

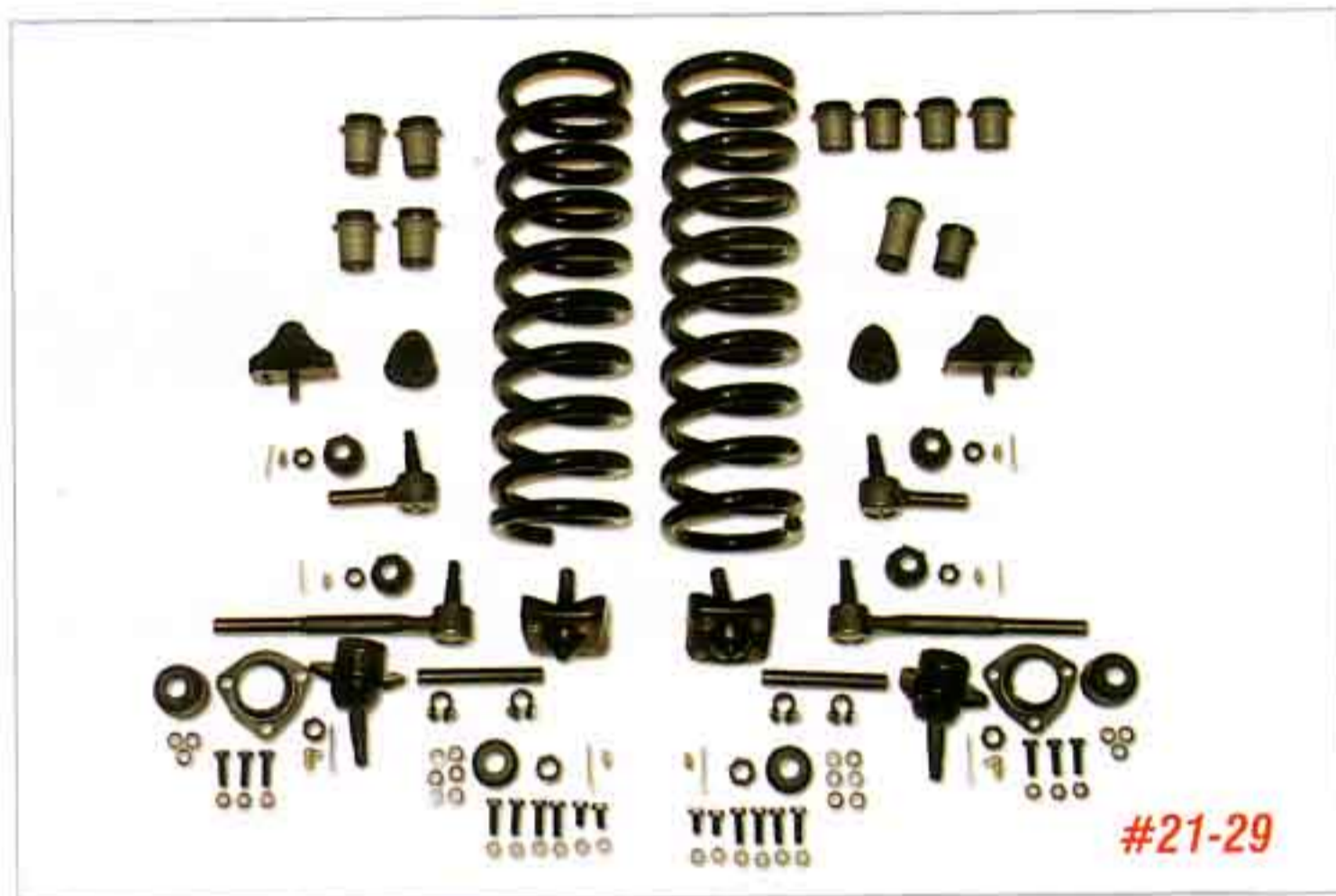
" THIS ARTICLE IS INTENDED FOR YOUR REFERENCE ONLY.

