



VIVE LA DIFFERENCE!

Far from being another very familiar Cobra replica kit, the GD 427 has some very distinct differences from its immediate competitors as well as a very forward looking philosophy. Ian Hyne has spent some time with the creators, some builders, the club and the car.

Nor is the GD 427 merely different for the sake of it. The differences between this car and its rivals are all significant and represent varying degrees of advantage to the customer depending on his point of view.

Externally, you look at this machine and it generates the same admiration for its timeless visual clout and totally undiminished sheer driver appeal but at the same time, you detect a couple of subtle variations between the GD and its

contemporaries. The reason is that the GD differs slightly in the arrangement of its exaggerated curves. While the usual choice is seen as a simple toss up between a comparatively sophisticated 289 and its brutally aggressive 427 counterpart,



Euro chassis front suspension uses 1" and 3/4" CDS round tube wishbones allied to cast aluminium uprights with Ford Scorpio hubs and brakes. The detachable front frame carries the radiator.



The rear suspension uses 1" and 3/4" CDS round tube wishbones with cast aluminium uprights. Differential including LSD option, driveshafts, hubs and brakes are Ford Scorpio.

the GD seeks to deliver the best of both worlds in being a hybrid representing the late sixties Mk 3 coil sprung model, of which 27 were made. The wings are a bit beefier than the 289's narrow cut off jobs without resorting to the slightly OTT tactics of the full blown 427. Although side pipes are an option, the underslung system further reduces the automotive tearaway look but loses nothing to its statement of pure purpose. But that's merely cosmetic and one man's meat etc.....

However, far more significant is the physical design of the machine. The chassis is a backbone spaceframe unit that has advantages over its rivals in being lighter purely due to using less steel. You may argue that this practice leaves the occupants open to a risk of injury from a side impact and you would be right were it not for the design properties of the body. This is of semi monocoque construction and is moulded in two parts. The floorpan is later bonded to the outer skin along with all internal panels resulting in a double skinned bodyshell which is generally stiffer than the single skin bodies of the opposition. The argument is put beyond doubt when the floors and side panels are foam injected resulting in a light, yet formidably strong structure that merely drops over the fully finished, rolling chassis and is bolted to it via rubber isolation bushes. In addition, this allows the body to be simply and quickly removed from the chassis. Not that it's something you would want to do every weekend but it does allow current customers to take advantage of the new Euro chassis.

The current car is based on Jaguar front and rear suspension

New for 1993 is the GD Euro chassis which replaces the front and rear suspension with components available throughout Europe. Additionally it is designed to accept the Rover 3.9 V8 and American Ford 302 V8 both fitted with fuel injection and full emission equipment.

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The hood fits very well and provides a very large rear window for good visibility. current sidescreens are simple perspex cut to shape. Later in 1993 the company will release their special hard top for year round Cobra drivers.

assemblies from the Series 2 and 3 XJ6. These comprise the double wishbone front end modified to accept a more compact coil spring damper unit and the independent rear assembly. A further benefit of the GD car is that the rear suspension is used as a full width assembly thus removing the need to spend a few hundred quid on having it shortened.

Jaguar mechanics are in keeping with the trend in the UK but elsewhere, Jaguar donor cars are not as plentiful as they are here and Gardner Douglas are looking to increase their sales to Europe. To this end they have produced the new chassis which will be available alongside the current jaguar based frame which will continue to be available. Virtually identical to its predecessor, the differences lie in the component choice that swaps allegiance from Jaguar to Ford. In

place of the Jaguar front end, the new chassis offers double, unequal length, tig welded round tube wishbones connected to cast aluminium uprights by a Cortina bottom ball joint and a Transit drop arm top. Thereafter the hubs, ventilated discs and calipers are courtesy of the Ford Scorpio. Anti roll bars will be carried front and rear to allow a softer spring giving improved ride. At the back, the Jaguar IRS system is replaced with another double round tube wishbone assembly with cast aluminium uprights while Ford once again supply their Cosworth Scorpio differential including the option of a Powerlock limited slip variation, driveshafts, solid discs and calipers. As well as being some 200 lbs lighter than the Jaguar based version, the new suspension assemblies also offer significant reductions in unsprung weight with consequent benefits to ride and



Using standard Jaguar offset wheels allows the GD427 to employ 72 spoke Jaguar wires which are in keeping with its reflection of the late 60s Mk 3 coil sprung Cobra.

