



X-TYPE

DATE 02/04

XT204-09

**SERVICE**

**TECHNICAL BULLETIN**

Front Control Arm Removal/Installation –  
Revised Workshop Procedure –  
Not On JTIS

MODEL 2002 MY-ON  
X-TYPE  
VIN C00001-ON

**Issue:**

This bulletin outlines a new workshop manual procedure and subsequent amendment to labor time. It relates to removal and installation of the front suspension control arm. This procedure will be updated on Global Technical Reference (GTR) during February. The former procedure called for the complete removal of the front subframe to allow the lower wishbone rear bolts to be removed. Upon investigation this was determined to be unnecessary as the lower wishbone rear bolts can be removed by lowering the front subframe until it is just clear of the exhaust system and driveshaft. With the new method the driveshaft and exhaust system can remain installed giving a more robust/less intrusive repair. The process also incorporates the change in policy for the subframe alignment check.

**Action:**

Refer to the revised procedure starting on the next page.

**Warranty Information:**

Description	SRO	Previous Time	New Time
Renew front suspension lower arm - left hand	60.35.03	3.7 hrs.	2.1 hrs.
Renew front suspension lower arm - right hand	60.35.14	3.7 hrs.	2.1 hrs.
Renew front suspension lower arm - vehicle set	60.35.04	3.8 hrs.	2.3 hrs.

**NOTE: THE INFORMATION IN TECHNICAL BULLETINS IS INTENDED FOR USE BY TRAINED, PROFESSIONAL TECHNICIANS WITH THE KNOWLEDGE, TOOLS, AND EQUIPMENT TO DO THE JOB PROPERLY AND SAFELY. IT INFORMS THESE TECHNICIANS OF CONDITIONS THAT MAY OCCUR ON SOME VEHICLES, OR PROVIDES INFORMATION THAT COULD ASSIST IN PROPER VEHICLE SERVICE. THE PROCEDURES SHOULD NOT BE PERFORMED BY "DO-IT-YOURSELFERS." DO NOT ASSUME THAT A CONDITION DESCRIBED AFFECTS YOUR CAR. CONTACT A JAGUAR RETAILER TO DETERMINE WHETHER THE BULLETIN APPLIES TO YOUR VEHICLE.**



## Workshop Procedure

### Removal

1. Position the front wheels in a straight-ahead position and center the steering wheel.
2. Lock steering in position and remove the ignition key.
3. Remove and discard the steering column lower retaining bolt (Illustration 1).

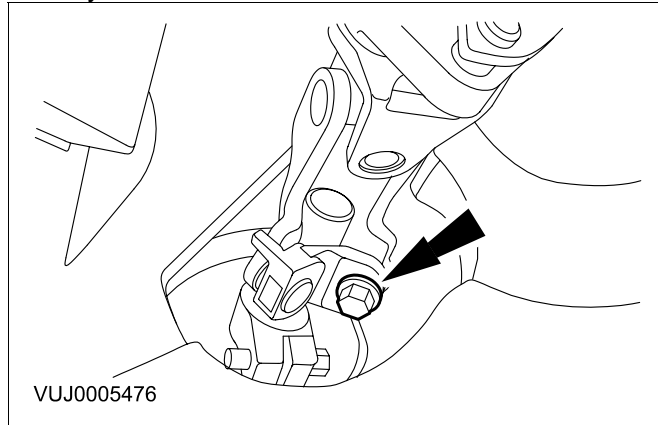


Illustration 1

4. Remove radiator splash shield (see Workshop Manual, JTIS CD ROM, section: 501-02, SRO 76.20.90).
5. Remove both front wheels (see Workshop Manual, JTIS CD ROM, section: 204-04, SRO 74.20.05).
6. Remove the wheel arch liner access cover (Illustration 2).

