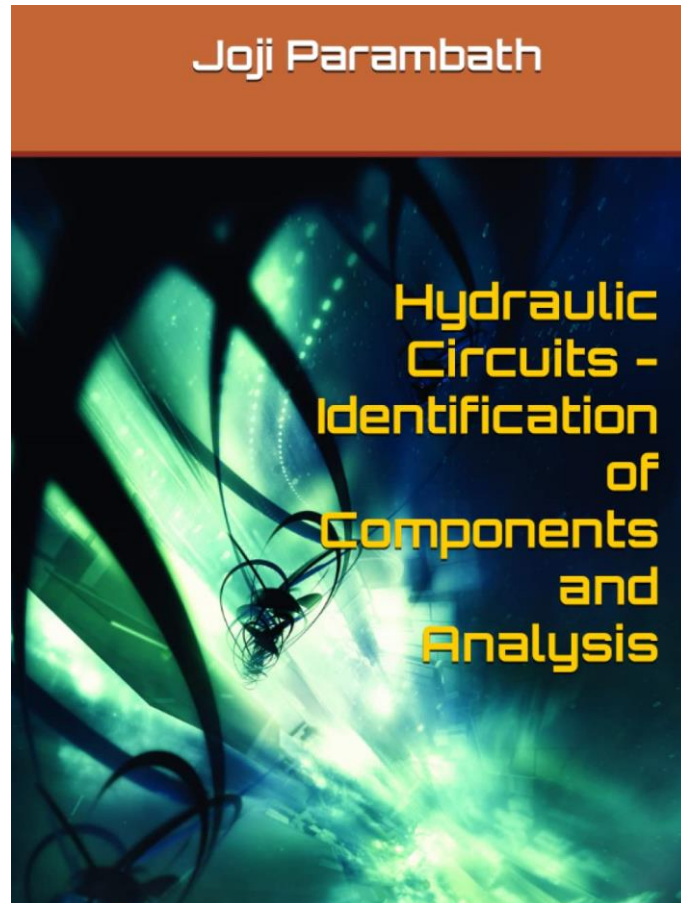


Hydraulic Circuits -Identification of Components and Analysis

by

Joji Parambath



About the Book

Industrial and mobile hydraulic systems are expanding and as fascinating as ever. They provide the muscle power to run machines with the smoothest control possibilities. Hydraulic technology is used to realize work operations in many industrial and mobile hydraulic systems. As technology advances, manufacturers are bringing out many hydraulic components with well-defined functions. Useful information is available in the manufacturer's domain and on the internet. However, they are in bits and pieces. A need was felt for a source of all types of typical hydraulic circuits in one book during the author's interaction with many hydraulic professionals. That prompted the author to prepare this book entitled 'Hydraulic Circuits - Identification of Components and Analysis'.

Many professionals design, develop, and maintain hydraulic systems. Innumerable hydraulic circuits are developed using hydraulic components to implement the required power transmission and control functions. Several budding engineers are

initiated into the technology of fluid power now and then. These professionals and engineers encounter many types of hydraulic circuits during their service life. Often, the circuits appear to be confusing or more complex.

The textbook explores a variety of typical hydraulic circuits in multiple positions and with color graphics. The presentation of the hydraulic circuits is structured with well-thought-out chapters. Each chapter presents circuits from simple to complex levels. Relevant symbols are portrayed chapter-wise for quick understanding. Most of the symbols used are as per ISO 1219. The types of hydraulic circuits include circuits for conventional hydraulics, electro-hydraulics, closed-circuit HSTs, PLC systems, proportional/servo valve systems, and cartridge valve systems.

The book is meant for hydraulic professionals to refresh their circuit ideas and know more about hybrid hydraulic circuits. This book is specially written for professionals who are confused with many types of complex hydraulic circuits. They can systematically learn the critical areas in simple or complex hydraulic circuits. Teachers and students may also use this book to enhance their hydraulic knowledge. The reader can build up a strong foundation for circuit ideas and may apply these ideas to a hydraulic application considering the operating and environmental conditions, the orientation of the actuators, the type of materials used, and many supplementary factors.

About the Author

Joji Parambath is an accomplished professional with over 25 years of experience in Pneumatics, Hydraulics, and PLC. Throughout his illustrious career, he has trained professionals from various industries, faculty members, and engineering students, imparting his knowledge and expertise to the next generation of learners. The author's extensive experience in handling topics such as industrial pneumatic systems and the design of pneumatic systems has uniquely positioned him to prepare this book on compressed air dryers.

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