

1 General information

All models have a steel cradle frame with a detachable section to facilitate engine removal.

On GSX600/750F models front suspension is by a pair of 41 mm oil-damped telescopic forks which are adjustable for rebound damping. GSX750 models have non-adjustable 43 mm forks.

At the rear, on GSX600/750F models a box-section aluminium swingarm acts on a single shock absorber via a three-way linkage. The shock absorber is adjustable for spring pre-load and rebound damping on all models, and on the 750, which has a remote reservoir, for compression damping. On GSX750 models the swingarm acts on twin shock absorbers with remote reservoirs, and which are adjustable for spring pre-load.

The drive to the rear wheel is by chain and sprockets.

2 Frame – inspection and repair

1 The frame should not require attention unless accident damage has occurred. In most cases, frame renewal is the only satisfactory remedy for such damage. A few frame specialists have the jigs and other equipment necessary for straightening the frame to the required standard of accuracy, but even then there is no simple way of assessing to what extent the frame may have been over stressed.

2 After the machine has accumulated a lot of miles, the frame should be examined closely for signs of cracking or splitting at the welded joints. Loose engine mount bolts can cause ovaling or fracturing of the mounting tabs. Minor damage can often be repaired by welding, depending on the extent and nature of the damage.

3 Remember that a frame which is out of alignment will cause handling problems. If misalignment is suspected as the result of an

accident, it will be necessary to strip the machine completely so the frame can be thoroughly checked.

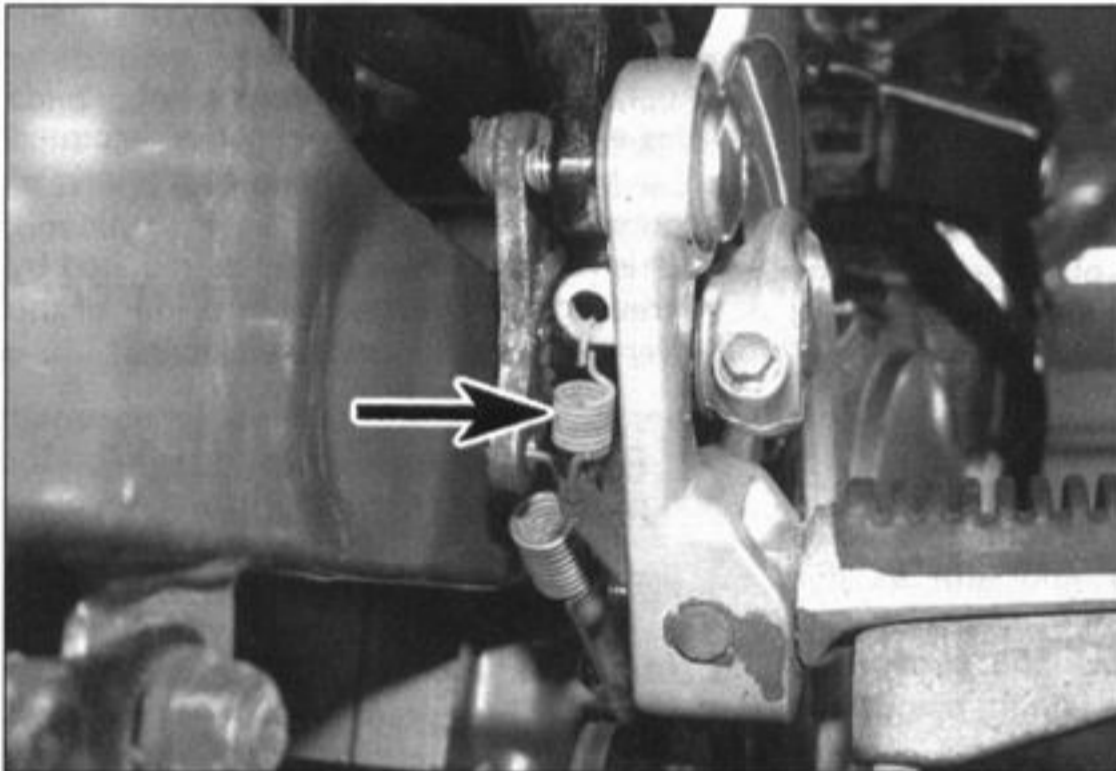
3 Footrests, brake pedal and gearchange lever – removal and installation



