

# CHAPTER 4 CHASSIS

**WARNING**

The parts of different types/ variants/ versions maybe un-interchangeable, even some parts have almost same appearance. Always refer to Parts Manual of each ATV model for spare parts information and service.

## 4.1 A-RM REPLACEMENT

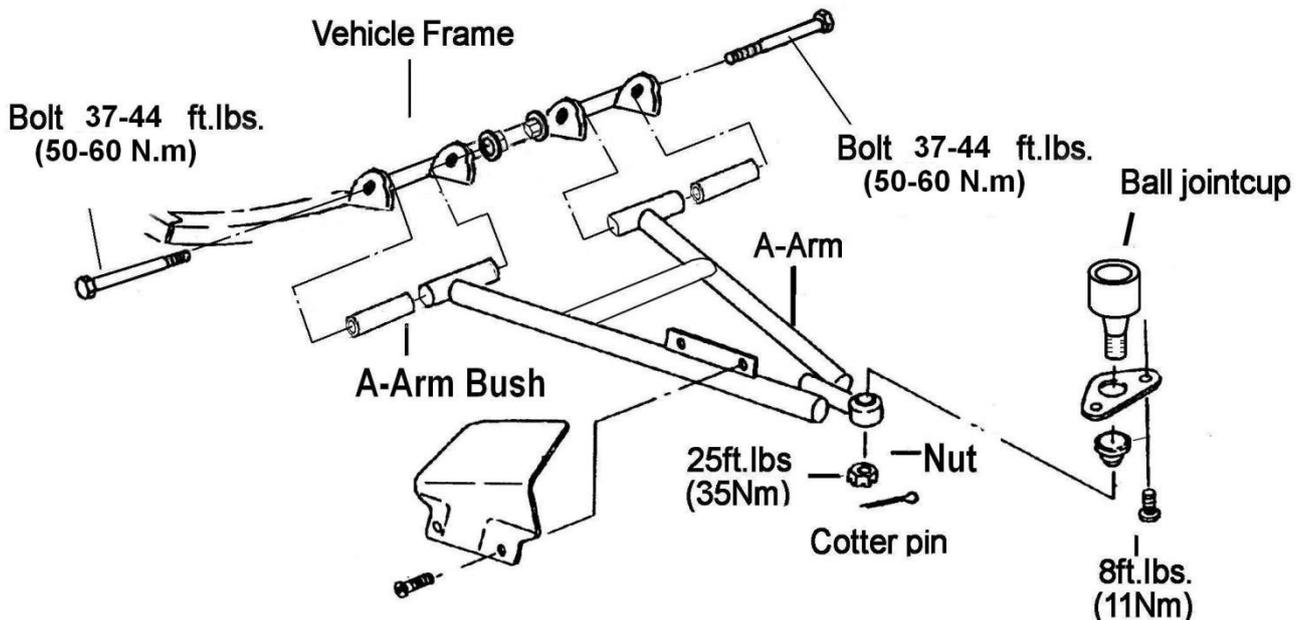
## 4.2 FRONT STRUT REPLACEMENT

## 4.3 FRONT STRUT BALL JOINT REPLACEMENT

## 4.4 STEERING POST ASSEMBLY

## 4.1 A-RM REPLACEMENT (MacPherson)

### MANTENANCE-FREE PIVOT DESIGN



1. Elevate and safely support vehicle
2. Remove cotter pin from ball joint cup at wheel end of A- arm and loosen nut until it is flush with end of cup.
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 and remove two bolts on A-arm, and remove A-arm.
5. Examine bushing. Replace if worn or tore. Discard hardware.
6. Install new A-arm assembly onto vehicle frame. Install new bolts and new nuts.  
**NOTE.** Tighten the nuts only finger-tighten at this time. They will be tightened to the final torque after the front wheels are installed and the vehicle is on the ground.

#### **WARNING**

DO NOT reuse old bolts. Serious injury or death could result if fasteners come loose during operation.

