

Teleprinter 15



FIMS

FIMS Functionally Identified Maintenance System, is a concept of presenting the operation of complex electrical and mechanical equipment as a series of functions connected by a flow diagram which is arranged around the periphery of a diagram or drawing of the item. The system considers the functions at different levels, from an overall concept down to individual component parts. The number of levels chosen depends on size, complexity and ease of understanding. By means of this system it is possible to locate particular functions fairly rapidly without the recourse to a mass of textual detail. Hence the system is especially useful as a maintenance aid for fault finding.

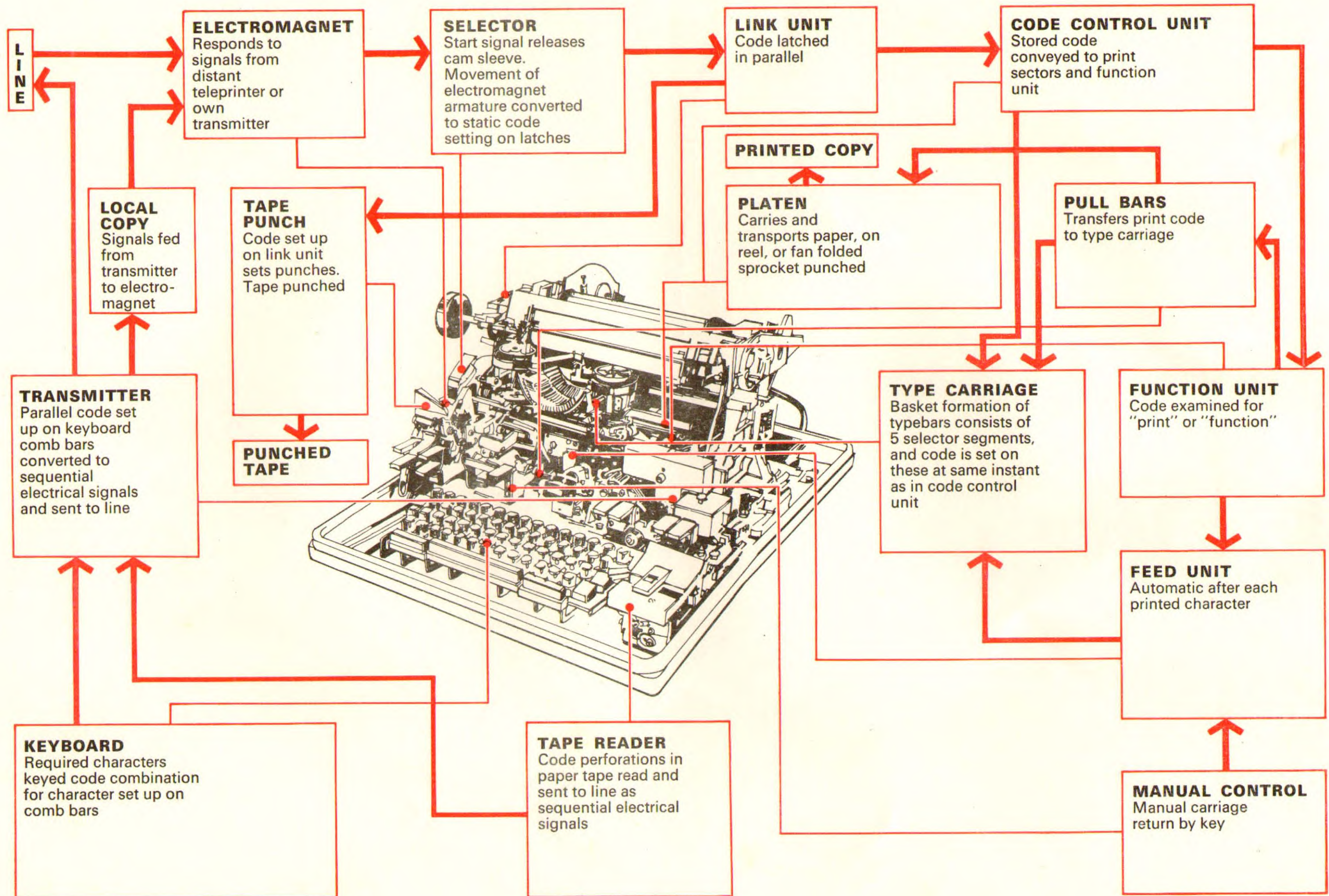
In this EP, the functions of the Teleprinter 15 are considered at two levels

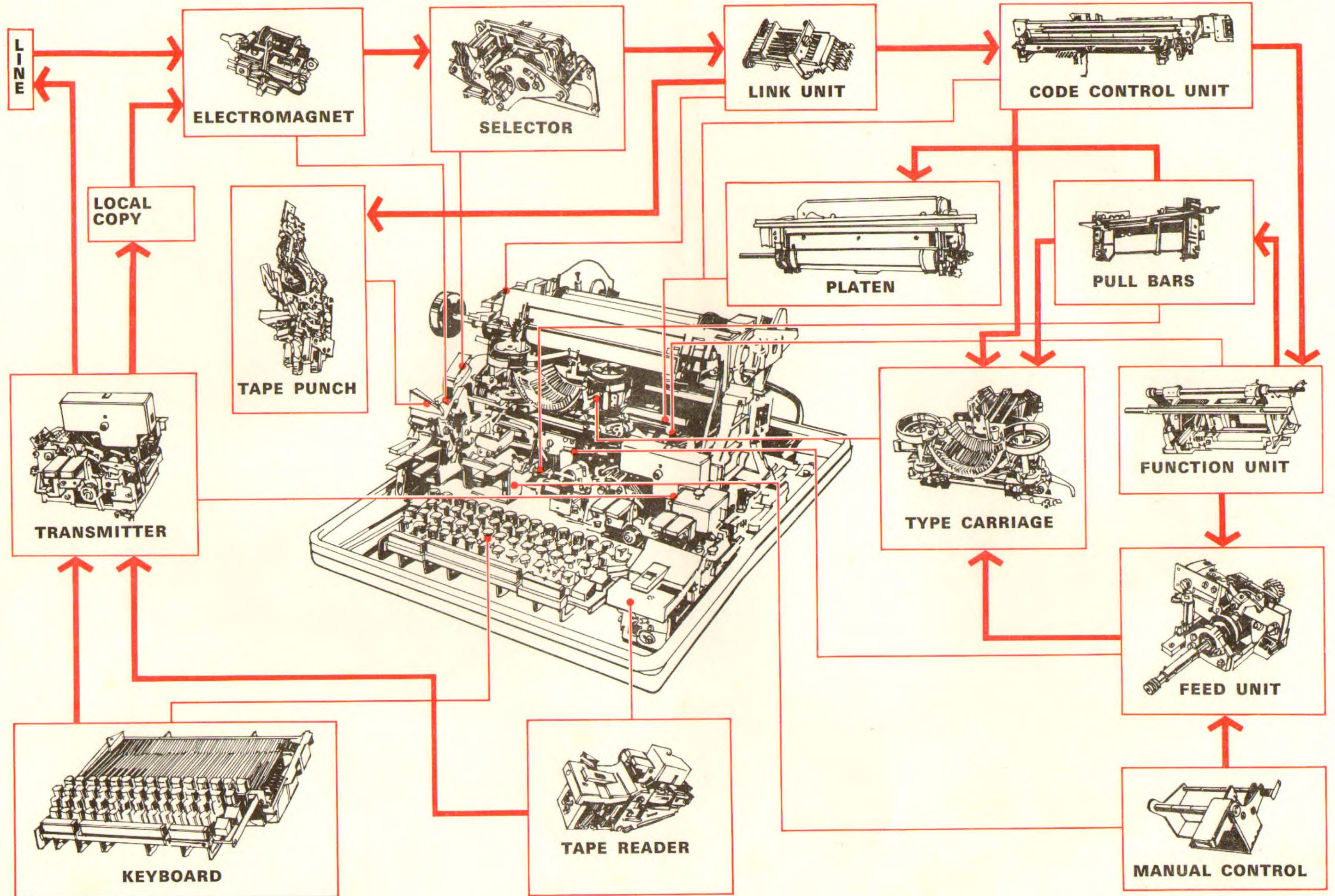
- 1) The functions and relationship of units comprising the teleprinter
- 2) The mechanical functions of each individual unit.

