HOWE RACING ENTERPRISES

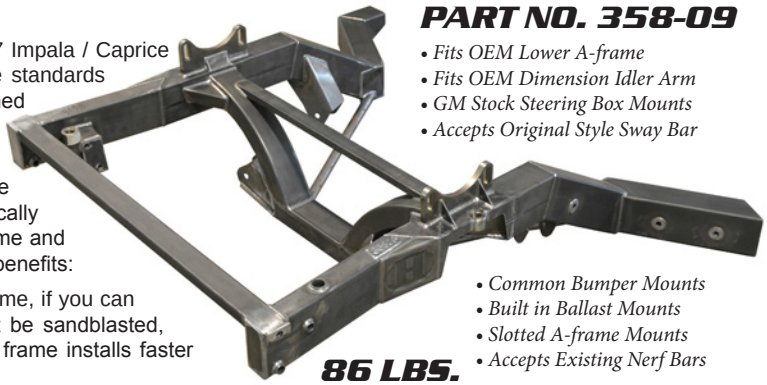
2015 NEW PRODUCTS SUPPLEMENTAL

HOWE IMPALA REPLACEMENT FRAME

The Howe fabricated replacement frame is made to replace the popular 77 Impala / Caprice GM OEM frame. This frame along with the 68-72 Chevelle had become standards for the modified classes. As older Chevelles disappeared the Impala gained popularity. Eventually Impala frames also became scarce, expensive, and in deteriorating condition.

With thousands of modifieds racing around the country using this frame there are many existing bolt on OEM and aftermarket components made specifically to fit it. Producing a fabricated frame eliminates the shortage and saves time and cost without making existing bolt on parts obsolete. Consider the following benefits:

Cost - The fabricated frame sells for slightly less than a reworked OEM frame, if you can find one. A surviving stock frame that is not crashed or rusted out must be sandblasted, stripped, straightened and modified to be ready to install. The fabricated frame installs faster lowering the labor cost of both new cars and repairs.



PART NO. 358-09

- *Fits OEM Lower A-frame*
- *Fits OEM Dimension Idler Arm*
- *GM Stock Steering Box Mounts*
- *Accepts Original Style Sway Bar*
- *Common Bumper Mounts*
- *Built in Ballast Mounts*
- *Slotted A-frame Mounts*
- *Accepts Existing Nerf Bars*

86 LBS.

Compatibility - Fits all existing components including lower a-frames, spindles, steering and springs. Frame rails are made long enough to fit existing nerf bars.

Weight - The weight difference is addressed by providing integral ballast mounts to equalize any weight advantage during a transition from factory to fabricated frames. The new Howe frame is 86 lbs. compared the factory frame, which is 145 lbs.. For the 59 pound difference a 30 lb. bar may be added to each side to make the two frames within one pound of each other.

Tech - To identify the frame a CNC cut part number tag is welded on each frame. In addition a trademarked Howe "H" logo is stamped into each side of the frame rail. Howe will also supply tracks a tech inspectors drawing to allow critical dimensions to be checked.

HOWE PRECISION MAX U-FRAMES

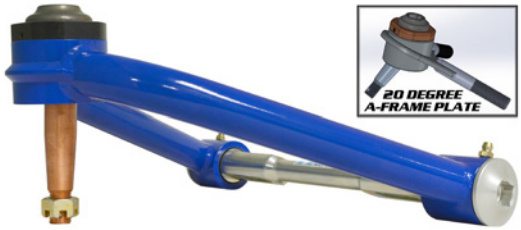
These new u-frames eliminate the weight of the ball joint housing. With the stud fitting directly into the u-frame. A unique, secure cap retainer hold the unit together. Integral type a-frames are not as strong as the traditional style Precision Max a-frame but are adequate for applications where light weight takes priority over durability.

Application	Left Part No.	Right Part No.
Howe 101 Template	2224215	2223807
Howe GT2 / TA2	2223407	2223407
Howe Fab Mod	2225115	222380702

20 DEGREE PRECISION MAX A-FRAMES

With the progression of modern set-ups, Howe Racing has expanded their a-frame selection by adding 20 degree ball joint plates to several popular lengths of the Precision Max line as well as the adjustable design style utilized by their asphalt modifieds.

222920 20° Adjustable Design Plate - Mod



HOWE SQUARE END SWAY BAR SYSTEM

Bars - Large splined sway bar arms are hard to install on the sway bar due to the pinch retainer always remaining distorted and when you do get them on they can easily be one tooth off. With the new square ends the arms slide right on. The square bar ends are held in-line in a fixture while tube is welded so they are always in line. The thin heat treated tube saves as much as seven pounds over standard splined bars. Currently available in five popular diameters.

Arms - This innovative combination allows you to use one arm to fit two types of sway bars. The square opening in the arm will fit directly on the new large diameter Howe square end bars or with the splined insert it will also fit and standard Schroeder type bar with a 1-1/4" x 49 spline. Arms are available for oval track and road racing applications. A Heavy Duty road race arm is available for the very large diameter square end bars.

