FORKLIFT

SERVICE MANUAL

15, 18, 20LC-7A

HYUNDAI

MidWestTech | Hyundai 15, 18, 20LC-7A Forklift Service Manual | Publication 15, 18, 20LC...

Order the manual at mid-west-tech.com >

CONTENTS

SECTION 1 GENERAL

Group 1 Safety Hints 1-1
Group 2 Specifications 1-5
Group 3 Periodic Replacement 1-13

SECTION 2 REMOVAL AND INSTALLATION OF UNIT

Group 1 Structure 2-1
Group 2 Removal and Installation of Unit 2-2

SECTION 3 POWER TRAIN SYSTEM

Group 1 Structure and Operation 3-1
Group 2 Troubleshooting 3-15
Group 3 Test and adjustments 3-19
Group 4 Disassembly and Assembly 3-23

SECTION 4 BRAKE SYSTEM

Group 1 Structure and Function 4-1
Group 2 Operational Checks and Troubleshooting 4-6
Group 3 Tests and Adjustments 4-9

SECTION 5 STEERING SYSTEM

Group 1 Structure and Function 5-1
Group 2 Operational Checks and Troubleshooting 5-10
Group 3 Disassembly and Assembly 5-12

SECTION 6 HYDRAULIC SYSTEM

Group 1 Structure and Function 6-1
Group 2 Operational Checks and Troubleshooting 6-22
Group 3 Disassembly and Assembly 6-26

SECTION 7 ELECTRICAL SYSTEM

Group 1 Component Location 7-1
Group 2 Electrical Circuit 7-2
Group 3 Component Specification 7-9
Group 4 Connector Destination 7-10
Group 5 Troubleshooting 7-12

MidWestTech | Hyundai 15, 18, 20LC-7A Forklift Service Manual | Publication 15, 18... Order the manual at mid-west-tech.com >

SECTION 8 MAST

Group 1 Structure 8-1
Group 2 Operational Checks and Troubleshooting 8-4
Group 3 Adjustment 8-7
Group 4 Removal and Installation 8-10

MidWestTech | Hyundai 15, 18, 20LC-7A Forklift Service Manual | Publication 15, 18... Order the manual at mid-west-tech.com >

SECTION 4 BRAKE SYSTEM

GROUP 1 STRUCTURE AND FUNCTION

1. OUTLINE

There are two brake systems, the foot brake system and the hand brake system.

In the foot brake system, oil pressure is generated in the master cylinder by treading on the brake pedal. This pressure causes the wheel cylinder pistons to extend, expanding the brake shoes and pressing them against the brake drums to attain braking force.

In the hand brake system, the brake shoes are expanded by operating the brake lever.
Force from the lever is transmitted to the brake shoes through the hand brake cables and a lever arm in each wheel brake assembly.

The wheel brake is the duo-servo type. With force applied to both the primary and secondary shoes, this type provides a large amount of brake force.
In addition, the brake equipped with automatic adjusters which constantly adjust the clearance between the shoe and the drum, compensation for wear due to the shoe friction and thus keeping the clearance constant.

