

1994-95 840Ci

Dinan Performance Product Line

CHASSIS TUNING

- Performance Suspension Systems
- Brake Conversions
- Performance Wheels
- Wheel Spacer Kits

ENGINE TUNING

- Performance Engine and Transmission Chips
- Free Flow Exhaust System
- Performance Camshafts
- Supercharger Systems

CHASSIS TUNING PRODUCTS

- Limited Slip Differentials with Modified Final Drive Gearing
- High Stall Speed Torque Converter

ACCESSORIES

- Signature Floor Mats

The Dinan Deck-Lid Badge

The Dinan Deck-Lid Badge is provided at no charge when you qualify by earning 10 points from the purchase of eligible Dinan Performance Products.

<u>POINTS</u>	<u>DESCRIPTION</u>
5	Performance Suspension Systems
5	Performance Wheels
2	Performance Engine Chips
3	Free Flow Exhaust System
2	High Performance Drive Line Components (each)
3	Performance Brake Conversions
5	Performance Camshafts
10	Supercharger Systems

Dinan Signature Floor Mats

A set of front and rear floor mats is available for the 840Ci featuring the Dinan logo. You may choose the carpet and logo colors to match your interior and accommodate personal preferences.

CHASSIS TUNING PRODUCTS

Dinan Three-Piece Modular Wheels

Dinan three piece modular wheels deliver maximum performance while having the clean, contemporary appearance of a one-piece wheel. The centers are forged, then machined from aluminum billets. The half shells are spun aluminum. This manufacturing process, while more expensive and time consuming, delivers the lightest and strongest wheel possible to contribute to the overall handling and balance of the car. Dinan wheels also provide the ability to fit the largest tires possible, for maximum grip and further reduction of understeer.

Wheel Size: 18 x 9"

Recommended Tire Size: 265-35-18 (Requires 3/16" Wheel Spacers in front)

Wheel Spacer Kits

Dinan wheel spacer kits are available in various widths to accommodate your specific wheel and tire application. The kits include a pair of spacers and hub extenders, as well as a set of 10 wheel bolts. The kits are available in 3/16", 3/8", 9/16" and 3/4".

Stage 1 Suspension System

The Stage 1 Suspension System consists of a matched set of lower and firmer performance springs which have been carefully designed to compliment the valving of the stock shocks and struts. The result is a nicely dampened ride which is void of the excessive pitch and roll associated with the stock suspension. Further improvement in handling can be achieved by including Dinan's optional specially valved Bilstein struts and shocks.

Stage 1 Suspension System Components:

- Performance Spring Set

Optional Components:

- Custom Valved Bilstein Front Struts and Rear Shocks

Stage 2 Suspension System

Stage 2 adds larger and adjustable antiroll bars to the Stage 1 System in order to further reduce body roll and increase steering response. The bars are fully adjustable so that it is possible to fine tune for the best possible balance.

Stage 2 Suspension System Components:

- Performance Spring Set
- 27 mm Adjustable Front Antiroll Bar
- 17.5 mm Adjustable Rear Antiroll Bar

Stage 3 Suspension System

The Stage 3 System adds Dinan Camber Plates to the Stage 2 package in order to increase the negative camber on the front wheels. The Camber Plates dramatically reduce understeer, or the car's tendency to plow the front end, for improved turn-in and more predictable handling.

Stage 3 Suspension System:

- Performance Spring Set
- 27 mm Adjustable Front Bar
- 17.5 mm Adjustable Rear Bar
- Front Camber Plates

Performance Brake Conversions

Dinan offers either a complete front and rear brake conversion or a front only conversion for the 8 Series. Both kits are a direct replacement, requiring no special modifications. The brake conversions offer substantially better cooling by virtue of the directional ventilation on the massive 345 X 32 mm front rotors. The rear brakes feature substantially larger and ventilated rotors as well.

