This press pack accompanied the UK press launch of the Land Cruiser Colorado in July 1996. Changes to the model during its time on sale can be tracked using the Timeline on the Land Cruiser Colorado archive web page. Further information about the Land Cruiser Colorado range can be obtained from the Toyota press office.

New Chapter for Landcruiser Legend

THE new Landcruiser Colorado is the next chapter in the amazing Landcruiser legend offering unrivalled levels of equipment (air-conditioning, ABS, CD player, wide body package and alloy wheels on all except entry level model), comfort, safety and security with excellent prices and an off-road ability - with permanent 4WD, and switchable centre and rear differential locks - that leaves many rivals standing.

Its forefather, launched in Japan in 1951 as the BJ, was designed simply to tackle tough off-road environments - and over the years the Landcruiser has dominated the world's toughest terrain.

Today - some 2.8 million vehicles later - the Landcruiser offers the same rugged pedigree, but is more stylish and powerful and is as likely to be found outside a stately home, superstore or on the school run as it is to be seen tackling quarries and forests.

In the UK, the new mid-sized Landcruiser Colorado (which replaces the 4Runner and utilitarian Landcruiser II (70 series) models) joins the existing larger Landcruiser VX (80 series), the chic RAV4 'fun car' and the popular Hilux pick-up in Toyota's extensive off-road range. There are six models in the new Landcruiser Colorado range:

New	Landcruiser Col	orado	3-door	5-door
GS	3.0 diesel	manual	£19,990	
GX	3.0 diesel	manual	£23,990	£26,690
GX	3.0 diesel	automatic		£27,890
VX	3.0 diesel	automatic		£31,990
VX	3.4 V6 petrol	automatic		£32,990

Key Points

- All new compact 3-door and 5-door bodystyles
- Comfortable, spacious interior accommodating up to 8 forward-facing occupants
- Redesigned chassis and suspension providing excellent comfort and driveability
- Newly developed 3.4 litre, 24-valve V6 petrol engine
- 3.0 litre turbo-diesel, in-line 4 cylinder engine with electronic fuel injection
- ⇒ 5-speed manual and 4-speed automatic transmissions
- Excellent passive and active safety exceeding proposed 1998 EU safety standards for frontal offset and side impact collisions
- Dual airbags, front seat belt pre-tensioners, & high mount stop lamp are standard
- ABS standard on GX/VX models
- Remote control alarm and transponder-equipped immobiliser on all models
- Prices start at £19,990 for entry model 3-door Landcruiser Colorado GS

On-sale date: August 8, 1996

Background and Market Positioning

FROM its humble beginnings forty-five years ago, the Landcruiser has developed to become one of the most enduring and sought after brand names in off-road driving and Toyota has become a recognised world leader in the off-road market.

Indeed, this sector is one in which Toyota's unrivalled quality standards are truly put to the test. From Australia to Africa, Iceland to Indonesia, the Landcruiser is the first choice of those whose lives depend on their vehicle. It accounts for 30 per cent of the sport utility vehicle (SUV) market in Saudi Arabia and is a key supplier to the United Nations. Down under, where over three-quarters of the SUVs sold are Toyotas - the Australians clearly wouldn't give a XXXX for anything else.

This reputation for quality contrasts with Land Rover products which have come under fire in major consumer surveys in the UK and US. The marque finished in last place in the North American J.D.Power initial quality index this year, and was second bottom in the 1996 J.D.Power/BBC *Top Gear* study in the UK for delivery and repair problems (ahead of Lada).

In the UK, Landcruiser has become an increasingly popular choice since it first went on sale in 1975, with the off-road sector really taking off in the past few years. Last year the total UK off-road sector soared to 80,362 units - more than triple the 22,871 vehicles sold in 1989.

	1989	1990	1991	1992	1993	1994	1995
Off-road market	22,871	27,022	28,674	39,230	58,561	71,090	80,362

The sector in which the new Landcruiser Colorado will compete (vehicles priced between £19,000 and £33,000), accounted for nearly half of total sales in 1995 (39,207 units).

The Landcruiser Colorado range has been designed to offer maximum choice in line with consumer preferences. Within this sector, 5-door models account for 89 per cent of sales with 3-door models taking just 11 per cent of the market. Similarly, manual transmissions outrank automatic gearboxes by a factor of 2.5 to one, whilst diesels are more popular than petrol models - by a factor of four to one.

