NEWS 178

Merry Christmas

December 2023

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Contents **NEWS 178** **December 2023**

Cover illustration: Sidchrome in-store advertising banner.

TTTG Meetings and Events:

For details about Meetings, Workshops, and
Members and Friends Sales
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www.tttg.org.au

TTTG President's Report

John Deeble

As TTTG celebrates 32 years of operation it is pleasing to report the group has enjoyed yet another successful year of operation. As with most organisations this success is the result of the concerted efforts of the Members.

The work of the 2022-23 Committee has kept the group going through the aftermath of COVID19, with Workshops, Tool Sales and Member Meetings. A special thank you to Bob Crosbie, John Bates, Matt Pryor, Greg Pryor and Jim Windschuttle for their involvement over so many years.

The support of regular members Tom Marinov (Website and Zoom Meetings), Peter Tierney (Representing TTTG at Linnwood open days), Mike Williams (Regular Newsletter Contributions) and Philip Howe, John Ryan and Henry Black (Tool Sales) has been greatly appreciated.

A special mention must go to John Bates who not only performs the roles of Secretary and Treasurer but has now taken on the task of preparing and circulating "NEWS", along with so many other essential tasks to keep the group operational.

It has been most pleasing to recently see a number of long term members returning to Members Meetings. I hope we can grow attendance at these meetings to past levels of attendance. Informative and interesting topics such as Henry Black's recent presentation on Engineering Patternmaking will help to achieve this goal.

At the Tuesday 10 October AGM, the members present endorsed the new Committee for 2023-24, which is as follows:
President – John Deeble Vice President – Matt Pryor
Secretary / Treasurer – John Bates General Committee Members –
Henry Black, Jim Windschuttle, Greg Pryor and Hugh Johnson.
I look forward to working with the Committee to ensure the ongoing success of TTTG.

Planning for the TTTG 25 February 2024 Tool Sale at the Brickpit Sports Stadium - 1A Dartford Rd, Thornleigh is now well underway. Table booking forms will soon be available. Advertising will again utilise "Weekend Notes" and Linda Nathan from Australian Wood Review has kindly agreed to promote the event in "Wood Diary" of upcoming AWR magazine editions. We greatly appreciate Linda's support.

I will look forward to seeing a strong attendance at the December 12 Members Meeting where the Carbatec team will present information on new offerings both online and at the Sydney store.

Very best wishes to all our members and friends who continue to support TTTG activities, for a safe and Happy Christmas and a prosperous and healthy New Year.

Sharpening Twist Drills

Michael Williams

Ah, happiness is drilling into a piece of mild steel with a perfectly sharpened twist drill. The two curls of steel can be seen spiralling evenly out from both flutes on the drill. But the happiness is short lived as the drill eventually blunts and excessive force is required to make it cut at all. At this point, if the drill is a small one, it breaks, and you have to buy a new drill so that happiness can be restored. But drills can be sharpened if you possess a bench grinder or a more expensive dedicated semi-automatic drill sharpening machine. You just have to examine the philosophy of convenience versus perfection and/or expense or indeed if you really want or need to sharpen drills at all.

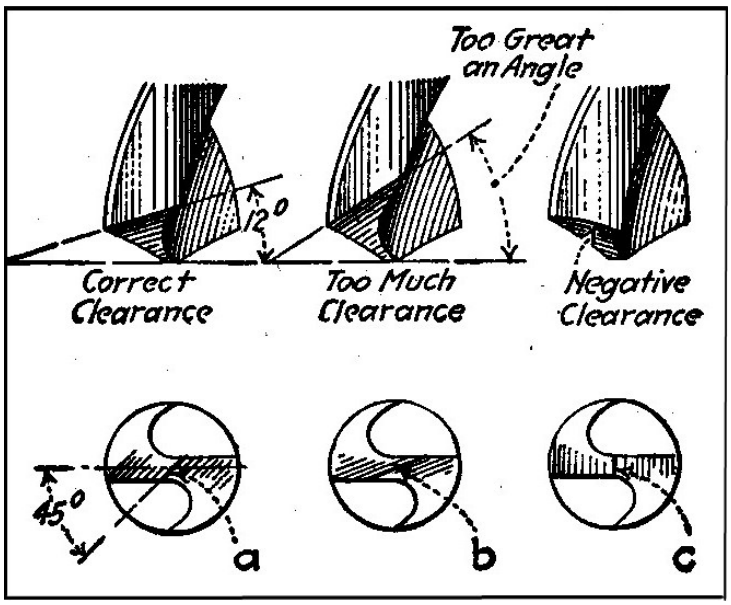
If for instance, you are just drilling the odd hole in wood, your drills will remain sharp and serviceable for a long time so that when one or two drills of your oft-used size become blunt, it is probably easier to throw them away and buy a couple of new ones rather than bothering to sharpen or learn how to sharpen them. This philosophy becomes ever more appealing as the size of drill and hence the cost decreases. It is less appealing for say, a 10mm or bigger drill which, for a good one can be quite expensive. However larger drills are easier to sharpen by hand so perhaps it is worthwhile to learn how.

Sharpening by hand

There are only three fundamental things to get right when sharpening a drill and they are the point angle, getting both cutting lips the same length and providing sufficient relief from the cutting edge.

For ordinary work, the point angle should theoretically be 118º, but good results can be obtained for a few degrees either side of this figure. Certainly, all general purpose drills will be sharpened to 118º when first bought and this will give you a good idea of the correct angle when you resharpen it for the first (and subsequent) times. An indelible mark or scored line on the tool rest at 60º giving you a total of point angle of 120º is an easy way to get this right.

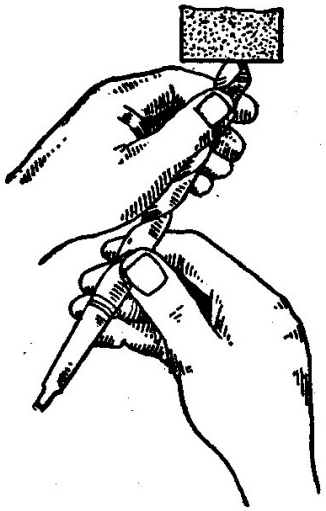
Getting the cutting lips, the same lengths is not quite so easy and if they are not equal, the drill will cut oversize. Here, the best philosophy is to gently sharpen both sides a little at a time and periodically inspect the lips with a magnifying glass or loupe to see that they are staying equal.



