

The modern TA2 car descends from the Swedish Camaro Cup cars developed by Howe in 2009. In North America, our cars are built for; GT2, Club, and SCCA Pro TA2. We manufacture our chassis on-site, and all parts are in stock. We offer technical support to every Howe car owner and parts support at National events. Howe TA2 cars have won the most Pro races and eight of ten national championships, including Cameron Lawrence 2013-14, Gar Robinson 2015 & 2017, Rafa Matos 2018 & 2021, Marc Miller 2019, and 2020 Mike Skeen, all of these drivers won in Howe built car, owned by their team. Howe does not win championships; our customers do.



Start with a Shell

2022



A Shell is a chassis, insulated interior, body, brake lines and fire systems. Add component packages up to complete, or separately as a kit. A kit is an option if you have the time and experience. The three fiberglass bodies for TA2 are Camaro, Mustang and



Challenger. The Euro body resembles a Mercedes, but it is not approved for use in TA2. Bare chassis are often in stock and more complete cars are built to order. All parts are available separately and listed in the owners manual. A bolt-on caster kit is available to help move cars without suspension.

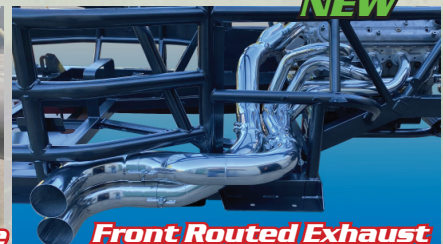
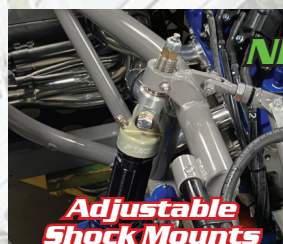
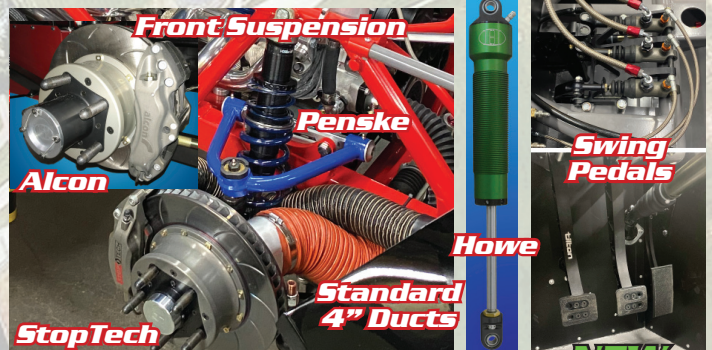


1. Brakes - There are four brands of brake calipers: Alcon has the most pro wins since 2020. Stop Tech, PFC and Wilwood are the other options. Rotors for TA2-USA rules are a maximum of 12.19". We use Tilton master cylinders with floor mounted pedals standard, and **New for 2023** are optional Tilton swing pedals with bearing mounted master cylinders. The front brakes have 4" cooling ducts to the rotors and 3" to the calipers with fans optional for small circuits.

2. Front Suspension - Penske shocks are standard, and Howe shocks are optional, or provide your own. There are multiple size Howe square-drive sway bars for chassis adjustment. 2023 chassis have a larger diameter mount and optional adjustable front shock mounts for adjusting height without changing the spring load.

3. Engine Install Kit - Includes motor mounts, intake, exhaust components and oil system. The exhaust system is ceramic coated steel without a muffler, and when required, we install a longer system and muf-

fler. Our new front routed exhaust option moves the collector heat and sound further from the driver to counter the added heat when using passenger side floor pans.



Your choice of front mounted 10 quart dry sump oil tank for short lines or in the new rear tank with the front routed exhaust. A sight glass indicates the oil level at a glance.

4. Cooling - Along with an aluminum radiator are coolers for the oil and power steering transmission and rear end.



6. Rear Suspension - The rear suspension is 3-link with a watts linkage on a Tiger quick change rear end with an integral cooling pump and cooler. A Gleason differential is standard, with a Wavetrac or Detroit Locker optional. Ford 9" rear ends are not allowed in TA2 but are otherwise available.