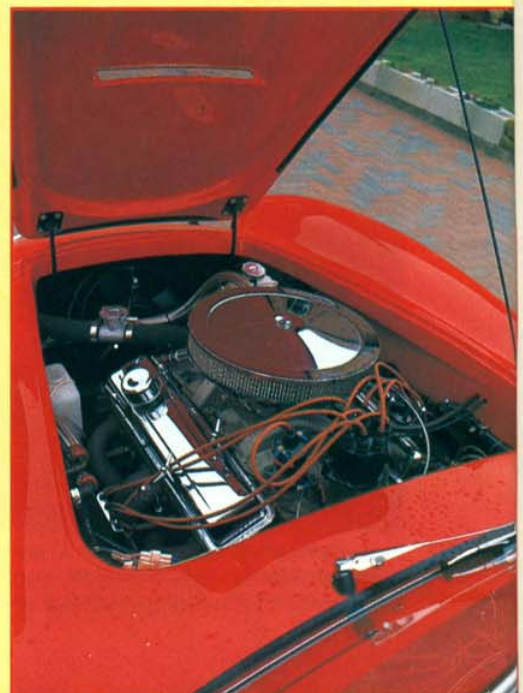
handling.

GD have also forsaken the seemingly automatic choice of Spax adjustable dampers for the similar product from Avo, the advantage being that Avo units can be rebuilt or at least exchanged for new ones at a lesser cost. Naturally, both front and rear assemblies are fully adjustable which, at the back, is a further benefit over Jaguar componentry.

Whilst appealing to European customers as well as UK customers



The GD interior is very comfortable and well equipped. The doors feature burst proof locks with an inner handle only. The outer skin is uninterrupted.



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who like the new mechanical assemblies and can appreciate the advantages over the traditional but dated Jaguar hardware, the secondary advantages of the new componentry is that it eliminates the need for any donor car as well as the fact that all components are available brand new. Looking further through the specification sheet, the rack and pinion is from the Mk 2 Escort but these too are available as new Ford components with various ratios which will be welcome news to the entire industry, many of whom employ this excellent performer.

The new aspects are obviously aimed at taking advantage of the low volume type approval scheme at some time in the future and to this end, the chassis has been further designed with a view to accepting the Rover 3.9 and American 302 cu in EFI motors both fitted with fuel injection and full emission equipment. For those who just prefer the Euro chassis to the Jaguar based version, kits are available to accept the full engine range up to the Chevy 350 HO unit with its 345 bhp.

Taking the new aspects further, the design of the GD 427 allows the company to offer their car in a unique fashion to customers to whom building a car is purely incidental to driving it. They will offer a fully finished rolling chassis using all new parts along with a fully finished body, completely trimmed, wired and painted ready to be mated to the chassis. The work involved will occupy all of one Sunday morning after which all that remains is the paperwork.

However, to date the company have not completed a Euro chassis demonstrator and their own original car is definitely showing the effects of a hard life that has involved quite a few competitive events as well as a few mishaps. Thus it is hardly in 'new pin' condition but Paul Sturgess' car most definitely is.

Paul is a director of a company making specialised water pumps. In fact his company is the leading British manufacturer of such high tech apparatus thus he works hard. So for a diversion, he decided to build himself a car.

