

# Component Procedures: Alignment

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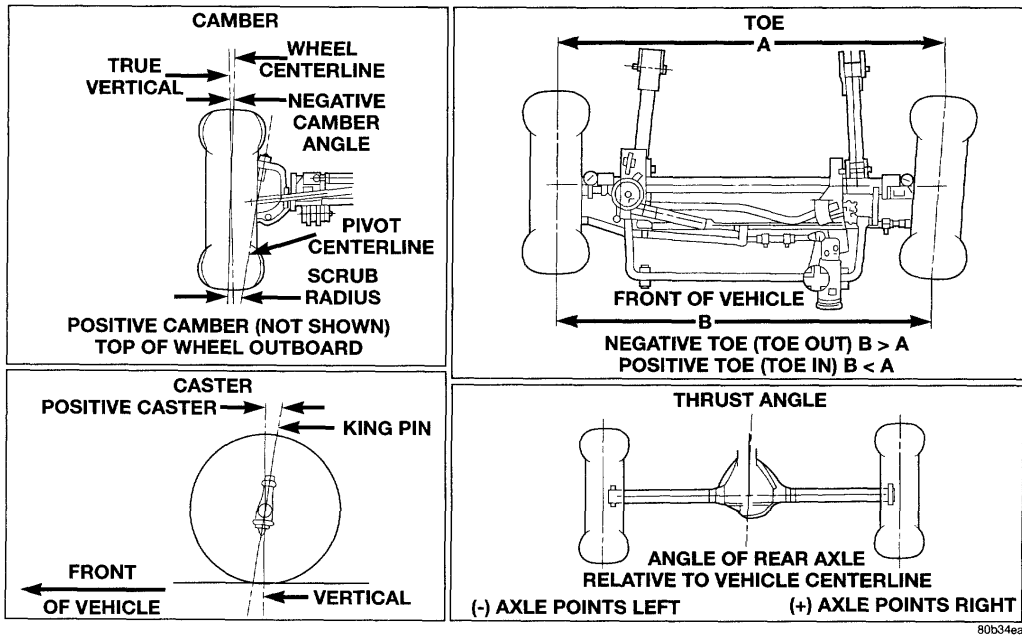
# Component Procedures: Alignment

## Parts and Labor (itype\_189)

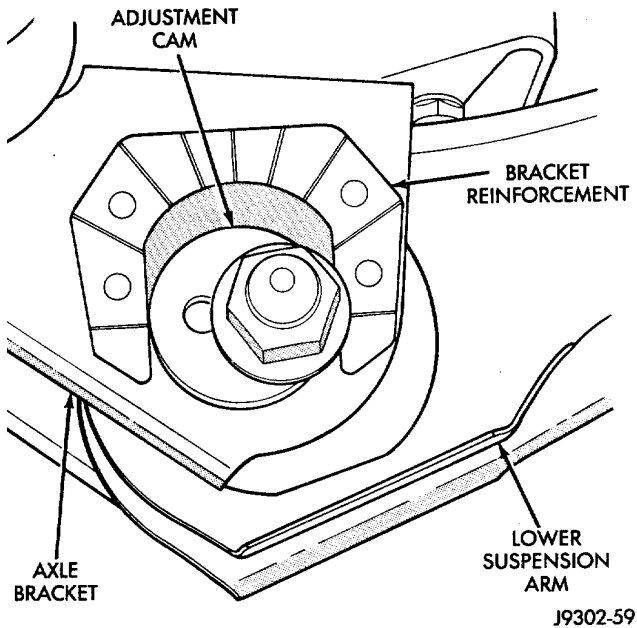
### Labor

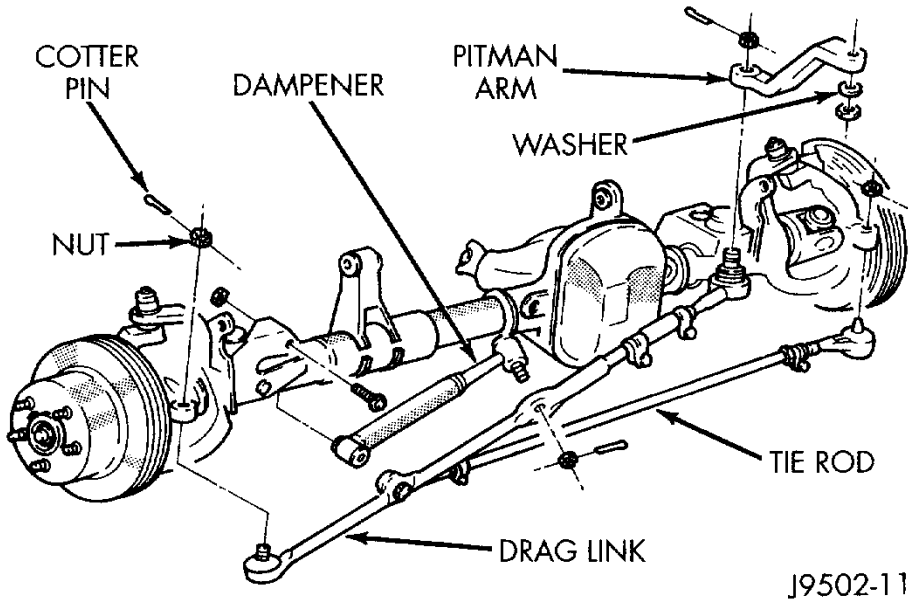
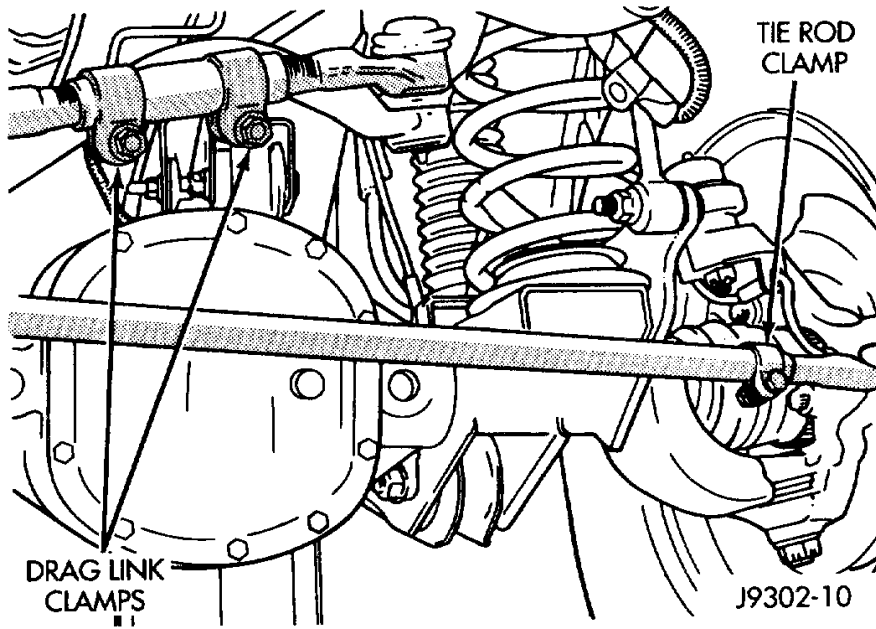
Operation	Qualifier Path	Skill	Std Hrs	Wty Hrs
Align	Front Wheel Alignment	B	1.5	0.0
Align	Rear Wheel Alignment	B	0.5	0.0
Align	Rear Wheel Alignment, Check	B	0.5	0.0
Align	Toe-In, Adjust	B	1.0	0.0