23926	**Road Race, Left**
239262	**Road Race, Left HD - No Insert**
23927	**Road Race, Right**
239272	**Road Race, Right HD - No Insert**
RF2779	**101 Oval Track, Left**
239275	**101 Oval Track, Right (Pictured)**

Note: We recommend using the HD arms for the large diameter bars.

Bar Size	Bar Only
1-3/4"	2373134
1-7/8"	2373178
2"	23732
2-1/8"	2373218
2-1/4"	2373214

Bushing - This nylon bushing fits the large diameter square end bars. Designed to fit into front frame cross tube, 1-15/16" ID.

239252 Bushing

DIAL DISPLAY BIAS ADJUSTER

Innovative design allows you to see at a glance exactly where the bias is set. After setting zero, the number of turns in either direction is indicated by a corresponding number on the dial. Comes with two decals to indicate direction determined by master cylinder location. Assembly comes with 48" length of flex cable and plastic sheathing.

52620 **Complete Assembly**
52615 **Adjuster Only (no cable)**
526151 **Weld On Mount Bracket**

PRO BRAKE PEDAL

This unique aluminum pedal was developed with top oval and road racing drivers. It has a pad that can be adjusted in height and installed as a 6:1 or a 7:1 ratio. Complete pedal includes adjustable return stop to eliminate play in the master cylinder. Pedal arm fits the same base and mounts as the 52692 Howe brake pedal.

52696 **Complete Assembly**
526961 **Pedal Arm Only**

ADJUSTABLE RATE "BLADE" SPLINED SWAY BAR ARMS

These blade style splined sway bar ends fit 1-1/4" 49 spline Schroeder bars. Their unique design allows the bar to be adjusted in 9 degree increments.

23938 **Blade Style, Left**
23939 **Blade Style, Right**

BILLET BRAKE RESERVOIRS

These billet brake reservoirs are designed to replace plastic reservoirs that are prone to leaks. Fits the same mounts as other popular remote reservoirs. Ports are threaded 1/8" NPT to accept the barb or fitting of your choice.

524360 **Billet - Single Port**
524361 **Billet - Dual Port**

STOPTECH BRAKE COMPONENTS

StopTech STR-660 Brake Fluid - Comparable in performance to AP600 or Motul but in a sealed metal can for 25% longer shelf life.

STP50100002 **STR 660 Brake Fluid**

StopTech Rotors - The newest choice in high performance racing rotors. Stop Tech calipers and rotors have been the choice of the TA2 series champion two years in a row. Made by California based Centric Parts.

StopTech Calipers - The new StopTech STR calipers are radial mount forged calipers. Claimed to provide a 20-percent reduction in weight without sacrificing stiffness or performance. They fit 3.5" SL type mounts with the use of the radial mount adapter. Accept pads in the Superlite shape.

Pagid Brake Pads - The preferred choice of brake pads for the StopTech brake system.

PAG2205RS52 **Pagid Pad - Front**
PAG2205RS53 **Pagid Pad - Rear**

ROTORS

Part No.	Thick	Vanes	Bolt	LBS.	Dia.
ROR12191254823	1.25"	48 Vane, Left	Hat	13.90	12.19"
ROR12191254824	1.25"	48 Vane, Right	Hat	13.90	12.19"
STP31G3B0171	1.25"	48 Vane, Left	Hat	11.80	11.75"
STP31G3B0172	1.25"	48 Vane, Right	Hat	11.80	11.75"

HAT HARDWARE

Part No.	Description
PSYH432229250	Rotor Hat, 12 Bolt
BOT100002	Bobbin, EA
HAE100248	Washer, EA
SCT100107	Screw, EA
BRT100575	Bracket Kit

CALIPERS

Part No.	Position	Piston Size	Rotor
STP379332231	Left Rear	1.25 / 1.25	1.25"
STP379332232	Right Rear	1.25 / 1.25	1.25"
STP3793358233	Left Front	1.50 / 1.75	1.25"
STP3793358234	Right Front	1.50 / 1.75	1.25"

DODGE CHALLENGER BODY

This Dodge Challenger body fills out our line of muscle car body offerings. Designed to fit our V8TC / GT2 / TA2 road racing chassis. Available in two widths to fit different suspension packages.

COMPLETE BODY 64-65" TREAD WIDTH
Challenger Body Package **4409**

CHALLENGER SIDE MIRRORS

Complete side mirrors to finish out the Challenger body package.

B9195D **Left**
B9205D **Right**

B9171D **Challenger Splitter Pinch Plates**

COMPLETE BODY 60-61" TREAD WIDTH
Challenger Body Package **4410**

CHALLENGER SPLITTER

B917D **Challenger Splitter, Narrow**
B170D **Challenger Splitter, Wide**

DODGE HEMI HEADERS

Designed to fit the EFI Dodge Hemi engine being used in TA2 racing.

H6200 **Dodge Hemi Headers**

CHALLENGER DECALS

CHAHLD **Challenger Headlight / Grill Decals**
CHATLD **Challenger Taillight Decals**

SPRING CAGE

CNC machined aluminum spring cage allows you to preload a 3" x 10" coilover spring independently of the shock. This allows for quick and easy shock and spring changes.

