

Trip-Testing

FMC 2900R

A unique chassis makes this coach one of the best-handling vehicles, for its size, ever built.

by BILL ESTES

THE OPERA CROWD was arriving at War Memorial Auditorium in San Francisco one Friday evening, and up rolls an FMC — not a motorhome but a transit bus. It seemed the most stylish arrival of the evening, even though more than a few limousines were present.

I knew that FMC was using the 29-foot chassis as a transit bus, but still it was a surprise for it unexpectedly to appear, since I had become accustomed to thinking of it as a recreational vehicle.

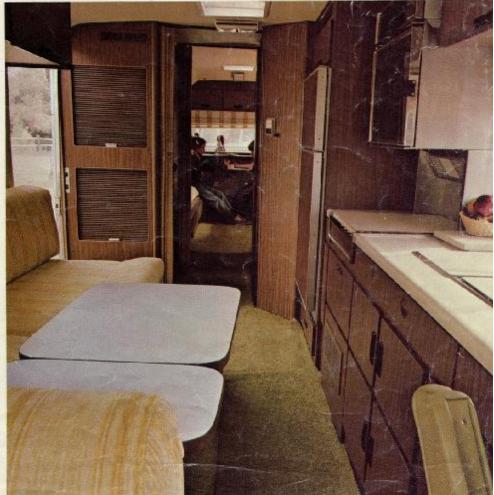
Whether in its guise as a transit bus or outfitted as a motorhome, the FMC is right in its element, which should say volumes about the exterior design and its visual impact. The coach exudes quality. Many other big motorhomes say expensive but few say class so effectively.

RV travel might well include an opera if one is so inclined. Nothing wrong with relaxing for a few days in a wooded camp outside the city and making a trek in for the performance, although I suspect it might be difficult to find a parking place in San Francisco for something which is 30 feet 2 inches long (including the spare tire). The FMC is ideal for high-style entertaining in which the visual impact of the coach—both exterior and interior—is a distinct factor in its suitability. All this is as it should be, because a coach priced at \$54,500 should be quite out of the ordinary.

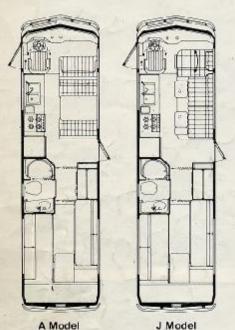
A comparison with other luxury coaches in the 30-foot class must be rather thorough because there is much more to

The J floorplan for the 2900R features an L-shaped sofa, the forward portion of which converts to either forward-facing or rear-facing scat. Dining tables are stored in cedar-lined closet when not in use. Coach has central air conditioning rather than roof-mounted





the FMC than immediately meets the eye. There may be better floorplans, although what is good, better and best depends on one's personal point of view. And there are interior designs with more pizzazz, although few, if any, are more tasteful. Where the differences show up are in chassis design, in the quality of materials and in the workmanship, which is flawless . . . or was in the test coach. A plant tour should be on every prospective FMC buyer's agenda because it's quite an education in what motorhome design and assembly can be.



Scfa-lounge with twin tuckaway tables

Convertible Dinette

The chassis is engineered from the ground up with a motor coach in mind, rather than following a design originated for commercial trucks. The commercial truck chassis get the job done but the FMC exemplifies the handling, stability and steering precision of which a large motorhome is capable when the chassis is designed specifically for that purpose. It's very low and is rather complex. It's a very strong perimeter design which encompasses the holding tanks and water tank in the lowest possible position for the least effect on the vehicle center of gravity. The front and rear suspensions are integrated in the chassis design rather than simply hanging on beneath frame rails. It is tremendously impressive to see how it all goes together and the attention to detail which it gets. One begins to think that the coach should last forever and that it could be entered in a grand prix race if it weren't so big.

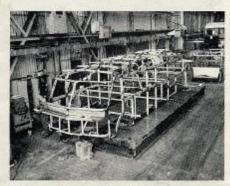
FMC drivability, although not quite up to grand prix standards, probably is unique in the motorhome industry. The suspension is so well-controlled that it takes almost any-



Driver's door is an FMC convenience-safety feature.



Bathroom has 3-way mirrors and two large medicine chests.



FMC superstructure is welded aluminum Chassis is steel.

