



PRODUCT SHOWCASE

creating
passion
from
provenance

We craft beautiful,
historically
significant items,
using real historic
materials.

By using actual original material
from the subjects we portray,
we forge a tangible physical
link to the past, passing down its
essence to future generations.

Our goal is to create attractive designs which are supported by the fact that they involve provenance materials, each piece with its own fascinating back story - what the metal was once part of, where it's been, what it's done. Ultimate talking-point objects.

In addition to providing items to private customers, we have collaborated with many partner brands on fascinating and sometimes challenging projects, during which Chris Bennett and TMB's expertise and knowledge in the design and use of historic provenance materials has proven invaluable.

We have recently completed a prestigious second project with Bentley Motors of Crewe, and currently are embarking on a limited edition of special lapel pins made using metal from the iconic World War Two United States Army Air Force B-17 Flying Fortress '*Memphis Belle*', for the US Air Force Museum, Dayton, Ohio, USA.

By coincidence we are also producing lapel pins to commemorate B-17 'Little Boy Blue' which crashed on 19th July 1944 in Suffolk with the loss of eight of its ten crew. The pins are being crafted as a gift to relatives of the B-17's crew during a commemorative event held on the 80th anniversary of the aircraft's demise – just one of so many lost during WW2.

Should you wish to discuss any form of project, please email Chris Bennett of TMB at:

christopher.bennett@tmbartmetal.com

or call 0797 125 0747

TMB is proud and privileged to have been involved in collaborations with:

- National Railway Museum
- Imperial War Museum
- RAF Museum
- National Motor Museum
- Royal British Legion
- Bentley Motors
- Aston Martin
- Gordon Murray Group
- Salon Privé
- Pebble Beach Concours
- Dunhill
- Christopher Ward Watches
- Rhone Group
- Onoto Pens
- IWC Watches Silver Spitfire
- Battle of Britain Memorial Flight
- Westminster Coins
- Harrods

BENTLEY SPEED EDITION 12

To commemorate their 2024 phasing out of the hugely successful W12 configuration 12-cylinder engine, Bentley Motors created a special limited edition of 480 cars.

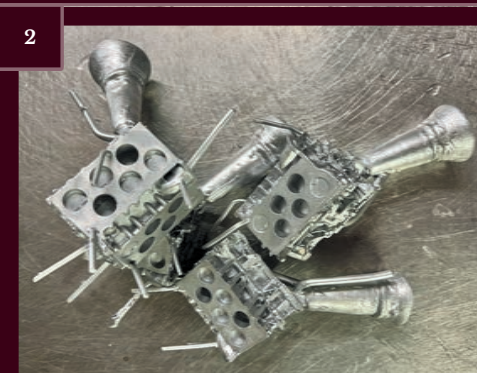
Termed the “Speed Edition 12”, it was in fact four different car models, 120 each, and Bentley commissioned TMB to craft miniature cylinder blocks made of aluminium from their W12 engines, to be gifted with the cars.

Every month Bentley test runs two new engines at a set RPM and duration, then strip them apart to inspect for problems. It isn't viable for Bentley to rebuild these engines and as such we used and recycled some redundant W12 cylinder blocks as ‘donor’ metal to cast these lovely desk top mementos.



1. Ready for scrapping are several dismantled W12 cylinder blocks, some of which will be cut up and ‘recycled’ into miniature desk top engine blocks.

2. Some of the first production engine blocks as cast. These will be carefully finished into attractive mementos to accompany the W12 equipped 2024 Bentley Speed Edition 12 cars.



BBMF EXCELLENCE AWARD

The Royal Air Force Battle of Britain Memorial Flight's (BBMF) most precious asset is 1940 vintage, ex-Battle of Britain, Spitfire MkIIa 'P7350'.

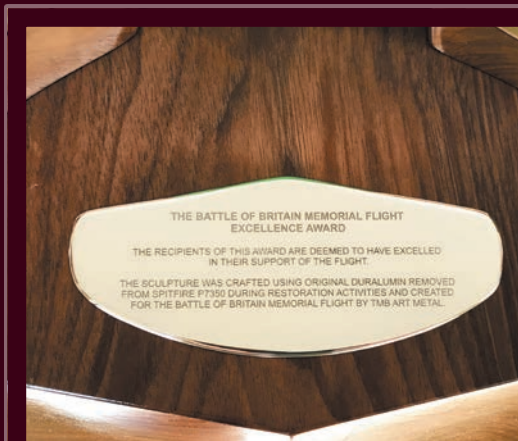
Some years ago the ageing Spit had her original duralumin (aluminium) main spar removed, which TMB were fortunate to save from scrap. We created a circa 14" wingspan Spitfire sculpture cast exclusively from this ex-P7350 metal, mounted upon a 'swoosh' bronze stand in near vertical, as in a loop, to best show the iconic aircraft's planform.

This piece comprises the BBMF's Excellence Award. Our intention was to do a commercial edition of ten of these spectacular sculptures, plus a smaller desk version, but this has not yet come to fruition.

1. At the foundry sections of 1940 vintage duralumin main spar are cut into pieces and melted down in preparation for casting into miniature Spitfires.
2. One of the freshly cast P7350 sculptures is broken out of its mould.



1



2



SPITFIRE P7350 CUFFLINKS

The Supermarine Spitfire is one of the UK's most recognised engineering achievements.

In consequence, there's quite a healthy market for high quality items actually made of Spitfire, especially linked to the date of 1940.

These beautiful cufflinks, cast in a miniature version of the Spitfire's iconic shape, are made of duralumin from the main spar of Battle of Britain Spitfire P7350.

As with much of TMB's products these are cast using the 'lost wax' method of precision jewellery casting.

1. The lost wax method of jewellery casting produces a 'tree' of tiny sculptures, shown here freshly cast and still half-buried in its investment material matrix.

2. Following initial cleaning the miniature Spitfires will be carefully removed from their sprues and sent for polishing and finishing processes.



1



2



F-35 LIGHTNING II CUFFLINKS

In 2016, we were approached to make cufflinks and pins using metal removed from the Royal Air Force / Royal Navy's first F-35 conversion jet.

This jet, serial 'BK3' and tail number 'ZM137', was based in the USA at the time - so once the cufflinks and pins had been cast they were sent across the 'pond' to fly back in the jet itself.

On 29th June 2016, securely taped within a bag, these same cuffs and pins are transported back from the USA in ZM137, the first UK F-35 to enter UK airspace. The bag of cast pieces can just be seen in this unique picture sitting (very temporarily) on the cockpit combing.

1. Donor metal from ZM137, consisting of some form of aluminium structure that had been replaced.

2. The bag of cast pieces sitting upon ZM137's cockpit combing (shown with red arrow).



PISTON DESK CLOCK

I've always been fascinated by engineering, especially of the type so finely undertaken, so exemplary, that individual pieces can in effect become art forms.

An example are the beating hearts of internal combustion engines, namely the pistons and connecting rods. We take ultra rare aeroplane and car pistons and rods, add a clock to the crank shaft end of the rod and very efficiently turn an engineering item into a fascinating conversation piece which commands attention and very effectively combines function, history and form.

Amongst the most 'attractive' are those from the early 1940 Rolls-Royce Merlin engines, with beautifully forged and finished aluminium pistons and equally attractive and tactile steel conrods.

However, if a single Merlin desk clock is amazing a mated pair in V formation is much more so! This spectacular piston pairing is from the Rolls-Royce Merlin V12 engine fitted to Hawker Hurricane V6672 SD-R of 501 Squadron, which was shot down on 27th September 1940 whilst in combat with Messerschmitt 110s over southern England.

Neither pistons nor rods are overcleaned, because its nice to keep the machining and wear marks, which would be removed if over polished. The clock is a Swiss made circa 1914 Doxa Automobile, which looks perfect for the purpose.



