Colour is probably less important to the male, they are not seen from the driver's seat anyway but colours do look different in daylight, and light coloured seats can be a problem for old engineers forgetting to put a clean coat on.

Price of the deal is very important. The essential part is not how much is offered for the trade-in, but how much it costs in total to change the vehicle.

Running costs and depreciation over time are of prime importance. Consultation with several magazines will give a better indication of this.

The present trend to run electric vehicles will be important, but beware as the newer models may not give an overall economy that old ones do. How long do batteries last, and how far will an electric drive take you in winter with hills, delays in snow, heating, lights and radio running. Until there are sufficient charging points available, the waiting to use one for a half an hour charge can be frustrating, even more so if the nearest one is further away than the battery will last.

How much will a new battery cost? How long is the life of them? The electrical charge available will reduce as the battery ages. It looks like an on board charging system is needed which can be topped up quickly.

The other new feature now being made available is the self-driving car. Perhaps slightly controversial is the reliability of control at speed, and how swift the driver can take back full control. There is always the possibility of these "radio" devices being compromised by a third party.

The writer is of the opinion the only safe way of using driverless vehicles is to put them on rails and use independent position detection. We shall see!

Water in the carburettor

WIFE: "There is trouble with the car. It has water in the carburettor".

HUSBAND: "Water in the carburettor? That is ridiculous".

WIFE: "I told you the car has water in the carburettor".

HUSBAND: "You don't even know what a carburettor is. I'll check it out.

"Where is the car?"

WIFE: "In the pool."

Statistic

This is a frightening statistic, probably one of the most worrying in recent years.

25% of the women in this country are on medication for mental illness.

That is scary. It means that 75% are running around untreated.

Braime Trophy (Rose Bowl) Winners

V	O - If Olivit	Mississis)		\A /2
Year	Golf Club	Winner	Year	Golf Club	Winner
1936	Garforth	J. C. Baines	1980	Moortown	K. J. Hegarty
1937	Moortown	G. L. Braime	1981	Scarcroft	Eric Cowell
1938	Cobble Hall	J. Horn	1982	Sandmoor	D. Warboys
1939	Headingley	F. B. Mills	1983	Cobble Hall	Eric Cowell
1940	Moortown	E. L. Crump	1984	Sandmoor	Eric Cowell
1941	Moortown	B. Firth	1985	Headingley	K. J. Smith
1945	Moortown	E. L. Crump	1986	Sandmoor	D. Warboys
1946	Moor Allerton	R. Brammer	1987	Moortown	Eric Cowell
1947	Scarcroft	J. Davis	1988	Sandmoor	K. G. Layshon
1948	Headingley	F. Rushworth	1989	Pannal	A. R. Shires
1949	Headingley	C. L. Forbes	1990	llkley	J. S. Mulligan
1950	Sandmoor	Eric Cowell	1991	Howley Hall	A. J. Killingbeck
1951	Sandmoor	R Brammer	1992	Cobble Hall	K. J. Hegarty
1952	Headingley	T. Wood	1993	Wetherby	C. H. Mathers
1953	Garforth	F. Rushworth	1994	Scarcroft	C. H. Mathers
1954	Garforth	H. Hardcastle	1995	Cobble Hall	J. S. Mulligan
1955	Moortown	J. R. Robertson	1996	Scarcroft	S.R Stacey
1956	Headingley	R. G. Flanagan	1997	Sandmoor	K. J. Smith
1957	Alwoodley	K. G. Layshon	1998	Wetherby	K. J. Smith
1958	Alwoodley	J R. Robertson	1999	Cobble Hall	J. S. Mulligan
1959	Horsforth	G. C. Button	2000	Scarcroft	R. Johnson
1960	Headingley	G. C. Button	2001	Wetherby	K. Gibson
1961	Moortown	R. Archer	2002	Cobble Hall	D. Mc Nalus
1962	Moortown	J. Rushworth	2003	Garforth	C. H. Mathers
1963	Moortown	J R. Robertson	2004	Strensall	R Cockshott
1964	Sandmoor	K. G. Layshon	2005	Scarcroft	G. P. Jones
1965	Wetherby	D. Neesam	2006	Wetherby	C. H. Mathers
1966	Sandmoor	C. H. Hattersley	2007	Cobble Hall	S.R Stacey
1967	Cobble Hall	H. R. Catchpole	2008	Garforth	K. Gibson
1968	Sandmoor	C. H. Hattersley	2009	Scarcroft	G. Heap
1969	Scarcroft	C. Brass	2010	Cobble Hall	G. Heap
1970	Scarcroft	A. Sills	2011	Strensall	C. H. Mathers
1971	Sandmoor	K. G. Layshon	2012	Garforth	S.R Stacey
1972	Pannal	D. Holmes	2013	Wetherby	K. J. Hegarty
1973	Sandmoor	G. A. Roff	2014	Scarcroft	S.R Stacey
1974	Sandmoor	C. L. Forbes	2015	Garforth	J. Shergill
1975	Scarcroft	C. Archer	2016	Cobble Hall	A. Braime
1976	Wetherby	K. G. Layshon	2017	Scarcroft.	J. Shergill
1977	Scarcroft	H. R. Catchpole	2018	Garforth	J.Shergill
1978	Scarcroft	J Gawthorpe	2019	Cobble Hall	D. Ward
1979	Cobble Hall	K. G. Layshon	2020	Postponed	
		•		•	

