Illustrated Parts Manual

Models

742

SN 0160084796 to SN 0160100493

31211313

May 22, 2020 - Rev D

An Oshkosh Corporation Company

MidWestTech | JLG 742 Telehandler Parts Manual | Publication 31211313

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

TABLE OF CONTENTS

SECTION 1 - FRAME AND ATTACHING PARTS 17

FIGURE 1-1. FRAME (NO OUTRIGGERS) 18
FIGURE 1-2. ENGINE ENCLOSURE INSTALLATION 20
FIGURE 1-3. ENGINE ENCLOSURE COVER INSTALLATION 22
FIGURE 1-4. HOOD ASSEMBLY 24
FIGURE 1-5. HOOD ASSEMBLY 26
FIGURE 1-6. COVER INSTALLATION (NO OUTRIGGERS) (ULS) (SN 0160084796 through 0160087885) 28
FIGURE 1-7. COVER INSTALLATION (NO OUTRIGGERS) (ULS) (SN 0160087886 through 0160100493) 30
FIGURE 1-8. COVER INSTALLATION (NO OUTRIGGERS) (LS) 32
FIGURE 1-9. COUNTERWEIGHT INSTALLATION 34
FIGURE 1-10. TANK INSTALLATION 36
FIGURE 1-11. FUEL TANK INSTALLATION 38
FIGURE 1-12. HYDRAULIC TANK INSTALLATION 40
FIGURE 1-13. FUEL CAP ASSEMBLY 42
FIGURE 1-14. MIRROR INSTALLATION 44
FIGURE 1-15. BOOM PROP INSTALLATION 46
FIGURE 1-16. BOOM PROP BRACKET 48

SECTION 2 - BOOM 51

FIGURE 2-1. BOOM ASSEMBLY 52
FIGURE 2-2. FIRST BOOM SECTION ASSEMBLY 54
FIGURE 2-3. SECOND BOOM SECTION ASSEMBLY 56
FIGURE 2-4. THIRD BOOM SECTION ASSEMBLY 58
FIGURE 2-5. RETRACT CHAIN INSTALLATION 60
FIGURE 2-6. EXTEND CHAIN INSTALLATION 62
FIGURE 2-7. PINS INSTALLATION 64
FIGURE 2-8. RETRACT CHAIN SHEAVE 66
FIGURE 2-9. CHAIN SHEAVE ASSEMBLY 68
FIGURE 2-10. HOSE BRACKET INSTALLATION 70
FIGURE 2-11. BOOM PINNING INSTALLATION 72
FIGURE 2-12. LIFT CYLINDER PINS INSTALLATION 74
FIGURE 2-13. COMPENSATION CYLINDER PINS INSTALLATION 76
FIGURE 2-14. BOOM PIVOT PIN INSTALLATION 78
FIGURE 2-15. MANUAL QUICK COUPLER INSTALLATION 80
FIGURE 2-16. HYDRAULIC QUICK COUPLER INSTALLATION 82
FIGURE 2-17. BOOM PIN INSTALLATION 84
FIGURE 2-18. TILT CYLINDER PIN INSTALLATION 86
FIGURE 2-19. BOOM ANGLE INDICATOR INSTALLATION 88
FIGURE 2-20. BOOM BRUSHES INSTALLATION 90
FIGURE 2-21. QUICK COUPLER ASSEMBLY 92

