



# CLEVATECH Boiler Lifter - Operating Instructions

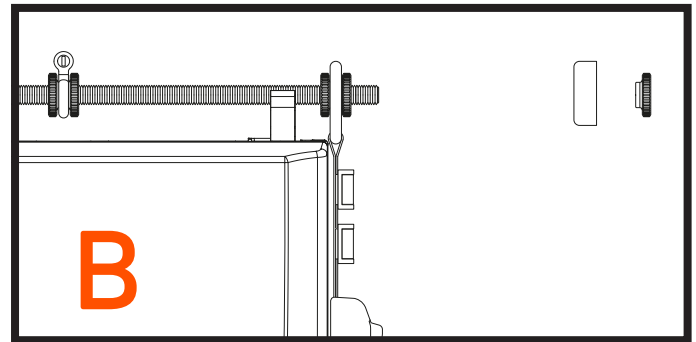
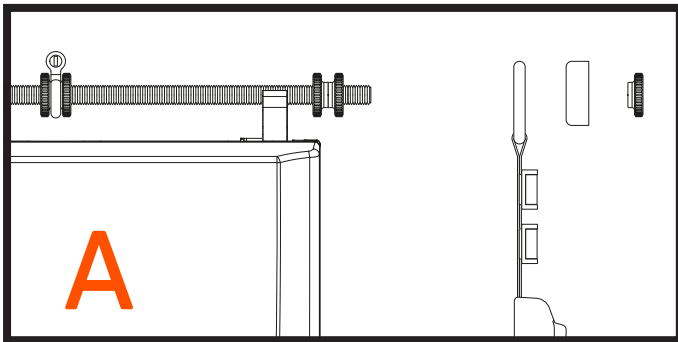
## Preparation

1. Lifter to be used with concentric flue holes drilled through cavity walls constructed of brick, block, concrete, or stone (not stud/internal walls).
2. Lifter to be used in flue holes drilled with 107mm to 127mm size core bits.
3. Total wall thickness from inside of inner cavity to outside of outer cavity (lower lock clamping distance) needs to be minimum 260mm and maximum 380mm (suites old and current build standards).
4. Ensure weight of boiler to be lifted or lowered is 38kg maximum at full telescopic extension point.
5. If the flue hole edge is within 500mm of gutters or roof (single story extension wall) then supplied wall plate should be used. Ensure plate is fixed to exterior wall using minimum of 4 x No.10 steel wall screws.
6. Always do a visual check on lifter and harness to ensure no damage prior to using.