ACTUAL PARTS, YEARS AND BODY STYLES CONTAINED

IN THIS ARTICLE MAY DIFFER SLIGHTLY FROM YOUR APPLICATION. "

1955-57 COMPLETE FRONT SUSPENSION REBUILD

The front suspension on a '55-'57 was fairly advanced for its time. This was quite a departure from the old kingpin front end used for years. It consists of upper and lower control (A) arms with ball joints, coil springs, inner and outer tie rod ends and sleeves, idler arm bushings and the ball/socket/spring assembly at the pitman arm. Once any of these suspension or steering parts becomes worn and loose, the front end will handle badly and the tires may wear quickly. The parts can be replaced as they wear or better yet, the front end can be completely rebuilt.



Parts Needed:

21-29 Front End Rebuild Kit with Stock Coil Springs

34-170 Idler Arm Bracket Hardware

52-10 Restored Standard Steering Idler Arm

34-178 Idler Arm Washer

34-73 Front Suspension Hardware Kit

21-64 Drag Link Spring, Seat & Plug Repair Kit

53-56 Drag Link Connecting Rod Dust Cover Set

To order parts call 1-800-456-1957 or visit ClassicChevy.com

Tools Needed:

Large Flat Blade Screw Driver

Tie Rod End Pickle Fork

Ball Joint Pickle Fork

1/2" Socket

9/16" Socket

7/8" Wrench

5/8" Wrench

11/16" Wrench

3/4" Wrench

Coil Spring Compressor

Grinder

Hammer & Chisel

Punch

Air Hammer & Chisel

Grease Gun

Time Frame:

8 Hours



Photo #1: To begin disassembly, remove the outer tie rod ends from the spindles. A tie rod end pickle fork (splitter) really makes this job go easily.

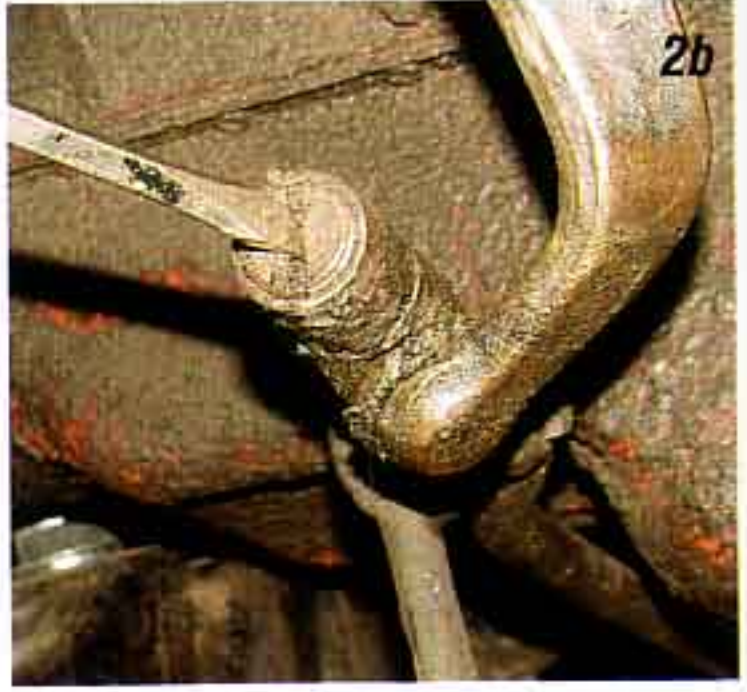
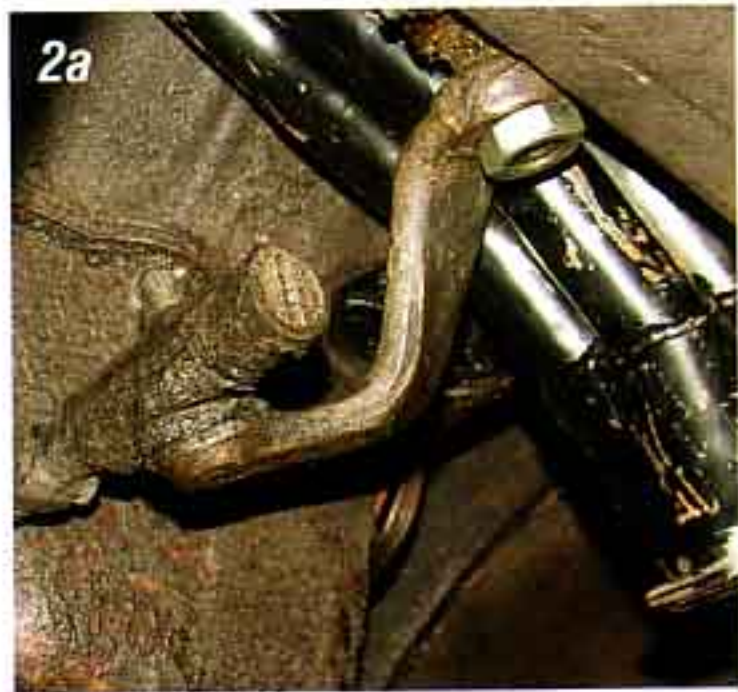