7. Clutch & Transmission - All TA2-USA legal cars are fitted with a Quartermaster or Tilton clutch with an aluminum bell housing and reverse starter. TA2 rules allow an H pattern 4 speed, but options are open for club classes. The G101A is the most affordable and requires an external pump. The A431 Andrews cost more but is rugged and precise. Andrews transmissions are refurbished, off-lease from NAS-CAR and include an internal pump.



Andrews A431



G-Force G101A



8. Steering - Sweet rack and pinion steering is standard and Woodward is now optional. The speed and feel may be tailored to your preference.

9. Fuel Cell - The standard cell is a 26 Gallon Pyrotech with a surge tank and one pump. Fuel options include a fuel pump-out port and a three pump lift system. TA2 events use 22-24 gallons.



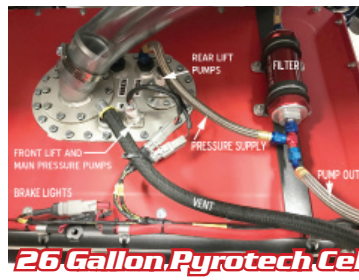
5. Electrical and Cockpit - There are three options for instruments and wiring; Original, Pro 22 and the new all-business Pro 23. The original instrument panel is wired with switches and fuses, and the Pro upgrades features



aircraft grade switches, relays, and reset breakers. Trans Am requires an AIM data system, and we use the MXG or the new MXP with the Pro 23 dash. A windshield defogger is standard, while the wiper and rain fenders are optional. A cool suit system is a popular option. Pro classes in the USA require a restraint to the right of the seat.

10. Tires and Wheels - 15" x 10", 5x5 steel Basset Inertia wheels. Radial tires require rear camber; Hoosier bias ply tires do not.

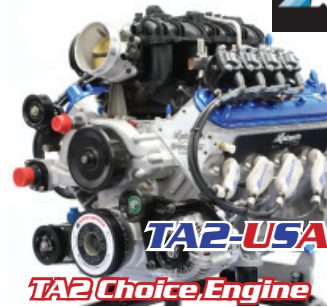
11. Engines - TA2-USA cars use the Trans Am spec "Choice" engine that is about 500 hp at 6800 rpm with the spec AEM ignition. We stock **Katech** built engines, but can use PME or any of the approved TA2-USA builders on request. Cars that are not competing in TA2-USA may use any engine of similar dimensions. We offer a MEFI



4 ECU with a LS engine that is not approved for TA2-USA. Our engine has the same power at a lower price, but uses a factory Corvette oil pan so they should not be combined with higher grip tires. The Katech Choice engine has a Dailey oil pump and pan that allows 1-1/2" lower installation in the chassis, and improved oil pressure at higher G-forces.



12. Seats - Seats are also sold separately. Race Tech seats are a popular choice, and there are custom containment seats from Richardson or Lajoie.



Fire System - Two five-pound fire systems give the driver the option of activating one under the car or in the cockpit. The in-cockpit system has a manual and automatic heat-activated trigger.



NEW OPTION!

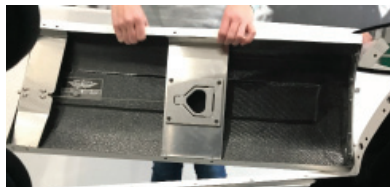


Opening Door - The driver's door opens on all TA2 cars. It is your choice to have a hinged door or a removable hatch. The hatch design is lighter, and the hinge is more convenient; the cost is the same.
Jack Posts - Fixed jack posts are standard with removable posts as a new option. Air jack are also available for club cars but are not approved for TA2.
Manual - Each Howe chassis comes with a

75 page owner's manual. The book covers set-up and adjustment as well as maintenance, torque specs, recommended spare parts and required tools.

2022 V8 Thundercar Champion Andreas Nilsson - Sweden

Dealer for Northern Europe
 Performance Automotive
 Scandinavian, AB
 Richard Berggren
 Tel: +46 708 19 50 40
 Email: richard.berggren@
 performanceracing.se



Super Copa has two classes similar to TA2; GTM Light is the same chassis as V8 Thundercar while the GTM Pro cars are taller with a six speed paddle shift Holinger transmission, traction control, larger brakes and 18" wheels.