## Lifting operation

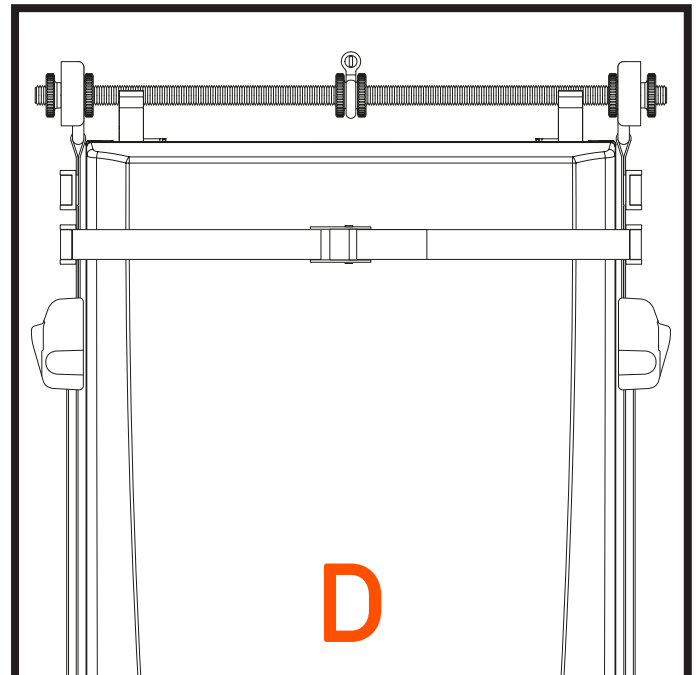
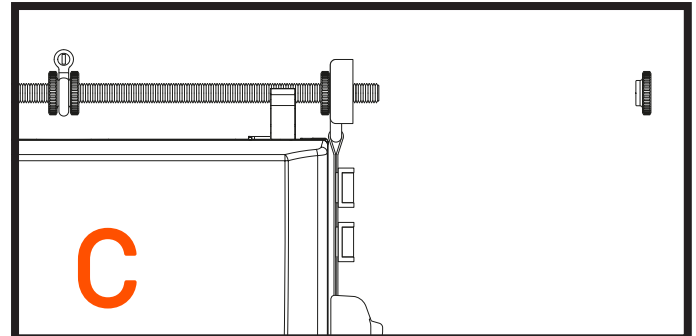
1. Insert lifter through flue holes from inside of the property. Before handling lifter, ensure strap delta ring is fastened with carabiner through hole in flange plate. Push lifter into flue hole until it is fully home and flange plate touches wall.
2. Disconnect carabiner attachment by manually unwinding strap delta ring. Turn lower control knob clockwise to move lower clamp towards outside wall. Stop turning control knob when resistance is felt and the lifter unit securely clamped between inside and outside walls (Hand tight is sufficient, DO NOT use pipe grips or any other tool to increase torque applied to lower control knob).
3. Turn upper control knob clockwise to raise the self-levelling jack until hand tight (DO NOT use pipe grips or any other tool to increase torque applied).
4. Apply downwards force on the lifter winch head to check the unit is fully seated in the cavity wall. If any movement is noticed, then tighten top control knob a bit more by hand.
5. Lay lifting harness assembly on floor (with CLEVATECH logo facing upwards) in central position from where boiler will be lifted.
6. Place boiler centrally on top of lifting harness assembly.
7. Position 2 x lifting bar pre-tension blocks on left and right sides of top surface of boiler.
8. Lifting bar assembly can be placed inside matching positions of each pretension lifting block so that the lifting bar lies as close to top of boiler as possible but clear of flue collar flange.
9. Use Boiler Centre Gauge to measure width of boiler to be lifted.
10. Ensure outer brass thumb nut pairs are locked together and positioned on lifting bar to match boiler width.
11. Position central pair of brass thumb nuts (with D Shackle) in middle of lifting bar using Centre Gauge provided and ensure locked together.
12. Fold each side of lifting harness upwards and ensure large delta rings sit into each pair of outer brass thumb nuts.
13. Fit metal safety brackets over the strap delta-rings and retain using additional 2 x brass thumb nuts provided.
14. Pull down each end of cam buckle straps to pre-tension the lifting harness assembly against the lifting bar. Ensure plastic cam buckle guards are fitted over each cam buckle to prevent accidental tension release during lifting.
15. Feed perimeter strap through 4 x plastic buckles near top of boiler. Tension strap via buckle then snap closed each of the 4 plastic buckles.
16. Repeat above using perimeter strap near bottom of boiler (for boiler uninstalls use Centre Gauge/Strap feeder to attach perimeter strap ends in 2 x slots and feed straps between boiler and wall).
17. Ensure boiler is completely contained by rocking boiler using lifting bar. Ensure both perimeter straps and main lifting harness are tensioned correctly. All 8 x plastic buckles are closed and both large cam buckles are fully tensioned. Check metal safety guards and brass thumb nuts are fitted to ends of lifting bar assembly as described above in step 13.
18. It's best practice to cover the flue on top of the boiler with a cloth to stop debris falling in.
19. Remove winch strap delta ring from safety carabiner on lifter to allow telescopic extension of lifting arm winch.
20. Pull winch head away from wall until it is positioned above boiler to be lifted.
21. Insert 17mm drill adaptor into brushless drill and use drill to unwind strap (anti-clockwise rotation, high torque/low speed setting). (Never hold the winch head when actuating drill).
22. Connect winch strap delta ring to lifting D Shackle and ensure threaded retention pin is securely screwed into D Shackle and tightened fully.
23. Use drill to lift boiler using 17mm adaptor (clockwise rotation, slow speed/mid-clutch setting). After lifting boiler a small distance off floor check to ensure good anchorage of lifter within cavity wall and no undesired movement. (Never hold the winch head when actuating drill).

