

Front Suspension

1965-73 IHC TORSION BAR TYPE

International Harvester (1965-73)

NOTE — Some models use other units. See *IHC Leaf Spring Type* in this Section.

DESCRIPTION

Front suspension is torsion bar type, consisting of upper and lower control arms, stabilizer bar, torsion bars, and double-action hydraulic shock absorbers. Upper control arms are mounted to bracket at top of frame. Lower control arms are mounted to frame crossmember. Steering knuckles are mounted between upper and lower control arms by conventional ball joints. Torsion bars are attached to upper control arm at the front of bar, and to brackets welded to frame side rail at the rear. Shock absorbers mount to upper control arm at the top, and to a bracket welded to frame rail slightly forward of suspension at the bottom. Torsion bars act as springs and are used to adjust vehicle riding height.

ADJUSTMENT

WHEEL ALIGNMENT SPECIFICATIONS & PROCEDURES

See *Wheel Alignment Specifications & Procedures* in *WHEEL ALIGNMENT* Section.

WHEEL BEARING ADJUSTMENT

See *Wheel Bearing Adjustment* in *WHEEL ALIGNMENT* Section.

BALL JOINT CHECKING

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

REMOVAL & INSTALLATION

TORSION BAR

NOTE — Torsion bars are not interchangeable from side-to-side. Bars are marked on ends for identification, and should always be installed with mark toward the rear.

Removal — Raise and support vehicle under frame crossmember. Release tension from torsion bar by loosening retainer lever adjusting bolt. Remove adjusting bolt, washer, and nut, then remove retainer lever from torsion bar. Disengage torsion bar from upper control arm, and slide bar toward rear to remove from vehicle. **CAUTION** — Use care not to fracture torsion bar during removal.

Installation — To install, reverse removal procedure. Always check riding height, and wheel alignment after installing torsion bar.

STABILIZER BAR

Removal — Remove stabilizer link retaining nuts, and remove stabilizer-to-frame clamps. Lift stabilizer bar off link ends and remove bar from vehicle. Remove stabilizer links from struts on lower control arms.

Installation — To install, reverse removal procedure, replacing deteriorated rubber parts.

LOWER CONTROL ARM

Removal — Raise and support vehicle under frame crossmember, and remove wheel. Disconnect stabilizer link at strut, and remove strut to lower control arm retaining bolts. Remove cotter pin and nut from lower ball joint stud, then remove and discard ball joint dust seal. Using suitable remover tool (SE-2022), loosen ball joint stud from steering knuckle. Disconnect tie rod end at steering arm See *Steering Linkage* in *STEERING* Section. Remove control arm pivot bolt and remove control arm and spacer from vehicle.

Installation — Install new dust seal onto ball joint, and position ball joint stud in steering knuckle. Install and tighten ball joint nut, then install cotter pin. Place spacer in lower control arm bushing, and position control arm in frame bracket. Install and tighten pivot bolt, install strut rod to lower control arm, and connect tie rod end. Install stabilizer bar to link and install wheel.

UPPER CONTROL ARM

Removal — Raise and support vehicle under crossmember, and remove wheel. Remove torsion bar from upper control arm. See *Torsion Bar Removal*. Remove shock absorber upper lock nut, and remove cotter pin and nut from upper ball joint stud. Remove and discard upper ball joint dust seal. Using suitable remover tool (SE-2022), loosen ball joint stud from steering knuckle. Remove splash panel front shield, and remove nut and washers from upper control arm mounting shaft. Using a soft-faced hammer, drive shaft rearward until free from control arm and frame bracket. Remove upper control arm from vehicle.

Installation — To install, reverse removal procedure using new dust seal on ball joint. Tighten all nuts and bolts, and check wheel alignment and riding height.

STEERING KNUCKLE

Removal — Raise and support vehicle under crossmember. Remove wheel, and brake drum. Cover brake assembly with a cloth and remove brake backing plate from steering knuckle. Disconnect tie rod end at steering arm. See *Steering Linkage* in *STEERING* Section. Remove steering arm from knuckle, and loosen ball joint studs from steering knuckle. See *Upper & Lower Control Arm Removal*. Remove steering knuckle from vehicle.

Installation — To install, reverse removal procedure, and tighten all nuts and bolts. Check wheel alignment.

