

SPANNER & WRENCH COLLECTOR

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Department of Defence, Australia by J Hawking (m)

The Department of Defence is the Australian Government's Department responsible for undertaking the defence of Australia. The department used the 'D Broad arrow D' figurative mark to identify its property. Many adjustable spanners are known with the figurative mark and the Army sold them through the Military Auctions and buyers sold them to the general market through their businesses, like the Disposal Stores or at swap meets.

During World War 2 three Australian companies (McKay Massey Harris, Small Arms Factory Lithgow and an unknown company) made adjustable spanners for the department.

McKay Massey Harris (q.v.) produced their front rack and worm auto or F type. It was made in 7- and 9in sizes and three variations in the script impressed on the upper jaw are recognised.



Fig 1 - McKay Massey Harris' auto or F type, profile (9in).

The 7in size was issued with Vickers machine guns made by the Small Arms Factory, Lithgow. Three codes CAA 3602, FA482 and FA4826 are found on the 7in size. The code CAA3602 is currently believed to be part of the Vickers gun tool kit, but has not been confirmed. The FA482/6 code has not been associated with any equipment.



Fig 2a,2b & 2c - Department of Defence's FA482 & FA4826 spanners (7in).

The following inscriptions are found on McKay Massey Harris shifters supplied to the Department of Defence.

- Sunshine Word Mark & D^D: the word 'Sunshine' is impressed beside D^D.
- Tall S Figurative Mark & D^D: it is formed from the letters 'SMH' (Sunshine Massey Harris), which consists of a tall letter 'S', with the letter's 'M' and 'H' in the loops of the 'S', beside D^D.
- Squat S Figurative Mark & D^D: it is the same style as the previous mark, but the 'S' is in a squat form, beside D^D.



Fig 3a,3b & 3c - above McKay Massey Harris' auto or F type, profile (9in). Impressions on the upper jaw: 'Sunshine' Figurative Mark (centre), Tall S' Figurative Mark (bottom left), 'Squat S' Figurative Mark (bottom right).

Department of Defence, Australia by J Hawking (m) [Contd]

The Small Arms Factory Lithgow supplied the transverse rack and worm shifter type, in 15 in, 12in, 10in, 8in, 6in and 4in sizes.



Fig 4 & 4b - Small Arms Factory's Zircalloy shifter, made for Department of Defence: profile (10in) (top); details of the Department of Defence's Figurative Mark (bottom).

The 6in and 10in were believed to be part of the Bren Gun Carriers Tool Kit.

An Australian company supplied a 9 ¼ in, front rack and worm auto or F type for the department. It has a cast upper jaw and handle, which is fluted and the flute is closed at both ends; the lower jaw assembly is a folded plate saddle and the worm has cross-hatched knurling. It had a black (painted) finish. The spanner lacks the department's 'broad arrow', however, a box of spanners, each wrapped in grease proof paper, came from the Army Auction. The company later made a better-quality version for General Motors Holden (q.v.) in the period 1948-53. The maker is unknown(3).



Fig 5 - Department of Defence's front rack and worm auto or F type, profile (9 ¼ in).

The Department also acquired adjustable spanners from non-Australian companies post-1940's and many carried the departments mark. An example of a spanner with the Broad arrow is the Top Kogyo's H-0100 (4in) shifter, which has the engraving '910-5962 ^ 1983'.



Fig 6, 6b - Top Kogyo's TOP H-0100, profile (100mm, 4in) (top), details of the engraving on handle of Department of Defence's TOP H-0100 shifter (left).

Included through association with the department is a unique captured nut, closed adjustable ring type spanner. The spanner was made from a file and appears to be an apprentice made tool. It has impressed the letters 'RAC'. The tool has an association with the Australian Army, as it was acquired through Australian Army Auctions at Bandiana, Victoria. It may be a generic apprentice piece, as Geesin (2016)2 figured a similar design.



Fig 7 - The RAC captured nut, closed adjustable box type spanner, profile (7in).

