

## 1968-72 BUICK, OLDSMOBILE & PONTIAC INTERMEDIATE MODELS FRONT

**Buick Special (1968-69)**  
**Buick Skylark, G.S. Series & Sportwagon (1968-72)**  
**Oldsmobile F-85, Cutlass Series & Vista Cruiser (1968-72)**  
**Pontiac Firebird & LeMans Series (1968-72)**  
**Pontiac Grand Prix (1972)**

ing arm are integral. Shock absorbers are mounted within the coil springs. A stabilizer bar is attached between lower control arms by links and also attached to each frame side rail by brackets.

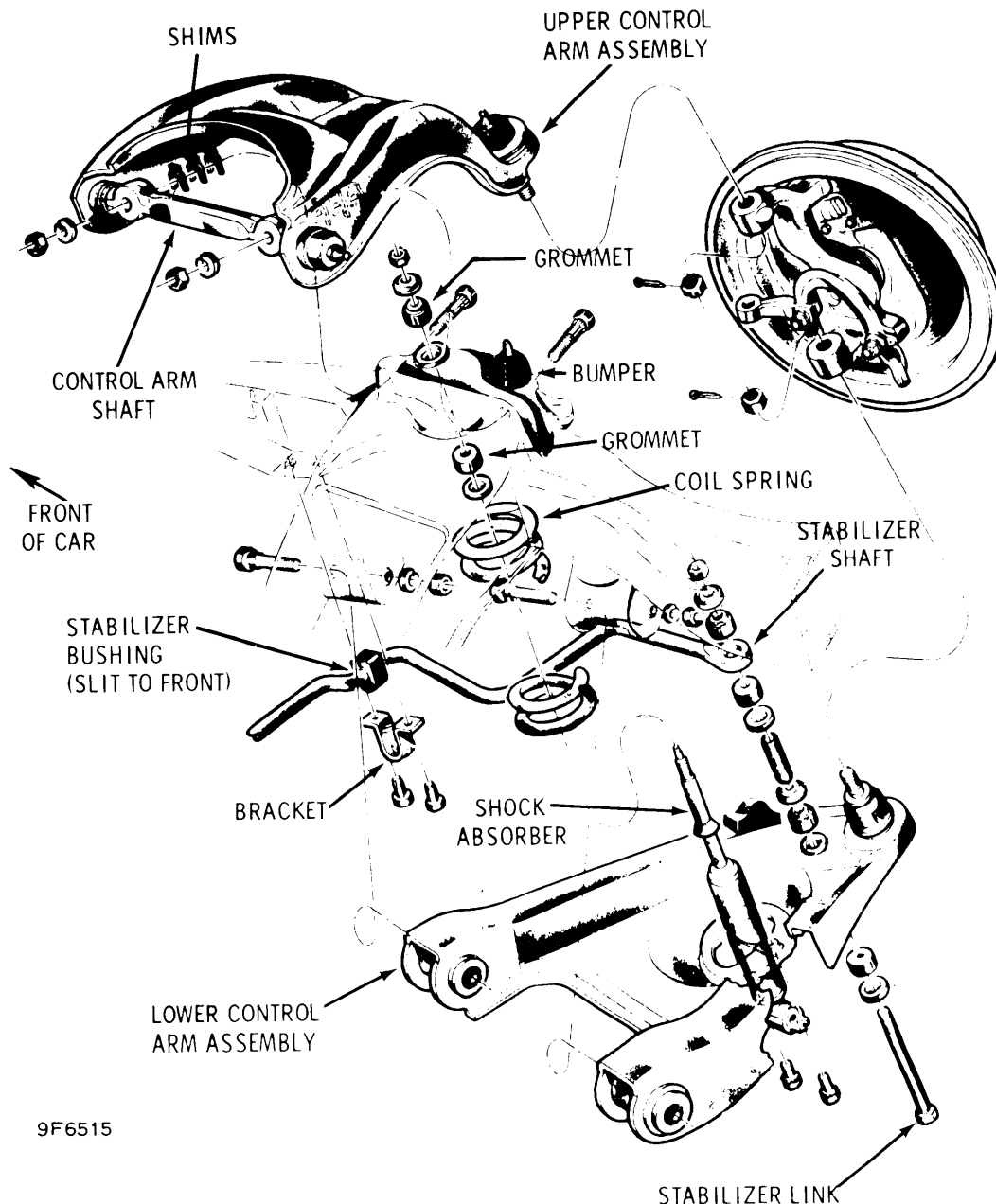
### DESCRIPTION

Independent ball joint type front suspension with coil springs mounted between upper and lower control arms. Control arms are connected at inner ends to frame and crossmember and at outer ends by ball joints to the steering knuckle. On Firebird, the steering knuckle and steer-