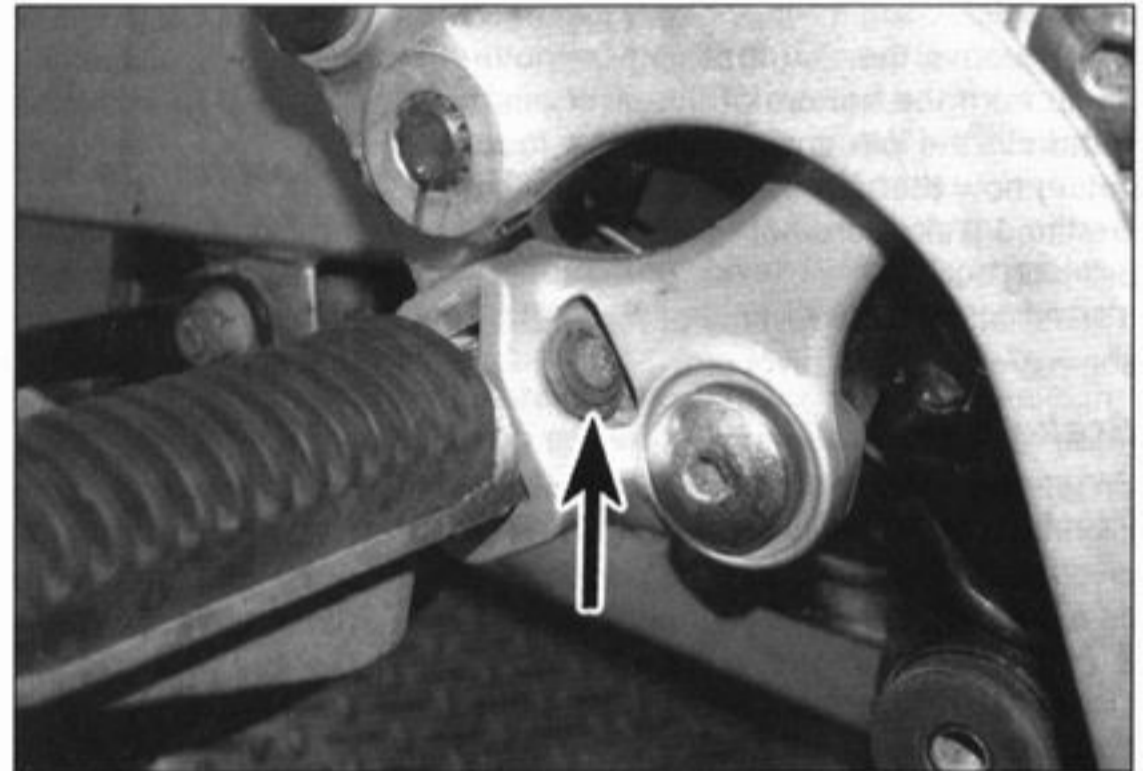
Footrests – GSX600/750F models

1 To remove the front footrests, first unhook the return spring (**see illustration**). Remove the E-clip and washer from the top of the pivot pin, then withdraw the pin and remove the footrest (**see illustration**). On GSX750F models, if required separate the plate from the bottom of the footrest by undoing the two screws (**see illustration**).

2 To remove the rear footrests, remove the E-clip from the bottom of the pivot pin, then withdraw the pin and remove the footrest, noting how the ball and spring are fitted (**see illustration**). Take care not to let the spring and ball ping out.



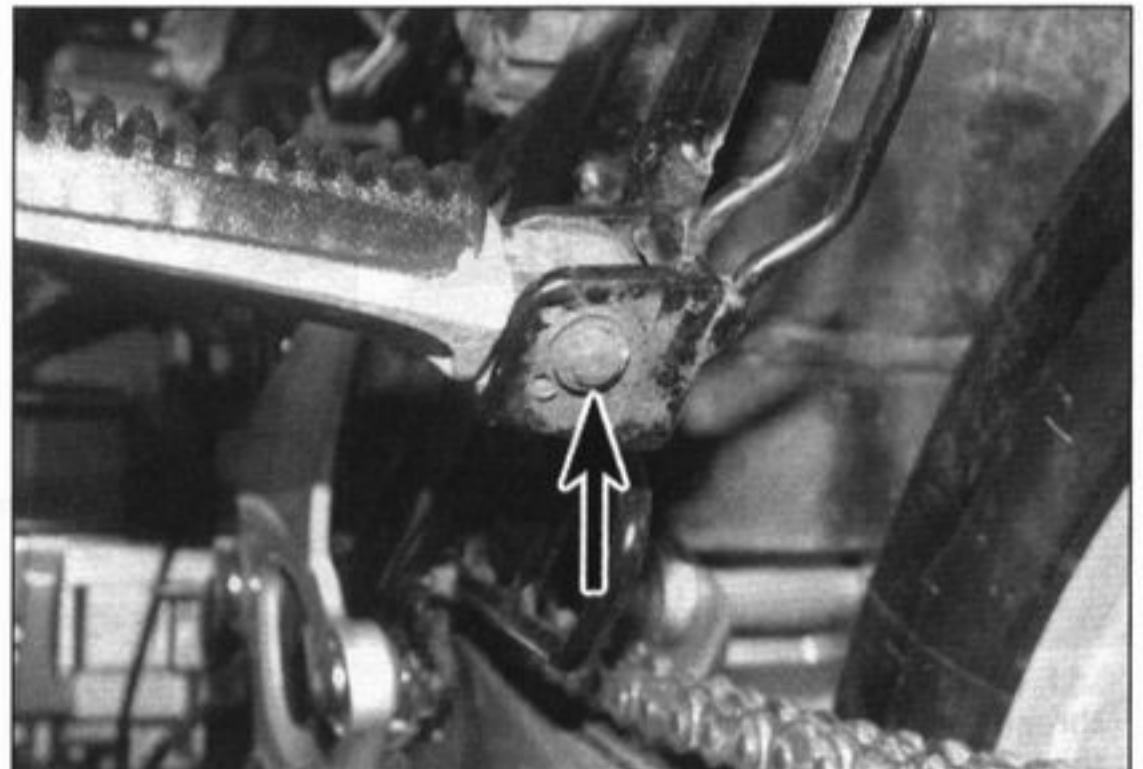
3.1a Unhook the return spring (arrowed)



3.1b Remove the E-clip (arrowed) to free the pivot pin



3.1c Undo the screws (arrowed) to remove the plate



3.2 Remove the E-clip (arrowed) to free the pivot pin



3.9a Unscrew the bolt . . .



