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MORGAN +8 TURBO

*For those who appreciate
their nostalgia straight-up*

PHOTOS BY DOROTHY CLENDENIN



THE YEAR 1936 was a momentous one in Great Britain: She had three sovereigns that year, with King George V dying in January, Edward VIII abdicating to marry the woman he loved, and his brother becoming George VI before year's end. In the midst of all this, one of her motorcar manufacturers, Morgan Motor Company Ltd, Malvern Link, Worcestershire, introduced its 4/4 model (that is, four each of cylinders and wheels) characteristically understating the point that 4-wheeled motoring might not be just something of a fad.

To cover its bets, though, Morgan kept its 3-wheelers in production almost

to the end of George VI's reign, 1950 to be exact. Beg pardon, ma'am; that's the Moggie Trike, not George VI. And if you're wondering why, in this twenty-eighth year of Elizabeth II's reign, we're making such a big deal of things that happened so long ago, you've not reached the proper frame of mind for appreciating the subject of this road test, the Morgan + 8 Turbo. In our "10 Best Cars for a Changed World," R&T, June 1978, the Morgan garnered the coveted Henry N. Manney III Intransigence Can Be a Virtue Award. "After all," we noted, "if the basic design was good enough in the Thirties, it's surely adequate today." And prior to that, our last Moggie road test was back in December 1969, so you can see that the long view is important.

Why this thoroughly delightful car evaded our road test scrutiny for the entire decade of the Seventies is partly that very little new happened to the Morgan, partly simple economics and partly a good dose of Gummint. For a long time, Morgan has had waiting lists that would be the envy of any other automaker. And Pete Estes, Henry Ford and Lee Iacocca know what we're hinting at—you get to a point where there are just so many cars you care to make, and that's it. Complicate matters with piles of paper required to show the car is safe and sanitized, and you eventually come to think the U.S. market is more trouble than it's really worth. As did Morgan in the early Seventies. Enter Bill Fink and his Isis Imports, Ltd, Inc, and U.S. Morgan aficionados had cause for rejoicing.

Bill set out single-handedly to import and legalize the marque, and his offerings today, both 4- and 8-cylinder models, are absolutely charming blends of old and new. And when we say old, we're not simply talking about last year's chrome trim being carryover. Let's start at the front end by noting that Morgan's sliding pillar independent suspension hasn't changed radically since the good H.F.S. Morgan set pen to drawing board in 1910. (Curiously enough, that's the year George V ascended the throne. See how much history we're learning?)

In any case, the Morgan front suspension has steel tubes supporting two vertical pillars on which slide the hub/stub axle assemblies suspended by coil springs; disc brakes, hydraulic tube shocks and an optional de-cambering by Bill bring things more or less up to date. The rear suspension is a bit more modern, but then you've got to recall that the Morgan had only one wheel back there for the first 26 years. A live axle with Salisbury limited slip is suspended on semi-elliptic leaf springs and damped by lever-action shocks, those marvelous box-like contraptions whose sealing characteristics

were always hinted at by the presence of little refill plugs. These components attach to what is actually half the real suspending medium, a steel ladder frame of perhaps less than state-of-the-art rigidity. The tires are the other half of the suspension; think of the springs as merely something to grease occasionally. An ash framework is assembled atop the ladder chassis, and this in turn is cloaked in steel panels (or, as is the case with our test car, several of optional aluminum alloy). Neat, effective and, as we noted as recently as 1969, if it was good enough for the Thirties, why not today?

Well, in fact, the feds have stomped in since then, and Bill responds with some added structure to fit the required door anti-intrusion beams. There's a hoop of rollbar stock behind the dash to which the door hinges re attached ' another structure behind the cockpit on which the door latch posts reside, and Bill carves out a bit of ash door-frame to mount aluminum beams. Little of this shows, of course, but you can still see a painted edge of ash here and there, as is quite proper, after all.

Bill handles the fed's dodgem bumper regs cleverly, with hydraulic pistons taken from the Volkswagen Rabbit and attached to steel tubes backing up the stock Morgan bumpers. These and the relocated taillights look considerably less out of place than several factory botch-ups that come to mind. Under the bonnet comes the real news since our last road test of a Morgan: The Isis/Jaguar Rover Triumph/nee Buick V-8 is now propane-fueled and turbocharged.