References

- 1 Our heritage, traditions Broad Arrow. Retrieved from <https://www.army.gov.au>, accessed 14 Oct 2020.
- 2 Geesin, R. 2016. Apprentice and Test Pieces, p. 167. The Adjustable Spanner. History, origins and development to 1970. The Crowood Press: Ramsbury, England. Pp 208.
- 3 Editor believes this to be made by Percy Miller, but no evidence yet.

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Early KAWASAKI Motorcycle Spanners by Roland Klamt (m)

Kawasaki motorcycles commenced in the early 1960's. One of the first trademarks seen on the tools is the 'River Mark within a flag'. (Fig 1) The River Mark supposedly represents the waterline of a ship and was created during the Kawasaki ship building era of Kawasaki Heavy Industries.

The River Mark and River Mark with Flag trademarks were registered around 1952. The mark was also seen on early fuel tank emblems. By the late 1960s into the 1970s Kawasaki had begun to withdraw from the shipbuilding industry and diversified its company, producing motorcycles, jet skis, bridges, tunnel-boring machines and aircraft.



Fig 1a,b,c,d - Example of River Mark with flag trademark logo on spanner, circa 1966, these tools have no manufacturers mark.

Around 1967 Kawasaki changed to a mark called the 'Flying K', Accompanying it are the capital letter "KAWASAKI" and the small letter "Kawasaki" (Fig 3) , and just before this the River Mark with KAWASAKI. (Fig 2).

We also now see the manufacturers mark of MITO. Mitoloy Tools (Mito Alloy Tool Manufactory) was founded in Showa 15 (1940) in Mito, a city in northern Japan. In 1957, it received the contract to produce tools for the Japanese Defence Agency.

In 1963 the company name was changed to Mito Kiki Co., Ltd. On the reverse of spanners we now see MADE IN JAPAN with the MITO mark followed by a numeric number. The numbers represent the cavity mould used to produce the tool. For quality control if there was a flaw in mould, hence tools, it could be rectified.



Fig 2a,b,c,d - Examples of River Mark with KAWASAKI and MITO manufacturer mark.



Fig 3, b - Examples of 'Flying K', SOE with capital letter "KAWASAKI" and Spoke tool with small letter "Kawasaki"

Around 1997 "Kawasaki" with lower case letters was registered and found with MITO manufacturer mark on reverse side, as above. (Fig 4) Later we find "KAWASAKI" in capital letters and on reverse side DROP FORGED STEEL but with NO maker mark. (Fig 5) Just one final note, ALL these tools are METRIC.



Fig 4 - Examples of 1997 small letter "Kawasaki" with MADE IN JAPAN and MITO-1 on reverse



Fig 5 - Examples of Upper case letter "KAWASAKI" with DROP FORGED STEEL on reverse

Moto Griffon by G Radion (m)

A mystery spanner, almost 7" (170mm) long and 3-1/4" (80mm) at its widest point. It looked to be motorbike related, and marked only "MOTO GRIFFON" has been in my shed for some time and needed to be investigated at last.

Finding the company Moto Griffon on the internet in Graces Guide and Wikipedia was relatively easy, just a matter of "getting a round tuit." Pictured below are Griffon motorcycles from 1902 and 1933 as examples. it is not known by the author which of the many Griffon models released this spanner is relevant for.

From Wikipedia: *History*

The Griffon brand was created by a quarrel between the cousins Eugene and Armand Peugeot, who led Peugeot until 1895, which was then called "les fils de Peugeot frères" (the sons of the Peugeot brothers). Their roads separated, Eugene continued to lead the bicycle factory "les fils", while Armand would plunge into motorized vehicles with his "Société Anonyme des Automobiles Peugeot". They agreed that they would not compete with each other; Eugene Peugeot would not make motor cars, Armand Peugeot would not cycle.

As early as 1898, this agreement was violated, when Eugene Peugeot presented not only bicycles on the "Salon du Cycles", but also various tricycles and quadricycles with engines from De Dion-Bouton and own engines.....

