

AgPubs B5100 B6100 B7100

Kubota B5100 B6100 B7100 Tractor Service Manual

Comprehensive Repair, Overhaul, and Troubleshooting Guide

INTRODUCTION TO YOUR SERVICE MANUAL

This manual is an essential resource for maintaining and repairing your Kubota B5100, B6100, or B7100 tractor. It provides detailed instructions for repair, overhaul, and troubleshooting, ensuring that you can perform necessary work accurately and efficiently.

Unlike operator manuals which cover basic maintenance and operation, or parts catalogs which list components, this service manual focuses on in-depth procedures required for complex repairs and system overhauls. It is designed to help you save money by enabling DIY repairs with factory-authored procedures. Using a factory OEM authored manual helps avoid frustration and wasted time often associated with aftermarket guides, providing reliable and precise information.

MANUAL CONTENT OVERVIEW

This service manual is structured to guide you through various aspects of tractor maintenance and repair. Key sections include:

- **Disassembly and Servicing Procedures:** Detailed steps for taking apart and reassembling components, including the front wheel system, engine, transmission, and clutch housing.
- **Engine Disassembly and Servicing:** Specific instructions for cylinder head, fuel pump, pistons, crankshaft, and measuring various pressures and clearances.
- **Tractor Body Disassembly and Servicing:** Covers the front wheel system, clutch system, steering system, transmission system, and brake system.
- **Hydraulic Power System:** Information on disassembly and servicing of the control valve, hydraulic cylinder, and gear pump.
- **Electrical System:** Procedures for battery, starter, AC dynamo, rectifier, switches, and other electrical components.
- **Troubleshooting Guides:** Sections dedicated to diagnosing and resolving common issues.
- **Exploded Views:** Diagrams illustrating component assembly and part identification.

The manual is a quality reproduction, designed to be durable and long-lasting, often surpassing the original vintage prints in resilience.

Using This Manual for Repair and Overhaul

This manual is specifically designed for repair and overhaul tasks. Each section provides step-by-step instructions, often accompanied by diagrams and specifications, to ensure correct procedures are followed.

Example: Engine Disassembly

When disassembling engine components like the cylinder head, the manual will provide detailed steps such as:

- 1. Removing the head cover nuts.
- 2. Loosening the injection pipes in a specific order.
- 3. Checking for proper sealing and applying sealant during reassembly.

Refer to the specific section for your task. For instance, the "Engine Disassembly" section will detail procedures for the cylinder head, fuel pump, pistons, and crankshaft.