Specifications:

	<u>Stock</u>	<u>Dinan</u>
Front Rotors	324 X 30 mm, Ventilated	345 X 32 mm, Directional Ventilation
Front Calipers	4 Pot, Fixed Calipers	4 Pot, Fixed Calipers
Rear Rotors	324 X 12 mm	328 X 20 mm, Ventilated

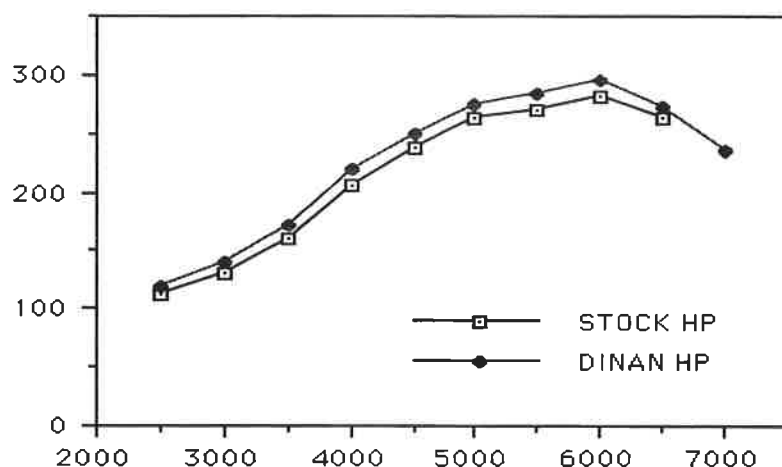
ENGINE TUNING PRODUCTS

Performance Engine and Transmission Chips

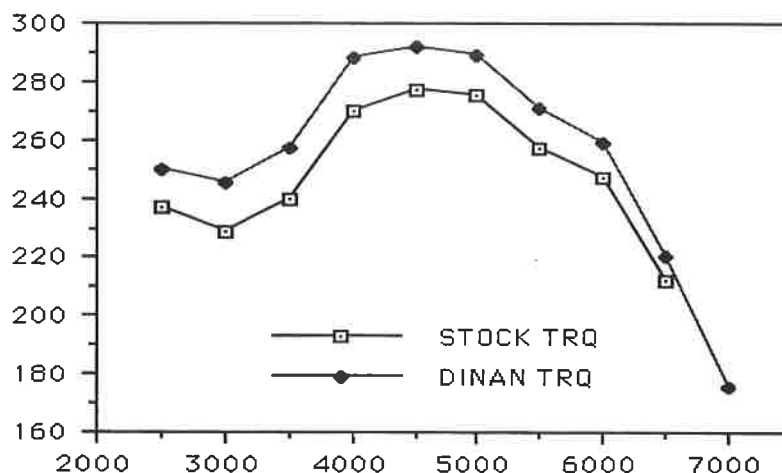
Dinan Performance Engine Chips optimize fuel economy and emissions at light loads and as load increases the program gradually changes focus toward power. At wide open throttle the chips are dyno-tuned for maximum power gains. The chips increase fuel economy and power by optimizing fuel and ignition curves for supreme fuel. The chip also removes the factory top-speed governor and raises the rev-limiter to 7000 rpm. The chips are 50 State Emissions Legal*.

Dinan also offers a performance automatic transmission chip which matches the shift points to the engine's new power curve for optimum performance and driveability.

DYNO RESULTS FOR PERFORMANCE ENGINE CHIP



RPM	STOCK HP	DINAN HP	HP GAIN
2500	113	119	6
3000	131	140	9
3500	160	171	11
4000	206	219	13
4500	237	250	13
5000	262	275	13
5500	269	284	15
6000	282	296	14
6500	262	272	10
7000		235	



