GRADALL®

# Illustrated Parts Manual

## Models

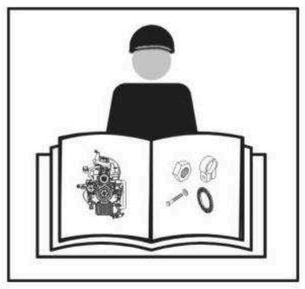
## 534D-6

## 534D-6 Turbo

S/N 0588001

**P/N - 9133-4006**

*Revised July 6, 2007*



MidWestTech | Gradall S34D-6, 534D-6 Turbo Telehandler Parts Manual | Publication 9133-4006

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

## SECTION 1 — INTRODUCTION

Table of Contents ..... 1-1 thru 1-4
Alphabetical Index ..... 1-5 thru 1-9
Service Kits ..... 1-10, 1-11
* Part Number Index ..... 1-12 thru 1-22

## SECTION 2 — CHASSIS & ATTACHING PARTS

Frame Shrouding & Trim ..... 2-1
Open Cab ..... 2-2
Rear Axle & Attaching Parts ..... 2-3
Front Axle Mounting ..... 2-4

## SECTION 3 — BOOM

First Boom Section ..... 3-1
Second Boom Section ..... 3-2
Third Boom Section ..... 3-3
Extension & Retraction Cables ..... 3-4
Quick Switch ..... 3-5

## SECTION 4 — ATTACHMENTS

Carriage Assembly ..... 4-1
Quick Switch Mounted Carriage Assembly ..... 4-2
Buckets ..... 4-3
Slope Piler Carriage ..... 4-4

## SECTION 5 — ENGINE & ATTACHING PARTS

Engine Left Side View ..... 5-1
Engine Right Side View ..... 5-2
Engine Pump Mount & Flywheel Housing ..... 5-3
Fuel Tank & Lines ..... 5-4
Radiator & Hoses ..... 5-5
Air Cleaner Piping ..... 5-6
Air Cleaner ..... 5-7
Exhaust System ..... 5-8

JJ

* *Changed the final page number of the Page Number Index from 1-20 to 1-22*



MidWestTech | Gradall S34D-6, 534D-6 Turbo Telehandler Parts Manual | Publication 9133... Order the manual at mid-west-tech.com >

## SECTION 6 — DRIVE TRAIN

Front Axle Assembly ..... 6-1
Front Axle Housing ..... 6-2
Front Axle Differential Carrier ..... 6-3
Brake Assembly ..... 6-4
Front Axle Shaft & Planetary Wheel End ..... 6-5
Rear Steering Axle Drive Hub ..... 6-6
Wheels & Tires ..... 6-7

## SECTION 7 — CONTROLS

Tilt & Sway ..... 7-1
Accelerator Pedal Assembly ..... 7-2
Steering Column - Forward Nuetral Reverse Shifter ..... 7-3
Floorplate Components ..... 7-4
Brake & Inching Linkage ..... 7-5

## SECTION 8 — BRAKES

Service Brake Lines. ..... 8-1

## SECTION 9 — HYDRAULIC CIRCUITS

Oil Supply & Pressure Lines ..... 9-1
Dump Circuit ..... 9-2
Drive Circuit (front) ..... 9-3
Drive Circuit (rear) ..... 9-4
Lift Cylinder ..... 9-5
Crowd Cylinder ..... 9-6
Tilt & Tilt Compensating Cylinder ..... 9-7
Sway Cylinder ..... 9-8
Steering Cylinder ..... 9-9
Joystick Circuit ..... 9-10

## SECTION 10 — HYDRAULIC COMPONENTS

Lift Cylinder (Iowa) ..... 10-1



MidWestTech | Gradall S34D-6, 534D-6 Turbo Telehandler Parts Manual | Publication 9133... Order the manual at mid-west-tech.com >

