



COMPETITION SPECIFICATION SHEET 7/1/2005

Manufacturer: BMW
Model: 318ti (E36 1.8L)
Applicable Years: 1995

This specification sheet was developed by the U.S. Touring Car Championship and will be used both by the series technical administrator to establish technical compliance and by applicable series administrators to maintain performance parity and equal competition amongst the USTCC competitors. In addition to this CSS the technical administrator may also use, but is not limited to also using the following items to check compliance: Electronic Parts Catalogs, Technical Information Systems, and the FIA/ASN Homologation forms, or equivalent documentation.

The specifications within this form include all modifications that have been approved by USTCC specifically for the vehicle model(s) and year(s) listed on this page. The parts, specifications and assemblies used shall be those for the unmodified stock vehicle, those permitted within the NASA regulations and or within this CSS. If the stock parts, specifications, and/or assemblies exceed the performance potential of those approved within this form, then the parts, specifications, and/or assemblies used shall meet those listed within this form.

The Competition Specification Sheet is a permissive document. The exact configuration of any modification allowed within this CSS is subject to the approval of the technical administrator.

1. GENERAL VEHICLE DESCRIPTION

Body Type (sedan, coupe, hatchback):	Hatchback
Engine location (front, mid, rear):	Front
Drive Type (front, rear, AWD):	Rear
Wheelbase (cm)	272.5
Induction Type:	Naturally Aspirated
Minimum Weight:	2200 lbs

2. ENGINE

OEM Engine Code Designation:	M42B18
Number of Cylinders:	4
Maximum Displacement (cc):	1796
Rev limit req'd?:	no
Compression ratio:	10.5:1
Piston Stroke (mm):	81.0
Restrictors Req'd?:	no
Cylinder Block Part # (stock):	11 11 1 715 477
Cylinder Block Bore (mm):	84.0
Cylinder Head Part # (stock):	11 12 1 721 464
Intake Valve Head Diameter (mm):	33.0
Exhaust Valve Head Diameter (mm):	30.5

Intake Port Dimensions at Manifold Face:	Height: 26.0mm Width: 47.0mm
Intake Port Work Allowed? (Yes/No)	yes
Exhaust Port Dimensions at Manifold Face:	Height: 27.0mm Width: 35.5mm
Exhaust Port Work Allowed? (Yes/No)	yes
Connecting Rod Length (centerlines, mm):	145.0
Reciprocating Assembly (grams):	652
Aftermarket Rods Allowed?:	no
Aftermarket Pistons Allowed?:	no
Camshaft Rocker Arm Ratio:	1.0:1
Type of Cam Follower (roller, solid, etc.)	Rocker
Camshaft Max Lift at Cam Lobe:	In 10.2 ex10.2 (Lobe height: 1.8755-1.8803")
Crankshaft Part Number (stock):	11.21.1.342.968
Crankshaft Mass (kg):	14.22
Flywheel Mass (kg):	open
Ring Gear Diameter (mm):	290
Intake Manifold Part # (stock):	11.61.1.743.139
Int. Manifold Port Size @ Head Face:	Height: 23.8mm Width: 45.3mm (stock)
Allow Port Match to Head?	no
Throttle Body Bore Diameter (mm):	35-54mm variable
# of Throttle Bodies:	1
Intermediate Port Matching Allowed?:	N/A
Turbocharger Manufacturer and Model:	N/A
Alternate Turbocharger Allowed?:	N/A
Number of Turbo Compressors:	N/A
Compressor Inlet Diameter (mm):	N/A
Maximum Boost Pressure (psi):	N/A
Turbo Intercooler Part # (stock):	N/A
Turbo Intercooler Dimensions (mm):	N/A
Engine Miscellaneous:	

3. DRIVETRAIN

Transmission Part # (stock)	BMW Getrag 220.0.0225.96
Number of Forward Speeds:	5
Alternate Transmission Allowed?:	no
Alternate Transmission Part #:	n/a
Gear Ratios (stock / allowed):	
1 st :	4.230
2 nd :	2.520
3 rd :	1.660
4 th :	1.220
5 th :	1.000
6 th :	N/A
Final Drive Ratio (stock / allowed):	3.450 25% LSD or 4.440 25% LSD
Drivetrain Miscellaneous:	

4. SUSPENSION, CHASSIS, BODY

Front Suspension Type:	MacPherson
Rear Suspension Type:	Trailing Arm
Suspension, Chassis, Body Miscellaneous:	