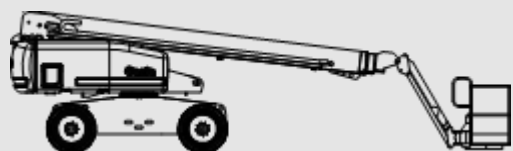
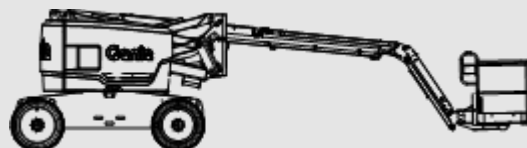


Maintenance Manual - Booms

S[®] Booms



Z[®] Booms



Refer to the inside cover for a list of models included in this manual.

This manual includes detailed procedures for each maintenance inspection.

For Repair procedures, Fault Codes, Electrical and Hydraulic Schematics, refer to the appropriate Service and Repair Manual for your machine.

Original Instructions
Part No. 1268489GT
Rev K
April 2024

Maintenance Procedures



Observe and Obey:

- ☑ Maintenance inspections shall be completed by a person trained and qualified on the maintenance of this machine.
- ☑ Scheduled maintenance inspections shall be completed as specified on the *Maintenance Inspection Reports*. The frequency and extent of periodic examinations and tests may also depend on national regulations.

⚠ WARNING

Failure to perform each procedure as presented and scheduled may cause death, serious injury or substantial damage.

- ☑ Immediately tag and remove from service a damaged or malfunctioning machine.
- ☑ Repair any machine damage or malfunction before operating the machine.
- ☑ Use only Genie approved replacement parts.
- ☑ Machines that have been out of service for a period longer than 3 months must complete the quarterly inspection.

Machine Configuration:

- ☑ Unless otherwise specified, perform each procedure with the machine in the following configuration:
 - Machine parked on a firm, level surface
 - Key switch in the off position with the key removed
 - The red Emergency Stop button in the off position at both the ground and platform controls
 - Wheels chocked
 - All external AC power supply disconnected from the machine
 - Machine in the stowed position
 - Turntable secured with the turntable rotation lock

Maintenance Procedures

About This Section

This section contains detailed procedures for each scheduled maintenance inspection.

Each procedure includes a description, safety warnings and step-by-step instructions.

Symbols Legend



Safety alert symbol—used to alert personnel to potential personal injury hazards. Obey all safety messages that follow this symbol to avoid possible injury or death.



Indicates a imminently hazardous situation which, if not avoided, will result in death or serious injury.



Indicates a potentially hazardous situation which, if not avoided, could result in death or serious injury.



Indicates a potentially hazardous situation which, if not avoided, may cause minor or moderate injury.



Indicates a potentially hazardous situation which, if not avoided, may result in property damage.

- ⦿ Indicates that a specific result is expected after performing a series of steps.
- ⊗ Indicates that an incorrect result has occurred after performing a series of steps.

Maintenance Symbols Legend

Note: The following symbols have been used in this manual to help communicate the intent of the instructions. When one or more of the symbols appear at the beginning of a maintenance procedure, it conveys the meaning below.



Indicates that tools will be required to perform this procedure.



Indicates that new parts will be required to perform this procedure.



Indicates that dealer service will be required to perform this procedure.



Indicates that a cold motor/pump or engine will be required to perform this procedure.



Indicates that a warm engine will be required to perform this procedure.

Maintenance Procedures

Maintenance Schedule

The maintenance procedures have been divided into subsections that include: Commissioning, Quarterly, Annually and Programmed maintenance intervals. The maintenance inspection report has been divided into general areas of the machine that include: Drive Chassis, Booms and Platform, Functions and Controls, Engine and Turntable.

Failure to perform these procedures may result in poor performance, component damage and unsafe operating conditions. They are essential to safe operation, machine performance and service life.

Commissioning: A series of required one time maintenance procedures to be performed at 50 and 150 hour intervals.

Quarterly and Annually: A series of maintenance procedures to be performed quarterly or annually.

Programmed: A series of maintenance procedures to be performed during a Pre-Delivery Preparation or based on machine operating hours.