## SECTION 10 — HYDRAULIC COMPONENTS (continued)

Crowd Cylinder ..... 10-2
Tilt Cylinder (Iowa) ..... 10-3
Compensating Cylinder (Iowa) ..... 10-4
Sway Cylinder (Iowa) ..... 10-5
Steering Cylinder (Iowa) ..... 10-6
Main Hydraulic Control Valve ..... 10-7
Rear Drive Motor ..... 10-8
Priority Flow Control Valve ..... 10-9
Flow Divider Valve ..... 10-10
Brake Valve ..... 10-11
Solenoid Valve ..... 10-12
Sway Cylinder Valve ..... 10-13
Inching Valve ..... 10-14
Main Hydraulic Pump ..... 10-15
Hydrostatic Transmission Pump ..... 10-16
Front Drive Motor ..... 10-17
Hydraulic Reservoir & Filters ..... 10-18
Joystick Assembly ..... 10-19
Traction Lock Valve ..... 10-20
Thermal Bypass Valve Assembly ..... 10-21
* Quick Start Cylinder and Valve Assembly (534D-6T) ..... 10-22
* Quick Start Cylinder and Valve Assembly (534D-6) ..... 10-23

## SECTION 11 — ELECTRICAL

Dash Panel ..... 11-1
Gauge Panel ..... 11-2
Dash Harness Assembly ..... 11-3
Battery & Cables ..... 11-4

## SECTION 12 — MISCELLANEOUS

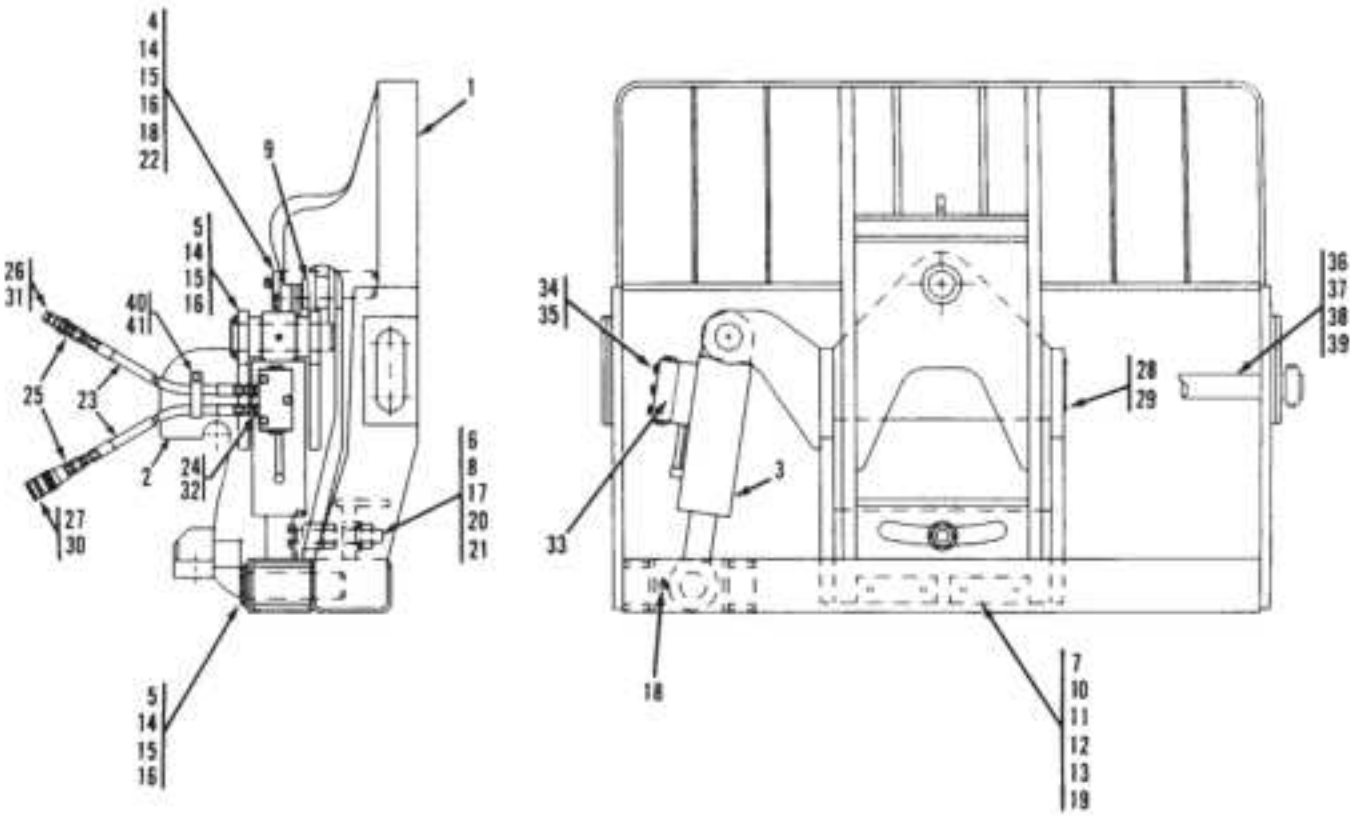
Frame Decals ..... 12-1
Boom Decals ..... 12-2
Cushion Clamps & Clamp Sets ..... 12-3



