

# 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?

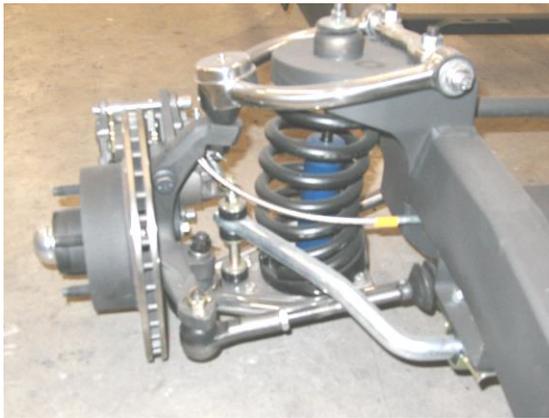
### **Front suspension**

Fatman frames come standard with Stage 2 suspension, which uses coil springs and Ridetech MII 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.

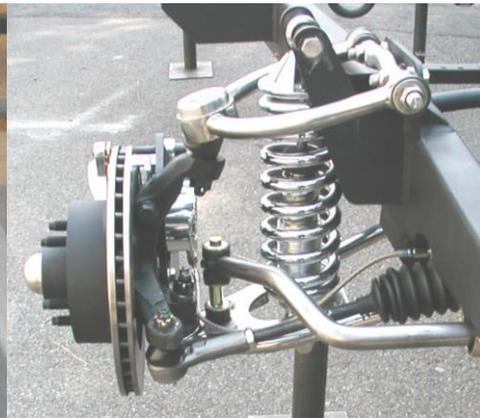
On 53-56 F100's we offer a few custom options. Our chassis move the axle centerline forward 1" from stock to help center the wheel in the front fender, this is standard on these chassis. We also offer the option of moving the axle centerline up 5" from stock. This allows you to modify the front fender 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.

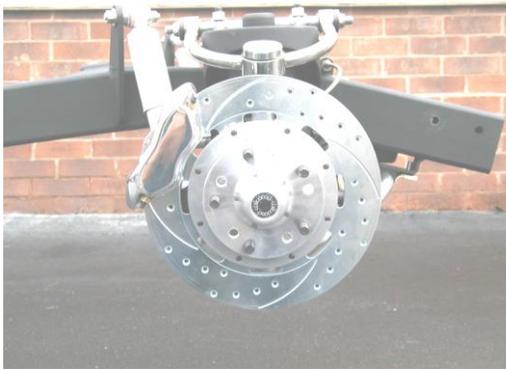
Shocks are probably the biggest factor in ride comfort and handling of a car. Shocks are the ‘brains’ of the front suspension because it controls the velocity of the suspension. NASCAR teams take dozens of shocks to the track but only a couple pair of springs. Ridetech shocks are now standard and allow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

## **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 never use 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 is now available.

We have several options from Wilwood. Wilwood has an aluminum GM big piston replacement caliper that 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.



**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 is 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

4 bar with Ridetech HQ series coilovers is standard on the Ford truck chassis and provide excellent ride quality, looks, and serviceability for the 'street rod' type truck. If the truck will be used to carry a load in the back or maybe pulling a trailer than 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 truck, not heavy enough in 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 28 spline axles supplied by The 9" Factory in Caspian, MI.

You can get brand new gear sets supplied by the 9" Factory. Available in Trac Loc, Tru-trac or 'open' configuration. All new gearsets feature a nodular case, aluminum bearing support and new non-billet 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 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 backsacing. 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 (No, we're not going to go by what the tire manufacture says the inflated tire size is. We have yet to see the right measurement in those pamphlets).

## **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 oilpans for the Cleveland and 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 require the use of a Moroso oil pan #20575 as well and 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 replacing 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 mock up 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 \$ 7,495 + \$700.00 for 61-79 F-100***

**Builder special options:**

<input type="checkbox"/> front bolt on suspension parts	from \$1,745
<input type="checkbox"/> manual brake pedal and bracket installed	add \$450
<input type="checkbox"/> power brake pedal and bracket installed	add \$750

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**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, Ridetech shocks, mustang II 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 28 spline axles
- Shipped coated with a rust inhibitor
- Assembled

**Roller price \$12,200**

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**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 \$12,900**

**Options**

**Front upgrades:**

<input type="checkbox"/> coil springs (Stg 2)	no charge	
<input type="checkbox"/> coilovers (Stg 3)	add \$750	triple adjustable add \$1,170.00 to option
<input type="checkbox"/> 2” widened front susp.	add \$295	53-56 F-100 only – must be used with C/O
<input type="checkbox"/> “cool” air ride (Stg 4)	add \$895	
<input type="checkbox"/> shockwave (Stg 5)	add \$1,200	triple adjustable add \$1,200.00 to option
<input type="checkbox"/> power steering	add \$200	
<input type="checkbox"/> 2” drop spindles	N/C	option
<input type="checkbox"/> 1 ½” raised spindles	add \$275	
<input type="checkbox"/> front sway bar	add \$370	recommended for better handling
<input type="checkbox"/> front sway bar – air ride	add \$440	
<input type="checkbox"/> Chevy bolt patt.	N/C	82-92 Camaro rotor and caliper
<input type="checkbox"/> Zero offset brake kit	add \$450	hub style, lge cal, avail Ford or GM pat, 11” rotor
<input type="checkbox"/> Zero offset-13 kit	add \$550	“ “ “ “ “ “ “ “ “ “ 13” rotor