PERFORMANCE FMC 2900R

Mileage*8 mpg
Engine Coolant Temp
Level
Uphill21
Trans Oil Temp
Level190
Uphill25
Engine Oil Temp
Level 24
Uphill 27
Acceleration
0-60 mph22 sec
40-60 mph13 sec
*Flat highway mileage recorded at 55 mph
800 feet elevation, 60 degrees ambien
temp. Operating temperatures recorded a
60-65 degrees ambient. Uphill test in sec
ond gear, 45 mph on 8-mile 6% grade.

SPECIFICATIONS

COACH	
Ext. Length30'	2" (inc. spare tire)
Ext. Width	
Ext. Height	
Int. Height	
Frame ConstrAlun	
	fiberglass ext.
Insulation	Urethane
Water Cap	
Sink/Shower Holding	
Waste Holding	
Propane Cap	20 gal.
Water Syst. Type	
Furnace	
Refrigerator	
Toilet	
Electrical45A	
generator, 220AH aux	. batt 22,000-Btu
central AC, 28,00	00-Btu front & rear
	automotive AC.
	datomoure yes.

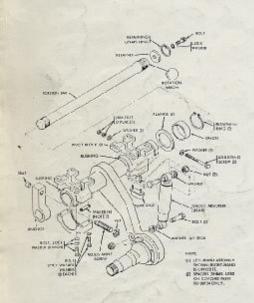
	automotive AC.
	CHASSIS
	Model2900R
	Engine440 V-8, 235 hp @ 4000 rpm,
	340 lbft. @ 2900 rpm,
	8.2 to 1 comp. ratio, 4-bar, carburetor
	Transmission3-speed auto.
	Tire Size 7 50 17 8PB radial
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	Axle Ratio

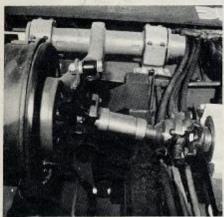
WET WEIGHT (Water, gasoline, propane tanks full but no supplies or passengers)

Front Axle	4570
Rear Axle	9570
Left Side	7130
Right Side	7010
Total	14,140
Chassis Ratings	

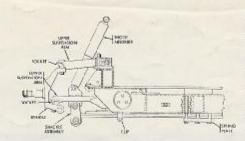
*GAWR: gross axle weight rating. **GVWR: gross vehicle weight rating. thing in stride. Front track (width between the front wheelst is an exceptional 81 inches, only slightly less than the dimension between the outside rear dual wheels. The front suspension is a transverse leaf spring - a sideways leaf spring with the individual wheel suspensions attached at each end. Thus it serves as an independent front suspension because each end of the spring can function independently of the other. Rear suspension is by huge torsion bars independent, of course. Steering is quite similar to sports car steering in its feel for the road, its precision and the very minimal correction needed to keep the coach going down the road in a straight line. Very minute steering-wheel movement causes correspondingly minute directional changes. The FMC has more precise steering than many passenger cars.

In the handling department, it can be driven with utter disregard for its size, with one exception. It'll take mountain curves considerably faster than their posted speeds with very little body roll and with a feeling of complete control, which is nice to know because we all eventually let a curve slip up on us. It can be handled through the curves with one finger on the





Rear suspension is independent, with large torsion bars.





Front suspension features transverse leaf spring.

steering wheel. From its Michelin radial tires to its contoured roofline and from its aerodynamically shaped front to its rear engine, the FMC has to be one of the best-handling vehicles since the invention of the wheel - for its size and weight. The one exception is braking. Although the coach is equipped with large 14% x 31/2inch brake drums, the coach weight, combined with its aerodynamic shape and minimal wind resistance, causes it to pick up speed rapidly on steep, downhill grades even while running in lower gears for engine compression braking. Brakes are used and in most cases they are adequate but on the steepest downhill grades requiring repeated use of brakes, it's necessary to watch for signs of brake fade and pull over to allow brake cooling. We found it necessary to do this on a very steep mountain. grade even though the transmission was in low gear for maximum compressionbraking.

There is much more to the FMC chassis story and we'll get back to it later. In the meantime, the livability of the coach deserves attention. For the coach to be so exceptional on the road, it's almost too much to ask that it be exceptional at a campsite as well. But it is. At least that's our opinion. Personal floorplan preferences vary widely, and we actually prefer a rear-bath plan over a center bath. But the total impact of the thoroughness and quality in the FMC overcame our prejudice against the center bath. It is so well put together. Everything is in the right place and it all works as it should.

