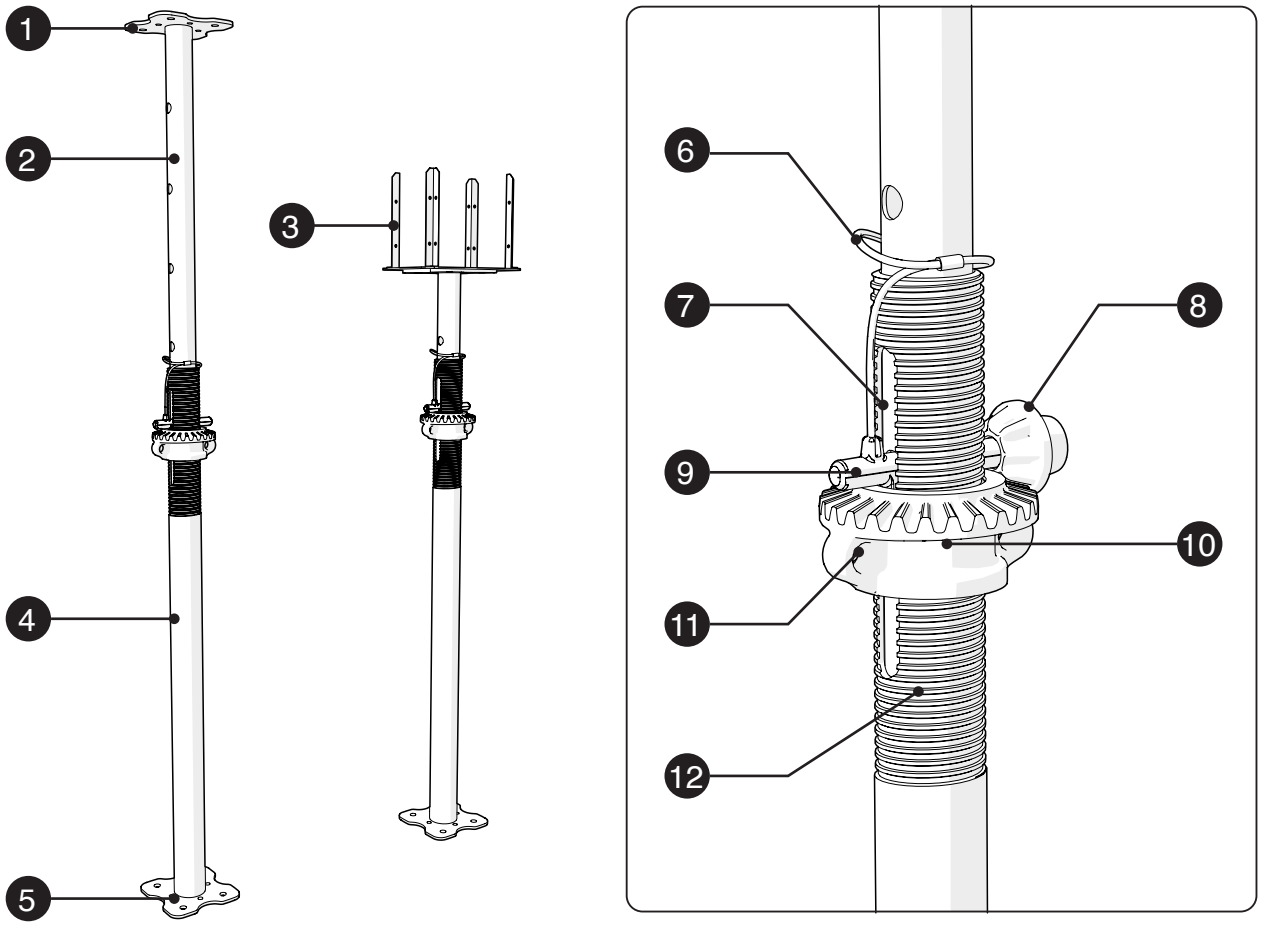
# J-STRUT®

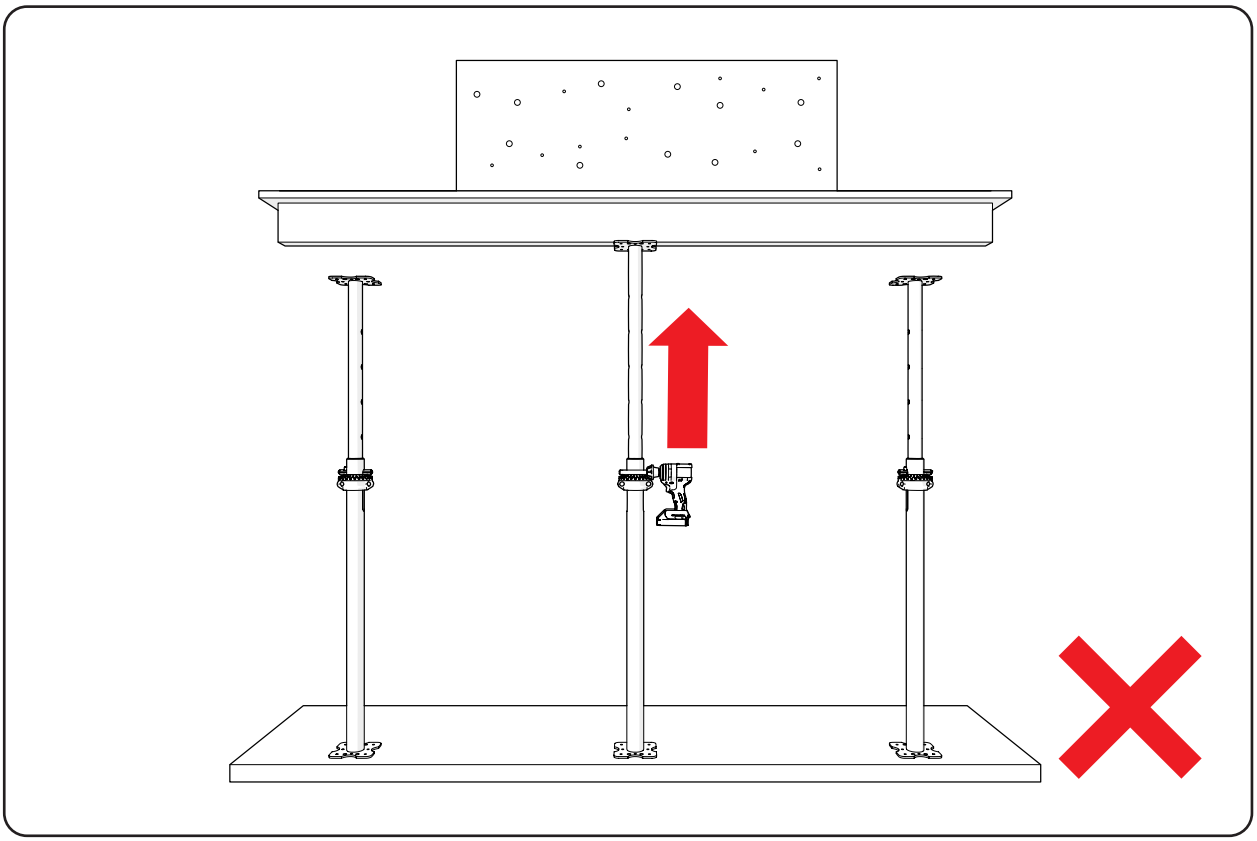
## USER GUIDE

**This guide aims to inform owners and users about safe working practices, normal operating procedures, maintenance and PPE requirements when using J-strut temporary steel supports. At all times an appropriate risk assessment should be in place.**

