37-39 and 40 Chevy Chassis Builders Guide

Thank you for your interest in a Fatman Fabrication frame for your 37-40 Chevy. Before you begin there are a few things we would like to discuss and point out.

First, **PLAN YOUR PROJECT!!!** Know how you want it to look when it's finished. This will be repeated many times because it can't be said enough. Do you intend for it to be hi-tech or old style? Billet wheels or painted steelies? Pro street? Pro touring? Ground scrapping low? Who's going to drive the car and where? Is it going to be a low mileage show car or a freeway flyer for cross country cruisin'? Establish parameters based on ***reality*** and not just wishful thinking. Blown big block motors rarely make good long distance cruisers. Big inch wheels look awesome on some cars but tradeoff ride comfort for looks by requiring short sidewalls that don't absorb road shock. Remember, there is a tradeoff to everything, so save yourself time, money, and aggravation by planning your project.

Second, keep in mind **you are building a car**. You may be using an old steel body, but manufacturing process 60+ years ago were not very exact and there are minor variations in all these old cars, and minor modifications are likely on **every** step of the car, so plan for that and **test fit everything** before you paint or powdercoat anything. But, after building over fifty of these frames we have them dialed in pretty good.

All of our frames for the 37-40 Chevys are constructed of 2"x4"x.188" mandrel bent rectangle tubing with 1"x2".120" mandrel bent x-member. They are made to follow the original shape and form, and to fit with original body mounts. We include radiator mount holes, bumper mount holes, the topside body mount holes, and runningboard mounts. For the sedans we also include the gas tank mounts. We have been accused of building our frames "too heavy duty", but we pride ourselves on a strong, rigid frame which you'll find is an extra big benefit if you're using a fiberglass body or parts. And besides, why build anything on a questionable foundation?

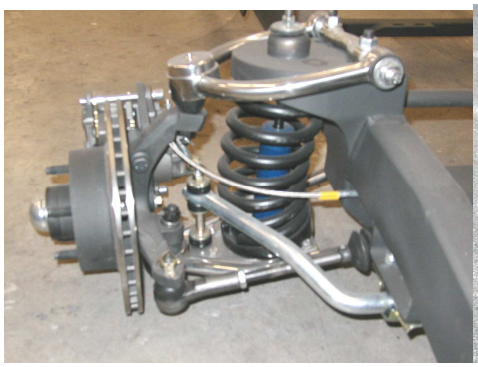
Front suspension

Fatman frames come standard with Stage II suspension, which uses coil springs and stock MII shocks. The ride height is approximately 4" lower than stock height and track width comes stock (56 ½ ") width. Tire to fender clearance is adequate on these cars, but attention should be paid to your wheel and tire spacing. 7"or smaller wheels fit the best.

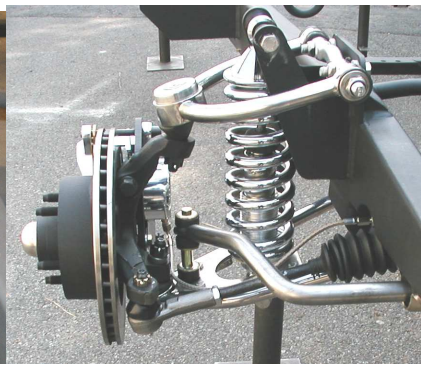
Stage III coilovers are our most popular option for the frontend because slight height adjustment, excellent shock, and good looks that match the polished stainless tubular control arms that is standard on all frames.

Air ride comes in either "cool" ride (Stage IV) or shockwave (Stage V). "Cool" ride has the air spring in place of the coil spring and the shock mounted behind the control arms. Shockwaves are similar to how a coilover looks and mounts with the shock inside the air spring. A compressor system is needed with both options. Another consideration with air ride is the brakes. Because the air springs are bigger in diameter, a caliper with the banjo bolt on the bottom instead of the side is needed. The Wilwood caliper option, a Wilwood or Baer complete system are recommended.

Manual rack and pinion steering is standard on “roller frames”, but power steering is available as an option and is generally recommended.