* *Added page 10-23 & changed the Description on 10-22.*



MidWestTech | Gradall S34D-6, 534D-6 Turbo Telehandler Parts Manual | Publication 9133... Order the manual at mid-west-tech.com >




| Item | Part No. | Qty. | Description Of Part |
|---|---|---|---|
| | 9130-5016 | Ref | 66" SLOPE PILER CARRIAGE, (includes all items) |
| * | 9112-3077 | 1 | CAPACITY DECAL |
| 1 | 9130-6030 | 1 | CARRIAGE WELDMENT |
| 2 | 9108-6122 | 1 | ADAPTER WELDMENT |
| 3 | | Ref | SWAY CYLINDER, (see page 13-25 for details) |
| 4 | 9108-3248 | 1 | BUSHING |
| *5 | 3423263 | 2 | PIN |
| 6 | 9020-4007 | 1 | TUBE |
| 7 | 9103-3186 | 2 | BEARING PAD |
| 8 | 9108-1577 | 1 | TAP BOLT |
| 9 | 9108-1594 | 1 | THRUST WASHER |
| *10 | 9020-5870 | AR | SHIM |
| 11 | 9103-1236 | 2 | SPACER |
| 12 | 8820-1535 | 4 | HEX HD CAPSCREW, 3/8-24x1-1/4, GR5 |
| 13 | 8820-1534 | 4 | HEX HD CAPSCREW, 3/8-24x1, GR5 |
| 14 | 9108-1313 | 3 | KEEPER PLATE |
| 15 | 8820-1065 | 6 | HEX HD CAPSCREW, 1/2-13x1, GR5 |
| 16 | 8855-1013 | 6 | LOCKWASHER, 1/2 |
| 17 | 8852-1016 | 1 | HEX LOCKNUT, 1-8 |
| *18 | 8867-1022 | 2 | LUBE FITTING, 90 DEGREES, 1/8 |
| 19 | 8856-1109 | 4 | FLAT WASHER, 3/8 |
| 20 | 8850-1016 | 1 | HEX NUT, 1-8 |
| 21 | 0510-1441 | 1 | WASHER, 1-1/16 |
| 22 | 9108-1622 | 1 | PIN |
| 23 | 8471-6434 | 2 | HOSE ASSY |
| 24 | 8366-1316 | 2 | CONNECTOR |