Maintenance Inspection Report

The maintenance inspection report contains checklists for each type of scheduled inspection.

Make copies of the *Maintenance Inspection Report* to use for each inspection. Maintain completed forms for a minimum of 4 years or in compliance with your employer, jobsite and governmental regulations and requirements.

Instruction Examples

Commissioning Example:

Commissioning		1 50	1 150
2 Engine - all models	3 PO-1	4	4

Quarterly and Annually Example:

6 Drive Chassis	1 Intervals	Q	A
2 Inspect the tires, wheels and Lug Nut Torque	3 Q-4	4	5

Programmed Example (under 1000 HRS):

Programmed Maintenance - Under 1000 HRS		Status	Enter Hours
2 Check Track Tension/Fastener Torque	3 P0-1	4	50
2 Engines - Deutz Under 1000 HRS	3 P0-2	4	7

Programmed Example:

Programmed Maintenance		1 Hours are in thousands	1	2	3	4	6	12
2 Engine - all models, 1000 hrs	3 P1-1	4	0	0	0	0	0	0

Instructions Legend

Use the following detailed descriptions to identify the intended use of the maintenance inspection reports.

- 1 Specific Interval: blank box is the interval to be completed and the Ø marks the interval as not required.
- 2 The description of the procedure or checklist to be completed.
- 3 The procedure number or checklist to be completed.
- 4 Check box to indicate status of inspection.
- 5 Specific interval is not required for this procedure.
- 6 General area of the machine to complete the procedure.
- 7 If this box has a designated time interval: this is the specific time interval to complete the procedure or checklist.

If this box is empty: the maintenance checklist will include multiple time intervals, use this box to write in the specific interval for the inspection completed.

Pre-Delivery Preparation Report

Fundamentals

It is the responsibility of the owner or dealer to perform the Pre-delivery Preparation.

The Pre-delivery Preparation is performed prior to each delivery. The inspection is designed to discover if anything is apparently wrong with a machine before it is put into service.

A damaged or modified machine must never be used. If damage or any variation from factory delivered condition is discovered, the machine must be tagged and removed from service.

Repairs to the machine may only be made by a qualified service technician, according to the manufacturer's specifications.

Scheduled maintenance inspections shall be performed by qualified service technicians, according to the manufacturer's specifications and the requirements listed in the responsibilities manual.

Instructions

Use the operator's manual on your machine.

The Pre-delivery Preparation consists of completing the Pre-operation Inspection, the Maintenance items and the Function Tests.

Use this form to record the results. Place a check in the appropriate box after each part is completed. Follow the instructions in the operator's manual.

If any inspection receives an N, remove the machine from service, repair and re-inspect it. After repair, place a check in the R box.

Legend

Y = yes, acceptable

N = no, remove from service

R = repaired

Comments



Terex South Dakota, Inc USA
500 Oak Wood Road
PO Box 1150
Watertown, SD 57201-6150
(605) 882-4000

Genie UK
The Maltings, Wharf Road
Grantham, Lincolnshire
NG31-6BH England
(44) 1476-584333

Pre-delivery Preparation	Y	N	R
Pre-operation inspection completed			
Maintenance items completed			
Function tests completed			

Model

Serial number

Date

Machine owner

Inspected by (print)