30209 **Spring Cage**

FINE THREADED EASY ADJUSTERS

Same design as our traditional easy adjusters only with a fine thread for more precise adjustments. Simple to install and use on any chassis. To adjust, use a 3/8" drive wrench on the top and simply turn in or out to pre-load. Thread drag adjuster prevents it from moving on its own. **Fits up to 1-1/2" bars.**

FOR ORIGINAL STYLE HOWE BARS

Just slide it in and weld the threaded bushing in place.

23997F **Complete Assy w/ Bushing - Fine**
23996F **Bushing Only - Fine**
24097F **Bolt & Eye Assy - Fine**

VERTICAL EZ ADJUSTER

Mounts on the sides of standard 2"x3" frame rail. Vertical design takes up less space allowing the adjuster to be in closer to the frame. Adjust the rate by moving ahead and back. Adapts to many chassis. Complete assembly includes 24097F & 23691F.

23990F **Complete Assy. - Fine**
23691F **Vertical EZ Adj. Mount - Fine**

W5 FLOATED ROTOR ADAPTER

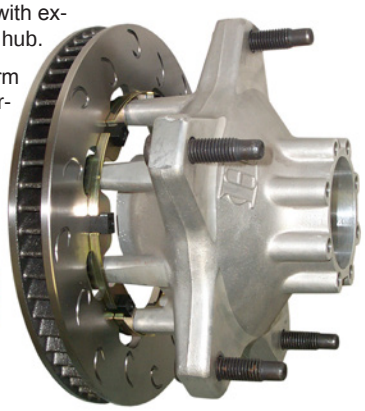
Allows improved braking performance and extended rotor life. Unique design maintains original rotor location so it works with existing brake mounts and hardware. Simply bolt the rotor to the adapter using the Howe t-nuts, then bolt adapter solid to the hub.

Howe t-nuts larger contact surface distribute braking forces more evenly than other floated designs allowing more uniform expansion and none of the binding that creates vibration. The rotor can expand when hot without distorting the contact surfaces resulting in more even pad wear and less rotor cracking.

Performance gains are due to increased rotor to pad contact by maintaining a flat surface and lower temperatures. Race tested at harsh braking tracks such as Madison, Wisconsin by Travis Sauter. Fit any common 8 bolt on 7" circle racing rotor.

Each hub requires an Adapter (20577), a T-Nut & Bolt Kit (36575N) to secure the rotor to the adapter, and bolts to secure the adapter to the hub.

20577 **W5 Floated Rotor Adapter**
36575N **Narrow T-Nut & Bolt Kit**
RE2111 **W5 Floated Adapter Brake Duct Diffuser**



NARROW 5X5 GT HUB - OVAL TRACK

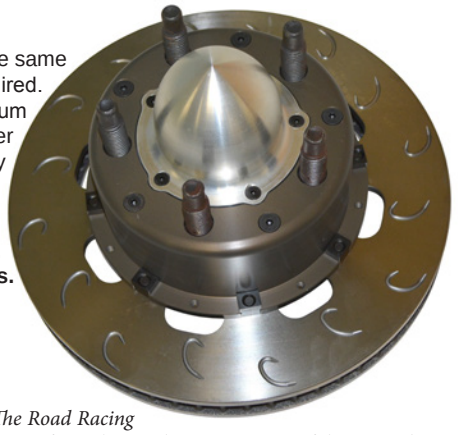
This narrow Oval Track version of the Howe GT hub has all the advantages of the wide road race version with the same tread-width as a standard Howe 5x5 hub. Developed for applications where extreme brake performance is required. The hub utilizes an aluminum hat style rotor mount that can fit any 7" inside diameter 8 bolt rotor. Special aluminum dust caps cover the center of the hub and can be removed without having to remove the hat. No special caliper mounts or adapters are required, the rotor location remains the same as any 2" bearing 5x5 Howe type hubs. They are available in your choice of steel or aluminum to meet varied rules and demands.

Oval Track Racing

36569N **Narrow 5x5 GT Hub - Steel 7.9 lbs.**
36569AN **Narrow 5x5 GT Hub - Alum 4.0 lbs.**
20574N **Narrow 5x5 GT Rotor Hat**
36575N **Narrow T-Nut & Bolt Kit**
20537N **Narrow Bullet GT Dust Cap**
20537NT **Extended Bullet GT Dust Cap**

Road Course Racing

36569 **Wide 5x5 GT Hub - Steel 8.0 lbs.**
36569A **Wide 5x5 GT Hub - Alum 4.05 lbs.**
20574 **Wide 5x5 GT Rotor Hat**
36575 **Wide T-Nut & Bolt Kit**
20537 **Wide Bullet GT Dust Cap**



NOTE: The narrow Circle Track versions of the GT Hub feature the standard 5x5 bearing used on all other Howe 5x5 hubs. The Road Racing wide configuration GT Hubs feature a Timken wheel bearings as standard. See Page 62 of the 25th Edition Howe Catalog for more info on the Road Racing version of the GT Hub.

