



Cycle field maintenance and repair kit



General

The majority of the kit is contained in a clear plastic BDH container¹, stowed in one of the rear panniers. Exceptions are those items identified below as being carried for immediate roadside access in the handlebar bar. More bulky items such as the Rohloff oil change kit, spare spokes, spare brake and gear cables, spare inner tubes, a paper extract of the Thorn Bicycle and Tandem Owners Guide, and a toothbrush head² for chain cleaning are also carried separately. Full details of these spares can

¹ Approximately one litre capacity

² Contained in small plastic bag, together with cloth for wiping excess oil off chain when re-lubricating. Penetrative oil – usually described as driving out moisture, freeing corroded parts and cleaning metals - obtained locally very

be found in the cycle specification. A small strip of cloth is normally also secured to the seat post, used to help keep the brake pads and rims free of grit and other potentially damaging material.

Whilst this document is intended to help others contemplating similar ventures to my own, it also has considerable utility for me, especially the provision of spares. Consequently, where applicable, St John Street Cycles³ stock numbers are shown in square brackets.

Immediate roadside access

Topeak multi-tool – includes Allen keys up to 6 mm

Specialized EMT Micro miniature mini-tool⁴ – includes Allen keys up to 6 mm

Bontrager Air Support pump⁵

Schwalbe Airmax Presta tyre pressure gauge⁶

Park Tool plastic tyre levers – set of 3 (could reduce to 2 as this normally more than sufficient)

Inner tubes - Schwalbe SV13 normal length Presta valve butyl inner tube 26" x 1.5-2.5" (559 x 40-62)

Specialized Flat Boy self-adhesive patch kit – set of 6 plus small sandpaper square⁷

Park Tool TB-2C Emergency Tyre Boot – contains 3 patches [15121]

Section of old smooth road tyre – approximately 10 cm in length – for use in support of Emergency Tyre Boot

effective for giving the chain a thorough clean. Avoids need to carry or obtain generally much more expensive chain cleaning solvents.

³ Sole provider of the Thorn range of cycles

⁴ Critical item – hence two carried, one for immediate roadside access in handlebar bag, and a spare held inside field kit

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⁶ Correct tyre pressures key for maximum tyre longevity. Schwalbe advise that above 2 bar it is not possible to judge pressure other than with a gauge

⁷ For **temporary** roadside puncture repair if all spare inner tubes have been used

General use

Weldtite lithium grease – 40g tube

Specialized EMT Micro miniature mini-tool⁸ – includes Allen keys up to 6 mm

Small 8 mm spanner

Black masking tape⁹

Assorted Allen bolts¹⁰ and washers – 3 x 4 mm, 6 washers

Selection of plastic cable ties – black and white

Small length of wire – approximately 0.5 mm / one mm gauge

Small length of string¹¹

Chain

Rohloff Special Bike Chain Lubricant¹² (50 ml)[4200]

Park Tool CT-5 chain tool¹³

Spare Rohloff S-L-T 99 8 speed chain links¹⁴, with partially extracted pin

Wheels and tyres

Puncture repair kit – 3 x small (5g) tubes rubber cement (spares carried in case one tube damaged), 20 patches assorted sizes, small chalk block, 3 sandpaper squares, instruction leaflet [SJS Cycles puncture repair kit 1934]

⁸ Critical item – hence two carried, one for immediate roadside access in handlebar bag, and a spare held inside field kit. Each key annotated with size in mm, useful for checking bolt head sizes

⁹ Cut down size rather than full roll – approximately 2m in length

¹⁰ Cycle – pannier frames, bottle cages, brake levers – uses 4 mm Allen bolts

¹¹ Useful for use with Shimano bottom bracket handle-less removal tool as a plumb line for saddle set-up / adjustment

¹² Although kept in a plastic bag, no evidence of leakage from the storage bottle, despite being stowed on its side

¹³ Carefully chosen – the plate opening bridge on some makes have been found not to work

¹⁴ Retained, together with Rohloff S-L-T 99 8 speed chain, when replaced with SRAM 3/32 inch PC890 114 link 7/8 speed HG compatible silver chain [15325]

Park Tool TB-2C Emergency Tyre Boot¹⁵ – contains 3 patches [15121]

Bontrager Air Support pump

Spare Presta valve caps¹⁶ (can be difficult to source)

Spokey spoke key

Spoke nipple key¹⁷

12 x Sapim 14mm plated brass nipples (2mm gauge)

5/16" Allen key – for replacement of Phil Wood front hub bearings ¹⁸

Phil Wood & Co PWXR8¹⁹ front hub bearings (Generic ID: R8) x 2

Brakes

Swissstop Blue Brake Pads for LX / XT / XTR Brakes - use with Ceramic & Rigida CCS Rims – 4 sets including securing pins

Saddle

Brooks saddle spanner²⁰

Brooks Proofide – small amount kept in sealed plastic bag

S&S Machine Bicycle Torque Couplings

Thorn S&S Machine Bicycle Torque Coupling / eccentric shell bottom bracket tool²¹

Finish Line Extreme Fluoro pure fluorinated PFPAE grease – 20g syringe – for S&S Machine Bicycle Torque Couplings (BTCs) [1796]

¹⁵ In addition to item carried in handlebar bag for immediate roadside use

¹⁶ Essential for keeping mud and grit out of valves, and caps easily split if over-tightened

¹⁷ Homemade – from the end of an old spoke – used to hold the nipple on the rim side when initially tightening up

¹⁸ Also works in place of 8mm not included in multi-tools for crank bolts – close enough fit for *occasional* use

¹⁹ Sourced directly from Phil Wood & Co (www.philwood.com) in USA or via www.bricklanebikes.co.uk in UK. May be possible to source locally using generic cartridge bearing ID R8

²⁰ To tighten up leather, reducing / removing sagging – typically every 1,500 kilometres

²¹ Although special-to-type, its features could be replicated with a suitable C-spanner and other relatively readily available tools

S&S Machine Bicycle Torque Coupling retaining rings²² x 2

Inner tube sections – approximately 10cm x 2 – spare covers for couplings

Toothbrush head – for cleaning S&S Machine Bicycle Torque Coupling threads only

Bottom bracket and cranks

Park Tool CCP-22 crank extractor²³

Shimano TL-FC21 chain wheel peg spanner – for removal of chain rings and self-extracting crank bolts²⁴

Shimano bottom bracket cartridge removal tool – handle-less²⁵

Rohloff SPEEDHUB 500/14

Rohloff SPEEDHUB sprocket removal tool [10359]

Rohloff SPEEDHUB 500/14 hub gear sprocket (steel) – 17 teeth [10342S17]

Teng Tools 1400B miniature ratchet spanner with Torx T-20 head²⁶ (and PZ 1)

Spare (used) Rohloff drain screw

Miscellaneous

Spare Kryptonite KryptoFlex cycle lock key

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²² Supplied by manufacturer

²³ Use of self-extracting crank bolts considered but discounted – mixed anecdotal reports as to their performance under load, and tool saving as a consequence of their use deemed insufficient to justify their use and perceived increased risk of failure

²⁴ Carried only for removal / reversal of chainring as self-extracting crank bolts not fitted

²⁵ Requires spanner to be obtained locally

²⁶ Part of a set