3.9b . . . then draw the pedal off the shaft . . .



3.9c . . . and remove the washer

3 Installation is the reverse of removal. Apply some grease to the pivot pin.

Footrests – GSX750 models

4 To remove the front footrests, remove the E-clip from the bottom of the pivot pin, then withdraw the pin and remove the footrest, noting how the return spring ends locate. Also note the collar fitted in the pivot. If required separate the footrest components by undoing the two screws.

5 To remove the rear footrests, remove the E-clip from the bottom of the pivot pin, then withdraw the pin and remove the footrest, noting how the detent plate, ball and spring are fitted. Take care not to let the spring and ball ping out.

6 Installation is the reverse of removal. Apply some grease to the pivot pin.

Brake pedal

7 Before removing the pedal, note the alignment of the punch mark on the end of the pivot shaft with the slit in the pedal clamp. If no mark is visible make your own.

8 On GSX750 models, remove the split pin and washer from the clevis pin securing the brake pedal to the master cylinder pushrod, then remove the clevis pin and separate the pedal from the pushrod.

9 Unscrew the brake pedal clamp bolt, then

draw the pedal off the shaft (see illustrations). On GSX600/750F models remove the washer (see illustration).

10 Installation is the reverse of removal, noting the following:

- Apply grease to the shaft.
- Align the pedal as noted on removal.
- On GSX750 models use a new split pin on the clevis pin securing the brake pedal to the master cylinder pushrod and bend the split pin ends securely.
- Check the operation of the rear brake light switch (see Chapter 1).

Gearchange lever

11 To remove the lever by itself leaving the linkage rod and arm in place, slacken the linkage rod locknuts, then unscrew the rod and separate it from the lever and the arm (the rod is reverse-threaded on one end and so will simultaneously unscrew from both lever and arm when turned in the one direction) (see illustration). Note how far the rod is threaded into the lever and arm as this determines the height of the lever relative to the footrest. Now remove the circlip and washer securing the lever on its pivot, then draw the lever off.

12 To remove the lever, linkage rod and arm as an assembly, note the alignment of the punch mark on the gearchange shaft end with

the slit in the arm, then unscrew the pinch bolt (see illustration). If no marks are visible make your own so that the arm can be installed in the correct position. Now remove the circlip and washer securing the lever on its pivot (see illustration 3.11), then draw the lever, rod and arm off (see illustration).

13 Installation is the reverse of removal, noting the following:

- If the linkage arm was removed, align the slit in the clamp with the punch mark on the end of the gearchange shaft.
- Apply grease to the gear lever pivot.
- Use a new circlip if the old one is deformed (it is best to use a new one as a matter of course).
- Adjust the gear lever height as required by screwing the linkage rod in or out of the lever and arm. Tighten the locknuts.

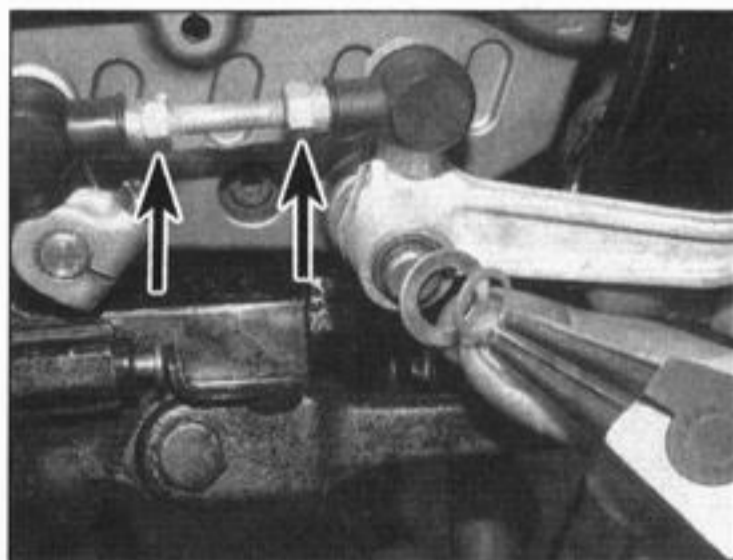
4 Sidestand and centrestand – removal and installation



