



**THE ESSENTIAL SCHIANG GUIDE TO THE
TREATMENT AND MAINTENANCE OF
SOLID WOODEN FURNITURE**

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INTRODUCTION TO THE PROPERTIES OF SOLID WOOD

Schiang UK would like to congratulate you on your choice of solid wooden furniture. To ensure that you receive maximum pleasure from your purchase, it is **VERY IMPORTANT** that you read these instructions. All our workshops meet the standards of the Danish Furniture makers' Quality Control which independently tests the quality of the workmanship. Please note that the quality guarantees covering your furniture only apply when these maintenance instructions have been followed. This does not affect your statutory rights.

Solid wood is a living material and it is therefore important that it is treated and maintained correctly. All timber used is dried until it reaches 7 - 8% moisture content, this corresponds to an air humidity of 40% at 20 degrees Celsius. Solid wood will (to a certain degree) keep working depending on the humidity of the air in the room where the furniture is placed. Because of this it is important to keep the humidity of the air between 40% and 50%. We recommend you get a Hygrometer to monitor the humidity of the air. During the Winter, when the heating is on, the humidity is low. It is therefore necessary to soap treat the furniture more often.

Wood is a product of nature. Therefore, minor knots and colour differences in the structure of the final product will occur. When solid leaves are ordered together with the table, the leaves are individually prepared for the particular table. Please note that veneered leaves or subsequently purchased solid leaves will be different in colour, structure and measurements to the original table. Remember always to mount the supporting legs before any leaves are put in the table.

IMPORTANT: Please note that solid wood cannot stand up to being exposed to direct sunlight or heat. A piece of furniture made of solid wood should **NEVER** be placed near a stove or radiator. Direct heat will dry out the wood and cause it to crack and discolour. Never cover solid wood with an oil cloth or similar for more than 24 hours at a time.

NATURAL QUALITIES OF DIFFERENT WOODS

Schiang UK markets furniture in six standard types of wood: Beech, Oak, Ash, Maple, Mahogany and American Cherry.

We also work with Steamed Beech, Teak, Alder, Pine, American Walnut and European Cherry.

The table below illustrates the individual character of different solid woods.

Wood	H	Characteristics	There may be:	There should not be:
Beech	1	Grey to white, turns yellowish.		Knots, inlets, red rot.
Oak	1	Light to dark grey to white/brownish.	Silver grain, pin knots.	Sapwood, green discolouring.
Ash	1	White to greyish yellow with distinct veining.	Pin knots.	Brown heart.
Maple	3▲	Whitish yellow with very light, indistinct veining.	Wavy grains, pin knots.	Brown heart.
Mahogany	2▼	Reddish brown patinates.	Silica.	Sapwood, storm brake.
Cherry	3▲	Yellowish brown, with distinct patinating.	Gum, wavy grains.	Sapwood.
Walnut	2▲	Dark brown with distinct veining.	Pin knots	Sapwood.

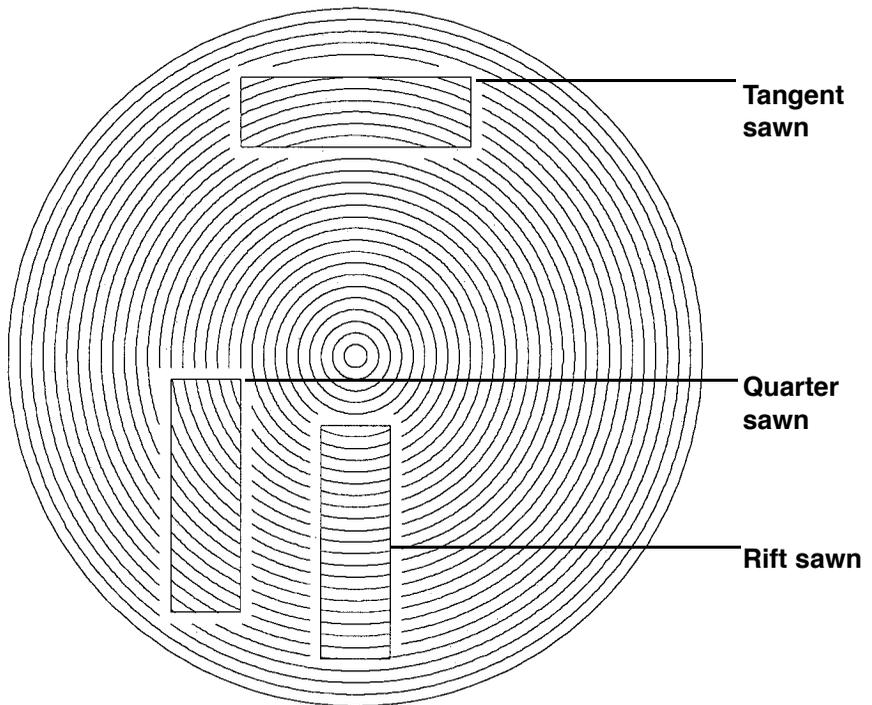
H = Hardness. 1 = Hard. 2 = Medium. 3 = Soft. 4 = Very Soft. Hardness depends on a number of factors such as water content, the ratio between heart/sapwood and the content of the heart (resin and silica)