Exclusive dealer for Mexico:
 JOUMIC S.A. de C.V.
 Michel Jordain
 Tel: + 55 4142 1111
 Email: micheljl@joumic.com.mx

How to Order a Car - We build cars in any stage from chassis to complete. You may request a quote or complete the attached order questionnaire for an exact itemized price. Prices are an accumulation of all parts and labor. The examples provided are for reference. We require a 50% deposit before production, and the balance on completion.

Ordering Engines - You may purchase engines direct from the builder of your choice, or we can assist you, but you will deal with your builder for rebuilds and engine related questions. We recommend purchasing the ECU and wiring harnesses with your engine to dyno them together. If you do not intend to race in Trans Am, we can supply a lower cost alternative engine.

Inventory and Build Time - We try to keep chassis and shell cars in stock, but frequently sell out. Complete cars are build-to-order, and completion times vary by season, and component availability can also cause delays. Typical times range from 6 to 12

weeks, starting from the date of deposit. Replacement parts are normally in stock and at the majority of Trans Am events. Car repairs are given priority over new orders during race season.



Australian TA2 Race cars are closer to our Club Package a since 2016.

Exclusive Dealer for Australia and New Zealand

PBR
Peter Robinson - Executive Director
Email: peter.r@pbrdistributions.com.au
Tel: +61 7 3354 6700

**Chassis registration fee must be paid to a certified chassis builder to register the chassis serial number with Trans Am to be eligible for Pro Events. Engine registration fee must be paid to a certified engine builder to register the engine seal numbers with Trans Am .
 **The Howe Global Spec Engine is not approved for TA2 or GT2 in North America.*

NORTH AMERICAN PRICE EXAMPLES

	CLUB		PRO TA2-USA	
Shell Car - Chassis with Body Fire Sys. Installed	\$31,670			
1. Complete Brake System	\$6,639	Wilwood	\$8,482	Alcon, PFC, StopTech
2. Front Suspension	\$7,385			
3. Engine Install Kit: Intake, Exhaust, Oil Tank & Lines	\$7,127	Muffler	\$7,674	No Muffler
4. Cooling System	\$1,139	Straight, 1 fan	\$1,551	Dual Plane, 2 fans
5. Electrical, Instrument & Cockpit	\$8,961	AIM MXL2	\$15,323	Pro Wiring AIM MXG, Cool Shirt, Rain Kit
6. Rear Suspension and Quick Change Rear	\$11,615	No Camber	\$12,677	Camber
7. Clutch and Transmission Kit	\$10,500	G101A Trans, Locker, No Camber	\$14,396	A431 Trans. Gleason, Camber, Strange Axles
8. Steering - Sweet	\$3,770			
9. Fuel Cell and System	\$3,961	1 pump and Trap	\$6,553	3 Lift Pumps and Pump Out
10. Basset Wheels with Brass Valve Stems	\$681			
11. Engine, ECU & Harness	\$22,000	Howe Global Spec**	\$32,353	Trans Am Choice, AEM ECU
Ballast & Fasteners	\$920	270 lbs	\$645	180 lbs
Labor to Assemble Complete from Shell	\$9,100		\$9,555	
Chassis and Engine Registration Fees*	\$0	None	\$2,000	Trans Am
TOTAL	\$125,468		\$154,700	

ADDITIONAL OPTIONS & PRICES

Exterior Paint	+\$3,500	Tilton Starter in place of Quarter Master	+\$150
Racetech Seat	+\$2,449	Richardson or Lajoie Custom Speedway Seat	+\$2,660
Adjustable Front Shock Mounts	+\$480	Front Exhaust with Rear Mounted Oil Tank	+\$195
Aero Pan Option	+\$259	Hanging Pedals with Tilton Bearing Masters	+\$1,952
Subtract for Plastic Nose	-\$1,000		



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 Beaverton, Michigan 48612
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 fax: (888) 484-3946
www.howeracing.com

WHEN COMPARING TA2 BUILDERS, CONSIDER THIS:



- We do not go to the track to race against customers; you win, we help.
- Every Howe chassis is made in house, on the same fixture.
- Replacement parts are available at national events and on our website.
- Howe continues normal shop hours, while you are racing.
- Our roll bar is FIA spec continuous 1-3/4" x .095 not a halo and a post.
- Chassis are a mix of d.o.m. and 4130 chromoly tubing,
- Howe provides technical bulletin updates by e-mail.
- The roll cage has longer leg protection and easier egress.
- Howe has an on-site test track.