Inspector signature

Inspector title

Inspector company

Scheduled - Quarterly Maintenance Inspection Report – Booms

April 2024

Model		Hour meter		Date	
Serial number		Inspector company		Machine owner	
Inspected by (print)		Inspector signature			
Inspection Type Q = quarterly or frequent inspections		Legend Y = yes, acceptable R = repaired		N = no, remove from service Ø = not applicable Make copies of this report to use for each inspection. Select the appropriate procedures for the type of inspection(s) to perform.	
If any inspection receives an "N," tag and remove the machine from service, repair and re-inspect it. After repair, place a "R" in the box.					
Drive Chassis			✓		
Inspect the Tires, Wheels and Lug Nut Torque		Q-6			
Check the Oscillate Valve Linkage (if equipped)		Q-8			
Confirm the Proper Brake Configuration		Q-20			
Turntable Mechanicals and Hydraulics					
Visual Inspection of the Hydraulic Oil		Q-9			
Inspect the Hydraulic Filters		Q-10			
Electrical					
Inspect Electrical Contactors - DC / Bi-Energy Models		Q-4			
Battery Inspection		Q-2			
Inspect the Electrical Wiring		Q-3			
Engine					
Check the Exhaust System		Q-5			
Check Generator Belts/Pulleys - Bi-Energy Models		Q-7			
Check and Adjust the Engine RPM		Q-11			
Boom(s) and Platform					
Inspect and Adjust Boom Cables - All Models (for first 12 months of ownership)		Q-36			
Functions and Controls			✓		
Check for Open Bulletins and Owner Registration		Q-1			
Test the Ground Control Override		Q-12			
Test the Alarm Package (if equipped)		Q-13			
Test the Emergency Power System		Q-14			
Test the Engine Idle Select Operation		Q-15			
Test Fuel Select Operation - Gas/LPG Models		Q-16			
Inspect the Calibration Decal - ALC1000 Models		Q-17			
Test the Recovery System - ALC-1000 Models		Q-18			
Test the Platform Self-leveling		Q-19			
Functions and Controls, continued			✓		
Test the Drive Brakes		Q-21			
Test the Drive Speed – Stowed Position		Q-22			
Test the Drive Speed – Raised or Extended Position		Q-23			
Test the Drive Speed – Raised and Extended Position - ALC1000 Models		Q-24			
Test the Turntable Level Sensor - Z-135/70, ZX-135/70, SX-105XC, SX-125XC, SX-135XC, SX-150, SX-180		Q-25			
Test the Secondary Boom Angle Sensor - Z-135/70, ZX-135/70		Q-26			
Test the Primary Boom Angle Sensor - Z-135/70 and ZX-135/70		Q-27			
Test the Primary Boom Angle Sensor - SX-105XC, SX-125XC, SX-135XC, SX-150, SX-180		Q-28			
Test the Safety Envelope Limit Switches - Z-135/70, ZX-135/70, SX-105XC, SX-125XC, SX-135XC, SX-150, SX-180		Q-29			
Test the Primary Boom Angle Sensor - Z-80/60		Q-30			
Test the Safety Envelope and Circuits - Z-80/60		Q-31			
Check the Safety Envelope Limit Switches and Angle Sensor - S-60X, S-80X, to S60XCH-45000		Q-32			
Test the Safety Envelope and Circuits - S-100, S-105, S-120, S-125		Q-33			
Test the Aircraft Protection System (if equipped)		Q-34			
Test the Operator Protection Alarm (if equipped)		Q-35			
Test the Recovery System - ALC600 Models		Q-37			
Test the Turntable Level Sensor - ALC600 Models		Q-38			
Test the Primary Boom Angle Sensor - ALC600 Models		Q-39			

Model		Hour meter	Date
Serial number		Inspector company	Machine owner
Inspected by (print)		Inspector signature	
Inspection Type A = annual inspections	Legend Y = yes, acceptable R = repaired	N = no, remove from service Ø = not applicable	Make copies of this report to use for each inspection. Select the appropriate procedures for the type of inspection(s) to perform.

If any inspection receives an "N," tag and remove the machine from service, repair and re-inspect it. After repair, place a "R" in the box.

 Confirm all applicable quarterly maintenance procedures have been included and completed with the annual inspection.	
Drive Chassis	✓
Check the Drive Hub Oil Level A-10	
Check the Drive Hub Mounting Fastener Torque A-11	
Turntable Mechanicals and Hydraulics	
Grease the Turntable Rotation Bearing A-1	
Check Turntable Bearing Bolts A-2	
Inspect for Turntable Bearing Wear A-3	
Boom(s) and Platform	
Jib Rotate Bearing (if equipped) A-4	
Grease the Platform Overload Mechanism A-6	
Inspect Boom Cables - All S-60, S-80 Models A-7	
Inspect Boom Cables - S-100 to S-125, S-100HD, S-120HD, SX-105XC, SX-125XC A-8	
Inspect Boom Cables - SX-135XC, SX-150, SX-180 A-9	
Functions and Controls	
Test the Bypass/Recovery Key Switch A-5	
Engines	
Perform Engine Maintenance - Kubota D1803, Kohler KDW1404 A-12	