HOW WOOD IS CUT

The appearance of furniture especially table tops depends entirely on the quality of the cut planks glued together. The way planks are cut from the trunk is of great importance.

Planks are cut from the tree trunk in one of three ways as shown in the following diagram:

Section through tree trunk.

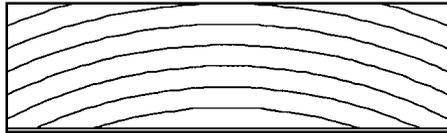


THE EFFECTS OF DIFFERENT WOOD CUTS

Plank Types

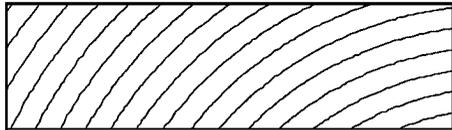
Planks are cut as outlined below:

TANGENT - SAWN:

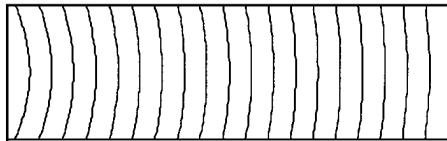


Tangent sawn gives a lively appearance, with pyramid/cathedral structure.

QUARTER- SAWN: (Medium - Sawn)



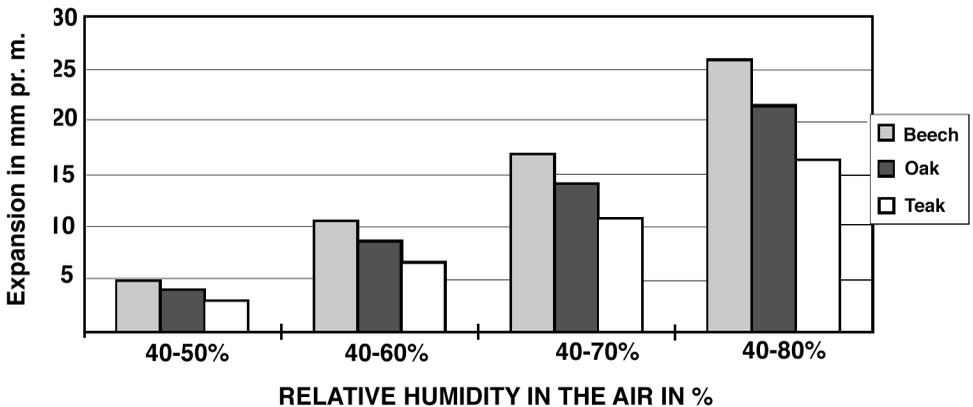
RIFT - SAWN:



Quarter and rift sawn give the appearance of being slender and calm.

THE EFFECTS OF HUMIDITY ON SOLID WOOD

The air humidity indoors varies depending on the season, and is driest in the Winter when heating is used most. In these dry periods, the air sucks moisture out of everything, including pot plants and furniture. When wood dries up, it becomes narrow and less thick, but never shorter. Vaporisation from the end-grain is nine times greater than that from the surface. This drying out results in a table top splitting at the edge, or working loose at the joints in the middle. It is very important to treat the wood surface during these periods to avoid the risk of it drying out, and thus damaging the furniture.



Wood is a living, natural material which we cannot prevent from working. The extent to which the wood works depends upon the type of wood. Beech, for example, works a lot when exposed to changes in humidity. In the past, beech logs were used to split open granite cliffs. Dry beech logs were hammered into pre-drilled holes in the cliff, and were then soaked in water. The strength with which the beech expanded was enough to split the granite.