<input type="checkbox"/> Wilwood caliper only	add \$365	black or red powdercoat, includes pins
<input type="checkbox"/> Wilwood 11" kit	add \$640	4 piston, alum. hub, fits 15" or larger wheels
<input type="checkbox"/> Wilwood 12" kit	add \$695	4 piston, alum. hub, fits 17" or larger wheels, some 16's
<input type="checkbox"/> Wilwood 13" kit	add \$1,130	6 piston, alum. hub, fits " " " "
<input type="checkbox"/> above Wilwood kits drilled rotors	add \$100	
<input type="checkbox"/> above Wilwood kits red calipers	N/C	
<input type="checkbox"/> above Wilwood kits polished calipers	add \$115 for 4 piston, 6 piston N/A	
<input type="checkbox"/> 5" or 5 1/2 "bolt circle	add \$305	GM PU rotor & caliper

**Engine upgrades:**

<input type="checkbox"/> Small Block Ford or Chevy	N/C	
<input type="checkbox"/> Big Block Ford or Chevy 53-56 F100	add \$300	
<input type="checkbox"/> Ford Mod or Chevy LS1	add \$75	includes motor mount adaptor
<input type="checkbox"/> any other engines	add \$500 including Mod/Coyote	

**Power brake upgrades:**

<input type="checkbox"/> power brakes	add \$295	
<input type="checkbox"/> "show" p/b	add \$550	stainless steel booster, chrome master cylinder
<input type="checkbox"/> remote fill	add \$225	
<input type="checkbox"/> alum remote fill	add \$385	
<input type="checkbox"/> brake lines	add \$895	D.O.T. approved steel hard lines and braided steel hoses
<input type="checkbox"/> clutch pedal	add \$550	includes Wilwood clutch m/c for hydraulic hookup

**Rear Suspension upgrades:**

<input type="checkbox"/> triple adj. C/O	add \$1,170	
<input type="checkbox"/> "Cool" air ride	add \$1,200	
<input type="checkbox"/> Shockwaves	add \$1,025	triple adjustable add \$1,200.00 to option
<input type="checkbox"/> Stainless steel bars	add \$750	4 link bars in polished stainless steel
<input type="checkbox"/> pro street rails	add \$1,950	
<input type="checkbox"/> raised rails	add \$800	to gain rear clearance if using drop spindles on front
<input type="checkbox"/> pro street sway bar	add \$495	
<input type="checkbox"/> reg. rear sway bar	add \$375	if possible, fitment must be checked

**Rearend upgrades:**

<input type="checkbox"/> 31 spline axles	add \$390	
<input type="checkbox"/> new open 9" gearset	add \$1,795	
<input type="checkbox"/> new Trac-Loc 9" gearset	add \$1,850	
<input type="checkbox"/> Tru-trac upgrade from Trac-loc	add \$450 to Trac-loc option	requires 31 spline axles
<input type="checkbox"/> new HD Nodular case -35 spline Tru-trac gearset w 1350 yoke	add \$750 to trac-loc gearset	
<input type="checkbox"/> new drum brakes for 9"	add \$590	
<input type="checkbox"/> OE style rear disc	add \$775	11" Trans-Am rotors, Cadillac calipers w/ parking brake
<input type="checkbox"/> Wilwood 11" rear disc	add \$870	11" rotors, 4 piston-will fit most 15" disc brake wheels
<input type="checkbox"/> Wilwood 12" rear disc	add \$875	12" rotors, 4 piston with internal shoe parking brake
<input type="checkbox"/> above Wilwood kit drilled rotors	add \$100	
<input type="checkbox"/> above Wilwood kit red calipers	N/C	
<input type="checkbox"/> above Wilwood kit polished calipers	add \$115	

**Other options:**

<input type="checkbox"/> epoxy primer	add \$1,550	
<input type="checkbox"/> Borgeson 3 joint steering hookup	add \$355	
<input type="checkbox"/> Power steering hose kit	add \$155	
<input type="checkbox"/> 2 way Air ride comp. kit w tank	add \$900	
<input type="checkbox"/> 4 way Air ride analog system-3 gal.	add \$1,225	manual operation, dial gauges
<input type="checkbox"/> 4 way Air ride digital system- 3 gal.	add \$2,225	Ridepro E5
<input type="checkbox"/> 4 way Airpod comp kit-3 gal. w/ cover	add \$2,680	Ridepro E5

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

Total options \$ \_\_\_\_\_  
Roller frame +\$12,200 + \$700.00 for 61-79 F-100  
Total price \$ \_\_\_\_\_

1/3 deposit required with order. Personal check ok for deposit. 1/3 payment required once your frame goes into our frame jig. Balance due prior to shipment in cashier's check. Shipping cost will be added to final balance once a shipping quote is received from one of our freight carriers. No credit cards on frame orders. Shipped frames require a \$330.00 pallet fee. Shipped frames may require applicable sales tax charges for their respective states. No refunds on completed frames. Frames picked up are subject to North Carolina sales tax currently 7.25%

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, then we'll send a written proposal for your approval. A signed copy must be returned to us before the frame is ready to be built and will assure that both parties clearly understand the chassis specifications, the way you want it!

(704)545-0369 phone

(704)573-0401 fax

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