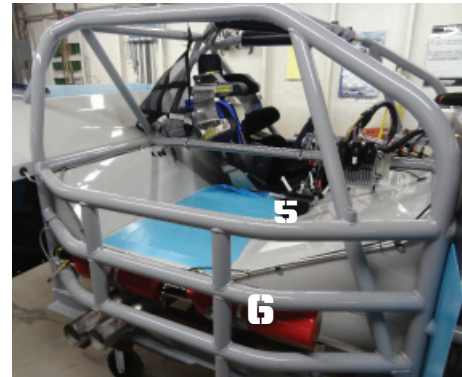
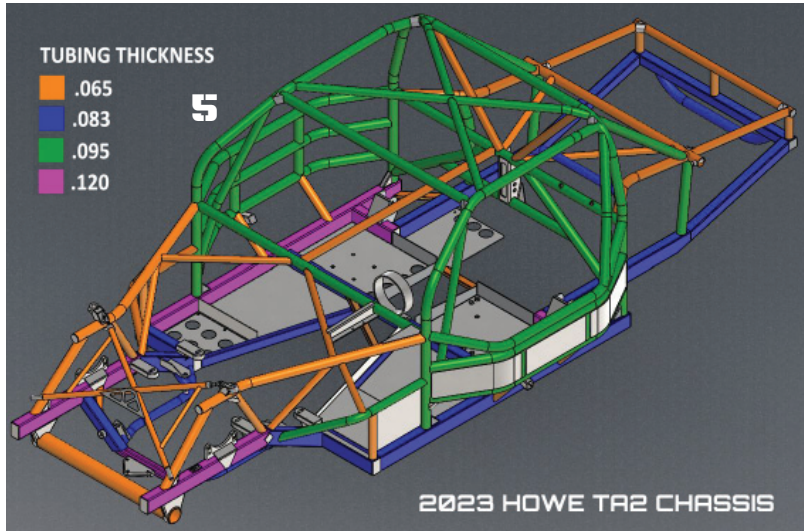


- 1.** Saddle gussets are in critical locations throughout the chassis
- 2.** Howe has performed destructive testing with GM Racing and coauthored a SAE paper on force deflection

3 The Howe roll cage top X member provides greater stiffness and cage strength. The front of the roll cage has reinforcing bars to meet FIA specifications. The entire roll cage meets SCCA Appendix J roll cage specifications to be legal to compete in GT2; not all chassis do.

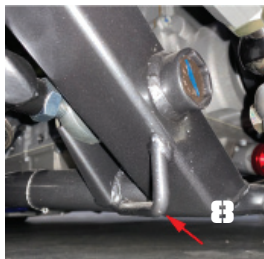
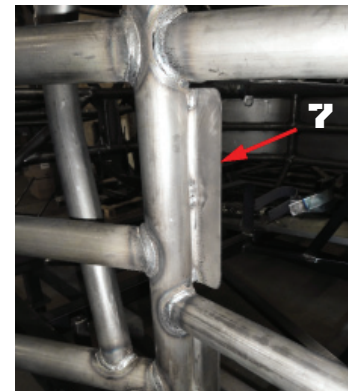
4 A shoulder bar adds protection and strength to the cage.

5 The cage's right side has three 1-3/4" x .095 door bars, and the battery is safely inside the frame.



6 Two five-pound fire systems are standard. The driver triggered system #1 provides suppression for the engine and fuel cell area. System #2 covers the cockpit and activates in two places; a manual trigger for safety workers, and an automatic thermal trigger near the driver.

