

CP-2190 CONCRETE VIBRATOR

UTICA PNEUMATIC 613

FIRST EDITION
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**WARNING - TO REDUCE RISK OF INJURY,
READ AND UNDERSTAND THIS INSTRUCTION
MANUAL BEFORE OPERATING TOOL.**

Instruction and Parts Book for PNEUMATIC CONCRETE VIBRATOR

CP-2190 CONCRETE VIBRATOR

Models "A" & "A-0"



**Chicago
Pneumatic**

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GENERAL INSTRUCTIONS

Air Supply

For satisfactory performance, 90 psi of clean, dry air is required AT THE VIBRATOR with vibrator operating. Supply hose between tool and compressor should be 1" hose size or larger, used with couplings of a minimum 7/8 I.D. Small, portable compressors without after-coolers should be blown down frequently in hot, humid weather.

Operating Cautions

Do not use Vibrator to vibrate concrete buckets or similar steel where there is solid metal to metal contact. Do not use to open gates of concrete buckets. Make sure hose connections are securely locked before admitting live air to vibrator.

Preparing for Operation

Daily, before connecting vibrator to air hose, blow down air line to clear it of accumulated dirt and moisture. Pour about one ounce of recommended oil into air inlet and operate to allow oil to reach interior of tool.

Lubrication

Daily, before using and after each eight hours service, pour about one ounce of recommended oil into air inlet and operate tool to allow oil to reach moving parts. The two ounce line oiler (141) should be installed in the air line between air strainer (210) and intake hose (30) and regularly inspected and filled to provide constant and adequate lubrication to the vibrator.

Recommended Lubricants

CHICAGO PNEUMATIC Airoilene Oil which contains moisture absorbent, rust inhibiting additives and will not separate while the tool is idle, is recommended for use with this tool and may be purchased under the following symbols:

1 gal. can	P-089507
5 gal. can	P-089508

If recommended oil is not available, use a turbine or spindle grade oil with a viscosity of 100-150 SUS at 100°F. which contains a rust inhibitor.

Loss of Power/Erratic Action

Motor failure, loss of power or erratic action may be caused by factors outside the tool. Make the following checks:

1. Check air pressure. For rated performance, 90 psi air pressure is required AT THE TOOL with tool operating. A drop in air pressure may be caused by lowered compressor output, excessive drain on the air line or by the use of hose or connections of improper size or in poor condition.
2. Check for wet or dirty air. Wet air tends to wash lubricant away from moving parts and to rust and corrode the interior of the tool. Dirt and foreign matter in the air supply will impede action of blades and eccentric weight and cause damage to the tool.

If above are in order:

1. Check air strainer (210); thoroughly clean and inspect screen (215). Replace if broken or distorted.
2. Check lubrication. Pour a liberal quantity of recommended oil cut with an equal amount of kerosene into inlet hose and operate vibrator slowly to flush out gum and foreign matter. Bump nose of vibrator on a block of wood to start, if necessary.
3. Disassemble tool and check blades (62); replace if worn or distorted.

Disassembly/Assembly Cautions

To disassemble vibrator, first remove lock wire (203) and four screws (201) from swivel collar (207). Next clamp shell (32) carefully in a chain vise, holding shell close to the end cap (42) to avoid distorting thinner portion of shell wall. Remove end cap from shell - LEFT HAND THREAD. Use C - 106456 bumping block and jar assembled shaft and weight (60) from shell. Remove locknuts (56) and remove end plates (58, 65) - Press Fit - remove weight and blades (62).

Thoroughly clean and inspect eccentric assembly. Be sure old blades or replacement blades are a free, sliding fit in slot of eccentric shaft.

When assembling Vibrator, first key upper end plate (58) to eccentric shaft - Press Fit - making sure "Locknut Side" of end plate is OUTWARD and tighten a NEW locknut (56) snug plus 1/8 turn*. Assemble blades in shaft with slots down and in shaft as shown in Figure 1.

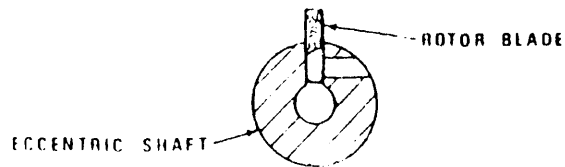


Figure 1.

