Restoration of A34 Mk1 Comet tank 'Celerity'

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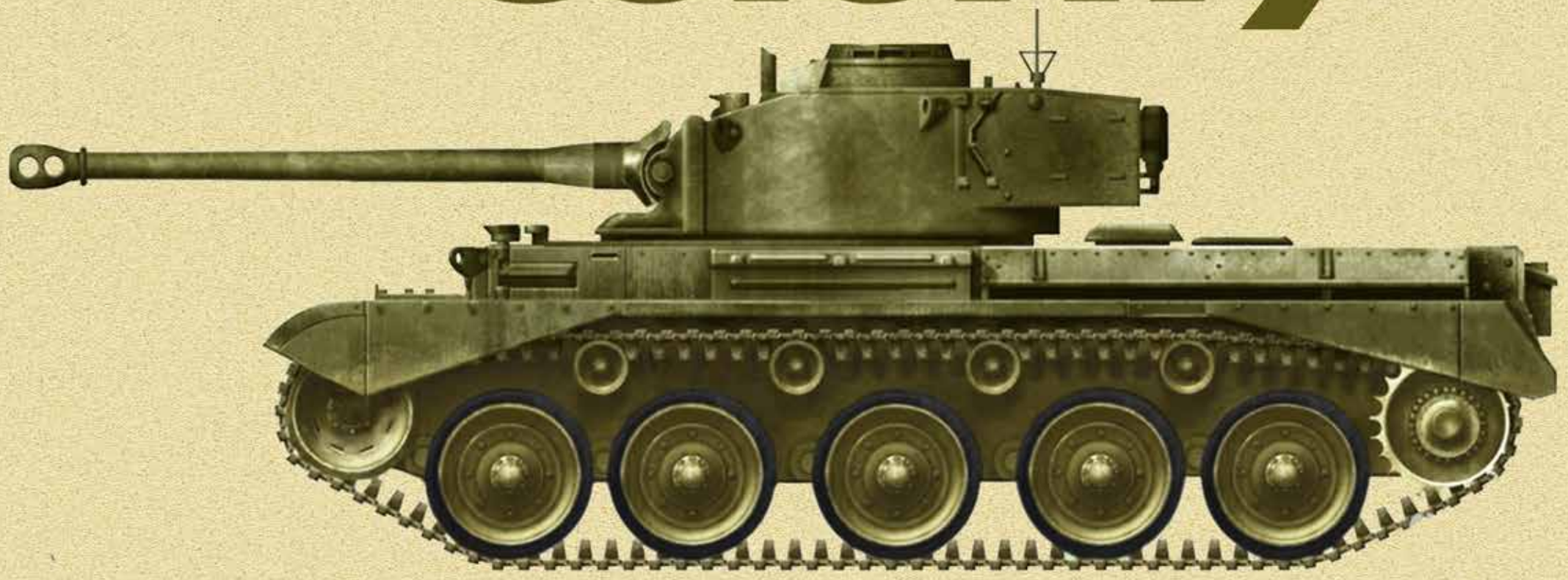
Maarheeze
The Netherlands

'Celerity'



Cruiser tank of the British Forces in WW2

Comet A34 Mk1 Model A

Technical Specifations

Manufacturer:	Leyland Motors Ltd
Contract:	UK Government contract M9707
Production figures:	From the 825 Comets ordered, actually 610 were built (T334901 till T335725) So this Comet is the 435nd built by Leyland
Date of Delivery:	September 1944
Serial No.:	B2-363
Original UK census No.:	T335335
Weight:	Basic Weight: 29,25 Tons Combat Weight: 32,70 Tons
Bridge Classification:	Initially 32, later 36 and then 40.
Ground Pressure:	13.85 lbs/in2 (9.14E-1 kg/cm2)
Crew: 5;	Commander, Gunner, Loader/Operator, Driver, Co-Driver/Bow Machine-Gunner
Engine:	Rolls Royce Meteor Mk III, 27.022 cc V12 producing 550 bhp at 2400 RPM
Transmission:	five-speed Merritt-Brown combined gearbox and steering unit
Suspension:	Christie Type with top rollers and rear drive sprockets
Speed:	32 MPH (52 km/h)
Range:	125 miles (202 km), consuming 116 gallons (527 litres)
Dimensions:	Length gun front: 24' 6" 7,46 m Width: 9' 10" 3,01 m Height: 8' 6" 2,59 m Length gun rear: 21' 5" 6,54 m
Armament:	OQF (Ordnance Quick-Firing) 77 mm Mk. 2, ID: 77 m/m Mk2 L/5620 FL8838 2 x 7.92 mm BESA 2" bomb-thrower in turret roof
Ammunition Stowage:	Main Armament 61 rounds BESA 23 boxes (5.175 rounds)
Armour:	Hull front vertical: 76 mm Glascis: 32 mm at 700 Nose: 63 mm at 200 Hull side: 32 mm Hull top: 25 mm Hull floor: 14 mm Mantlet and Turret front: 101 mm Turret sides: 63 mm Turret roof: 25 mm Turret rear: 57 mm