Toyota GB believes that the company has never realised its full potential in this key sector and forecasts that the new Landcruiser Colorado range will increase its sales here fourfold to 5,000 units in 1997.

Design and Interior Comfort

Exterior

THE Colorado's curvaceous exterior is set off by the series of vertical bars across the radiator grill, large bumpers (which can be recycled) and an integrated design for the headlights, indicators and side lights.

Similarly, at the rear the resin bumper and rear combination lights add to the integrated look, there is a high mount stop lamp and the spare wheel is mounted on the large swing door. The rear door has a handy lockable stopper facility and incorporates the washer bottle for the rear wash/wipe and two handy door pockets.

As well as excellent rear vision thanks to the large glass screen, the door mirrors provide a wide field of vision. The mirrors are electrically adjustable and heated above GS grade.

Interior

THE interior design is spacious with flexible seating arrangements for five occupants on the 3-door models and eight occupants for the 5-door models - all of whom are forward facing. On the 3-door model, the rear seat offers a 50/50 split/folding facility. The centre row of seats in the larger 5-door version incorporates a centre arm rest and can be folded forward whilst the third row of seats fold to the side.

Style, comfort and practicality are the over-riding impressions inside the new Landcruiser Colorado with a light grey interior trim (leather on VX models) and a practical layout with plenty of storage space. The large load area is protected with a two-stage folding cover on the 3-door versions and by a roll-out tonneau cover on the 5-door models.

In addition to a full complement of ergonomically designed controls, switches and instrumentation, the Colorado is equipped with a handy power socket (2 on the 5 door models) to supplement the cigarette lighter and facilitate the use of various car accessories.

In car entertainment

THE Landcruiser Colorado offers a Sony in-car entertainment system in each of the models. In addition, owners can upgrade their standard audio unit under the Toyota/Sony Audio Upgrade programme providing a low cost method of choosing a higher specification system.

- GS Grade Sony XR6600 RDS stereo radio/cassette with 30 pre-set controls and a detachable front panel.
- GX Grade Sony CDX 3100 Stereo radio/CD unit with 30 pre-set radio controls, detachable front panel and intro, repeat and shuffle functions for the CD facility.
- VX Grade Sony CDX 4100 An RDS stereo radio/CD system with 30 pre-set radio controls, detachable front panel and intro, repeat and shuffle functions for the CD facility.

The antenna is located on the driver's side front wing. The VX model has a powered antenna which can be altered from inside the vehicle (100-950mm) and has a memory facility.

Colour range

A wide range of attractive exterior colours are available for the Colorado including metallic/mica paint (£300 option). On the GX/VXs, the exterior bodystyle is colour co-ordinated.

	3-door	5-door	GX and VX cladding
Arctic white	✓	✓	Light grey
Pearl mist*	-	✓	Dark grey
Astral black	✓	✓.	Dark grey
Damask*	-	✓	Dark grey
Flame red	✓	-	Dark grey
British green*	✓	✓	Dark grey
Jade green*		✓	Light grey
Blue royale*	✓	✓	Dark grey

^{*}Metallic/Mica paint option

Specification details

THE Landcruiser Colorado has a stylish modern exterior, a comfortable, well-specified interior, the highest levels of equipment and standard levels of safety and security which are unrivalled in its class.

Available with a choice of two bodystyles (3-door and 5-door), the Landcruiser Colorado has a 'big inside, compact outside' nature. Toyota GB offers a choice of three levels of specification (GS, GX and VX), a 3.0 litre turbo-diesel or newly developed 3.4 litre V6 petrol engine, manual or automatic transmission.

The spacious interior offers flexible seating arrangements with the 3-door models providing comfortable accommodation for 5 occupants. The 5-door model has class-leading capacity with seating for 8 forward-facing occupants.



Both models have a practical interior layout with ample storage space and up to 8 cupholders (7 on 5-door models). Other useful touches include a power accessory socket at the rear in the 5-door and a spare socket in the front for both 3-door and 5-door models.

The Landcruiser Colorado offers a level of specification which was once the preserve of luxury saloons, and which demonstrate its supremacy over rivals.

