

CHAPTER 5

BODY AND STEERING

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TORQUE SPECIFICATIONS

Front A-Arm Attaching Bolt	30 ft. lbs. (41 Nm)
Front A-Arm Ball Joint Stud Nut	25 ft. lbs. (35 Nm)
Handlebar Adjuster Block	10-12 ft. lbs. (14-17 Nm)
Master Cylinder	45-55 <u>in. lbs.</u> (5.2-6.3 Nm)
Rear Axle Nut and Lock Nut	150 ft. lbs. (207 Nm)
Rear Shock Bolt (upper)	25 ft. lbs. (35 Nm)
Rear Shock Bolt (lower)	25 ft. lbs. (35 Nm)
Rear Wheel Hub Nut	80 ft. lbs. (110 Nm)
Rear Wheel Nuts	50 ft. lbs. (69 Nm)
Strut Rod Retaining Nut (Top)	15 ft. lbs. (21 Nm)
Strut Casting Pinch Bolt	15 ft. lbs. (21 Nm)
Swing Arm Pivot Bolt	55 ft. lbs. (76 Nm)
Tie Rod End Jam Nut	12-14 ft. lbs. (17-19 Nm)
Tie Rod End Castle Nut	23-24 ft. lbs. (32-33 Nm)
Tie Rod End Attaching Bolt	25-30 ft. lbs. (35-41 Nm)

NOTE: Refer to exploded views throughout this chapter for identification and location of components.

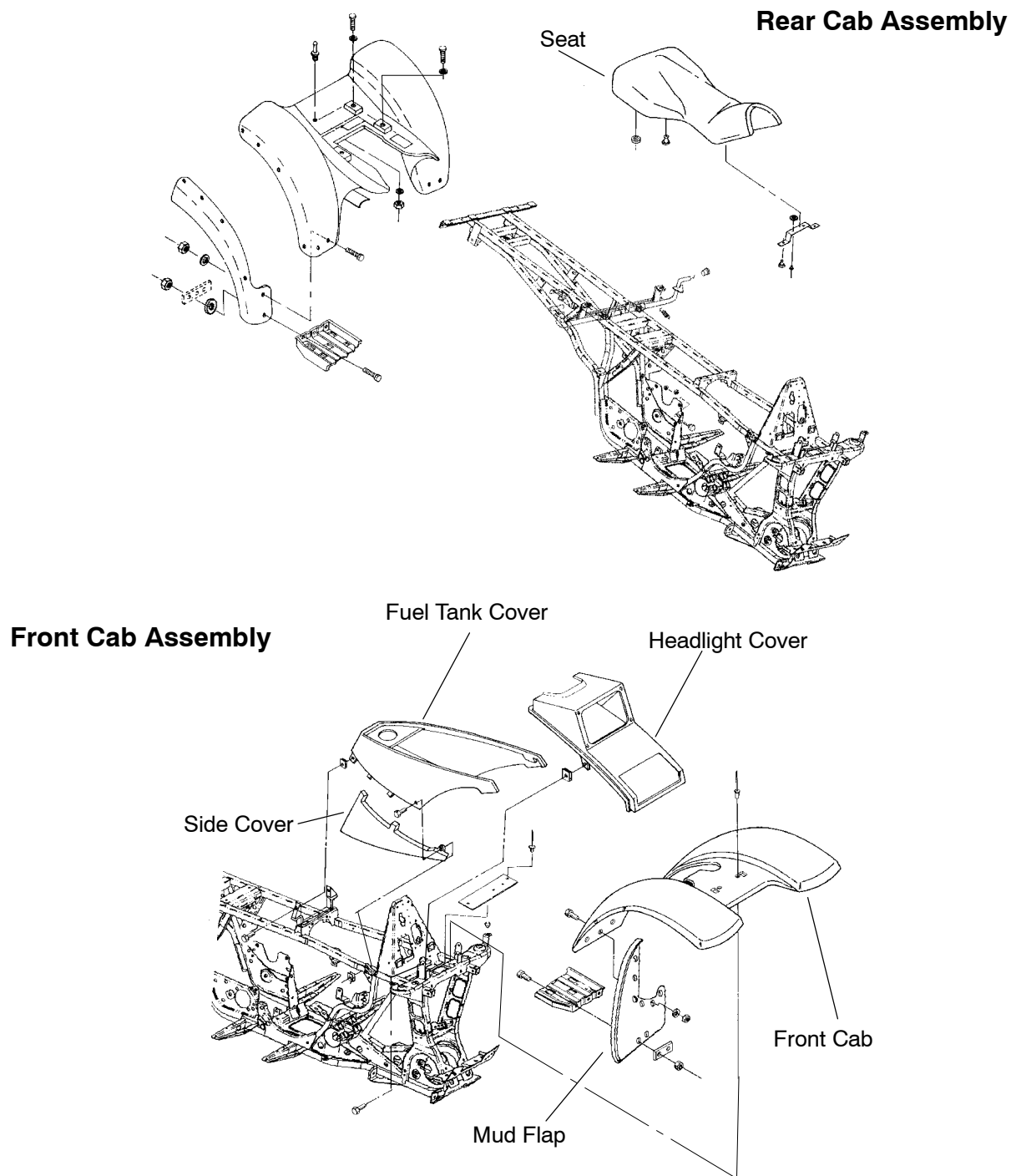
SPECIAL TOOLS

<u>Description</u>	<u>Part No.</u>
Strut and Ball Joint Tool Set	2870871
Shock Spanner Wrench	2870872
Shock Spring Compressor Tool	2870623
Strut Rod Holding Wrench	2871572
Strut Spring Compressor Tool (LH) ...	2871573
Strut Spring Compressor Tool (RH) ...	2871574