SECTION 2

PREPARATION AND SURFACE TREATMENTS OF SOLID WOOD

THE IMPORTANCE OF PREPARATION PRIOR TO TREATMENT

Lacquer - Oil:

Lacquer-oil is an old way of treating wood, and was used originally by the producers of teak furniture.

In practical terms, the furniture is treated with a coat of base lacquer with special properties allowing it to soak down into the wood and provide a good base for the top lacquer. The furniture is then given oil instead of top lacquer. So that the oil can fasten on to the base lacquer, a relatively thin, volatile oil without a lot of solid matter is required. As the oil is volatile, it disappears very quickly and the furniture is left with a surface comprising of exposed base lacquer. Apart from occasional application on teak furniture **Schiang UK** does not recommend the preparation of solid wood for lacquer-oil treatment.

Surface preparation for recommended treatments.

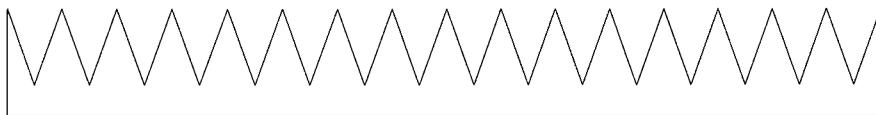
Much of a piece of furniture's appearance and character depends on the surface treatment it has been given. It is of great importance for the end result that the basic work of preparing the surface is carried out thoroughly. The rougher the surface before the treatment is applied, the more surface material, such as lacquer, is needed. This can be up to 30% more on the roughest surfaces, leaving a deposit of lacquer which acts like a magnifying glass, and strengthens the sun's UV rays speeding up the ageing process. Simultaneously, the excess surface material is broken down quickly, and leaves a grey and unattractive surface.

It is easier for dirt to work its way into soap-treated surfaces, and make the surface unattractive and grey, and it is therefore of great importance that the furniture is polished very finely, so that dirt is unable to get a hold.

Preparation of Schiang Furniture.

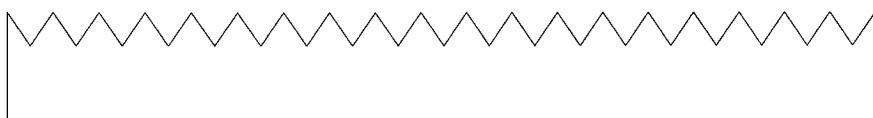
The following illustrates the surface of the wood (magnified) when sanded down with three different grades of paper.

Grain size 120:



The surface is rough when it has been sanded down with course paper with a grain size of 120. Dirt can settle on the surface, and is difficult to remove. The surface patinates quickly, and becomes rough and unattractive. Lacquered cherry will, for example, become grey and matt.

Grain size 180:



The surface is still fairly rough when it has been sanded down with paper with a grain size of 180. The fibres are still raised, but the surface is considered to be more acceptable.

Grain size 220:



The surface is now smooth, having been sanded down with fine paper with a grain size of 220. The fibres are lying down and only a limited amount of dirt can settle on the surface. The surface patinates slowly and attractively.

All furniture from **Schiang** has been sanded down with paper with a grain size of 220 before the treatment is started.

RECOMMENDED TREATMENTS

Schiang UK recommends three types of surface treatment, soap, oil and lacquer.

The advantages and disadvantages of each is outlined below.

Soap Treatment:

Soap flakes are an alkaline animal product. Soap is produced using animal fat, and as we know, fat protects against other fats. Soap treatment requires frequent application for this principle to hold.

Best practice is to use a soap solution every time you dry off the furniture, preferably with a sponge. This cleans the furniture, and also works the soap down into the surface. Never use a rich soap solution, as the high viscosity means that the soap is unable to penetrate down into the surface of the wood.

A table in a dining room which is not used very often, should still be frequently treated as the surface soon becomes relatively unprotected as the soap is broken down (dries up). Without treatment the surface is very sensitive the next time it is used.

By treating it often, i.e. once a month, especially when the furniture is new, a soap layer is slowly built up in the table top. This layer protects the table from the moisture and dirt in the environment and makes the furniture easier to maintain in the longer-term.

We recommend that the water is boiled before mixing the solution. The soap will then dissolve properly in the hot water, and the boiling will also remove the chalk and any other metal particles which may form small rust marks, especially on oak tables, if the metal particles combine with the natural tannin found in oak.

