

Side Engine Loadalls

[Section 1 - General Information](#)

[Section 2 - Care and Safety](#)

[Section 3 - Routine Maintenance](#)

[Section B - Body and Framework](#)

[Section C - Electrics](#)

[Section E - Hydraulics](#)

[Section F - Transmission](#)

[Section G - Brakes](#)

[Section H - Steering](#)

[Section K - Engine](#)

[Section M - Electronic Data Systems](#)



Publication No.
9813/0900-2



Copyright © 2004 JCB SERVICE. All rights reserved. No part of this publication may be reproduced, stored in a retrieval system, or transmitted in any form or by any other means, electronic, mechanical, photocopying or otherwise, without prior permission from JCB SERVICE.

Issued by JCB Technical Publications, JCB Aftermarket Training, Woodseat, Rocester, Staffordshire, ST14 5BW, England. Tel +44 1889 591300 Fax +44 1889 591400

World Class
Customer Support

General Information

Service Manual - Side Engine Loadalls

[Section 1 - General Information](#)

[Section 2 - Care and Safety](#)

[Section 3 - Routine Maintenance](#)

[Section B - Body and Framework](#)

[Section C - Electrics](#)

[Section E - Hydraulics](#)

[Section F - Transmission](#)

[Section G - Brakes](#)

[Section H - Steering](#)

[Section K - Engine](#)

[Section M - Electronic Data Systems](#)



Publication No.
9813/0900-2



Copyright © 2004 JCB SERVICE. All rights reserved. No part of this publication may be reproduced, stored in a retrieval system, or transmitted in any form or by any other means, electronic, mechanical, photocopying or otherwise, without prior permission from JCB SERVICE.



Section 1 - General Information

Contents	Page No.
Applications	
Introduction	1-1-1
Tables	1-1-2
Use	
Introduction	1-2-1
Scope	1-2-2
Format	1-2-3
Left and Right Sides	1-2-4
Hydraulic Schematic Codes	1-2-5
Electrical Device Codes	1-2-6
Machine Identification	
Introduction	1-3-1
Related Topics	1-3-2
Machine Identification Plate	1-3-3
Component Identification Plates	1-3-5
Torque Settings	
Introduction	1-4-1
Zinc Plated Fasteners and Dacromet Fasteners	1-4-2
Hydraulic Connections	1-4-6
'Positional Type' Hydraulic Adaptors	1-4-10
Service Tools	
Introduction	1-5-1
Numerical List	1-5-2
Tool Detail Reference	1-5-5
Rivet Nuts	1-5-24
Slide Hammer Kit	1-5-26
Service Consumables	
Introduction	1-6-1
Sealing and Retaining Compounds	1-6-2
Fuel	
Introduction	1-7-1
Related Topics	1-7-2
Acceptable and Unacceptable Fuels	1-7-3
Stall Speed Combinations	
Introduction	1-8-1
Related Topics	1-8-2
Specifications	1-8-3



Section 1 - General Information

Contents

Page No.

Applications

Introduction

This manual contains topics that relate to JCB Loadall machines in the 5A and 5T groups. There are several machine model codes in the family.

Machine Group	Model Code	Model Name	Serial Number range
5A	A	531-70	1522574 to TBA
5A	B	535-95	1522588 to TBA
5A	C	536-60	1522577 to TBA
5A	D	541-70	1522566 to TBA
5A	H	533-105	1522615 to TBA
5A	R	536-70	1522577 to TBA
5A	S	526-56	1448231 to TBA
5A	W	550-80	1186000 to TBA
5T	A	531-T70	1522570 to TBA
5T	B	541-T70	1522566 to TBA
5T	C	536-T60	1522577 to TBA
5T	D	535-T95	1522569 to TBA
5T	E	536-T70	1522577 to TBA
5T	W	550-T80	1186000 to TBA

Note: This manual is applicable to EN15000 compliant machines only.

