

## WELCOME TO JULYS' NEWS LETTER.

HELLO ONCE AGAIN EVERYONE.

(CONT'D), AS DISCUSSED IN MARCH THE COMMITTEE CONTINUE TO UNDERTAKE REVIEWS LOOKING AT RECOMMENDATIONS REGARDING THE SAFEGUARDING OF OUR MEETINGS. AS A COMMITTEE WE HAVE A DUTY OF CARE TO ALL MEMBERS AND VISITORS, ADDITIONALLY MEMBERS HAVE A DUTY OF CARE TO EACH OTHER. NOTE:- WE HAVE HAD AN INCREASE IN THE NUMBER OF COVID INFECTIONS. IT IS ANTICIPATED ALAN WILL ONCE AGAIN BE TAKING TEMPERATURE READINGS AT OUR JULY MEETING.

WE HAVE ATTEMPTED TO KEEP UP TO DATE RE-COVID REGULATIONS. AS A RESULT, WE SHALL UPDATE THE ACTIONS TAKEN REGARDING THE COVID ISSUE, TAKING GUIDANCE FROM LOCAL AND NATIONAL DECRETOS.

ANOTHER WELCOME ALL OUR NEW AND EXISTING MEMBERS TO THE CLUB AND  
HOPE YOU ENJOY YOUR TIME WITH US!!!! WE APPEAR TO BE GROWING IN  
NUMBERS

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### CLUB EVENTS

AT THE MAY MEETING A LARGE AMOUNT OF DISCUSSION TOOK PLACE AROUND THE TOPIC OF MEETINGS, VENUES AND EVENTS, RUNS OUT ETC....ALAN PROMOTED THE PROPOSAL OF MEETING EVERY TWO WEEKS UNDER THE... OF "BRING OUT YOUR CLASSICS"

LET'S SEE IF WE CAN IMPROVE ON THE NUMBER OF EVENTS PLANNED FOR THE COMING MONTHS.

WE HOPE THE OUTINGS CALENDAR WILL FILL UP QUICKLY DURING THE SUMMER AHEAD, WITH ANTICIPATED ENTHUSIASTIC INPUT FROM OUR MEMBERS.

WE HAVE AN UPDATE REGARDING EVENTS ON OUR CALENDAR .

JULY - VACANT

AUGUST - VACANT

MALCOLM SEPTEMBER - AWAY DAYS DRIVE

OCTOBER - WILL AND CHARLI TO ARRANGE

NOVEMBER - VACANT

DECEMBER - (CHRISTMAS LUNCH AND RUN) KEN & JACQUELYNE TO ARRANGE

MONTHLY REMINDER:- MALCOLM WILL ONCE AGAIN BE ORGANISING THIS YEARS' 3 NIGHT 4 DAY AWAY TRIP. PRELIMINARY DETAILS CAN BE FOUND BELOW. GET YOUR BOOKING IN EARLY AS THESE TRIPS ARE PROVING SUCCESSFUL WITH MEMBERS AND THE LIMITED NUMBER OF PLACES BEING SNAPPED UP FAST.

(I WAIT FOR MALCOLM TO INFORM ME WHEN THE OUTING IS FULLY BOOKED, AND THEN I WILL REMOVE THIS POSTING).

### DETAILS BELOW.

SEPTEMBER 2022. LOOKING AT CAZORLA NATONAL PARK. TRAVELLING VIA BAZA, POZO ALCON - 2 3 HOURS AWAY. THE COST TO BE ASCERTAINED, BUT SHOULD BE APPROX E 80 PER NIGHT PER TWIN ROOM, AND HALF BOARD ( BED BREAKFAST AND EVENING MEAL ). SO FOR 3 NIGHTS. PRICED AT EUROS 275 PER COUPLE.

IF YOU ARE INTERESTED, PLEASE GET IN TOUCH WITH MALCOLM AS HE REQUIRES PRELIMINARY NUMBERS. HE PREFERS CONTACT TO BE MADE VIA EMAIL.

I STILL REQUEST ANY INTERESTING ITEMS YOU MAY HAVE SUITABLE TO PRINT IN THE NEWSLETTER. I DO RECEIVE ITEMS FROM MEMBERS BUT NOT MANY, SO PLEASE GET YOUR THINKING CAPS ON.

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### ITEMS FOR SALE.

DUE TO A LACK OF INTEREST IT WAS AGREED AT OUR LAST MEETING TO  
REMOVE THE TR6 FROM THE NEWSLETTER

IF YOU HAVE A VEHICLE OR EQUIPMENT FOR SALE OR KNOW OF ONE THAT MIGHT BE OF  
INTEREST TO OUR MEMBERS PLEASE LET ME KNOW.

## Topical items.

Do you have a few bob to spare? Mercedes-Benz 300 SLR

“UHLENHAUT COUPÉ” SOLD FOR A RECORD £115 MILLION.



ONE OF STEVES' QUIZ QUESTIONS AT LAST MONTHS MEETING.  
WHAT IS THE MOST EXPENSIVE CAR IN THE WORLD? WELL HERE  
IT IS.

RUMOURS ABOUND AS TO THE IDENTITY OF THE BUYER, WITH  
SOME SUGGESTING IT IS A WELL-KNOWN FIGURE FROM BRITAIN'S  
AUTOMOTIVE INDUSTRY AND A LONG-STANDING COLLECTOR OF  
SPECIALIST CARS. WITH INTEREST RATES RISING RAPIDLY, THIS  
PURCHASE COULD BE SEEN AS A WISE INVESTMENT FOR SOMEONE  
WITH THE MEANS.

RM SOTHEBY'S AND MERCEDES-BENZ SAID THAT THE SUM RAISED WOULD BE DONATED 'TO ESTABLISH A WORLDWIDE "MERCEDES-BENZ FUND" THAT WILL PROVIDE LONG-TERM EDUCATIONAL AND RESEARCH SCHOLARSHIPS IN THE AREAS OF ENVIRONMENTAL SCIENCE AND DECARBONISATION FOR YOUNG PEOPLE.'

OLA KALLENIOUS, CEO OF MERCEDES, SAID, "WITH THE MERCEDES-BENZ FUND WE WOULD LIKE TO ENCOURAGE A NEW GENERATION TO FOLLOW IN RUDOLPH UHLENHAUT'S INNOVATIVE FOOTSTEPS AND DEVELOP AMAZING NEW TECHNOLOGIES, PARTICULARLY THOSE THAT SUPPORT THE CRITICAL GOAL OF DECARBONISATION AND RESOURCE PRESERVATION. AT THE SAME TIME, ACHIEVING THE HIGHEST PRICE EVER PAID FOR A VEHICLE IS EXTRAORDINARY AND HUMBLING."

THE SALE RESULT COMFORTABLY SURPASSES THE £52M 1963 FERRARI 250 GTO THAT WON THE TOUR DE FRANCE THE YEAR AFTER IT WAS BUILT AND WAS PARTICULARLY NOTEWORTHY AS IT WAS REPORTEDLY NEVER CRASHED IN ITS (THEN) 55-YEAR LIFESPAN.

### ALTERNATIVE FUELLING EVENTS IN THE UK, - WILL IT HAPPEN IN SPAIN?

OWNERS OF AUTOGAS (LPG) CONVERTED CLASSICS AND MODERN CLASSICS WILL HAVE A MUCH HARDER TIME FILLING UP WITHIN THE NEXT TWO YEARS. HALF OF THE UK'S 1810 AUTOGAS-EQUIPPED FORECOURTS ARE TO HAVE THEIR LPG PUMPS REPLACED WITH ELECTRIC VEHICLE (EV) CHARGING POINTS. THE DECISION CAME FROM MOTOR FUELS GROUP (MFG), OPERATORS OF INDEPENDENTLY RUN PETROL STATIONS OPERATING BP, ESSO, JET, MURCO, SHELL AND TEXACO FRANCHISES. IN A MARCH STATEMENT GIVEN TO THE COMPETITION AND MARKETS AUTHORITY, IT SAID THAT LPG SALES WERE NO

LONGER PROFITABLE, AND THAT IT PLANNED TO REMOVE PUMPS FROM FIVE SITES BY JUNE. THE REMAINING BALANCE OF 906 MFG FORECOURTS CURRENTLY OFFERING LPG WILL STOP SUPPLYING IT BY 2024.

DESPITE ITS LOW CARBON STATUS (WHICH IN TURN CONTINUES TO ATTRACT LOWER FUEL DUTY), BIG RETAILERS ALSO SAY THAT DEMAND FOR LPG, AN OTHERWISE WASTED BY-PRODUCT OF GAS AND OIL REFINERY (AND EXTRACTION) IS REDUCING – THAT’S WHY SHELL ENDED ITS AUTOGAS AGREEMENT WITH CALOR IN 2020; BP ALSO FOLLOWED SUIT.

THIRSTIER OFF-ROADERS AND SUVs – AS WELL AS SOME MORE POWERFUL MODERN CLASSICS – WERE POPULAR CANDIDATES FOR LPG CONVERSIONS.

WHILE IT REMAINS A CHEAPER ALTERNATIVE TO PETROL AND DIESEL, BY AROUND 40 PER CENT, SHORTAGES OF CORRECTLY TRAINED TANKER DRIVERS AND THE DECISION OF A MAJOR SUPPLIER, FLOGAS, TO CONCENTRATE ON OFF-GRID HEATING, HAS MEANT THAT PRICES HAVE SOARED AND AVAILABILITY IN CERTAIN REGIONS HAS PLUMMETED, ACCORDING TO USER-DATA-DRIVEN WEBSITE, FILL LPG.

LPG SPECIALIST, CLASSIC SWEDE, BASED IN ANGLESEY, WALES, SAID THAT DEMAND FOR AUTOGAS CONVERSIONS HAVE INCREASED, AS IT REMAINS A CHEAPER ALTERNATIVE TO PETROL AND DIESEL ENGINED CARS FOR THOSE WHO COVER HIGH MILEAGE. PROPRIETOR, DAI BRACE, SAID: “I HAD NOT DONE ANY NEW CONVERSIONS BETWEEN 2018-2021 OTHER THAN FAMILY CARS. PLENTY OF REPAIRS. IN THE PAST NINE MONTHS I HAD FIVE CONVERSIONS AND A NUMBER OF CONVERSION KITS SOLD.”

THE NUMBER OF FORECOURTS SUPPLYING LPG HAS FALLEN SINCE 2020.

FIGURES QUOTED FROM FILL LPG TWO YEARS AGO, INCLUDING THE UK AND IRELAND, PUT THE TOTAL AT 1906. IN 2022, WITH IRELAND’S 46 STATIONS REMOVED, FILL LPG SAYS THERE ARE NOW 1810 LOCATIONS – HALF OF WHICH WILL BE REPLACED BY ELECTRIC CHARGING POINTS BY 2024.

CLASSIC CAR LOBBYISTS, THE FEDERATION OF BRITISH HISTORIC VEHICLE CLUBS (FBHVC), SAID THAT OWNERS OF CARS CONVERTED TO LPG COULD SWITCH BACK TO PETROL POWER, AS MOST CARS WERE SET UP TO USE BOTH FUELS. ITS FOCUS WAS ON GUARANTEEING THE SUPPLY OF ‘PROTECTION GRADE’ ‘E5’ FUEL ON FORECOURTS, WHICH IT SECURED FOR AT LEAST THE NEXT FOUR YEARS, FOLLOWING THE INTRODUCTION OF 10 PER CENT BLEND ‘E10’ PETROL LAST SEPTEMBER.

FOUNDER OF THE MODERN CLASSIC EXECUTIVE CARS GROUP, ALEX SEBBINGER, FELT THAT THE REMOVAL OF LPG WAS A FURTHER OBSTACLE FOR CAR ENTHUSIASTS TO OVERCOME: “WITH THE DISAPPEARANCE OF REGULAR E5 [95 OCTANE] FUEL, MANY OWNERS OF MODERN CLASSICS AND HISTORIC VEHICLES WILL BE ALREADY USING SUPER-GRADE AS A PRECAUTION, AND THOSE WHOM HAVE BEEN ENJOYING LPG WILL CERTAINLY FACE INCREASED COSTS OF MOTORING.”