The relief angle or clearance from the cutting edge should be about 12º and once again, this is hard for beginners to estimate. Much less or more than this figure and the drill will either cease to cut or require greater pressure to operate. Once again, an inspection with a magnifying glass or loupe will tell you if you are getting this right from the small “dead centre” line which should look about 45º to the cutting lips.

The diagram above will make this much clearer.

Hand sharpening is described in some detail in “Machine Tool Operation” Part 2 by Henry D. Burghardt, an old but comprehensive book which I find useful for the level of detail it contains. Rather than just describing the way of holding the drill to the grinder, it includes a sketch which I reproduce here. Note that the drill in the operator’s hands is both a large one and has a Morse taper shank, meaning that in this case the operator has quite a bit of drill to hold on to, a luxury that one doesn’t have with smaller and shorter ordinary twist drills.



Burghardt advises that the operator should have the right hand slightly lower than the left in order to give the requisite clearance and to rock the drill slightly upwards to continue the clearance to the heel but never to twist the drill. Also, the drill should be ground in a direction from the lip to the heel , never from the heel to the lip.

Now I find that getting the cutting lips the same length is not too difficult but getting a clearance angle of somewhere near 12º is very difficult, so I describe a simpler approach which I find fairly successful.

I hold the drill lip horizontally against the grinding wheel at 60º, with the tool rest just above the centre of the wheel. I then keep the drill horizontal and raise it further up the wheel lightly grinding as I go. I find with an 8 inch wheel; this gives me a satisfactory clearance and all I have to concentrate on is keeping the drill cutting lips the same length. Sometimes, the final clearance at the heel needs to be slightly reground but as this is way away from the cutting edge, it is not a critical operation.

Holding the drill always horizontal is, to my mind, easier than rocking to get the clearance and hence, I can satisfactorily hand-sharpen drills down to quite small

sizes. I say “satisfactorily” but I am aware that a brand new drill usually performs better than one that I have sharpened by hand. Hence, even though hand sharpening is usually quick, and allows me to get on with a project without wasting too much time, using some sort of sharpening jig gets my drills into better shape, so read on.

Drill Sharpening Jigs

I own two sharpening jigs, both purchased from markets or garage sales for very little. They are an Australian Frost drill sharpening jig and “The Reliance” which is a vintage UK device, and its design is probably the origin of most of the modern drill sharpening jigs. Unfortunately, the Reliance is no longer made but they do occasionally turn up in tool sales and the odd garage sale but as their operation is so similar to many modern and available jigs, I will describe my efforts of putting it into service.

It is important that each jig is mounted very solidly close to the grinding wheel as if it moves during its use the result is worse than that which can be obtained by hand sharpening. Also, the height of both jigs necessitates raising the grinding wheel or lowering the jig onto a subsidiary platform. This is especially true in the case of the Frost jig which was designed to operate against the edge of the grinding wheel at the exact height of the wheel centre.

The Reliance jig is a much sturdier device, being made of cast iron and is designed to operate on the side of the grinding wheel and hence exact height is not very important. However, I didn’t have any instructions as to how to use it and I couldn’t find anything on the Internet. John Bates had a rather ragged copy which he kindly copied and emailed to me, and I could then start thinking about putting the jig to work. When I purchased the “Reliance”, the drill clamp was missing (the Frost unit has an integral clamp) so this was the first task.

I had some 3/8 inch plate left over from a previous project, so I marked out a suitable clamp and after much drilling, hacksawing and filing, the clamp was ready to be used. After a bit of head scratching, I decided that instead of using my 8 inch grinder, I would purchase a cheap 6 inch grinder and dedicate it to drill sharpening.

Having made this decision, I made my way to Bunnings and purchased an Ozito 6 inch grinder for $55 which I mounted on a firm platform the requisite height above the workbench onto which I mounted the Reliance jig. I actually mounted the Reliance on its own piece of timber which I could then screw down to the workbench. I ploughed a groove along this piece of timber so that the Reliance could slide along

it in the groove at right angles to the grinding wheel and I could then fix it firmly with the red knob so that the drill just touched the wheel. The photograph shows the whole setup.

To give me better access to the side of the grinding wheel, I removed the side guard of the Ozito as you can see. This means that if the wheel shatters, there is more of a chance of bits of it hitting me, so I periodically check the wheel for cracks and tap it to hear that it still “rings”.

The jig works well, and the drills are sharpened to an almost new state, a correct angle of 118º and equal length lips. Setting a drill projection of three times its diameter ensures that the drill has a satisfactory clearance of 9º which increases progressively to 12º at the heel.

I haven’t played around with the Frost jig yet, but I expect similar results and I might use it also against the side of the wheel rather than the edge as then height is less critical.

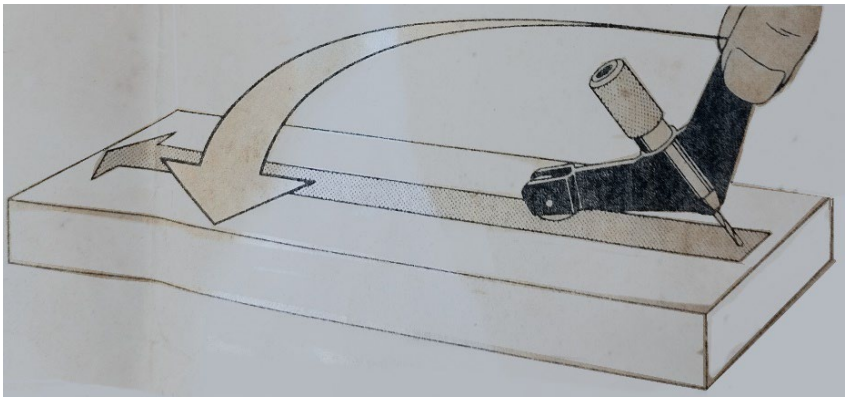
The Frost can be adjusted for sharpening angles away from 118º so this might be an advantage if I ever need it, but its setup is a bit more fiddly than the Reliance and it is not as rigid. Both jigs can sharpen drills down to about 1/8 inch in diameter but what about smaller drills?

