

Fiat Tempra 1.9Tds Turbo-diesel



THANKS TO THEIR SUPERB ECONOMY and reputation for longevity, diesel cars represent one of the fastest growing sectors of the market at the moment. And if you're talking *turbo-diesel*, opting for an oil-burner doesn't involve anything like the sacrifice in performance it used to.

This Tempra 1.9Tds, for example, while costing about £1500 more than the equivalent 1.6-litre petrol model, is quicker off the mark in all but its high, loping fifth gear, and goes some 25 per cent farther on each gallon of fuel.

AT THE WHEEL

Although the Tempra's 1929cc engine uses the less-efficient indirect injection, its turbocharged and intercooled induction means that there's a snappy 92bhp under the bonnet, making it just about the most powerful turbo-diesel in its class.

As we know from experience with the closely related Tipo, it's also one of the most invigorating

turbo-diesels you'll find. It delivers lively, almost sporty, progress in the lower gears, yet there's ample hush when cruising on a motorway, thanks to its "overdrive plus" fifth gear.

Mind you, it's not the quietest of diesels. The commotion on cold start-up is more like the hard-edged racket characteristic of noisier (though ultimately more efficient) direct injection diesels. And even though the din subsides nicely on the move, the Tempra can't match the tranquillity of the Citroen BX and Peugeot 405 diesels; these two are almost as refined as their petrol-engined counterparts.

Despite having a little more weight over the front wheels, the 19Tds is no slouch round the corners, either, with the soft-feel (though rather plasticky) steering wheel and quick, nicely weighted power steering providing every encouragement to enjoy the nimble handling to the full.

As well as optional alloy wheels (fitted with wider 185/60-section tyres), our test car also had anti-lock brakes – another option. The all-disc, three-channel

Bosch set-up delivers progressive, nicely weighted and fade resistant responses in normal use, but full-blooded anti-lock stops at the test track proved a little disappointing.

Headlamp washers and a rear wash-wipe system were a further option fitted to our test car. The latter is appreciated on damp days, but makes the control stalk even busier, and while the headlamp washers are useful, their motorised pop-up mechanism within the bumper could make a parking nudge quite expensive.

LIVING WITH THE TEMPRA

Like other up-market Tipos and Tempas, the Turbo-diesel comes with Fiat's high-tech digital instrument display – an acquired taste that we've yet to acquire! The Turbo-diesel adds a boost gauge for the driver to play with and the speedo is quite accurate, but 'proper' round dials do it better, in our view.

Infuriatingly, though, the electronic trip odometer zeroes itself whenever the display is switched between metric and imperial units. This is normal on Tempas, but not with the supposedly identical set-up in the Tipo, apparently. The trip meter managed to zero all by itself on a couple of occasions, too.

Economy is what diesels are all about, of course, but the Tempa's lively performance – and the temptation to use it – take their toll. Considering the car's liveliness, our 43mpg overall isn't to be sneezed at, but the Peugeot 405 performs nearly as well yet runs for about 47 miles on each gallon, while the class

leaders break the 50mpg barrier – albeit with poorer performance and aided by direct injection, in the case of the Montego.

Even so, a generous tank capacity and a reliable low-level warning lamp permit an excellent 550 miles between refills, and the Tempa fills easily almost to the brim.

Once you've propped the weighty bonnet on its strut, the routine top-up items are all reasonably accessible. Servicing entails oil changes very 4500 miles, with service visits due at 9000-mile intervals.

VERDICT

The Tipo is about the most rewarding turbo-diesel we've driven, so it's hardly surprising that the closely related Tempa leaves much the same impression.

The Tempa doesn't quite match the Peugeot 405's refinement and its rather plasticky facia and love-them-or-loathe-them instruments aren't its most endearing features, but the roomy, well-equipped cabin provides comfortable accommodation. Surprisingly, though, the smaller Tipo has a little more headroom.

It's not the quietest of diesels, and its economy isn't especially good, either, but few diesels approach the 1.9Tds' impressive blend of lively performance and abundant driver appeal – or its keen, value-for-money pricing. If you like diesels, you'll love this one.