FLYING SCOTSMAN SCULPTURE

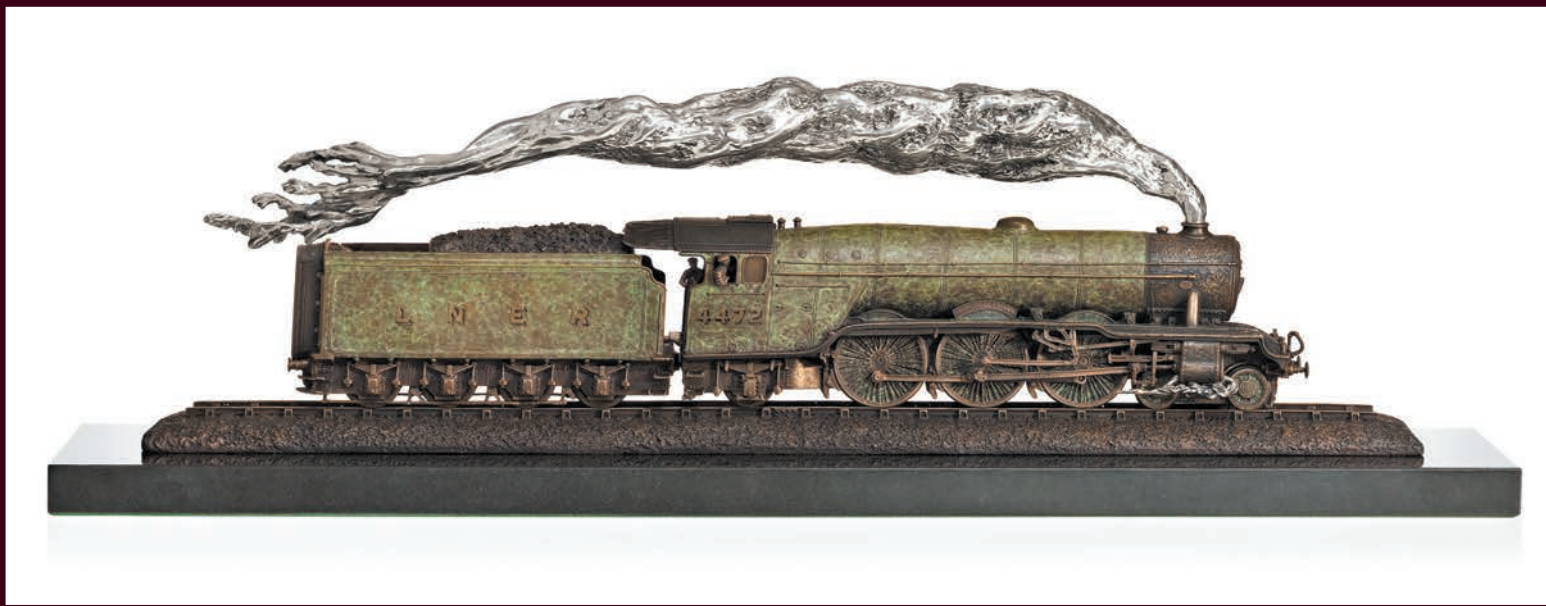
The name Flying Scotsman and number 4472 are synonymous with the golden age of steam.

The legendary locomotive was the first to go non-stop from London to Edinburgh and the first steam engine to reach a speed of 100mph.

From 2006 Flying Scotsman was subjected to an intense restoration programme by the National Railway Museum, during which some old bronze axle boxes were removed. Believed to date from around 1945, it is reasonable to speculate that 4472 will have travelled perhaps a million miles with the axle boxes in use.

TMB utilised some this historic bronze in producing one of the most spectacular pieces of railway sculpture ever created. The master sculpture was crafted especially for this project, a task that took eighteen months to accomplish. Measuring 24" in length, the sculpture depicts Flying Scotsman at speed, a feeling of motion beautifully and skilfully suggested by the inclusion of blur in the wheels and a forward lean to the piece. Speed is also suggested by the sculpted steam, cast in sterling silver, that billows from the chimney and swirls around the locomotive due to wind pressure.

1. One of the fantastic treatments that can be applied to bronze sculptures is patination, varying colours achieved by tarnishing the metal's surface using different chemicals. Here a mottled green patination is applied, every one being slightly different and unique.



ROYAL BRITISH LEGION POPPY PINS

To commemorate the centenary of WW1 and the Somme in 2016, we created an edition of very special poppy pins, made of brass.

But this wasn't just any brass - this brass comes from fired British artillery shell fuzes found on the fields of the Somme, dated to 1916. In addition, we gathered earth from the 1st July 1916 British front line and added it to red enamel in the centre, so every poppy has within its being the very ground the brave soldiers fought upon, died upon, and that many still lie at peace beneath.

Each poppy pin had an RBL "Everyman Remembered" certificate card accompanying it, so every British soldier who died on the Somme was individually remembered by a poppy, their name once again brought to mind 100 years on.

Continued on next spread

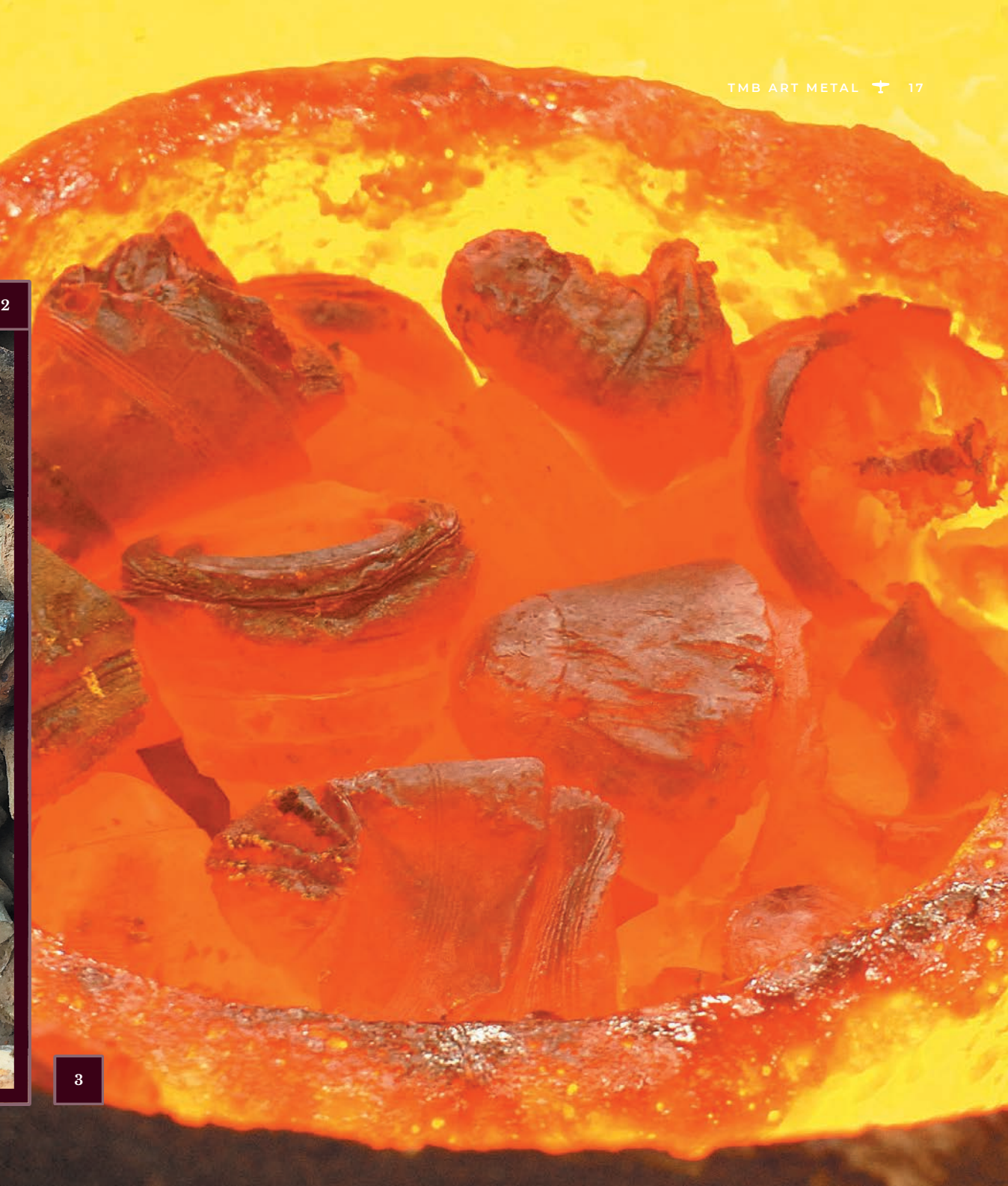
1. Christopher Bennett of TMB gathers soil from the old 1st July 1916 Somme British front line at Serre, Northern France.
2. Millions of shells were fired by the British, especially during a week-long bombardment prior to the disastrous 1st July 1916 operation. Each one had a solid brass detonating fuze which survived the explosion, and still today these are regularly ploughed up by farmers.
3. Exploded inert British fuzes approach melting temperature at the foundry.