Member and Guest Trophy (Tankard)

Charles Brass was a Member of the Association for many years and acted as Golf Secretary. His Widow provided the Tankard to be played for in his Memory.

Year	Winner	Year	Winner
1975	R. D. Green	1998	G. P. Jones
1976	R. D. Green	1999	K. J. Smith
1977	D. Neeson	2000	A. J. Killingbeck
1978	C. Archer	2001	B. Kelly
1979	K. J. Smith	2002	G. P. Jones
1980	J. Gawthorpe	2003	S. Bell
1981	V. J. Minett	2004	G. P. Jones
1982	E. Cowell	2005	P. W. Lee
1983	K. J. Leyshon	2006	G. Allen
1984	A. Wormold	2007	R. Thompson
1985	K. J. Smith	2008	G. P. Jones
1986	K. J. Smith	2009	R. Thompson
1987	P. Bowles	2010	G. P. Jones
1988	S. Heap	2011	G. P. Jones
1989	G. Heap	2012	R. Thompson
1990	K. J. Smith	2013	J. Shergill
1991	K. J. Smith	2014	G. P. Jones
1992	A. J. Killingbeck	2015	R. Thompson
1993	G. P. Jones	2016	S. Stacey
1994	G. Elliff	2017	R. Johnson
1995	G. P. Jones	2018	S. Stacey
1996	K. J. Hegarty	2019	J. Shergill
1997	K. Gibson	2020	Postponed



Chris Wagstaff - Charles Brass Trophy.

GOLF 2017

Captain - John Aldersley.

Hon. Secretary - Steve Stacey

This year's event was held at Scarcroft Golf Club. The golf course, weather and hospitality were excellent. The Braime Trophy was initially played here in 1947. This was the 14th time it has been held at this Club.

It was the 79th Braime trophy event and it was won by Jas Shergill who previously won it in 2015.

20 teed off in the morning round of nine holes, playing in three-man teams. The winning team with a score of 44 Stableford points was:-

Graham Hamilton Andrew Wright Bob Brownbridge

In the afternoon, 29 golfers competed in an individual Stableford competition, for the Braime Trophy and the Europa - Mitchell Fox Cup.

The winners were:-

Braime Rose Bowl

1st Jas Shergill 39 points. 2nd Stephen Tattersfield 38 points.

Europa – Mitchell Fox Cup

1st **Graham Brown** 41 points.

2nd Paul Whittaker 40 points. 3rd Jas Shergill 39 points.

Member and Guest Tankard:
Robert Johnson & Graham Hamilton 70 points.

Charles Brass Trophy: Steve Stacey 11 points.

Nearest the pin Prizes:The Stuart Hazeldene Memorial: Lee Wetherall
Braime Pressings, Steve Stacey
M A Ford (Europe) Ltd., Mike Stoker
Craftsman Tools Ltd., John Bennett

We were indebted to our Sponsors whose support makes this day so enjoyable.

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ISCAR TOOLS (UK) LTD.
MITCHELL FOX & CO. LTD.
STARRETT (UK) LTD.

GOLF 2018

Captain - John Aldersley.

Hon. Secretary - Steve Stacey

This year the event was held at Garforth Golf Club. The golf course was burnt brown due to recent hot weather. However the greens were excellent, having been kept well watered. The temperature was 28 degrees!

It was the 80th Braime trophy event and it was won by Jas Shergill who previously won it in 2015 an 2017. The first Braime Trophy event was held at Garforth in 1936.

24 teed off for 9 holes, M A Ford Team event playing in three-man teams. The winning team with a score of 41 Stableford points was:-

Graham Bond David Ward Nick Trott

In the afternoon, 31 golfers competed in an individual Stableford competition, for the Braime Rose Bowl Trophy and the M A Ford Braime Prizes.

The winners were:-Braime Rose Bowl:

1st Jas Shergill 38 points. 2nd Steve Stacey 34 points.

M A Ford and Braime prizes:

1st Paul Linch 42 points. 2nd Jas Shergill 38 points. 3rd Dayu Maistry 36 points.