7. Attach A-arm to 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.
8. Install hubs, calipers and wheels, lower the vehicle to the ground. Apply Loctite™ 242 to screw threads of the A arm bolts and torque bolts to 37-44 ft. lbs. (50-60 Nm ).

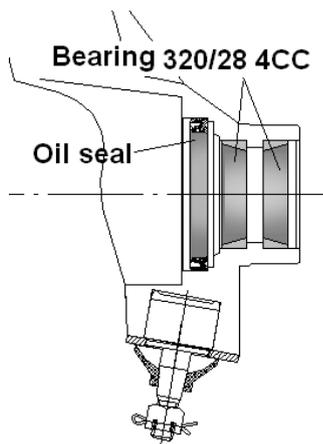
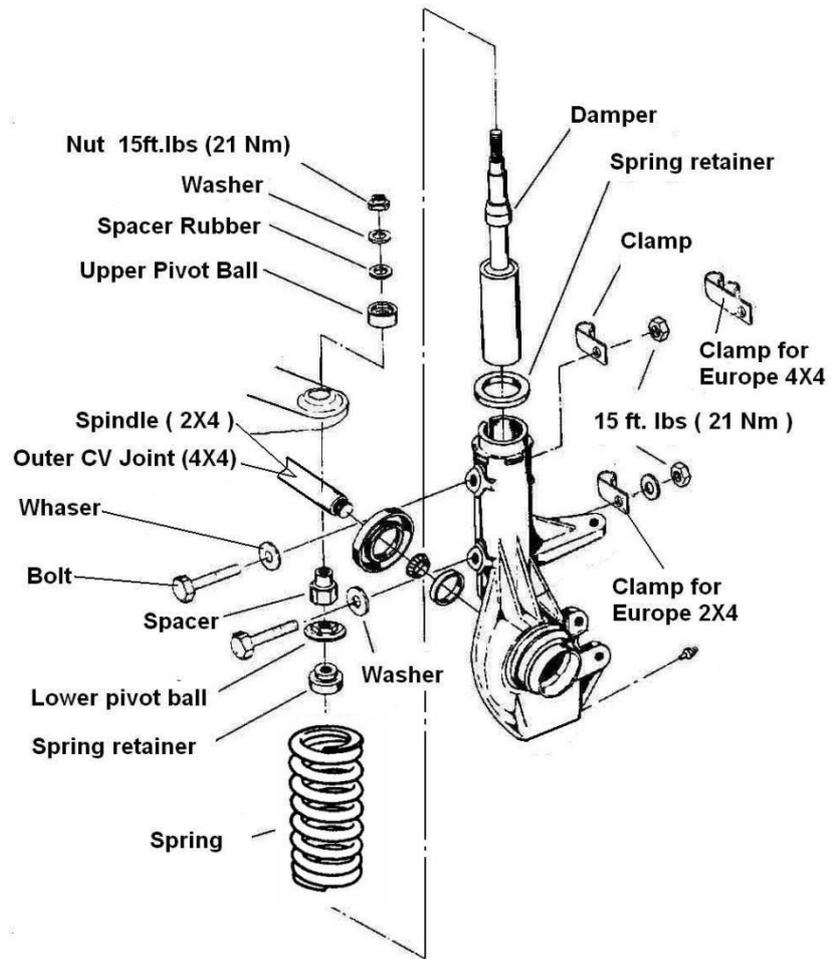
#### **WARNING**

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

**4.2 FRONT STRUT REPLACEMENT**

1. Hold strut rod with wrench and remove top nut
2. Compress spring.
3. Remove upper strut pivot assembly.
4. Remove coil spring and collapse strut body.
5. Remove two pinch bolts from strut body.
6. Remove strut body.
7. Install front shock cartridge until bottomed in strut casting.
8. Install pinch bolts with clamp(s).  
Torque pinch bolts to 15ft.lbs.(21Nm).
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)**