Please also refer to the Care Instructions for soap treated surfaces on page 13.

Oil Treatment:

Oil treatment is the optimal treatment for highlighting the hidden colour of solid wood, especially none blond species..

Oil gives furniture a dirt resistant surface and is able to protect the wood so that the furniture can be used without having to worry about it.

The oil, which contains resin, lies just on and underneath the surface. It provides optimal protection, and also lets the wood keep its natural appearance. All the oils we use are biological, being derived from natural raw materials such as plants and fruits.

By far the majority of oils are based on linseed oil and wax, but we prefer an oil based on linseed oil and natural resin. Natural resin has better properties than wax. It prevents the marks which are left by water and chalk on wax-treated surfaces, for example, and resin is much more resistant to wear and tear.

Reasons for choosing an oil treatment include the following:

1. To bring out the nuanced colour of the wood. (although oil adds colour to the timber which may not be desirable on blonde timbers) .
2. Oil is an allergy-tested, pure, solvent free natural product.
3. The wood retains its naturally attractive appearance.
4. The wood can "breathe" through the oil surface.
5. The surface is anti-static.
6. The surface is dirt-repellent and hard-wearing.
7. It is easy to look after and treat, as oil is easy to apply.
8. Minor stains and damage can be repaired.

Please also refer to the Care Instructions for oiled surfaces on page 14.

Lacquer Treatment:

Lacquer is a sealer which prevents moisture penetration and was arguably developed to protect veneered surfaces. When moist the fibres of veneer rise resulting in discolouration or splits. **Schiang** recommends lacquer on furniture with a veneered surface, but not on solid wood.

There are several types of lacquer on the market today: water-based lacquer, cellulose lacquer, two part acid hardening lacquer, etc. We use either two part acid hardening or water-based lacquer. Two part acid hardening lacquer is not quite as environmentally-friendly as water-based lacquers but is more durable. Water-based types have undergone considerable development recently, and we apply a water-based product where environmental criteria are paramount.

A lacquered surface has typically three coats: A base lacquer and one or two top coats. Most base lacquers contain a light filter, to prevent the Sun's UV rays from patinating the wood as quickly as if it was untreated. In general a lacquered surface is very sensitive during the first four weeks following delivery and the furniture should be placed somewhere where the lacquer is able to harden. A chemical process occurs during the hardening process, and the solution vaporises which typically is the thinner. During this period, the furniture cannot withstand hot or damp objects.

Even after the surface has hardened, it will be sensitive to hot objects. Alcohol and moisture can leave white marks damaging the surface over a longer period of time. There are no care products that are "correct" for lacquer. The small scratches which will always appear on lacquered surfaces cannot be removed.

SECTION 3

CARE AND MAINTENANCE OF SOLID WOODEN FURNITURE

CARE OF SOAP TREATED SURFACES

Our soap treated surfaces are treated with white soap flakes in the workshop and should be maintained by further treatments. This is best done using a solution consisting of half a decilitre (15 - 20 grams) of soap - flakes and one litre of boiling water.

Dissolve the soap flakes in the water and then leave it to cool down to room temperature. Stir the solution and ring out a sponge or a cloth soaked in the solution. Make sure that the sponge or cloth is only moist and not wet. Wipe the furniture and remove the surplus of soap fat immediately. **NEVER** pour the solution directly onto the furniture.

Please note that end grain should only to be wiped once because it absorbs up five times as much moisture as the rest of the wood. The wood requires soap-fat not water which will cause the wood to crack when it evaporates. If a table top is very dirty, use a soft kitchen sponge. **NEVER** use steel wool. If there is a scratch, smooth it out with sandpaper (grade 150) along the line of the grain. **NEVER** use fat dissolving or chemical cleaners. Remember to treat the back of a table top in order to balance the tensions in the wood. The first few times you treat the furniture, fibres may rise. If so smooth the surface lightly with the polishing sponge. The furniture needs it's first treatment fourteen days after delivery. From then on the furniture needs soap-treatment at least once every month or when required for example when it feels dry.

DAILY TREATMENT: Wipe the furniture with a damp cloth, soaked in soap solution. Remember never to use fat dissolving or chemical cleansers.

