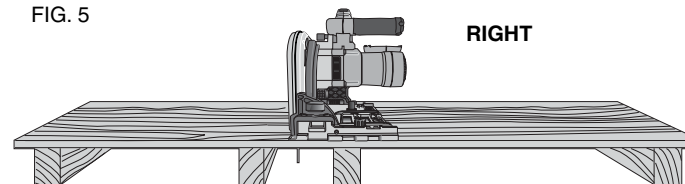
8. Tighten the blade clamping screw firmly using the hex wrench (Z).
9. Turn the lock lever (M) counterclockwise until it stops.
10. Move the track saw back to top position.
11. Push plunge trigger (A) forward, to lock saw blade change.

Workpiece Support

⚠ WARNING: *Hands should be kept away from cutting area to reduce the risk of injury.*

⚠ WARNING: *The power cord should be positioned clear of the cutting area so that it will not get caught or hung up on the work and to prevent electric shock.*

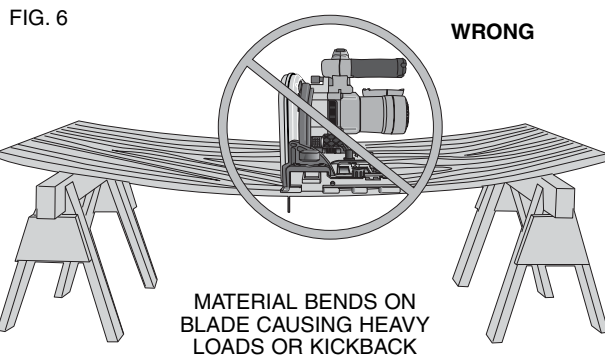
FIG. 5



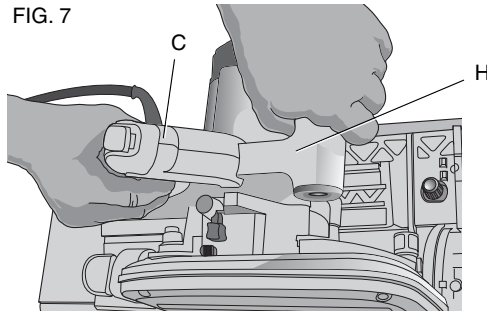
SUPPORT WORK NEAR CUT

Figure 5 shows proper sawing position. Figure 6 shows an unsafe condition. To avoid kickback, DO support board or panel NEAR the cut. DON'T support board or panel away from the cut.

⚠ WARNING: *When operating the saw, keep the cord away from the cutting area to prevent electric shock.*



⚠ WARNING: It is important to support the work properly and to hold the saw firmly to prevent loss of control which could cause personal injury. Figure 7 illustrates typical hand support of the saw.



Place the work with its “good” side – the one on which appearance is most important – down. The saw cuts upward, so any splintering will be on the work face that is up when you saw it.

Cutting

⚠ DANGER: Risk of electrical shock. Keep the cord away from the cutting area to prevent electrocution.

⚠ WARNING: If the guard binds or is sluggish, return the saw to your nearest authorized DEWALT service center for repair.

⚠ WARNING: For maximum protection, effective control of this powerful saw requires two-handed operation. Support the work properly and hold the saw firmly to prevent loss of control which could cause injury. Refer to Figure 7 for the proper way to hold the saw.

⚠ WARNING: Stay alert and maintain a firm grip on the saw. Release the switch immediately if the blade binds or the saw stalls. Keep your blade sharp. Properly support panels (Fig. 5, 6). Use the track when ripping. DO NOT force the tool. DO NOT remove the saw from the workpiece while the blade is moving.

⚠ WARNING: To help reduce the risk of personal injury, always clamp work. Don't try to hold short pieces by hand! Remember to support cantilevered and over hanging material. Use caution when sawing material from below.

⚠ WARNING: Be sure that the saw is up to full speed before blade contacts material to be cut. Starting the saw with blade against material to be cut or pushed forward into kerf can result in kickback and personal injury.

⚠ WARNING: ALWAYS secure the workpiece in such a manner that it cannot move while sawing. For optimum results, clamp the workpiece bottom up.

⚠ WARNING: ALWAYS push the machine forwards. **NEVER** pull the machine backwards towards you.

⚠ WARNING: ALWAYS use the clamp (Fig. 8, AA) to hold the track to the workpiece.

CAUTION: Do not operate your tool on a current on which the voltage is not within correct limits. Do not operate tools rated AC only on DC current. To do so may seriously damage the tool.

1. Place the machine with the front part of the saw base on the workpiece.
2. Press the on/off switch to turn the saw on.
3. Push the plunge trigger (A) forward, press the saw down to set cutting depth and push it forward into cutting direction.