The first is a standard feature of Bill's 25-per-year output; the turbo installation is a \$2500 option for those desiring added kick to their nostalgia. The switch to liquid petroleum gas (propane or butane) makes particularly good sense for a couple of reasons. First, it allows a complete lack of emission controls and the attendant problems with certification, durability testing and the like, what with LPG running as clean as Joan Claybrook escaping a Detroit steam bath. As an added benefit, propane's 105 octane means the 9.4A compression ratio is perfectly compatible with the Rajay turbo's 6-psi boost. There's no need for water injection or other detonation protection, and Bill says he can tighten the screw to even more boost if you're really intent on excitement.

The conversion to LPG uses a 19.3-gal. tank located approximately where Morgan fits its ordinary fuel tank. However, Bill notes that regulations dictate a 20-percent air volume, so the tank's effective capacity is more like

15.4 gal. Also, with LPG refueling capacity being temperature-dependent, a visit to the filling pump (actually, it's a valve) may result in less than 15.4 gal. filling an empty tank. This activity is accompanied by considerable ceremony, starting with unlatching the rear-deck-mounted inlet and bleed valves, screwing in the filler nozzle, opening it and the bleed, then waiting until a piquant mist of propane from the latter signals a fill. And it costs quite a bit less than a visit to the gasoline pump: By shopping around, we found propane at 77¢/ gal.

Now there's nostalgia, admittedly of the short-term variety. By the way, our experience indicates that all propane or butane suppliers aren't necessarily able to refuel a car; this, because of motor-fuel licensing requirements. And there was one lad, probably fresh from viewing a Great War dirigible movie, who refused to refuel our test Moggie because thunderstorms were forecast. The propane travels from the tank to a firewall-mounted vaporizer that's heated by engine coolant. There's also a vacuum operated fuel lock/filter that keeps everything shut down when the engine isn't running. A single-barrel Impco propane carburetor replaces the V-8's two SUs fitted at Malvern Link and the propane system carries an automatic enrichment device for cold starts.

Bill fiddles with the Lucas Opus electronic ignition to optimize the engine's propane compatibility: seems that propane wants more initial ignition advance than gasoline, but not quite as much overall. He says a turbo V-8 put out 200 bhp at the rear wheels during dyno development, so we'd estimate 225 bhp (SAE net) as peak horsepower at 5000 rpm with the Rajay wastegate set for 6-psi maximum boost. Some added guesswork gives the estimate of 240 lb-ft of torque at 3000, but neither of these figures suggests the beautiful driveability and responsiveness of this engine.

In fact, the total experience of driving the Morgan evokes memories that have improved with age. You clamber into the cockpit by folding your right knee under the scuttle, tucking that foot down to where the pedals lurk, sliding in and maneuvering your left leg to follow. Do all this in the correct order, and you find yourself facing a handsome wood-rimmed Nardi wheel. In fact, you do more than face it-you're up near this lovely example of Italian craftsmanship. But not to worry, because once you experience Morgan steering, you'll realize that laid-back straight arm driving is for sissies. This is steering that exercises shoulder muscles, not just biceps.

The ignition switch is hidden beneath the dash, and the first few times it

takes a couple tries to get the key in it. Evidently a Morgan concession to anti-theft considerations, and apparently the only one because with no outside door handles the locking latches inside seem awfully silly. All this can get reasonably complicated with the top and side curtains in place: Whether the car is locked or not, you slide a plastic panel of the side curtain open, reach in, fumble around a bit and unlatch the door. Speaking of top and side curtains, we can note that the Moggie's are exemplary of what English weather protection used to be. And honestly, it's not all that difficult to assemble or disassemble, roughly midway between the superb ease of a Fiat Spider's, say, and the Erector-Set fiddling of a Jeep C.1's. Having the top up is a mixed blessing, however. It does give some space behind the seats for storage, but anyone except for the shortest driver gets only crooked-head side glances at whatever might be happening to the right or left. And the bowing-out, flapping and general lack of seal had our Engineering Editor calling his 90-mph sound level measurement of 98 dBA "the positive hinges of hell." No matter, chaps; the best course is to leave the top and side curtains at home in the garage anyway.

Top up or down, the Morgan's cockpit is a nice snug one. Directly ahead of the driver is full instrumentation, including a speedometer calibrated to 170 mph, a Smiths unit evidently left over from the D-Type Jaguar or some such. You like to think Peter Morgan got a deal on the last batch of them. The steering column stalks are straight out of JRT right-hand-drive models, with the directionals /high beam /flasher/ horn on the right and wiper/ washers on the left. The handbrake along the driveshaft tunnel is of the genuine fly-off variety: Its button locks it on; a quick pull rearward and release unlock it. And also down on the tunnel is a device resembling a foot-actuated dimmer switch.

