Instructions for use

Storck Power Arms Pro Cranks

Model: MTB & Road

Thank you for choosing one of the lightest cranksets available on the market. This beautifully formed high tech crankset is exceptionally rigid and durable and is produced in Germany to the highest quality standards.

The cranks are delivered without chainrings and chainring bolts as a multitude of different manufacturers offer these in various materials and colours.

Carbon fibre unifies highest tensile strength with minimum weight. Optimum dispersal and distribution of loads is achieved with aluminium inserts. Carbon fibre makes a multitude of different forms possible. There are no other materials currently available which could produce lighter cranks. However there is a danger that the fibres could be damaged if the cranks are hit by stones or they are grounded onto objects. For this reason these cranks should not be used for trials or downhilling.

Technical Details

MTB	MTB ISIS	Road Shimano	Road Campagnolo	Road ISIS	Specifications
ca. 320g	ca. 320g	ca. 320g	ca. 330g	ca. 320g	Weight without chainrings & bolts (tolerance +/- 5%)
175mm	175mm	172.5mm	172.5mm	172.5mm	crankarm length
94/58mm	94/58mm	130mm	135mm	130mm	chainring bolt circle diameter
JIS	ISIS	JIS	Campagnolo ISO	ISIS	crank taper measurements for bottom bracket spindle
102mm	102mm	102mm	107mm	102mm	bottom bracket spindle length w. 68mm bottom bracket shell width
108mm	108mm				bottom bracket spindle length w. 70/73mm bottom bracket shell width
5 Nm	5 Nm	5 Nm	5 Nm	5 Nm	torque settings for chainring bolts
40 - 45Nm	45- 55Nm	40 - 45Nm	40 - 45Nm	45 - 55Nm	torque settings for crankarm bolts
25Nm	25Nm	25Nm	25Nm	25Nm	torque settings for pedals bolts (thread BC 9/16" x 20 T.P.I)

Compatibility
MTB Power Arms

The cranks can be used with all standard 7,8 & 9 speed drivetrains. You can use any chainrings which have the Shimano 5 Arm bolt circle diameters of 94 mm (large & middle chainrings) and 58 mm (small chainring). The middle chainring must have at least 32 teeth for construction reasons. The smallest chainring must have 22 teeth. When choosing chainrings you should observe the maximum shifting capacity of the front derailleur used as well as remembering not to exceed the maximum chainring size. If you do not observe these limits front shifting will suffer.

Road Power Arms

These cranks are compatible with all standard 7, 8, 9 & 10 speed systems. However if you wish to run a 9 or 10 speed system the correct small chainring must be used. Any chainring with a bolt circle diameter of 130 or 135 mm can be used. The smallest chainring must have at least 38 teeth. When choosing chainrings please observe the maximum shifting capacity of the front derailleur.

The 4 sided taper for bottom bracket spindles corresponds to the Shimano (JIS) or ISO standard (Campagnolo). PowerArm cranks cannot be used with Shimano Octalink bottom brackets.

Bicycle frames which differ to standard dimensions can require a bottom bracket spindle length other than that given in „technical details.“ The crank arms and chainrings must have sufficient clearance from the frame even under maximum load.

Fitting instructions:
Please read the following instructions carefully.

Chainring fitting:

Check that the chainrings you already have a compatible bolt circle diameter to that of the Power Arm cranks. When using the Power Arm cranks with Shimano chainrings and those of some other manufacturers the large chainring must be modified as follows.

Using a fine file carefully file off the areas marked in the sketch attached to these instructions. After filing please ensure that the filed edges of the chainring are smooth, free from burrs and that no parts of the chainring come into contact or press directly onto the rear of the crank arm. Any damage to the crank could cause it to fail. The chain retaining pin on the large chainring must be directly behind the crank arm or be removed from the chainring.

If using chainrings with shifting ramps please ensure that they are correctly orientated with each other and with the position of the crank. If aluminium or titanium chainring bolts are used the bolt threads must be lubricated with the appropriate grease. The bolts should be tightened one after another in a 90° pattern. Please observe the torque settings given.

Crank fitting:

Before fitting the taper of the bottom bracket spindle and of the cranks must be completely clean. A thin layer of grease should be applied to the spindle taper and the crank fixing bolts.

Please observe the recommended torque settings. The crank taper can be damaged or in extreme cases could crack if the cranks are over tightened.

If a titanium bottom bracket spindle is used it is recommended to remove grease from all surfaces and apply a thin layer of medium strength loctite to the taper. The cranks should be

mounted and not put under load until the loctite has hardened. This measure helps to prevent creaking which can occur with this combination of materials. The loctite also has the advantage that the cranks cannot loosen. Steel bottom bracket spindles can also be treated in this way. Always use a bolt cover or a bolt with an integrated crank remover in order to protect the crank pulling threads from damage, which could later prevent or hinder removal.

