

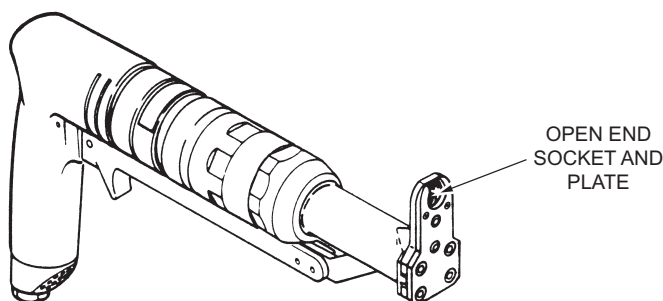
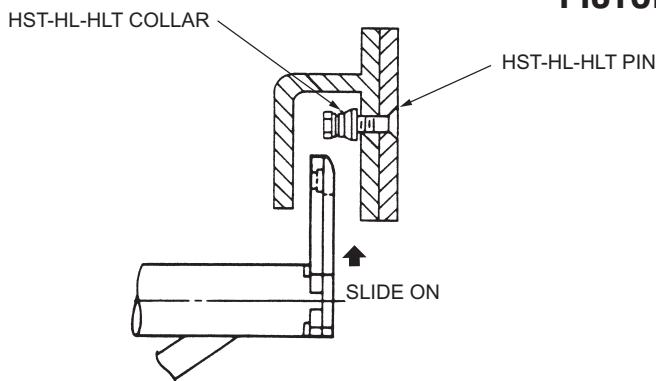
OPEN END SELF-INDEXING DRIVE SOCKET TYPE TOOLS

HI-SHEAR SELF-INDEXING POWER TOOLS

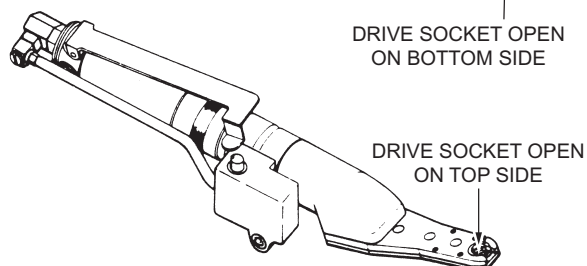
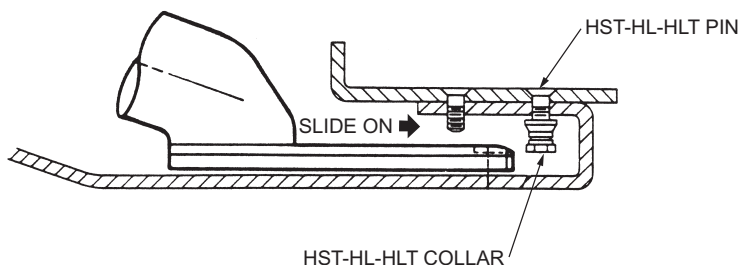
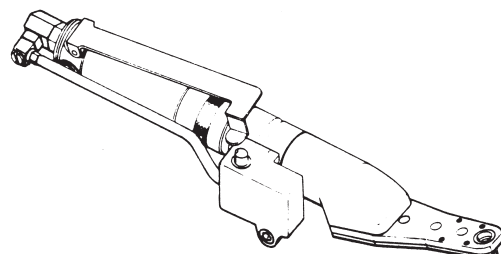
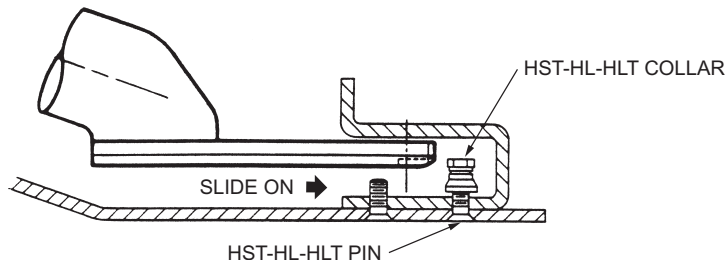
Installation of Hi-Lite/Hi-Lok/Hi-Tigue threaded fasteners in restricted access areas can be achieved with Hi-Shear's self-indexing drive socket tools. The proprietary design of these tools allows the operator to slide the open ended socket on the corresponding driving hex of the Hi-Lite/Hi-Lok/Hi-Tigue collar rather than having to raise over the collar's driving hex. These tools exhibit an internal air bleed feature that automatically and consistently aligns the open end of the driving socket with the open end of the tool offset plate for easy engagement of the next collar.

This innovative design is offered in both ratchet wrench and pistol grip type pneumatic tools. All are designed to operate on factory air pressure of 90 psi.

