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PARTS MANUAL

This manual contains the necessary information for ordering replacement parts. To order parts, first locate the parts wanted in the illustrations, note the code number, then refer to the code number in the parts list on the same or following page that identifies the part number and part name. Code numbers only, are shown in the illustrations. To eliminate errors and speed delivery of your order always use the Tube Bender part numbers and part name. Do not use code numbers when ordering parts.

Each Ben Pearson Bender is identified by a model and serial number stamped on a plate attached to a frame member near the front of the machine. In all correspondence, including parts orders, please state all identification numbers.

Be sure to state plainly the address to which parts are to be shipped and how they are to be shipped (parcel post, UPS, freight, etc).

Upon receipt of parts from the factory, inspect all parts. Any shortage or damage claim should be filed immediately.

NOTE: This manual is subject to change without notice.

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60173	1	60434	4	60699	6
60221	14	60435	3	60745	1-5
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60235	14	60475	4	60780	17
60236	14	60476	4	60857	15
60237	14	60481	4	60867	15
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60242	14	60485	8	60878	14
60245	14	60486	8	60898	16
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60256	15-16	60488	8	60906	15
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60320	13	60494	8	61001	14
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60364	16	60497	8	61004	14
60365	16	60499	8	61005	14
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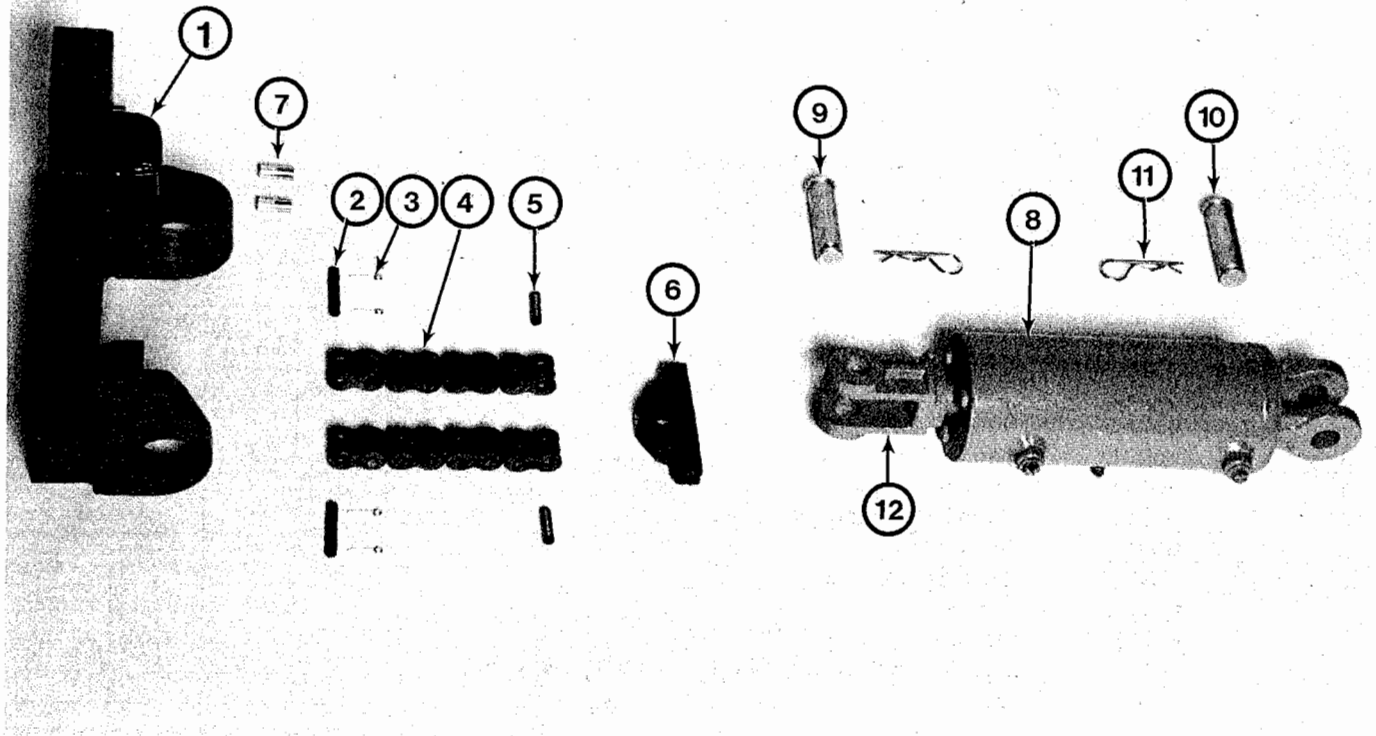
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61104	2	61299	8-12	61557	12
61107	14	61311	18-19	61558	12
61108	14	61314	19	61597	10
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61121	14	61356	1	61759	16
61122	14	61362	12	61760	10
61123	14	61385	8	61777	16
61136	16	61397	10	61778	16
61229	19	61419	10	61779	10
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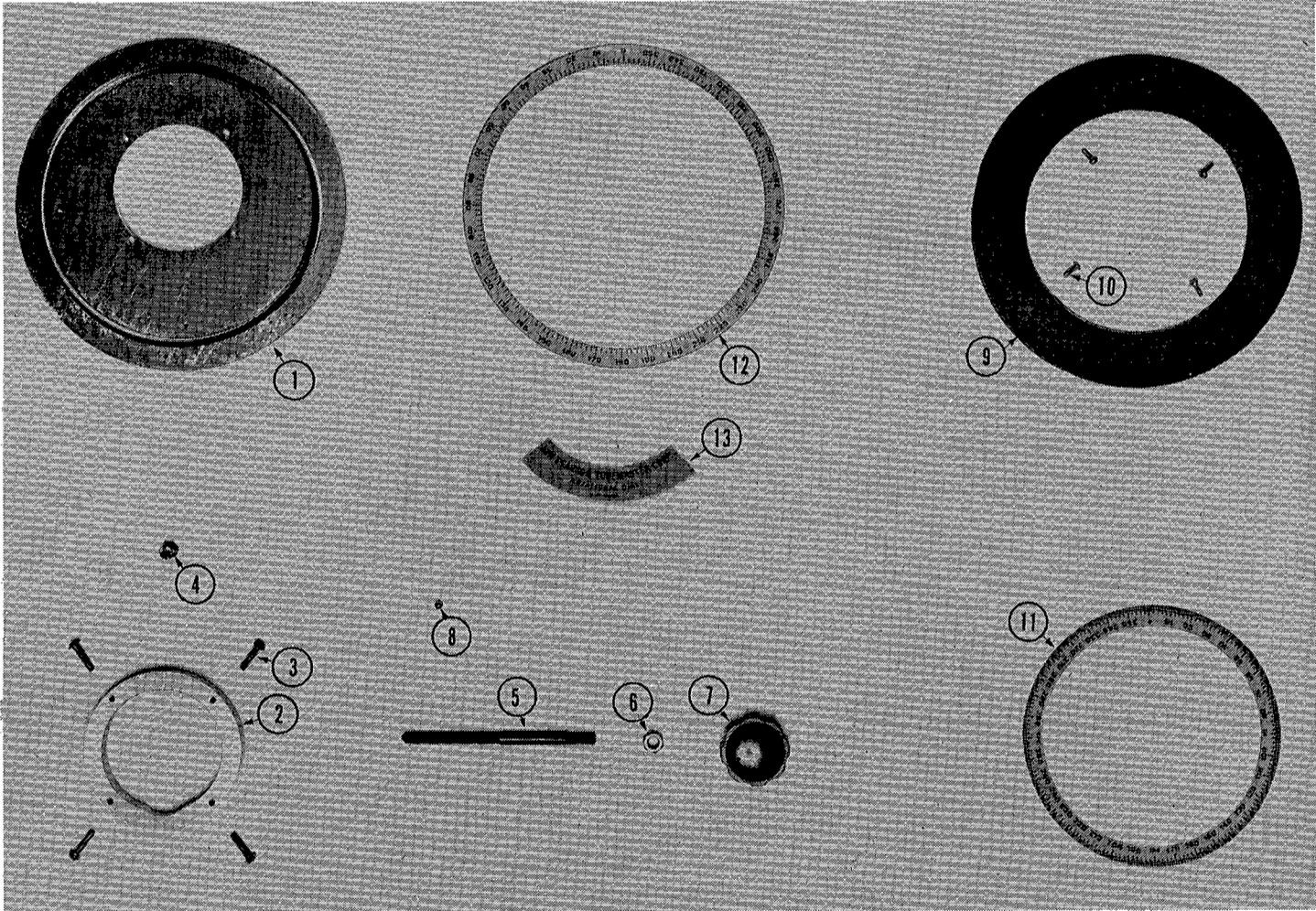
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61835	15	62376	1	100038	3
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PIVOT ARM SUPPORT CYLINDER – BACK PRESSURE



