

In the course of time a great number of various tractor designs has been developed on the basis of the various applications. Although these designs may be reduced to a few typical basic designs, they differ, in several cases even largely, from each other with regard to operation and the repair and maintenance work involved. Therefore, any one tractorist should thoroughly study the Operating Instructions accompanying his vehicle and strictly adhere to the specifications given. This especially applies to the instructions regarding the running-in period and, likewise, to lubrication at regular intervals, oil changes and appropriate inflation pressures.

Above all, a regular and sufficient lubrication must never be neglected, taking into consideration that various grades of lubricants must be used. For example, ventilator shafts must always be lubricated with high melting-point grease. A lubrication chart, adapted to the tractor type in question, is included in the Operating Instructions to facilitate the location of points of lubrication and to enable the tractorist to keep to the time-table of lubrication. Above is an example of a lubrication chart which shows the points of lubrication, the lubrication intervals and the lubricants to be used.

Times or intervals of lubrication, oil changes and fuel consumption depend on the hours of operation. In addition, the power required of a tractor must also be taken into account which is mirrored especially in the fuel consumption. Unlike lorries or passenger cars, where servicing and maintenance times are based on the distance covered, in case of tractors these times largely depend on the hours of operation and the type of work to be performed. This is easily understandable if we consider, for example, the mounted implements driven by means of a power take-off or the operation of tractors at creep speed. It is well-known that the prime costs of tractors are high. Skilful operation and careful maintenance are indispensable for the perfect working condition of the tractor at any time. Therefore it is worth while for a tractorist to know his engine and the technical interrelations at the bottom of its operation and the processes that take place inside the various units. Of course, this Manual of Tractors cannot deal with all versions of tractors and variants in their units of construction. This would require a much more comprehensive compendium. This manual is devoted to explanations of the principal interrelations and to hints regarding maintenance and simple repairs.

Since the reader is not presumed to have any theoretical knowledge, emphasis in the exposition is on illustrations which will help to grasp the technical interrelations at the bottom of engine operation which frequently are rather complicated.

The driving of tractors and certain maintenance and repair work are liable to the danger of accidents. In this book hints as to the prevention of accidents are given; however, any tractorist should keep in his mind that only the strict observance of the relevant regulations regarding safety and the prevention of accidents can save him and other persons from harm and loss. A thorough knowledge of the design of tractors and the mode of operation of its various units of construction are indispensable for the prevention of accidents.