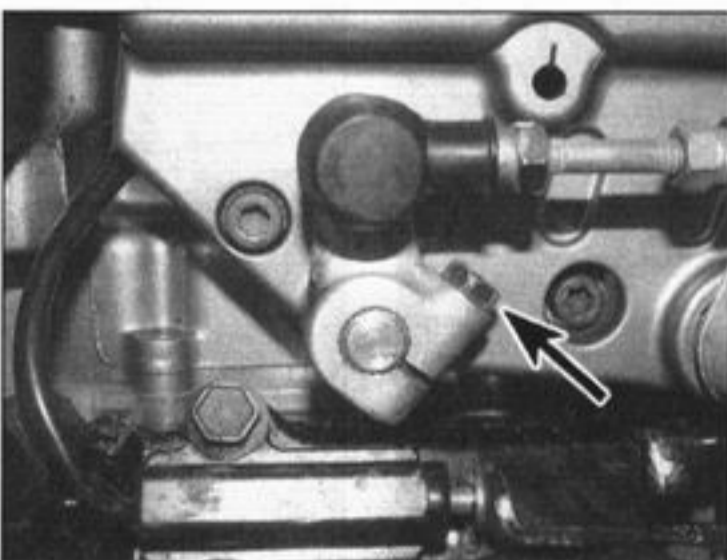
Sidestand

Removal

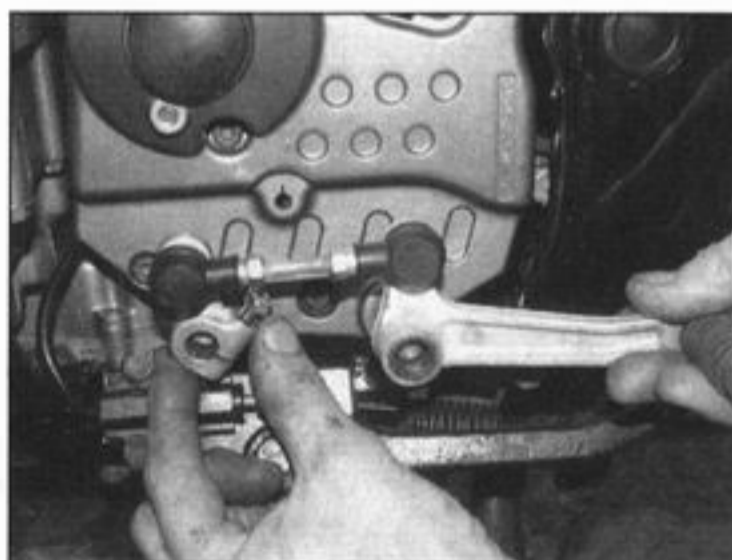
1 The sidestand is attached to a bracket on the frame. Two springs ensure the stand is held in the retracted or extended position.



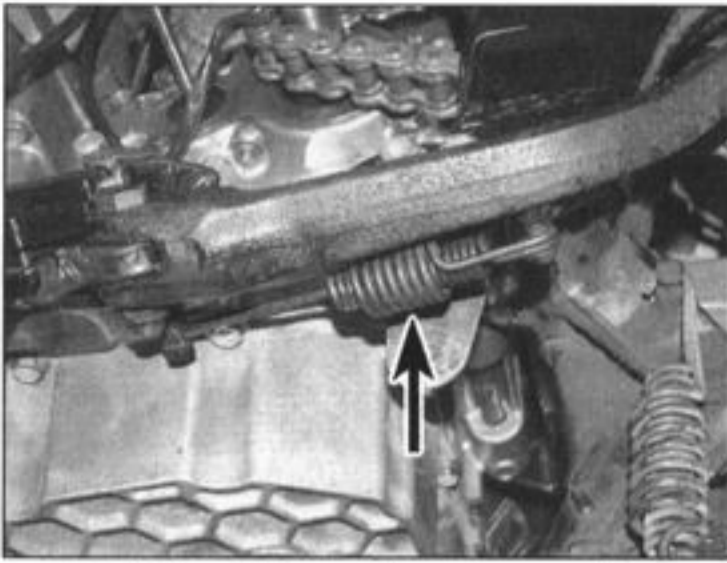
3.11 Slacken the locknuts (arrowed) and thread the rod out of the lever and arm, then remove the circlip and washer and slide the lever off



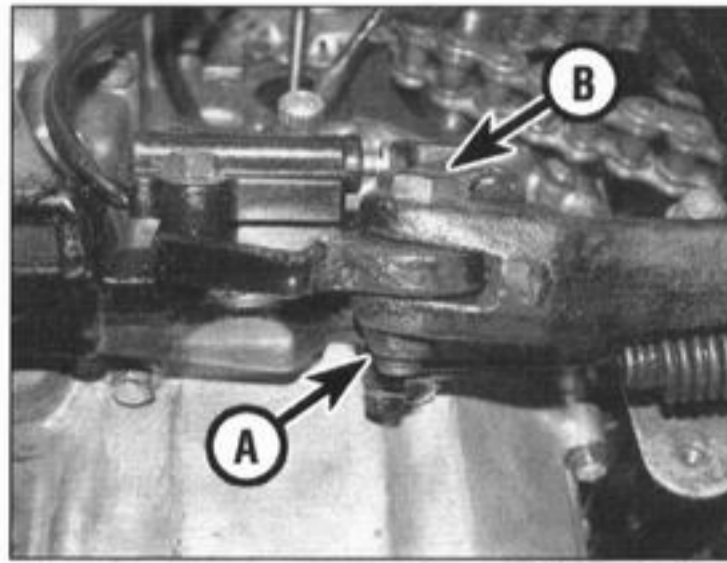
3.12a Unscrew the bolt (arrowed)



3.12b Draw the lever and linkage arm off their shafts



4.2 Unhook the springs (arrowed) . . .



4.3 . . . then unscrew the nut (A) and the pivot bolt (B)

2 Support the bike on its centrestand. Unhook the stand springs (**see illustration**).

3 Unscrew the nut from the pivot bolt, on GSX600/750F models noting the washer, then unscrew the bolt and remove the stand (**see illustration**).