| Item | Part No. | Qty. | Description Of Part |
|---|---|---|---|
| *25 | 8866-1010 | 2 | CONNECTOR, **(Before S/N 2005283-01)** |
| | 8866-2018 | 2 | CONNECTOR, **(S/N 2005283-01 & After)** |
| *26 | 9116-3138 | 1 | MALE QUICK DISCONNECT, **(Before S/N 2005283-01)** |
| | 9140-3414 | 1 | MALE QUICK DISCONNECT, **(S/N 2005283-01 & After)** |
| *27 | 9116-3139 | 1 | FEMALE QUICK DISCONNECT, **(Before S/N 2005283-01)** |
| | 9140-3413 | 1 | FEMALE QUICK DISCONNECT, **(S/N 2005283-01 & After)** |
| 28 | 8834-1022 | 4 | DRIVE SCREW, #10x3/8 |
| 29 | 9015-3001 | 1 | SERIAL NUMBER PLATE |
| 30 | 9104-3125 | 1 | DUST PLUG |
| 31 | 9104-3126 | 1 | DUST CAP |
| 32 | 8866-2105 | 2 | ELBOW, 90 DEGREES, (swivel nut) |
| 33 | | Ref | DUAL P.O. CHECK VALVE, (see page 13-11 for details) |
| 34 | 8820-1040 | 3 | HEX HD CAPSCREW, 3/8-16x2-1/4, GR5 |
| 35 | 8855-1011 | 3 | LOCKWASHER, 3/8 |
| 36 | 9130-1083 | 1 | FORK PIN |
| 37 | 9020-0003 | 2 | COLLAR |
| 38 | 8820-1105 | 2 | HEX HD CAPSCREW, 5/8-11x4, GR5 |
| 39 | 8852-1310 | 2 | LOCKNUT, 5/8-11 |
| *40 | 8452-1062 | 1 | SUPPORT CLAMP |
| *41 | 7714-3015 | 1 | WHIZ LOCKNUT |



MidWestTech | Gradall S34D-6, 534D-6 Turbo Telehandler Parts Manual | Publication 9133... Order the manual at mid-west-tech.com >