SECTION 3 - ATTACHMENTS 95

FIGURE 3-1. CARRIAGE ASSEMBLY (1270MM) 96
FIGURE 3-2. CARRIAGE ASSEMBLY (1524 MM) 98
FIGURE 3-3. CARRIAGE ASSEMBLY (1829 MM) 100
FIGURE 3-4. 90 SWING CARRIAGE ASSEMBLY (72 INCH) 102
FIGURE 3-5. SIDE SHIFT CARRIAGE (5.5 TON - 1270 MM) 104
FIGURE 3-6. DUAL FORK CARRIAGE ASSEMBLY 106
FIGURE 3-7. DUAL FORK CARRIAGE VALVE ASSEMBLY 108
FIGURE 3-8. PALLET FORK (2.36X4X48) 110
FIGURE 3-9. PALLET FORK (2.36X5X48) 112
FIGURE 3-10. PALLET FORK (2.36X4X48) 114
FIGURE 3-11. FORK - PALLET (2.4X4X60) 116
FIGURE 3-12. LUMBER FORK (50X180X1540) 118
FIGURE 3-13. LUMBER FORK (60X150X1524) 120
FIGURE 3-14. PALLET FORK (2.00X6X72) 122
FIGURE 3-15. BLOCKING FORK (50X50X1220) 124
FIGURE 3-16. FORK CLAMPS INSTALL 126
FIGURE 3-17. FORK EXTENSIONS (62X163X2286) 128
FIGURE 3-18. FORK MOUNTED BUCKET (1.0 M^3) 130
FIGURE 3-19. BUCKET 1.0 YD^3 (ANSI - JLG) 132
FIGURE 3-20. BUCKET (1.15 M^3) 134
FIGURE 3-21. BUCKET (102 INCH) 136

MidWestTech | JLG 742 Telehandler Parts Manual | Publication 31211313 Order the manual at mid-west-tech.com >

TABLE OF CONTENTS

FIGURE 3-22. TRUSS BOOM (0.9 TON - 3.7M) 138
FIGURE 3-23. TRUSS BOOM (15 FOOT) 140
FIGURE 3-24. ADJUSTABLE TRUSS BOOM 142
FIGURE 3-25. TRUSS BOOM (1.8 TON - 1M FT WITH WINCH) 144
FIGURE 3-26. TRUSS BOOM (0.9 TON - 3.7M WITH WINCH) 146
FIGURE 3-27. ADJUSTABLE TRUSS BOOM INSTALLATION (FORK MOUNTED) 148
FIGURE 3-28. FORK MOUNTED HOOK (4 TON) 150
FIGURE 3-29. CRANE HOOK 152
FIGURE 3-30. FORK MOUNTED BASKET 154
FIGURE 3-31. FORK MOUNTED BASKET 156
FIGURE 3-32. FORK MOUNTED BASKET 158
FIGURE 3-33. FORK MOUNTED PLATFORM 160
FIGURE 3-34. SWEEPER - HOPPER ASSEMBLY 162
FIGURE 3-35. FORK MOUNTED TRASH HOPPER 164
FIGURE 3-36. DRYWALL SWING CARRIAGE INSTALLATION 166
FIGURE 3-37. ROTATING DRYWALL CARRIAGE 168
FIGURE 3-38. DRYWALL BOARD HANDLER 170
FIGURE 3-39. PIVOT FRAME GROUP 172
FIGURE 3-40. DRYWALL CYLINDER 174
FIGURE 3-41. DRYWALL HYDRAULIC GROUP 176
FIGURE 3-42. DRYWALL VALVE ASSEMBLY 178
FIGURE 3-43. DRYWALL CYLINDER 180
FIGURE 3-44. DRYWALL FORK GROUP 182
FIGURE 3-45. SIDE TILT ELECTRIC MAST (8 FOOT) 184
FIGURE 3-46. SIDE TILT ELECTRIC MAST (8 FOOT) 186
FIGURE 3-47. SIDE TILT ELECTRIC MAST (8 FOOT) 188
FIGURE 3-48. KIT DECAL 192
FIGURE 3-49. MAIN LIFT CYLINDER 194