Member and Guest Tankard:

Steve Stacey & Kieran Preston 68 points.

The Charles Brass Trophy: Richard Thompson 9 points.

Nearest the pin Prizes:-

The Stuart Hazeldene Memorial, Steve Stacey Braime Pressings Ltd, Brian Stockdale Craftsman Tools Ltd., Paul Barron

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GOLF 2019

Captain - Ross Town

Hon. Secretary - Steve Stacey

This year the event was held at Cobble Hall (Leeds) Golf Club. The golf course and weather were very good. The service from the Golf Pro, office, Bar and Caterers was excellent throughout the day.

It was the 81st Braime Trophy event and it was won by David Ward who is the Md of M A Ford. M A Ford are now Corporate Members of the association and gave great support to the event.

30 teed off for 9 holes M A Ford Team event, playing in three-man teams. The winning team with a score of 42 Stableford points was:-

Brian Wood Chris Walker Tony Jackson

In the afternoon, 39 golfers entered in an individual Stableford competition, for the Braime Rose Bowl Trophy and the M A Ford-Braime Prizes

The winners were:-

Braime Rose Bowl

1st David Ward 36 points. 2nd Paul Barron 35 points

M A Ford and Braime Prizes,

1st. Paul Whitaker 41points. 2nd Bob Brownbridge 40 points. 3rd Martyn Garner 38 points.

Member and Guest Tankard,

Jas. Shergill & Paul Whittaker 70 points.

Charles Brass Trophy:

Chris Wagstaff 11 points.

Nearest the pin Prizes:-

The Stuart Hazeldene Memorial, Wayne Richardson Braime Pressings Ltd., Steve Stacey Craftsman Tools Ltd., Brian Wood HKA (FS) Ltd., Dave Booth Leeds Golf Club John Scollen

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M A FORD (EUROPE)





Alan Braime, Kevin Hegarty, and Ross Town.



Richard Thompson with the Charles Brass Trophy.



Braime Trophy Winner David Ward and Ross Town.

Andrew Kibler – Apprenticeship Memories

For me it really started the year I was leaving school. The careers officer, if you could call him that, took a basic look at your qualifications and father's employment, then told me I should be an engineer. I can't ever remember being asked what I wanted to do. So that set the stage for me.

My first interview was at my father's place of work, (West Yorkshire Foundries, off Hunslet Road) where I was offered a position of a "core maker." Basically, making wooden moulds for casting.

I pretty much had an idea of what the factory was like from the things Dad talked about but did not comprehend the noise, dirt, and working conditions as I was shown around. There was no way I was ever going to work here.

My second interview came by way of an auntie, who worked as a secretary at Crabtree-Vickers in Leeds. Here was a company with a very high reputation for good apprenticeships. Having looked around at the vast array of engineering skills, I had made my mind up where I was going.

There was one other engineering company in Gildersome, whose name I forget, that I was interviewed at and although I was impressed, and verbally offered a position, they never came back to me.

So in September 1972 I began work at Crabtree-Vickers. For those of you not familiar with this company they made roll fed printing machinery for the large newspaper industry and were based at Water Lane in Leeds. The apprentice shop was in fact a separate building on the corner of David Street.

The first day was largely an introduction into the apprentice shop, where there were four separate sections; Fitting, Milling, Turning, and Sheet Metalwork. We would spend three months on each section making tools of our trade to use later on.

My first section was to be fitting. The thing that has always comes to mind when I think back at my first day of work was how much my bloody feet ached! My other memory of this section was the instructor; whose name I believe was George Laycock, an old guy who was just about ready for retirement. George smoked a pipe and once sent me to the top shop to pick up his snuff, which he then mixed with his tobacco and proceeded to light. It produced this huge ball of blue/grey smoke that gripped everyone's throat within ten feet, causing coughing fits lasting several minutes. George on the other hand was not affected.

I can't honestly remember in what order I did the other sections but there were a couple of memories I'd like to share.

Turning was where I very nearly lost my life. After being shown the fundamentals of a centre lathe, we had a little play and were put to work. Now the one thing you learn very quickly is not to leave the chuck key in the chuck when you start the machine. Bet you already know where I'm going!

Before I tell you what happened you have to know the layout of the apprentice shop. The lathes and milling machines were all on the lower level, whereas the fitting area and offices were above, with a large open area in the middle, such that you could see all the machines below.

If you had not already guessed it, yep, I started the lathe with the chuck key still in the chuck. It hit the lathe bed, broke the 1/2 inch tang and flew passed my ear literally just flicking it. But my embarrassment didn't stop there. The manager's office was right above my lathe and it smashed through his window at some speed. Well, I looked up only to see the manager (Mr. John Barras) staring down, so I raised my hand in confession. With a finger, he motioned me to come up to his office. Gingerly I approached and the first thing he said was "sit down you look like a ghost". After five minutes or so he asked if I was ok and politely told me off.

