

John Deere 1020, 1120 and 1630 Tractors



TECHNICAL MANUAL John Deere 1020, 1120 and 1630 Tractors

TM4286 (01AUG73) English

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1020, 1120 and 1630 Tractors

(1020 and 1120 Tractors from Serial No. 115000L)

Technical Manual
TM-4286 (Aug-73)

CONTENTS

SECTION 10 — GENERAL

- Group 5 - Specifications
- Group 10 - Pre-delivery, delivery and after-sales inspections
- Group 15 - Lubrication and periodic service
- Group 20 - Engine and tractor tune-up
- Group 25 - Tractor separation

SECTION 20 — ENGINE

- Group 5 - General information, diagnosing malfunctions
- Group 10 - Cylinder head and camshaft
- Group 15 - Cylinder block, liners, pistons and connecting rods
- Group 20 - Crankshaft, main bearings and flywheel
- Group 25 - Timing gear train
- Group 30 - Oil pump, oil pressure regulating valve, oil cooler and oil filter
- Group 35 - Engine cooling system
- Group 40 - Speed control linkage

SECTION 30 — FUEL SYSTEM

- Group 5 - Diagnosing malfunctions
- Group 10 - Fuel tank, water trap, transfer pump and fuel filter
- Group 15 - ROTO DIESEL fuel injection pump
- Group 20 - Fuel injection nozzles
- Group 25 - Cold weather starting aids

SECTION 40 — ELECTRICAL SYSTEM

- Group 5 - Diagnosing malfunctions
- Group 10 - "Bilux" lighting system
- Group 15 - Sealed-beam lighting system (on earlier tractor models)
- Group 16 - Sealed-beam lighting system (on later tractor models)
- Group 20 - Starting motor
- Group 25 - Alternator and regulator

SECTION 50 — POWER TRAIN

- Group 5 - Engine clutches and clutch linkage
- Group 10 - HIGH-LOW shift unit
- Group 15 - Collar-shift transmission
- Group 20 - Differential
- Group 25 - Final drives
- Group 30 - Independent PTO
- Group 35 - Continuous-running PTO

SECTION 60 — FRONT AXLE, STEERING SYSTEM AND BRAKES

- Group 5 - Front axle
- Group 10 - Steering system
- Group 15 - Hydraulic brakes

SECTION 70 — HYDRAULIC SYSTEM

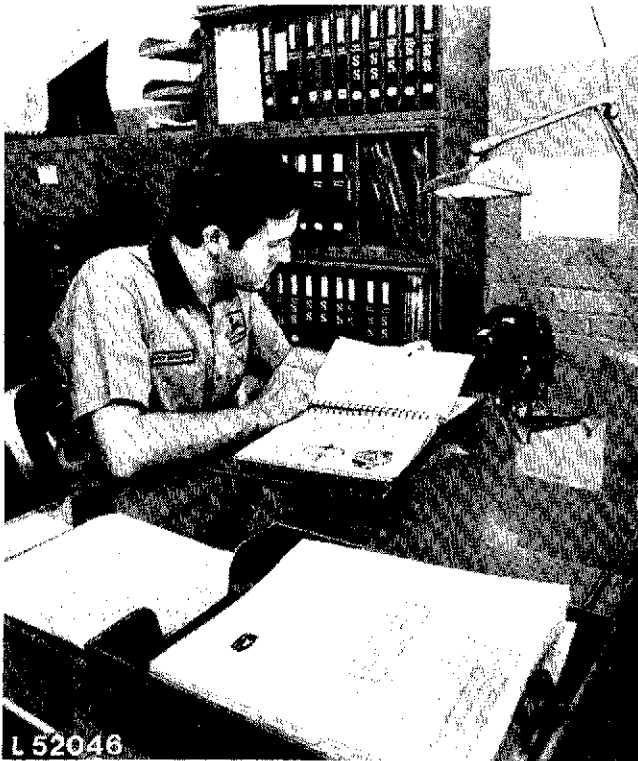
- Group 5 - General information, diagnosing malfunctions, and pressure tests
- Group 10 - Oil reservoir, filter, valves and oil cooler
- Group 15 - Hydraulic pump and transmission oil pump
- Group 20 - Rockshaft
- Group 25 - Selective control valves
- Group 30 - Remote cylinder

SECTION 80 — MISCELLANEOUS

- Group 5 - Belt pulley
- Group 10 - Seats
- Group 15 - Front and rear wheels
- Group 20 - Roll guard

All information, illustrations, and specifications contained in this technical manual are based on the latest information available at the time of publication. The right is reserved to make changes at any time without notice.

INTRODUCTION



Use FOS Manuals for Reference

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.



