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Cover Illustration: Darlington Corporation received the only Ward Dalesman service buses in 1983-84. No. 1 (A101CVN) carried a Wadham Stringer dual-door 'Vanguard' body. (Richard Simons).

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The Ward Brothers, coach operators of Lepton near Huddersfield, favoured the Seddon Pennine VII for their coach fleet. The Seddon Pennine was an 11-metre coach driven by a Perkins V8-640 engine mounted amidships that some operators (including the Ward Brothers) found to be nothing more than superb. Seddon, more commonly known for their truck building, were merged with Atkinson in the 1970's and PSV production ceased soon afterwards. Impressed with the performance of the Pennine the Ward Brothers decided to clone the design and build their own vehicle.

The Ward C11-640 Dalesman (11 metre coach 640 engine) prototype of 1981 was built in their own workshops utilising a refurbished Leyland Leopard chassis with Perkins engine and ZF-680 6 speed manual gearbox. The brakes, steering, engine, gearbox and rear axle were almost a carbon copy of the Seddon Pennine design. Their Chief Engineer and Director, Keith Ward, hated many modern touches like power steering and, as a result, the Dalesman did not feature this even though as far back as 1980 every maker offered it as standard, though once in production that changed. The chassis was sent to Plaxton in Scarborough to receive a brand new Supreme body.

The Dalesman coach was fitted with the ZF 56.80 six-speed synchromesh as standard transmission; options included SCG 300 and 400 series semi-automatic or Allison fully automatic gearboxes. Engine options available were either Perkins or Gardner turbo-charged mid-mounted engines, in 11 or 12 metre lengths.

Sufficient interest came in to make this a viable option and the Ward family decided to take the plunge and offer the vehicle for general sale. Although the prototype had featured a reconditioned Leyland chassis, Ward fabricated their own from scratch roughly based on that type.

It sold in very modest numbers (12) but those who bought them found them robust, powerful and utterly reliable in service. Long delivery times and high cost compared to other makes hampered sales, but there again, Ward had no intentions of becoming the next Leyland sized company. But it was certainly a brave move and a slap in the face for other UK PSV chassis builders such as Bedford and Leyland who were both by this time in a steady decline. Things didn't end there though, and in 1982 a request came in for a service bus chassis.

At a bus and coach management meeting, the Ward Brothers found themselves speaking to the engineering and transport managers of Darlington Borough Transport. They were great fans of the Seddon RU, finding them to be the best single deck bus designs they had ever operated. They never suffered from the serious transmission faults the breed was known for owing to the fact that the buses only ever plodded in the Borough at modest speed. The Pennine bodywork stood up to hard use because the chassis was so tough but the bus was now out of production. Daimler had sold them three batches of single deck Fleetlines but once production moved from Coventry to Leyland in 1973, production of the single deck chassis ceased as BL tried to force operators to buy the Bristol RE or National. Seddon delivered a sizeable batch of buses in 1974 and Darlington found them to be superb in every way, as did one or two other operators. But with Seddon no longer producing buses, many operators mourned the loss of a respected name within passenger transport circles. Those who wished to avoid Leyland group products like the National or Bristol RE found themselves backed into a corner.

Listening to the plight of the Darlington Councillors, Keith Ward said 'OK I`ll build you some then' - on the back of that an agreement was made to build a fleet of chassis that again cloned an extinct Seddon design. The design featured a rear horizontal mounted Gardner 6-HLXB engine with a semi automatic gearbox - pure Seddon in practice but the over engineered chassis meant that an ultra light weight body could be used, even with twin doors. Darlington had previously bought Dennis Dominators with dual door single deck body and found them to be weak in construction.

The end product was the Dalesman GRXI (Gardner rear 11 metre) featuring

an ultra light weight Wadham Stringer Vanguard body with dual door layout and Darlington placed an order for six to be delivered in 1983. Production was slightly delayed owing to Wards cramped facility and costs escalated upwards to the point where little or no profit was actually made. Ward had hoped that a municipal order would bring in extra business, but after supplying Darlington with six vehicles no more orders were taken on what actually turned out to be another good chassis design.

