Honda Super Cub Etc.

Frame & Forks

Introduction

This section is all about how to strip, servioce and rebuild the frame and forks of the Honda Super Cub and other bikes using the same frames, plus all the anciliary components not covered in the Engine, Electrics, or Maintenance Sections. This page is still under construction

All the models using the Super Cub frame are covered here, although models such as the CT50 will have far fewer components. The only area or real difference between models is the forks - some use leading link and others use telescopic types. Note that although the frames may appear to be the same, there are any number of detail differences that, although the stripping and rebuilding methods are the same, many components are not interchangeable. Frames fall into 4 main groups:

A - Pre 1968 (C100/C102/C105)
B - 1968 to 1983 Small (C50/C70/CT50/CT90)
C - 1968 to 1983 Large (C90)
D - 1982 to present (C50/C70/C90)

Note that the CT series used telescopic forks even though the C50/C70 used leading link forks with basically the same frame. Note also the CT70 is not part of the same family, it used an ST type of frame.

Remember to disconnect the battery if you intend disconnecting any electrical items, and to reconnect it again later.

Contents

1.0 Engine

How many parts you remove while dropping the engine out of the frame depends on the reason for taking the engine out. If it is to work on the frame, many components can remain attached to the engine, the fewer components you remove then the less chance there is of loosing something. There is always the time factor to be considered as well.

1.1 Lean the bike against a wall, but make sure it will not fall as you work on it.
1.2 Remove the left hand side cover, held on by three screws. Disconnect the wiring loom. Disconect the carburettor overflow pipe, a plastic pipe usually attached forward of the generator.
1.3 Remove the chain from the engine either by splitting the chain at its split link, or by removing the 2 bolts holding the engine sprocket on. Once the engine sprocket bolts are removed you will have to rotate the sprocket retention plate until it comes off the splines. Remove the sprocket (screw the retention plate to the sprocket to keep everything together).
1.4 Remove the screw holding on the carburettor access panel (the black plastic panel on top of the frame above the engine.
1.5 Remove the 2 bolts fixing the inlet manifold to the engine cylinder head. (Only remove the carburettor if you intend to work on it or the frame, see the carburettor section). Stuff some clean kitchen towel or cloth into the intake port of the engine to stop things falling into it.
1.6 Remove the bolts holding on the plastic legshield, if fitted. Also remove the 2 straps, one each side of the engine, rhat form part of the legshield mount.
1.7 Move to the right hand side of the bike and remove the muffler/exhaust system. There are 2 nuts at the engine end and one bolt on the frame. Remove the spark plug lead.
1.8 Remove the upper and rear engine hanger bolts, these are the large bolts that hold the engine in, one is at the top of the transmission housing and the other is near where the engine sprocket is mounted. Slacken Remove the nuts and washers from both first, then you will have to try and lift the engine slightly to pull out the upper bolt (you may need to tap it lightly with a soft mallet to start it. Gently lower the front od the engine down to the ground. By supporting the engine on the footpeg you should be able to remove the rear engine mounting bolt. You may have to wriggle the engine to pull it out from the frame.
1.9 (If stripping the engine) Remove the footpeg bar, held on by 4 bolts underneath the transmission, and the gear pedal. Note that you might have to use an old screwdriver to open out the clamp a bit to pull the gear pedal off its splines.

Give the engine a clean off as it will probably have accumulated a quantity of road dirt. Don't let anything enter where the air intake manifold was bolted.

For stripping the engine, see the 'Horizontal OHC 49-86cc Engine' page.