- Twin airbags
- Power steering with tilt adjustment
- Electric windows (inc rear on 5-dr)
- ⇒ High mounted stop lamp
- Transponder-equipped immobiliser
- → Alarm
- Mudguards front and rear
- Front seatbelt pretensioners
- Height adjustable front seatbelts
- Alloy wheels with locking wheelnuts (option on GS)
- Leather upholstery (VX models)
- ⇒ Heated, electric front seats (VX)

- Wide body package (except GS)
- Side steps (option on GS)
- Leather covered steering wheel/ gear lever (not GS)
- Headlamp washers (not GS)
- ABS (above GS level)
- ⇒ Sunroof (option on 5-door GX)
- Air conditioning (option on GS)
- Audio system, with CD player (cassette on GS)
- → Power/heated mirrors (not GS)
- ➡ Tonneau cover
- Roof rails (standard on VX, option elsewhere)
- Multi-information centre (VX models)
- Cruise control (VX petrol model)

GS Grade

THE Landcruiser Colorado range begins with the 3-door GS with a powerful 3.0 litre turbo-diesel engine and manual transmission. From the start, Toyota outclasses the opposition. Priced at £19,990, it gives a £40 list price saving over the Discovery, and adds twin airbags, electric windows, sunroof and a 3 year/60,000 mile warranty. Indeed, to match the Colorado GS specification, the Discovery owner would have to spend over £2,500 on accessories.

GX Grade

AT the heart of the new Colorado range is the GX grade offered in 3 models each equipped with Toyota's 3.0 turbo-diesel engine. The 3-door GX offers a manual gearbox with the 5-door GX available with the choice of manual or automatic transmission.

Again, the Landcruiser Colorado proves more than a match for its rivals in terms of price and specification levels. It adds ABS, air conditioning, and a wide body pack enhancing the Colorado's modern, stylish exterior.

To match the 5-door Colorado GX level of specification, the equivalent Discovery model would require over £3,000 worth of optional equipment - and a similar amount would be required to upgrade the equivalent Shogun (although some of the Colorado's specification is not available for this Mitsubishi model).

In addition, the Colorado 5-door can readily accommodate eight occupants and their luggage where rivals can only transport seven - or five in the case of the Chrysler Jeep Cherokee.

Air conditioning is a standard feature on the GX and VX models. The 5-door models also have a separate rear heater which is located under the front passenger seat which maximises the capacity of the rear console storage box. A rear heater control switch is located both on the dashboard and the rear console so that both driver and passengers in the rear can control the rear heater.

The top specification 3-door model (GX grade) and 5-door versions (VX grade) are equipped with an electric tilt/slide glass sunroof in addition to airconditioning. For the 5-door GX grade, air-conditioning is fitted as standard with a sunroof available as an option.

VX Grade

THE top of the new Landcruiser Colorado range is the leather and wood equipped VX grade. Here, discerning drivers can choose either Toyota's 3.0 turbo-diesel engine or its new 3.4 litre petrol unit, both with automatic transmission

These superbly equipped models offer luxurious accommodation for eight-forward facing occupants and their luggage to easily outclass the opposition. The equipment level includes twin airbags, ABS, electric windows (front and rear), electric sunroof, air conditioning, a stereo RDS radio and CD player, alarm/immobiliser, wood fascia, roof rails, cruise control, wide body package, side steps, alloy wheels and a useful multi information centre.

Multi information centre

THE multi information centre on the Colorado VX models offers the driver a multitude of useful information for planning a journey or venturing off-road. It includes a compass, inclinometer (giving fore-aft and side-to-side inclination angles of the vehicle) and a multi information display (incorporating an outside temperature gauge, barometer, altimeter, timer and average vehicle speed meter).

Outside temperature

Simply by pushing the mode switch in the centre of the display, the driver can determine the current outside temperature (updated every 4 seconds) as well as a graph of temperature readings taken at previous 30-minute intervals. The range is between -30 deg C and 50 deg C.

Barometer

Selecting the barometer mode displays the current barometric pressure and that taken at previous 30-minute intervals. The range is 584 to 1050 hPa and the reading is renewed every second.

<u>Altimeter</u>

When the altitude display mode is selected, the display indicates the current elevation as well as the altitude readings taken at previous 5 minute intervals in the 50m or 200m scale. Its range is +/-4000m and the reading is renewed every second.

Timer and average vehicle speed

The other two functions of the multi-information display are a timer (up to 9h59m) and a report of the average vehicle speed (renewed every second).