CAN YOU IDENTIFY THE CARS ABOVE FROM THEIR IMAGES.

ANSWERS DIRECTLY TO ME ON, NEWSLETTEREDITOR@A-C-C.ES (ALL LOWER CASE).

A SMALL PRIZE IS WAITING FOR THE FIRST CORRECT ANSWERS!!!

LAST MONTH’S WINNERS’ WERE STEVE & MAGGIE HALES.

(YOU HAVE TO BE QUICK TO BEAT THAT PAIR OR OUR CHAIRMAN DAVID & SUE)

*HAVE A GO.*

I HAVE ADDED A FEW OLDER IMAGES THIS MONTH IN AN ATTEMPT TO MAKE IT A LITTLE MORE DIFFICULT FOR THOSE REGULAR COMPETITORS.





## FUEL CHOICE AND YOUR CLASSIC.

A BATTERY ELECTRIC CAR GENERATES 26 TONS OF CO<sub>2</sub> DURING ITS PRODUCTION, EMISSIONS THAT A TYPICAL CLASSIC WOULD TAKE MORE THAN 46 YEARS TO ACHIEVE. A CLASSIC CAR THAT EXCEEDS THE NATIONAL AVERAGE OF 2,000 KILOMETERS EMITS 563 KG OF CO<sub>2</sub> PER YEAR<sup>2</sup>. BY COMPARISON, A NEW VOLKSWAGEN GOLF HAS A CARBON FOOTPRINT OF 6.8 TONNES<sup>3</sup> OF CO<sub>2</sub> ON THE DAY IT LEAVES THE FACTORY, A FIGURE THAT WOULD TAKE OUR CLASSIC 12 YEARS TO MATCH.

FOR AN ELECTRIC VEHICLE, THE FOOTPRINT IS EVEN LARGER. A BATTERY-POWERED POLESTAR 2 CAR GENERATES 26 TONS OF CO<sub>2</sub> DURING ITS PRODUCTION, EMISSIONS THAT A CLASSIC CAR WOULD TAKE MORE THAN 46 YEARS TO ACHIEVE. AT THAT POINT, THE EV'S STATE-OF-THE-ART LITHIUM-ION BATTERY WOULD HAVE LONG AGO LOST ITS ABILITY TO HOLD A CHARGE AND BEEN SENT TO THE NEAREST RECYCLING FACILITY.

IN THE MEANTIME, OUR CLASSIC MAY STILL BE OUT THERE, MOVING FROM ONE PARTY TOWN TO ANOTHER, ITS LIFE EXTENDED BY A SUCCESSION OF DEVOTED AND ENTHUSIASTIC OWNERS WHO, THE DATA SUGGESTS, ARE ALREADY ENVIRONMENTALLY CONSCIOUS.

IN A RECENT SURVEY, 66% OF FANS SAID THEY WERE CONCERNED ABOUT CLIMATE CHANGE TO SOME DEGREE, AND 77% BELIEVED THEY WERE ALREADY CONTRIBUTING TO COMBATING ITS EFFECTS IN SOME WAY. TO THAT END, 40% HAVE USED CARBON OFFSETTING IN THE PAST, WHILE 52% OF FANS WOULD CONSIDER CONTRIBUTING TO A FULLY VETTED PLAN TO OFFSET THEIR CLASSIC'S EMISSIONS.

HAGERTY RESEARCH SUGGESTS HALF OF BRITAIN'S DRIVERS DON'T KNOW HOW TO CHECK WHETHER THEIR CAR IS COMPATIBLE WITH E10 FUEL – DESPITE MORE THAN THREE QUARTERS OF THEM BEING WORRIED THAT THE NEW UNLEADED PETROL COULD HARM THEIR CAR OR MOTORCYCLE.

TOWCESTER, UK, ENGLAND, STAFF CAR, LIMITED EDITION, ALFA ROMEO 916 GTV CUP, FUELING UP, GAS STATION, PETROL, PUMP  
ADDING TO THESE CONCERNS, A GOVERNMENT TOOL DESIGNED TO HELP MOTORISTS KNOW IF E10 IS SAFE TO USE COULD MISLEAD DRIVERS TO DAMAGE THEIR CLASSIC VEHICLE.



IN A SURVEY OF 699 DRIVERS, HAGERTY FOUND THAT 49 PER CENT DID NOT KNOW HOW TO CHECK THAT E10 WAS SAFE TO USE WITH THEIR VEHICLE AND 78 PER CENT SAID THEY WERE WORRIED ABOUT ITS INTRODUCTION. THE MAIN FEARS RELATED TO THE FACT E10 FUEL COULD CAUSE DAMAGE TO ENGINES, FUEL LINES, PETROL TANKS, SEALS, AND CARBURETTORS.

E10 IS BEING INTRODUCED TO HELP COMBAT AIR POLLUTION AND CO2 LEVELS IN THE ATMOSPHERE AS IT RELIES ON A HIGHER BIOETHANOL BLEND. BIOETHANOL IS A RENEWABLE, NOT A FOSSIL FUEL, AND ITS 10 PER CENT BIOETHANOL BLEND IS CLAIMED TO BE A CLEANER WAY TO FUEL PETROL ENGINES.

TO HELP EDUCATE MOTORISTS AN ADVERTISING CAMPAIGN HAS STARTED, AND THE GOVERNMENT HAS ADDED AN E10 CHECKER TO ITS WEBSITE. BUT AS HAGERTY'S RESEARCH SHOWS, DRIVERS MUST PROCEED WITH CAUTION, AND OWNERS OF CLASSIC CARS WOULD BE WELL ADVISED TO CONSULT MARQUE SPECIALISTS FOR ADVICE ON COMPATIBILITY.

A HAGERTY INVESTIGATION HAS FOUND THAT THE GOV.UK WEBSITE SUGGESTS NEARLY ALL AUDI MODELS AND ALL BMW AND VAUXHALL MODELS REGARDLESS OF THEIR AGE WOULD BE COMPATIBLE WITH THE NEW TYPE OF UNLEADED PETROL, WHEN IN FACT THEY COULD BE DAMAGED BY USING IT. OLDER VOLKSWAGENS, MADE BEFORE 2001 AND 2002, ARE ALSO LISTED AS BEING SAFE TO USE WITH E10.

OWNERS OF OTHER MAKES, INCLUDING MG, MASERATI AND LAMBORGHINI, ARE OFFERED IN SOME CASES, THE ADVICE IS SIMPLE – FOR JAGUARS, FOR EXAMPLE, E10 CAN BE USED IN CARS BUILT AFTER 1992. MEANWHILE, CITROEN AND DS AUTOMOBILES CARS BUILT AFTER JANUARY 1, 2000 ARE SAFE TO USE THE NEW BLEND, WHILE OTHERS SUCH AS FIAT ADVISE E10 IS COMPATIBLE ON CARS BUILT TO EURO 3 EMISSIONS STANDARDS.

FOR MERCEDES OWNERS, THE WEBSITE ASSURES THEM THE 'VAST MAJORITY OF ALL MERCEDES-BENZ VEHICLES WITH PETROL ENGINES' ARE COMPATIBLE WITH E10, APART FROM W203 AND C209 CARS USING THE FIRST-GENERATION DIRECT INJECTION ENGINES, MODELS 'NOT EQUIPPED WITH THREE-WAY CATALYSTS', AND CARS 'RETROFITTED WITH THREE-WAY CATALYSTS OR PRODUCED WITH A CARBURETTOR'.

THE WATERS ARE MUDDIER FOR OTHER OWNERS, HOWEVER. THE GOVERNMENT'S ADVICE IS THAT ALL VAUXHALL PETROL ENGINES, EXCEPT THE Z22YH 2.2-LITRE DIRECT INJECTION PETROL AS USED IN THE VECTRA, SIGNUM AND ZAFIRA CAN USE E10 WHICH, CONSIDERING THE NUMBER OF PETROL ENGINES VAUXHALL HAS BUILT IN ITS 100-YEAR HISTORY SEEMS UNLIKELY.

NEW CARS INCLUDING MOST MODERN CLASSICS AND MANY CLASSIC CARS CAN HAPPILY RUN ON THE OUTGOING FORECOURT STANDARD CALLED E5. A SWITCH TO MORE ETHANOL RICH E10 COULD CAUSE PLASTIC, RUBBER, AND FIBREGLASS COMPONENTS TO PERISH MORE QUICKLY, POTENTIALLY LEADING TO CORRODED FUEL TANKS, BLOCKED INJECTORS AND DEGRADED FUEL HOSES AND SEALS. THESE PROBLEMS CAN NOT ONLY BE COSTLY TO FIX BUT ALSO BE A SIGNIFICANT DANGER TO A CAR'S SAFE OPERATION.

GUIDANCE OTHER THAN TO CONTACT A DEALER. THE RAC SUGGESTS SOME 600,000 CAR OWNERS COULD BE AFFECTED BY THE NEW BLEND AND SAYS CARS BUILT BEFORE 2002 SHOULD STICK TO E5 (WHICH WILL GRADUALLY BE PHASED OUT ON FORECOURTS OVER THE NEXT FIVE YEARS). OWNERS OF OLDER CARS WILL HAVE TO PAY A PREMIUM – TYPICALLY AROUND 12 PENCE PER LITRE – TO USE SUPER UNLEADED.

A DEPARTMENT FOR TRANSPORT SPOKESPERSON TOLD HAGERTY: "THE INFORMATION IN EACH CASE IS BASED ON MANUFACTURER STATEMENTS LISTED VIA ACEA (EUROPEAN AUTOMOBILE MANUFACTURERS' ASSOCIATION)."

A DISCLAIMER ON THE FUEL CHECKER SITE SAYS: 'THE INFORMATION IS SUBJECT TO CHANGE, AND WE CANNOT GUARANTEE ITS ACCURACY. IF YOUR VEHICLE IS FITTED WITH REPLACEMENT PARTS THIS WILL ALSO AFFECT ITS ACCURACY. DfT AND ITS PARTNERS WILL NOT BE LIABLE FOR ANY DAMAGE TO YOUR VEHICLE AS A RESULT OF YOU USING THIS SERVICE.'

HOPE THE INFORMATION IS OF INTEREST AND BENEFICIAL TO YOU!

TWO FEATURE ITEMS - RELATED TO MEMBERS VEHICLES.:-

WILL, SENDING SOME INFO ON HIS SPIDER, MAINLY 1978 ONWARDS TO SORT MY ACTUAL CAR AS IT'S VERY UNUSUAL. CHASSIS BUILT BY FIAT BUT CAR CONSTRUCTION IN PININFARINA FACTORY BUT BADGED AS FIAT. LATER CARS BADGED PININFARINA AND THE VARIATIONS FOR THAT MODEL.

FIAT 124 SPIDER ESSENTIAL HISTORY

THE LAUNCH OF THE FIAT 124 SPIDER FOR THE 1966 MODEL YEAR COINCIDED WITH THE DEBUT OF THE NEW FIAT 124 SEDAN. JUST AS THE 124'S PREDECESSORS, THE FIAT 1200 AND 1500 CABRIOLET, HAD BEEN BASED ON THE FIAT 1100 SEDAN PLATFORM, THE NEW 124 SPIDER WAS SIMILARLY BASED ON A SLIGHTLY SHORTENED, REAR-DRIVE 124 SEDAN CHASSIS. STYLING OF THE 124 SPIDER WAS BY TOM TJAARDA, AN AMERICAN DESIGNER WORKING ABROAD AT PININFARINA IN TURIN, ITALY, AND ECHOED BOTH TJAARDA'S PREVIOUS CHEVROLET CORVETTE RONDINE CONCEPT CAR AND THE PRODUCTION FERRARI 275 AND 330 GTS SPORTS CARS.

LAMPREDI ENGINE

WHILE THE 124 SEDAN CAME STANDARD WITH A PUSHROD INLINE-FOUR, FIAT HIRED EX-FERRARI FOUR-CYLINDER ENGINE DESIGNER AURELIO LAMPREDI TO

CREATE A NEW DUAL-OVERHEAD CAM CYLINDER HEAD TO FIT ON A SLIGHTLY MODIFIED 124 BLOCK. THE BELT-DRIVEN FIAT TWIN-CAM ENGINE THAT

RESULTED WAS HIGHLY PRAISED AND WENT ON TO BECOME A FIAT GROUP STAPLE, DOING DUTY IN FIATS, LANCIAS AND EVEN SOME ALFA ROMEOS INTO THE 1990S. THE ENGINE ALSO BECAME THE WINNINGEST ENGINE OF ALL TIME IN THE WORLD RALLY CHAMPIONSHIP.

