

# **49-64 Studebaker PU Chassis Builders Guide**



*Talbert Goldman's Goodguys Truck of the Year for 2013  
on our suspension*

Thank you for your interest in a Fatman Fabrication frame for your Studebaker Pickup. 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 powder coat anything. But, after building a couple hundred of these frames we have them dialed in pretty good.

All of our frames for the Studebaker Pickups are constructed of 2"x5"x.188" main rails with 2" x 4" x .188 front and rear sections. The rear axle kick up is mandrel bent. They are made to follow the original shape and form, and to fit with original cab and bed mounts. We include front and rear cab mount outriggers, core support/ radiator mount holes, bumper mount holes, and rear 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?

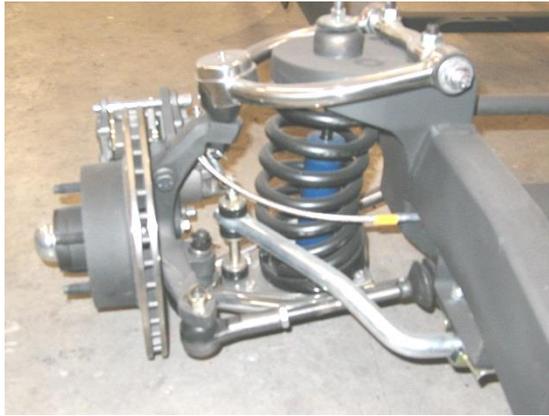
### **Front suspension**

Most 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 "which is slightly narrower than 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 frontends.

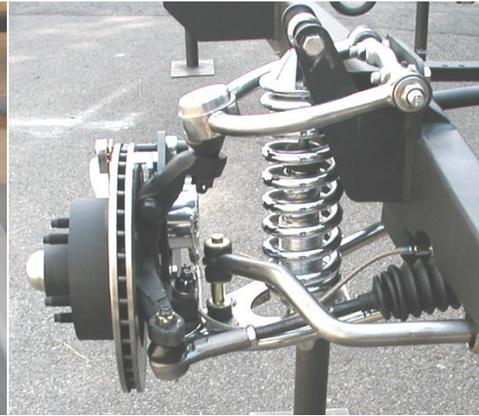
Stage 3 coilovers are our most popular option for the frontend because slight height adjustment, excellent shock, and good looks that match the electroless nickel plated steel tubular control arms that is standard on all frames. Ridetech HQ series adjustable coilovers are now standard on all Stage 3 optioned frames.

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.

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



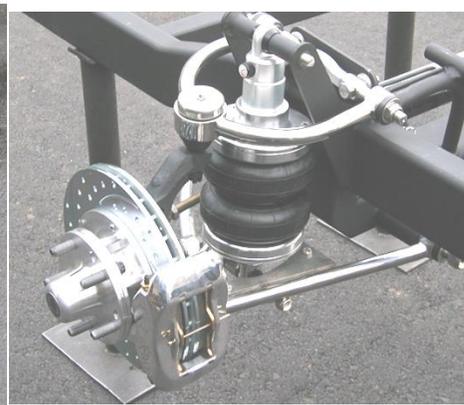
**Stage 2**



**Stage 3**



**Stage 4**



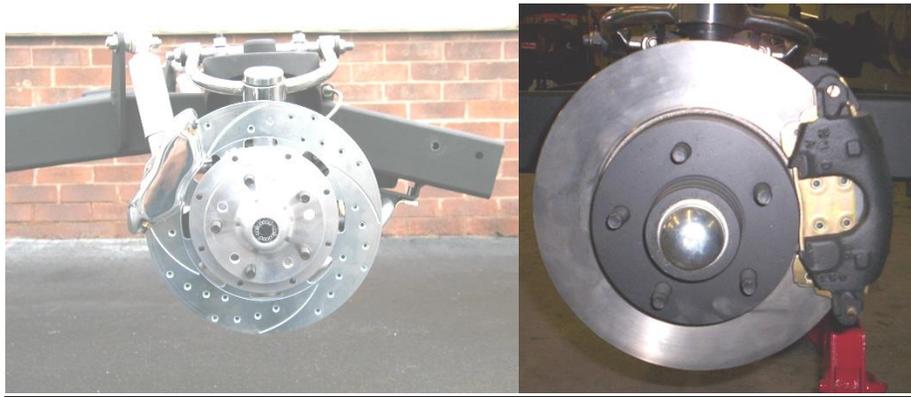
**Stage 5**

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 OE style 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 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 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 on our frames 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**