24. Remove pre-tension blocks from top of boiler (gap allows free movement of boiler to position onto wall mounting plate).
25. Lift boiler vertically using drill (in clockwise rotation) to a position coinciding with wall mounting plate. Always use drill with arm outstretched and stand with feet positioned away from underneath the boiler. (Never hold the winch head when actuating drill).
26. Push boiler into wall using winch guard for controlled action (not boiler itself).
27. When in position gently hook boiler onto wall plate.
28. Use drill (anticlockwise) to remove tension from winch strap. (Never hold the winch head when actuating drill).
29. Remove 2 x perimeter straps from boiler.
30. Slide winch head away from boiler and remove lifting harness assembly and lifting bar assembly.
31. Turn both control knobs anti-clockwise fully to lower jack and fully retract wall clamp into home position.
32. Wind winch strap back onto worm drum using drill (clockwise) then attach strap delta ring to carabiner for safe removal of lifter from wall. (Never hold the winch head when actuating drill).
33. Remove lifter from flue hole.
34. Attach flue assembly.

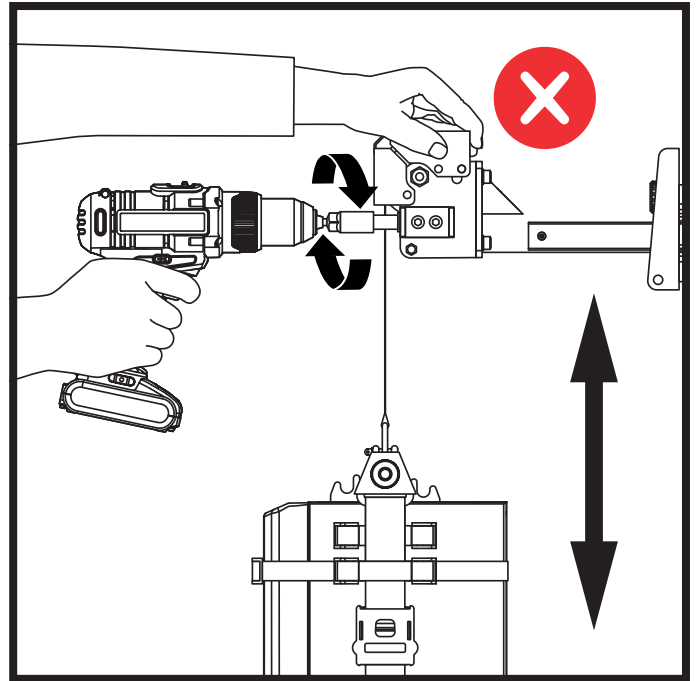


## Lifting bar assembly

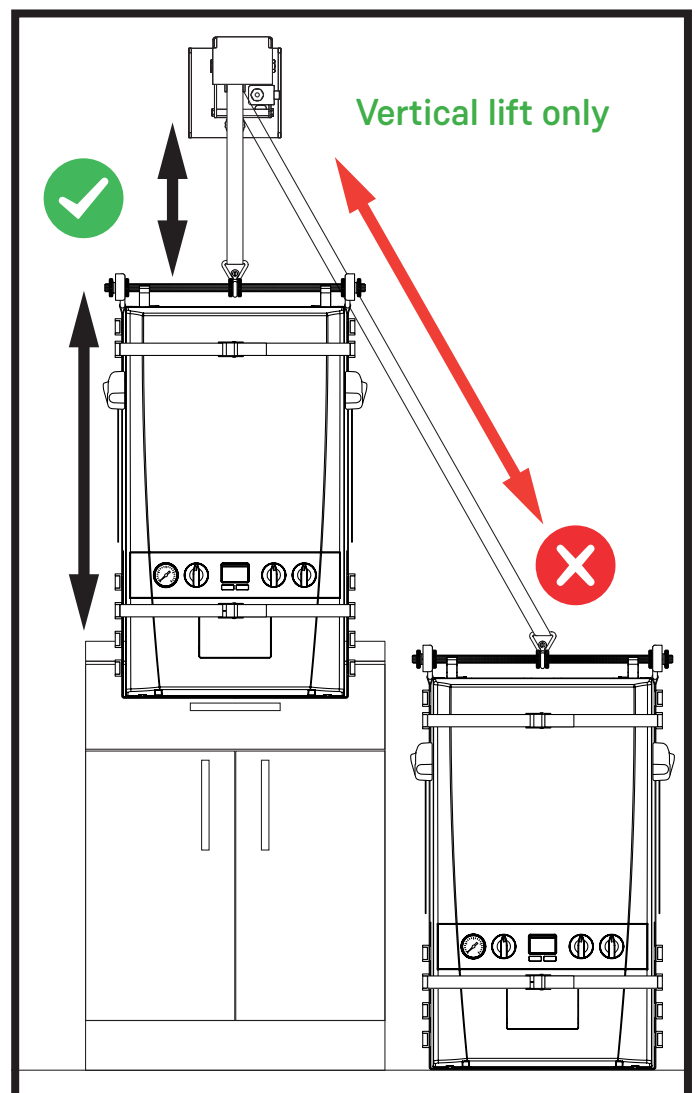
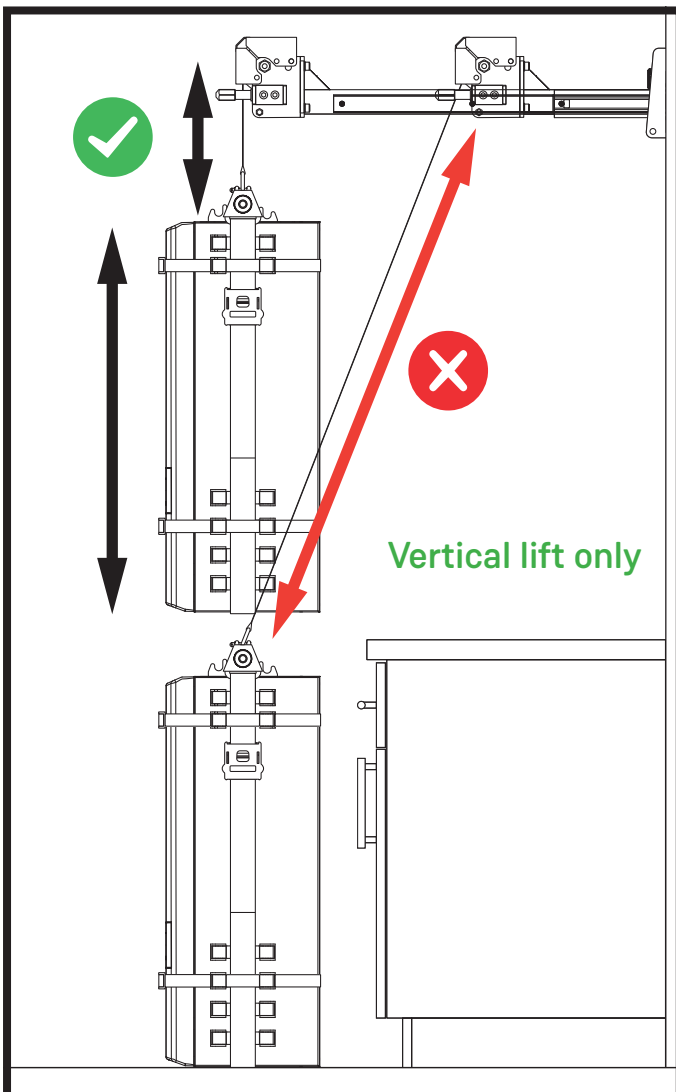
- A.** Ensure outer brass thumb nut pairs are locked together and positioned on lifting bar to match boiler width. Position central pair of brass thumb nuts (with D Shackle) in middle of lifting bar using Centre Gauge provided and ensure locked together.
- B.** Fold each side of lifting harness upwards and ensure large delta rings sit into each pair of outer brass thumb nuts.
- C.** Fit metal safety brackets over the strap delta-rings and retain using additional 2 x brass thumb nuts provided.
- D.** Pull down each end of cam buckle straps to pre-tension the lifting harness assembly against the lifting bar. Ensure plastic cam buckle guards are fitted over each cam buckle to prevent accidental tension release during lifting.



