

# Wheel Alignment

## ISUZU

### ADJUSTMENT

#### TIRE INFLATION (COLD)

Before attempting to check or adjust wheel alignment, make sure tires are properly inflated. Refer to owner's manual for manufacturer's specifications. Check front end for loose parts.

#### CASTER

##### Pickup (2-WD & 4-WD)

To set caster angle, loosen and turn lock nuts on strut rods. When to specified angle, tighten and check alignment.

##### All Other Models

1) To set caster, realign the washers located between legs of upper control arm. One 1/8" (3 mm) thickness washer and one 3/8" (9 mm) thickness washer must be used as a couple for caster adjustment.

2) The combination that the total thickness of front and rear equals is 1/2" (12 mm). Only minimal changes to caster can be accomplished this way.

#### CAMBER

##### Pickup (2-WD & 4-WD)

To set camber, adjust by adding or subtracting equal amount of shims from front and rear of bolts on upper control arm. Pivot shaft may also be inverted to aid in camber adjustment.

##### All Other Models

To set camber, adjust by removing the upper ball joint, rotating it 180° and reinstalling ball joint. Approximately 1° of camber may be obtained.

#### TOE-IN

##### All Models

To adjust toe-in, center steering wheel, loosen jam nuts on tie rods and turn tie rods until toe-in is within specifications. Tighten tie rod jam nuts and check wheel alignment.

## JAGUAR

### ADJUSTMENT

#### TIRE INFLATION (COLD)

Before attempting to check or adjust wheel alignment, make sure tires are properly inflated. Refer to owner's manual for manufacturer's specifications.

#### RIDING HEIGHT

##### Front

1) Check that vehicle is full of fuel, oil and water. Press down on front bumper and slowly release, then lift up on bumper and slowly release. This will settle front suspension.

2) On XJ6 models, measure distance between center of outer headlight and floor on both sides of vehicle. Height should be 24.6" (611 mm) minimum. To adjust height, install or remove spring spacers from front coil springs.

**NOTE:** Spring spacers are 1/8" (3.2 mm) thick and will change riding height approximately 5/16" (7.9 mm).

##### Rear

1) Check that vehicle is full of fuel, oil and water. Roll vehicle forward 3 car lengths to settle rear suspension system.

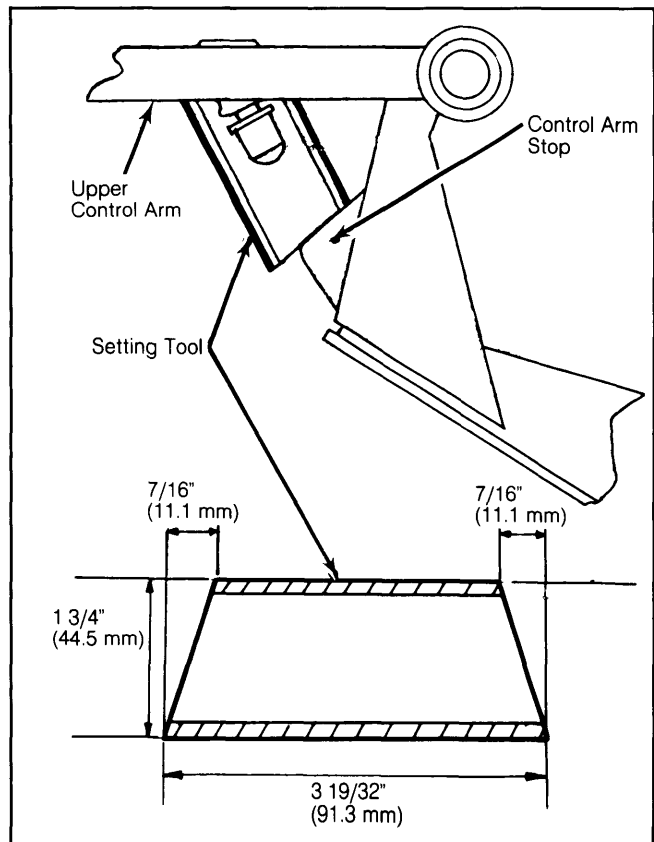
2) On XJ6 models, measure distance between lower surface of rear crossmember and floor on both sides of vehicle. Correct height should be 7.2-7.7" (183-195 mm). If height is not within specifications, replace all 4 rear springs.

#### PREPARATION FOR CASTER & CAMBER ADJUSTMENT

1) Ensure vehicle is on level floor. Before checking or adjusting caster or camber, fabricate 2 setting tools as shown in Fig. 1.

2) Compress front suspension and insert tools under upper control arms, adjacent to control arm rubber stops and over brackets welded to bottom of control arms.