2. SPECIFICATION

1) WHEEL BRAKE

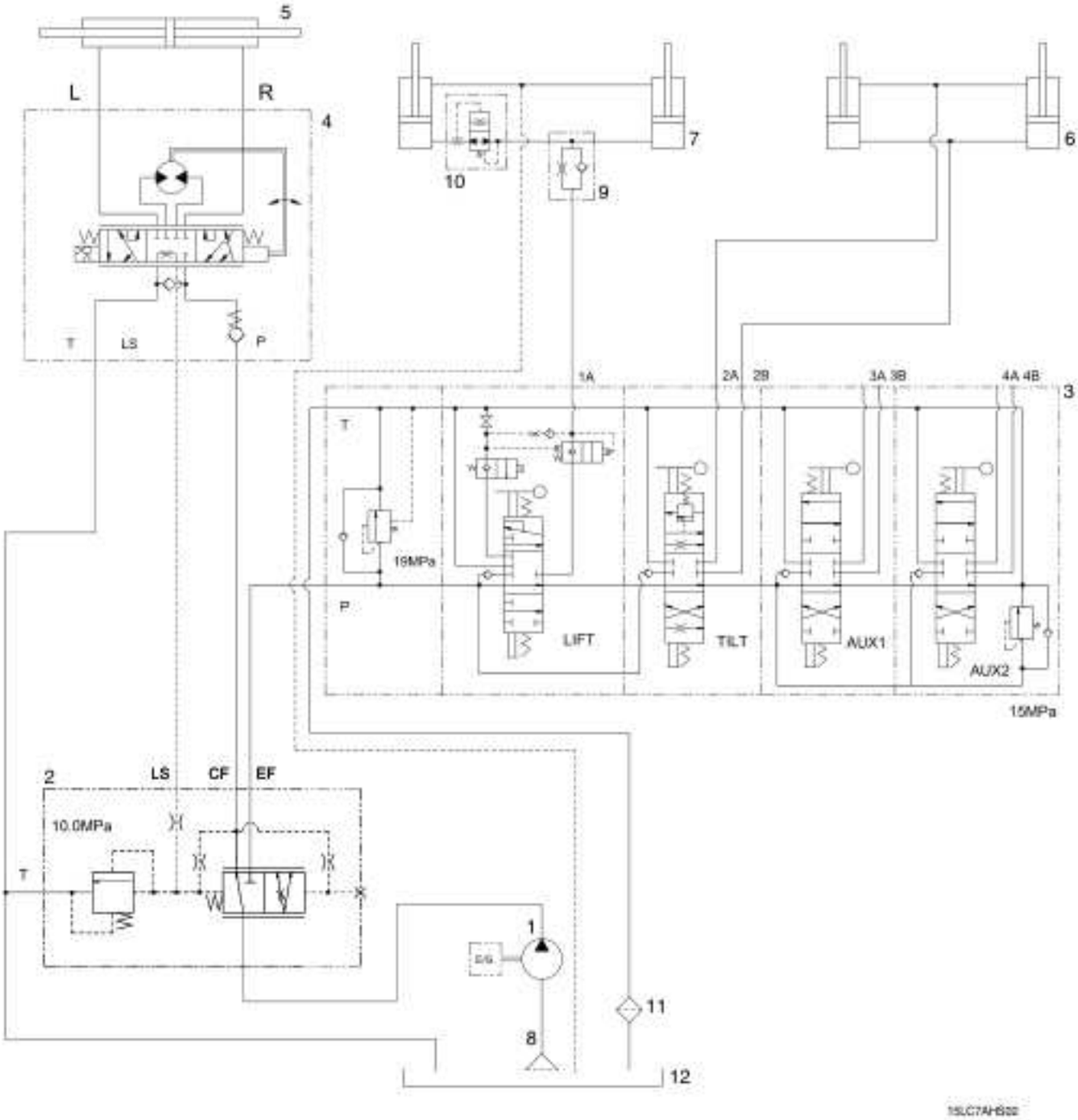
Item		Specification
Type		Front wheel, duo-servo & auto adjustment type
Brake shoe size		254 × 48.5mm
Wheel cylinder bore diameter		22.22mm
Master cylinder diameter		15.87mm
Pedal adjustment	Free height	174–184mm
	Pedal play	10–15mm
Brake drum diameter	Normal	255mm
Wheel cylinder installation torque		0.8–1.2kgf · m
Backing plate installation torque		15–21kgf · m
Brake oil		Only use for brake fluid DOT3

2) PARKING BRAKE

Item	Specification
Type	Rachet, internal expanding mechanical type
Parking lever stroke	40xmm
Parking cable stroke	11.5mm

MidWestTech | Hyundai 15, 18, 20LC-7A Forklift Service Manual | Publication 15, 18... Order the manual at mid-west-tech.com >

