Chapter 8 Frame and bodywork

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1 General information

The models covered in this manual use a steel frame of roundsection tubing. The front fender is steel; the rear fender and side covers are plastic.

2 Frame - inspection and repair

- 1 The frame should not require attention unless accident damage has occurred. In most cases, frame replacement 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 overstressed.
- 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. Corrosion can also cause weakness at these joints. Loose engine mount bolts can cause elongation of the bolt holes 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.

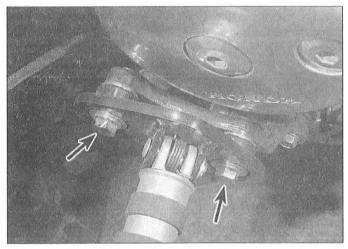
3 Footpegs - removal and installation

Refer to illustrations 3.3 and 3.4

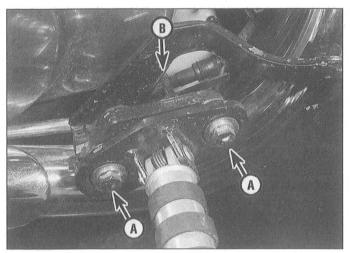
1 The front footpegs are mounted on brackets that also serve as the mounting brackets for the gearshift linkage on the left side (see Chap-

ter 2) and the rear brake pedal linkage on the right side (see Chapter 7). The rear footpegs are mounted on brackets bolted to the frame.

- 2 To replace a footpeg pad on a VT600 model, work the rubber pad off the end of the footpeg. The pad is a tight fit, so this may be difficult. Cutting off the old pad, then heating the new pad in hot water and lubricating it with soap, will make the job easier. (The footpegs and pads on VT750 models are a single assembly.)
- 3 To replace a footpeg, remove the cotter pin and the washer (see illustration), pull out the clevis pin and separate the footpeg from the bracket. On VT750 models, note how the spring is installed, with one end hooked over the rear clevis pin boss on the footpeg and the other end hooked into the bracket. Installation is the reverse of removal. Grease the footpeg clevis pin before installing it.



3.3 To replace a footpeg, remove the cotter pin and washer and pull out the pivot pin; the spring is used only on VT750 models



3.4 VT750 right footpeg and brake pedal assembly

A Mounting bolts

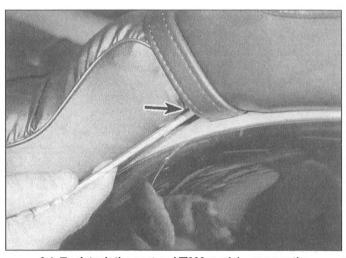
B Brake light switch

4 To replace a front footpeg assembly (footpeg and bracket), remove the bolts that secure the bracket to the frame (see illustration). If you're removing the left footpeg assembly on a VT600 model, detach the gearshift pedal from the back of the bracket (see "Gearshift linkage - removal, inspection and installation" in Chapter 2). If you're removing the right footpeg assembly on a VT600 model, detach the brake pedal from the back of the bracket (see "Rear brake pedal and linkage - removal and installation" in Chapter 7). (On VT750 models, the footpeg brackets can be removed separately; they're not connected to the gearshift pedal or brake pedal.) Installation is the reverse of removal. Tighten the bracket bolts securely.

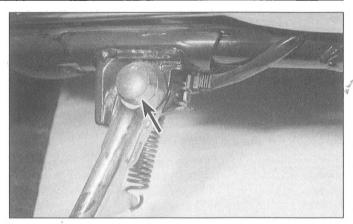
4 Sidestand - maintenance

Refer to illustration 4.1

- 1 The sidestand is attached to a bracket on the frame. A return spring anchored to a bracket on the frame ensures that the stand remains in the extended or retracted position (see illustration).
- 2 Make sure the pivot bolt is tight and the return spring is not fatigued. An accident could occur if the stand extends while the machine is in motion, and damage to the machine could occur if the stand retracts while the machine is resting on the stand.



6.1 To detach the seat on VT600 models, remove the Allen bolt from each side (arrow)



4.1 Make sure the sidestand spring is in good condition and correctly installed; the sidestand pivot bolt is under this cap (arrow)

5 Sidestand - removal and installation

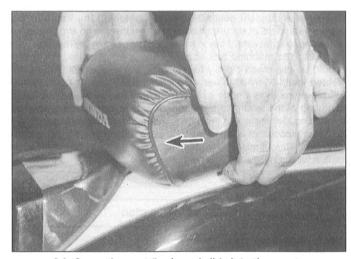
- Support the bike securely so it can't be knocked over during this procedure.
- 2 Unhook the sidestand spring (see illustration 4.1).
- 3 Remove the sidestand switch (see Chapter 9).
- 4 Remove the dust cap (see illustration 4.1).
- 5 Remove the sidestand switch pivot bolt and nut.
- 6 Installation is the reverse of removal. Be sure to grease the pivot bolt and tighten the nut securely.

