

## RS-7 / RS-8 Cranks

### Installation and Maintenance Guide

Validity of warranty and desired performance of this product is dependant on correct assembly and maintenance. As such we strongly recommend that you have a professional bicycle shop install the component. However, whether or not you fit the cranks / chainset yourself please take the time to read and understand these instructions fully.

#### WARRANTY

Covers a lifetime manufacturers warranty against defects in workmanship and materials, excluding tapers, splines and threads. This warranty applies to the original owner and is not transferable. Original retail receipts must be supplied with any warranty claim. This warranty does not cover normal wear and tear, improper assembly, maintenance, installation or use outside the activity for which the product was intended. This warranty does not affect your statutory rights, If unsure please contact a Middleburn dealer for advice. Middleburn does not accept any responsibility for damage or injury caused by failure to adhere to these instructions.

#### CHAIN LINE

Chain line is measured from the centre line of your frame to the tip of the middle chainring. All middleburn chainsets are designed to achieve a chain line of 48mm for cross country and 50mm for downhill

#### TOOLS REQUIRED

Shimano Lockring Tool TL-UN96  
 Loctite 222 Thread locker Compound  
 Loctite 243 Thread locker Compound  
 Torque Wrench with 5mm Allen Key and 32mm Hex socket  
 Grease or anti-seize, eg 'Copperslip'  
 Pedal Spanner

#### CHAINSET ASSEMBLY

##### INSTALLATION OF SPIDER

Install the spider onto the crank arm. Apply Loctite 243 Thread locker Compound (Blue) to the locking threads and tighten the lockring using a Shimano Lockring tool TL-UN96. Torque to 35 - 40 Ftlbs.

*Note: It is **not** necessary to apply grease between the mating surfaces of the spider and crank)*

##### INSTALLATION OF CHAINRINGS

###### OUTER AND MIDDLE CHAINRINGS

Install the middle and outer chainrings using standard alloy outer chainring bolt sets (bolts and sleeves). Middleburn outer chainrings must be orientated with the anti-jam pin located behind the crank arm and with the face upon which the number of chainring teeth is printed facing outwards when the chainset is mounted on your bike.

Middleburn middle chainrings must be orientated with the marker lip positioned behind the crank arm and with the face upon which the number of chainring teeth is printed facing outwards when the chainset is mounted on your bike.

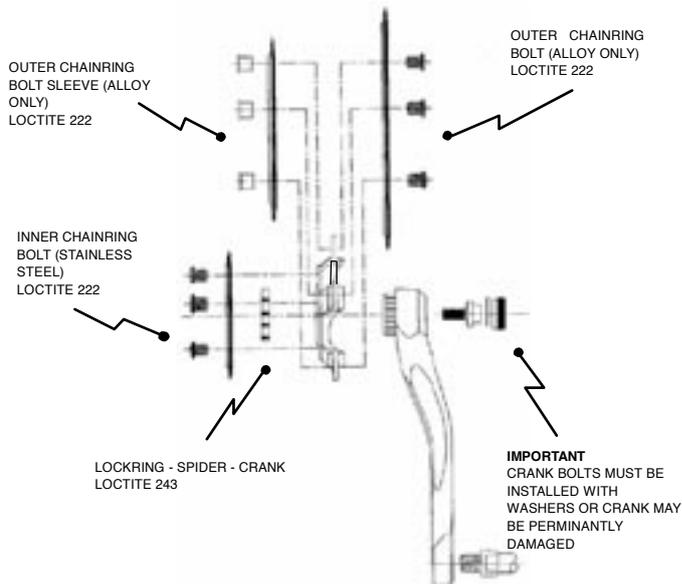
Apply loctite 222 locking compound (purple) to the chainring bolt set threads and tighten alternately using a crossing pattern to eliminate un-even loading on bolts and avoid creaking. Torque to 80 InLbs

*Note: It is **not** necessary to apply grease between the mating surfaces of the chainring bolt sets and chainrings or between the chainrings and spider*

###### INNER CHAINRING

Inner chainrings must be installed with specific stainless steel inner chainring bolts.

Middleburn inner chainrings must be orientated with the marker lip positioned behind the crank arm and with the face upon which the number of chainring teeth is printed facing outwards when the chainset is mounted on your bike.



Apply loctite 222 locking compound (purple) to the chainring bolt threads and tighten alternately using a crossing pattern to eliminate un-even loading on bolts and avoid creaking. Torque to 100 InLbs

*Note: It is **not** necessary to apply grease between the mating surfaces of the chainring bolts the chainrings and spider.*

#### INSTALLATION OF CRANK ARMS UPON BOTTOM BRACKET (ISIS ONLY)

Correct installation will ensure that the crank arm remains securely tightened to the bottom bracket, failure to do so will cause irreparable damage to the crank and bottom bracket splines. Components damaged in such a way must **not** be ridden under any circumstances.

##### PREPARATION

Ensure both the bottom bracket axle and crank interface splines are clean of any dirt or grime and in excellent condition. (no burrs or sharp edges on the splines and no excessive wear to the bottom bracket axle).

##### INSTALLATION

1) Apply a liberal amount of Grease or anti-seize compound to the interfacing splines. The grease ensures that the crankset mounts onto the backstop flange of the bottom bracket, prevents creaking and is necessary for accurate torque to be measured.

2) Place the crank upon the axle.

*Note: It is **not** possible to accurately seat the crank before the crank bolts are added and tightened to the correct torque.*

3) Install crank bolts onto the bottom bracket axle and tighten to a torque of 30 FtLbs.

*Note: It is essential that crank bolts are installed with washers under the bolt head (either integral or separate). If installed without washers the crank arm splines will be crushed and permanently damaged upon tightening of the crank bolts. Should damage to the splines occur the crank arms must not be used. Installation of crank bolts without washers will immediately void all warranty on the crank arms.*

##### INSTALLATION OF PEDALS

Pedals should be installed according to the manufacturer's instructions.

##### POST INSTALLATION CARE

Cranks / Chainset should not be ridden up to 30 mins after assembly; this is to ensure Loctite Thread locker compound has cured. Check the tightness of your crank bolts and chainring bolts torque after your first ride and periodically thereafter.