Machine variants: There are different machine variants within the same model name. This happens because of market requirements, or when the machine specification changes after a period of time. Where applicable information is given to help identify which machine variant is applicable for the given specifications and procedures.

Use the applications tables to see which topics relate to which machine models and variants. Where no variant information is given the topic is applicable to all machine models indicated on the table.

Important: The machine model names are NOT referred to in the topics. You must refer to the applications tables for the applicable machine model. Table entries shaded grey indicate a topic not included in this issue of the manual.

⇒ [Tables \(□ 1-1-2\)](#)

⇒ [Section 1 - General Information \(□ 1-1-2\)](#)

⇒ [Section 2 - Care and Safety \(□ 1-1-2\)](#)

⇒ [Section 3 - Routine Maintenance \(□ 1-1-3\)](#)

⇒ [Section B - Body and Framework \(□ 1-1-4\)](#)

⇒ [Section C - Electrics \(□ 1-1-6\)](#)

⇒ [Section E - Hydraulics \(□ 1-1-7\)](#)

⇒ [Section F - Transmission \(□ 1-1-10\)](#)

⇒ [Section G - Brakes \(□ 1-1-12\)](#)

⇒ [Section H - Steering \(□ 1-1-13\)](#)

⇒ [Section K - Engine \(□ 1-1-14\)](#)

⇒ [Section M - Electronic Data Systems \(□ 1-1-15\)](#)



Tables

Section 1 - General Information

Topic Ref	Title	Variant	Machine models							
			531-70, 531-T70	535-95, 535-T95	536-60, 536-T60	541-70, 541-T70	533-105	536-70, 536-T70	526-56	550-80
1-2	<i>Use</i>		All Machines							
1-3	<i>Machine Identification</i>		All Machines							
1-4	<i>Torque Settings</i>		All Machines							
1-5	<i>Service Tools</i>		All Machines							
1-6	<i>Service Consumables</i>		All Machines							
1-7	<i>Fuel</i>		All Machines							
1-8	<i>Stall Speed Combinations</i>		All Machines							

Section 2 - Care and Safety

Topic Ref	Title	Variant	Machine models							
			531-70, 531-T70	535-95, 535-T95	536-60, 536-T60	541-70, 541-T70	533-105	536-70, 536-T70	526-56	550-80
2-1	<i>Safety Notices</i>		All Machines							
2-2	<i>General Procedures</i>		All Machines							



Section 3 - Routine Maintenance

Topic Ref	Title	Variant	Machine models									
			531-70, 531-T70	535-95, 535-T95	536-60, 536-T60	541-70, 541-T70	533-105	536-70, 536-T70	526-56	550-80		
3-1	<i>Routine Maintenance (P1)</i>		●	●	●	●	●	●				●
3-2	<i>Routine Maintenance (P2)</i>											●

Section B - Body and Framework

Topic Ref	Title	Variant	Machine models										
			531-70, 531-T70	535-95, 535-T95	536-60, 536-T60	541-70, 541-T70	533-105	536-70, 536-T70	526-56	550-80			
B1	Fork Carriage		●	●	●	●	●	●	●	●	●	●	●
B2	Cab Heating and Ventilation SYSTEM		●	●	●	●	●	●	●	●	●	●	●
B3	Cab Air Conditioning SYSTEM		●	●	●	●	●	●	●	●	●	●	●
B4	Longitudinal Load Moment SYSTEM (S1)	Agri, Agri Plus, Agri Super	●	●	●	●	●	●	●	●	●	●	●
		Agri Xtra	●			●			●				
B5	Longitudinal Load Moment SYSTEM (S2)	Parallel Gearpump Hydraulic System Machines	●	●		●			●			●	●
B6	Cab		●	●	●	●	●	●	●	●	●	●	●
B7	Air Conditioning Condenser - Cooling Pack Mounted												
B8	Air Conditioning Condenser - Cab Roof Mounted												
B9	Cab HV and HVAC Unit		●	●	●	●	●	●	●	●	●	●	●
B10	Air Conditioning Binary Switch		●	●	●	●	●	●	●	●	●	●	●
B11	Heater Valve		●	●	●	●	●	●	●	●	●	●	●
B12	Fuel Tank		●	●	●	●	●	●	●	●	●	●	●
B13	Chassis Panels		●	●	●	●	●	●	●	●	●	●	●
B14	Boom	2 Stage	●		●	●	●	●	●	●	●	●	●
		3 Stage		●				●					
B15	Hydraulic Tank										●		
B16	Load Moment Indicator Axle Transducer		●	●	●	●	●	●	●	●	●	●	●
B17	Stabilisers							●					