The Wishbone Sharpening Jig

There is a type of sharpening jig which works well for drills of 1/8 inch and smaller and are generally known as wishbone jigs vaguely due to their shape and the fact that the original jig of this type was called “The Wishbone”.

Once again, the original wishbone jig (pictured) is no longer in production but there are a number of latter-day devices which operate in a similar manner and can be found on the web. The original Wishbone came with a set of 4 plastic collets in order to hold a large size variety of drills from virtually 0 to 1/8 inch and unfortunately this feature seems to have been omitted in devices that are currently available. The original Wishbone jig also came with its own sharpening stone, a small gauge to easily set the drill projection and a loupe to check both the settings and the sharpening progress. In use the Wishbone’s small wheels allow you to push it along the sharpening stone whilst being rolled over to produce the required lip clearance.

A diagram from the instructions shows this action very clearly. What the Wishbone doesn’t do is to ensure that the two cutting lips are of equal length. In this regard it is advisable to do a couple of strokes on one lip and turn the Wishbone over to do a couple on the other lip, then check with the loupe. I find that the provided stone is very aggressive and although it does a speedy job, it is possible to easily get two lips of differing lengths. I find that running the Wishbone along a fine India stone makes for a much slower and more controlled operation.



The semi-automated drill sharpener

Early drill sharpening machines which were aimed at the home market produced results which were barely better than hand sharpening, but technology has moved on and products such as the “Drill Doctor” can now produce a professional result as long as they are set up properly and the instructions are closely followed. An added advantage is that they can be used to provide a drill with a single point which will start more easily and be less likely to skate across the surface. It should be noted that Reliance type sharpening jigs can also be slightly modified to produce four facet, single point drills but it is a little bit fiddly and involves grinding two clearance angles and monitoring progress with a loupe during the sharpening operation.

The main disadvantage of semi-automated sharpening machines is their cost which, depending on their specifications, can run from $200 to $600.

Conclusion

If your livelihood depends on maintaining your twist drills in as-new condition so that steel and other hard materials are drilled accurately and speedily, investing in a top-of-the-range Drill Doctor type machine is probably your best option but there will be occasions when a drill just needs a quick touch up and the speed of hand sharpening is a real advantage. This means that acquiring the necessary skill to do hand sharpening is still a must in a commercial situation.

Woodworkers and hobbyists can probably get away with twist drills that are not perfectly sharp, and their options are many depending on the depth of their pockets. These options range from throw-away-and-buy-new drills through simple hand sharpening, special sharpening jigs and low end semi-automated sharpening machines. Acquisition of at least a rudimentary level of hand sharpening technique is, however, still really useful.

Send your comments to the Editor at reproturn@bigpond.com

Finding the Radius of a Curve

(5618).—Assuming the curve mentioned by your correspondent is not a compound curve and is accessible for measurement, the following simple geometrical method may prove of use to him.

The formula is $R = \frac{l^2}{8r} + \frac{r}{2}$

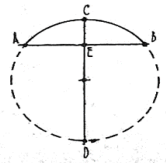
where R = radius l = length of any chord
r = rise (or versed sine) of arc appertaining to chord.

The method of procedure would be to draw a tape or chain of known length across the circle to form the chord, bisect, and at point of bisection measure the rise.

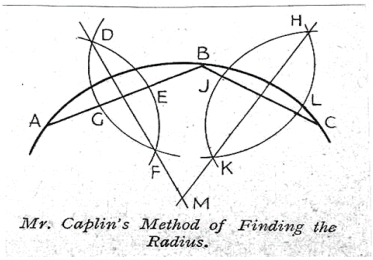
The geometrical derivation is as follows :—

Let AB = chord = l and $AE = EB = l/2$.

„ CD = diameter of circle passing through E and perpendicular to $AB = 2R$.



Method of Finding the Radius of a Curve Described by "Circum."



Mr. Caplin's Method of Finding the Radius.

Handles for Stanley Planes

Bob Crosbie

Handles to fit Stanley planes, and copies of Stanley planes, are manufactured and sold by Bob Crosbie. Price is just $10 per handle. Want to make a purchase then contact Bob at crosbie.bob@gmail.com

What Planes?
Bob's handles are close copies of old broken handles from old planes. The handles are not based on "Type drawings" from the internet.

What sizes?
Handles are available to fit No.2 to No.7 Stanley and Bedrock planes. The handles will also fit Record, Sargent, Pope/Falcon, Carter and similar.

What timber?
Handles are for planes made in the years 1900 to 1960s. The handles are made from recycled or off cut well-seasoned hardwoods. Species include NSW Rosewood, American Beech, Kwila, and Camphor Laurel.

How are the handles made?
Handles are produced with a sequence of machining jigs in batches. After profile shaping the handles are drilled for the metal fittings. Batch production means consistent quality and reasonable price.

The timber is prepared in minimum lengths of 600mm, 140mm x 24mm. After machining and drilling the handles are "ready to sand and fit.

Want a handle made from your own piece of timber? Then you will have to make it!

Some Handles have long toes!
The length of the toes on the No.3 and No.4 planes varies with the age of the plane. Some handles for these planes are sold with long toes. The buyer can then "custom fit" the handle. A simple job for a plane user.

Sanding
The machining leaves the handles needing only a light hand sanding. The golden rule is "don't sand across the grain."

Finish
The original finish on the old plane handles was "industry normal" for the time and includes Shellac, Varnish, Nitrocellulose, and Polyurethane. Bob recommends Liquid Shoe Polish. This matches any colour and lasts.

Some buyers may pick up a finished 'sample' handle and ask is it "Rosewood." The answer is: "Camphor Laurel finished with Liquid Shoe Polish."