Push the saw forward at a speed which allows the blade to cut without laboring. Hardness and toughness can vary even in the same piece of material, and knotty or damp sections can put a heavy load on the saw. When this happens, push the saw more slowly, but hard enough to keep it working without much decrease in speed. Forcing the saw can cause rough cuts, inaccuracy, kickback and over-heating of the motor.

Should the cut begin to go off the line, DO NOT try to force it back. Release the switch and allow blade to come to a complete stop, then withdraw the saw, realign, and start a new cut slightly inside the wrong one.

In any event, withdraw the saw if you must shift the cut. Forcing a correction inside the cut can stall the saw and lead to kickback. IF SAW STALLS, RELEASE THE TRIGGER, ALLOW THE BLADE TO COME TO A COMPLETE STOP, AND BACK THE SAW UNTIL IT IS LOOSE. BE SURE BLADE IS STRAIGHT IN THE CUT AND CLEAR OF THE CUTTING EDGE BEFORE RESTARTING.

As you finish a cut, release the trigger and allow the blade to stop before lifting the saw from the work. As you lift the saw, the spring-tensioned guard will automatically close

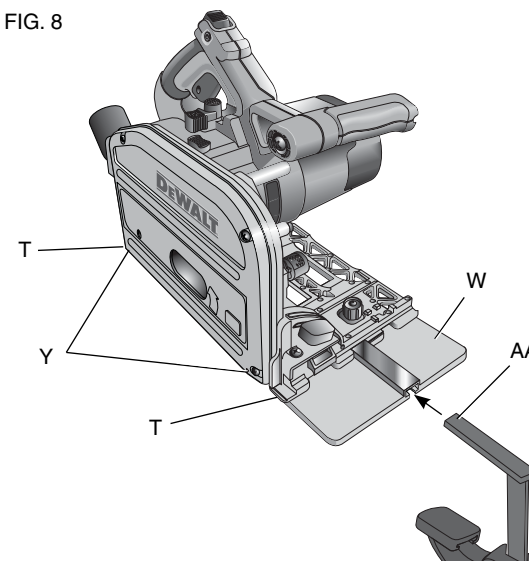
around the blade. Remember the blade is exposed until this occurs, never reach under the work for any reason whatsoever.

Always use a track, fence or straight edge guide when ripping.

NOTE: When cutting thin strips, be careful to ensure that the narrow strips do not feed up into the inside of the blade enclosure.

NOTE: The tracks, available in different lengths, allow for precise, clean cuts and simultaneously protect the workpiece surface against damage.

FIG. 8



PLUNGE CUTS (FIG. 1, 8)

⚠ WARNING: ALWAYS use the track when plunge cutting.

⚠ WARNING: To avoid kickbacks, the following instructions **MUST** be observed when plunge cutting:

1. Place the machine onto the track and release the anti-kickback knob (U) by turning it counterclockwise.
2. Turn the machine on and slowly press the saw down onto the set cutting depth and push forward in the cutting direction. The cut indicators (T) display the absolute front and the absolute rear cutting points of the saw blade [dia. 6-1/2" (165 mm)] at maximum cutting depth and using the track.
3. If kickback happened during the plunge cut, turn the anti-kickback knob (U) counterclockwise to release it from the track.
4. When you have finished the plunge cut, turn the anti-kickback knob (U) clockwise into the lock position.

CROSS-CUTTING

Cutting directly across the grain of a piece of lumber is called crosscutting. Figures 9 and 10 illustrate a crosscut operation. Position the work so that the cut will be on the left.

FIG. 9

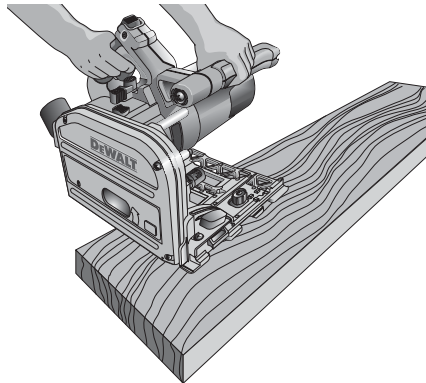
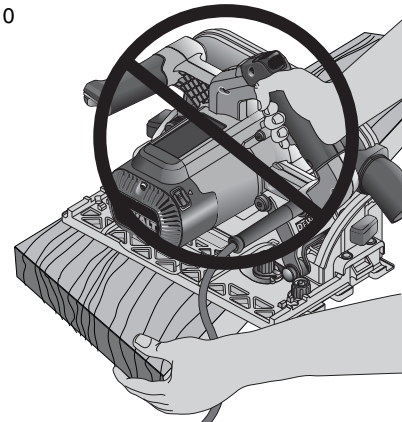


FIG. 10



RIPPING

Ripping is cutting wood lengthwise. This operation is performed in the same manner as crosscutting with the exception of supporting the workpiece. If the workpiece is supported on a large table, bench, or floor, several pieces of scrap stock approximately 1" (25.4 mm) thick should be placed beneath the material to allow clearance for the portion of the saw blade that extends thru the workpiece. Large sheets of paneling or thin plywood supported on saw horses should have 2 x 4's placed lengthwise between the horses and the workpiece to prevent it from sagging in the center.

