Jan-10 rc ds

REAR CARRIER.

Rear carrier assembly - fitting to an L-version (see below for R-version).

The rear wheel should be removed first: see below. Also you must use a new, R-version mudguard on assembly. The carrier is normally supplied with the RH forward stay attached to the platform: if this is separate, connect the stay using an M5x16 pan head screw, passing through (from the outside):- two washers, the stay, the lug on the platform, a washer, and into the nylok nut.

The procedure then is:

- disconnect the rear brake cable from the caliper: undo the rear brake nut, RBNUT, together with the lower stop disc, LSD. (Note, on earlier Mk 2 models, the LSD differs from what is shown, fig LS4.)
- 2. undo the screws connecting the mudguard stays to the rear axle plate
- 3. withdraw the brake caliper from the cross tube, together with the mudguard and stays: withdraw the brake bolt from the mudguard. Avoid losing the various washers making up the assembly.
- 4. Fig LS4: feed the brake bolt through:- the M6 washer, the forward bracket on the carrier, the mudguard bracket MGB, a concave washer, the bridge tube on the rear frame, a second concave washer, the spring washer, a second M6 washer, and screw on the rear brake nut RBNUT (with the LSD attached) by two or three turns. Make sure that the forward end of the mudguard lies forward/above the cross tube between the FS chainstays.
- 5. Connect the stays to the outside of the rear axle plate, fig RC2: on each side the M5x16 hex head screw should be fed in from inside through:- an M5 washer, the axle plate, the "forward" stay FS, the rear stay RS, a second M5 washer, and into the nylok nut.
- 6. Partially tighten the RBNUT. Do not fully tighten this nut at this stage.
- 7. Fit the mudguard's aft bracket to the lug on the rear carrier (the bracket should lie behind this lug): use the M5x12 hex head screw passing through, from the rear:- a washer, the mudguard bracket, the lug, a second washer and into the nut. Tighten the screw, keeping the mudguard central.
- 8. Refit the rear wheel: see below.
- 9. Do up the rear brake nut, RBNUT, firmly, connect the brake cable, and centre the brake calipers on the rim. (Note, with a mark 2 LSD, the RBNUT should be pretty tight, see below).
- 10. Set the LSD as described below.

Rear carrier platform - replacement on an R-version.

It may help to remove the rear wheel, as some operations are awkward when it is in place: see below. If you have a Mk2 Brompton, the set supplied should include a new mudguard and a replacement stay for mounting the dynamo: if this stay is separate, connect the stay to the carrier using an M5x16 pan head screw, passing through (from the outside):- two washers, the stay, the lug on the platform, a washer, and into the nylok nut.







ement on an R-version.

Instructions here do not cover in detail every operation, so when removing certain components note the original assembly, so that on re-assembly all is OK.

The procedure is:

- 1. disconnect the wires feeding into the dynamo, and remove the dynamo.
- 2. disconnect the rear brake cable from the caliper: undo the rear brake nut, RBNUT, together with the lower stop disc, LSD, and loosen the brake caliper a little. (Note, on earlier Mk 2 models, the LSD differs from what is shown, fig L5.)
- 3. undo the screws connecting the stays to the rear axle plate, and remove them
- withdraw the brake caliper from the cross tube, together with the old carrier and mudguard: withdraw the brake bolt from the rear carrier bracket, RC. Avoid losing the various washers making up the assembly.
- 5. remove the following items from the old rear carrier, and refit them to the new: the rear lamp with its brackets and wires (or on a Mk 2 bike, the reflector/bracket and the lamp), the rear rollers and shock cords (fig RC4), the mudguard where it is attached at the rear, and also (unless it is a Mk 2 bike, where the replacement carrier will now have 4 stays attached) the stay onto which the dynamo fits.
- 6. Fig LS4. Feed the brake bolt through:- an M6 washer, the forward bracket on the new carrier, the mudguard bracket, MGB, a concave washer, the bridge tube on the rear frame, the second concave washer, the spring washer, the second M6 washer, and screw on the rear brake nut RBNUT (with the LSD attached) by two or three turns. Make sure that the forward end of the mudguard lies forward/above the cross tube between the chainstays.
- 7. Fig RC2: connect the stays to the rear axle plate: on each side the M5x16 screw should be fed in from the inside through:- an M5 washer, the axle plate, the "forward" stay FS, the rear stay RS, a second M5 washer, and into the nylok nut (if the bike is non-derailleur, then the screw can be fed in from the outside).
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- 8. Partially tighten the RBNUT. Do not fully tighten this nut at this stage.