**Note: Right-hand shown, left-hand similar.**

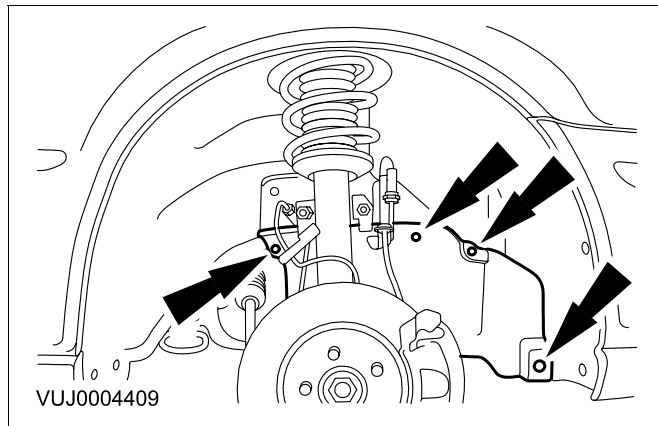


Illustration 2

7. Detach the power steering fluid cooler pipe retaining bracket (Illustration 3).

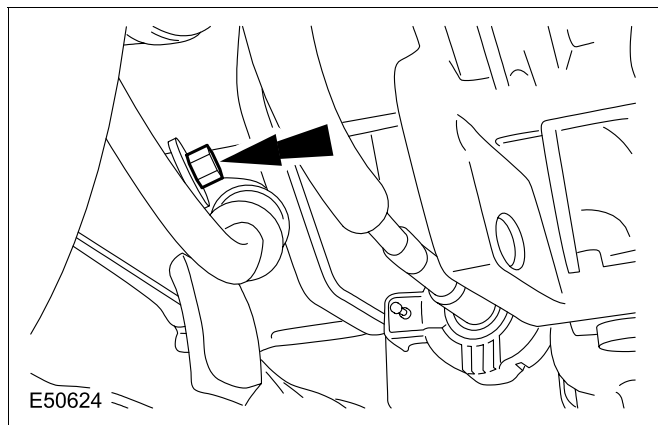


Illustration 3

8. Install the alignment pins supplied with the special tool HTJ1200-2 to the subframe (Illustration 4).

**Note: The alignment pins are different diameters and will only fit in the correct aperture.**

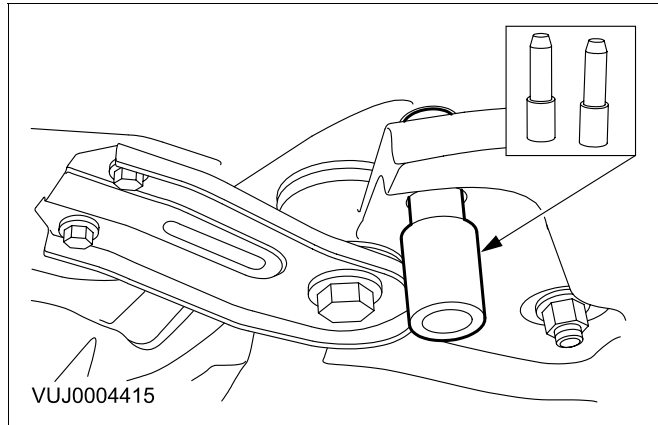


Illustration 4

9. Install special tool HTJ1200-2 (Illustration 5).

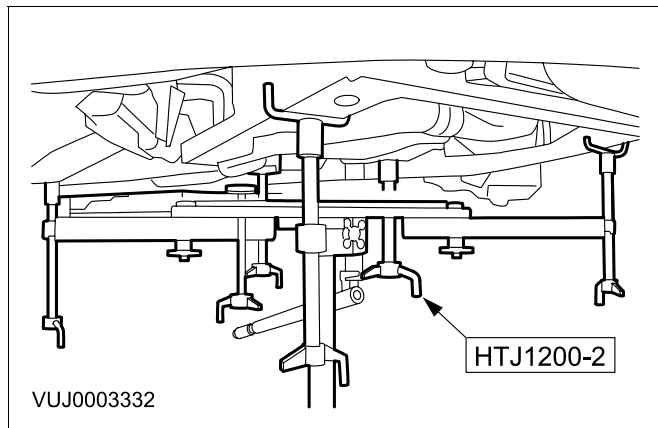


Illustration 5

10. Position and adjust the special tool rear height adjuster (Illustration 6).

**Note: Left-hand shown, right-hand similar.**

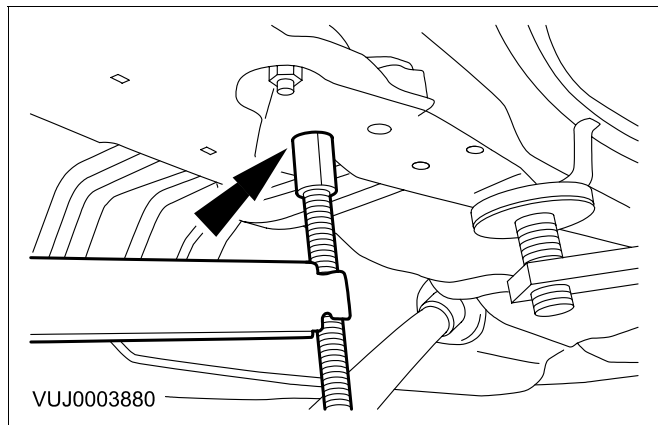


Illustration 6

11. Position and adjust the special tool front height adjuster (Illustration 7).

**Note: Right-hand shown, left-hand similar.**

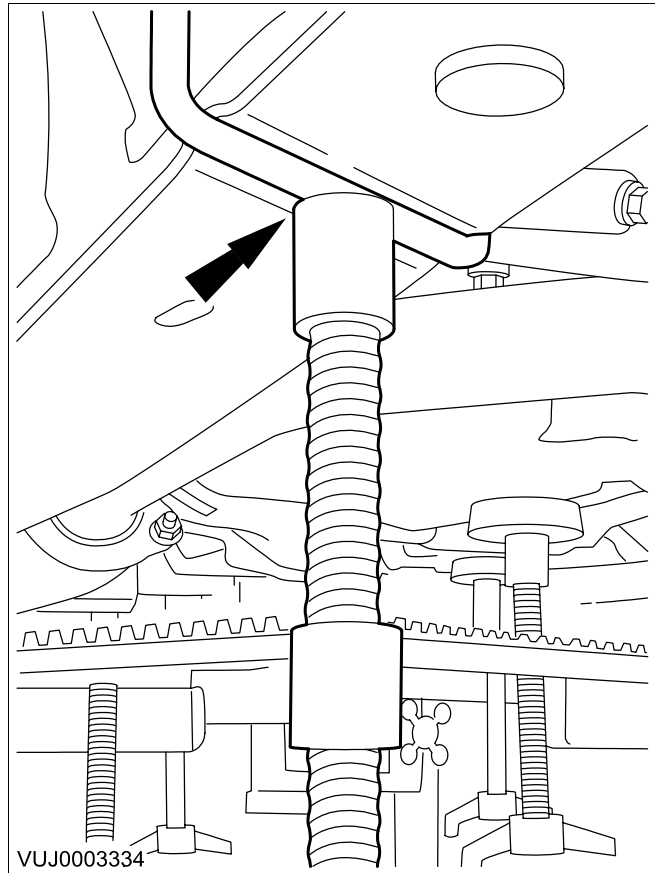


Illustration 7

12. Detach the engine roll restrictor (Illustration 8).

