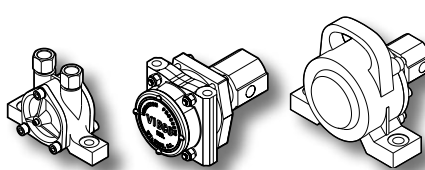




VIBCO INSTRUCTION MANUAL



B & H Series Hydraulic Vibrators

WARNING: Failure to read and follow these installation instructions and safety precautions could result in personal injury, equipment damage, shortened service life or unsatisfactory equipment performance. All information in this document is vital to the proper installation and operation of the equipment. It is important that all personnel who will be coming in contact with this product thoroughly read and understand this manual.

1 START THANK YOU FOR CHOOSING A VIBCO VIBRATOR!



2 MOUNTING CHECKLIST

- Determine vibrator placement on equipment.
- Determine length of channel iron and style of mounting plate.
- STITCH** welding mounting plate to channel iron.
- STITCH** weld channel iron & mounting plate combo to bin.
- Attach vibrator to mounting plate. Check the mounting plate for warping & shim if necessary. **DO NOT OVER TIGHTEN THE BOLTS.**
- Install safety chain or cable.
- Connect hydraulics for vibrator using the ASME & SAE Standards.
- FILL OUT WARRANTY CARD AND MAIL TO VIBCO!!!!**



ADDITIONAL DETAILS AVAILABLE ONLINE AT www.vibco.com

3 TECHNICAL DATA

Hydraulic Models	Weight lbs.	Weight kg.	Avg. PSI	Speed VPM	GPM (max)	Force lbs.	Force N	dB
HF-800	37	17	600	5000	3.2	1300	5784	72
HF-1200	38	17.4	800	4500	2.9	1900	8452	74
HF-1500	39	17.7	900	4000	2.6	2000	8898	76
HF-HC-3500	51	23	1200	3500	2.4	3500	15600	80
HL-3000	39	17.7	1000	5000	3.2	3400	15124	76
HLF-700	14	6.5	900	9000	2.8	700	3110	72
HLF-1300	20	9.07	1000	9000	2.8	1300	5780	72
HLF-1750	33	14.9	1200	4000	2.6	2300	10200	74
HLF-3500	35	15.8	1200	3500	2.5	3500	15600	76
HLF-5000	44	97	1500	3500	2.4	5000	22250	76

DO NOT EXCEED MAXIMUM FLOW RATE FOR ANY MODEL

Hydraulic Models	Weight lbs.	Weight kg.	600 PSI			800 PSI			1000 PSI					
			Speed VPM	GPM	Force lbs.	Speed VPM	GPM	Force lbs.	Speed VPM	GPM (max)	Force lbs.			
B-190	1	.453	4600	4.5	189	891	6100	4.8	332	77	7400	6.5	488	221
B-250	2	.907	4200	4.5	280	1246	5000	4.8	397	1766	5800	6.5	534	242
B-320	3 1/2	1.6	3700	5	301	1339	4500	6	445	1980	5300	7	617	280

4 PLATE & CHANNEL SELECTION

VIBRATOR FORCE in LBS	MNTNG PLATE THICKNESS	CHANNEL IRON SIZE	FACTOR A	BIN WALL THICKNESS	FACTOR B	FACTOR A + B	USE CH. IRON LENGTH
101 - 500	1/4" - 3/8"	3" x 4.1 lbs 3" x 5 lbs	2	1/8" (10 ga.) or less	6	11	N/A
501 - 1200	1/2"	4" x 5.4 lbs 4" x 7.5 lbs	3	1/8" - 1/4"	5	9	6 - 8 FT. (80 - 90%)
1201 - 3000	5/8"	6" x 8.2 lbs / 6" x 10.5 lbs	4	1/4" - 3/8"	4	8	5 - 7 FT. (70 - 80%)
3001 - 5000	3/4" - 1"	6" x 8.2 lbs / 6" x 10.5 lbs 8" x 8.5 lbs / 8" x 11.5 lbs	5	3/8" - 1/2"	3	7	4 - 6 FT. (60 - 70%)
				1/2" & up	2	6	3 - 5 FT. (50 - 60%)
						5	2 - 4 FT. (50 - 60%)
						4	1 - 2 FT. (50 - 60%)
						3	N/A