WHEN THE 124 SPIDER ARRIVED ON U.S. SHORES FOR THE 1968 MODEL YEAR, IT CAME WITH A 1.4-LITER VERSION OF THE LAMPREDI ENGINE. THROUGH THE YEARS, CAPACITY INCREASED TO 1.6-, 1.8-, AND FINALLY 2.0-LITERS.

UNFORTUNATELY, U.S. EMISSIONS STANDARDS MEANT THAT CAPACITY CHANGES MOSTLY HELPED RESTORE LOST POWER TO AN INCREASINGLY DETUNED ENGINE. BY 1979, THE FIRST YEAR OF THE 2.0-LITER 124 SPIDER, THE U.S.-SPEC CARBURETTOR WAS ACTUALLY SMALLER THAN THE ONE FITTED TO THE EARLIEST 1.4-LITER EXAMPLES, AND HORSEPOWER WAS AN ABYSMAL 86 HP.

THE INTRODUCTION OF FUEL-INJECTION IN 1981 HELPED THINGS SOMEWHAT, BUMPING OUTPUT TO 102 HP, BUT SUFFICE IT TO SAY THAT U.S. FIATS WERE SIGNIFICANTLY HANDICAPPED WITH REGARD TO POWER COMPARED TO THEIR EUROPEAN BRETHREN, WHICH WERE GETTING CLOSER TO 120 HP.

#### FIAT 124 SPIDER CHASSIS & PERFORMANCE

THE 124 SPIDER'S PLATFORM FEATURED STRUT-TYPE SUSPENSION UP FRONT AND A SOLID AXLE REAR WITH PANHARD BAR, COIL SPRINGS, AND TRAILING ARMS. BRAKES WERE HYDRAULIC DISCS AT ALL FOUR CORNERS, AND AN EARLY STANDARD FOUR-SPEED MANUAL GEARBOX WAS QUICKLY REPLACED ACROSS THE BOARD WITH THE ONCE-OPTIONAL FIVE-SPEED UNIT. THE 124 SPIDER HAD A WONDERFULLY SIMPLE FOLDING TOP DESIGN THAT COULD BE OPERATED ONE-HANDED BY THE DRIVER FROM THE FRONT SEAT AT A STOPLIGHT.

BY COMPARISON, MANY ENGLISH SPORTS CARS IN THE LATE 1960S WERE STILL USING DRUM BRAKES AND CONVERTIBLE TOPS THAT HAD TO BE ASSEMBLED, ALMOST LIKE A TENT, AND RATHER AGRICULTURAL OVERHEAD-VALVE ENGINES.

#### FIAT 124 SPIDER BECOMES PININFARINA AZZURRA

AT THE END OF 1982, FIAT LEFT THE NORTH AMERICAN MARKET.

PININFARINA, HAVING JUST ENDED PRODUCTION OF THE LANCIA MONTECARLO AT ITS FACTORY AND SEEKING A NEW BUSINESS OPPORTUNITY TO REPLACE IT, TOOK OVER PRODUCTION OF THE 124 SPIDER, REBRANDING IT AS THE PININFARINA AZZURRA. THE CAR REMAINED MOSTLY THE SAME AS WHEN IT WAS A FIAT, BUT THE INTERIOR WAS SLIGHTLY REVISED WITH A NEW CENTRE STACK, AND THE FRONT BRAKES WERE INCREASED IN SIZE. MALCOM BRICKLIN HANDLED IMPORTATION AND SERVICE IN THE U.S. MARKET. THE AZZURRA WAS DISCONTINUED AFTER THE 1985 MODEL YEAR, LEAVING THE

FIAT 124 SPIDER ON HIATUS UNTIL THE LAUNCH OF THE NEW 2017 MODEL YEAR FIAT 124 SPIDER. THIS MODEL IS ESSENTIALLY A BADGE-ENGINEERED

MAZDA MIATA BUILT IN JAPAN WITH FCA GROUP ENGINES, AND IS DIFFERENT ENOUGH THAT WE WON'T TOUCH ON IT HERE.

#### FIAT 124 SPIDER HIGHLIGHTS

FIAT WAS HEAVILY INVOLVED IN WORLD RALLY CHAMPIONSHIP EVENTS IN THE 1970s, AND AFTER THE BRAND'S PURCHASE OF AFTERMARKET FIAT TUNER ABARTH IN 1971, IT USED THE ABARTH FACILITIES AS ITS RACING DEPARTMENT. THE FIAT ABARTH 124 SPIDER RALLY CAME OUT OF THIS, WITH A REDESIGNED INDEPENDENT REAR SUSPENSION REPLACING THE STANDARD SOLID AXLE, LIGHTENED BODYWORK, A FIBREGLASS HARDTOP, AND A SLIGHT PERFORMANCE REWORK OF THE 1.8-LITER LAMPREDI TWIN-CAM ENGINE. IN STRADALE (STREET) HOMOLOGATION TRIM, THE 124 SPIDER RALLY MADE 128 HORSEPOWER. LATER 16-VALVE ALL-OUT RALLY RACE VARIANTS WOULD LEAN ON 200 HP BY THE TIME THEY WERE REPLACED WITH THE LANCIA STRATOS IN 1975.

IN THE 1982 MODEL YEAR, FIAT DEVELOPED A TURBOCHARGED SPIDER 2000 FOR THE NORTH AMERICAN MARKET, PARTNERING WITH TURBO SPECIALISTS LEGEND INDUSTRIES. THESE 2.0-LITER CARS MADE AROUND 120 HORSEPOWER, OR ABOUT WHAT THE STOCK 2.0-LITER NATURALLY-ASPIRATED ENGINE MADE IN EUROPE, BUT WERE MORE COMPLEX TO SERVICE. JUST 700 OR SO WERE BUILT BEFORE FIAT LEFT THE NORTH AMERICAN MARKET AT THE END OF 1982, AND FAR FEWER REMAIN IN EXISTENCE TODAY.

#### FIAT 124 SPIDER BUYING TIPS

AN ORIGINAL FIAT 124 SPIDER MAKES AN EXCELLENT FIRST CLASSIC CAR DUE TO STRONG PARTS AVAILABILITY AND LOW PARTS COST (YES, REALLY!), AN EASY-TO-WORK-ON FRONT-ENGINE CONFIGURATION, AND LOW COST OF ENTRY. GENERALLY SPEAKING, COLLECTORS WILL GRAVITATE TOWARD 1974 AND EARLIER MODEL YEARS FOR THEIR SLIM CHROME BUMPERS. CARS BUILT AFTER 1975 CAME WITH LARGER, FEDERALLY MANDATED 5-MPH SAFETY BUMPERS, WHICH ADDED WEIGHT AND CLUTTERED THE SVELTE LOOK OF THE SPIDER. THAT SAID, THE 1975 AND LATER BIG-BUMPER CARS ARE OFTEN MORE PLENTIFUL IN THE MARKETPLACE AND CHEAPER TO PURCHASE.

THE 2.0-LITER ENGINE FROM 1979-ON IN THE SPIDER 2000 DOESN'T MAKE MUCH MORE HORSEPOWER THAN EARLIER VERSIONS, BUT DOES HAVE SIGNIFICANTLY MORE TORQUE, WHICH IS HELPFUL IN TODAY'S TRAFFIC. THE DOWNSIDE IS THAT 2.0-LITER ENGINES WERE STOKED, NOT BORED, FOR MORE CAPACITY, WHICH MEANS THEY AREN'T AS REV-HAPPY AS EARLIER OVER-SQUARE ENGINES. DON'T WANT TO HASSLE WITH CARBURETORS? CHOOSE A 1981-ON BOSCH FUEL-INJECTED MODEL FOR GREATER RELIABILITY.



ABOVE ALL, BUY THE BEST 124 SPIDER YOUR BUDGET ALLOWS. THERE ARE PLENTY OF RUSTY \$500 RESTORATION PROJECTS (MORE APTLY DESCRIBED AS "PARTS CARS") OUT THERE, BUT WITH DRIVER-QUALITY SPIDERS AVAILABLE FOR AS LITTLE AS \$5,000, WHY BOTHER? A WELL MAINTAINED 124 SPIDER

WILL GIVE DECADES OF SERVICE; A NEGLECTED CAR WILL BE AN EXERCISE IN FRUSTRATION. BE SURE TO BUY A CAR THAT'S BEEN LOVED BY ITS LAST OWNER, IDEALLY ONE WHO'S KEPT SERVICE RECORDS AND RECEIPTS. IT'S CHARACTERISTIC FEATURE, IT IS THE QUINTESSENTIAL AFFORDABLE ITALIAN ROADSTER, THE ORIGINAL FIAT 124 SPIDER IS PROOF THAT A PININFARINA-DESIGNED CLASSIC SPORTS CAR DOESN'T HAVE TO COST AN ARM AND A LEG.

### LOTUS ESPRIT.

THE STORY OF THE LOTUS ESPRIT BEGAN, NOT JUST IN THE MINDS OF THE DESIGN TEAM AT LOTUS, BUT IN THE MIND OF A MAN WHO HAS BEEN DESCRIBED AS THE FOREMOST CAR DESIGNER OF THE TWENTIETH CENTURY; GIORGETTO GIUGIARO. IT WAS GIUGIARO WHO MANAGED TO COMBINE "ORIGAMI" FOLDED PAPER STYLING WITH OUT OF THE BOX ERGONOMICS TO CREATE ONE OF THE MOST STARTLING CARS EVER CONCEIVED; THE MASERATI BOOMERANG.

IT WAS WHILE GIUGIARO AND HIS TEAM WERE CREATING THE BOOMERANG THAT HE ALSO CREATED THE PROTOTYPE FOR THE LOTUS ESPRIT. THESE WERE CARS THAT WOULD GO ON TO INSPIRE THE DELOREAN DMC-12 – THE CAR THAT WOULD BECOME A TWENTIETH CENTURY ICON BECAUSE OF ITS RE-CREATION AS DOCTOR EMMETT BROWN'S "TIME MACHINE WITH STYLE" OF THE MOVIE "BACK TO THE FUTURE".

IT WAS THE BOOMERANG THAT ALSO MADE GIUGIARO'S "ORIGAMI" STYLING SO ADMIRERED THAT VOLKSWAGEN BEAT A PATH TO HIS DOOR TO GET HIM TO APPLY THAT DESIGN PHILOSOPHY TO THEIR NEW VOLKSWAGEN GOLF.

### FROM KIT CAR MAKER TO EXOTIC CAR MAKER: LOTUS AND THE ESPRIT METAMORPHOSIS

IN THE TIME LEADING UP TO THESE EVENTS COLIN CHAPMAN OF LOTUS WAS CONSIDERING THE FUTURE OF HIS FLEDGLING SPORTS CAR COMPANY. LOTUS WAS ONE OF QUITE A NUMBER OF BUDGET-PRICED LIMITED PRODUCTION SPORTS CAR MAKERS OF THAT TIME, MANY OF WHOM HAD STARTED OUT OFFERING KIT CARS. SOME OF THE BEST KNOWN WERE TVR, MARCOS, AND AC CARS WHO HAD BEEN DISCOVERED BY CARROLL SHELBY WHEN HE

DECIDED TO SHOEHORN AN AMERICAN V8 INTO THE DIMINUTIVE AC ACE TO CREATE THE SHELBY COBRA.

