

Disassembly, Checking and Reassembly of Clutch

Job No.

25-4

On Models 180 to 220 SE this procedure is essentially the same as described for Model 190.

Pay attention to the following details:

I. Model 220 a

In the case of the 1st version clutch pressure plate the three adjusting nuts have to be sawn up and forced off before the clutch pressure plate can be disassembled. To do this place the clutch pressure plate on a suitable stand and, using a wooden pad and three equal lengths of pipe, exert pressure on the cover plate by means of a press until the pressure on the release levers is released (Fig. 25-4/1).

After adjusting the release levers the new adjusting nuts must be jammed in position as shown in Fig. 25-4/2.

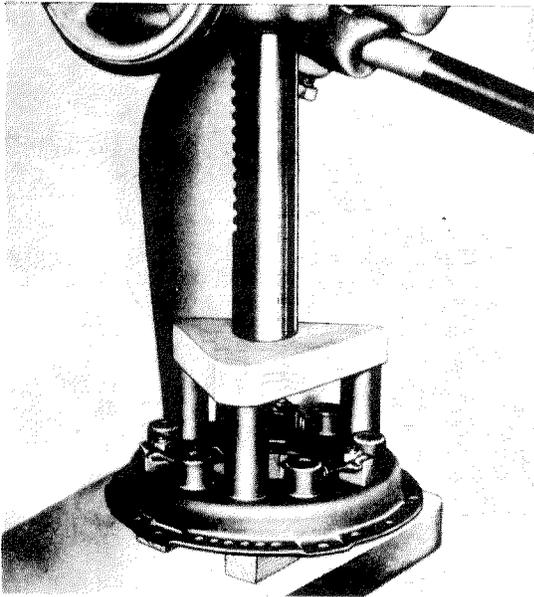


Fig. 25-4/1

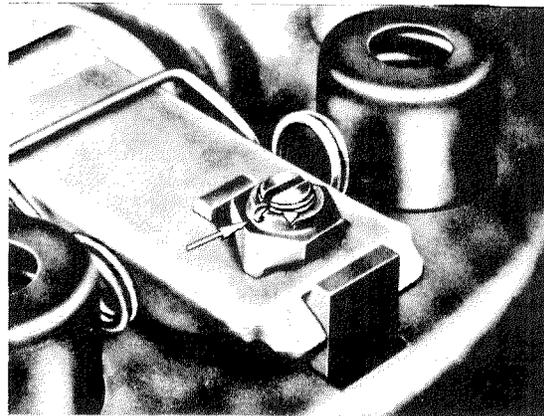


Fig. 25-4/2

II. Models 220 a, 219, 220 S, and 220 SE

The various clutch types in these models have either 9 identical clutch springs or a combination of 3 of one type and 6 of another type (see testing values for clutch springs). When reassembling clutch pressure plates with different clutch springs, pay attention to the color code and to the correct arrangement of the clutch springs (Fig. 25-4/3).

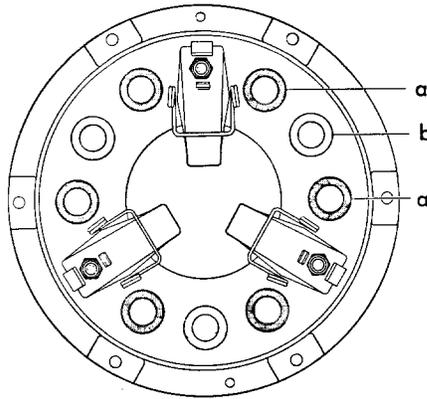


Fig. 25-4/3

Clutch pressure plate	F. & S. Designation	KS 12 K	KFS 12 K	TK 228 KV
	D. B. Part No.	180 250 03 04	180 250 05 04	128 250 00 04
Spring	a	brown	gold	yellow
	b	white	gold	brown

Select the clutch springs in such a way that the difference between springs of the same color code in one clutch is as small as possible.

Test values for clutch springs

DB Part No. of clutch pressure plate	136 250 00 04 121 250 02 04	121 250 03 04	180 250 05 04	180 250 03 04	180 250 07 04	128 250 00 04	128 250 02 04			
Thickness of pressure plate mm	15					16.5				
Regrind dimension of pressure plate ¹⁾ mm	1									
Total spring pressure kg	410	450	480	480	480	480—505	525			
Number of springs	9									
Color code	white	plain	3 gold	6 gold	3 white	6 brown	gold	3 brown	6 yellow	gold
External diameter mm	25.6	25.6	25.6	25.75	25.6	25.6	29.0	29.0	28.8	28.6
Wire gage	3.6	3.5	3.6	3.75	3.6	3.6	4	3.8	4.3	4.1
Free length mm	44.5	49.5	44	45	44.5	51.7	50	62.8	53.3	55.5
Length under load mm	29.2	29.4	29.2	29.2	29.2	29.4	32.4	37.2	37.2	37.2
Load kg	45+4	49+3	45+4	56+4	45+4	57.5 ±2.5	53+6	46±3	61 ±2.5	61.5

¹⁾ If the reduction in thickness exceeds 0.5 mm, ground steel shims corresponding in thickness to the total amount of material removed should be placed between the clutch springs and the cups or the pressure plate (see arrow in Fig. 25-0/2) to restore the total spring pressure.