Optional Fox™ Shock Tools

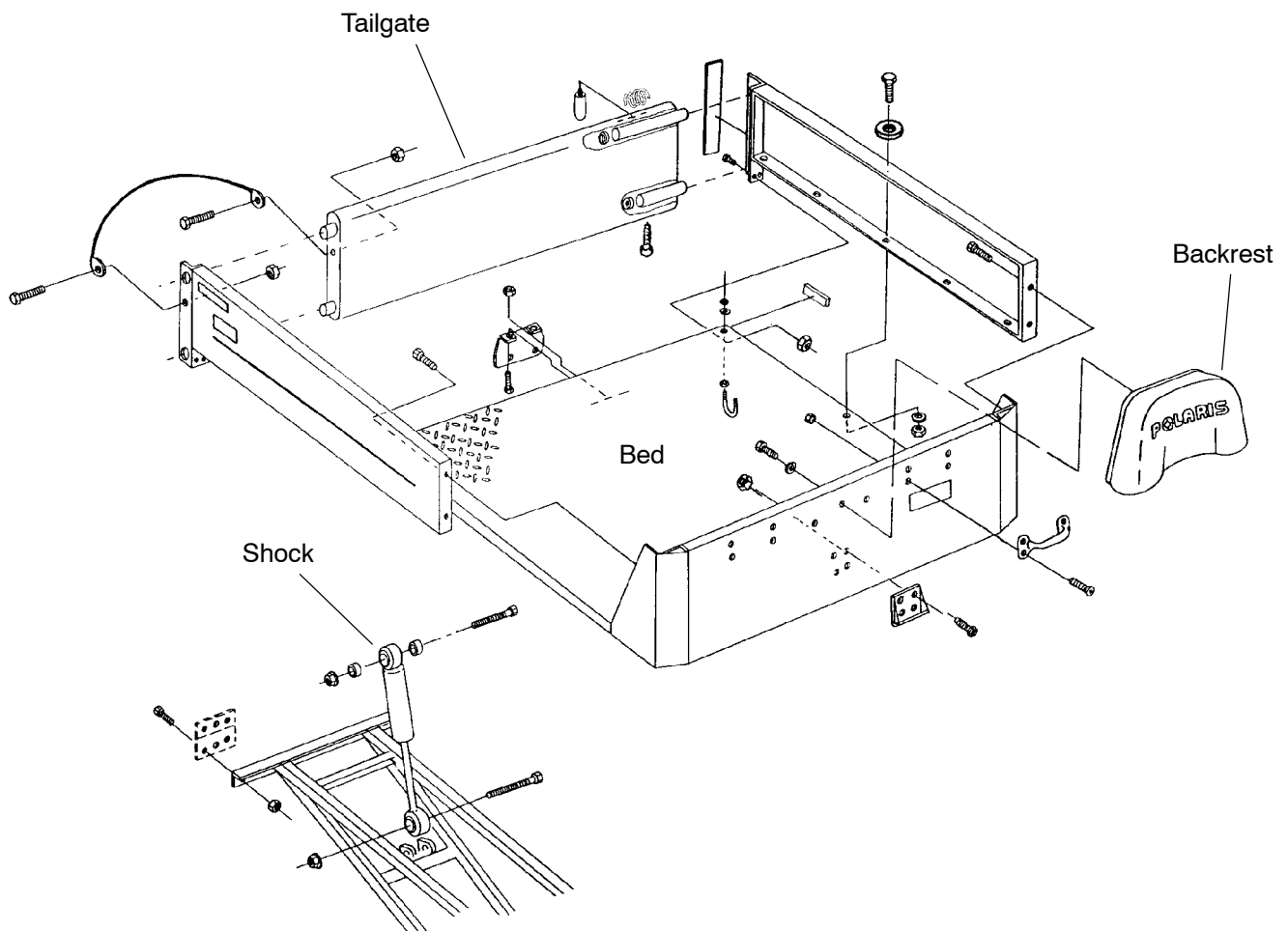
Body Holding Tool	2871017
Safety Needle	7052069
Shock Spring Compressor Tool	2870623
Gas Shock Recharging Kit	2200421
Damper Rod Holding Tool	2871352
Fox™ Shock IFP Tool	2871351

BODY ASSEMBLY EXPLODED VIEW



All warning information labels must be in place when body parts are assembled.

DUMP BOX EXPLODED VIEW



All warning information labels must be in place when body parts are assembled.

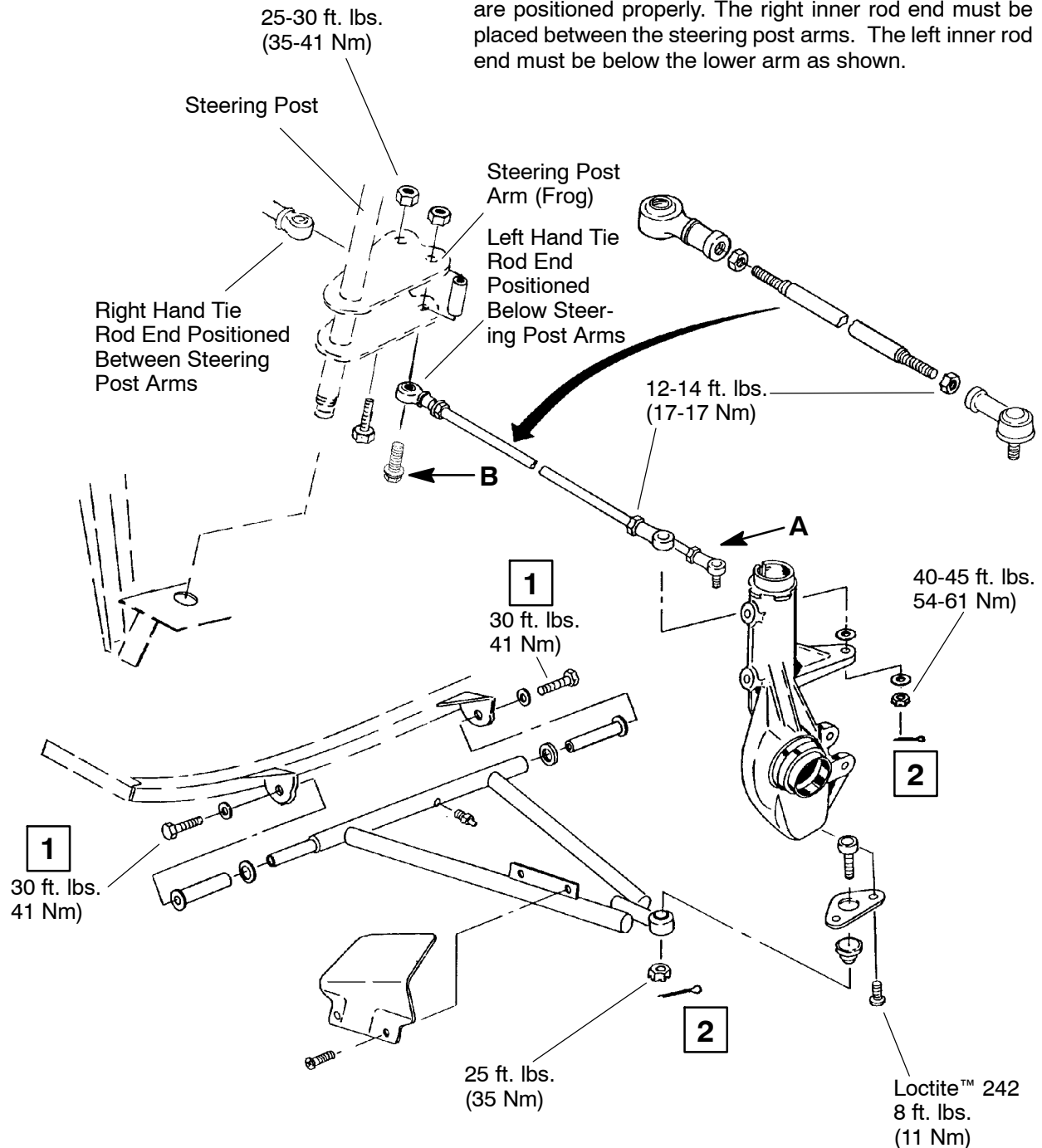
COVER/PANEL REMOVAL**To Remove:****Perform These Steps:**

