

MARCONI'S WIRELESS TELEGRAPH CO. LTD.
Marconi House, Chelmsford.

RG1/C61621/65037

1st April, 1948

Director of Contracts, For the attention of Mr. David St.J. Jones
Foreign Office,
14 Carlton House Terrace, S.W.1.

Dear Sir,

Marconi Printers

You will recollect that you recently raised a number of queries in connection with the Marconi Printers which we are supplying to you under G.P.O. Contract 51504, and we now have pleasure in giving below our comments on the points you mention:-

1. Q Is the Printer able to run completely unattended apart from changing tape reels, and for how long?
1. A The following considerations must be taken into account when estimating how long the Marconi Printer can run unattended, apart from changing tape reels:-

- (a) The inking pad is suitable for approximately 7 hours continuous printing;
- (b) Radio Receiver Drift.

Apart from attention to the above, the equipment in our normal installation will function automatically after switching on.

2. Q Are the new printers fitted with Tape Pulling Brass Rollers or Steel Rollers?
2. A The new type Marconi Printer is fitted with Brass Tape Pulling Rollers, especial care being taken to ensure accurate and identical knurling on all rollers.

We have had considerable experience with Tape Pulling Rollers on Undulators of our manufacture, where brass rollers have been used for many years. These Undulators usually run at a much higher speed than the Marconi Printer, and we have found that there has been no undue wear on the brass rollers.

3. Q Are the new type Printers modified to provide facilities for the easy removal and changing of both motor brushes?
3. A The layout of components in the new design of printer has improved the accessibility to the motor brushes.

The motor design, to P.O. specification, does not permit good accessibility to the brushes.

4. Q Are the new printers provided with Oilite bearings on the Marking Wheel and on the Rollers?
4. A Oilite bearings are employed for the Marking Wheel and the Driving Roller of the Tape Pulling Chain. The roller pressing against the driver has a self-aligning bearing, and the jockey roller has a plain bearing. This arrangement has been exhaustively tested and has given no trouble in operation.

5. Q Can we provide on Marconi Printers larger Spool Holders able to accommodate 8" instead of 5-1/2" spools?
5. A Our new printer will accommodate up to 4" diameter. If 5-1/2" or 8" diameter spools are required, a new mounting would have to be designed with an adaptor to secure this to existing fixing points on the front panel.

6. Q What are the main points in which the new Marconi Printer differs from original G.P.O. design?
6. A The following alterations which we consider are an improvement on the original G.P.O. design, have been incorporated in the Marconi Printer:-
- (a) Where necessary Oilite bearings have been fitted to obviate the "seizing up" troubles which were frequently met on the original design with plain bearings;
 - (b) The Start-Stop system has been improved so that this does not act so easily due to noise.
 - (c) Arrangements are being made for an improvement in the Motor Speed Control. This improvement will give less than 1-1/2% change of speed per notch compared with as much as 4% per notch in the old design.
 - (d) The Motor wiring on the new design has been considerably simplified.
 - (e) The Printer Magnet Assembly has been improved with regard to clearances as shorts were sometimes experienced on the original G.P.O. design.
 - (f) The Supporting Arm for the Ink Roller has been strengthened, and a double ball race is now provided for the ink roller bearing. In addition, an improved clip-off device has been fitted for this roller to obviate the tendency displayed in the old design for the ink roller to fall back on the Marking Wheel.
 - (g) The Governor Resistor is of the Standard clip-in variety, which is an improvement on the screw connected resistor used in the original G.P.O. model.
7. Q Which components in our new printers are tropicalized?
7. A All components specified by us for the Marconi Printer are suitable for tropical use. The Motor and the Start-Stop Supply Transformer are to P.O. specifications.
8. Q Do we use any special test equipment for testing our Printers?
8. A All components are thoroughly tested on each printer. The Motors are tested for speed control. Each Printer is tested for satisfactory recording of Hellschreiber signals picked up by a Radio Receiver.

In answer to your last query in regard to ventilation, we would state that to provide satisfactory ventilation, louvres are incorporated in the back of the unit with holes for air inlet in the base of the cabinet.

Yours faithfully,

MARCONI'S WIRELESS TELEGRAPH CO. LTD.

(Sgd) C.F. Hayter
for CONTRACTS MANAGER