

Ford Truck Chassis Builders Guide



Thank you for your interest in a Fatman Fabrication frame for your Ford truck. 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 truck and where? Is it going to be a low mileage show truck or a freeway flyer for cross country cruising? 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 trucks 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 truck**. Manufacturing processes of 50+ years ago were not very exact and there are minor variations in all these old trucks. Not everything is exact, and some minor modifications are likely on **every** step of the truck, so plan for that and **test fit everything** before you paint or powdercoat anything. But, after building a couple hundred of these frames we have them dialed in pretty good.

All of our frames for the Ford trucks are constructed of 2"x6"x.188" main rails with the rear axle kickup being mandrel bent. They are made to follow the original shape and form, and to fit with original cab and bed mounts. We include front cab mount outrigger, rear cab mount holes, radiator mount holes, bumper mount holes, running board holes, and bed mount holes. We have been accused of building our frames "too heavy duty", but we pride ourselves on a strong, rigid frame and besides, why build anything on a questionable foundation?

Front suspension

Fatman frames come standard with Stage 2 suspension, which uses coil springs and single adjustable MII-based shocks. The ride height is approximately 4" lower than stock height with a standard spindle. You can choose a 2" drop spindle for a lower ride height or our exclusive 1 1/2" raised spindle for a more conservative ride height. Be aware, these frames will NOT maintain stock ride height no matter which option you choose. Track width comes 58 1/2" on 48-52 trucks and 60 1/2" on 53-56 trucks which is slightly narrower than the original width. Tire to fender is adequate on these trucks, but attention should be paid to your wheel / tire sizes and spacing. 7" wheels work the best on these front ends.

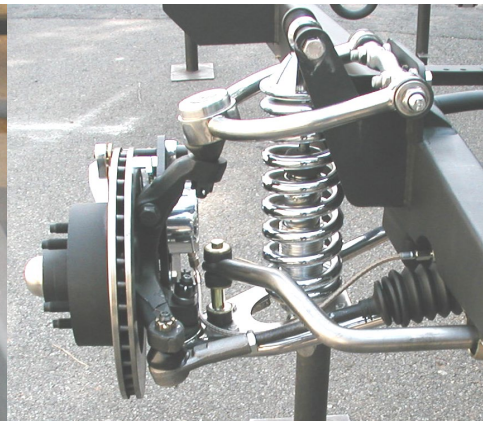
On 53-56 F100's we offer a few custom options. Our chassis will move the axle centerline forward 1" from stock to help center the wheel in the front fender, this is standard on these chassis. We also offer the option of moving the axle centerline up 5" from stock. This allows you to modify the front fender opening to center it. Bebops fiberglass works made a set of fiberglass front fenders with the opening already moved forward to accommodate this modification. We also offer the option of a 2" widened coilover front end for the 53-56's. This will allow the use of a wider front wheel/tire combo. Just be aware you may have to modify the inner fenders for clearance.

Stage 3 coilovers are our most popular option for the frontend because slight height adjustment, excellent shock, and good looks that match the electroless nickel plated steel tubular control arms that is standard on all frames, regardless of stage ordered.

Air ride comes in either “cool” ride (Stage 4) or shockwave (Stage 5). “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.