Photo #2a, 2b & 2c:

There is a tapered ball stud on the pitman arm that engages the drag link. Remove the cotter pin from the end of the drag link and unscrew the end plug. With the plug removed, move the drag link to the left and right. This will move the seats off the ball on the pitman arm and allow the drag link to be removed from the pitman arm.



Photo #3a & 3b:

The idler arm bolts to the passenger side of the frame with two 3/8" carriage bolts, P/N 34-170. Remove the nut and cotter pin that attaches the idler arm to the drag link and remove the drag link and tie rod assemblies. Remove the nuts that secure the idler arm bracket to the frame.





Photo #4a, 4b & 4c: The front shock absorbers attach to the upper frame with a 9/16" nut, cupped washer and grommet and to the lower control arm with two 5/16" bolts. Unbolt the shocks and drop them out of the bottom of the lower control arms.



Photo #5a & 5b: A coil spring compressor **MUST** be used when removing the coil springs. Feed the coil compressor up through the lower control arm. Connect the compressor to the spring and tighten. This will take the load off of the upper and lower control arms.

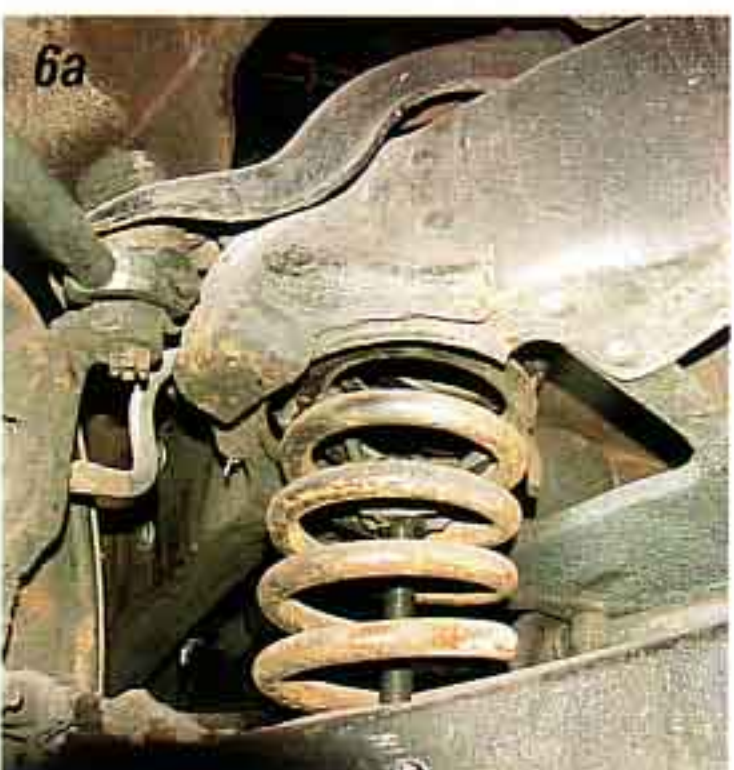


Photo #6a & 6b: With the load off of the control arms, remove the cotter pins and loosen the nuts on the upper and lower ball joints. Using a ball joint pickle fork, disconnect the spindles from the ball joints. By keeping the nuts on the ball joints, the spindle will be held in place and not violently separate from the ball joints. Now remove both ball joint nuts and the spindle assembly can be removed.