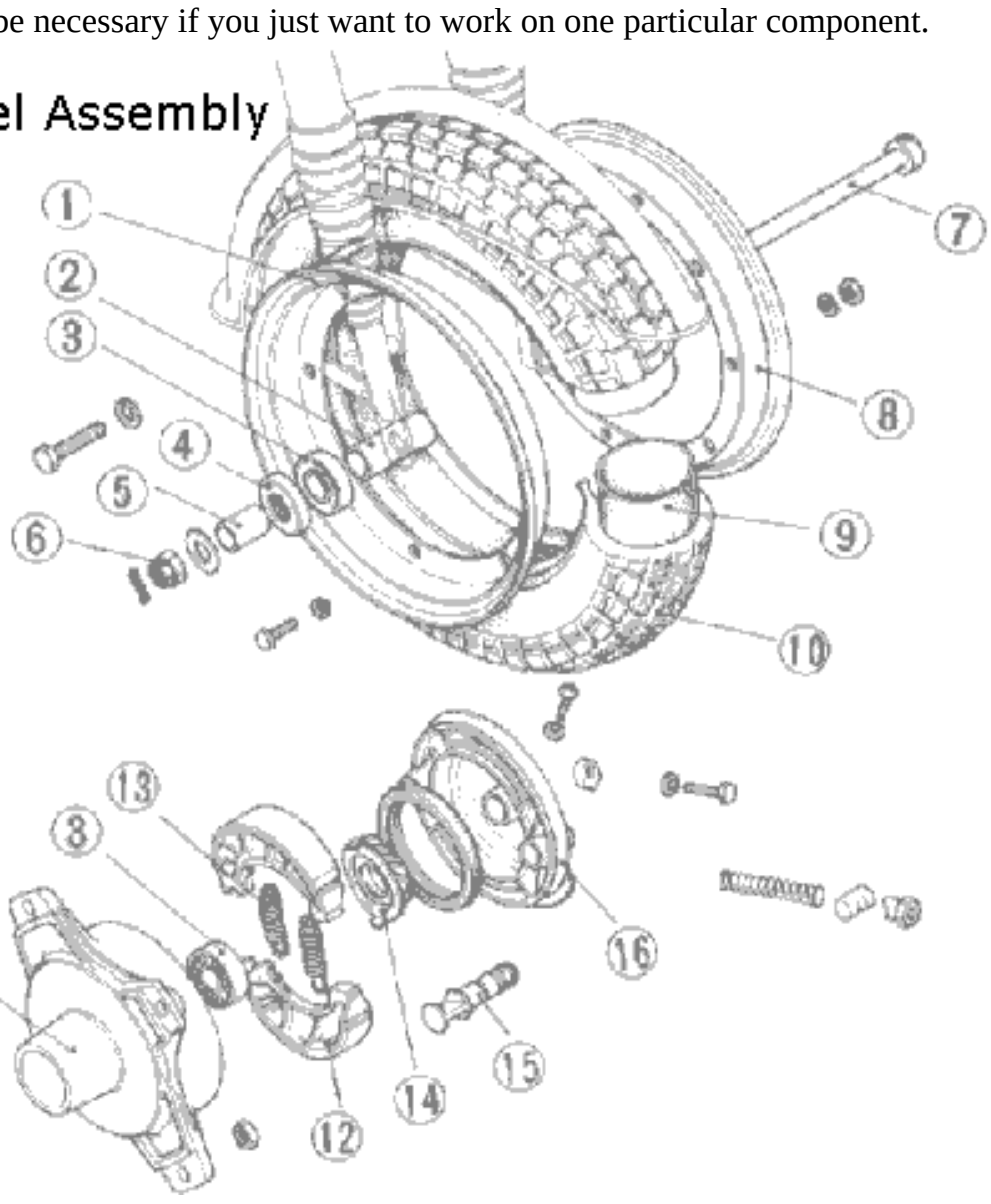
Refitting the engine is basically a reversal of the removal.

1.10 Fit the footpeg bar.
1.11 Lift the back of the engine into the frame and slide the rear mounting bolt through.
1.12 Lift the front of the engine and slide the upper engine mount bolt through.
1.13 Fit the nuts on the rear and upper mounting bolts and tighten.
1.14 Fit the muffler, making sure that a gasket ring is fitted.
1.15 Remove your paper bung out of the intake port, check that there is a gasket fitted and refit the carburettor.
1.16 Refit the front engine mounting straps and the legshields. Note that the straps are marked with an 'L' or 'R' to show you which side they go on.
1.17 Refit the chain, and the engine sprocket if it was removed. Check the chain tension and adjust if necessary.
1.18 Refit the carburettor overflow pipe and the engine loom.
1.19 Refit the left hand side cover.
1.20 Refit the gear pedal if it has been removed.
1.21 Start the engine and check that everything is working, that there are no leaks from the exhaust or into that air intake system. Make sure that the engine revs freely (although be careful here if the engine has been rebuilt. The engine may smoke an awful lot if you have had it apart, but do not worry unduly as it is just oil in the combustion chamber and around the rings that is burning off. It may take 10 minutes for the smoke to disappear).
1.22 Refit the plastic carburettor access panel.

2.0 Front Wheel & Brake Assembly

This is quite an easy job as the wheel assembly is quite light. Note that it is important to note where the wheel spacer goes, and that the brake shoes are the same as the Honda C50 & C70 Cub/Passport. Generally it is easier to buy Cub/Passport parts.
Not all the operations below may be necessary if you just want to work on one particular component.

