

# Inside Petty Engineering

Everyone appreciates a success story, especially a believable one. Partners Larry Osborn and John Petty of Petty Engineering, Inc. in La Mirada, California have created a thriving enterprise that could encourage even the most cynical small business experts.



In July of 1978, these two combined their respective talents and backgrounds to pursue a dream centered around what they both felt was the car of the future - the Mazda RX-7. When John saw the initial articles and literature on the new car, he felt it was a natural for a Targa conversion. The center pillar behind the doors had similarities to the Porsche Targa pillar. Larry agreed with John's ideas for attempting a conversion and thought it was worth the gamble. They bought an RX-7 and began the prototype. The Targa RX-7, which has since been improved, has put Petty Engineering on the map. While they had to sell practically everything of value that they collectively owned in order to come up with the initial

capital required to begin production, the investment has paid off. Targa conversion has become extremely popular with both Mazda dealers and private owners.

The major consideration involved in developing a Targa version of the RX-7 is maintaining the structural integrity of the car. Much experimentation was involved and several procedures tried before the present technique was adopted. The following is an outline of the steps involved. To begin with, the stock headliner and foam are removed and the existing roof is removed. They feel that the stock car frame is very strong but a Targa requires a beefing-up of the support structure in three areas - roll bar, rocker panel, and

windshield. They add .625 inch chromoly rod into the windshield support area, .125 inch cold rolled steel plate bent to conform to the shape of the rocker panel, and 18 gauge metal strips tack-welded to the roll bar support. To add tension to the support structure, the car is jacked up in the center during the conversion. With the type of construction used, they feel very confident that the car would survive a rollover.

The Targa top consists of a two-piece laminated fiberglass panel, containing the original foam padded naugahide headliner. The top is connected to the body using Corvette-type quarter turn pin latches. The entire top weighs between 25





and 30 pounds and can be painted to match the car or for contrast. The entire conversion costs in the neighborhood of \$3,000.

Because the structure is handformed, with John and Larry doing this work themselves, they cannot crank these conversions out in assembly line fashion. They've done 23 to date but probably will not produce that many during the coming

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year because of the time required. In addition their firm has grown. What started out as a company doing strictly Targa conversions has expanded into a line of products and accessories for the RX-7.

One of their first successful developments was a fiberglass front spoiler. This air dam was designed to give the RX-7 an improved frontal appearance. It gives flare to the front wheels and dams up air underneath to hold the car down and increase stability at high speeds. **"We feel it's as good as anyone can build,"** says Larry, **"and it works very well, giving constant air flow to the motor."** Perhaps the best thing about it is the ease in installation. It fits under the rubber molding on each side and installation only requires the use of six pop rivets. Do-it-yourselfers can buy the kit and do the job in about 15 minutes.

The newest addition to their line of RX-7 accessories is the whale tail rear spoiler. They feel it's competitive with any others they've seen and is extremely functional as well as visually attractive. The tail stabilizes the car and is sloped so the air coming over the top of the car has a tendency to push down on it, preventing tail-end lightness at higher speeds.

It was designed to mount with as much ease as possible, but requires a bit more effort than installation of the front end spoiler. The taillights must be removed and four holes drilled in the body. The unit then mounts in the holes and is held in place by nuts underneath the body. **"When we first tried it,"** John recalls, **"we were unaware of the inner body structure which interfered with putting bolts straight through, but with experimentation we found the proper location."** Now, do-it-yourselfers can put it on without much trouble using the instructions and template provided with the kit. Both the air spoiler and the whale tail can be painted to match the car.

Other accessories available include the complete line of Chastaine products and Vitaloni mirrors. Interior redesign is far from being outside of their expertise. If you happen to see an RX-7 with plush mohair seats and door panels, the work may have been done by the Dynamic Duo of La Mirada. They have a wide variety of

mohair fabrics in 12 different colors. The most requested seat design is the button-tuck type, sought after for its luxurious appearance. On special request, they can even upholster seats in genuine leather. Other interior accessories include a race-styled inner spoke steering wheel and Recaro seats.

A new development for Petty is the creation of customized RX-7s that look very much like IMSA racing cars. **"The racing-styled RX-7 idea came about after John and I went to Riverside Raceway and began brainstorming after seeing the styling and colors of machines out there."** A local Mazda dealer commissioned one and it turned out far beyond their expectations. The car, which has been on display at the dealer and on television has front end and whale tail spoilers, custom paint, rear louvre, custom interior, mirrors, plus racing tires and wheels. The excitement generated by this car, from both dealers and enthusiasts, indicate that many additional conversions will be performed by them.

