

# "Super Sport" Series C6/A6 Corvette IRS Street/Track Differential



We offer this must-have rear differential upgrade for those that want neck-snapping acceleration that only a performance gear change can deliver! Our "Super Sport" Series line of Corvette IRS Street/Track Differentials are built for the Corvette enthusiast that wishes to have a professionally prepared, high performance street/track differential that is matched to the typical performance upgrade modifications already done to their C6 Corvette.

Unlike O.E. GM differentials that are limited to stock gear ratios and slapped-together on a production line where assembly speed is more important than build quality... Each DTE Super Sport Series Corvette IRS

Street/Track Differential is available in a wide selection of gear ratios to suit your specific application and each unit is entirely prepared, hand assembled and blueprinted right here in the USA! This in-house production capacity enables us to maintain a very tight, 100% quality control process that guarantees outstanding build quality over the completed product every time, so you receive a finished differential that performs as you expect.

For nearly a decade, DTE Powertrain Inc. has continually been referred to by our customers as the "Gold Standard" in high performance Corvette drivetrain, where our products have been in more race winning applications competing in Drag/Auto-x/Road Racing and setting more performance records than any of our competitors combined. Achieving a higher level of product



engineering **DOES** make a resounding difference in the exceptional build quality and track proven durability of our driveline products over our competitors, where you'll simply **NOT** find a better equipped, professionally built, high perf. Corvette differential anywhere else for your money...*period!!* Give us a call when you're ready to unlock the true acceleration capability of your high performance C6, with specialty drivetrain products coming from the pioneering leaders of innovation in the aftermarket Corvette IRS driveline industry!!



## **Application:**

- 2006-'09 Base C6 Corvette (LS2/LS3)
- A6 Automatic 6-Speed Transmission
- Stage 3: Moderate supercharger, turbocharger, N20 or stroker engine performance upgrades
- Stage 4: Heavy hitter supercharger, turbocharger, N20 or stroker engine performance upgrades

# Stage 3 "Super Sport" Series Street/Track Differential

Part #: DTE-C6A6-SS3-xxx (gear ratio selected will replace "xxx")

- Disassembly to bare case for component inspection
- Power steam cleaning, hand washing & bead blasting of all differential components to a new-like finish
- Machining of specific components for improved fitment & operational function over stock
- Proprietary bearing & clutch pack oiling improvements \*Extends bearing & clutch pack life through cooler operation
- Thermal-based crack detection inspection process
  \*Filters out unwanted components due to micro-cracks found in castings
- A choice of MG or Getrag 2.56, 2.73, 2.93, 3.15 & 3.42 ratio additionally prepared for perf. use
- Cryogenically treatment of ring & pinion set
  - \*Increases gear set longevity, wear resistance & promotes quiet operation
- C6-Z06 heavy duty OEM pinion shaft support
- New GM seals, O-rings and gaskets
- Heavy duty left output shaft support needle bearing
  \*Replaces much weaker factory plastic part that often collapses in HP applications
- New Timken bearings & races
- Heavy duty clutch pack cone springs
- Two, 1-quart bottles of Redline 75w/140 synthetic gear lubricant included
- DTE aluminum nameplate riveted to outer case identifying differential model & serial number
- Baked on aluminum enamel finish for factory appearance, color & corrosion protection
- Professional in-house machining, assembly & blueprinting
- Quiet, smooth operation
- Written 2 yr./24k warranty\*

## \*Upgrades Performed & Included Over Stage 2 "Sport" Model:

- DTE's own design/manufactured m4340-300m left hardened output shaft \*Replaces weaker OEM shaft and is of superior strength to C6Z shaft
- DTE's own design/manufactured m4340-300m right hardened output shaft \*Replaces weaker OEM shaft and is of superior strength to C6Z shaft
- HD 16-disc carbon clutch packs

\*Increased torque bias, withstands higher heat & torsional stress loads, longer lasting, won't contaminate differential oil as they wear

## Differential exchange or build your supplied core: \$2945 In-house installation & includes custom TCM shift-point calibration: \$3495

### **Options:**

- Shot peened ring and pinion set: GREATLY increases gear set impact load capacity & highly recommended for ALL applications- \$125
- REM/Micro-polishing of all differential internals: Reduces operational heat/parasitic drag & especially recommended for HDPE, Auto-X or road race applications- \$125
- Heavy duty Quaife torque biasing, clutch-less carrier assy.: Eliminates wearing clutches altogether, quicker track times and MUCH greater durability over stock clutch-type carrier- \$750

# Stage 4 "Super Sport" Series Street/Track Differential

Part #: DTE-C6A6-SS4-xxx (gear ratio selected will replace "xxx")