SECTION 4 - ENGINE AND ATTACHING PARTS 197

FIGURE 4-1. ENGINE INSTALLATION (ULS) 198
FIGURE 4-2. ENGINE INSTALLATION, 74HP (ULS) 200
FIGURE 4-3. ENGINE INSTALLATION (LS) 202
FIGURE 4-4. ENGINE MOUNTING INSTALLATION 204
FIGURE 4-5. 3.8L ENGINE (ULS) 206
FIGURE 4-6. ENGINE, 74HP 208
FIGURE 4-7. 3.8L ENGINE (LS) 210
FIGURE 4-8. FAN INSTALLATION 212
FIGURE 4-9. PRIMARY FUEL FILTER INSTALLATION (ULS) 214
FIGURE 4-10. PRIMARY FUEL FILTER INSTALLATION (LS) 216
FIGURE 4-11. FAN INSTALLATION, 74HP (ULS) 218
FIGURE 4-12. AIR CLEANER LINES INSTALLATION (ULS) 220
FIGURE 4-13. AIR CLEANER LINES INSTALLATION (LS) 222
FIGURE 4-14. AIR CLEANER INSTALLATION (ULS) 224
FIGURE 4-15. AIR CLEANER INSTALLATION (LS) 226
FIGURE 4-16. AIR CLEANER ASSEMBLY (74.4KW) 228
FIGURE 4-17. AIR CLEANER ASSEMBLY (90/100KW) 230
FIGURE 4-18. AIR INTAKE DUCT INSTALLATION 232
FIGURE 4-19. AIR INTAKE SHUT OFF VALVE INSTALLATION 234
FIGURE 4-20. DEF LINES INSTALLATION 236
FIGURE 4-21. COOLING PACKAGE INSTALLATION (ULS) 238
FIGURE 4-22. COOLING PACKAGE INSTALLATION (LS) 240
FIGURE 4-23. RADIATOR COOLING PACKAGE 242
FIGURE 4-24. HOC LINES INSTALLATION 244
FIGURE 4-25. COOLANT LINES INSTALLATION (ULS) 246
FIGURE 4-26. COOLANT LINES INSTALLATION (LS) 248
FIGURE 4-27. CAC LINES INSTALLATION (ULS) 250
FIGURE 4-28. CAC LINES INSTALLATION (LS) 252
FIGURE 4-29. TOC LINES INSTALLATION 254
FIGURE 4-30. SURGE TANK INSTALLATION 256
FIGURE 4-31. FAN GUARD INSTALLATION 258
FIGURE 4-32. EXHAUST INSTALLATION (ULS) 260
FIGURE 4-33. EXHAUST INSTALLATION 262
FIGURE 4-34. EXHAUST INSTALLATION (LS) 264
FIGURE 4-35. ENGINE PARTS INSTALLATION (NO HEATER) 266
FIGURE 4-36. ENGINE PARTS INSTALLATION (HEATER) 268

MidWestTech | JLG 742 Telehandler Parts Manual | Publication 31211313 Order the manual at mid-west-tech.com >

FIGURE 4-37. A/C PUMP INSTALLATION (ULS) 270
FIGURE 4-38. A/C PUMP INSTALLATION (LS) 272
FIGURE 4-39. FUEL TANK ASSEMBLY 274
FIGURE 4-40. DEF TANK INSTALLATION 276
FIGURE 4-41. DEF TANK ASSEMBLY (SN 0160084796 through 0160091768) 278
FIGURE 4-42. DEF TANK ASSEMBLY (SN 0160091769 through 0160100493) 280
FIGURE 4-43. DEF PUMP AND CONTROL INSTALLATION 282
FIGURE 4-44. DEF PUMP LINES INSTALLATION 284
FIGURE 4-45. FUEL LINES INSTALLATION (ULS) 286
FIGURE 4-46. FUEL LINES INSTALLATION (LS) 290
FIGURE 4-47. MUFFLER INSTALLATION (LS) 294
FIGURE 4-48. A/C LINES INSTALLATION 296
FIGURE 4-49. UREA PUMP 298
FIGURE 4-50. HEATER BREATHER - 110 HP 300
FIGURE 4-51. HEATER BREATHER - 74 HP 302
FIGURE 4-52. DEF BREATHER VALVE 304