After placing eccentric weight (60) on shaft, key lower end plate (65) on shaft - Press Fit - making sure "Locknut Side" of end plate is OUTWARD and tighten a NEW locknut (56) snug plus 1/8 turn*. Check clearance between eccentric weight and end plates, repair assemblies should have .004"-.007" clearance.

CAUTION: Check part numbers to be sure C-105372 upper end plate and C-105371 lower end plate are assembled correctly as shown in tool drawing on pg. 4. Lower end plate is slightly smaller in diameter than upper end plate, and tool cannot be assembled if they are reversed.

Heat shell (32) moderately to expand the bore and drive eccentric assembly into shell until it bottoms firmly. Note that flats in end plates must be carefully aligned with flats in interior of shell.

*C-110738 Socket, See Page 4.

Pull live air hose (208) through end cap (42) and clamp to end of eccentric shaft. Holding shell in a chain vise, screw end cap into shell as tightly as possible - LEFT HAND THREAD.

After assembling end cap, if a new exhaust hose is required, force hose on cap. Leave at least 3/4" of hose for lower hose clamp (136) and assemble upper clamp first. As upper clamp is tightened, hose flows downward, leaving additional space for lower clamp.

Fasten swivel collar (207) to inlet using four screws (201) and lock wire (203).

DAILY LUBRICATION, OPERATION, AND MAINTENANCE INSTRUCTIONS important

CP-2190 Concrete Vibrators are constructed of precision built parts designed to operate at close clearances and in perfect alignment. Use reasonable care in disassembly and assembly and observe the following instructions to maintain the tool for many hours of trouble free service.

Air Supply & Lubrication

Follow the instructions on Page 2 under "Preparing For Operation" and "Lubrication" before operating Vibrator. It is important to blow down and clear the air line to avoid getting dirt and water into the motor and it is very important to lubricate the Vibrator ADEQUATELY with the RIGHT KIND of oil. Some SAE #5 Non-Detergent oils meet the requirements listed under "Recommended Lubricants" and are recommended. Specific recommended oils include Shell Tellus #23, Non-Fluid Oil Co's. #88 NR and Mobil Oil Co's. Aimo #1.

Oiler Adjustment

The pulsating type oiler supplies oil to the air line as line pressure fluctuates. The oiler is preset at the factory to deliver a flow of one (1) drop per minute.

If necessary, flow can be increased by turning pipe plug (219) CLOCKWISE to reduce flow or CONTER-CLOCKWISE to increase flow.