The Dalesman GRXI designed for Darlington was powered by a rear-mounted Gardner 6HLXB engine driven through a semi-automatically controlled SCG five-speed pneumocyclic gearbox. Features included a side-mounted radiator fitted to the offside forward of the rear axle, and integral power steering. The chassis frame was designed to allow a low saloon, sloping slightly to the rear. The drive line was conventional and simple with the gearbox mounted next to the engine.

The first six Dalesman GRXI chassis were fitted with Wadham Stringer Vanguard 11m single-deck bus bodies and the basic GRXI chassis with leaf spring suspension was priced at £26,268. Air suspension was available as a factory-fitted option on both the GRXI bus chassis and the Dalesman 11 or 12-metre mid-engined coach chassis.

Sadly, just six months after Darlington had taken delivery of their Dalesman GRXI vehicles, Ward Brothers simply ran out of money and went

into administration in 1984. In the four years that Ward (or W.B Products Ltd as the chassis builder was officially known) traded just 18 chassis were produced in total.

If Ward had survived, Darlington's plan was to buy six GRXI chassis a year until the whole fleet was replaced by 1992. Then operational costs would be assessed to see if the replacement cycle should be broken or continued for the most efficient and reliable service and the optimum vehicle life.

The initial performance of the first Ward buses, which entered service towards the end of 1983, was favourable and fulfilled all expectations.

The Council had given authority for six more similar vehicles to be added to the fleet and when Ward went into administration the undertaking looked at the feasibility of building the chassis itself but decided against the project and no more Dalesman chassis were produced.

# Ward Dalesman Production 1981-1984

#### Coaches

Year New	Reg. No.	Type Chassis No.	Body/Seating	Operator/Fleet No.	
1981	JVH974W	C11-640 9472	Plaxton C49F	Ward, Lepton	-
1983	GCP789Y	C12-640 18582	Van Hool C49Ft	Ward, Lepton	_
1983	CLS509Y	C12-640 18582/1	Plaxton C49F	Mackie, Alloa	_
1983	EHD547Y	C12-640 18583	Plaxton C53F	SKJ, Shelley	-
1983	A638LKO	C12-640 18584	Plaxton C57F	Smith, Sittingbourne	_
1983	A449VDW	C12-640 18585	Van Hool C49Ft	Williams, Bargoed	_
1983	FVH559Y	C12-640 18585/1	Plaxton C57F	Williams, Cross Keys	-
1983	FJX177Y	C12-640 21840	Plaxton C53F	Yarranton, Eardiston	_
1984	26GNW	C12-640 18586	Van Hool C46Ft	Wrigley, Irlam	_
1984	A590JX	C12-640 18587	Plaxton C53F	East Pennine, Marsden	-
1984	A696RCT	C12-640 18588	Van Hool C53F	Burchnell, Bourne	7
1984	J498VMS	C12-640 18589	Willowbrook C53F	Mackie, Alloa*	-

\* Chassis completed by Mackie after Ward went into administration.



The prototype Ward Dalesman 11-640 was fitted with this Plaxton 'Supreme' body in 1981 and joined Ward's own coach fleet. (Frans Angevaare).



Burchnells of Bourne purchased the 12 metre version of the Dalesman in 1984 and fitted it with a Van Hool 53-seat body, numbering it 7 in their coach fleet. (LTHL collection).

Service Buses

Year New	Reg. No.	Туре	Chassis No.	Body/Se	eating		Operator/Fleet N	lo.
1984 1983 1983 1983 1983 1983 1983	A101CVN A102CVN A103CVN A104CVN A105CVN A106CVN	GRXI GRXI GRXI GRXI GRXI GRXI	223/1/383 223/2/383 223/3/383 223/4/383 223/5/383 223/6/383	Wadham Wadham Wadham Wadham	Stringer Stringer Stringer Stringer	B46D B46D B46D B46D	Darlington CT Darlington CT Darlington CT Darlington CT Darlington CT Darlington CT	2 3 4 5



Darlington Corporation purchased the only six Dalesman service buses produced in 1983/84. This is No. 6 (A106CVN) a Dalesman CGXI with Wadham Stringer 'Vanguard' body. (LTHL collection).