The history of the Comet tank and of ‘Celerity’

The A34 Comet -the last in the production series of British cruiser tanks- began in July 1943. Leyland Motors, already engaged in producing Centaur and Cromwell tanks, turned a whole factory over for tank production. The design brief called for a tank to be armed with the new 77mm gun and to retain as many features of the Cromwell as possible in order to reduce development time. A mock-up was ready by September 1943. The first prototype was ready for testing in February 1944. Production was initially scheduled for mid-1944 but there were initial problems with the suspension which required some modification, as well as other small changes.

In appearance, the Comet was very similar to the Cromwell although it could easily be recognised by its new welded turret and by the longer-barrelled gun which, unlike the old 6-pounder, incorporated a muzzle brake to reduce recoil. The hull was a welded construction and in most respects similar to that used on the later Cromwell’s, with a vertical front plate incorporating a mount for a 7.92mm gas-operated BESA machine-gun.

The armour of the Comet was increased in thickness to give 76 mm protection to the front and a minimum of 14 mm to the sides. A larger turret ring was required to accommodate the spacious, all-new turret. This was of welded construction, incorporating a 102mm thick cast mantlet and front plate, and mounting a full rotatable (360deg) cupola for the commander. The turret was electrically traversed using power from the engine-driven generator. The main gun could be locked to the rear for travelling. A second BESA machine gun was mounted co-axially with the main gun to its right.
The turret basket included armoured stowage bins for the ready-to-use rounds. Additional stowage was created on the side and below the turret basket, giving a total stowage for 61 rounds. Number 19 and number 38 radio sets were installed side-by-side in the rear of the turret. Spare track links were carried on either side of the turret and at the rear was a huge stowage bin.

Mechanically, the Comet was very similar to the Cromwell. Power was provided by a Rover or Morris built Meteor Mk III engine, similar to the one used in the Cromwell. Power output was 550 bhp from 27,022 cc. The engine drove the rear sprockets through a five-speed Merritt-Brown combined gearbox and steering unit. The Comet was considerably heavier than the Cromwell, with a combat weight up from 27 tons to around 33 tons. This reduced the top speed to 32 MPH (52 km/h). The weight increase also necessitated increasing the width of the tracks. The Christie-type suspension seen on all British cruiser tanks, was retained, albeit strengthened to support the greater weight. For the first time, at least on the series production models, there were track return rollers, bringing a big improvement in the ride. Operating range was around 125 miles (202 km), during which time the tank consumed 116 gallons (527 litres) of fuel.

The tank was designed to be operated by a five-man crew consisting of commander, driver, gunner, loader and ‘bow gunner’, the latter operating the bow machine gun.

Manufacturing began in late 1944 at Leyland, and some 143 examples had been constructed by January 1945. The Comet tank entered service with the 29th Armoured Brigade, replacing the unit’s Sherman’s. The 15th/19th The King’s Royal Hussars (from August 1944 Reconnaissance Regiment of 11th Armoured Division) were also issued with Comets. The tanks saw first action during ‘Operation Plunder’, the Rhine crossing in March of that year.

