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BULLETIN # 217

CP102, CP105, CP106, CP107, CP27, CP42, CP44 & W41

ALTERNATIVE TO EURO ADAPTOR AND BRASS STEM

The TC396-1/2 Central Adaptor used in the Weldmatic 205S, 210S, 250S, 255S, 305, 325, 335 and W41 has become difficult to obtain. However, the euro adaptor WF007 used in current model Weldmatics is similar and can be fitted as a replacement. The ideal solution is to eliminate the brass stem used in the original fitting and couple the wirefeeder assembly directly to the front plate. There may not be sufficient clearance to achieve this on some models, in which case a shorter brass stem may be required, (the original stem is normally too long for use with the new style euro adaptor).

Replacing the original euro adaptor with this new style one will involve some complicated modification work, so it is recommended that only competent service agents experienced in the repair of MIG welding machines attempt it. There are many different models which utilized the TC396-1/2 euro adaptor so these instructions are general in nature.

Parts Required

- 1 x **WF007** Euro Adaptor (comes complete with gas barb, outlet guide and attachment bolt.) **For W41-1 4RD wirefeeder only**, use **WF007-1** which has a slightly longer attachment bolt to suit the 4RD feed plate.
- 1 x **WF001-6** Plastic Euro Cover.
- 1 x **AM208-1** double ended gas barb.
- 3 x hose clamps suitable size for gas hose.
- Approx 150mm of gas hose.
- A **replacement brass stem** shorter than the original may **possibly** be required. Use TC396-7/1 which has a total length of 93mm.

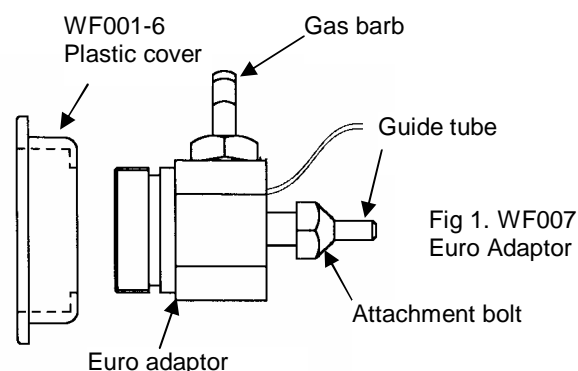


Fig 1. WF007 Euro Adaptor

Procedure

1. Isolate the power to the welder.
2. Remove the panels which cover the wirefeeder assembly.
3. Disconnect the wirefeed motor wires and gun trigger wires, carefully noting where they connect.
4. Remove the existing euro adaptor and brass stem
5. Undo the mounting bolts and remove the complete wirefeed assembly.
6. Remove the plastic euro cover and the drive roller.
7. Fit the new euro connector to the wirefeed assy using the attachment bolt. Rotate the euro adaptor until it faces the same as in Fig 2. and tighten the attachment bolt.
8. Fit the new plastic cover to the front plate of the wirefeeder.
9. Align it as in Fig 3, and then drill 2 new mounting holes in the top right and bottom left corners.
10. Attach the new plastic cover using the nuts, screws and washers which secured the original cover.

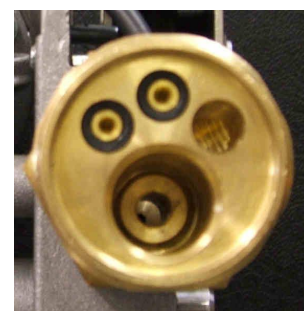


Fig 2



Fig 3

QUALITY WELDING PRODUCTS, SYSTEMS AND SERVICES

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11. Fit the wirefeed assembly (sitting on its insulation blocks) up to the panel as in Fig 4, and check for clearance. It may be necessary to rotate the wirefeed motor assembly to make sufficient clearance. Usually there are alternative holes in the feed plate to allow this. If there is insufficient clearance to allow the wirefeeder assembly to be mounted, it may be necessary to fit a stem (in place of the attachment bolt) to allow the wirefeeder to be set back from the front panel.
12. Ensure that the hex block is pushed well into the plastic cover. This ensures that the hex block won't rotate when the euro connector is connected and disconnected.
13. Carefully mark the position of the insulating blocks on the base plate, and then remove the wirefeed assembly.