NOTE:

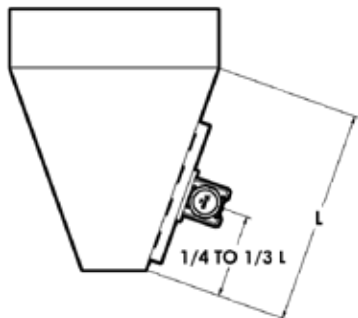
- Longer channel iron will not affect vibrator performance, but total channel length should not exceed length of bin wall.
- Percentages shown indicate % of bin wall height your channel iron should be for shorter bins.
- To match your vibrator on chart above, model number suffixes generally correspond to pounds of force generated. See chart in section 3.

MOUNTING PLATES, CHANNEL IRON & ACCESSORIES AVAILABLE FROM VIBCO OR LOCAL DEALER

5 VIBRATOR PLACEMENT

For coarse materials: mount vibrator 1/3 of the distance from the discharge opening to the top of the sloped portion of the bin.

For fine materials: mount vibrator 1/4 of the distance from the discharge to the top of the sloped portion of the bin.

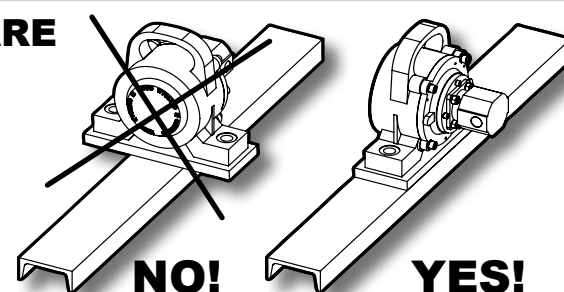
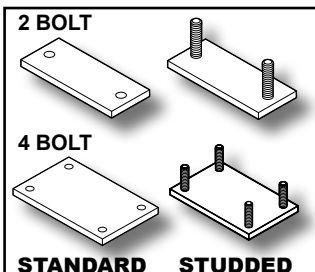


FOR ALTERNATE MOUNTS: refer to full detail instruction manual online at www.vibco.com or call 800-633-0032

6 MOUNTING HARDWARE

A MOUNTING PLATE MUST BE USED to ensure proper stability for the vibrator.

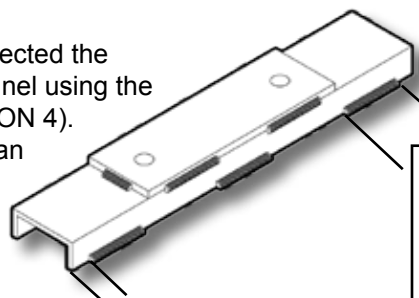
Always start & stop welds 1 in. from ends to prevent heat concentration. Then weld 2 to 3 inches, skip 1 to 2 inches and repeat until the plate is securely mounted.



MOUNTING PLATE MUST BE MOUNTED PARALLEL TO CHANNEL IRON, NOT PERPENDICULAR. OTHERWISE, IT WILL CAUSE FLEXING & DAMAGE THE UNIT OR EQUIPMENT IT IS MOUNTED TO.

7 STITCH WELD MOUNTING

Be sure you have selected the proper length of channel using the tables above (SECTION 4). Improper mounting can result in failure of unit or damage to equipment.