PISTOL GRIP TYPE



RATCHET WRENCH TYPES

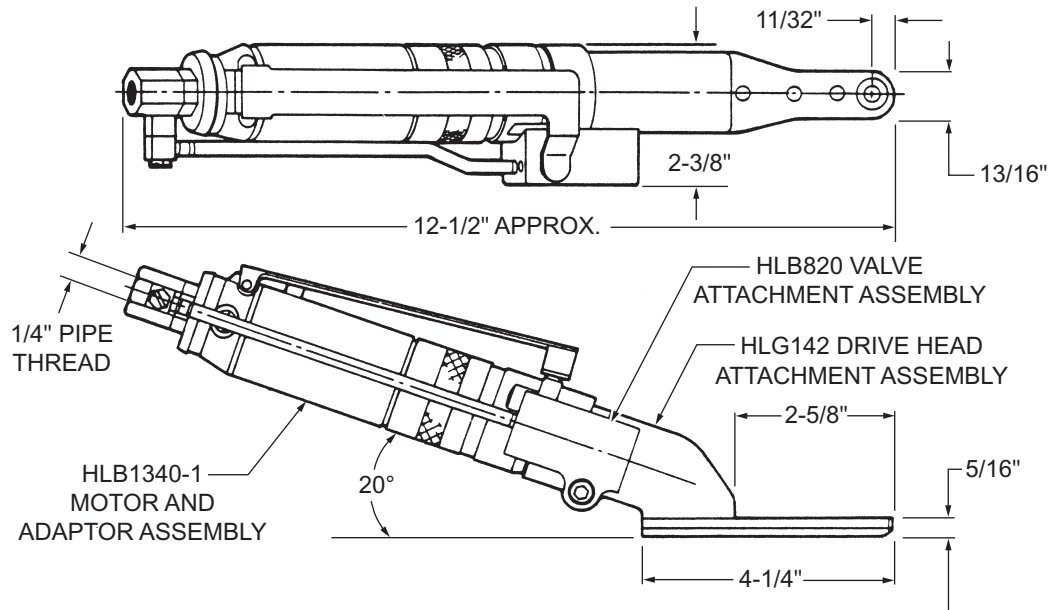


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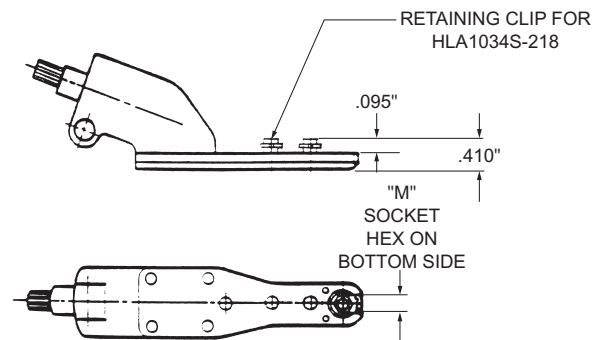
INSTALLATION TOOLING

HLA1034

**Small 20° Offset Ratchet Wrench
with Open End Self-Indexing
Socket on Bottom Side**



DRIVE HEAD ATTACHMENT ASSEMBLY WITH OPEN END SOCKET



TECHNICAL DATA

Operating Pressure	90 PSIA	Horsepower Rating	0.33
MAX. TORQUE RATING	114 in. lb	Air Consumption	18 CFM
(Motor) @ 90 PSIA		Weight	4 lb
Socket Speed	550 RPM		

TABLE 1

"M" SOCKET HEX (Matches Collar Driving Hex)	COMPLETE TOOL ASSEMBLY PART NO.	DRIVE HEAD ATTACHMENT ASSEMBLY PART NO.	SOCKET PART NO.
1/4"	HLA1034-250	HLG142-250	HLB856-250
9/32"	HLA1034-281	HLG142-281	HLB856-281
5/16"	HLA1034-312	HLG142-312	HLB644-312
11/32"	HLA1034-343	HLG142-343	HLB774-343

BASIC PART NO.

"M" SOCKET HEX - REF TABLE 1

HLA1034-312

Example 1: complete socket assy. part no.

ORDERING INFORMATION

1. Determine collar driving hex of the fasteners to be installed.
2. See Table 1 for "M" socket hex to match collar driving hex dimension.
3. See example of Complete Socket Assembly Part No.
4. This tool is for installing interference fit fasteners only.

U.S. Patent No. 3,620,105.