There were just two variants, generally described as the Mk 1A and Mk 1B. The latter having fishtail exhausts instead of the cowls of the Mk 1A model. After the war most of the Mk 1A Comets were upgraded to a Mk 1B model and some postwar modifications were carried out, e.g. the two 6V smoke grenade dischargers on both side of the turret. The Comet was without any doubt fast, reliable and well-armed, and was particularly agile across country. Many saw it as the best British tank of WW2! Although it came too late to see more than a few months action in the battle for Europe, it remained in service with the British Army until 1958.

Early 1945 three regiments of the 29th Armoured Brigade (11th Armoured Division) were refitted with Comet tanks: 3rd Royal Tank Regiment, 23rd Hussar Regiment and 2nd Fife and Forfar Yeomanry. Training started in Gravelines by end of January. With the Comet the crews finally had a fast, reliable and well-armed tank. Its 77mm canon could even pierce through the armour of Tiger tanks.

By March 1945 they pulled up in Comet tanks in Operation Plunder, the crossing of the Rhine. On April 12 3rd Royal Tank Regiment crossed the river Aller near Essel and was stopped by three Tiger tanks of Gruppe Fehrmann. Two Comets were knocked out,.The next morning two Comets pulled up again and managed to knock out the Tiger tank of Oberleutnant Fehrmann. Two days later they liberated the concentration camp Bergen-Belsen.

Trooper Dennis Frederick Pannell was the driver of one of the two Comets which knocked out the Tiger of Oberleutnant Fehrmann. His tank was named ‘Celerity’.

Panzertruppen Schule Munster, a new life for the Comet starts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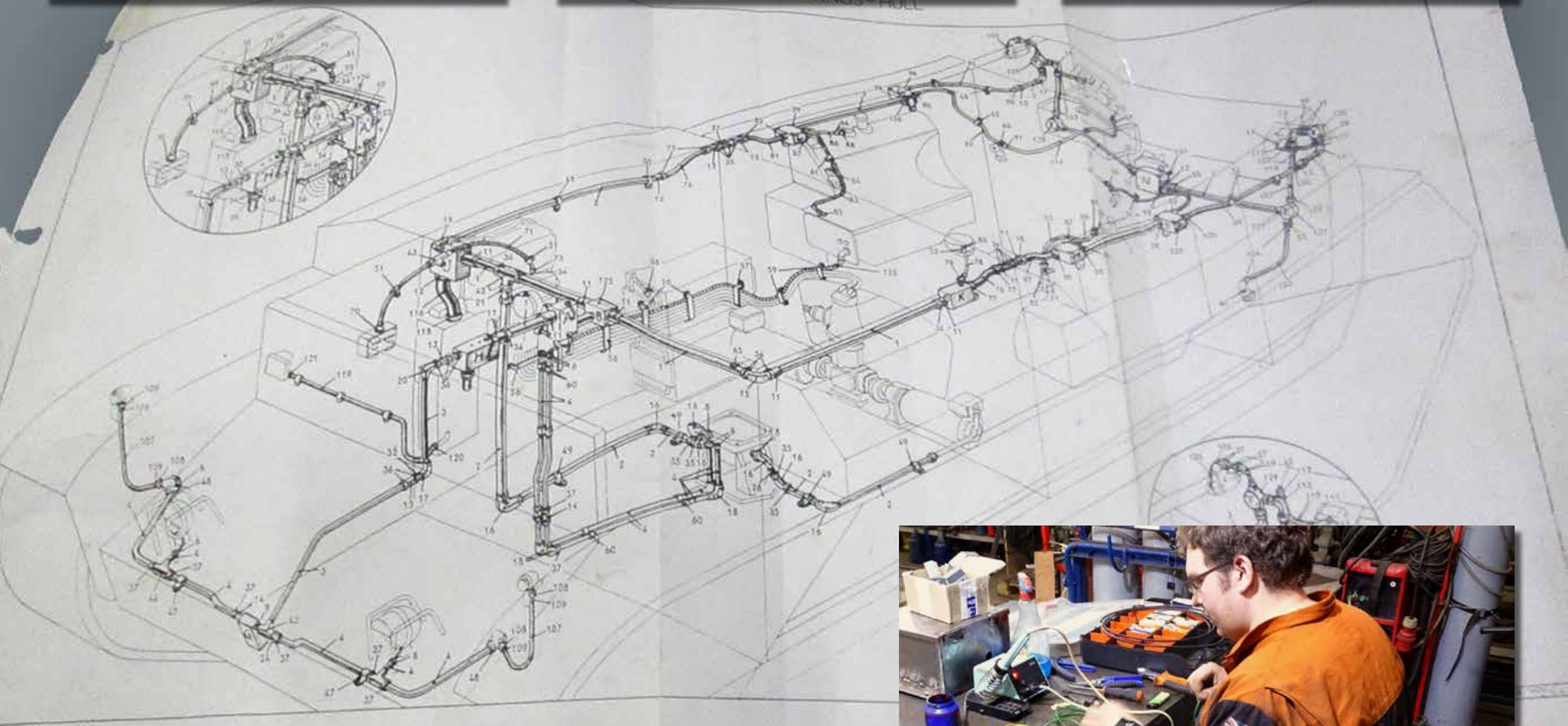

