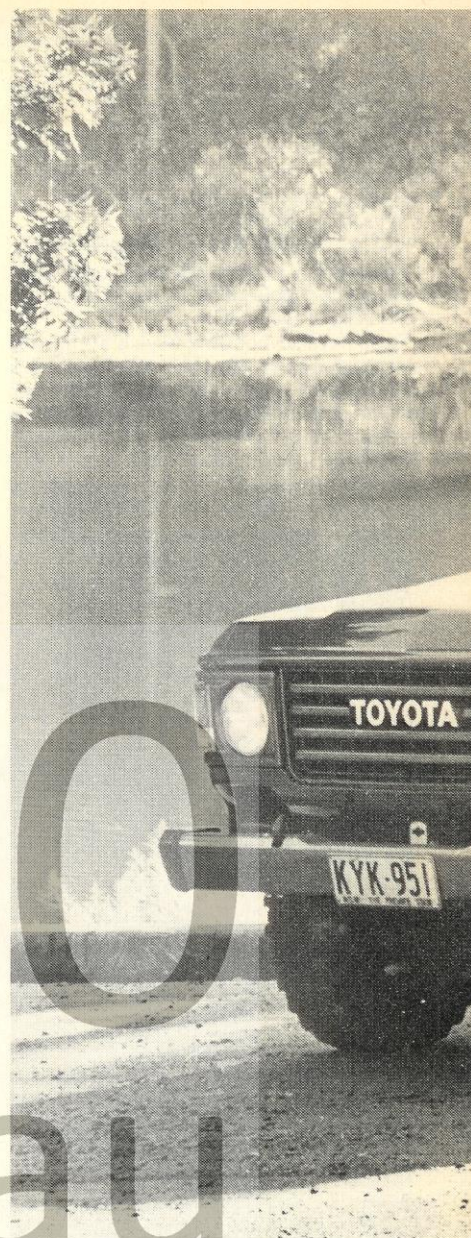


The Prince of Whales

Range Rover started the trend with a 4WD wagon that was more wagon than 4WD. Toyota followed with a wagon that was more truck than wagon. Now the FJ60 has become the first 4WD luxury truck. Tough as nails and half-way civilised to boot.



WE DIDN'T rush to bring you a road test on the Toyota FJ60 four-wheel-drive wagon. Things move slowly in the 4WD world and some owners are quite cynical about the newish wagon, claiming that Toyota dominates the big 4WD wagon market and that development is delayed until the other makers start to erode Toyota's sales lead.

Certainly some features of the FJ60 aren't just old-fashioned, but pre-historic.

There is a strong suspicion that the FJ60 petrol motor will slot neatly into a pre-1930 Chevy gearbox, or a pre-1930 Chevy gearbox will drop straight onto a Toyota engine. You may not wish to do this, but the engine antecedents are clear. Changes are developmental, not innovative.

Essentially the 4WD wagon market encourages mechanical conservatism and only grudgingly accepts creature comfort improvements demanded by the increasing number of amateur 4WD owners — the Paddington paddock bashers; the Kew kowboys.

Traditionally, Toyota is a trifle more expensive than the opposition. This wasn't the case

with the old FJ55: along with the Range Rover and the occasional Jeep Cherokee it stood alone for almost 13 years. And by being the least expensive, Toyota dominated the triumvirate's market.

Basically, the FJ55 was no more than a 4WD truck with a vestigial wagon body. Creature comforts were few and far between, but owners loved the vehicle's rugged reliability.

A change was inevitable. Datsun was waiting in the wings with the long-wheelbase MQ Patrol, which challenged the FJ55 head-on.

The FJ60 is intended to block this challenge.

A brilliant (if cynical) piece of engineering, the FJ60 isn't dramatically different, yet the two feel as though they're unrelated. As a wagon, the FJ60 almost succeeds, while as a 4WD it's as good as any of the big wagons around.