- Seat Pull release lever at the rear of the seat
Lift and pull seat rearward, disengaging seat from tabs at the rear of the fuel tank
- Fuel tank cover Remove: Seat
Ignition key
Side panels
Fuel cap
2 retaining screws at rear of fuel tank cover
2 retaining screws at side of fuel tank cover
Disengage tabs at front of cover on left and right side
- Side panels Remove: Seat
1 screw on left side front
1 screw on right side front
- Headlight cover Remove: Seat
Fuel tank cover
2 Torx™ screws at rear of cover
1 screw on left front
1 screw on right front
Disconnect headlamp wiring harness
- Radiator cap access panel Turn fastener at front 1/4 turn
- Cargo Box Place box in the down position
Remove 6 bolts holding hinges to frame
Raise rear of box with assist from dump box shock
Remove bolt from shock at box
Lift box off frame with assistance
- Rear cab assembly Remove: Seat
Raise cargo box
3 screws, nuts and washer plate at rear of left footrest
2 screws, nuts and washer plate at rear of right footrest
6 bolts and flat washers from top of cab assembly, under seat
2 screws at front of muffler guard
- Front rack Remove: 4 bolts, nuts and washers
- Front cab assembly Remove: Seat
Side panels
Fuel tank cover
Headlight cover
Front rack
Fuel pump bracket
3 screws, nuts and washers from left footrest
2 screws, nuts and washers from right footrest
2 rivets at top of cab beneath fuel pump bracket

STEERING ASSEMBLY, EXPLODED VIEW

NOTE:

To avoid damage to tie rods and other steering components, be sure to install tie rod end bolts in the proper direction. The steering post arm bolt (B) points up; the rod end studs (A) point down. Be sure inner rod ends are positioned properly. The right inner rod end must be placed between the steering post arms. The left inner rod end must be below the lower arm as shown.

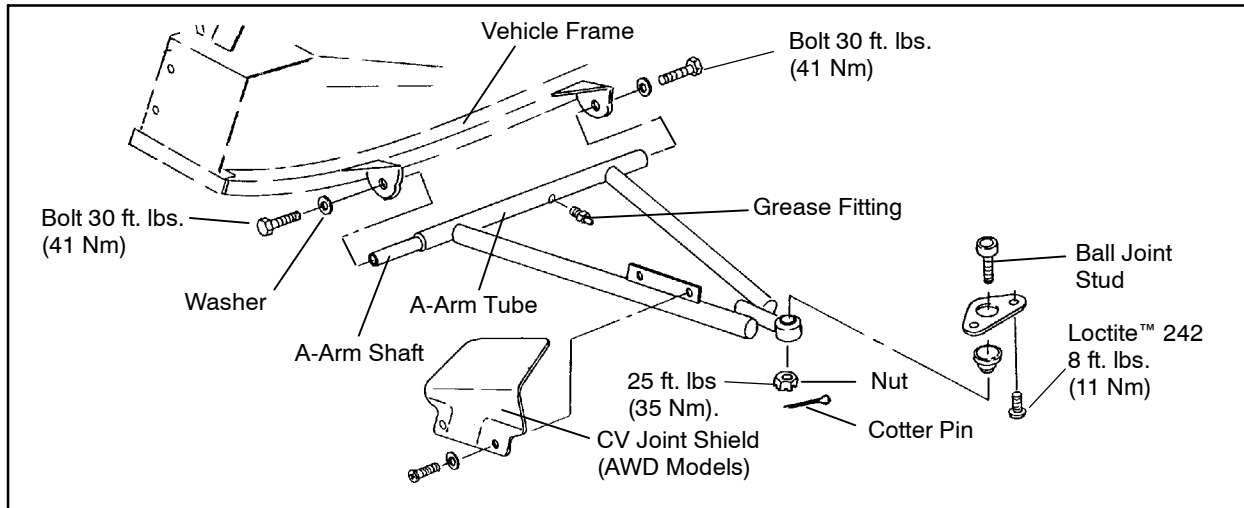


1 Always use new bolts upon reassembly

2 Always use new cotter pins upon reassembly. Install w/ open end toward rear of machine.

A-ARM REPLACEMENT

1. Elevate and safely support vehicle with weight removed from front wheel(s).
2. Remove cotter pin from ball joint stud at wheel end of A-arm and loosen nut until it is flush with end of stud.
3. Using a soft face hammer, tap nut to loosen A-arm from bolt. Remove nut and A-arm from hub strut assembly.
4. Loosen two bolts on A-arm tube by alternating each about 1/3 of the way until A-arm can be removed.
5. Examine A-arm shaft. Replace if worn. Discard hardware.
6. Insert A-arm shaft into new A-arm. **NOTE:** On AWD models, install CV joint shields. See III.