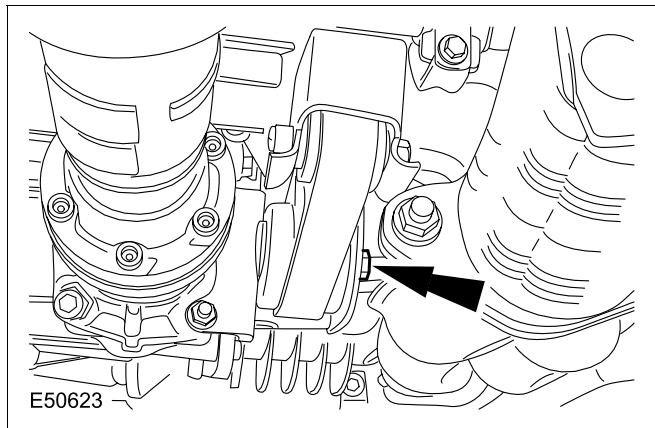
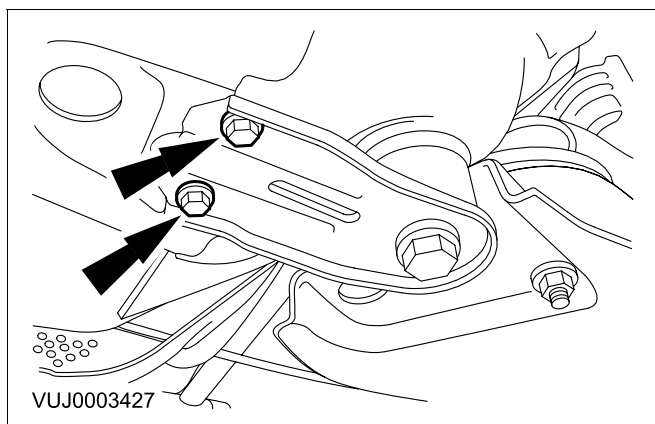


Illustration 8

13. Remove the subframe reinforcement plate retaining bolts (Illustration 9).

**Note: Left-hand shown, right-hand similar.**



14. Remove the subframe rear mount retaining bolt and reinforcement plate (Illustration 10).

**Note: Left-hand shown, right-hand similar.**

Illustration 9

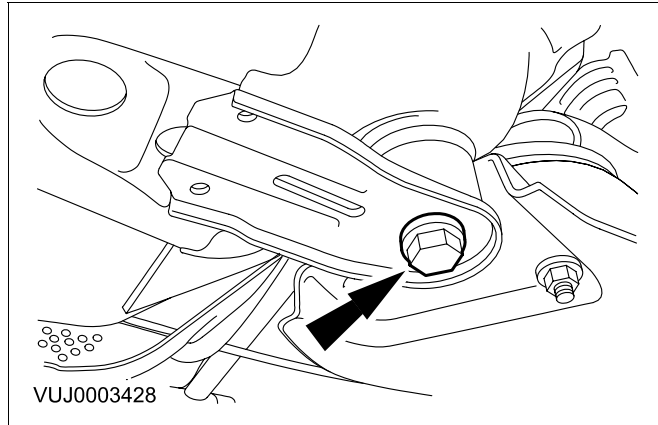


Illustration 10

15. Remove the subframe front mount retaining bolt (Illustration 11).

**Note: Left-hand shown, right-hand similar.**

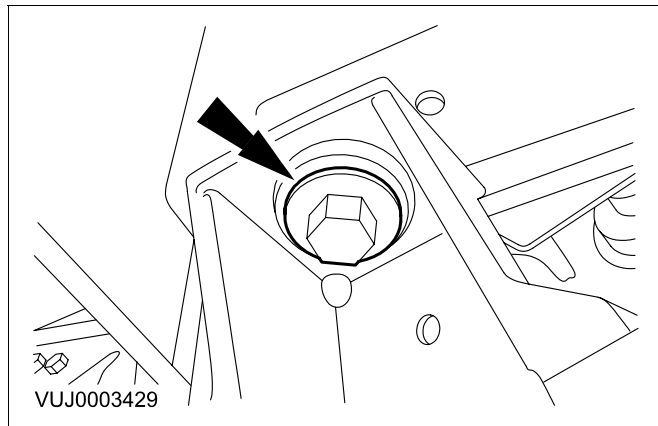


Illustration 11

16. Remove and discard the lower arm front retaining bolt (Illustration 12).

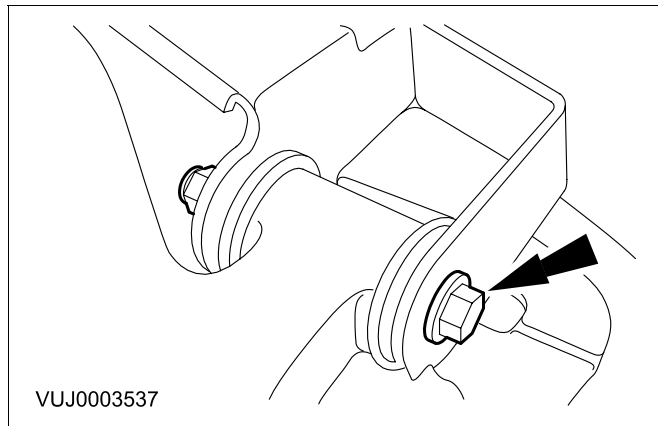


Illustration 12

17. Remove and discard the lower arm retaining nut (Illustration 13).

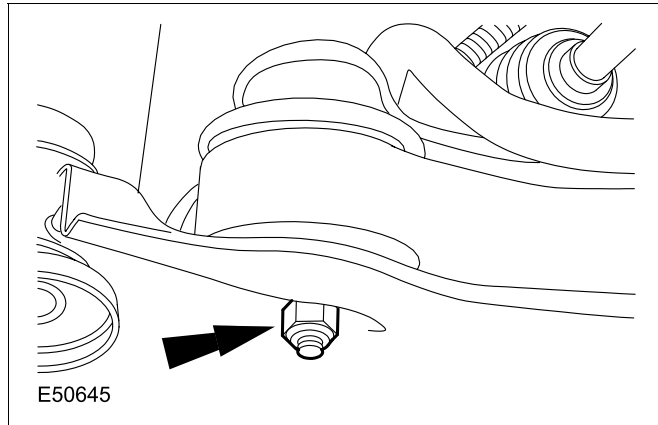


Illustration 13

**WARNING:** Rotate the special tool height adjustment valve slowly. Failure to follow this instruction may result in personal injury.