Like many men who turn to the kit industry for similar reasons, Paul had always been aware of the Cobra as well as an enthusiast for its shape although he is not really a Cobra nut. However, he liked the car's style as well as its reasonably practical aspects so he settled on a Cobra replica.

With that decision taken, he started his homework at the end of which he decided he wanted a spaceframe chassis and Chevy 350 power. He also wanted to fit wire wheels and even had the donor



These special aircraft fixings allow brake and clutch lines to be disconnected and reconnected without the need for bleeding and contribute greatly to the body's ability to be quickly removed.

Jaguar components stripped, overhauled and prepared for fitting so, even though he did visit other manufacturers and closely examined their demonstrators, he found everything he was looking for in the GD 427.

He had never even thought about building a car before, let alone done it but he was immediately impressed with the attitude, advice and assistance offered by Andy Burrows at Gardner Douglas and was further impressed with the company's two assembly guide videos which greatly helped him in assessing the task as well as executing it.

For the Jaguar components, he didn't bother with a donor car but bought everything he needed direct from John Gordon at Jaguar Spares (Tel. 0254 398476.) whom he found an excellent company to deal with. He also rebuilt his engine which is in fairly standard tune and delivers around 300 bhp @ 5000 rpm with a similar amount of torque only slightly lower down the rev range. It's not the most powerful motor in the world but not having driven anything more muscular than about 100 bhp before, it'll do Paul until he really gets the feel of the thing. Drive is currently via a 4 speed Saginaw box which combines with the Jaguar's 3.07:1 final drive ratio to give 24 mph per 1000 rpm in top. It's not ideal but even swapping to the 2.88:1 ratio the improvement is a scant 4%. He is currently thinking of a five speed box as Andy Burrows' demonstrator cruises along at 35 mph per 1000 rpm and delivers significantly improved fuel economy.

All in, Paul's car has cost him £16000 which includes £1000 for the knock on wires and adaptors plus £2000 he spent on building the

engine. That aside it took about 300 hours spread over seven months to build taking delivery in February 1992 and receiving the MOT in September.

Looking over it, it's beautifully finished and the fact that a novice builder can turn out a car of this quality has to say a great deal about the kit.

The body finish is in gel coat but from a distance you'd never know. GD use cadmium based pigments so the colour will last but should it fade, it can always be painted.

Under the bonnet the engine is a riot of chrome that contrasts superbly with the lustrous red bodywork and represents the stirring sight you expect when the hood is lifted.

Notable aspects of the car concern the roll over bar which is braced to the chassis in a way that doesn't interfere with the hood or the comfort of passengers. GD offer a single or double bar and the only advice Paul has to future builders is to inject the tube with foam. He hasn't got round to this yet so every road mile is accompanied by a ringing caused by resonance from the mechanics being transmitted up the tube.

As far as use goes, Paul has used the car for pure pleasure motoring as well as for trips to work thus he did want full weather protection. The usual soft side screens are a bit of a pain and don't look too clever either. The GD solution is to fit two shaped perspex panels which are hinged on the screen pillars on the same brackets that normally carry the wind wings. These seal on the top of the doors with a simple rubber extrusion and lock with a simple twist lock to secure the locking tab behind the hood frame. They do the job well and do not require any additional drilling or body mounting.

At the back, the boot is pretty accommodating but is currently devoid of a spare. For this Paul intends getting a 5 x 15" wire wheel fitted with a 185 section tyre to act as a 'get you home job'.

So having taken the plunge, what does he think of the result of his effort? In short, brilliant. It really looks the part and on the road lives up to everything he ever imagined. It is certainly very fast but not having covered many miles, he is playing himself in while he also hones his driving skills to cope with the power and torque as well as the sometimes wayward antics of the back end.

No manufacturer can hope for a better advert than a satisfied customer and on that score, Paul is the epitome of a manufacturer's dream. He is totally complimentary about every aspect of dealing with GD but far from being primed, his car is the evidence of his claims and I take my hat off to him.

