

SCIONON Grafting Shears SGS1-13

Maintenance & Adjustments

SGS1-13

The SGS1-13 is especially suited to preparing material between 3mm to 13mm in diameter and will normally operate well in this diameter range, without the need for adjustments to be made. The step plate and pin plates allow different diameters to be placed at different points along the jaw and cut accordingly, as desired.

The following cuts are possible: cleft (blunt & pointed), rind (splice), wedge, whip & tongue and chip and 'T' buds when using SCIONON Grafting Shears. Please refer to the operator's manual for details about how each cut is made.

This model requires little adjustment other than periodically releasing the step plate rest to clean and remove debris, and a daily clean after use.

To do this, use the 2mm hex key to release the screws holding the step plate rest in place. Slip the key or the adjustment wrench between the step plate and anvil to remove the bulk of the debris. It is not necessary to fully remove the screws to clear the trapped debris. The pointed end of the wrench can also be used to remove trapped debris from between the pin plate and the jaw anvil recess. At times it will be necessary to remove the pin plate to thoroughly clean it and the jaws.

To thoroughly clean, completely remove the screws and spacer washers. Release the screw that holds the pin plate in place and spray a sap removal agent onto the blades and jaw. Leave to work for a few minutes and scrub off with a nylon bristle brush or a toothbrush etc. Wash with water, dry and reassemble. Do not over tighten the screws. Replace any screws with worn socket heads at this time.

Tip! WD40 will assist to break down sap residue and also helps to prevent surface rust from forming on the blades when storing the tool during periods of non-use.

If the graft wood you are cutting is smaller than 8mm in diameter, only one spacer washer between the anvil and step plate rest is required. If the wood diameter is predominantly less than 10mm, normally no adjustments are necessary.

If the wood being cut is predominantly greater than 12mm, two spacer washers can be used to increase the gap between the anvil and step plate rest. This helps with grip when working with the larger diameters, especially if they are bigger than 13mm in diameter. Spare screws and washers are attached and supplied with each new tool. These are also easily obtained at specialist hardware stores. The thread is M3.

NB: Don't allow excessive play to develop between the jaws. Re-tension the locking nut to increase or decrease tension as required, and periodically apply a few drops of oil to the jaw bolt and bush.

For more information about how the shears be used to create grafting cuts, please refer to the operator's manual or visit the Scionondotcom YouTube video channel.

SCIONON Grafting Shears SGH2-16

Maintenance & Adjustments

The SGH2-16 is most suited to preparing chip buds, but will also prepare the other grafts. It is set up to accept wood diameters of between 5mm to 16mm without needing adjustment. The scion wood is sectioned using the part of the blade nearest to the handles - next to the pocket recess.

This model has a deeper pocket than the SGS1-13 & SGK3-19. This allows for larger graft wood diameters to be placed and cut in the jaws, when preparing chip buds.

The deep pocket on the SGH2-16 is used to rest the end of the bud stick in, when removing a chip bud from the bud stick. This enables the cutting of thicker buds when desired. To cut a chip bud:

1. First taper the end of the bud stick about 5mm to 10mm below the bud to be removed. Do this at the point on the jaws closest to the handles.
2. Next, place the end of the now tapered bud stick into the deep pocket.
3. Now lift the bud stick so that it tensions against the blade and bite into the wood.
4. Close the handles in a quick positive action while ensuring the bud on the bud stick remains central. Practice will help gain the symmetry required.

This should result in a symmetrical chip bud being removed from the bud stick and jumping off without snagging. The length of the bud produced will depend on how wide the jaws are opened.

When cutting larger wood diameters the wood is allowed to rest against the bottom rest plate, where it will be gripped as the bud is cut and removed from the bud stick.

When a shallow bud is needed, for example when cutting thinner diameters, the buds are removed by placing the scion wood to the left, closer to the tip pins and the end of the wood rested under the pin plate to anchor it while making the cut. Experimenting with the different plains along the jaw will demonstrate the differences in cut length and angle that can be obtained.