IN COLIN CHAPMAN'S EYES EACH OF THESE SMALL CAR BUILDERS LIVED A TENUOUS EXISTENCE BEING DEPENDENT ON A SMALL POPULATION OF

ENTHUSIAST SPORTS CAR BUYERS FOR THEIR CONTINUED EXISTENCE. EVEN ESTABLISHED PRESTIGE CAR MAKER ASTON MARTIN HAD BEEN ENDURING ITS SHARE OF DIFFICULTIES WHICH WOULD RESULT IN IT NEEDING TO HAVE ITS DEBTS PAID OUT BY DAVID BROWN IN 1972 AND THEN DESPITE THAT THE COMPANY WENT INTO RECEIVERSHIP IN 1974: AND ALL THAT DESPITE THE FAME BROUGHT TO THE COMPANY BY THE USE OF A "SPECIAL EQUIPMENT" ASTON MARTIN DB5 IN THE 1964 JAMES BOND MOVIE "GOLDFINGER" AND THE BOOST IN SALES THAT PROVIDED.

COLIN CHAPMAN REASONED THAT LOTUS' BEST STRATEGY TO CONTINUE AND HOPEFULLY PROSPER WOULD BE TO MOVE AWAY FROM THE AFFORDABLE KIT CARS AND INEXPENSIVE ENTHUSIAST CARS TO BECOME A MAKER OF PRESTIGE HIGH PERFORMANCE CARS AT LEAST AT THE LEVEL OF PORSCHE AND HOPEFULLY TO GET TO A POSITION TO RIVAL FERRARI. TO ACHIEVE THIS LOTUS WOULD NEED TO CREATE A NEW CAR WITH THE SORT OF NECK MUSCLE STRAINING PERFORMANCE ONE WOULD EXPECT FROM A PORSCHE COMBINED WITH IMPECCABLE HANDLING, AND A DESIGN STYLED TO LOOK JUST AS DESIRABLY AESTHETIC AS A FERRARI OR A MASERATI. COULD IT BE DONE? COLIN CHAPMAN DETERMINED TO GIVE IT A GO.

BY 1970 CHAPMAN'S TEAM AT LOTUS HAD COME UP WITH A BASIC CONCEPT FOR THIS NEW CAR WITH WHICH TO LAUNCH LOTUS UP INTO THE STRATOSPHERIC HEIGHTS OF THE PORSCHE SET. IT WAS DESIGNATED THE M70 AND THIS PROJECT WAS VERY MUCH IN COLIN CHAPMAN'S THINKING WHEN HE WAS AT THE 1971 GENEVA MOTOR SHOW AND WAS APPROACHED BY NONE LESS THAN GIORGETTO GIUGIARO WITH A PROPOSAL TO WORK ON A NEW MODEL LOTUS.

THIS WAS THE YEAR PRIOR TO GIUGIARO SHOWING HIS MASERATI BOOMERANG WHICH WOULD DEBUT AT THE 1972 GENEVA MOTOR SHOW. CHAPMAN AGREED TO AN ARRANGEMENT WITH GIUGIARO TO HAVE HIM CREATE A DESIGN WHICH HE DULY DID.

SO IT WAS THAT LOTUS BUILT A MODIFIED LOTUS EUROPA CHASSIS MADE TO THE DIMENSIONS OF THE PROPOSED NEW M70 MODEL AND SHIPPED IT TO GIUGIARO'S ITAL DESIGN STUDIO IN TURIN.

GIVEN THAT BOTH THE RESULTING LOTUS CONCEPT CAR AND THE MASERATI BOOMERANG WOULD BOTH BE FIRST SHOWN TO THE WORLD IN 1972 THIS MEANS THAT GIUGIARO AND HIS TEAM WERE WORKING ON BOTH CARS OVER

THE SAME PERIOD OF TIME AND IN 1972 BOTH CARS WERE SHOWN SIDE BY SIDE BY ITAL DESIGN.

WITH COLIN CHAPMAN BEING MOSTLY HAPPY WITH THE CONCEPT CAR IT WAS TIME TO MOVE FROM SHOW CAR TO DRIVE-ABLE PROTOTYPE. CHAPMAN HAD RESERVATIONS ABOUT SOME ASPECTS OF GIUGIARO'S DESIGN: HE WAS CONCERNED ABOUT THE AERODYNAMICS, ESPECIALLY THE LIKELIHOOD THAT

THE CAR WOULD LITERALLY TEND TO TAKE FLIGHT AT HIGH SPEED, SOMETHING THAT CAN MAKE A SPORTS CAR RATHER DIFFICULT TO STEER WITH POTENTIALLY NASTY RESULTS. THE TEAM AT LOTUS CHARGED WITH READYING THE PROTOTYPE FOR PRODUCTION ALSO HAD MANY ISSUES TO RESOLVE. WHILE

GIUGIARO'S SHOW CAR HAD BEEN CREATED FROM ALUMINIUM ALLOY THE TEAM AT LOTUS NEEDED TO MAKE THE NEW CAR THE LOTUS WAY, WITH A BACKBONE CHASSIS AND FIBREGLASS BODY.

TO ACHIEVE THIS SOME OF THE LOTUS DESIGN TEAM MOVED TEMPORARILY TO TURIN TO WORK SIDE-BY-SIDE WITH GIUGIARO'S TEAM AT ITAL DESIGN. ITAL DESIGN DIDN'T HAVE MUCH EXPERIENCE WITH FIBREGLASS AND SO HAVING THE MAVENS FROM LOTUS THERE, INCLUDING OLIVER WINTERBOTTOM WHO WAS IN OVERALL CHARGE OF THE CONSTRUCTION OF THE ESPRIT, WAS A GREAT ADVANTAGE. THIS WAS NECESSARY BECAUSE LOTUS' NEW FUTURE AS A PRESTIGE CAR MAKER DEPENDED ON GETTING THIS NEW M70 PROJECT RIGHT, AND RIGHT FROM THE VERY BEGINNING.

ONE OF THE FIRST THINGS THIS TEAM DID WAS CREATE A QUARTER SCALE MODEL OF THE GIUGIARO DESIGN AND TAKE IT TO THE MIRA WIND TUNNEL TEST FACILITY IN BRITAIN. THIS CONFIRMED COLIN CHAPMAN'S ASSESSMENT THAT THE CAR WOULD HAVE SIGNIFICANT PROBLEMS WITH LIFT AT SPEED. OTHER CHANGES INCLUDED MODIFICATIONS TO THE BODY DESIGN TO MAKE IT COMPLIANT WITH REGULATIONS AROUND THE WORLD, SUCH AS REDUCING THE RAKE OF THE WINDSCREEN TO ENSURE THE DESIGN WOULD MEET US ROLLOVER REQUIREMENTS FOR EXAMPLE.

THE WORKING PROTOTYPE WAS COMPLETED AND WORE THE REGISTRATION NUMBER IDGG 01. THIS WAS THE WORKING TEST-BED IN WHICH TO SORT OUT THE MECHANICS AND MAKE SURE EVERYTHING WORKED AS IT SHOULD. TESTING AND EVALUATION OF THE ENGINE FOR THE NEW ESPRIT HAD BY THIS TIME ALREADY BEEN UNDERWAY FOR SOME TIME.

## THE LOTUS 900 SERIES ENGINE

AS EARLY AS 1964 COLIN CHAPMAN HAD UNDERSTOOD THAT LOTUS WOULD NEED TO CREATE ITS OWN SERIES OF ENGINES FOR ITS FUTURE CAR MODELS AND HE SETTLED ON THE IDEA OF A 2 LITRE DOUBLE-VALVE (I.E. 16 VALVE) 150 HP INLINE FOUR CYLINDER WITH DOUBLE OVERHEAD CAMSHAFTS THAT WOULD BE SLANTED AT A 45° ANGLE IN ORDER FOR IT TO FIT SPACE REQUIREMENTS. SUCH AN ENGINE CHAPMAN KNEW WOULD ALSO PROVIDE THE FOUNDATION FOR A 4 LITRE V8 SUITABLE FOR USE IN AN INDIANAPOLIS RACING CAR.

RESOURCES AT LOTUS WERE LIMITED AND ALTHOUGH ENGINEERS STEVE SANVILLE AND RON BURR WERE ABLE TO GET THE CYLINDER HEAD DESIGN DONE THE PROJECT WAS STRUGGLING WITH WHAT WAS NEEDED TO CREATE THE ENGINE BLOCK. PROVIDENCE STEPPED IN HOWEVER AND IN 1967 BRITISH GENERAL MOTORS CAR MAKER VAUXHALL DEBUTED A NEW SLANT FOUR 1,973 CC (120.4 CU. IN.) ENGINE WHO'S CENTRE-TO-CENTRE BORE SPACING MATCHED THE DESIGN FOR THE NEW LOTUS ENGINE. WITH A SUITABLE BLOCK IN PRODUCTION COLIN CHAPMAN GOT TOGETHER WITH VAUXHALL'S ENGINEERING DIRECTOR JOHN ALDEN AND WAS ABLE TO ARRANGE TO PURCHASE TEN OF THE CYLINDER BLOCKS AND FOUR ENGINES. SO LOTUS ENGINEERS WERE ABLE TO START BUILDING TEST ENGINES TO PROGRESS TOWARDS REGULAR PRODUCTION.

IN 1969 LOTUS RECRUITED ENGINEER TONY RUDD WHO HAD FORMERLY BEEN WITH FAMOUS RACING CAR MAKER BRITISH RACING MOTORS (BRM) AND HE WORKED HIS WAY UP TO BECOME THE ENGINEERING DIRECTOR FOR ROAD CAR DEVELOPMENT, SO HE WAS CLOSELY INVOLVED IN THE DEVELOPMENT OF THE NEW LOTUS 900 SERIES ENGINES, ESPECIALLY THE VERSION FOR ROAD CARS WHICH WAS DESIGNATED THE 907: THIS WAS THE ENGINE THAT WOULD BE USED IN THE FIRST MODELS OF THE LOTUS ESPRIT AND IT WAS DEEMED PRODUCTION READY BY 1970, WHILE THE IDEA FOR THE NEW ESPRIT WAS STILL IN AN EARLY FORMATIVE STAGE.

WITH A NEWLY MINTED ENGINE POTENTIALLY READY TO BE FITTED IN SOMETHING STYLISH WITH WHEELS AND WITH A NEED TO SELL ENGINES AND MAKE MONEY COLIN CHAPMAN APPROACHED AMERICAN/NORWEGIAN BUSINESSMAN KJELL QVALE WHO AT THAT POINT OWNED JENSEN MOTORS WHO WERE WORKING IN PARTNERSHIP WITH DONALD AND GEOFFREY HEALEY TO CREATE A NEW HEALEY SPORTS CAR: THE JENSEN HEALEY. ONE OF THE THINGS JENSEN WERE LOOKING FOR WAS A SUITABLE ENGINE AND AFTER SOME

NEGOTIATIONS AN AGREEMENT WAS REACHED FOR LOTUS TO SUPPLY UP TO 15,000 LOTUS TYPE 907 ENGINES TO JENSEN PER YEAR FOR THEIR NEW CAR.

FOR LOTUS THIS ARRANGEMENT MEANT THAT THEY COULD RECOUP SOME OF THE MONEY INVESTED IN THEIR NEW 900 SERIES ENGINES AND WOULD ALSO BE GETTING VALUABLE INFORMATION AS TO WHETHER THERE WERE BUGS IN THE 907 ENGINE THAT WOULD NEED RECTIFICATION BEFORE THAT ENGINE WAS INSTALLED IN THEIR NEW ESPRIT AND THE FOUR SEATER ELITE.

THE LOTUS 907 EQUIPPED JENSEN-HEALEY WENT ON SALE IN 1972 AND AS IT TURNED OUT THERE WERE SERIOUS PROBLEMS WITH THE 907 ENGINE WHICH TOOK THE FORM OF A HIGH RATE OF OIL CONSUMPTION AND DISTORTED

CYLINDER LINERS. LOTUS WORKED TO FIX THE PROBLEMS AND A JENSEN-HEALEY Mk2 WAS RELEASED IN 1973 BUT BY THAT STAGE THE DAMAGE TO THE CAR'S REPUTATION HAD BEEN DONE AND PRODUCTION WAS ENDED IN 1976.

THE UPSIDE FOR LOTUS HOWEVER WAS THAT THE 907 HAD BECOME A WELL DE-BUGGED PRODUCTION ENGINE READY FOR THE NEW LOTUS ESPRIT AND ELITE.