The other incident I remember was in the milling section. Can you remember anyone what a shaper is? Well it is probably the most boring machine ever to work on. It monotonously shaves across a lump of metal, with a rhythmical thump sending all and sundry to sleep. No, I didn't fall asleep, as you may have thought, it was worse. These things have a ¾ drive on the side that spins constantly when the machine is running. I in my slumber thought it would be a good idea to press my leg against it, upon which it grabbed my boiler suit. Let me tell you it woke me from my slumber pretty quickly, and I frantically fought to pull away. Thankfully with no harm done, or so I thought, only to look up and see Mr. Barras wagging his finger at me again.

Mr. Barras, the apprentice shop manager, was one of the nicest managers I have ever known. He once asked me to go to the stores, which was in the main factory. Seeing the puzzled look on my face, he asked if I knew where it was, to which I replied no. He simply said let's take a walk. It was while walking to the stores he said something to me that I have always lived by since.

He told me, "If you ever want something from someone always ask if they can help you." Sure enough when we got to the stores he greeted the store man as a friend and did just that. The store man immediately went off and came back within seconds with his request.

On the way back he also told me that should he have simply told the store man what he wanted, it was likely we would have been waiting several minutes. Has this ever happened to you I wonder?

Before I finish up there is one other memorable thing to mention. Dinner time. As you may recall the apprentice shop was not part of the main factory, but the canteen was, and like most canteens of that time, if you wanted a good meal you got there early. So, at 12 o'clock fifty-three apprentices made a mad dash 200 yards up the road. I really don't know why as we rarely beat the factory workers but it must have been a sight for any onlookers.

It was a fantastic apprenticeship at Crabtree-Vickers and I was very fortunate to be awarded the apprentice of the year. I was a bit peeved when I received my 0-25mm Starrett Micrometer, only to learn that the two runners up got two weeks on an outward bound course.

Que sera, sera. Hope you enjoyed reading.

Andrew Kibler - January 2021

Steven Rose - Apprenticeship Memories

I left school at 16 and joined the Royal Navy as a Radio Operator. At 17 I decided that bouncing around the North Sea wasn't for me and took advantage of the release scheme. I started as an apprentice toolmaker with Esdale Ltd in Heckmondwike and spent the next 12 months learning the various disciplines in a training school run by BLD. However, not only was I by then quite old to start my apprenticeship but I had started in November when training had begun in September so I had some catching up to do. The training manager had painstakingly designed a chart to record our progress which was a magnificent piece of work and had 12 names on it except mine. One lad called Trevor Bray had left the scheme and rather than spoil his chart and put my name on it I became for the next 9 months Trevor Bray, at least as far as the training was concerned. Fortunately, my first year certificate had my real name on it but it was an anxious month I spent waiting for it. Confusingly, when I went into the workshop I was then called Stuart for quite a while.

Steven Rose - February 2021

Malcolm Murray - My Introduction to Engineering - Chapter 1

My real first introduction to engineering began at Sleaford Secondary School. I sat my Eleven Plus twice and failed so missed out on Sleaford Grammar School. My father was head of department covering woodwork, technical drawing and of course metalwork at Sleaford. We lived in a small village called Dorrington with my brother where we attended middle school. In the summer of 1962 we moved to Sleaford to be nearer the school for both me and my father.

I enjoyed my school days earned good money on my Saturday butchers round, delivering morning papers to Cranwell Air Base. This was hard, as a new boy I got the officers' quarters which were well spread out. You got into the back of the van with two other boys, sorted your bag out from the piles of papers, jumped out and ran so you finished your round to be ready for your return journey. I also delivered the evening Lincolnshire Echo six days a week including the Green Echo on Saturdays with the sports results.

I collected the monies on a Friday evening and with the price at 1 shilling and 10 pence per week I got a lot of tuppences as tips, so it was a good earner. The market collapsed when the price went up to two shillings. I also enjoyed being a bush beater on shoots during the winter months so I wasn't work shy.

Anyway back to engineering. Our school classes were split into three groups; general, agricultural and the 'A' stream steered you to GCEs. I was placed in the 'A' stream. The school was also split in two, with the main school on Church Lane and the practical subjects being taught a fifteen minute walk away off West Gate. This was the part my father taught at, so you have guessed by now he taught me.

I took my GCEs in Maths, English, Geography, Metalwork Craft, Technical Drawing, and Engineering Design. In my extra year at school I re-sat the core

subjects and took my Physics exam in CSE. I was a good pupil but hopeless at exams. I failed my core subjects three times but passed all practical subjects first time along with my Physics CSE.