7. Install new A-arm assembly onto vehicle frame. Torque new bolts to 30 ft. lbs. (41.4 Nm).

⚠ WARNING

The locking features on the existing bolts were destroyed during removal. **DO NOT** reuse old bolts. Serious injury or death could result if fasteners come loose during operation.

8. Attach A-arm to hub strut assembly. Tighten ball joint nut to 25 ft. lbs. (35 Nm). If cotter pin holes are not aligned, tighten nut slightly to align. Install a new cotter pin with open ends toward rear of machine. Bend both ends in opposite directions around nut.
9. Locate grease fitting in center of A-arm tube and pump A-arm full of grease.

⚠ WARNING

Upon A-arm installation completion, test vehicle at low speeds before putting into regular service.

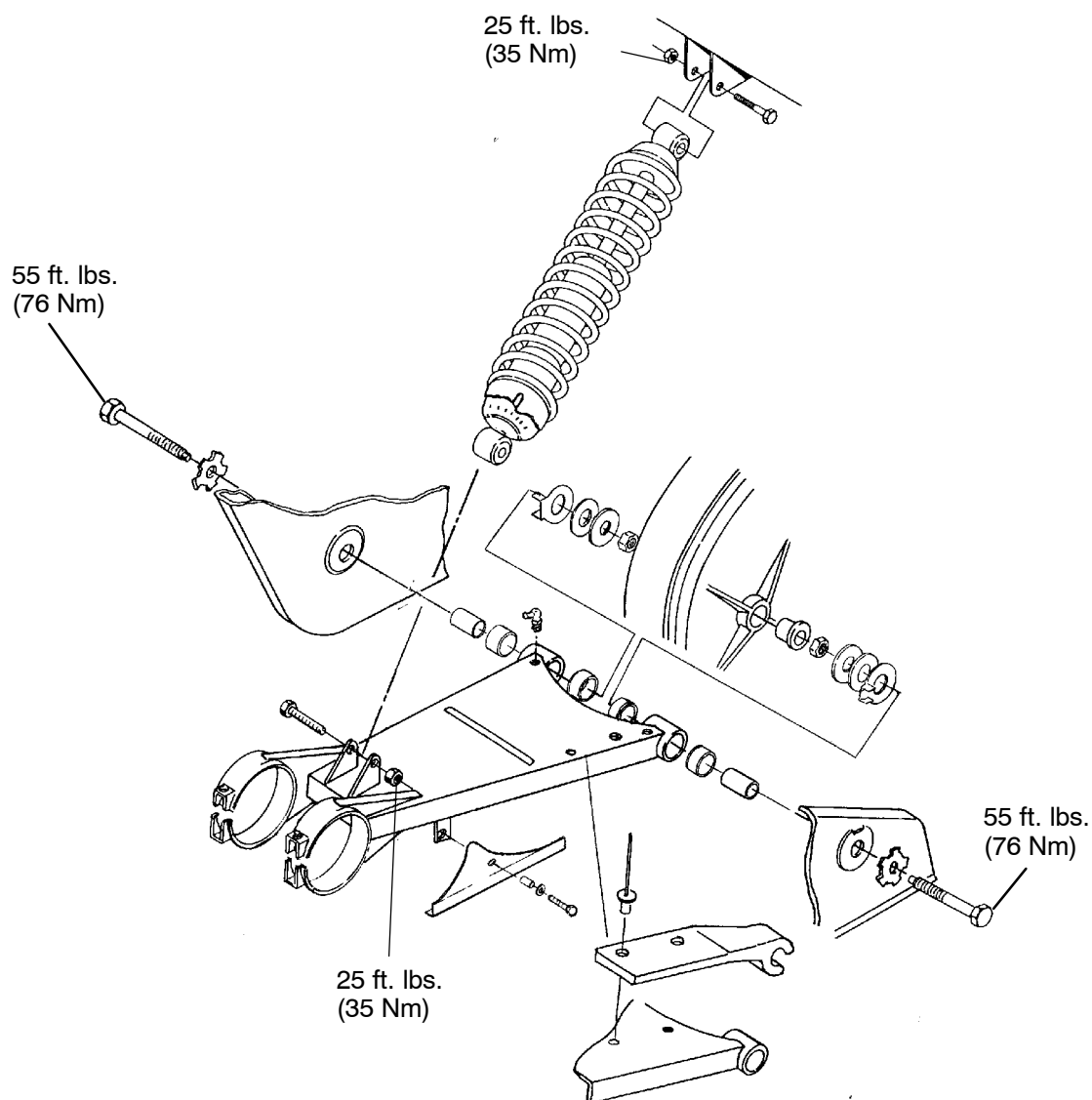
A-arm Attaching Bolt Torque:

30 ft. lbs. (41 Nm)