The FMC is available in two floorplans which are identical with the exception that a conventional booth-style dinette (A model) is substituted for a sofa-lounge (J model). Our coach was the J model in the distinctive lime-green decor and we much prefer it to the A model. In both models the

forward seat flip flops so it provides forward facing seating for two adults while the coach is on the road and rear-facing seating while parked. The sofa-lounge in the J model is exceptionally comfortable, although the dining situation probably is a bit easier to handle in the A model. Tables, stored in the closet, must be positioned on pedestals for dining in the J model whereas the table in the A model normally would remain in place.

The galley, directly across the aisle, has good counter space, two large sinks, a 4-burner stove and a built-in garbage container. Beneath the galley is a labyrinth of plumbing, conduit and appliances for the sophisticated systems of this coach. A water purifier accompanies the demand water pump.

A 30,000-Btu forced-air furnace is housed in this area as well, along with a 6-gallon water heater that now has an automotive preheat feature. Engine coolant circulates through a heating element in the unit, heating the water while the engine is operating. Coolant also circulates to the rear of the coach, through a 27,000-Btu automotive-type heater, which also is a relatively new feature. In the galley, a microwave oven is optional. Matter of fact, it and special exterior paint are the only two options offered.

The bathroom is immediately aft of the galley so all water plumbing can be limited to one side of the coach. The furnace ducting is similarly limited. Heat distribution appeared good, although the low temperatures during our test were merely in the low 30s, not permitting a winter-use test. During an excursion early in 1974 with a similar coach we got into lows down to zero and found the coach very winter-ready as long as batteries are up.

The reason we like a rear-bath coach is that a center bath usually is faced by cabinetry on the opposite side and the hallway created by the two divides the coach, making it seem smaller than would be the case without the hallway. This is the case with the FMC, although the aisle is not unusually narrow and the large windows front and rear help counteract this situation. On the other hand, a center-bath coach is ideal for having guests. Dividers are positioned fore and aft of the bathroom door for complete privacy.

FMC has kept the bathroom to a minimum size to save space which could be used for other purposes; the result is a bathroom which we found adequate in size even for tall people. An excellent feature is the 3-way mirror setup with two large medicine chests. It's possible to see the back of one's head without use of a hand mirror. The shower has a small tub as a pan and is equipped with a height-adjustable shower head. It's all quite well done.

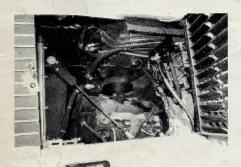
Recently added at the foot (or head) of the right-side twin bed in the rear is a lighted vanity, which will relieve the lineup for the bathroom when more than two adults occupy the coach.

The rear bedroom doubles as a lounge, with large side windows although we didn't find any seat belts back there. We found belts for the driver and two passengers. Belts should be provided for at least three passengers and preferably some belts in the rear because the ride back there is quite good. Engine fan noise is more obvious there, though.

The rear twin beds are 35 x 80 and 38 x 80 inches and the front sofa forms a 31 x 78-inch bed. Recently added are overhead bunks suitable for children so the coach will sleep three adults and two children. FMC lists it as a 6-sleeper but we couldn't find the accommodation for the sixth person, unless four of the six are children.

A drop-leaf table between the two beds is convenient.

Inside storage is quite good throughout the coach, with practically every nook and cranny converted to a cabinet or drawer, with excellent workmanship, positive spring-loaded closures and roller-action drawers. Outside storage consists of what used to be a very large trunk on the right



Kear-engine compartment houses 440 industrial V-8 plus 6.5 KW generator on left. View here is from the right.

side ahead of the door. Now it's not quite as large, being about one-third occupied by a water tank which previously was in front under the floor. Still it's spacious enough to carry normal equipment, including leveling blocks.

MC does not include a power leveling system and it's out of character that the owner of a \$54,500 coach should have to drag out the leveling blocks or boards when he stops for the night in a spot that's not reasonably level. The refrigerator, being a compressor-type AC DC unit (Norcold) doesn't require level attitude but tew of us like to sleep in an unlevel coach.

Speaking of appliances, the refrigerator is part of a long list of equipment that is very consistent in quality and it includes a 6.5KW Onan generator, a 22,000-Btu central air-conditioning system and a Lear AM-FM tape system with excellent sound quality. The central air system is quite effective but velocity through the two air outlets seemed a little high, which led us to think a third outlet might be wise and would cut down on noise.