One major problem I remember facing was keeping my technical drawing paper clean being left handed. The metalwork class room was equipped with vice benches, small lathes and pedestal drills. A small forge allowed us to prepare and make castings. My pride and joy was a small woodwork vice, including all the turned parts, as part of my class work presentation. I still have the vice today.

So this pointed me to my future.

Malcolm Murray - February 2021

Malcolm Murray - My Introduction to Engineering - Chapter 2

Chapter two begins in July 1968 when my father accepted a Head of Department for a Craft and Technology post at Leeds Central High School. So we moved from Sleaford to Cookridge north of Leeds.

Shortly after settling into our new home my father said "It's time for you to look for a job."

So, I entered the employment building in Leeds with trepidation. At the interview I was asked what I was interested in doing and for some reason I suggested the Forestry Commission would be nice, but when they said you would have to leave home and go to college with little pay, with the only other funds coming from my parents, I declined.

I then thought I'd like to be a Customs Officer but they don't recruit until you're 21 years old I was told.

Not being able to think quickly due to nerves I couldn't avoid the subject of engineering being raised. So, I heard the immortal words "What about an engineering apprenticeship as all your qualifications point in that direction."

I left that with them and after a few days I was offered a placement at Greenwood & Batley, known as Greenbats of Leeds who made Locomotives or George Mann's who made Printing Machinery.

Talking to my father he recommended George Mann's as the better option because it had its own training school on David Street, just off Water Lane, which was quite central and printing machinery was bit more up-market to heavy plate work.

By now Leeds Engineering was closed for its August two week's annual holidays so I was told to report to the training school on the 19th August, my first day of adult working life.

On arrival we were introduced to the staff. At this point I would like to refer you to Andrew Kibler's account of the school as he attended a few years after me. A member of staff I remember was a Mr. Aspinall who was quite young and had a pleasant way of teaching. He later introduced a few of us to Ten Pin Bowling at the Merrion Centre in Leeds. We joined a league and we called

ourselves the "Wise Owls" after the pub in Ireland Wood. I always remember the 12 hour non-stop bowling evenings from 7pm to 7am the next morning.

The first job we were given was a 100mm (4") x 450mm (18") long square block of steel and a hack saw. We were then instructed to cut a piece off to make a vee block.

It took two days and a handful of blisters. What was most frustrating was we were working on benches on a mezzanine above the machine shop and looking down we saw the staff cutting the blocks on a Horizontal Band Saw.

Having cut our blocks we were handed a file (2nd cut) to file square all six sides of the block and finally draw file to improve the finish. That took the rest of the week to complete.

The second week a Mr. Skinner, who was the Works Manager, came to the class room in the building for me to sign my apprentice indentures along with my father. Maybe the vee block was the first test.

I was told that due to my qualifications I would be placed on the 1st Year Technicians course, connected to Kitson College, and if I did well I may be able to go on the ONC course. It took about a month before I realised I was on a combined Craft Course PT1 & 2. We contacted Mr Skinner and he apologised but said the T1 course was full but if I did well I would be placed on T2 for the second year which wiped out the ONC.

Back to the vee block, we were instructed to blue and mark off our blocks for cutting the vees and the slots to take the clamp carrier which we would be making at a later date.

It was at this point that we all learnt how inflammable blue cleaning fluid was. One of the apprentices excused himself to the toilets which were outside in the yard and the next minute the staff were dashing out to put the lad's overalls out as he had struck a match for a quick cigarette. He had severe burns to both hands but luckily the staff acted promptly.

Another event at the school involved me. That winter we had a lot of snow and at lunch time we went onto David Street for a game of football. At this time we were being instructed on the forge located in the yard to make a chisel from hexagon bar.

Having lit the forge in the morning we returned after our lunch break with wet and frozen feet. Whipping my shoes and socks off I sat on the large anvil to warm and dry them close to the fire. Has anyone ever had chilblains? If not I wouldn't recommend them. I had to be taken home by my father, I was off work for the rest of the week with feet like balloons, and it was painful. I must add that during my first year at the training school I made friends with a lot of lads and we all grew up by the experience.

It was now time for the 1969 summer break and I was waiting for my exam results before starting my 2nd year on the shop floor. I couldn't wait but it didn't start well.

But that's my next chapter...

Malcolm Murray - March 2021



Malcolm and Lynne Murray.

Malcolm Murray - My Introduction to Engineering - Chapter 3

The 1969 summer holidays were over. My return to work on the "proper shop floor" didn't start well. I walked from the bus station to Water Lane as I had done for the previous 12 months, but this time I went under the large archway which was where you clocked in. A few lads where in front of me getting their new clock cards from the time keeper who had an office between the In and Out boards section so that he could watch for any skulduggery by the workers. As I approached him again a little nervous not knowing where I would be sent he asked for my name and looked for my clock card. "What's your name again" came the reply, following a further check he said "I don't have a card for you, let me go check" Getting on the phone with a few words and nods he returned and said "You don't work here; you're a George Mann employee."