1



2



3

Ultimately just over 100,000 of these beautiful pins were crafted, so a poppy exists dedicated to every British soldier who died on the battlefields of the Somme in 1916.

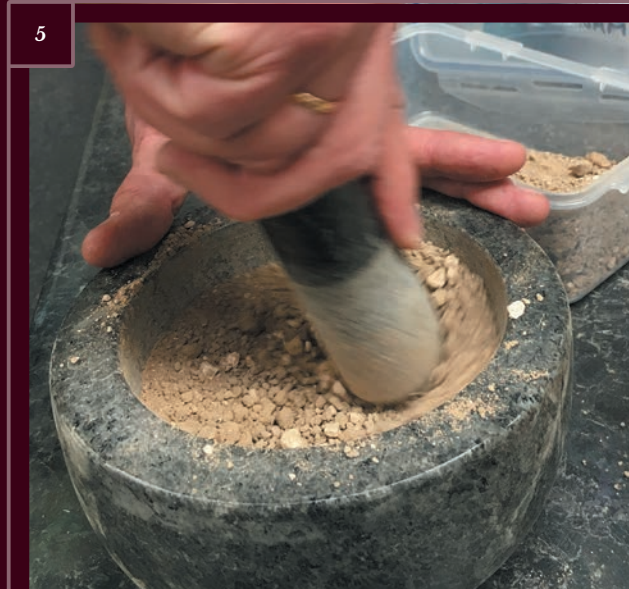
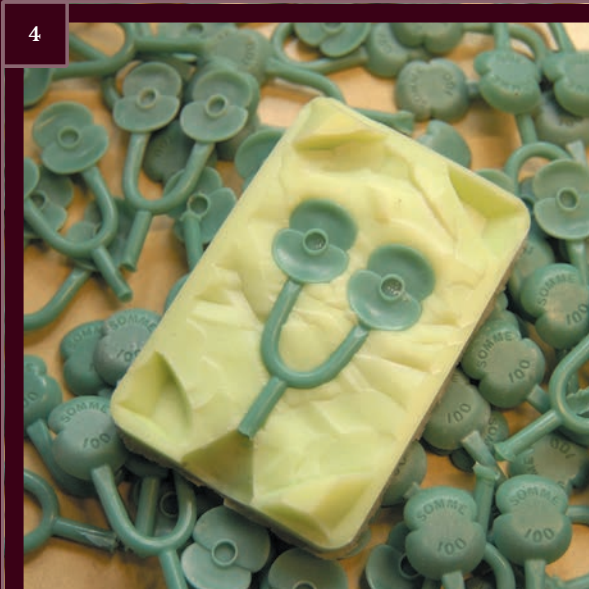
A similar project followed in 2017, involving 60,083 poppy pins - one for every British soldier who fell at Passchendaele, Ypres, in 1917.

A short film on the Somme poppy pins' making can be found here: vimeo.com/165437691

4. The poppy pins were cast using the lost wax process, every one requiring a 'sacrificial' wax effigy.

5. Earth from several key 1st July 1916 locations was gathered, dried, and then ground to a fine powder that was mixed with the red enamel applied to the centre of every poppy.

6. A completed golden poppy pin crafted of original 1916 brass rests upon a 'trench map' that shows the front line at Serre, Somme. It was the first time that the RBL had used a non-red poppy but, made of such profound historic metal they were very well received.



SPITFIRE PEN

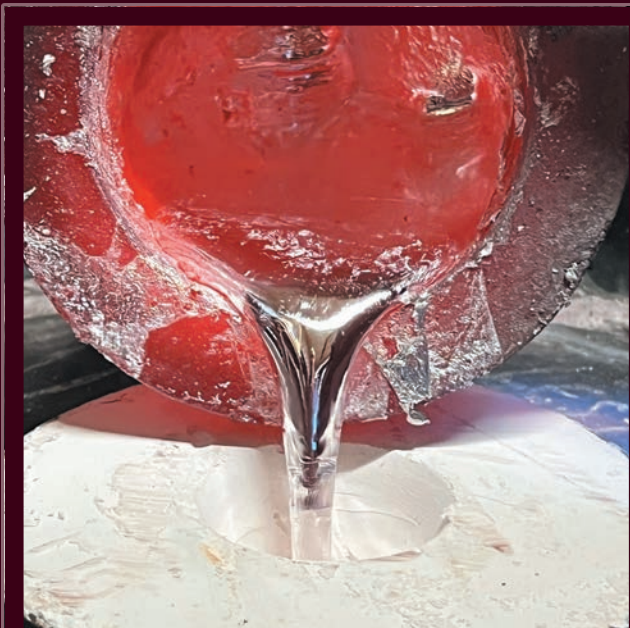
TMB collaborated with UK bespoke pen maker Onoto on what turned out to be a series of provenance pen editions. One of my favourites, and in my biased opinion (it is my design!), most amazing, is our Spitfire Pen.

The Spitfire is renowned for having no straight lines in its form, so naturally the pen needed to be a gentle elliptical shape. It also made design sense to have the clip as a propeller blade and the cap top as a spinner.

The pens are crafted from Duralumin from a 1944 vintage MkIX Spit, MK356. This Spitfire participated in providing cover for the D-Day landings and, as with the Spitfire itself, effectively combines British engineering prowess with design perfection.

Continued on next spread

Part of MK356's original 1944 main spar is melted down to be cast into rods, which are later machined into the pen's form. Three individual rods were required per pen, comprising cap, barrel and nib holder.





Incredibly tactile in use due to its wonderfully smooth form, the pen top features a domed spinner and bronze clip in the shape of a propellor blade. The attractively engraved text 'Spitfire' is taken from a 1930's Supermarine brochure.



BENTLEY PISTON DESK PIECES

Bentley Motors was founded by Walter Owen Bentley (“W.O.”) in the early 1920s.

A pioneer in the use of aluminium pistons (which were far more efficient than steel), W.O. partnered with Hewitt and Burgess to form ‘BHB’, manufacturing quality, high-performance, aluminium pistons. Naturally BHB made pistons were used in many early Bentley engines.

In 2005, we approached numerous Bentley restorers and acquired a number of original 1920’s BHB pistons. Now at a century old, these fascinating pieces of Bentley history are very scarce. To run alongside the phasing out of internal combustion engines, we speculated that these original pistons would make coveted and desirable gifts for some of Bentley’s most cherished customers. To add interest and link old to new, a modern 2024 W12 engine piston is hidden within the 1920s version, to be revealed once lifted.

The concept has been pitched, outcome anticipated...

1. 1920s ‘BHB’ (Bentley-Hewitt-Burgess) logo stamped upon a piston’s top.