Topic Ref	Title	Variant	Machine models									
			531-70, 531-T70	535-95, 535-T95	536-60, 536-T60	541-70, 541-T70	533-105	536-70, 536-T70	526-56	550-80		
B18	<i>Longitudinal Load Moment Indicator Unit</i>		●	●	●	●	●	●	●	●	●	●
B19	<i>Longitudinal Load Moment Control Sensors</i>		●	●	●	●	●	●	●	●	●	●



Section C - Electrics

Topic Ref	Title	Variant	Machine models										
			531-70, 531-T70	535-95, 535-T95	536-60, 536-T60	541-70, 541-T70	533-105	536-70, 536-T70	526-56	550-80			
C1	<i>Fuses and Relays</i>		●	●	●	●	●	●	●	●	●	●	●
C2	<i>Schematics</i>		●	●	●	●	●	●	●	●	●	●	●
C3	<i>Electrical Harness SYSTEM</i>		●	●	●	●	●	●	●	●	●	●	●
C4	<i>Battery Charging SYSTEM</i>		●	●	●	●	●	●	●	●	●	●	●
C5	<i>Alternator</i>		●	●	●	●	●	●	●	●	●	●	●
C6	<i>Battery</i>		●	●	●	●	●	●	●	●	●	●	●



Section E - Hydraulics

Topic Ref	Title	Variant	Machine models											
			531-70, 531-T70	535-95, 535-T95	536-60, 536-T60	541-70, 541-T70	533-105	536-70, 536-T70	526-56	550-80				
E1	<i>Systems and Schematics</i>		●	●	●	●	●	●	●	●	●	●	●	●
E2	<i>Parallel Hydraulic SYSTEM</i>		●	●		●		●						
E3	<i>LSP Electro Servo SYSTEM (S1)</i>	Agri Xtra	●			●								
E4	<i>LSP Electro Servo SYSTEM (S2)</i>	Agri, Agri Plus, Agri Super	●	●	●	●								
E5	<i>LSP Electro Servo SYSTEM (S3)</i>										●			
E6	<i>LSP Electro Servo SYSTEM (S4)</i>													●
E7	<i>Smooth Ride SYSTEM (SRS) - Parallel</i>		●	●	●	●								
E8	<i>Smooth Ride SYSTEM (SRS) Electro Servo (S1)</i>	Agri Xtra	●		●	●								
E9	<i>Smooth Ride SYSTEM (SRS) Electro Servo (S2)</i>	Agri, Agri Plus, Agri Super	●	●	●	●								
E10	<i>Smooth Ride SYSTEM (SRS) Electro Servo (S3)</i>													●
E11	<i>Variable Hydraulic Cooling Fan Control SYSTEM</i>													●
E12	<i>Parallel Control Valve 4 Section</i>		●		●									
E13	<i>Parallel Control Valve 6 Section</i>								●					
E14	<i>LSP Electro Servo Control Valve (S1)</i>	Agri Xtra	●		●									
E15	<i>LSP Electro Servo Control Valve (S2)</i>	Agri, Agri Plus, Agri Super	●	●	●	●								
E16	<i>LSP Electro Servo Control Valve (S3)</i>													●
E17	<i>Servo Pilot Pressure Supply Valve (S1)</i>	Agri Xtra	●			●								
E18	<i>Servo Pilot Pressure Supply Valve (S2)</i>	Agri, Agri Plus, Agri Super	●	●	●	●								
E19	<i>Servo Pilot Pressure Supply Valve (S3)</i>													●