STITCH WELDS SHOULD BE 3" - 6" LONG LEAVING 3" (7.5cm) BETWEEN EACH WELD

STITCH WELDS SHOULD START & STOP 1" (2.5cm) FROM BOTH ENDS OF CHANNEL TO PREVENT CRACKING

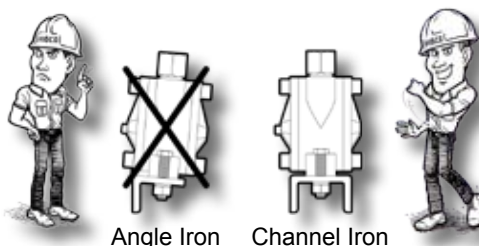
DO NOT MOUNT VIBRATOR DIRECTLY TO SURFACE OF THE BIN !!!
Always use mounting plate & channel iron

8 BOLTING PROCEDURE

GRADE 5 BOLT SIZE	MAX TORQUE ft-lbs
1/4"	9
5/16"	18
3/8"	32
1/2"	78
5/8"	160
3/4"	260
1"	580
1-1/4"	1105

For other bolt grades, please consult VIBCO.

Check mounting bolts every 200 hours.



DAMAGE TO THE BIN OR THE VIBRATOR WILL OCCUR IF NOT MOUNTED SECURELY!

9 RESTRAINT



ALWAYS INSTALL SAFETY CABLE or CHAIN

Mount one end to the vibrator and the other to the hopper or bin **above** the vibrator **NEVER ATTACH TO THE MOUNTING PLATE!**

10 HYDRAULIC CONNECTION B-SERIES

- Coat all fittings with sealing compound and secure hydraulic hoses to inlet & outlet sides of motor as marked by directional arrows.
- Hook up ball valve on inlet side and check valve on outlet side to reservoir.
- Check & tighten all fittings & connections before test running vibrator.
- Hydraulic system **MUST** have a filtration system & oil is industrial petroleum-based oil, SAE 10 to 30, with wear oxidation and foaming inhibitors, and a viscosity of 200 SSU.

MAXIMUM OIL TEMP. 150°F (65°C)

FLOW CONTROL VALVE MUST be located on inlet side of motor

CHECK VALVE MUST be located 16" - 24" (400mm-600mm) away from motor on outlet line side

DO NOT OVER TIGHTEN HYDRAULIC HOSE FITTINGS

FROM HYDRAULIC PUMP

TO RESERVOIR

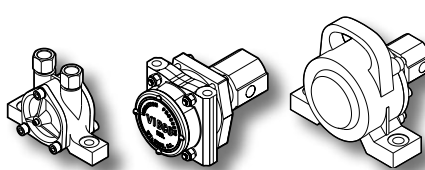
MODEL NUMBER	THREAD SIZE	
	INLET	OUTLET
B-190	3/8" - NPT	3/8" - NPT
B-250	1/2" - NPT	1/2" - NPT
B-320	1/2" - NPT	1/2" - NPT

RETURN LINE
Return line must be connected back to the oil reservoir and NOT to any line under pressure

ATTENTION: WHEN HOOKING UP MULTIPLE UNITS YOU MUST SUPPLY INDEPENDENT HYDRAULIC LINES. UNITS WILL NOT RUN TO FULL SPECIFICATIONS & MAY FAIL WHEN INSTALLED IN SEQUENCE.