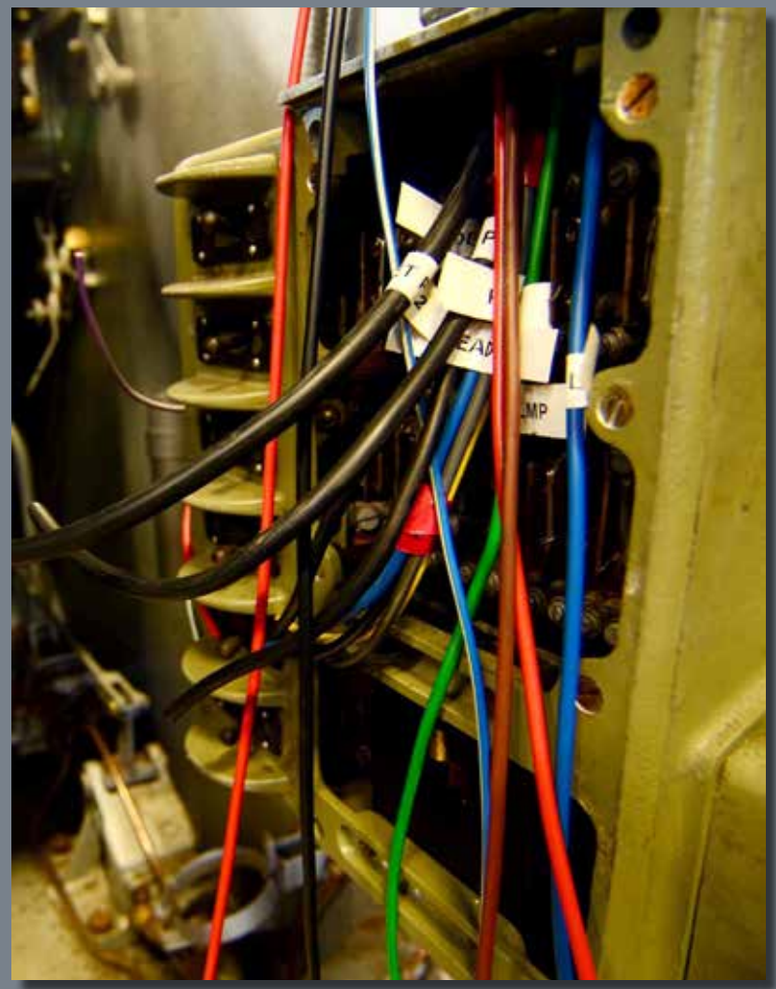

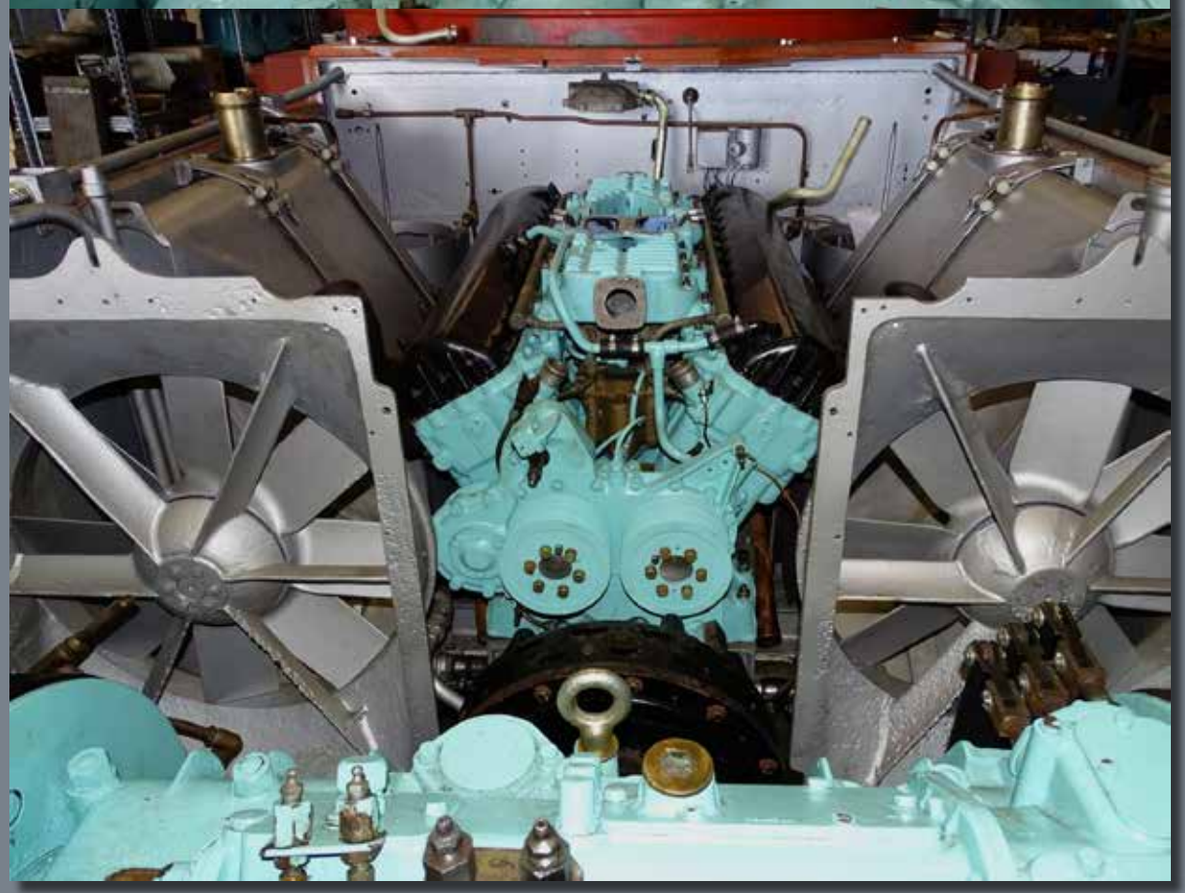