**CAUTION:** Make sure the subframe does not come into contact with the transmission casing or the exhaust system.

18. Lower the subframe 35 mm (Illustration 14).

**Note:** Left-hand shown, right-hand similar.

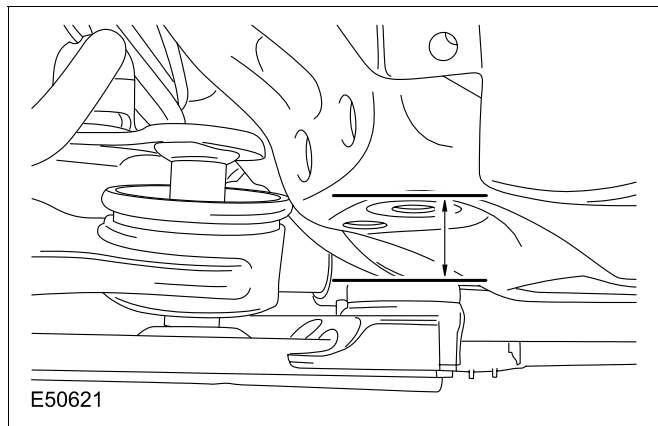


Illustration 14

19. Remove and discard the lower arm rear retaining bolt (Illustration 15).

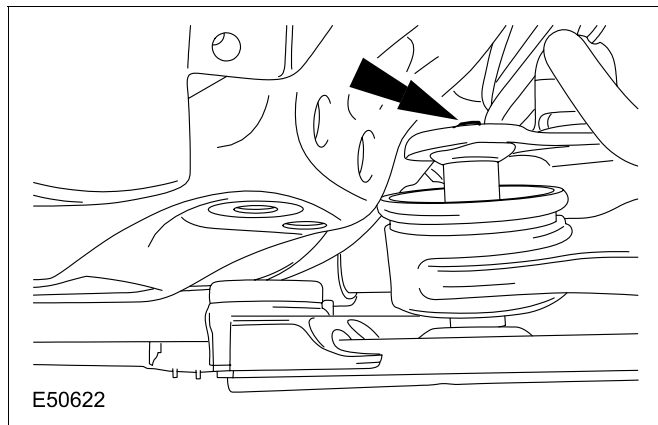


Illustration 15

**CAUTION:** To prevent damage to the lower arm bushing, make sure the subframe is lowered before detaching the lower arm ball joint.

20. Remove the lower arm ball joint retaining nut and bolt, reposition the lower arm and detach the wheel knuckle (Illustration 16).