Contents

- Fig 1 Block schematic diagram
2 Unit location
3 Drive arrangement
4 Keyboard mechanism
5 Keyboard transmitter mechanism I
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8 Link unit and typebar selector action
9 Print inhibition and carriage feed trip actions
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11 Letters/figures shift mechanism
12 Line feed action
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15 Answer back operation I
16 Answer back operation II
17 Tape punch : ON/OFF control and drive mechanism
18 Tape punch : punch control and tape feed actions
19 Tape reader : ON/OFF control, tape read and feed actions
20 Tape reader : transmitter and send/receive switch control
21 Timing diagram

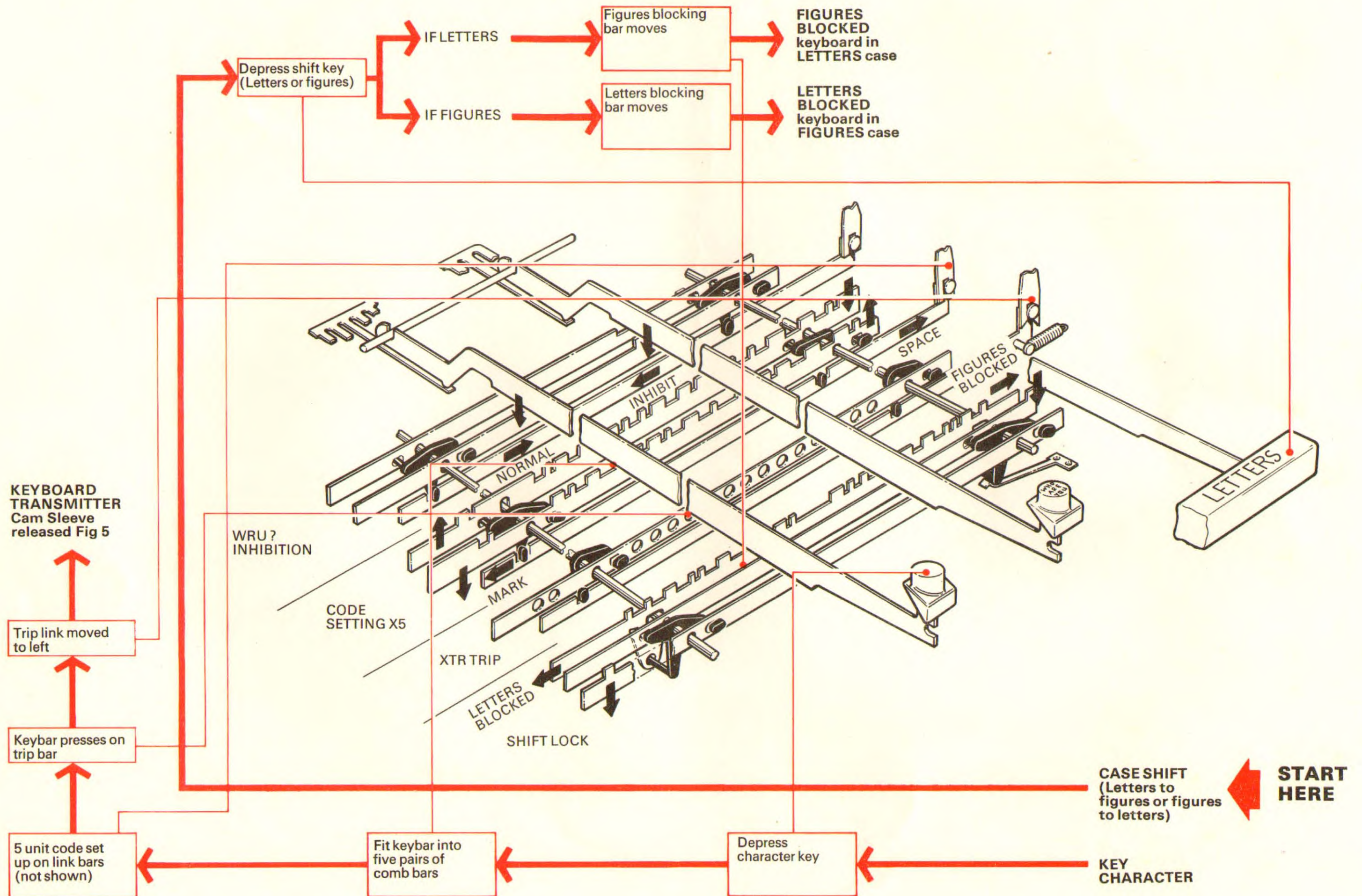
NOTE : In the diagrams L=Left R=Right CW=Clockwise ACW=Anti-clockwise