Where are they going from here? To their knowledge, they are the only ones in the area doing this kind of work and specializing in the RX-7. They've got their hands full, and they're loving every minute of it. **"The car has a lot of potential,"** says John, **"and we've just begun to do what we want to eventually accomplish with the RX-7."** The plan to also get involved in suspension and performance improvement. In addition to increasing their promotion, advertising and public relations, they are considering acquiring a race car.

Each of the two has an extensive automotive background, and their combined knowledge has given their business the kind of practical creativity so important in their line of work. John Petty hails from Colorado Springs, Colorado, where he spent the early part of his career at General Motors. His personal interests leaned more toward the creative end of automotive design rather than making something run, though he did his share of professional drag racing and racing car design. **"I lost a couple of friends on the drag strip and had a couple of close scrapes myself, so I figured it was time to quit,"** he said.

Larry Osborn has extensive automotive training and experience, including a four-year degree in design engineering. **"About a year ago I hooked up with this old man here,"** he affectionately refers to John, **"and we decided we had a good thing going."** There have been rough times, especially at first, but hard work and perseverance is bringing them closer to their dreams for the future. Both feel that much of their success is due to

their enthusiasm for and faith in the RX-7. Another important factor is the support and cooperation they've gotten from Mazda dealers and other business people who believe in their ideas. **"We have no financial backers, though,"** says John, **"it has all come out of our own pocket."**

They both shake their heads, recalling many a 7-day work week trying to keep up with the demand. Whether or not that kind of dedication is always necessary for success, Petty Engineering has found a formula that works very well for them. Rx-7 enthusiasts are fortunate that individuals with the drive and determination of John and Larry still exist.





## LOCAL CHAPTERS

If you are interested in joining a local club in your area, contact one of the following individuals. If your club isn't on the list, let us know and we'll include it in the next issue. We would also like to know of your planned activities so that we can publicize them.

1. RX-7 Club of the Southwest  
Tom Vining  
(713) 772-4534
2. RX-7 Club of Los Angeles  
Dr. Freisleben  
(213) 541-4479
3. New York/Long Island  
Tom Cote Merow  
(516) 549-3409
4. Phelix N. James  
206 Napier St.  
Fl. Ord., Calif. 93941
5. Pensacola, Florida  
Vince Whibbs  
(904) 433-7671
6. RX-7 Club of New Orleans  
Mr. William W. Young III  
(504) 581-7326
7. Monrovia RX-7 Club  
Alan Mattes  
(213) 357-2271
8. Springville, Mass. Area  
Richard Zalowski  
(413) 782-4132
9. Memphis RX-7 Club  
Robert W. Bauer, Jr.  
(901) 365-2121
10. West Palm Beach Area  
Gerald W. Blum
11. Denton, Texas RX-7 Club  
Donald F. Summers
12. Pensacola, Fla. Area  
Vince Whibbs Pontiac-Mazda  
(904) 433-7671
13. Belmont, Ca. Area  
Mark Brandt (415) 593-2453
14. Minneapolis, Minn. Area  
Dick Mickelson (612) 545-1181
15. Goldsboro, N. Carolina Area  
Maurice Jester  
(919) 778-3660
16. RX-7 Club Hawaii  
Beth Wotkyns  
(808) 955-4418



All description components with the exception of the Targa top are available individually to be installed by the owner. If your club members will install them in for a complete custom look.

**A - TARGA TOP** - Custom installed at Petty Engineering this feature provides the most individually styled look to an RX7. The body is reinforced at the rocker panels and roll bar supports are added. The removable fiberglass top with vinyl headliner locks positively in place with a conventional quarter turn pin lock. The top has a lightweight seal of molded OPM rubber all around.

**B - FRONT AIR DAM** - This front spoiler is aerodynamically engineered to improve the handling of RX7's and is as attractive as it is efficient. A large front scoop gives rigidity to the front chassis providing an increase in cooling air flow. Like all Petty Engineering parts, the Air Dam comes complete with instructions and mounting hardware.

**C - REAR SPOILER** - As air flows over the top of the car at speed, it is directed onto the rear spoiler to hold the rear end down. The wrap around design picks up the lines of the RX7, giving it a true race car look.

**D - WHALE TAIL** - This is the ultimate in head-taming style and performance. The Whale Tail is designed for high-speed stability and performance based on aerodynamic principles used on competition cars. It holds on easily at four points with threaded studs molded into the pan.

**E - CHASTAIN REAR WINDOW LOUVER** - Cut down glare and reduce interior heat with this unobtrusive "shadblow". It fits up for ease in cleaning the rear window.

**F - TURBO MIRRORS** - Reduce wind resistance and noise with angled front European style rear view mirrors. Light blue optical tint glass cuts down glare.

**G - SEATS & DOOR PANELS** - Petty Engineering can add a touch of luxury to your interior by fitting your seats and door panels with genuine leather fabric.



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