### ADJUSTMENT

**Caster & Camber** — See *Wheel Alignment Specifications & Adjustment* in **WHEEL ALIGNMENT** Section.

**Front Wheel Bearings** — See *Wheel Bearing Adjustment* in **WHEEL ALIGNMENT** Section.



9F6515

FRONT SUSPENSION ASSEMBLY (TYPICAL)

# Front & Rear Suspension

## 1968-72 BUICK, OLDSMOBILE & PONTIAC INTERMEDIATE MODELS FRONT (Cont.)

### REMOVAL & INSTALLATION

**Ball Joint Checking** – See *Ball Joint Checking* in *WHEEL ALIGNMENT* Section.

#### Stabilizer Bar

**Removal and Installation** - Disconnect stabilizer links and disconnect the frame-to-shaft mounts and brackets. On installation position insulator mounts and brackets over shaft and connect bracket to frame. **CAUTION:** Do not get lubricant on insulator mounts. **NOTE:** On Pontiac and Firebird raise car and support, allowing control arms to swing down providing more clearance for stabilizer bar removal.

#### Coil Spring

**Removal** - **NOTE** - If desired, spring may be compressed with a suitable spring compressor tool for ease of removal and installation. Raise and support car so suspension hangs freely, then remove wheel and tire and shock absorber, and disconnect stabilizer link from appropriate control arm. Support lower control arm with a jack, then disconnect lower ball joint stud from steering knuckle, install spring compressor Tool J-9552. Lower control arm carefully and remove spring.

**Installation** - Reverse removal procedure and note the following: On Tempest the upper end of coil spring must be visible in frame pocket hole by upper control arm shaft. On Oldsmobile, end of top coil must index with step in upper spring seat.

#### Lower Control Arm

**Removal** - With coil spring removed, disconnect inner ends of lower control arm by removing pivot bolts, and remove control arm.

**Disassembly & Reassembly** - Remove and replace bushings with suitable tools and an arbor press. Bushing flange should bottom against control arm.

**Installation** - Reverse removal procedure and tighten bolts to specifications.

#### Upper Control Arm

**Removal (1968-70)** – Raise and support car, then support lower control arm. Disconnect upper ball joint from steering knuckle with a suitable tool then remove control arm shaft-to-frame attaching bolts and remove control arm and shaft assembly. **CAUTION** – Firebird models equipped with air conditioning and V8 engine require removal of three front and two rear compressor mounting bolts and clutch wires. Remove A/C belt and tip compressor up and move to rear of engine compartment, then remove control arm.

**Removal (1971-72)** – Raise car and support at lower control arm (Pontiac & Oldsmobile). On Buick allow front suspension to be in full rebound position. Remove wheel and tire. Remove cotter pin from upper ball joint stud and LOOSEN, DO NOT REMOVE, ball joint nut. Install suitable tool (J-23742-1 on Buick, J8806 on Oldsmobile, and J-8806-1 on Pontiac) between ball stud. On Buick, place jack under lower control arm at spring seat. Raise jack until compression on upper rebound bumper is relieved. Turn threaded end of tool until ball stud is free of steering knuckle. Remove upper control arm shaft to frame nuts. Note number and thickness, as well as location of adjusting shims. Remove control arm and shaft assembly.

**Installation** – To install, reverse removal procedure insuring the shims are correct thickness and location. Tighten nuts and bolts to specifications. **NOTE** – 1968-70 models must have car weight on wheels before control arm shaft bushing bolts are tightened.

**Bushing Servicing** – **NOTE** – On Buick, control arm is serviced as a unit only. If bushings or other parts are damaged or worn, complete control arm must be replaced. On Oldsmobile and Pontiac, use suitable tools to remove and replace control arm bushings on an arbor press. Be sure to use a spacer between control arm legs during shaft and bushing installation to prevent collapsing legs.

### Ball Joint Replacement

#### 1968-70 Models

Lower ball joint is a press fit in control arm and can be replaced after suitable access is provided. Upper ball joint is riveted to control arm and can be replaced after stud is disconnected from steering knuckle (except Buick, ball joint is replaced with upper control arm as an assembly, see "Upper Control Arm Removal" above). Tighten all bolts and nuts to specifications.