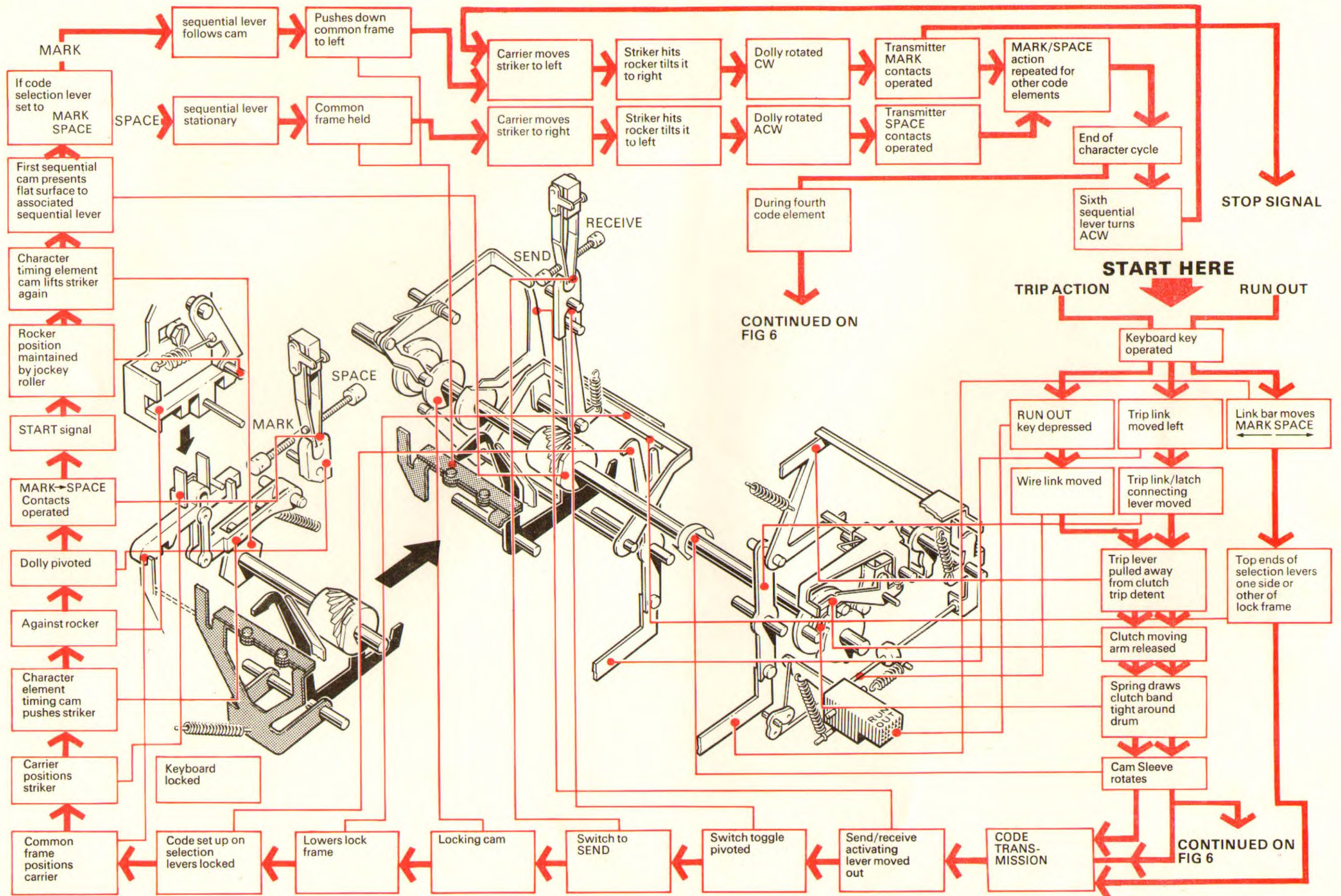


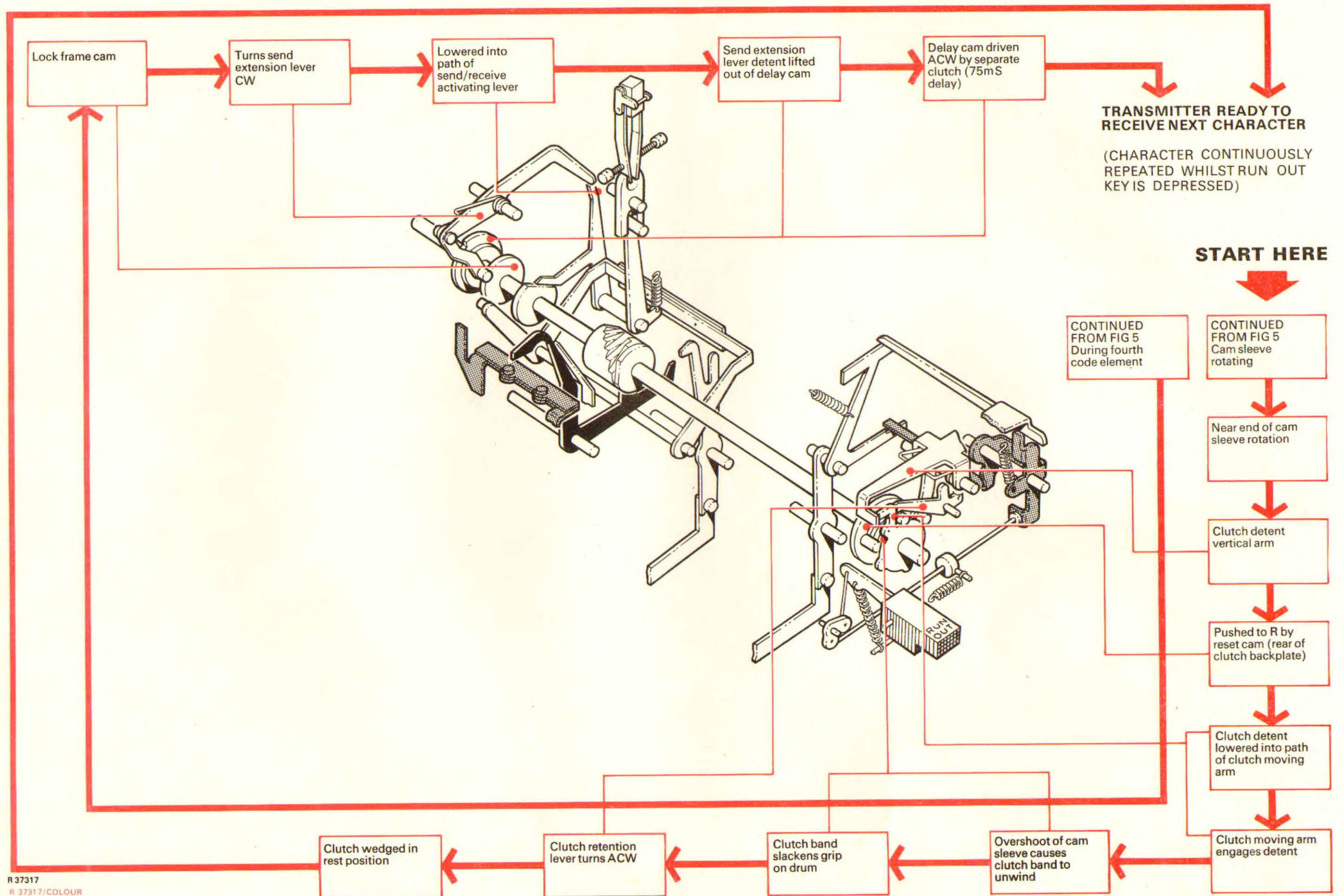


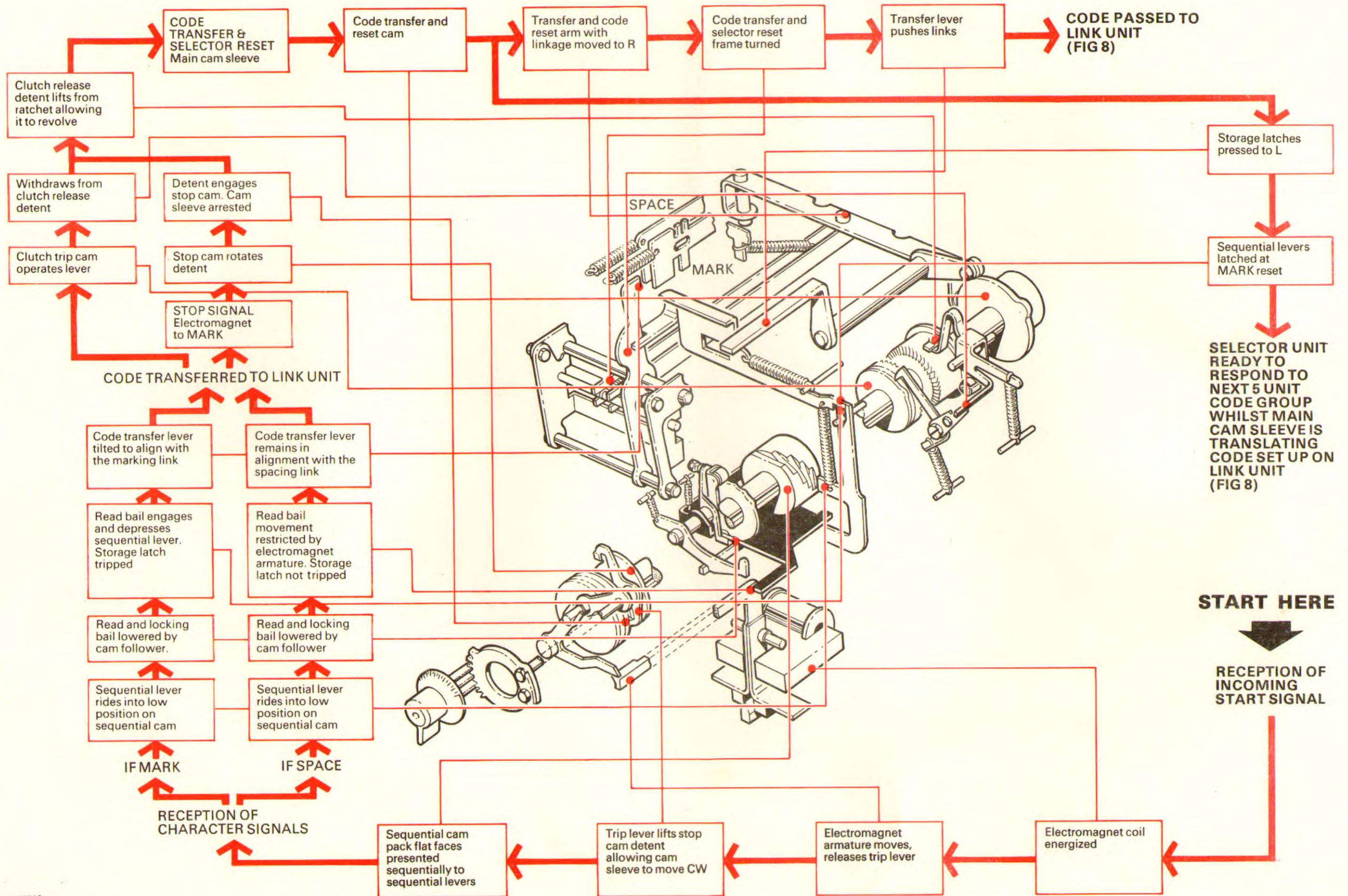
BT Archives and Telecom