- Tighten the screw securing the rear mudguard bracket. Also check that the screws are tight where the stays attach to the axle plates.
 Defit the rear wheel are below.
- 10. Refit the rear wheel: see below.
- Do up the RBNUT firmly (IINM), connect the brake cable, and centre the brake calipers on the rim.
- 12. Fig EL2: refit the dynamo (at the correct angle relative to the tyre), trapping the earth eyelets (if present) under the nut & washer, and reconnect the live wires.
- 13. Set the LSD as described below.



fig RC2 <u>The Lower Stop Disc, its role in the folding process</u>: when you pick up the folded bike, the rear wheel cannot unfold because the lower stop disc, LSD, butts against the "folded" seat pillar, SP. The LSD can be adjusted to obtain the correct gap between itself and the SP: if the gap is too small, then the SP may foul, irritatingly, against the LSD during folding: if the gap is too large, then the rear wheel will drop away too far when the bike is picked up, so that the hook retaining the front wheel slips off the chainstay tube (CHS) on the rear frame.

On bikes shipped from our factory before March 2000 (Mk 2 bikes), the lower stop disc is an eccentric, and calls for a different approach from those fitted on later Mk3 bikes.

Setting the Mk3 Lower Stop (fig LSI)

The lock-nut should be slackened off. Fold the bike completely, and spin the LSD along the thread to give the correct gap of I-2mm. Finally, using 2 spanners, 19 AF and 15 AF, tighten the lock-nut: do not overtighten, correct torque 8NM.



Setting the Mk2 Lower Stop (figs LSII & LSI3)

The rear brake nut, RBNUT, must be well tightened, torque I4NM: if it is not secure, the brake caliper may move off centre when fitting the lower stop disc, LSD, to it, and the RBNUT (together with the LSD) may come loose in use.

To set the lower stop correctly, partially slacken off the retaining screw so that the LSD is not loose, but can be moved by hand: fold



the bike completely, and move the LSD to give the correct gap of 2-3mm. The LSD should be disposed to lie towards the LH side of the bike (fig LS13), not towards the right. Finally, retighten the retaining screw firmly.



REAR WHEEL – SUMMARY OF PROCEDURE FOR REMOVAL AND REFITTING.

Removal:

- 1. Move gear-trigger(s) up to high, and pedal forward & back to engage the high gear(s).
- 2. If the bike has a hub-gear, disconnect the gear-indicator-chain from the cable-anchorage, unscrew the gear-indicator-rod and withdraw the rod from inside the axle.
- 3. Remove the chain-tensioner: unhook drive-chain from swinging arm, undo chain-tensioner nut, and withdraw the chain tensioner.
- 4. Slacken off the main axle-nuts and remove wheel (if tab-washers are stuck, they will normally come loose if you tap the wheel gently from side to side). To get the tyre past the brake blocks, either deflate the tyre or remove the LH brake block.

Re-fitting (with hub-gears, make sure that the tab-washers engage correctly in axle-plate):

- 1. With the drive-chain in place over the (outer) sprocket, drop the axle into the axle-plates (the correct way round if it has "handed" tab-washers).
- 2. Make sure the drive-chain isn't trapped, and secure the wheel nuts over the washers.
- 3. Fit the chain-tensioner (with a derailleur, the fixed-idler-wheel must lie between the two plates of the actuator). Secure using the chain-tensioner-nut and washer, but don't overtighten this nut.
- 4. Feed the chain over the idler-wheels on the chain-tensioner, and check chain flow.
- 5. For hub-gears, if present:
 - a. screw the gear-indicator-rod right into the axle, backing off not more than half a turn to align it, and connect gear-indicator-chain to the cable-anchorage.
 - b. Adjust the gears and make sure that all 3 gears are engaging OK.
- 6. For derailleur gears, if present, check function and adjust with M4 grub-screws in actuator if necessary.
- 7. If you removed a brake-pad, re-fit it.

Full details for wheel removal and re-fitting are in the Owner's Manual (or Dealer Manual).