2. A much smaller 2024 piston, revealed from within and beneath the century old version.

3. Each piece can be personalised by use of an engraved silver plate, revealed once the W12 piston is lifted.



CONCORDE *FROM* CONCORDE

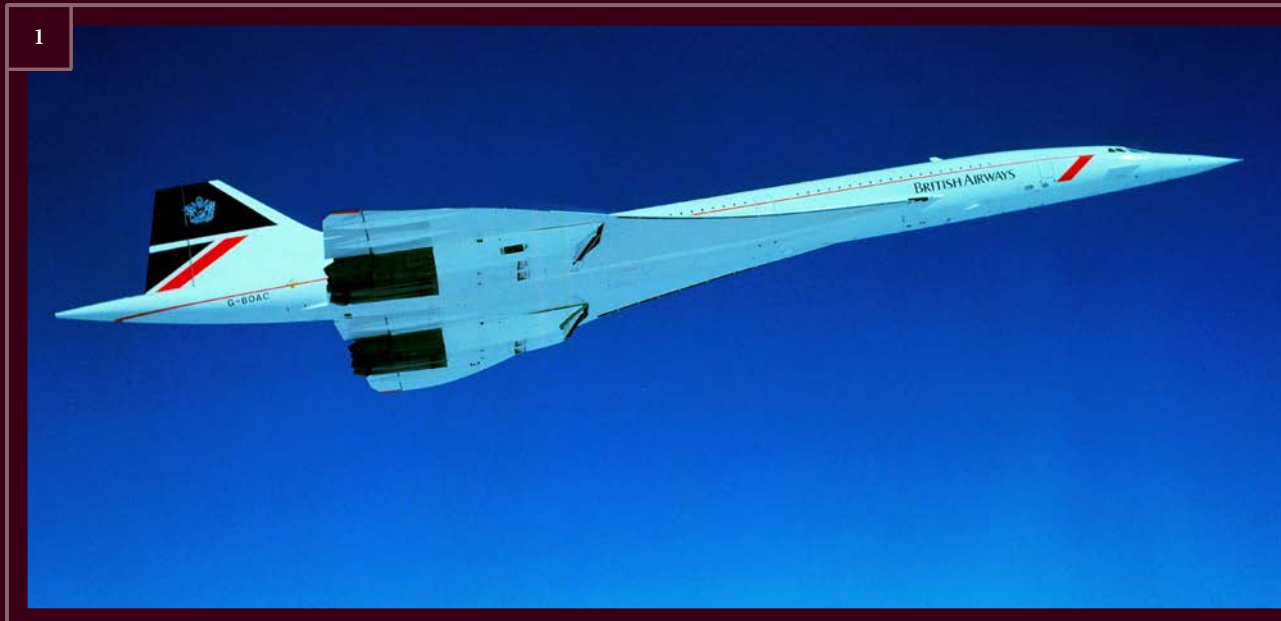
Concorde is an amazing world recognised icon, one that has never really dated design wise.

Indeed, if she were launched upon the public for the very first time today, in modern livery she'd look state-of-the-art, even though the design is decades old.

Some years ago, with British Airways' approval TMB acquired a broken ex-Concorde rudder that was languishing forgotten in the Air Accident Investigation Branch (AAIB) yard at Farnborough.

Continued on next spread

1. The striking magnificent form of Concorde 'G-BOAC' at altitude. Of the seven British Airways Concorde 'AC' became the flagship, the BOAC registration standing for British Overseas Airways Corporation, that became British Airways in 1974.
2. G-BOAB after landing at J F Kennedy Airport, New York, March 21, 1992. Concorde had upper and lower rudders, the upper one here seen with most of its skinning missing.
3. The same rudder over ten years later in the Air Accident Investigation Branch's yard at Farnborough.
4. Close up of the original serial number plate attributing the rudder to manufacturer British Aircraft Corporation, Weybridge, serial number 'VW23'
5. After acquisition by TMB, the main part of the rudder, the heavy and strong actuating arm, is cut into pieces.



Using this we created a collection of cufflinks and sculptures entitled Concorde *From* Concorde incorporating actual original 'donor' metal from an operational Concorde, with impeccable provenance and a fascinating back story...

It transpired the rudder had delaminated enroute from London to New York on 21st March 1992 whilst flying at Mach 2 and 53,000 feet altitude, much of its outer skinning breaking off. It was removed for evaluation by the AAIB, and, fortunately, the rudder hadn't been scrapped but lain in their yard for over ten years.

As part of their investigation as to why the rudder had delaminated in flight, the AAIB researched its history. Bearing the serial number 'VW23', the rudder, which was an upper (Concorde had two), was manufactured in 1976 at BAC Weybridge as one of the original contracted components. It was initially fitted to Concorde G-BOAG in 1977, before being transferred to British Airways Concorde flagship G-BOAC, upon which airframe it spent most of its operational life and over 10,000 flight hours. Then, following a modification, it was fitted to G-BOAB in 1992 and failed on 21st March of that year during a transatlantic flight from London to New York.

The AAIB's report (HMSO Aircraft Accident Report 5/93) indicates that the rudder had accrued a total of 10,861 flight hours and 3,724 landings before being retired, over 10,000 hours of which were with G-BOAC.

The actuating arm was initially cut up and then melted down into smaller more manageable ingots. Later some of these ingots were remelted and cast into magnificent 50cms long sculptures, smaller cufflinks and pins also being crafted from this very special ex-Concorde metal.



HURRICANE P2725 TM-B SCULPTURE

On 15th September 1940, Battle of Britain Day, RAF pilot Sgt Ray Holmes intercepted a raid by German Dornier bombers on Central London.

With ammunition exhausted, Sgt Holmes noticed a solitary bomber heading defiantly in the direction of Buckingham Palace and knew the only way to stop it was to “hit it for six”!

Ray sliced through the bomber’s fuselage with his wing, forcing it to crash onto the forecourt of Victoria railway station. But, in doing so he had mortally damaged his Hurricane fighter which, after he had bailed out, dove to earth burying itself deep beneath Buckingham Palace Road, London SW1.

But the Palace was safe and Ray Holmes’ selfless and heroic act was to become the most celebrated single event of the entire Battle of Britain, epitomising the resolve and heroic spirit of the time.

Continued on next spread

1. Ray Holmes on the wing of TM-B in 1940.

2. Painting by noted artist Michael Turner depicts Ray Holmes’ ramming of the Dornier bomber over London.

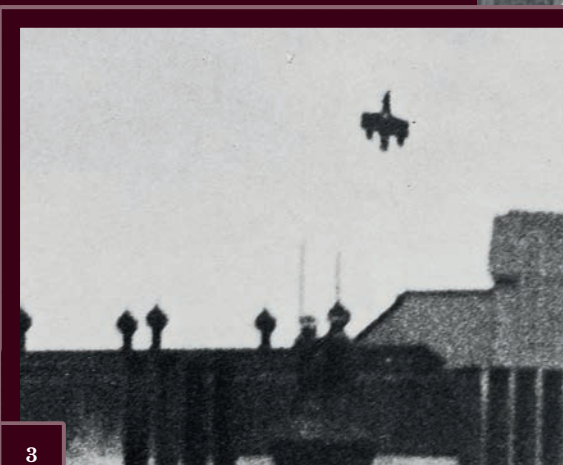
3. Still from news motion picture film shows the Dornier, minus tail and wing tips, about to impact Victoria Station.



1



2



3



4

4. The crash site of P2725 TM-B on 15th September 1940. Behind is the Art Metal Office Furniture Company, the combination of TM-B and that name leading to ‘TMB Art Metal’.

5. The bomber crashed on the forecourt of Victoria Station, adjacent to Wilton Road. Note bullet holes in the propeller blade.



5

In 2004, following thirteen years of research and scientific surveys, the remains of Hurricane P2725 TM-B were excavated from beneath the road.

The famous Hurricane's smashed Rolls-Royce Merlin engine and other artefacts were put on display at the Imperial War Museum (now in the RAF Museum, Hendon).

Following the excavation in 2005, Chris Bennett made some Hurricane sculptures using corroded and useless pieces of engine casing from P2725, one of the first being presented to Her Majesty The Queen at Buckingham Palace.

This ultimately led to starting TMB Art Metal - 'TMB' after P2725's squadron code and 'Art Metal' from the building used to pinpoint the crash site.

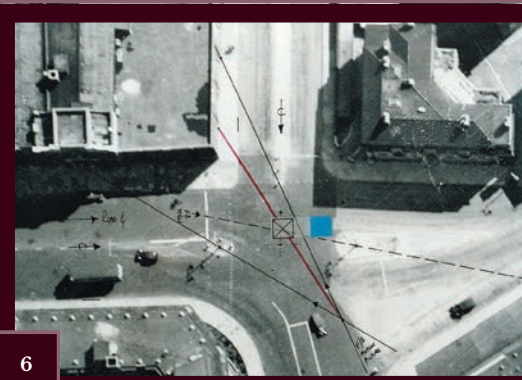
6. Phototriangulation ultimately led to pinpointing the crash site and wreckage beneath the road.

7. On 30th May 2004 the road surface is removed and the dig gets underway. Buckingham Palace Road is to the left and Ebury Bridge at top.

8. The biggest object, found 10 feet beneath the road, was a large section of Hurricane P2725 TM-B's Rolls-Royce Merlin engine.

