3.8 CLUTCH

A. Construction

The function of the clutch is to temporarily disengage the transmitting of the rotary motion between the engine and the transmission during gear change and then after the gear change, permit a smooth power transition. The condition of the clutch will have a varying effect on the efficiency of the power transmission.

The clutch on all of the models are of the conventional wet type multiple disc. The C 90 and CT 90 models incorporates an automatic feature to operate the clutch engage and disengage function, whereas, the other models are provided manual functions.

Construction and Operation of Clutch

The clutch is between the engine body and the gear shift transmission. It connects or disconnects power transmission when required, such as in gear shifting, or starting the engine, etc.

Accordingly, such points as the degree of engagement accuracy, the ability to disengage completely, smoothness and slippage when engaged or disengaged, etc., become important.

{S 90, CL 90, CL 90 L, CD 90}

The clutch of the model S 90, CL 90, CL 90L, CD 90 is a wet multi-plate type. As shown in **Fig. 3. 63 A** and **Fig. 3. 64**, when the right crankcase cover is removed, the clutch outer portion is exposed. Inside, the clutch spring, drive plate, clutch plate, and clutch friction disc are assembled. The friction disc has teeth cut in its inner circumference, this portion fitting the spline cut in the external circumference of the drive gear, and is coupled into a unit with the drive gear in the direction of rotation. The drive gear is mounted on the crankshaft through the clutch center guide and can rotate freely on the crankshaft on the other hand, there are grooves cut in the interior of the drive plate to fit the spline cut at the tip of crankshaft ; the drive plate is fastened to the crankshaft by a 16 mm lock nut, forming a single unit. Since, on the exterior of the drive plate and clutch plate, teeth engage the grooves cut in the interior of the clutch housing, the outer clutch, the drive plate, and the clutch plate rotate together with the crankshaft. Therefore, when the clutch is engaged,

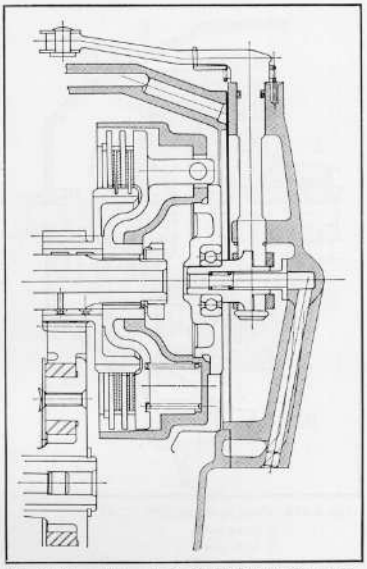

Fig. 3. 63 A Clutch mechanism S 90, CL 90, CL 90 L, CD 90