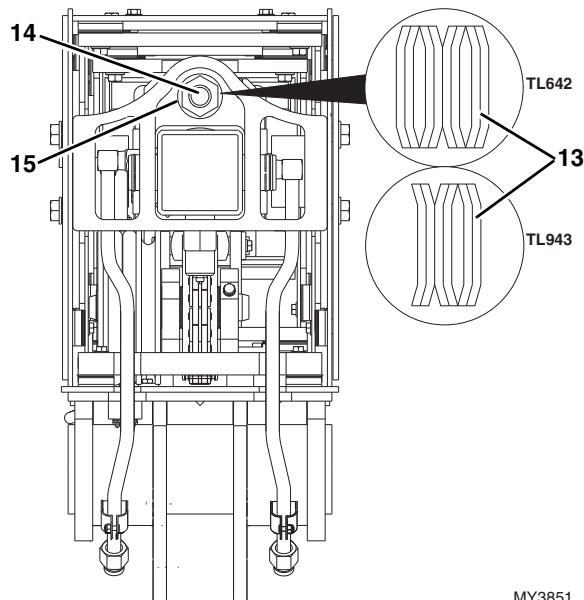


13. Install both push beam pins (10) being careful to align the pin mounting bolt holes.

**Note:** Disconnecting one or both extend/retract hydraulic tubes (11) may be required to gain access to the hose guide mounting bolts. After installing both hose guides, re-connect one or both extend/retract hydraulic tubes BEFORE proceeding.

14. Install the tilt cylinder hose guide (12) and the auxiliary hose guide from the rear of the third second section.

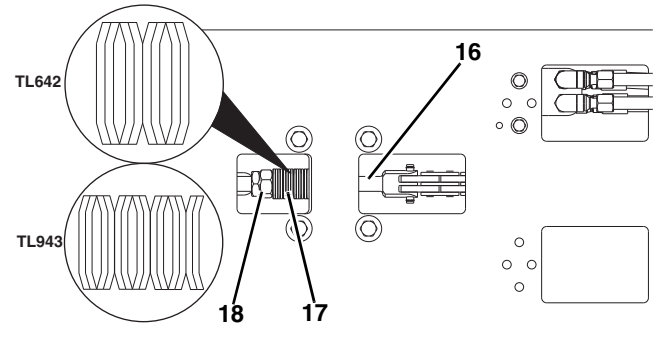


**Note:** Note the position of the belleville washers for reassembly.

TL642, TL943

15. Install the belleville washers (13) to the extend chain anchor (14) as previously removed at the rear of the first boom section.

16. Install the adjusting and jamnut, (15) to the extend chain anchor (14) at the rear of the first boom section.

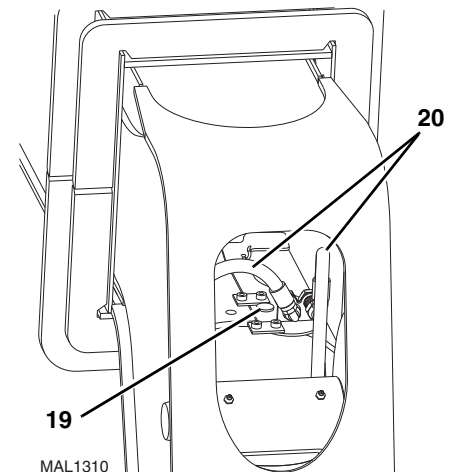


17. Remove the rope or wire from the retract chain (16).

18. Install the belleville washers (17) to the retract chain clevis (16) as previously removed at the bottom front of the first boom section.

19. Install the adjusting and jamnut (18) to the retract chain clevis (16) at the bottom front of the first boom section.

**Note:** Note the position of the belleville washer for reassembly.



20. Install both hose retainer brackets (19).

21. Remove the plugs and caps from the tilt hoses and auxiliary hoses.

22. Connect both tilt hoses (20) and both auxiliary hoses (not shown) to the hose retainer brackets (19) at the bottom front inside the boom.

23. Properly connect the battery.



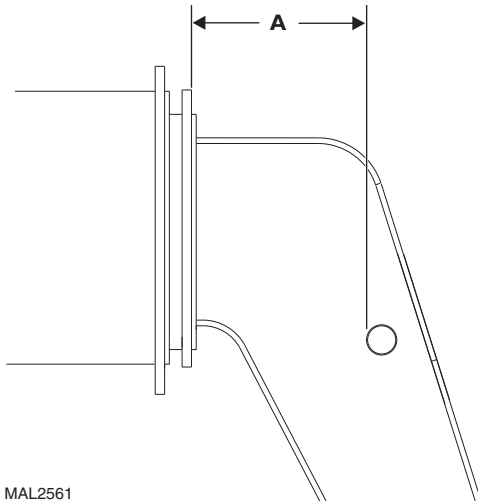
## Boom

24. Adjust the chain as needed. Refer to Section 3.8, "Boom Adjustments."
25. Install the cover on the rear of the boom.
26. Close and secure the engine cover.
27. Remove the Do Not Operate Tags from both the ignition key switch and the steering wheel.