Photo #7: The upper control arm is held to the frame with two 7/16" studs and special nuts. The lower control arms are held to the bottom of the frame with four 7/16" bolts, lock washers and nuts. Remove all hardware and remove the upper and lower control arms.



Photo #8: With everything removed, we can now start the restoration. Make sure to keep track of/mark the left and right side parts as they are different.



Photo #9a & 9b: The upper and lower ball joints were riveted to the control arms from the factory. Using a grinder or chisel, remove the head of each rivet. The remains of the rivet can be driven out of the control arm using a hammer and punch.

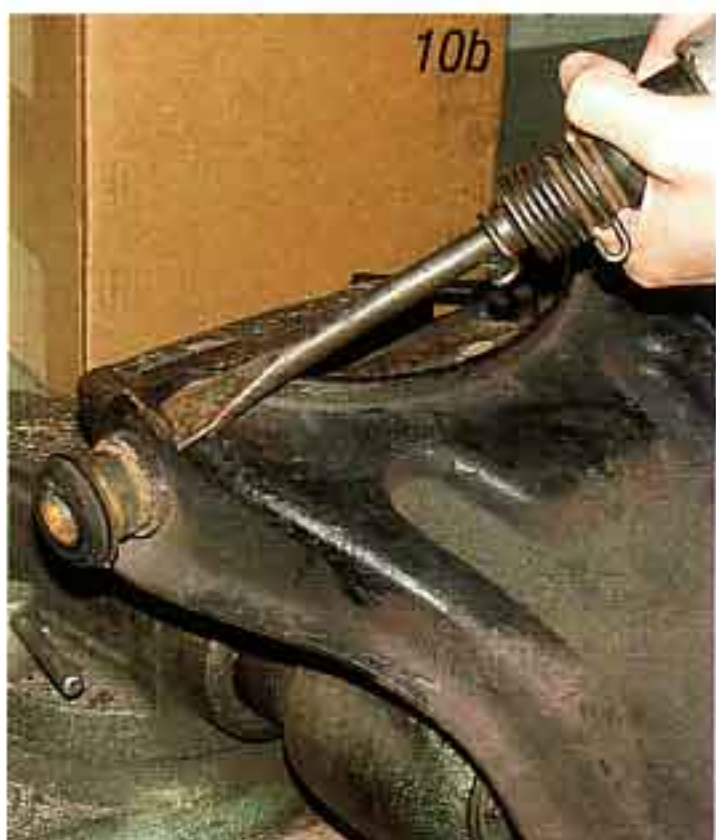
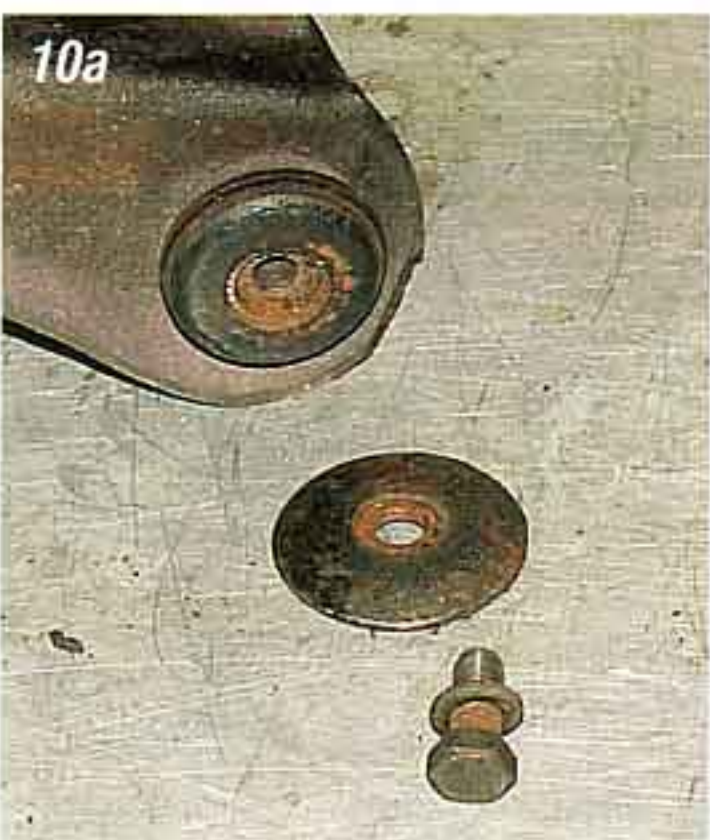




