



Australian Knifemakers Guild

Assessment Checklist for Probationary and Full Membership

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The following document has been written to give applicants to the Australian Knife Makers Guild an understanding of the requirements to be met for successful application. It is also hoped it will provide some technical direction to help facilitate a successful outcome.

The assessment is a point-based system averaged over the three knives presented. A score of 50% is required to achieve probationary membership. Once the minimum time period as a probationary member is met, the applicant will need to submit a further 3 knives to be assessed full membership. The passing score for full membership is 90%. If the applicant is not successful, both your state Representative and other full members of the Guild will be able to provide feedback and advice to help with any problem areas.

Both fixed blade and folding knives are valid for submission. Please be aware, if you submit a folding knife for assessment, it is absolutely essential it is a properly functioning folder as the baseline. The State Rep will check it's function, lock-up, and "walk and talk " first. If it does not function properly, it will not be further assessed and is a zero score. Once it's suitability is confirmed, it will then go through the full assessment the same as a fixed blade would.

The application to the Australian Knife Makers Guild should be in the spirit of showing your skills as a knife maker. It is encouraged to not look at as a safe and simple is best approach. With this in mind there are certain basic requirements when it comes to knives submitted for assessment. For probationary assessment there is no particular construction techniques required. It is encouraged, however, the three knives submitted show a variety design and technique. For example, building both a full tang and hidden tang design would showcase different skills. For probationary application actual construction skills and fit for purpose design is the main goal.

With the knives submitted for full membership there are several requirements to be met.

- If submitting all fixed blade knives, at least two different construction techniques need to be shown.
- At least one of the knives submitted must have a metal guard if hidden tang or metal bolsters attached if of full tang construction.
- One of the knives submitted must be of full tapered tang construction. While this is not something all makers feel is necessary in their knife designs it is a skill that all makers of Full membership should be able to demonstrate.

When submitting folding knives for assessment similar requirements hold. At least one of the knives should have some form of metal bolster attachment.

These requirements are not meant to dictate what type of knives you, as a maker, build in your career. They are there to ensure enough variety, technique, and design skill is shown to properly assess the applicant's abilities.

You are expected to arrive for your assessment with your 3 completed knives, evidence of current financial membership and a copy of the assessment checklist at the end of this document.

Good luck and happy building

Assessment Checklist for Guild Membership

Blade

1. Grinds properly executed

- All bevels should be cleanly and evenly ground whether flat, hollow, convex, or hybrid asymmetrical grinds for food preparation knives.
- There should be no dips or valleys i.e. no "2 inch divots" Bevels should be ground to the same height on either side of the blade and should terminate at the same point along the spine.
- If fully flat ground, ensure your grinds don't cut past the spine, which can be a common problem for new makers.
- Grind lines should be as clean and crisp as possible. The edge be central from the point to the choil with no bowing, helix or offset

2. Edge thickness appropriate to the knife

- One of the most common issues with new makers is having a finished edge that is left too thick to cut well. You can sharpen a 90-degree corner to a razor edge but it will cut like a cold chisel.
- While it is impossible to give a precise measurement small knives can be ground to as thin as .2 of a mm while a large chopper may be as thick .4 or .5 mm and then finished with a convex edge profile.
- Cut with and test your knives and make an honest assessment as to how they function. The "brass rod test can be a good indication of both edge thickness and heat treatment. Google and YouTube will show examples of the test being performed.
- As a general rule of thumb, a blade should be ground as thin as physically possible while still avoiding damage in the use it was designed for. This is a function of, geometry, steel selection, and heat treatment. Getting it right will only happen through experience and testing.

3. Plunge cuts even and symmetrical

- Hold the knife, point vertical, with the edge facing you. Do your plunge cuts terminate at the same point? Does the radius match from one side to the other?
- Make sure there are no undercuts from the edge of the belt digging into the shoulder of the plunge cuts.
- All grinding marks need to be cleaned up or to the same level of finish as the last belt used if the knife has a machine finish.

4. Spine and ricasso clean and well executed

- This is an often-missed area. Make sure the spine is clean of all grinding marks with an even finish.
- The small section of the ricasso between the edge termination and guard seems to be an afterthought on many knives. Finish this area before installing the guard! It is very difficult to do afterward.
- On full tang knives ensure the finish is consistent all the way around the tang.
- Pay particular attention to any concave sections of the design as these areas can often have dips and chatter marks.