Installation

4 Apply grease to the pivot bolt shank and tighten it. Install the nut, on GSX600/750F models with the washer, and tighten it.

5 Reconnect the springs and check that they hold the stand securely up when not in use – an accident is almost certain to occur if the stand extends while the machine is in motion. Make sure the contact tab locates against the sidestand switch plunger and actuates it correctly.

Centrestand

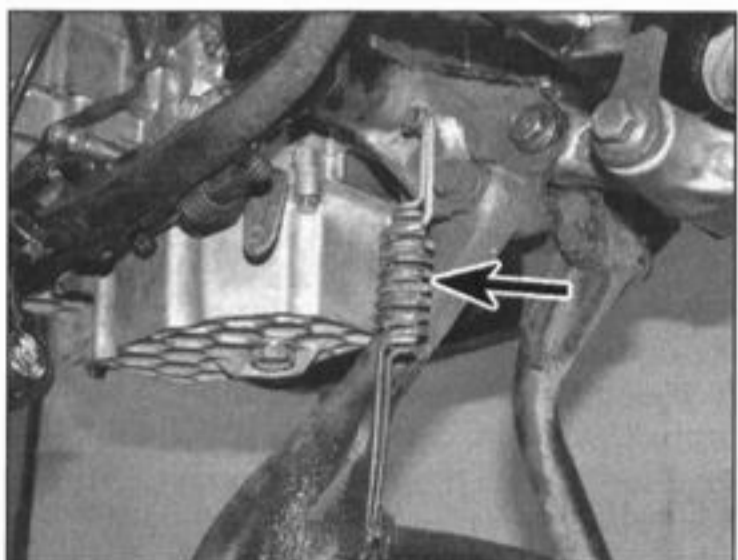
Removal

6 The centrestand is bolted to the frame. Springs anchored between them ensure the stand is held in the retracted position. Support the bike on the sidestand.

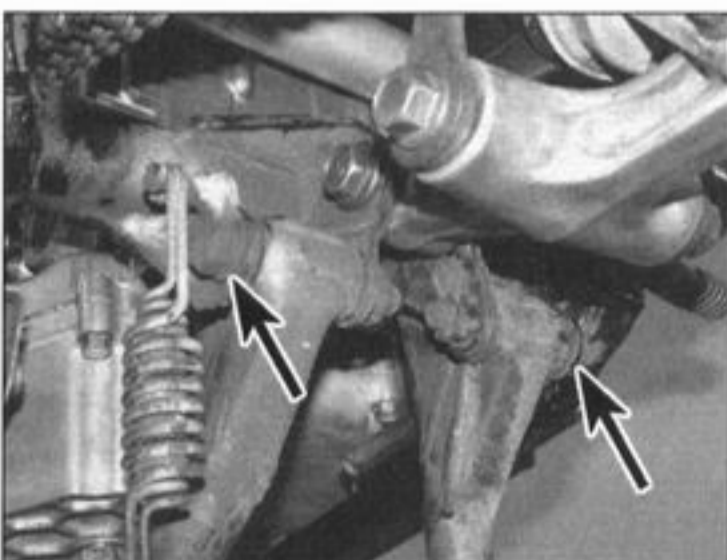
7 Unhook the stand springs (**see illustration**).

8 On GSX600/750F models, unscrew the pivot bolts and remove the stand (**see illustration**). Withdraw the spacer from each pivot.

9 On GSX750 models, unscrew the nut from the pivot bolt, then withdraw the bolt and remove the stand. Withdraw the spacer from the pivot.



4.7 Unhook the springs (arrowed) . . .



4.8 . . . then unscrew the bolts (arrowed)

Installation

10 Apply grease to the pivot bolt(s) and spacer(s). Tighten the bolts or nut.

11 Reconnect the springs and check that they hold the stand securely up when not in use – an accident is almost certain to occur if the stand extends while the machine is in motion.

5 Handlebars and levers – removal and installation

Handlebars – GSX600F models

Right handlebar removal

Note: *The handlebar can be displaced from the top yoke without having to remove the individual assemblies – follow Steps 4 and 5 only.*

1 Disconnect the wires from the brake light switch (**see illustration 5.15a**). Unscrew the master cylinder assembly clamp bolts and position the assembly clear of the handlebar keeping it upright, making sure no strain is placed on the hydraulic hose (**see illustration 5.15b**). Keep the master cylinder reservoir upright to prevent possible fluid leakage.

2 Unscrew the two handlebar switch housing screws and separate the halves. If required, free the throttle cable ends from the throttle

pulley, creating slack in the cable as necessary using the adjusters (**see Chapter 1**). To avoid having to do this, note that the throttle pulley can be slid off the end of the handlebar with the cables still attached after the handlebar has been displaced from the fork.