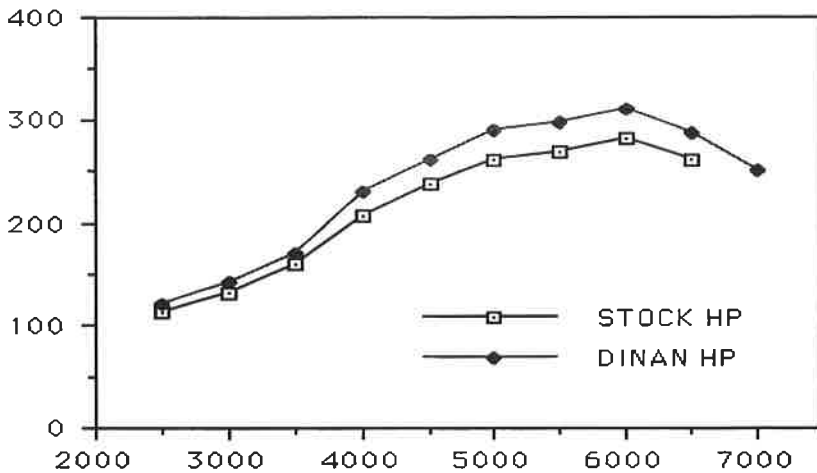
RPM	STOCK TRQ	DINAN TRQ	TRQ GAIN
2500	237	250	13
3000	229	245	16
3500	240	257	17
4000	270	288	18
4500	277	292	15
5000	275	289	14
5500	257	271	14
6000	247	259	12
6500	212	220	8
7000		176	

*This product has been granted an exemption by the California Air Resources Board and is in compliance with U.S. EPA Memorandum 1A, or is a replacement part.

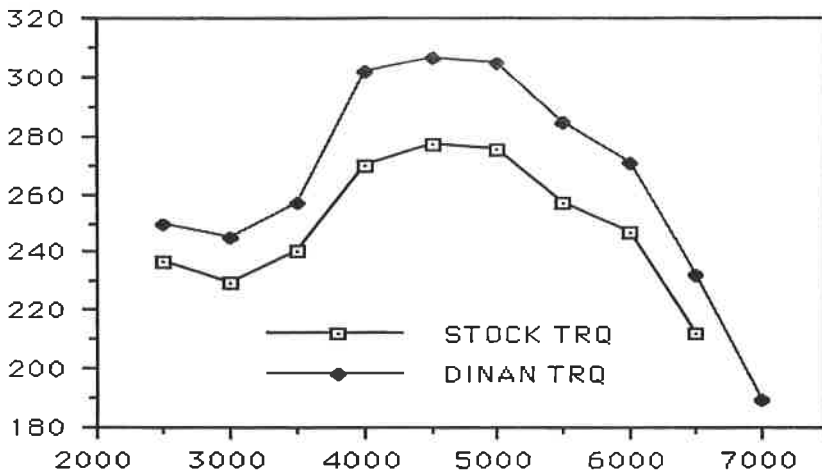
Free Flow Exhaust System

Dinan's Free Flow Exhaust System for the 840Ci produces power gains without the increased exhaust noise associated with many "performance" exhaust systems. Dinan's exclusive Tuned Resonant Chamber technology provides for a free flow exhaust system tuned for the optimum balance between maximum power and a mellow, sporty sound. The exhaust is manufactured from modified stock BMW systems for a perfect fit and uncompromising quality. Polished stainless steel exhaust tips add a subtle cosmetic enhancement to complete the system. The exhaust system is 50 State Emissions Legal*.

DYNO RESULTS FOR CHIP AND FREE FLOW EXHAUST SYSTEM



RPM	STOCK HP	DINAN HP	HP GAIN
2500	113	119	6
3000	131	140	9
3500	160	171	11
4000	206	230	24
4500	237	262	25
5000	262	289	27
5500	269	297	28
6000	282	310	28
6500	262	287	25
7000		252	