PERFORMANCE

Acceleration time in seconds

STANDING START	0-30mph	0-60mph	1/4 mile
	3.6	11.9	18.6

mph	30	40	50	60	70
THROUGH THE GEARS		2.0	4.9	8.3	12.9
IN 5TH GEAR		9.5	16.8	22.8	28.9
IN 4TH GEAR		4.2	7.6	11.3	15.6

20 mph	30	40	50	60	70
5TH/4TH SPEED RANGES		19.8/10.1		13.5/7.3	
			16.8/7.6		12.3/8.0

Maximum speeds

REV PER MINUTE	1st	2nd	3rd	4th	5th
	4250*	4610	4240		
	26	59	86	111	

* for best acceleration

FUEL CONSUMPTION

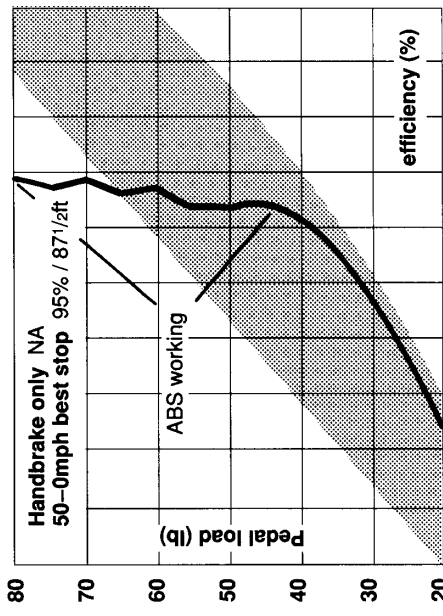
Fuel grade for tests: Diesel

Normal range	mpg
Hard driving, heavy traffic	32 1/2
Short journeys in the suburbs	38 1/2
Motorway – 70mph cruising	40
Brisk driving, mixed roads	45
Gentle driving – rural roads	52
Typical mpg overall	43
Realistic tank range*	58 litres/550 miles

* based on gauge/warning lamp and filling station experience

SAFETY

Brakes How pedal loads affect braking



Braking efficiency shown as a percentage of gravity (ie 100% = 1.0g). Ideally the braking curve should fall within the shaded zone of this graph. If it's above, the brakes are too heavy; if it's below, they are too light – particularly on cars without ABS. When the curve becomes broken, the wheels are skidding.

Fade test

How hard use or water affects braking. (Ideal brakes show no change.)

Pedal load needed for 75% stop (lb)

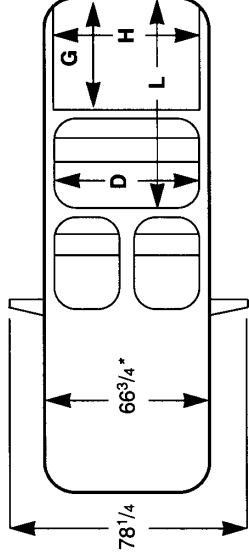
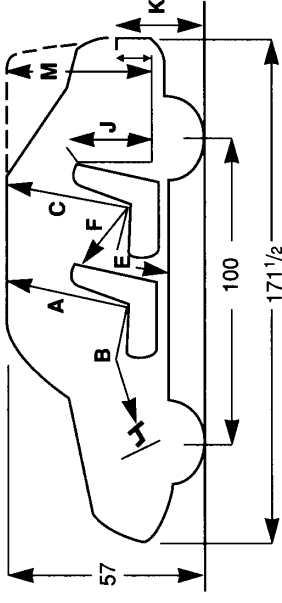
38	At start of test
40	After constant use
48	After severe use
–	After watersplash
–	Number of stops to recover

Safety check list

Steering	true 'feel' of the road?	☒
Brakes	powerful?	☒
	sensible effort?	☒
	fade resistant?	☒
Seatbelts	front – effective?	☒
	convenient?	☒
	rears – effective?	☒
	convenient?	☒
Head restraints	front – effective?	☒
	rear – effective?	☒
Interior	thoroughly padded?	☒
Fuel	shielded filler?	☒
	protected tank?	☒

MEASUREMENTS

Dimensions (inches)



* with mirrors folded

Inside (inches)