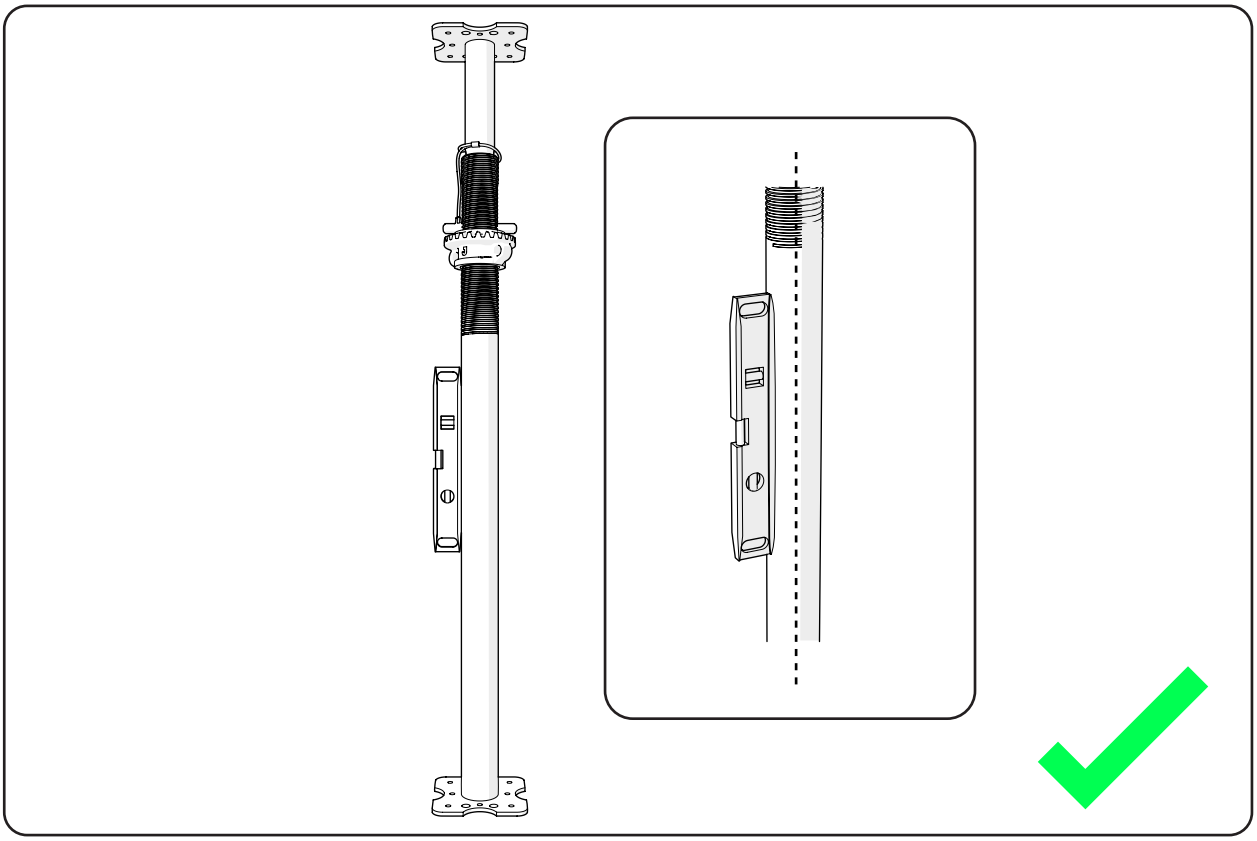



1. End Plate
2. Inner Tube
3. Fork Head
4. Outer Tube
5. Base Plate
6. Rubber Coated Leash
7. Slotted Hole
8. Pinion Gear
9. Locking Pin
10. Gear Collar
11. Lug Holes
12. Threaded Section

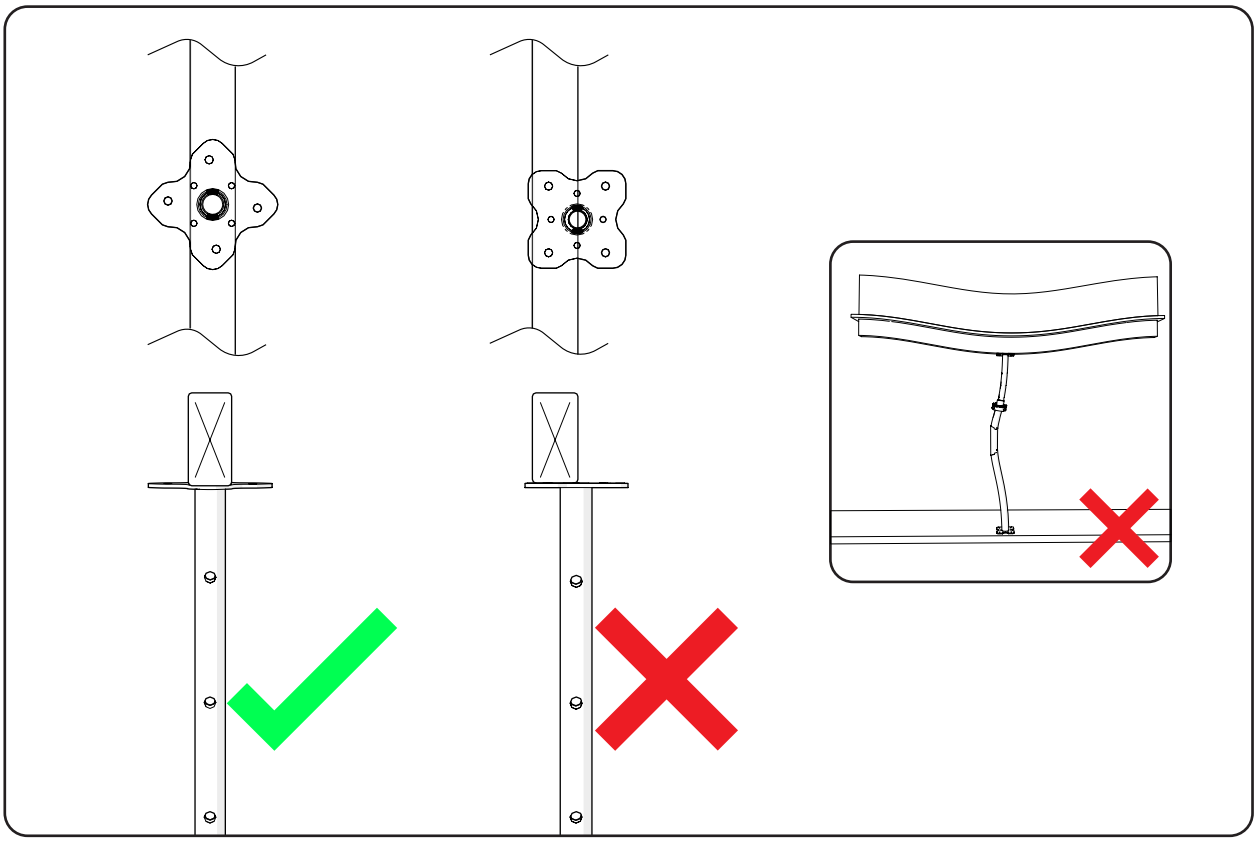
1. **ONLY USE** J-struts to support static vertical loads. **DO NOT USE** J-struts to raise loads.



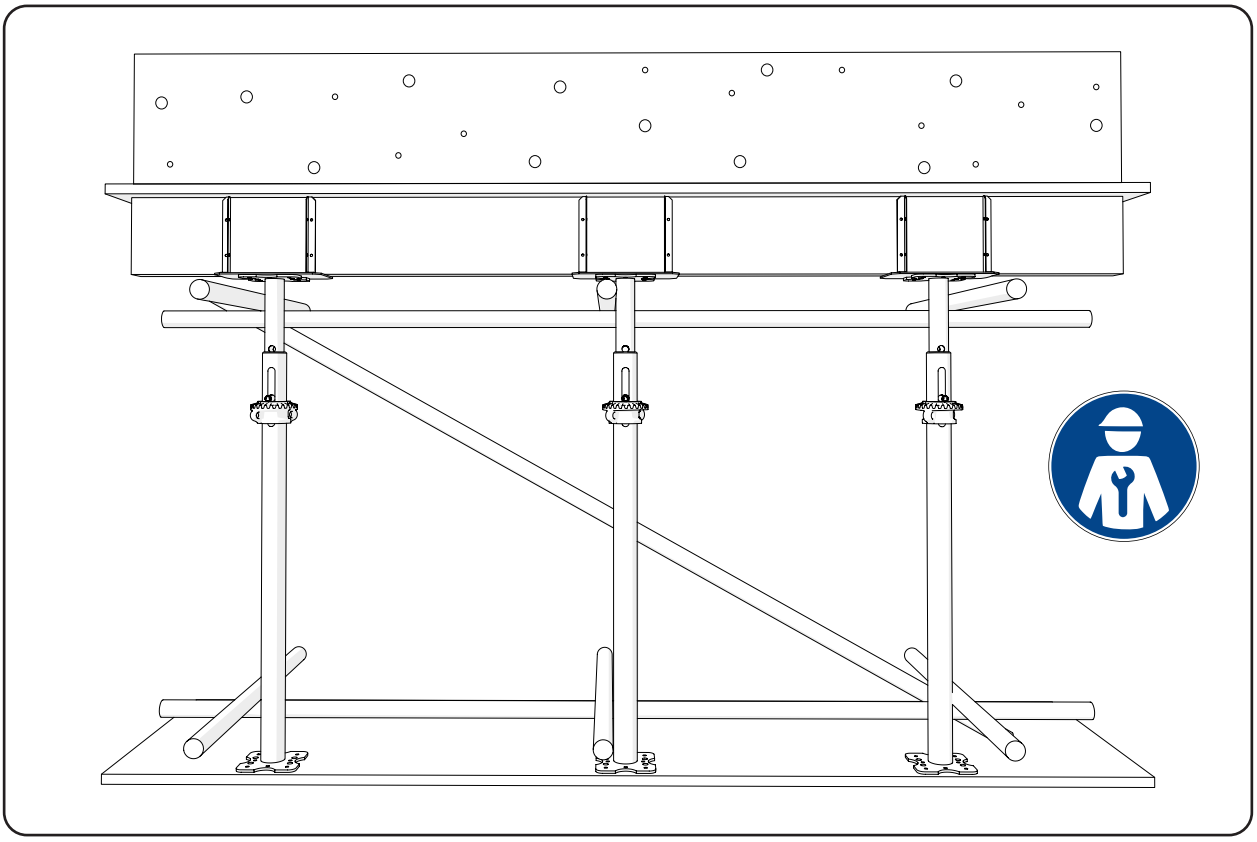
2. **ENSURE** J-strut is not out of plumb by more than 1.5 degree when bearing a load.