Arrows

To the right of the mode switch are two buttons indicated by an up and a down arrow. These start, select and stop the correction mode for the compass and the inclinometer. The functions of these switches again change depending on the display mode selected in the multi-information display. The *up* switch starts and stops the measurement of the data that is used for displaying the average vehicle speed and the timer, whilst the *down* switch resets the display of both and clears the measured data.

Safety Features

THE Landcruiser Colorado puts safety at the top of its list of characteristics. Indeed, it is one of the first models to have been subject to Toyota Motor Corporation's Global Outstanding Assessment (GOA), which aims to make the company's vehicles the safest in the world.

The Colorado meets the proposed 1998 EU standards for frontal and offset impact with a lightweight but highly rigid frame. It has all-round disc brakes, and permanent four wheel drive with a fully functional transfer box for both manual and automatic transmission. A high mount stop lamp is fitted to all models.

Driver and passenger airbags are fitted as standard and the front seat belts are equipped with mechanical pre-tensioners. A five-height adjustable seat belt anchor is provided for the driver and front passenger.

8 UK .../more The second row of seats feature two outer three-point ALR (automatic locking retractor) and ELR seatbelts and a centre two-point lap belt. On the 5-door models, the third row of seats has two outer ELR seat belts and a centre two-point lap belt.

The GX and VX derivatives are equipped with ABS which utilises a speed sensor on all four wheels. It does not operate when the rear diff lock is activated.

Security Protection

ALL models are fitted with a new Thatcham-approved Toyota Vehicle Security System (TVSS III B) which is a remote control operated perimeter and volumetric theft deterrent also operating the central locking. They also feature a factory-installed Toyota Transponder Immobiliser System (TTIS) which operates through a key-embedded transponder. The Colorado achieves the highest Category One approval rating of Thatcham which help to lower insurance premiums.

Driving Characteristics

Engine, Performance and Economy

POWER both on and off-road is essential to the legend that is the Toyota Landcruiser. The range offers a choice of two engines: Toyota's legendary 3.0 litre turbo-diesel (previously acclaimed in the 4Runner) and a new 3.4 litre petrol alternative. Both engines are easy to drive and offer excellent fuel economy figures.

3.0 litre turbo diesel 1KZ-TE

THE new Colorado offers arguably the best off-road diesel unit in the world - Toyota's 3.0 litre turbo-diesel with class-leading power and torque characteristics. It has a potential top speed of 99mph (where legal) and a 0-62mph acceleration time of 14.0 seconds for the 3-door and 14.9 seconds for the 5-door models.

Capacity

2982cc

Type

In line, OHC, 4 cylinder, 16 valve

Bore x Stroke

96mm x 103mm

Compression ratio

21.2

Maximum power

123bhp (92kw) @ 3600rpm

Maximum torque 2

218 lbft (295Nm) @ 2400rpm

This engine is offered with manual and automatic transmission (the 4Runner offered only a manual gearbox) and equipped with a new electronic

9 UK .../more fuel system and exhaust recirculation device adopted to comply with EU Step II emissions.

Fuel economy calculated under the new 93/116/EEC method reveals the Landcruiser Colorado's economical nature. With the manual gearbox, it achieves 21.4mpg in urban conditions, 30.1mpg under extra urban and 26.2mpg combined. Equivalent figures for the diesel models with automatic transmission are 19.8mpg, 27.4mpg and 23.9mpg.

3.4 litre petrol 5VZ-FE

IN addition, at the top of the Colorado range, Toyota offers a new 3.4 litre V6 petrol engine which delivers excellent power and torque. Potential top speed (where legal) is 109mph and the 0-62mph acceleration time is 11.5 seconds.

The new 93/116/EEC method produces fuel economy figures for the petrol automatic Landcruiser Colorado of 15.2mpg in urban conditions, 24.8mpg under extra urban and 20.0mpg combined.

Capacity	3378cc
Type	V6, DOHC, 24 valve
Bore x Stroke	93.5mm x 82mm
Compression ratio	9.6
Maximum power	176bhp (131kw) @ 4600rpm
Maximum torque	223 lbft (303Nm) @ 3600rpm

Transmission

5-speed manual transmission (R150F)

THIS smooth transmission features a triple cone synchro mechanism in 2nd gear with a synchro mechanism on reverse.

