A TEREX COMPANY

Service and Repair Manual

Z-34/22

Bi-Energy Power

Serial Number Range

from Z3414-9686 to Z3416F-11999

from Z34F-12000

This manual includes:
Repair procedures
Fault Codes
Electrical and
Hydraulic Schematics

For detailed maintenance procedures, refer to the appropriate Maintenance Manual for your machine.

Part No. 1268515
Rev A2
September 2016

MidWestTech | Terex Genie Z-34/22 Bi-Energy Power Articulated Boom Lift Service Manual | Publication 1268515

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

Table of Contents

Introduction	**Introduction**	**ii**
	Important Information	ii
	Find a Manual for this Model	ii
	Revision History	iii
	Serial Number Legend	iv
Section 1	**Safety Rules**	**v**
	General Safety Rules	v
Section 2	**Specifications**	**1**
	Machine Specifications	1
	Machine Component Weights	1
	Performance Specifications	2
	Hydraulic Specification	2
	Hydraulic Component Specifications	5
	Manifold Component Specifications	6
	Machine Torque Specifications	6
	Kubota Z482-E Engine Specifications	7
	Generator Specifications	8
	Hydraulic Hose and Fitting Torque Specifications	9
	Torque Procedure	10
	SAE and Metric Fasteners Torque Charts	12

MidWestTech | Terex Genie Z-34/22 Bi-Energy Power Articulated Boom Lift Service Manual... Order the manual at mid-west-tech.com >

Table of Contents

Section 3 **Repair Procedures** **13**

Introduction 13

Platform Controls **15**

1-1 Controllers 15

Boom Function Speed Controller Adjustments 15

1-2 Diodes 17

1-3 Foot Switch 17

1-4 Toggle Switches 18

How to Test a Toggle Switch 18

Platform Components **19**

2-1 Platform Leveling Slave Cylinder 19

How to Remove the Platform Leveling Slave Cylinder 19

How to Bleed the Leveling Slave Cylinder 19

2-2 Platform Rotator 20

How to Remove the Platform Rotator 20

How to Bleed the Platform Rotator 21

2-3 Platform Overload System 22

How to Calibrate the Platform Overload System (if equipped) 22

Jib Boom Components **23**

3-1 Jib Boom 23

How to Remove the Jib Boom 23

3-2 Jib Boom Bell Crank 24

How to Remove the Jib Boom Bell Crank 24

3-3 Jib Boom Lift Cylinder 24

How to Remove the Jib Boom Lift Cylinder 24

MidWestTech | Terex Genie Z-34/22 Bi-Energy Power Articulated Boom Lift Service Manual... Order the manual at mid-west-tech.com >

Table of Contents

Primary Boom Components **26**
4-1 Cable Track 26
How to Repair the Primary Boom Cable Track 26
4-2 Primary Boom 26
How to Shim the Primary Boom 26
How to Remove the Primary Boom 26
How to Disassemble the Primary Boom 28
4-3 Primary Boom Lift Cylinder 29
How to Remove the Primary Boom Lift Cylinder 29
4-4 Primary Boom Extension Cylinder 31
How to Remove the Primary Boom Extension Cylinder 31
4-5 Platform Leveling Master Cylinder 32
How to Remove the Platform Leveling Master Cylinder 32

Secondary Boom Components **34**
5-1 Secondary Boom 35
How to Disassemble the Secondary Boom 35
5-2 Secondary Boom Lift Cylinders 38
How to Remove the Secondary Boom Lift Cylinders 38

Engines **40**
6-1 Timing Adjustment 40
6-2 RPM Adjustment 40
6-3 Engine Drive Pulley 40
How to Remove the Engine Drive Pulley 40
How to Install the Engine Drive Pulley 41
6-4 Coolant Temperature and Oil Pressure Switches 42

MidWestTech | Terex Genie Z-34/22 Bi-Energy Power Articulated Boom Lift Service Manual... Order the manual at mid-west-tech.com >