**Note:** Left-hand shown, right-hand similar.

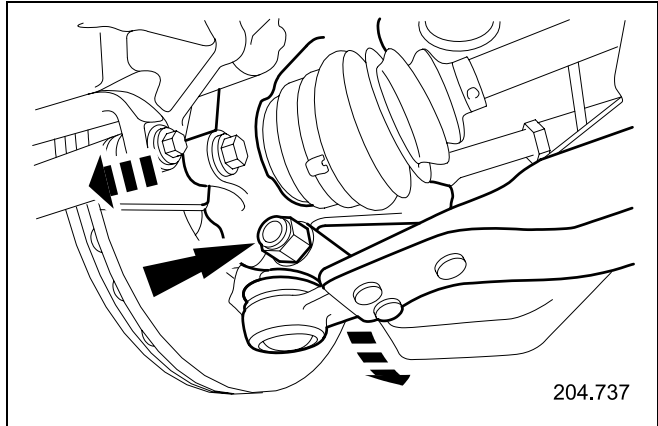


Illustration 16

21. Remove lower arm from vehicle.

### Installation

22. Install the lower arm to vehicle.
23. Install the new lower arm rear retaining bolt (Illustration 17).

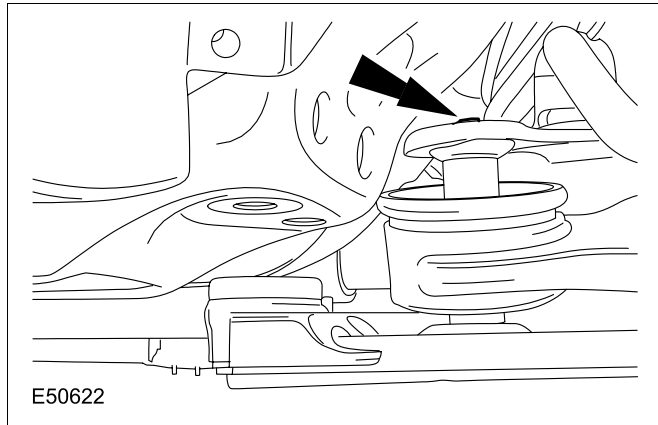


Illustration 17

24. Install but do not fully tighten the new lower arm front retaining bolt (Illustration 18).

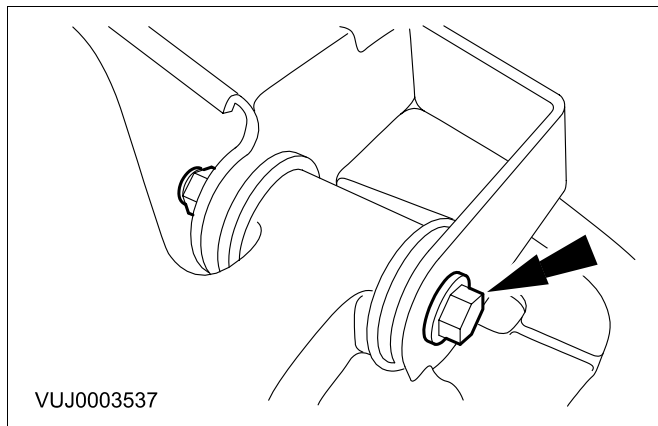


Illustration 18

25. Reposition the lower arm, attach the wheel knuckle, install the lower arm ball joint retaining bolt, and install a new nut and tighten to 83 Nm (Illustration 19).

**Note: Right-hand shown, left-hand similar.**

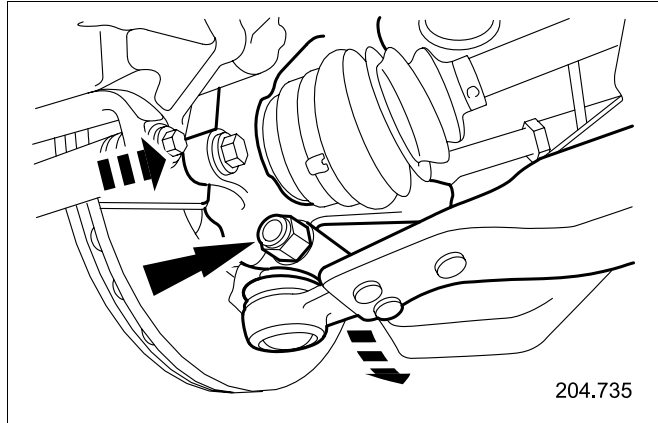


Illustration 19

26. Install but do not fully tighten the new lower arm rear retaining nut (Illustration 20).

**Note: Right-hand shown, left-hand similar.**

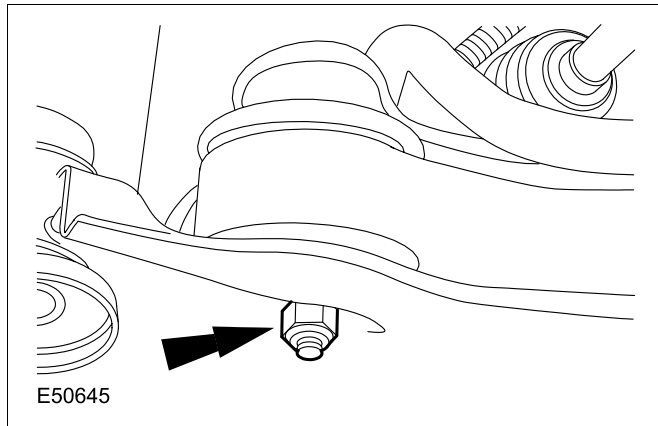


Illustration 20

**WARNING: Raise the special tool slowly. Failure to follow this instruction may result in personal injury.**

27. Raise the subframe on special tool HTJ1200-2 (Illustration 21).

**Note: Align the rear alignment pins to the vehicle body.**

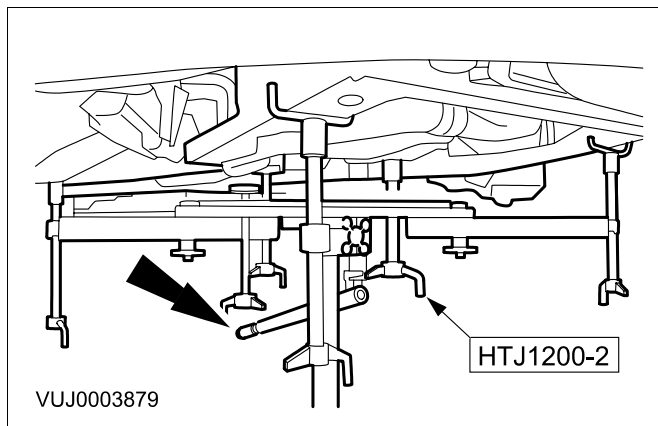


Illustration 21



**WARNING: Rotate the special tool height adjustment valve slowly. Failure to follow this instruction may result in personal injury.**

