

# NEWSLETTER

No. 22

February 2022

## Chairman's Update ...

There was a busy run up to Christmas with changes to Covid rules, high winds with consequent power losses and several people having medical issues, nevertheless, we manage to carry on and have made some progress with restorations and more mundane matters.

Storm Arwen left us without power for a weekend at Alford and we also had a weekend cut at the end of January, this cut our working days by two thirds in those weeks.

We have moved around our garage layout in order to install an eight-foot bed second-hand power guillotine which will ease the job of repainting buses. This has meant that we had to relocate the air compressor and this immediately failed requiring an update of its control system.

Our major restoration of bus 11, the City Tours bus, goes forward with progress on getting the new seat frames trimmed and trimming for double-deck Daimler 160 is now under way. Bad news is that the engine on our Bluebird AEC "Monocoach" has a cracked cylinder liner which will probably require the engine to be removed to repair.



*Gordon Mills, Trust Chairman*

## Are You Sitting Comfortably 3?



We are making progress on the seating for Daimler single-decker 11 and the trim shop have now completed a prototype frame and backrest involving moquette panels to the front of the backrest with side panels and the rear in dark red "Rexine" to match the side panels of the bus. This is intricate work with contrasting cream piping at the seat edges and a section of cream "Rexine" between the individual seats. We have tried to be as faithful as we can to the original seats fitted by Alexanders to the bus. This type of seat was fitted to AEC and Leyland vehicles of the time and later evolved into the "Y" type seats for coaches in the sixties and seventies.

Our other seating project of the moment is double-decker Daimler 160 whose restoration had been paused as we could not find seat frames suitable from scrap buses. We eventually managed to get some frames made and although we had to use metric sized tubing; they look super. The seats are going to be trimmed in dark green leather which has now been sourced and trimmed by the same shop as the single-deck Daimler. We have needed to make up completely new seat backs that are more complicated than you would think! We have luckily been able to use seat backs and cushions that we were given by First when we helped to clear the old works at King Street garage. These have been useful to ensure we have the right pattern of trim for the bus.

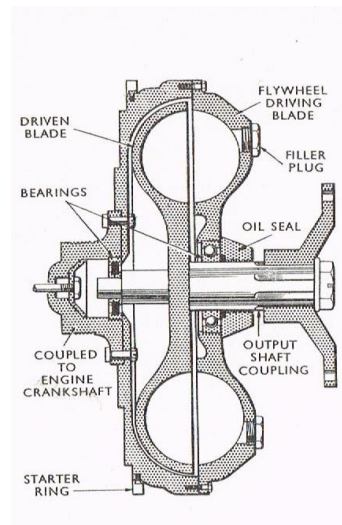


The Bus Collection at Alford is open again to visitors, please check our website for further visitor information: <http://thebuscollectionatalford.co.uk/>

## TORQUING NICELY 2: The Fluid Flywheel as an Ideal Input to an Epicyclic Gearbox

The first commercial application of the epicyclic gearbox to drive a motor vehicle was in Vauxhall cars in 1926, Walter Wilson (see Newsletter 20) having previously fitted one to his own Vauxhall car. However, in these installations the engine was coupled directly to the gearbox; this was a less than satisfactory arrangement, requiring the brake bands within the gearbox to be used as a clutch, although the arrangement was later found acceptable on racing cars and other specialist applications. The next development stage appeared in 1928 on Armstrong Siddeley cars where a centrifugal clutch was used between the engine and gearbox. This was an improvement but still left the driver with less than ideal control. The ultimate in smooth transmission of power to the epicyclic gearbox came with the use of the fluid flywheel.

For this brief description, suffice to say that the fluid flywheel was a German invention (the "Vulkan" Coupling) and was adapted for use in motorbuses in the UK by Harold Sinclair in the mid-1920s. The UK patent rights for Sinclair's development were taken up by the Daimler company of Coventry who then secured a licence for the production of Wilson epicyclic gearboxes in 1930. Daimler now had the winning combination of fluid flywheel/epicyclic gearbox which they duly patented and quickly applied it to their top of the range cars and to their motorbuses. Use of the patent was granted to the AEC company for motorbuses and to Lanchester, BSA, Riley and others for motorcars, but no other UK motorbus manufacturer could use the combination until after WWII.



The fluid flywheel/epicyclic gearbox combination first came to Aberdeen in mid-1934 when the Rover Bus Service introduced two AEC 'Q' type single deckers. Over the next 15 months a further 13 of these revolutionary vehicles were taken into stock by Rover and by Aberdeen Corporation Transport. The Corporation then became firmly wedded to this transmission in its various forms for all its subsequent deliveries of AEC and Daimler buses.



*Yes, we do require volunteers to help us keep our fleet in a good condition, assist with vehicle refurbishment, or a range of other tasks. If you think you could help, either in person or by making a donation, please contact us via: [thebuscollectionatalford@outlook.com](mailto:thebuscollectionatalford@outlook.com)*

### In The Nick of Time! ...

The arrangements for Aberdeen's last tram parade on the evening of Saturday 3<sup>rd</sup> May 1958, went smoothly so far as the many thousands of observers who lined the route were concerned. However, behind the scenes there was a last-minute problem.

To mark the historic occasion, an employee at King Street not familiar with tramcars took the opportunity to have a drive of a tram in the depot yard. Unfortunately, his talent did not match his enthusiasm - the 100 horsepower under his command bolted. His tramcar shot out of the yard, derailed on the curve into St Peter Street, and carried on in a straight line as predicted by the laws of motion until it came to rest on hitting a wall. The depot entrance was now well blocked.



Just before the parade was due to arrive back at King Street, order was restored by using another tramcar to pull the escapee back on the tracks. What became of the would-be driver/motorman has now been lost to history.

Further information on the Last Tram Journey on Saturday, 3rd May 1958 can be accessed using the adjacent QR Code.

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