6 Seat - removal and installation

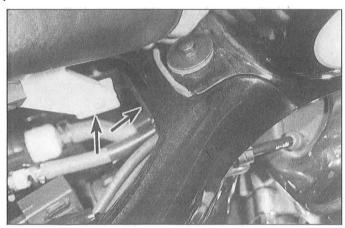
VT600 models

Refer to illustrations 6.1, 6.2, 6.3a and 6.3b

- 1 Remove the two Allen bolts (one on each side) from under the seat (see illustration).
- 2 Grasp the seat firmly and slide it to the rear (see illustration).
- 3 To install the seat, place it in position, then slide it forward. Make sure that the lug under the forward end of the seat slides under the small crossmember on the frame (see illustration) and the two smaller lugs under the rear end of the seat slide under the two retainers on the fender (see illustration).
- Install the two retaining bolts and tighten them securely.



6.2 Grasp the seat firmly and slide it to the rear to disengage the retaining lugs



6.3a To install the VT600 seat, insert the forward retaining lug under this crossmember in the frame (arrow) . . .



Refer to illustration 6.5

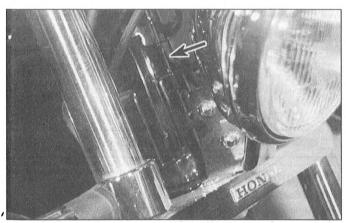
- 5 Remove the passenger seat retaining bolt (see illustration).
- 6 To remove the rear seat, slide it forward and lift it up.
- 7 Remove the front seat mounting bolt.
- 8 To remove the front seat, slide it back and lift it up.
- ⁹ To install the front seat, place it in position, then slide it forward. Make sure that the lug on the forward end of the seat slides under the small crossmember on the frame (see illustration 6.3a).
- 10 Align the hole in the front seat retaining bolt flange with the hole in the fender, install the bolt and tighten it securely.
- 11 To install the rear seat, insert the lug on the forward end of the seat over the front seat mounting bolt, then slide the seat to the rear.
- 12 Align the hole in the rear seat retaining bolt flange with the hole in the fender, install the bolt and tighten it securely.

VT750DC models

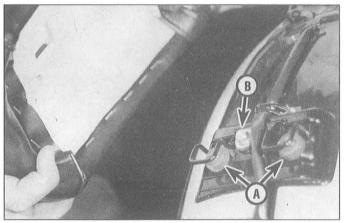
- 13 Remove the bolt and washer on each end of the passenger grab strap. Remove the strap.
- 14 Slide the seat readward to disengage its front hook from the bracket. Lift the seat off the bike.
- 15 Installation is the reverse of the removal steps.

7 Steering head covers (VT600 and VT750C/CD models) - removal and installation

1 The steering head covers conceal and protect wiring harnesses



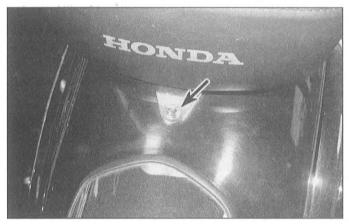
7.3a To remove the joint cover (arrow) from the steering covers on VT600 models . . .



6.3b ... and insert the two rear lugs under their retainers, then slide the seat forward and install the two mounting bolts

A Seat retainers

B Rear fender upper mounting bolt



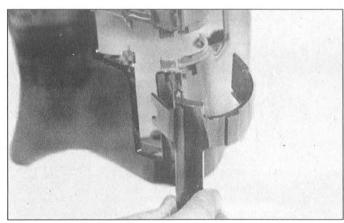
6.5 To remove the rear seat on VT750C/CD models, remove this bolt (arrow), slide the seat forward and lift it up (there's another bolt just like this at the rear of the front seat)

and connectors in the area between the steering head and the fuel tank.Remove the fuel tank (see Chapter 4).

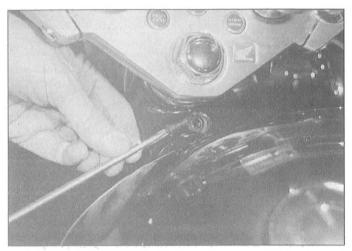
VT600 models

Refer to illustrations 7.3a, 7.3b, 7.4, 7.5a, 7.5b and 7.5c

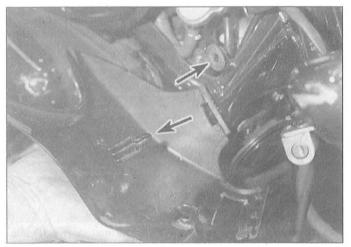
To remove the joint cover (see illustrations), carefully pry it out.