By the look on my face he realised I hadn't a clue what he was saying. "Come in the office and I'll make a call for you." To cut a long story short I should have been at the George Mann works on Accommodation Road which I had never seen and always though I was a Water Lane apprentice but that works was Crabtree's.

George Mann's sent a car to pick me up and I didn't have a clue where I was going. But not a lot of apprentices can say they were chauffer driven to work on their first day.

I reported to Mr Skinner and he explained I would start my shop floor apprenticeship in their milling section under Wilf Hewson. I was also told I

would be doing my T1 (not T2) as promised, at Kitson College in a couple of weeks as my results were all Distinctions.

"Where's your tool box you made at Water lane?" Was the next question I faced? "I haven't brought it" "Well you better bring it tomorrow with a lock on it" was Mr Skinner's response.

Foreman Wilf was to say the least a good teacher. You started off just saw cutting pieces from a bar on a Horizontal Mill. This is when you learnt not to put a key in a circular saw to prevent it smashing if it jammed. I was introduced to the bonus system straight away where 1st years were allowed 75% of the time allowed on the card. This would be reduced by 25% each year you progressed. I seem to remember I was allowed 50min setup and 4min each to cut through a section ½"x 1.1/2" (12mm x 38mm).

We always had to submit our 1st off to the inspector (Tony) who sat in the middle of the bay watching every move you made. His favourite saying having checked your work was "bring it back when it's right" no help given. It was generally the deburring that wasn't good enough. But it was these little things that turned you into an engineer. During my time I worked on Horizontal & Vertical milling machines and occasionally I was sent to the punishment machine. This had two joined heads one carried the milling cutter and the 2nd carried a series of changeable followers with the final one matching the cutter size to replicate the template. The function of the machine was to use two handles on a table one for X axis and one for the Y axis and apply pressure to keep the follower in contact with the template to produce what we called pawls. As bonus was involved you tried to skip a follower and take a bigger cut, this was fine with larger followers but once you got close to the finish cut the cutter on occasion would grab and try to rip the handles from you when your pressure was going from one axis to the other. Hence your arms ached after a couple of hours on this pig of a machine.

Starting day release at college on T1 which again was a lot of what I had done at school so it wasn't too different from the Craft 1 & 2 course of the previous year.

On my third week while in a college workshop a member of staff asked for by name.

Taking me out of class he said I had to be taken off my T1 course because one or two lads had heard (*from me at college*) that I was on T1 while they were on Craft PT3. Crabtree personal pressured the college and I ended up on Craft PT3. I learnt two lessons that day, that life wasn't always fair and to keep your mouth shut. Another year past with Distinctions I was now on + 50% T.A so a knock on Mr Skinners door about college saw me placed back on T1 and I think it was this year that apprenticeships were reduced from 5 years to 4 years. I continued towards gaining my Full Technicians Certificate (T5) in 1974 at Leeds Polytechnic. I was married in 1972 lived in a flat in Whinmoor for 18 months then moved to Birstall having saved a deposit bought our first house together. I did attempt to take my HNC for 3 evenings a week but getting to January I found it too much, and to be honest it was affecting my

work which wasn't fair on the company as Mr Skinner had allowed me those extra years at college.

At work I did 18 months on the milling section before moving to the Cylindrical Grinding bay. This was where I made a lot of bonus as it was a key area for the accuracy of the parts on the presses. I always remember watching a machine that ground what we nicknamed "piccolo tubes". These were 1.1/2" dia x 160in long (*approx*). They carried the blower nozzles placed across the press to keep the paper down so every 4in a slot had been machined across the tube which had been stress relieved but was never quite straight. A steady was placed between each 2nd slot and adjusted as the grinding wheel pasted each one until the tube cleaned-up. Jack the operator walked miles up and down following the wheel adjusting the steadies every time a few thou was removed.

Although grinders in the trade were regarded as semi- skilled, Jack in my eyes was super skilled. While in the grinding section I was called to the "office" where I was offered a position in the planning and rate fixing department under Mr Bancroft. My starting time changed from 7-30am to 8am which was a great help as I was doing one evening class a week at college. I started gumming planning cards onto the back of the A4 drawings (3-off) and sealing them through a heated film machine. There were four other people in the office, Mr Bancroft, Tom Martin and John Craddock the fourth name escapes me (any help out there). Gradually I was introduced to planning the route cards and later putting times on the operations. This was followed up much later with going out to watch the operator who objected to the time allowed which I was not comfortable with. All the details were calculated from historic records and on one occasion I was told to go and watch a bearing block been turned from a casting. Checking the casting surplus material to make sure I'd allowed enough cuts he proceeded to turn the casting to the recommendations, initially breaking under the skin which was intermittent and once he cleaned the casting he proceeded to take the bigger cuts where the machine nearly ground to a halt. "There you are this machine won't take that depth of cut with that feed", "I'll need to go and check my figures was my reply". Having done the check I needed a wiser head so Tom went out and soon returned smiling.