The SGH2-16 also have a bottom rest plate grip that can be adjusted to grip scion wood when cutting blunt cleft grafts. Normally this rest plate grip is set just behind the anvil pocket recess to allow the sectioning of the scion wood without scaring it. It is only necessary to move the grip forward when preparing blunt cleft grafts in wood diameters larger than 16mm (e.g. kiwifruit wood). If cutting diameters larger than 16mm it is helpful to place one of the spare flat spacer washers between the rest plate grip and the anvil jaw. This will assist with grip and proportion when making the cuts.

When making the cut on smaller diameters, if cutting whips, for rind, splice or whip & tongue grafts, the graft stick can be rested on the ledge next to the pocket. Larger diameters can be cut by resting the wood on the bottom rest plate grip in the pocket, when making the cut.

If diameters less than 8mm are predominantly to be cut, the flat spacer washer between the step plate rest and the jaw anvil can be removed. It is necessary to leave the wider spring washer in place to keep the step plate and jaw anvil apart and stop the blade becoming jammed. This adjustment will also serve to limit the smaller diameters sliding between the two plates and make cutting the correct whip lengths easier and more controllable.

SCIONON Grafting Shears SGK3-19

Maintenance & Adjustments

The SGK3-19 is most suited to preparing blunt cleft grafts, but will also prepare the other grafts. It is set up with a wider pocket recess than the SGS1-13 to accept wood diameters of between 8mm to 19mm without needing adjustment. When sectioning wood it is still best to cut it using the part of the blade nearest to the handles. SCIONON Grafting Shears are primarily shaping tools not secateurs. To avoid over stressing the jaws It is also advisable not to cut dense wood larger than 15 or 16mm.

The main difference between the 16's and 19's setup is the shape of the pocket recess and the way the spacer washers are used. The SGK3-19 has two spring washers between the step plate and the anvil jaw. This increases the gap slightly to accommodate the larger diameters. There is also a flat spacer washer between the bottom rest plate and anvil jaw to assist with grip on the larger diameters.

The SGK3-19 is particularly good for cutting blunt cleft grafts in the larger diameters more easily. When doing this the bottom rest plate grip is adjusted outward so that the edge protrudes past the anvil by about 0.5mm. This can be set at an angle if desired to minimize the scarring when sectioning the smaller diameter wood. This rest plate adjustment enables the end of the wood to be gripped when make the first whip cut. To make the second cut, the wood is turned over and the end rested on the edge of the plate while making the second whip face cut, whereby a blunt cleft graft is produced.

When using the SGK3-19, whip and tongues are cut in much the same way as described in the operator's manual. By removing the extra spacer washes the 19s can be setup to function much the same as the 13s. Scionondotcom video demonstrations show the versatility of the Grafting Shears.

Points to note - All models:

Clear any trapped debris - often. During use, wood fibres will build up in the recess pocket.

Sharpen the blades only as required. The tip bevel should be maintained at about 25° to 30°. The secondary bevel should be thinned out as the blade tip is worn away due to sharpening and honed to about 13° to 15°. There is approximately 2mm of tip wear available, before the blade will lose function. See the operator's manual for more sharpening tips.

When storing the tool, thoroughly clean and wipe the blades and jaws with a lightly oiled cloth. Replace any screws with worn socket heads as often as necessary. Thread is M3.

When replacing the screws, place a zinc based oil on the screw threads to stop them ceasing in place. Do not over tighten. If the screws ever become ceased in place, use heat to try to break the seal. If this fails, the screws can be drilled out using a 2.5 mm drill bit without damaging the retaining threads. If the threads ever become stripped or damaged, an M3 hex nut can be used with the screw to secure the blade in place.

It is inadvisable to section dense woods larger than 16mm using the shears. This can cause premature damage to the blades, and cause the jaws to fall out of alignment. If for any reason the jaws do fall out of alignment, the shears can be placed in a vice and the handles tweaked to align the jaws again.

1. Open the handles and place either the top or bottom jaw in the vice.
2. Using the handles as a lever, apply slight inwards or outward pressure to increase/ decrease the jaw plain setup. Test the alignment. Any over correction can be reversed.