Griffon (Courbevoie)

After the first Peugeot motorcycles under the name "Griffon" were deployed in races, the management of "les fils de Peugeot frères" decided that this brand would have its own factory in Courbevoie.....

Griffon became a brand with a large reputation that made single cylinders and V-twins. Later, light two-stroke were also produced. The Zedel and Clément engine blocks were also built in. The company existed until 1955, although it was acquired by Peugeot in 1927. In the 1930s, forty-eight and fifty-five models were released by Peugeot always released under the brand name "Griffon".

Griffon (London)

The British company Griffon Motors in London was a subsidiary of Griffon. The company name was Griffon motors Ltd., London WC. From 1903 to 1906, motorcycles were built with 23 x 4 and 3 hp Zedel - built-in engines.



Motorbike spanner of flat plate



French Griffon 1 3/4 hp from 1902



Griffon 1933 side valve

Ref Pic 2 https://commons.wikimedia.org/wiki/File:Griffon_1902.jpg Attribution: Yesterdays Antique Motorcycles en Classic Motorcycle Archive

Ref Pic 3: Attribution: Yesterdays Antique Motorcycles en Classic Motorcycle Archive

More mysteries by G Radion (m)

CANADIAN TYRE CORP LTD

History from Wikipedia

On October 24, 1922, John William Billes and Alfred Jackson Billes invested their combined savings of \$1,800 in the Hamilton Tire and Garage Ltd. (established in 1909 as the Hamilton Garage and Rubber Company) in Toronto.[6] Hamilton Tire and Garage specialized in buying tires at a discount from manufacturers in the winter then reselling the tires during the busy summer season. The brothers opened a retail store at Yonge and Gould streets in Toronto, Ontario.[7]

A product focus on tires was emphasized in 1927 with incorporation of the name Canadian Tire Corporation Limited because, as A.J. Billes said, "...it sounded big".[8] During 1928, the first Canadian Tire catalogues were distributed, consisting of price lists along with road maps.

In 1934, the first official Associate Store was opened in Hamilton, Ontario, by Walker Anderson on King Street.[9] In 1944, to fund its growth, Canadian Tire Corporation became a public company and sold 100,000 shares. By 1945, there were 110 Canadian Tire stores. In 1946, an employee stock purchasing plan was implemented to encourage employee loyalty while discouraging unionization.

From then on they expanded into various enterprises such as: Banking, Financial Services, Petroleum, Chain Stores, Automotive Parts, Clothing, Sporting Goods and Party hosting.

This spanner appears to be for one of their push bikes, it's not known which model.

**Marked: "CANADIAN TYRE CORP LTD
SUPERCYCLE"**



More mysteries by R Klamt (m)

A DOE marked "13 GRUSON 13" is in G Radion's mystery spanners. I'm not sure what measurements system is used, but much larger than 13 mm.

H.GRUSON is Hermann Gruson, Gruson Works. See Gracesguide.co.uk

The Company was big into Arms manufacturing, Magdeburg, Germany (West of Berlin)

I found references in many places:

See TROVE The Maitland Mercury and Hunter River General Advertiser (NSW : 1843 - 1893) Tue 21 Aug 1883 Page 4 The Gruson Defensive Armour.

See TROVE Western Star and Roma Advertiser (Qld. : 1875 - 1948) Sat 30 Jun 1888 Page 4 The Gruson Turret.

Numerous other articles on TROVE.

As for the measurement, I believe it's the 'Linie', or 'Line(unit)'.

The Fuß or German foot varied widely in size from place to place in the German-speaking world, and also with time.

The Zoll (generally rendered as inch in English) was a Prussian unit of length or distance prior to 1871 when the German Empire was formed, and all traditional local systems were abolished in Germany.

I believe the unit of measure to be 'Zoll (inch)' or 'Linie' (Line parts of an Inch) These were generally 1/12 or 1/10 th unit of measure namely because of imperial and metric systems. But also other variants.