### THE LOTUS ESPRIT SERIES 1 (1976-1978)

DURING THE FIRST HALF OF THE 1970'S WORK CONTINUED ON THE DEVELOPMENT OF THE PRODUCTION PROTOTYPE REGISTERED AS IDGG 01, PAINTED BRIGHT RED AND KNOWN AS "THE RED CAR". LOTUS SEARCHED FOR A SUITABLE TRANSAXLE FOR THE CAR AND FOUND ONE AS FITTED IN THE CITROËN SM WHICH, DESPITE THE FACT THAT THE SM WAS GOING OUT OF PRODUCTION, CITROËN AGREED TO SUPPLY TRANSAXLES TO LOTUS FOR THE FORESEEABLE FUTURE. THIS CITROËN C35 FIVE SPEED MANUAL TRANSAXLE WAS ALSO USED IN THE MASERATI MERAK SO THE LOTUS ESPRIT WAS UTILIZING A TRIED AND TESTED TRANSMISSION FROM THE TOP END OF THE MARKET.

GETTING THAT CITROËN C35 TRANSAXLE INTO "THE RED CAR" REQUIRED SOME CREATIVE AND CONVOLUTED ENGINEERING WHICH INVOLVED A NEW CUSTOM BELL HOUSING AND A GEAR-LEVER LINKAGE OF RODS AND CABLES WHICH WERE SOMEHOW MADE TO WORK NICELY. COLIN CHAPMAN HAD BEEN INSISTENT THAT THE FEEL AND OPERATION OF THE GEAR LINKAGE HAD TO BE IMPECCABLE AND DESPITE THE DIFFICULTIES IN ACHIEVING THIS IT WAS DONE.



COLIN CHAPMAN HAD GIVEN HIS ENGINEERING TEAM A DEADLINE BY WHICH TO HAVE “THE RED CAR” READY FOR HIM TO EVALUATE BY CHRISTMAS 1974. THEY DIDN’T MANAGE TO HAVE THE CAR UP AND READY ON THE ROAD BY THEN BUT EARLY IN 1975 TONY RUDD MANAGED TO SURPRISE COLIN CHAPMAN BY PICKING HIM UP AT LONDON’S HEATHROW AIRPORT IN IDGG 01. COLIN CHAPMAN GOT IN AND DROVE, AND ON THE WAY BACK TO THE LOTUS WORKS AT HETHEL A HUB CARRIER BROKE. BUT “THE RED CAR” WAS A RUNNER AND LOTUS NEEDED TO BE ABLE TO SHOW IT AT THE UPCOMING PARIS MOTOR SHOW. SO ALTHOUGH THE ESPRIT WASN’T QUITE PRODUCTION READY YET A PROTOTYPE WAS SENT OFF TO PARIS TO STUN THE CROWDS AS LOTUS NEW CREATION

THE EFFECT OF THE NEW ESPRIT ON THE CROWDS AT THE MOTOR SHOWS IN PARIS AND LONDON WAS MIXED. SOME WERE EXCITED ABOUT THE UP-MARKET MOVE LOTUS WAS MAKING AND ADORED THE GUIGIARO STYLING, WHILE OTHERS WERE NOTHING LESS THAN DISMAYED THAT AFFORDABLE LOTUS AND KIT CAR LOTUS WAS A THING OF THE PAST SO THEY’D HAVE TO GO AND BUY A TVR OR MARCOS INSTEAD.

THIS NEW LOTUS ESPRIT MARK 1 WAS AN INTERESTING MIX OF PARTS AND TECHNOLOGY. THE 1,973 CC (120.4 CU. IN.) DOHC INLINE FOUR CYLINDER LOTUS 907 ENGINE BREATHED THROUGH TWIN DELLORTO CARBURETTORS AND PRODUCED 160 HP @ 6,580 RPM WHILST DELIVERING 140 LB/FT OF TORQUE AT 4,800 RPM IN EUROPEAN CONFIGURATION, AND 140 HP IN US MARKET CONFIGURATION. THIS ENGINE DRIVING THROUGH THE CITROËN C35 5-SPEED MANUAL TRANSMISSION.

FRONT SUSPENSION WAS COURTESY OF THE VAUXHALL CAVALIER MARK 1 AND COMPRISED UPPER AND LOWER WISHBONES WITH COIL SPRINGS AND TELESCOPIC SHOCK ABSORBERS, AND A VAUXHALL CAVALIER ANTI-ROLL BAR. THE FRONT DISC BRAKES WERE ALSO THE ONES USED IN THE VAUXHALL CAVALIER: SO ALTHOUGH THE ESPRIT WAS TO BE AN EXOTIC SPORTS CAR SOURCING FRONT SUSPENSION PARTS FOR IT WAS LIKELY TO BE AFFORDABLE AND EASY FOR THE FORESEEABLE FUTURE. THE RACK AND PINION STEERING WAS NOT POWER ASSISTED AND THE ESPRIT USED THE SAME STEERING BOX AS ITS SIBLING THE FOUR SEATER ELITE.

THE REAR SUSPENSION WAS A DIFFERENT STORY. IT COMPRISED INBOARD DISC BRAKES WITH TAPERING BOX-SECTION TRAILING ARMS WITH LOWER LATERAL LINKS. THE DRIVING HALF-SHAFTS COMING FROM THE TRANSAXLE WERE NOT GIVEN ANY PROVISION FOR PLUNGE AND WERE INTENDED TO PROVIDE LATERAL SUPPORT BY TRANSMITTING SUSPENSION FORCES INTO THE ENGINE AND

TRANSAXLE ASSEMBLY, MEANING THAT THE CAR'S HANDLING AT THE REAR BECAME DEPENDENT TO SOME EXTENT ON THE STABILITY OF THE ENGINE AND TRANSAXLE MOUNTINGS.

THE FIBREGLASS BODY WAS MOULDED IN TOP AND BOTTOM SECTIONS WHICH WERE THEN BONDED TOGETHER. THEN THE BODY ASSEMBLY WAS LOWERED ONTO THE RUNNING CHASSIS AND SECURED, FOLLOWED BY THE CAR'S BEING FITTED OUT.

THE SERIES 1 LOTUS ESPRIT WAS LAUDED FOR ITS HANDLING WHEN NEW, ALTHOUGH THE FACTORY PERFORMANCE CLAIM OF A STANDING TO 60 MPH TIME OF 6.8 SECONDS AND TOP SPEED OF 138 MPH (222 KM/HR) WERE NOT VERIFIED ON INDEPENDENT ROAD TESTS WHICH TENDED TOWARDS A STANDING

TO 60 MPH TIME IN THE ORDER OF 8 SECONDS AND TOP SPEED AROUND 133 MPH. THE ESPRIT'S LIGHT WEIGHT OF 1,984 LB (900 KG) MEANT THAT IT DELIVERED A LOT OF PERFORMANCE WITH ITS RELATIVELY SMALL ENGINE AND AS A BONUS IT ALSO PROVIDED THAT PERFORMANCE WHILE BEING ABLE TO DO AROUND 30 MILES TO THE BRITISH IMPERIAL GALLON.

TO APPRECIATE WHY IT WAS SUCH AN INTELLIGENT STRATEGY FOR COLIN CHAPMAN TO CREATE HIS NEW SPORTS CAR AS A LIGHTWEIGHT WITH A COMPARATIVELY SMALL ENGINE IT IS GOOD TO LOOK AT WHAT WAS GOING ON IN THE WORLD AT THE TIME LEADING UP TO THE ESPRIT'S DEBUT. IN OCTOBER 1973 THE WORLD WAS PLUNGED INTO THE OIL CRISIS WHICH WAS CREATED BY THE ORGANIZATION OF MIDDLE EASTERN OIL PRODUCING COUNTRIES WHO DECLARED AN OIL EMBARGO ON COUNTRIES THAT THEY CLAIMED HAD SUPPORTED ISRAEL DURING THE YOM KIPPUR WAR OF OCTOBER 6TH-25TH, 1973: THAT WAR BEING A FOLLOW ON FROM THE SIX DAY WAR OF 1967.

THE EFFECT OF THE OIL EMBARGO WAS TO DRIVE FUEL PRICES UP DRAMATICALLY AND RESTRICTED SUPPLY SUCH THAT PEOPLE REALIZED THAT THEIR SUPPLY OF FUEL COULD BE STRANGLERED BY OIL PRODUCING COUNTRIES CUTTING OFF SUPPLIES, AND THE PRICE OF FUEL COULD SIMILARLY BE FORCED UP BY SUCH ACTION. SO A SPORTS CAR THAT DELIVERED A TOP SPEED OF OVER 130 MPH AND FUEL ECONOMY OF 30 MPG WAS AN ATTRACTIVE THING BY COMPARISON WITH A THIRSTY V8 OR V12.

ALTHOUGH THE SERIES 1 ESPRIT GAINED A LARGELY POSITIVE RECEPTION THERE WERE THINGS THAT NEEDED IMPROVEMENT AND THE QUALITY OF THE INTERIOR TRIM WAS ONE AREA OF NEED THAT WOULD BE ADDRESSED IN THE UPCOMING SERIES 2. THE SERIES 1 WAS THE TRAIL-BREAKER, AND IT REMAINED IN PRODUCTION FOR TWO YEARS.

ONE OF THE VEHICLES FOR SELLING NICE SPORTS CARS FOR BRITAIN WAS THE JAMES BOND SERIES OF MOVIES. ASTON MARTIN'S EXPERIENCE OF THE WELCOME PUBLICITY GARNERED BY THEIR DB5 APPEARING IN THE MOVIE "GOLDFINGER" SET THE TONE FOR LOTUS TO WANT TO HAVE AN ESPRIT APPEAR IN OTHER JAMES BOND MOVIES.

WHEN THEY HEARD THAT THE NEW BOND MOVIE "THE SPY WHO LOVED ME" WAS PREPARING FOR PRODUCTION IN 1976 LOTUS' HEAD OF PUBLIC RELATIONS DON McLAUGHLAN TAPED OVER ALL IDENTIFYING "LOTUS" BADGES ON ONE OF THE PROTOTYPE ESPRIT CARS AND PARKED IT OUTSIDE THE EON OFFICE AT PINWOOD STUDIOS NEAR LONDON.

MANAGEMENT AT EON WERE IMPRESSED ENOUGH THAT THEY ASKED TO LOAN TWO ESPRIT PROTOTYPES TO USE FOR THE FILM. HAPPILY LOTUS AGREED AND IT FINISHED UP BEING LOTUS OWN TEST DRIVER ROGER BECKER WHO DID THE STUNT DRIVING FOR THE MOVIE. THE TWO LOTUS ESPRIT LOANED TO EON WERE NOT THE ONLY CARS THAT APPEARED IN THE FILM HOWEVER AS THE SCRIPT CALLED FOR A SUBMARINE CAR. THIS MEANT THAT AN "ESPRIT" BODY, OR RATHER ONE THAT LOOKED LIKE AN ESPRIT, WAS FITTED TO A WET SUBMARINE AND MADE TO LOOK LIKE THE ESPRIT CONVERTED INTO A SUBMARINE SO BOND COULD MAKE GOOD HIS ESCAPE FROM HIS PURSUERS.

WITH A SUCCESSFUL LAUNCH OF THE ESPRIT SERIES 1 AND THE FAME ACCRUED TO IT BY ITS USE IN "THE SPY WHO LOVED ME" COLIN CHAPMAN AND HIS TEAM HAD DONE ALL THEY COULD TO MAKE THIS CAR A SUCCESS.

THE SERIES 2 ESPRIT WAS TO SOME EXTENT A PROBLEM FIX REVISION OF THE SERIES 1. THE CAR'S INTERIOR FITTINGS WERE SIGNIFICANTLY UPGRADED FROM THE INEXPENSIVE AND ARGUABLY A TAD SHODDY STANDARD OF THE SERIES 1. THE SEATS WERE MADE WIDER AND CAR'S PREVIOUSLY DIFFICULT TO SEE VEGLIA INSTRUMENT PANEL WAS REPLACED BY INDIVIDUAL GAUGES BY SMITHS, WHILE ILLUMINATED SWITCHES AND OTHER FITTINGS FROM THE MORRIS MARINA IMPROVED THINGS SIGNIFICANTLY.