7.3b ... carefully pry it off (joint cover and steering covers removed for clarity)

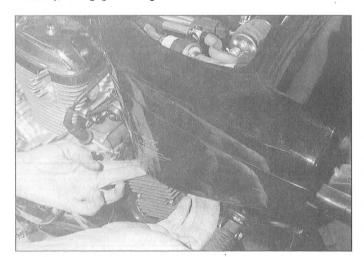


7.4 On VT600 models, remove the steering cover retaining screw (arrow)



7.5b ... to disengage each mounting lug and grommet (arrows)

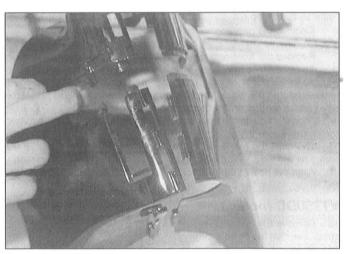
- 4 Remove the retaining screw (see illustration).
- 5 Pull the two steering cover halves apart from the rear to disengage their mounting lugs from the grommets on the frame (see illustrations), disengage the tangs and slots of the two cover halves at the



8.1a To remove a VT600 side cover, put your fingers under the lower edge of the side cover and pull out . . .



7.5a To detach the steering covers from the bike, grasp each cover half at the rear and pull it off . . .



7.5c On VT600 models, the steering cover halves are hinged at the front; lift the left cover up slightly and pull the tangs out of the slots (steering covers removed for clarity)

steering head (see illustration) and remove the covers.

6 Installation is the reverse of removal. Make sure that neither cover half interferes with any wiring harnesses or connectors.

VT750C/CD models

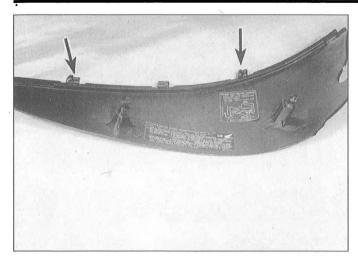
- 7 Remove the two trim clips, one per side, from each steering cover half.
- 8 Pull the two steering cover halves apart to disengage their mounting lugs from the grommets on the frame (see illustrations 7.5a and 7.5b).
- 9 Remove the joint clip and remove the covers.
- 10 Installation is the reverse of removal. Make sure that neither cover half interferes with any wiring harnesses or connectors.

8 Side covers - removal and installation

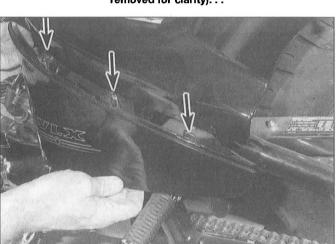
VT600 models

Refer to illustrations 8.1a, 8.1b, 8.1c and 8.2

1 To remove a side cover, put your fingers under the lower edge of the side cover (see illustration) and pull out, disengaging the two mounting bosses on the side cover (see illustration) from their respective grommets on the frame (see illustration).



 8.1b . . . disengaging the two mounting bosses (side cover removed for clarity). . .



8.2 To install a VT600 side cover, insert these three tabs under the lower edge of the rear fender bodywork, then push in the lower edge of the cover and pop the two mounting bosses into their grommets

2 To install a side cover, insert the three positioning tabs across the top of the side cover under the lower edge of the rear fender bodywork (see illustration), then push in the lower edge of the side cover and pop the two bosses into their grommets.

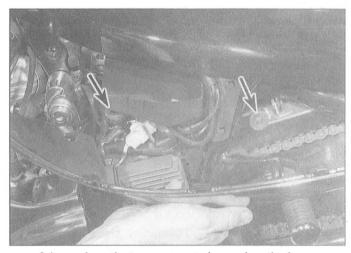
VT750 models

- 3 To remove a side cover, grasp the side cover with both hands and pull it off, disengaging the three mounting bosses (one on top, one near the front end, one near the lower rear corner) from their respective grommets on the frame.
- 4 Installation is the reverse of removal. Simply position the side cover with the three mounting bosses aligned with their corresponding grommets and push in the cover.

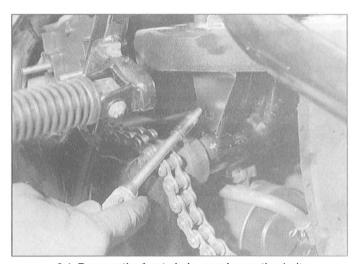
9 Chain guard - removal and installation

Refer to illustrations 9.1 and 9.2

- 1 Remove the front chain guard mounting bolt (see illustration).
- 2 Remove the rear chain guard mounting bolt and, on VT600 models, disengage the guard from the grommet on the swingarm (see 'flustration).
- Installation is the reverse of removal. Tighten the bolts securely.