5. Edge properly sharpened

- There is an old adage in the industry, you buy the edge, the rest of the knife is free. A hand made knife should come literally shaving sharp.
- There should be no dull spots anywhere along the entire edge and it should be sharp all the way up to the ricasso or as close as the design allows.
- There should be an absolute minimum of secondary sharpening bevel along the blade and what is there should be very even and finely finished.
- A large and sloppy sharpening job is often the result of a blade that has been left to thicken at the grinding stage.

6. Point centered, sharp, and well defined

- Unless the knife design lacks a point, a "sheep's foot" blade for example, a knife should be well and truly pointy... along with being sharp it's one of its defining characteristics.
- The point should be well centered with the spine of the knife. You can check this visually.
- A physical check during grinding is to place the knife on a flat surface and scratch the point along a piece of welders chalk or other soft surface. Flip the knife over and scratch again. The two lines should be on top of one another.
- If there are two lines mark the blade accordingly and bring the point back on center.

7. Consistency of Finish

- Whatever finish is chosen for the blade it needs to be clean and consistent on the blade unless there is a change of finish as an accent.
- All hand satin need to be even, free of "J" or "fishhooks" This is caused by changing direction of sanding on the final finish instead of lifting the paper and starting again at the ricasso.
- All underlying grinding scratches need to be eliminated at each change of grit.
- Mirror or buffed finishes need to be completely clean of underlying marks so careful surface preparation is important.

- Machine finishes need to be even, free of underlying coarse grinding marks and crisp. Pay attention to the plunge cuts and ensure they are too the same finish as the rest of the blade.
- For the purposes of the three knives to be submitted, heavy blasted finishes or blades coated with something such as Ceracoat are not accepted, as it is difficult to determine the underlying surface.

8. **All blade tapers even and symmetrical**

- Parallel sections of the blade should be just that, flat, parallel, and straight.
- Distal taper should be even on either side of the blade eventually meeting at a zero point some where in the distance. Tapered tangs should be evenly tapered, flat, and centered. The point, edge, and tang of a knife all follow the same centerline.
- The only exceptions to this are some specific designs such as Skeen-do which has the handle intentionally offset for carry in a Scottish High Landers Stocking

Handle

9. **Effective grip length**

- Having handle designs that are too short is an often seen issue with new makers. Some of it seems to stem from having a piece of steel of a given length and trying to get to the most from it by maximizing blade length and sacrificing handle length.
- Effective grip length is not the same as the overall length of the handle. It is the distance from the point nearest the edge or guard where your index finger rests and the last point along the bottom part of your handle that your pinkie finger can rest on comfortably and securely.
- The human hand varies quite a bit but a measurement of a minimum of 95 mm on something like a bird and trout knife, 100 to 110mm on a full sized hunter or camp knife, and possibly 115mm on a large chopper or Bowie. There are always extreme examples of large and small hands but this should fit 95% of the population.
- Please note a very short handle on a full size knife is NOT a "three finger grip" It's a handle that's too short and will be scored accordingly.

10. **Contouring even and symmetrical**

- All handle shaping should match from one side of the handle to the other. All curves and radiuses should be as symmetrical as possible, smooth and even.
- Avoid dips and undercuts in handle material by trying to use the largest size contact wheel that will fit inside a given curve. The larger surface area contact will help avoid high-pressure contact in a small spot.

- Also be mindful of the belt edge as it can easily cut into handle material.
- Use of templates can be very helpful to lay out handle shapes and keep track of progress. These can be as simple as cut outs from a cereal box to a hardened steel template.
- When tackling a new handle shape, consider grinding several prototypes in pine first. This will give you a good idea of areas that will cause you problems, give you practice, and costs nothing.
- Lay out handles carefully, have a plan of attack, do not just start “pecking away” and hope for a good result.

11. **Ergonomics- comfort all edges rounded**

- The human hand forms an oval when closed, not a square or rectangle. The majority of handle shapes should reflect this.
- Unless you are building something historically accurate like a “Dog Bone” Bowie, handle edges should be well rounded to avoid hot spots.
- Avoid square, blocky, and thick handle shapes. Think of the oval cross section of a good axe handle, hammer handle, etc.
- The exception to this is octagonal cross section of some Japanese kitchen knives. However, they are generally slim in cross section, which allows them to be comfortable. They are not a square with the corners knocked off.
- Cut things with your knives; test the feel of the handle. Check for hotspots. Have others use them and ask for honest feedback.