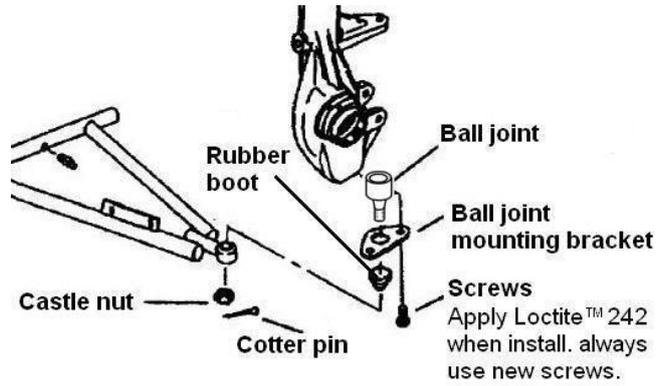


**4.3FRONT STRUT BALL JOINT REPLACEMENT**

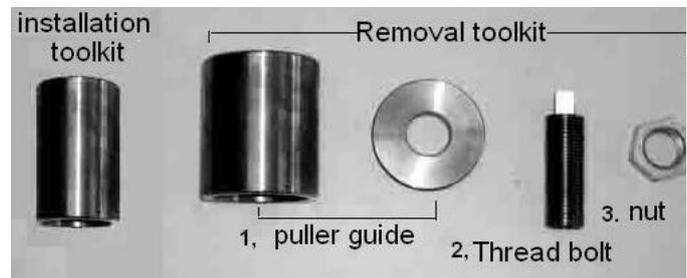
1. Loosen front wheel nuts.
2. Elevate and safely support ATV under footrest/frame area. .

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

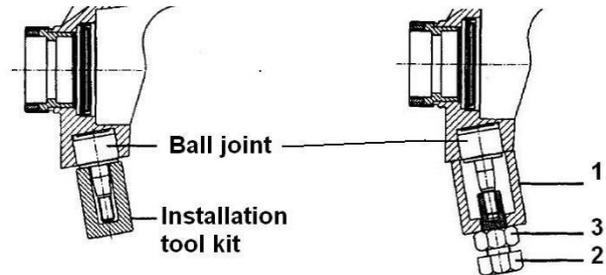
3. Remove wheel nuts and wheels.
4. Remove cotter pin from ball joint
5. Remove castle nut and separate A-arm from ball joint stud.
6. Remove screws and ball joint mounting bracket.



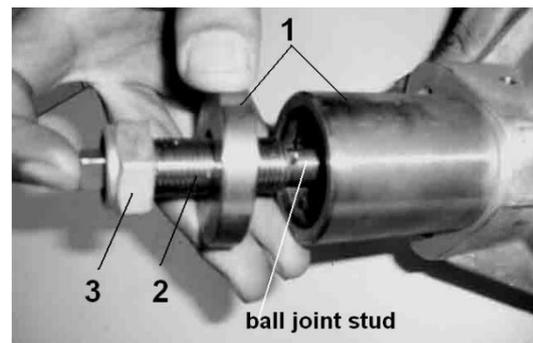
7. Using ball joint cup removal/installation toolkit, remove ball joint cup from strut housing. Refer to photos at right.
  - Install puller guide (1) .
  - Thread bolt (2) with nut (3) onto ball joint stud as shown .
  - Hold bolt (2) and turn nut (3) clockwise until ball joint is removed from strut housing.



8. To install new ball joint cup.
  - Insert new ball joint into driver (installation toolkit).
  - Drive new ball joint cup into strut housing until fully seated.