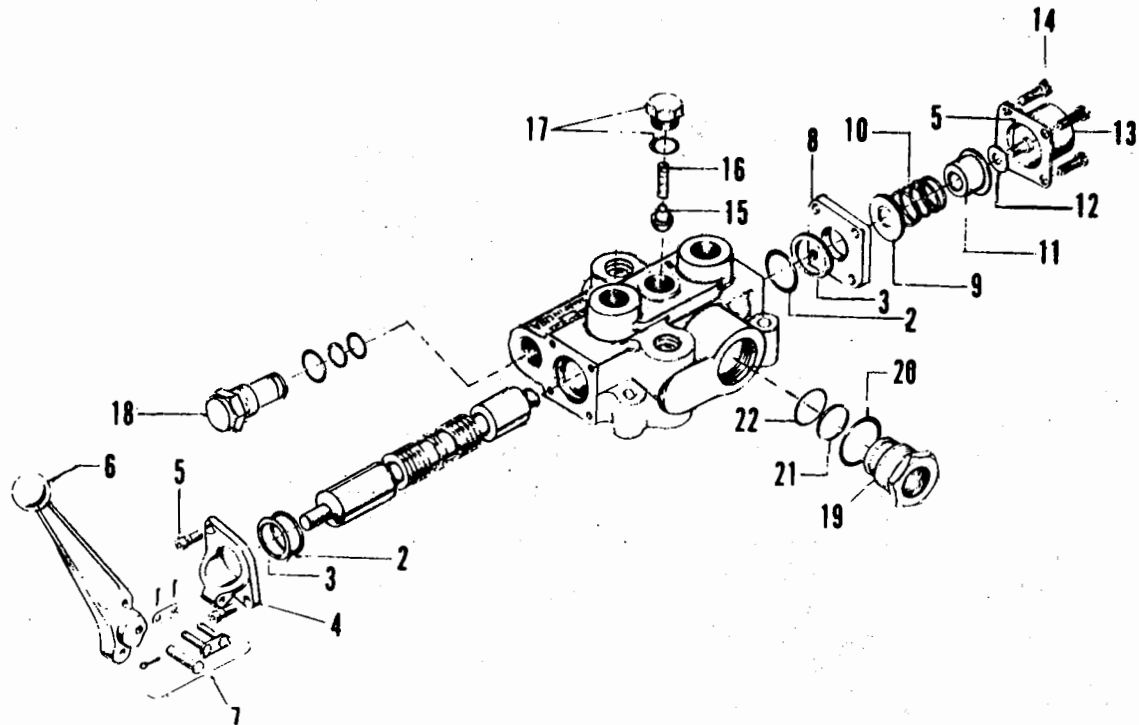
CODE	PART NUMBER	PART NAME	QUANTITY		
			BP79		
1	62393	LH Pivot Arm Structure	1		
#1	62398	RH Pivot Arm Structure	1		
2	60476	Pin	2		
3	100175	Cotter Pin	4		
-	61497	Chain Assembly – Pivot Arm	1		
4		2 – 60475 Chain – Leaf			
5		2 – 60481 Pin			
6		1 – 60474 Anchor			
7	60036	Grooved Pin (2 Included in Each Pivot Arm)	4		
8	62444	Cylinder – Back Pressure – 4 Bore – 6 Stroke 1 1/4 Rod	1		
9	60442	Pin – Countersunk (Included in 62444)	1		
10	60436	Pin (Included in 62444)	1		
11	100110	Clip – (Pin) (Included in 62444)	2		
12	60443	Clevis – Countersunk (Included in 62444)	1		
#	60434	Seal Kit (Replacement – Cross Cylinder)	1		
#		NOT SHOWN			