- Disassembly to bare case for component inspection
- Power steam cleaning, hand washing & bead blasting of all differential components to a new-like finish
- Machining of specific components for improved fitment & operational function over stock
- Proprietary bearing & clutch pack oiling improvements
  \*Extends bearing & clutch pack life through cooler operation





- Thermal-based crack detection inspection process
  \*Filters out unwanted components due to micro-cracks found in castings
- A choice of MG or Getrag 2.56, 2.73, 2.93, 3.15 & 3.42 ratio additionally prepared for perf. use
- Cryogenically treatment of ring & pinion set
- \*Increases gear set longevity, wear resistance & promotes quiet operation DTE's own design/manufactured m4340-300m left hardened output shaft
- \*Replaces weaker OEM shaft that breaks in HP applications and is of superior strength to C6Z shaft DTE's own design/manufactured m4340-300m right hardened output shaft
- \*Replaces weaker OEM shaft that breaks in HP applications and is of superior strength to C6Z shaft
- New GM seals, O-rings and gaskets
- Heavy duty left output shaft support needle bearing
  - \*Replaces much weaker factory plastic part that often collapses in HP applications
- New Timken bearings & races
  - HD 16-disc carbon clutch packs \*Increased torque bias, withstands higher heat & torsional stress loads, longer lasting, won't contaminate differential oil as they wear
- Heavy duty clutch pack cone springs
- Two, 1-quart bottles of Redline 75w/140 synthetic gear lubricant included
- DTE aluminum nameplate riveted to outer case identifying differential model & serial number
- Baked on aluminum enamel finish for factory appearance, color & corrosion protection
- Professional in-house machining, assembly & blueprinting
- Quiet, smooth operation
- Written 2 yr./24k warranty\*

# \*Upgrades Performed & Included Over Stage 3 "Super Sport" Model:

- REM/Micro-polishing of all differential internals
  \*Reduces operational heat/parasitic drag
- Shot peened ring and pinion set
  \*GREATLY increases gear set impact load capacity to withstand racing applications
- DTE's own design/manufactured billet aluminum HD pinion shaft support \*Replaces weaker, crack prone OEM cast aluminum parts to prevent pinion shaft deflection and is of superior strength to the cast aluminum C6Z support

## Differential exchange or build your supplied core: \$3499 In-house installation & includes custom TCM shift-point calibration: \$4049

## **Options**:

• Heavy duty Quaife torque biasing, clutch-less carrier assy.: Eliminates wearing clutches altogether, quicker track times and MUCH greater durability over stock clutch-type carrier- \$750



\*Whichever comes first. Warranty excludes racing applications, since you choose to race at your own personal and your car's mechanical risk; failures due to abusive wheel hop, low oil level, infrequent lube change intervals, differential selected that is underrated for application, etc. See provided policies/warranties for complete details.

### Differential Shipping: FedEx fully insured ground shipping to contiguous lower 48-States: \$115

#### Differential Core Charge: \$1800

- 100% refundable when good, undamaged core returned within 15 days of new differential delivery.
- Any good, complete, unbroken and assembled M6-manual or A6-automatic differential core in working order may be used for trade-in.

#### **Differential Power Capacity Ratings:**

We do not attach a numerical power rating to any of our differentials or driveline components for a few very specific reasons. Typically the horsepower output of an engine alone is \*NOT\* what damages drivetrain parts, but rather a combination of power, torque and the environment the differential is used for in that application is however. Therefore, it's not only foolish for the builder/manufacturer of the driveline product to do such a thing, but it's also directly misleading to the customer, since this is not enough information alone to base an accurate decision on what product the customer needs to be the most cost effective and durable selection for their given application.

Additionally, rating any sort of driveline component without any credible data to back up that fictitious claim as our competition often does is typically a marketing strategy only meant to sell parts, without giving proper regard to the customer on what they really need based on how they drive the car and what the intended usage is for that vehicle.

Lastly, when making the decision to purchase a differential, one needs to take into consideration how much power the car currently has, how much it will have, the intended usage of the car, if the car will be taken to the track, if the car has wider/stickier compound tires compared to stock and if the driveline will use a differential strut or not.

Plan for wheel hop, (which we \*HIGHLY\* discourage) because most street Corvette's do this to some degree if \*ANY\* of the driveline suspension components are left stock. (i.e. control arm bushings, shocks, alignment, tires, etc.) Always add additional strengthening options accordingly to provide a cushion for that also.

In other words - build the strongest driveline you possibly can within your financial boundaries and then drive the car accordingly based on the options you chose. One can \*NEVER\* have too much driveline strength for any vehicle platform and choosing a differential based entirely on a "cheap price" that is under-rated for your application, will only cost you far more money in the long run to fix it again the second time after you had the chance to do it right from the beginning.