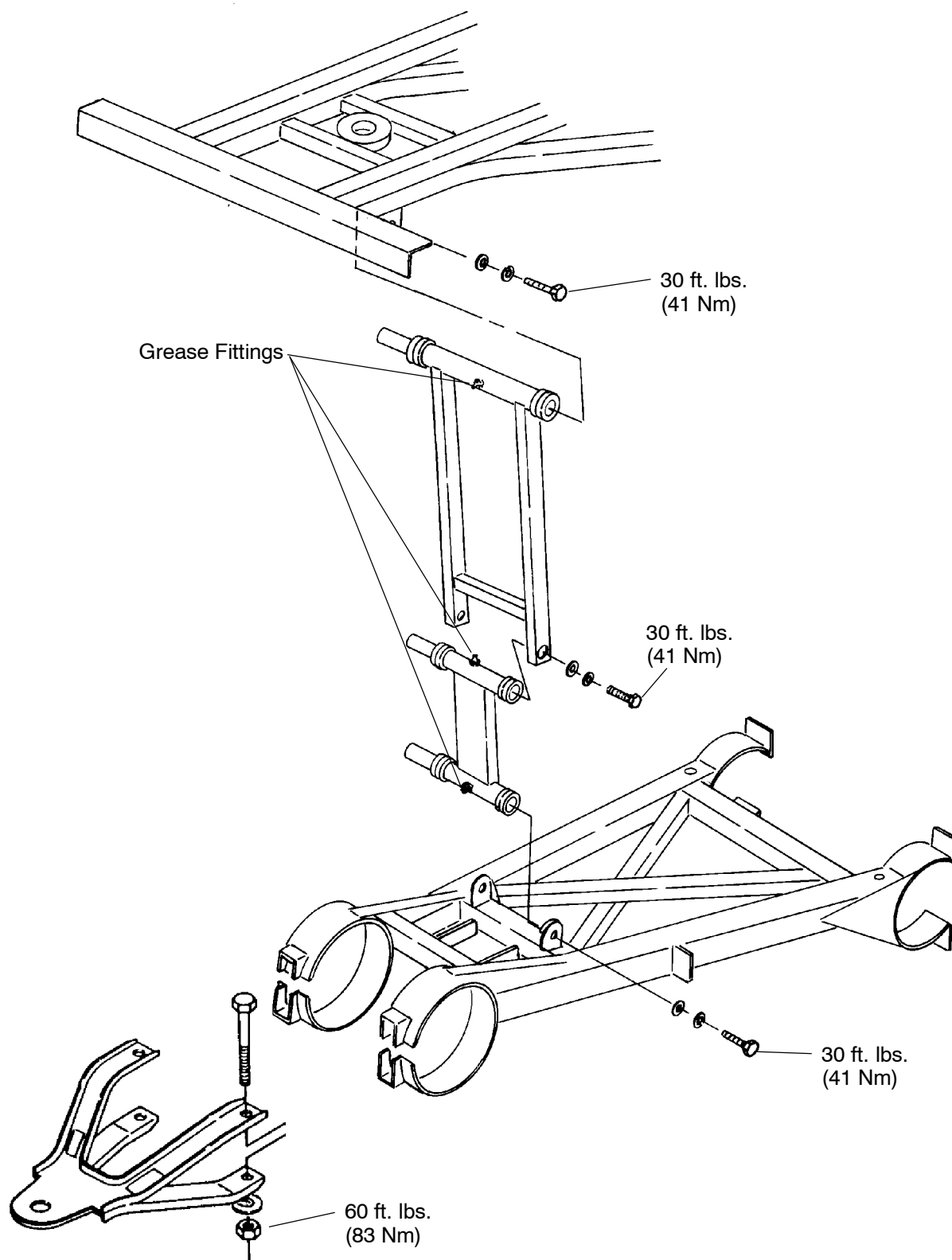
Ball Joint Stud Nut Torque:

25 ft. lbs. (35 Nm)