Specifications

Machine Specifications

Tires and wheels	Industrial
Tire size	9-14.5 LT
Tire ply rating	Tread 6 Sidewall 6
Tire weight, new foam-filled (minimum) (Rough terrain)	175 lbs 79 kg
Overall tire diameter	28 in 71.1 cm
Wheel diameter	14.5 in 36.8 cm
Wheel width	7 in 17.8 cm
Wheel lugs Front Rear	 8 @ 5/8 -18 9 @ 5/8 -18
Lug nut torque, dry	125 ft-lbs 170 Nm
Lug nut torque, lubricated	95 ft-lbs 129 Nm
Tire pressure	100 psi 6.89 bar
Fuel capacities	
Fuel tank	9.3 gallons 35.2 liters
Hydraulic tank	4 gallons 15.1 liters
Hydraulic system (including tank)	6 gallons 22.7 liters
Drive hubs	17 fl oz 503 cc

Drive hub oil type: SAE 90 multipurpose hypoid gear oil API service classification GL5

Machine Component Weights Z-34/22DC and Z-34/22N

Drive motor	64 lbs 29 kg
Torque hub	113 lbs 51 kg
Primary boom assembly (including extension boom)	647 lbs 293 kg
Primary boom cylinder	59 lbs 27 kg
Primary boom extend cylinder	75 lbs 34 kg
Secondary boom linkage	832 lbs 377 kg
Secondary boom cylinder	54 lbs 24 kg
Jib boom assembly	53lbs 24kg
Jib boom cylinder	34 lbs 15 kg
4 ft / 1.5 m platform	99 lbs 45 kg
5 ft / 2.4 m platform	105 lbs 48 kg
Battery 6volt (wet)	88 lbs 48 kg
Battery 6 volt (maintenance free)	105 lbs 48 kg

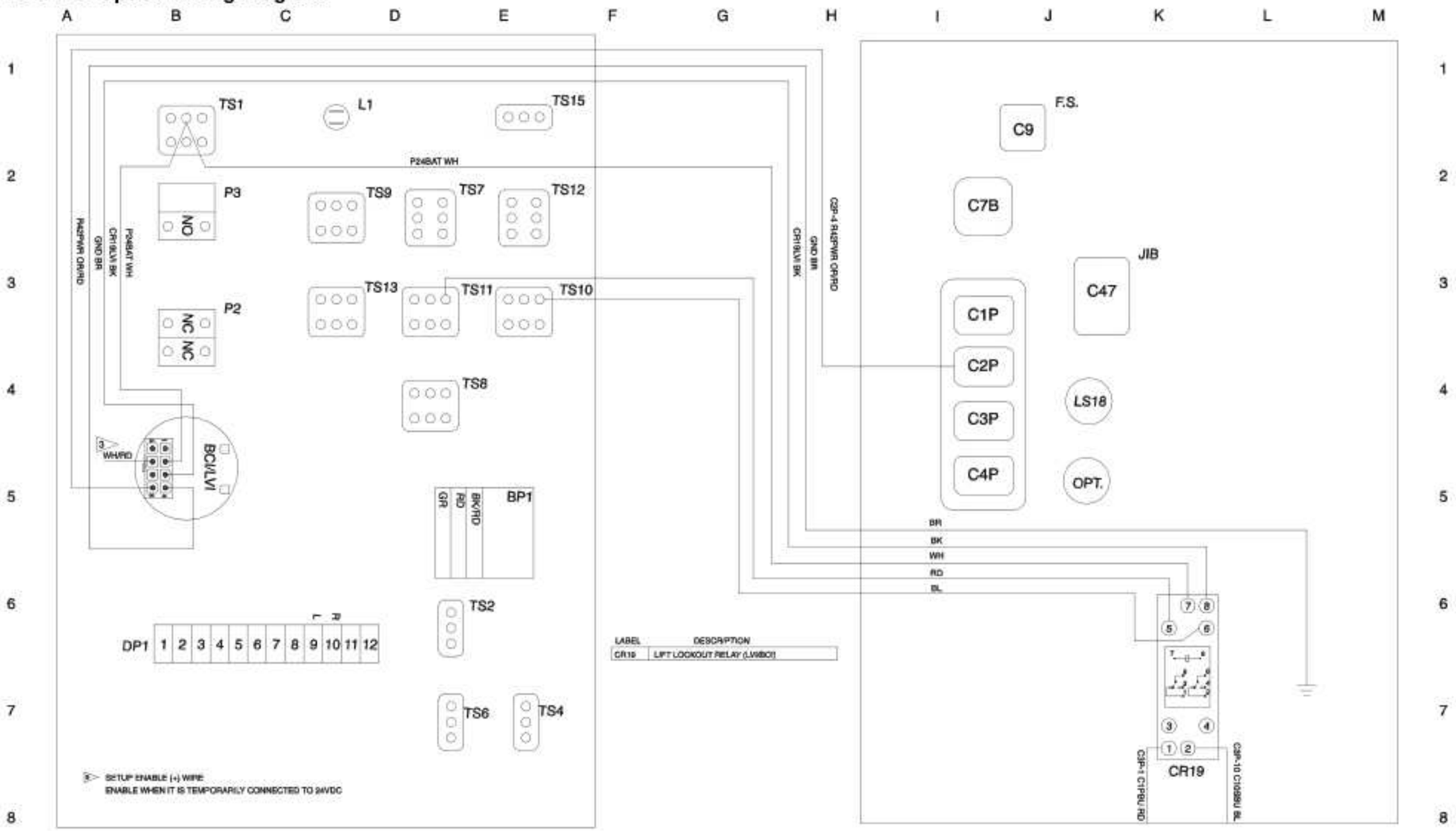
MidWestTech | Terex Genie Z-34/22 Bi-Energy Power Articulated Boom Lift Service Manual... Order the manual at mid-west-tech.com >