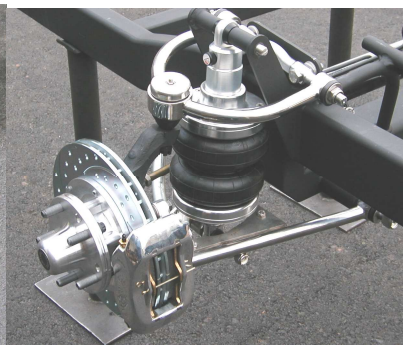


Stage II



Stage III

Stage IV



Stage V

Shocks are probably the biggest factor in ride comfort and handling of a car. Shocks are the ‘brains’ of the front suspension because it controls the velocity of the suspension. NASCAR teams take dozens of shocks to the track but only a couple pair of springs. Monroe gas charged shocks are standard and do a good job, but Carerra and QA1 have adjustable shocks that we can provide that allow you to fine tune your ride comfort and handling of your car.

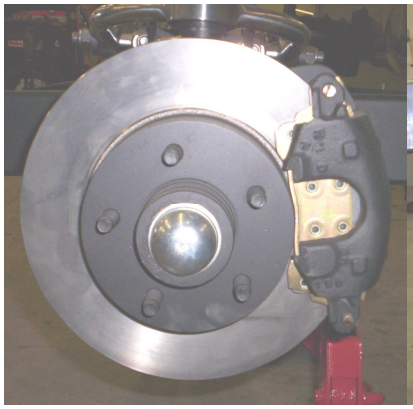
Brakes

Something to keep in mind as we discuss brakes is that some people use bigger brakes to “fill” their new big billet wheels or as a “dress up”, without thinking about the safety aspect. 37-40 Chevys generally weigh about the same as a stock Mustang II car, but remember bigger brakes are better brakes. You have never heard anyone say “if I had less brakes I could have really nailed that car”.

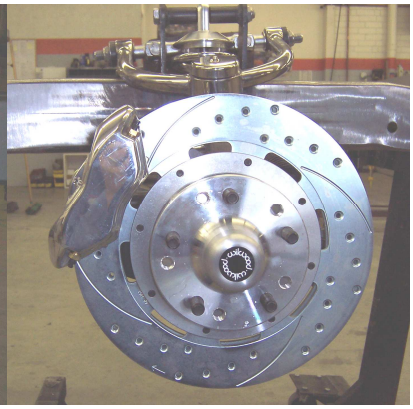
That is why all Fatman frames come standard with ECI or similar kits that use early GM “big” piston calipers and provide 65% more braking capacity than the stock Mustang II, and twice as much as other kits that that use the small piston GM calipers. These 11” disc brakes use OEM parts that are easily serviceable units using parts that are available at your local auto parts store, should you need to make emergency repairs. 5 lug 4 ½ “(Ford pattern) is standard. 5 lug 4 ¾ “(Chevy Pattern, w/ 12mm x 1.5mm metric

studs) is also available but use the above mentioned small piston GM calipers. Talk to the Fatman rep. about the options that are available for bigger brakes if using Chevy pattern.

We have several options from Wilwood. As mentioned earlier when talking about air ride we have to use the small piston GM caliper with the lower banjo bolt location to clear the air spring. Wilwood has an aluminum GM big piston replacement caliper with the banjo bolt in the proper location and still uses OEM brake pads. Complete Wilwood big brake kits are available that uses aluminum hubs, 4 piston aluminum black calipers with 11 inch, 12 inch, or 13 inch rotors. Drilled rotors and polished calipers are options on these kits.



Standard brakes



Wilwood drilled and polished brakes

Brake kits from Baer Brakes are also available. Keep in mind that larger brake kits require larger wheel/tire combinations. Talk to the Fatman rep about what will fit**. Remember** bigger brake options are cheaper than a new fender or grill that you will have to buy because a new Honda that you rear ended has better brakes than you! Above all, think safety first.

Master cylinder and power brake options

Manual brakes come standard and work well with common disc/drum combination brakes. They leave extra room for exhaust routing also. Power assist brakes are a great option and are recommended with disc/disc applications. To make it easier to service the master cylinder, remote filling kits are available as is a “cooler” looking aluminum reservoir kit. Chromed and polished booster/master cylinder kits are also available.

