



CRANKSET AND BOTTOM BRACKET

Important information

- In January 2013 a new crankset was introduced with detachable chainrings. This crankset is designed to mount to a JIS taper bottom bracket, it is not compatible with the ISO bottom bracket previously used.
- We strongly recommend using the 'fixed chainring' crankset (pre 2013) with the ISO bottom bracket.
- If you are unsure of the correct fitting process please consult your Brompton dealer. Brompton cannot accept responsibility for any failures due to incorrect fitting or maintenance.
- Crank bolts and pedals should be tightened to 30 Nm and chainring bolts to 10Nm; these must be re-checked after approximately 50 miles of riding.

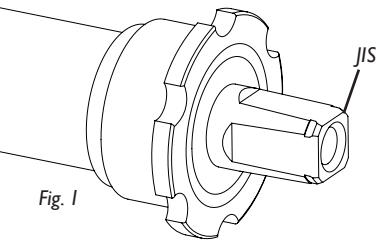


Fig. 1

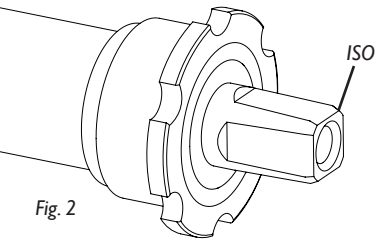


Fig. 2

The JIS bottom bracket (fig. 1) has a notch at the end of the spindle, whereas the ISO bottom bracket does not (fig. 2).

The 5 bolt crankset (fig. 3) is only compatible with the JIS bottom bracket (fig. 1).

Crank bolts should be tightened to 30 Nm.

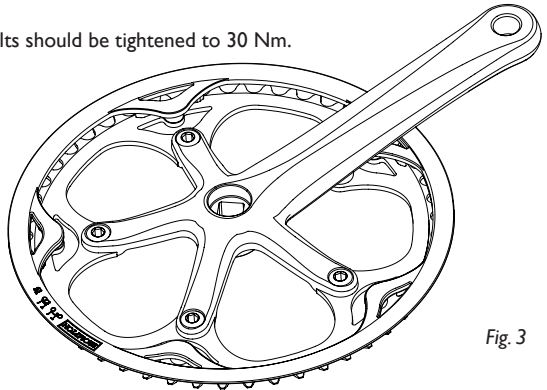


Fig. 3

Crankset and bottom bracket assembly

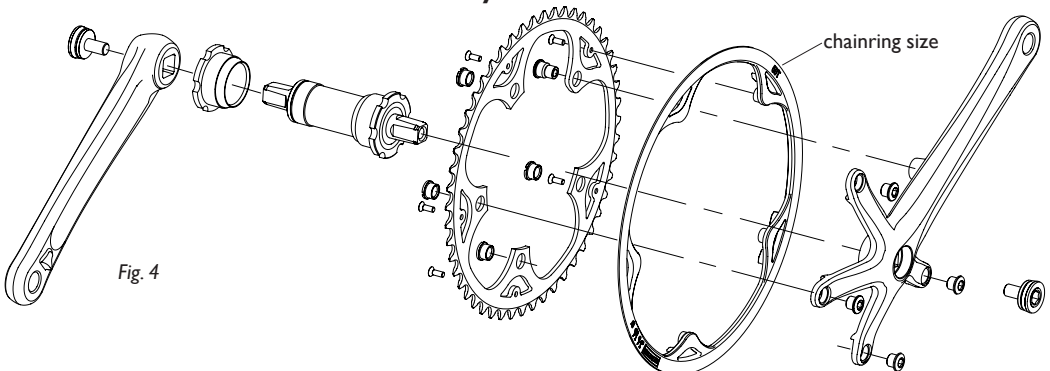


Fig. 4

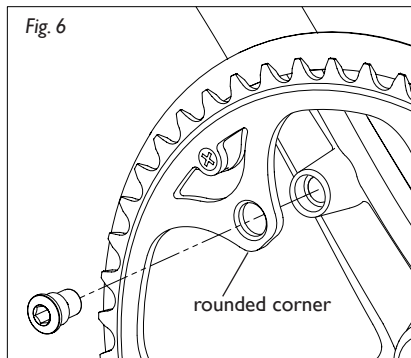
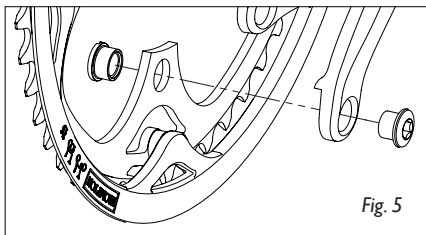
Chainrings and chainring bolts

Chainrings are available in 44t, 50t and 54t sizes and all use the same two-part chainring bolts to mount them to the crank arm (fig. 5). It is very important to use the correct size chainring bolts to ensure a secure connection.

The fifth chainring bolt on the back of the crank (fig. 6) is only available from Brompton. Do not use alternatives as it is likely they will be ill fitting and unsafe.

The counterbored features around the chainring holes must face in, towards the centre of the bike, otherwise the slotted nuts may protrude and foul the frame. The bolt hole with the adjacent rounded corners (fig. 6) should align with the back of the crank.

Chainring bolts should be tightened to 10 Nm (max).



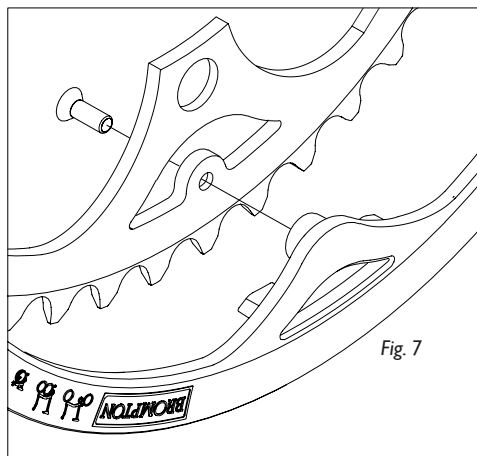
Chainguards

Chainguards are an important part of the folding function, as they interact with the front mudguard stay during the fold. Removing the chainguard will compromise the integrity of the folded package.

Chainguards are retained with five self tapping countersink screws and can be fitted while the crankset is attached to the bike (fig. 4 & 7). Using incorrect screws may damage the guard or fail to provide a secure fit.

Repeated removal and refitting may cause the screws to become less effective, so is best avoided.

When fitting the chainguard ensure all screw heads are flush to the inside face of the chainring.



Chains

Brompton chainrings all have a 2mm tooth thickness best suited for 3/32" chains but 1/8" chains can also be used. Always use a 1/8" chain if a 1/8" sprocket is fitted to the rear wheel. Sprockets should be replaced when fitting a new chain, as both parts will wear during use and a new chain will not engage properly with a worn sprocket.

Correct chain length is essential for a smooth running drive train and trouble free folding of the bike. The table below shows the number of links required for the different chainwheel and sprocket combinations fitted by Brompton.

Chainring	Sprocket size	Chain length	Sprocket stack sizes (2 and 6 speed)	Chain length
54t	12 or 13t	100 links	12/16t, 13/16t, 13/15t	102 links
50t	12 or 13t	98 links	12/16t, 13/16t, 13/15t	100 links
44t	12 to 14t	96 links	12/16t, 13/16t, 13/15t	98 links