Mystery – New Departure Clamp

John Deeble

This item came from a friend's garage and was used by his father, a diesel mechanic and car enthusiast. It probably dates back to the 1940-50's. New Departure are well known as a US producer of bicycle parts including hub type gears and ball/roller bearings. The Patent Number PG. 8540/46 may provide some guide to a possible use. Perhaps one of our Members may know the purpose of this tool?

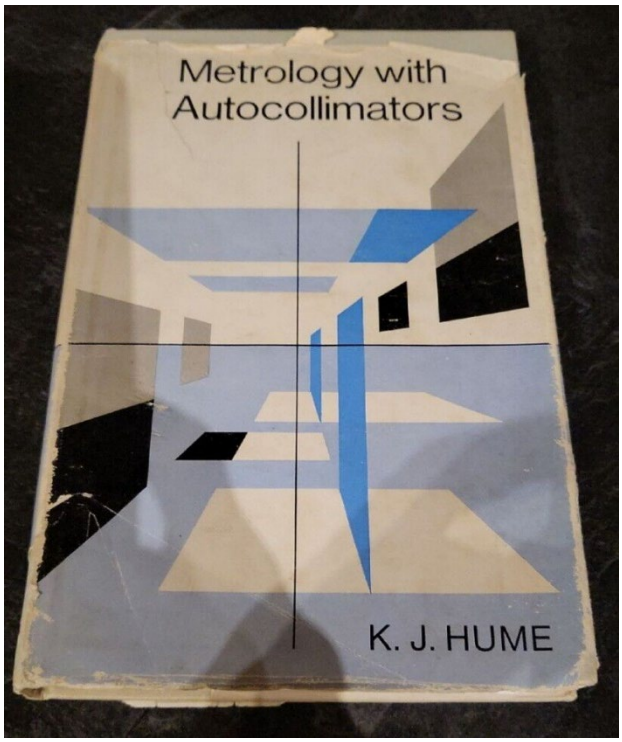
YES IT IS A CLAMP – BUT WHAT IS IT USED FOR?

NEW DEPARTURE PRODUCTS

PATENT PG. 8540/46

More Gold – But Not Sidchrome

by John Bates



Another mind boggling sale on eBay. Not a tool or ephemera, but an old-fashioned hard copy book.

HUME, K J “Metrology with Autocollimators.” Hilger & Watts, 1965. Hard cover with the dust jacket.

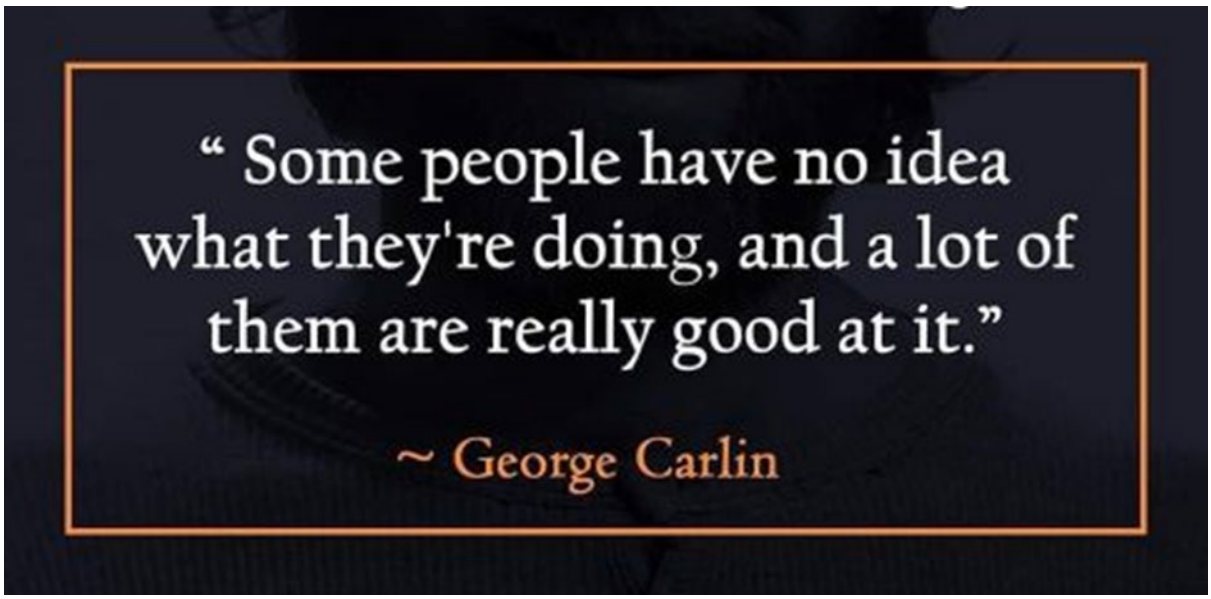
After a lot of bidding, it went for £225.99 or about $430 Australian dollars. Postage was extra so that would mean a nice round $500 if the buyer were in Australia.

Moral of the story; if you have any old technical books, never throw just them out, test the market first.

Got something special or interesting you would like to share?

Then please send me a picture and description and I will put it into NEWS.

Email your text and images to reproturn@bigpond.com



How to Identify and Measure Synchronous (Timing) Belts

In an ideal situation, you can identify the belt you have by its markings alone. Typically, those are alphanumeric labels that identify the belt's specifications, often describing the most important dimensions critical to proper identification.

For example, in Gates nomenclature, in their PowerGrip range, you'll see a marking that designates the belt's pitch length, pitch and tooth profile (the letters), and the width.

POWERGRIP® GT3 ORDERING CODE IS COMPOSED AS FOLLOWS:	
285-5MGT-09	
285	- Pitch length [mm]
5MGT	- Pitch 5mm
09	- Belt width [mm]

Note:

- This applies to both single-side and double-sided synchronous belts.
- Nomenclature and order may vary by manufacturer.

You may, however, be in a situation where you don't have access to that information for many reasons, such as:

- The belt is still installed in the pulley and there's no way you can see the markings.
- The belt is already snapped and torn.
- The markings are too faded or dirtied to be read.