9. Live on television Chris Bennett shows pilot Ray Holmes TM-B's control spade grip with gun button set to FIRE.

10. One of the first completed TMB Art Metal Hurricane sculptures, presented to Her Majesty The Queen at Buckingham Palace in 2005.



6



7



8



9



10



CHURCHILL CUFFLINKS

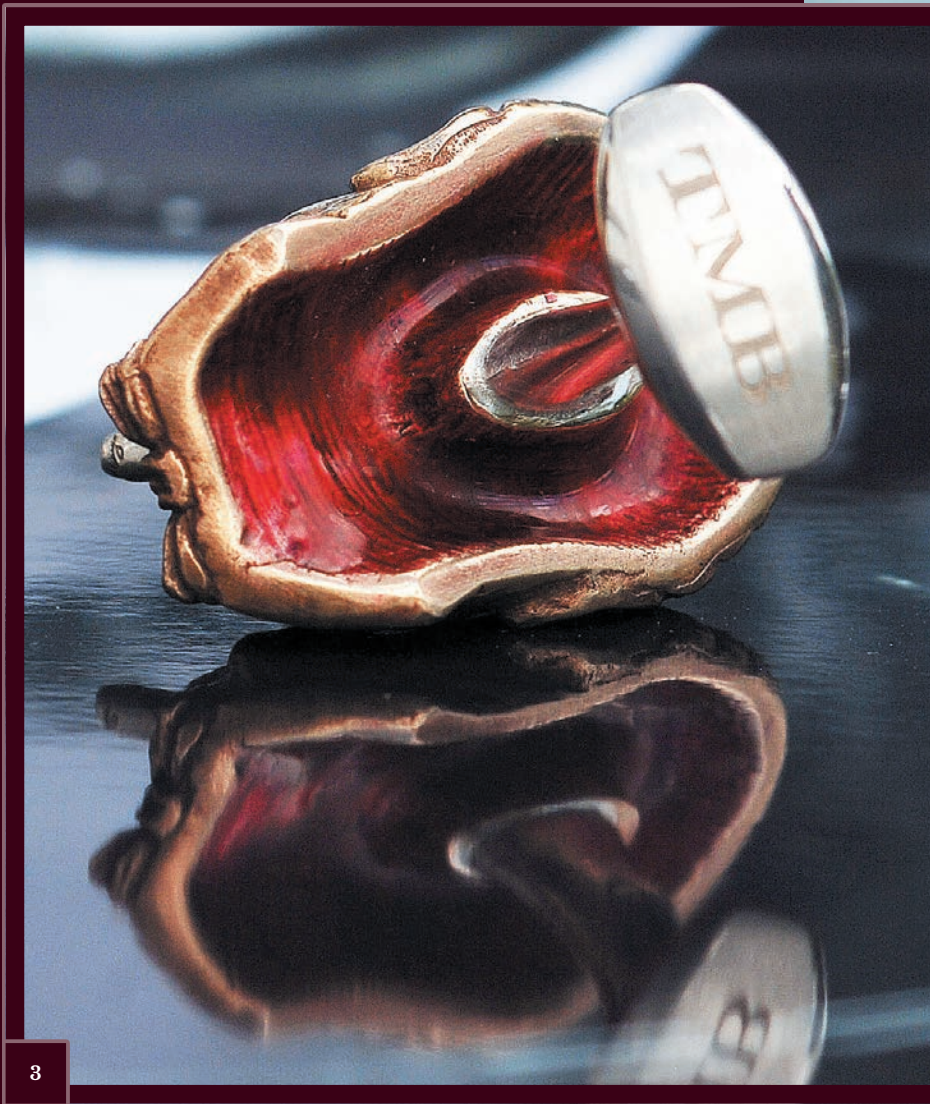
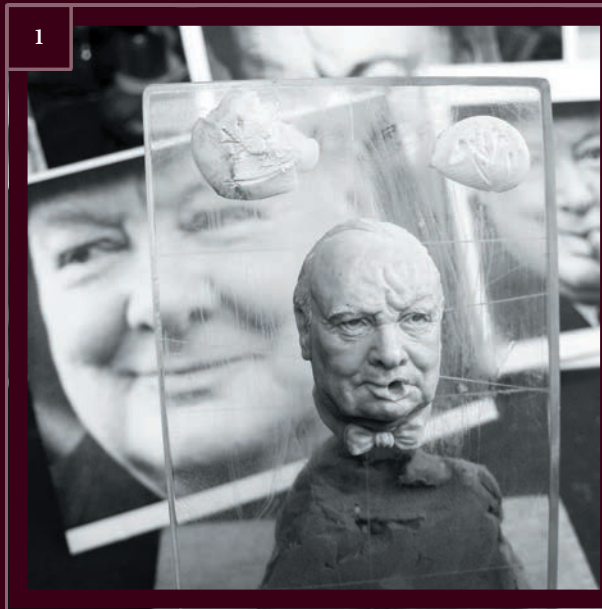
Two of the most famous icons of the Battle of Britain of 1940 are undoubtedly the Spitfire and Winston Churchill.

The legendary Supermarine Spitfire (along with the less celebrated Hawker Hurricane) provided the Royal Air Force's defensive teeth to repel the German Luftwaffe invasion, whilst Winston Churchill led and inspired the country in its fight for survival. His powerful and emotional speeches are one of the greatest contributions Churchill made for the people of Britain in stirring their patriotism, resolve and morale during its darkest hour.

Our Churchill cufflinks are made of 1940 Spitfire metal and thus combine two Battle of Britain icons – Churchill, who led Britain to victory, and the Spitfire, which helped take Britain to victory.

The master pattern for these cufflinks was hand sculpted in wax, so they are in effect pieces of wearable miniature sculptural art, made of Battle of Britain history.

1. The incredibly intricate master pattern sculpted by hand in wax measures just 28mm in height.
2. Some of the hefty bronze Churchill castings. The cigars were made separately in silver to contrast in colour.
3. The bronzes were cast hollow to both save on use of the scarce Spitfire metal and reduce weight. Translucent red enamel adds a touch of vibrancy.



FERRARI 250GTO DESK SCULPTURES

The Ferrari 250GTO is a legendary vehicle that any seriously serious (and seriously wealthy) car collector needs to have in his stable.

Thirty-nine of these cars were built for track racing in the early 1960s, including 3527GT of 1962 vintage.

In 2004 3527GT changed hands and the new owner spent £250,000 getting it lovingly restored. During that refurb, an amount of damaged or corroded aluminium body panel pieces were removed, which we were lucky enough to obtain. Nowadays removing so much material is uncommon, and it is unlikely that it will ever be possible to get original 1962 250GTO 'donor' metal again.

In the past we have made cufflinks from this metal but are now looking at a small edition of larger desk sculptures. Of original ex-GTO metal these will be unique, unprecedented, and unrepeatable.

The sculptural style is what Chris Bennett terms 'essence of form', in that it is the pure form of the car - with its tear-drop wheel arches and signature air inlets. We created this shape in 2006 for our first cufflink edition for Dunhill, and think it works very well in portraying the spirit of this iconic car.

1. 3527GT stripped of paint, pieces of damaged or corroded panelling being removed.

2. Initially all the pieces of ex-3527GT aluminium body panelling were melted into ingots to clean it.



1



2

3. Years later in 2024 one of these is remelted to be cast into a GTO sculpture.

4. A finished polished prototype sculpture, the only detail being the three signature bonnet air inlets, picked out in Ferrari red.



1



3



4



FERRARI 250GTO WALLETS

The outer shell of these wallets is constructed of leather removed from Ferrari 250GTO, chassis number 3527GT, very innovative 'upcycling'!

Whilst the car was built in 1962, the leather was installed three years later in 1965 when the GTO was 'civilianised' for road rather than race use. Some of the wallets, those made of the GTO's old headlining, feature diamond stitching and a few are in black, but most consist of smooth tan leather.

The miniature sculptures mounted upon the bottom right corner of each wallet are crafted of aluminium also from 3527GT.

Most of the wallets display minor blemishes, the leather was, after all, part of a regularly used GTO for over forty years, but this surface patination only enhances their look and originality. Very few GTOs had a leather interior installed and in consequence it is unlikely such ex-GTO leather wallets will ever be offered again.

Each wallet is accompanied by a provenance booklet and a certificate of authenticity.