This is Morgan's One-Shot Auto-Lube control, the depression of which causes a squirt of engine lube to pass onto the sliding pillar front suspension. It's the only thing that's automatic about a Morgan's lubrication, what with a total of 10 sites around the car profiting from grease every 3000 miles.

But enough of these details. A twist of the key, and the V-8 throbs to life. Snick the stubby lever into 1st, ease out the clutch, and you're burbling away, looking down that long louvered bonnet at one of the classic views in motoring. Stomp the throttle (one of those little roller types many of us learned to heel-and-toe with), and gobs of torque at the bottom end turn into raspy turbo power as the revs build past 3000. Redundant though they

may be with all this power, the gear ratios are nicely spaced and it's a gearbox you enjoy shifting for the sheer pleasure of it all. And if you get downright serious, you can go from 0 to 60 mph in 6.8 seconds and turn the standing quarter mile in 15.1 sec at 93.5 mph.

As for ride and handling, you've got to remember that terms like oversteer, understeer and suspension compliance were coined long after key elements of the Morgan were already in place. Essentially, it's a car that likes to wash out its front end first, although there's enough power available to provoke the rear end too. From a relatively rearward seating position, you sense the road at all four corners and watch that lovely bonnet bob up and down, back and forth. All the while, you come to appreciate the close-to-the-wheel seating because the Moggie's cam-and-peg steering gear is extremely stiff and notchy, just about impossible to turn at rest and affected with that characteristic remembered by MG TC drivers of combining lots of center freeplay with very abrupt response once the slack is used up.

At its lofty top speed, and this car will redline 4th fairly easily, things get busy indeed. Driven more sedately, though, the Morgan provides excellent input to the driver and it responds decently despite its heavy controls. It enjoyed a tight line through our slalom, for instance, with absolutely no lean and little squirts of power between pylons as it posted a commendably quick 6 1.1 mph. It bobbed its bonnet around our skidpad with a lateral acceleration of 0.791g. Not bad for Thirties suspension, eh? Yet both of these are smooth-surface evaluations in which the Morgan's ample tire patches, predictable understeer and quick steering fill the bill. No staff member felt it would be anything but a handful down a less than smooth twisty road at speed, and sure enough it was, exhibiting behavior that one staff member termed "St Malvern's Dance."

The brakes reinforce this feeling of vintage motoring. Even though they're modern enough disc/drum combinations, they're free of vacuum assist and required a super-high 60-lb pedal pressure for our 0.5g stops. However, they pull the car down evenly with excellent control, and distances from 60 and 80 mph were quite short at 157 and 269 ft, respectively. On heavy braking, the front end chatters up and down as the sliding-pillar structure deflects in reaction to the most definitely post-vintage width of the Michelin XWX 195VR-15s. Bill Fink notes that he's experimented with added bracing of the front end that mitigates this hopping routine.

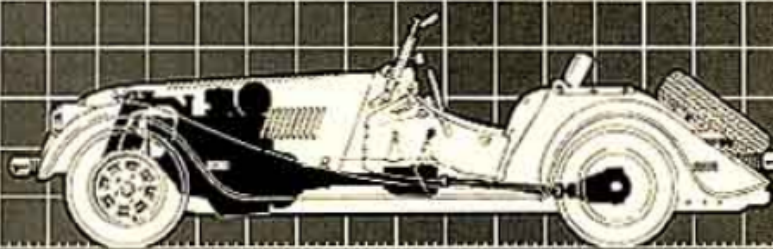
But you can bet he's not going to change any of the essential features,

because Bill is a believer. And after spending some time with this latest Morgan, we definitely understand its attraction. Modern machinery is easier to drive, but what's often traded away is the enjoyment of challenge and accomplishment. To drive a Morgan properly, you get to forget your daily concerns, you have to concentrate on the car and its operation. For awhile there, with the louvered bonnet leading the way, the transmission tunnel warming your right leg and the cold wind tousling your hair, you and the Morgan are very good friends indeed.