"You've been had, next time check the number of belts on the pulley driving the chuck." Lesson learnt.

George Mann's became Crabtree Mann then finally Crabtree Vickers, who introduced "Cell Manufacturing" this involved placing groups of machines together that followed the same operations e.g. turn, mill, drill. To reduce movement. This is the time a Vero 2 axes N.C machine was introduced and I didn't realise at the time this would change my career path. The machine require punched tape to control the X & Y axes, this was punched by hand at first on 3in then later reduced to 1in tape which was typed on a machine but small modifications still needed the old hand punch and needle.

John Craddock was the N.C man and I would assist if needed. The next step was for John to go on a MDSI training course which allowed you to convert a drawing into elements e.g. lines, circles and points and drive the tool in 3 axes following your commands, this was then typed out and sent to a main frame computer in the USA by telephone modem and a machine tape was returned to suit any machine you wished to manufacture the part on. This was a massive step forward in allowing the same part to manufactured on various C.N.C machines just by providing the control and machine type before running your programme.

John Craddock left to join Joseph Rhodes in Wakefield, I had finished my apprenticeship and I stepped into his shoes with little training but it led me to further engineering adventures.

Malcolm Murray - May 2021

Gordon Toulson - A Christmas Past...

As the recent Christmas season came to a close I was reminded of a Christmas past...

In the early seventies I was an apprentice in the toolroom at Wilsons & Mathiesons Ltd. based in Armley. It was a great place to work, with some excellent toolmakers who were only too pleased to pass on their skills to the younger generation. Closer to Christmas a collection box came around for the annual 'fuddle' and we made contributions which were to go towards food and drink on Christmas Eve. It was the tradition on the last working day of the year that everyone 'clocked off' at midday and went to the pub for the afternoon. In the case of the toolroom lads it was much better organised than a casual meet up in the pub. I discovered during my first time that our fuddle was to be held at The Holy Family Club in Armley, a short walk from the works. One of the toolroom lads was an active member of the club and arranged a private party to be held there until 5.00 pm when it was then opened to their members.

On arriving at the club we were all given two tokens for drinks at the bar and there were several tables creaking under the weight of pork pies, sandwiches and cakes, some of which had been supplied by wives and girlfriends. I had not seen such a feast as this for ages. I wondered if it would all be finished by the lads as there were only about thirty of us in total, including a few friends from other departments. The club was well appointed with two dart boards and a couple of snooker tables. Some played dominoes and some played games of cards. My Dad had played billiards and snooker from the age of fifteen and had given me a few lessons over the years. Teams of two were drawn up and, as I was the new boy, I felt as though I would be one of the last ones to be picked.

Peter, a flame haired older apprentice chose me, maybe out of sympathy, and our game of snooker doubles got under way. At first I was a little relieved to see some dreadful shots, having initially thought I would be embarrassing myself on the table. Peter potted a red with confident skill and followed by potting the pink. There was occasional applause, being careful not to distract players on the adjacent table. My turn came and there were a few encouraging comments as well as a bit of banter. There was an easy red much to my relief and, more through good luck than skill, the cue ball lined up

for a similar shot at the blue. Comments from onlookers grew louder and I felt my heart pounding as I lined up the shot. The blue disappeared into the pocket and I was immediately declared a 'hustler.'

It was amazing how acceptance grows amongst your workmates but for me that was a moment to savour. We won the frame but it was mainly due to Peter's consistent success with shots. Having been somewhat successful at snooker I was next roped in to play darts. I had played a few times in the local pub and again I feared embarrassing myself. Some of these chaps were very good players and had brought their own darts. After a couple of uneventful games I was relieved by an announcement "Grub Up!" We tucked into the food with gusto with appetites enriched by the first couple of pints of Tetley's Bitter. As any inhibitions we may have had fell away we circulated and chatted with our colleagues. It was a wonderful afternoon and after Christmas I felt a closer friendship with one or two of the lads, who up to that time had kept me at a reasonable distance.