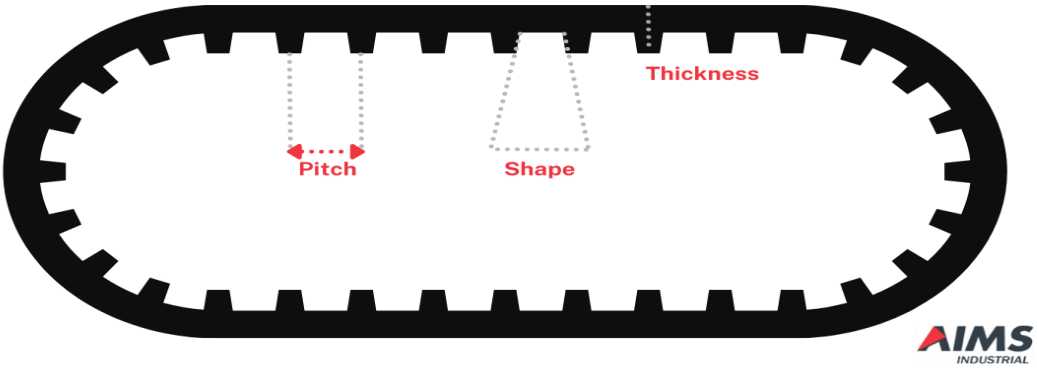
In this case, you may have to manually figure out your belt specifications. Here are the 3 key identifiers you need to determine when ordering a belt:

1. What is the tooth profile of the belt?
2. What is the length of the belt?
3. What is the width of the belt?

1. WHAT IS THE TOOTH PROFILE OF THE BELT?

This is the most important identifying factor of synchronous belts, so it's important to get this right. If you get the wrong profile, it may not fit the pulley at all and, if it does, it will wear out very quickly.

You can tell the profile of the belt by its pitch and shape. You can also measure the thickness as a cross-check.



Pitch

- This is the "centre-to-centre" distance between two adjacent teeth.
- To get this number, measure the distance between the middle of one tooth, to the middle of the adjacent tooth.
- Imperial vs Metric: This is another key factor in finding the type of belt you have, so it's equally important to get this right.

Important: When manually measuring the pitch, please make sure to use the metric system (e.g. by millimetres), as we often do here in Australia. Otherwise, let us know that you're giving us the measurement in imperial, so we can help you work out its metric equivalent.

In this sample reference from the Gates PowerGrip range, you'll see the pitch is indicated in imperial units (e.g. 1/5 inch), as it would be typically written.

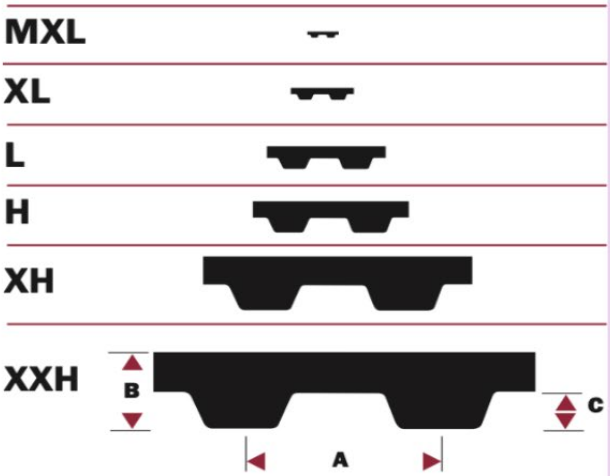
SECTIONS & NOMINAL DIMENSIONS:			
	Pitch (inch)	W (mm)	T (mm)
XL	1/5	0.50	1.27
L	3/8	0.76	1.91
H	1/2	1.37	2.29

Below is a table of reference information from the Gates PowerGrip timing belt range. Note that this range is imperial but, for ease, dimensions are shown in both imperial and metric units. In the table below the column marked “A” is the belt pitch.

POWERGRIP TIMING BELTS

Examples: 210L100 Belt TL18L100 Pulley

	Standard Widths (in.)	A	B	C
MXL	1/8, 3/16, 1/4	2.03mm .080 in.	1.14mm .045 in.	0.51mm .020 in.
XL	1/4, 3/8	5.08mm .200 in.	2.29mm .090 in.	1.27mm .050 in.
L	1/2, 3/4, 1	9.53mm .375 in.	3.60mm .140 in.	1.91mm .075 in.
H	3/4, 1, 1-1/2, 2, 3	12.70mm .500 in.	4.10mm .160 in.	2.29mm .090 in.
XH	2, 3, 4	22.23mm .875 in.	11.20mm .440 in.	6.35mm .250 in.
XXH	2, 3, 4, 5	31.75mm 1.250 in.	15.70mm .620 in.	9.53mm .375 in.



Aside from the belt, don’t forget to check the pulleys for any markings too. The pulley won’t give you everything you need to order the belt, but often it will have the pitch/profile printed on them. If so, this will make life a lot easier. It also helps a lot because, occasionally someone has previously fitted the wrong belt, so checking the pulley is a good way of ensuring you’re getting the right belt.

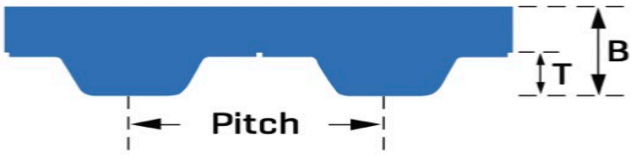
Shape

- This is how the angles of the peaks and valleys in between the teeth look like, as well as the shape of the tooth. Some belts have rounded teeth, whilst others are quite ‘square’ or trapezoidal. Some people refer to this as the tooth form.
- Metric belts usually have rounded teeth, while imperial belts have trapezoidal ones, but keep in mind that is not always the case.

Thickness

- Aside from the shape, this value will help us get a better understanding of the belt you have. Although it's more challenging to get this exactly right considering the wear on the belt.

Warning: Don't be confused by the T and AT profiles (e.g T10 and AT10). As you can see in the illustration below, the Ts are more trapezoidal, while the ATs are more rounded. Both, of course, have the same Pitch (e.g. 10mm) but the shape is very different.