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PETROL


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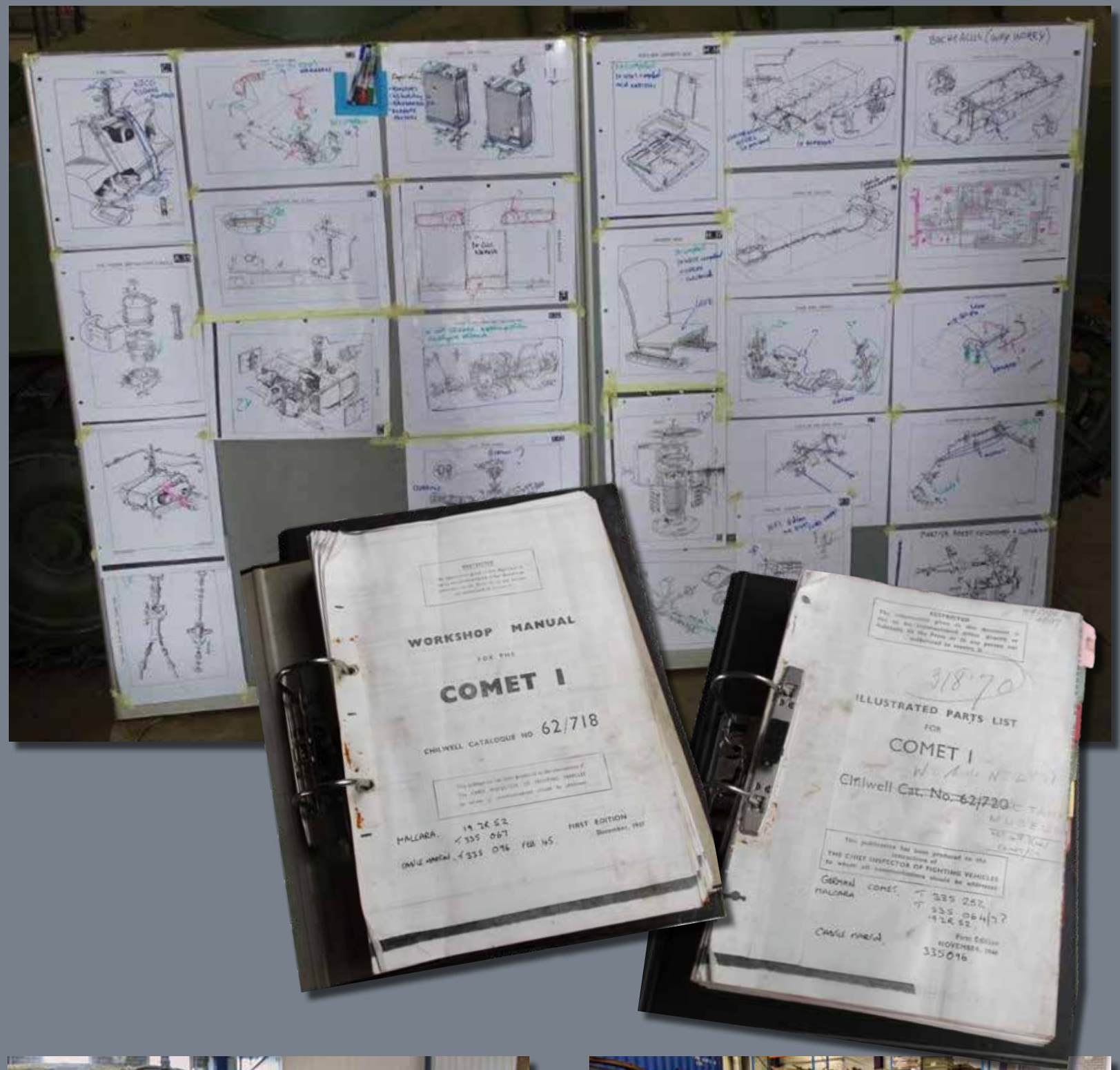
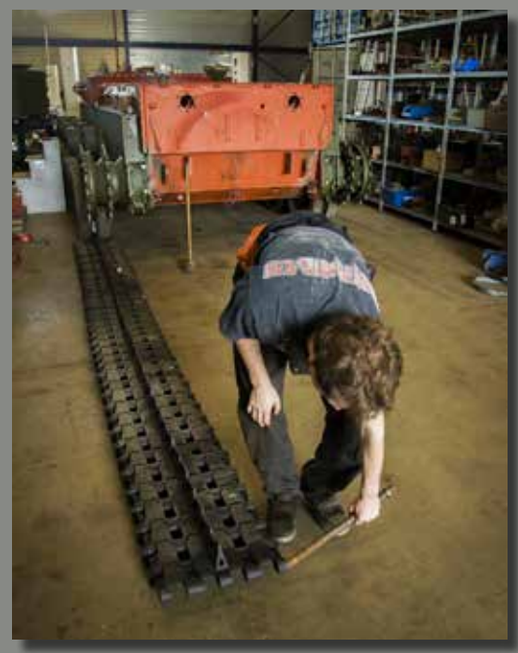