INTAKE AND COOLING DUCTS WERE ADDED BEHIND THE REAR QUARTER WINDOWS AND THE TAIL LIGHT CLUSTERS WERE UPGRADED TO THE SAME UNITS FITTED TO THE ROVER SD1. THE FRONT SPOILER WAS RE-DESIGNED BY GIUGIARO AND BECAME A WRAP AROUND ITEM TO PROVIDE NOT ONLY A MORE INTEGRATED LOOK THAN THE TACKED ON LOOK OF THE ONE USED IN THE SERIES 1, BUT ALSO TO PROVIDE A MORE EFFECTIVE LOW AIR-PRESSURE UNDER THE CAR TO DRAW IT DOWNWARDS ONTO THE ROAD AT SPEED.



THE FIRST SERIES OF ESPRIT HAD BEEN FITTED WITH STANDARD WHEELS BY WOLFRACE WHICH TENDED TO MAKE THE CAR LOOK A BIT TOO REMINISCENT OF LOTUS “KIT CAR” ORIGINS. TO BE IN THE PORSCHE CLASS THE ESPRIT NEEDED CUSTOM WHEELS AND FOR THE SERIES 2 IT WAS GIVEN THEM. THE NEW CUSTOM WHEELS WERE MADE FOR LOTUS BY ITALIAN COMPANY SPEEDLINE AND THEY HELPED TRANSFORM THE LOOK OF CAR UP INTO THE CLASS THAT IT WAS INTENDED FOR.

1978 SAW LOTUS WIN THE INTERNATIONAL CUP FOR F1 CONSTRUCTORS AND IN CELEBRATION OF THIS THEY INTRODUCED A SPECIAL LIMITED EDITION OF THEIR SERIES 2 ESPRIT WHICH WAS PAINTED IN A BLACK AND GOLD LIVERY TO MATCH THE COLOURS OF LOTUS FORMULA 1 SPONSORS AT THAT TIME, TOBACCO COMPANY JOHN PLAYER & SONS.

THE ESPRIT WAS SUBJECT TO CRITICISM WITH REGARDS TO LACK OF POWER, ESPECIALLY IN THE NORTH AMERICAN MARKET VERSION AND TO ADDRESS THIS THE ENGINE WAS UPGRADED TO THE TYPE 912 IN MAY 1980. THE 912 ENGINE HAD AN INCREASED CAPACITY OF 2.2 LITRES (2,174 CC/132.7 CU. IN.) AND ALTHOUGH THE POWER OUTPUT REMAINED THE SAME AS FOR THE SMALLER ENGINE THE TORQUE WAS INCREASED TO 160 LB/FT WITH THE RESULT THAT THE ENGINE HAD IMPROVED MID-RANGE PERFORMANCE.

THIS VERSION OF THE ESPRIT IS REFERRED TO AS THE SERIES 2.2 AND IN ADDITION TO THE ENGINE IMPROVEMENTS THEY WERE FITTED WITH A GALVANIZED BACKBONE CHASSIS. ONLY 88 OF THE SERIES 2.2 ESPRIT WERE BUILT WHICH MAKES THEM QUITE RARE.

THE 912 ENGINE OF THE ESPRIT 2.2 WAS A STOP-GAP MEASURE AND LOTUS KNEW THEY NEEDED TO SIGNIFICANTLY INCREASE THE POWER OF THE CAR TO BE COMPETITIVE. PROVIDING MORE POWER COULD BE ACCOMPLISHED BY PROVIDING A BIGGER ENGINE, OR BY TURBOCHARGING THE EXISTING ONE. LOTUS DECIDED TO GO FOR THE TURBOCHARGING OPTION AND SO 1980 WAS CAPPED OFF BY THE INTRODUCTION OF THE FIRST TURBOCHARGED VERSION OF THE LOTUS ESPRIT, THE ESSEX.

THE ESSEX OVERSEAS PETROLEUM CORPORATION WERE THE SPONSORS OF TEAM LOTUS FOR 1979-1981 AND SO LOTUS RACING CARS WORE THE ESSEX COLOURS OF BLUE, RED AND CHROME. THUS IT WAS APPROPRIATE TO GIVE THIS NEW SPECIAL TURBOCHARGED LOTUS ESPRIT THE SAME COLOUR SCHEME AS THE RACING CARS.

THE ENGINE USED FOR THE ESPRIT ESSEX WAS THE TURBOCHARGED DRY SUMP TYPE 910 WHICH DELIVERED 210 HP @ 6,250 RPM WITH TORQUE OF 200 LB/FT @ 4,500 RPM: THIS WAS SIGNIFICANTLY MORE POWER TO THE REAR WHEELS AND MUCH MORE MID-RANGE FLEXIBILITY. THIS WAS A CAR THAT DELIVERED A TOP SPEED OF 150 MPH (241 KM/HR) AND STANDING TO 60 MPH IN JUST 6.1 SECONDS. IN SHORT THIS WAS A CAR THAT LOOKED, FELT AND SOUNDED LIKE A HIGH PERFORMANCE EXOTIC.

THE TYPE 910 ENGINE AS FITTED TO THE ESSEX HAD A COMPRESSION RATIO OF 7.5:1 AND WAS FITTED WITH A GARRETT AIR RESEARCH T3 TURBOCHARGER WHICH WAS SET TO PROVIDE A BOOST OF 8 PSI (0.55 BAR). THE ENGINE RETAINED THE TWIN DELL'ORTO 40 DHLA CARBURETTORS AS USED ON THE NATURALLY ASPIRATED ENGINE BUT BECAUSE THESE WERE NOW PRESSURIZED BY THE TURBOCHARGER THEY HAD TO BE MODIFIED BY THE FITTING OF PRESSURE SEALS ON THE THROTTLE SPINDLES.

OTHER REVISIONS TO THE TYPE 910 WERE NEW CAMSHAFTS TO INCREASE BOTH VALVE LIFT AND DURATION, SODIUM FILLED EXHAUST VALVES AND ENLARGED COOLANT PASSAGES IN THE CYLINDER HEAD TO COMPENSATE FOR THE INCREASE IN THE COMBUSTION HEAT GENERATED. THE ENGINE WAS ALSO PROVIDED WITH A STRENGTHENED LOWER MAIN-BEARING GIRDLE TO COPE WITH THE SUBSTANTIALLY INCREASED FORCES THE ENGINE WAS GENERATING AND THE CLUTCH DIAMETER WAS INCREASED BY AN INCH FOR THE SAME REASON.



THE IMPROVEMENTS DID NOT STOP AT THE ENGINE HOWEVER, THE CHASSIS WAS COMPLETELY REVISED GIVING IT 50% BETTER TORSIONAL RIGIDITY. THE VAUXHALL CAVALIER DERIVED FRONT SUSPENSION WAS DONE AWAY WITH AND CHANGED TO A NEW LOTUS DESIGN WHICH COMPRISED AN UPPER WISHBONE COMBINED WITH A LOWER TRANSVERSE LINK. THIS FRONT SUSPENSION SYSTEM WAS ATTACHED TO A NEW BOX SECTION OF THE FRONT OF THE NEW CHASSIS. THE WEAKNESS INHERENT IN THE REAR SUSPENSION'S USE OF THE DRIVE SHAFTS TO PROVIDE STABILITY, THUS DEPENDING ON THE ENGINE AND TRANSAXLE MOUNTINGS FOR THE CAR'S HANDLING, WAS DONE AWAY WITH AND THE CHASSIS RE-DESIGN INCLUDED UPPER LINKS TO TAKE OVER THAT ROLE, AND PROVIDE MUCH BETTER SUPPORT WHILE RELIEVING THE LOAD ON THE DRIVE SHAFTS.

GIUGIARO WAS COMMISSIONED TO CREATE AN AERODYNAMIC BODY KIT FOR THE CAR WHICH INCLUDED A DEEPER WRAP-AROUND FRONT SPOILER AND SIDE SKIRTS WHICH INCORPORATED REAR AIR DUCTS, A REAR LIP SPOILER, A LOUVERED REAR HATCH, AND MORE PROMINENT BUMPERS. THIS WAS COMPLIMENTED BY 15" COMPOMOTIVE ALLOY WHEELS SHOD WITH WIDER 60 PROFILE TIRES. CAPPING IT OFF BEHIND THOSE WHEELS WERE IMPROVED BRAKES SO THAT THE TURBOCHARGED ESSEX COULD BE BROUGHT TO A STOP WITH THE GREATER EFFICIENCY NECESSARY GIVEN THE CAR'S INCREASED SPEED CAPABILITIES.

AS A LITTLE "PIECE DE RESISTANCE" A ROOF MOUNTED PANASONIC STEREO SYSTEM HELPED CREATE AN ATMOSPHERE RATHER LIKE THAT OF BEING IN AN AIRCRAFT COCKPIT, THE INTERIOR BEING FINISHED IN DEEP RED LEATHER. THE ESSEX REALLY WAS TRYING TO BE A BIT OF A BRITISH FERRARI OR MASERATI, AND IT HAD A LOT GOING FOR IT.

NOT EVERYONE WANTED THEIR ESPRIT TURBO PAINTED IN THE COLOURS OF THE ESSEX OVERSEAS PETROLEUM CORPORATION, PRETTY THOUGH IT WAS. SO IN ADDITION TO THE 45 ESSEX CARS LOTUS ALSO MADE TURBO ESPRIT CARS IN OTHER COLOURS TO SUIT THE CUSTOMER'S TASTES. THESE NON-ESSEX PAINTED CARS WERE OF IDENTICAL SPECIFICATION TO THE ESSEX CARS, JUST FINISHED IN DIFFERENT COLOUR SCHEMES: COLIN CHAPMAN WAS NOT GOING TO EMULATE HENRY FORD'S IDEA THAT THE CUSTOMER COULD HAVE THEIR MODEL T IN ANY COLOUR THEY WANTED SO LONG AS IT WAS THE ONE HENRY FORD HAD DECIDED ON, WHICH IN THE CASE OF THE MODEL T WAS BLACK.

SO IT WAS THAT AS PRODUCTION OF THE SERIES 2 CARS WAS BROUGHT TO AN END IN 1980 THAT LOTUS WERE BUILDING THREE VERSIONS OF THE ESPRIT;

THE DOMESTIC MARKET ESPRIT 2.2, THE EXPORT MARKET ESPRIT 2.2, AND THE TURBO ESPRIT EITHER AS AN ESPRIT TURBO OR ESPRIT TURBO ESSEX.

WITH THE SUCCESS OF THE LOTUS ESPRIT IN “THE SPY WHO LOVED ME” THE PRODUCERS OF THE JAMES BOND MOVIE “FOR YOUR EYES ONLY” DECIDED TO USE AN ESPRIT AGAIN. THIS ONE WOULD NOT BE CONVERTIBLE TO A SUBMARINE HOWEVER BUT IT DID BOAST WHAT MIGHT BE THE MOST PERFECT ANTI-THEFT DEVICE EVER INVENTED. IN THE MOVIE A VILLAIN ATTEMPTS TO BREAK A WINDOW OF THE CAR IN ORDER TO STEAL IT WHICH RESULTS IN THE CAR’S FOUR PACKS OF EXPLOSIVES GOING OFF THUS CAUSING HIM TO INSTANTLY LOSE INTEREST IN CAR THEFT. SO WHEN BOND AND HIS NEWLY ACQUIRED LADY FRIEND NEED TO ESCAPE IT IS IN HER CITROËN 2CV WHICH WAS OF COURSE NOT QUITE AS QUICK AS A TURBOCHARGED ESPRIT, BUT IT WAS FASTER THAN RUNNING AWAY.

### THE LOTUS ESPRIT SERIES 3 (1981-1987)

APRIL 1981 SAW THE NEW CHASSIS, BODY AND INTERIOR UPGRADES INTRODUCED IN THE ESSEX AND NON-ESSEX ESPRIT TURBO CARS BECOME THE STANDARD FOR BOTH TURBOCHARGED AND NATURALLY ASPIRATED CARS. THESE WERE THE SERIES 3 LOTUS ESPRIT. THE BODY WAS MODIFIED TO PROVIDE MORE HEAD ROOM AND LARGER FOOT WELL.