4 bar with Ridetech HQ series coilovers are standard on the Studebaker 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 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 slightly 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 backspacing. 10" or wider wheels may require the bed to be tubbed and the frame rails to be narrowed. We will have a 9" rear end 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**

We can setup the chassis for Chevy or the more popular Ford engines. The small block Chevy with a short snout water pump fit the best and is easily customized. We do recommend a front sway bar with big blocks especially due to the extra weight. Any other engine other than a Chevrolet or popular Ford will require us to have in hand for placement. LS and Modular/ Coyote engines may require aftermarket accessory drive systems, dependent on the width of the factory accessory drive system. A note regarding the new Ford Coyote and GM LT-4 engines, these engines are not equipped with hydraulic power steering and will require the fitment of an aftermarket power steering pump/ pulley system. The Ford modular and Coyote engine will require a recessed firewall and a conversion oil pan- Moroso #20575.

GM 700R4, 4L60E and the Ford overdrive transmissions are popular due to the stoplight friendly first gear and the overdrive for the highway. With the 700R4 we do need to know if it is case mount or tailshaft mount. We also will need the measurement from front face of transmission to the transmission mount on the Chevy 4L60E and Ford overdrives as they do vary. 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 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 great rust inhibitor but will fade in the sun and will 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.

### **49-64 Studebaker Truck Builders Special Frame**

#### **Standard Items include:**

- 2"x5"x.188" main frame rails, 2"x4"x.188" mandrel bent rear kick up rails.
- Radiator mount holes, bumper mount holes, cab mount holes, and rear 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 for popular Chevy or Ford engines

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

### **Builder special \$ 8,195**

#### **Builder special options:**

<input type="checkbox"/> front bolt on suspension parts	from \$1,745
<input type="checkbox"/> single pedal brake assembly with master cylinder installed	add \$450
<input type="checkbox"/> same as above but with power booster	add \$750

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### **49-64 Studebaker Truck Roller Chassis**

#### **Standard Items include Builder Special items plus:**

- Fatman stage 2 front suspension including electroless nickel plated steel 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 HQ series coilovers
- New 9" Ford rear housing with late big bearing ends and 28 spline axles
- Shipped coated with a rust inhibitor
- Assembled

## Roller price \$12,900

### 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"/> "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 1/2" 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, large cal, avail Ford or GM pat, 11" rotor
<input type="checkbox"/> Zero offset-13 kit	add \$550	" " " " " " " " " " 13" rotor
<input type="checkbox"/> Big bore metric GM Cal	add \$70	Big bore metric GM calipers for metric GM brakes
<input type="checkbox"/> Wilwood caliper	add \$365	black or red powder coat, 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"/> anything other than Chevy or popular Ford	add \$500	including Ford Coyote
<input type="checkbox"/> Chevy LS1/Ford Mod	add \$75	includes motor mount adaptor

#### 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.OT. 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:**

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

**Other options:**

- epoxy primer add \$1,550
- Borgeson 3 joint steering hookup add \$355
- Power steering hose kit add \$155
- 2 way Air ride comp. kit w tank add \$900
- 4 way Air ride analog system-3 gal. add \$1,225 manual operation, dial gauges
- 4 way Air ride digital system- 3 gal. add \$2,225 Ridepro E5
- 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 +\$12,900.00

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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**We also carry front hub to hub kits and rear 4-bar kits for your original chassis. Many options are available, so give us a call. Our knowledgeable staff is ready to help.**