CF50/70 Front Wheel Assembly



1 - Right Wheel Rim
2 - Front Axle Distance Collar
3 - Bearing
4 - Oil Seal
5 - Front Wheel Side Collar
6 - Axle Nut
7 - Front Wheel Axle
8 - Left Wheel Rim
9 - Tube
10 - Tire
11 - Front Wheel Hub
12 - Brake Shoe
13 - Brake Shoe Spring
14 - Speedo Gear
15 - Brake Shoe Cam
16 - Front Brake Panel

2.1 Put some kind of stand/strong box/bottle crate under the engine so that the front wheel is off the ground.
2.2 Disconnect the front brake cable by removing the adjuster nut, and the speedometer cable. Note: This does not have to be done if you are not going to work on the brake.
2.3 Pull out the cotter pin/split pin and remove the axle nut.
2.4 Pull the axle spindle out, this may require a few taps with a soft mallet.
2.5 Remove the front wheel, catching the side collar if it falls off the front wheel (the side collar is only held in by the oil seal).
2.6 Remove the side collar and the brake, be careful as the speedometer gear may fall out of the brake.
2.7 Remove the brake shoes by pulling the shoes against the force of the springs to get them off the mounting pivots.
2.8 Remove the external brake operating arm and push the brake shoe cam through from the outside.
2.9 Remove the oil seal and bearings, if required.
2.10 Deflate the tyre.
2.11 Remove the 4 bolts attaching the wheel to the hub and remove the hub.
2.12 Remove the remaining bolts holding the 2 rim halves together, and remove the wheel rims from the tyre.

Check the wheel rims for damage, examine both the inside and outside of the tyre to make sure no stones or metal are embedded in the rubber. Measure the brake linings and check they are in good condition. Examine the hub part of the brake to make sure the metal is not scored or worn unevenly.

2.13 To assmble the front wheel it is necessary to have the tube inflated just enough to give it shape. Put the tube in the tyre.
2.14 Fit the wheel rims, feeding the tube valve through the valve hole in one of the rims. Make sure that you do not pinch the tube.
2.15 Fit the four 6 mm bolts through the rim and do them up but not tight.

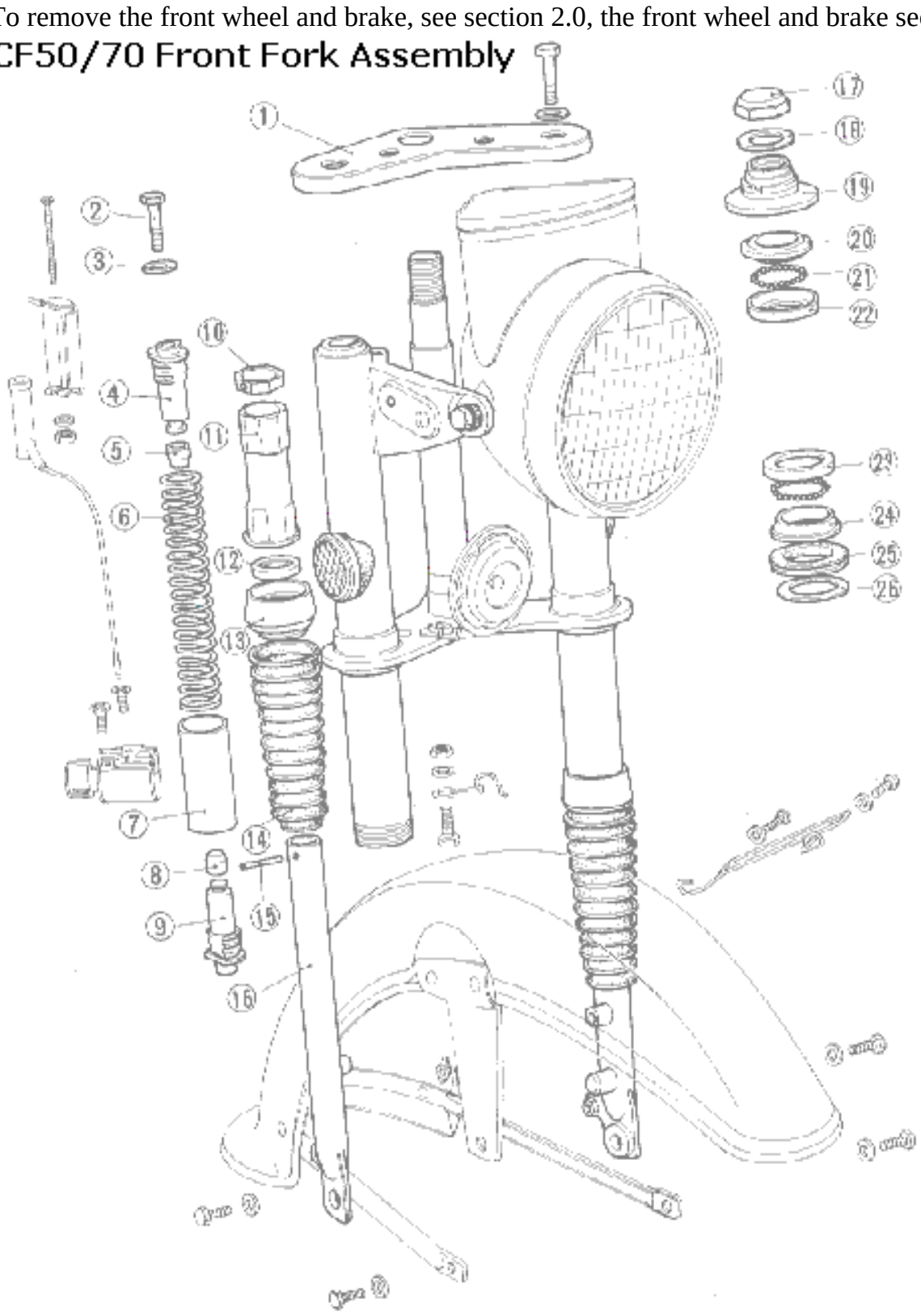
2.16 Grease the bearings. Fit one, then the distance collar and then the second bearing. Fit the oil seals.
2.17 Fit the four 8 mm bolts and the hub into the wheel, tighten all eight wheel bolts evenly.
2.18 Fit the brake cam and then the external operating arm. Fit the springs to the shoes, and then fit the shoes to the brake unit.
2.19 Make sure that the speedometer gear is installed on the brake panel. Fit the brake into the hub, making sure that the tabs on the speedometer gear engage with its drive slots in the hub.
2.20 Making sure that the side collar is fitted, fit the wheel into the forks. Make sure that the slot on the back of the brake panel engages with the cast peg on the left hand fork leg.
2.21 Fit the axle spindle. Fit the washer and the axle nut. Tighten the axle nut and fit the cotter pin.
2.22 Fit the speedometer cable.
2.23 Fit the spring onto the brake cable, slide the pin into the external brake operating lever, and slide the brake cable through the hole in the oin. Fit the brake adjusting nut.
2.24 Operate the brake a few times to make sure that the brake shoes have settled into position. Adjust the brake (see the Maintenance page).
2.25 Inflate the tyre to its correct pressure.
2.26 Give the bike a gentle road test and then recheck all the nuts etc for security and re-adjust the brake if required.