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Members of the Gardner Douglas Owner's Club pose with a club member's car following their annual Xmas do at the Gateway Hotel, Nottingham.



Nor is Paul the only satisfied customer Andy Burrows' car has found. Indeed the morning of Sunday 13th December 1992 found me at the Gateway Hotel, Nottingham were a broad cross section of GD customers suffering various effects of the previous evening's Christmas bash were emerging for coffee. Among them were Don Jones and David Hodgson both of whom have built Rover V8 engined cars. Actually the brochure information is very helpful in assisting customers to formulate a specification for their cars and points out that the Rover V8 allows a lighter car (850 Kgs) with a rear weight bias that allows it to be thrown into bends and is capable of pushing really hard out.

Don's car has a 180 bhp Rover

engine breathing through the standard SU carburettors and he is over the moon with the result of his efforts. He built it without the benefit of a build manual but had no problems and when he did hit any snags, Gardner Douglas were always available on the phone with the sound advice of experience and knowledge that solved the problem there and then. He finished the build on Thursday, got the MOT on Friday and drove from Taunton to Newark on the Saturday in 1992. Since then he has driven it whenever the opportunity has arisen and considers it the best £12000 he ever spent.

David's GD is a little more potent being a Rover V8 with Crane 216 camshafts, a 390 cfm Holley carburettor and Offenhausser

manifolds. David has had plenty of kit build experience with various cars so had no problems with building the car or dealing with the company whom he found gave excellent service without pushing customers to buy. He spread the build over two years to spread the cost and is again totally delighted with the result.

Comments from others present comprised 'best handling car I've ever driven', 'very affordable', 'brilliant engineering', 'the best Cobra replica on the market' and many more that one would expect to hear from a cross section of owners following their enjoyment of the season of goodwill but get the GD 427 on the road and much of what people say is rapidly borne out.

There is bags of room in the GD

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cockpit. They make their own pedals which provide greater space than others, the seats retract under the rear cockpit edge to gain another couple of inches and you don't have to grope under your right arm for the door catch; it's a chrome handle at the front of the door operating a burst proof lock. The outside of the door is smooth. Nor do you have to grope about over your right shoulder for the seat belt. The standard inertia reels run from the centre of the rear bulkhead.

With any V8 engine, the GD 427 is a potent machine although some are more potent than others and starting up will always tell you what degree of venom is concealed beneath the bonnet as the motor rumbles through its exhausts. You can have external drainpipes if you want but most GD customers go for the underslung systems which are typical of the car's attention to detail and run at the bottom of the tunnel without compromising ground clearance.

On the move the GD feels very different to its contemporaries. Others, through the close similarity of their mechanical specification, all seem much of a muchness; impressive but similar. But somehow the GD just creates more 'feel' and 'feedback'. The chassis will have a part to play in this but also the front and rear suspensions. The full width Jaguar rear axle necessitates the use of standard offset 7" x 15" Jaguar rims with 225/60 section tyres which is why Paul's car is able to employ the Jaguar wires he wanted; others cannot as the wheel would be well inside the extremes of the bodywork. The front tyres are 205/60 section and less rubber gives better feel and reduces the sometimes encountered tendency to 'tramline' of the wider front rubber some cars sport. It also feels more responsive and agile as it rides the bumps giving a good mix of firmness and compliance through its adjustable coil spring damper units.

Driving Andy's cars in the past, I have found the steering to be a bit stiff and surprisingly physically demanding when put hard into a bend. We have discussed it and Andy says it's merely the way he likes to set the car up but that builders have a scope of 4 degrees (between 2 and 6) for the castor angle which will allow them to achieve their optimum set up.

That aside, the brakes are as effective as one would expect from a totally understressed all disc servo assisted system.