ROTATIONAL DIAL (OPTIONAL EQUIPMENT)

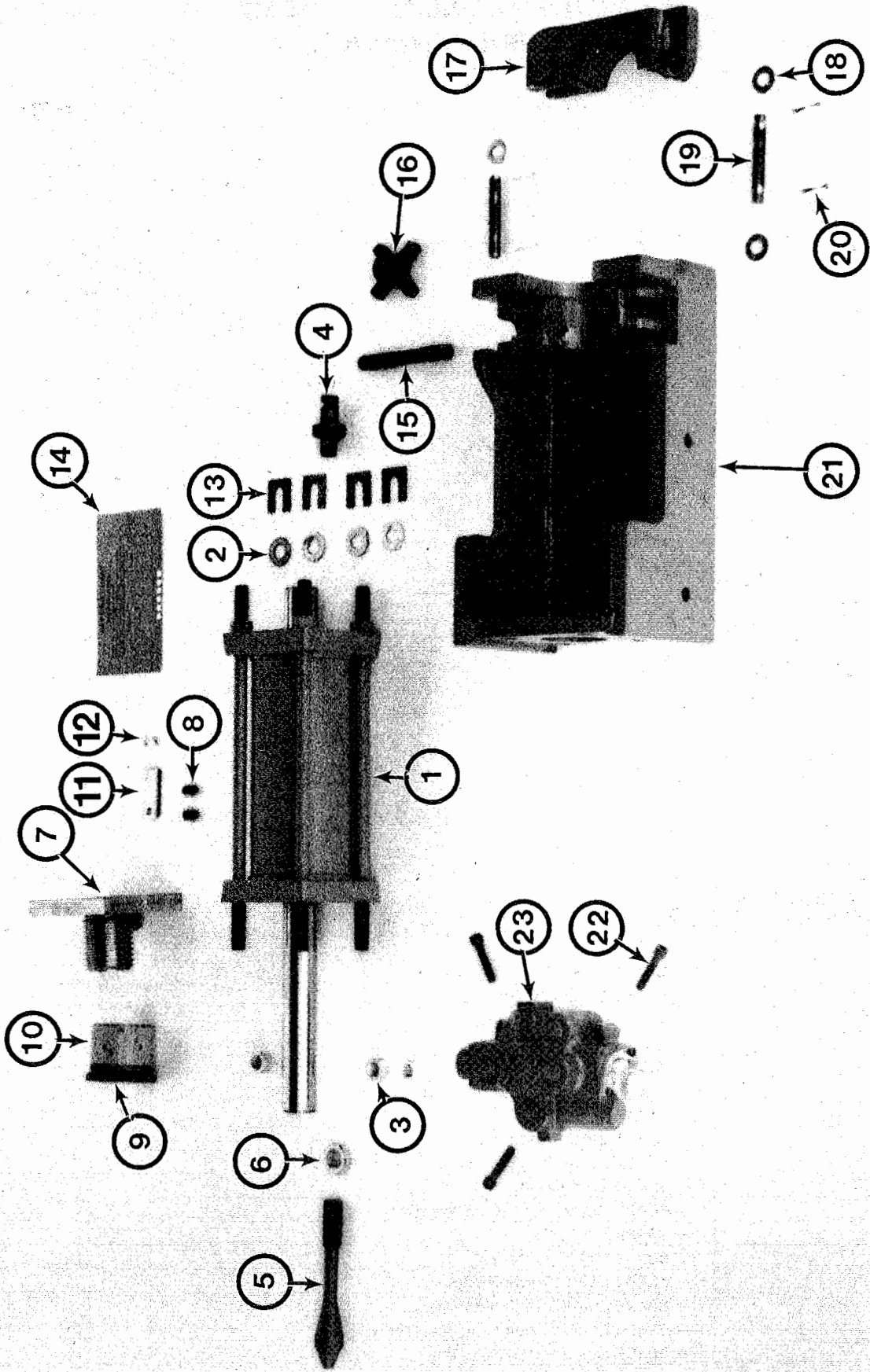


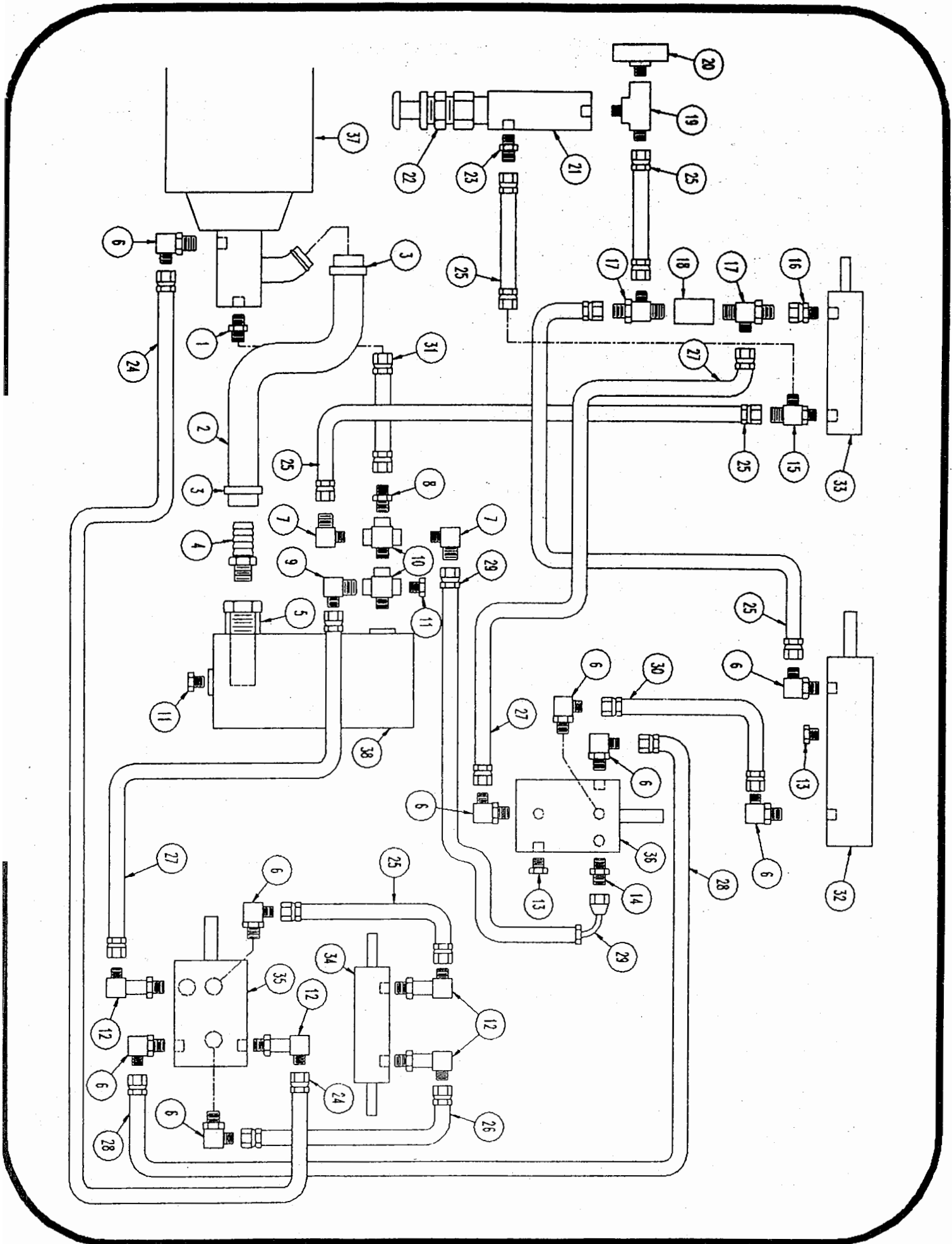
CODE	PART NUMBER	PART NAME	QUANTITY		
			BP79		
#	60100	Rotational Dial Assembly Consists of:	1		
1	60416	1 - Plate			
2	60648	1 - Hub			
3	100173	4 - Round Head Machine Screw #10-24NC x 3/4			
4	60649	1 - Heli-Coil Insert			
5	60699	1 - Adjustment Stud 5/16-18NC			
6	100102	1 - Hex Nut 5/16-18NC			
7	60698	1 - Control Knob			
8	60418	1 - Steel Ball			
9	60344	1 - Shield			
10	60263	4 - Round Head Machine Screw #6-32NC x 3/8			
11	60913	1 - Rotational Dial - Inside			
12	60417	1 - Rotational Dial - Outside			
#		NOT SHOWN			