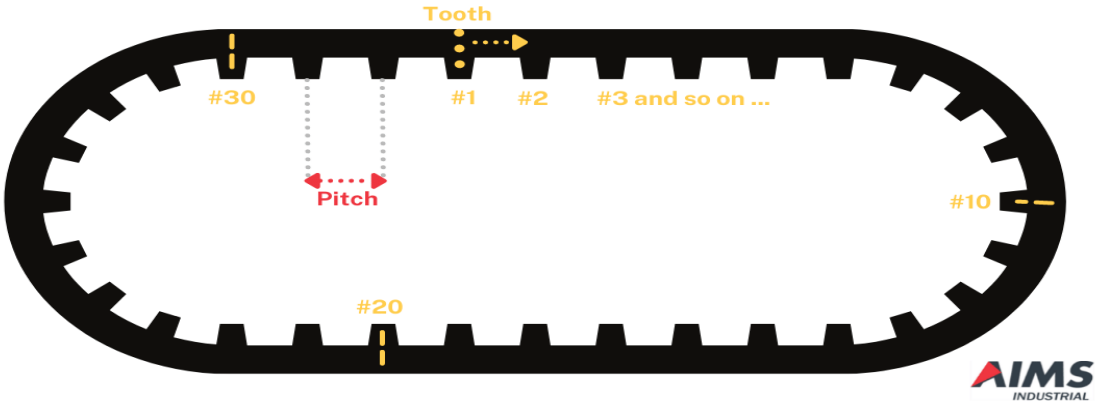


SECTIONAL & NOMINAL DIMENSIONS			
	Pitch (mm)	T (mm)	B (mm)
T2.5	2.5	0.7	1.3
T5	5	1.2	2.2
T10	10	2.5	4.5

SECTIONAL & NOMINAL DIMENSIONS			
	Pitch (mm)	T (mm)	B (mm)
AT5	5	1.2	2.7
AT10	10	2.5	4.5

2. WHAT IS THE LENGTH OF THE BELT?

Length is sometimes also referred to as pitch length, this is the total (circumferential) length of the belt, as measured along the pitch line. Put simply, this is the pitch (see the diagram below) multiplied by the number of teeth on the belt.



For example, if your belt has a pitch of 10 mm and 32 teeth, then your pitch length is 320 mm.

Tip:

- Mark the tooth where you are going to start counting and count carefully from there.
- Some even make subtle marks for every 10th tooth, so it's easy to go back (and verify) in case you lose count.
- If possible, get someone else to count as well and then cross-check. If you don't have someone else to check it, then count it yourself 2 or 3 times to ensure you have it right.

Special case for imperial belts:

- Imperial belt pitch lengths are marked in imperial by 1/100 or 1/10 of an inch (in decimal inches). Naturally, larger belts are measured in 1/10 and smaller in 1/100. Below is an example from Gates:

POWERGRIP® MXL ORDERING CODE IS COMPOSED AS FOLLOWS:	
288MXL019	
288	- Pitch length (1/100 inch)
MXL	- Pitch 0.08" (2.032mm)
019	- Belt width code - 0.19"

That means it is 2.88 inches long and is listed this way in the table where you'll see its metric equivalent of 73.15 mm:

POWERGRIP®

MXL		
Pitch: 2/25" (2.032 mm)		
Pitch & Length Designation	Pitch Length (mm)	No. of Teeth
288MXL	73.15	36
296MXL	75.18	37
312MXL	79.25	39
320MXL	81.28	40

3. WHAT IS THE WIDTH OF THE BELT?

Measuring this is pretty much straightforward. Just bear in mind that the belt may be a little worn.

Special case for imperial belts:

- Imperial belt widths are identified in decimal inches, as in the previous example by Gates:

POWERGRIP® MXL ORDERING CODE IS COMPOSED AS FOLLOWS:	
288MXL019	
288	- Pitch length (1/100 inch)
MXL	- Pitch 0.08" (2.032mm)
019	- Belt width code - 0.19"

In this example, the belt width is 0.19 inches. Furthermore, if it were 050, then that would be 0.50 inches. Or 0.75 inches. 100 would be 1 inch and so on.

OTHER FACTORS TO CONSIDER

In addition to those three questions, we may occasionally need to confirm the following:

- What's the application? Even when two belts are dimensionally the same, one may be stronger than another and therefore designed to withstand heavier loads.
- Are you sure it's not a cogged V belt? Cogged V belts look like they have teeth, but they go into a pulley with no teeth. Occasionally, people mistake these for timing (synchronous) belts as they have "teeth." So, if the pulleys have no teeth, then it isn't a timing belt. It is a cogged V belt or, occasionally, a Variable Speed belt.
- What is the belt made of? Most are made of rubber, while some are made of aramid, neoprene, carbon fibre, polycarbonate or polyurethane. Some are strong enough they can replace chains, provided they can fit in the proper sprockets.

CONCLUSION

1. Measure your belt pitch and from there, identify your tooth profile.
2. Measure your belt length by counting the number of teeth and multiplying it by the pitch.
3. Measure your belt width.