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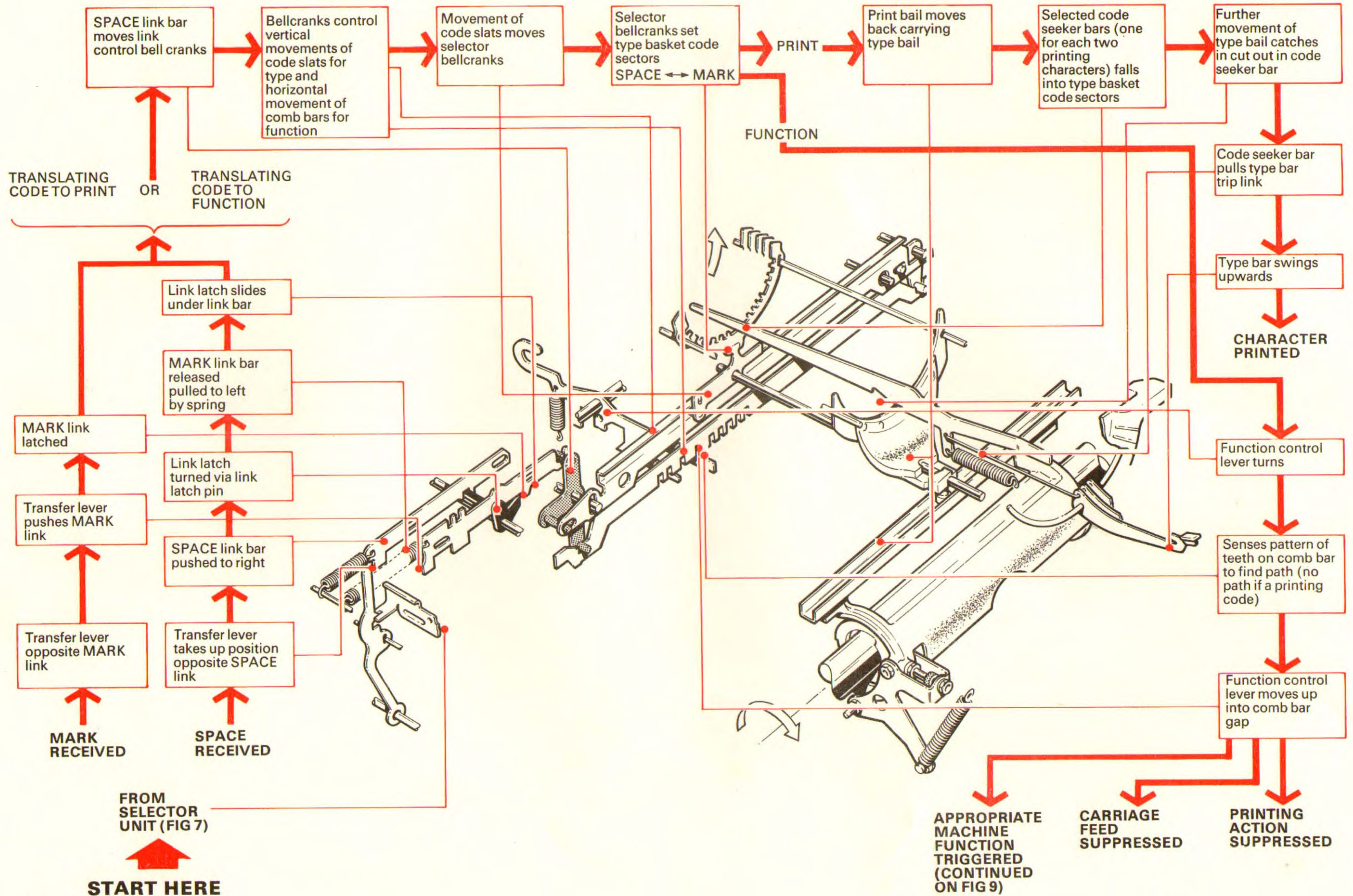
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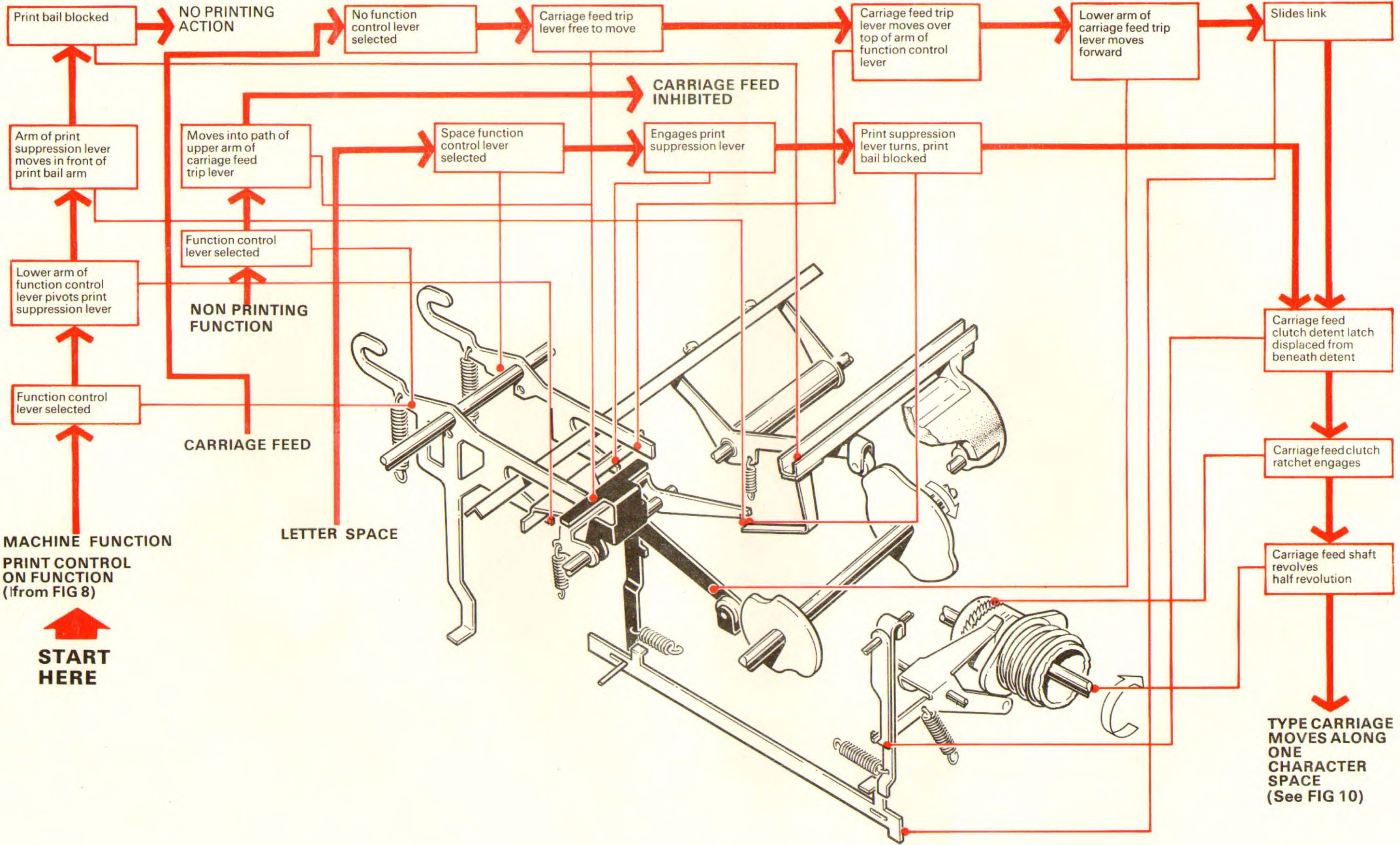