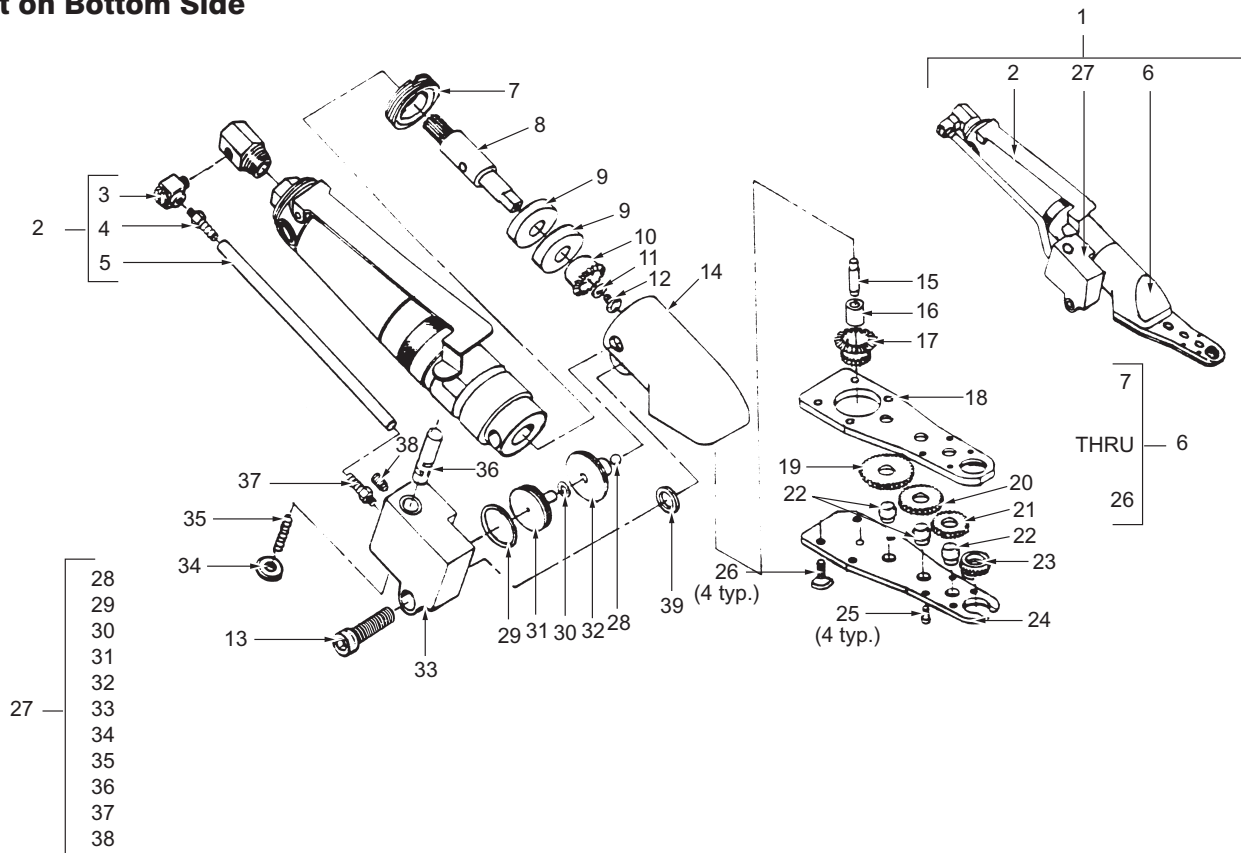
HLA1034
SMALL 20° OFFSET RATCHET WRENCH w/Open End Self-Indexing Socket on Bottom Side