# Advanced Chassis Engineering (ACE) Ltd Cheetah, Puma, Cougar 1985-1991

Unperturbed by the expensive failure of WB Products Ltd. the Ward family joined forces with another coach operator (Abbeyways) shortly after and formed a new manufacturing facility called AEC Ltd. The initials stood for Albion Equipment Company but this brought on some serious threats of legal action from Leyland Bus since they owned both the AEC and Albion titles. This saw a guick change in name to ACE Ltd (Advanced Chassis Engineering) with a product portfolio comprising of three models - Cheetah, Cougar and Puma - virtually all with Perkins power units. Great hopes were pinned on the full size Cougar bus which featured an ultra strong yet light chassis that featured a turbo-charged Perkins power unit with the future option of Gardner and Cummins engines. Some familiar components to placate fussy fleet engineers included Leyland National 2 style front lighting units and a front axle/hub assembly based on Leyland designs. But buying in raw outsourced components in penny numbers gained little discount to pass on to customers. It really deserved to do well and much interest was shown but operators saw an unknown quantity too much of a risk to take in a shakv market.

The biggest problem ACE had was the de-regulated market, operators were

interested more in used vehicles rather than new as competition got serious up and down the land. Hope came with former NBC operator Provincial who seriously considered purchasing over 100 Cougar chassis to replace their huge fleet of Nationals after finding their initial Wadham Stringer Cougar to be a fine bus.

Provincials' shareholders decided not to take such a large intake of buses from such a small maker while rival chassis makers simply went on a price offensive to hoover up new bus purchases.

Despite some vigorous marketing attempts by Managing Director Steven Ives, little interest in the Puma midi-coach was shown with only 12 being built and the low floor Cougar bus chassis was taking seemingly forever to cure some design flaws in the ramped chassis – just 2 were produced. The Ives/Ward alliance of ACE Ltd sold their final chassis in 1991 by which time the UK was deep in recession with a seriously depressed market for PSV chassis that saw Volvo close down Leyland bus the following year.

# ACE Production List 1985-1991

Year New	Reg. No.	Type Chassi No.	s Body/Seating	Operator/Fleet No.	
1985	B938BVH	Puma IV 11841	Wright C35F	Abbeyways	_
1985	B861RMS	Puma IV 12842	Plaxton C35F	Mackie, Alloa	-
1985	B862RMS	Puma IV 12843	Plaxton C35F	Mackie, Alloa	-
1985	B31XSN	Puma IV 1854	Van Hool C33F	Henderson, Coaltown	-
1985	B628MSF	Puma IV 1855	Van Hool C28Ft	(Silver Coach Lines,	-
1985	B629MSF	Puma IV 1856	Van Hool C28Ft	( Edinburgh	-
1986	D501BFS	Puma IV 4857	Plaxton C39F	Traject, Huddersfield	-
1988	E923LCP	Puma IV 5858	Plaxton C39F	Gobig, Mirfield	-
1986	C767USG	Puma IV 78510	Van Hool C32F	Silver Coach Lines	-
1986	D164TCX	Cheetah 78511	Van Hool C49Ft	Ward, Lepton	-
1988	E923LCP	Puma III 38613	Plaxton C35F	Traject, Halifax	-
1990	H523CTR	Cougar V 89015	Wadham Str B41F	Provincial	3
1991	J921TUK	Cougar V 99016	Willowbrk B40F	Cave, Shirley	-

The chassis designation stands for the month and year built plus the chassis number e.g. 11841 stands for November (11), Year (84) and chassis number (1). Puma and Cheetah were both coach chassis, the Cougar a bus chassis. Chassis Nos. 9, 12, 14 were not built.



The first 'Puma' midi-coach went to Abbeyways in 1985 and was fitted with this Wright 35-seat coach body. (John Law).



ACE produced the only 'Cheetah' model in 1986. This is D164TCX with Van Hool 49-seat coachwork which went to Ward Brothers' own coach fleet. (Frans Angevaare).



Only two 'Cougar' service buses were built. This is No. 3 (H523CTR) in the Provincial fleet, with a Wadham Stringer B41F body. Provincial were proposing to order 100 of the model but in the end decided against it. (LTHL collection).

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Additional information, corrections and photographs are always welcome. Our general email address is: lth.library@gmail.com

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