

Komatsu HD465-8 and HD605-8 Installation Instructions



Instructions for installing a Graco automatic lubrication system on the Komatsu HD465-8 and HD605-8.

Part No. 17P600

Maximum System Working Pressure: 2750 psi (18.96 MPa, 189.6 bar)



Important Safety Information

Read all warnings and instructions in all Graco related component manuals and all Komatsu equipment manuals. Save all instructions.

Related Graco Component Manuals*

Manual No.	Manual Title
3A3956	Dyna-Star® HP Pump System
3A2960	GLC2200 Controller
308953	Injectors

*Refer to these instruction manuals for additional information related to the installation and operation of system components.

! WARNING



FLUID INJECTION HAZARD

Fluid leaks from incorrectly installed or ruptured components, and/or failure to verify the components are properly installed and tested, can result in serious injury such as fluid spraying in the eyes or on skin and fluid injection, or equipment damage. Installation must be done by a qualified professional or Komatsu certified technician and tested prior to use.

The information contained in this document is only a recommendation for an automatic lubrication system and is not intended to replace the installation and maintenance instructions provided by the original equipment manufacturer.

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Installation Checklist

The following checklist is provided as a tool to ensure all installation procedures are completed.

Completed	Description	Page
	Walk around the truck; use a grease gun to verify that all lube points receive grease.	6
	Grease all zerks, before removal	6
	Remove zerks and Komatsu extensions.	6
	Install grease point fittings	7
	Assemble Injectors	8
	Install remote fill	13
	Assemble the pump and fittings	14
	Install and route pump power cable	16
	Mount GLC2200 Controller bracket assembly	20
	GLC2200 Controller cable routing	23
	Wire the GLC2200 Controller	25
	Wire the pump to the GLC2200 Controller	27
	Program GLC2200 Controller	31
	Install the main feed line	34
	Cut hoses to length, apply hose wraps and fittings	34
	Hose Routing between Injectors and Grease Points. DO NOT CONNECT	37
	Install P-clamps	46
	Fill the pump reservoir with grease; purge the main feed line	48
	Run test program; verify all connections are tight; verify all points are receiving lubricant	51

Recommended Tools and Supplies

Tool	Size/Description	
	US	Metric
Combination wrench*	1/4 in. - 3/4 in.	6 mm - 20 mm
Socket set, standard and deep well with ratchet*	3/8 in. - 3/4 in.	9.5 mm - 20 mm
Screwdrivers: standard and Phillips	1 short; 1 long	
Adjustable wrench	1 small; 1 medium	
Impact wrench		
High speed drill (corded or cordless)		
Drill bit - steel, high quality	5/16 in., 11/16 in.	
Center punch	fine point	
Pipe taper tap	1/8 npt	
Hammer		
Angle grinder		
Grinding disc	Heavy grade grinding disc	
Flap disc	60 - 80 grit	
Cutoff disc	High quality disc	
Cutting blade / knife	Razor blade cutting tool	
Standard pliers		
Needle nose pliers		
Side cut pliers (diagonal cutters)		
Slip joint pliers		
Locking pliers	Small or medium	
Electrician's wire stripper / crimper	General duty wire stripper / crimper	
Soldering iron	30 watt minimum	
Electrical solder		
Soldering flux		
Shrink tubing	Various sizes	
Electrical tape	Black, small roll	
Thread sealant	Liquid thread sealant such as Loctite® 656	
Multi-tester / voltmeter	Must test DC/AC/Ohms	
Electrical connectors	Ring connectors (10, 18 and 24 gauge)	
Tape measure	Standard / metric	
Komatsu primer and paint	Color should match the Komatsu equipment	
Documentation / writing implements	Small note pad, pen, pencil, marker	

*Both US and Metric sizes of these tools are recommended.