Motor rotated to provide clearance

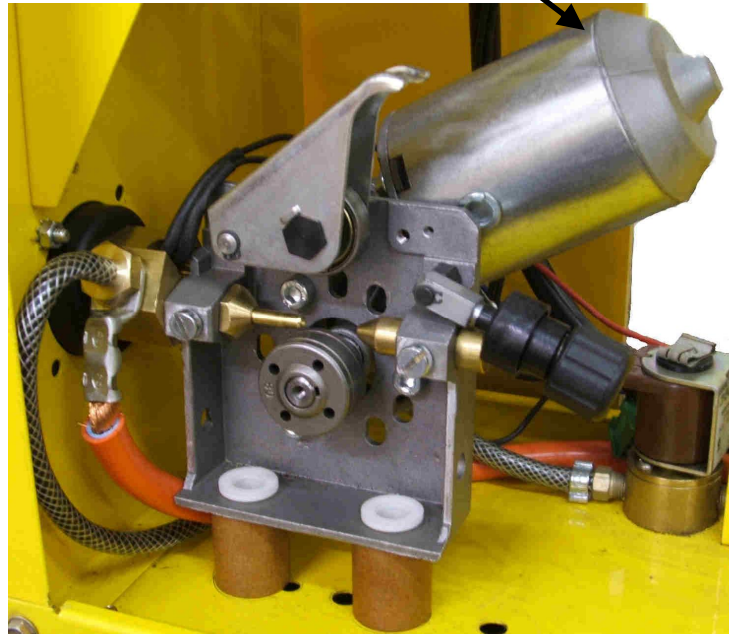


Fig 4

14. Drill new mounting holes, 9mm dia in the base plate to suit the new position.
15. Fit the piece of gas hose onto the existing hose with the double ended barb and clamps.
16. Fit the welding cable lug onto the gas barb (if the cable is not long enough to reach the new position, extend it by feeding more cable into the wire feeder case and shifting its position under the securing clamp).
17. Screw the gas barb with lug onto the hex block and tighten it to hold the cable lug securely in position. This must make a gas tight seal, so it is important that the faces of the cable lug are in good condition.
18. Attach the gas hose to the gas barb with a clamp.
19. Slide the wirefeed assembly back into position and secure it to the base plate with the original nuts, bolts and washers.
20. Ensure that all metal parts of the assembly are well clear of the wirefeeder case and internals.
21. Attach the MIG gun (make sure a liner is fitted) onto the euro adaptor.
22. Fit the brass guide tube into the brass attachment bolt and push it back towards the MIG gun until it butts up against the ferrule on the end of the liner.
23. Fit the drive roller, and check the clearance from drive roller to guide tube. If it is insufficient the guide tube may need to be cut to correct length. If cutting is required, ensure that any bur on the inside of the tube is removed.
24. **Check that there is clearance between all parts of the the wirefeed assembly and the metal case or other metal parts of the wirefeeder.** It may be necessary to rotate the motor assembly by undoing the 3 screws and rotating the motor on the feedplate. If there is still insufficient clearance, use a piece of durable insulation to insulate the case from the motor and feed assembly.
25. Check the wirefeed alignment as per the procedure outlined below.
26. Connect the motor and gun trigger wires to the original connections. If necessary join the trigger switch wires onto the old wires to keep the original connectors. Make sure that joins are electrically reliable and well insulated.
27. Use cable ties to ensure that all cabling is secure and clear of moving parts.
28. Fit panels and check operation. If the motor turns in reverse direction, swap over the motor wire connections.
29. Check for gas leaks by brushing soapy solution around the gas barb.

Wire Feed Alignment

1. Feed a straight piece of wire through the inlet and outlet guides and check the vertical alignment of the feed roller to the inlet and outlet guides. If it is not correct, adjust the height of the motor (undo the mounting screws - there is a small amount of movement up/down).
2. Check the horizontal alignment of the feed roller to the inlet and outlet guides. If it is not correct fit a thin shim/washer behind the drive roller for correction of misalignment in the horizontal direction.

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