*(Mike’s memories part 8 book 3)*

Some 18 months later I was promoted to the position of Master Mechanic (I think a position that is held in the USA Mechanical Engineering world) and within a few weeks of supervision at the engine rebuild team we had a classroom in which we rebuilt the turbochargers and fuel pump injection units. Every engine built up to 977 and D6 size was power tested at Exeter Depot test bed. Larger engines such as the D8 and D9 were shipped to Cannock Depot for testing. You can imagine the nervous anticipation when unwrapping the engine on its return looking for oil leaks or any other fault normally marked in very bright red pen or felt tip, nothing was spared. (It was called Inter Depot Competition or one upmanship). At the bottom far location was a very special bay housing for heavy duty track press necessary for the rebuilding of tracks and pin and bush turning. Three bays were used for whole machine rebuilds. The welding team occupied a bay for the use of rebuilding various bucket track frames at the rear of the workshop and held a machine shop and track roller reconditioning unit. Upstairs was a works canteen that management shared. All meals were cooked on site by the resident cook, named Olive who was aged approximately 45ish. In summer and hot weather she would express the discomfort by unrolling her stockings at the top of her legs which ended up in big rolls around her ankles. There is no need for me to convey or expand upon the remarks that quietly passed between the boys.

The rest of this floor contained the Depot Manager’s office and the General Office containing the Service Manager and Sales Team. For some years the Depot operated a rebuild system called ‘Bondedbuy’ a low loader lorry with Caterpillar D8 or D9 would arrive from an open cast coal mine that could be described as end of life. The unit would be power washed in the yard, pushed in to the workshop and completely dismantled and each unit overhead cranned into their respective bays for rebuilding. The rebuild was of a high standard as they were marketed with a 6 month warranty – the same value as marketed by the manufacturer when sold new. Two weeks visits to the Caterpillar factory Catschool certainly enhanced the practical knowledge gained in the last 2 years.

One Friday afternoon I was called to the Field Service Manager’s office. He said that as I had been in the Field Service world of agricultural engineering would I consider taking the position of Field Service Engineer as experience was invaluable with the proposed construction of the M5 from Bristol down so would I give the matter careful consideration with my wife. Careful consideration being the key element to a Field Service Engineer position with Caterpillar - that was unusual. Holiday dates would remain as requested other than service problems. It was hoped that I would respond any time of the day or night, Bank holidays and weekends as the emergencies of the of job required. We had to take into consideration that at this time Caterpillar had probably the most experienced mechanics together with components, labour and also living near the motorway. The Salesman sells the first machine. The Service sells the rest! Monday morning found me starting the changeover from workshop to Field Service man, an event that did not start off in a manner I would wish: all tools and equipment having been collected together and transferred to the field service van.

I was dropped off to collect my Ford Transit van from the paint shop which was situated near Polsloe Bridge in Exeter. Unfortunately, I say unfortunately because I misjudged a right hand square brick corner and touched the side door. I did not stop thinking of the old saying “Do not stop to look or you will never start and go again”. When I arrived back at the Depot I lined my van up with the other 2. The scene of the people changed into a circus. The Service Controller continually kept looking into the filing cabinet. Some people smirked and slid away from the scene. When I walked around the van and examined the damage it looked like it had been in a Morris dance with a chainsaw. It was then I heard a cutting voice say “You will have to manage for a week or so” and manage I did feeling very confident with the repair required. All components and gaskets are manufactured to a high quality and give a higher confidence in repairs.

The first taste of the nature of the work to be experienced in this area was Cullumpton By-Pass. We serviced and repaired a spread of D8, and 977 machines used in the burrough pit. Some CAT 631 scrapers were added to spread the landfill. Running repairs were saved until Saturday mid-day when the site had Saturday afternoons off. We would be joined by 2 or 3 men from our workshop and repairs would commence from 12 pm who worked through the night until ready for the commencement to work Sunday morning. If extra flood lights were required we would burn the gas off the welding set keeping the nozzle free of carbon build up. One day we were informed that a delivery of new Russian earth moving equipment was due and would outperform. In due time a delivery of bulldozers quite obviously came out of the factory which had a small quantity of military design, then had a bulldozer system, several off road lorries and other equipment that had started life as military. These units started and revved up to 6000 rpm and smoked off unburnt fuel and oil until the operator disappeared from view and ran round the site at speed with questionable stability as the track idle was not designed for civilian work. The shattering noise of site machinery gradually diminished and returned to the steady pulse of the original equipment as it became apparent that the new Russian machine was lying around waiting for a part replacement. Time marched on together with the construction process of the by-pass.