VIBCO INSTRUCTION MANUAL

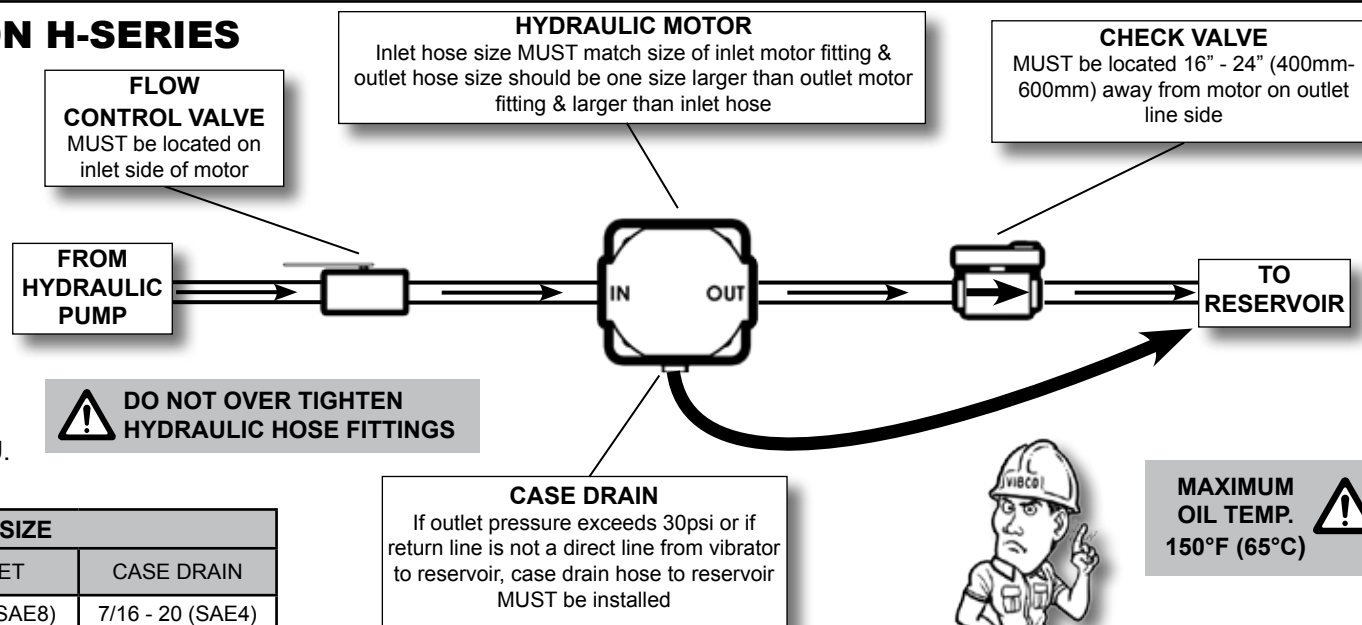


B & H Series Hydraulic Vibrators

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11 HYDRAULIC CONNECTION H-SERIES

1. Coat all fittings with sealing compound and secure hydraulic hoses to inlet & outlet sides of motor as marked by directional arrows.
2. Hook up flow valve on inlet side, check valve on outlet side & case drain hose back to reservoir.
3. Check & tighten all fittings & connections before test running vibrator.
4. Hydraulic system MUST have a filtration system & oil is industrial petroleum-based oil, SAE 10 to 30, with wear, oxidation and foaming inhibitors, and a viscosity of 200 SSU.



MODEL NUMBER	THREAD SIZE		
	INLET	OUTLET	CASE DRAIN
HF-800, 1200, 1500	3/4 - 16 (SAE8)	3/4 - 16 (SAE8)	7/16 - 20 (SAE4)
HLF-700, 1300	9/16 - 18 (SAE6)	9/16 - 18 (SAE6)	7/16 - 20 (SAE4)
HF-HC-HLF-1750, 3500, 5000 & HL-3000	3/4 - 16 (SAE8)	3/4 - 16 (SAE8)	7/16 - 20 (SAE4)

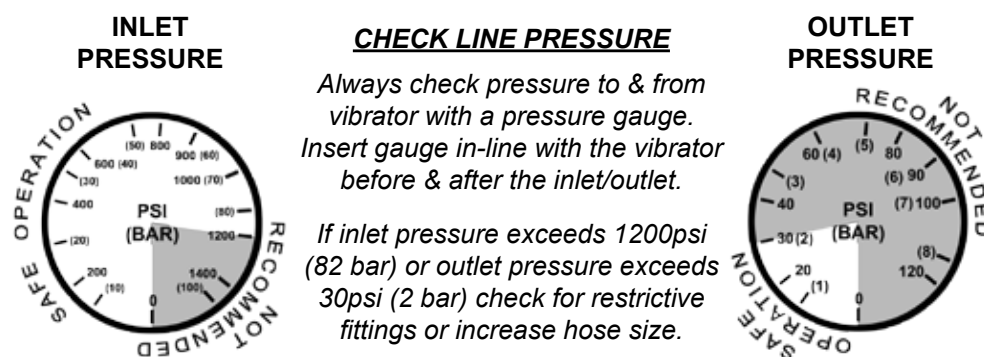
ATTENTION: WHEN HOOKING UP MULTIPLE UNITS YOU MUST HOOK UP THE CASE DRAIN HYDRAULIC LINE. UNITS WILL BECOME DAMAGED IF RUN IN SEQUENCE WITHOUT A CASE DRAIN HOOK UP BACK TO THE RESERVOIR.