Section 1-1 - General Information Applications

Tables

Topic Ref	Title	Variant	Machine models										
			531-70, 531-T70	535-95, 535-T95	536-60, 536-T60	541-70, 541-T70	533-105	536-70, 536-T70	526-56	550-80			
E20	<i>Main Pump - Variflow</i>		●	●	●	●							●
E21	<i>Main Pump - Gearpump</i>	80 l/min Double Pump 80 l/min Triple Pump 110 l/min 125 l/min	●	●		●	●	●	●			●	
E22	<i>Cooling Fan Motor (P1)</i>		●	●	●	●							
E23	<i>Cooling Fan Motor (P2)</i>	Variable Speed Fan										●	
E24	<i>Control Lever - Electro Servo - Pod Mounted</i>	Agri Xtra	●		●	●				●			●
E25	<i>Control Lever - Electro Servo - Cab Mounted</i>	Agri, Agri Plus, Agri Super	●	●	●	●				●			●
E26	<i>Extension Ram</i>		●	●	●	●				●		●	●
E27	<i>Lift Rams</i>		●	●	●	●				●		●	●
E28	<i>Tilt Ram</i>		●	●	●	●				●		●	●
E29	<i>Displacement Ram</i>		●	●	●	●				●		●	●
E30	<i>Sway Ram</i>		●	●		●				●			
E31	<i>Stabiliser Rams</i>									●			
E32	<i>Ram Maintenance</i>		●	●	●	●				●		●	●
E33	<i>Sway/Fan Changeover Valve</i>		●	●		●				●		●	●
E34	<i>Hydraulic Oil Cooler By-Pass SYSTEM</i>	Agri, Agri Plus, Agri Super, Agri Xtra	●	●	●	●				●		●	●
E35	<i>Hydraulic Oil Cooler By-Pass Valve</i>	Agri, Agri Plus, Agri Super, Agri Xtra	●	●	●	●				●		●	●
E36	<i>Internal Hydraulic Tank Filter</i>	Agri, Agri Plus, Agri Super, Agri Xtra	●	●	●	●				●		●	●



		Machine models									
Topic Ref	Title	531-70, 531-T70	535-95, 535-T95	536-60, 536-T60	541-70, 541-T70	533-105	536-70, 536-T70	526-56	550-80		
E37	<i>Ambient Air Temperature Sender</i>										●
	Variant										

Section F - Transmission

Topic Ref	Title	Variant	Machine models										
			531-70, 531-T70	535-95, 535-T95	536-60, 536-T60	541-70, 541-T70	533-105	536-70, 536-T70	526-56	550-80			
F1	Configuration		●	●	●	●	●	●	●	●	●	●	●
F2	Wheels and Tyres		●	●	●	●	●	●	●	●	●	●	●
F3	Front Ax/les (S1)		●	●	●	●	●	●	●	●	●	●	●
F4	Front Ax/les (S2)												●
F5	Rear Ax/les (S1)		●	●	●	●	●	●	●	●	●	●	●
F6	Rear Ax/les (S2)												●
F7	PS750 Mk IV Gearbox SYSTEM		●	●	●	●	●	●	●	●	●	●	●
F8	PS764 Gearbox SYSTEM (S1)		●	●	●	●	●	●	●	●	●	●	●
F9	PS764 Gearbox SYSTEM (S2)												●
F10	PS766 Gearbox SYSTEM (ECU 2.3)		●	●	●	●	●	●	●	●	●	●	●
F11	SS700 Gearbox SYSTEM											●	
F12	Lock Up Torque Converter SYSTEM	PS766 System	●	●	●	●	●	●	●	●	●	●	●
F13	Dual Control SYSTEM (S1)	Agri, Agri Plus, Agri Super	●	●	●	●	●	●	●	●	●	●	●
F14	Dual Control SYSTEM (S2)											●	
F15	Dual Control SYSTEM (S3)												●
F16	Shiftmaster ECU		●	●	●	●	●	●	●	●	●	●	●
F17	PS750 Mk IV Gearbox		●	●	●	●	●	●	●	●	●	●	●
F18	PS760 Gearbox		●	●	●	●	●	●	●	●	●	●	●
F19	SS700 Gearbox											●	
F20	Bevel Gearbox		●	●	●	●	●	●	●	●	●	●	●
F21	Torque Converter		●	●	●	●	●	●	●	●	●	●	●

