



7520 Tractor



JOHN DEERE

TECHNICAL MANUAL 7520 Tractor

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7520 TRACTOR TECHNICAL MANUAL TM-1053 (Jan-72)

CONTENTS

SECTION 10 - GENERAL

- Group 5 - General Tractor Specifications
- Group 10 - Predelivery, Delivery, and After-Sale Services
- Group 15 - Tune-Up
- Group 20 - Lubrication
- Group 25 - Separation
- Group 30 - Torques and Special Tools

SECTION 20 - ENGINE

- Group 5 - General Information, Diagnosis, and Tests
- Group 10 - Cylinder Head, Valve Train, and Camshaft
- Group 15 - Cylinder Block, Liners, Pistons, and Rods
- Group 20 - Crankshaft, Main Bearings, and Flywheel
- Group 25 - Lubrication System
- Group 30 - Cooling System
- Group 35 - Specifications

SECTION 30 - FUEL SYSTEM

- Group 5 - Diagnosing Malfunctions
- Group 10 - Air Intake System
- Group 15 - Fuel Injection System
- Group 20 - Speed Control Adjustment
- Group 25 - Specifications

SECTION 40 - ELECTRICAL SYSTEM

- Group 5 - Information and Wiring Diagrams
- Group 10 - Motorola Charging Circuit
- Group 15 - Delcotron Charging Circuit
- Group 20 - Starting Circuit
- Group 25 - Lighting and Accessory Circuits
- Group 30 - Specifications

SECTION 50 - POWER TRAIN

- Group 5 - Clutch
- Group 10 - Torque Divider
- Group 15 - Syncro-Range Transmission
- Group 20 - Differentials
- Group 25 - Final Drives
- Group 30 - PTO
- Group 35 - Specifications

SECTION 60 - STEERING AND BRAKES

- Group 5 - General Information

SECTION 70 - HYDRAULIC SYSTEM

- Group 5 - General Information, Diagnosis, and Tests
- Group 10 - Main Reservoir, Filters, Valves, Oil Cooler, and Oil Reservoir
- Group 15 - Hydraulic Pumps
- Group 20 - Power Steering
- Group 25 - Power Brakes
- Group 30 - Selective Control Valve, Breakaway Couplers, and Remote Cylinders
- Group 35 - Specifications

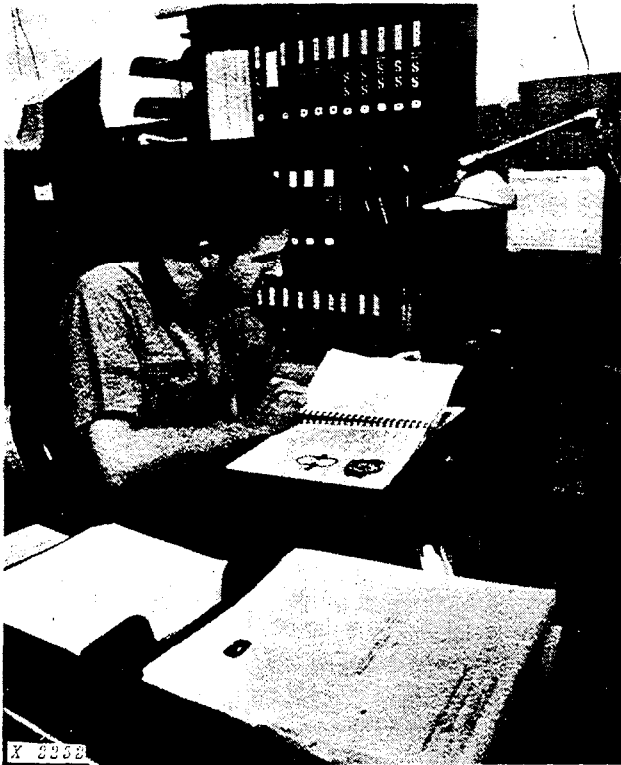
SECTION 80 - MISCELLANEOUS

- Group 5 - Hinge Assembly

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INTRODUCTION



Use FOS Manuals for Reference



Use Technical Manuals for Actual Service

This technical manual is part of a twin concept of service:

- **FOS Manuals—**for reference
- **Technical Manuals—**for actual service

The two kinds of manuals work as a team to give you both the general background and technical details of shop service.

Fundamentals of Service (FOS) Manuals cover basic theory of operation, *fundamentals* of trouble shooting, *general* maintenance, and *basic* types of failures and their causes. FOS Manuals are for training new men and for reference by experienced men.

Technical Manuals are concise service guides for a specific machine. Technical Manuals are on-the-job guides containing only the vital information needed by a journeyman mechanic.



When a serviceman should refer to a FOS Manual for more information, a FOS symbol like the one at the left is used in the TM to identify the reference.

Some features of this technical manual:

- *Table of contents at front of manual*
- *Exploded views showing parts relationship*
- *Photos showing service techniques*
- *Specifications grouped for easy reference*

This technical manual was planned and written for you—a journeyman mechanic. Keep it in a permanent binder in the shop where it is handy. Refer to it whenever in doubt about correct service procedures or specifications.