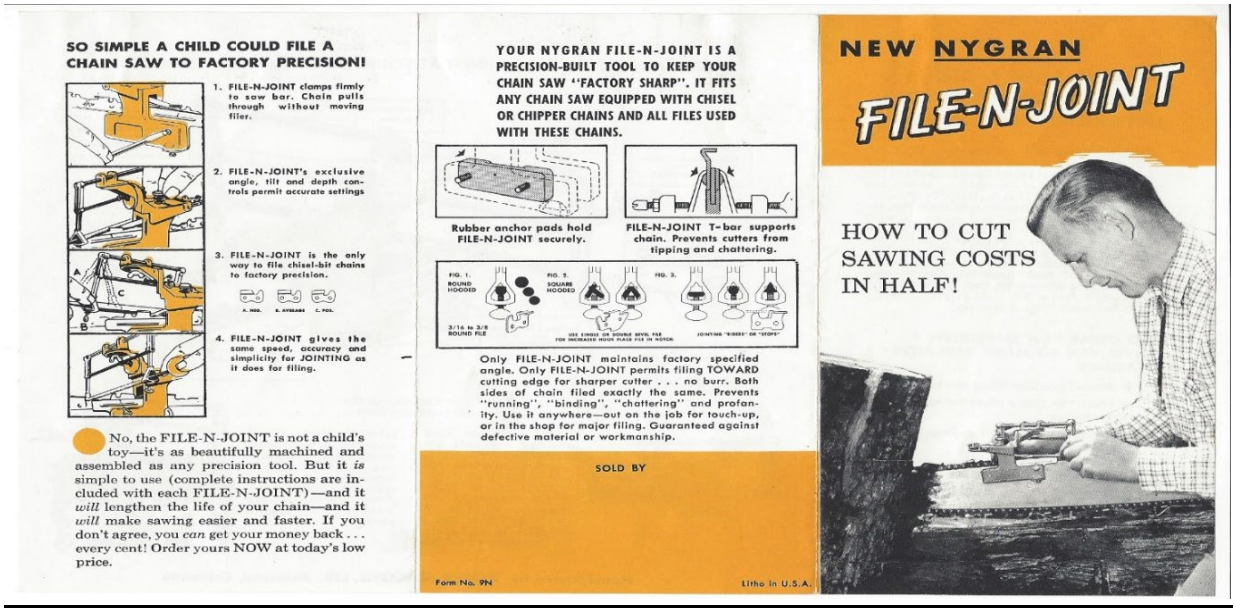
In addition, it is best if you can identify both the intended application AND the material of the belt.

Whatever Happened to ....

A new NEWS section devoted to those lost or hard to get user manuals and instruction sheets you thought no longer existed.

Well in fact some of them are still around and TTTG will be publishing them on a regular basis.

Another item supplied by John Deeble, the ‘famous’ US-made FILE-N-JOINT chainsaw sharpener.



SO SIMPLE A CHILD COULD FILE A CHAIN SAW TO FACTORY PRECISION!

1. FILE-N-JOINT clamps firmly to saw bar. Chain pulls through without moving filer.
2. FILE-N-JOINT's exclusive angle, tilt and depth controls permit accurate settings
3. FILE-N-JOINT is the only way to file chisel-bit chains to factory precision.
4. FILE-N-JOINT gives the same speed, accuracy and simplicity for JOINTING as it does for filing.

No, the FILE-N-JOINT is not a child's toy—it's as beautifully machined and assembled as any precision tool. But it *is* simple to use (complete instructions are included with each FILE-N-JOINT)—and it *will* lengthen the life of your chain—and it *will* make sawing easier and faster. If you don't agree, you *can* get your money back . . . every cent! Order yours NOW at today's low price.

YOUR NYGRAN FILE-N-JOINT IS A PRECISION-BUILT TOOL TO KEEP YOUR CHAIN SAW "FACTORY SHARP". IT FITS ANY CHAIN SAW EQUIPPED WITH CHISEL OR CHIPPER CHAINS AND ALL FILES USED WITH THESE CHAINS.

Rubber anchor pads hold FILE-N-JOINT securely.

FILE-N-JOINT T-bar supports chain. Prevents cutters from tipping and chattering.

FIG. 1. ROUND HOODED
FIG. 2. SQUARE HOODED
FIG. 3.
3/16 to 3/8 ROUND FILE

Only FILE-N-JOINT maintains factory specified angle. Only FILE-N-JOINT permits filing TOWARD cutting edge for sharper cutter . . . no burr. Both sides of chain filed exactly the same. Prevents "running", "binding", "chattering" and profanity. Use it anywhere—out on the job for touch-up, or in the shop for major filing. Guaranteed against defective material or workmanship.

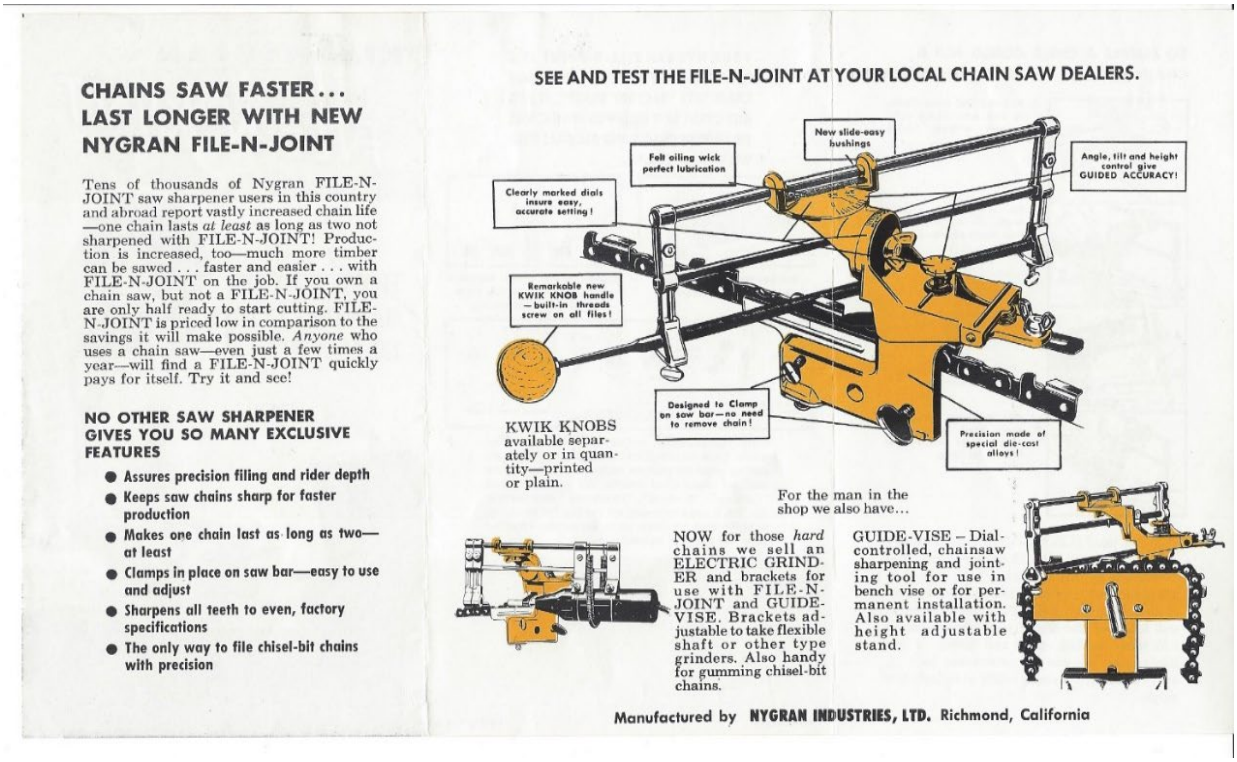
SOLD BY

Form No. 9N — Litho in U.S.A.