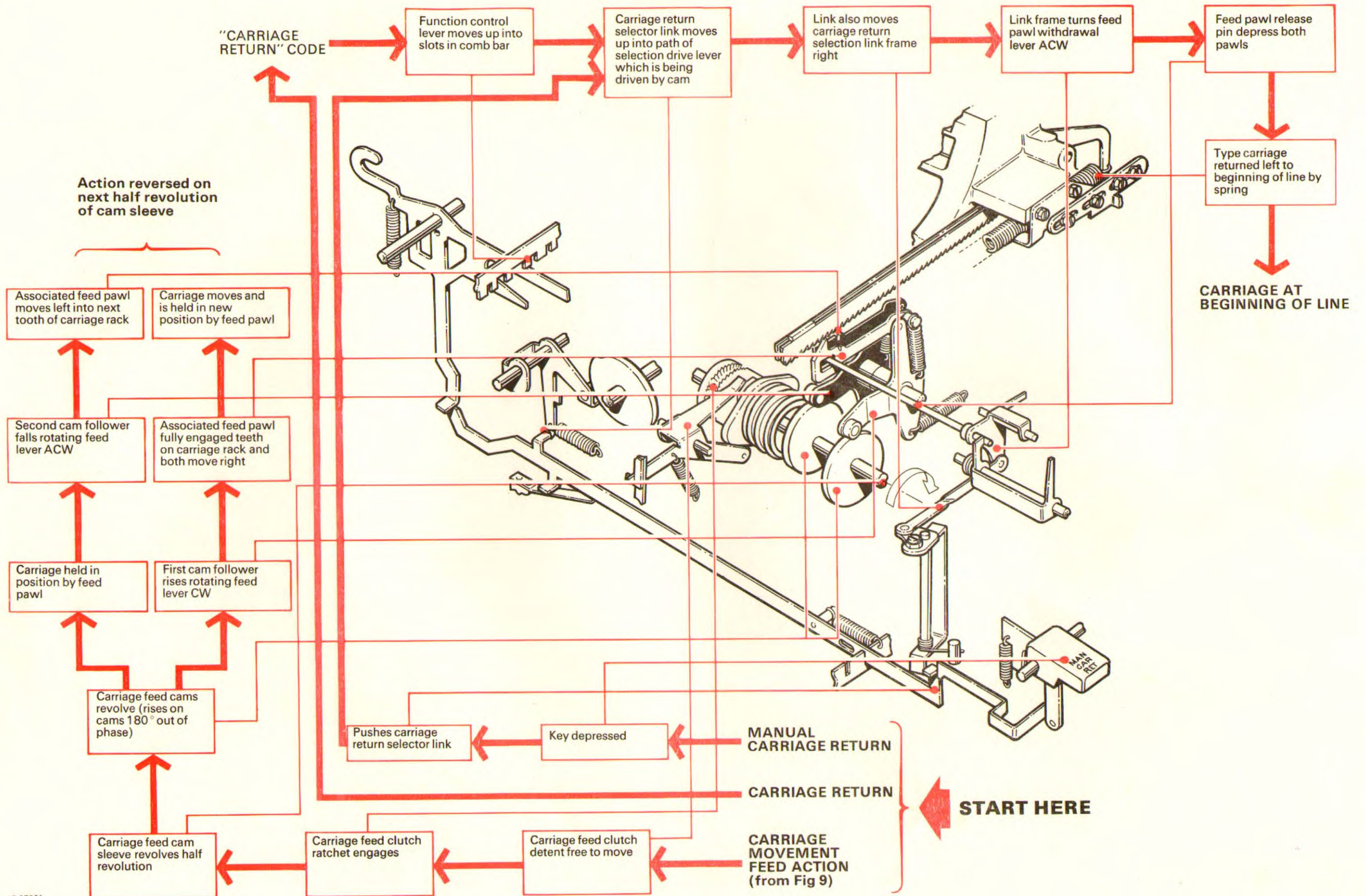


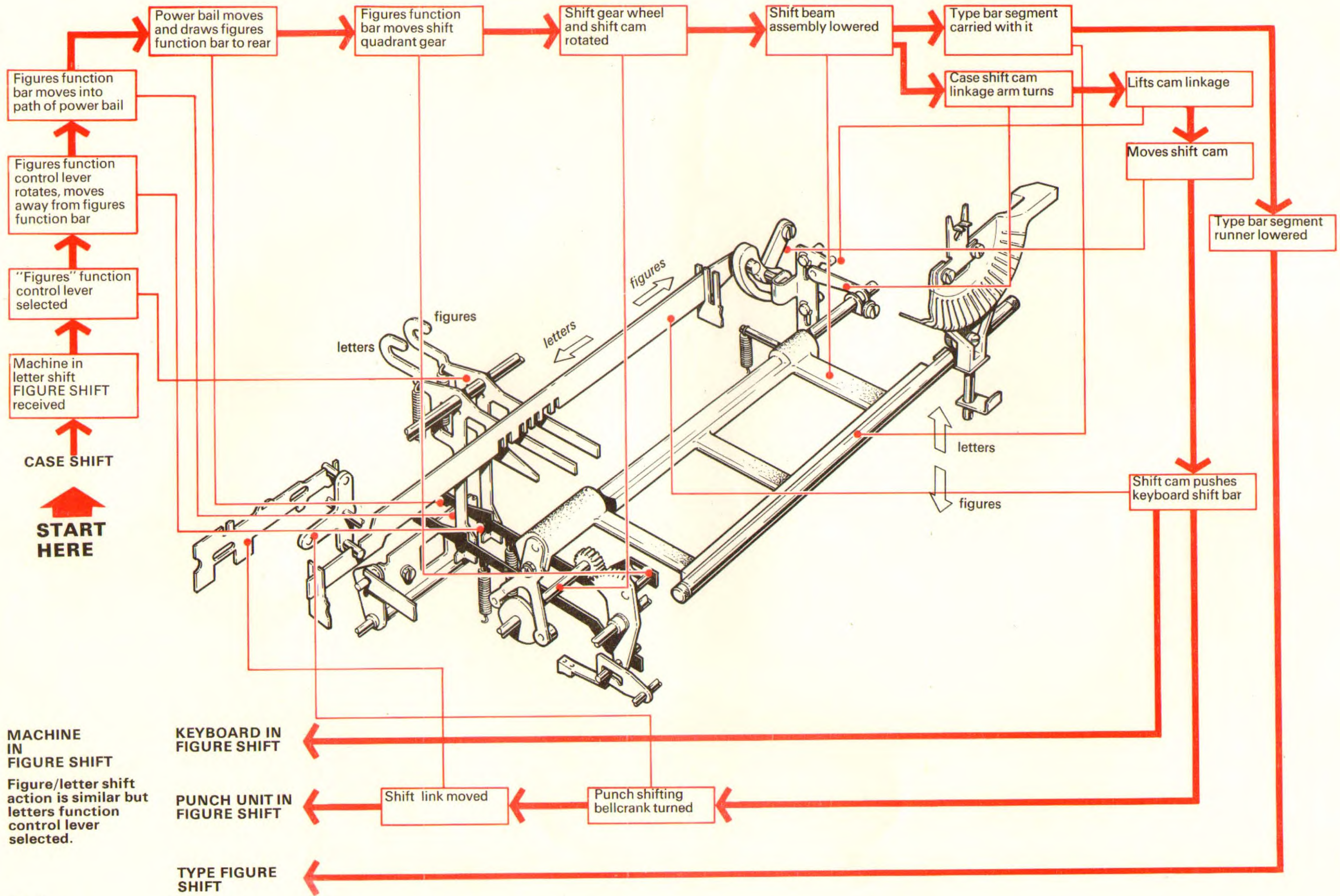






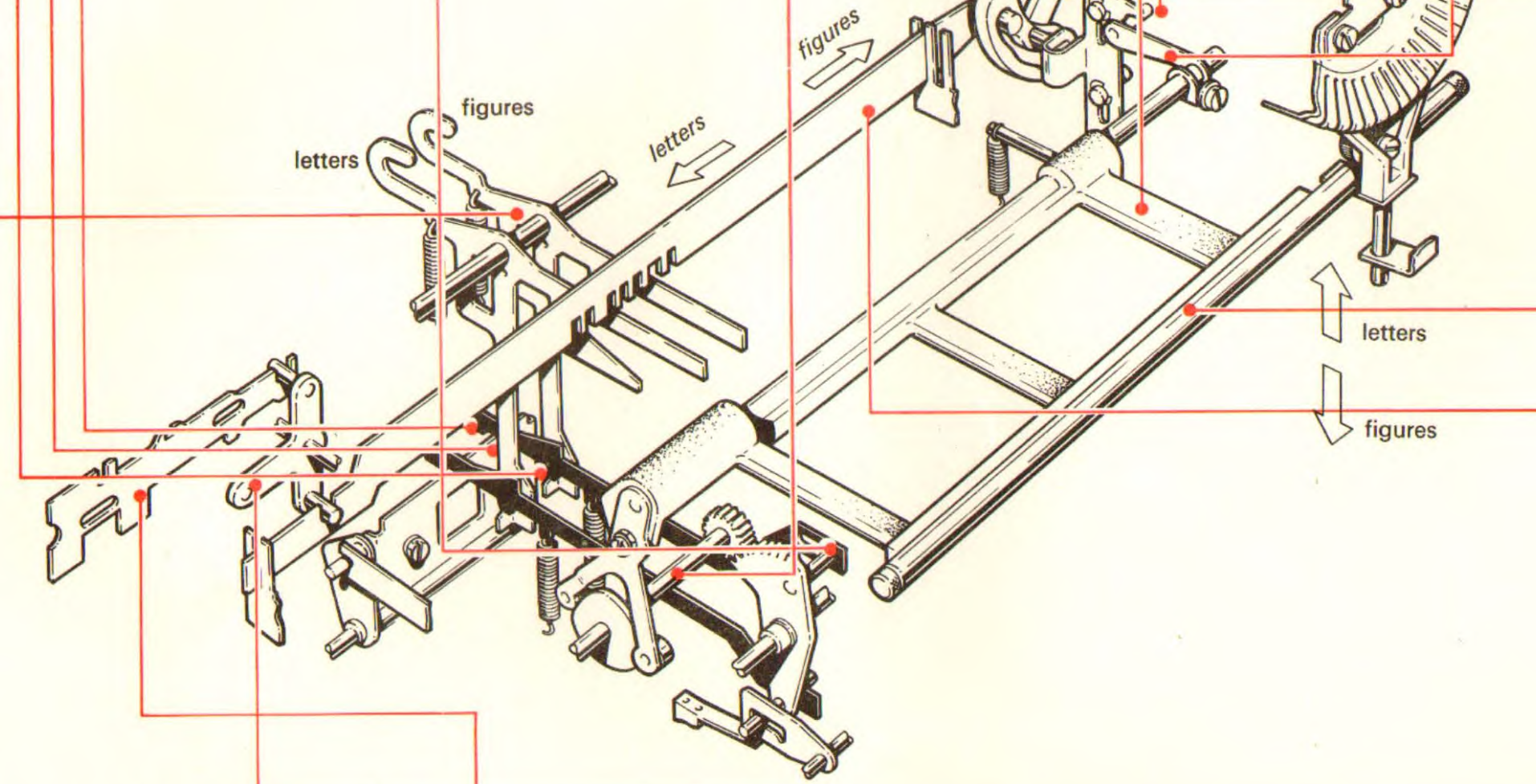
EP Telegraphy 4/4 Fig 10
CARRIAGE FEED & CARRIAGE RETURN ACTIONS





START HERE
 CASE SHIFT
 Machine in letter shift
 FIGURE SHIFT received
 "Figures" function control lever selected
 Figures function control lever rotates, moves away from figures function bar
 Figures function bar moves into path of power bail
 Power bail moves and draws figures function bar to rear

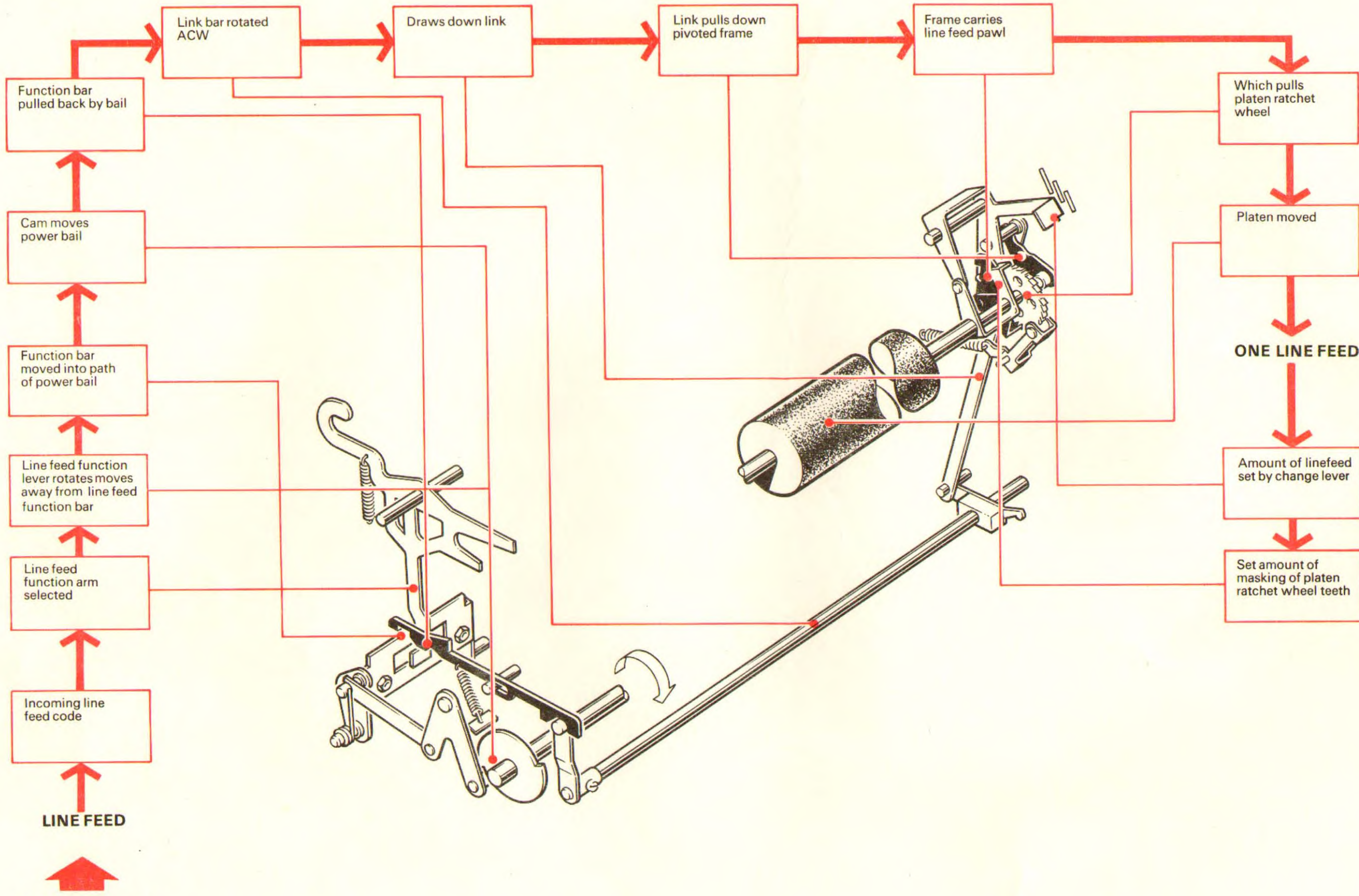
Figures function bar moves shift quadrant gear
 Shift gear wheel and shift cam rotated
 Shift beam assembly lowered
 Type bar segment carried with it
 Case shift cam linkage arm turns
 Lifts cam linkage
 Moves shift cam
 Type bar segment runner lowered