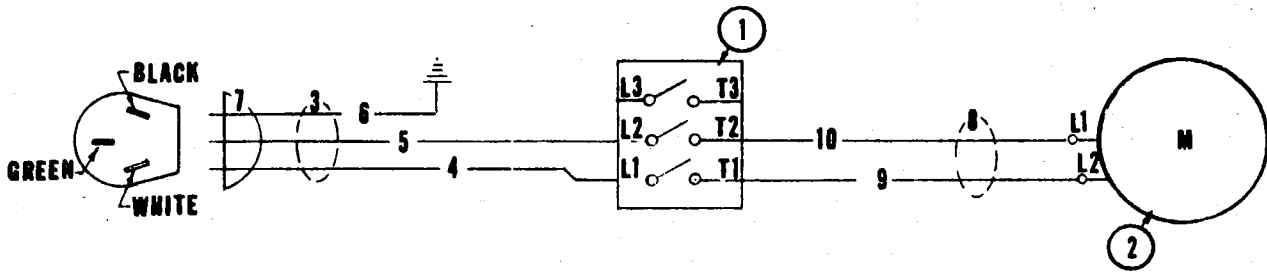
CONTROL VALVE – CROSS BREAKDOWN



CODE	PART NUMBER	PART NAME	QUANTITY	
			BP79	
	61299	Control Valve – Hydraulic (Cross Valve)	1	
		Consists Of:		
2		2 – 60483 Spool Seal		
3		2 – 60484 O'Ring Spool Washer		
4		1 – 60485 Handle Bracket		
5		3 – 60486 Machine Screw		
6		1 – 60432 Handle		
7		1 – 60431 Pin Kit – Handle		
8		1 – 60487 End Spacer		
9		1 – 60488 Stop Washer		
10		1 – 60489 Centering Spring		
11		1 – 60490 Stop Collar		
12		1 – 60491 Centering Spring Washer		
13		1 – 60492 End Cap		
14		4 – 60493 Machine Screw		
15		1 – 60494 Load Check Poppet		
16		1 – 60495 Load Check Spring		
17		1 – 60496 Load Check Plug Assembly		
18		1 – 60497 Relief Plug Assembly		
19		1 – 61385 Power Beyond Sleeve		
20		1 – 60499 Plug O'Ring		
21		1 – 60600 O'Ring Back-up		
22		1 – 60601 O'Ring		