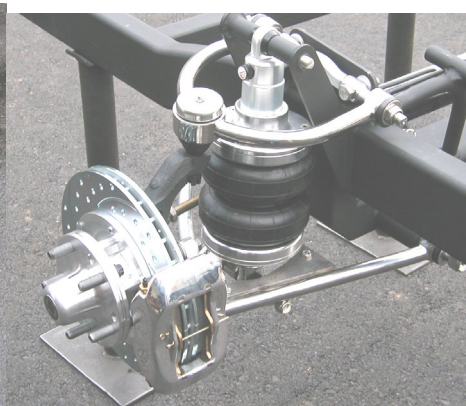
Stage 2



Stage 3



Stage 4



Stage 5

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

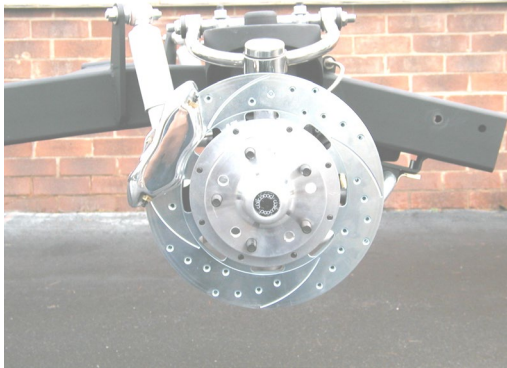
Shocks are probably the biggest factor in the ride comfort and handling of a car. Shocks are the ‘brains’ of the front suspension because it controls the velocity of the suspension. NASCAR teams take dozens of shocks to the track but only a couple pair of springs.

Brakes

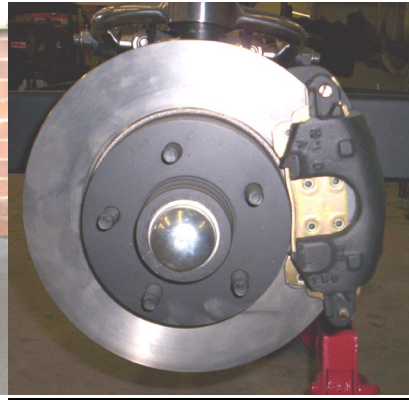
Something to keep in mind as we discuss brakes is that some people use bigger brakes to “fill” their new big billet wheels or as a “dress up”, without thinking about the safety aspect. Your truck does weigh slightly more than a stock Mustang II car (they weighed 3300 lb.) so we’ve never used the tiny 9” Mustang brakes. All Fatman frames come standard with brake 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 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) 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. 5 on 5 and 5 on 5 ½ patterns are also available.

We have several options from Master Power, CPP and Wilwood. CPP front kits use a Corvette style sealed hub (no bearings to pack!) and 13" Corvette drilled/slotted rotors with matching calipers. These kits are available in 5 on 5 and 5 on 5 ½ pattern. Master Power brakes all include drilled/slotted hub style 1-piece rotors and either late model OE calipers or their billet 4-piston calipers. Complete Wilwood big brake kits are available that use aluminum hubs, 4 or 6 piston aluminum calipers with 11 through 14-inch rotors. Drilled rotors and polished calipers are options on these kits.



Wilwood drilled and polished brakes



Standard brakes

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 during a panic stop 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 from ECI 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

A 4 bar with premium single adjustable coilovers is standard on the Ford truck chassis and provides excellent ride quality, looks, and serviceability. If the truck will be used to carry a load in the back or maybe pulling a trailer, then 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 an empty truck, but not heavy enough in a truck 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. Because truck frames are quite narrower than a car frame putting air ride in the back does reduce exhaust routing area, so some planning is required.



Sway bars

We recommend a front sway bar on truck chassis since they tend to be nose heavy. If using a big block engine, then one is most definitely 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” truck is no match for his, you will have something for him. Beware; some ride quality may suffer to make it handle better. Again, this all goes back to what kind of truck you are building.

Rearends

Fatman standard 'roller' frames include a new 9" Ford rear housing and 31 spline axles now supplied by Moser Engineering in Portland, IN.

You can get brand new gear sets also supplied by Moser Engineering. Available in Trac Loc, Tru-trac or Wave-trac configuration. All new gearsets feature their lightweight nodular case (good up to 600HP), aluminum bearing support and new non-billet 1350 series yoke.

New drum brakes or disc brake conversions are available. We generally use rear disc brake kits that use O.E.M. parts. Kits from MP, CPP and Wilwood 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 may require the bed to be tubbed. We will have a 9" rearend made per your exact measurements of your mounted tire and wheel combination. We cannot go by what the tire manufacturer says the inflated tire size is, those dimensions will vary dependent on the rim size chosen.