Fig. 1: Dimensions for Fabricating Setting Tools



# Wheel Alignment

## JAGUAR (Cont.)

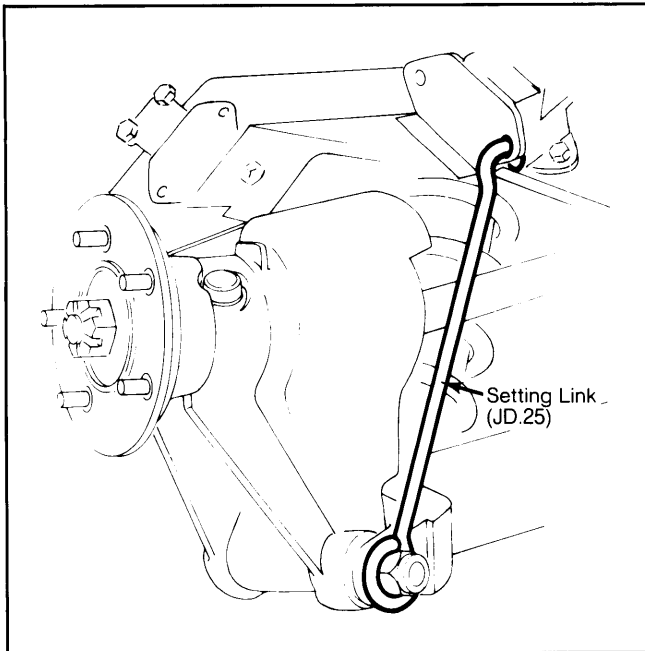
3) Compress rear suspension and install setting links (JD.25) to lock rear suspension in place. See Fig. 2. Vehicle is now locked in half-loaded condition and caster and camber can be checked and adjusted.

### CASTER

1) If caster angle is not within specifications, adjust by moving shims on front and rear of upper control arm ball joint.

2) To increase caster, loosen bolts securing upper ball joint and move shims from rear of ball joint to front of ball joint. To decrease caster, reverse procedure. Tighten ball joint attaching bolts and recheck caster angle.

**Fig. 2: Rear Suspension in Locked Position with Tool**



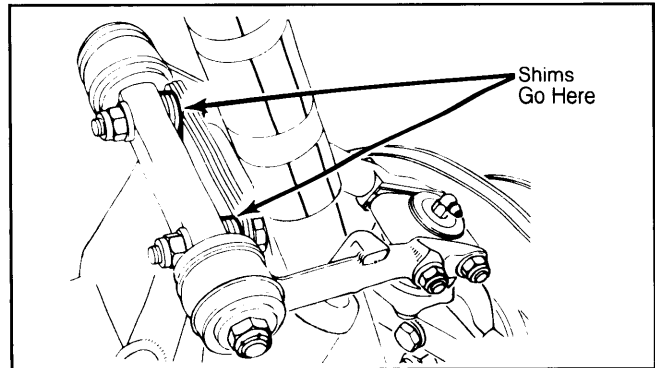
### CAMBER

#### Front

1) Place wheels in straight-ahead position. Measure camber angle. Make sure front wheels are within 1/4° of each other.

2) Adjustment is accomplished by adding or subtracting shims. See Fig. 3. Adding shims increases camber angle. Make sure same number of shims are used on each bolt.

**Fig. 3: Adjustment Shim Location for Front Camber**



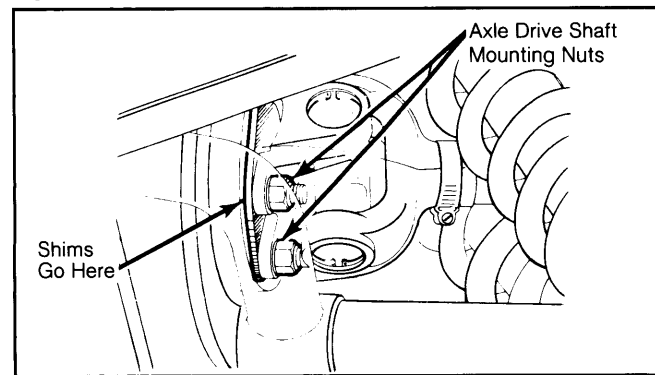
Place equal numbers of shims on each side.

#### Rear

1) To adjust, remove suspension setting links (JD.25), raise and support rear of vehicle and remove wheels. Loosen nuts securing half-shaft to brake disc.

2) Add or remove shims as required to bring camber angle within specifications.

**Fig. 4: Adjustment Shim Location for Rear Camber**



### TOE-IN

1) Place wheels in straight ahead position. Remove grease nipple from rack adjuster nut. Put centralizing tool (12279) into locating hole. Push tool onto back of rack bar.

2) Slowly turn steering wheel until tool drops into back of rack bar. Measure toe-in. If toe-in is not within specifications, adjust by loosening steering link lock nuts and rotating adjuster sleeves equal amounts, as necessary. Tighten lock nuts and recheck toe-in.

## LUV

### ADJUSTMENT

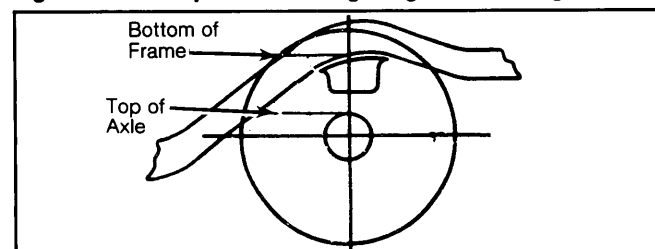
#### TIRE INFLATION

Before checking or adjusting wheel alignment, ensure tires are correctly inflated. Refer to manufacturer's specifications located in glove box or on right door pillar.

#### RIDING HEIGHT

1) Place vehicle on smooth level surface. Jounce vehicle several times. Raise vehicle and allow to settle at normal height. Measure distance as shown in Fig. 1 and 2.

**Fig. 1: Rear Suspension Riding Height Measuring Point**



A full tank of gas, spare tire and jack are required in vehicle.