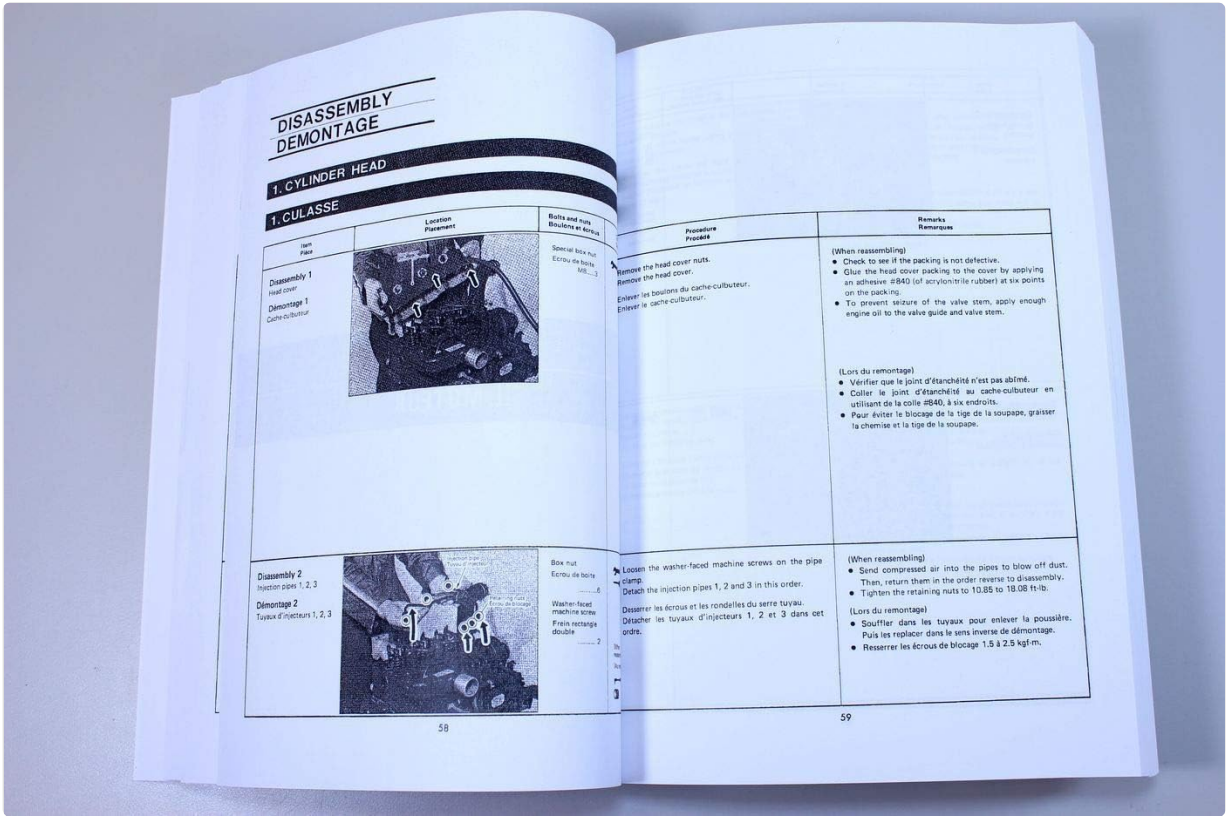


Image: A page from the service manual detailing cylinder head disassembly procedures, including visual aids for component identification and removal steps.

Maintenance Procedures

While primarily a service manual, it contains information crucial for advanced maintenance beyond basic operator-level tasks. This includes specifications for fluid types, quantities, and adjustments that are part of a comprehensive maintenance schedule.

For example, the manual provides details on checking and adjusting various clearances, pressures, and torques that are vital for ensuring the longevity and optimal performance of your tractor.

(2) Rolling angle	238	V. HYDRAULIC POWER SYSTEM	
(3) Front wheel steering angle	240	DISASSEMBLY	
(4) Tire pressure	240	1. SEPARATION OF CONTROL VALVE, AND	
2. CLUTCH SYSTEM		HYDRAULIC CYLINDER	298
2-1 Clutch levers, clutch disc and pressure plate	242	2. SEPARATION OF GEAR PUMP	314
(1) Height of clutch lever	242	SERVICING	
(2) Clutch disc	244	1. CONTROL VALVE	
(3) Wear, scratches and cracks on pressure plate	244	(1) Relief valve set pressure	324
2-2 Release bearing (clutch pedal and drive bearing)	246	(2) Implement lowering speed adjusting bolt	328
(1) Release bearing (Thrust ball bearing)	246	(3) Burrs on control valve body, foreign matter	
(2) Clutch pedal	248	in oil passage	328
(3) Dry bearing	248	(4) Spool surface	328
3. STEERING SYSTEM		(5) Contact between relief valve holder and ball	330
3-1 Steering wheel and steering shaft	250	(6) Damage or deformation in relief valve spring	330
(1) Adjusting play of steering wheel	250	(7) Position of interlocker	330
(2) Smoothness of steering wheel turning	252	2. HYDRAULIC CYLINDER	
(3) Axial play of steering shaft	252	(1) Internal wear and scratch on hydraulic	
4. TRANSMISSION SYSTEM		cylinder	332
4-1 Transmission gear, and bushing and		(2) Hydraulic piston and O-ring	332
transmission shaft	254	(3) Wear in hydraulic arm shaft bushing	334
(1) Backlash between spiral bevel gear and		(4) Hydraulic arm shaft	334
spiral bevel pinion	254	(5) Lift arm play	336
(2) Gear backlash	256	3. GEAR PUMP	
(3) Gap between 3rd shaft and its 29T claw		(1) Scratches on pump body	338
gear bushing	256	(2) Wear on bushing	338
4-2 Gear bushing and shaft, and spring	258	(3) Wear in length or thickness of bushing	338
(1) Backlash between differential pinion and		(4) Wear on drive shaft and idler shaft	340
differential side gear	258	(5) Gap between gear top and pump body	340
(2) Gap between differential pinion and		TROUBLE SHOOTING	342
differential pinion shaft	260	EXPLODED VIEW	350
(3) Gap between differential side gear and		V. ELECTRICAL SYSTEM	
differential case	260	DISASSEMBLY	
(4) Thickness of differential side gear shim and		1. BATTERY	352
differential pinion thrust collar	262	2. DETACHMENT OF STARTER	352
(5) Free length of differential lock return spring	262	3. STARTER	356
5. BRAKE SYSTEM		4. DETACHMENT OF AC DYNAMO	360
5-1 Brake linings, brake drums and pedals	264	SERVICING	
(1) Play of brake pedal	264	1. BATTERY CHECK	
(2) Wear of brake lining	264	(1) Loose terminal and bolt	372
(3) Wear of brake drum	266	(2) Battery and earth	374
(4) Adjusting differential lock pedal	266	(3) Electrolyte	374
TROUBLE SHOOTING	268	(4) Specific gravity of electrolyte	376
EXPLODED VIEW	292	(5) Battery	376