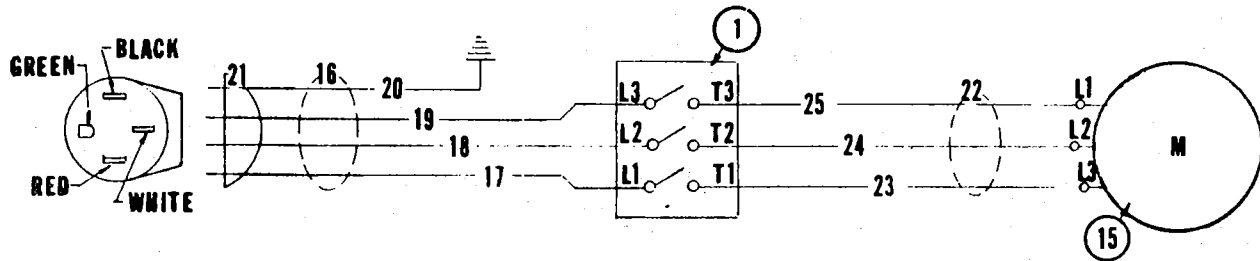






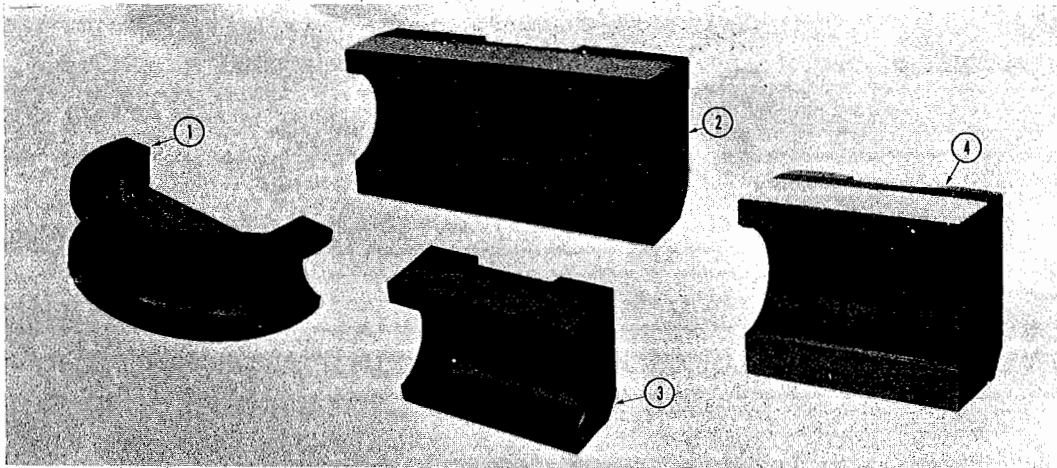
CODE	PART NUMBER	PART NAME	QUANTITY		
			BP79		
1	62262	Manual Starting Switch	1		
2	62244	Motor 1 Ph. - 60 Hz. 4 Hp.	1		
3	61915	Power Cord Assembly 10/3 SO - 230"	1		
4		White L1 Plug			
5		Black L2 Plug			
6		Green Ground Plug			
7	60320	Plug 1 Ph.			
8	62034	Motor Cord Assembly 10/2 SO - 30"	1		
9		White T1 M-L2			
10		Black T2 M-L1			
#	61103	Strain Relief Bushing (In Switch Enclosure)	2		
#	61104	Conduit Lock Nut 3/4 NPT	2		