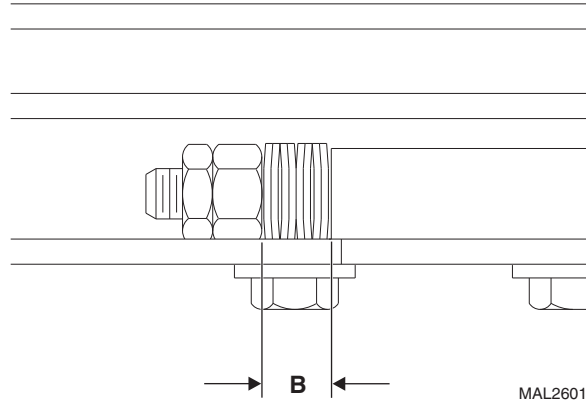
### 3.8 BOOM ADJUSTMENTS

#### 3.8.1 Chain Tension Inspection—TL642

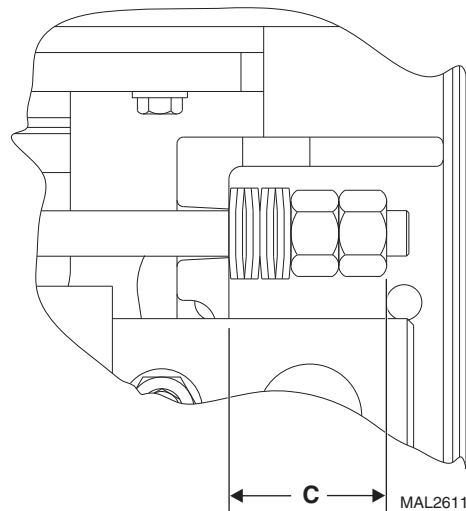
1. Park machine on level ground. Place transmission control lever in (N) NEUTRAL, engage parking brake and level boom.
2. Place a Do Not Operate Tag on both ignition key switch and steering wheel.
3. Extend the boom 4-5 ft (1,2-1,5 m), then fully retract the boom. Verify boom is level.
4. Measure the following three dimensions; A, B & C.



5. At the boom head, verify dimension "A" is between 11.500-11.812 in (292,1-300,0 mm).



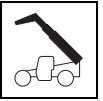
6. At the bottom front of the boom, verify dimension "B" 0.712-0.725 in (18,1-18,4 mm) of the washer stack on the retract chain clevis.



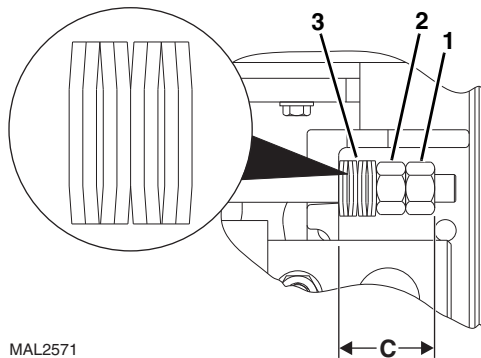
7. At the back of the boom, verify dimension "C" is not less than 2.850 in (72,4 mm) on the extend chain clevis.

**Note:** Belleville washers are shown in the uncompressed state.

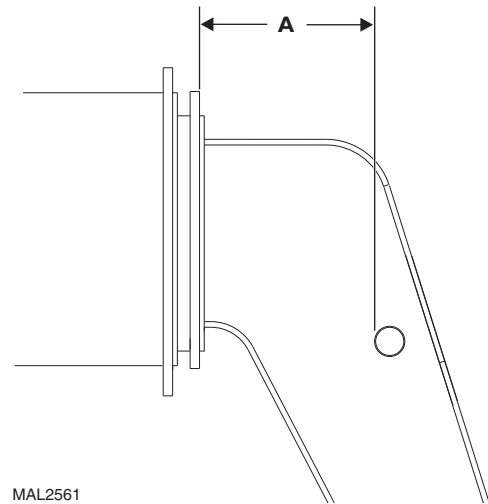
8. Boom adjustment will be required if the above dimensions are not met.



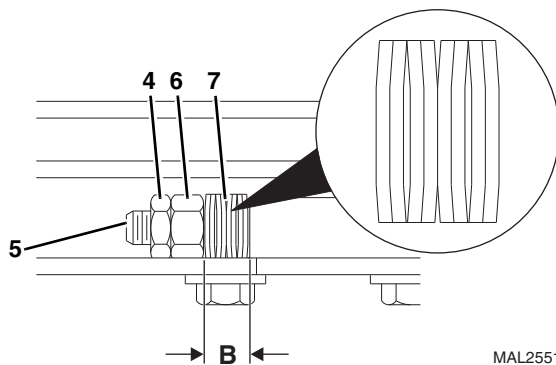
### 3.8.2 Chain Tension Adjustment—TL642



1. Remove the extend chain lock nut (1) and loosen adjustment nut (2) until the belleville washers (3) are free to turn on the extend rod.
2. Verify the belleville washers (3) are in the correct order as shown. Remove the extend chain adjustment nut (2) and correct if required.

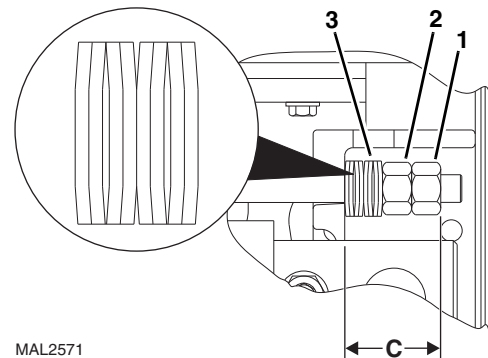


6. If dimension "A" is greater than 11.625 in (295,2 mm), push the third section boom IN until dimension "A" is less than 11.625 in (295,2 mm).



3. Remove lock nut (4) from retract chain clevis (5).
4. Set the retract chain adjustment nut face (6) flush with the end of the retract clevis.
5. Verify the belleville washers (7) are in the correct order as shown. Remove the retract chain adjustment nut (6) and correct if required.

**Note:** Belleville washers are shown in the un-compressed state.



7. With dimension "A" less than 11.625 in (295,2 mm), verify the extend rod Belleville washers (3) and the retract chain Belleville washers are loose. Tighten the extend chain rod adjusting nut (2) until dimension "A" is 12.063-12.188 in (306,4-309,5 mm).
8. Install and temporarily tighten the extend chain lock nut (1).