Image: A section of the manual's table of contents, highlighting detailed engine servicing and measurement procedures, which are critical for proper maintenance.

TROUBLESHOOTING GUIDE

The manual includes dedicated sections for troubleshooting common issues across various systems of the Kubota B5100, B6100, and B7100 tractors. These guides help in systematically diagnosing problems, from engine performance to hydraulic system malfunctions.

For instance, if you encounter issues with the hydraulic power system, the manual will guide you through checking the control valve, hydraulic cylinder, and gear pump for specific problems like scratches on the pump body or wear on bushings.

2. BATTERY RECHARGING		TROUBLE SHOOTING	416
(1) Recharging (constant-current recharging)	378	EXPLODED VIEW	422
(2) Recharging (quick recharging)	380		
3. STARTER CONDUCTIVITY TEST, NO-LOAD			
TEST AND MOTORING TEST			
(1) Conductivity of wiring before starter	382		
(2) Motoring test	384		
(3) No-load test	384		
4. STARTER (MAGNET SWITCH, PINION GEAR,			
FIELD COIL, BRUSH)			
(1) Suction test for magnet switch pull-in coil	386		
(2) Holding test for magnet switch holding coil	386		
(3) Return of magnet switch plunger	386		
(4) Pinion gap	388		
(5) Gap between armature shaft and bushing	388		
(6) Bend in armature	388		
(7) Short-circuit of armature coil	390		
(8) Disconnection of armature coil	390		
(9) Earth of armature coil	390		
(10) Partial wear of commutator	392		
(11) Mica (undercut)	392		
(12) Disconnection in field coil	392		
(13) Insulation of field coil yoke	394		
(14) Wear of brush	394		
(15) Brush spring pressure	394		
(16) Brush holder	394		
5. AC DYNAMO NO-LOAD TEST AND BATTERY			
CHARGING CURRENT MEASUREMENT			
(1) Measuring battery charging current	396		
(2) Measuring AC dynamo voltage at no load	398		
6. RECTIFIER, SWITCHES AND OTHER PARTS			
(1) Rectifier	400		
(2) Main switch	402		
(3) Safety switch	402		
(4) Lamp switch	404		
(5) Flasher lamp switch	404		
(6) Flasher unit	406		
(7) Glow plug	406		
(8) Glow plug indicator	408		
(9) Oil switch	408		
(10) Horn switch	410		
(11) Horn	410		
(12) Oil pressure indicator lamp	412		

Image: A page from the manual's table of contents, showing sections dedicated to troubleshooting for the hydraulic power system and electrical system, including exploded views for visual reference.

EXPLODED VIEWS AND DIAGRAMS

To assist with accurate assembly and disassembly, the manual features numerous exploded views and detailed diagrams. These visuals are invaluable for identifying parts and understanding their correct placement within complex assemblies.

For example, the manual provides exploded views for the tractor body, including the clutch system and front wheel system, making it easier to visualize component relationships.

