

ISUZU I-MARK

DESCRIPTION

Independent type front suspension consisting of upper and lower control arms with steering knuckle mounted between control arms by means of ball joints. Upper control arm pivots on shaft through crossmember, lower arm pivots on shafts (2) through crossmember and frame. A coil spring is mounted between lower control arm and crossmember. Shock absorber is hydraulic, double-action type mounted between upper control arm and inner fender panel. A stabilizer bar is used to enhance stability and riding comfort.

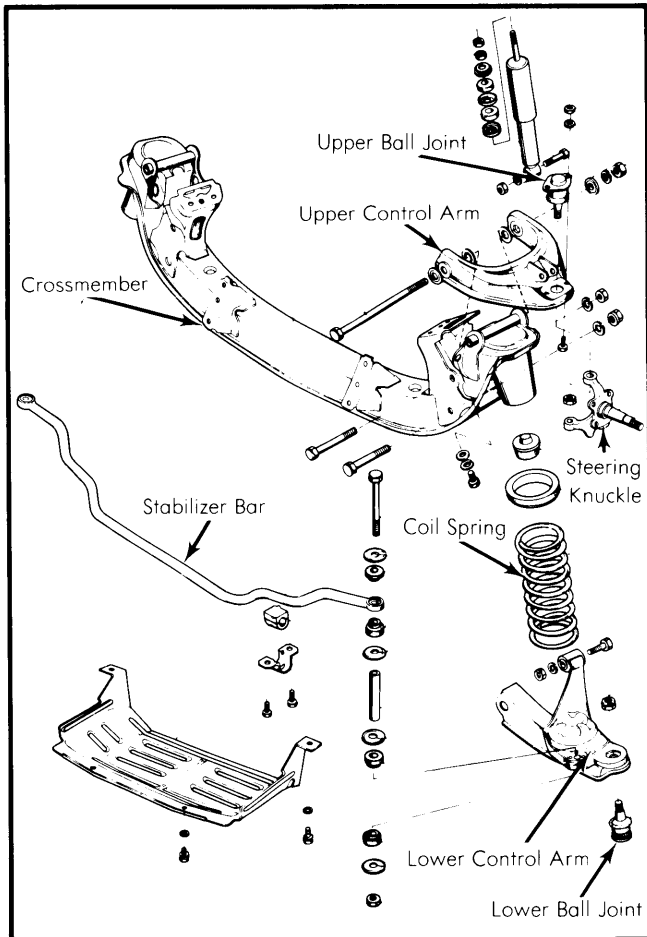


Fig. 1 Exploded View of I-Mark Front Suspension

ADJUSTMENT

WHEEL ALIGNMENT SPECIFICATIONS & PROCEDURES

See Wheel Alignment Specifications & Procedures in WHEEL ALIGNMENT Section.

WHEEL BEARING ADJUSTMENT

Raise and support vehicle. Remove grease cap and cotter pin. Loosen spindle nut. Tighten spindle nut to 22 ft. lbs. (30 N•m) while rotating wheel to seat bearings. Back off nut completely and tighten hand tight. Install cotter pin. Tighten nut as needed to align slot in nut with hole in spindle.

BALL JOINT CHECKING

Check ball joints for excessive movement or play. If axial play of lower ball joint exceeds .040" (1.0 mm) it should be replaced.

REMOVAL & INSTALLATION

SHOCK ABSORBERS

Removal — Raise and support vehicle. Remove wheel and tire. Remove lower shock retaining bolt from upper control arm. Remove upper retaining nut from inside engine compartment and remove shock.

Installation — Reverse removal procedures to install.

WHEEL BEARINGS

NOTE — Wheel bearing removal procedure not available from manufacturer.

STEERING KNUCKLE

Removal — 1) Raise and support vehicle. Remove wheel and tire. Remove lower shock absorber attaching bolt and push shock up and out of way. Remove brake caliper and wire up.

2) Press tie rod end ball joint from steering knuckle. Remove grease cap, cotter pin, hub nut and washer. Remove wheel hub with rotor. Remove dust plate retaining bolts and remove dust plate from knuckle.

3) With jack positioned under outer end of lower control arm, raise arm until level and support. Loosen upper and lower ball joint nuts and disconnect ball joints from knuckle. Remove steering knuckle.

Installation — Reverse removal procedures to install noting the following: Attach dust plate to knuckle before installing knuckle to ball joints.

LOWER CONTROL ARM, COIL SPRING & BALL JOINT

Removal — 1) Raise and support vehicle. Remove wheel and tire. Disconnect tie rod end from steering knuckle. Remove lower shock absorber bolt and push shock up.

2) Disconnect stabilizer bar from lower control arm. Remove brake caliper assembly and wire out of way. Place jack under outer end of lower control arm and lift until level.

CAUTION — Secure coil spring to upper control arm with safety chain to prevent accidental release of spring.

3) Loosen lower ball joint lock nut and disconnect ball joint from knuckle. Remove hub, rotor and steering knuckle assembly. Press ball joint from control arm if it is to be replaced.

4) SLOWLY lower jack supporting control arm and remove spring. Remove control arm pivot bolts and remove control arm.

Installation — Reverse removal procedures to install noting the following: Do not tighten control arm pivot bolts to specification until installation is complete. When compressing spring, attach safety chain between spring and upper control arm.

UPPER CONTROL ARM & BALL JOINT

Removal — 1) Raise and support vehicle. Remove wheel and tire. Remove brake caliper assembly and wire out of way. Remove lower shock absorber bolt and push shock up.

2) With jack positioned under outer end of lower control arm, raise arm until level and support. Loosen upper ball joint nut and disconnect ball joint from knuckle.

3) Remove 2 bolts connecting ball joint to control arm and remove ball joint. Remove upper control arm pivot shaft and remove arm.

Installation — Reverse removal procedures to install noting the following: When installing ball joint, be sure that the cut off side of

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mounting flange is towards outside of vehicle. Do not tighten pivot shaft bolt to specification until installation is otherwise complete. When installing control arm, make sure that the smaller washer is installed to the inside of the front arm and the larger washer is installed to the inside of the rear arm.

STABILIZER BAR

Removal — Raise and support vehicle. Remove engine splash guard. Remove stabilizer bar bolt and grommet assemblies from lower control arms. Remove stabilizer support clamps from body and remove stabilizer bar.

Installation — Reverse removal procedures to install.

TIGHTENING SPECIFICATIONS

Application	Ft. Lbs. (N•m)
Upper Control Arm Pivot Shaft	47 (64)
Upper Control Arm-to-Ball Joint	29 (39)
Upper Ball Joint-to-Steering Knuckle	47 (64)
Lower Control Arm Pivot Bolts	47 (64)
Lower Control Arm-to-Ball Joint	58 (79)
Lower Ball Joint-to-Steering Knuckle	58 (79)
Tie Rod Ball Joint-to-Steering Knuckle	29 (39)
Shock Absorber-to-Control Arm	29 (39)
Brake Caliper-to-Steering Knuckle	36 (49)