In the handling and roadholding departments, the GD is in the top bracket where it really shows that the

design team knew their stuff. It is stable, responsive, grippy and has no nasty tricks up its sleeve provided the power is handled with respect. As far as power is concerned you can have as much as you want up to a 350 Chevy giving over 400 bhp with the resultant fuel consumption of 10 mpg which the brochure, sensibly, also points out to save customers from an overzealous attitude to the engine specification. That aside, the chassis and mechanical package, both Jaguar and Euro chassis, are designed to handle it.

Actually, I was very impressed with the Gardner Douglas brochure which as well as listing all the parts, options and specifications along with their prices, also offered some very good and useful advice that few other brochures do. And more than a trivial detail, I honestly think it enables customers to get a far more clear idea of what they want before they visit the company as well as prompting a more realistic and practical approach than over enthusiasm achieves.

I did some further reading of the club newsletter entitled 'The GD Link' and was similarly impressed with the

efforts of editor, Stephen Talbot. In it Kathy and Simon Sherry describe a trip to France with a very useful tip on how to stop Cobra hoods leaking through the centre recess where the leading edge of the hood frame hooks into the screen top rail along with a full run down of what you can fit in the boot and still remain within the new personal duty free allowances! Next there's Paul Sturgess with an excellent account of building his Chevy 350 engine and a few other interesting snippets of excellent practical benefit to both builders and owners.

Finally, a press release landed on the desk the other day from Jo French of IQ Sports Cars who are newly appointed agents for the GD 427. She and partner Mike Hitchin are currently at work on the construction of their demonstrator which is scheduled for completion at the end of May. Obviously this magazine caters for those who would like to do the job themselves but there are occasions on which it isn't possible so for them, contact **IQ Sports Cars, 39, Old School Close, Codicote, Herts SG4 8YJ. Tel. 0438 820708.**

SPECIFICATION - GD 427

Chassis.	Tubular steel backbone using 40 x 40 mm 14 gauge ERW square section and 1" round section tube. Powder coated.	
Body.	Semi monocoque moulded in two parts and bonded together with all internal panels fitted. Double skinned, foam filled floor and sills. Bolt fixing to chassis allows quick body removal.	
Suspension, front.	Jaguar XJ6 series 2 or 3 uprights and double wishbones with inclined coil spring damper unit. Fully adjustable.	
Suspension, rear.	Full width Jaguar XJ6 series 1, 2 or 3 IRS system.	
Steering.	GD rack and pinion supplied with kit allied to Jaguar XJ6 series 1, 2 or 3 collapsible column.	
Brakes.	Jaguar XJ6 all disc system. Servo assisted. Optional choice of handbrake.	
Engines.	Ford V6, Rover V8 and American small block V8 up to 6 litre and 400 bhp.	
Performance.	With 180 bhp Rover 3.5 litre V8. 0 - 60 mph in 6.5 seconds. Max speed 125 mph. Fuel consumption at 70 mph is 28 mpg.	
Wheels.	7" x 15" with standard Jaguar offset. Jaguar wires can also be fitted.	
Tyres.	205/60 VR x 15" front. 225/60 VR x 15" rear.	
Dimensions.	Overall length.	13 ft. 6 ins.
	Overall width.	5 ft. 8 ins.
	Overall height.	3 ft. 7 ins.
	Ground clearance.	5 ins.
	Weight (Rover V8)	17 cwt.
Kit contents.	Jaguar based chassis kit includes chassis, transmission tunnel cover, body isolation mountings pre fitted, steering rack and links, steering arms and track rod ends, differential mounting brackets, front damper mounting plates, radiator mounting frame, full nut and bolt pack and detailed build instructions.	
Kit prices.	Chassis pack.	£2175 inc.
	Body kit.	£2335 inc.
	All other parts are individually priced.	

For full details of kit contents, specifications, prices, options, extras and accessories send £2.50 for the fully detailed colour brochure and information pack to:

Gardner Douglas Sports Cars, Dept KCI, Pinfold Lane, Bottesford, Notts NG13 0AR. Tel. 0949 43299.