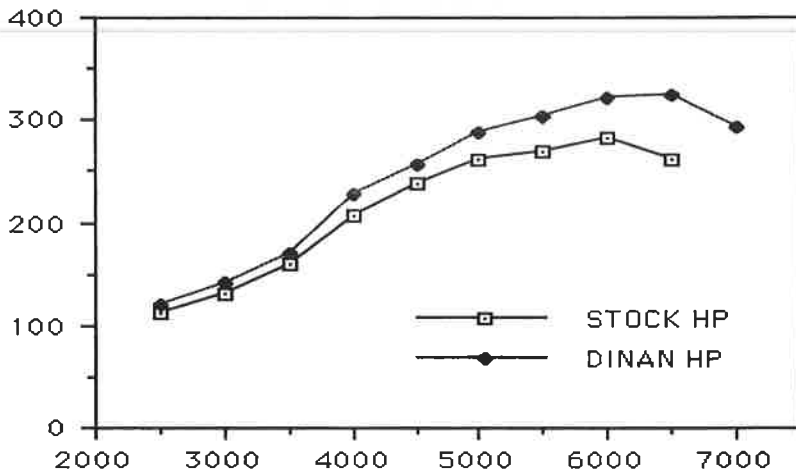
RPM	STOCK TRQ	DINAN TRQ	TRQ GAIN
2500	237	250	13
3000	229	245	16
3500	240	257	17
4000	270	302	32
4500	277	306	29
5000	275	304	29
5500	257	284	27
6000	247	271	24
6500	212	232	20
7000		189	

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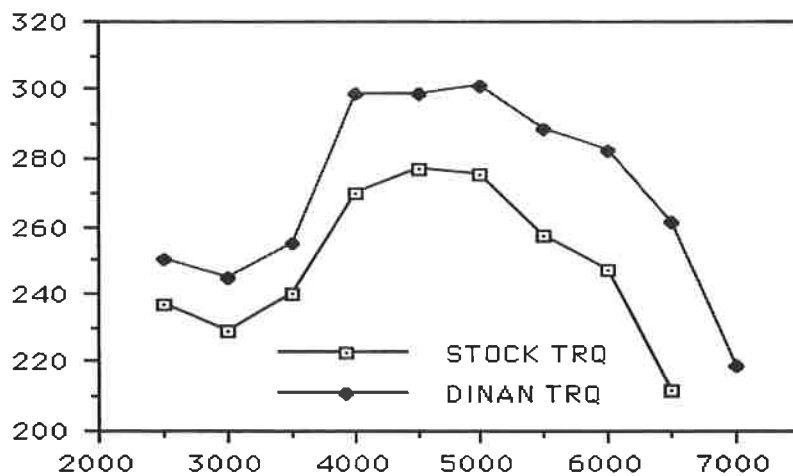
High Performance Camshafts

Dinan has developed a performance camshaft set for the 840Ci, designed for use in conjunction with the performance engine chip and Free Flow Exhaust System. The cams produce significant power gains at higher rpm, with a peak gain of 36 horsepower at 6500 rpm over the chip and Free Flow Exhaust System equipped 840.

DYNO RESULTS FOR CHIP, EXHAUST AND PERFORMANCE CAM SET



RPM	STOCK HP	DINAN HP	HP GAIN
2500	113	119	6
3000	131	140	9
3500	160	170	10
4000	206	228	22
4500	237	256	20
5000	262	287	25
5500	269	303	34
6000	282	322	40
6500	262	323	61
7000		292	



RPM	STOCK TRQ	DINAN TRQ	TRQ GAIN
2500	237	250	13
3000	229	245	16
3500	240	255	15
4000	270	299	29
4500	277	299	22
5000	275	301	26
5500	257	289	32
6000	247	282	35
6500	212	261	49
7000		219	

Racing Only. This product is not legal for sale or use in California on any pollution controlled motor vehicles. Legal only for racing vehicles which may never be used upon a highway.

Dinan Supercharger System

Dinan's Supercharger Systems for the 840 offer outstanding horsepower and torque increases in an extremely cost effective package. These systems have been carefully engineered to deliver serious performance without negatively affecting everyday driveability or the reliability you expect of your BMW. The system is 50 State Emissions Legal*.

Dinan's expertise in forced induction engine technology is evident in every aspect of the Supercharger Systems for BMW's 4 Liter V8s. The package includes an extremely efficient Centrifugal Compressor type supercharger which is belt driven internally for quiet operation. The supercharger features sealed ceramic bearings, which require no lubrication or maintenance and also avoids the need for an external oil feed. The efficient design of the supercharger also provides for very low intake charge air temperatures for greater power gains and minimal energy waste. The Dinan Supercharger actually turns 20,000 fewer rpm than more common designs.