ROLLS-ROYCE SPIRIT OF INNOVATION

In 2022 TMB were asked to craft lapel pins and cufflinks using donor aluminium from Rolls-Royce's pioneering electric aircraft, Spirit of Innovation.

As with all TMB products, it's necessary for us to have actual 'donor' material (ideally metal) from the subject, and in this case it was an aluminium inverter unit cover plate. The plate was fitted to Spirit of Innovation, G-NXTE, during all ground testing and flew every flight performed by the aircraft, including world record flights in November 2021, before being removed from the aircraft on the 23rd November 2021.

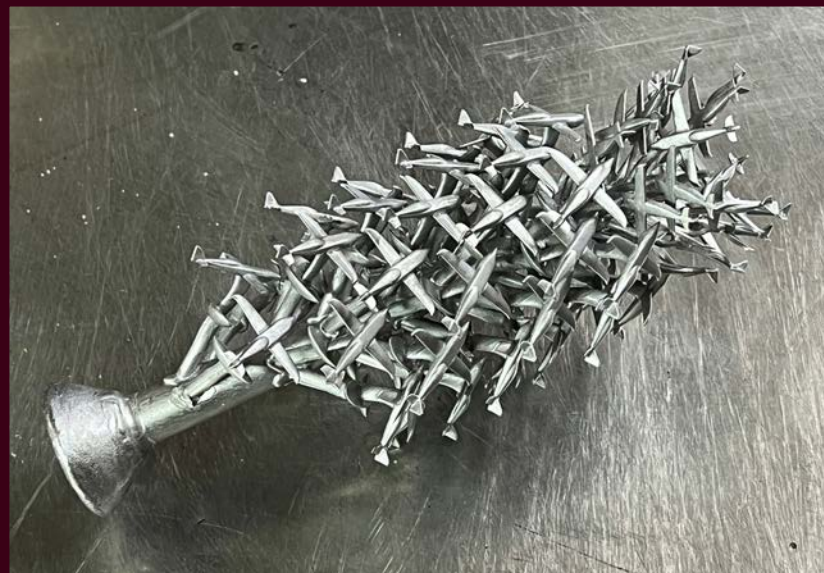
Continued on next spread



Flown by Rolls-Royce's chief test pilot, Phill O'Dell, on 16 November 2021 G-NXTE achieved a top speed of 555.9 km/h (345.4 mph) over 3 kilometres, smashing the existing record by 213.04 km/h (132mph). At the UK MoD's Boscombe Down experimental aircraft testing site on 11 November the aircraft achieved 532.1km/h (330 mph) over 15 kilometres, this being 292.8km/h (182mph) faster than the previous record.

During its 3km record-breaking run the aircraft clocked up a maximum speed of 623km/h (387.4 mph), making Spirit of Innovation the world's fastest all-electric vehicle.

This pioneering aircraft is now retired and on display in the Science Museum, London.



THE LONGITUDE PEN

The night of 22nd October 1707 witnessed one of the worst disasters in Royal Navy history, when four warships were wrecked upon the Western Rocks of the Isles of Scilly with 1,600 men lost.

The ships were part of a fleet that left Gibraltar for home in September 1707, having previously been involved with the siege of Toulon. In overall command was Admiral Sir Cloudesley Shovell in his magnificent flagship Association.

Having sailed for twenty-five days into deteriorating weather conditions, the fleet was unsure of its position but, on the evening of 22nd October, believing it was nearing the English Channel, turned north-east, unaware that an error had crept in to their navigation.

By now it was pitch dark, which, combined with severe gales meant nothing could be seen, and around 8pm the ships became entangled with the Western Rocks, the westernmost tip of the British Isles. Association foundered and sunk within minutes with the loss of all hands, including Admiral Shovell.

1. A bronze cannon is raised from Association's wreck site on the Gilstone rock, off the Isles of Scilly, in 1967.
2. Preserved within the National Archives at Kew, Association's 'neat book' records the loss of her crew, and that of Admiral Shovell.

Navigational practices at the time were primitive, and whilst latitude, the north-south position, could be reasonably plotted, longitude, the east-west position, was much harder to establish, and one of the main factors in the loss of Association.

In 1714 the Longitude Act was passed, offering a reward of £20,000 (£2,300,000 in today's value) to whomever could produce a solution that was "practicable and useful at sea" to establish longitude. After many years of perseverance carpenter-turned-clockmaker, John Harrison, created a series of sea going chronometers that permitted calculation of the longitudinal position.

The loss of the ships and of Admiral Shovell, who was at the time a British hero, as famous in his day as Nelson would be a century later, was well publicised, but as time passed Shovell and his ships were largely forgotten - until 1967, when a team of divers found Association's wreck site and recovered many items, including bronze cannons and thousands of silver coins.

Continued on next spread

3. Thousands of silver coins were recovered from Association's wreck site, many corroded, but others perfectly preserved.
4. A depiction of Association early evening of 22nd October 1707, by noted artist Oliver Hurst.



1



2



3



4

Having a personal interest in the shipwreck Chris Bennett owns numerous artefacts from it. These include silver Spanish pieces of eight, brass navigation dividers, a sounding lead, and even an intact wine bottle, a remarkable survivor.

He also had a bronze pulley wheel – two in fact, one in less good condition, and in conjunction with Onoto Pens Chris decided to cannibalise this ‘lesser’ wheel and incorporate its bronze into a special edition of fountain pens called “Longitude”.

The pen features four components using metal from Association - the cap top, cap band and barrel end of bronze, whilst the anchor fluke clip is of silver from corroded ex-Association silver coins. Most of the design cues are taken from Association and the sea, the latter being stylised waves on the cap and cap band. Longitude is represented by lines running along the barrel, and John Harrison’s clocks in the form of the cap’s clip engraved with the hour hand from ‘H4’, his fourth sea clock and the first one to be truly practical for use at sea.

The pens were accompanied by an in-depth booklet which listed all known crew who were lost with Association on that tragic night, so their names, forgotten for three centuries, may once again be brought to mind.

5. This ‘donor’ bronze pulley wheel weighs nearly 40kg and was used at the ‘cathead’ with the ship’s anchor lifting tackle.

6. Corroded British silver coins are melted down to be cast into Longitude Pen anchor fluke clips, whilst the pulley wheel bronze is cast into pulley cap tops, cap bands and domed barrel ends.



5



6



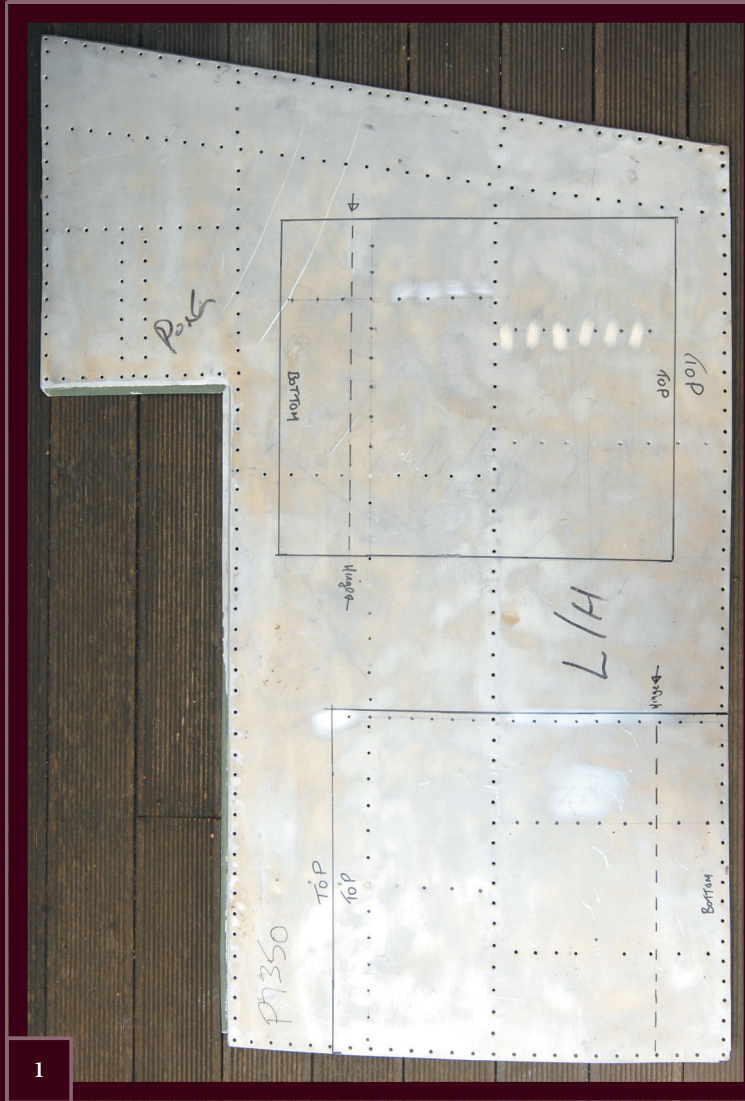
AEROFOIL CASE

Designed around a section of Spitfire's wing leading edge mid-way along at 'nose-rib 16', our Spitfire Rib 16 Aerofoil Case is surely one of the most visually spectacular brief cases ever created.