**DO NOT** hold winch head when raising or lowering the boiler.



**DO NOT** winch a boiler unless the strap is vertical.

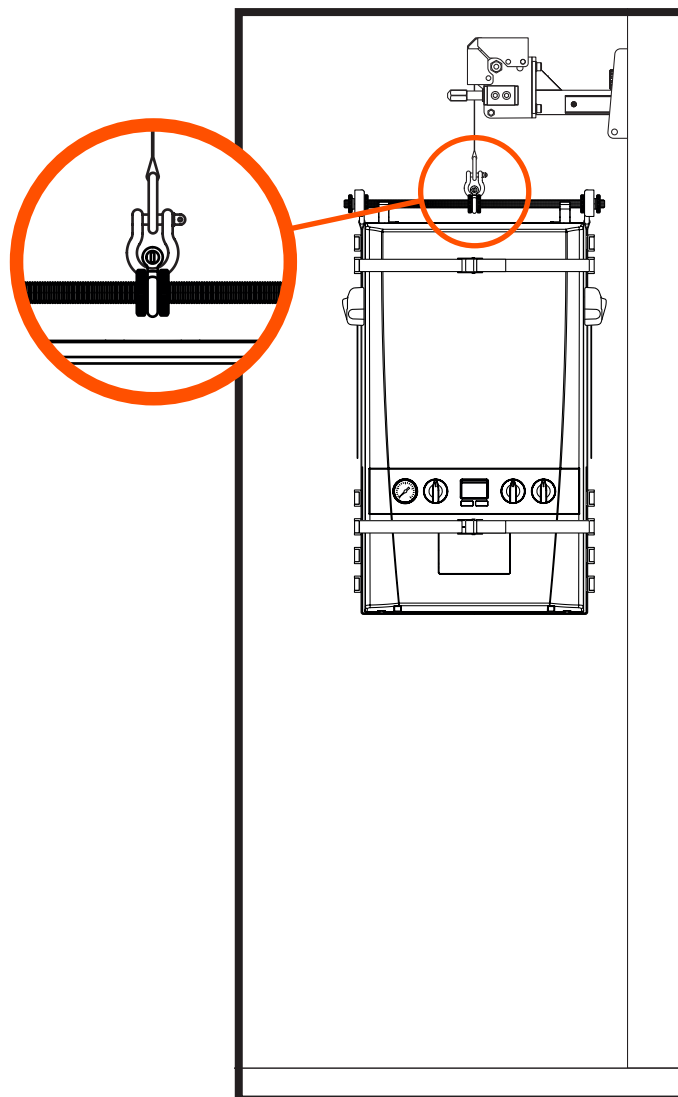
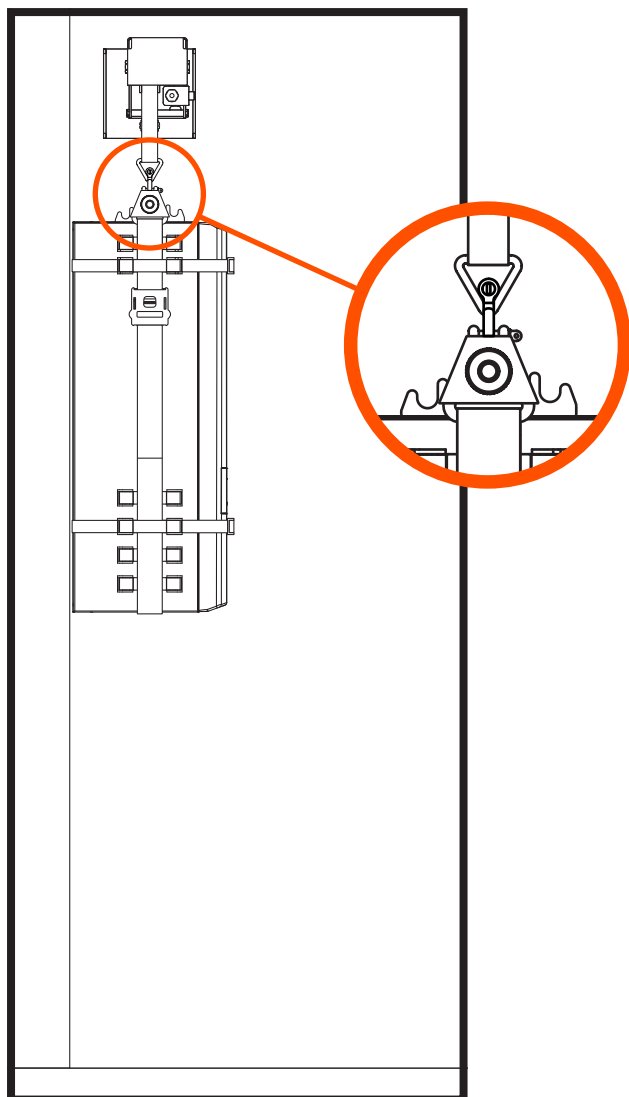
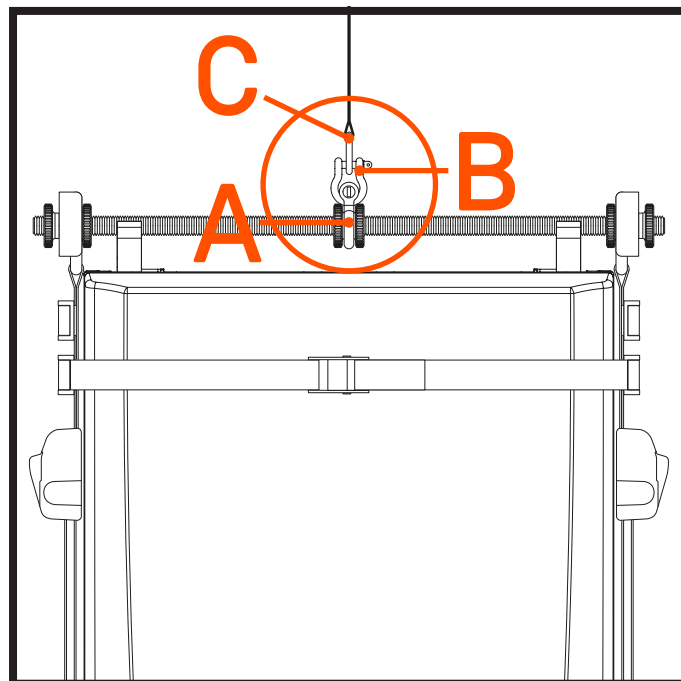