Mechanically, it repeats the basic formula adopted by 95 percent of the world's 4WD vehicles. A six-cylinder, 4.23-litre engine faces fore-and-aft at the front. Power is fed through a single dry plate clutch to an all synchro four-speed transmission. Thence to a 1.96 to 1 transfer case offering 4-high, 2-high, neutral



(for power take-off) and 4-low.

Conventional drive shafts take power to the front and rear differentials, which are both boringly non-independent.

Cart springs keep the rugged rivetted chassis off the ground and rubber buffers insulate the welded body from the chassis. A very conventional layout indeed.

In so far as a traditional design can be sophisticated, the FJ60 fills the role. However all things are relative. The interior is well appointed and the steering features power assistance so people unused to driving trucks aren't thrown out of kilter by the very masculine size of the FJ60.

The wagon's body displays limited styling, possessing gently rounded edges and a massive Toyota badge at the front. Crash characteristics have never been a strong point with 4WD vehicles. Lack of progressive development has bequeathed them a legacy of design that separates the chassis from the body. In a serious accident this creates monumental problems for body builders. Australia's largest body repair shop showed *Motor* a few FJ55s

that had been involved in relatively minor accidents. Body and chassis had both been twisted and they needed to be separated so that both could be repaired independently.

Hopefully they still fitted together when reassembled. Toyota has attempted to introduce progressive crumple at the front. Nevertheless, the chassis and body still need separate treatment in the advent of an accident.

Aerodynamics are absent in the FJ60 which presents an awesome frontal area. Speeds in excess of 120 km/h would probably cause enough local air disturbance to start a willy-willy around the rear pillars. A better shape would save fuel on long fast country hauls (a job the FJ60 does with tremendous ease), and lower the vehicle's front, making off-road driving much simpler as sudden fall-aways could remain in vision. At present, the vast expanse of flat bonnet area leaves the FJ60 with a blind spot immediately in front. Drivers must observe possible off-road dips and gullies, using memory to successfully negotiate these obstacles as they've disappeared beyond the field

of vision long before they're encountered by the front wheels.

Toyota's engine has subtly progressed from the FJ55 to the FJ60. Less emission gear shows greater detail attention to the cylinder head design. A new exhaust manifold is the most visible indication of Toyota's attention to emission changes.

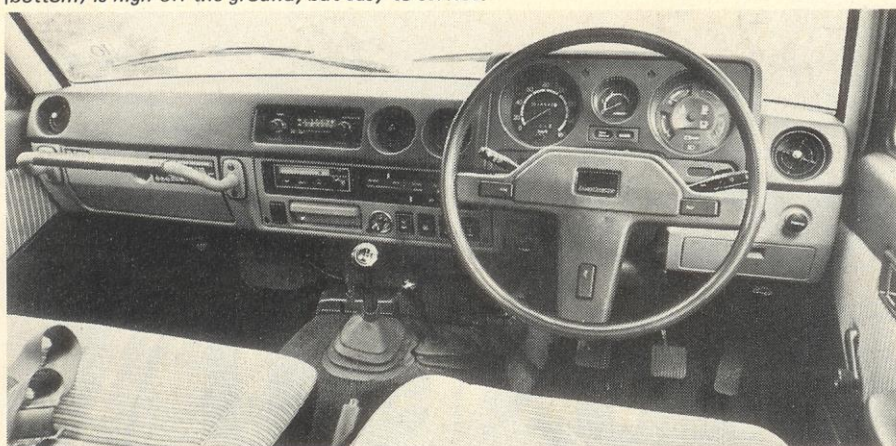
The engine has improved greatly as a result of these changes. However, don't mistake these supposed improvements for radical innovation. The FJ60 engine retains all the characteristics needed for a 4WD vehicle carrying a body that's alarmingly close to 2000 kg. Power is low at 96 kW (from 4.23 litres — the FJ60 has one of the lowest specific power outputs we've tested for some time), but torque is an impressive 274 Nm, arriving at a leisurely 1800 rpm.

Shades of a steam engine.

The straight six overhead-valve engine, like the rest of the vehicle's design, can virtually be traced as far back as Louis Chevrolet.