The kits have been carefully designed to bolt on to the 840 without any major modifications to the car. Custom Dinan Engine Management Software is included as well as the Dinan TurboTronics-10, an electronic device which recalibrates the stock air-flow meter for use with the supercharger system. Dinan electronics provide maximum horsepower gains by insuring the optimum ignition timing and fuel enrichment required under boost, as well as protecting the engine against detonation.

Supercharger System Components:

- Supercharger
- CNC Machined Crank Pulley
- 6-Rib Drive Belt
- Intake Plumbing
- Turbotronics-10
- Engine Management Software
- Performance Air Filter Assembly
- Air Filter and Belt Cover
- High Flow Fuel Injectors
- Dual Fuel Pump Assembly
- Automatic Transmission Software

Stage 2 Supercharger System

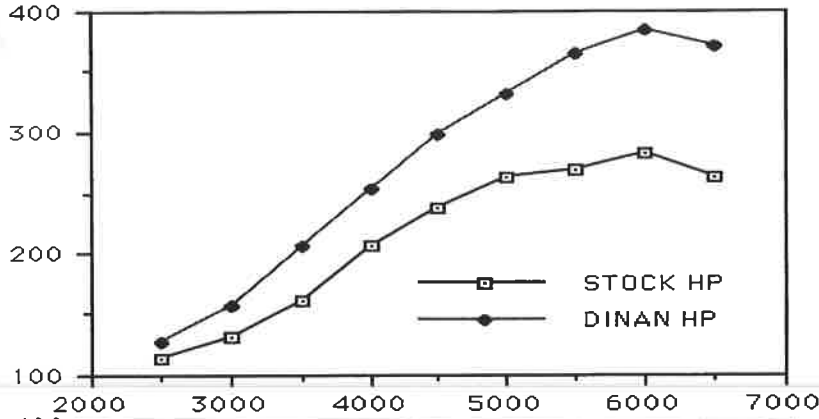
The Stage 2 Supercharger System provides further increases in horsepower and torque by adding Dinan's Free Flow Exhaust System to the package.

Stage 2 Supercharger System Components:

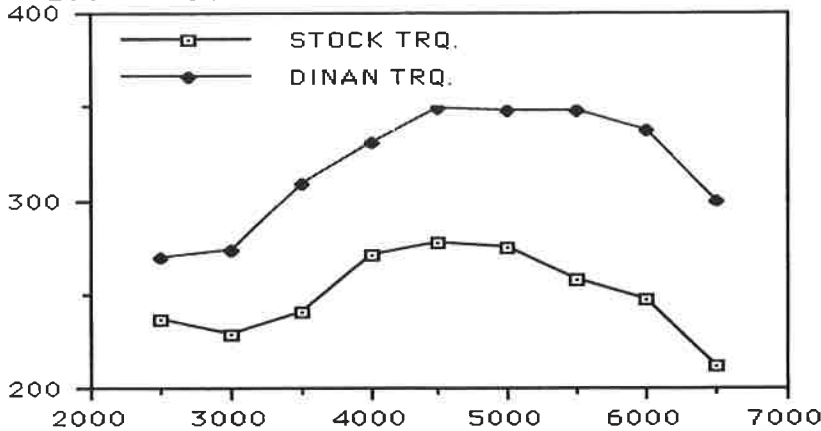
- Supercharger System*
- Free Flow Exhaust System*

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DYNO RESULTS FOR SUPERCHARGER SYSTEM