Topic Ref	Title	Variant	Machine models									
			531-70, 531-T70	535-95, 535-T95	536-60, 536-T60	541-70, 541-T70	533-105	536-70, 536-T70	526-56	550-80		
F22	<i>Transmission Oil Cooler - Liquid to Liquid</i>		Machine with non intercooled engines									
F23	<i>Transmission Oil Cooler - Air Blast</i>		Machines with intercooled engines									
F24	<i>Propshafts (S1)</i>		●	●	●	●	●	●	●	●	●	
F25	<i>Propshafts (S2)</i>											●
F26	<i>Transmission Speed Sensor</i>		●	●	●	●	●	●	●	●	●	●
F27	<i>Engine Speed Sensor</i>		●	●	●	●	●	●	●	●	●	●
F28	<i>Speedometer</i>		●	●	●	●	●	●	●	●	●	
F29	<i>SS700 Cable Shift</i>											●



Section G - Brakes

Topic Ref	Title	Variant	Machine models									
			531-70, 531-T70	535-95, 535-T95	536-60, 536-T60	541-70, 541-T70	533-105	536-70, 536-T70	526-56	550-80		
G1	<i>Single Axle Service Brakes SYSTEM</i>		●	●	●	●	●	●	●	●	●	
G2	<i>Power Braking SYSTEM</i>											●
G3	<i>External Park Brake SYSTEM</i>	PS750 and SS700 Gearbox System	●	●	●	●	●	●	●	●	●	
G4	<i>Internal Park Brake SYSTEM</i>	PS760 Gearbox Systems	●	●	●	●	●	●	●	●	●	●
G5	<i>Park Brake Calliper</i>	PS750 and SS700 Gearbox System	●	●	●	●	●	●	●	●	●	
G6	<i>Park Brake Disc</i>	PS750 and SS700 Gearbox System	●	●	●	●	●	●	●	●	●	
G7	<i>Park Brake Switch</i>		●	●	●	●	●	●	●	●	●	●
G8	<i>Servo Exhauster Unit</i>		●	●	●	●	●	●	●	●	●	
G9	<i>Servo Unit - Single Axle Brakes</i>		●	●	●	●	●	●	●	●	●	
G10	<i>Master Cylinder</i>		●	●	●	●	●	●	●	●	●	
G11	<i>Fluid Reservoir</i>		●	●	●	●	●	●	●	●	●	
G12	<i>Power Brake Valve</i>											●
G13	<i>Power Brake Accumulator</i>											●
G14	<i>Power Brake Charge Valve</i>											●



Section H - Steering

Topic Ref	Title	Variant	Machine models										
			531-70, 531-T70	535-95, 535-T95	536-60, 536-T60	541-70, 541-T70	533-105	536-70, 536-T70	526-56	550-80			
H1	<i>Steering SYSTEM</i>		●	●	●	●	●	●	●	●	●	●	●
H2	<i>Manual Steer Mode SYSTEM</i>		●	●	●	●	●	●	●	●	●	●	●
H3	<i>Auto Steer Mode SYSTEM</i>		●	●	●	●	●	●	●	●	●	●	●
H4	<i>Hydraulic Steering Unit (S1)</i>		●	●	●	●	●	●	●	●	●	●	●
H5	<i>Hydraulic Steering Unit (S2)</i>												●
H6	<i>Priority Valve</i>		●	●	●	●	●	●	●	●	●	●	●
H7	<i>Power Track Rod (P1)</i>		●	●	●	●	●	●	●	●	●	●	●
H8	<i>Power Track Rod (P2)</i>												●
H9	<i>Steering Column</i>		●	●	●	●	●	●	●	●	●	●	●
H10	<i>Manual Steer Mode Valve</i>		●	●	●	●	●	●	●	●	●	●	●
H11	<i>Auto Steer Mode Valve</i>		●	●	●	●	●	●	●	●	●	●	●