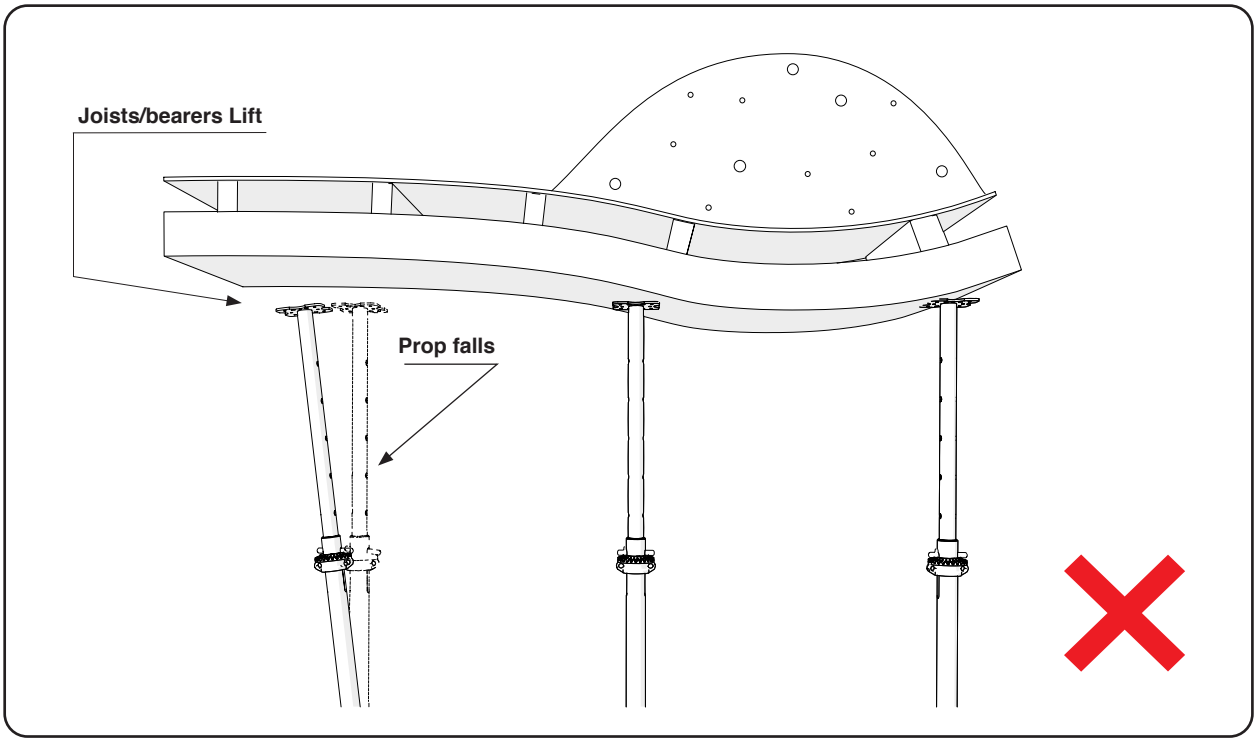
3. **AVOID** eccentric loads to ensure full load bearing capacity.

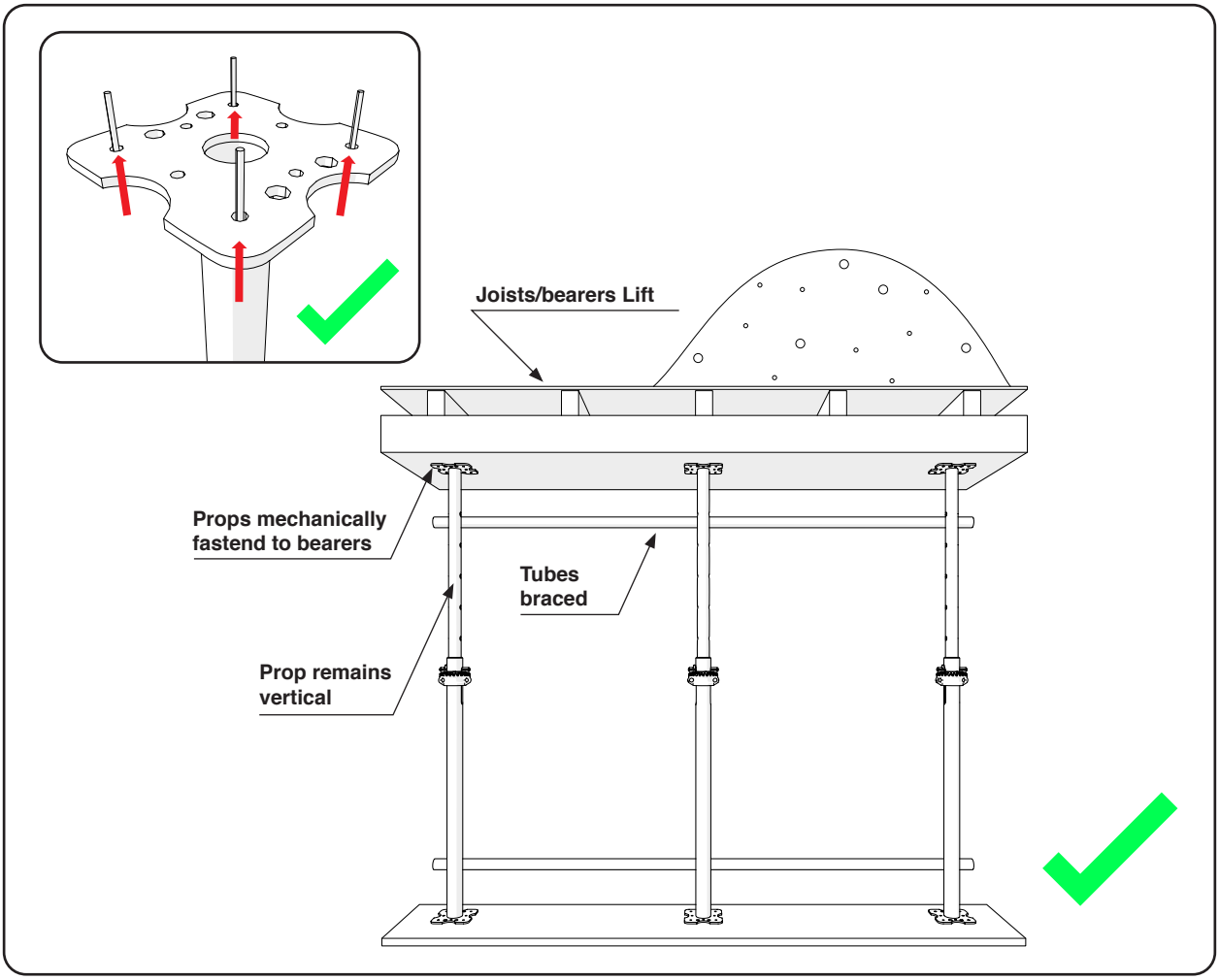


4. **PROVIDE** adequate bracing between J-struts. Consult a competent person if unsure.