A practical suggestion: Leave the cloth/sponge in the soap-solution. Keep it all in an airtight container. If the solution gets too thick, just pour in some hot boiled water, stir and leave it to cool down. If furniture you have purchased from Schiang gets damaged or if you have any questions, please contact ourselves for further advice.

CARE OF OIL TREATED SURFACES

We recommend you treat the furniture with light oil after four weeks. Subsequently, the furniture will need to be treated one to two times a year or when required.

The oil is made of natural ingredients. If the surface of your furniture gets soiled, use the cleaning-liquid supplied mixed with water (One teaspoon TRENA Neutral Reiniger in a litre of water) then wait twelve hours until the surface is dry. Put a small amount of oil on a clean lint free cloth and apply a very thin coating to the surface.

NEVER pour the oil directly onto the furniture. Leave the oil to soak for three to five minutes before removing the surplus with a cloth. Finally polish with a clean cloth. If there is a scratch, apply some oil to the damaged surface and smooth it out along the grain with using grade 240 sandpaper. Never use steel wool. Dry with a clean cloth. Finally, apply an even thin oil coating. Leave it to soak for three to five minutes before the surplus of oil is removed.

DAILY TREATMENT: Wipe the furniture first with a damp cloth and then immediately with a dry one. If the surface is very dirty use a cloth which has been wrung out in a TRENA-solution (One teaspoon in a litre of water) Wipe off with a dry cloth.

WARNING: Please note that the cloth used for oil treatment can ignite spontaneously if not stored safely. To avoid this destroy the cloth by cleaning it in cold water or store it in an airtight metal or glass container.

CARE OF LACQUERED SURFACES

A lacquer treatment is a sealing of the surface which makes it hard for liquid, dirt etc. to get through to the wood. Scratches on a lacquered surface cannot be removed.

DAILY TREATMENT: Wipe the furniture first with a damp cloth and then immediately with a dry one. If the surface is very dirty use a cloth which has been wrung out in a detergent solution (One teaspoon to a litre water). Wipe off with a dry cloth.

WARNING: Please note that the lacquer needs more than four weeks to harden. Do NOT put any hot or moist objects on the table during this period.

CHARACTERISTICS OF THE USE OF TOO MUCH CLEANING AGENT

Soap - treated surfaces:

This is typically seen in that the surface becomes grey and tatty, and it is possible to write on the surface with a finger nail. This often happens if the soap solution used is too rich. As a consequence, the wood is unable to absorb it and it forms a film on the surface.

The best way of removing the excess soap is by scrubbing the surface with a stiff brush or a kitchen sponge (be careful of any excess colour) dipped in a little warm water, dry straight away with a clean cloth. When the surface is dry, sand it down with fine paper, grade P 220, and then treat the surface with a soap mixture as described in the care instructions on page 13.

Oil- treated surfaces:

This can typically be seen if the table looks as though it has been varnished. When too much oil is applied, the surplus sits on the surface where it dries. It is best to remove this excess with turpentine. Clean a small area at a time using a nylon sponge dipped in turpentine, rub into the area, and dry off the excess residue immediately with a clean dry cloth or kitchen paper. Allow the surface to dry for about twenty four hours then sand down the entire surface with fine paper, grade P 220. Vacuum the dust from the surface, then treat with oil following the instructions for the care of oiled surfaces on page 14.

Lacquered surfaces:

A build up of waxey deposits can be washed off with warm water mixed with washing-up liquid in a ratio of one to ten. Always remember to dry off a lacquered surface carefully with a dry cloth after there has been water on it.

Repairs, In the Event of Accidents

Shoe Marks on Table Legs, for example:

Soap treated surface : Fine sandpaper grade P220 (polishing sponge).

Oil - treated surface: Rubber or nylon sponge dipped in a little oil.

Lacquered surfaces : Rubber dipped in benzine*

** Inflammable! Ensure that there is good ventilation, and use only small quantities at a time.*

Stains, e.g. Red Wine:

Soap-treated surface:

Rub the stain with a nylon sponge full of soap fat, and repeat this treatment a couple of times at intervals of a few days. Then sand down with fine paper - P 220 (polishing sponge). If the stain has not completely disappeared, it will disappear on its own after awhile, because the wood will work the stain up to the surface. It will then disappear when subsequently treated. In the event of particularly stubborn stains, e.g. fat or oil, benzine* can be used with strong blotting paper, and then soap treatment.

Stains/water marks from unglazed vases are very difficult to remove.