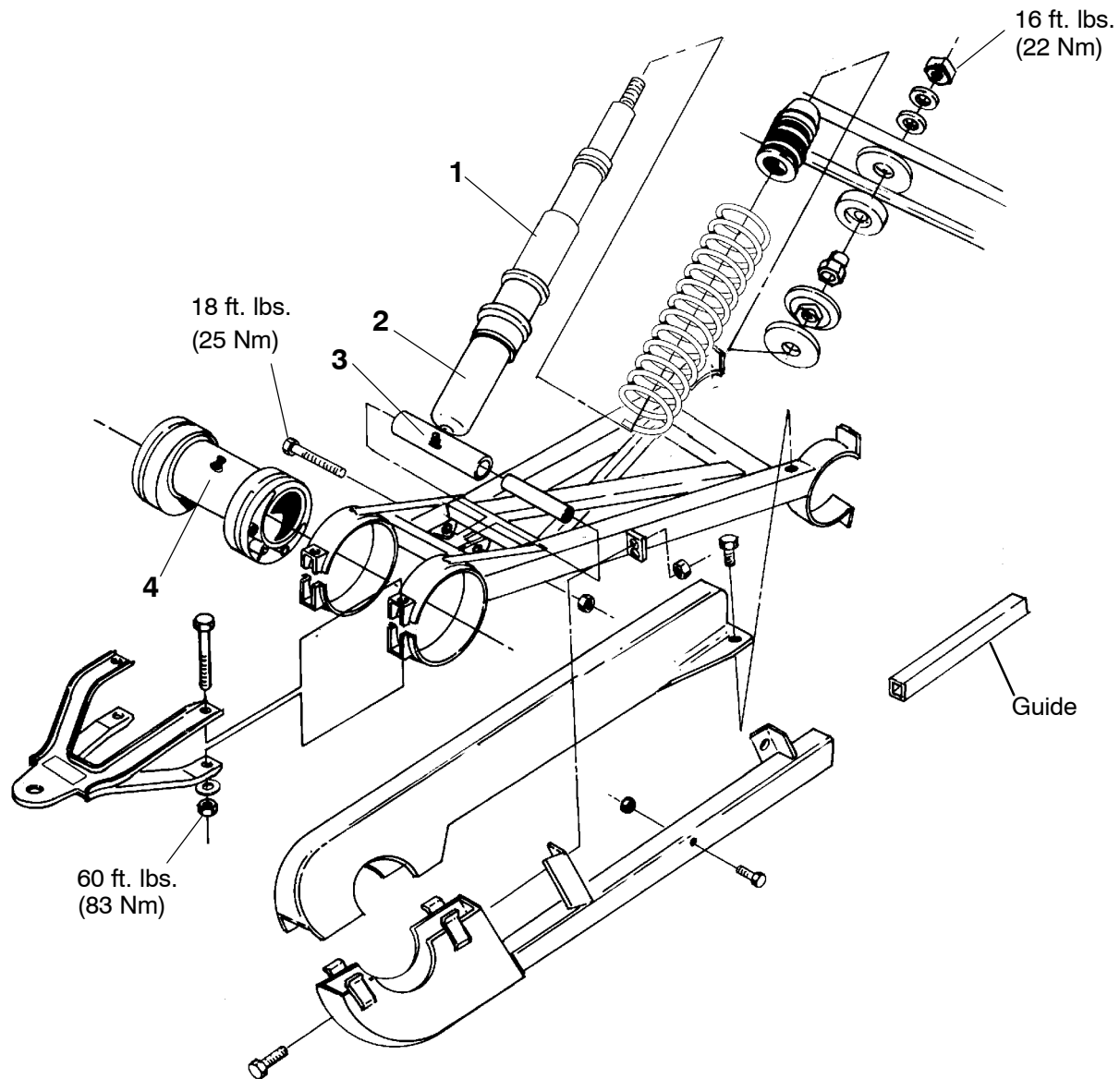
STANDARD SWING ARM AND FRONT SUSPENSION



REAR STRUT STABILIZER

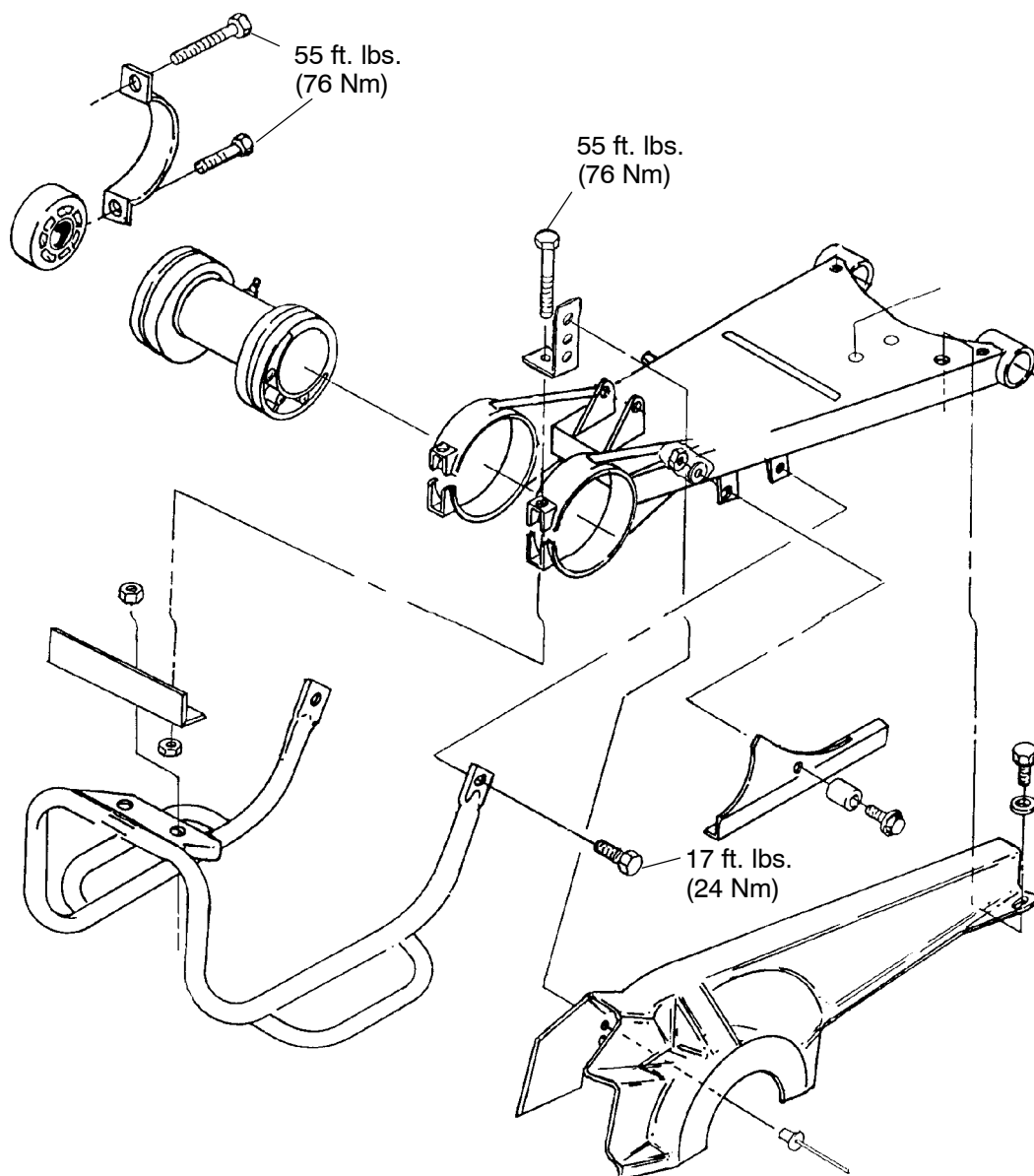


REAR SWING ARM WELDMENT

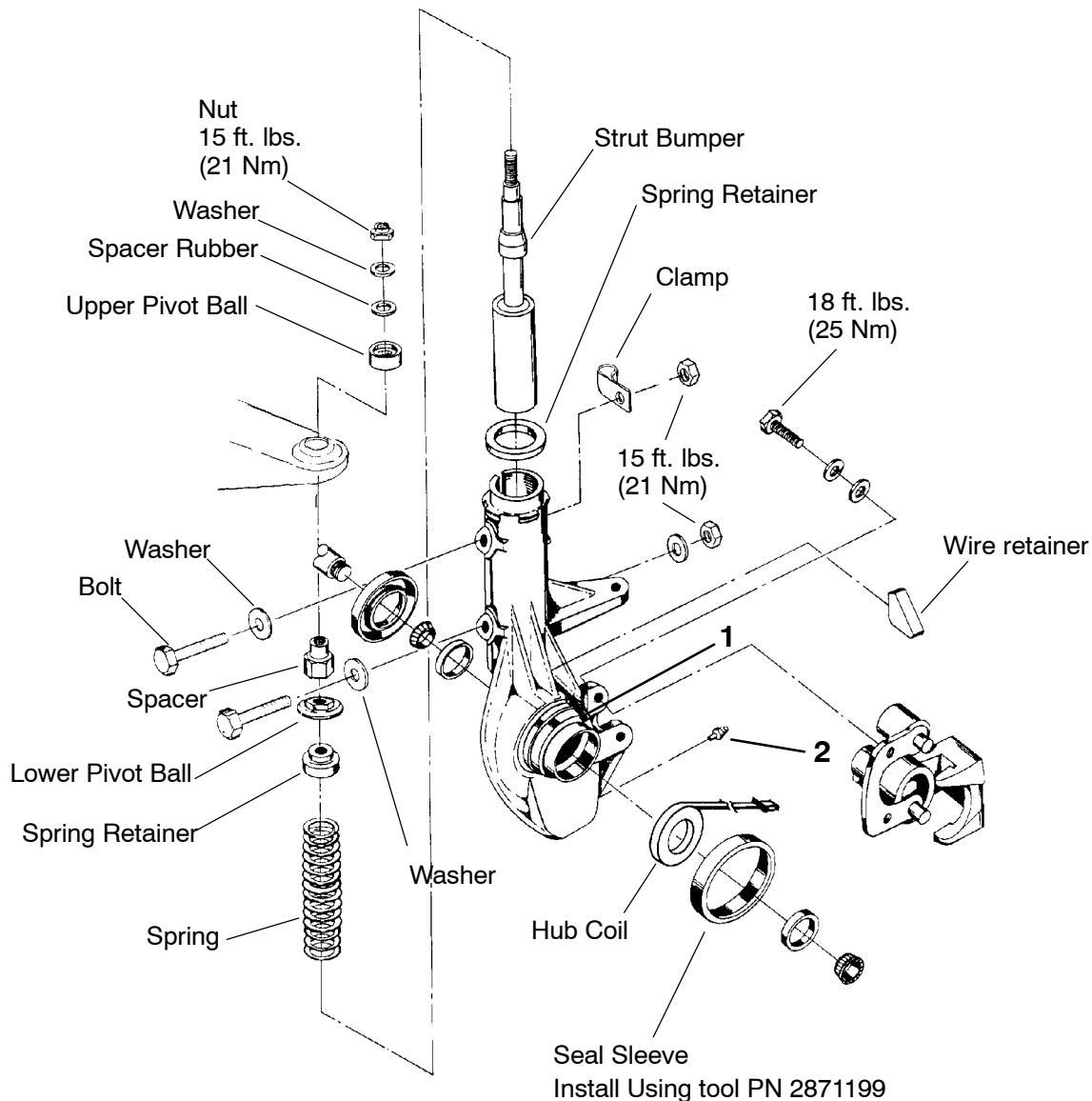


- Rear strut (1) and weldment (2) can only be replaced as an assembly. They are pressed and welded together at the factory and cannot be disassembled.
- Grease fittings (3 and 4). Check lubrication guide for service intervals.

FRONT SWING ARM WELDMENT



STRUT ASSEMBLY



NOTE: Be sure steel insert notch (1) and strut casting notch are lined up and provide a channel for the magnetic coil wires to lie in. If insert and strut do not match, strut replacement will be necessary.

Grease fitting (2) location. Check lubrication guide for recommended service intervals.

Specified pole gap is 0-.001" (0-.0254mm)

FRONT STRUT CARTRIDGE REPLACEMENT