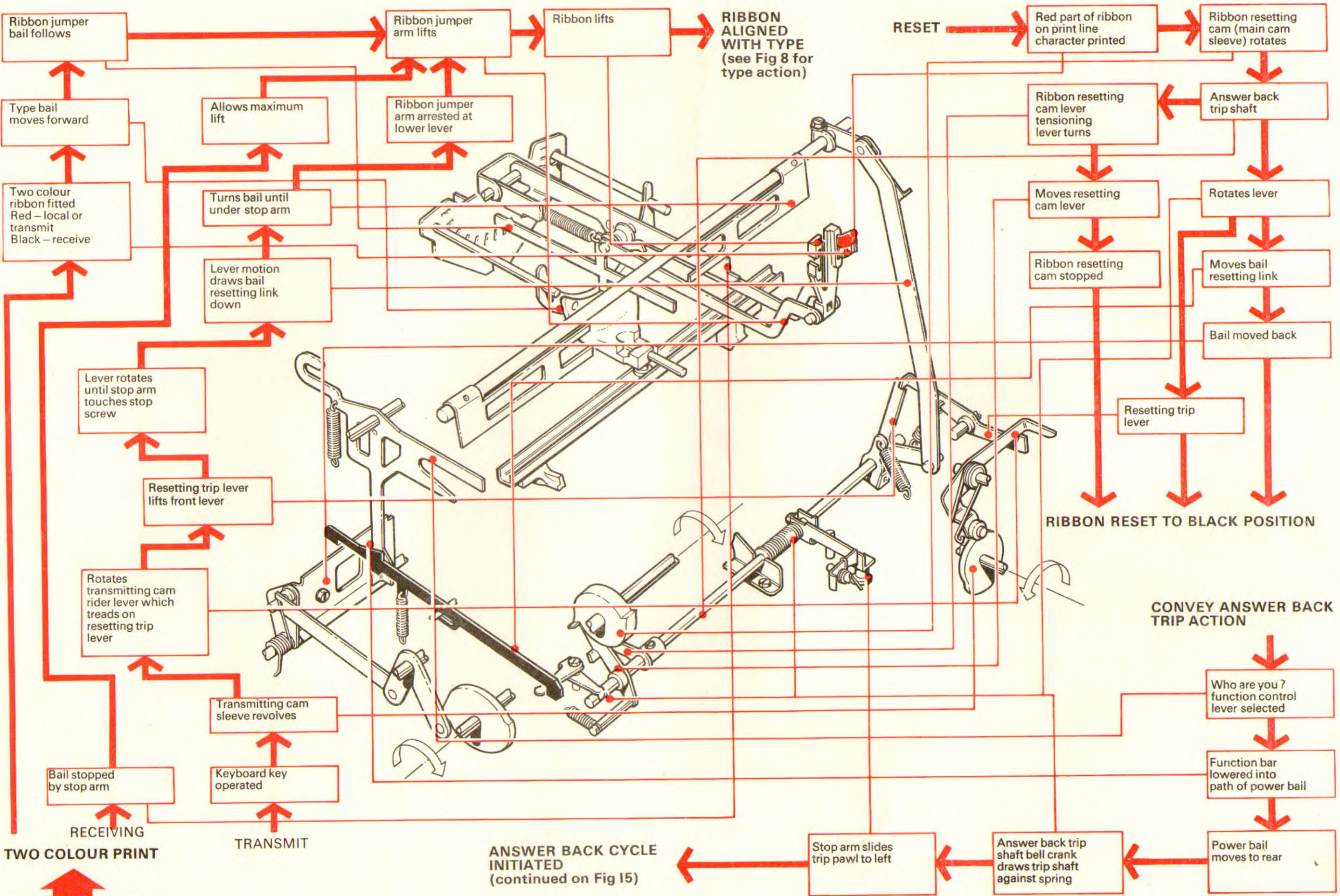
MACHINE IN FIGURE SHIFT
 Figure/letter shift action is similar but letters function control lever selected.

KEYBOARD IN FIGURE SHIFT
 PUNCH UNIT IN FIGURE SHIFT
 TYPE FIGURE SHIFT

Shift link moved
 Punch shifting bellcrank turned



START HERE



Ribbon jumper bail follows
 Type bail moves forward
 Two colour ribbon fitted
 Red - local or transmit
 Black - receive

Allows maximum lift
 Turns bail until under stop arm
 Lever motion draws bail resetting link down

Ribbon jumper arm lifts
 Ribbon jumper arm arrested at lower lever

Ribbon lifts

RIBBON ALIGNED WITH TYPE
 (see Fig 8 for type action)

RESET

Red part of ribbon on print line character printed

Ribbon resetting cam (main cam sleeve) rotates

Ribbon resetting cam lever tensioning lever turns

Answer back trip shaft

Moves resetting cam lever

Rotates lever

Ribbon resetting cam stopped

Moves bail resetting link

Bail moved back

Resetting trip lever

RIBBON RESET TO BLACK POSITION

CONVEY ANSWER BACK TRIP ACTION

Who are you? function control lever selected

Function bar lowered into path of power bail

Power bail moves to rear

Bail stopped by stop arm

Transmitting cam sleeve revolves

Keyboard key operated

Rotates transmitting cam rider lever which treads on resetting trip lever

Resetting trip lever lifts front lever

Lever rotates until stop arm touches stop screw

Stop arm slides trip pawl to left

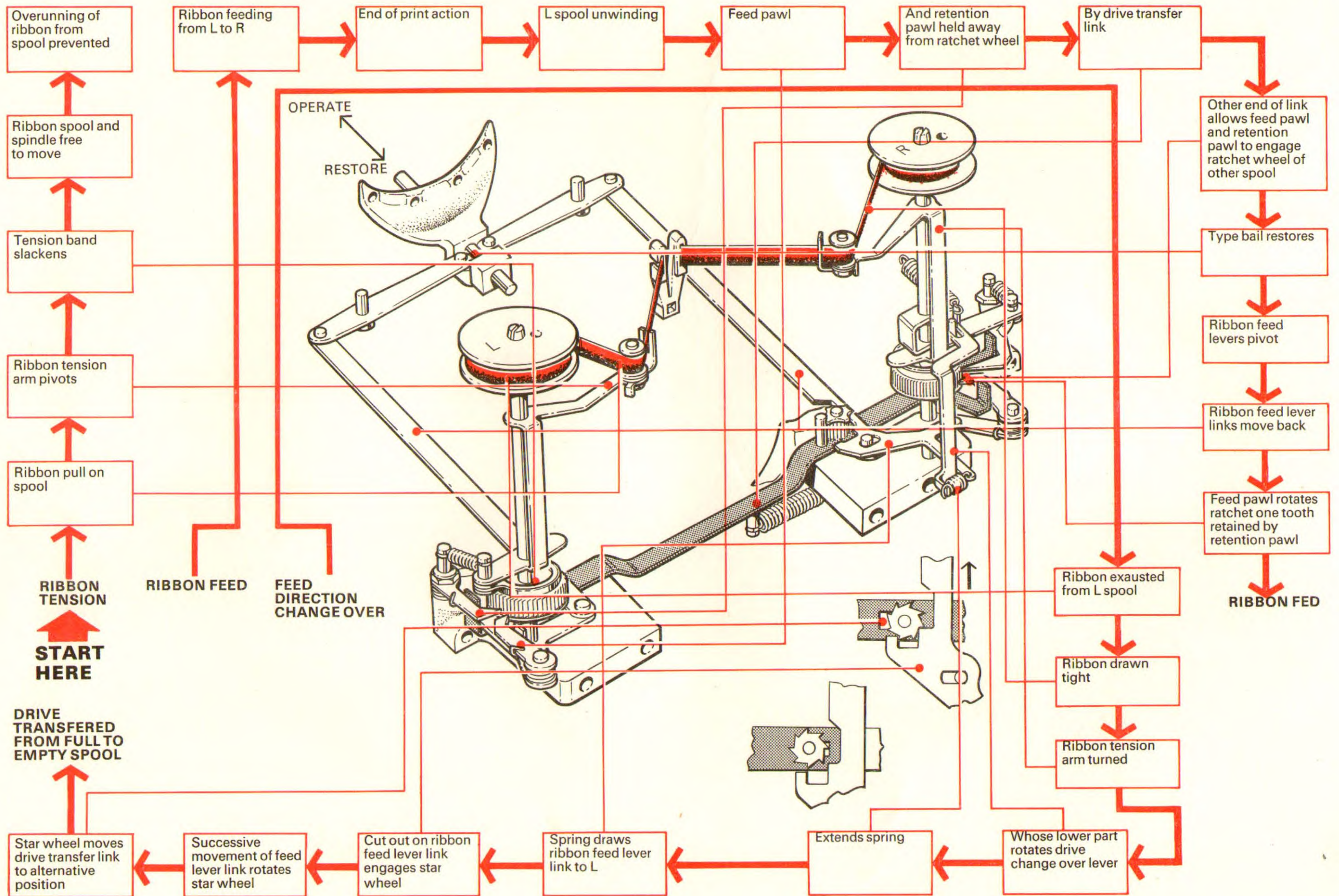
Answer back trip shaft bell crank draws trip shaft against spring

