



December 13, 2004

To all Star Formula Mazda racers:

In fewer than 30 days since the date of our last bulletin, there have been several developments which we thought you would like to know. The so called "off" season is when many decisions are made which determine the plans and course of the following season's programs for many of us, and we want to give you all the available information as far ahead of time as we can. There are several projects and issues which have not been completely worked through yet. However, we did not want to wait until resolution of each and every item, because then we might never get any info out! What follows is not in order of importance, necessarily, so try to sort through to catch the matters that are of interest to you.

Pro car motors. The Series impounded the motors from the top three cars after the Mazda Raceway finale and dynoed them again to see if any changes may have occurred during the season's competition. Series officials, on hand for the tests, were pleased to find that all three motors were within two horsepower of each other, and all were about two horsepower better than the dyno records indicated they were when originally tested and installed in the cars. The small increase is attributable to the reformulated MS-98 fuel, introduced at Road Atlanta in September. It is interesting to note that two of the motors (McDowell and Frisselle) had run 9 races each and one was an exchange motor (Schiavo) with 3 races on it. So it seems that neither parity nor longevity are problems at this time.

Also on the subject of pro car motors, we have determined that we can finally release the ceramic seals for competition in January '05. Testing indicates excellent reliability with the latest configuration and no loss of power. The principle advantage of ceramic seals is longer life, therefore more time between rebuilds. Long term, they are reputed to retain better torque numbers through the later life of the motor. Please consider carefully whether and when you may wish to have the ceramic seals installed in your motor. If you are ready to do a rebuild/refresh on your motor, it probably makes sense. If your motor is running fine, we would question whether it is a good idea to do a premature rebuild, to install parts which have the main justification of extending the time between rebuilds. For those who will make the change regardless, please make arrangements to have your motor done well in advance of any critical dates, like Sebring. It is simply not possible to do everyone's motors at the last minute. We will try to set up "reservations", so motors can be turned around promptly. We will also have exchange motors available, with and

without ceramic seals, for trackside support. Ceramic seals add about \$2000 to the price of a rebuild, if the motor does not already have them.

Please take advantage of the "competitors page" on the web site www.starmazda.com. All the latest info, especially servicing and compliance stuff, will be posted there regularly. It should serve as a good reference during the season. There is a "free" offer explained there now, from REM surface treatment, for pro series cars. Those who wish to participate can get 10 pairs of change gears for the FTR treated for "free", if you agree to run the REM decals on both sides of your car and cooperate in evaluating the effects of the treatment. Note: REM is legal for pro cars only, standard FMs are prohibited from using it. There is also some useful information about a small internal mod to the FTR diff, to aid in lubrication. This was suggested by Craig Taylor and approved by Hewland. Drawings are available from us, your dealer, or Craig. The "factory team" has published the set up sheets from the championship winner's car there, as well. We are sure some of you will be interested to compare notes for the various tracks. McDowell's data traces will also be available there soon. Check out the info on St Pete. It is going to be a very special event.

IMPORTANT: There have been some reports of joints in the pro car steering column loosening up (these are the small universal joints most of us call "apex joints"). Check yours. There are two per car, just above the rack. You can usually feel any play that develops by grasping the joint through the rubber boot and manipulating the steering. You should not be able to detect any slop in the joint. If in any doubt, replace the joint, or joints. Make sure you use Apex brand joints. These are mil spec joints and very reliable. They should be available through your Star Race Cars dealer. We are not sure of the brand of the ones that have been reported suspect. Note: It is always useful, should you ever experience any part failure, if you return the broken part to us for inspection. It can help us with evaluation of suppliers and designs. In the end, you get a better car.

Change in pro car front wing end plates: For 2005, the front wing end plates will be "trimmed" along the bottom edge to increase clearance from the ground by 1/2 inch. The four holes, not previously used, paralleling the lower edge will be raised 1/2 inch, as well. These holes will accommodate installation of a 1/2 inch by 1/2 inch piece of aluminum angle, which can be installed parallel to the ground, to offset any aero loss from the reduced height of the end plate. The purpose of the change is to reduce contact/damage to the front wing main plane.

Nominees for the Red Line Oil shootout have been determined. Tests in a pro FM will take place in February at Buttonwillow Raceway. The winner gets a race in the 2005 Star Mazda Series North American Championship presented by Goodyear. The nominees are: David Stover (Southwest), Rob Nicholas (East), Zan Smith (Rocky Mountain), Fabio Castellani (Central), and Kyle Kelley (West). Congratulations and best of luck to all.

Tire compounds to be used for 2005 North American Championship races have been set. The following tracks will use the 250 compound: Sebring, St Petersburg, Road Atlanta (Apr), Mid Ohio, Portland, Road America, and Mazda Raceway Laguna Seca. The following tracks will use the 430

compound: Watkins Glen, Infineon, Mosport, and Road Atlanta (Sept). Pikes Peak Raceway will use oval compounds, 620 on the left side and 800 on the right.

SCCA has published that the pro car will be legal for National competition, starting January 2005, in the FA class. Our reading of the published specs leads us to believe that only minor differences from the pro specs will be involved: 5 pounds higher weight with driver, minimum wing angle, probably some sound level adjustments to meet club limits. That is about it. Star Race Cars and our dealers plan to support club racers in all Star Race Cars models with at track services. The schedule for the West series' for both standard (including 4 port Renesis cars) and pro cars in 2005 will include:

Feb 5	California Speedway double regional
Apr 30	Phoenix double regional
Jun 18	Buttonwillow enduro
Jul 8-10	Thunderhill double regional
Jul 24	Laguna Seca regional
Aug 5-7	Laguna Seca regional/national
Oct 30	Buttonwillow double regional

Best 9 results of 11 races scheduled will count. Standard cars will be scored separately from pro cars. The two series' will run on the same venues/weekends, but each will have it's own championship.

Testing and development continues with the 4 port Renesis conversion for the standard FM. There seems to be some confusion on this subject. Let's try to clarify what is intended. The 4 port is ALMOST the same motor as the pro car, but with some important differences. It is not a dry sump motor. The intake system is much simplified, as is the ECU to run it. The rev limit is lower (6850 vs. 8300). Still, it will need some de-tuning, to be equalized with the unconverted standard cars at first. Once the majority of the standard cars are converted, we can take up the subject of "turning up the wick". Meanwhile, converted cars will have an incredibly user friendly, under stressed, modern motor, with parts availability assured for the next several years. Our target price for the conversion, net of the take out motor sale, is about what it costs to do a regular motor rebuild. Once all the parts needed to convert are defined, the conversion will become a "kit" for easy installation. The official SCCA rebuilder for the 4 port motors will remain Daryl Drummond. If you are interested in converting to the 4 port, and have questions, contact your Star Race Cars dealer, or us. We have been asked if the 4 port will fit into the MSR. It does.

2005 Series rules and entry info will be coming soon, in the next bulletin. Star Race Cars will be closed from 24 Dec 04 through 2 Jan 05. Happy Holidays!

Sincerely,

Gary Rodrigues