Photo #10a, 10b & 10c: The upper and lower control arm bushings are held in place with a bolt and large cupped washer on each end of the control arm shaft. Remove the bolt and washer. Using an air hammer and chisel, carefully remove the bushings from the control arms. The left and right upper control arm shafts are the same, while the left and right lower shafts

are different. We are sending the control arms out to be sand blasted, so we have tied the lower shafts to the proper control arm with a coat hanger.



Photo #11a & 11b: Remove the idler arm bushing with an air gun and chisel.



Photo #12a & 12b: All the parts have been sent out, sand blasted and painted. We are now ready to reassemble the control arms.



Photo #13a, 13b & 13c: The upper control arm shafts need to be installed with the casting number right side up. The front suspension bolt kit, P/N 34-73, includes the upper and lower control arm cupped washers and bolts, the upper control arm mounting studs and the lower control arm mounting bolts, nuts and lock washers. Using a press or control arm bushing installation tool, install the upper bushings. If using a press, be sure to properly support the control arm as it is easy to distort. Also install the cupped washers, lock washers and bolts.



Photo #14a & 14b: When installing the lower control arm shafts, make **SURE** the shafts are installed the



same way they were removed. There is a left and right shaft. The shafts have an offset to the front of the control arm. The flat side of the shaft must face up to sit flush on the bottom of the frame. Using a press or control arm bushing installation tool, install the lower bushings, cupped washers and bolts.



Photo #15a & 15b: The replacement upper ball joints, P/N 21-12, and lower ball joints, P/N 21-11, included in the complete kit bolt in using 5/16" bolts in the stock holes where the rivets were removed. The lower A-arm bumpers, P/N 21-27, also included, bolt to the lower control arms just inboard of the ball joint with one 9/16" nut.



Photo #16a & 16b:

The lower control arm shaft mounting bolts are two different lengths. The longer bolts are used on the thicker part of the lower shaft. Install the lower control arms using the new hardware included in the kit, P/N 34-73.



Photo #17: The upper control arm attaches to the frame with two 7/16" fine thread studs, nuts and lock washers. These are all included in the bolt kit, P/N 34-73. Install the control arms with no alignment shims. When the front end is aligned, the front end shop will add shims as needed.



Photo #18: The upper control arm bumper, P/N 21-26, included in the kit snaps into a 5/8" hole in the frame under the upper control arm.



Photo #19: Using the coil spring compressor, install the new coil spring in the lower control arm and raise it into place.



Photo #20a & 20b: With both control arms in place, attach the upper and lower ball joints to the spindle using the supplied nuts and cotter pins.



Photo #21a & 21b: The passenger side of the drag link has a bushing where the drag link attaches to the idler arm. Using an air hammer and chisel, remove the old bushing. After the drag link has been cleaned and painted, install the new bushing, P/N 21-05, using a press. The bushing presses in from the bottom of the drag link.



Photo #22a & 22b: With the idler arm and frame bracket cleaned and painted, install the new bushing, P/N 21-06. The bushing presses in from the bottom of the idler arm. Next install the arm on the frame bracket, tighten the nut and install a new cotter pin. If your idler arm is damaged and not rebuildable, you may order a complete rebuilt unit, P/N 52-10.



Photo #23: The idler arm bolts to the passenger side frame with two 3/8" carriage bolts and nuts, P/N 34-170. Attach the bushing end of the drag link to the idler arm with the original nut and a new cotter pin.