Traditionally ahead of Datsun in sales Toyota has offered four-speed and all-

Interior (top) shames many cars, though seats attract criticism. The Toyota 4.2-litre donk (bottom) is high off the ground, but easy to service.



synchronmesh much longer. The primary gearbox is trucklike in appearance, but not in feel. The only commercial compromise is a slight resistance, felt when changing back to first at low speed. The lever will occasionally fight back, reminding you that the rotating masses in the gearbox are anything but lightweight. The FJ60 gets a new transfer case. It's still not easy to operate, but low requires less of a Charles Atlas effort. Some transmission casing changes have been necessitated by the switch from a single transmission handbrake to a cable-operated unit positioned on the rear drums.

Four speeds aren't enough. The engine pulls 3000 rpm at 110 km/h in top gear. With red-line only 1000 rpm away, and massive reserves of torque lower down, the FJ60 could easily support a 0.75 to 1 or 0.8 to 1 overdrive fifth. This would make long distance country touring far more relaxed, and save fuel.

Which brings us to fuel economy and performance. Driven with the sheep in city traffic, the FJ60 can ignore first gear except on steep uphill starts. Moving away from traffic lights in second, it runs to 2500 rpm, allowing the driver to drop from third to fourth almost immediately. Engine characteristics make the FJ60 almost arrogantly relaxed in city driving although it isn't noted for spirited performance. It will run a 19.94 second standing 400 metres, but this can only be achieved by running into the red-line (4000 rpm) and working the big six very hard indeed. It has the hallmark of an elderly overweight lady, laden with string bags full of

yams, making a mad dash for the last bus home. It arrives red faced and panting only just in time, causing consternation to everyone watching.

The FJ60 isn't designed for standing start dashes. Fuel consumption figures show that relaxation is its forte. City driving and performance figure testing realised a figure of 19.35 litres/100 km. (14.6 mpg), while gentle country touring achieved a best of 15.0 litres/100 km (10 mpg). With the optional air conditioning doing battle with the elements and a long straight road inviting 120 km/h, the huge 90-litre fuel tank suddenly becomes very small indeed.

Toyota has opted for standard power steering on the FJ60. While this is welcome — the old FJ55 has steering that will put hairs on the chest of anyone — it is very much an after thought. The FJ60 has probably the worst power steering we've experienced. But we have been spoilt with variable ratio power steering on many cars. The Toyota system doesn't feel as though the ratio is variable; it refuses to self centre under brisk cornering and lock needs to be wound off with the same enthusiasm it was wound on. The alternative is to continue in a large circle. Large, because the turning circle is 13.4 metres. The power system is dead and unresponsive. But it is light and free from savage kick-back over knobbly surfaces.

Similarly, the RTM 750 x 16 six-ply tyres are a disgrace. The half-hearted argument that they offer good off-road grip doesn't wash. Plenty of

good off-road radial tyres exist in 1981 and there is no excuse for a tyre which makes cornering an adventure and wet sealed road braking a hair raising experience. Like other 4WD makers, Toyota has clung to a tyre design that is simply unacceptable outside the bush. As many FJ60s will live almost permanently in the city, the tyres must be changed.

A primary spring in any suspension system, the FJ60's tyres assist mediocre ride and handling. Their almost rigid nature transmits road feel with savage indifference to the occupants' comfort.

The tyres also contribute to the poor cornering. Pressed hard they give progressively, but so early that it isn't hard to run out of tyre traction at very low levels of emergency. They must be changed.

The tyres also affect the excellent brakes. Big boosted 302 mm front discs and massive 295 mm rear drums are capable of stopping the FJ60 on a three-penny bit (whatever that is). But the tyre's indiscriminate traction has the FJ60 darting and weaving all over the road under really savage braking. You may not hit the car in front, but you sure as hell will hit those on either side.