3.0 Front Fork Assembly - Leading Link Type

4.0 Front Fork Assembly - Telescopic Type

To remove the front wheel and brake, see section 2.0, the front wheel and brake section.

CF50/70 Front Fork Assembly



1 - Fork top bridge plate
2 - Front fork bolt
3 - 10.3mm washer
4 - Shock absorber upper spring holder
5 - Front shock absorber stopper rubber
6 - Front shock absorber spring
7 - Front shock absorber cover
8 - Front shock absorber rubber
9 - Shock absorber spring lower holder
10 - Slide pipe piston
11 - Fork guide cap
12 - Oil seal
13 - Fork pipe guide cap
14 - Front fork boot
15 - Spring pin
16 - Fork slide pipe
17 - Steering stem nut
18 - Steering stem nut washer
19 - Steering head top thread
20 - Steering top cone race
21 - #6 steel balls
22 - Steering bottom cone race
23 - Steering top ball race
24 - Steering bottom cone race
25 - Steering head dust seal
26 - Steering head dust seal washer

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15 - Spring pin
16 - Fork slide pipe
17 - Steering stem nut
18 - Steering stem nut washer
22 - Steering bottom cone race
23 - Steering top ball race
24 - Steering bottom cone race
25 - Steering head dust seal
26 - Steering head dust seal washer

CF front fork assembly

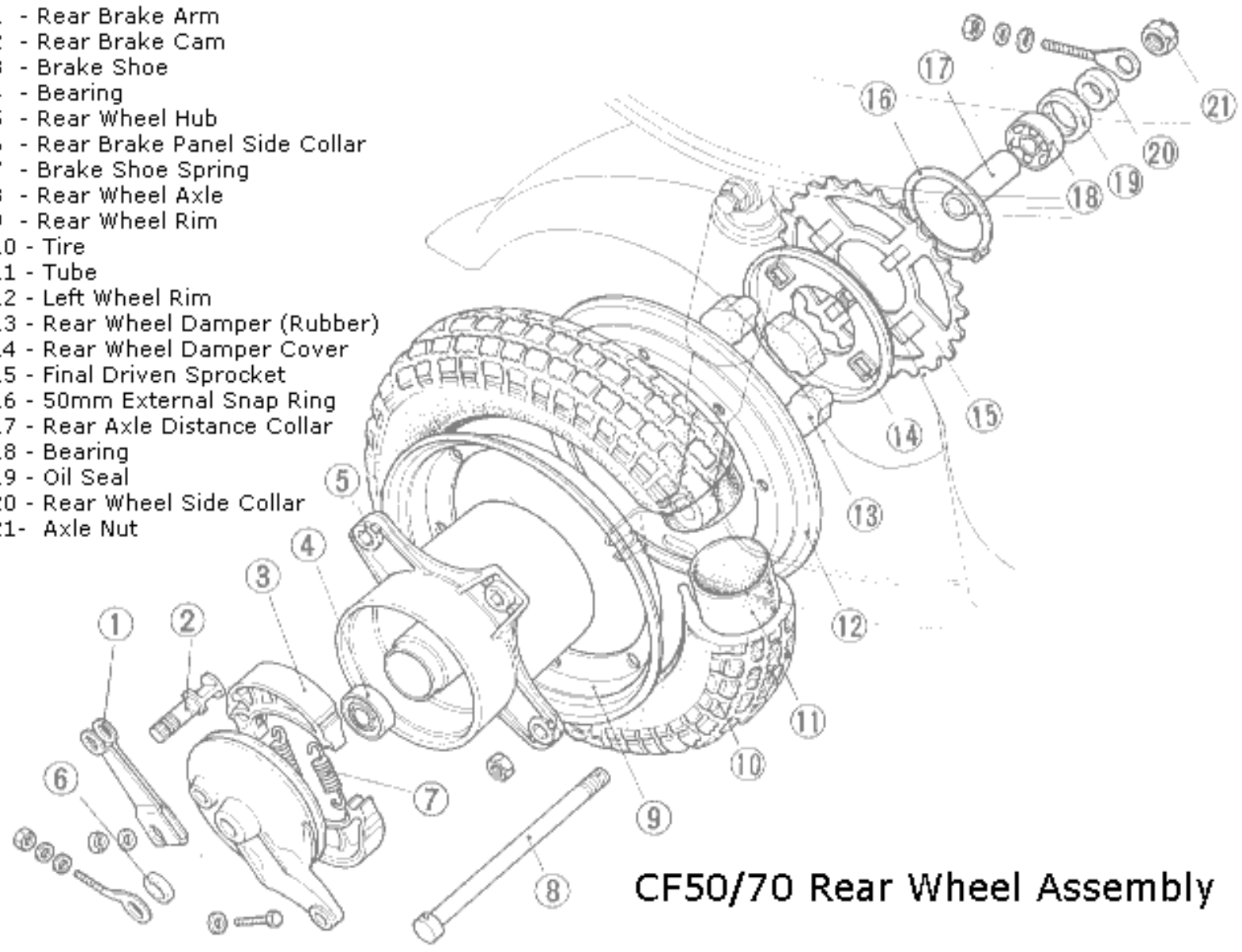
4.1 Disconnect the speedometer cable and the front brake cable.
4.2 Remove the headlight assembly and disconnect the turn signal/horn switch leads and dimmer switch leads.
4.3 Either disconnect the throttle cable from the carburetor or remove the throttle unit from the handlebar or just be prepared to hang the handlebar from the bike if it is only the forks you are interested in.
4.4 Remove the upper handlebar holders, remove the choke cable stay and remove the handlebars.
4.5 Remove the front wheel (see section 2).
4.6 Remove the front wheel mudguard/fender.
4.7 Remove the front fork bolts from the top yoke/bridge plate.
4.8 Loosen the fork guide caps (Honda recommend a special tool for this: Tool no. 07902 0980000, but you may be able to find something similar in a good tool shop). and remove the front shock absorber assemblies.
4.9 Remove the top fork bridge/yoke.
4.10 Remove the headlight case.
4.11 Remove the steering top thread and remove the front fork. Do not loose the ball bearings!
4.12 The slide pipe piston has a pin through it. Use an appropriate pin punch and hammer to knock the pin through. Now the shock absorber can be taken apart.

Examine all the parts for wear and pitting, particularly the numerous bearing faces. Make sure all the cables are in good condition and operate freely. Examine the electrical connectors for corrosion. Clean all the parts. Compare the components of one shock absorber with the other as this will be your best guide to something wrong if you are unsure what to look for when something is wrong. Keep all the parts for each shock absober assembly separate from the other.

4.13 Clean the ball bearings and their races and re-grease.
4.14 Refit all the balls back in the steering top ball races and fully tighten the steering top thread. Back off the top thread 1/3 of a turn and check to see that the forks turn with reasonable ease.
4.15 Put the shock absorber assemblies back together, fit the shock absorber gaiters, fork guide cap and fork pipe guide to the piston first and apply a coat of grease to the shock absorber spring and the fork guide cap.Refit the slide pipe pistons pins. Make sure that the pin is driven fully home.
4.16 Temporarily fit the top fork bridge.
4.17 Properly install the front shock absorbers with the little indentations on top of the units facing the other shock absorber. fit the top fork bridge.
4.18 Install the handle bar with the punch marks on the handlebar in line with the lower holders. Fit the upper holders, remembering to refit the choke mounting strap.
4.19 Refit the front wheel. Connect the brake and speedometer cables at both ends.
4.20 Reconnect the throttle and the wiring connectors.
4.21 Adjust the brakes. check everything is secure.
4.22 Gently road test the bike, make sure everything is secure and readjust the brake if required.

5.0 Rear Wheel & Brake Assembly

1 - Rear Brake Arm
2 - Rear Brake Cam
3 - Brake Shoe
4 - Bearing
5 - Rear Wheel Hub
6 - Rear Brake Panel Side Collar
7 - Brake Shoe Spring
8 - Rear Wheel Axle
9 - Rear Wheel Rim
10 - Tire
11 - Tube
12 - Left Wheel Rim
13 - Rear Wheel Damper (Rubber)
14 - Rear Wheel Damper Cover
15 - Final Driven Sprocket
16 - 50mm External Snap Ring
17 - Rear Axle Distance Collar
18 - Bearing
19 - Oil Seal
20 - Rear Wheel Side Collar
21- Axle Nut



CF50/70 Rear Wheel Assembly

5.1 Place some kind of stand under the engine so that the bike sits securely with the rear wheel off the ground.
5.2 Pull out the cotter pin/split pin and remove the axle nut. Slcken the nuts on the axle adjuster on that side and remove the axle adjuster.
5.3 Remove the brake adjuster nut and disconnect the brake.
5.4 Remove the rear bolt from the rear brake torque arm.
5.5 You may remove the chain by removing the split link. The chain may be left in place,,but when you remove the wheel you will just have to unhook the chain from the wheel sprocket.
5.6 Slacken the second axle adjuster nuts and remove the axle spindle and the second adjuster.
5.7 Remove the rear wheel and the brake. Do not loose the side collar, which will fall out as the wheel is removed. To strip the wheel and brake, use the same procedure as for the front wheel (but this brake has no speedometer drive).

5.8 Remove the 50mm snap ring and remove the sprocket.

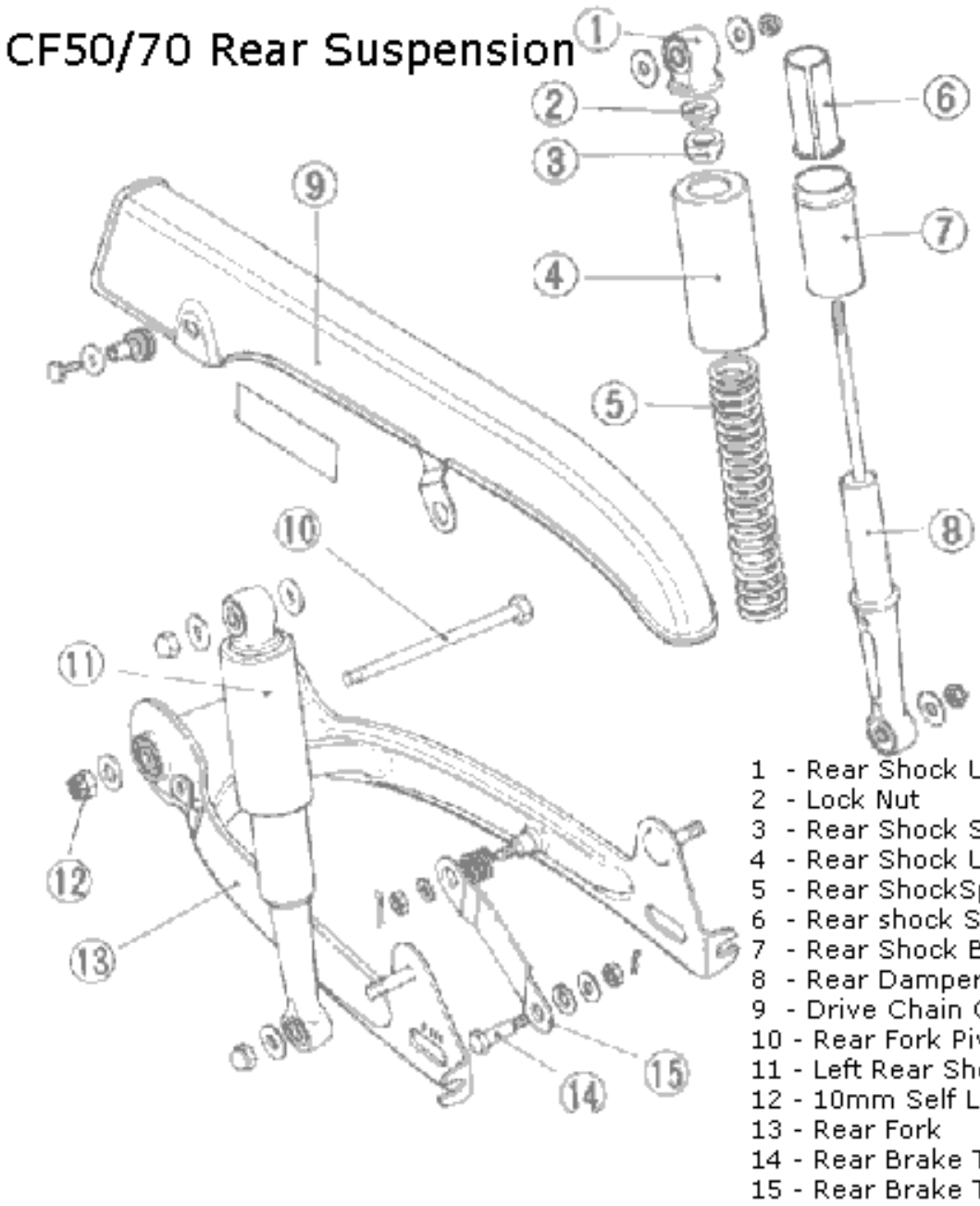
Checking the tyre and brakes is that same as for the front wheel. Check the sprocket for tooth wear. Check the 4 rubber wheel dampers for condition.