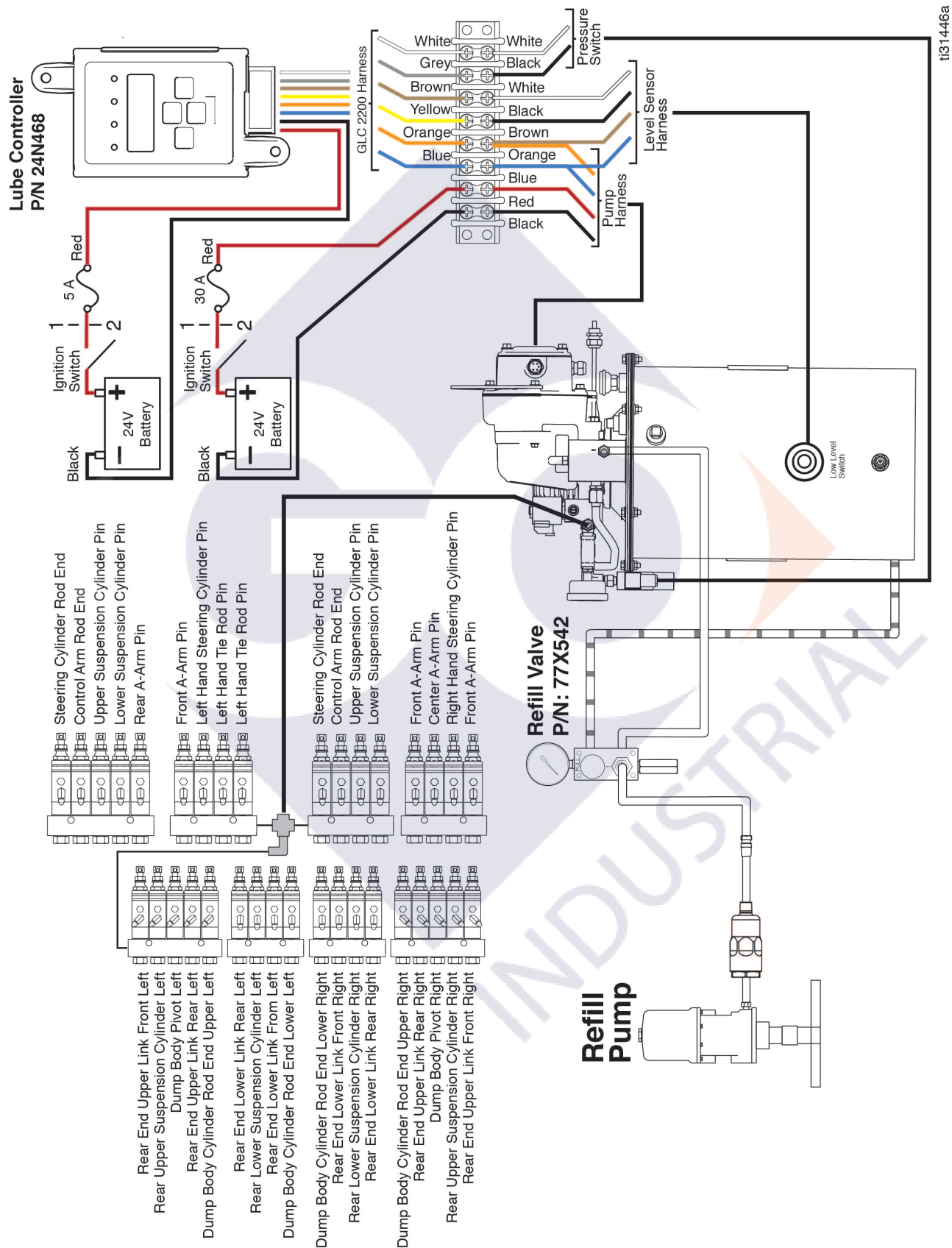
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Installation Notes

- Do not use PTFE tape on fitting threads. Liquid pipe sealant is recommended for use in lubrication systems to eliminate the potential for contamination. If you must use PTFE tape, always skip the first two threads on the fitting.
- Refer to the Installation Checklist provided on page 3 to ensure all installation procedures have been completed.
- Prime and paint all bare metal surfaces prior to installation with matching Komatsu primer and paint.

Typical Installation



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NOTE: Photographs may include optional equipment.