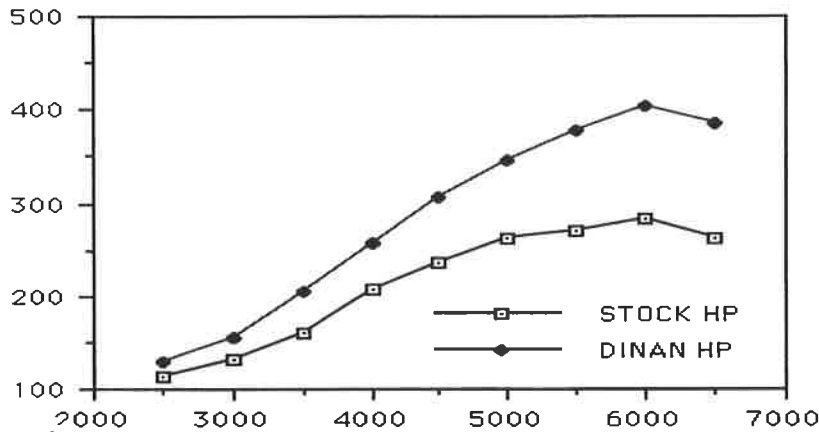


RPM	STOCK HP	DINAN HP	HP GAIN
2500	113	128	15
3000	131	156	25
3500	160	205	45
4000	206	252	46
4500	237	299	62
5000	262	331	69
5500	269	364	95
6000	282	385	103
6500	262	370	108

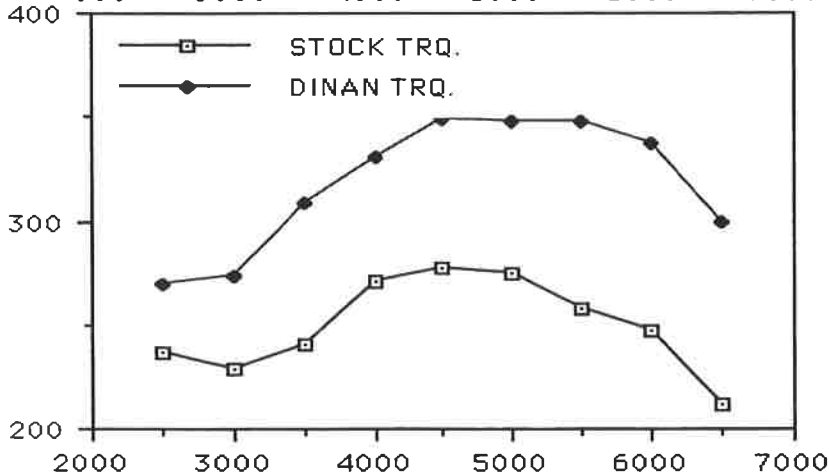


RPM	STOCK TRQ	DINAN TRQ	TRQ GAIN
2500	237	269	32
3000	229	273	44
3500	240	308	68
4000	270	331	61
4500	277	349	72
5000	275	348	73
5500	257	348	91
6000	247	337	90
6500	212	299	87

DYNO RESULTS FOR STAGE 2 SUPERCHARGER SYSTEM



RPM	STOCK HP	DINAN HP	HP GAIN
2500	113	128	15
3000	131	156	25
3500	160	205	45
4000	206	256	50
4500	237	307	70
5000	262	346	84
5500	269	378	109
6000	282	402	120
6500	262	384	122



RPM	STOCK TRQ	DINAN TRQ	TRQ GAIN
2500	237	269	32
3000	229	273	44
3500	240	308	68
4000	270	336	66
4500	277	358	81
5000	275	363	88
5500	257	361	104
6000	247	352	105
6500	212	310	98