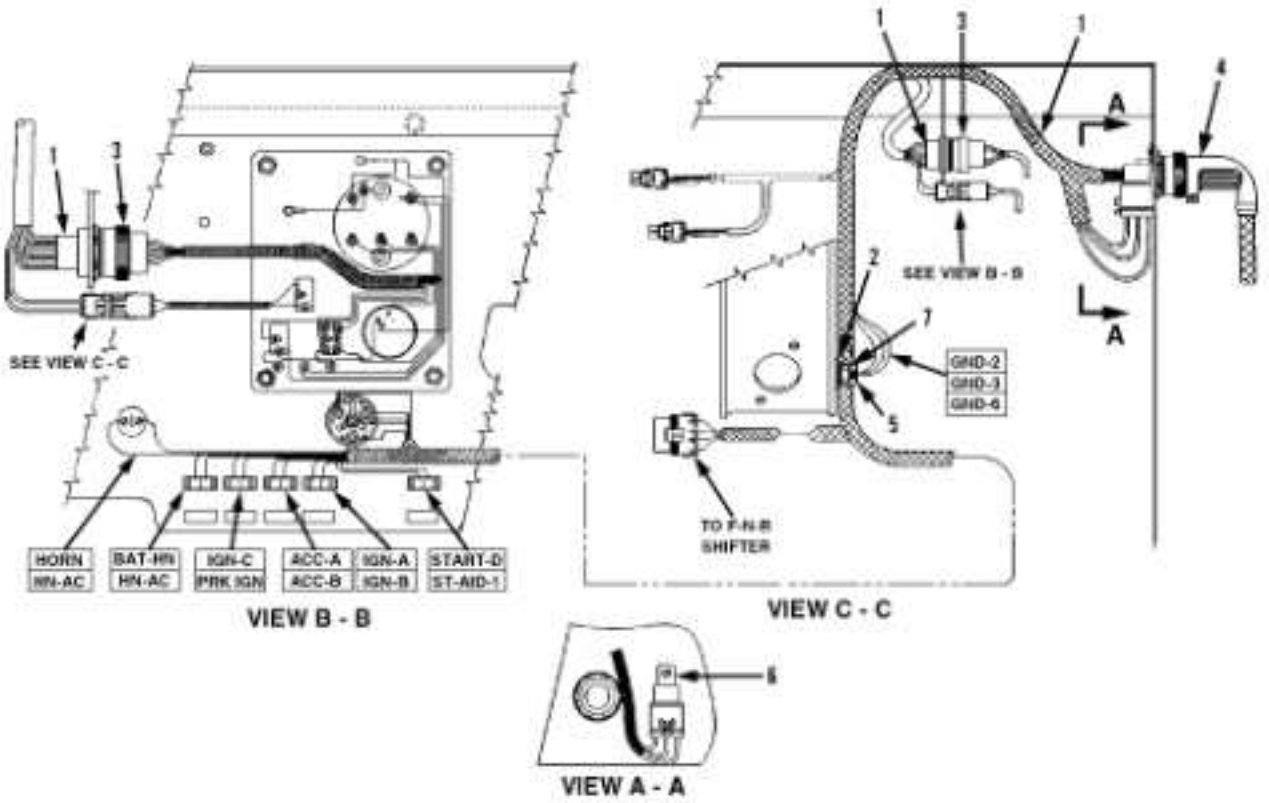
| Item | Part No. | Qty. | Description Of Part |
|---|---|---|---|
| 1 | 9020-6195 | AR | TRIM LOK |
| 2 | 9020-6199 | AR | TRIM LOK |
| 3 | | Ref | DASH HARNESS (see page 11-1 for details) |
| 4 | | Ref | INCHING VALVE (see page 10-14 for details) |
| 5 | | Ref | FOOT SWITCH (see page 7-5 for details) |
| 6 | | Ref | BRAKE PEDAL AND LINKAGE (see page 7-5 for details) |
| 7 | | Ref | ACCELERATOR PEDAL ASSY (see page 7-2 for details) |
| 8 | | Ref | BRAKE VALVE (see page 10-11 for details) |
| 9 | | Ref | SOLENOID VALVE (see page 10-12 for details) |
| 10 | | Ref | HOSE ASSY (see page 8-1 for details) |
| 11 | 8471-7641 | 1 | HOSE ASSY |
| 12 | | Ref | HOSE ASSY (see page 9-4, item 44 for details |
| 13 | | Ref | HOSE ASSY (see page 8-1 for details) |
| 14 | 8471-8689 | 1 | HOSE ASSY (534D-6) |
| | 8471-7883 | 1 | HOSE ASSY (534D-6 TURBO) |
| 15 | | Ref | HOSE ASSY (see page 9-10 for details) |
| 16 | | Ref | HOSE ASSY (see page 9-10 for details) |
| 17 | | Ref | HOSE ASSY (see page 9-2, item 3 for details |
| *18 | 8471-7893 | 1 | HOSE ASSY |
| 19 | 8471-8688 | 1 | HOSE ASSY |
| 20 | | Ref | HOSE ASSY (see page 9-2, item 15 for details) |
| 21 | | Ref | HOSE ASSY (see page 9-3, item 32 for details) |
| 22 | 9116-3109 | 1 | HYDRAULIC TUBE |
| 23 | 8866-2105 | 2 | ELBOW - 90 DEGREES (swivel nut) |
| 24 | 8363-3002 | 1 | STRAIGHT THREAD CONNECTOR |
| 25 | 9020-7856 | 1 | COPPER GASKET |
| 26 | 9108-3306 | 1 | STRAIGHT THREAD CONNECTOR |
| 27 | 9108-3310 | 2 | ELBOW - 90 DEGREES |
| 28 | 8866-2139 | 1 | BRANCH TEE (includes item 29) |
| 29 | 8859-1204 | 5 | O-RING |
| 30 | 8866-2064 | 3 | ELBOW - 90 DEGREES (includes item 29) |
| 31 | 8866-2152 | 1 | BRANCH TEE (includes item 29) |
| 32 | 8821-2228 | 2 | SOCKET HD CAPSCREW, #6-32x1/4 |
| 33 | 9103-3138 | 1 | TUBE CLAMP |
| 34 | 7713-3498 | 1 | CLAMP COVER |
| 35 | 7713-3499 | 2 | HEX HD CAPSCREW, 5/16-18x1-1/4 GR8 |
| 36 | 8820-1008 | 2 | HEX HD CAPSCREW, 1/4-20x1-3/4 |
| 37 | 8856-1107 | 2 | FLAT WASHER, 1/4 |
| 38 | 8855-1009 | 2 | LOCKWASHER, 1/4 |
| 39 | 7713-3168 | 2 | CLAMP SET |
| 40 | 7713-3389 | 2 | STACK BOLT |
| 41 | 7713-3136 | 2 | CLAMP SET |
| 42 | 7713-3390 | 2 | SAFETY CLIP |
| 43 | 7713-3137 | 2 | COVER PLATE |
| 44 | 8820-1023 | 2 | HEX HD CAPSCREW, 5/16-18x1-3/4 GR5 |