Perhaps the most impressive feature of the FJ60 is the excellent job Toyota has done insulating mechanical and road noise from the cabin. The body must rest on massive bushes because the plush interior can't be singly responsible for the low noise level. Wind noise is also remarkably absent. However the drumming caused by leaving open one rear window becomes almost intolerable around 80 km/h. An organ-pipe effect, created by air alternating over the opening, much as it does over the hole in a flute, causes the noise. The FJ60's base resonant note is about the same as the far left foot pedal on the Sydney Town Hall organ. And just as hard to tolerate.

The driving position is high and clear but seriously marred by a very uncomfortable driving seat. Very little support is given to the driver's thighs and the cushion is very flat. These two undesirable features leave a driver cramped and irritable after a few hours behind the wheel. Better padding and a rearward tilt of 10-15 degrees would help considerably.

Controls are excellent. There wasn't a single control which caused concern. Those which came close to a niggling complaint are the horn buttons. Found on the steering wheel spokes they're easily hit inadvertently. Parking in tight spots is usually accompanied by the electric horn concerto. Heater and air conditioning controls on the integrated system in the test vehicle are easy to operate. The air conditioning even has an "idle" button which marginally increases engine idle speed when the air conditioning is operating. This eliminates the stumbling and struggling so many engines experience on a stinking hot day in heavy traffic. It can also be used for crawling in Low-Low in difficult country if the hand throttle breaks — as it did in the test vehicle.

The instrument panel is clear and easy to read. The tach, fitted to the Deluxe version, is just the right size for an instrument which has only academic value. After all, 4000 rpm must be one of the lowest petrol engine redlines in current production. It's useful when the going is rough and you can possibly over-rev the engine in Low-Low.

In fact, the dash and controls are as good as most passenger cars and a good deal better than many. There's no sign of the FJ60's truck heritage from the driver's seat.

Visibility is fair to middling. The sheer size of the FJ60 is daunting enough, but a combination of a bonnet as large as a landing field, and very high sides makes city parking a trifle traumatic.

Lights are excellent. Halogen lamps successfully combine long distance beam and a good wide spread near the front of the vehicle. Ideal for night-time off-road work when the way ahead is rugged. The heater is powerful with a separate unit under the driver's seat for rear seat passengers. It should be possible to drive the FJ60 in sub-zero temperatures wearing a tee-shirt and Stubbies.

Similarly the integrated air conditioning is magnificently powerful and quick off the mark, bringing temperatures down rapidly.

Passenger accommodation is spacious and agreeable, the poor seats notwithstanding. The rear seats are more comfortable than those in the front. Entry and exit is easy, if a little high off the ground. There's plenty of space in the back for oddles of luggage but once again Toyota has missed the boat. For years off-roaders have been calling for a simple and reliable strap system in the rear to prevent

contents from being thrown around in rough road driving. The delightfully-carpeted luggage area is perfect for slipping and sliding. Everything that opens and shuts is equipped with frim-frams and gee-gaws. How hard would it be to make a stretch net for the rear with hooks in each corner?

Bad one Toyota.

Toyota has built an enviable reputation for reliability with the FJ range of off-road vehicles. The FJ60 is little more than an update of existing technology so there is no reason why it won't perpetrate the same tradition.

Value for money is difficult to assess in an off-roader like the FJ60. It's slightly more expensive than the MQ Patrol but considerably cheaper than the Jeep Cherokee and the Range Rover (and it's bound to be even cheaper than the four-door Range Rover by the time it arrives). When the battle lines are drawn up, the Toyota and the Datsun are the two which have to fight for sales at this end of the market. The Toyota probably boasts more trickery than the MQ. So you get what you pay for.

During the test period, the FJ60 spent a great deal of time in the city. While this isn't the

ideal locale for a 4WD it does manage to sort out the crude and effective 4WDs from their more sophisticated competitors. The FJ60 managed city traffic well and its awesome size gives drivers a handy advantage when negotiating for a slot in a stream of traffic. But most of all, the FJ60 managed to handle city traffic without feeling like a truck or getting stuck in narrow streets.

Like the Range Rover, it is a four-wheel-drive wagon, not a rough-and-tumble off-road exploration vehicle. In the rough it has distinct drawbacks, probably its size and the limited view offered forwards at low speed in hilly country.

