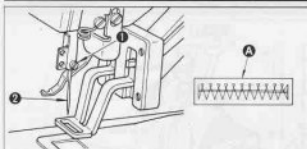


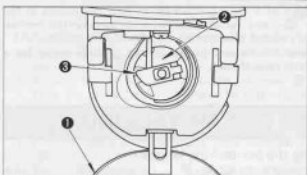
## 12. ATTACHING THE NEEDLE



Loosening setscrew ①, insert needle ② fully into the needle bar hole with the long groove of the needle facing towards you, then tighten setscrew ①. (Note) 1. If the bar-tacking stitches as A shown above are produced, install the needle so that it slightly faces to the left.

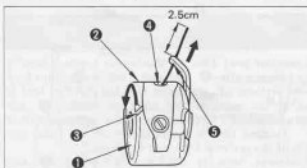
2. Use a SUPER needle for synthetic fiber when sewing with synthetic fiber thread or material.

## 14. REMOVING AND INSTALLING THE BOBBIN CASE



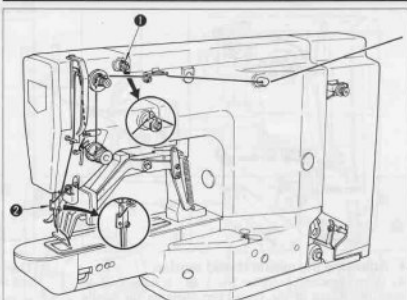
1. Open cylinder arm cap ①.
2. Raise and hold the latch lever of bobbin case ② to take it out. The bobbin in the bobbin case does not fall as far as latch lever ③ is raised and held.
3. To load the bobbin case into the shuttle, fit it onto the shaft of the shuttle and snap in the latch lever of the bobbin case.

## 16. THREADING THE BOBBIN CASE



1. Hold bobbin ① in hand so that it spins counter-clockwise and set it in bobbin case ②.
2. Pass the thread through slot ③ in the bobbin case. Pull the thread to pass it under the tension spring out to thread exit ④. At this time, confirm that the bobbin spins in the arrowed direction when the thread is pulled.
3. Pass the thread through hole ⑤, and allow the thread to trail about 2.5cm from the hole.

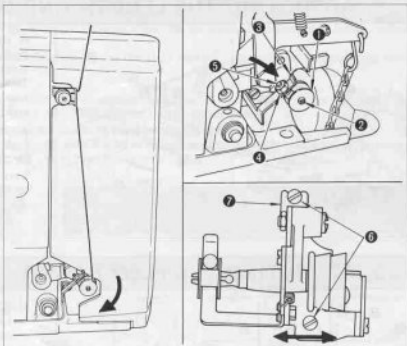
## 13. THREADING THE MACHINE



Thread the machine in the order as shown above. Leave thread of approx. 4cm on the needle.

- (Note) 1. For a synthetic fiber thread (silicone oil is used), pass the thread also through silicone lubricant thread guide ①.
2. For a thick thread, pass the thread through only one of the two holes in needle bar thread guide ②.

## 15. WINDING A BOBBIN



1. Attach bobbin ① to bobbin winder spindle ②.
2. Thread the winder in the order as illustrated and wind the thread onto the bobbin four or five turns.
3. Push bobbin winder trip latch ③ towards the bobbin (in the arrowed direction), and the winder starts to wind the bobbin. The winder will automatically stop as soon as it has wound a predetermined amount (80% of the capacity of the bobbin) of thread round the bobbin.
4. To adjust the amount of thread wound round the bobbin, loosen nut ④ and screw in adjusting screw ⑤ to decrease the thread amount.
5. If the thread is not wound evenly round the bobbin, loosen screw ⑥ and move bobbin winder base ⑦ in the arrowed direction to make adjustment.