Engine/Transmissions

Rear sump engines like Chevy's fit great, with no problems. Ford small and big blocks will require a change from the normal front sump pans. The 289/302 needs a '79-'93 Mustang dual sump pan, sold as a complete kit # M-6675-C302. The 351W rear sump pan is # M-6675-A58. Ford sells a rear sump pan for the 429/460, but it doesn't have enough clearance. Canton, and Moroso make a true rear sump pan listed as a Fox (5.0) Mustang conversion. Canton's pan (# 15-700, 15-771 for the screen and bolt, and 20-850 for the dipstick kit) fits the best and doesn't require a recessed firewall (Canton has similar oil pans for the FE series engines). The Moroso pan is longer in the rear sump and will require a recessed firewall. We recommend a front sway bar with big blocks due to the extra weight. The 4.6 and 5.4 modular motors are a tight fit because they are so wide, but we can mount those engines if that is what you want to run. GM LS series engines and the early Ford modular engines require an adapter plate that we can supply. They also may require the use of an aftermarket accessory drive system. The new Coyote engines add their own issues. The oil pan is different than the early modular engines and requires the use of a Moroso oil pan #20575 as well as recessing of the firewall on most applications. Many Coyote engines have no provision for a power steering pump, requiring an aftermarket pulley system or an add-on power steering pump kit. Plan of having to heavily modify or replace the transmission tunnel for the larger overdrive transmissions that come with the Coyote engines. All other engines will require us to have the motor in hand for placement.

Overdrive transmissions are popular due to the stoplight friendly first gear and the overdrive for the highway. With the Chevy 700R4 we do need to know if it is casemount or tailshaft mount. We also will need the measurement from front face of transmission to the transmission mount on the Chevy 4L60E and new Ford overdrives as they do vary. The Ford AOD doesn't require any measurements. Older 3 speed automatic transmissions are simpler to install but don't offer the flexibility of the overdrive units. With manual shift transmissions we will need the measurement from bellhousing to transmission mount and the width at the widest point. We set up the clutch pedal assembly using a

Wilwood hydraulic clutch master cylinder. You will set up the transmission with whichever style of hydraulic clutch slave cylinder you desire.

Finish of frames

All frames come completely assembled (except air ride compressor systems and fuel tanks) and coated with a rust inhibitor. 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 but will fade in the sun and eventually absorb water, so it should receive at least a coat of semi-gloss clear to seal it. 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 left as is but will hold up best if scuff sanded and topcoat painted. 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, 3/4” steel rod, and heim joint. Use 3/4” wood dowels or plastic pipe in place of the steel rod to mockup with

48-56 Ford Truck Builders Special Frame

Standard Items include:

- 2”x6”x.188” main frame rails, 2”x4”x.188” mandrel bent rear kickup rails
- Radiator mount holes, bumper mount holes, cab mount holes, running board bracket holes, and bed mount holes
- Mustang II based front crossmember made of 3”x4”x .312” tubing and upper mounts for Stage 2 to Stage 5
- Engine and transmission mounts

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

Builder special \$ 8,295 + \$800.00 for 61-79 F-100

Builder special options:

<input type="checkbox"/> front bolt on suspension parts	from \$2,300
<input type="checkbox"/> manual brake pedal and bracket installed	add \$550
<input type="checkbox"/> power brake pedal and bracket installed	add \$850

48-56 Ford Truck Roller Chassis

Standard Items include Builder Special items plus:

- Fatman stage 2 front suspension including electroless nickel plated tubular control arms, coil springs, premium single adjustable shocks, mustang II-based spindles with 11" disc brake assembly, and manual rack and pinion steering
- Single pedal brake assembly with manual master cylinder
- 4 bar rear suspension with diagonal bar and Ridetech coilovers
- New 9" Ford rear housing with late big bearing ends and 31 spline axles
- Shipped coated with a rust inhibitor
- Assembled

Roller price \$13,299

61-79 F-100 Roller Chassis

Standard items same as above with the exception of:

No brake pedal or master cylinder assembly
2 ½ "x5"x.188" main frame rails throughout frame

Roller price \$14,099

Options

Front upgrades:

<input type="checkbox"/> coil springs (Stg 2)	no charge	
<input type="checkbox"/> coilovers (Stg 3)	add \$800	
<input type="checkbox"/> "cool" air ride (Stg 4)	add \$995	
<input type="checkbox"/> shockwave (Stg 5)	add \$1,500	
<input type="checkbox"/> power steering	add \$200	
<input type="checkbox"/> 2" drop spindles	N/C option	
<input type="checkbox"/> 1 ½" raised spindles	add \$295	
<input type="checkbox"/> front sway bar	add \$425	recommended for better handling
<input type="checkbox"/> front sway bar –air ride	add \$540	
<input type="checkbox"/> Chevy bolt patt.	N/C	82-92 Camaro rotor and caliper

Front upgrades: (cont.)