28. Align the subframe (Illustration 22).

**Note: Left-hand shown, right-hand similar.**

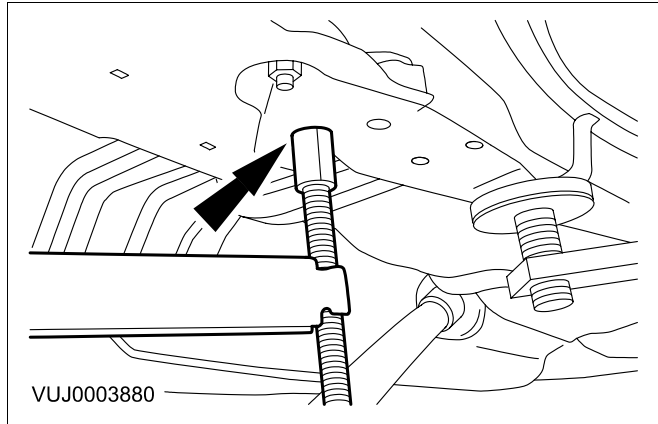


Illustration 22

**WARNING: Raise the special tool slowly. Failure to follow this instruction may result in personal injury.**

29. Adjust the subframe height (Illustration 23).

**Note: Right-hand shown, left-hand similar.**

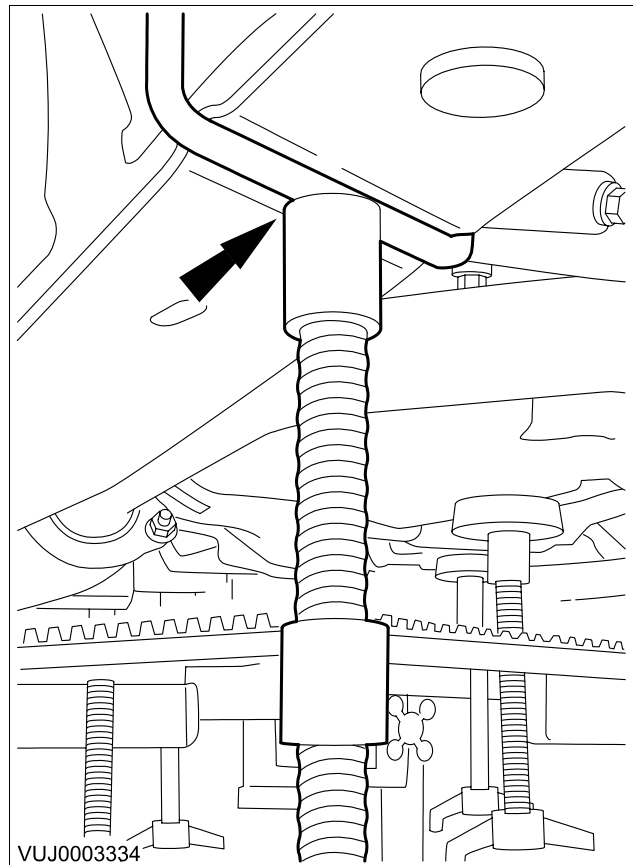


Illustration 23

30. Loosely install the subframe front mount retaining bolt (Illustration 24).

**Note: Right-hand shown, left-hand similar.**

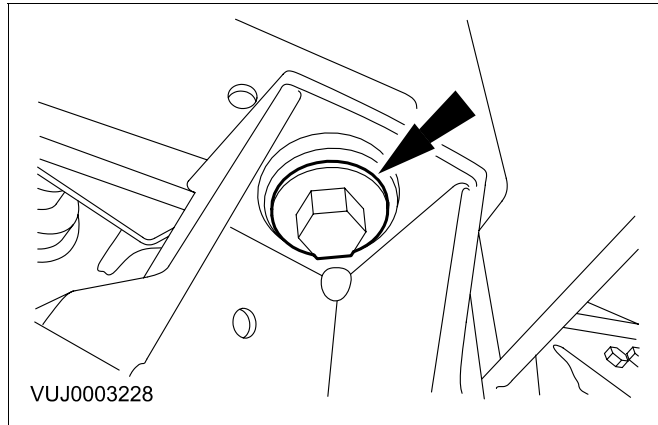


Illustration 24

31. Loosely install the subframe front mount retaining bolt (Illustration 25).

**Note: Left-hand shown, right-hand similar.**

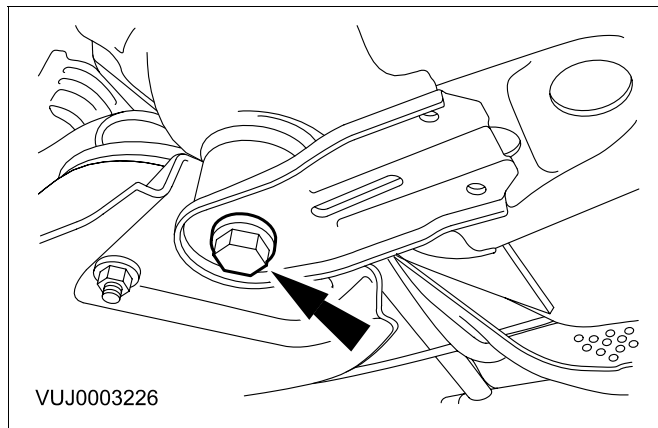


Illustration 25

32. Loosely install the subframe reinforcement plate retaining bolts (Illustration 26).