Coach systems are operated from two 6-volt auxiliary batteries, wired in series for 12-volt output, while the coach is parked without an outside electrical hookup. The combined amp-hour rating for the two batteries is 220. (They're under the floor below the driver's feet.) They're charged either by a Triad-Utrad converter about 3 feet away (under the forward passenger seat) with rapid recharge capability or by the engine alternator through a heavy charge line (6-gauge).

As you would expect, plumbing and wiring are meticulously arranged and anchored. The holding tanks (37-gallon waste and 28-gallon sink/lav) are well protected in the chassis. The galley sinks drain into the waste holding tank rather than into the sink/shower tank, which would tend to limit self-containment in situations where the coach is parked for lengthy periods without hookups and the owner elects to drain the sink/shower tank into a bucket when necessary, in order to delay a trip to the nearest dumping station. But few FMC owners probably stay in one place that long without hookups. At least, FMC reports no complaints on the plumbing arrangement.

We found moderate error in readings with the water and holding tank gauges. The systems panel also includes a voltmeter for the auxiliary battery, an LP-gas gauge for the 20-gallon LP-gas tank and a remote starter for the AC generator. Another remote starter is built into the instrument panel.

The motorhome is equipped with an RCA television antenna and with a base and lead-in for a CB radio antenna.

The rear-engine design of the FMC is one of the more unusual features, not that rear-engine configurations are anything new. They're common in buses but not in motorhomes. The "pusher" configuration seems to work well. Fan noise is rather high, from the outside, because the radiator receives no ram air as is the case with a forward-facing radiator. The radiator is a huge 33½-quart unit and includes a large integral cooler for transmission oil.

Of course, a rear engine will pick up a lot of dirt on dusty roads. That's why FMC has gone to a diesel-tractor style air cleaner, replacing the conventional cleaner mounted on the carburetor, even though most FMC owners probably do not routinely travel dusty roads.

The engine, a Chrysler industrial 440, faces the rear and power from the transmission is transmitted to the large rear axle with 4.62 to 1 gear ratio through a short drive shaft. Universal joints in the individual axles permit the independent rear suspension. The axle is of the type used in FMC's armored personnel carriers. (The company is multinational and is into everything from food processing machinery to mining equipment. There are 31 divisions in the US plus operations in 18 foreign countries.)

Traction on slippery surfaces is exceptional, due to the high rear axle weight and the narrow footprint of the Michelin 7.50-17 tires, which creates a high tread pressure per square inch on snow and ice and cuts through surface mud to a more firm footing below. However, the motorhome does have marginal power for climbing steep roads in high altitudes, where lower atmospheric pressures create horsepower losses.

Controls for the most part are excellent, despite the distance between the driver area and the engine, but we found one idiosyncrasy which bears mention. On an uphill grade leading to a mountain retreat, we stopped to open the gate. We shifted the transmission to "park" and activated the emergency brake. When we attempted to drive through the gate, the transmission wouldn't come out of the park position. The pressure on the holding mechanism in the transmission was too great for the long shift cable to overcome. So we slept that night on an incline that made us feel like we were falling out of bed.

Next morning, with wheels well blocked and with a helper standing firmly on the brake pedal while exerting pressure on the shift lever, I crawled under the rear of the coach and dislodged the trans from the park position with a couple of raps with a hammer on the proper linkage.

That problem was the only hint of a mechanical problem that we had and could have been avoided if we had actuated the emergency brake before shifting to the park position. FMC pays meticulous attention to quality control and even runs the coach 40 miles on a chassis dynamometer (rollers on which rear wheels run, with varying amounts of drag to simulate road conditions) while final adjustments are made. A 60-mile road test follows. The coach is exceptionally complex compared to most other motorhomes but it appears to be durable and not prone to an unusual number of problems. Fingine access is good at the sides but from the top it's not so good.

Operating temperatures for the most part were good, although engine oil has a tendency to climb rather high during periods of second-gear, full-throttle running on hills. Fuel economy averaged 8 mpg under cruise conditions in low altitudes.

Maneuverability is exceptional for a coach with a 185-inch wheelbase, as indicated by the turning radius of 33 feet. We were able to get into and out of tighter places with this coach than with other conventional motorhomes of shorter length. The reason is that the front suspension design permits a very sharp steering angle for the front wheels.

In many ways the FMC 2900R is a oneof-a-kind motorhome. Although the floorplan won't suit everyone, it's well executed. On the road, the coach is second to none.

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The FMC 2900R combines an attractive, aerodynamically styled coach and an unusual chassis with independent suspension.