3 Unscrew the handlebar end-weight retaining screw, then remove the weight from the end of the handlebar (**see illustration 5.17**). If the throttle cables have been detached, slide the twistgrip off the handlebar.

4 Free the handlebar switch wiring from its guide on the top yoke.

5 Carefully remove the handlebar positioning bolt blanking cap. Unscrew the nut on the bottom of the bolt, then unscrew the bolt. Ease the handlebar up and off the fork.

6 If required, slacken the clamp bolts securing the bar itself in the holder and slide it out, noting its alignment.

Left handlebar removal

Note: *The handlebar can be displaced from the top yoke without having to remove the individual assemblies – follow Steps 10 and 11 only.*

7 Disconnect the wires from the clutch switch (**see illustration 5.16a**). Refer to Chapter 2 and detach the clutch cable from the lever and bracket. Slacken the clutch lever bracket clamp bolt (**see illustration 5.16b**).

8 Refer to Chapter 3 and detach the choke cable from the lever – this procedure incorporates detaching the handlebar switch housing.

9 Unscrew the handlebar end-weight retaining screw, then remove the weight from the end of the handlebar and slide off the grip (**see illustration 5.17**). If the grip has been glued on, you will probably have to slit it with a knife to remove it. Slide the clutch lever assembly off the handlebar.

10 Free the handlebar switch wiring from its guide on the top yoke.

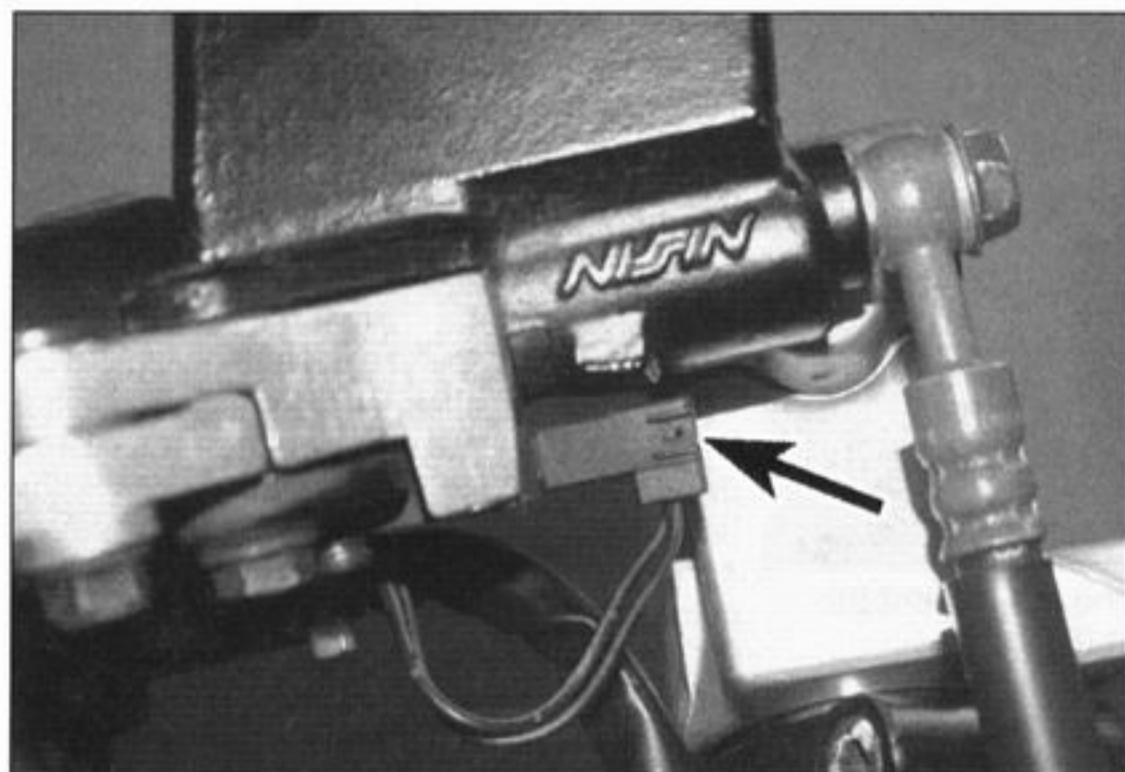
11 Carefully prise the blanking cap out of the handlebar positioning bolt. Unscrew the nut on the bottom of the bolt, then unscrew the bolt. Ease the handlebar up and off the fork.