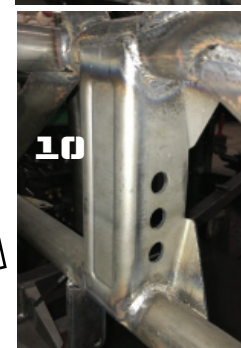
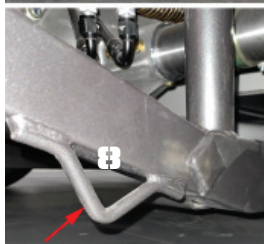
7 To prevent drilling holes into the chassis, we weld flanges to attach the interior and secure all wires and lines externally. Some chassis builders drill dozens of holes into critical bars that weaken the chassis and permit water accumulation.



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

9 Each Howe chassis comes with a comprehensive owner's manual. The manual is 75 pages covering set-up, maintenance, required tools, spare parts, and gear recommendations.

10 Howe suspension mounts are robust as the result of refinements made over 500 similar chassis worldwide. The rear suspension third link mount is a one-piece stamping that eliminates weld-related defects.





2023 TA2 Style Chassis Order Questionnaire 11/29/22

Customer: _____ Serial Number: _____

Phone: _____ Email: _____

CHASSIS

SHELL CAR

ASSEMBLED CAR

- Chassis: 2023 Updates* 2017-2022 Big Man Option (1/2" offset) Symmetrical
- 2 Seat Option Tall 2" Extended Footbox
- Hanging Pedals Floor Pedals

* 23 updates: no offset, wider driver's floor, larger sway bar tube, interior air passages, smaller instrument panel, +ground clearance

- Engine Fit: TA2- Choice LS, TA2 Chevy LS, TA2 Ford
- Jack Posts: Fixed Removable Air Jacks (Not legal for TA2)
- Chassis Powder Coat: Gun Metal/Anthracite Gray Black
- Custom Color: _____, Bare Chassis Only
- Interior: Installed Uninstalled Kit No interior
- Flat Black- Standard Gray Gloss Black
- Custom Color (Upcharge) : _____

- Fire Extinguisher: Two 5# systems, manual/auto Single 5 lb Manual System None

BODY: Camaro Mustang Challenger Euro AMG (Not TA2 Legal)

- Doors: Left Lightweight Hatch Door - Standard Left Opening Hinged - Optional
- Window: 1Tear-off, Front - Standard No Tear-off
- Paint: No Exterior paint Exterior paint, Color: _____

Group 1. BRAKES: Installed In Kit None

- Calipers: Alcon - Best PFC- Good WilwoodGN6 - Low Cost
- Masters Cyl: Tilton 13/16, 7/8 - Alcon, PFC Wilwood 1", 1-1/8"
- Brake Pads: Pagid - RST1 PFC Wilwood - DTC30 Project Mu
- Rotors: Pro Systems (Alcon) PFC Wilwood
- 12.188" Front - TA2 Legal 13" Front - Club
- 11.75" Rear - Standard 12.188" Rear - Optional
- Brake/Clutch Pedals: Tilton - Floor Pro Systems - Floor Tilton - Hanging
- Brake Ducts: 4" Rotor / 3" Caliper - Standard - Add fans - Street Circuit Option None

Group 2. FRONT SUSPENSION: Installed In Kit None

Front Sway Bar : Square Drive Standard No Front Sway bar

2.25 x.25 Std, 2.08 x.25", .217 x.25, 2.10 x.25", .210 x.375, 2.25x.375

- Front Hubs: Steel 5x5 - Standard Rotor Hats - Standard
- Shocks, Front: Penske 7500 series with high speed shafts - Standard

- Penske 8300 series double Adjustable - Optional
- Howe 50 series front with Rebound Adjustable -Optional Lower Cost
- No shocks Supplied Other:_____

Group 3. ENGINE INSTALL: INTAKE, EXHAUST, OIL SYSTEM

- Engine Install: Yes No Supplied Purchased from Howe
- Builder: Katech PME Other:_____
- Headers: Howe - Front Oil Tank Howe - Rear Oil Tank None
- Muffler: No Muffler, Short System - TA2 Muffler with Long System
- Oil Tank : Front Mount - 2012-2022 Rear Mount - 2023 None
- Intake: SLP Box, Flat Filter - Standard TA2 No Intake or Filter

Group 4. COOLING

- Radiator: Howe Radiator and Fan
High Pressure PWR, Single Fan - \$\$\$\$
- Oil Cooler: Air to oil cooler - Standard Internal Heat Exchanger - Option Both