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



This safety alert symbol identifies important safety messages in this manual. When you see this symbol, be alert to the possibility of personal injury and carefully read the message that follows.

Section 10 GENERAL

CONTENTS OF THIS SECTION

	Page		Page
GROUP 5 - GENERAL TRACTOR SPECIFICATIONS	5-1	GROUP 25 - SEPARATION	
		Removing Roll-Gard Cab	25-1
GROUP 10 - PREDELIVERY, DELIVERY, AND AFTER-SALE SERVICES		Installing Roll-Gard Cab	25-2
Predelivery Services	10-1	Separating Engine from Clutch Housing	25-2
Delivery Services	10-3	Separating Engine from Tractor Front End	25-4
After-Sale Services	10-4	Removing Engine	25-6
GROUP 15 - TUNE-UP		Removing Front Axle Assembly	25-7
Preliminary Engine Testing	15-1	Separating Transmission and Differential from Torque Divider	25-9
Engine Tune-Up	15-1	Separating Torque Divider and Tractor Rear End from Hinge	25-10
Engine Final Testing	15-3	Separating Clutch Housing from Front Hinge	25-11
Tractor Tune-Up	15-3	Removing Final Drive Assembly	25-12
GROUP 20 - LUBRICATION		Group 30 - SPECIFICATIONS AND SPECIAL TOOLS	
Lubrication Chart	20-1	Specifications	30-1
Engine Lubricating Oils	20-2	Special Tools	30-2
Transmission-Hydraulic Oil	20-2		
Greases	20-2		
Storing Lubricants	20-2		

Group 5

GENERAL TRACTOR SPECIFICATIONS

HORSEPOWER:*
 Maximum observed at PTO 175.82

ENGINE:
 Type 6-cylinder, in-line, valve-in-head, diesel, turbocharged, and intercooled

Engine Speeds:
 Slow idle 800 rpm
 Working range 1500 to 2100 rpm
 Maximum transport speed 2300 rpm
 Bore and stroke 4-3/4 in. x 5 in.
 Displacement 531 cu. in.
 Compression ratio 15.4 to 1
 Firing order 1-5-3-6-2-4
 Valve clearance In.-0.018 in.
 Ex.-0.028 in.
 Injection pump timing 27° BTDC

* Official test at 2100 engine rpm.

LUBRICATION SYSTEM Force-feed pressurized with full-flow oil filter

Fuel System:
 Type Direct injection
 Injection pump type Multiple plunger, in-line
 Air cleaner Dry type with safety element

Cooling System:
 Type Pressurized with centrifugal pump
 Temperature control ... 3 heavy-duty thermostats

Capacities:
 Fuel tank 78 U.S. gals. each tank
 Crankcase (with filter change) 26 U.S. qts.
 Transmission-hydraulic system 19 U.S. gals.
 Cooling system 40 U.S. qts.
 Front differential 7 U.S. gals.

Transmission:

Type Syncro-Range, constant mesh
Clutch Heavy-duty, 13-1/2 in. dual plate, hydraulic assist, foot operated
Gear selections 8 forward and 2 reverse
Shifting ... Two lever shifting, synchronized shifting within stations, except reverse gears; Optional "Hi-Lo" speed selector provides two speeds in each gear for 16 forward and 4 reverse.

Ground Speeds (in miles per hour, 2100 engine rpm)*

Gear	"Lo"	"Hi"
1st	2.08	2.39
2nd	3.33	3.82
3rd	4.39	5.04
4th	5.64	6.48
5th	7.02	8.07
6th	9.20	10.58
7th	11.91	13.70
8th	19.44	22.35
1st reverse	4.27	4.91
2nd	6.84	7.86

Electrical System:

Type 12-volt, negative grounded
Batteries Two, 6-volt, 87-plate, 204-ampere-hour, 7D type, connected in series
Alternator 12-volt, with transistorized regulator; 55 amp without air conditioning; 72 amp with air conditioning

* Ground speeds for tractors with standard 8-speed transmission are the same as "Lo."

Power Take-Off:

Type Transmission-driven
Speed
1800 engine rpm in "Hi" 1000 rpm
2100 engine rpm in "Lo" or with standard 8-speed transmission 1000 rpm
PTO ahead of drawbar hitch point 20 in.

Hydraulic System:

Type Closed center, constant pressure. Includes power steering, power brakes, implement control, and transmission and differential lubrication
Standby pressure 2250 psi

Brakes Hydraulically power-actuated disk-type operating in oil
Tires* * 23.1-30, 8-ply rating

Wheel Tread: See operator's manual

Dimensions:

Wheel base 125 in.
Over-all length 220 in.
Over-all height 123 in.
-With air conditioner 131 in.

Over-all width 95-7/8 in.
-long-axle-114 in.
Turning radius (80-in. tread) 220 in.

Shipping Weight (With equipment for average field service, less fuel and ballast) 16,790 lbs.

* * Additional tire sizes available

(Specifications and design subject to change without notice.)

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