Fault Code Chart

Fault Code	Programmer Diagnostic Display	Condition	Possible Causes	Solution
Fault code LED is off or is on, but not blinking	COMMUNICATION ERROR	Machine will not drive.	The key switch or Emergency Stop button(s) was cycled on and off faster than 5 seconds OR controller sensed an internal error during start up.	Push in the ground control red Emergency Stop button to the off position and wait for 5 seconds. Pull out the ground control red Emergency Stop button to the on position. If problem persists, replace the motor controller.
1		Normal operation.		
12	HW FAILSAFE 1-2-3	Machine will not drive.	The motor controller failed self test.	Replace the motor controller.
13	M- SHORTED	Machine will not drive.	The motor controller has a internal short between M- and B- terminals.	Test the motor controller. See Repair Section.
	FIELD OPEN	Machine will not drive.	Motor wiring is loose OR motor is defective OR motor controller has an internal short.	Check for loose or open connections at the drive motors and motor controller OR replace the defective drive motor OR test the motor controller. See Repair Section.
	ARM SENSOR	Machine will not drive.	Defective motor controller.	Replace the motor controller.
	FLD SENSOR	Machine will not drive.	Defective motor controller.	Replace the motor controller.

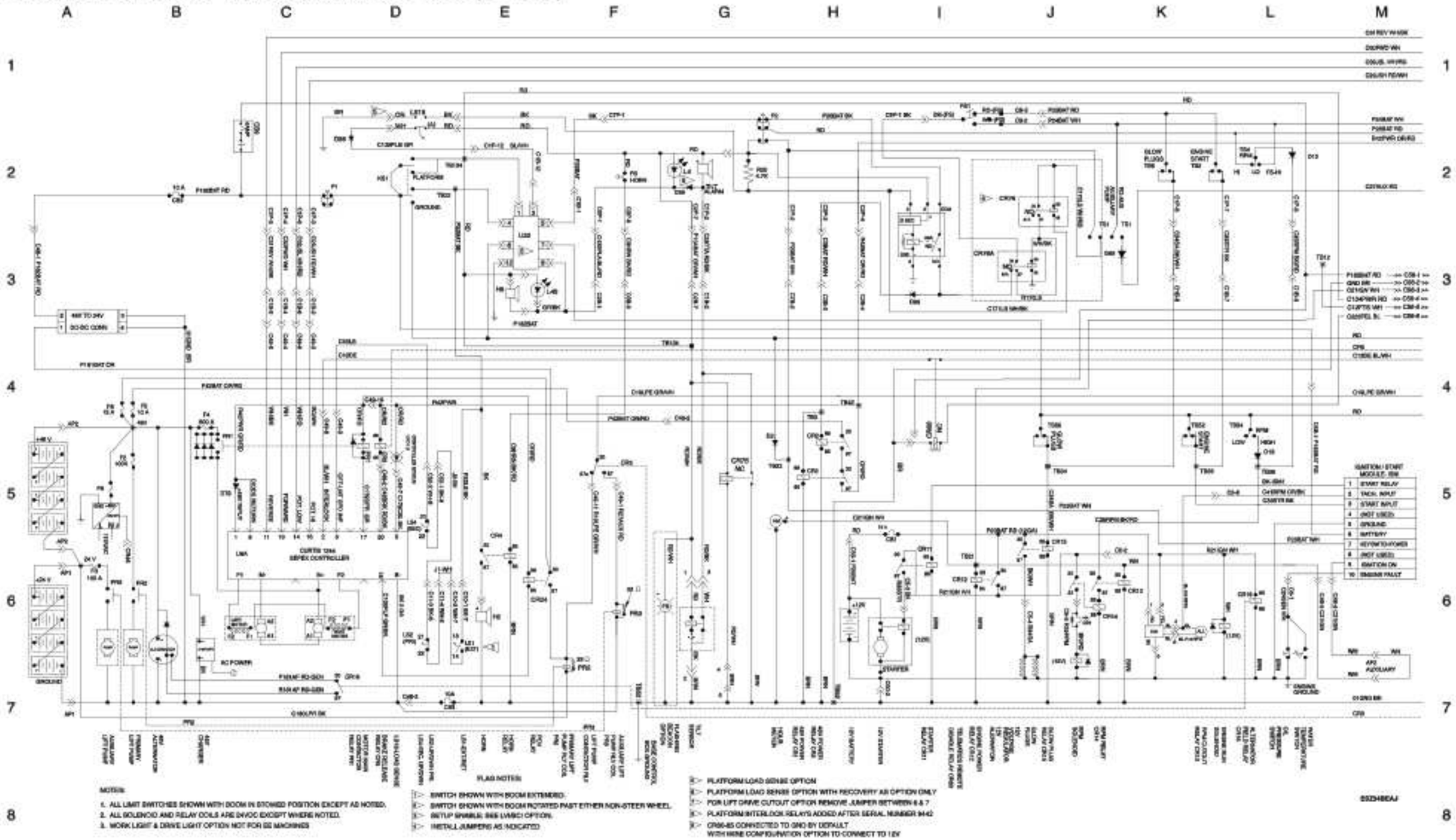
MidWestTech | Terex Genie Z-34/22 Bi-Energy Power Articulated Boom Lift Service Manual... Order the manual at mid-west-tech.com >

LVI / BCI Option Wiring Diagram



MidWestTech | Terex Genie Z-34/22 Bi-Energy Power Articulated Boom Lift Service Manual | Publication 1268515
Order the manual at mid-west-tech.com >

Electrical Schematic - from serial number 9686 (CE / AS)



MidWestTech | Terex Genie Z-34/22 Bi-Energy Power Articulated Boom Lift Service Manual | Publication 1268515 Order the manual at mid-west-tech.com >