GT HUB DRIVE FLANGE

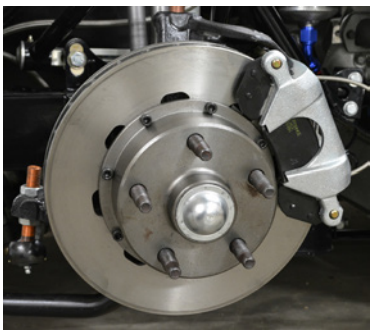
Drive flange for Road Racing applications where you want the advantages of the floated rotor hub on the rear. Design of the drive flange allows the axle to be removed without removing the hat. Features a bullet shape for easily locating wheels. Requires rear rotor hat to match drive flange shape, intended for wide configuration GT 5x5 Hubs only.

20545 **GT Hub Drive Flange**
20579 **Rear GT Rotor Hat**

HOWE STOCK REPLACEMENT IMPALA TYPE HUB

Cast 5x5 hubs are made to replace the stock GM hub and rotor assemblies commonly used to fit the GM #2 spindle. This is a popular spindle used on Modified and other stock divisions. If you have used the one piece hub you know that their quality varies greatly and they can not tolerate hard use without breaking. The Howe hub is much stronger and separates the hub from the rotor so you can use any popular 8 bolt racing rotor. Features an added .600" width built into the hub face to reduce the need for wheel spacers.

205351 **Hub Assembly**
205346 **Hub Only**



SIGHT GLASS FORWARD MOUNTED DRY SUMP OIL TANK

Unique sight glass design allows you to easily check the level of the oil in your tank. This tank is a front mounted dry sump tank. It was designed to fit in the right front corner of a perimeter chassis. It contains internal baffles to minimize aeration. It holds 10 quarts and is made from 1/8" aluminum. The vent and pick up fittings are #12 AN. The return is #16 AN and, the vent return is #6 AN.

E1600 **Tank**
E164 **Tank Mount**
E165 **Heat Shield**

BILLET OIL COOLER MOUNT

Billet oil cooler mounts designed to fit 13" Setrab oil coolers. They feature mounting holes located 12.25" apart and are designed to mount to 1.75" diameter tubing. Mounts are sold individually, two required.

E166 **Oil Cooler Mount**

HOWE 22314 HYBRID SCREW IN UPPER

This hybrid combination features the widely used Ford stud from a K8212 with a popular screw in K772 style housing. This allows the ball joint to fit directly into most popular aftermarket upper a-frames.

Howe 22314 - K8212 / K772

Cap	Make		Racing
Alum	Ford / Chrysler		Nostalgia Classes
Less Stud	Taper	Ball Size	
22329	1.5"	1.437"	

1/2-20 Thread

Available Studs for 22314

Change	0"	+.1"	+.2"	+.3"	+.4"	+.5"
Part #	22370	22371	22372	22373	22374	22375
Dim. L	3.52"	3.62"	3.72"	3.82"	3.92"	4.02"

PHENIX REAR END FILTER

This inline filter installed with a #8 a.n. line in and a #6 a.n. line out. The course filter screen is specifically for use with drive line cooling systems to extend pump life.

HP2000 **Phenix Filter**

LS ENGINE OIL FILTER ADAPTER

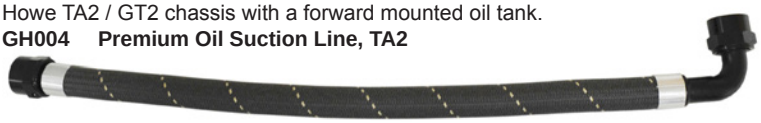
This adapter installs in place of the oil filter on an LS engine. It features a sleeve that matches the stock oil filter stud and two #10 AN fittings that allow you to run lines to a remote oil filter.

E1597 **LS Engine Oil Filter Adapter**

PREMIUM OIL SUCTION LINE

A cheap oil suction line can be the most expensive thing on your car if it kinks or collapses. We had this critical #12 line made using the highest rated material that we could find with Aramid braid and a PTFE liner, crimped ends and factory tested. Made to fit Howe TA2 / GT2 chassis with a forward mounted oil tank.

GH004 **Premium Oil Suction Line, TA2**



RIGHT SIDE HEAD RESTRAINT

This right side head restraint is designed to fit our GT2 / TA2 chassis. Is connects to the roll cage at three points to provide driver protection in case of a side impact and meets SCCA Pro Racing requirements. Features a sturdy kevlar strap that allows it to be drawn tight to the front of the chassis.

4007 **Right Side Restraint**

DRIVEN STEERING WHEELS

Driven was formed to provide quality and affordable racing steering wheels for every form of racing. These lightweight wheels are suede wrapped providing excellent grip and style.

DR01 **13.5" Dished**
DR02 **12.9" Flat**
DR03 **15" Dished**
DRA **Wheel Adapter**

RETRO STYLE T-SHIRT

This throwback t-shirt is 100% cotton featuring a white body with green cuffs and collar. The front feature a printed "patch style" Howe logo with distressed racing stripes. The rear has a large classic style Howe Racing Enterprises Inc logo. Available in sizes S, M, L, XL and 2XL

601R **Adult - S, M, L, XL, 2XL**

DENIM LONG SLEEVE SHIRT

Comfortable 100% cotton with double needle stitching throughout. Adjustable cuffs, tuck-in tail, button down collar, pocket, and the Howe Hornet logo. Available in sizes: S-3X.

