



510 Tractor



JOHN DEERE

OPERATORS MANUAL

510 Tractor

OML25009 K6 English

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LITHO IN U.S.A.
ENGLISH





Introduction

This new "John Deere", high performance tractor, suitable for a variety of applications, is constructed to satisfy the requirements of modern agricultural operations.

The tractor has the following special features:

Easy and convenient application.

Hydraulic power for all applications.

The most economical operation is ensured under all conditions by a close correlation of engine-speed, power output and travelling speed with the particular requirements of the job in hand.

Simple maintenance.

Modern in design and appearance.

Maintained and operated according to these Operating Instructions, this modern tractor will help you to work more easily and more economically and to do a better job.

Unless attention is paid to correct operation and maintenance, no machine can be expected to provide a first-class performance. These operating instructions belong in the hands of the man who operates the tractor.

Before starting up the engine for the first time the operator must read the Operating Instructions, bear them in mind, and follow them.

No claims can be made under the guarantee for any damages resulting from wrong operation or maintenance.

In all matters of operation and maintenance, take the advice of your John Deere dealer. You can be sure that for maintenance and overhauls he will use only

"Original John Deere spare parts".

In all correspondence with your dealer or with our distributors or our factory, and particularly when ordering spare parts, please quote the chassis number of the tractor as well as the engine number (see illustration below).

In the present instructions the directions "right" and "left" indicate the sides of the tractor when looking forwards in the direction of travel.

The rear number plate must be attached as shown in Fig. 209 page 83. It must have the dimensions 9.5 x 5.1 ins (240 x 130 mm).



Engine No.

Chassis No.

Enter engine and chassis numbers in the spaces above.

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Fig 1: Tractor, left hand side

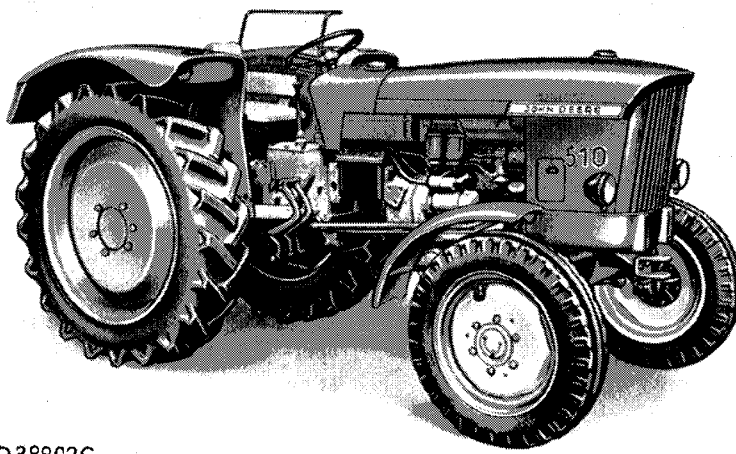


Fig 2: Tractor, right hand side.

**This tractor complies with the Accident Prevention Regulations.
The necessary protective devices are delivered with the tractor.**



Specification

DIESEL TRACTOR "510"

Engine - 152 D 221:

3-cylinder, 4-stroke diesel engine with direct fuel injection, overhead valves, twin circuit cooling with pump and thermostat, pressure lubrication, push button starter and cold starting device.

Firing sequence	1-2-3
Bore	3.86 ins (98mm)
Stroke	4.33 ins. (110mm)
Swept volume	152 cu. ins. (2.49 litres)
Revs/min at full load	2,400
Normal revs/min	1500 to 2400
Idling speed, revs/min	650
Horse Power (Engine Net Flywheel)	39.5 (40 PS DIN)

Travelling Speed in m.p.h.

Standard tractor:		With rear tyres	
Gear group and gear forwards	11 - 28 (Km/h)	9 - 36, 11- 32 13 - 28 (Km/h)	11 - 36 (Km/h)
I/1	0.9 (1.5)	0.9 (1.5)	1.0 (1.6)
I/2	1.7 (2.7)	1.6 (2.6)	1.7 (2.7)
I/3	3.3 (5.3)	3.2 (5.1)	3.4 (5.5)
II/1	2.2 (3.5)	2.1 (3.3)	2.2 (3.6)
II/2	3.7 (5.9)	3.5 (5.7)	3.8 (6.1)
II/3	7.3 (11.8)	7.0 (11.3)	7.5 (12.1)
III/1	3.0 (4.9)	2.9 (4.7)	3.1 (5.0)
III/2	5.1 (8.3)	5.0 (8.0)	5.3 (8.6)
III/3	10.4 (16.7)	9.0 (16.0)	10.6 (17.1)
I-III/4	12.2 (19.6)	11.6 (18.7)	12.4 (20.0)
reverse			
R/1	1.5 (2.4)	1.4 (2.3)	1.5 (2.4)
R/2	2.5 (4.0)	2.4 (3.9)	2.5 (4.1)
R/3	5.0 (8.0)	4.8 (7.7)	5.1 (8.2)

High speed tractor:

With rear tyres

Gear group and gear, forwards	11-28 (km/h)	9-36, 11-32, 13-28 (km/h)	11 - 36 (km/h)
I/1	1.2 (1.9)	1.3 (2.1)	1.2 (2.0)
I/2	2.1 (3.3)	2.2 (3.6)	2.0 (3.2)
I/3	4.2 (6.7)	4.5 (7.2)	4.3 (6.9)
II/1	2.7 (4.4)	2.9 (4.7)	2.8 (4.5)
II/2	4.6 (7.4)	5.0 (8.0)	4.7 (7.6)
II/3	9.2 (14.8)	9.9 (16.0)	9.4 (15.2)
III/1	3.8 (6.1)	4.1 (6.6)	3.9 (6.3)
III/2	6.5 (10.4)	7.0 (11.2)	6.6 (10.7)
III/3	13.2 (21.2)	14.2 (22.9)	13.5 (21.7)
I-III/4	15.4 (24.8)	16.7 (26.8)	15.7 (25.3)
reverse			
R/1	1.9 (3.0)	1.9 (3.0)	1.9 (3.1)
R/2	3.1 (5.0)	3.4 (5.4)	3.2 (5.2)
R/3	6.2 (10.0)	6.7 (10.8)	6.4 (10.3)

Power take off shafts:

Front: (mower drive 1008 revs/min at 2400 revs/min engine speed.

Rear:	Right hand drive shaft Revs/min	Left hand drive shaft revs/min	At engine revs/min
	540	944	2250
	572	1000	2380
	576	1008	2400

Hydraulic System

(Independent of Clutch)

Working pressure	2190 lbs/sq. in. (154 kg/cm ²)
Lifting power on drawbar (through full lifting range with lift rods at medium length)	
Category I	3352 lbs (1520 kg)
Category II	3594 lbs (1630 kg)
Time of stroke	2.4 secs
Rate of oil flow with 2000 revs/min	3.5 imp gals min (16 litres/min) (3.18 US Gals)
With power steering	7 gals/min (32 litres/min) (8.45 US Gals)

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