Group 5. ELECTRICAL, INSTRUMENT & COCKPIT

- Dash: AIM MXG Data System with 7" color display - Standard Pro
AIM MXP Data System with 6" color display - Option
Analog Gauges Blank Instrument Panel No Instrument Panel
- Wiring: Pro Wiring with Aircraft Relays and Breakers - Standard Pro\$
Original Wiring with Switches and Fuses - Standard Club
- Battery: Optima Red Top - Standard No Battery Other
 - Seat : Yes No Purchased from Howe Customer Supplied Mounts Only:
Race Tech/Sparco Richardson Custom Containment Lajoie Containment
TA2 Required Left Leg Support Other:_____
- Driver Height:_____, Driver Weight:_____, Driver inseam:_____
- Harness : Yes No Sabelt- Standard Customer Supplied Other:_____
 - Rain: Wiper - Standard for Pro, Option for Club No Wiper
Inner Rain Fenders - Standard for Pro, Option for Club
Defogger - Standard No Defogger
 - Driver Cooler: Cool Shirt System (less shirt) None

Group 6. REAR SUSPENSION: Installed In Kit None

- Rear Sway Bar: None Standard, Add 3/4" dia. Bar
- Rear Roll Center : Watts Link - Standard Optional Panhard Bar
- Rear Hubs: Steel 5x5 - Standard Aluminum, lighter but good for 1 season
Rotor Hats - Standard Solid Mount - Cheaper but less rotor life
- Shocks, Rear: Penske 7500 series - TA2 Legal
Penske 8300 series double adjustable - Optional \$
Howe 50 series front with Rebound Adjustable - Club Option, Lower Cost

- No shocks Supplied Other: _____
- **Rear End :** **Tiger quick change with pump and Gleason Diff - Standard**
Winters Aluminum Ford 9" Steel DTS housing Ford 9"
 - Optional Differentials : Wavetrac Detroit Locker
 - Ford 9" Pump : Optional pump/cooler No pump or cooler
 - Drive Shaft: Steel - Standard None
 - Axle Snouts: Bolt On - Standard Solid Straight - Lower Cost
 - Camber: 2° R&L Standard Radial Opt: Left 1.5° 1° .5° 0° Right 1.5° 1° .5° 0°
Drive Plates: Howe Cambered - Radial Tires Straight - Bias Ply

Group 7. CLUTCH, TRANSMISSION

- Trans : G Force G101A with Electric Pump and Cooler None
Andrews with Internal Pump Other: _____
29 Spline - Standard Pro 26 Spline - Optional Original
Pro Ratios: 2022+ TA2 Spec Club: 2.5 1st, 1.59 2nd - Easier Take-off
Custom: 1st: _____ 2nd: _____ 3rd: _____
- Clutch: **7.25" Quartermaster - Standard**
5.5" Quartermaster - Optional 7.25" Tilton - Optional
29 Spline - Standard Pro 26 Spline - Optional Original
- Starter: Quartermaster - Standard Tilton - Upgrade \$

Group 8. STEERING

- Rack & Pin: **005-80343 Sweet 3" Ratio with Separate Servo - Standard**
Optional Slower Ratio 2-1/2"
- Servo: Sweet Servo .210 - Standard X-Light .185, .200 .220 .240 X-Heavy
- PS Pump: Turn One No Pump
- Steer Wheel: MPI 13" Flat Suede-Standard MPI 14" Flat Suede MPI 14" Deep Offset
Radio Button 14" Economy wheel None

Group 9. FUEL SYSTEM

- F. Cell: 26 gallon Pyrotech - Standard 24 gallon Pyrotech - Optional None
Fuel Pump-Out Option - Recommended for Pro Racing
Pro Racing Fuel Lift System (4 pumps) - Recommended for races over 50 miles

Group 10. WHEELS & TIRES

- Wheels: Basset 15" x 10", 5" Off - Standard Other: _____ None
- Tires: Hoosier F1045 Bias Pirelli Radial Take-Offs Other: _____ None

Note: We store completed car orders at no charge for 30 days, then there is a \$20 per day storage fee. We have a limited amount of heated storage available.

SPECIAL INSTRUCTIONS: