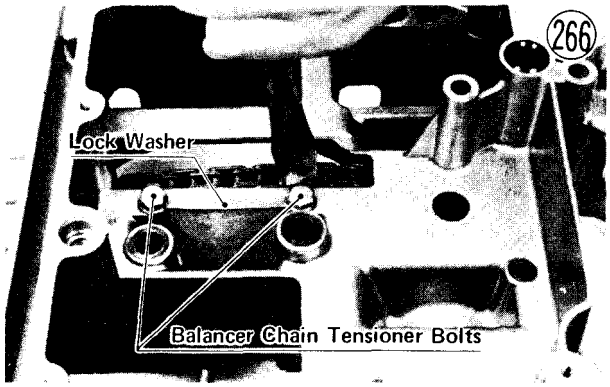
•Straighten out the lock washer ends which are bent over the side of the balancer chain tensioner bolts (2), and remove the bolts, lock washer, balancer chain tensioner assembly, and balancer chain.

Relief Valve Spring

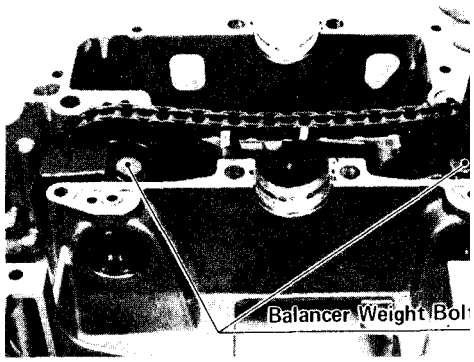


BALANCER MECHANISM

Removal:

•Split the crankcase as explained in transmission removal (Pg. 60). The transmission itself does not require removal if only the balancer mechanism is to be re-moved.

•Straighten out the lock washer ends which are bent over the side of the balancer weight bolts (2), and remove the bolts and lock washers (2).

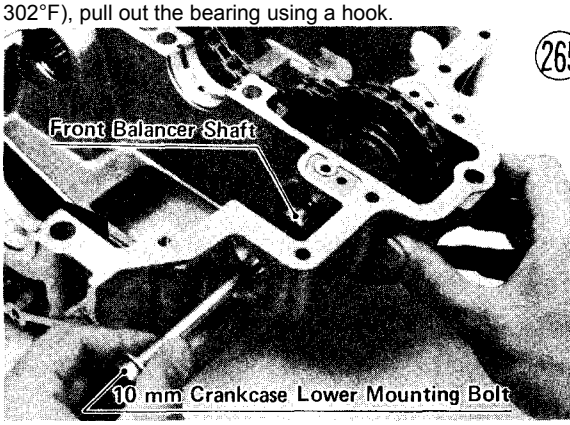


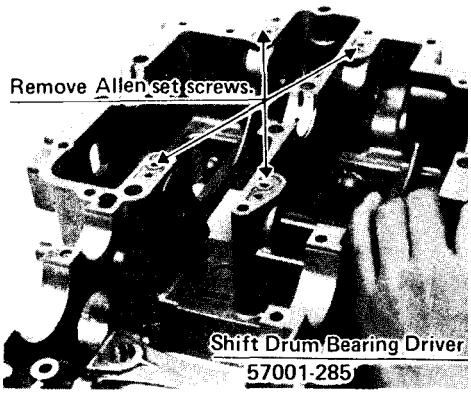
•Push out the rear balancer shaft toward the engine right side, and remove the rear balancer weight with the washers (3).

•Pull out the front balancer shaft using the 10 mm crankcase lower mounting bolt, and remove the front balancer weight with the washers (3).

•To remove the balancer shaft needle bearings (4), first screw out the Alien set screws (4), and then drive out the needle bearings using the shift drum bearing driver (special tool). For the front left needle bearing, pull it out using a suitable tool.

NOTE: In the absense of the above mentioned special tool and a suitable tool, satisfactory results may be obtained by heating the case (in the area immediately surrounding the needle bearing) to 120~150°C (248 ~ 302°F), pull out the bearing using a hook.





Installation:

•If the balancer shaft needle bearings were removed,
install a new needle bearing using the shift drum
bearing driver (special tool) to drive it in. Be sure
that the groove on the bearing outer race matches
with the Alien set screw hole, and finger tighten the
Alien set screw.

NOTE: Drive the needle bearing in, so that the chamfered side of the needle bearing outer race goes ahead to prevent the outer race from eating in the crankcase hole.

Caution **1. To prevent the distortion of the needle bearing outer race, never over tighten the Alien set screws.**

2. After finger tightening the Alien set screws, check that the set screws sink approximately 0.2 mm into the crankcase mating surface.

In case an Alien set screw protrudes from the