12 If required, slacken the clamp bolts securing the bar itself in the holder and slide it out, noting its alignment.

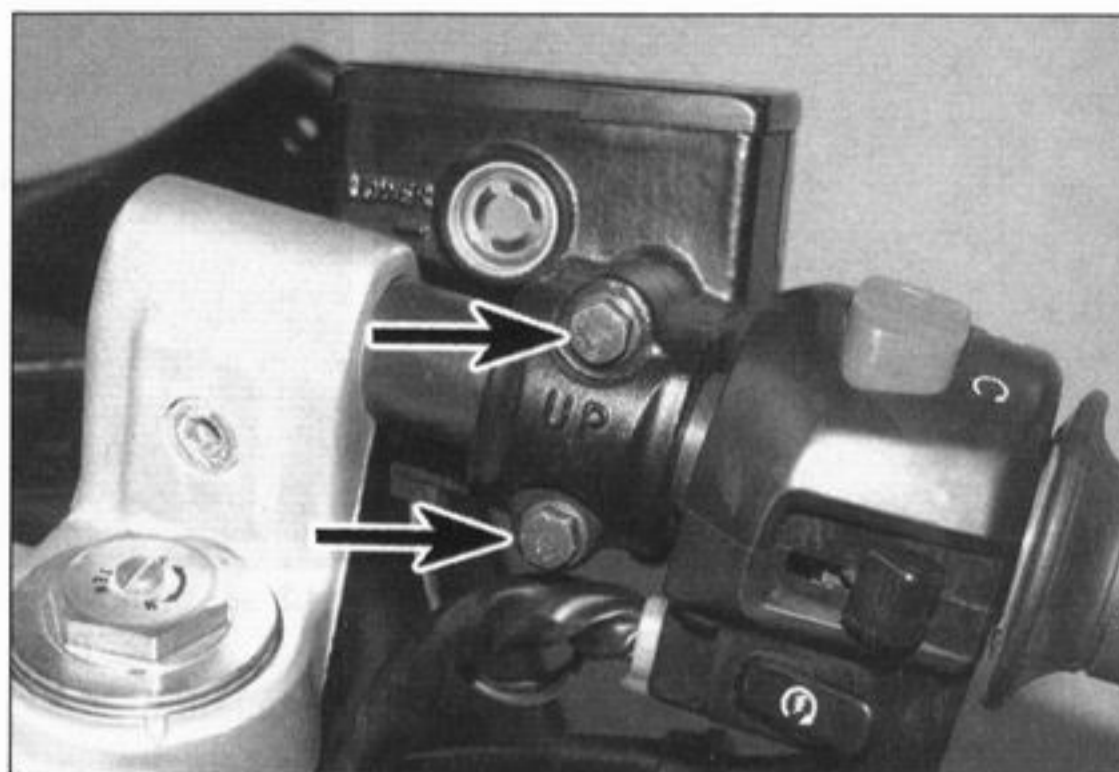
Installation

13 Installation is the reverse of removal, noting the following.

- Tighten the handlebar positioning bolt and its nut to the torque setting specified at the beginning of the Chapter.
- Apply some grease to the throttle twistgrip section of the right handlebar.
- Align the master cylinder clamp mating surfaces with the punch mark on the top of the handlebar.
- Make sure the front brake master cylinder assembly clamp is installed with the UP mark facing up (**see illustration 5.15b**). Tighten the master cylinder clamp bolts to



5.15a Disconnect the wiring connectors (arrowed) . . .



5.15b . . . then unscrew the master cylinder clamp bolts (arrowed) and displace the assembly

the specified torque setting, tightening the top bolt first.

- Align the clutch lever assembly clamp mating surfaces with the punch mark on the bottom of the handlebar, and tighten the bolt.
- Make sure the pin in the top half of each switch housing locates in its hole in the handlebar (see illustration 5.22).
- When installing the handlebar end-weights, use some non-permanent thread locking

compound on the screws. If new grips are being fitted, secure them using a suitable adhesive.

- Do not forget to reconnect the front brake light switch and clutch switch wiring connectors.

Handlebars – GSX750F models

Removal

Note: The handlebar assembly can be

displaced from the top yoke without having to remove the individual assemblies – follow Steps 19 and 20 only. If you do this, cover the instrument cluster with some rag and lay the handlebar assembly on it keeping the master cylinder upright, or if the fuel tank has been removed lay the handlebar assembly on the frame behind the steering head, again using rag.

14 Refer to Chapter 3 and detach the throttle cables and choke cable – these procedures incorporate detaching the handlebar switch housings. Create slack in the throttle cables as necessary using the adjusters (see Chapter 1) to avoid having to detach the cable ends from the throttle cam on the carburetors.

15 Disconnect the wires from the brake light switch (see illustration). Unscrew the two front brake master cylinder assembly clamp bolts and position the assembly clear of the handlebar, making sure no strain is placed on the hydraulic hose (see illustration). Keep the master cylinder reservoir upright to prevent possible fluid leakage.

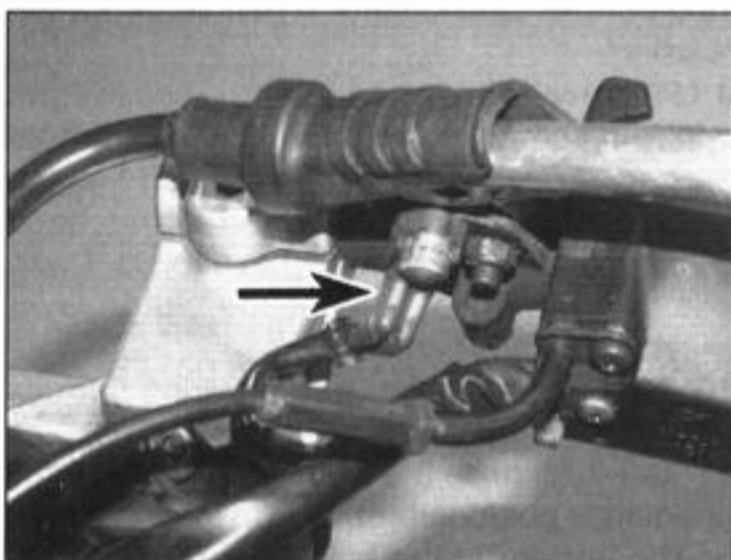
16 Disconnect the wires from the clutch switch (see illustration). Refer to Chapter 2 and detach the clutch cable from the lever and bracket. Slacken the clutch lever bracket clamp bolt (see illustration).

