

must be perfectly free in their guide and should be tested at this stage.

(25) TO REMOVE PUNCH BARS a33kC1, a33kC2, a33kC3

To remove one bar only, several punches must be taken away from either side of the bar to be displaced, but if this bar happens to be a rear one a33kC3, it will only be necessary to remove its punch. Having done this, replace the punch guide (rear) b18kC41 temporarily to keep the remaining punches in position during the operation. Next take away paper tower punch bar guide (rear) a18kC45 and the front guide a18kC44 by removing the two screws a18kC46. A rear punch bar a33kC3, the punch of which has previously been detached, may now be readily taken out, but if a front or middle punch bar a33kC1 or a33kC2 is required to be moved, the adjacent bars, which have had their punches displaced, will have to be lifted from their slots in the piston levers and moved to make sufficient clearance to enable the punch bar which is being extracted to be lifted and turned in order to get it over the front of the tension arm. In order to make the manipulation of the punch bars easier, remove the tension arm connecting rod yoke pin (upper) 38kC4, and place the yoke 38kC2 clear of its lug on tension arm; this will give a little more clearance.

When all punch bars are to be taken out, all the punches will have to be removed. Commence with the punch bars on the left (as viewed from rear of machine), and remove them in rotation from left to right.

(26) TO REPLACE PUNCH BARS a33kC1, a33kC2, a33kC3

When replacing the whole set, select all the rear bars a33kC3<sup>1</sup> and keep them apart, so as to assemble them into position<sup>1</sup> after the front and middle bars have been fitted. Commence<sup>2</sup> assembly at the left-hand side (viewed from rear). The first two<sup>3</sup> positions take rear bars, and are therefore passed for the time<sup>2</sup> being. The two middle punch bars a33kC2 should be fitted<sup>1</sup> into their slots in their piston levers and in punch bar separator<sup>t</sup> a35kC9. Then two front punch bars a33kC1 should be fitted,<sup>2</sup> and two places left for two rear bars. This order should be<sup>2</sup> continued until all the front and middle punch bars are in<sup>1</sup>