 Confirm all applicable quarterly and annual maintenance procedures have been included and completed with the 2 year inspection.	
Perform Every 2 Years	
Engines	✓
Perform Engine Maintenance - Kubota D1803, Kohler KDW1404 A-13	

Programmed Maintenance Inspection Report – Booms

April 2024

Model	Hour meter	Date
Serial number	Inspector company	Machine owner
Inspected by (print)	Inspector signature	
Programmed maintenance will be completed based on machine hours. This program includes the onetime or commissioning procedures for new products. The onetime procedures will be completed at 50 or 150 hours.		Legend Y = yes, acceptable N = no, remove from service R = repaired Ø = not applicable
Make copies of this report to use for each inspection. Select the appropriate procedures for the type of inspection(s) to perform.		
If any inspection receives an "N," tag and remove the machine from service, repair and re-inspect it. After repair, place a "R" in the box.		

Commissioning	50	150
50 Hour Service - all models C-1		Ø
Engines - Ford, Kubota, Perkins Models C-2		Ø
Perform 150 Hour Service C-3	Ø	
Programmed Maintenance - Under 1000 HRS	Status	Enter Hours
Check the Track Tension and Fastener Torque P0-1 - S-60, S-65 and Z-62 Models		50
Check the Track Tension and Fastener Torque P0-2 - S-40 and S-45 Models		50
Grease the Extendable Axles - (if equipped) P0-3		50
Engines - Continental Under 1000 HRS P0-4		
Engines - Cummins Under 1000 HRS P0-5		
Engines - Deutz Under 1000 HRS P0-6		
Engines - Ford Under 1000 HRS P0-7		
Engines - Kubota Under 1000 HRS P0-8		
Engines - Perkins Under 1000 HRS P0-9		
Engines - GM .998L Under 1000 HRS P0-10		
Engines - GM 3.0L Under 1000 HRS P0-11		
Engines - Kohler KDW1404 Under 1000 HRS P0-12		
Engines - Weichai WP3.2 Under 1000 HRS P0-13		

Programmed Maintenance		Hours are in thousands							
All models	Perform every:	1	2	3	4	5	6	10	12
Engines - all models, 1000 Hours P1-1			Ø	Ø	Ø	Ø	Ø	Ø	Ø
Replace the Drive Hub Oil P1-2			Ø	Ø	Ø	Ø	Ø	Ø	Ø
Engines - Kubota D1803, 1500 Hours P1-3			Ø	Ø	Ø	Ø	Ø	Ø	Ø
Engines - all models, 2000 Hours P2-1		Ø		Ø	Ø	Ø	Ø	Ø	Ø
Test or Replace the Hydraulic Oil P2-2		Ø		Ø	Ø	Ø	Ø	Ø	Ø
Replace the Hydraulic Filters P2-3		Ø		Ø	Ø	Ø	Ø	Ø	Ø
Check the Free-wheel Configuration P2-4		Ø		Ø	Ø	Ø	Ø	Ø	Ø
Check the Boom Wear Pads P2-5		Ø		Ø	Ø	Ø	Ø	Ø	Ø
Check the Extendable Axle Wear Pads P2-6		Ø		Ø	Ø	Ø	Ø	Ø	Ø
Check Turntable Gear Backlash - ALC1000 Models P2-7		Ø		Ø	Ø	Ø	Ø	Ø	Ø
Grease the Steer Axle Wheel Bearings, 2WD Models (except Z-62, S-60, S-65) P2-8		Ø		Ø	Ø	Ø	Ø	Ø	Ø
Grease the Steer Axle Wheel Bearings, 2WD Models - Z-62, S-60, S-65 P2-9		Ø		Ø	Ø	Ø	Ø	Ø	Ø
Engines - all models, 3000 Hours P3-1		Ø	Ø		Ø	Ø	Ø	Ø	Ø
Engines - Perkins models, Kohler KDW1404, 4000 Hours P4-1		Ø	Ø	Ø		Ø	Ø	Ø	Ø
Engines - GM models, Kohler KDW1404, 5000 Hours P5-1		Ø	Ø	Ø	Ø		Ø	Ø	Ø
Engines - Perkins models, 6000 Hours P6-1		Ø	Ø	Ø	Ø	Ø		Ø	Ø
Engines - Kohler models, 10000 Hours P10-1		Ø	Ø	Ø	Ø	Ø	Ø		Ø
Engines - Perkins models, 12000 Hours P12-1		Ø	Ø	Ø	Ø	Ø	Ø	Ø	
Remove and Inspect Boom cables P12-2		every 12 years or every 3 years after first 12 years if not replaced							