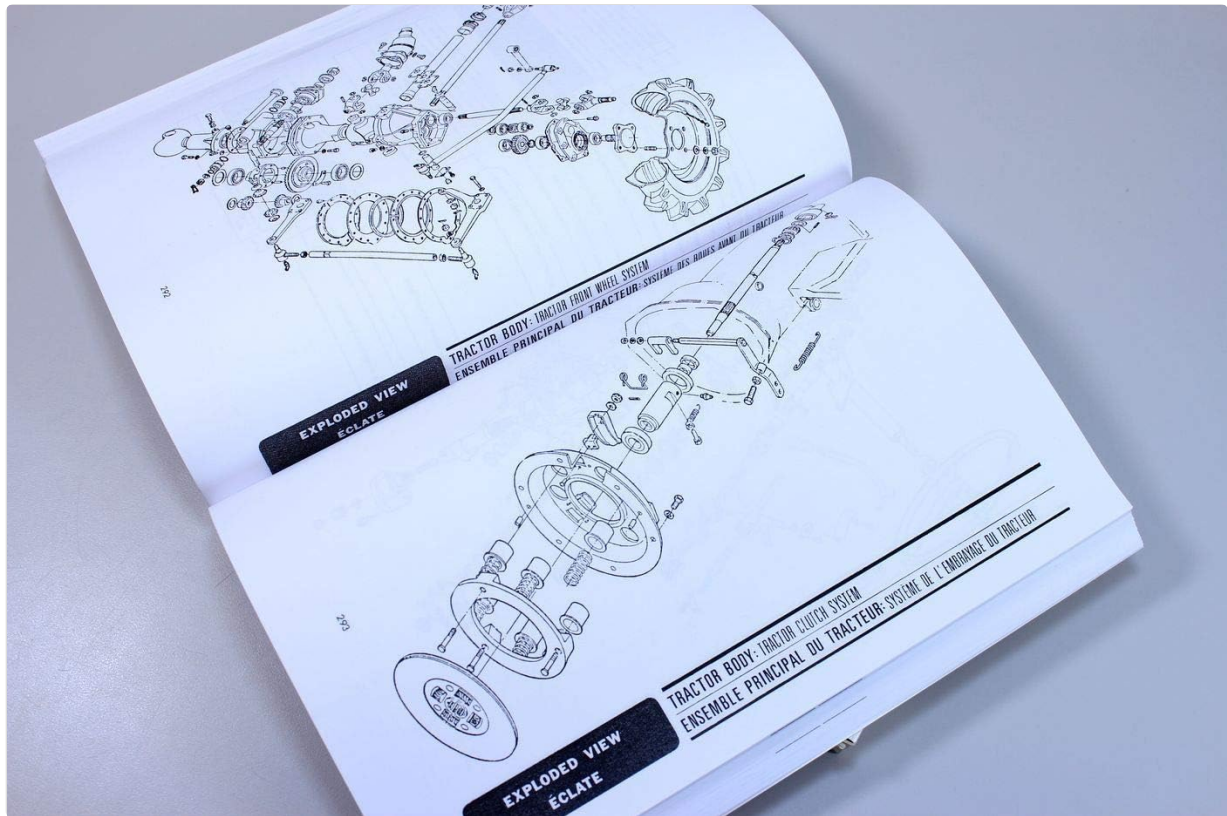


Image: Exploded views from the service manual, illustrating the components of the tractor's clutch system and front wheel system, aiding in assembly and disassembly.

SPECIFICATIONS

This service manual provides critical specifications for the Kubota B5100, B6100, and B7100 tractors, which are essential for proper repair and maintenance.

- **Product Dimensions:** 11.25 x 8.75 x 1.25 inches
- **Item Weight:** 2.7 pounds
- **Manufacturer:** AgPubs
- **ASIN:** B07K2GDZFK

These specifications are for the manual itself. Within the manual, you will find detailed technical specifications for the tractor components, including torque values, clearances, and fluid capacities.

SUPPORT AND QUALITY ASSURANCE

This manual is a quality reproduction, designed for durability and clarity. It is intended to provide accurate, factory-authored information to assist with the service and repair of your Kubota tractor.

For any questions regarding the content or specific procedures, always refer to the detailed instructions and diagrams provided within the manual. Ensure you have the correct manual type for your needs: a Service

Manual for repair/overhaul/troubleshooting, an Operator's Manual for basic maintenance/operation, or a Parts Catalog for exploded views/part numbers.

The product is offered by AgPubs, a manufacturer specializing in such publications.

© 2024 AgPubs. All rights reserved. This manual is for informational and repair purposes only.