24a



Photo #24a & 24b: The driver's side of the drag link attaches to the ball on the pitman arm. There are two seats, two springs and two spacers on each side of the ball that will hold the drag link to the pitman arm. If the ball seats are worn and in need of replacement, they may be replaced with new ones included in kit, P/N 21-64.



24b

25a



25b



Photo #25a & 25b: There is a dust seal and metal shield, P/N 53-56, that fits over the end of the drag link to keep dirt and moisture out of the drag link. With the dust seal and shield in place install the end of the drag link onto the pitman arm ball.



Photo #26a & 26b: Next screw the end cap in flush with the end of the drag link. This will put the proper preload on the springs, seats and spacers. Now install a new cotter pin through the hole in the end of the drag link to keep the end cap in place.

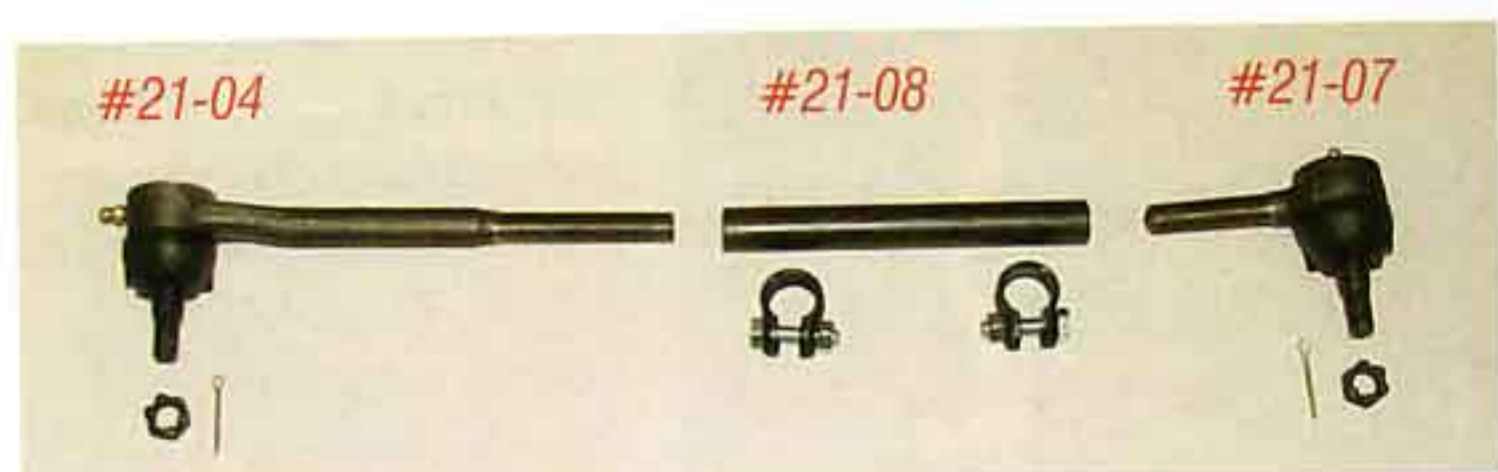


Photo #27: On a non-power steering car, the left and right inner tie rods, the left and right outer tie rods and adjusting sleeves are the same side to side. The inner tie rods are longer than the outers.



Photo #28a & 28b: The inner tie rod ends attach to the drag link and the outer tie rod ends attach to the steering arms on the spindles. Secure with the nuts and cotter pins included. Adjust the tie rod ends with the car on the ground so that both wheels are facing straight ahead. This will allow the car to be driven to the alignment shop. With all of the steering linkage installed, grease the upper and lower ball joints, inner and outer tie rod ends and the drag link at the pitman arm with a grease gun.

	Caster	Camber	Toe In
Stock Steering Box	+1/2° to +1°	0° to -1°	1/8" to 3/16"
605 Power Steering Box or Rack & Pinion Unit	+2 1/2° to +3 1/2°	0° driver side -1/4 ° passenger side	1/8" to 3/16"

Diagram #29: Have your front end shop align your front end per the specs listed above.
Good Luck. ✓