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MANUAL PREVIEW

**Kubota**

Service Manual

L210

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KU-S-L210

Service Manual

# SERVICE MANUAL

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# KUBOTA TRACTOR

MODEL L210



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# I. MAIN SPECIFICATIONS

## 1. SPECIFICATIONS OF KUBOTA Z 1100-A ENGINE

|                                                                                                |                                                                                                                                                    |  |
|------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------|--|
| Type                                                                                           | Vertical, water-cooled, 4 cycle Diesel engine                                                                                                      |  |
| Number of cylinders                                                                            | Two                                                                                                                                                |  |
| Bore and stroke                                                                                | 3.46 x 3.46 in (88 x 88 mm)                                                                                                                        |  |
| Stroke displacement                                                                            | 32.65 cu. in. (535 cc)                                                                                                                             |  |
| Total displacement                                                                             | 65.3 cu. in. (1070 cc)                                                                                                                             |  |
| Bare engine horse power/speed<br>(without fan, muffler, air cleaner,<br>radiator and dynamo)   | 21 HP / 2700 rpm                                                                                                                                   |  |
| Net flywheel horse power/speed<br>(includes fan, muffler, air cleaner,<br>radiator and dynamo) | 20 HP / 2700 rpm                                                                                                                                   |  |
| Max. torques/speed                                                                             | 44.5 lb-ft/1600 rpm (6.15 kg-m /1600 rpm)                                                                                                          |  |
| Direction of revolution                                                                        | Left when seen from flywheel side                                                                                                                  |  |
| Compression ratio                                                                              | 20                                                                                                                                                 |  |
| Engine dimension                                                                               | Length 26.8 in. (682.5 mm)<br>Width 24.7 in. (628.4 mm)<br>Height 44.5 in. (1127.8 mm)<br>(From finished bottom of crankcase<br>to tip of muffler) |  |
| Engine weight, dry<br>(without water and lube oil)                                             | 492 lb. (223 kg.)                                                                                                                                  |  |
| Combustion chamber                                                                             | Swirl combustion chamber                                                                                                                           |  |
| Fuel injection pump                                                                            | ND - PFR 2 K 70 / 2/ 8 - 3a                                                                                                                        |  |
| Fuel injection nozzle                                                                          | N - 12 SD 12                                                                                                                                       |  |
| Injection pressure                                                                             | 1990 p.s.i. (140 kg/cm <sup>2</sup> )                                                                                                              |  |
| Injection timing                                                                               | 24° before top dead center                                                                                                                         |  |
| Fuel                                                                                           | No.2-D Diesel Fuel                                                                                                                                 |  |

## II. FEATURES

### 1. FEATURES OF KUBOTA Z 1100-A ENGINE

#### 1) Newly designed and highly efficient engine

This diesel engine is an diesel engine which was newly designed for the highly efficient KUBOTA L 210 Tractor, incorporating the results of researches during a long period of time and the past experiences of the various other engines. It is a powerful efficient and lightweight engine with a Bare maximum output of 21 horsepower, maximum torque of 44.5 ft lb. (6 15 kg - m) and total engine weight of 492 lb. (223 kg.)

#### 2) Ample output

The engine has been designed with sufficient allowance for horsepower and is of water-cooled (pressurized radiator) type so the engine can be used with considerable overload. The torque performance is the same as that used for KUBOTA L 200 and L 260 Tractor, being the unique automatic fuel control device of Kubota. Moreover, the total displacement is large and is 65.3 cu. in. (1070 cc.) Therefore, the engine is very tough at very slow speed and as an tractor engine shows very efficient performance.

As the tractor is mounted with such a strong powerful engine, the engine will not stall or stop even when the working field condition is very bad. You will be able to get very good results from the tractor.

#### 3) Outstanding economical performance

Kubota's unique swirl chamber combustion system has been adopted for the combustion chamber so the engine shows excellent starting performance, amount of fuel consumption and output. In addition the engine has very superior torque performance. Therefore, working efficiency is very high. The engine is economical from all points.