17 Unscrew the right handlebar end-weight retaining screw, then remove the weight from the end of the handlebar and slide the throttle twistgrip off the end (see illustration).

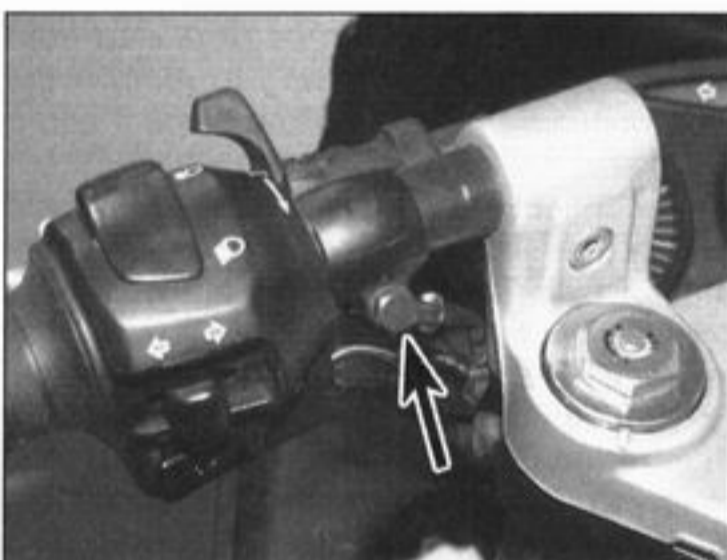
18 Unscrew the left handlebar end-weight retaining screw, then remove the weight from the end of the handlebar and slide off the grip. If the grip has been glued on, you will probably have to slit it with a knife to remove it. Slide the clutch lever assembly off the handlebar.

19 Free the handlebar switch wiring from its guide on the top yoke (see illustration).

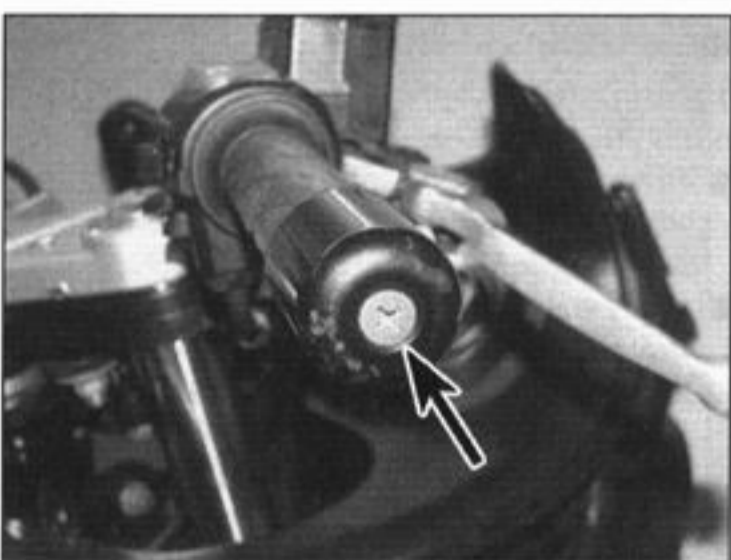
20 Carefully prise the blanking caps out of



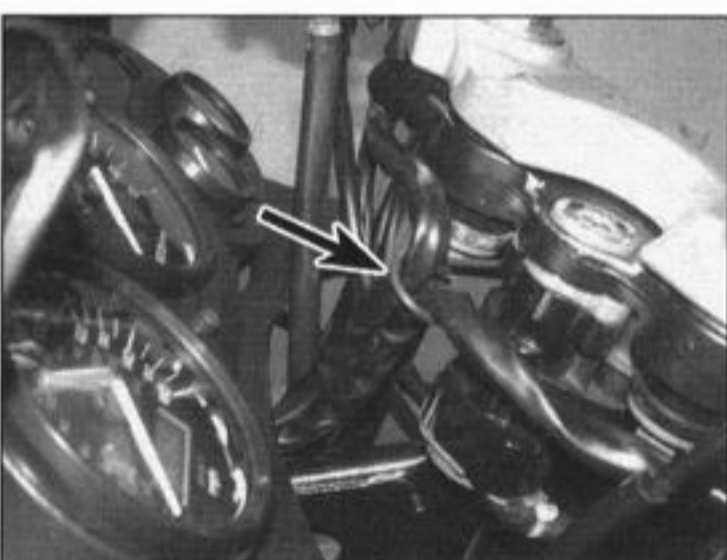
5.16a Disconnect the wiring connectors (arrowed) . . .



5.16b . . . then slacken the clutch bracket clamp bolt (arrowed)



5.17 Handlebar end-weight screw (arrowed)



5.19 Free the wiring from its guide (arrowed)