HYDRAULIC CIRCUIT (TRAVEL WITH MAST OPSS)



1	Hydraulic gear pump	7	Lift cylinder
2	Priority valve	8	Suction strainer
3	Main control valve	9	Down control valve
4	Steering unit	10	Down safety valve
5	Steering cylinder	11	Return filter
6	Tilt cylinder	12	Hydraulic tank

MidWestTech | Hyundai 15, 18, 20LC-7A Forklift Service Manual | Publication 15, 18... Order the manual at mid-west-tech.com >

GROUP 2 OPERATIONAL CHECKS AND TROUBLESHOOTING

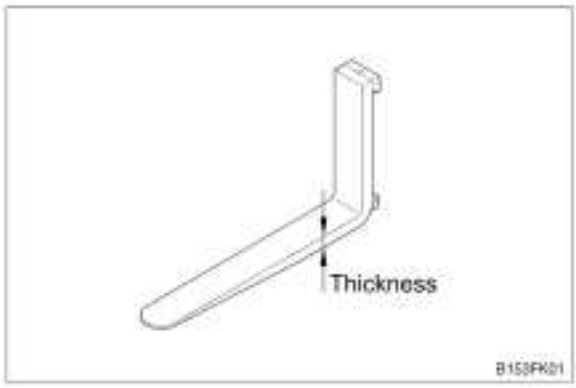
1. OPERATIONAL CHECKS

1) FORKS

(1) Measure thickness of root of forks and check that it is more than specified value.
EX : ℓ =900mm(35.4in)

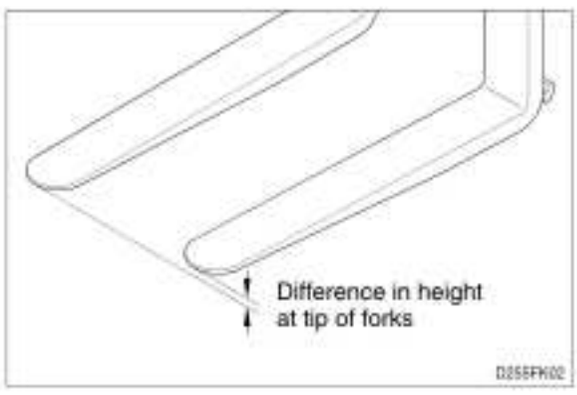
mm(in)

STD Fork assy	Applicable model	Standard	Limit
64FP-12030	15LC/18LC-7A	35(1.4)	32(1.3)
64FD-11010	20LC-7A	40(1.6)	36(1.4)



(2) Set forks in middle and measure difference in height at top of forks.

Model	Fork length (mm)	Height difference(mm)
15LC/18LC-7A	below 1200	3
	above 1200	6



(3) Most force is concentrated at root of fork and at hook, so use crack detection method to check cracks.

2. MAST

1) Check for cracks at mast stay, tilt cylinder bracket, guide bar, fork carriage and roller shaft weld. Check visually or use crack detection method. Repair any abnormality.
2) Set mast vertical, raise forks about 10cm from ground and check front-to-rear clearance and left-to-right clearance between inner mast and fork carriage, and between outer mast and inner mast. Use these figures to judge if there is any play at roller or rail.
   · Front-to-rear clearance : Within 2.0mm(0.08in)
   · Left-to-right clearance : Within 2.5mm (0.10in)
3) Check that there is an oil groove in bushing at mast support.
4) Set mast vertical, raise forks about 10cm from ground, and push center of lift chain with finger to check for difference in tension.
   If there is any difference in tension, adjust chain stopper bolt.
5) Check visually for abnormalities at thread of chain anchor bolt, and at contact surface between chain wheel and chain.
   Rotate chain wheel by hand and check for any play of bearing.

MidWestTech | Hyundai 15, 18, 20LC-7A Forklift Service Manual | Publication 15, 18... Order the manual at mid-west-tech.com >