**Note: Left-hand shown, right-hand similar.**

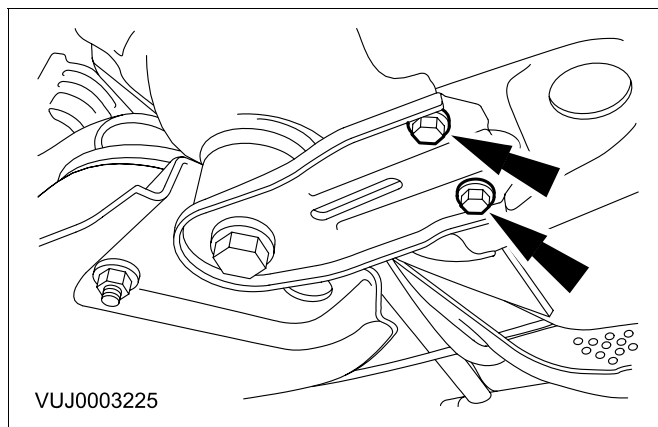


Illustration 26

33. Tighten the subframe front mounting bolt to 142 Nm (Illustration 27).

**Note: Left-hand shown, right-hand similar.**

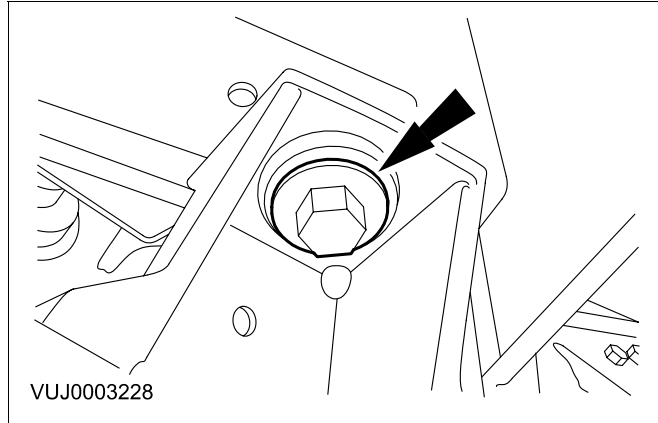


Illustration 27

34. Tighten the subframe rear mount retaining bolt to 142 Nm (Illustration 28).

**Note: Left-hand shown, right-hand similar.**

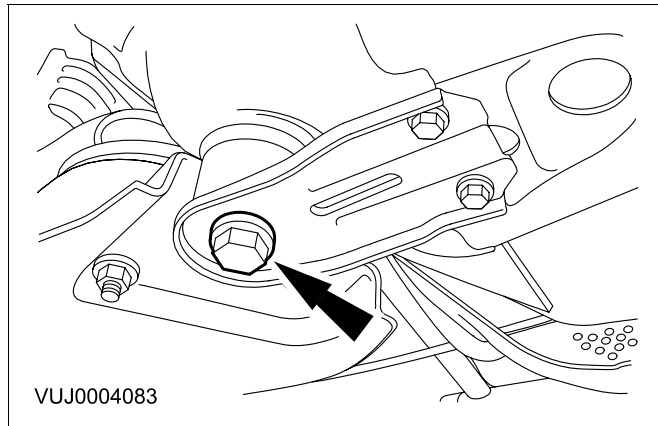


Illustration 28

35. Tighten the front subframe reinforcement bolts to M8 35 Nm or M10 to 70 Nm (Illustration 29).

**Note: Left-hand shown, right-hand similar.**

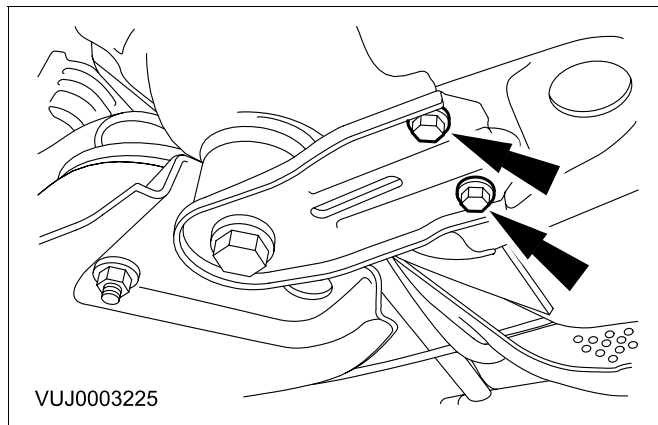


Illustration 29

36. Install the engine roll restrictor (Illustration 30)

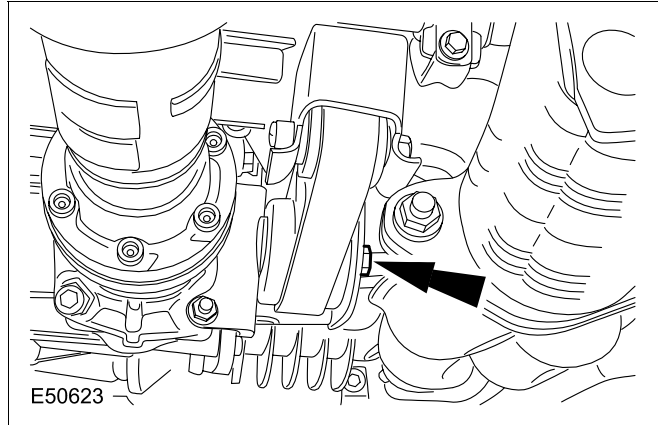


Illustration 30

**WARNING: Rotate the special tool height adjustment valve slowly. Failure to follow this instruction may result in personal injury.**