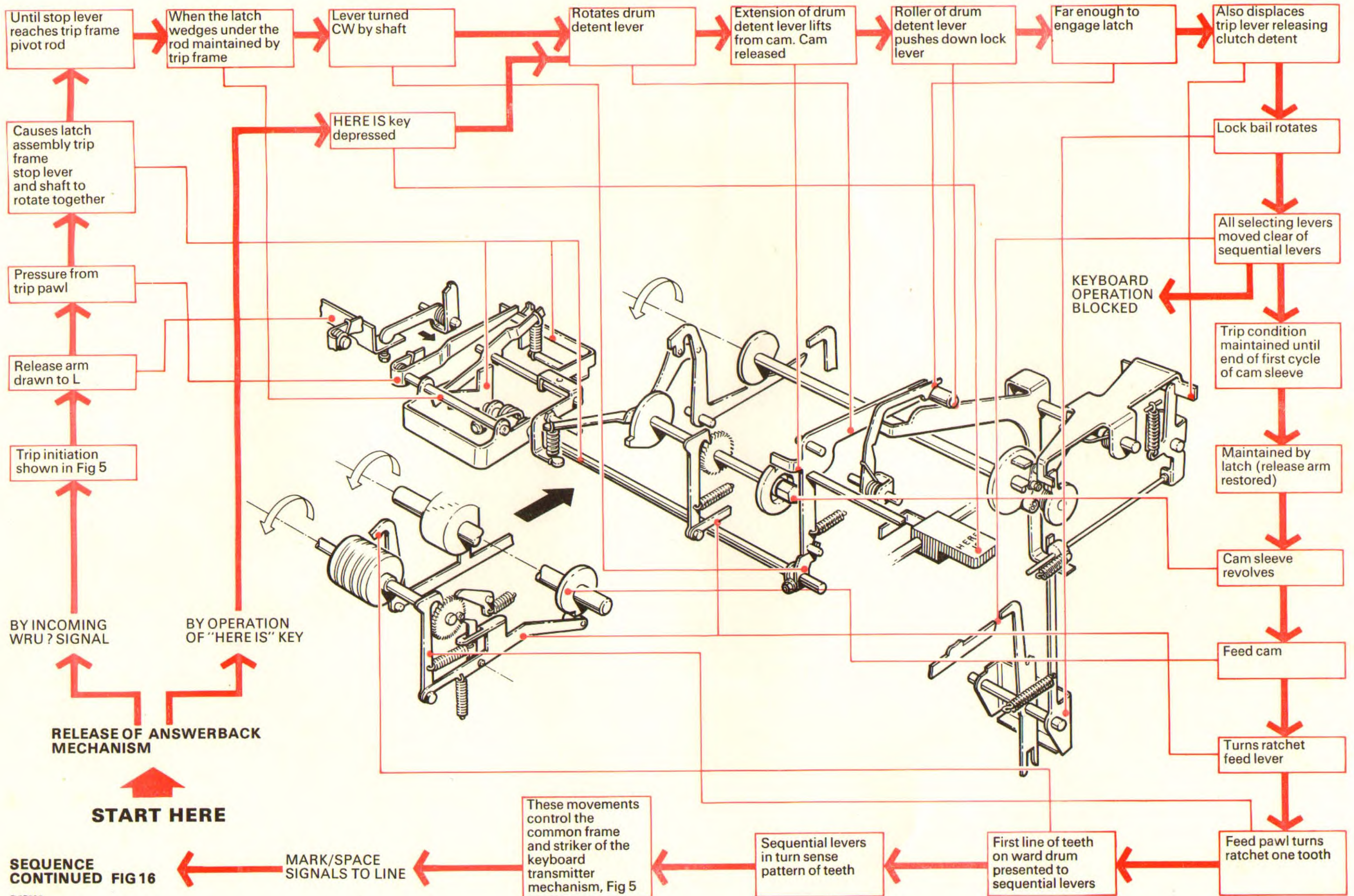
ANSWER BACK CYCLE INITIATED
 (continued on Fig 15)