WORKSHOP MANUAL
COMET I
CHILWELL CATALOGUE NO 62/718
ILLUSTRATED PARTS LIST
COMET I
Chilwell Cat. No. 62/720

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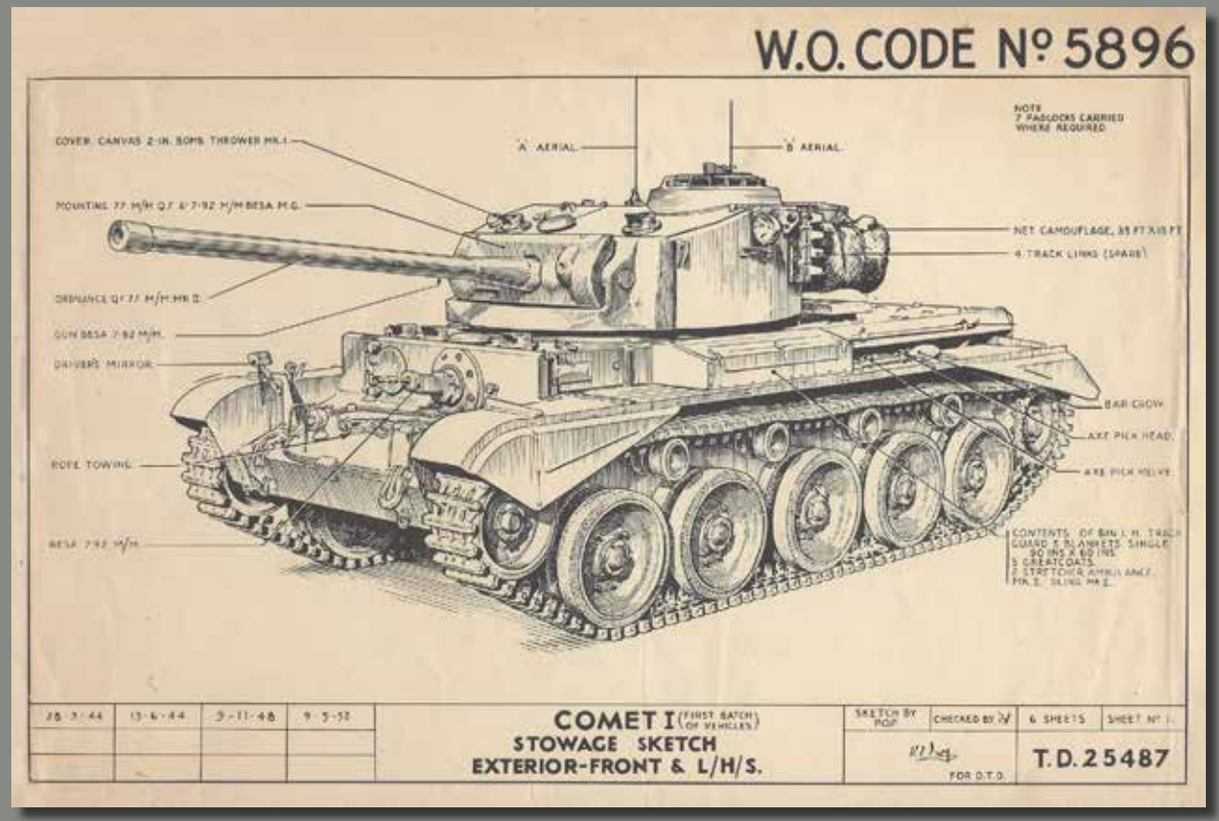
W.O. CODE Nº 5896
COVER CANVAS 2-IN. SOMS THROWER MK.I
MOUNTING 77 M/M Q.F. & 7·92 M/M BESA M.G.
ORDNANCE Q.F. 77 M/M MK.D.
GUN BESA 7·92 M/M.
DRIVERS' MIRROR
ROPE TOWING
BESA 7·92 M/M.
'A' AERIAL
'B' AERIAL
NOTE
7 PADLOCKS CARRIED WHERE REQUIRED
NET CAMOUFLAGE, 35 FT X 10 FT
4 TRACK LINKS (SPARE)
BAR CROW
AXE PICK HEAD
AXE PICK HELVE
CONTENTS OF BIN L.H. TRACK GUARD 8 BLANKETS SINGLE 90 INS X 60 INS
5 GREATCOATS
2 STRETCHER AMBULANCE
28·3·44
13·6·44
5-11-48
9·5·52
COMET I (FIRST BATCH) OF VEHICLES
STOWAGE SKETCH
EXTERIOR-FRONT & L/H/S.
SKETCH BY PGP
CHECKED BY
FOR D.T.O.
6 SHEETS
SHEET Nº 1
T.D. 25487


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First appearance of the fully restored A34 Mk1 Comet tank
at The War and Peace Revival 2016 in Folkstone, England

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