BEVEL CUTTING

Make your bevel cuts in the same manner as crosscuts and rip cuts, but set the blade at an angle between 0° and 47°.

The bevel cut made at an angle to the edge of a board is called a compound cut.

KICKBACK

When the saw blade becomes pinched or twisted in the cut, kickback can occur. The saw is thrust rapidly back toward the operator. When the blade is pinched or bound tightly by the kerf closing down, the blade stalls and the motor reaction drives the unit backward. When the blade becomes twisted or misaligned in the cut, the teeth at the back edge of the blade can dig into the top surface of the wood causing the blade to climb out of the kerf and jump back toward the operator. Kickback is more likely to occur when any of the following conditions exist.

1. IMPROPER WORKPIECE SUPPORT

- A. Sagging or improper lifting of the cut off piece can cause pinching of the blade and lead to kickback.
- B. Cutting through material supported at the outer ends only can cause kickback. As the material weakens it sags, closing down the kerf and pinching the blade.
- C. Cutting off a cantilevered or overhanging piece of material from the bottom up in a vertical direction can cause kickback. The falling cut off piece can pinch the blade.
- D. Cutting off long narrow strips (as in ripping) can cause kickback. The cut off strip can sag or twist closing the kerf and pinching the blade.
- E. Snagging the lower guard on a surface below the material being cut momentarily reduces operator control. The saw can lift partially out of the cut increasing the chance of blade twist.

2. IMPROPER DEPTH OF CUT SETTING ON SAW

To make the most efficient cut, the blade should protrude only far enough to expose 1/2 of a tooth. This allows the shoe to support the blade and minimizes twisting and pinching in the material. See the section titled *Cutting Depth Adjustment*.

3. BLADE TWISTING (MISALIGNMENT IN CUT)

- A. Pushing harder to cut through a knot, a nail, or a hard grain area can cause the blade to twist.
- B. Trying to turn the saw in the cut (trying to get back on the marked line) can cause blade twist.
- C. Over-reaching or operating the saw with poor body control (out of balance), can result in twisting the blade.
- D. Changing hand grip or body position while cutting can result in blade twist.
- E. Backing up the saw to clear blade can lead to twist.

4. MATERIALS THAT REQUIRE EXTRA ATTENTION

- A. Wet lumber
- B. Green lumber (material freshly cut or not kiln dried)
- C. Pressure treated lumber (material treated with preservatives or anti-rot chemicals)

5. USE OF DULL OR DIRTY BLADES

Dull blades cause increased loading of the saw. To compensate, an operator will usually push harder which further loads the unit and promotes twisting of the blade in the kerf. Worn blades may also have insufficient body clearance which increases the chance of binding and increased loading.

6. LIFTING THE SAW WHEN MAKING BEVEL CUT

Bevel cuts require special operator attention to proper cutting techniques - especially guidance of the saw. Both blade angle to the shoe and greater blade surface in the material increase the chance for binding and misalignment (twist) to occur.

7. RESTARTING A CUT WITH THE BLADE TEETH JAMMED AGAINST THE MATERIAL

The saw should be brought up to full operating speed before starting a cut or restarting a cut after the unit has been stopped

with the blade in the kerf. Failure to do so can cause stalling and kickback.

Any other conditions which could result in pinching, binding, twisting, or misalignment of the blade could cause kickback. Refer to *Adjustments And Set-Up* and *Operation* for procedures and techniques that will minimize the occurrence of kickback.

Blades

⚠WARNING: *To minimize the risk of eye injury, always wear ANSI Z87.1 approved eye protection. Carbide is a hard but brittle material. Foreign objects in the work piece such as wire or nails can cause tips to crack or break. Only operate saw when proper saw blade guard is in place. Mount blade securely in proper rotation before using, and always use a clean, sharp blade.*

⚠WARNING: *NEVER cut ferrous metals (those with any iron or steel content), masonry, glass or tile with this saw. Damage to the saw and personal injury may result.*

A dull blade will cause inefficient cutting, overload on the saw motor, excessive splintering and increase the possibility of kickback. Change blades when it is no longer easy to push the saw through the cut, when the motor is straining, or when excessive heat is built up in the blade. It is a good practice to keep extra blades on hand so that sharp blades are available for immediate use. Dull blades can be sharpened in most areas; see SAWS-SHARPENING in the yellow pages. Hardened gum on the blade can be removed with kerosene, turpentine, or oven cleaner. Anti-stick coated blades can be used in applications where excessive build-up is encountered, such as pressure treated and green lumber.