THE TURBO ESPRIT KEPT THE ESSEX STYLE BODY KIT AND WAS PROMINENTLY LABELED “TURBO ESPRIT” ON THE FRONT AND SIDES, THUS INFORMING POLICE TRAFFIC PATROL OFFICERS THAT THIS WAS A CAR ONE MIGHT BE ABLE TO BOOK FOR SPEEDING SHOULD ITS OWNER LACK RIGHT FOOT RESTRAINT.

THE STANDARD SERIES 3 LOTUS ESPRIT WAS FITTED WITH THE TYPE 912 VERSION OF THE 900 SERIES ENGINES. THIS WAS THE SAME 2,174 CC WET SUMP ENGINE THAT HAD BEEN FITTED TO THE SERIES 2.2 LOTUS ESPRIT BACK IN 1980. IN THE SERIES 3 ESPRIT IT DELIVERED 160 BHP @ 6500 RPM AND 160 LB/FT OF TORQUE @ 5000 RPM.

THE TURBO ESPRIT HAD THE SAME TYPE 910 ENGINE AS HAD BEEN FITTED TO THE ESSEX TURBO BUT CHANGED FROM DRY SUMP TO WET SUMP. OTHERWISE THE ENGINE PRODUCED THE SAME POWER AND TORQUE AS ITS DRY SUMP SIBLING.

BY THE TIME THE ESPRIT ARRIVED AT ITS SERIES 3 PERMUTATION IT WAS A PROPERLY SORTED HIGH PERFORMANCE CAR WITH IMPECCABLE HANDLING, QUALITY CONTROL THAT HAD GREATLY IMPROVED.

BUT EVEN AS HE SAW THE ESPRIT BEGIN TO FULFILL THE VISION HE'D HAD FOR IT FROM THE BEGINNING COLIN CHAPMAN PASSED AWAY UNEXPECTEDLY ON DECEMBER 16TH, 1982, LEAVING LOTUS IN A FINANCIALLY STRESSED CONDITION PRIMARILY BROUGHT ABOUT THROUGH THEIR INVOLVEMENT IN THE DEVELOPMENT OF THE DeLOREAN DMC12 AND THE COLLAPSE OF THAT PROJECT.

IT FELL TO MIKE KIMBERLEY TO STEP INTO THE LEADERSHIP OF THE COMPANY WITH OWNERSHIP DIVIDED BETWEEN THE COLIN CHAPMAN'S FAMILY, BRITISH CAR AUCTIONS, AND JAPANESE CAR MAKER TOYOTA. IN 1986 THIS CHANGED WHEN AMERICAN GENERAL MOTORS PURCHASED LOTUS AND WERE ABLE TO INJECT FINANCE SUCH THAT MORE AMBITIOUS DEVELOPMENT OF THE ESPRIT WOULD BE MADE POSSIBLE.

IN APRIL 1986 BEFORE THE GM CASH STARTED FLOWING THE LAST MODELS OF THE GIORGETTO GIUGIARO STYLED ESPRIT WAS DEVELOPED: THESE WERE THE "HC" HIGH COMPRESSION CARS. FOR THE NATURALLY ASPIRATED ESPRIT FITTED WITH THE TYPE 912 ENGINE THE COMPRESSION RATIO WAS RAISED TO 10.9:1 AND TO GO WITH THAT WERE NEW MAHLE PISTONS, NIKASIL COATED ALLOY CYLINDER LINERS, REVISED PORTS AND CAMSHAFTS, AND THE CAM COVERS WERE GIVEN SOME RED PAINT, PERHAPS TO INDICATE THAT THIS WAS A HOT LITTLE ENGINE. IN TERMS OF PERFORMANCE HOTNESS THIS ENGINE PRODUCED 180 HP @ 6500 PM WITH TORQUE OF 165 LB/FT @ 5000 RPM.

FOR THE ESPRIT TURBO THE HIGH COMPRESSION ENGINE WAS FITTED FROM 1985 WITH A COMPRESSION RATIO OF 8.0:1, MAHLE PISTONS, AND TURBO BOOST UPPED TO 9.4 PSI (.65 BAR). THE ENGINE BREATHED THROUGH LARGER DELL'ORTO DHLA 45M CARBURETTORS. THE EFFECT OF THIS WAS TO LIFT POWER TO 215 HP @ 6250 RPM WITH TORQUE INCREASED TO 220 LB/FT @ 4250 RPM.

FOR MARKETS WITH STRINGENT EMISSIONS CONTROLS, SUCH AS THE UNITED STATES, LOTUS FITTED THE HIGH COMPRESSION TURBO TYPE 910 ENGINE WITH BOSCH KE-JETRONIC FUEL INJECTION IN 1986. FOR THIS TYPE 910S ENGINE THE POWER REMAINED THE SAME AS THE CARBURETTOR ENGINE BUT WAS OBTAINED AT HIGHER REVS WHILE TORQUE DROPPED SLIGHTLY TO 202 LB/FT. THIS WAS DESIGNATED THE HCl ENGINE.

## THE LOTUS X180 (1987-1993)

BACK IN 1985 THE LOTUS ETNA CONCEPT CAR HAD PREMIERED THE IDEA OF A V8 LOTUS LIKE THE ESPRIT BUT AT THAT TIME THERE JUST WASN'T THE MONEY AVAILABLE TO TURN THE ETNA INTO A PRODUCTION CAR. AS LOTUS LOOKED AT THE NEED TO CREATE A NEW MODEL TO REPLACE THE ESPRIT WHO'S STYLING WAS LOOKING DECIDEDLY TOO 1970'S BY THAT STAGE.

TO SOME OF US THAT IDEA WAS PARADOXICAL BECAUSE THE 1970'S HAD BEEN A GOLDEN AGE FOR PERFORMANCE CARS. BUT FASHIONS COME AND GO AND IT SEEMED THE ESPRIT STYLING FASHION WAS BECOME A THING OF THE PAST.

WITH THE MONEY SUPPLY BEING SOMEWHAT CONSTRAINED THE JOB OF GIVING THE EXISTING ESPRIT A BIT OF A MAKE-OVER WAS ENTRUSTED TO ESTABLISHED DESIGNER PETER STEVENS (WHO WOULD LATER GO ON TO DESIGN THE GORGEOUS McLAREN F1). WHAT STEVENS DID TO THE "AGING" ESPRIT IN THIS NEW PHASE OF ITS LIFE WAS SUBTLE YET SUPERB.

ALTHOUGH IT SHOULD LOGICALLY HAVE BEEN REFERRED TO AS THE "SERIES 4" ESPRIT LOTUS CHOSE NOT TO CALL IT THAT AND SO ENTHUSIASTS TYPICALLY REFER TO IT BY ITS PROJECT NAME "X180". UNDERNEATH THE NEW MORE ROUNDED BODY STYLE THE X180 WAS BY AND LARGE MECHANICALLY THE SAME AS THE SERIES 3. WHAT WAS NEW IN THE TECHNOLOGY WAS THE METHOD OF PRODUCING THE BODY.

LOTUS PATENTED A FIBREGLASS MANUFACTURING PROCESS WHICH THEY CALLED VACUUM ASSISTED RESIN INJECTION (VARI). IN THIS PROCESS VACUUM IS USED TO ASSIST THE RESIN FLOW INTO THE MOLD. LOTUS USED THIS PROCESS TO INCORPORATE KEVLAR INTO THE BODY ROOF AND SIDES TO SIGNIFICANTLY IMPROVE ROLL-OVER PROTECTION, WITH THE ADDED ADVANTAGE OF MAKING THE OVERALL BODY SHELL 22% MORE RIGID.

THE MECHANICAL CHANGES TO THE X180 CARS BEGAN IN 1988 WHEN FIRST THE EUROPEAN MARKET, AND THEN THE NORTH AMERICAN MARKET CARS WERE CHANGED OVER FROM THE CITROËN C35 FIVE SPEED MANUAL TRANSAXLE TO A RENAULT UN-1. THIS CHANGE NECESSITATED THAT THE REAR DISC BRAKES BE MOVED FROM THE INBOARD POSITION TO OUTBOARD, INCREASING UNSPRUNG WEIGHT: SO THIS WAS NOT NECESSARILY AN IMPROVEMENT.

FURTHER CHANGES IN THE MECHANICS OF THE CAR WERE UNDERTAKEN IN 1989 WHEN A NEW MPFI (MULTI POINT FUEL INJECTION) SYSTEM BY LOTUS/DELCO WAS INSTALLED. TO HELP THE ENGINE COPE WITH THE

ADDITIONAL POWER OUTPUT, AND THEREFORE HEAT OUTPUT, OF THIS NEW ENGINE VERSION LOTUS INSTALLED A “CHARGE COOLER” WHICH WAS AN AIR-WATER-AIR TURBOCHARGER INTERCOOLER.

THIS NEW ENGINE VERSION WAS DESIGNATED THE 910S AND IT DELIVERED A HEALTHY 264 HP (268 PS) WITH 280 HP (284 PS) ON OVER-BOOST. THIS BROUGHT THE STANDING TO 60 MPH TIME DOWN TO A CRISP 4.7 SECONDS MAKING THE ESPRIT TURBO’S ACCELERATION FEEL SOMETHING LIKE I IMAGINE THE MILLENNIUM FALCON’S SHIFT INTO HYPERSPACE TO BE. TOP SPEED WAS RAISED TO A WHITE-KNUCKLE 160 MPH (257 KM/HR).

LOTUS CREATED THE LOTUS ESPRIT TURBO SE MODEL FITTED WITH THIS TYPE 910S ENGINE, THE “SE” STANDING FOR “SPECIAL EQUIPMENT” BUT WE MIGHT THINK OF IT AS THE “SUPERCAR ELIMINATOR” VERSION GIVEN ITS SUB FIVE SECOND STANDING TO 60 MPH TIME AND 160 MPH TOP SPEED COMBINED WITH LOTUS SUSPENSION AND EXOTIC LOOKS. THIS CAR WAS GIVEN A DIFFERENT FRONT SPOILER WITH FIVE AIR DUCTS, SIDE SKIRTS, AND A REAR “WING” SPOILER ALONG WITH DOOR MIRRORS BORROWED FROM THE CITROËN CX.

DURING THIS PERIOD UP TO 1990 LOTUS ALSO OFFERED A MORE AFFORDABLE VERSION OF THE ESPRIT TURBO FITTED WITH A LESS POWERFUL 228 HP VERSION OF THE 910S ENGINE AND WITH LESS LUXURIOUS FITTINGS. THIS CAR WAS CALLED THE ESPRIT S WITH THE “S” STANDING FOR “SPORTS”.

THIS CAR WAS ALSO OFFERED WITH A SLIGHTLY LESS POWERFUL 215 HP VERSION OF THE ENGINE. THESE CARS SHOULD HAVE PROVIDED SLIGHTLY BETTER FUEL CONSUMPTION AND SATISFACTORY PERFORMANCE FOR MOST CUSTOMERS. MANY PEOPLE ARE PERFECTLY CONTENT WITH “DR. JEKYLL” PERFORMANCE AND DO NOT ASPIRE TO INDULGING IN ANY “MR. HYDE” TENDENCIES, EVEN IN A LOTUS.

FOR THE ITALIAN MARKET IN 1991 LOTUS INTRODUCED A VERSION OF THE ESPRIT WITH A SMALLER TYPE 920 1,994 CC VERSION OF THE TURBOCHARGED ENGINE TO FIT UNDER THE ITALIAN TWO LITRE TAX THRESHOLD. DESPITE HAVING A SMALLER CAPACITY THE HOT LITTLE FOUR CYLINDER CHURNED OUT AN ENTIRELY SUFFICIENT 240 HP (243 PS) @ 6,250 RPM MAKING IT VERY QUICK AND ECONOMICAL FOR CUSTOMERS ON A BUDGET.

FOR THOSE LOOKING FOR EVEN MORE POWER AND SPEED FROM THE FOUR CYLINDER ENGINE TWENTY LOTUS ESPRIT TURBO X180R WERE MADE. THESE CARS WERE BASED ON THE TYPE 105 RACING CARS AND FITTED WITH A HIGH PERFORMANCE TYPE 910S ENGINE WHICH FEATURED LARGER FUEL INJECTORS



AND A REVISED ENGINE MANAGEMENT SYSTEM WHICH BROUGHT THE POWER UP TO 286 HP (290 PS).