The FJ60 is a logical progression from its predecessor the 'ol 55. It's a pity about the power steering and tyres. But when the FJ65 arrives, it's bound to have radials and power steering that feels more like steering and less like a dinner plate. It would be a pity to wait another 13 years for these much-needed changes.

In the meantime, the FJ60 will simply have to do battle with the MQ and laugh all the way to the bank when compared to the other two 4WD wagons. □

TOYOTA FJ60 DELUXE 4WD WAGON ROAD TEST DATA (as tested)

ENGINE

Location	Front
Cylinders	Six; in-line
Bore x Stroke	94 x 101.6 mm
Capacity	4230cc
Carburation	Two barrel downdraught
Compression Ratio	7.8 to 1
Fuel Pump	Mechanical
Valve Gear	Push-rod OHV
Claimed Power	96kW at 3600 rpm
Claimed Torque	274Nm at 1800 rpm
Maximum Recommended Engine Speed	4000 rpm
Specific Power Output	22.7kW/litre

TRANSMISSION

Type	Four-speed manual
Driving Wheels	Four
Clutch	Single dry plate

Gearbox Ratios

Gear	Ratio	km/h-1000 rpm	Max Speed
First	4.843	7.5	30
Second	2.619	13.8	55
Third	1.516	24.3	97
Fourth	1.000	36.5	146
Final-Drive Ratio	4.111		
Transfer case (low range)	1.96 to 1		

SUSPENSION

Front	Semi-elliptic
Rear	Semi-elliptic
Wheels	5.50 F16 split
Tyres	750 x 16 RTM

BRAKES

Front	302 mm discs
Rear	295 mm drums

STEERING

Type	Recirculating ball, (power-assisted)
Turns, lock to lock	3.6

Ratio	19.13 to 1
Turning Circle	13.4 metres

DIMENSIONS AND WEIGHT

Wheelbase	2730 mm
Front Track	1475 mm
Rear Track	1460 mm
Overall Length	4750 mm
Overall Width	1800 mm
Overall Height	1845 mm
Ground Clearance	230 mm
Kerb Weight	1915 kg
Weight to Power	19.95 kg/kW

CAPACITIES AND EQUIPMENT

Fuel Tank	90 litres
Cooling System	16.5 litres
Engine Sump	8.0 litres
Battery	12V 70AH
Alternator	480 Watts

FUEL CONSUMPTION

Average for Test	17.0 litres/100 km
Best Recorded	15.0 litres/100 km

ACCELERATION

0-60 km/h	5.9 seconds
0-80 km/h	10.7 seconds
0-100 km/h	16.6 seconds
0-110 km/h	21.8 seconds
0-120 km/h	28.7 seconds
Standing 400 metres	19.94 seconds

OVERTAKING TIMES

50-80 km/h	6.25
60-100 km/h	10.70

BRAKING

100-0 km/h	43.8 metres
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THE FIVE-STAR TEST

Finish	★★★★★
Comfort	★★★
Handling	★★★
Brakes	★★
Performance	★★★★★
Quietness	★★★★★
Luggage Capacity	★★★★★
Value for money	★★★★★

CHECKLIST

Alloy Wheels	No
Adjustable Steering	Yes
Air-conditioning	Yes
Carpets	Yes
Central door locking	No
Clock	No
Intermittent Wipers	Yes
Laminated Screen	Yes
Petrol-filler lock	Yes
Power Steering	Yes
Power Windows	No
Radio	Yes
Tape Player	Yes
Rear-window Wiper	Yes
Remote outside mirror adjustment	No
Sun Roof	No
Tachometer	Yes

COMPARISONS

CAR	CAPACITY (cc)	POWER (kW)	PRICES \$
Toyota FJ60	4230	96	\$14,898
Datsun MQ Wagon	2753	88	\$13,980
Jeep Cherokee 6	4200	82	\$20,999
Range-Rover	3528	100	\$19,600

