

Drum brake has wear range marked thus.

increases, resulting in loss of power and an increase in fuel consumption.

Release the left-hand cover from the air filter housing, and remove the air filter element. The element should be carefully washed out, dried and re-impregnated with engine oil. Full details of this procedure will be found in Chapter 2, Section 11.

### 3 Carburettor and oil pump settings

Referring to Chapter 2, Sections 8, 9 and 15, check the carburettor settings, and adjust them where necessary. Note that adjustment of the throttle cable free play will affect oil pump adjustment, so this should be checked. Do not make alterations to the setting unless this is strictly necessary – carburettors are generally best left alone if they are working efficiently.

### 4 Gearbox oil change

Warm the engine thoroughly to assist draining, then place a bowl or drain tray beneath the crankcase. Slacken and remove the hexagon headed drain plug on the underside of the crankcase, and allow the old oil to drain thoroughly. Clean and refit the drain plug, noting that the plug on the X7 doubles as a gearbox neutral detent plunger, and must always be fitted with the correct sealing washer.

Top up with good quality SAE 20W/40 engine oil, via the filter plug on the right-hand outer casing. Run the engine for a few minutes, then remove the hexagon-headed level screw from the right-hand outer casing (identified by sealing washer beneath its head) and top up, if necessary, to bring the oil level up to this hole.

*Gearbox/primary drive oil capacity:*

|            |                                      |
|------------|--------------------------------------|
| X7         | 800 cc (1.69 US pint, 1.41 Imp pint) |
| X5, SB 200 | 700 cc (1.4 US pint, 1.2 Imp pint)   |

### 5 Checking the steering head bearings

Place the machine on its centre stand so that the front wheel is raised clear of the ground. Turn the handlebars from lock to lock, noting any roughness which might indicate dry or damaged head races. If present, refer to Chapter 4, Section 3 for details on overhauling. Play in the steering head bearings will be evident if the bottom of the forks is grasped and pushed to and fro. Any detectable play will require adjustment.

Slacken the steering stem top bolt. The adjustment nut can be turned using a C-spanner until all free play has just been taken up. Recheck for free play, and then tighten the steering stem top bolt.

### 6 Removing and lubricating the final drive chain

In addition to intermediate chain lubrication as described in

the weekly/200 mile routine maintenance section, the final drive chain should be attended to more thoroughly at greater intervals.

Place the machine on the centre stand and remove the rear portion of the left-hand casing to gain access to the sprocket. Separate the chain by prising off the spring link and sliding the chain ends apart. The chain can then be run off the sprockets.

Wash the chain carefully in paraffin (kerosene) using a stiff brush to remove all traces of road dirt. The chain should now be rinsed in petrol (gasoline) and hung up to dry off, or blown dry with compressed air.

The cleaned chain should be checked for wear by measuring the amount of stretch which has taken place. Lay the chain lengthways in a straight line and compress it at each end to take up all play. Anchor one end and pull on the other end to extend the chain and take up all play in the other direction. If the chain extends by more than the distance between two of the rollers it should be renewed and a close examination of both the engine and rear wheel sprockets must be carried out, to check for wear and sprocket tooth damage. See Chapter 5.16 for details.

The chain must be lubricated after cleaning, by immersing it in a molten chain lubricant, such as Linklyfe or Chainguard and then hanging it up to drain. This will ensure good penetration of the lubricant between the pins and rollers, making it less likely to be thrown off when the chain is in motion.

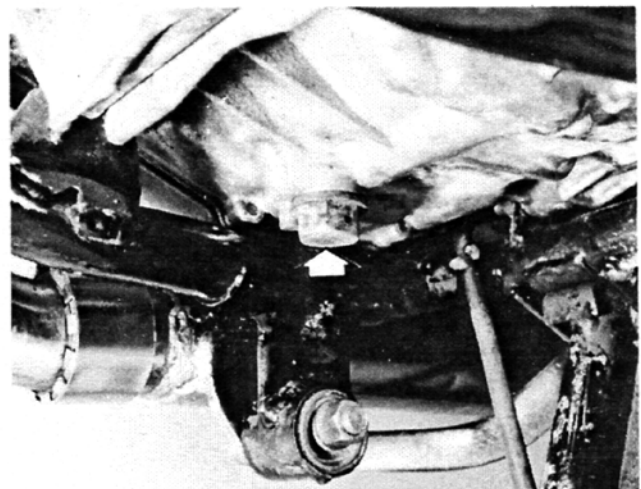
Position the two ends of the chain on the rear wheel sprocket, insert the link, fit the side plate and secure with the spring clip. Note that the closed end of the spring clip must be fitted pointing in the direction of motion.

Adjust the chain tension as previously stated in the weekly/200 mile service.

The chain fitted to GT250 X7 models is not fitted with a spring link, the chain being endless. Removal can be accomplished only by detaching the rear wheel and swinging arm unit. As a result chain cleaning and lubrication must be carried out with the chain in position, unless the owner is willing to go to the trouble of a large amount of dismantling.

### 7 Control cable lubrication

Lubricate the control cables thoroughly with motor oil or an all-purpose oil. A good method of lubricating the cables is shown in the accompanying illustration, using a plasticine funnel. This method has the disadvantage that the cables usually need removing from the machine. An hydraulic cable oiler which pressurises the lubricant overcomes this problem. Do not lubricate nylon lined cables (which may have been fitted as replacements), as the oil may cause the nylon to swell, thereby causing total cable seizure.



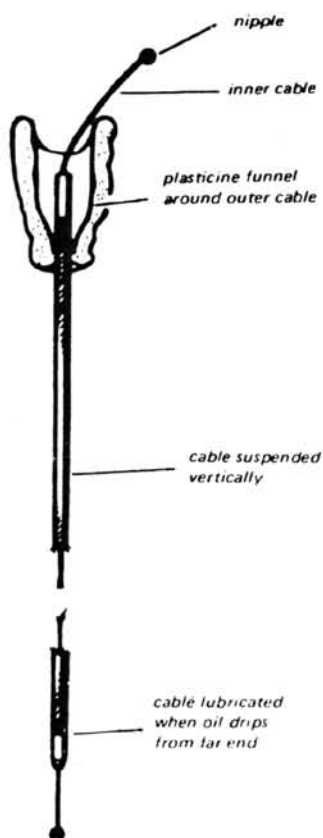
Gearbox drain plug (arrowed)



Refill gearbox as shown. Level plug (X7) arrowed



Slacken top bolt to permit steering head adjustment



Control cable oiling

#### Six monthly or every 4000 miles (6000 km)

Complete all the checks listed in the weekly/200, monthly/1000 mile and three monthly/2000 mile services and then the following additional task:

##### 1 Decarbonising the engine and exhaust system

To maintain peak performance, it is necessary to keep the cylinder head and the exhaust system free from accumulations of carbon. This is particularly important where the machine tends to be used for frequent short journeys, as this tends to accelerate the rate at which carbon builds up on these parts.

To effect this operation, it will be necessary to remove the cylinder head(s), releasing the eight nuts in a diagonal sequence. Carefully scrape off any carbon deposits from the cylinder head(s), and piston crowns, taking care not to score the soft alloy material of these parts. Carbon deposits should be removed from the exhaust ports in a similar manner after removal of the exhaust pipes to gain access. Attend to each cylinder separately, with the piston of that cylinder at BDC. Before refitting the head(s), remove any debris from the bores. Note that a new cylinder head gasket should be used. When tightening the cylinder head nuts, note the tightening sequence and torque settings given in Chapter 1.

The silencer baffles should be detached and cleaned by wire brushing. The baffles can be withdrawn after releasing their securing screws on the underside of the silencer. It may prove necessary to exert some force when removing them, as there is a tendency for them to become gummed into position.

#### Twelve monthly or every 8000 miles (12 000 km)

Complete all the checks listed under the weekly, monthly, three and six monthly headings, but only if they are not directly connected with the tasks listed below. More extensive dismantling is required when undertaking these latter tasks and reference to the relevant Chapters and Sections will be necessary in each case:

- 1 Dismantle, clean, examine and reassemble the carburettors.
- 2 Remove both wheels, grease the bearings and brake operating cams.
- 3 Check and grease the steering head bearings.