REFER TO ILLUSTRATION ON PAGE 5.11.

1. Hold strut rod and remove top nut.
2. Compress spring using strut spring compressor tools.

**Strut Spring Compressor Tools
PN 2871573 and PN 2871574**

3. Remove upper strut pivot assembly.
4. Remove coil spring and collapse strut cartridge.
5. Remove two pinch bolts from strut casting.
6. Remove strut cartridge.
7. Install cartridge until bottomed in strut casting.
8. Install pinch bolts with wire clamp(s). Torque pinch bolts to 15 ft. lbs. (21 Nm).
9. Reassemble spring and top pivot assembly. Be sure all parts are installed properly and seated fully.
10. Torque strut rod nut to specification. Do not over torque nut.

Strut Rod Nut Torque

15 ft. lbs. (21 Nm)

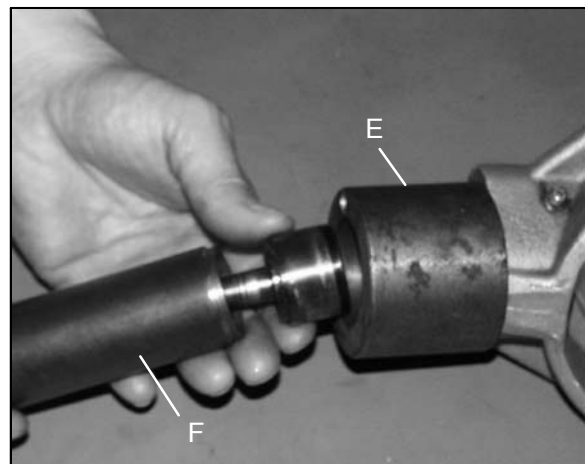
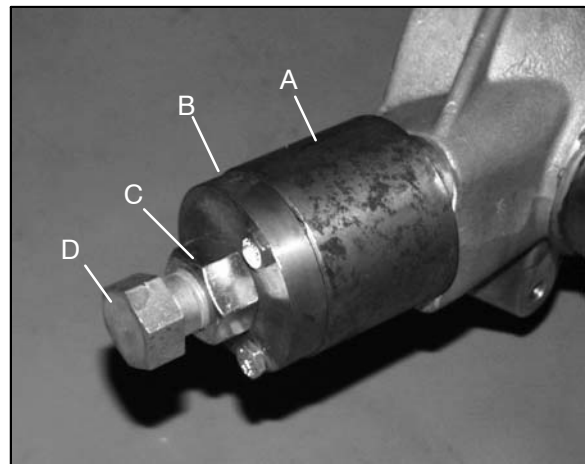
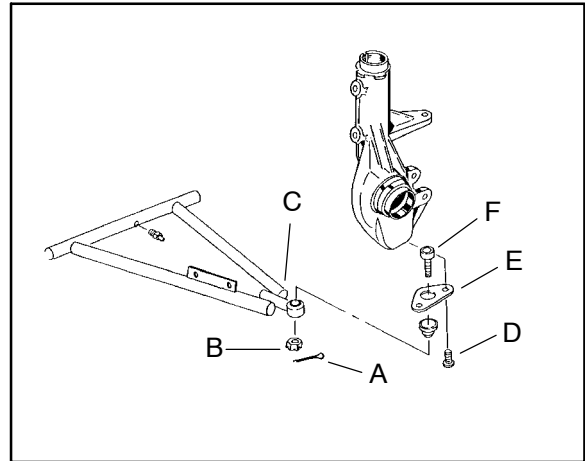
BALL JOINT REPLACEMENT

REFER TO ILLUSTRATION ON PAGE 5.11.