It is an amazing fusion of art and engineering, form with function. But beauty is more than skin deep, and the really special feature is that these cases incorporate original Battle of Britain 1940 Duralumin Spitfire skinning in their construction, removed from Spitfire P7350 during this historic aircraft's restoration in 2008.

Continued on next spread

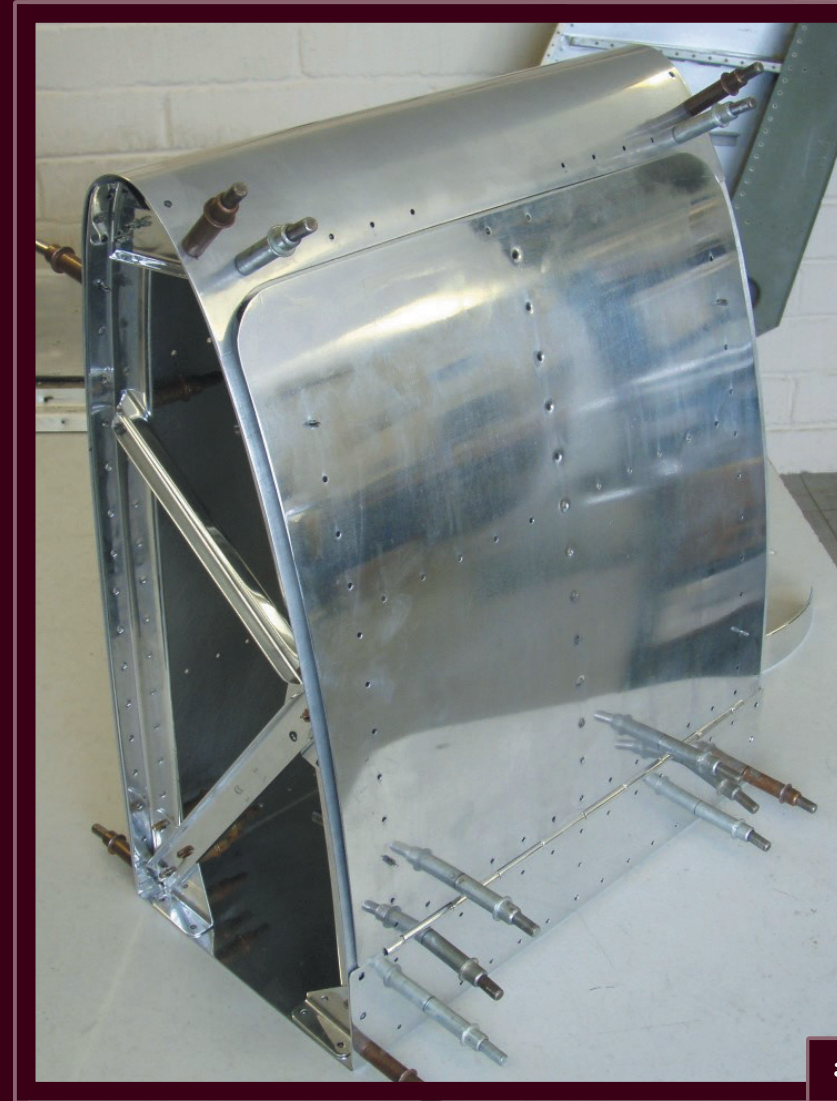
1. A section of original 1940 Duralumin skinning removed from P7350 during her 2008 restoration, marked out for two door/lower door case panels.
2. 'Nose ribs' in situ on a restored Spitfire's wing. The ribs, which provide shape and support for the wing's leading edge, decrease in size as they progress from wing root at the fuselage to wing tip.
3. A Rib 16 Aerofoil Case in mid stages of initial build. The ends are formed of rib 16 sections, this being from midway along the wing



1



2



3



Entirely hand engineered, this is a limited edition of just 12 brief cases, each made specifically to order.

The door and lower door sections, plus ancillary plates and handle fixings etc are of ex-Spitfire P7350 skinning, the integral leading edge / rear of case panel being of modern Duralumin.

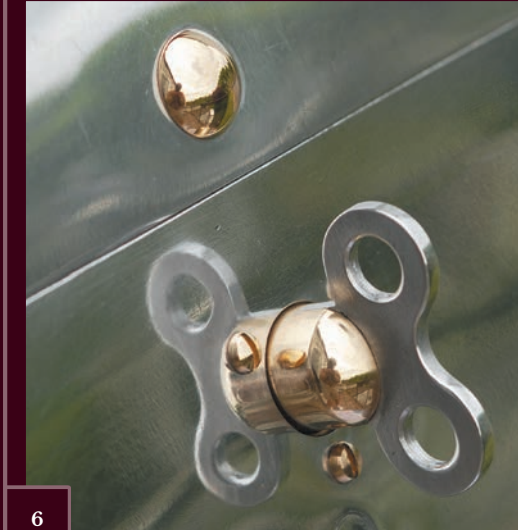
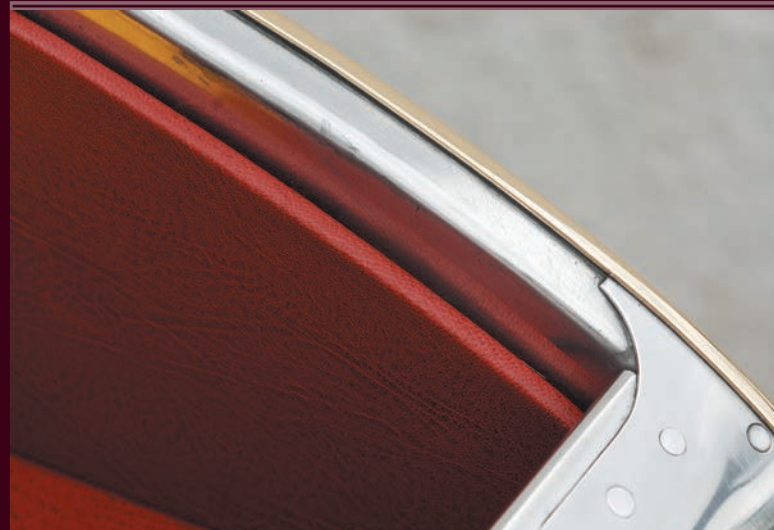
Each case will be made to order, with choice of leather and interior finish.



4



5



6



4. Ex-P7350 Duralumin handle top plate engraved with the iconic name “Spitfire”. Alternatively this can have the owners initials or name engraved instead of, or as well as.

5. The interior of the door has an engraved elliptical shaped plate formed from ex-P7350 skinning.

6. Detail of the door’s hand engineered turn and push lock, the form of which is taken from a catch used on the Spitfire.

MEMPHIS BELLE

On 17 May 1943 United States Army Air Force B-17 Flying Fortress "Memphis Belle" out of Basingbourn, England, was the first bomber in World War Two to survive 25 daylight missions over German occupied Europe, a significant achievement.

The *Memphis Belle* and her crew of ten returned to the US to a hero's welcome, touring the nation to boost morale and promote war effort, in doing so becoming national celebrities. After the war the famous B-17 was put on display at Memphis, Tennessee, but after years of weather deterioration and neglect she eventually went to the National Museum of the US Air Force at Dayton, Ohio, to undergo a meticulous restoration. Following arrival at Dayton the *Belle* was taken to pieces to start the lengthy restoration process.