ROAD TEST

MORGAN +8 TURBO



Price, \$19,999 (MSRP)

PRICE

List price, FOB San Francisco	\$23,500
Price as tested	\$27,625
Price as tested includes standard equipment (propane conversion), turbo sys (\$2500), aluminum alloy body (\$550), adj seats (\$150), brown top, tonneau cover & side curtains (\$350), Nardi steering wheel (\$185), badge bar & badges (\$115), decambered front suspension (\$75)	

IMPORTER

Bus Imports, Ltd. Inc., PO Box 2250, U.S. Custom House, San Francisco, Calif. 94126

GENERAL

Curb weight, lb/kg	2285	1037
Test weight	2475	1124
Weight dist (with driver), l/r, %		44/56
Wheelbase, in./mm	59.0	2513
Track, front/rear	52.0/53.0	1321/1346
Length	157.0	3888
Width	62.0	1575
Height	52.0	1321
Ground clearance	6.0	152
Overhang, l/r	23.5/34.5	597/876
Trunk space, cu ft/liters	4.4	125
Fuel capacity, U.S. gal./liters	15.4	58

INSTRUMENTATION

Instruments: 170-mph speedo, 7000-rpm tach, 99,999 odo, 999.9 trip odo, oil press., coolant temp, turbo boost, voltmeter, fuel level
Warning lights: oil press., brake sys, hazard, seatbelts, high beam, directionals

ENGINE

Type	otv V 8
Bore x stroke, in./mm	3.50 x 2.80 88.9 x 71.1
Displacement, cu in./cc	215 3528
Compression ratio	9.4:1
Bhp @ rpm, SAE net/kW	est 225/168 @ 5000
Equivalent mph / km/h	128/207
Torque @ rpm, lb-ft/Nm	est 240/325 @ 3000
Equivalent mph / km/h	77/124
Carburetion	Impco propane (TV)
Fuel requirement	propane/butane, 105 oct
Exhaust emission control equipment	none

DRIVETRAIN

Transmission	5-sp manual
Gear ratios: 5th (0.83)	2.76:1
4th (1.00)	3.31:1
3rd (1.40)	4.62:1
2nd (2.08)	6.90:1
1st (3.32)	10.99:1
Final drive ratio	3.31:1

ACCOMMODATION

Seating capacity, persons	2
Head room, in./mm	37.5 953
Seat width	2 x 19.5 2 x 495
Seat back adjustment, deg	40

CHASSIS & BODY

Layout	front engine/rear drive
Body/frame	separate, aluminum & steel on ash/steel
Brake system	11.0-in. (279 mm) discs front, 9.0-in. x 1.8-in. (229 x 46 mm) drums rear
Swept area, sq in./sq cm	226 1458
Wheels	cast alloy, 14 x 6
Tires	Michelin XMO, 195VR-14
Steering type	cxm & ppg
Overall ratio	na
Turns, lock-to-lock	2.2
Turning circle, ft/m	38.0 11.6
Front suspension	vertical sliding pillars, coil springs, tube shocks
Rear suspension	live axle on leaf springs, lever-action shocks

MAINTENANCE

Service intervals, mi:	
Oil/filter change	5000/5000
Chassis lube	3000
Tuneup	20,000
Warranty, mo/mi	12/12,000

CALCULATED DATA

Lb/bhp (test weight)	11.0
Mph/1000 rpm (5th gear)	25.5
Engine revs/mi (60 mph)	2350
Piston travel, ft/mi	1095
R&T steering index	0.84
Brake swept area, sq in./ton	153

ROAD TEST RESULTS

ACCELERATION

Time to distance, sec:	
0-100 ft	3.3
0-500 ft	8.3
0-1320 ft (1/4 mi)	15.1
Speed at end of 1/4 mi, mph	93.5
Time to speed, sec:	
0-30 mph	2.7
0-60 mph	6.6
0-100 mph	18.0

SPEEDS IN GEARS

5th gear (5000 rpm)	128
4th (5500)	117
3rd (5500)	81
2nd (5500)	56
1st (5500)	35

FUEL ECONOMY

Normal driving, mpg	16.0
Cruising range, mi (1-gal. res)	230

HANDLING

Lateral accel, 100-ft radius, g	0.791
Speed thru 700-ft slalom, mph	61.1

BRAKES

Minimum stopping distances, ft:	
from 60 mph	157
from 80 mph	289
Control in panic stop	very good
Pedal effort for 0.5g stop, lb	60
Fade: percent increase in pedal effort to maintain 0.5g deceleration in 6 stops from 60 mph	8
Parking: hold 30% grade?	yes
Overall brake rating	very good

INTERIOR NOISE

Idle in neutral, dBA	65
Maximum, 1st gear	90
Constant 30 mph	82
50 mph	86
70 mph	93
90 mph	98

SPEEDOMETER ERROR

30 mph indicated is actually	27.5
50 mph	54.6
80 mph	73.1

ACCELERATION