After fitting the crank check front shifting and if necessary re-adjust the front derailleur.

Pedal fitting:

Grease the pedal threads and screw the right pedal in clockwise (right hand thread). The left pedal should be screwed in anti-clockwise (left hand thread). Please observe the recommended torque settings.

Check the position of the front derailleur and the chain line. Please observe the manufacturers recommendations. The crank should never contact or rub the frame at any time.

Please check that assembly and all adjustments have been correctly completed before using the cranks!

If you have any further questions relating to fitting, maintenance and guarantee please contact your dealer.

Maintenance instructions:

After the first ride check the chain ring bolts for tightness. This should be repeated at regular intervals. Loose bolts can cause inaccurate shifting and creaking noises.

Never use a high-pressure hose or any thinning chemical products as this can damage the surface of the crank. After cleaning the cranks it is recommended that they be sealed with a wax product and polished.

Check your cranks regularly for damage e.g. bent chainrings, deep scratches or cracks in the crank arms. If such damage is found contact your dealer immediately.

Important Instructions:

1. As soon as any damage to the taper of the crank through overloading has been identified e.g. bending or twisting, immediately stop using the cranks and return them to the manufacturer for inspection even if the crankarms themselves appear to be undamaged.
2. If the carbon fibre weave is damaged through stones or similar the cranks should be returned to the manufacturer for inspection (external scratches to the clear lacquer are of no concern, large areas of paint damage must however be resealed to protect the CfK fibres).
3. Continuous abrasion by overshoes can damage the carbon weave. It is recommended that a protective foil is applied to the crankarm and renewed when necessary. Please ensure that pedal cleats are mounted correctly in order that shoes

do not rub the crankarm! Cranks with a serial nr. above 1876 for MTB and R401 for racing bikes have a built in surface abrasion indicator. If yellow areas appear on the exterior surface of the crank the steps outlined above should be immediately taken in order to prevent further abrasion of the crankarm and the resulting danger of crank failure under load.

4. The carbon structure in the pedal thread part of the crank can be damaged through frequent removal if the cranks do not feature a built in washer. In this case it is recommended to use a norm washer which can be obtained from STORCK Bicycle.
5. If cracks develop in the carbon join return the cranks to the manufacturer immediately.
6. Through regular overloading of the cranks for example from heavy jump landings or extreme terrain a 'slow' failure can occur. This type of damage is characterised by a reduction in crank rigidity, which under high pedal loads can cause the crank to bend. In this case please return the crank to the manufacturer for inspection.
7. The life expectancy of this high performance crankset is initially limited to three years. After this time has elapsed the crank should be returned to the manufacturer for inspection annually.
8. Please always return both left and right cranks with a report of how damage has occurred.

- **Please remember that following a crash or accident your crank could be damaged visibly or invisibly. In this case please change the crank for safety reasons.**

- **Please regularly check your crank for damage at short intervals. In questionable or unclear cases please contact your dealer.**

Care instructions

Normal paint care products containing silicon additives or water are suitable for cleaning. These can be replaced by normal dish washing soap. To remove finger prints, sticky dust, insects, oil etc. normal tar removing products based on benzene can be used (as used for auto care). These should not however be allowed to contact the surface of the crank with cloths, rags etc. for any prolonged periods as they can soak into the laminate and damage the crank.
For this reason we recommend that where possible silicon based products are used.

Aggressive solvents and thinners should not be used as they too can soak into the crank surface causing heavy damage. Especially thinners, acetone, vinegar based products and paint thinners of any type should not be used. Above all chlorine hydrocarbons must not be used as they quickly destroy and dissolve the UP paint surface protecting the carbon fibre (e.g. methyl chlorine, trichloroathylen, chloroform, tetra, trichlorethene etc.

Alcohol such as white spirit or Isopropanol (Isopropyl alcohol) can like benzene be used with care to clean the cranks. However as stated above without strong rubbing or long contact periods on the crank surface,

It is recommended that the exterior surfaces of the cranks are protected with a paint save kit or foil.

Storck Bicycle
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Information on the production of the CfK cranks

You have purchased an exclusive and individual crankset which is manufactured from resin hardened carbon fibre, a high tech material used in the space industry.

Each crank is hand made and can be seen as unique. Carbon fibres, aluminium elements (material nr. 3.4365) and a foam core are placed in a negative form and compressed into a monocoque. The load bearing structure is therefore the external area allowing an extremely low weight yet high tensile strength and rigidity.

Due to this method of hand construction it is unavoidable that small irregularities can occur in the carbon weave. Small air pockets or irregularities in the surface of the crank or where the mould is separated are purely cosmetic and have no influence in the quality or performance of the crank. At regular intervals cranks are mounted to a taper for quality control testing. The resulting marks on the crank taper are unavoidable but do not affect the quality of the crank.

We hope you enjoy using this technically high end product.

Sketch showing how the large MTB chainring should be modified