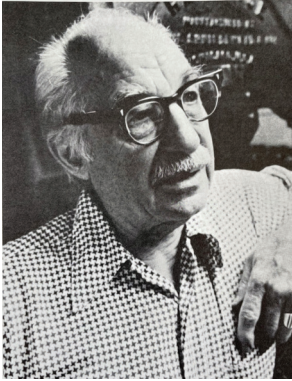


12ET UBI-FAL TYPOGRAPHY MEETING

COVILHÃ, 13-16.12.2022

ARTICLE PROPOSAL



TITLE

Hot Metal Typesetting with Ludlow Typograph.

Hand-set and linecasting with a semi-automatic system (Model M, 1966)

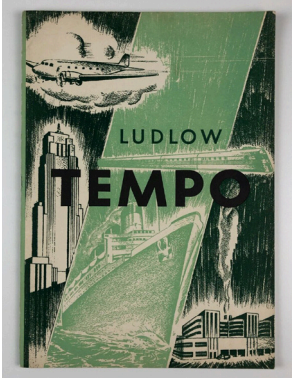
PALAVRAS-CHAVE

Ludlow Typograph; Typesetting; Typecasting; Type Specimen



OBJETIVOS

The Ludlow Typograph (LT) system, 1905-2003, is part of a new period in the graphic arts industry that occurred between the end of the 19th century and the beginning of the 20th century, marked by major technological developments that allowed the transition from manual printing to mechanical industry. This system resulted in a semi-automatic machine, with manual composition and mechanical casting, prepared for the casting of lines of text and specifically designed to work with larger type sizes in order to compose and cast titles. Having as object of study the Ludlow Model M machine (SN: M18454), which belongs to a private collection in Oporto, the objective established for the article named "Fundição tipográfica com a Ludlow Typograph. Compor manualmente e fundir com um sistema semiautomático (Model M, 1966)" [Hot metal typesetting with Ludlow Typograph. Hand-set and linecasting with a semi-automatic system (Model M, 1966)] was to acquire the necessary knowledge to be able to cast lines of text with the Ludlow Typograph system in this day and age.



First, the history of the Ludlow Typograph system in general, as well as of the American company responsible for its launch, the Ludlow Typograph Company, is covered in more detail. Then, the entire universe concerning the object of study LT M (SN: M18454) is explored, thereby presenting: the results of the research about the origin and pathway of the machine to get to the place where it is today in operation; the conclusions of the survey carried out for the possible location of other LT machines in Portugal; the listing of the items belonging to the case study, where the catalogues and operating manuals, the equipment components





and their dimensions, the component makers, the accessories, the tools and consumables, and the white materials are listed; finally, the explanation of the 3D production of the die gauge and identifier which made it possible to classify the die collection. Then, the steps that allowed the equipment to be operated under conditions are presented, including: the description of the cleaning and maintenance activities of the machine, the explanation of measurements, tests and operational attempts, the design and production of a manual extractor, and, finally, the report of the first successful casting attempt and the development of the proof sheet of the cast lines referring to the four typefaces of Ludlow available in the collection: Bodoni, Condensed Gothic, Record Gothic, and Tempo.

METODOLOGIA

Getting the equipment up and running was a slow and arduous process that was only possible through a process of trial and error, since the authors of this article never had operated a Ludlow Typograph machine before and the LT M (SN: M18454) was no longer working, at least since 2005. In addition to the exhaustive reading of manuals from the Ludlow Typograph Company, the direct contact with people linked to the printing and engineering industry, or with specific knowledge about this equipment, was essential for achieving the proposed objective. Since the first attempt made to cast with the machine in May 2022, there have been a series of failed attempts, which played a vital role on the path towards final success.

RESULTADOS

This article presents and compiles a series of novelties that provide a very effective understanding of how a Ludlow Typograph machine works. We can list several achievements: 1) The LT mechanisms were understood and the text lines were cast with LT M (SN: M18454); 2) a list was made of all the equipment coming from Silvas CRL (Lisbon) resulting in a total of 3709 pieces, including 3576 dies; 3) the dies were classified using the Ludlow Matrix Identification Gauge and the same was produced in 3D with transparent acrylic; 4) an extractor was designed and produced 5) records were found that prove the existence of 8 more machines in Portugal; 6) the formulas (compound and percentages) of oils and lubricants for use in the chilled water and boiler cleaning/injection were identified, data that we couldn't find anywhere else; 7) the system performance was improved and modernised with the installation of a digital controller and the use of high-quality lubricants; 8) a Portuguese operator, that is still alive, and that has worked with this model, now under study, was localised.

CONCLUSÃO

It was an arduous, yet very rewarding process, as the established objectives were successfully achieved and even surpassed. It is essential to point out that an extensive survey was carried out to find Ludlow Typograph machines working in Portugal and that there have been no results, which allows us to say that this machine is the only Ludlow, to this day, still casting in the country. Furthermore, the last casting record in Portugal found was in Fundação Tipográfica Manuel Guedes, in Lisbon, which is said to have closed in the 1990s. In August 2022, casting is resumed in Oporto, on a private basis, with Ludlow M (SN: M18454).



- Fig. 1 Robert Hunter Middleton (s.d.), design director at Ludlow Typograph Company
- Fig. 2 LT M (SN: M18454)
- Fig. 3 Specimen cover of Tempo typeface from LTC (s.d.)
- Fig. 4 Identification and organization of the matrices in the matrix cabinet (2022)
- Fig. 5 Cleaning piston in the nozzle (2022)
- Fig. 6 Placing the compost in the watercooler (2022)
- Fig. 7 Manual Steel Puller (2022)
- Fig. 8 Dual thermostat after lamp replacement and digital controller installation (2022)
- Fig. 9 Line casted with phrase celebrating the experience — Ludlow Padrão 050822 (2022)
- Fig. 10 Metal plate with Ludlow logo present on LT M (SN: M18454)