6018B **Adult - S, M, L, XL, 2X, 3X**

HOWE RACING JACKET

A modern style jacket with a 86% polyester/ 14% spandex blend. Outer layer is wind and waterproof. Features a breathable and bonded to mesh lining for warmth and mobility. Full-length zipper with storm flap, zippered chest pockets, and the embroidered Howe Hornet logo. Available in sizes: S-3X.

6011 **Adult - S, M, L, XL, 2X, 3X**
604M **H Logo Hat (also pictured)**

2015 TA2, GT2, RACE CAR


Gar Robinson
74 Ranch Camaro

In 2010 Howe introduced a new class of road race cars starting with the Scandinavian based Camaro Cup. The cars were soon after adapted to the North American market. In the time since the Howe design has been refined and proven with over 160 produced between the European and North American market. The 2015 U.S. car is over 100 lbs lighter than previous models with 1% more right side weight.

Howe has benefited from the input of an all star list of drivers including Pete Halsmer, Cameron Lawrence, Adam Andretti, Tommy Archer, Nic Jonsson, Tommy Kendall, Wally Dallenbach and Jan Magnussen. The most prominent growth has been in the Trans Am TA2 class but the popularity also continues to grow in GT2 and in regional events. The cars are produced in one of three different categories; Pro, Club or Custom.

PRO

All but three TA2 races since 2011 and every championship has been won in a Howe built car. To keep you up front our Pro package is determined by performance driven innovations and by rule changes. Howe devotes a great deal of time to testing and Howe representatives are on hand to support the majority of the Trans Am Tour events.

CLUB

The Club car is a cost effective variant of the Pro car. It has the same chassis and suspension geometry. Innovations that are driven only by rules are not included on a standard club car. As a result the cost of a Club package car has seen little change since the creation of the class. Any Pro options can be added to any club car order.


Adam Andretti
ECC Ford Mustang


Rusty Gill
Shelton Washington

Both the Pro and Club version share a common chassis and choice of three bodies. Each car is built with a balance of weight, performance and driver protection.

The Pro package includes an Aim MXL2 Digital data systems with engine functions, fuel level and GPS. Additional inputs may be added.

Key Features

Body – All three brands of American muscle cars are represented with a choice of Camaro, Mustang and Challenger look bodies. The bodies are all fiberglass with a poly propylene nose available on the Camaro. Each model has a common 104" wheelbase and 64" center of tread width. Engines and bodies will interchange on the same chassis.

The Club package comes standard with Analog instruments. Oil pressure and temp, water temp, fuel pressure, fuel level and trans temp.


The Dodge SRT Challenger
2013-14 Trans Am Champion Cameron Lawerence

Penske 8300 series double adjustable shock are standard in the Pro package.

Shocks – Any ½" bearing mount coilover type racing shock of the correct length will fit. **Penske shocks are standard on each package.** Other brands including Ohlins and JRI are available on request.

7500 Series Penske shocks are standard in the Club package.

PRO

The Standard Pro package includes Stop Tech or the new Wilwood GN6 calipers with AP rotors and Pagid or Wilwood Pads. All four rotors are floated, hat style mounts.

High volume SRS Brake Fans.

The Pro package includes a Gleason differential, bolt on axle snouts and cambered drive plates. Allows changes in rear camber. Aluminum rear hubs provide an 8lb weight savings.

Katech LS3, EFI dry sump engine pictured. Engines from Wegner, Ilmor, and Schwanke are also approved.

Pro Quartermaster 7-1/4" V-drive clutch.

A Watts Link is included in the Pro package price.

Brakes – The standard master cylinders are Howe G3's with remote fluid reservoirs. Caliper options are available from **Wilwood and Stop Tech**. Front brake rotors by rule are 12.19" with a floated hat type mount. The rear rotors are 11.75" in either solid or floated mount.

Rear Axle – Both packages use a reliable **Tiger quick change** rear end equipped with an integral mechanical cooling pump with an external cooler. The Tiger rear end is assembled with high strength ARP ring bolts to improve durability for heavy down shifting.

Steering – The rugged Woodward rack and pinion and servo allow the steering quickness and feel to be tailored to your preference. A Driven steering wheel is standard.

Cooling – The Howe aluminum radiator includes a surge tank to improve efficiency. There are independent coolers for engine oil, steering and transmission.

Engine – The chassis will accept most V-8 racing engines. The Pro package is equipped with a TA2 approved Katech LS3. Other approved engines may be substituted at comparable costs. With the TA2 legal restrictor, engines are limited to about 475hp with a 6800 rpm limit. The Club package includes a GM Racing Camaro Cup LS3 which produces up to 525 hp unrestricted with a 6400 rpm limit. Custom cars can be built with engines up 700 hp.

A 10 quart Howe oil tank includes a sight glass for checking oil level at a glance

Exhaust – The exhaust system includes Howe ceramic coated headers and an optional muffler to keep the sound below 100 db at 100 feet. The underside of the aluminum interior is protected with high temperature Poron insulation from the driver forward. Stainless steel is availible as a Pro Select option

Rear Suspension -The rear suspension is the three-link type with an adjustable panhard bar or an optional watts linkage.