## Components (itype\_392)



## Procedures (itype\_376)





**Mechanical (including Torque) (itype\_28)**

NOTE:

Alignment specifications are in degrees.

CASTER:

Preferred ..... +7°

Range ..... ± 1.0°

Maximum Right/Left Difference ..... 0.65°

CAMBER (FIXED ANGLE):

Preferred ..... -0.25°

Range ..... ± 0.63°

Maximum Right/Left Difference ..... 1.0°

TOE-IN (EACH FRONT

WHEEL

):

Preferred ..... +0.15°

Range ..... ± 0.07°

Maximum Right/Left Difference ..... 0.05°

**THRUST ANGLE:**

Preferred ..... 0°

Range ..... ± 0.25°

**All Technical Service Bulletins (itype\_100)**

Tsbs

- Front End Alignment - Adjustable/Offset Ball Joints (02-12-99, 1999/08/20)
- Steering/Suspension - Vehicle Pulls To The Left or Right (02-003-15, 2015/01/27)
- Steering/Suspension - Steering Wheel Not Centered (02-002-15, 2015/01/27)

**Customer Interest Bulletins (itype\_109)**

Tsbs

- Steering/Suspension - Vehicle Pulls To The Left or Right (02-003-15, 2015/01/27)
- Steering/Suspension - Steering Wheel Not Centered (02-002-15, 2015/01/27)

**Pre-Alignment Inspection (Article 2047476)**

CONDITION	POSSIBLE CAUSES	CORRECTION
FRONT END NOISE	1. Loose or worn wheel bearings. 2. Loose or worn steering or suspension components.	1. Adjust or replace wheel bearings. 2. Tighten or replace components as necessary.
EXCESSIVE PLAY IN STEERING	1. Loose or worn wheel bearings. 2. Loose or worn steering or suspension components. 3. Loose or worn steering gear.	1. Adjust or replace wheel bearings. 2. Tighten or replace components as necessary. 3. Adjust or replace steering gear.
FRONT WHEELS SHIMMY	1. Loose or worn wheel bearings. 2. Loose or worn steering or suspension components. 3. Tires worn or out of balance. 4. Alignment. 5. Leaking steering dampener.	1. Adjust or replace wheel bearings. 2. Tighten or replace components as necessary. 3. Replace or balance tires. 4. Align vehicle to specifications. 5. Replace steering dampener.
VEHICLE INSTABILITY	1. Loose or worn wheel bearings. 2. Loose or worn steering or suspension components. 3. Tire pressure. 4. Alignment.	1. Adjust or replace wheel bearings. 2. Tighten or replace components as necessary. 3. Adjust tire pressure. 4. Align vehicle to specifications.
EXCESSIVE STEERING EFFORT	1. Loose or worn steering gear. 2. Power steering fluid low. 3. Column coupler binding. 4. Tire pressure. 5. Alignment.	1. Adjust or replace steering gear. 2. Add fluid and repair leak. 3. Replace coupler. 4. Adjust tire pressure. 5. Align vehicle to specifications.
VEHICLE PULLS TO ONE SIDE	1. Tire pressure. 2. Alignment. 3. Loose or worn steering or suspension components. 4. Radial tire lead. 5. Brake pull. 6. Weak or broken spring.	1. Adjust tire pressure. 2. Align vehicle to specifications. 3. Tighten or replace components as necessary. 4. Rotate or replace tire as necessary. 5. Repair brake as necessary. 6. Replace spring.

**Improper Alignment (itype\_145)**

Tsbs

- Steering/Suspension - Steering Wheel Not Centered (02-002-15, 2015/01/27)

**Pull, grab (itype\_165)**

Tsbs

- Steering/Suspension - Vehicle Pulls To The Left or Right (02-003-15, 2015/01/27)

**New / Updated Parts (itype\_117)**

Tsbs

- Front End Alignment - Adjustable/Offset Ball Joints (02-12-99, 1999/08/20)