7077 rev —

HLA1034

**Small 20° Offset Ratchet Wrench
with Open End Self-Indexing
Socket on Bottom Side**



ITEM	PART NO.	DESCRIPTION	QTY -250	QTY -281	QTY -312	QTY -343	ITEM	PART NO.	DESCRIPTION	QTY -250	QTY -281	QTY -312	QTY -343
1	HLA1034	Complete tool assy.	1	1	1	1	22	HLB673	.. Gear, idler, shaft	3	3	3	3
2	HLB1340-1	.. Motor & adaptor assy.	1	1	1	1	22	HLB1839	.. Gear, idler, shaft (for HLA1034S-)				
3	MNV-1	.. "L" fitting, clipped	1	1	1	1	23	HLB856-250	.. Socket, 1/4 hex	1	-	-	-
4	11752-1	.. Fitting, clipped	1	1	1	1	23	HLB856-281	.. Socket, 9/32 hex	-	1	-	-
5	3814-1	.. Vinyl hose, Clippard	1	1	1	1	23	HLB644-312	.. Socket, 5/16 hex	-	-	1	-
6	HLG142-250	.. Drive head attachment assy.	1	-	-	-	23	HLB774-343	.. Socket, 11/32 hex	-	-	-	1
6	HLG142-281	.. Drive head attachment assy.	-	1	-	-	24	HLB679	.. Plate	1	1	1	1
6	HLG142-312	.. Drive head attachment assy.	-	-	1	-	25	HLB656-003	.. Screw	4	4	4	4
6	HLG142-343	.. Drive head attachment assy.	-	-	-	1	26	Commercial	.. Screw, flat hd soc 8-32 x 1/24	4	4	4	4
7	HLB677	.. Nut, bearing	1	1	1	1	27	HLB820	.. Valve attachment assy.	1	1	1	1
8	HLB1335	.. Drive shaft	1	1	1	1	28	7/32" dia.	.. Atlas, steel ball	1	1	1	1
9	9100K	.. Bearing	2	2	2	2	29	2-018	.. O-ring, Parker	1	1	1	1
10	HLB676	.. Bevel gear	1	1	1	1	30	2-009	.. O-ring, Parker	1	1	1	1
11	1106	.. Washer, shakeproof	1	1	1	1	31	HLB670	.. Piston	1	1	1	1
12	Commercial	.. Screw, btnn hd 5-40 x 1/4	1	1	1	1	32	HLB686	.. Cap	1	1	1	1
13	Commercial	.. Screw, soc hd cap 1/4-20 x 1 3/4	1	1	1	1	33	HLB818	.. Housing assy.	1	1	1	1
14	HLB688	.. Housing	1	1	1	1	34	HLB817	.. Plug	1	1	1	1
15	HLB675	.. Gear shaft	1	1	1	1	35	LC-020A-14	.. Spring, Lee Spring Co.	1	1	1	1
16	B36	.. Bearing, Torrington	1	1	1	1	36	HLB819	.. Pin, valve	1	1	1	1
17	HLB685	.. Gear, combination	1	1	1	1	37	11752-1	.. Fitting, hose, Clippard	1	1	1	1
18	HLB687	.. Gear housing	1	1	1	1	38	Commercial	.. Screw, dog point set, Nylok 10-32 x 5/16 Cadmium plate	1	1	1	1
19	HLB674-005	.. Gear, idler	1	1	1	1	39	HLB1468	.. Spacer, 0.375 OD x 0.257 ID 0.312 LG	1	1	1	1
20	HLB674-003	.. Gear, idler	1	1	1	1							
21	HLB674-001	.. Gear, idler	1	1	1	1							

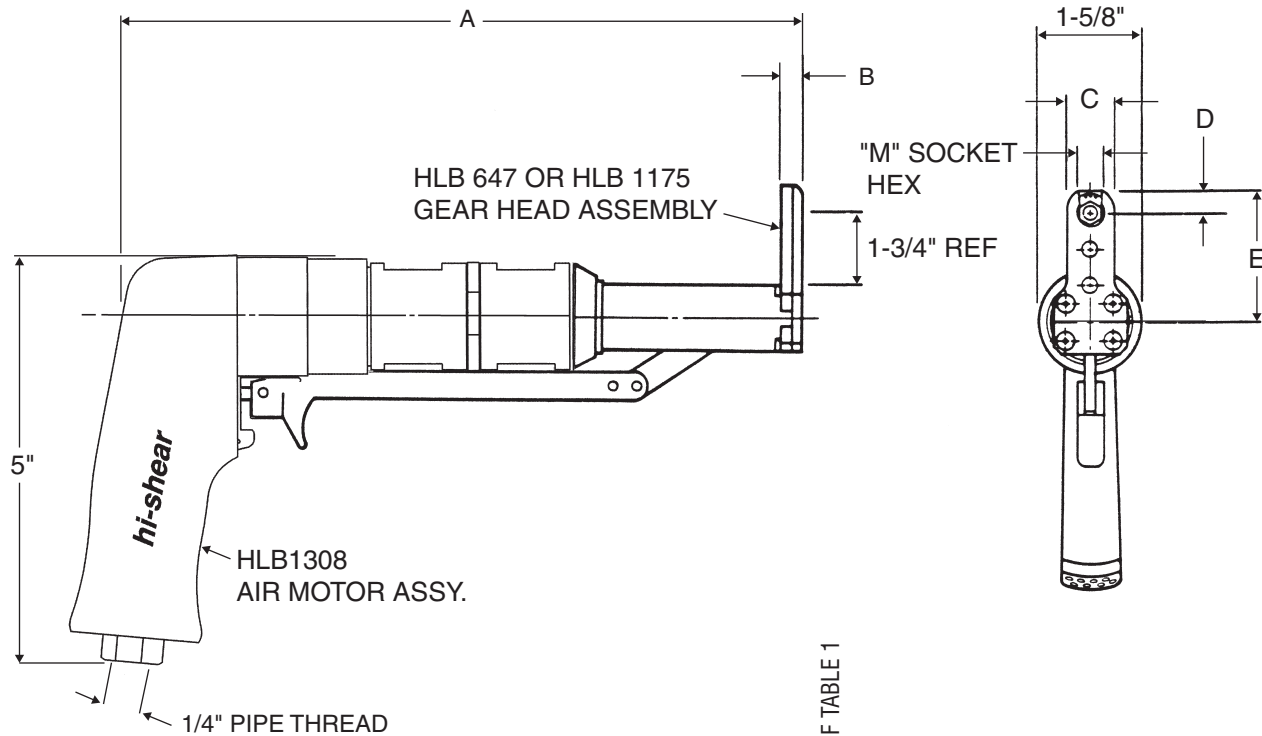
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2600 Skypark Dr. Torrance, CA 90509 USA
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HLA1034

Small 20° Offset Ratchet Wrench w/Open End Self-Indexing Socket on Bottom Side

HLA1041

90° Offset Driver Assembly
with Open End Self-Indexing Socket



BASIC PART NO.
"M" SOCKET HEX - REF TABLE 1

HLA1041-312

Example 1: complete socket assy. part no.