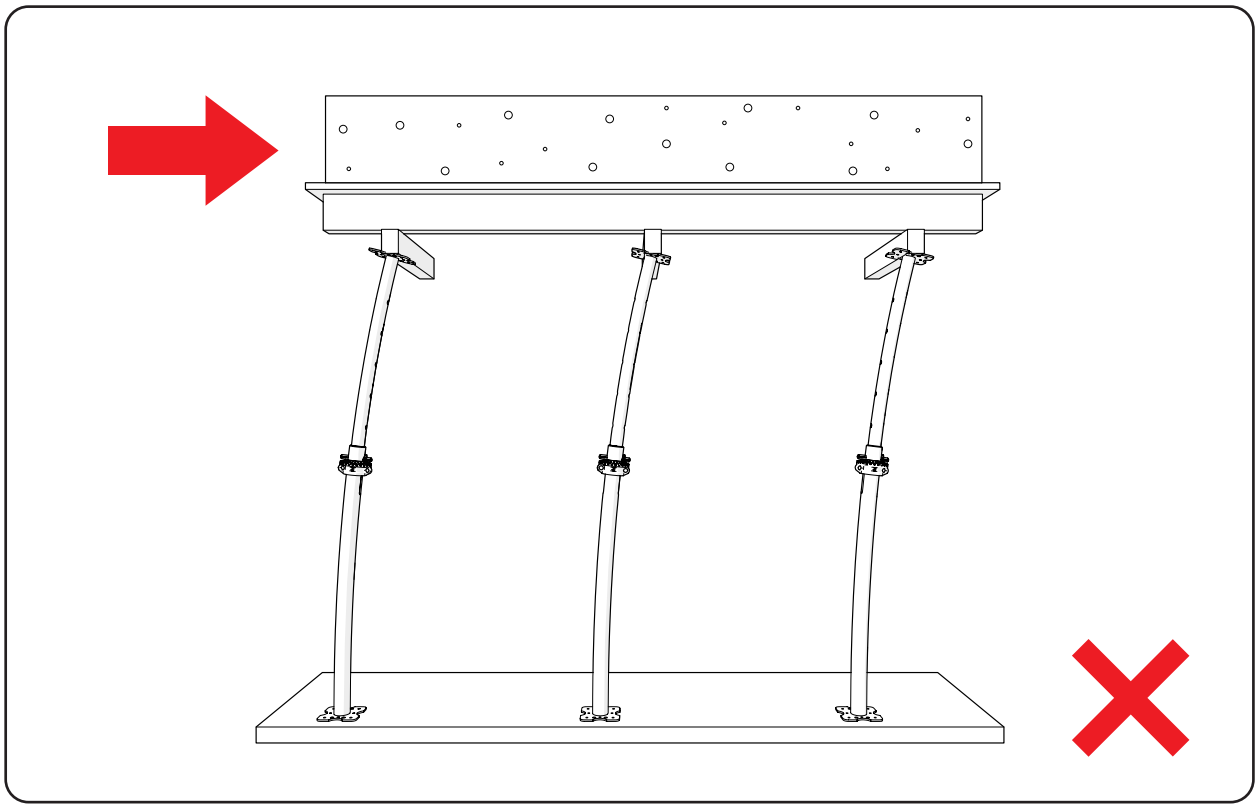


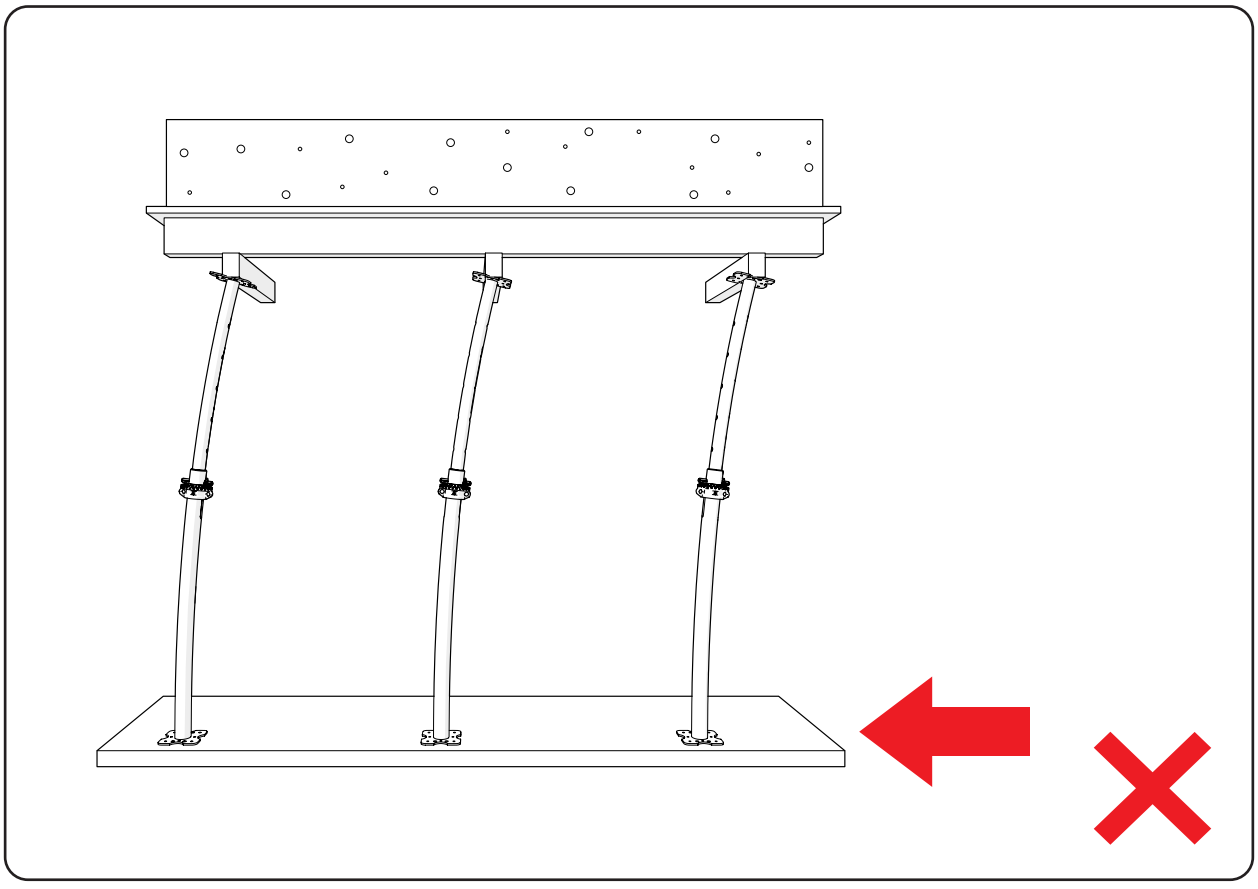
5. **SECURE** J-strut end plates to bearers to prevent props falling when unloaded.



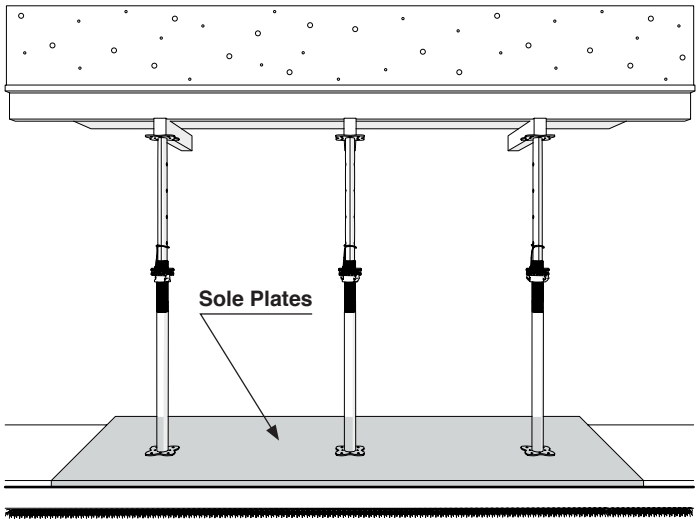



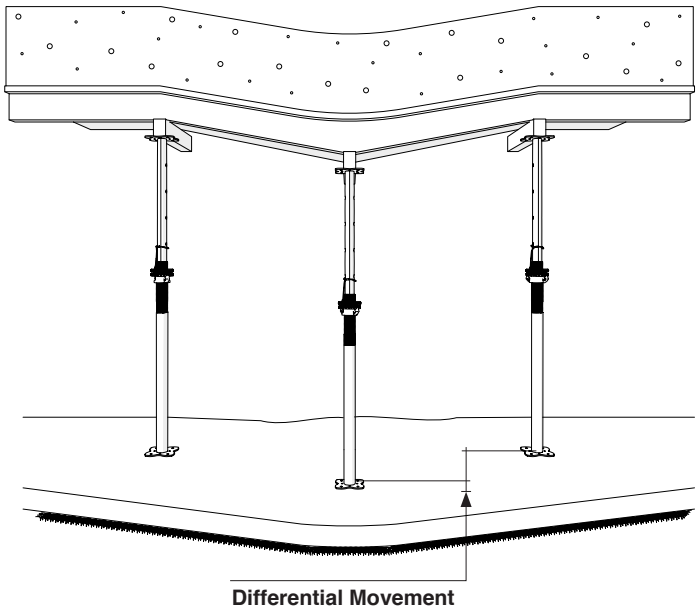
6. **AVOID** horizontal loads such as wind loading that may result in sliding or overturning.