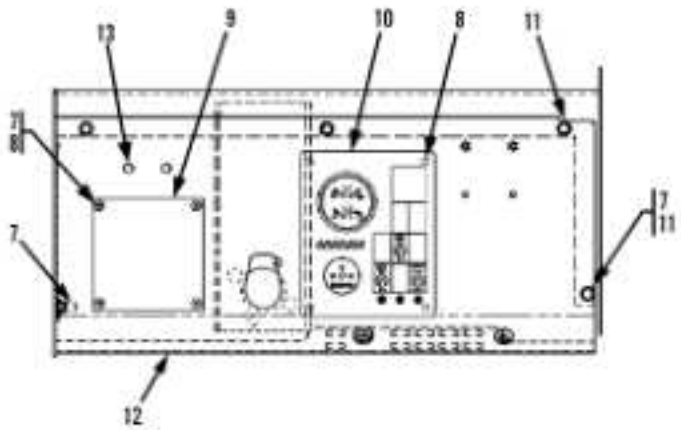


*Changed part number on item 18 and revised art to reflect change.*



MidWestTech | Gradall S34D-6, 534D-6 Turbo Telehandler Parts Manual | Publication 9133... Order the manual at mid-west-tech.com >



| Item | Part No. | Qty. | Description Of Part |
|---|---|---|---|
| 1 | | Ref | DASH HARNESS ASSY (see page 11-3 for details) |
| 2 | 8856-1003 | 1 | FLAT WASHER, 1/2 |
| 3 | | Ref | GAUGE PANEL WIRING HARNESS (see page 11-2 for details) |
| * 4 | | Ref | ENGINE WIRING HARNESS (see page 5-1 for details) |
| 5 | 2486-1170 | 1 | CLAMP |
| 6 | 8832-1029 | 1 | SELF-TAPPING SCREW, #10-24x3/8 |
| 7 | 7714-3006 | 7 | WHIZ-LOC NUT, 5/16-18 |
| 8 | 8826-1022 | 8 | SOCKET BUTTON HD CAPSCREW, 5/16-18x3/4 |
| 9 | 9114-1480 | 1 | COVER |
| 10 | | Ref | GAUGE PANEL ASSY (see page 11-2 for details) |
| 11 | 7714-3003 | 4 | WHIZ-LOC SCREW, 5/16-18x5/8 |
| 12 | 9136-1008 | 1 | DASH PANEL |
| 13 | 9109-3031 | 2 | NYLON HOLE PLUG |



* *Added 534D-6; removed item 4; moved item 14 to item 4 and revised illustration.*



MidWestTech | Gradall S34D-6, 534D-6 Turbo Telehandler Parts Manual | Publication 9133... Order the manual at mid-west-tech.com >