HHNG5 Trowel Series MULTIQUIR Muffler Upgrade Kit Installation Instructions

The following instructions are intended to assist the user in the installation of the Muffler Upgrade Kit. Please read all assembly instructions before installing the kit. This upgrade will improve engine and muffler cooling by relocating the muffler away from the engine compartment.

REQUIRED TOOLS

Open-ended wrenches

PARTS

Verify that all parts are accounted for. See Figure 1 and Table 1. See Table 2 for torque values of kit hardware.

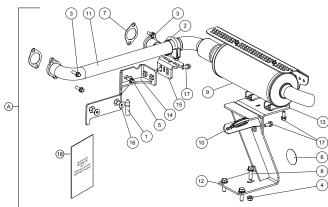


Figure 1. Muffler Upgrade Kit

Table 1. Muffler Upgrade Kit									
Item No.	Part No.	Description	QTY.	Remarks					
A	32677	Kit, Muffler-HHNG5, Service	1	Includes Items 2-19					
1	1477	Loctite® 242 Blue, 0.5 cc	1						
2	10855	Clamp, 1-1/2" Muffler, Guillotine	1						
3	15226	Screw, HHF, M8-1.25 X 25mm	4						
4	21781	Nut, Flanged, 3/8-16 Serrated, PLTD	1						
5	22021	Screw, HHF, 3/8-16 X 1.25" GRD8, YEL, ZINC	1						
6	23810	ISO Decal, Inhalation Hazard, 2" DIA.	1						
7	30111	Gasket, Muffler, B&S V35	2						
8	32476	Screw, HHF, 3/8-16 X 1.25" GRD 8, YEL, ZINC	3						
9	32560	Muffler, HHNG5	1						
10	32603	Clamp, Cushioned, U-Bolt, 1.00" Tube	1						
11	32649	Header Pipe, Muffler, HHNG5	1						
12	32739	Mount, W/A Muffler-Bottom	1						
13	32741	Mount, W/A Muffler-Top	1						
14	32765	Bracket, W/A, Front Muffler	1						
15	32768	Gusset, W/A, Front Top Muffler	1						
16	32793	Screw, F4SC 7/16-14 X 3/4"	2						
17	36720	Screw, HHFS, 5/16-18 X 3/4", GR5	10						
18	32011	Instructions, Muffler Upgrade Kit	1						

Table 2. Suggested Assembly Torque Values									
	SAE GRADE 2-6	SAE GRADE 5	SAE GRADE 8						
Diameter & Threads Per Inch	Dry FT-LBS.	Dry FT-LBS.	Dry FT-LBS.						
1/4-20	5.5	8	12						
1/4-28	6.3	10	14						
5/16-18	11	17	24						
5/16-24	12	19	27						
3/8-16	20	30	45						
3/18-24	23	35	50						

WORK SAFELY!

Only a **qualified service technician** with proper training should perform this installation. Follow all shop safety rules when performing this installation.

PREPARATION

- 1. Make sure trowel is turned off and engine is cool.
- 2. Place the trowel in an area free of dirt and debris.
- 3. Disconnect negative battery cable from the battery.

OLD MUFFLER REMOVAL

1. Uninstall the old muffler by removing the six bolts (Figure 2) holding the muffler on.



Figure 2. Old Muffler Removal

NEW MUFFLER INSTALLATION

Install the new header pipe (11) and the two new gaskets (7) using the four HHF M8-1.25 X 25mm screws (3). Torque the screws to 12.5 ft-lbs. (16.95 N•m). See Figure 3.

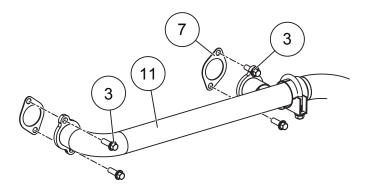


Figure 3. Header Pipe Installation

 Mount Bracket W/A Front Muffler (14) to engine crankcase side cover using the F4SC 7/16-14 X 3/4" screws (16) and HHF 3/8-16 x 1.25" GRD 8, YEL, ZINC screw (5) to the engine crankcase side cover. Make sure to apply Loctite[®] 242, Blue (1) prior to installation. Torque the the screws to 37 ft-lbs. (50.17 N•m). See Figure 4.

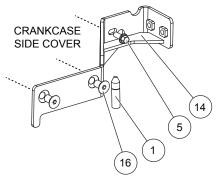


Figure 4. Welded Front Muffler Installation

3. Using two screws (17), install the gusset front top muffler (15) to the bracket front muffler (14). Do not tighten the screws at this time as gusset will be adjusted later. See Figure 5.