We use standard automotive steel brake lines for brake plumbing. These are D.O.T. approved, show quality looking and will last a lifetime. When you see the bent lines you’ll swear a machine did it. We also use braided stainless flex hoses from the frame to the calipers. Metering valves are used with disc/drum applications. 2 psi residual pressure valves are used between master cylinder and discs, and 10 psi residual pressure valves are used with drums.

Rear Suspension

We use Chassis Engineering parallel leaf springs on the rear. They can be setup to accommodate either the standard or ultra-low ride heights. They provide excellent ride quality and adjust for changes in load (people, gas, and luggage) very well. They are excellent for stock width frame, but don't work well with frame rails that have been narrowed to accommodate larger tires. 4 link rear suspension (either parallel or tri-link) is used with coilovers or air ride. We often recommend the air ride on the rear due to the flexibility afforded with the variable pressure. Coilovers do not accommodate changes in load well as they have a given spring rate that may be comfortable in a empty car, not heavy enough in car loaded with extra stuff. The air ride can be set for a comfortable ride and proper ride height at the push of a button, regardless of the load. Don't forget a compressor fill kit is required with an air ride suspension so there is an extra cost and there is less exhaust routing area. The floor will have to be modified in the trunk area when using coilovers or air ride.

Leaf Springs

Tri Link w/ air springs

Sway bars

Rear sway bars come standard on all car frames to help control body lean. We seldom use a front sway bar because of the nearly 50/50 weight distribution and good roll center on Mustang II based suspensions. If using a big block motor then one is recommended. Also if you want a "G" machine that has excellent cornering qualities, then choose this option. Plus, if the "mid life crisis" guy with the new Corvette thinks that your "old" car is no match for his, you will have something for him. Beware; some ride quality suffers to make it handle better. Again this all goes back to what kind of car you are building.

If using rear disc brakes with coilovers or air ride suspension with either disc or drum, a prostreet style rear sway is required.

Rearends

Fatman standard 'roller' frames include an 8" Ford rear. These are used rearends from Ford Granada passenger cars that have been sandblasted and primered. If you will take the time to rebuild the brakes, replace the axle bearings and seals, you will have a good serviceable rearend with a set of 'highway' gears that will last for many trouble free miles, at minimal expense. We can rebuild brakes and replace bearings and seals if you wish.

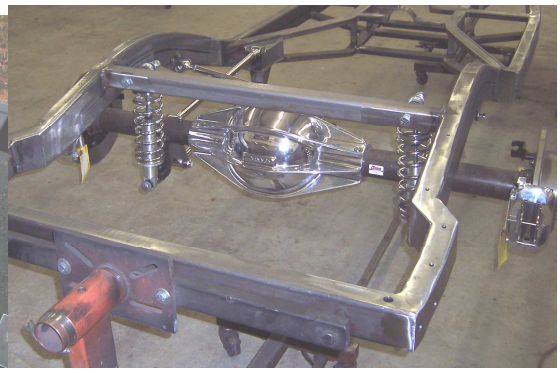
9inch rearends are available and are custom made to the proper width. You can get brand new gear sets in Trac loc or 'open' configuration. New drum brakes are also available for the 9" rear.

You can get disc brake conversions for both the 8" and 9" rearends. We generally use ECI kits that use O.E.M. parts. Kits from Wilwood or Baer are also available to match front brake assemblies or also for better frame clearance issues.

8" wide wheels, regardless of the diameter, will fit under the rear fenders with the proper backspacing. 10" or wider wheels will require the rear frame rails to be narrowed. We will have a 9" rearend made per your exact measurements of your mounted tire and wheel combination (No, we're not going to go by what the tire manufacture says the inflated tire size is. I have yet to see the right measurement in those pamphlets).

For the guys wanting to build a show car, a polished aluminum 9 inch or quick change rear should be considered.

Winters quickchange



Polished Currie 9 inch

Engine/Transmissions

We can setup the chassis for small or big block Chevy engines. The small block with a short snout water pump fit the best and is easily customized. LS series engines require an adapter plate that we can supply. They also will require the use of an aftermarket accessory drive system. Steering hookup for an LS series is difficult at best, so choose headers carefully. Any other engine other then a Chevrolet will require us to have in hand for placement.