Commissioning Procedures

C-1 Perform 50 Hour Service



The 50 hour maintenance procedure is a one time sequence of procedures to be performed after the first 50 hours of usage. After this interval, refer to the maintenance inspection report for continued scheduled maintenance.

- 1 Perform the following maintenance procedures:

All Models:

- A-1 Grease the Turntable Rotation Bearing and Rotate Gear
 - A-2 Check the Turntable Rotation Bearing Bolts
 - A-4 Jib Rotate Bearing
(SX-150, SX-180 models)
 - P2-3 Replace the Hydraulic Filters
- The following procedures should be performed in the order shown**
- P1-2 Replace the Drive Hub Oil
 - A-11 Check the Drive Hub Mounting Fastener Torque
 - Q-6 Inspect the Tires, Wheels and Lug Nut Torque

C-2 Perform Engine Maintenance - 50 Hours



The 50 hour maintenance procedure is a one time sequence of procedures to be performed after the first 50 hours of usage. After this interval, refer to the maintenance inspection report for continued scheduled maintenance.

Ford Models

- Oil, coolant, fuel, exhaust and vacuum hoses - check for leaks, damage or deterioration
- Electrical wiring - check for chafing or damage

Kubota Models, Kohler Models

- Engine oil - replace
- Oil filter - replace

GM .998L

- Cylinder head bolts - torque
(40.5 ft-lbs / 55 Nm)
- Valve clearance - check/adjust

Perkins 404F-E22T, 404F-E22TA

- Fan clearance - check

Required maintenance procedures and additional engine information are available in the manufacturer's manuals. Refer to Specifications, *Engine Operator and Maintenance Manuals*.

Commissioning Procedures

C-3

Perform 150 Hour Service



The 150 hour maintenance procedure is a one time sequence of procedures to be performed after the first 150 hours of usage. After this interval, refer to the maintenance tables for continued scheduled maintenance.

- 1 Perform the following maintenance procedures:

Q-9 Visual Inspection of the Hydraulic Oil

Q-10 Inspect the Hydraulic Filters

Programmed Maintenance Procedures

P0-6

Deutz Engine Maintenance – Under 1000 Hours

Additional engine maintenance is required. Refer to the *Programmed Maintenance Inspection Report* for the specific intervals that apply.

Required maintenance procedures and additional engine information are available in the manufacturer's manuals. Refer to Specifications, *Engine Operator and Maintenance Manuals*.

This maintenance schedule applies to the following Deutz Engines:

D2011 L03i TD2011 L04i TD 2.2 L3 TCD 2.2 L3 D 2.9 L4 TD 2.9 L4 D436 L3i CN3

Deutz Engines		Hour Intervals		
Procedure	Ø = Not required	Daily	250	500
Oil level - check			Ø	Ø
Coolant level - check			Ø	Ø
Oil, fuel and coolant systems - check for leaks			Ø	Ø
Fuel system filter/water separator – inspect/drain			Ø	Ø
Air filter discharge valve - clean			Ø	Ø
Exhaust system - inspect			Ø	Ø
Check / clean the oil cooler and cooling fins - D436, D2011, TD2011 models		Ø		Ø
Engine oil and filter – replace, TD2011, TD 2.2, TCD 2.2, TD 2.9 models		Ø	Ø	
Air filter - replace		Ø	Ø	
Valve clearance - check/adjust		Ø	Ø	
Engine coolant - test/add		Ø	Ø	
Air intake pipes - inspect		Ø	Ø	
V-belts - inspect		Ø	Ø	
Fuel filter / separator - replace		Ø	Ø	