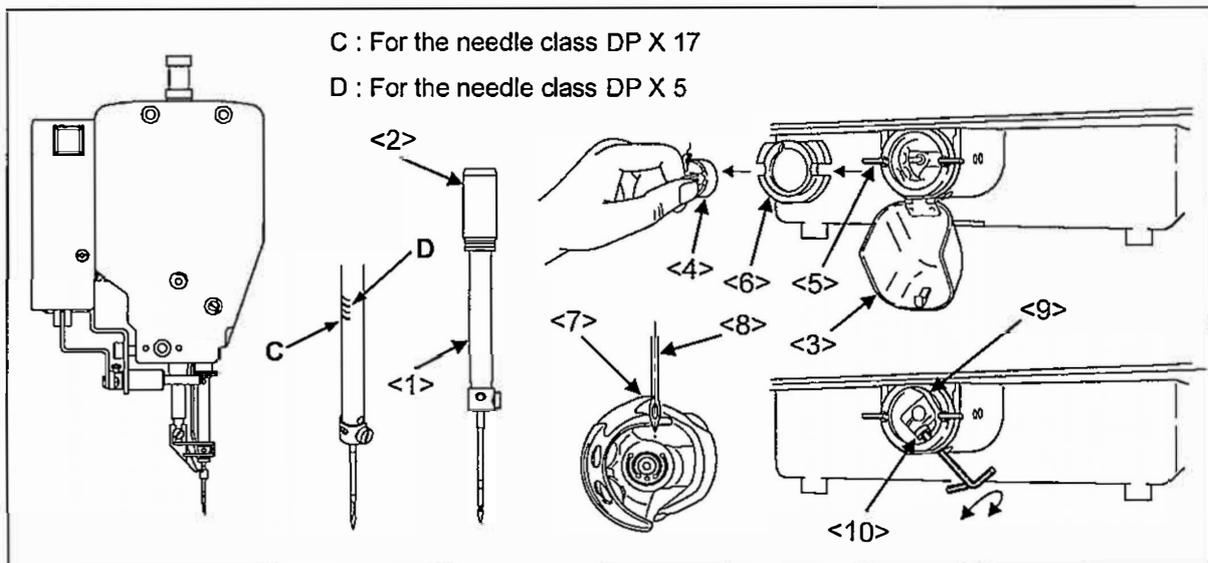


### Adjustment of the position between the needle and the shuttle hook

- (1) Turn the power switch off. Move up the needle bar (No.1) from the lowest position then, stop the needle bar at the position where the needle bar timing mark C is matched to the needle bar bushing (No.2) bottom line. (For the needle class DP×17)
- (2) Open the cylinder cover (No.3).
- (3) Remove the bobbin case (No.4).
- (4) Turn the hook retainer arm (No.5) then, remove the hook retainer (No.6).
- (5) Adjust the shuttle hook (No.7) point to match with the center line of the needle (No.8). The matched position is standard.
- (6) If the shuttle hook point is not matched with the center line of the needle, loosen the driver (No.9) set screw (No.10) then, turn the shuttle hook and the driver for the adjustment.
- (7) For the needle class DP×5, move the needle bar to the position where the needle bar timing mark D is matched to the needle bar bushing bottom line then, carry out the same procedure as described above.



- <1>: Needle bar   <2>: Needle bar bushing   <3>: Cylinder cover   <4>: Bobbin case   <5>: Shuttle hook retainer arm   <6>: Hook retainer   <7>: Shuttle hook   <8>: Needle   <9>: Driver   <10>: Set screw