A Front headroom	35-36	G Load length	2700
B Front legroom (min - max)	34 3/4-42	H Load floor width (mid - max)	37
C Rear headroom	35 1/2	J Load height	42-54 1/2
D Back seat width (between armrests)	52 1/4	K Sill height (inner/outer)	18 1/2
E Typical rear legroom	40	L Load length (max)	7/27
F Typical rear kneeroom	30 1/4	M Load height (to tailgate hinge)	60 1/2
			NA

* "Typical" represents the mean measurement behind the driver's seat set at 39in legroom and the passenger's seat set at 41in

HOW IT COMPARES (All turbo-diesels)	Engine cap/power (cc/bhp)	Max speed (mph)	30-70mph through gears (sec)	30-70mph in 5th/4th gears (sec)	Fuel economy (mpg)	Brakes best stop (%g/lb)	Maximum legroom – front (in)	Typical leg/ kneeroom – rear (in)	Steering † turns/ circle (ft)	Overall length (in)
Fiat Tempra 1.9Tds	1929/92	111	12.9	28.9/15.6	43	89/80*	42	40/30 ¹ / ₄	3.1/35	171 ¹ / ₂
Ford Sierra Sapphire 1.8TD LX	1753/74	100	16.5	28.8/20.6	40 ¹ / ₂	100/45*	41 ¹ / ₂	38 ¹ / ₂ /30	2.8/35	176
Peugeot 405 1.8GRD	1769/91	108	13.4	26.6/17.5	47	93/40	43	40/32 ¹ / ₄	3.3/35 ¹ / ₂	173 ¹ / ₂
Rover Montego 2.0DSLX	1994/81	98	14.9	35.2/22.0	50	101/48	42 ¹ / ₂	41 ¹ / ₂ /29	3.5/36	175 ³ / ₄
Rover 418SLD	1769/87	104	14.7	31.4/19.6	45	86/40	42 ¹ / ₂	39/28	3.4/34	172
Vauxhall Cavalier 1.7TD GL	1686/81	110	13.0	28.2/18.8	46	NA	42 ¹ / ₂	39 ¹ / ₂ /28 ¹ / ₄	3.4/34	174 ¹ / ₂
VW Passat 1.6CL*	1588/80	101	16.9	46.4/30.6	51	96/45	42	42/31 ¹ / ₄	3.3/33	180
* performance figures for estate version						* with ABS			† all power-assisted	



Tempra turbo-diesel Estate

TECHNICAL SPECIFICATION

ENGINE

Type and size front-mounted, transverse 4 in line; water-cooled. 82.6mm bore x 90.0mm stroke = 1929cc. Iron block and aluminium alloy head; 5 main bearings

Compression ratio 19.2:1

Valve gear single belt-driven overhead camshaft actuating two valves per cylinder

Fuel system Bosch mechanical (indirect) injection, with turbocharger and intercooler. 65-litre (14.3-gallon) tank, with low-fuel warning lamp

Ignition system compression ignition, with electric pre-heating and thermostatically controlled pump advance for cold starts

Maximum power 92bhp at 4100rpm

Maximum torque 140 lb ft at 2400rpm

TRANSMISSION

Clutch single dry plate, diaphragm spring; hydraulically operated. Pedal load/travel: 23 lb/5³/₄in

Gearbox 5-speed (all synchromesh) and reverse.

Ratios: first 3.55, second 2.27, third 1.54, fourth 1.16, fifth 0.82 and reverse 3.91:1

Final drive 3.05:1, to front wheels

Mph per 1000rpm 26.2 in top, 18.6 in 4th

Rpm at 70mph 2670 in top gear

CHASSIS

Suspension front: independent by MacPherson damper/struts with coil springs, lower wishbones and an anti-roll bar. Rear: dead beam axle with trailing arms, coil springs and an anti-roll bar. Dampers: gas-filled telescopic all round

Steering power-assisted rack and pinion with 3.1 turns between full locks. Turning circles average 35ft between kerbs, with 51³/₄ft circle for one turn of the wheel

Wheels 5¹/₂J x 14 steel with 175/65R14 82T tyres (standard); optional 5¹/₂J alloy with 185/60R14 82H tyres (Goodyear NCT 2) on test car

Brakes 9.5in discs front, 7in drums rear, with vacuum servo. Optional three-channel Bosch anti-lock system (includes rear discs) fitted to test car