Gear ratios	1st	2nd	3rd	4th	5th	Reverse
	3.830	2.062	1.436	1.000	0.838	4.220

4-speed automatic transmission (A343F)

AN engine torque control system has been adopted which, for the petrol model, momentarily reduces output torque by retarding the engine's ignition timing. This ensures smooth clutch engagement and improves shift quality. For the diesel models, a starting system has been adopted which improves the vehicle's take-off performance on sandy, muddy or snowy roads.

Gear ratios	1st	2nd	3rd	4th	Reverse
	2.804	1.531	1.000	0.753	2.393



Transfer and Differential locks

A full-time transfer with a centre differential (with centre differential lock) provides permanent 4WD operation. A rear differential lock is operated by a switch on the Colorado's dashboard.

Suspension, Steering and Brakes

DOUBLE wishbone independent suspension has been adopted at the front with four link coil suspension with lateral rods at the rear to provide a smooth and comfortable ride.

Rack and pinion steering provides a direct response. A lightweight and compact steering system has been adopted with low weight and vibration. The tilt-adjust facility provides six different adjustment positions.

Disc brakes are provided all round, with ABS a standard feature on the GX/VX grades.

Wheels and Tyres

RIDE comfort and optimum fuel economy are the priorities for the Landcruiser Colorado's wheel and tyres. The GS grade is equipped with steel wheels and 215/80R16 tyres whilst the GX/VX models feature alloy wheels with 265/70 R16 tyres. All models feature a full size boot-mounted spare with centre cover. Spare wheel covers are available as stylish accessories. The spare wheel on all models has a locking nut as does each alloy on the GX/VX models.

Reliability, Warranty and Servicing

THE Landcruiser Colorado naturally carries the Toyota renowned reliability and quality traits. This is backed by Toyota's 3 year/60,000 mile warranty and service intervals of 9,000 miles for the petrol model and 12,000 miles (with oil change at 6,000) for the diesel models. Owners also receive one year's membership of Club Toyota which includes 12 months RAC assistance cover alongside other motoring benefits including Toyota's new Accident Management Service.

Accessories

A full range of accessories is available for the Landcruiser Colorado including 'soft' protector bars and both canvas and metal wheel covers.

Dimensions, Angles and Weights

LANDCRU	SER COLORADO	3-D0	OOR	5-DOOR	
			GX	GX	VX
Exterior	Exterior Overall length		4290mm 4315mm		0mm
dimensions	Overall width*	1730mm	1820mm	1820mm	1820mm
	Overall height#	1855mm	1870mm	1875mm	1915mm
	Wheelbase	236	5mm	266	5mm
	Tread front/rear	1475/1480m	1505/1510m	1505/1	510mm
		m	m		
Interior	Front headroom	1020	6mm	1020	3mm
dimensions	Rear headroom	102	1mm	102:	2mm
Boot	(l/cu ft) seats up	450/	15.9	169/6.0	
capacity	(t/cu ft) seats folded	836/	29.5	1100/38.8	
Fuel tank ca	pacity		90 litre	S	
Angle of app	oroach	36°	37°	3.	7°
Angle of dep	arture	34°	35°	3	1°
Max. climbin	ng gradient	45°		45°	
Max. lateral	inclination	4	1°	4	1 °
Ground clear	ance	230mm	245mm	245mm	
Kerb weight	(manual)	1720kg		1850kg	E 9
Kerb weight	(automatic)	-		1870kg	1810kg
				(diesel)	(petrol)
Gross vehicle weight (manual)		2510kg		2680kg	÷1
Gross vehicle weight (auto)		-		2680kg	
Turning circle diameter		10.4m		11.4m	
Towing capa	city with brake	2800kg		2800kg	
Towing capa	city without brake	750	Okg	750kg	
Coefficient o	f drag	0.4		0.42	