One evening I was approached and asked if I would wish to join a group of men to form the Exeter Pistol Club. I happily agreed advising them that my time would be very limited due to work commitments. So we formed the Exeter Pistol Group and met twice a week on Mondays and Thursdays at 7 o’clock at the small bore range at Wyvern Barracks. I sold my trusty 12 bore double barrelled shot gun and purchased a Smith Wesson 46 .22 hand gun. Our first visit was very disappointing and we shot the wooden frame for holding the targets to pieces until we began to gain ability. We were always under the control of an official Range Officer and controlled by the rules of the NSRA. All pistols were kept in their respective boxes until on the range.

We started the Club in 1965 and I continued my membership shooting in postal competitions up to the 2nd and 4th Division. In 1980 I entered and shot the postal elimination stages of the Eley Olympic 1980 competition until qualified as one of 60 finalists to shoot at Bisley.

Vera and I travelled to Bisley and when sitting at the pistol range waiting to start I felt well content to have qualified into the finals after a season of postal elimination rounds. So the shooting that day was like a shoot at the club evening. In the afternoon whilst looking for the results I could not find them in the lower half of the list but was more than delighted to find my name listed in third position. This may not be much to some but I still look upon the Eley goblet with pride. Over the period of time I followed up the marine engine problems as a natural progression of my engine bay rebuilding days. This was enhanced by an engine power output and turbocharger week course at the Caterpillar factory located in Glasgow. My first impression as a country boy was riding on the top deck of a bus and whilst riding through an area called Galowgate to see and experience the doors of each pub open wide and staff washing the stone floor free from stale spilt beer out into the gutter, the acrid smell of stale beer running through the length of the bus is a constant reminder of another world.

A visit I made to an oil pumping rig in Dorset which presented real history to me. The Caterpillar engine that was the power unit to this oil pumping rig was a very old unit – a Caterpillar 2000. This was approximately the size and fore runner of the D8 power unit with external push rods. The fault was a severely leaking water pump and was constructed with one main through shaft of 5/8” in diameter using a bronze calibrator adjusted to tighten a hemp impregnated graphite rope gland to be tightened on to the shaft as the unit had been running a lifetime with I suspect regular service adjustment the main shaft diameter of 5/8” had worn down to ½” eliminating any further adjustment to be taken so a rebuild of parts was available and they were from stock in the USA. Parts were delivered within a few days and the pump rebuilt. A bigger surprise greeted me on my return to the oil rig. Records show that the engine had been in full use after D Day. It had been used to power the system known as PLUTO that pumped the oil and fuel at the bottom of the sea bed across the channel to supply all our allied forces and had been removed after hostilities to continue in peacetime work. What a wonderful history to find by chance.

My position as a Field Service Engineer encouraged the company to send me to Geneva, the then Cat School of Europe located at the foot of Mont Blanc. The first week was power shift and torque converter transmission; second week was loader hydraulic system but the most interesting course for me was the 2 weeks on boat hull speeds propeller to power calculation. To touch on the above there is no doubt it is an exact science in itself but a miscalculation on each would bring heartbreak! I must confirm that the Courses at the Geneva Cat School were booked for many service dealerships’ service engineers.

It is said that a little knowledge in the wrong hands can cause problems. This saying came to mind when I was called to Southampton to carry out sea trials on a 55’ MV vessel using twin Caterpillar D434 engine. The boat itself was on a new build completion up the Hamble in a boatyard run by Robin Knox-Johnson. After the general inspection and test the boat was taken into the Solent for trials and was near to completion when it was found that full power was not achieved. We were down 50 rpm. All tests to the turbo charger indicated that engine was up to performance. I said that the propellers pitch or diameter should be checked for correct size. This comment of mine stimulated the question, “could I explain further”. My (unqualified) response was that it could be that the diameter of the propeller needed reducing by ½”. So I returned to Exeter in the full knowledge that the propeller would be reinvestigated and I would be recalled on completion. Eventually I returned to the Hamble for what should have been a final sea trial. The result of the full power – yes you’ve got it – had lost a further 50 rpm and was down by a total of 100 rpm. Another lesson in life – a little knowledge in the wrong hands can cause problems!