700R4 and 4L60 overdrive trannys are popular due to the stoplight friendly first gear and the overdrive for the highway. Be aware though, overdrive trannys will typically require a rear gear change or a new gearset that we can supply With the 700R4 we do need to know if it is casemount or tailshaft mount. We also will need the measurement

from front of tranny to the transmount on the Chevy 4L60E as they do vary. With manual shift trannys we will need the measurement from bellhousing to transmount, the width at the widest point, and if you will use hydraulic or mechanical clutch linkage. The option price on clutch pedal setups do vary according to what setup you use, any frame rework, and if you want us to mount a clutch master cylinder.

Finish of frames

All frames come completely assembled (except air ride compressor systems and fuel tanks) and sprayed with grey or black lacquer primer. As an option *Reflections Paint and Body Shop, Inc.* (located in the same complex) has a frame priming service that includes the following steps:

1. Alcohol wash
2. Orbital sanding
3. Phosphoric acid wash
4. Etch priming
5. Epoxy priming

Epoxy primer is packaged in a variety of different colors. The black epoxy is the most popular of all the colors and does not require a topcoat when properly applied. When catalyzed and sprayed, the black epoxy gives the same "satin" appearance as any new sheet metal parts right out of the factory. This primer can be scuff sanded and topcoat painted if desired, but is not necessary. This paint system is recommended by the paint manufacturer and is the best undercoat system available on the market today. Remember, not everything is exact and some minor modifications are likely on **every** step of the car, so plan for that and **test fit everything** before you paint anything.

Other options

The power steering hose kit is a must have if going with power steering. This kit supplies 4 different fittings to connect to nearly any power steering pump with integral reservoir. The braided stainless hose can be cut to length for a custom fit.

The 3 U-joint steering hookup kit supplies Borgeson U-joints, ¾" steel rod, and heim joint. Use ¾" wood dowels or plastic pipe in place of the steel rod to mock up with.

Notes

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37-40 Chevy Builders Special Frame

Standard Items include:

- 2”x4”x.188” mandrel bent tubing frame rails, 1”x2”x.120” mandrel bent x-member
- Radiator and bumper mount holes, topside body mount holes, runningboard holes, and gas tank mounting holes
- Mustang II based front crossmember made of 3”x4”x .312” tubing and upper mounts for stage I to stage V
- Engine and transmission mounts for small or big block Chevy

Add your own bolt on front suspension parts, rear suspension, and brake pedal assembly

Builder special $ 4050

Builder special options:

__front bolt on suspension parts	from $1495
__manual brake pedal and bracket installed	add $335
__power brake pedal and bracket installed	add $585
__mounts for Chassis Engineering leaf springs	add $200
__Chassis Engineering leaf spring kit	add $495
__rear sway bar	add $180

37-40 Chevy Roller Chassis

Standard Items include Builder Special items plus:

- Fatman stage II front suspension including polished stainless tubular control arms, coil springs, shocks, mustang II spindles with 11” disc brake assembly, and manual rack and pinion steering
- Single pedal brake assembly with manual master cylinder
- Chassis Engineering parallel leaf spring rear suspension with rear sway bar
- 8” Ford rear end (used, complete drum to drum, sandblasted not rebuilt)
- Shipped in grey primer

Roller price $7150

Options

Front upgrades:

__coilsprings (Stg II)	no charge	
__coilovers (Stg III)	add $400	double adjustable add $345 polished add $100
__"Cool" air ride (Stg IV)	add $525	
__shockwave (Stg V)	add $800	also available as double adjustable, add $275
__power steering	add $100	
__QA1 shocks	add $320	per pair, for Stg II and Stg IV, 12 way external adjustable
__2" drop spindles	add $100	
__front sway bar	add $230	recommended for big blocks, better handling
__front sway bar –air ride	add $300	
__Chevy bolt patt.	add N/C	82-92 Camaro rotor and caliper
__EC-704 brake kit	add $325	alum hub, large caliper, avail Ford or GM pattern, 11" rotor
__EC-704-13 kit	add $425	" " " " " " " " " 13" rotor
__Wilwood caliper	add $215	alum calp, includes pins
__Wilwood 11" kit	add $405	4 piston, alum. hub, fits 15" or larger wheels
__Wilwood 12" kit	add $485	4 piston, alum. hub, fits 17" or larger wheels, some 16's
__Wilwood 13" kit	add $1315	6 piston, alum. hub, fits " " " "
__above Wilwood kits drilled rotors	add $110	
__above Wilwood kits red calipers	add $100	
__above Wilwood kits polished calipers	add $100 4 piston, $170 for 6 piston	
__Baer 11"- SS+	add $690	includes slotted, drilled rotors, 2 piston PBR calipers
__Baer 13"- Track	add $890	includes slotted, drilled rotors, 2 piston PBR calipers
__ Baer 14" –Pro +	add $1900	includes slotted, drilled rotors, Baer 6P calipers

Engine upgrades:

__any other engines	add $200	
__Chevy LS1 or Ford mod	add $75	includes motor mount adaptor

Power brake upgrades:

__power booster	add $250	
__show p/b	add $450	stainless steel booster, chrome master cylinder
__remote fill	add $150	
__Alum remote fill	add $325	
__brake lines	add $560	D.OT. approved steel hard lines and braided steel hoses
__clutch pedal	add $200	
__hydraulic clutch	add $380	includes Wilwood clutch m/c for hydraulic hookup

Rear Suspension upgrades:

__ultra low leaf	add $400	
__4 link w/ coilovers	add $1195	double adjustable add $345; polished add $100
__4 link w/ "cool" air ride	add $1395	
__4 link w/ shockwaves	add $1495	double adjustable add $275
__Stainless steel 4link bars	add $270	add on to above 4link systems
__frame notches	add $100	required for some ultra low and rear disc brake clearance
__prosteet rails	add $900	
__prostreet sway bar	add $180	required with some 4link setups and/or rear disc brakes
__QA1 shocks	add $320	for leaf or air ride. 12 way external adjustable

Rearend upgrades:

__new bearings and seals on standard rearend	add $150	
__rebuild drum brakes on stock rearend	add $225	
__Chevy pattern on standard rear	add $175	
__new 9 inch rear	add $700	new housing and 28 spline axles only
__31 spline axles- new	add $395	to above rearend
__new open 9" gearset	add $600	
__new Trac Loc 9" gearset	add $1075	
__new drum brakes for 9"	add $475	
__Winters quick change	call for $	no brakes included. Ask rep. about options
__quick change polished	call for $	
__Currie show rear	call for $	all polished alum center section 9inch w/ polished Wilwood disc brakes
__ OE style rear disc	add $700	11" Trans-Am rotors, Cadillac calipers w/ parking brake
__Wilwood rear disc	add $649	12 inch rotors, 4 piston with internal shoe parking brake
__above Wilwood kit drilled rotors	add $110	
__above Wilwood kit red calipers	add $100	
__above Wilwood kit polished calipers	add $100	
__Baer 11" -SS	add $1060	11.35" drilled, slotted rotors, 1 piston PBR calipers
__Baer 13"- Track	add $1120	13" drilled, slotted rotors, 1 piston PBR calipers
__Baer 14"- Pro +	add $2195	14" drilled, slotted rotors, 6 piston caliper

Other options:

__epoxy primer	add $1200	
__Borgeson 3 joint steering hookup	add $270	
__Power steering hose kit	add $145	
__2 way Air ride compressor system	add $800	
__4 way Air ride #ARC4000 sys.	add $1100	manual operation, dial gauges
__4 way Air ride #ARC4000e3 sys.	add $1500	"computer" controlled, digital readout

Custom options available, if you have an idea let's discuss it.

Total options $_____
Roller frame +$7150

Total price $_____

1/3 deposit required with order. Personal check ok for deposit. Balance due prior to shipment in cashiers check or certified funds. No credit cards on frame orders

Once our sales team has worked with you on a basic plan, we will connect you with our frame shop specialist. He will assist you in verifying and dialing in the final version. After we receive your deposit, you will be sent a written proposal for your approval. A signed copy must be returned to us before the frame is built, and will assure that both parties clearly understand the chassis specifications, the way you want it!

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