SECTION 5 - DRIVETRAIN 307

FIGURE 5-1. DRIVETRAIN INSTALLATION 308
FIGURE 5-2. DRIVETRAIN INSTALLATION, 74HP 310
FIGURE 5-3. FRONT AXLE INSTALLATION 312
FIGURE 5-4. FRONT AXLE INSTALLATION, 74HP 314
FIGURE 5-5. REAR AXLE INSTALLATION 316
FIGURE 5-6. REAR AXLE INSTALLATION, 74HP 318
FIGURE 5-7. DRIVE SHAFTS INSTALLATION 320
FIGURE 5-8. FRONT AXLE MOUNTING INSTALLATION 322
FIGURE 5-9. FRONT AXLE MOUNTING INSTALLATION, 74HP 324
FIGURE 5-10. FONT AXLE LINES INSTALLATION 326
FIGURE 5-11. REAR AXLE MOUNTING INSTALLATION 328
FIGURE 5-12. REAR AXLE MOUNTING INSTALLATION, 74HP 330
FIGURE 5-13. REAR AXLE LINES INSTALLATION 332
FIGURE 5-14. FRONT DRIVE SHAFT INSTALLATION 334
FIGURE 5-15. REAR DRIVE SHAFT INSTALLATION 336
FIGURE 5-16. FRONT AXLE 338
FIGURE 5-17. FRONT AXLE, CENTRAL HOUSING 340
FIGURE 5-18. FRONT AXLE, DIFFERENTIAL 342
FIGURE 5-19. FRONT AXLE, HUB REDUCTION 344
FIGURE 5-20. FRONT AXLE, BRAKES 346
FIGURE 5-21. FRONT AXLE, STEERING 348
FIGURE 5-22. FRONT AXLE, TRUNION 350
FIGURE 5-23. FRONT AXLE, DIFFERENTIAL 352
FIGURE 5-24. FRONT AXLE, REDUCTION BUSHING 354
FIGURE 5-25. FRONT AXLE, PLANET GEAR CARRIER 356
FIGURE 5-26. FRONT AXLE, RING GEAR SUPPORT 358
FIGURE 5-27. FRONT AXLE, PLANET GEAR 360
FIGURE 5-28. FRONT AXLE, TRUNION KIT 362
FIGURE 5-29. FRONT AXLE, 74HP 364
FIGURE 5-30. FRONT AXLE, CENTRAL HOUSING 74HP 366
FIGURE 5-31. FRONT AXLE, DIFFERENTIAL 74HP 368
FIGURE 5-32. FRONT AXLE, HUB REDUCTION 74HP 370
FIGURE 5-33. FRONT AXLE, BRAKES 74HP 374
FIGURE 5-34. FRONT AXLE, STEERING 74HP 376
FIGURE 5-35. FRONT AXLE, TRUNION 74HP 378
FIGURE 5-36. REAR AXLE 380
FIGURE 5-37. REAR AXLE, CENTRAL HOUSING 382
FIGURE 5-38. REAR AXLE, DIFFERENTIAL 384
FIGURE 5-39. REAR AXLE, HUB REDUCTION 386
FIGURE 5-40. REAR AXLE, BRAKES 388
FIGURE 5-41. REAR AXLE, STEERING 390
FIGURE 5-42. REAR AXLE, TRUNION 392
FIGURE 5-43. REAR AXLE, DIFFERENTIAL KIT 394
FIGURE 5-44. REAR AXLE, REDUCTION BUSHING 396
FIGURE 5-45. REAR AXLE, PLANET GEAR CARRIER KIT 398
FIGURE 5-46. REAR AXLE, RING GEAR SUPPORT KIT 400
FIGURE 5-47. REAR AXLE, PLANET GEAR KIT 402
FIGURE 5-48. REAR AXLE, PISTON KIT 404

MidWestTech | JLG 742 Telehandler Parts Manual | Publication 31211313 Order the manual at mid-west-tech.com >

FIGURE 4-2. ENGINE INSTALLATION, 74HP (ULS)