NEW NYGRAN

FILE-N-JOINT

HOW TO CUT SAWING COSTS IN HALF!



If you have some long lost instruction sheet or user manual at home please don't let it linger unloved and unread.

Send a picture or pdf file of the instruction sheet or user manual to the NEWS Editor at TTTG.

Email the Editor at reproturn@bigpond.com

The Next TTTG Workshop?

KEEP AN EYE ON THE TTTG WEBSITE

WWW.TTTG.ORG.AU

FOR NEWS OF OUR 2024

‘REAL SKILLS” WORKSHOPS

“Real Skills” Workshops
Great Value at only $70.00

TTTG teaches real skills

Available at all TTTG Meetings Workshops & Events

TTTG Leather Chisel Rolls	**$25 each**
TTTG Sharp Oil	**$6 a bottle**
TTTG Citric Acid	**$6 a jar**

Next TTTG Sydney Tool Sale
Sunday 25 February 2024

Remember the date and time:

Sunday 25 February 2024 – 9.00 am to 1.00 pm

Remember the location:

Brickpit Sports Stadium
1A Dartford Road, Thornleigh, NSW

Remember the entry fee:

- **$10 per person – pay at the door and please have your $10 note or $10 in coins for entry.**
- **All purchases are made in cash so having notes smaller than $50 is a very good idea.**
- **NOTE: THERE IS NO ATM AT THE VENUE**

Got surplus tools to sell – hire a table:

- **$50 per table – contact the Secretary to book via secretary@tttg.org.au**
- **For insurance reasons only TTTG Members can book tables – membership is only $50 per year**

75% OF TABLES ALREADY BOOKED – DON'T DELAY!
ASSISTANT PASSES ARE $10 EACH

Next TTTG Sydney Tool Sale
Sunday 25 February 2024

Details in Weekend Notes
https://www.weekendnotes.com/sydney-tool-sale-2024/

KavTak Tools

Lathe & Model Engineering Tools

www.kavtak.com.au

GARVIN TOOLS

Garvin Tools manufacture a range of precision-made and engineered tools for wood working and metal working. They also design and develop tools and products in-house to customers' specifications.

Based in New Delhi, India, Garvin started making quality tools in 1979, they now export internationally, and were ISO 9001 certified in 2015. They exhibited last year at the hardware trade show in Cologne, Germany.

KavTak.com.au, based in Glenwood, Sydney, NSW, are Garvin's exclusive Australian rep' and reseller.

The selection of tools that Garvin offer is vast, and therefore, at present it's not possible for KavTak Tools to offer the entire range - although they are always expanding their range based on customer demand.

If you can't find what your looking for online at KavTak Tools, then GarvinTools.com have online brochures, etc. Find what you need, let KavTak know and they can arrange to ship it on one of their annual visits. Or if it is urgent, air freight can be arranged.

Other Online Resources

Companies with good customer support are:

Machine Tools

machineryhouse.com.au

edisons.com.au

Tooling, Materials & Hardware

EdconSteel.com.au

aimsindustrial.com.au

boltandnut.com.au

Issue 01 - KavTak Tools - May, 2023

Finding the Balance

Time, Cost & Quality

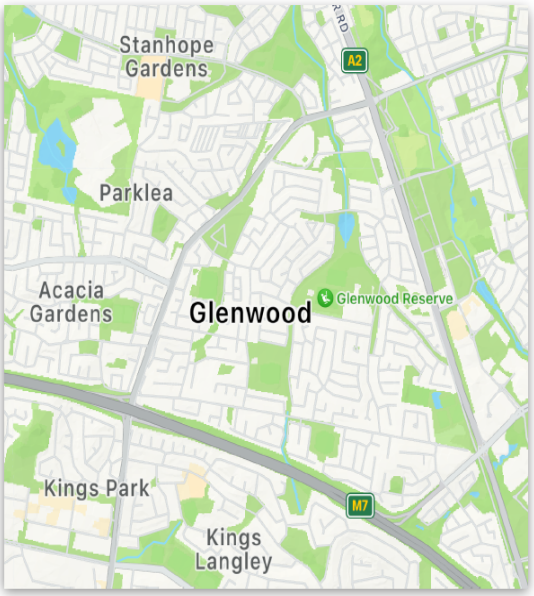
Makers are always trying to get the right balance in their own work, as well as when deciding to buy new gear, or indeed, restored gear, for their workshops.

The context at hand may sometimes require a trip to the hardware and a compromise with whatever the retailer has available at the time. But if there is enough time, waiting for local mail, or even shipping from overseas, is worth the wait.

Garvin Tools make quality products that are better priced in most cases than similar products that are made in Europe or North America.

KavTak are keen to make Garvin Tools available online to the Australian market, so check out:

kavtaktools.com.au



KAVTAK TOOLS support TTG

TTTG Fees and Contacts 2022/23

TTTG Fees

Annual Membership	$50
'Real Skills' Workshops	$70
Member Meetings entry	$5
Members & Friends Tool Sales entry	$5

TTTG Contacts

NEWS Magazine Editorial, Articles & Advertising:
John Bates secretary@tttg.org.au

TTTG Memberships:
John Bates secretary@tttg.org.au

NEWS Magazine

NEWS Magazine (quarterly)

NEWS Magazine is emailed to financial TTTG Members in:
March, June, September and December

Next TTTG Members Meeting

Old Eastwood Town Hall
74 Agincourt Road, Marsfield, NSW

Tuesday 13 February 2024 – starts at 7.00 pm

TTTG surplus tools for auction – bargains to be had!

For more details see the website **www.tttg.org.au**