- __ Big bore metric caliper add \$100 Big bore metric GM caliper for metric GM bks
- __ Zero offset brake kit add \$525 hub style, large caliper, avail Ford or GM pattern
- __ Zero offset-13 kit add \$625 “ “ ,13” rotor, “ “ “ “ “
- __ CPP Vette brake kit add \$800 Corvette style sealed brgs w 13”D/S rotors, Vette calipers
- __ MP Legend ser. 11” add \$649 11” D/S rotor- OE big GM cal – Hawk pads
- __ MP Ralley ser. 11” add \$1,000 11” D/S rotors-4 piston cal- 15” wheels OK
- __ MP Pro Driver 13” add \$1,836 13”D/S rotors- 4 piston cal- 17” or larger wheels
- __ Wilwood caliper only add \$495 black or red powdercoat- includes pins
- __ Wilwood 11” kit add \$925 4 piston, alum. hub, fits 15” or larger wheels
- __ Wilwood 12” kit add \$980 4 piston, alum. hub, fits 17” or larger wheels, some 16’s
- __ Wilwood 12” kit add \$1,275 **5 on 5 patt** -4 piston, alum. hub, fits 16” or larger wheels
- __ Wilwood 12” kit add \$1,140 6 piston, alum. hub, fits 17” or larger wheels, some 16’s
- __ Wilwood 13” kit add \$1,455 6 piston, alum. hub, fits “ “ “ “
- __ Wilwood 14” kit add \$2,120 6 piston, alum. hub, fits 18” “ “ “
- __ above Wilwood kits drilled rotors add \$225
- __ above Wilwood kits red calipers N/C
- __ above Wilwood kits polished calipers add \$255 4 piston, 6 piston N/A
- __ 5” or 5 ½ “bolt circle add \$350 OE GM PU rotor & caliper

Engine upgrades:

- __ Small Block Ford or Chevy N/C
- __ any other engine add \$500 including Ford Coyote engine
- __ Chevy LS1/Ford mod add \$125 motor mount adaptors

Power brake upgrades:

- __ power brakes add \$325
- __ “show” p/b add \$650 stainless steel booster, chrome master cylinder
- __ remote fill add \$355
- __ alum remote fill add \$550
- __ brake lines add \$895 D.O.T. approved steel hard lines and braided steel hoses
- __ clutch pedal add \$750 includes Wilwood clutch m/c for hydraulic hookup

Rear Suspension upgrades:

- __ “Cool” air ride add \$1,200
- __ Shockwaves add \$1,000
- __ Stainless steel bars add \$980 4 link bars in polished stainless steel
- __ pro street rails add \$2,500
- __ raised rails add \$1,500 to gain rear clearance if using drop spindles on front
- __ pro street sway bar add \$550
- __ reg. rear sway bar add \$425 if possible- fitment must be checked

Rearend upgrades:

- __ new Trac Loc 9” gearset add \$1,995
- __ Tru-trac upgrade from Trac-loc add \$250 to Trac-loc option
- __ Wave-trac upgrade from Trac-loc add \$340 to Trac-loc option
- __ new HD Nodular case -35 spline Tru-trac gearset add \$850 to trac-loc gearset
- __ new drum brakes for 9” add \$625
- __ OE style rear disc add \$850 11” Trans-Am rotors, Cadillac calipers w/ parking brake
- __ CPP 11” rear disc add \$950 11” T/A rotor- D/S, GM caliper w parking brake
- __ CPP 12” rear disc add \$1050 12” rotor- D/S, GM caliper w parking brake
- __ MP Legend ser. 11” add \$950 11” rotor- D/S, OE caliper w parking brake
- __ MP Pro Driver 12” add \$1,570 12” D/S rotor, 4-piston caliper, internal shoe p.b

