INTRODUCTION

The Advanced Lightweight Coupe is not just a show car. It is a company personified. Like the iconic Jaguar XK120s and E-types that preceded it, the Jaguar Advanced Lightweight Coupe heralds a new generation of stunning sports coupes and saloons; cars that will remain true to Jaguar's illustrious past but more importantly will see the company leaping confidently forward into the future.

Created by Jaguar's advanced design team under the watchful eye of renowned Design Director Ian Callum, this high-performance show car is indicative of more than just the company's evolving design direction – the Advanced Lightweight Coupe represents the future of Jaguar, as an ambassador for a marque whose reputation was founded on beautiful and dynamic sports cars.

The Advanced Lightweight Coupe is a physical expression of Ian Callum's direction for the next generation of Jaguar cars which, like this 2+2 show car, will have purposeful and seductive exteriors that bring Jaguar design firmly into the 21st century. And with the lightweight aluminium body architecture technology that was introduced with the new XJ saloon, in production form the Advanced Lightweight Coupe would be as dynamic and agile as it is desirable.

DESIGN PHILOSOPHY

Design Director Ian Callum's vision for the next generation of Jaguars is clearly expressed in the Advanced Lightweight Coupe show car. Its exterior lines are beautiful yet powerful – a confident blend of curves highlighted by muscular detail, resulting in a car that could only be a Jaguar.

"I firmly believe that Jaguars should appear powerful as well as elegant," Callum says. "Look back at the great cars from our past and you will see that they were as muscular and taut as they were subtle and curvaceous. That's what confident Jaguar design is all about."

This belief stems from Callum's first sighting of the original Jaguar XJ6 saloon in the 1960s; an event that he describes as "the moment the penny dropped" when it came to his understanding of car design.

"As soon as I saw the XJ6 I realised what creating a beautiful car was all about," he says. "It was a perfect example of what designers call proportion and stance, which simply means how a car sits on the road. The XJ6 was so structured and confident it was like nothing else – its wheels appeared huge, almost out of proportion to its body, and they were visually right at each corner of the car. It really looked as if it was hunkered down on the road."

Those principles have remained with Callum ever since and played a pivotal role in the design of his previous Jaguar show cars, the R-Coupe and R-D6. Now the Advanced Lightweight Coupe continues that theme, but in an exhilarating sports car that has the visual agility to match its performance potential. Echoing the lessons learnt from the XJ6, the show car's distinctive stance and bold profile give it genuine visual dynamism – an effect that Callum describes as the car appearing to change shape in front of you.

The Advanced Lightweight Coupe's distinctive tapering shape at both the front and rear means there appears to be no overhang beyond the wheels, giving the car a very exciting presence and a real sense of power and potency. When that is combined with beautiful surfaces that run across the entire bodywork you have the key ingredients for a sports car that gives a concise and clear statement about the look of future Jaguar models.

EXTERIOR DESIGN

Creating a sports show car that conveys the remarkable heritage of Jaguar with integrity while projecting the marque forward into the future was not a simple challenge. Ian Callum and his design team passionately debated how the Advanced Lightweight Coupe would strike that balance before

settling on this stunning design. Every curve of the bodywork and rise and fall of each surface is deliberate, concise and calculated. There is no design for design's sake on the car, no extraneous sculpture or unnecessary surfacing; a point that Callum believes will separate future Jaguars from other cars.

"Nothing is superfluous on this car," he stresses. "If you point at any part of the bodywork it is there for a specific reason or because it simply can't go any further in. We have produced a skin that is drawn taut across the chassis; one that covers the bare essentials underneath and nothing else – that's how a sports car body should be formed."

The car rides on unique 21-inch alloy wheels with custom-made Pirelli tyres, which sit below wide, flowing haunches. The rear haunch is of particular note, its prominent shoulder helping to exaggerate the size of the wheels relative to the body. With the visual mass of the cabin also drawn back towards the rear haunch the car appears to be moving forward even when it is standing still.

The grille on the show car is also of prime importance as an indicator for the look of future Jaguars. As a pure geometrical form it draws its inspiration from classic Jaguars of the past like the E-type. Additionally, features such as the polished aluminium gills reinforce the engineering integrity that is present in all Jaguars.

"When Jaguar's revered aerodynamicist Malcolm Sayer created the E-type he didn't sculpt that car, instead he devised that remarkable shape from pure geometry – it is a series of ellipses," says Giles Taylor, Jaguar Senior Design Manager. "By designing the E-type that way he gave it a mechanical purity that we wanted to reflect in this car's face. That meant the grille had to be perfectly symmetrical in both a horizontal and vertical plane, and by doing that we have made a focal point from which every line can stream backwards."

Rising from the radiator grille, a prominent bulge in the hood runs to the base of the windscreen and invokes a notion of real power beneath the skin. From there the cabin flows back in a clean, spontaneous line to the car's rear end which tapers sharply to a focal point of two, centrally-mounted tailpipes.