See Wikipedia – 'German Units of Measure' and 'Line (Unit)'

Armament companies employed the 1/10 th inch Line (unit), in part owing to the importance of the German and Russian Arms Industry, so the British adopted the unit of measure 'Line' as 2.1mm.

As Magdeburg was near to Berlin I believe they would have adopted the Prussian Reichs Fuß (12.36 inch), Hence making 1 Linie = 2.17mm and 13 Linie = 28.2 mm



G H Nicoll-Dundee by G Radion, (m)

I have had these spanners marked "G H Nicoll & Co Dundee" for some time. At one stage I thought I had found something to suggest that they made those old fashioned cast iron mangles which were already a relic when I was a lad.

Roland Klamt has been investigating the Harley Davidson company and came across some interesting information and was able to confirm my ideas:

C H Nicoll & Co DUNDEE by R Klamt (m)

I was researching the home of the Harley Davidson family, and I came across the information that their original home in the UK was furnished with G H Nicoll & Co DUNDEE products.

Looking up G H Nicholl & Co DUNDEE locally, I found they sold Mangles in the 1800's. Mangles were used to speed up the process of drying clothes by removing excess water.

There are examples in the Victorian Collections, the museum, and on the internet.

Pictured are two spanners marked G H Nicoll (GR Collection), and an example of a mangle found on the internet



SAAS SPLINE NUTS by R Klamt (m)

I have this 1-3/4" high , 13/16" Nut head socket which says. SOCKET NUMBER 24315S, SAAS SPLINE NUTS, PAT. PENDING I think the SAAS is for Australian company 'SAAS Automotive Pty Ltd' which started in 1954. [and is still going ..Ed]

It looks nothing like their current spline wheel nut offerings, so I guess it very early due to Patent Pending or for some special vehicle. SAAS Automotive Pty Ltd' wheel locking nuts and drive key - (socket).

These were sold (and still are) in sets of four lug nuts and one of these keys". A car owner would replace one lug nut on each wheel with one of these nuts, the key needed to be the same size as ones lug nuts, to enable the use of the wheel wrench supplied with the vehicle.

The production models have a numbering system, and each set of spline nuts have different grooves similar to lock and keys in a padlock or door lock, making them unique, and thus not be able to be used on that of another person's vehicle so fitted.

Ed - as it happened, I returned home from our tool market on Sunday 21st April to find my wife's VW had a flat tyre. On changing the tyre, I noticed that it was supplied with a set of lock nuts, one per wheel as per the discussion above, factory supplied in this case.

I imagine that is standard practice on other cars as well, as an anti wheel theft device.



3D Printing of Spanners by R Klamt (m)

When I go looking for old Motorcycle Toolkit tools, sometimes all I have to go on is a pictorial representation from an old users guide or parts list, and mostly with no scaling or size dimensions to the tool. To assist me in identifying tools in the field I've started using 3D printing to create replicas that are light, to scale and I can overlay when out hunting.

The first step is to take a picture or snapshot, then determine its scale based on size of things in the image I may know. This may be as simple as knowing the socket head size of a spanner. Here's an example.