37. Remove special tool HTJ1200-2 (Illustration 31).

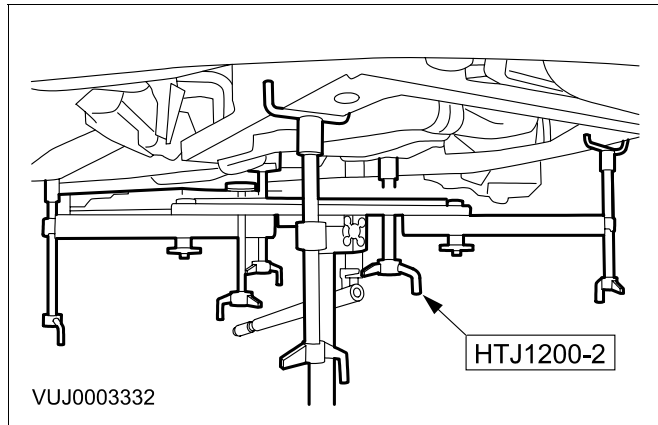


Illustration 31

38. Attach the power steering fluid cooler pipe retaining bracket (Illustration 32).

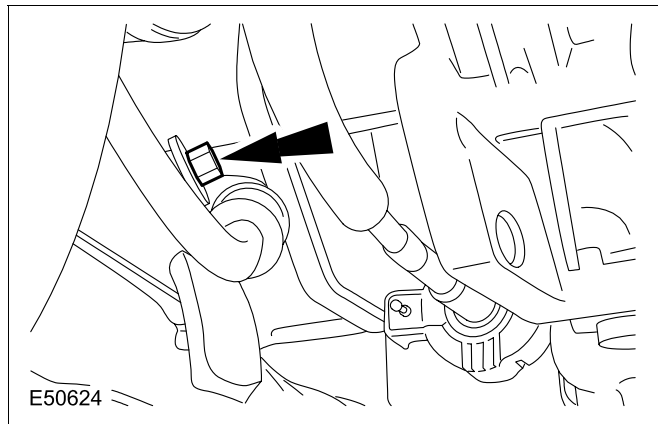


Illustration 32

39. Install the radiator splash shield (see Workshop Manual, JTIS CD ROM, section: 501-02, SRO 76.20.90).

40. Install the wheel arch liner access cover (Illustration 33).

**Note: Right-hand shown, left-hand similar.**

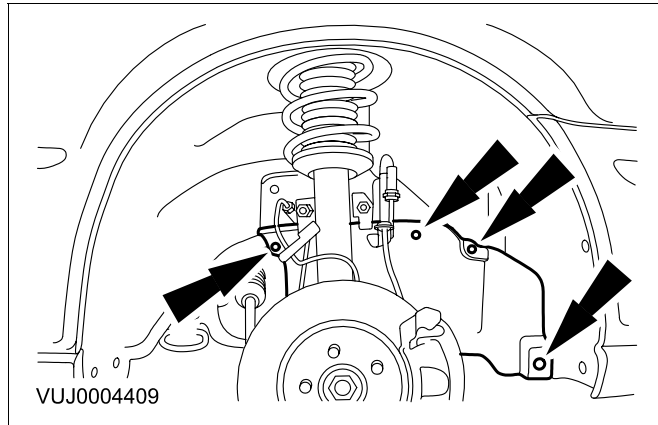


Illustration 33

41. Install both front wheels (see Workshop Manual, JTIS CD ROM, section: 204-04, SRO 74.20.05).  
42. Lower the vehicle.  
43. Attach steering column, and install a new retaining bolt and tighten to  $25 \pm 3.8$  Nm (Illustration 34).

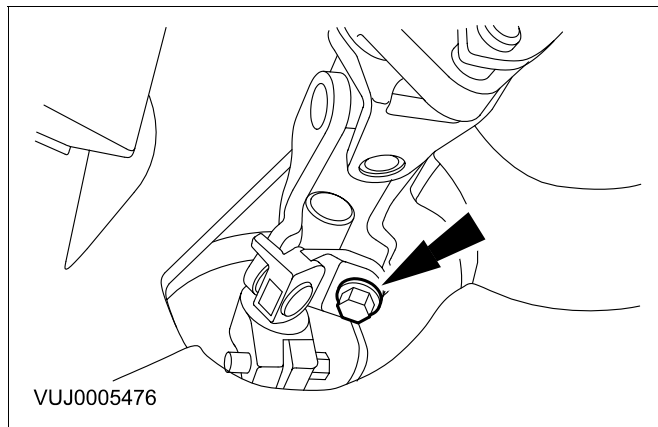


Illustration 34

44. With the vehicle on its wheels tighten the lower arm rear retaining nut to 90 Nm then final-tighten 60 degrees (Illustration 35).

**Note: Right-hand shown, left-hand similar.**

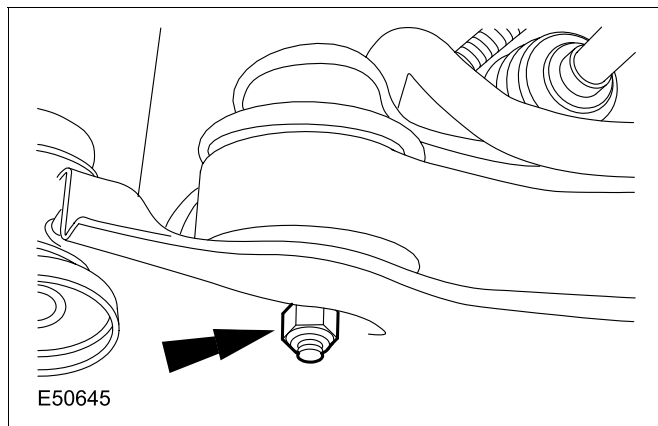


Illustration 35

45. With the vehicle on its wheels tighten the lower arm front retaining bolt to 90 Nm then final-tighten 60 degrees (Illustration 36).

**Note: Right-hand shown, left-hand similar.**

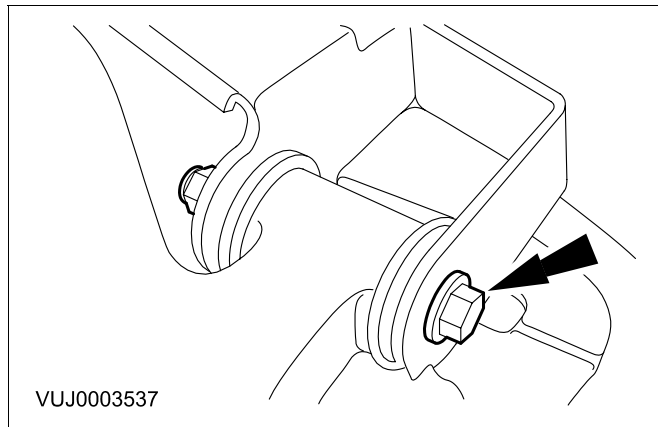


Illustration 36

46. Using Worldwide Diagnostic System (WDS), follow on-screen prompts and configure steering wheel rotation sensor if installed.