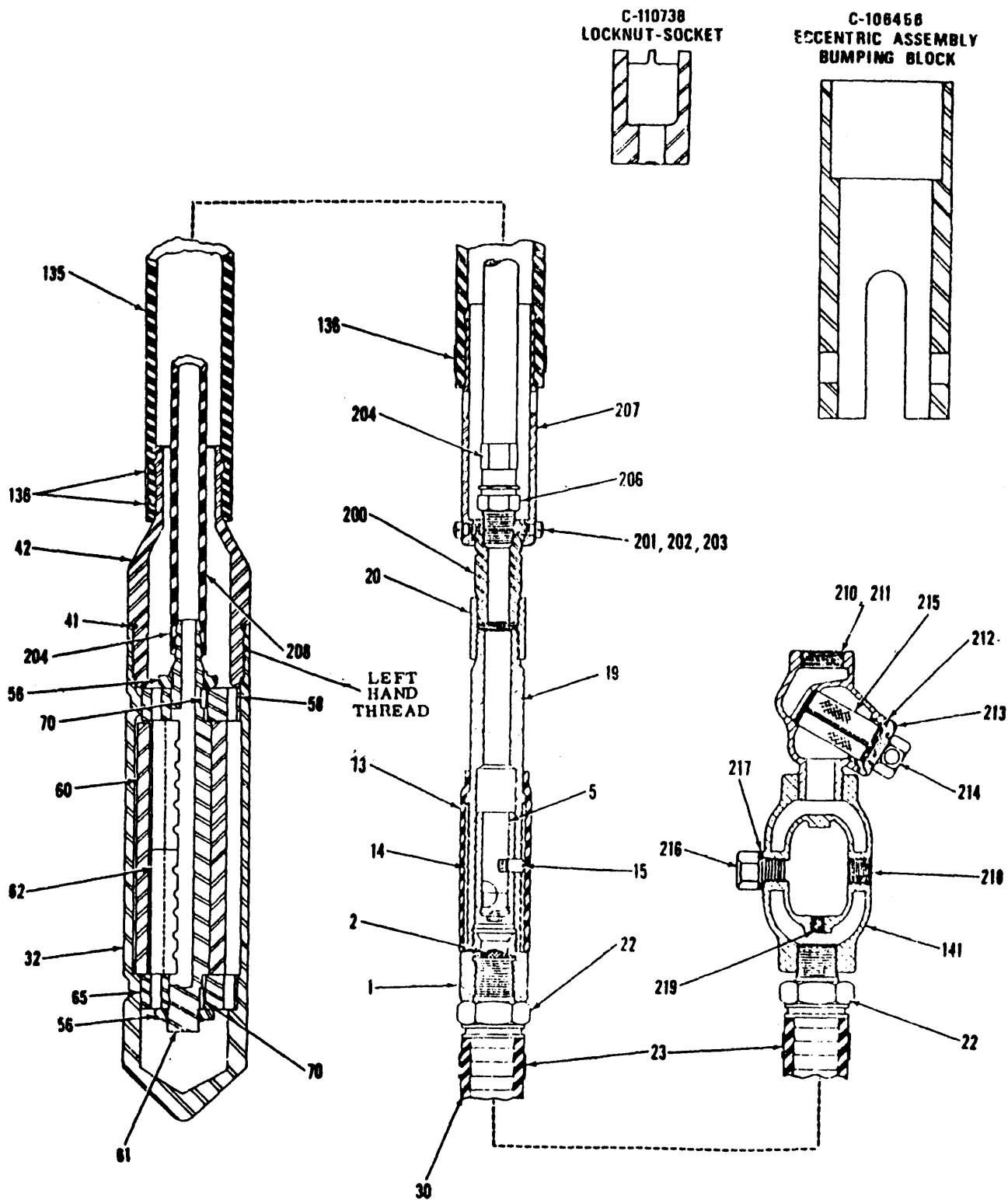
Operation

1. Check air pressure, 90 psi of clean, dry air is required AT THE TOOL for rated performance.
2. Check oil flow by holding your hand in front of exhaust holes. If there is enough oil in the air line, you will feel oil on your hand.
3. Do not submerge the vibrator exhaust in concrete nor allow concrete, water or foreign material to enter exhaust of Vibrators of flexible exhaust hose type.
4. NEVER use Vibrator to vibrate concrete buckets where there is solid metal to metal contact.
5. Check oiler frequently. Under average conditions it will require refilling twice in eight hours.
6. If Vibrator does not start when air is turned on, start tool by jarring the nose of the Vibrator on ground to alter blade position and enable tool to start. DO NOT risk damage to the shell by striking it with a hammer or other object.

Cleaning, Flushing, and Storage

1. Daily after use, remove Vibrator to a clean-up area where compressed air is available.
2. Clean concrete, excess oil and dirt off exterior of Vibrator. DO NOT submerge exhaust in water when cleaning.
3. CHECK STRAINERS (2, 215) AND CLEAN IF NECESSARY.
4. Pour about eight ounces of diesel fuel, Kerosene or commercial solvent into air inlet of Vibrator. Attach air supply and operate tool until flushing solvent is exhausted.
5. Refill oiler and check adjustment.
6. Visually check external parts, including weld on nose. Reweld by arc welding if cracked. DO NOT gas weld and risk warping shell.
7. Store Vibrator by hanging on a rack with exhaust holes facing down to drain any moisture or condensation away from motor.

CP-2190 CONCRETE VIBRATOR Models "A" - "A-O"



*All Threads Are Right Hand Unless Otherwise Specified.