ORDERING INFORMATION

1. Determine collar driving hex of the fasteners to be installed.
2. See Table 1 for "M" socket hex to match collar driving hex dimension.
3. See example of Complete Socket Assembly Part No.
4. This tool is for installing interference fit fasteners only.

U.S. Patent No. 3,620,105.

TECHNICAL DATA

Operating Pressure	90 PSIA	Horsepower Rating	0.75
MAX. TORQUE RATING	270 in. lb	Air Consumption	25 CFM
(Motor)	@ 90 PSIA	Weight	3.5 lb
Socket Speed	550 RPM		

TABLE 1

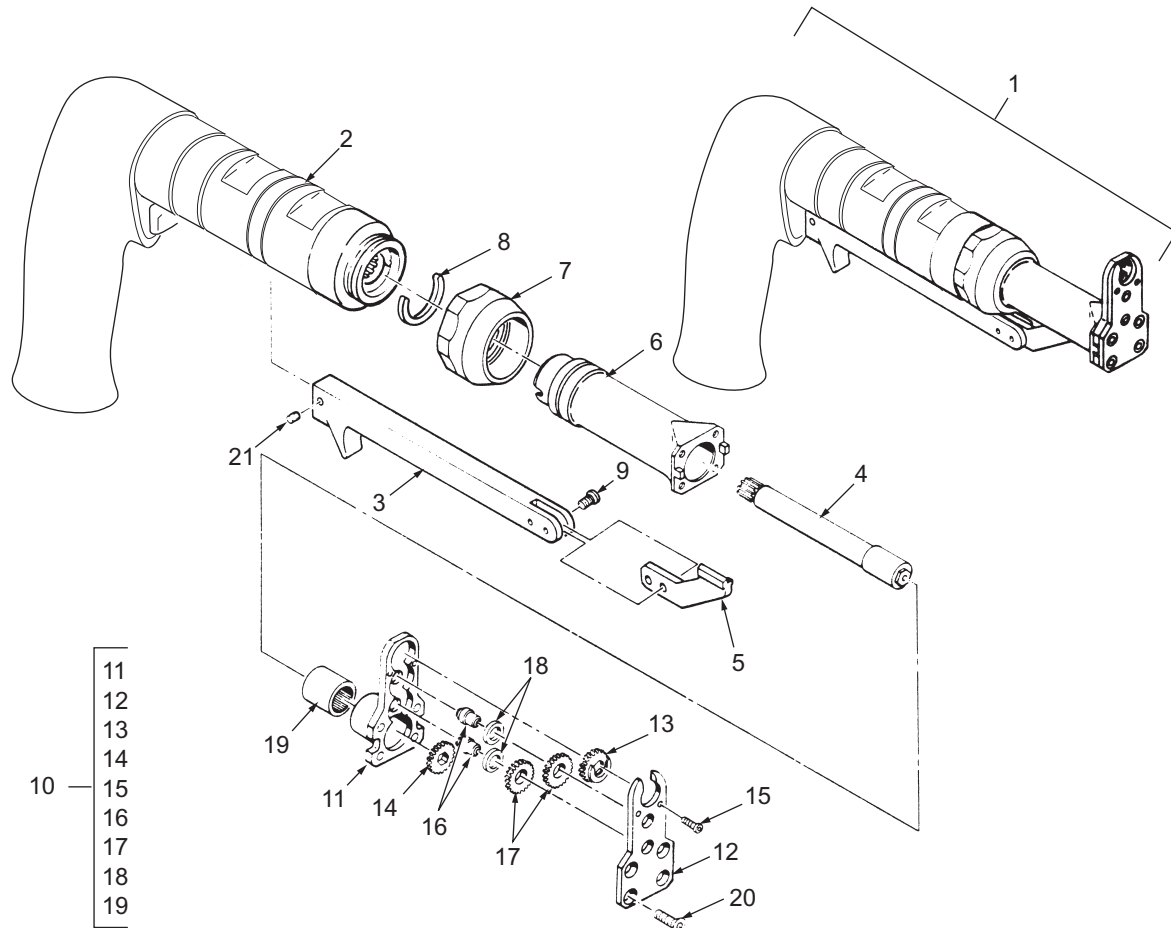
"M" SOCKET HEX (Matches Collar Driving Hex)	COMPLETE TOOL ASSEMBLY PART NO.	GEAR HEAD ASSEMBLY PART NO.	DIMENSIONS					SOCKET PART NO.
			A	B	C	D	E	
1/4"	HLA1041-250	HLB647-250	9.75	0.312	0.875	0.340	2.117	HLB856-250
5/16"	HLA1041-312	HLB647-312	9.75	0.312	0.875	0.340	2.117	HLB644-312
11/32"	HLA1041-343	HLB647-343	9.75	0.312	0.875	0.340	2.117	HLB774-343
7/16"	HLA1041-437	HLB1175-437	9.90	0.462	1.062	0.428	2.483	HLB1178-437