The headlights are a departure from the simple elliptical lenses on current Jaguars. Instead a more contemporary, angular design gives the Advanced Lightweight Coupe an edgy look and helps to draw your eye around the corner of the car to the new chrome gills that sit behind the front wheels. These would aid engine cooling and also improve aerodynamic flow to the rear.

INTERIOR DESIGN

In keeping with the understated and contemporary feel of Jaguar's previous recent show cars, this car's interior is restrained yet undeniably luxurious and welcoming. The task for the interior design team was to produce a cabin that wasn't over-powering or fussy.

Laid out in a classic 2+2 sports car format, the car's cabin is more spacious and better packaged than previous Jaguar coupes, with impressive headroom and multi-directional sports front seats and individual bucket seats in the rear. The interior is trimmed throughout in a tan leather which has visible stitching on the hides that line the doors and the dashboard. Aluminium inserts are spread throughout the car to act as jewellery that accentuates the contemporary feel of the cabin. Its focal point is the central dashboard console that houses an advanced Alpine telematics screen which provides userfeedback in the form of a 'pulse' when you touch the on-screen buttons.

The instrument binnacle has been designed to relate to the shape of the steering wheel and houses a high-resolution screen between its dials that provides the driver with a secondary source of infotainment and satellite-navigation information. Behind the steering wheel sit the gearshift levers that

operate an automatic paddleshift transmission – the first time this technology has appeared on a Jaguar. The paddles are mounted to the wheel itself, rather than the steering column, to ensure that whatever angle the wheel is held at, the driver doesn't have to take his concentration away from the road. Just the kind of touch you'd expect in what is, first and foremost, a driver's car.

ENGINEERING

What if we let our minds wander for a moment? What if this show car was a road-going reality? Well, the Jaguar Advanced Lightweight Coupe would be the most potent 2+2 the company has ever created. Thanks to a technologically advanced aluminium architecture – which is around 40 percent lighter and 60 percent stiffer than a standard steel body – and renowned V8 powertrain assembly, the car would be capable of compelling performance, reaching 60mph from standstill in less than five seconds and breaking the 180mph mark at maximum velocity. Yet it is not simply straightline speed that would make the car so notable. It would also demonstrate an agility that reaffirms Jaguar's commitment to producing the best-handling sports coupes and saloons in the world.

The engineering excellence that abounds at Jaguar is reflected in this car's impressive technical specification. An aluminium chassis similar to that used in the new XJ saloon is constructed using many of the same advanced technologies. It is not just lightweight but also incredibly strong and stiff, which is of immense benefit to a car's handling and ride as well as fuel economy and exhaust emissions. The lighter body also means responsiveness is improved whether you are talking in terms of steering feel, traction or power delivery. Jaguar's V8 engines are admired as much for their impressive low-down torque as their peak power outputs and with a lighter aluminium body to propel, that torque is even more noticeable.

"The next generation of Jaguars will be remarkable drivers' cars," says Phil Hodgkinson, Director, Product Engineering. "Whether you want to relax behind the wheel on a long journey or head out simply for the pleasure of driving there will be no need to compromise. Our cars will be the perfect blend of performance and luxury."

Jaguar's array of intuitive technologies – features that make life easier for the driver, not more complicated – also sit easily with the Advanced Lightweight Coupe ethos. Dynamic aids such as Computer Active Technology Suspension work in conjunction with safety systems such as Adaptive Cruise Control and the Active Restraint Technology System – all features that Jaguar already has on its production cars.

And like Jaguar's XJ and S-TYPE saloons, this car has an adjustable pedal box to ensure that drivers are seated in optimum comfort. As with all Jaguar's technologies these systems operate discreetly, without intruding on the unparalleled Jaguar driving experience – they are there when you need them but never impose themselves.

CONCLUSION

In summary, the Advanced Lightweight Coupe is a beautiful, fast Jaguar that is true to the brand's past and heralds an exciting future. It combines the talents of Ian Callum and his design team with brilliant engineering expertise – a combination that will ensure every upcoming Jaguar model delivers both dynamically and visually.

"This car is as clear a statement on the strength and confidence of the company as we could possibly make," concludes Joe Greenwell, Chairman and CEO, Jaguar Cars. "Its design is assertive and pure – a perfect symbol for our 21st century cars – and beneath that beautiful body lies the heart and soul of a true Jaguar sports car."

"The Advanced Lightweight Coupe marks a return to the core values of Jaguar," says Bibiana Boerio, Managing Director, Jaguar Cars. "There is a determination in every department of this company to produce a new range of cars that provides the total Jaguar experience and this car is the first evidence of that determination.

"Aspirational and exclusive, with contemporary design and stunning performance, the Advanced Lightweight Coupe is conceived as a special car for special people. It represents the unique position that Jaguar holds in the market place – and even more it tells the world that we are set to make another bold leap forward. For Jaguar, the future begins now."