BLADE SELECTION

Your DEWALT track saw is designed for use with 6-1/2" (165 mm) diameter blades that have a 0.79" (20 mm) diameter bore. Blades must be rated for 6000 RPM operation (or higher). **DO NOT** use any abrasive wheels.

A combination blade is furnished with your saw and is an excellent blade for all general ripping and crosscutting operations. Use a fine-tooth blade for cutting plywood.

⚠WARNING: *VISUALLY EXAMINE CARBIDE BLADES BEFORE USE. REPLACE IF DAMAGED.*

Track Saw System (Fig. 1)

The tracks, which are available in different lengths, allow for precise, clean cuts and simultaneously protect the workpiece surface against damage.

In conjunction with additional accessories, exact angled cuts, miter cuts and fitting work can be completed with the track saw system.

Securing the workpiece with clamps ensures a secure hold and safe working.

The guide clearance of the track saw must be very small for best cutting results and can be set with the two track adjusters (J).

1. Release the screw inside the track adjuster to adjust the clearance.
2. Adjust the knob until saw locks on track.
3. Rotate knob back until saw slides easily.
4. Hold the track adjuster in position and lock the screw again.

NOTE: ALWAYS readjust the system for use with other tracks.

Anti-splinter Strip

The track is equipped with an anti-splinter strip, which has to be cut to size before the first use:

IMPORTANT: ALWAYS read and follow the track saw system instruction before cutting the anti-splinter strip!

1. Set the speed of the track saw to level 5.
2. Place the track on a scrap piece of wood.
3. Set the track saw on 3/16" (5 mm) cut depth.
4. Place the saw on the rear end of the track.

- Turn the saw on, press it down to the set cutting depth and cut the anti-splinter strip along the full length in one continuous operation. The edge of the anti-splinter strip now corresponds exactly to the cutting edge of the blade.

⚠ WARNING: To reduce the risk of injury, ALWAYS secure the track (W) with a clamp.

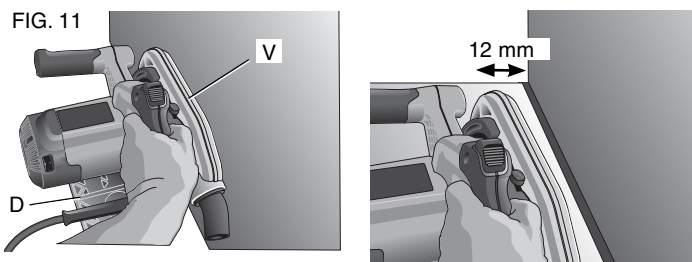
Speed Adjustment (Fig. 1)

The speed can be regulated between 1750 and 4000/min using the speed wheel (S). This enables you to optimise the cutting speed to suit the material. Refer to the following chart for type of material and speed range.

TYPE OF MATERIAL TO BE CUT	SPEED RANGE
Solid wood (hard, soft)	3–5
Chipboards	4–5
Laminated wood, blockboards, veneered and coated boards	2–5
Paper and carton	1–3

Wall Cutting (Fig. 11)

- Place the track saw with the outer guard (V) on a clean, flat floor.



- Press the shoe (D) with the front side on the wall against the adjusted depth stop.

NOTE: The minimum cut between wall and workpiece is 12 mm.

Dust Extraction (Fig. 1)

⚠ WARNING: DO NOT direct sawdust toward yourself or others. To avoid injury from flying sawdust, keep the exhaust nozzle either in the forward position or in the closed position. DO NOT insert foreign objects into the exhaust opening.

⚠ WARNING: ALWAYS connect the track saw to a dust extractor!

⚠ WARNING: ALWAYS use a dust extraction device designed in accordance with the relevant regulations regarding dust emission.

Your tool is fitted with a dust extraction outlet (I).

MAINTENANCE

⚠ WARNING: To reduce the risk of injury, turn unit off and disconnect it from power source before installing and removing accessories, before adjusting or when making repairs. An accidental start-up can cause injury.

⚠ WARNING: ALWAYS USE SAFETY GLASSES. Everyday eyeglasses are NOT safety glasses. Also use face or dust mask if cutting operation is dusty. ALWAYS wear certified safety equipment:

- ANSI Z87.1 eye protection (CAN/CSA Z94.3)
- ANSI S12.6 (S3.19) hearing protection
- NIOSH/OSHA respiratory protection.

Cleaning

⚠ WARNING: Periodically blowing dust and chips out of the motor housing using clean, dry compressed air is a suggested maintenance procedure. To reduce the risk of serious personal