Sprocket Condition

5.9 Reassemble the brake and wheel the same way as the front wheel.
5.10 Fit the 4 rubber wheel dampers in the hub, fit the sprocket and the 50 mm snap ring.
5.11 Fit the wheel back into to swinging arm, making sure tha t you include the side collar on the brake side of the wheel.
5.12 Fit an axle adjuster to the axle spindle and fit the axle spindle. Make sure it passes through the side collar, and engage the axle adjuster in the swinging arm.
5.13 Fit the chain. Note that the closed end of the split chain link should face in the direction of the chain travel.
5.14 Fit the other axle adjuster and the axle nut. Adjust the chain (see the Maintenance page).
5.15 Tighten the axle nut and fit the cotter pin.
5.16 Loosely connect the brake torque arm.
5.17 Fit the spring onto the brake rod, fit the pin into the brake operating lever, and the brake rod through the hole in the pin. Fit the brake adjusting nut, but do not adjust.
5.18 Stand the bike on its wheels.
5.19 Tighten the brake torque rod and check that everything is secure.
5.20 Adjust the brake, pump the pedal a few times and readjust the brake.
5.21 Give the bike a gentle road test, check everything is secure and re-adjust the brake if necessary.

6.0 Rear Suspension

To remove the rear suspension you will have to refer to the rear wheel and brake section. Note that the shock absorbers can be removed without affecting anything else, but you can only do one side at a time.



6.1 Support the bike under the engine so that the rear wheel is free of the ground and the bike is secure.
6.2 Remove the rear shock absorbers.
6.3 Remove the chain case.
6.4 Remove the rear wheel and brake assembly (see section 4).
6.5 Remove the swinging arm pivot bolt nut and washer, pull out the pivot spindle.
6.6 Use a shock absorber compressor too, to compress the shock absorber.
6.7 Loosen the locking nut and unscrew the top mount and locking the locking nut.
6.8 Carefully release the shock absorber compressor, the shock absorber will then come apart.