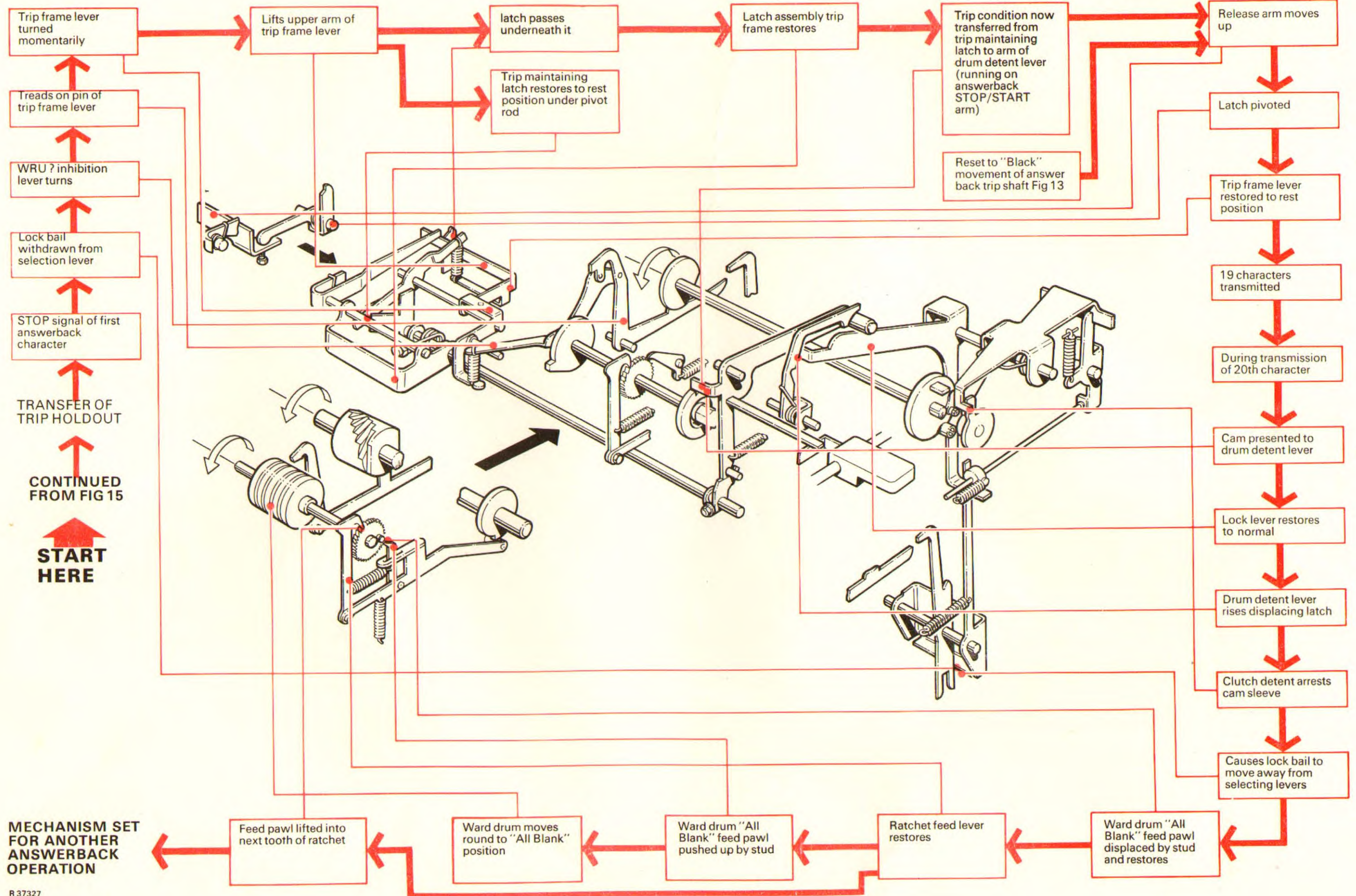
TWO COLOUR PRINT

TRANSMIT

START HERE

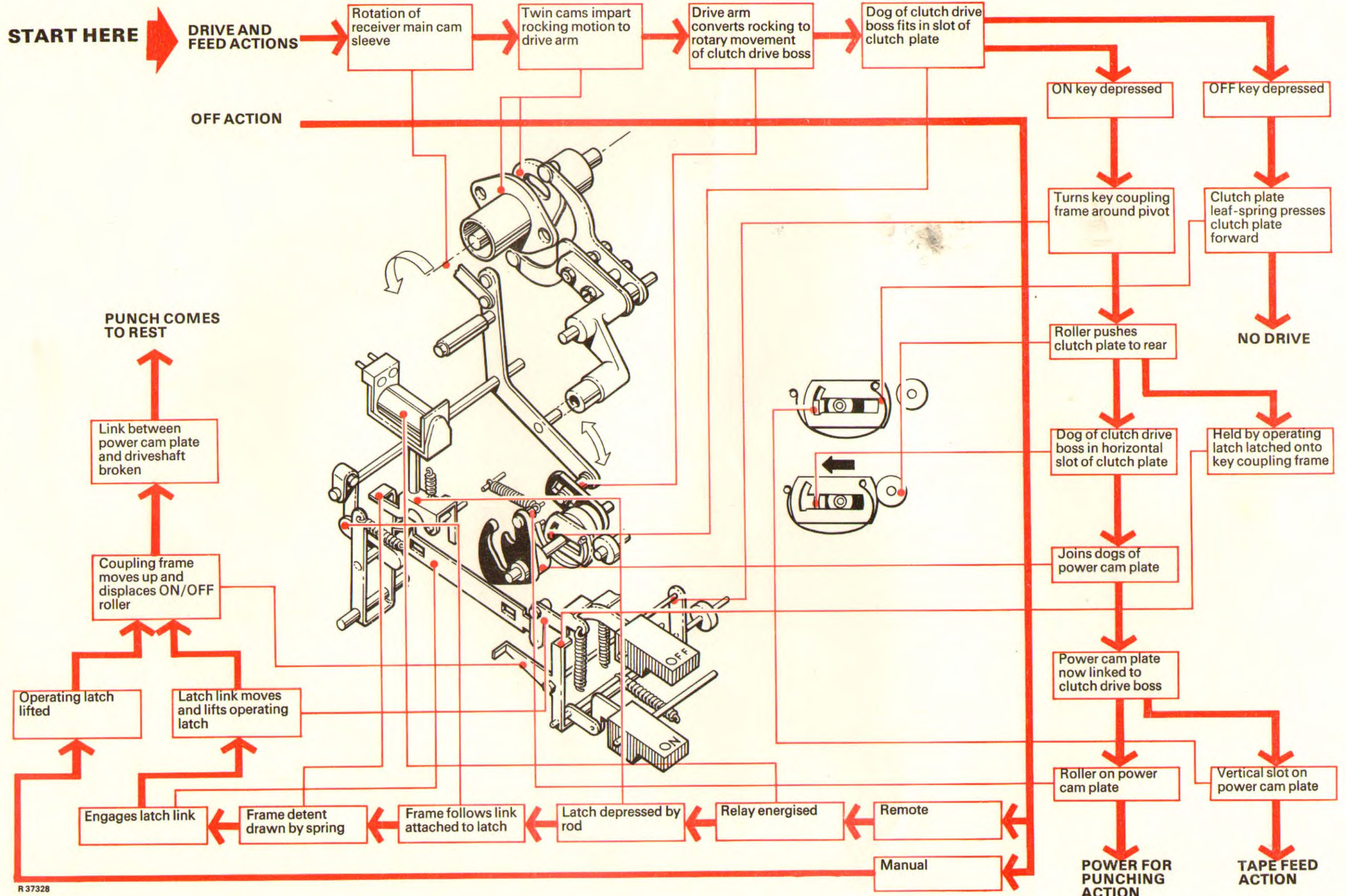


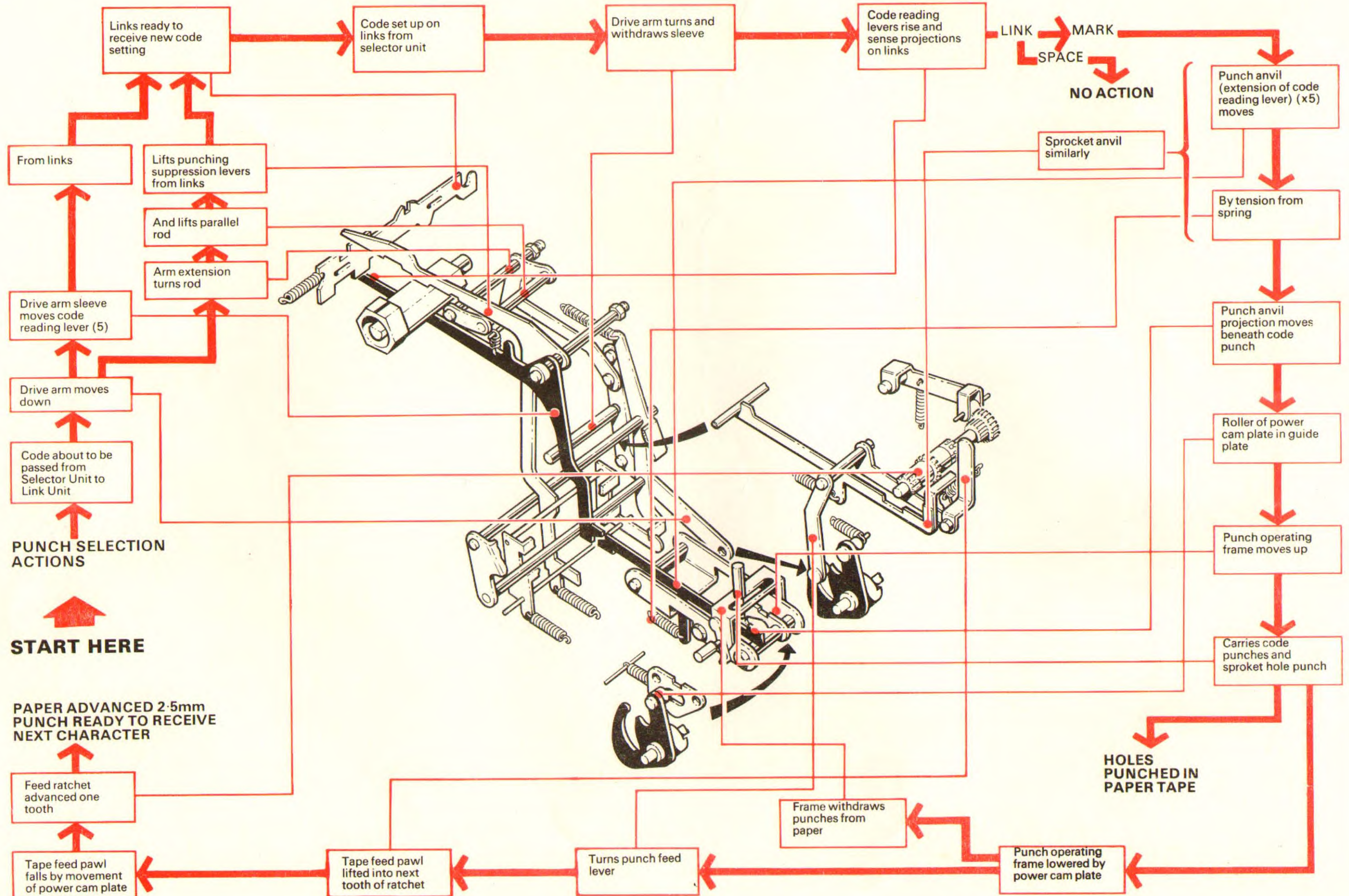


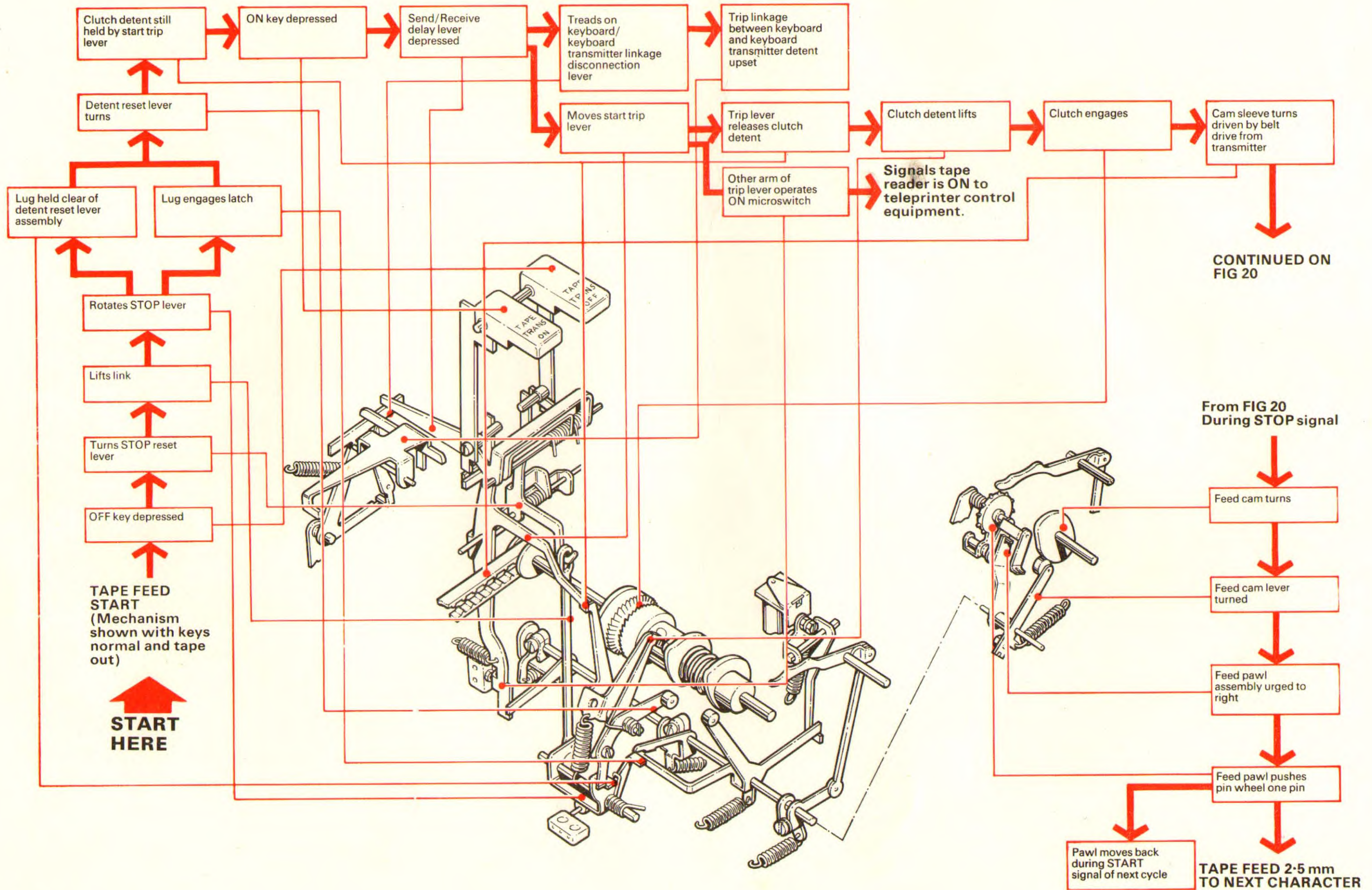


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R 37327/COLOUR







TAPE READER: TRANSMITTER & SEND/RECEIVE SWITCH CONTROL