Today *Memphis Belle* is one of the most famous aircraft in existence, part of that celebrity due to her iconic 'nose art' depicting girl in swimsuit, taken from a pinup by George Petty that featured in the April 1941 edition of Esquire magazine. A final touch of the restoration was the repainting of that art - on the port side the girl wears a blue swimsuit, but on the starboard its red, nobody now knows why the variation.

On 17 May 2018, the 75th anniversary of her 25th mission, the restored and resplendent *Memphis Belle* was unveiled to the public at Dayton, a permanent memorial to the thousands of US airmen who lost their lives in WW2.





1

1. During restoration some pieces of original aluminium skinning were removed and acquired by the US Air Force Museum Foundation, and in 2024 TMB was tasked to use this precious historic metal to create lapel pins depicting *Memphis Belle*, made of the *Belle*.

2. The pins are cast using the 'lost wax' process, for which every miniature B-17 requires its own 3D 'sacrificial' wax produced from a rubber mould, built into a 'tree'.

3. Pieces of the *Memphis Belle* 'donor' aluminium are put into a crucible and heated until molten and at around 750 degrees celsius the liquid metal is poured into a casting flask.

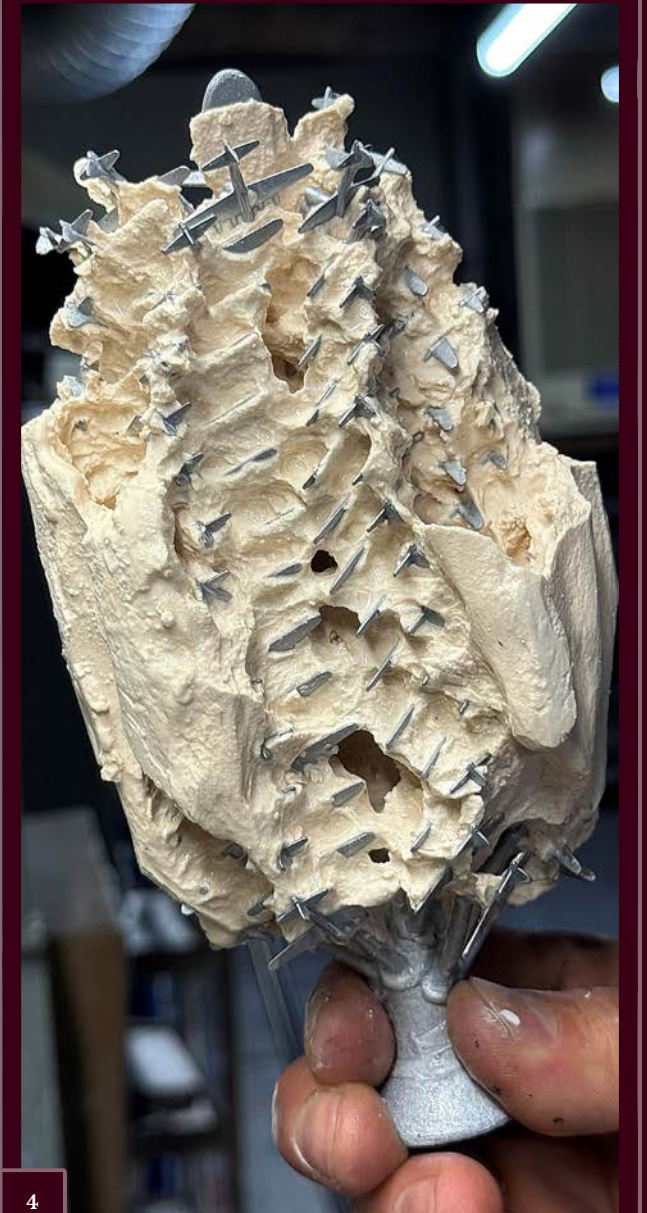
4. Once the metal has solidified the tree of B-17s is pulled from the flask partly immersed in casting compound and pressure washed.



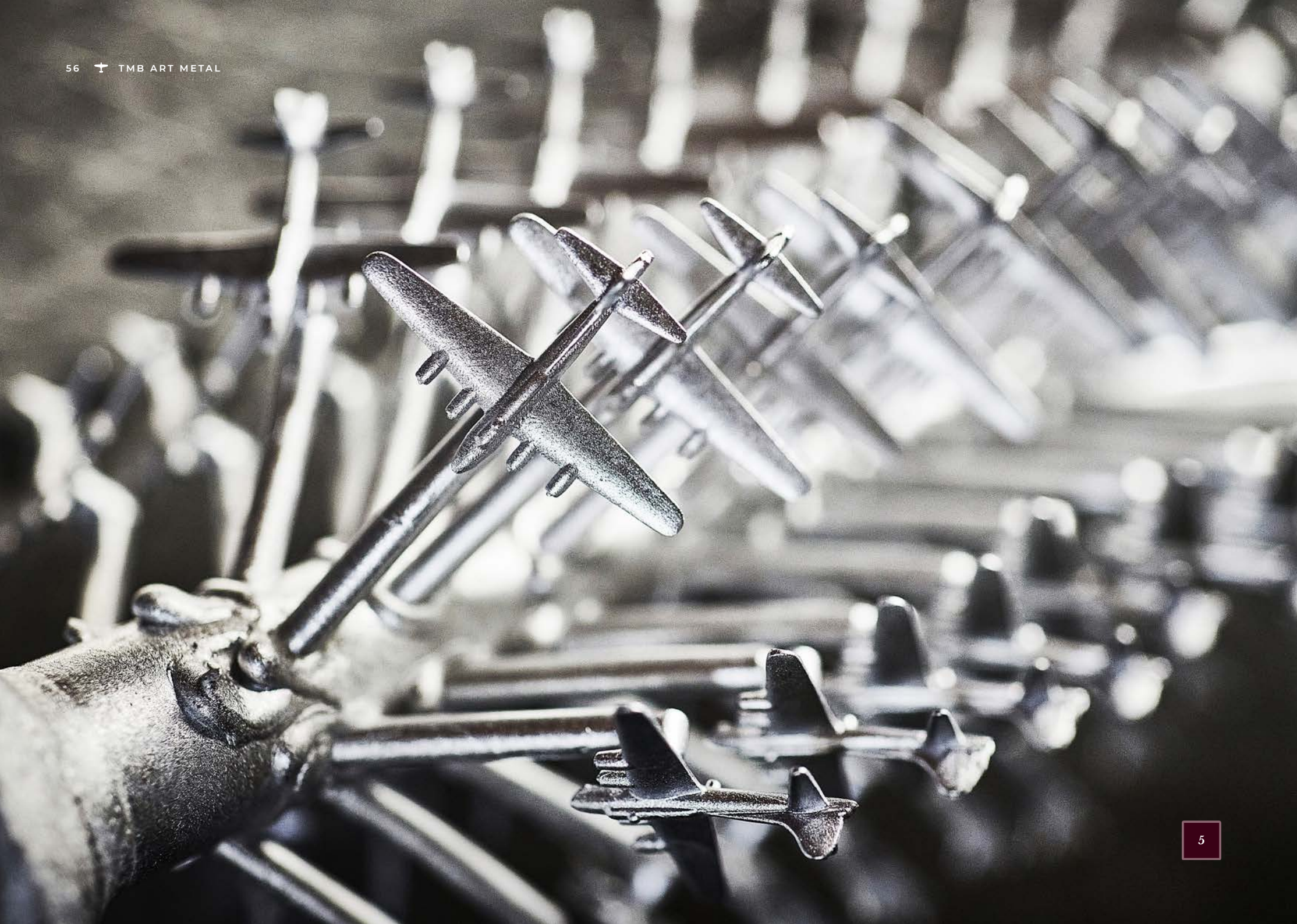
2



3



4



5



6

5. The tree of miniature B-17s is a form of art in its own right.

6. Christopher Bennett of TMB admires the first cast tree of pins made of original metal from the iconic B-17 Flying Fortress *Memphis Belle*. Emotions are mixed with relief, because such old metal means casting success isn't guaranteed - its rarity and history adding to the pressure!

7. Featuring a matte brushed finish, the pins will not be sold but gifted to Museum benefactors and supporters, making them even more precious to those fortunate enough to obtain one.



7



TMBARTMETAL.COM