** Inflammable! Ensure that there is good ventilation, and use only small quantities at a time.*

Oil-treated surface:

Rub the stain very carefully with a nylon sponge dipped in oil. For major stains, sand down with P 180 grade paper first, and then P 220. The wood is now untreated, and must be oiled as recommended. A light stain will appear where the wood has been polished, especially on dark woods, but this will disappear in time.

White Stains / Discolorations on Lacquered Surfaces:

These are due to either heat, moisture or alcohol. As a rule, all of these can be removed. Place a tea-towel on the stain, and iron very lightly over the stain with a hot iron. **IMPORTANT:** do not use steam! Carry out this procedure very cautiously, and proceed with care.

Candle Wax :

Let the wax harden, and remove as much as possible with an object which does not scratch the furniture.

Soap - treated surfaces:

Try to remove the stain with benzine*, and then treat as under the section on stains. * *Inflammable! Ensure that there is good ventilation, and use only small quantities at a time.*

Oil - treated surfaces:

Rub the stain carefully with a nylon sponge dipped in a little oil.

Lacquered surfaces:

Place a piece of strong blotting paper on the stain, and heat the stain up carefully with an iron. **IMPORTANT:** do not use steam! Dry off the stain with a cloth dipped in a little benzine* if necessary, and dry straight away with a dry cloth. If a heat blotch appears as a result of the hot wax, follow the procedure described under the section on "White stains / discolorations". * *Inflammable! Ensure that there is good ventilation, and use only small quantities at a time.*

Fat / Oil Stains:

Fat and oil stains may appear on soap-treated surfaces, and more occasionally, on oiled and lacquered surfaces.

Soap-treated surfaces:

See the section on red wine stains.

Oil-treated surfaces:

See the section on red wine stains

Lacquered surfaces:

If the above-mentioned stains appear, the lacquer surface is probably broken, which means that the lacquer is worn or broken down in some way. The only way to remove such stains is by sandpapering, and then giving a new coat of lacquer. We would recommend that this is left to a professional.

Pressure Marks and Scratches :

Soap-treated surfaces:

By far the majority of pressure marks can be removed, as long as the fibre of the wood is not broken. Paint the pressure mark with warm water (the water makes the fibre rise up), and when it is dry sand down with P 220 paper. Repeat this treatment if necessary. In the event of persistent marks, it is possible to carefully steam the pressure marks out. Place three to four layers of water soaked tea-towels on top of the dent, and then place the tip of a very hot iron on the tea-towels over the pressure mark . The heat will produce steam, which will be pressed down into the wood, making it expand. Repeat the treatment if necessary, at the most two more times. Let it dry, and sand down with P 220 grade paper. The surface should then be soap treated, as described in the care instructions.

Oil-treated surfaces:

The same procedure as with soap-treated surfaces, although we would not recommend the use of a hot iron on oiled surfaces. It will discolour the surface, as the oil reacts to the heat.

Lacquered surfaces:

There is no way of removing scratches or pressure marks from a lacquered surface oneself. The only way of doing away with the marks of time is by sandpapering, and then re-lacquering the surface. We would recommend that this work be carried out by a professional.

Indian Ink, Ball-point Pen, Water Colours, Wax Crayon and Spirit Markers:

It is recommended that you try sucking the stain up with strong blotting paper and a solvent based on the same liquid as the stain itself .

Ink :

It is recommended that you try and remove ink with blotting paper and 8% undiluted ammonia. Please note that this solvent can irritate the eyes, skin and respiratory organs. Always read and follow the instructions on the product used.

Burns :

Soap - treated surfaces:

We recommend that the damage be evaluated by a professional before anything is done. Most superficial burns can be polished away. Be careful not to polish the local area only, as it is easy to make a groove. To avoid this polish over a larger area.

Oil - treated surfaces:

We recommend that the damage be evaluated by a professional before anything is done. Most superficial burns can be polished away. Be careful not to polish the local area only, as it is easy to make a groove. To avoid this polish over a larger area.

Lacquered surfaces:

Will need to be re-lacquered.

NB: When working with grinding materials such as nylon sponges and sandpaper, only work lengthways along the grain structure .

When polishing a surface, it is important to polish over a larger area, in order to prevent a groove forming on the spot. By far the majority of repairs can be avoided by following **Schiang UK's** instructions for maintenance and care.