12. **Consistency of finish**

- Ensure that all surfaces of the handle and fittings are finished to the same standard, with no errant scratches.
- Try to avoid over buffing surfaces.
- Ensure you use sharp abrasives on handle materials to avoid scorching the material as this will show in the finish.
- Make sure to clean all buffing compounds, waxes, adhesive residue from your knives

13. **Material transitions seamless or accurately heirloomed**

- Transitions between materials of different hardness can be challenging. Sharp abrasives and stiff backings will help considerably.
- Use shaped sanding sticks or the right diameter wheel to mimic the shape you are trying to achieve.
- Moving across dissimilar surfaces at an angle can help avoid dips.
- Pins in handle material should be flush with the surface or domed.

- Heirlooming means leaving handle material purposely larger than the abutting metal fittings and the edge of the material is radiused or broken. This needs to be done evenly and accurately. It adds a nice design feature and helps with the shrinking and contracting of natural handle materials. Keep in mind it doesn't work well with all designs so make sure you understand it's application if you are going to use it.

14. All fits tight and seamless with no visible gaps or glue lines.

- This is one of the single biggest factors in the quality of a handmade knife. Unless it is a very specific design feature of the knife ALL mating surfaces between materials of knife parts need to mate as well as is possible.
- The fit between the guard and blade is a particular area to focus on. The goal is to have no visible line at the seam. This includes between the flats of the ricasso as well as the shoulders top and bottom of a hidden tang knife.
- On a full tang knife with a guard the flats, spine and guard "notch" should be as seamless as possible.
- Bolsters should sit dead flat on a full tang knife as should the scales.
- Pins that hold guards or bolsters in place should NOT be visible unless it is a contrasting feature. Ensure you use the same exact pin stock and guard/bolster material alloy so they become invisible when peened in place

15. All edges other than those meant to cut are broken and comfortable.

- The only sharp edge on a knife should be the ones meant to cut. This doesn't mean square corners are not allowed just ensure they are de-burred enough to not be sharp.
- If edges are chamfered or rounded as a feature ensure it is even and consistent

16. Pins well fit/flush/ scorch free with materials or evenly domed.

- This was covered under consistency of finish but will be scored separately

Design

17. The knife is fit for purpose.

- Given enough time, you could skin an elephant with an X-acto knife, but it's not really the tool for the job. While this is subjective, if a knife is presented as being for a certain task it should be built with that purpose in mind.
- This will include its size, design, ergonomics, material choices, choice of finish etc.

- Example- a deep sea fishing knife made of non-stainless high carbon steel with a heavy sand blast finish and unsealed wooden handle will, in fact, gut fish. It will also quickly become a dulled, rusted shank of tetanus and bacteria. A high quality stainless blade, synthetic handle, and highly polished finish would be much better suited to the task.

18. Flow and aesthetics appropriate to design.

- While good design is hard to define you know it when you see it. A knife should flow from the tip to the heel with nothing that goes “clang” to the eye. Avoid sudden dips or offsets. Subtle curves are often more graceful if less dramatic than radical ones for example.
- Also, less is in fact sometimes, but not always, more. When considering embellishment question if it will compliment the design or if it is just a random addition.

19. Material selection and weight appropriate to design.

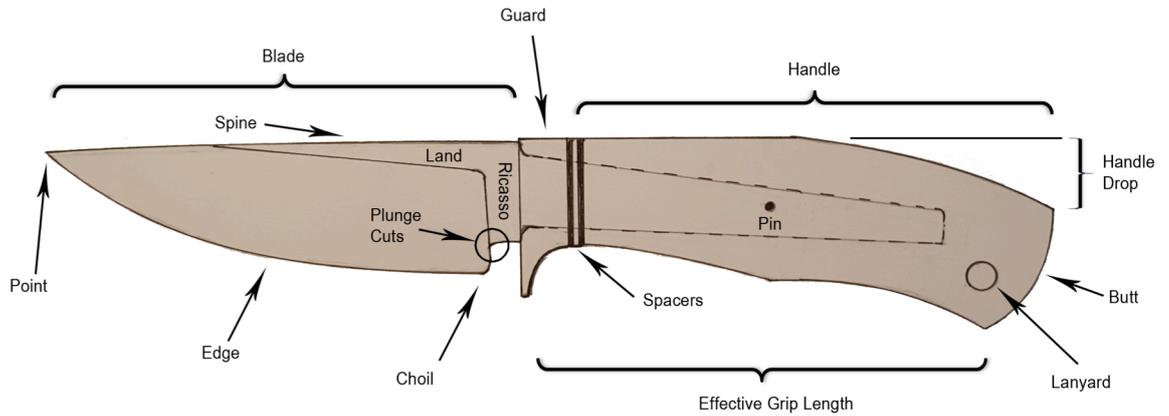
- This applies to both the physical weight of material and visual weight.
- If your choice of handle material is very heavy, stone for example, it may be difficult to achieve physical balance in the knife. The knife will need to be designed around that choice.
- Another example would be using 1/4" blade stock on a bird and bunny knife. Your blade stock choice was the wrong thickness or “weight” so the design suffers from the start.