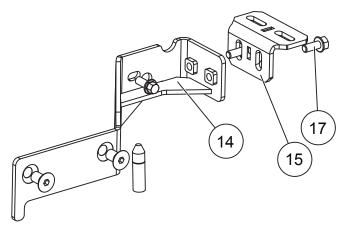


Figure 5. Gusset Front Top Muffler Installation

 Header pipe (11) should rest on bracket front muffler (14) with the U-bolt clamp (2) going through the gusset front top muffler (15). Hand tighten the nuts (A) for the U-bolts at this time. See Figure 6.

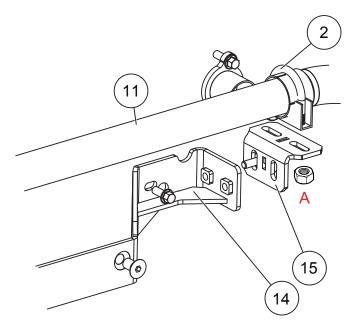


Figure 6. Secure Header Pipe to Front Muffler Bracket

- 5. From the machine's main frame, remove the two 3/8-16 X 1/4" bolts. See Figure 7.
- 6. Using the muffler mount bottom as a template, mount to the main frame using the HHF 3/8-16 X 1.25" screws. See Figure 7.

7. Mark to drill for the third hole. Remove the muffler mount bottom and drill a new hole. See Figure 7.

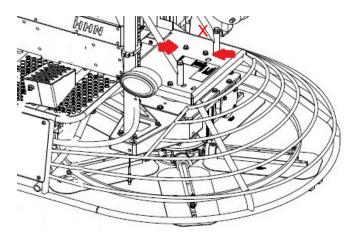


Figure 7. Muffler Mount Drilling

- Install the muffler mount top (13) to the muffler mount bottom (12) togther with HHFS 5/16-18 X 3/4" screws (17). See Figure 8.
- 9. Mount the muffler mount bracket to the main frame using the HHFS 3/8-16 X 1.25" screws (8) and 3/8-16 flanged nut (4). Hand tighten all the screws and nuts at the same time. See Figure 8.

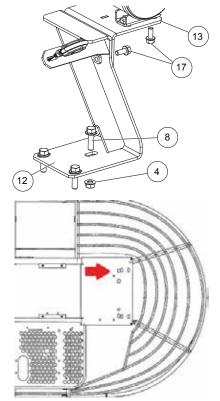


Figure 8. Muffler Mount Top To Bottom Installation

10. Install the clamp vib. 1" tube U-bolt (10) around the machine's frame support tube (B). Hand tighten the nuts at this time. See Figure 9.

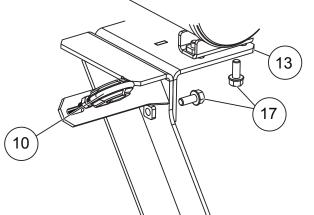




Figure 9. Muffler Vibration Clamp Installation

- Mount and install the new muffler (9) on the muffler mount bracket using HHF 5/16-18 X 3/4" GR5 screws (17). See Figure 10.
- 12. Slide the muffler guillotine 1-1/2" clamp (2) over the muffler's mating pipe and secure it in place by tightening the nuts. See Figure 10.
- 13. Apply Loctite[®] 242, Blue on all the threads and tighten all the nuts and bolts according to torque specifications shown in Table 2.

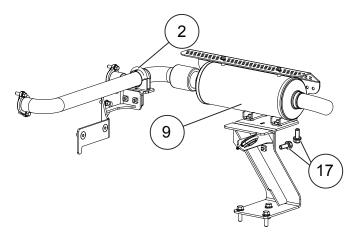


Figure 10. Muffler To The Mount Bracket

14. Newly installed muffler as shown in Figure 11.



Figure 11. New Muffler Installed 15. Reconnect the battery cables on the machine.

NOTES



HERE'S HOW TO GET HELP

PLEASE HAVE THE MODEL AND SERIAL NUMBER ON-HAND WHEN CALLING

UNITED STATES							
Multiquip Corporate Office		MQ Parts Department					
18910 Wilmington Ave. Carson, CA 90746 Contact: mq@multiquip.com	Tel. (800) 421-1244 Fax (310) 537-3927		800-427-1244 310-537-3700		800-672-7877 310-637-3284		
Service Department		Warranty Department					
800-421-1244 Fax: 310 310-537-3700		37-4259	800-421-1244 310-537-3700	Fax: 3	310-943-2249		
Technical Assistance							
800-478-1244	Fax: 310-94	3-2238					
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Multiquip			Multiquip (UK) Limited Head Office				
4110 Industriel Boul. Laval, Quebec, Canada H7L 6 Contact: infocanda@multiquip.		Tel: (450) 625-2244 Tel: (877) 963-4411 Fax: (450) 625-8664	, ,		Tel: 0161 339 2223 Fax: 0161 339 3226		

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