HLA1041
90° OFFSET DRIVER ASSEMBLY with Open End Self-Indexing Socket



HLA1041

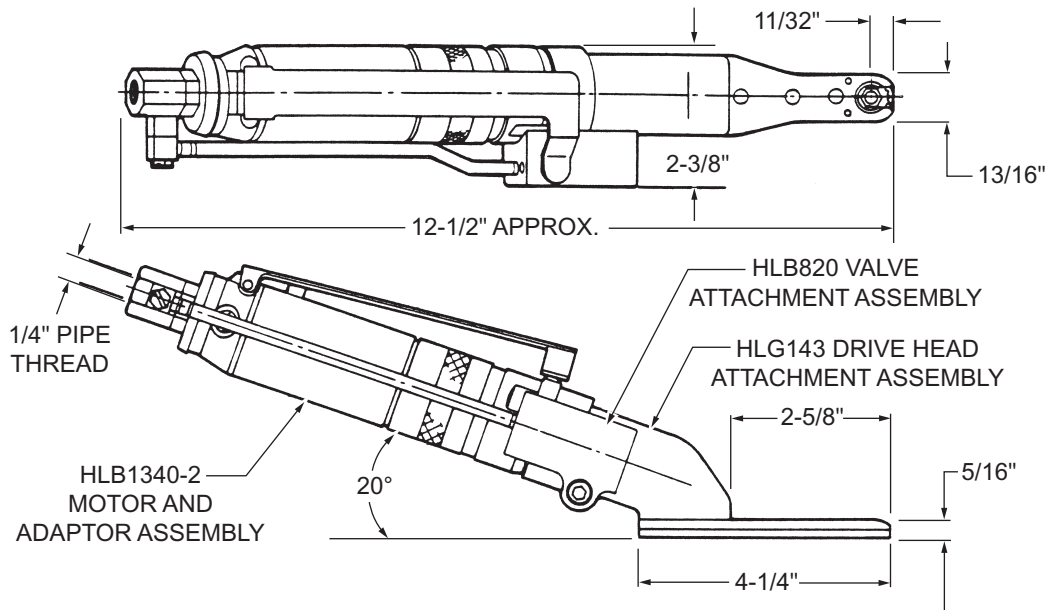
90° Offset Driver Assembly with Open End Self-Indexing Socket



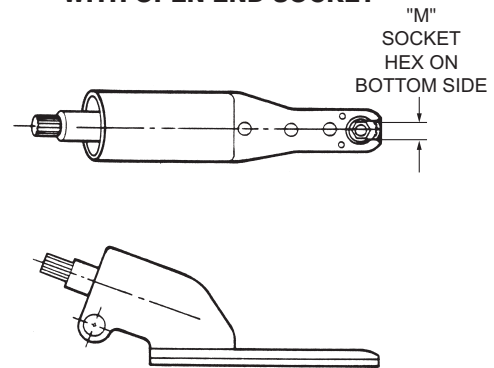
ITEM	PART NO.	DESCRIPTION	QTY	QTY	QTY	QTY	ITEM	PART NO.	DESCRIPTION	QTY	QTY	QTY	QTY
			-250	-312	-343	-437				-250	-312	-343	-437
1	HLA1041	Complete tool assy.	1	1	1	1	13	HLB856-250	.. Socket, 1/4" hex	1	-	-	-
2	HLB1308	.. Air motor	1	1	1	1	13	HLB644-312	.. Socket, 5/16" hex	-	1	-	-
3	HLB1060	.. Trigger	1	1	1	1	13	HLB774-343	.. Socket, 11/32" hex	-	-	1	-
4	HLB1061-1	.. Spindle	1	1	1	-	13	HLB1178-437	.. Socket, 7/16" hex	-	-	-	1
4	HLB1061-2	.. Spindle	-	-	-	1	14	HLB650	.. Gear, drive	1	1	1	-
5	HLB653	.. Plate, index	1	1	1	1	14	HLB1191	.. Gear, drive	-	-	-	1
6	HLB639-1	.. Connector	1	1	1	-	15	HLB656-003	.. Screw, special	2	2	2	-
6	HLB639-2	.. Connector	-	-	-	1	15	HLB656-005	.. Screw, special	-	-	-	2
7	HLB1307	.. Nut	1	1	1	1	16	HLB651	.. Shaft	2	2	2	-
8	HLB655	.. Retaining ring	1	1	1	1	16	HLB649	.. Shaft	-	-	-	2
9	6-32 x 0.44 lg	Screw, cap, btnn hd socket	1	1	1	1	17	HLB661	.. Gear, idler	2	2	2	-
10	HLG647-250	.. Gear head assy.	2	-	-	-	17	HLB654	.. Gear, idler	-	-	-	2
10	HLB647-312	.. Gear head assy.	-	2	-	-	18	HLB659	.. Bearing	2	2	2	-
10	HLB647-343	.. Gear head assy.	-	-	2	-	18	HLB659	.. Bearing	-	-	-	2
10	HLB647-437	.. Gear head assy.	-	-	-	2	19	B-812	.. Bearing, Torrington	1	1	1	1
11	HLB637	.. Housing	1	1	1	-	20	6-32 x 0.50 lg	.. Screw, cap, flat hd soc	4	4	4	-
11	HLB1177	.. Housing	-	-	-	1	20	6-32 x 0.62 lg	.. Screw, cap, flat hd soc	-	-	-	4
12	HLB642	.. Plate	1	1	1	-	21	6-32 x 0.187	.. Screw, set	1	1	1	1
12	HLB1176	.. Plate	-	-	-	1							