## Lifting operation for side flue installations

### Lifting bar assembly set-up

To ensure that the winch strap is not twisted you must use the additional D Shackle provided in the Boiler Lifter kit.

- A.** D Shackle for normal operations.
- B.** Additional D Shackle required for side flue installations to stop the winch strap twisting.
- C.** Make sure that the winch strap and delta ring is inline and not twisted before lifting.



## Lifter periodic checks/maintenance/safety

1. Checking lifting harness assembly regularly for damage is recommended and inspection every 6 months is essential. If harness is damaged (cuts or oil/grease contaminated, plastic buckles broken etc) it is the user's responsibility to replace it. Spare harnesses are available to purchase from our website.
2. Do not apply grease or lubricant spray to lifting harness.
3. Do not apply cleaning solution to winch strap.
4. Ensure cam buckle safety guards are fitted on lifting harness. Spare guards are available to purchase from our website.
5. Wear suitable PPE when using equipment (safety shoes & eye protection).
6. Never place fingers near winch head during the lifting/ lowering of a boiler or winding strap onto/off winch drum by actuating winch drive by hand or using drill.
7. Try not to expose Lifter to excessive rain or water. Dry out with airline or hairdryer if needed and spray minimal amount of WD40/GT85 on top lock pivot pins/ leadscrew interface if control knob becomes more difficult to turn. Only apply to minimal parts.
8. Periodically the winch will need to be lubricated using clear silicone grease only. Silicone grease will lubricate the worm and wheel, reduce noise when winching and enable smoother mesh between drive components. Do not use a lubricant spray. Only grease. Apply minimally to the wormshaft (the part that interfaces with drill) by turning the 17mm hex shaft slowly by hand and use a small brush to apply the grease. Apply grease in a similar fashion to the interfacing worm wheel as the 17mm hexagon shaft is being turned. Take care not to apply grease to winch strap during this operation.

**DO NOT USE A DRILL TO ROTATE THE WINCH PARTS DURING THE APPLICATION OF GREASE. NEVER APPLY SILICONE GREASE WHILST A BOILER IS SUSPENDED FROM THE LIFTER.**

## Contact

CLEVATECH LTD.  
UNIT H3  
Innsworth Technology Park  
Innsworth Lane  
GLOUCESTER  
GL3 1DL

+44 (0)1452 534894  
info@clevatech.co.uk  
clevatech.co.uk