Index No.	CP Part No.	Description	No. Req'd
1	C-037293	Cap-Handle	1
2	C-037292	Strainer - Air	1
5	C-010046	Plug - Handle	1
13	S-061798	Cover - Throttle Handle	1
14	C-014054	Sleeve - Handle	1
15	C-014055	Screw - Handle	1
19	C-060364	Throttle - Complete (Incl: C-14050 and Index No's. 1, 2, 5, 13, 14, 15)	1
	C-014050	Stem - Live Air Handle	1
20	C-015026	Coupling - Pipe (3/4")	1
22	P-073940	Nipple - Hose	2
23	C-090674	Clamp - Hose	2
30	C-060332	Hose - Intake (3/4")	1
32	C-105363	Shell & Cap	1
41	R-110210	"O" Ring (-137)	1
42	C-105367	Cap - End	1
56	R-041208	Nut - Bearing Lock	2
58	C-105372	Plate - Upper End	1
60	C-105370	Weight - Eccentric	1
61	C-105369	Shaft - Eccentric	1
62	C-105373	Blade	2
65	C-105371	Plate - Lower End	1
70	US-025392	Key	2
135	C-069151	Hose - Exhaust	1
136	C-090677	Clamp - Hose	3
141	C-015137	Oiler (Incl: Index No's. 216 thru 219)	1
200	C-038683	Nipple - Swivel	1
201	C-062118	Screw (#14-24 x 5/16")	4
202	C-012058	Lockwasher (1/4")	4
203	C-039438	Wire - Lock	1
204	C-090672	Clamp - Hose	2
206	P-002079	Nipple - Hose	1
207	C-039584	Collar - Exhaust Swivel	1
208	C-069153	Hose - Live Air (10 Ft.)	1
210	C-061460	Strainer - Live Air (Complete) (Incl: Index No's. 211 thru 215)	1
211	C-061339	Housing - Air Strainer	1
212	C-062965	Gasket	1
213	C-061341	Gland - Air Strainer	1
214	P-002293	Plug - Gland	1
215	C-061340	Screen - Air Strainer	1
216	C-015155	Plug - Oiler Body	1
217	C-015156	Washer - Plug	1
218	C-077941	Plug - Pipe (3/8")	1
219	C-068799	Plug - Pipe (1/4")	1

SERVICE TOOLS

C-110738	Socket
C-106456	Block-Bumping

SPARE PARTS SERVICE CHART

Order Spare Parts based on number of tools in use.

EXAMPLE: For 10 tools in use: stock 10 high wear items, 7 medium wear items, etc.

This service chart is based on average tool usage. The service life of parts may vary in specific cases depending on usage.

LEGEND

- X- Type of wear, if no other comments apply.
- L- Easily lost. Carefully reserve during disassembly.
- D- Easily damaged during disassembly and assembly.
- R- Require replacement at recommended intervals.
- R1- Replace each time tool is disassembled.
- R2- Replace each second time tool is disassembled.

Index No.	CP Part No.	Description	No. Req'd	High Wear	100%	Medium Wear	70%	Low Wear	30%	Non Wear	10%	Subject To External Damage
1	C-037293	Cap - Handle	1							X		
2	C-037292	Strainer - Air	1	X								
5	C-010046	Plug - Handle	1			X						
13	S-061798	Cover - Throttle Handle	1		X							
14	C-014054	Sleeve - Handle	1			X						
15	C-014055	Screw - Handle	1	X								
19	C-014050	Stem - Live Air Handle	1								X	
20	C-015026	Coupling - Pipe	1								X	
22	P-073940	Nipple - Hose	2								X	
23	C-090674	Clamp - Hose	2	R1								
30	C-060332	Hose - Intake	1								X	
32	C-105363	Shell & Cap	1		X							
41	R-110210	"O" Ring (-137)	1		R							
42	C-105367	Cap - End	1			X						
56	R-041208	Nut - Bearing Lock	2	R2								
58	C-105372	Plate - Upper End	1		X							
60	C-105370	Weight - Eccentric	1			X						
61	C-105369	Shaft - Eccentric	1			X						
62	C-105373	Blade	2	X								
65	C-105371	Plate - Lower End	1		X							
70	US-025392	Key	2		X							
135	C-069151	Hose - Exhaust	1				X					
136	C-090677	Clamp - Hose	3	R1								
141	C-015137	Oiler	1								X	
200	C-038683	Nipple - Swivel	1								X	
201	C-062118	Screw (# 14-24 x 5/16")	4	R								
203	C-039438	Wire - Loc	1	R1								
204	C-090672	Clamp - Hose	2	R1								
206	P-002079	Nipple - Hose	1				X					
207	C-039584	Collar - Exhaust Swivel	1								X	
208	C-069153	Hose - Live Air	1				X					
211	C-061339	Housing - Air Strainer	1								X	
212	C-062965	Gasket	1		X							
213	C-061341	Gland - Air Strainer	1					D				
214	P-002293	Plug - Gland	1									D
215	C-061340	Screen - Air Strainer	1					D				
216	C-015155	Plug - Oiler Body	1									L
217	C-015156	Washer - Plug	1									L
218	C-077941	Plug - Pipe	1									L
219	C-068799	Plug - Pipe	1									L

NOTES