ITEM	PART NUMBER	QTY	DESCRIPTION	REV
	1001225230	Ref	Engine Installation, 74HP (ULS)	B
1	1062255	1	Strap, Tie	
2	1001227962	Ref	Installation, Transmission (See Separate Breakdown in DRIVETRAIN Section)	
3	1001163227	Ref	Installation, Engine Mounting (See Separate Breakdown in this Section)	
4	1001163231	Ref	Installation, Fuel Lines (See Separate Breakdown in this Section)	
5	1001163235	Ref	Installation, Primary Fuel Filter (See Separate Breakdown in this Section)	
6	1001169011	Ref	Installation, Air Cleaner Lines (See Separate Breakdown in this Section)	
7	1001169012	Ref	Installation, Air Cleaner (See Separate Breakdown in this Section)	
8	1001194286	Ref	Installation, Engine ECU (See Separate Breakdown in ELECTRICAL Section)	
9	1001196665	Ref	Engine, 74HP (See Separate Breakdown in this Section)	
10	1001225231	Ref	Installation, Fan (See Separate Breakdown in this Section)	
11	1001225232	Ref	Installation, Engine Wiring (See Separate Breakdown in ELECTRICAL Section)	

MidWestTech | JLG 742 Telehandler Parts Manual | Publication 31211313 Order the manual at mid-west-tech.com >

FIGURE 10-2. MAIN ELECTRICAL INSTALLATION (ULS) (74 HP)

ITEM	PART NUMBER	QTY	DESCRIPTION	REV
	1001225986	Ref	Main Electrical Installation (ULS) (74 HP)	B
1	1001167051	Ref	Installation, Electrical Frame (See Separate Breakdown in this Section)	
2	1001173765	Ref	Installation, Engine Bay Electrical (See Separate Breakdown in this Section)	
3	1001225987	Ref	Installation, Wiring Frame (See Separate Breakdown in this Section)	
4	1001227963	Ref	Installation, Engine Bay Wiring (See Separate Breakdown in this Section)	

MidWestTech | JLG 742 Telehandler Parts Manual | Publication 31211313 Order the manual at mid-west-tech.com >

FIGURE 10-90. ENGINE AIR SHUT OFF VALVE HARNESS

ITEM	PART NUMBER	QTY	DESCRIPTION	REV
	1001231483	Ref	Air Shut Off Valve Harness (Engine)	D
1	1001187079	1	Terminal, Ring	
2	1001231397	1	Connector	
3	8229235	1	Fuse, 20amp	
4	1001231401	2	Terminal	
5	1001230402	2	Seal	
10	1001187078	1	Terminal, Ring	
11	1001231397	1	Connector	
12	8229261	1	Fuse, 20amp	
13	1001231400	2	Terminal	
14	1001230403	2	Seal	
15	1001116812	1	Connector	
16	4460465	2	Terminal	
17	4460466	1	Plug	
18	4460884	1	Connector	
19	4460465	4	Terminal	
20	1001187079	1	Terminal, Ring	
21	1001144147	1	Connector	
22	4460464	2	Terminal	
23	4460466	1	Plug	
24	1001116812	1	Connector	
25	4460465	2	Terminal	
26	4460466	1	Plug	
27	1001116812	1	Connector	
28	4460465	2	Terminal	
29	4460466	1	Plug	
30	4460539	1	Connector	
31	4460465	2	Terminal	
32	4460466	1	Plug	
33	1001116815	1	Connector, 3 Pin	
34	4460945	1	Terminal, 3 Way "T" Receptacle	
35	4460891	1	Connector	
36	1001157890	2	Terminal	
37	4460742	1	Connector	
38	4460475	2	Terminal	
39	4460458	2	Plug	
40	1001116774	1	Connector	
41	4460518	8	Plug	
42	1001126008	4	Terminal	
43	1001116808	1	Connector	
44	1001126008	9	Terminal	
45	4460518	3	Plug	
46	4460761	1	Connector	
47	4460321	1	Terminal	
48	1001118378	4	Terminal	
49	4460809	4	Plug	
50	1001143551	1	Seal	
51	1001218358	1	Lanyard Rope	
52	1001231398	1	Connector	
53	1001231400	4	Terminal	

MidWestTech | JLG 742 Telehandler Parts Manual | Publication 31211313 Order the manual at mid-west-tech.com >