HLA1111

**Small 20° Offset Ratchet Wrench
with Open End Self-Indexing Socket
on Top Side**



**DRIVE HEAD ATTACHMENT ASSEMBLY
WITH OPEN END SOCKET**



TECHNICAL DATA

Operating Pressure	90 PSIA	Horsepower Rating	0.33
MAX. TORQUE RATING	114 in. lb (Motor) @90 PSIA	Air Consumption	18 CFM
Socket Speed	550 RPM	Weight	4 lb

TABLE 1

"M" SOCKET HEX (Matches Collar Driving Hex)	COMPLETE TOOL ASSEMBLY PART NO.	DRIVE HEAD ATTACHMENT ASSEMBLY PART NO.	SOCKET PART NO.
1/4"	HLA1111-250	HLG143-250	HLB856-250
9/32"	HLA1111-281	HLG143-281	HLB856-281
5/16"	HLA1111-312	HLG143-312	HLB644-312
11/32"	HLA1111-343	HLG143-343	HLB774-343

BASIC PART NO.

INDICATES "M" SOCKET - REF TABLE 1

HLA1111-312

Example 1: complete socket assy. part no.

ORDERING INFORMATION

1. Determine collar driving hex of the fasteners to be installed.
2. See Table 1 for "M" socket hex to match collar driving hex dimension.
3. See example of Complete Socket Assembly Part No.
4. This tool is for installing interference fit fasteners only.

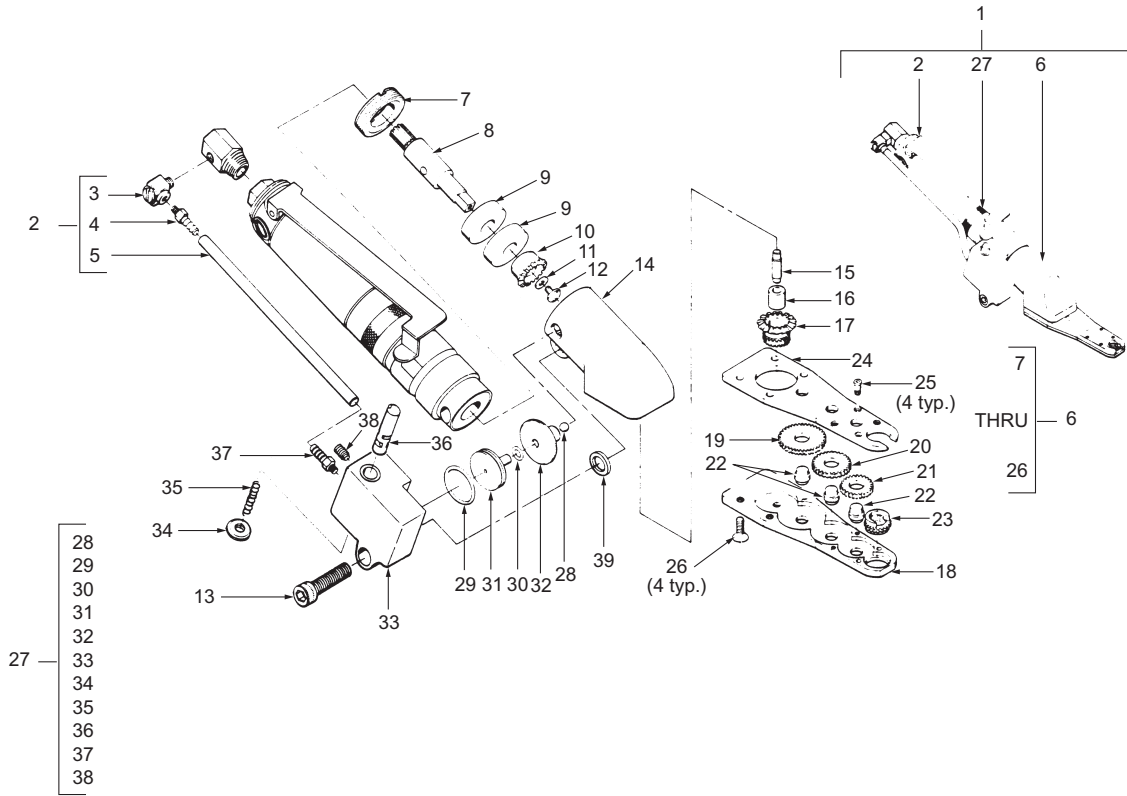
U.S. Patent No. 3,620,105.