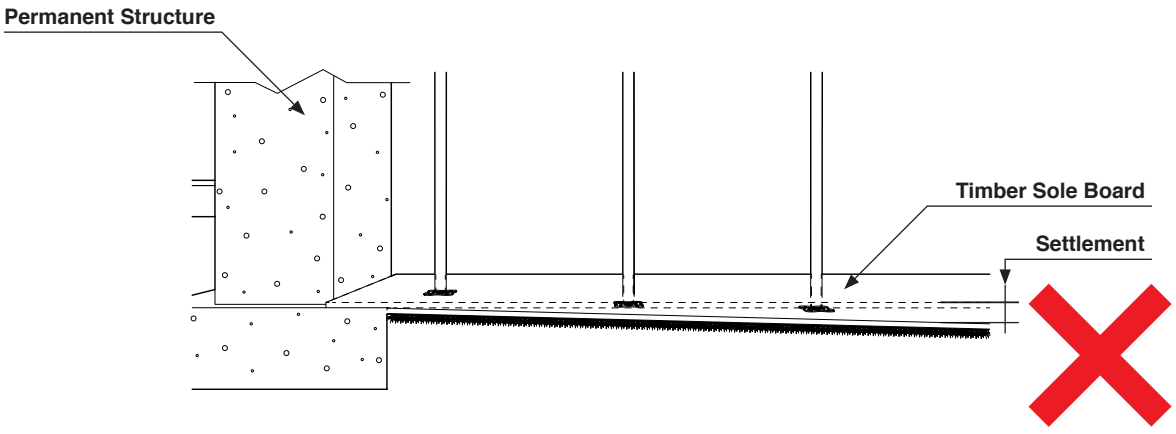




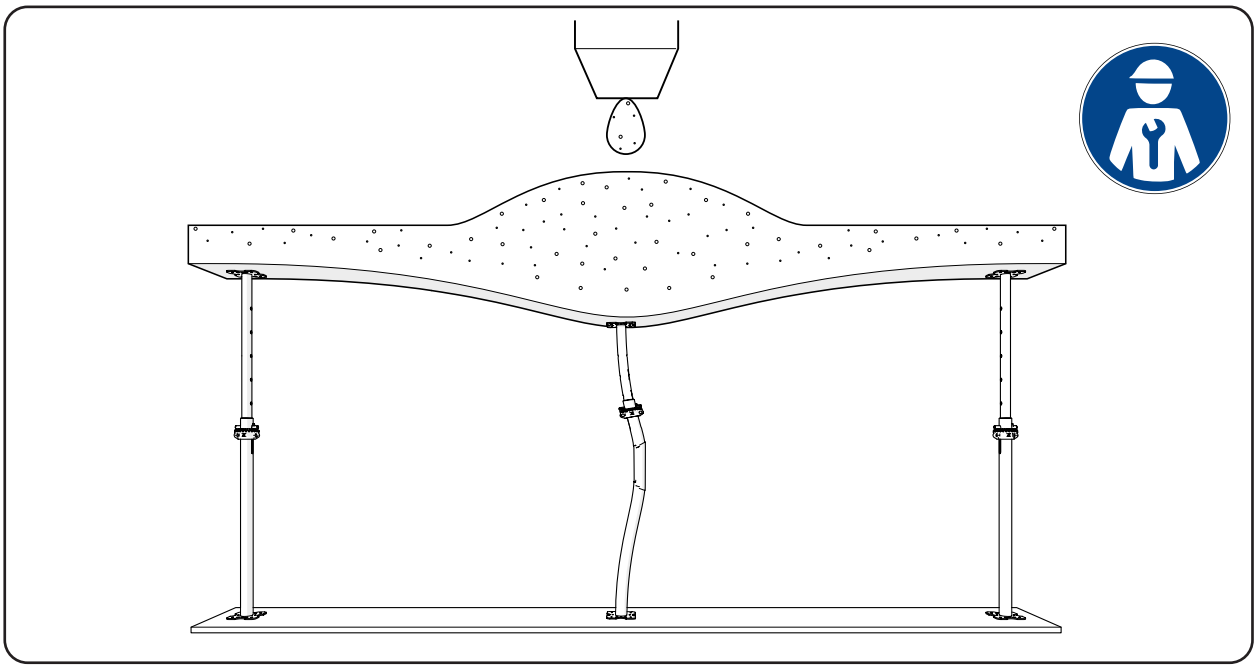
7. **USE** sole plates with adequate stiffness when bearing on inadequate ground.



8. **DO NOT** exceed Working Load Limit. Consult a competent person if unsure.



## IMPORTANT NOTES ON WORKING LOAD LIMITS

The Working Load Limit (WLL) is the recommended maximum load bearing capacity under normal conditions. In this case, normal conditions are observed when there is concentric loading on the J-strut and it is a maximum of 1.5 degrees out of plumb (see steps 2 and 3 for guidance).

Under normal conditions, the J-strut WLL varies depending on the support height, as shown in Table 1. When supporting timber bearers, load may be limited by allowable stress in timber. Always consult a suitably qualified temporary works engineer before commencing.

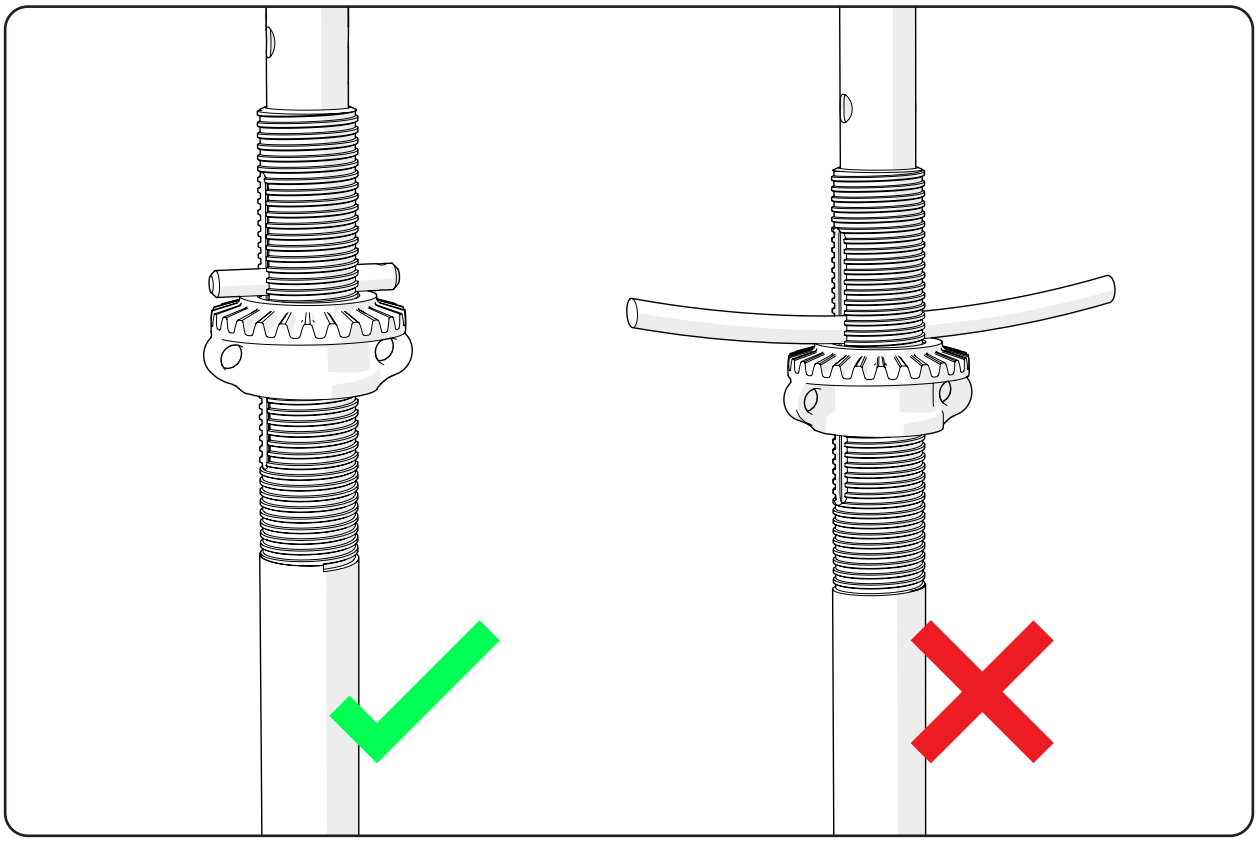
**Table 1:** Working Load Limit (kN) for concentric loaded J-strut max 1.5 degree out of plumb

| | | **Height (m)** | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | **1.25** | **1.50** | **1.75** | **2.00** | **2.25** | **2.50** | **2.75** | **3.00** | **3.25** | **3.50** | **3.75** | **4.00** | **4.25** | **4.50** | **4.75** | **5.00** |
| **J-strut Size** | **0** | 32.0 | 32.0 | 21.0 | - | - | - | - | - | - | - | - | - | - | - | - | - |
| | **1** | - | - | 32.0 | 32.0 | 32.0 | 26.0 | 23.0 | 19.0 | - | - | - | - | - | - | - | - |
| | **2** | - | - | - | - | 32.0 | 26.0 | 23.0 | 19.0 | 17.0 | - | - | - | - | - | - | - |
| | **3** | - | - | - | - | - | 26.0 | 23.0 | 19.0 | 17.0 | 15.0 | 13.0 | - | - | - | - | - |
| | **4** | - | - | - | - | - | - | - | - | 24.0 | 19.0 | 15.0 | 12.0 | 11.0 | 10.0 | 9.0 | - |