ADDITIONAL DETAILS AVAILABLE ONLINE AT www.vibco.com

12 INITIAL START UP



1. Be sure steps 1-11 are complete before starting vibrator. Missing a step can cause vibrator failure & void warranty.
2. Always check pressure to & from vibrator with a pressure gauge. If inlet pressure exceeds 1200psi (82 bar) or outlet pressure exceeds 30psi (2 bar) check for restrictive fittings or increase hose size. Be sure case drain is hooked up as a return to reservoir. For Model's B outlet should be directly connected to the oil reservoir and carry NO back pressure.
3. Do a quick inspection of hydraulic oil. If dark or thick, replace with new oil.
4. Inspect structure for cracks or fatigue and repair if any are found.
5. Run unit for 5-10 seconds & check all fittings for leaks.



WARNING! HYDRAULIC OIL UNDER PRESSURE CAN PENETRATE SKIN AND RESULT IN INJECTION POISONING. IF OIL PENETRATES SKIN CONSULT WITH A DOCTOR IMMEDIATELY!

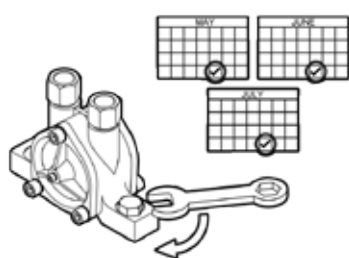
13 MAINTENANCE

Check tightness of mounting bolts every 200 hours or every month of operation.

Check tightness of all hydraulic hoses and connections.

Inspect hydraulic oil on a periodic basis. If dark or thick replace with new oil.

Check structure for cracking or fatiguing. If found, repair before running unit. Call VIBCO for instructions to repair fatigue cracking.



14 TROUBLESHOOTING

LEAKING OIL?

1. Check tightness of all hydraulic fittings.
2. Be sure the check valve is installed in the proper direction with the flow of hydraulic oil.
3. Check outlet line pressure (panel 12). If outlet line pressure is over 30psi case drain hose to reservoir MUST be installed.
4. End cover leaks on B-Series vibrator is a result of high oil pressure. Check castings for cracks & contact VIBCO immediately.
5. If shaft seals are leaking on H-Series vibrator contact VIBCO for replacement kit & instructions. Shaft seal failure is due to excessive back pressure & case drain MUST be installed.

Warranty

All warranty claims must be submitted to VIBCO for approval prior to any repairs being done. Failure to do so will void any and all warranty coverage. All repairs will be done at the VIBCO factory.

Errors, Shortages & Complaints

Complaints concerning goods received or errors should be made at once. Claims must be made within five days after receipt of goods. Clerical errors are subject to correction. Damage during shipping must be reported to the carrier, not VIBCO.

Returning Parts **

Parts should not be returned to VIBCO without prior authorization. Call VIBCO's customer service department at 800-633-0032 (800-465-9709 in Canada) for a Return Goods Authorization (RGA) number. A return authorization will be emailed or faxed to you. Use this as your packing slip. Return shipping must be prepaid. Material returned may be subject to a 10% restocking fee. All returned shipments should clearly display your name, address and original invoice number to ensure proper credit.

** Orders for custom equipment built to customer's specifications are not returnable.

Product Changes

VIBCO reserves the right to make changes in pattern, design or materials when deemed necessary, without prior notice or obligation to make corresponding changes in previous models. To be sure of exact mounting dimensions, it is recommended that you obtain a certified dimensional drawing from the factory.

Ordering Spare Parts

Parts can be ordered through authorized distributors or from VIBCO's Spare Parts Department. The following data should be provided when placing your spare parts order:
From label: Model number of unit.
From spare parts list: Reference number, part number, description & quantity required.
Shipping instructions: Specify shipping point and method of shipping.

For custom mounting applications or any other questions:

800-633-0032

or

vibrators@vibco.com