Fire System – The Pro car comes standard with two independent five pound fire systems mounted on the right side. This gives the driver the

CLUB

The lowest cost brake choice is the Wilwood SL6 with AP J Hook rotors and Hawk Pads. The rear rotors are solid mounted.

4-1/2" to 3" Brake duct adapter - no fan.

The Club package has a durable Detroit Locker differential with straight drive plates and axle snouts. Durable steel hub are used on all 4 corners.

The GM Racing Camaro Cup LS engine is an excellent value for a dry sump race engine.

C6 Corvette clutch for Camaro Cup LS3 or Center force clutch CT350 Crate engine.

A Panhard bar is a popular choce on all cars.

PRO

CLUB

The Pro package includes two redundant Five pound fire systems.

option of activating one system under the car and a separate system in the cockpit if needed. The in cockpit system is installed with a manual or automatic heat activated trigger.

A single Five pound manually activated fire system is installed in Club package cars.

A Howe muffler is standard in the Club package and availible on any car. A muffler is optional for TA2. Most other tracks and events have sound limits.

Hinges are eliminated on the hood and trunk of Pro cars to save 8.2lbs. The wing is mounted solid. Requires remote fuel fill.

The original hood and trunk hinges are continued on Club package cars for convenience.

The fuel filler can be located inside the trunk with hinges or in the quarter panel with a solid mount wing.

Pro cars are equipped with a required right side driver restraint.

Pro pakage cars are equipped with our 2015 Improved design lower control arms. They provide added shock travel and eliminate cantilevered loads from the sway bar.

Club package cars are equipped with our original design low cost lower control arms.

STANDARD EQUIPMENT

Included on both Pro and Club package cars

Transmission – The **G-Force GF4A** is both reliable and affordable. Our new optional Thundercar shift kit developed in Sweden upgrades the GF4A performance to Pro standards with less flex and a tighter pattern. Additional transmissions are available on request for custom cars. An electric transmission circulation pump and cooler are included.

Each car is fitted with a 24 Gallon Fuel Cell with a high tensile strength flexible bladder. Includes a fuel level sender, surge tank and fuel pump

New for 2015. The Thunder car shift kit.

G Force GF4A, T101 based transmission.

Hoosier bias ply tires and 15" x 10", 5x5 steel Basset wheels are standard. Chrome or Aluminum are optional. Lager wheels and tires are available on custom car orders.

Howe professional brake bias adjuster with indicator.

Opening left door. Required on Camaro and Challenger, optional on Mustang.

LED brake lights and SCCA legal tow loops front and rear. The Trans Am 2 spec wing is now carbon fiber for 2015.

Windshield Defogger is standard while the wiper has been made optional since many customer choose to not race wet or to just use Rainex .

Switches for the engine and brake fans, trans pump, defogger, tail lights, fresh air system and wipers.

PACKAGE CARS

Cars can be purchased complete or in kit form or any stage in between. For easy pricing you may choose a Pro package or a Club package, with or without assembly or drivetrain. You choose body and engine, and add any select options.

CUSTOM CARS

You can custom order your car with a mix of components from either package or add and subtract any portionofthecar.Webuild to any stage of completion.

TERMS

Standard production cars are seasonally in stock and custom cars are built to order. Completion times on custom cars are seasonal and typically range from 6-12 weeks. Car orders require a minimum deposit of 50% prior to production with the balance due on comple-tion.

SPARES

Spare and replacement part are kept in stock and are supported at many of the Trans Am events.

PRO PACKAGE

LESS DRIVELINE	
Unassembled Kit, Less Driveline	
Complete Less Driveline	
COMPLETE WITH DRIVELINE	
Katech Chevy or Ilmor Ford	

CLUB PACKAGE*

LESS DRIVELINE	
Unassembled Kit, Less Driveline	
Complete Less Driveline	
COMPLETE WITH DRIVELINE	
525 hp Camaro Cup LS3	

TRACK DAY 350 PACKAGE*

CLUB PACKAGE WITH 350 CRATE AND FORD 9”	
350 hp GM crate engine and Accusump	

**Club and Track Day engines are not approved for TA2 or GT2.*

PRO SELECT OPTIONS

There are currently more than 80 Howe Road race cars competing in Scandina-via as the V8 Thunder car and Danish Thundercar classes.

In Central America the same chassis is used in CTCC with different engine and a variety of body choices.

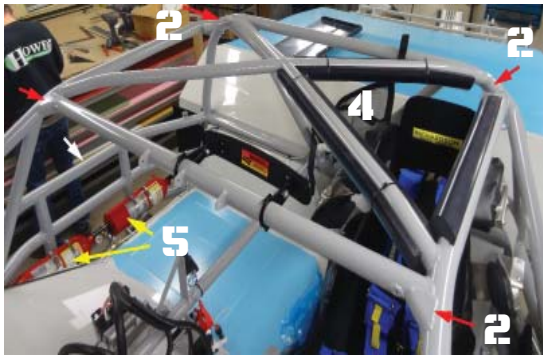
Chrome or Aluminum Wheels in place Steel Basset
Race Tech Seat Installed
Richardson Custom Fit Speedway Seat Installed
5 or 6 point Harness Installed
Fresh Air System with Helmet Air and Vest Circulator Installed
Windshield Wiper
Exterior Body Paint - Single Tone
Stainless Steel Exhaust
Dzus Fastened Front and Rear Window
Pro Brake Pedal
Mid Valley Transmission

HOWE RACING ENTERPRISES

HOWE CARS HAVE WHAT OTHERS DON'T:

When making comparisons between Howe and other TA2/GT2 builders consider these features.