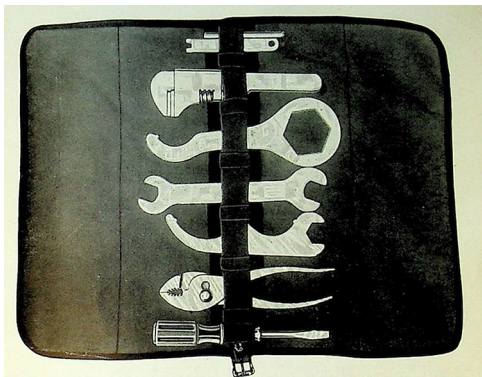


Fig 1. 1912 Harley-Davidson toolkit

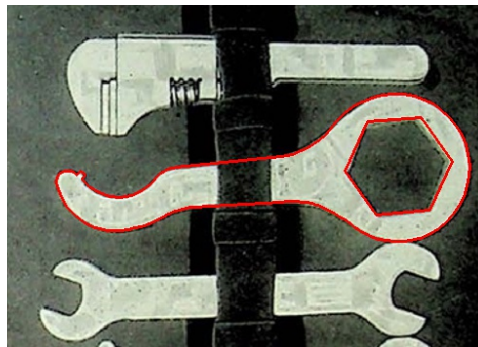


Fig 2. CAD drawing of tool

The picture shows a 1912 Harley-Davidson toolkit. (Fig 1) The F-Wrench depicted in the toolkit was a reference point here - knowing it's name and number (1) allowed me to conclude it was either 6" or 6-1/2" in length, and believing the crank wrench above it to be 3-1/2" from a tool I had measured from a collector. I placed the image in a CAD (Computer Aided Design) system and scaled the image across the crank wrench to 3-1/2". When I then measured the F-Wrench it was around 6-1/2" confirming I had a reasonable scale.

Next step is to trace the outline around the tools using Line, Arc and Area features of the CAD system. (Fig 2) The CAD system I used was Microstation, and you can work in Imperial or Metric units. Once complete I exported the tool feature to AutoCAD, another CAD system, DXF exchange format. It took me about 30 minutes to do all this. I then provided this file to the 3D Printing company who use this file to produce a 3D model, which in turn creates instructions for the printer. In my case I simply had them extrude my outline to a given thickness typical of the tools of that time.

The 3D printing plastic material I used was inexpensive and cost less than \$1 for a single tool. The time taken to print my tool was 15 minutes. (Fig 3). However I have had 3 tools printed simultaneously on another printer in 30 minutes. The time is a function of the complexity of the object being created. You can also have printing material with carbon fibre content which is a little more expensive, and would make the tool useable.

I am still looking for one of these F wrenches, if you have one to trade, get in touch with me at a member meeting or through the Editor.



Fig 3a,b. Examples of 3D printed tools



Ref (1) - Frank MOSSBERG Co, STERLING No 2, 6-1/2 inch long

Stuarts's Australian Clamps

by G Radion (m)

I called in on Stuart Goddard in Canberra during a short visit to the National Capital during the recent Victorian school holidays in late March 2024.

Member Stuart has a great layout in his shed, worthy of a page in our yearly Calendar.

Stuart has made it his mission to assemble a collection of Australian clamps, mostly G clamps, but he has included others if Australian made.

Stuart is working on an article for the Tool Chest and this is just a teaser of some of his collection, so look out for it.

Stuart has a well equipped workshop with machinery one can only drool over, and most of it has been obtained in unserviceable condition, which he has restored to working condition and many look better than new.

Stuart has a Youtube channel where he shows restoration videos - well worth a visit. This is the link:

https://www.youtube.com/results?search_query=scroungers+workshop



Welcome to Edition 55, Issued in conjunction with the "Tool Chest" number 152.

If you require a copy of a back issue, contact the editor. Keep the contributions coming so that we can cover a broad range of topics.

An electronic index of spanners covered so far is available from the Editor.

If you have an email address, and would like an electronic copy of this newsletter in .pdf format, contact the editor.

Wanted to buy or swap - Stanley Australia Roller Ratchet Screwdrivers, Screwdrivers marked "AKURATE", small Snail Brand spanners, agricultural machinery nameplates, parts lists and interesting spanners for agricultural, vintage motor vehicles and vintage motorbikes etc, also other interesting shifters and spanners & tool company catalogues from Australian, British, American and Continental Makers etc. Contact G Radion

*Feedback from those who find this newsletter useful would be appreciated. **Continued contributions are required to keep it interesting.** Thanks to those who have sent content, your stuff will all be used eventually.*

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Aims of the Spanner & Wrench SIG:
Promote the conservation, identification and collection of spanners & wrenches and to share information with the group to that end.