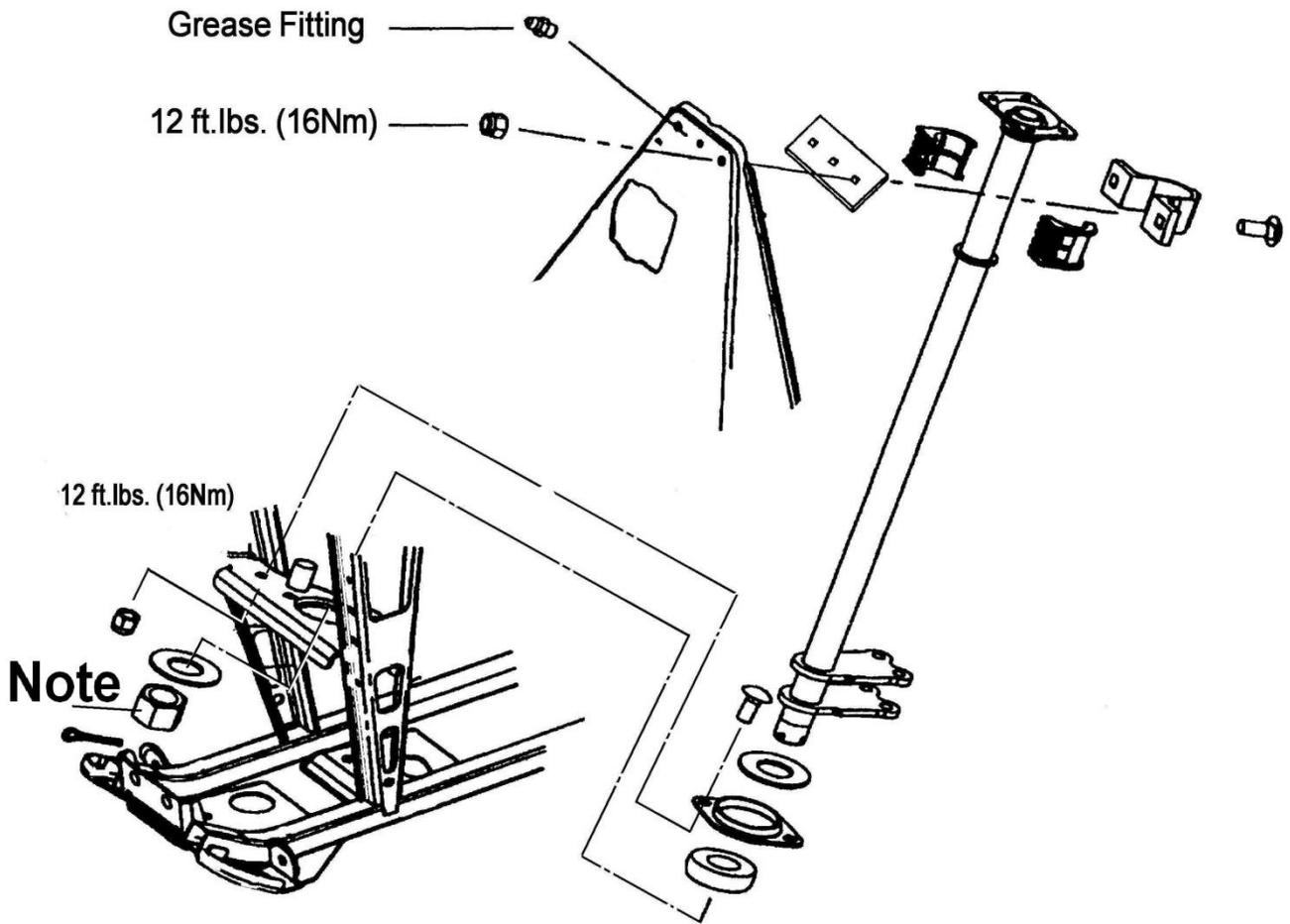
9. Apply Loctite 242 (blue) to threads of mounting bracket new screws. Torque screw s to 8 ft.lbs. (11 Nm).



10. Install A- arm on ball joint cup and torque castle nut to 25 ft. lbs. (35 Nm ).
11. Reinstall cotter pin with open ends toward rear of machine.



**4.4 STEERING POST ASSEMBLY**



**Note:**

- 1, Hand tighten the crown nut of the steering post.
- 2, Align cotter pin hole.
- 3, Install cotter pin. Bend both ends of cotter pin around nut in opposite directions.
- 4, Check steering, must move freely and easily from full left to full right without binding.