#### 1971-72 Upper Ball Joints

**Removal** – Raise car and support at lower control arm (Pontiac & Oldsmobile). On Buick allow front suspension to be in full rebound position. Remove wheel and tire. Remove cotter pin from upper ball joint stud and LOOSEN, DO NOT REMOVE, ball joint nut. Install suitable tool (J-23742-1 on Buick, J-8806 on Oldsmobile, and J-8806-1 on Pontiac) between ball stud. On Buick, now place jack under lower control arm at spring seat. Raise jack until compression on upper rebound bumper is relieved. Turn threaded end of tool until ball stud is free of steering knuckle. Drill off rivet heads, punch out rivets, remove ball joint.

**Installation** – Place new ball joints in upper control arm and attach with bolts and nuts provided in new ball joint kit. Torque bolts from bottom with nut on top. Torque to 8 ft. lbs.

#### 1971-72 Lower Ball Joints

**Removal** – Raise car, support with stands under frame. (Support under lower control arms under spring seats on Pontiac). Remove wheel and tire. Remove hub and backing plate assembly or brake caliper assembly. Wire carefully out of the way. Remove cotter pin from ball stud. Tool J-23742-1 (Buick), J-8806-1 (Pontiac) or Tool J-8806 (Oldsmobile) may be used to remove lower ball joint stud from steering knuckle. Use suitable tool for removing ball joint assembly.

**WARNING** – Ball joint may pop out suddenly.

**Installation** – Reverse removal procedure making sure knuckle is in straight ahead position. **NOTE** – never loosen nut to align cotter pin holes. Always tighten nut to next slot.

## 1968-72 BUICK, OLDSMOBILE & PONTIAC INTERMEDIATE MODELS FRONT (Cont.)

<b>TIGHTENING SPECIFICATIONS</b>	
<b>Application</b>	<b>Ft. Lbs.</b>
<b>Lower Ball Joint Stud</b>	
1968-71 Buick, Pontiac .....	85
1968-69 Oldsmobile .....	40
1970-72 Oldsmobile .....	70
1972 Buick .....	95
1972 Pontiac .....	70
<b>Upper Ball Joint Stud</b>	
1968-69 Buick .....	35
1968-72 Oldsmobile .....	40
1968-71 Pontiac .....	50
1970-72 Buick .....	50
1972 Pontiac .....	40
<b>Shock Absorber (Top)</b>	
1968-71 Buick, Pontiac .....	8
1968-69 Oldsmobile .....	7
1970-72 Oldsmobile .....	10
1972 Buick, Pontiac .....	10
<b>Shock Absorber (Bottom)</b>	
1968-69 Buick .....	35
1968-69 Oldsmobile .....	20
1968-72 Pontiac .....	20
1970-71 Buick .....	18
1970-71 Oldsmobile .....	25
1972 Buick, Oldsmobile .....	20
<b>Upper Control Arm Bushing Nut</b>	
1968-69 Buick .....	75
1968-72 Oldsmobile .....	55
1968-69 Tempest .....	50
1968-69 Firebird .....	35
1970-71 Buick .....	45
1970-72 Pontiac .....	50
1972 Buick .....	55
<b>Upper Control Arm to Frame</b>	
1968-71 Buick .....	50
1968-71 Oldsmobile .....	55
1968-69 Pontiac .....	50
1970-71 Pontiac .....	75
1972 Buick .....	75
1972 Oldsmobile, Pontiac .....	50
<b>Lower Control Arm to Frame</b>	
1968-69 & 1972 Buick .....	100
1968-69 Oldsmobile .....	75
1968-71 Pontiac & 1970-71 Buick (Nut)	80
(Bolt).....	110
1970-71 Oldsmobile .....	90
1972 Oldsmobile .....	80
1972 Pontiac .....	90
<b>Stabilizer Link Nuts</b>	
1968-69 Buick .....	10
1968-69 Oldsmobile .....	8
1968-69 Tempest .....	15
1968-69 Firebird .....	10
1970-71 Buick .....	15
1970-72 Oldsmobile, Pontiac .....	15
1972 Buick.....	12
<b>Stabilizer Bracket Bolts</b>	
1968-69 Buick, Pontiac .....	12
1968-69 Oldsmobile .....	10
1970-71 Buick, Tempest, Oldsmobile .....	30
1970-71 Firebird .....	20
1972 Buick, Pontiac .....	25
1972 Oldsmobile .....	30