The afternoon was drawing to a close, the food mountain had been all but demolished, and some were beginning to drift away. A hard core, I am afraid to say including me, stayed on until around 6.00 pm. My pal Peter suggested we continue the party and invited me to The Northern Snooker Centre on Kirkstall Road in Leeds, where he was a member and had obviously honed his skills there on the tables. We made our merry way (for that, please read 'staggered') down Armley Road to the centre. Peter signed me in and I found myself for the first time in a proper snooker hall. It was very impressive and just how I imagined it would be, having watched many snooker tournaments on television. Only a couple of tables were in use and Peter tried to cajole me to play. I was terrified in my state of mild festive inebriation that I would rip the green baize. Instead we watched a couple of frames of the other members. A young lad of around twelve years old appeared and greeted Peter. I was introduced to Robert who was the younger son of the proprietor of the centre. Robert and Peter played a couple of frames and I watched in admiration at their skills, especially of young Robert, who would have been a fantastic secret weapon in our snooker team at the club earlier. I feel sure he would have pretty much trounced the rest of the players. More members arrived at the centre and we socialised as best as we could considering that by that time Peter and I had probably drunk enough beer to render a small horse unconscious, or it seemed to me that I had.

I saw on social media that people were comparing stories of Christmas Eve after work. One writer could not believe that it was possible to drink from midday right through to midnight. I survived that day, and the following year too, when we had a similar afternoon in the same club, although that time it was to be an early finish and we all headed for home at 6.00 pm.

A year later and the company was broken up. Some products were transferred to other companies in the parent group. A select few products were to be manufactured on a much smaller site in Elland Road and the valuable twenty-seven acre site in Armley was to be sold off. The toolroom was no longer required due to new production processes coming along and so the lads I spent my early years with were disbanded and they moved away to

work at other engineering plants around Leeds. It was the end of a long established company but for me it was to be the last time I enjoyed such a splendid Christmas Eve afternoon with my workmates.

Gordon Toulson - January 2021



The first British Rail standard steam locomotive Class 7 No. 70000 "BRITANNIA" built in 1951 at Crewe.



Langkawi Sky Bridge is a 125-metre long cable-stayed bridge in Malaysia, completed in 2005, featuring a curved pedestrian walkway.

The 'Chip Lad' and the Making of a Skilled Man

I left Todmorden Grammar School in September 1953. This school has had two Nobel Prize Winners in the past. The first was Sir John Cockcroft for splitting the atom and Prof. Geoffrey Wilkinson for specialist work in Physics. Both were taught by the same teacher, but several years apart. The teacher had retired by my time, so I have had to be content with much lesser fame.

In 1953 the job situation was such that one could pick (or in my case have picked for you) almost any company to join. My real ambition was to have an apprenticeship at Horwich Locomotive works in Bolton, but father said there was no point in going there as it was so big that you would only end up as a number. He was, for most of his working life, a textile machine fitter, initially in Todmorden, then Manchester and later in Rochdale. There were also vacancies at Turner & Newall in Rochdale, (manufacturers of asbestos, but the real danger not as yet understood) again too big. However, there were plenty of local companies deemed suitable. Both Ormerods Machine Tools or Pickles wood working machinery in Hebden Bridge were classed as OK with John Pickles Ltd. being the better choice for the variety of the products. So I duly attended there one Monday morning complete with blue boiler suit, clogs with irons, a pint pot and a lunch box. I was introduced to the shaper department charge hand and a small Alba shaper. At 10 o'clock the previous latest apprentice came for me to show how to take on his job of "Chip Lad" going around the factory to get orders for fish and chips and sandwiches to be brought back from Hebden Bridge, almost a mile distant by foot, using two aluminium handled tomato boxes. This job for every day was not a complete waste of time, as there was a penny per item (fish and chips counting as one item) for fetching it. This gave the chance to be acquainted with all the machines, operators, fitters, pattern makers and moulders, who were consistently friendly or not, and to increase the £1-13s-0d weekly wage. I must have done this shopping job well because the quantity carried back increased from the two not full boxes, to the two boxes and four carrier bags, all full. Time and motion quickly sorted out the schedule of ordering the fish and chips and sandwiches on the way to other shops to be collected, ready packed on the way back. This worked for the shop keepers as well as me. I am still recognised by retired shop keepers and pass pleasantries even today.

The machine shop was one of the best in the Calder Valley with four shapers, two big and two smaller, and in the same row was a Webster and Bennett vertical lathe capable of machining 7ft diameter band saw wheels. Louis considered himself to be an expert, as two wheels ended up the same diameter with a slight curve to the OD to keep the saw blades running true. Big micrometers did not exist at Pickles, so calibrated distance bars were used with calipers for all dimensions in the works. We also had a small furnace and anvil beyond there, where we bent bars and forged old files to make decent scrapers. On the opposite side of the aisle there were four planing machines of different ages, the eldest of which had a habit of the side stops missing the switch and the table ending up in the aisle. The next bay housed an open sided planer, three radial drills, a horizontal borer and an Ormerod slotter, plus the fitting area where I eventually ended up. Located on the ground floor of the three storey building were three milling machines and a