^{*} GX/VX models equipped with wide bodystyle pack

WX model equipped with roof rails

Technical Information

	ER COLORADO	GS-GX Diesel 3-door	Die	SX esel loor	VX Diesel 5-door	VX Petrol 5-door	
Engine Type		In-line EF	In-line EFI turbo OHC 4 cylinder 8 valve				
	Capacity		298	32cc		3378cc	
	Bore and stroke (mm)		96x	103		93.5x82	
	Compression ratio		21	.2		9.6	
	Maximum horsepower	123	bhp (92kv	v) @ 360	Orpm	176bhp (131kw) @ 4600rpm	
	Maximum torque		218lbft (295Nm) @ 2400rpm				
	Fuel system		Electronic fuel injection				
Gearbox	Transmission	5-speed manual 4-speed automatic					
Suspension		Front: double wishbone independent Rear: four link coil with lateral rods					
Steering		Rack and pinion with tilt adjust facility					
Performance	Maximum speed (mph)	99				109	
	0-62mph (seconds	14.0		14.9		11.5	
	tion I/100km/mpg	Manual		Automat		ic	
New	Urban conditions	13.2/	5.WP_////	14.	3/19.8	18.6/15.2	
93/116/EEC	Extra urban	9.4/3	414444	10.	3/27.4	11.4/24.8	
	Combined Fuel type	10.8/26.2		11.8/23.9		14.1/20.0	
		Die			Unleaded		
	Tank capacity	90 litres					
Brakes		Front/rear disc. ABS: GX/VX models				odels	
Tyre size		215/80R1	6	2	265/70R16		

Equipment Levels

Toyota Landcruiser Colorado	GS	GX	VX
Twin airbags	•	•	•
Remote central locking, alarm/immobiliser	•	•	•
High mounted stop lamp	•	•	•
ABS	-	•	•
In car entertainment (Sony system with 4 speakers)	RDS	Radio/	RDS
	Radio/	CD	Radio/
	cassette		CD
Permanent 4WD, diff lock (centre & rear)	•	•	•
Alloy wheels & locking wheelnuts	0	•	•
Wide body package inc side cladding	-	•	•
Side steps	0	0	•
Full-sized spare tyre	•	•	•
Roof rails	0	0	•
Mud guards (front & rear)	•	•	•
Headlamp washers	_	•	•
Leather steering wheel & gear knob	. €	0	•
Power/heated mirrors	-	•	•
Electric windows (inc rear on 5-door)	•	0	•
Sunroof (option on 5-door GX)	•	•	•
Air conditioning	0	0	•
Tonneau cover	•	•	•
Remote fuel filler cap release	•	0	•
Leather upholstery	1-	-	•
Heated electric front seats	-	-	•
Multi-information display	-	-	•
Cigarette lighter & power socket (2 on 5-door)	•	0	•
Lights-on warning buzzer	•	0	0
Power aerial	-	-	•
Wood fascia/side stripe	-	1551	•
Cruise control (VX petrol only)	-	•	•

O Dealer accessory

Metallic/mica paint is a factory option at £300.00

NOTES ON EUROPEAN PRESS PACK

THE following Landcruiser 90 series press pack applies generically to Europe. Information for the UK market is detailed in the preceding NEW CHAPTER FOR LANDCRUISER LEGEND

Points to be noted in the pan-European press pack are as follows:

- Landcruiser 70 Light Duty series was sold as the Landcruiser II in the UK
- Landcruiser 90 series will be sold in the UK as the Landcruiser Colorado
- Page 3 The Landcruiser 70 series does not continue in the UK
- Page 3 & 29 ABS is not available on GS model, standard on GX/VX in UK
- Page 12 The optional appearance pack is standard on GX/VX models in UK
- Page 12 GS has manual mirrors with electric/heated mirrors on GX/VX
- Page 12 Side steps are standard on GX/VX
- Page 12 Tilt/slide sunroof is standard on GS/3-door GX/VX models, optional on GX 5-door
- Page 12 Roof rails are standard on VX
- Page 13 Air conditioning is standard on GX/VX and an option for GS model
- Page 13 Rear heater is standard on 5-door GX and VX models
- Page 19+22 Remote door locking with alarm is standard on all UK models
- Page 27 Rear diff lock is standard on all UK models
- Page 30 3rd row of seats in 5-door model has 2 outer ELR belts
 + centre lap belt
- Page 31 VX has leather upholstery, electric front seats with heated function
- Page 32 3rd row of seats standard on 5-door models.
- Page 32 2nd row of seats on 3-door model forward facing only
- Page 34 Cruise control standard on VX petrol model
- Page 35 Multi information centre is standard on VX models
- Page 36 Steel wheels fitted to GS model and alloys fitted to GX/VX