

4520 Tractors



TECHNICAL MANUAL 4520 Tractors

TM1007 (01FEB75) English



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LITHO IN U.S.A. (REVISED)
ENGLISH



4520 TRACTOR

TECHNICAL MANUAL

TM-1007 (FEB-75)

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INTRODUCTION

This technical manual is for the 4520 Tractor. It contains procedures and specifications which an individual cannot be expected to remember.

The table of contents at the front of the manual lists the sections in the manual and their groups in each section.

A table of contents on the first page of each section lists the groups in the section and the page number of the major subjects found in each group.

Coverage for each component usually includes general information, diagnosis and test, removal, repair, adjustments, installation, specifications, and special tools. For your convenience, the specifications and special tools are always listed at the end of each group.

Use the lubrication chart in the general section to determine what type and amount of lubricant to use after servicing a component or system.

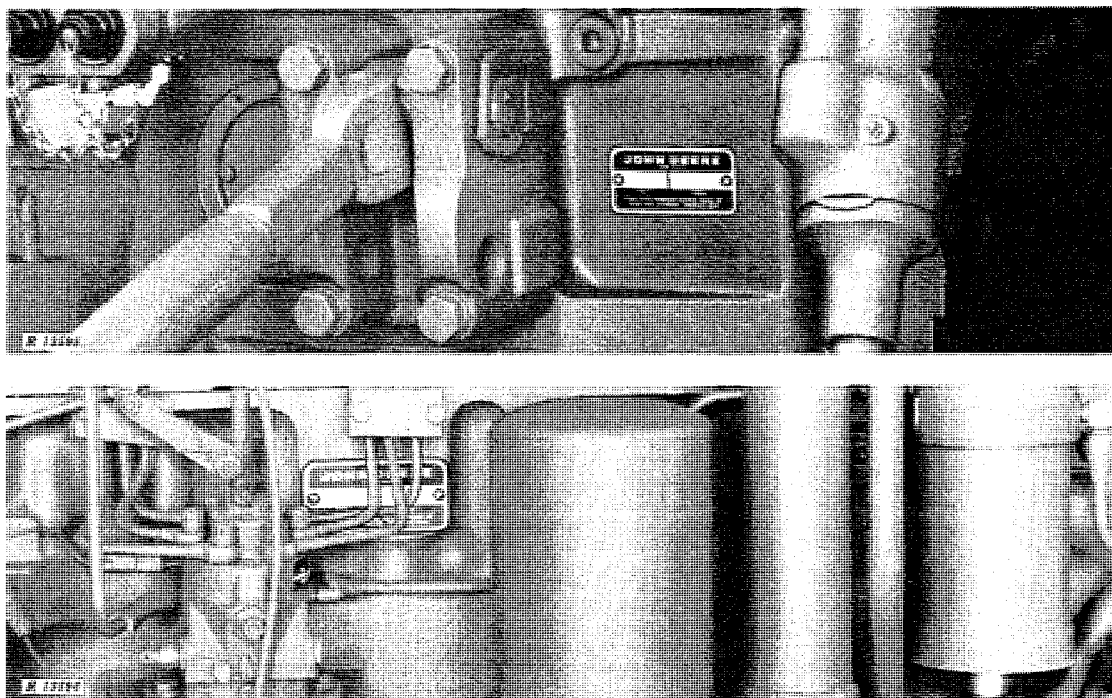
Use the tune-up chart in the general section as a check list in tuning up a machine. Specifications are included in the chart and references are made to other sections and groups for detailed instructions.

You will notice that there is little explanation about theory of operation in this manual unless the theory is peculiar only to the component in this machine. Basic theory of operation and general information about the systems or components of the tractor will be found in the John Deere "Fundamentals of Service" manuals.

Some components such as the fuel injection pump, starter, alternator, remote hydraulic cylinders, and selective control valves are identified by model numbers. The engine is identified by a type and serial number found on a plate at the right side of the engine. The tractor chassis type and serial number is on a plate at the rear of the tractor. When ordering replacement parts, be sure to use all of the digits in the model number or type-and-serial number.

This technical manual was planned and written for you—a journeyman mechanic. Keep this manual in the shop where it is readily accessible and refer to it whenever in doubt about correct maintenance procedures.

Using the technical manual as a guide for your service problems will reduce error and costly delay. It will also assure you the best in finished service work.



Section 10

GENERAL

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Group 5

GENERAL TRACTOR SPECIFICATIONS

HORSEPOWER:*

Syncro-Range	123.39
Power Shift	122.36

ENGINE:

Type . . .	6-cylinder, in-line, valve-in-head, diesel, turbocharged
Bore and stroke . . .	4-1/4 in. x 4-3/4 in.
Displacement	404 cu. in.
Compression ratio	16.4 to 1
Firing order	1-5-3-6-2-4
Valve clearance	Intake-0.018 in. Exhaust-0.022 in.

Injection pump timing TDC

Engine Speeds:

Working range	1500 to 2200 rpm
Maximum transport speed	2500 rpm
Engine speeds:	
Slow idle	800 rpm
1900 rpm load	2150 rpm idle
2200 rpm load	2400 rpm idle
2500 rpm load	2650 rpm idle

LUBRICATION SYSTEM:

Full pressurized with full-flow micronic oil filter, water cooled oil cooler, and bypass valves for filter and cooler.

**Maximum observed hp. measured at the PTO at 2200 engine rpm (official test)*

FUEL SYSTEM:

Type	Direct injection
Filters	Two-stage with replaceable impregnated paper elements.
Injection pump type	Inlet metering, distributing type
Air cleaner	8-in. diameter; dry type

COOLING SYSTEM:

Type	Pressurized with centrifugal pump
Temperature control	Heavy-duty thermostat

CAPACITIES:

Fuel tank	50 U.S. gals.
Cooling system	28 U.S. qts.
Crankcase (with filter change)	16 U.S. qts.
Transmission-hydraulic system (add 4-1/2 gals. to capacity if equipped with Power Front Wheel Drive):	
Syncro-Range Transmission	18 U.S. gals.
Power Shift Transmission	16 U.S. gals.

SYNCRO-RANGE TRANSMISSION:

Type	Syncro-Range, constant mesh
Clutch	Heavy-duty, 14-3/4 in. plate, foot operated
Gear selections	8 forward and 2 reverse
Shifting	4 stations, synchronized shifting within stations



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for your reading.
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to get more information.