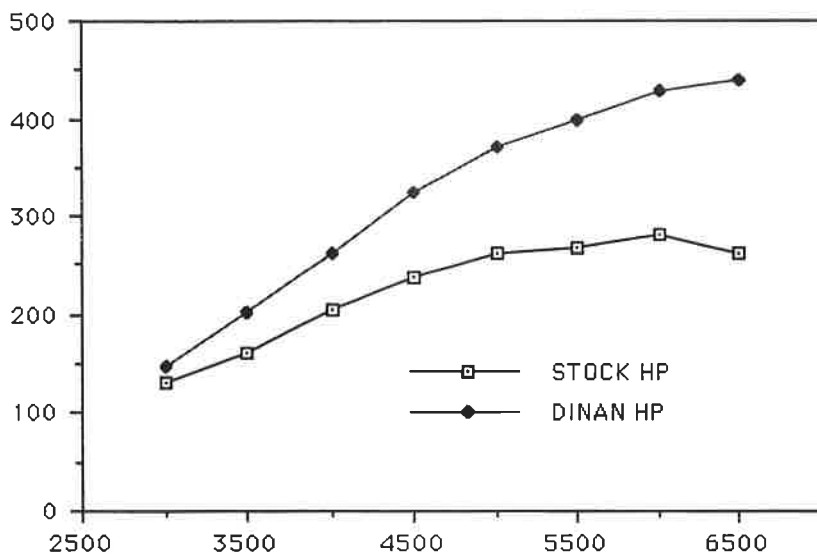
Stage 3 Supercharger System

The Stage 3 Supercharger package includes Dinan's high performance camshaft set which has been developed specifically for use with the Supercharger and Free Flow Exhaust System. Peak horsepower is increased to 439 at 6500 rpm for a 37 horsepower gain over the Stage 2 Supercharger System.

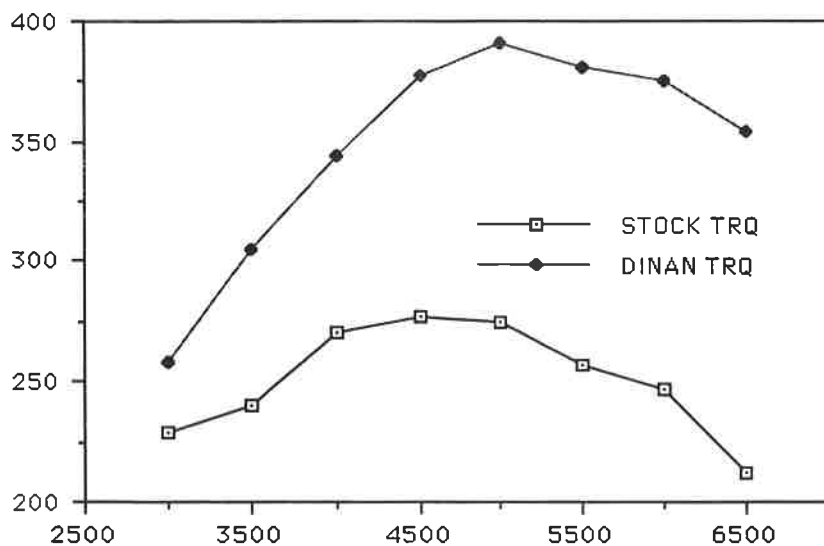
Stage 3 Supercharger System Components:

- Supercharger System
- Free Flow Exhaust System
- High Performance Camshafts

DYNO RESULTS FOR STAGE 3 SUPERCHARGER SYSTEM



RPM	STOCK HP	DINAN HP	HP GAIN
3000	131	147	16
3500	160	203	43
4000	206	262	56
4500	237	324	87
5000	262	372	110
5500	269	399	130
6000	282	428	146
6500	262	439	177



RPM	STOCK TRQ	DINAN TRQ	GAIN
3000	229	258	29
3500	240	305	65
4000	270	344	74
4500	277	378	101
5000	275	391	116
5500	257	381	124
6000	247	375	128
6500	212	354	142

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DRIVELINE TUNING PRODUCTS

Limited Slip Differentials with Modified Final Drive Gearing

The 840Ci is equipped from the factory with extremely tall final drive gearing. In fact, if the car had enough horsepower to achieve it, the stock 2.93:1 differential is geared for over 212 mph. This extremely tall gearing sacrifices a great deal of 0-60 and 1/4 mile performance without providing any real benefit. Dinan recommends lowering the final drive gear with a 3.64:1, limited slip differential. The combination of the Dinan performance chip and lower gearing will significantly improve the car's 0-60 mph times and still provide top speed potential of 177 mph, which is in excess of the available horsepower. Limited slip will significantly improve the car's handling as well.

High Stall Speed Torque Converter

Further improvement in performance can be attained from a higher stall speed torque converter. The higher stall speed allows for much faster acceleration from a dead stop by enabling the engine to rev higher before acceleration begins. The higher RPM puts the engine into its peak power range sooner. The 840 comes with a factory stall speed of 1950 RPM as compared to the Dinan torque converter which is raised to approximately 2600 RPM. The Dinan torque converter retains the lock up feature in 4th and 5th gears in order to maintain fuel economy at cruise.