1 Howe has performed destructive testing with GM Racing and coauthored an SAE paper on force deflection. This experience is incorporated throughout the chassis design and construction.



2 Saddle gussets are used in critical locations throughout the chassis. The FIA configured roll cage has continuous 1-3/4" x.095 d.o.m. tubing from the main roll bar to the frame rail, not a stock car type halo and a post design. Howe chassis are built by Howe, not sub contracted.

The Howe roll cage is made with a closer fit to the body providing large openings for entry and escape and increased leg protection. The top left door bar is lowered and a shoulder protection bar is added for strength.

3 The right side of the cage has three 1-3/4" x .095 door bars for added protection and right side weight. Fire bottles are securely mounted to the extreme right. The battery is protected inside of the right frame rail.

4 The Howe roll cage is built with an FIA style X member that provides greater stiffness. The convex bar design of the roof bars increase helmet clearance and provide self righting characteristic. The front of the roll cage is reinforced up to FIA specifications.

5 Two five pound fire systems are standard in Pro cars. The driver triggered system provides suppression in the engine bay and fuel cell area. The second system covers the cockpit by both a manual trigger for safety workers and an automatic thermal activation trigger located near the driver's seat.

6 The Howe windshield wiper uses a motor that will not stall at high speeds. The wiper motor is located to the right with a rocker linkage to keep it away from exhaust heat. The defroster is effective with a fan and heated duct under the dash. Every complete Howe car leaves with a layer of protective window film standard. This saves the expensive mar resistant poly carbonate from pits and wiper scratches.

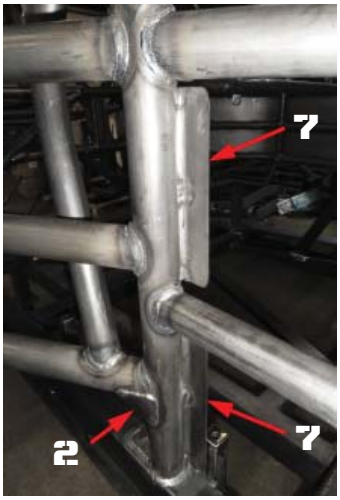
7 <u>No holes are drilled into the chassis tubes.</u> Flanges are welded to the chassis to attach the interior sheet metal.

8 All wires and lines are attached externally.
Other chassis builder drill dozens of holes into critical bars. The holes greatly weaken the chassis and can cause the accumulation of water and corrosion.

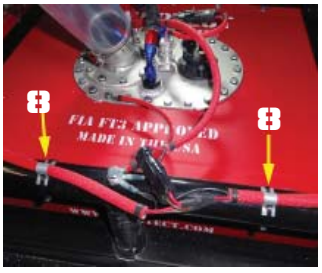
9 Sturdy integral tie down lugs front and rear save time and add security in transport.

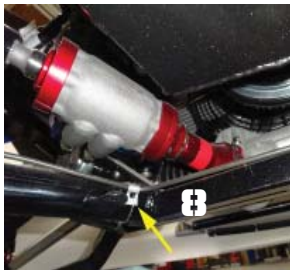
10 Interiors are insulated to lower the cockpit temperatures.

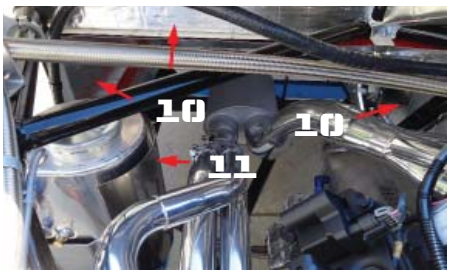
11 In addition there are also heat shields on the oil tank, starter, ECU harness and battery.

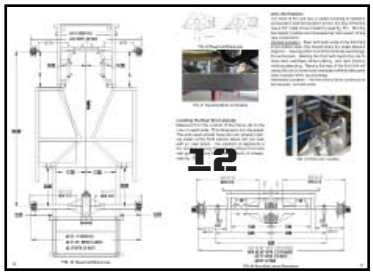


12 Each Howe chassis comes with a comprehensive owner's manual. The 2015 manual is 58 pages of instructions, schematics and specs. The book covers set-up and handling adjustment as well as maintenance procedures, torque specs, recommend spare parts, required tools and gear/speed charts.









HOWE RACING ENTERPRISES

MODIFIED CHASSIS

Travis Eddy - Impala Modified

Howe asphalt modified chassis can be ordered with a choice of the "Big Metric" Impala, the 68-72 Chevelle, or a fabricated front frame. Though they are equal in performance we recommend the Impala for the lower cost and better parts availability. The Chevelle makes sense for customers that have existing suspension pieces. All replacement parts and frame clips are in stock. Our standard Mod chassis fits asphalt modified rules across the USA; most often the rule variations consist of changes to bolt on components.