MORE WAS TO COME HOWEVER WHEN THE LOTUS ESPRIT SPORT 300 WAS CREATED. THIS CAR WAS TREATED TO A GARRET T4 TURBOCHARGER WITH AN UP-RATED CHARGE COOLER AND LARGER INLET VALVES ALONG WITH THE NECESSARY ENGINE MANAGEMENT SYSTEM REVISIONS. THIS ENGINE DELIVERED A WHOPPING 302 HP (306 PS) @ 6,400 RPM, SO THE “300” IN THE TIME WAS 4.7 SECONDS AND TOP SPEED CLAIMED TO BE 168 MPH. SOURCES VARY ON JUST HOW MANY OF THESE LITTLE “MR. HYDEMOBILES” WERE MADE, ESTIMATES VARY BETWEEN 50-64, AND SO THEY ARE QUITE RARE AND THAT RARITY MAKES THEM SOME OF THE MOST DESIRABLE OF THE LOTUS ESPRITS ON THE COLLECTOR MARKET. NAME WAS WELL DESERVED. TORQUE WAS 287 LB/FT @ 4,400 RPM, THE STANDING TO 60 MPH

### THE LOTUS ESPRIT SERIES 4 (1993-2004)

IT WOULD BE THE SERIES 4 THAT WOULD FINALLY FULFILL THE AMBITIONS HELD FOR THE ESPRIT FROM ITS VERY BEGINNINGS. THE FUEL CRISIS AND LOTUS’ TURBULENT FINANCES HAD KEPT IT FROM HAPPENING IN THE PAST, BUT THE 1990’S WERE A NEW ERA AND RATHER A LOT OF INEXPENSIVE POWERFUL AND QUICK DOUBLE VALVE ENGINE CARs APPEARED IN THE MARKETPLACE, MAKING THE LOTUS FOUR CYLINDER SEEM A TAD ORDINARY. SO THE STAGE WAS SET FOR THE CREATION OF A LOTUS ESPRIT V8 AND GREAT WOULD BE THE REJOICING OF MR. HYDES ALL OVER THE WORLD.

THE STYLING OF THE ESPRIT WAS FACE-LIFTED BY JULIAN THOMSON (WHO WOULD GO ON TO BECOME THE CREATIVE DESIGN DIRECTOR OF JAGUAR RANGE ROVER) BUT UNDER THE FIBREGLASS THIS WAS EVERY BIT AN X180. THE FIRST OF THE SERIES 4 CARs MATCHED THE PREVIOUS MODEL’S “SPECIAL EQUIPMENT” SPECIFICATION BEING FITTED WITH A TYPE 910S TURBOCHARGED ENGINE CRANKING OUT THE SAME 264 HP (268 PS). THE MAIN MECHANICAL DIFFERENCE BETWEEN THE FIRST OF THE SERIES 4 CARs AND ITS PREDECESSORS WAS ITS BEING FITTED WITH POWER STEERING.

THE FOLLOWING YEAR, 1994, THE S4 SPORT MADE ITS DEBUT. THIS MODEL STILL FEATURED A TYPE 900 DOHC FOUR CYLINDER, BUT IT WAS AN UPDATED VERSION OF THE 2,174 CC 910S AS USED IN THE ESPRIT SPORT 300 AND IT TURNED OUT 301 HP (305 PS) WITH 298 LB/FT OF TORQUE GIVING THE SAME 168 MPH (270 KM/HR) TOP SPEED AND STANDING TO 60 MPH TIME OF 4.6 SECONDS.

ALSO IN KEEPING WITH THE PREVIOUS MODEL A 1,994 CC TYPE 920 ENGINED MODEL LIKE THE PREVIOUS ONE FOR THE ITALIAN MARKET WAS CREATED AND NAMED THE ESPRIT GT3.

THE BIG CHANGE CAME IN 1996 WHEN LOTUS ANNOUNCED THEY WERE FINALLY GOING TO MAKE A TYPE 900 SERIES ENGINE THAT WAS A V8 AND SHOEHORN IT INTO THE DIMINUTIVE ESPRIT.

THE CAR WAS DUBBED THE ESPRIT V8, AND THE NAME DIDN'T NEED TO BE ANY MORE IMAGINATIVE THAN THAT. THE TYPE 918 V8 HAD A CAPACITY OF 3,506 CC (213.9 CU. IN.) AND BEING OF THE SAME 900 SERIES AS THE FOUR CYLINDER ENGINES IT FEATURED DOUBLE OVER HEAD CAMSHAFTS WITH FOUR VALVES PER CYLINDER.

THIS WAS AN ENGINE THAT HAD BEEN DESIGNED TO PRODUCE UP TO 500 HP BUT HAD LOTUS INSTALLED IT IN THAT FORM IN THE ESPRIT WE CAN EXPECT THAT IT WOULD DEPOSIT BITS OF SHATTERED TRANSAXLE IN AN OILY MESS ON THE BITUMEN THE FIRST TIME THE NEW OWNER DECIDED TO DRAG OFF A FERRARI. SO THE V8 WAS TUNED TO PRODUCE A MERE 350 HP (350 PS) AND THE RENAULT TRANSAXLE WAS MODIFIED WITH THE FITTING OF A NEW THICKER INPUT SHAFT TO ENABLE THE GEARBOX TO COPE WITH THE EXTRA HORSES.

THIS V8 ENGINE WAS FITTED WITH TWIN GARRETT AiRESEARCH T25/60 TURBOCHARGERS WHICH DID NOT NEED A CHARGE COOLER. FROM 1998 THIS ENGINE WAS INSTALLED IN TWO ESPRIT MODELS, THE SPECIAL EQUIPMENT "SE" WHICH WAS THE LUXURY SPORTS CAR, AND THE GT WHICH WAS THE MORE SPARTAN SPORTS CAR FOR NO EXTRAS ENTHUSIASTS.

THE PERFORMANCE OF THE V8 ESPRIT WAS BETTER THAN ITS FOUR CYLINDER PREDECESSORS BUT THE INCREASE FROM 300 HP TO 350 HP KEPT THAT INCREASE FROM BEING TOO BIG. STANDING TO 60 MPH NOW TOOK 4.4 SECONDS AND THE TOP SPEED WAS 175 MPH (282 KM/HR). BUT OF COURSE IT DID WHAT IT DID WHILE MAKING THAT DELIGHTFUL V8 ENGINE NOTE THAT IS PREFERABLE TO BEETHOVEN TO AN ENTHUSIAST'S EARS.

THE 1999 REVISION OF THIS CAR WAS THE LOTUS ESPRIT SPORT 350 WHICH WAS FITTED WITH A LARGE CARBON FIBER REAR WING ON ALUMINUM SUPPORTS AND HAD AP RACING BRAKES AND OTHER CHASSIS AND SUSPENSION TWEAKS. THIS MODEL'S STANDING TO 60 MPH WAS MUCH THE SAME AS ITS OTHER V8 SIBLINGS BEING 4.3 SECONDS. SOURCES SAY THAT ABOUT FIFTY OF THESE WERE MADE ALTHOUGH WE SHOULD REMEMBER THAT LOTUS PRODUCTION

STATISTICS HAVE ACQUIRED A REPUTATION FOR BEING A BIT LESS THAN EXACT OVER THE YEARS.

### A GRACEFUL END

THE LOTUS ESPRIT RECEIVED ITS FINAL FACELIFT AT THE HANDS OF RUSSEL CARR IN 2002 ALTHOUGH THE MECHANICALS OF THE CAR REMAINED UNCHANGED. PRODUCTION ENDED IN FEBRUARY 2004 AND OVER THAT 28 YEAR PRODUCTION RUN JUST 10,675 CARS WERE BUILT.

HAVING STARRED IN A COUPLE OF JAMES BOND MOVIES AND MADE A GUEST APPEARANCE IN “PRETTY WOMAN” THE WORLD WAS MOVING ON FROM THE IMAGINATIVE ELEGANCE OF THE CAR’S OF THE 1960’S AND 1970’S AND THE ESPRIT HAD ENDURED BRILLIANTLY AS “THE CLASSIC CAR YOU CAN STILL BUY NEW”. A BIT LIKE THE TIMELESS MORGAN EXCEPT WITH A SPACE AGE LOOK JUST A TAD REMINISCENT OF “BACK TO THE FUTURE”.

THE LOTUS ESPRIT WAS THE PRODUCT OF THE ERA THAT GAVE US THE CONCORDE SUPERSONIC AIRLINER, THE U2 SPY PLANE AND THE ENGLISH ELECTRIC LIGHTNING WHICH WAS THE ONLY FIGHTER IN THE WORLD THAT COULD INTERCEPT THE U2, THE ERA IN WHICH MANKIND FIRST SET FOOT ON THE MOON, AND THE ERA THAT SAW THE FALL OF THE SOVIET UNION AND THE BRINGING DOWN OF THE BERLIN WALL. IT WAS A CAR WHO’S HISTORY FROM DESIGN AND PRODUCTION RUN SPANNED SOME OF THE MOST MEMORABLE EVENTS OF THE TWENTIETH CENTURY.

COLIN CHAPMAN DID NOT LIVE TO SEE THE ESPRIT REACH ITS FINAL V8 POWERED MAGNIFICENCE BUT THE ESPRIT CERTAINLY FULFILLED THE VISION HE HAD FOR IT: THAT IT WOULD TAKE LOTUS FROM “KIT CAR” BUILDER TO EXOTIC SPORTS CAR BUILDER. THROUGH THE THICK AND THIN OF STRAINED FINANCES AND MULTIPLE CHANGES OF OWNERSHIP FOR LOTUS THE ESPRIT WAS A CAR THAT WITHOUT DOUBT SUCCEEDED IN HELPING LOTUS TO REACH THE PORSCHE CLASS, AND EVEN THE FERRARI CLASS

**‘BRING OUT YOUR CLASSICS’.**

DURING OUR FORMAL MEETING IN JULY, ALAN OFFERED TO THE MEMBERS A COMMITTEE PROPOSAL THAT WE MEET AS A GROUP, AS A CLUB, MORE THAN THE USUAL ONCE A MONTH. THE PROPOSAL IS AS FOLLOWS:-

MIDWAY BETWEEN THE FORMAL MEETINGS (SOME TWO WEEKS ON) WE HAVE A ‘SOCIAL’ GATHERING FOR A LATE BREAKFAST, EARLY LUNCH AND A POSSIBLE SHORT RUN OUT IN OUR ‘CLASSIC’ CARS. UNFORTUNATELY DUE TO UNFORESEEN CIRCUMSTANCES ALAN WAS UNABLE TO PROMOTE THIS PROPOSAL FURTHER.

REMEMBER WE HAVE NUMEROUS RUNS ALREADY PLANNED IN OUR CLUB BOOK. ALL WE NEED IS FOR MEMBERS TO PICK UP THE MANTLE AND ORGANISE. WE HAVE ANOTHER 6 MONTHS REMAINING IN THE CALENDAR YEAR. LET’S SEE IF WE CAN FILL EACH MONTH WITH AT LEAST ONE CLUB OUTING IN OUR CARS.

ALAN HAS SUCCESSFULLY IDENTIFIED ANOTHER LOCATION WITH A SUITABLE SIZED ROOM, SO WE CAN MEET, DINE AND CHAT IN PEACE AND QUIET. 4/5 COURSE MENU DEL DIA FOR 12 EUROS. ALAN HAS PUT A LOT OF WORK IN PREPARING THIS PROPOSAL, LET’S ALL GET BEHIND HIM AND IT, TO GIVE ‘OUR’ CLUB THE BOOST IT DESERVES.

YOUR CAR IS INSURED, ITV’D (ONLY IF REQUIRED OF COURSE), NICE AND SHINY, READY TO GO - SO BRING IT OUT FOR SPAIN TO SEE. THIS ITEM SHOULD BE DISCUSSED AT JULY’S FIRST THURSDAYS FORMAL MEETING ON 7<sup>TH</sup> JULY 2022 AT 3:00PM.

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