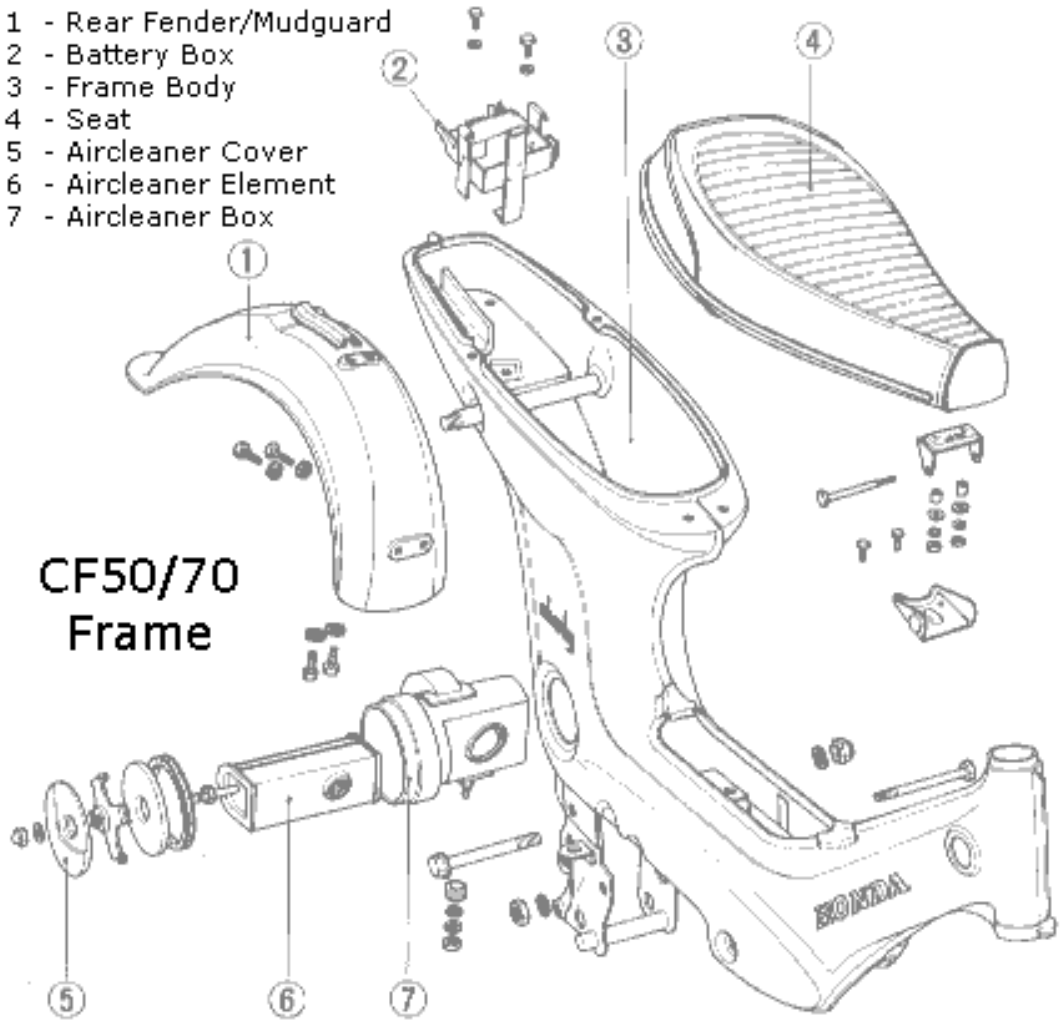
Examine all the components for wear, and for oil leakage from the shock absorbers. Check the swinging arm pivot bushes for wear. Clean all the parts.

6.9 Reassemble the shock absorber, compress using the compressor tool and refit the locking nut and top nut. Tighten the locking nut.
6.10 Fit the swinging arm into the frame, fitting the pivot bolt from the right hand side of the bike.
6.11 Fit the rear wheel (see section 4).
6.12 Fit the chain case.
6.13 Fit the rear shock absorbers, but do not tighten the nuts.

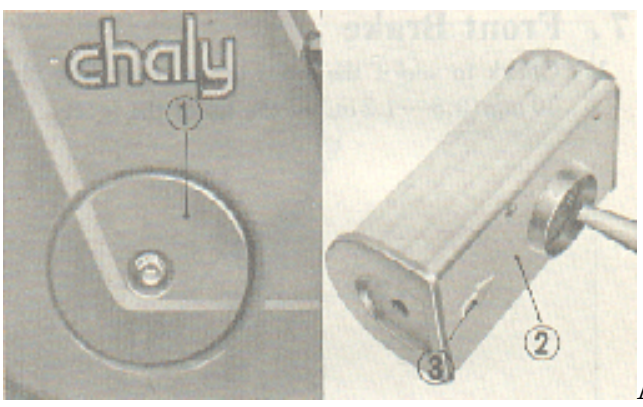
6.14 Put the bike back on the ground.
6.15 Fit the swinging arm spindle washer and nut.
6.16 While sitting on the seat, tighten the swinging arm pivot nut, all 4 of the shock absorber mounting nuts, and the brake torque link bolts.
6.17 Adjust the rear brake.
6.18 Make sure everything is secure and give the bike a gentle road test.
6.19. Check to make sure everything is still secure and re-adjust the brake if required.

7.0 Seat, Rear Mudguard & Aircleaner

The stripping of the frame is quite straight forward and needs no special procedure. First, though, strip off all the other major assemblies as in Sections 1 -5.



Main components of a CF



Air Cleaner, and its location.

Note: Some of the pictures on this site are from the official Honda CF50/70 workshop manual.