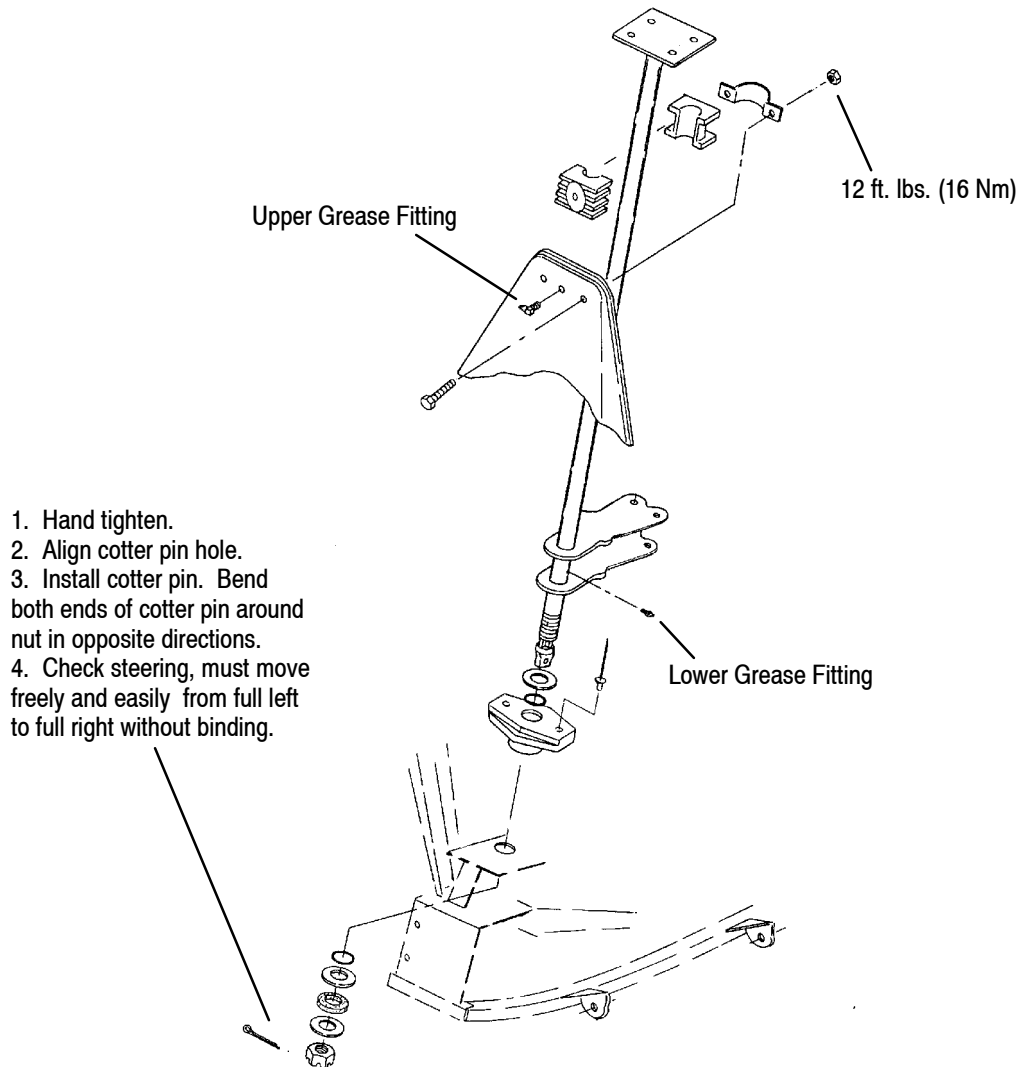
1. Loosen front wheel nuts slightly.
2. Elevate and safely support machine under footrest/frame area.

CAUTION: Serious injury may result if machine tips or falls. Be sure machine is secure before beginning this service procedure.

3. Remove wheel nuts and wheels.
4. Remove cotter pin (A) from ball joint castlenut.
5. Remove castle nut (B) and separate A-arm (C) from ball joint stud.
6. Remove screws (D) and ball joint retaining plate (E).
7. Using ball joint removal / installation tool kit (PN 2870871), remove ball joint (F) from strut housing. Refer to photos at right.
 - Install puller guide (A) with extension cap (B).
 - Apply grease to extension cap and threads of puller bolt to ease removal.
 - Thread bolt (D) with nut (C) onto ball joint stud as shown.
 - Apply heat to ease removal.
 - Hold bolt (D) and turn nut (C) clockwise until ball joint is removed from strut housing.
8. To install new ball joint:
 - Remove extension cap and attach puller guide using short bolts provided in the kit.
 - Insert new ball joint (E) into driver (F).
 - Slide ball joint/driver assembly into guide.
 - Apply heat to ease installation.
 - Drive new joint into strut housing until fully seated.
9. Apply Loctite™ 242 (blue) to threads of retaining plate screws or install new screws with pre-applied locking agent. Torque screws to 8 ft. lbs. (11 Nm).
10. Install A-arm on ball joint and torque castle nut to 25 ft. lbs. (35 Nm).
11. Reinstall cotter pin with open ends toward rear of machine.



STEERING POST ASSEMBLY



DECAL REPLACEMENT

Plastic polyethylene material must be "flame treated" prior to installing a decal to ensure good adhesion. The flame treating procedure can often be used to reduce or eliminate the whitish stress marks that are sometimes left after a fender or cab is bent, flexed, or damaged.

⚠ WARNING

The following procedure involves the use of an open flame. Perform this procedure in a well ventilated area, away from gasoline or other flammable materials. Be sure the area to be flame treated is clean and free of gasoline or flammable residue.

To flame treat the decal area:

1. Pass the flame of a propane torch back and forth quickly over the area where the decal is to be applied until the surface appears slightly glossy. This should occur after just a few seconds of flame treating. Do not hold the torch too close to the surface. Keep the torch moving to prevent damage.
2. Apply the decal.