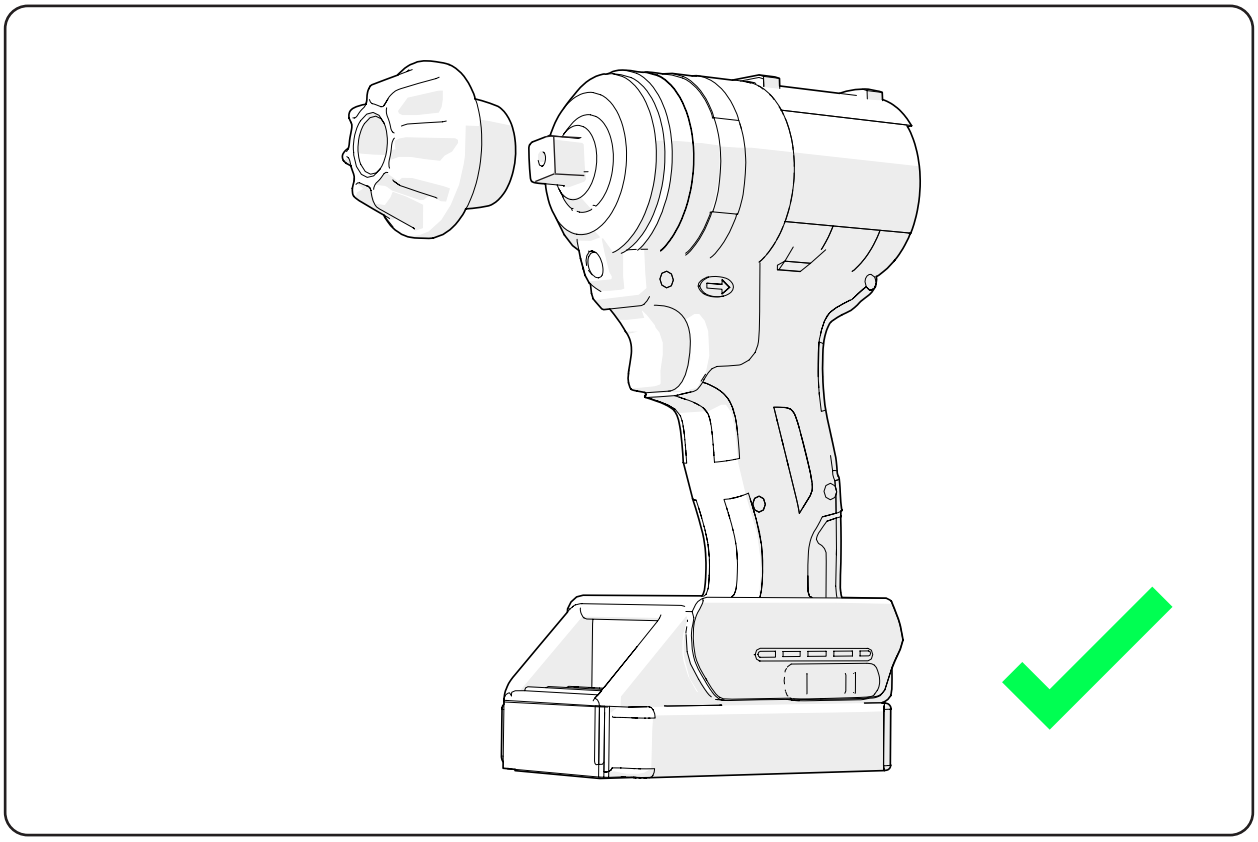
## NEVER EXCEED WORKING LOAD LIMITS

i) Derived from load testing to BS 5507-3:1982
ii) Calculated to a minimum Factor of Safety of 2 to 1 in accordance with BS EN 12811
iii) Convertible from kN to kg: 10kg = 0.0981kN. i.e. 100kg = 0.981kN, 1000kg = 9.81kN

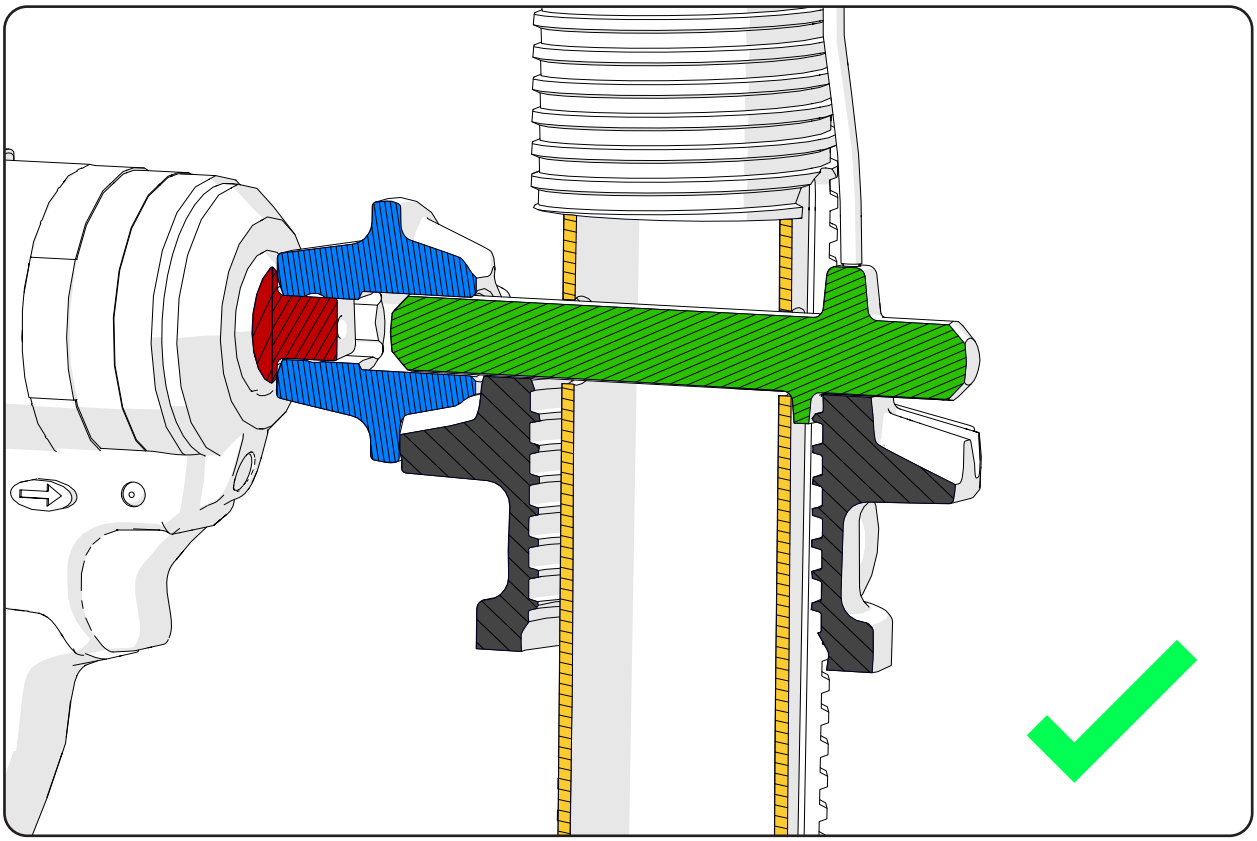
9. **DO NOT** replace J-strut pin with foreign objects such as bolts or re-bar.



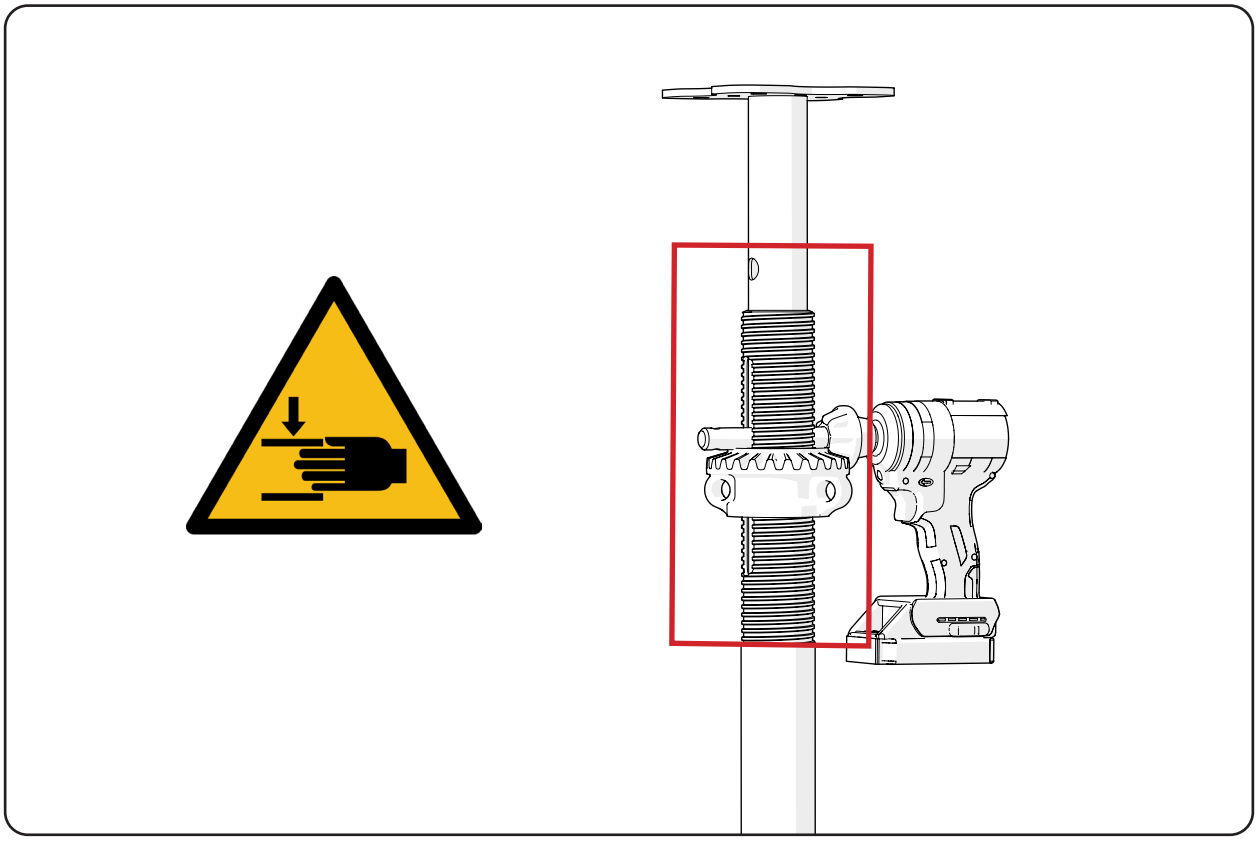
10. **USE** a ½ inch impact wrench to drive the pinion. **DO NOT USE** drills designed for drilling



