### Adler cl. 221 and 221-FA
### Operating Instructions
### Edition May 1984

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**References and illustration**

A functional element mentioned in the text gets a reference, e.g. "A" if it is illustrated in the appendix. The supplement of the reference, consisting of a fraction stroke and of a figure, e.g. A/4, indicates the respective illustration 4 in the appendix. In case of several illustrations, the respective figures with fraction strokes are added.
1. Operating elements

1.1 Operating elements on the sewing machine
A/1 Rotary knob for adjusting the needle thread main tension
B/1 Rotary knob for adjusting the needle thread pretension
   (only in case of thread cutter "FA")
C/1 Knurled screw for adjusting the sewing foot pressure
D/1 Lateral handwheel (only in long-arm version cl. 221-76 without stop motor)
E/1 Arresting lever for the sewing foot lift
F/1 Knob for adjusting the stitch length
G/1 Locking knob for friction clutch
H/1 Handwheel
A/2 Feeding foot stroke adjustment in 4 steps
   Adjustment screw for feeding foot stroke (only in case of pneumatic stroke adjustment "HP-16")

1.2 Operating elements on the stand
Main switch
A/4 Pedal for motor control
   Pedal for seam bartacking locking
   Pedal for foot lift
   only at request in case of additional equipment:
   Stop valve
B/3 Service pressure regulator with water separator
   (Working pressure: 6 bar)
A/3 Oiler
   Furthermore
B/4 Knee lever for intermediate seam bartacking

2. Operating the sewing machine

2.1 Threading plan
   - Thread the sewing machine as shown in fig. 6 and 7

2.2 Winding the bobbin thread
   - Wind the bobbin thread as shown in fig. 5
   - The winding is done while sewing. It is stopped by the winder lever as soon as the bobbin is fully wound

2.3 Bobbin change (Fig. 8)
   - Lift the flap by the magnet and remove the bobbin
   - Place the full bobbin in the bobbin case
   - When unwinding the thread, the bobbin should turn counter-clockwise
   - Pass the thread through the slit under the spring and, in case of FA versions, also from below through the hole in the flap
   - Close the flap and pull out about 5 cm of thread
2.4 Upper and lower thread tension
- Upper thread tension
  Adjust according to the seam pattern
  (set first the lower thread tension as low as possible)
- Lower thread tension
  Adjust by the screw A/9 on the bobbin case as low as possible

2.5 Needle change
- Change the needle (system 7 x 23) in the topmost position with the machine being stopped
  Place the needle with the groove towards the hook
  Introduce the needle up to the stop and lock it

2.6 Sewing foot change
- With the needle being in its topmost position, lift the feet and arrest by the lever
- Remove the needle
- Change the sewing feet
- Replace the needle and release the arresting lever

2.7 Adjusting the sewing foot pressure
- By means of the knurled screw C/1 adapt the sewing foot pressure to the material involved

2.8 Adjusting the stitch length (Fig. 25)
- Press-in the button F/1 and turn the handwheel until the button catches
- Hold the engaged button and turn the handwheel until the respective scale value is reached
  0 = stitch length 0
  10 = maximum stitch length

2.9 Lubrication
- Lubricate once daily all points marked by arrow in the Fig. 12, 13, 14
  Use the oil with following features:
  Viscosity at 40°C: 65  E = 8.6
  Viscosity at 50°C: 42  E = 5.6
  Ref. no. for 1 litre tin: 990 47 012 8
  Ref. no. for 5 litre tin: 990 47 012 9
- Saturate the felt B/9 in the hook with oil several times daily