

[Click here to get the complete manual](#)

21F
121F
221F
321F
Tier4
Compact Wheel Loader

SERVICE MANUAL

Part number 47768535B

English

April 2015

© 2015 CNH Industrial Italia S.p.A. All Rights Reserved.

CASE
CONSTRUCTION



SERVICE MANUAL

121F XT , 121F ZB , 21F XT , 21F ZB , 221F HS , 221F STD , 321F HS , 321F STD

Contents

INTRODUCTION

Engine.....	10
[10.001] Engine and crankcase	10.1
[10.216] Fuel tanks	10.2
Transmission.....	21
[21.135] Powershift transmission external controls.....	21.1
[21.160] Creeper	21.2
Front axle system	25
[25.100] Powered front axle	25.1
[25.102] Front bevel gear set and differential	25.2
[25.108] Final drive hub, steering knuckles, and shafts	25.3
Rear axle system.....	27
[27.100] Powered rear axle.....	27.1
[27.106] Rear bevel gear set and differential	27.2
[27.120] Planetary and final drives	27.3
[27.124] Final drive hub, steering knuckles, and shafts	27.4
Brakes and controls	33
[33.202] Hydraulic service brakes	33.1
[33.110] Parking brake or parking lock	33.2
[33.204] Front axle brake	33.3
Hydraulic systems.....	35
[35.000] Hydraulic systems.....	35.1
[35.300] Reservoir, cooler, and filters.....	35.2
[35.104] Fixed displacement pump	35.3
[35.106] Variable displacement pump	35.4
[35.359] Main control valve	35.5

[35.357] Pilot system	35.6
[35.600] High flow hydraulics	35.7
[35.353] Hydraulic travel system	35.8
[35.701] Front loader arm hydraulic system	35.9
[35.723] Front loader bucket hydraulic system	35.10
[35.734] Tool quick coupler hydraulic system	35.11
Frames and ballasting	39
[39.140] Ballasts and supports	39.1
Steering	41
[41.101] Steering control	41.1
[41.200] Hydraulic control components	41.2
[41.216] Cylinders	41.3
Electrical systems	55
[55.000] Electrical system	55.1
[55.100] Harnesses and connectors	55.2
[55.045] Front axle control system	55.3
[55.408] Warning indicators, alarms, and instruments	55.4
[55.DTC] FAULT CODES	55.5
Platform, cab, bodywork, and decals	90
[90.150] Cab	90.1