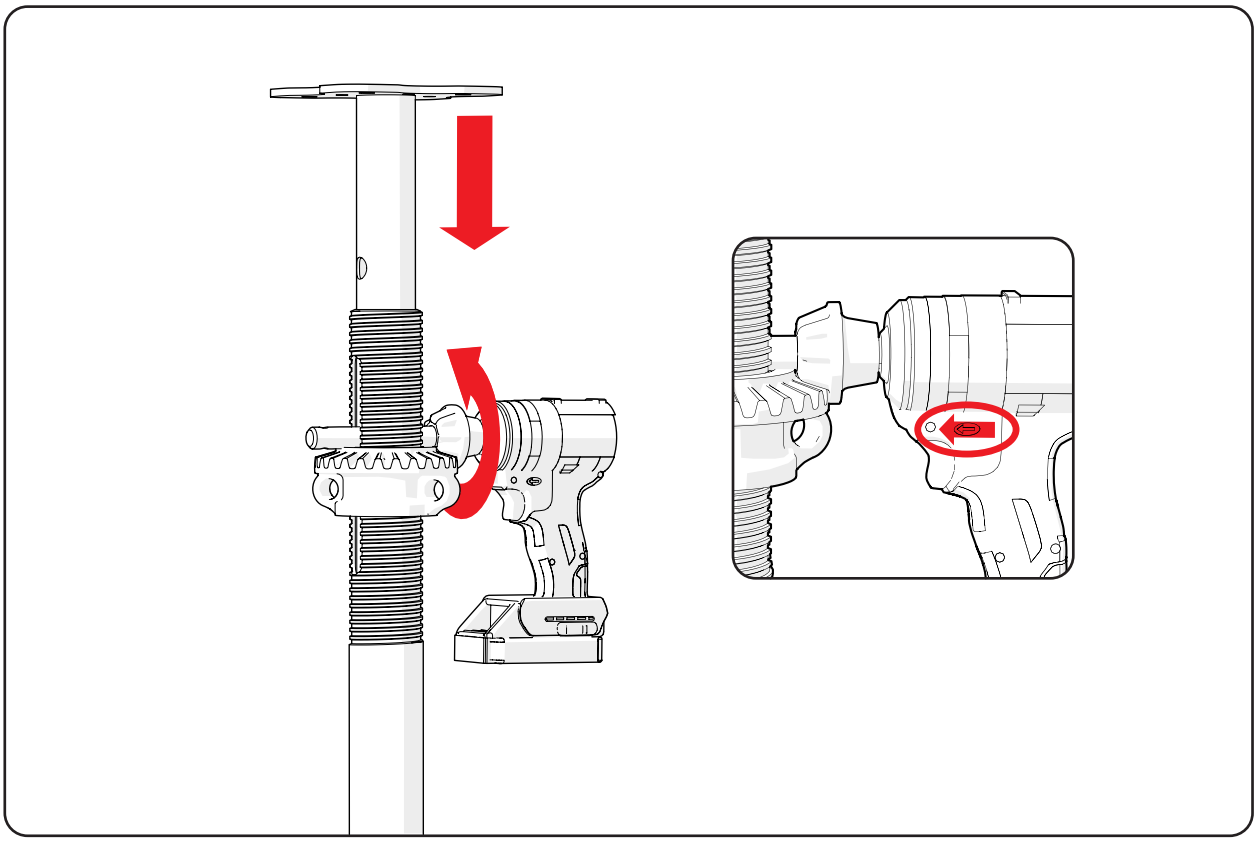
11. **ENSURE** components are always mated correctly.



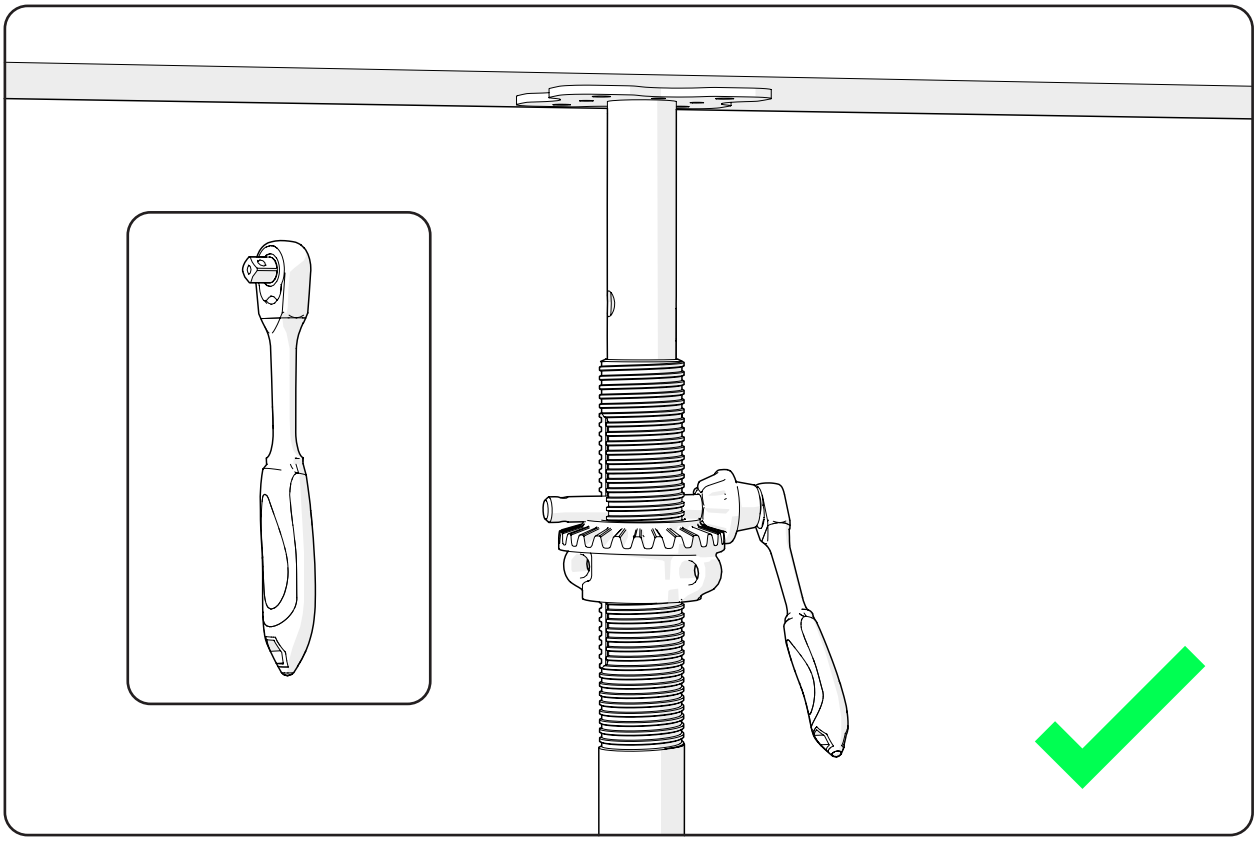
12. **KEEP** hands away from rotating and sliding parts.



