

Service Manual

Model TH255

S/N TBS00100 & After

31200364

Revised February 8, 2012

EFFECTIVITY PAGE

September 11, 2008 - A - Original Issue Of Manual

February 8, 2012 - B - Revised pages 1.3, 2.14 - 2.17, 3.4 - 3.6, 3.8, 4.2, 5.12, 5.13, 8.9, 8.10, 8.19 - 8.21, 8.27, 8.28, 8.33, 9.12 - 9.17, 9.33 - 9.47

EFFECTIVITY PAGE

SECTION CONTENTS

Section	Subject	Page
Section 1		
Safety Prac	tices	1-1
1.1	Introduction	1-2
1.2	Disclaimer	1-2
1.3	Operation & Maintenance Manual	1-2
1.4	Do Not Operate Tags	1-2
1.5	Safety Information	1-2
1.6	Safety Instructions	1-3
1.7	Safety Decals	1-4
Section 2		
General Inf	ormation and Specifications	2-1
2.1	Replacement Parts and Warranty Information	2-2
2.2	Torques	2-3
2.3	Specifications	2-11
2.4	Fluids, Lubricants and Capacities	2-13
2.5	Maintenance Schedules	2-15
2.6	Lubrication Schedule	2-18
Section 3		
Boom		3-1
3.1	Boom System Component Terminology	3-2
3.2	Safety Information	3-3
3.3	Boom System - Two Section Boom	3-3
3.4	Boom Assembly Maintenance	3-3
3.5	Boom Wear Pads	3-10
3.6	Quick Coupler Assembly	3-11
3.7	Forks	3-12
3.8	Boom Prop (If Equipped)	3-13
3.9	Emergency Boom Lowering Procedure	3-13
3.10	Troubleshooting	3-16
Section 4		
Cab and Co	overs	4-1
4.1	Operator Cab and Covers Component Terminology	4-2
4.2	Safety Information	4-3
4.3	Operator Cab	4-3
4.4	Cab Components	4-3
4.5	Cab Removal	4-8
4.6	Cab Installation	4-9

TH255

Section 5	
Axles, Drive	Shafts, Wheels and Tires
5.1	Axle, Drive Shaft and Wheel Component Terminology
5.2	Safety Information
5.3	General Information
5.4	Axle Assemblies 5
5.5	Drive Shafts
5.6	Wheels and Tires
5.7	Steering Angle Adjustment
5.8	Brakes
5.9	Towing a Disabled Machine
Section 6	
Transmissio	on 6
6.1	Transmission Assembly Component Terminology
6.2	Safety Information
6.3	Transmission Description
6.4	Transmission Specifications
6.5	Transmission Replacement
6.6	Transmission Filter Replacement
Section 7 Engine	
7.1	Introduction
7.1 7.2	
7.3	Engine Serial Number
7.4	Specifications and Maintenance Information
7.5	Engine Cooling System
7.6	Engine Electrical System
7.7	Fuel System
7.8	Engine Exhaust System
7.9	Air Cleaner Assembly
7.10	Engine Replacement
7.11 7.12	Engine Coupler
	Troubleshooting
Section 8	
Hydraulic Sy	ystem
8.1	Hydraulic Component Terminology 8
8.2	Safety Information
8.3	General Information
8.4	Specifications
8.5	Hoses, Tube Lines, Fittings, Etc
8.6	Hydraulic Pressure Diagnosis
8.7	Hydraulic Schematic
8.8	Hydraulic Reservoir
8.9	Hydraulic System Pump
8.10	Front Drive Motor
8.11	Control Valves
8.12	Hydraulic Cylinders
0.12	Tydiadilo Cyllidolo

ii

Page

Section 9		0.4
Electrical	System	9-1
9.1	Electrical Component Terminology	9-3
9.2	Safety Information	9-4
9.3	Fuses and Relays	9-4
9.4	Electrical System Schematics	9-7
9.5	Circuit Breakdowns	9-18
9.6	Engine Start Circuit	9-22
9.7	Charging Circuit	9-23
9.8	Electrical System Components	9-24
9.9	Window Wiper/Washer	9-26
9.10	Cab Heater and Fan	9-28
9.11	Switches, Solenoids and Senders	9-29
9.12	Load Stability System (CE & AUS) Before S/N TBS00627	9-33
9.13	Load Stability System (CE & AUS) S/N TBS00627 & After	9-35
9.14	Hand Held Analyzer (CE & AUS) S/N TBS00627 & After	9-41