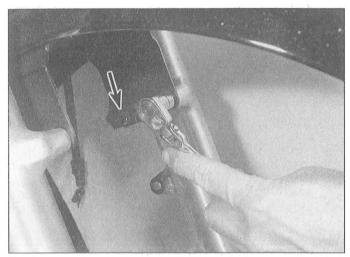
8.1c ... from the two grommets (arrows) on the frame



9.1 Remove the front chain guard mounting bolt (VT600 model shown)



9.2 Remove the rear chain guard mounting bolt and, on VT600 models, disengage the guard from the grommet on the swingarm (arrows)



10.2 To detach the fender from the forks, remove these two bolts from the left side and the two bolts from the other side



11.5a Disengage the taillight harness from these clips . . .

10 Front fender - removal and installation

Refer to illustration 10.2

- 1 Remove the front wheel (see Chapter 7).
- 2 Unbolt the fender from the forks (see illustration).
- 3 Installation is the reverse of the removal steps. Tighten the bolts securely. Don't forget to route the speedometer cable through the loop on the left side of the fender.

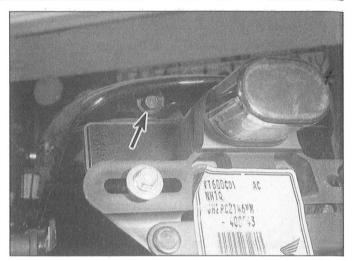
11 Rear fender - removal and installation

- 1 On VT600 models, remove the seat; on VT750 models, remove the front and rear seat (see Section 6).
- 2 On VT600 models, remove the left and right side covers; on VT750 models, remove the right side cover (see Section 8).

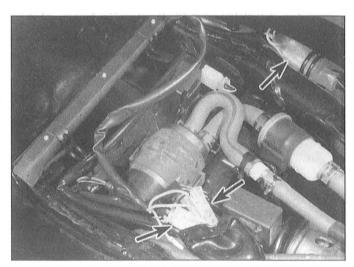
VT600

Refer to illustrations 11.4, 11.5a and 11.5b

- 3 Remove the fuel tank (see Chapter 4).
- 4 Remove the rear fender mounting bolts (see illustration).
- 5 Disengage the taillight wiring harness from its clips (see illustra-



11.4 Remove the two VT600 rear fender bolts (arrow) (left bolt shown)



11.5b ... and unplug the electrical connectors (arrows) for the taillights

tion) and unplug the electrical connectors for the harness (see illustration).

- 6 Remove the taillight assembly from the rear fender (see Chapter 9).
- 7 Remove the rear fender mounting bolt (see illustration 6.3b) and nut (see "Taillight assembly removal and installation" in Chapter 9).
- 8 Installation is the reverse of removal.

VT750 models

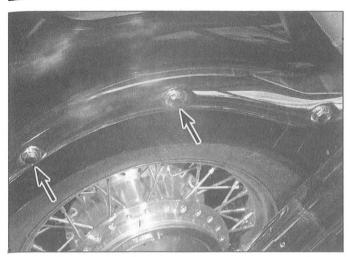
Refer to illustration 11.10

- 9 Unplug the electrical connectors for the taillight.
- 10 Remove the fender mounting bolts (see illustration).
- 11 Remove the fender. If you're replacing the fender, the taillight assembly or the license plate/turn signal assembly, remove the taillight assembly and the license plate light/turn signal assembly (see Chapter 9).
- 12 Installation is the reverse of removal.

12 Rear sub-frame (VT600 models) - removal and installation

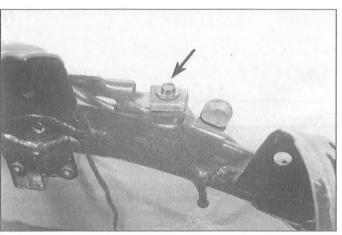
Refer to illustration 12.3

1 Remove the rear fender (see Section 11).



11.10 To detach a VT750 rear fender from the grab rails, remove the fender mounting bolts (arrows) (right side shown)

- 2 Unplug the electrical connectors for the left and right turn signal lights (see illustration 11.5b). The wires for the left turn signal are green and orange; the wires for the right turn signal are green and light blue.
- 3 Remove the two rear sub-frame mounting bolts (see illustration).
- 4 Remove the rear sub-frame from the frame.
- 5 Installation is the reverse of removal. Be sure to tighten the rear sub-frame mounting bolts securely.



12.3 To detach the VT600 rear sub-frame from the frame, remove the two sub-frame mounting bolts (arrow) (left bolt shown)

13 Rear grab rails (VT750 models) - removal and installation

- 1 Remove the rear fender (see Section 11).
- 2 To remove the left fender grab rail, loosen the mounting nut located at the upper end of the left shock absorber, then remove the grab rail mounting bolt and washer. Remove the left grab rail.
- 3 To remove the right fender grab rail, remove the right shock absorber (see Chapter 6), then remove the grab rail mounting bolts. Remove the right grab rail.
- 4 Installation is the reverse of removal.

Notes