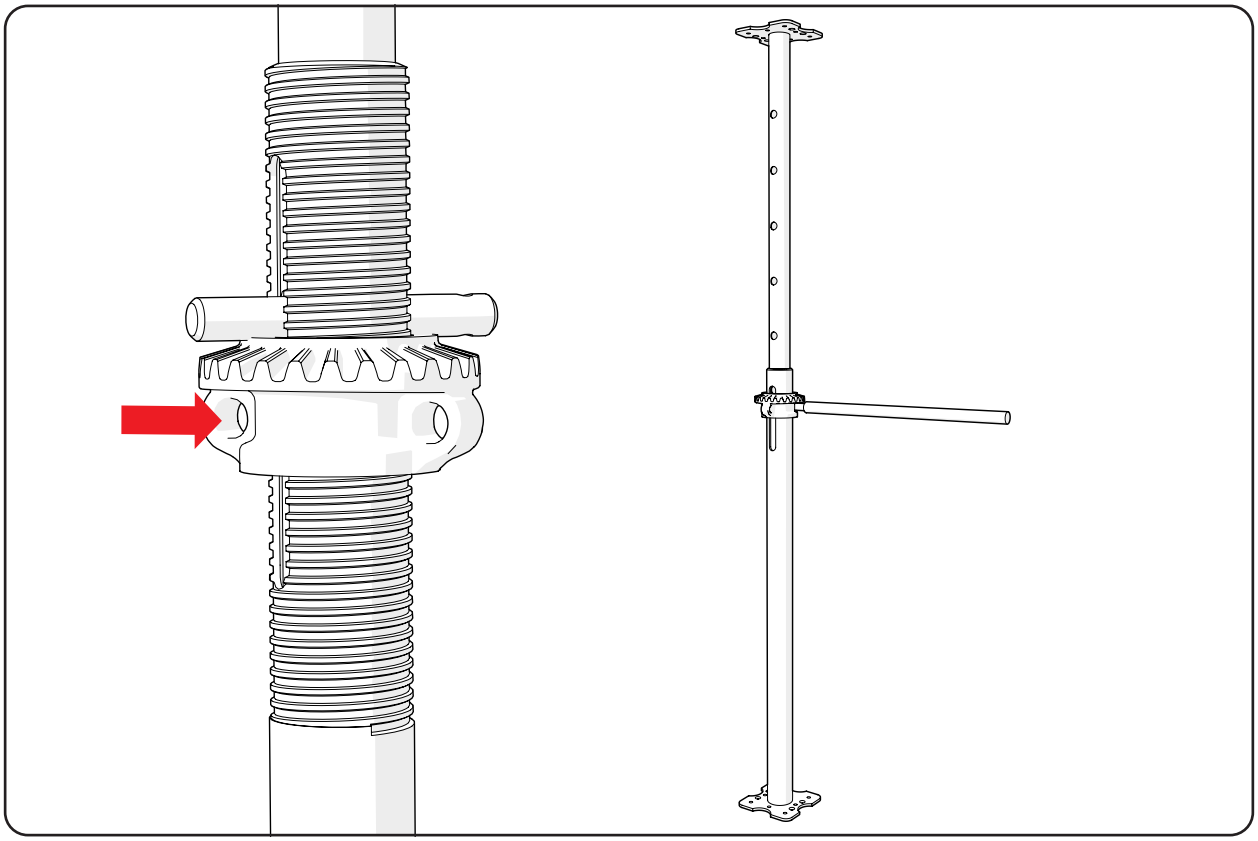
13. **SELECT** forward (clockwise) rotation on the impact wrench to retract the J-strut.



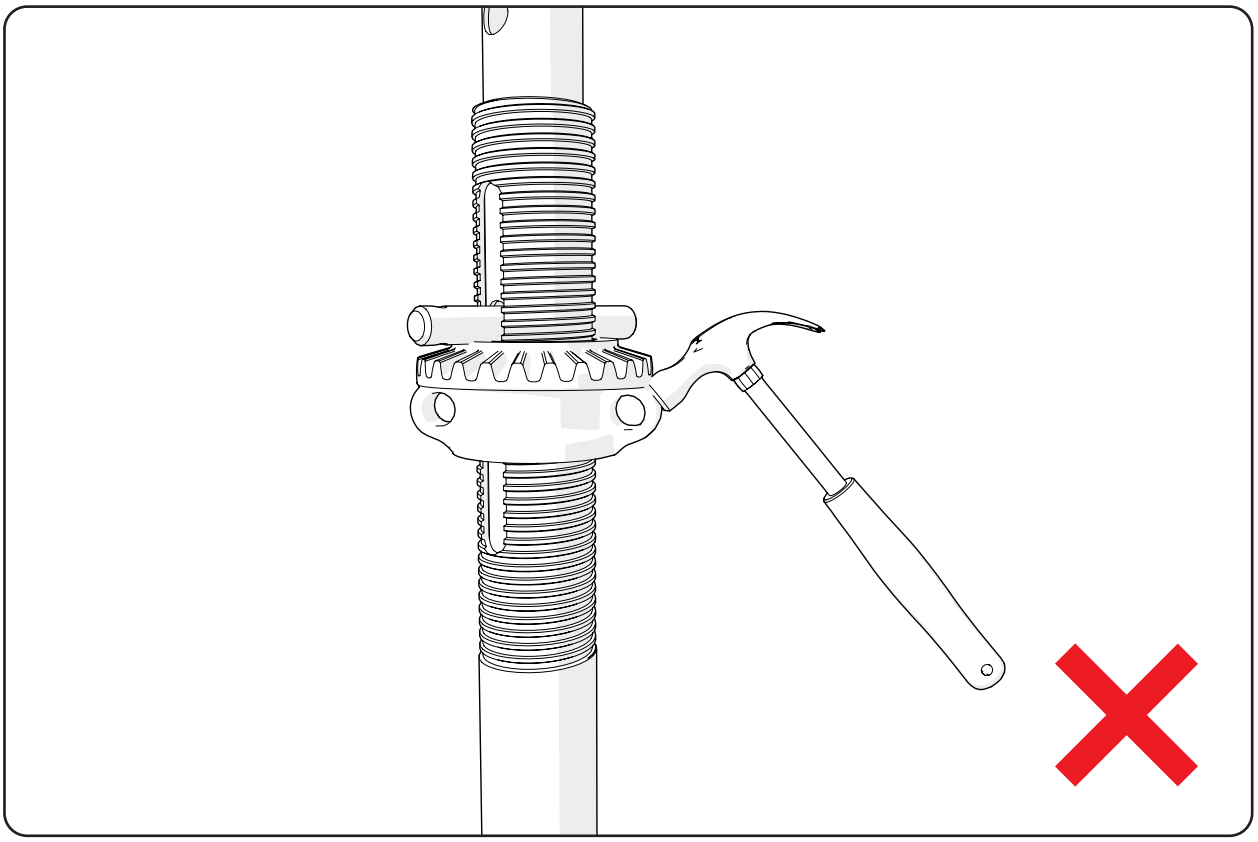
14. **IF** impact wrench is unavailable, a manual wrench may be used to adjust collar.



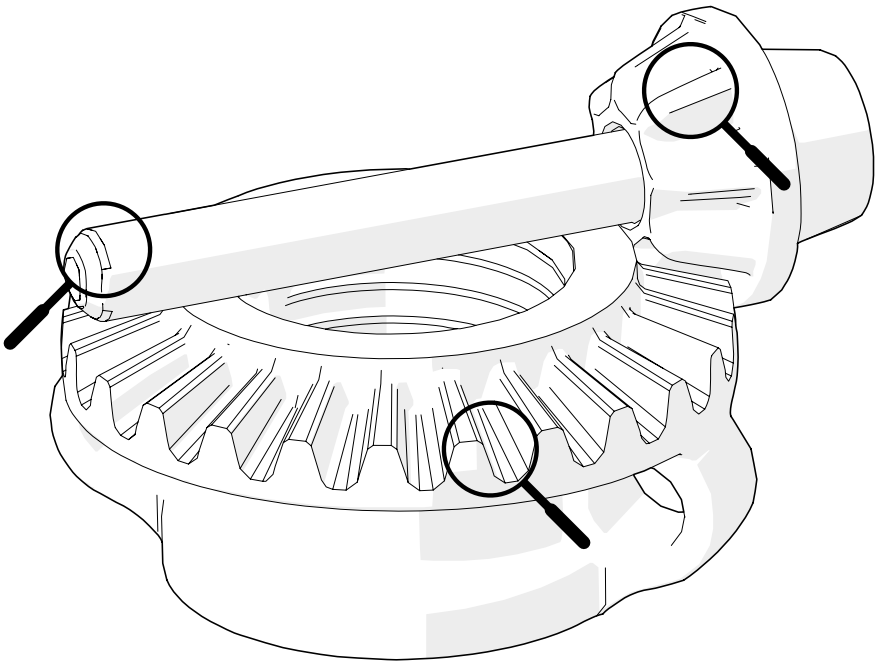
15. **IF** pinion is unavailable, **USE** a podger or bar to manually rotate the collar using the lugs.



16. **DO NOT** hammer/strike the collar to adjust position.



17. **INSPECT** for damage and wear on an annual basis. **REPLACE** parts if necessary.



18. **WEAR** appropriate clothing and personal protective equipment.