Use Technical Manuals for Actual Service

Some features of this technical manual:

- Table of contents at front of whole Manual.
- Contents at front of each Section
- Exploded views showing parts relationship
- Photos showing service techniques
- Specifications at end of each Group
- Special tools at end of each Group

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 indicates 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

GROUP 5 — SPECIFICATIONS

	Page
Serial numbers	5-2
Model numbers	5-2
Engine	5-2
Engine clutch	5-2
Electrical system	5-2
Transmission	5-3
HIGH-LOW shift unit	5-3
Differential and final drives	5-3
Differential lock	5-3
PTO	5-3
Hydraulic system	5-3
Power steering	5-3
Manual steering	5-3
Hydraulic brakes	5-3
Handbrake	5-3
Capacities	5-3
Travel speeds	5-3
Front and rear wheels	5-3
Dimensions and weights	5-3

GROUP 10 — PREDELIVERY, DELIVERY AND AFTER-SALES INSPEC- TIONS

Predelivery inspection	10-1
Delivery inspection	10-4
After-sales inspection	10-4

GROUP 15 — LUBRICATION AND PERIODIC SERVICE

	Page
Lubrication and periodic service	15-1

GROUP 20 — ENGINE AND TRACTOR TUNE-UP

General information	20-1
Preliminary engine testing	20-1
Engine tune-up	20-2
Checking engine performance	20-3
Tractor tune-up	20-3
Standard torques	20-5
Special tools	20-5

GROUP 25 — TRACTOR SEPARATION

Separating between engine and tractor front end	25-1
Removing and installing engine	25-3
Removing and installing clutch housing	25-5
Removing and installing final drives	25-7
Removing and installing rockshaft	25-8
Torques for hardware	25-9
Special tools	25-10

Group 5 Specifications

SERIAL NUMBERS

The engine serial number is stamped into the name plate located on the lower front right-hand side of the cylinder block.

NOTE: If ordering engine parts, indicate all digits of the serial number on the name plate.

The name plate showing the tractor serial number is located on the right-hand side of the front support.

NOTE: If ordering tractor parts, (excluding engine parts), indicate all digits of the serial number on the name plate.

MODEL NUMBERS

The injection pump, injection nozzles, alternator, starting motor and hydraulic pump have model numbers to facilitate identification of different makes of a given unit.

SPECIFICATIONS

ENGINE

Number of cylinders 3

Cylinder liner bore

1020 and 1120 102 mm (4.02 in.)
1630 106.5 mm (4.19 in.)

Stroke 110 mm (4.33 in.)

Displacement

1020 and 1120 2688 cm³ (164 cu.in.)
1630 2938 cm³ (179 cu.in.)

Compression ratio

1020 and 1120 16.7 : 1
1630 16.2 : 1

Maximum torque

1020 at 1500 rpm 15.5 mkp (112 ft.lbs.)
1120 at 1500 rpm 17.0 mkp (123 ft.lbs.)
1630 at 1400 rpm 19.0 mkp (138 ft.lbs.)

Firing order 1 - 2 - 3

Valve clearance (engine hot or cold)

Intake valve 0.35 mm (0.014 in.)
Exhaust valve 0.45 mm (0.018 in.)

Fast idle 2650 rpm

Slow idle 650 rpm

Working speed range 1500 to 2500 rpm

Flywheel horsepower at 2500 rpm

1020	1120	1630
46 HP (33.8 kw)*	51 HP (37.5 kw)*	56 HP (41.2 kw)*
48 HP (35.8 kw)**	53 HP (39.6 kw)**	59 HP (44.0 kw)**

* With accessories (DIN 70020) comprising : water pump, fan, alternator, air cleaner and muffler

** Less accessories (SAE J 816 b)

PTO horsepower* at 2500 rpm engine speed and 650/1210 rpm PTO shaft speed

1020	1120	1630
43 PS (31.6 kw)**	48 PS (35.3 kw)**	52 PS (38.2 kw)**
40 HP (29.9 kw)***	45 HP (33.6 kw)***	49 HP (36.6 kw)***

* With engine run in (more than 100 hours of operation) and having reached operating temperature (engine and transmission); measured by means of a dynamometer. Permissible variation $\pm 5\%$.

** DIN 70020

*** SAE J 816 b

ELECTRICAL SYSTEM

Batteries 2 x 12 volts,
55 ampere-hours

Starting motor 12 volts, 4 HP

Alternator 14 volts, 28 amps.

Battery terminal grounded negative

ENGINE CLUTCH

Dual dry disk clutch, foot operated.

Single dry disk clutch with torsion damper (isolator), foot-operated (on tractors equipped with independent PTO).

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