Section K - Engine

Topic Ref	Title	Variant	Machine models									
			531-70, 531-T70	535-95, 535-T95	536-60, 536-T60	541-70, 541-T70	533-105	536-70, 536-T70	526-56	550-80		
K1	Stop and Start SYSTEM (Mechanical F.I. Engines)		●	●	●	●	●	●	●	●	●	
K2	Stop and Start SYSTEM (Electronic F.I. Engines) (S1)		●	●	●	●	●		●			
K3	Stop and Start SYSTEM (Electronic F.I. Engines) (S2)											●
K4	Cold Start Heater SYSTEM	Mechanical F.I. engines	●	●	●	●	●	●	●	●	●	
K5	Starter Motor		●	●	●	●	●	●	●	●	●	●
K6	Cooling Pack - Non Intercooled		●	●		●	●	●	●	●	●	
K7	Cooling Pack - Intercooled (Mechanical F.I. Engines)		●	●	●	●	●	●	●	●	●	
K8	Cooling Pack - Intercooled (Electronic F.I. Engines)		●	●	●	●	●		●			●
K9	Coolant Expansion Tank		●	●	●	●	●	●	●	●	●	●
K10	Air Filter Vacuum Switch		●	●	●	●	●	●	●	●	●	●
K11	Throttle Pedal and Cable	Mechanical F.I. engines	●	●	●	●	●	●	●	●	●	
K12	Throttle Position Sensor (TPS) (S1)	Electronic F.I. engines up to March 2011	●	●	●	●	●		●			
K13	Throttle Position Sensor (TPS) (S2)	Electronic F.I. engines from March 2011	●	●	●	●	●		●			●
K14	Exhaust Silencer		●	●	●	●	●	●	●	●	●	●
K15	JCB Dieselmax Engine (Mechanical F.I.)		●	●	●	●	●	●	●	●	●	
K16	JCB Dieselmax Engine (Electronic F.I.)		●	●	●	●	●		●			

Section M - Electronic Data Systems

Topic Ref	Title	Variant	Machine models									
			531-70, 531-T70	535-95, 535-T95	536-60, 536-T60	541-70, 541-T70	533-105	536-70, 536-T70	526-56	550-80		
M1	<i>CANbus SYSTEM</i>		●	●	●	●	●	●	●	●	●	
M2	<i>Loadall Monitoring SYSTEM</i>		●	●	●	●	●	●	●	●	●	
M3	<i>Fault Code SYSTEM</i>		●	●	●	●	●	●	●	●	●	●
M4	<i>Servicemaster SYSTEM</i>		●	●	●	●	●	●	●	●	●	●
M5	<i>Servicemaster Tools</i>		●	●	●	●	●	●	●	●	●	●
M6	<i>Electronic Control Unit Theory</i>		●	●	●	●	●	●	●	●	●	●
M7	<i>Pulse Width Modulation Theory</i>		●	●	●	●	●	●	●	●	●	●
M8	<i>Machine Control ECU (S1)</i>	Agri, Agri Plus, Agri Super	●	●	●	●	●	●	●	●	●	●
M9	<i>Machine Control ECU (S2)</i>										●	

Please Click Here To Download The Complete Manual
Download Other Manuals
If Having Any Questions Feel Free To Contact us

admin@servicemanualbit.com