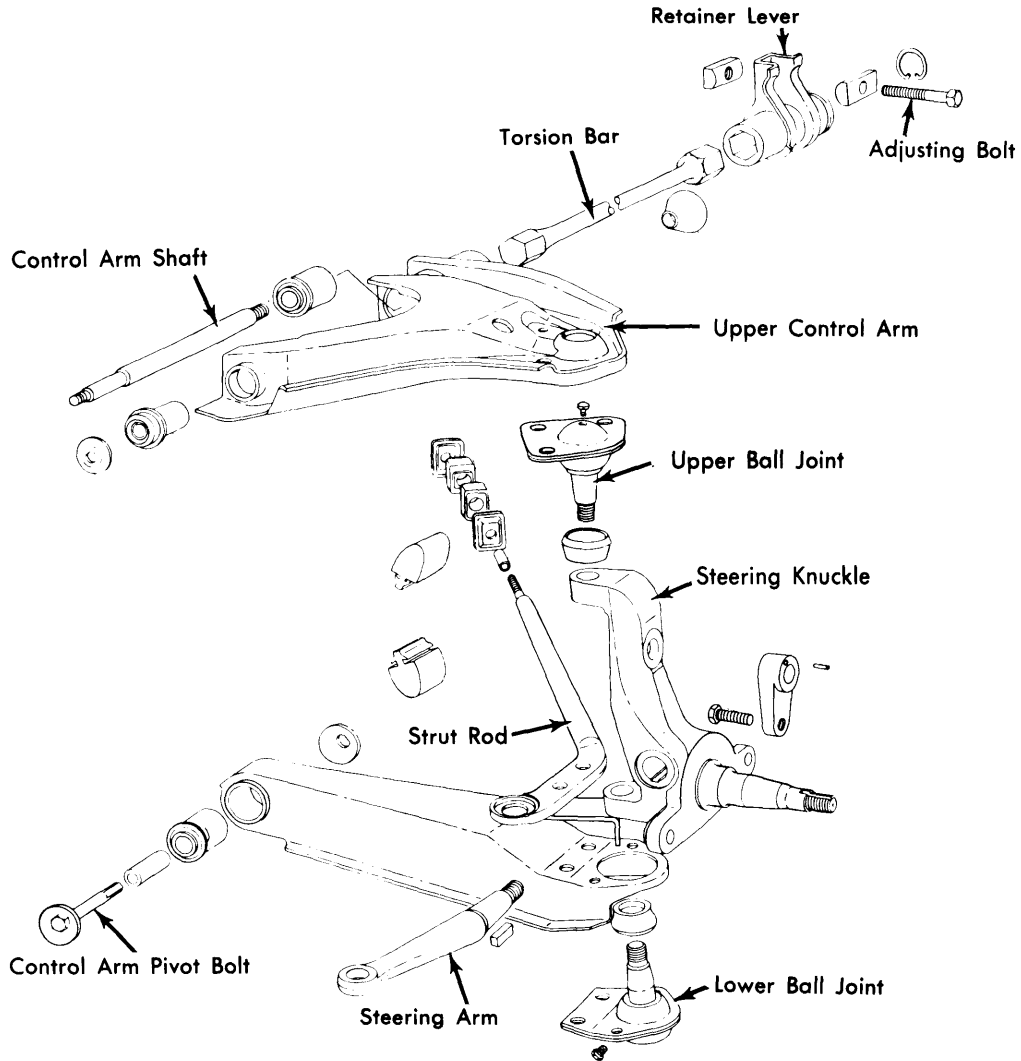
BALL JOINTS

Removal — With ball joint stud free from steering knuckle, remove rivets attaching ball joint to control arm. Remove ball joint from vehicle.

Installation — To install, reverse removal procedure, using nuts and bolts to replace attaching rivets.

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1965-73 IHC TORSION BAR TYPE (Cont.)



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FRONT SUSPENSION ASSEMBLY

TIGHTENING SPECIFICATIONS

| Application | Ft. Lbs. |
|---------------------------------------|----------|
| Tie Rod End Nuts | 45-50 |
| Ball Joint Stud Nuts | 50-60 |
| Upper Control Arm Mounting Shaft Nuts | |
| Front | 68-78 |
| Rear | 115-192 |
| Lower Control Arm Pivot Bolt | 110-120 |
| Ball Joint Mounting Bolts | 60-70 |