TH255

iii

iv TH255



Section 1 Safety Practices

Contents

PARAG	RAPH	TITLE	PAGE
1.1	Introdu	ction	1-2
1.2	Disclair	mer	1-2
1.3	Operati	on & Maintenance Manual	1-2
1.4	Do Not	Operate Tags	1-2
1.5	Safety I	nformation	1-2
	1.5.1	Safety Alert System and Signal Words	1-2
1.6	Safety I	nstructions	1-3
	1.6.1	Personal Hazards	1-3
	1.6.2	Equipment Hazards	1-3
	1.6.3	General Hazards	1-3
	1.6.4	Operational Hazards	
1.7	Safety I	Decals	1-4

TH255

Full download: http://manualplace.com/download/caterpillar-th255-telescpic-forklift-service-manual/



Safety Practices

1.1 INTRODUCTION

This service manual provides general directions for accomplishing service and repair procedures. Following the procedures in this manual will help assure safety and equipment reliability.

Read, understand and follow the information in this manual, and obey all locally approved safety practices, procedures, rules, codes, regulations and laws.

These instructions cannot cover all details or variations in the equipment, procedures, or processes described, nor provide directions for meeting every possible contingency during operation, maintenance, or testing. When additional information is desired consult the local Caterpillar dealer.

Many factors contribute to unsafe conditions: carelessness, fatigue, overload, inattentiveness, unfamiliarity, even drugs and alcohol, among others. For optimal safety, encourage everyone to think, and to act, safely.

Appropriate service methods and proper repair procedures are essential for the safety of the individual doing the work, for the safety of the operator, and for the safe, reliable operation of the machine. All references to the right side, left side, front and rear are given from the operator's seat looking in a forward direction.

Supplementary information is available from the manufacturer in the form of Service Bulletins, Service Campaigns, Service Training Schools, the service website, other literature, and through updates to the manual itself.

1.2 DISCLAIMER

All information in this manual is based on the latest product information available at the time of publication. The manufacturer reserves the right to make changes and improvements to its products, and to discontinue the manufacture of any product, at its discretion at any time without public notice or obligation.

1.3 OPERATION & MAINTENANCE MANUAL

The mechanic must not operate the machine until the Operation & Maintenance Manual has been read & understood, training has been accomplished and operation of the machine has been completed under the supervision of an experienced and qualified operator.

An Operation & Maintenance Manual is supplied with each machine and must be kept in the manual holder located in the cab. In the event that the Operation & Maintenance Manual is missing, consult your local service distributor before proceeding.

1.4 DO NOT OPERATE TAGS

Place **Do Not** Operate Tags on the ignition key switch and the steering wheel before attempting to perform any service or maintenance. Remove key and disconnect battery leads.

1.5 SAFETY INFORMATION

To avoid possible death or injury, carefully read, understand and comply with all safety messages.

In the event of an accident, know where to obtain medical assistance and how to use a first-aid kit and fire extinguisher/fire suppression system. Keep emergency telephone numbers (fire department, ambulance, rescue squad/paramedics, police department, etc.) nearby. If working alone, check with another person routinely to help assure personal safety.

1.5.1 Safety Alert System and Signal Words



DANGER indicates an imminently hazardous situation which, if not avoided, will result in death or serious injury.

A WARNING

WARNING indicates a potentially hazardous situation which, if not avoided, could result in death or serious injury.

A CAUTION

CAUTION indicates a potentially hazardous situation which, if not avoided, may result in minor or moderate injury.

1-2 TH255