Weld-Ons - The weld on package consists of all the weld on brackets and mounts required before powder coating. This includes battery box, bumper mounts, nerf bar mounts, weight brackets, interior supports, fuel cell mounts, brake line tabs, body mount tabs, seat mounts, window net mount, rear load bolt mounts, and radiator mounts, steering quickener mount.

Nerfs & Bumpers - Designed to fit our chassis these bumpers and nerf bars are easily replaced by sliding into place and bolt in.

Interior - Aluminum interiors are pre-made for each chassis and can be purchased in kit form or installed. Installed interiors are hand fitted using custom notching dies for a clean fit. Available in a variety of different pre-painted colors including; black, dark grey, blue, red, yellow, orange, and white.

Powder Coat - Powder coating is more durable than paint and impervious to brake fluid or solvents. Available colors include; gloss black, matte black, charcoal grey, blue, red, yellow, orange, white, and kelly green. Custom colors are available at additional cost.

Modified Chassis with Impala Frame

Pictured with Weld On Options and Door Plates

Assembled Modified Chassis

Pictured with: Weld Ons, Door Plates, Bumpers, Nerfs, Fuel Cell Basket, Powder Coat, Hard Brake Lines, Interior, Steering Package, Suspension Package, Brakes & Pedal Package, Fuel System Package, Electrical Package, Cockpit Package, and standard Headers.

Impala Front Suspension

Chevelle Front Suspension

Chris Stearns - Chevelle Modified

Front Suspension - Our front suspension utilizes oem, or oem replacement lower a-frames, spindles, and hubs. The upper a-frames are adjustable rod end style. We finish the a-frames out with our precision ball joints and a-frame bushings. The sway bar is a Howe stock design with an ez adjuster for fast adjustments.

OPTIONS

Rear Suspension - Our rear suspension is 3 link type. The upper link features a rubber bushing to control axle torque for braking and acceleration. You have the option of running the rear panhard bar on the left or right side of the chassis. The rear springs can be ran as conventional coil with load bolts and springs over the rear end or as a coilover with big spring adapters for the rear shocks. The lift bar kit is optional. This style set up is good for producing traction in high horsepower / low grip situations common to modifieds.

Coil Rear Suspension with Lift Bar

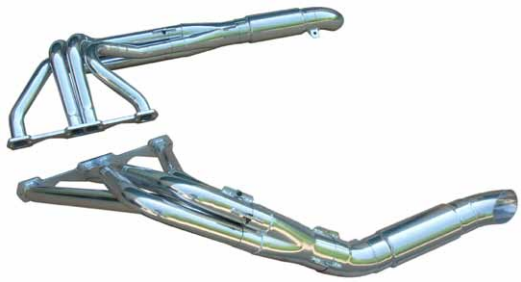
Coilover Rear Suspension with Standard 3rd Link

Steering - Howe Racing offers a complete precision steering package for each style of front frame. It utilizes a steering quickener, stock type steering box, billet pitman arm, adjustable centerlink, billet idler arm, precision tie rod ends and quick bump tie rod ends. These packages give you enough adjustability to properly set the bump steer for your front end.

Precision Steering Components

Iron Lung Style Crossover Headers

Exhaust - Our chassis can be built to accomidate the standard split style modified headers or your choice of crossover style headers. Chassis bars are located to fit your selection.



Standard Split Style Modified Headers

Cooling - Our modifieds fit our aluminum racing radiators to provide optimum efficiency. We also have a heavy duty three piece air duct system made of durable polypropelyne plastic.

Bodies - Our bodies are available in kit form or installed. They are made to fit the rule specifications and utilize our three piece plastic ductwork kit. Installed bodies include hood pins, stainless steel grills, and body supports as needed.

Earl Miles - Chevelle Modified with Howe Body

Aluminum Radiator and Molded Front Air Duct System

OPTIONS

Rob Yelton - Impala Modified

Modified Cockpit

Fuel Cell and Fuel System

Jason Drew - Impala Modified

CHASSIS OPTIONS

Impala Mod Chassis (Chassis, Weld Ons, Door Plates, Bumpers, Fuel Cell Basket, and Nerf Bars)
Chevelle Front Frame Option
Fabricated Front Frame Option
Hard Brake Lines Installed
Aluminum Interior (Choice of Color)
Powdercoat Chassis (Choice of Color)
Labor to Install Aluminum Interior

PACKAGES & OPTIONS

Steering Package
Labor to Install Steering Only
Suspension Package (Complete)
Labor to Install Suspension Package
9” Ford Rear End Instead of Quick Change
Lift Bar Rear Suspension Package
Upgrade Cost to Penske Shocks over Pro Shocks
Drive Line Package (Includes Wheels)
Labor to Install Radiator & Radiator Ductwork
Brakes & Pedals Package
Labor to Install Pedals & Master Cylinders
Fuel System Package
Install Fuel System Package
Electrical Package (w/ 4 Gauge Panel & Tach)
Labor to Install Electrical package
Cockpit Package
Labor to Install Cockpit Package
Body Package
Labor to Install Body Package
Exhaust Package (Standard Headers)