20. Construction and designed of sufficient strength and durability.

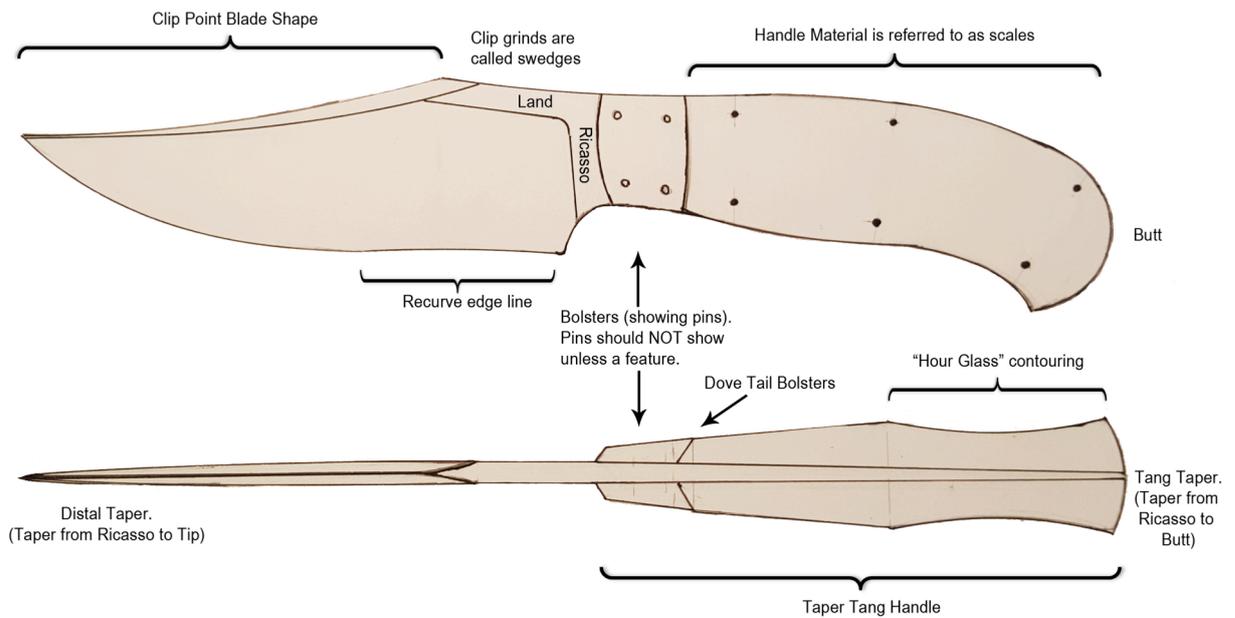
- While it is impossible to see exactly how a knife was built or what's inside a handle, you should be able answer any and all questions regarding it's construction.
- This could include, the size and length of the tang in the handle, adhesives used if any, what materials were used in it's construction and why they were chosen.
- You should be able to answers specific questions regarding how and where the blade was heat-treated. And if done in shop, what procedures and equipment were used.

Knife Nomenclature

HIDDEN OR NARROW TANG KNIFE



FULL TANG KNIFE



Assessment Checklist for Probationary and Full Membership

Applicant:

Assessor:

Date of Assessment:

Knife 1	Knife 2	Knife 3
Y/N	Y/N	Y/N

Blade	Grinds properly executed			
	Edge thickness appropriate to knife			
	Plunge cuts even and symmetrical			
	Spine and Ricasso clean and well executed			
	Edge properly sharpened			
	Point centered, sharp, and well defined			
	Consistency of Finish			
	All blade tapers even and symmetrical			

Handle	Effective grip length			
	Contouring even and symmetrical			
	Ergonomics- comfort all edges rounded			
	Consistency of finish			
	Material transitions seamless or accurately heirloomed			
	All fits tight and seamless no visible gaps or glue lines			
	All edges other than those meant to cut are broken and comfortable			
	Pins well fit/flush/ scorch free with materials or evenly domed			

Design	The knife is fit for purpose			
	Flow and aesthetics appropriate to design			
	Material selection and weight appropriate to design			
	Construction and designed of sufficient strength and durability			

Knife 1

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Full ≥ 18

Proby ≥ 10

Notes

Knife 2

Knife 3