Troubleshooting

NOTE: If the problem is not attributed to the Graco Lubrication System, consult the Komatsu Operations and Maintenance manual or your Komatsu dealer.

Problem	Cause	Solution
Alarm bell is sounding and ER:LL is displayed on the controller	Reservoir is empty	1. Refill reservoir by using the AFSSO fill port on the left hand side of the haul truck. 2. Hold in the button for 3-5 seconds to clean the fault. 3. Run a manual lube event. If the low level alarm engages again, clear the fault and run another manual cycle. NOTE: Several attempts may be required depending on the viscosity and temperature of the grease used.
	Low level sensor is disconnected	Inspect the M12 cable connected to the low level sensor and verify it is connected properly. Clear the fault and run a manual lube cycle.
	Incorrect programming	The low level sensor on the Electric Dyna-Star pump is designed to operate like a sensor similar to a fuel gauge. It will warn when the level is low, but will not stop the pump from operation. The correct setting for the level gauge to operate correctly is LL:03. See Programming the GLC2200 Controller beginning on page 31 for programming instructions.
Nothing is displayed on the controller and it is unresponsive	Blown fuse	Check the fuse in the fuse panel. If the pump received an excessive current draw due to jammed components, using non-recommended lubricants, or system damage, the fuse may have blown and needs to be replaced. Replace the fuse and check the power and ground connections. Run a manual lube event.
	Controller is incorrectly wired	Review the GLC2200 Wiring Table provided on page 26.
Alarm bell is sounding and ER:Cr is displayed on the controller	GLC2200 Controller is programmed incorrectly	See Programming the GLC2200 Controller beginning on page 31 for instructions for programming the GLC2200 Controller to operate in pressure mode.

Problem	Cause	Solution
Alarm bell is sounding and ER:Ti is displayed on the controller	GLC2200 Controller is programmed incorrectly	See Programming the GLC2200 Controller beginning on page 31 for instructions for programming the GLC2200 Controller to operate in pressure mode.
The GLC2200 Controller will not allow programmed time	The hours, minutes, or seconds field is programmed incorrectly	See Programming the GLC2200 Controller beginning on page 31 for instructions for programming the GLC2200 Controller to operate in pressure mode.
Bearings are not receiving enough grease	GLC2200 Off-Time is set too long	Reset the GLC2200 controller Off-Time to a shorter amount of down time between lube events. This will create a lube event more frequently, increasing the amount of grease going to each lubrication point during the day. Alternate Off-Time Settings: 30% more grease: 45 minutes 50% more grease: 40 minutes 100% more grease: 30 minutes See Off-Time setup, page 32.
Broken hose	Hose is old and brittle, was snagged on something, or damaged due to impact	Inspect the broken hose. Verify: - there are no sharp objects or potential abrasion points. - the hose was overstretched due to inadequate length. Consider a different routing path that would prevent future occurrences. The kit comes with extra hoses and fittings. If a replacement hose is needed, use these extra parts to make a replacement or contact your local Graco distributor to order a replacement part. See Hose Assembly instruction on page 34 to assemble a replacement hose. NOTE: Be sure to pre-fill the hose with grease before installation.

Problem	Cause	Solution
Pump is always running	Input source switch is set to wrong position	Remove the back cover panel on the Electric Dyna-Star pump. Verify the SIG-PWR switch is in the SIG position. Reinstall cover.
Pump is unresponsive	Pump or motor control board fault	Remove pump motor control cover and inspect the motor control board. There are two LEDs on the board (green and red). • If the green LED is lit there are no faults. • If there is a blinking red LED count the number of flashes and review the corresponding table on the inside of the control cover. See the Electric Dyna-Star pump manual for additional Troubleshooting instructions. If a solution is not provided additional service may be required. Consult your local Graco distributor or your Komatsu Dealer.

Graco Information



For additional information about these Graco products; including Warnings, Troubleshooting, and Technical Data refer to the Graco instruction manuals included with the equipment or visit the Graco website at www.graco.com to download the latest versions of Graco instruction manuals.