HLA1111
SMALL 90° OFFSET RATCHET WRENCH w/Open End Self-Indexing Socket on Top Side



HLA1111

**Small 20° Offset Ratchet Wrench
with Open End Self-Indexing Socket
on Top Side**



ITEM	PART NO.	DESCRIPTION	QTY -250	QTY -281	QTY -312	QTY -343	ITEM	PART NO.	DESCRIPTION	QTY -250	QTY -281	QTY -312	QTY -343
1	HLA1111	Complete tool assy.	1	1	1	1	22	HLB673	.. Gear, idler, shaft	3	3	3	3
2	HLB1340-1	.. Motor & adaptor assy.	1	1	1	1	23	HLB856-250	.. Socket, 1/4 hex	1	-	-	-
3	MNV-1	.. "L" fitting, clipped	1	1	1	1	23	HLB856-281	.. Socket, 9/32 hex	-	1	-	-
4	11752-1	.. Fitting, clipped	1	1	1	1	23	HLB644-312	.. Socket, 5/16 hex	-	-	1	-
5	3814-1	.. Vinyl hose, Clippard	1	1	1	1	23	HLB774-343	.. Socket, 11/32 hex	-	-	-	1
6	HLG143-250	.. Drive head attachment assy.	1	-	-	-	24	HLB693	.. Plate	1	1	1	1
6	HLG143-281	.. Drive head attachment assy.	-	1	-	-	25	HLB656-003	.. Screw	4	4	4	4
6	HLG143-312	.. Drive head attachment assy.	-	-	1	-	26	Commercial	.. Screw, flat hd soc 8-32 x 1/24	4	4	4	4
6	HLG143-343	.. Drive head attachment assy.	-	-	-	1	27	HLB820	.. Valve attachment assy.	1	1	1	1
7	HLB677	.. Nut, bearing	1	1	1	1	28	7/32" dia.	.. Atlas, steel ball	1	1	1	1
8	HLB1335	.. Drive shaft	1	1	1	1	29	2-018	.. O-ring, Parker	1	1	1	1
9	9100K	.. Bearing	2	2	2	2	30	2-009	.. O-ring, Parker	1	1	1	1
10	HLB676	.. Bevel gear	1	1	1	1	31	HLB670	.. Piston	1	1	1	1
11	1106	.. Washer, shakeproof	1	1	1	1	32	HLB686	.. Cap	1	1	1	1
12	Commercial	.. Screw, btnn hd 5-40 x 1/4	1	1	1	1	33	HLB818	.. Housing assy.	1	1	1	1
13	Commercial	.. Screw, soc hd cap 1/4-20 x 1 3/4	1	1	1	1	34	HLB817	.. Plug	1	1	1	1
14	HLB688	.. Housing	1	1	1	1	35	LC-020A-14	.. Spring, Lee Spring Co.	1	1	1	1
15	HLB697	.. Gear shaft	1	1	1	1	36	HLB819	.. Pin, valve	1	1	1	1
16	B36	.. Bearing, Torrington	1	1	1	1	37	11752-1	.. Fitting, hose, Clippard	1	1	1	1
17	HLB696	.. Gear, combination	1	1	1	1	38	Commercial	.. Screw, dog point set, Nylok 10-32 x 5/16 Cadmium plate	1	1	1	1
18	HLB694	.. Gear housing	1	1	1	1	39	HLB1468	.. Spacer, 0.375 OD x 0.257 ID 0.312 LG	1	1	1	1
19	HLB674-005	.. Gear, idler	1	1	1	1							
20	HLB674-003	.. Gear, idler	1	1	1	1							
21	HLB674-001	.. Gear, idler	1	1	1	1							

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HLA1111

Small 90° Offset Ratchet Wrench w/Open End Self-Indexing Socket on Top Side