3 PHASE WIRING DIAGRAM BP79



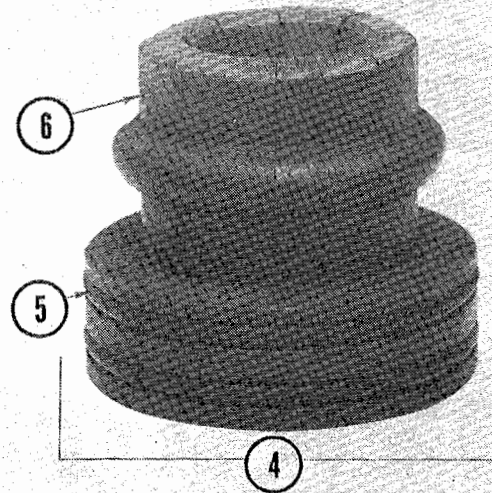
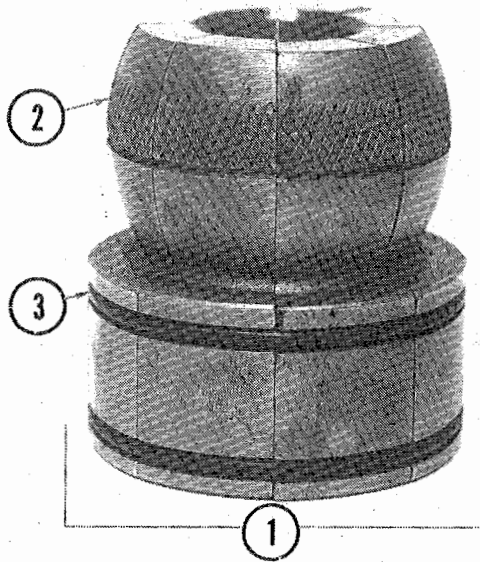
CODE	PART NUMBER	PART NAME	QUANTITY		
			BP79		
1	62262	Manual Starting Switch	1		
15	62251	Motor 3 Ph. - 60Hz. - 4 Hp.	1		
16	62032	Power Cord Assembly 12/4 SO 230"	1		
17		Black L1 Plug			
18		White L2 Plug			
19		Red L3 Plug			
20		Green Ground Plug			
21	60592	Plug 3 Ph.	1		
22	62033	Motor Cord Assembly 10/3 SO - 30"	1		
23		Black T1 M-L3			
24		White T2 M-L2			
25		Red T3 M-L1			
#	61103	Strain Relief Bushing (In Switch Enclosure)	2		
#	61104	Conduit Lock Nut 3/4 NPT	2		
#		NOT SHOWN			

BENDING DIES

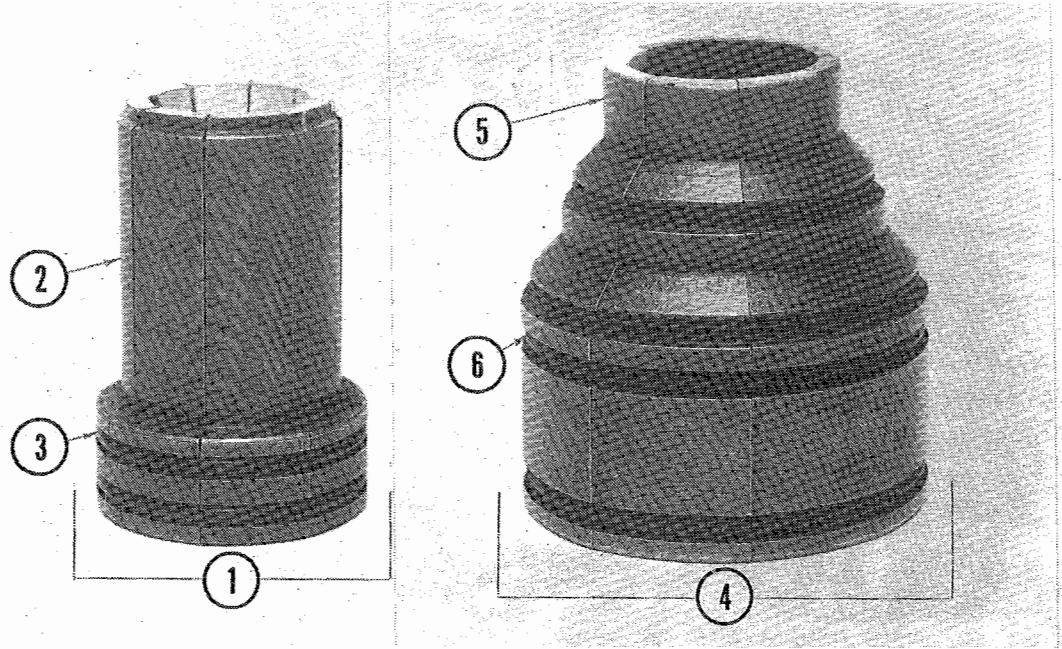


CODE	PART NUMBER	PART NAME	QTY.	CODE	PART NUMBER	PART NAME	QTY.
1	60876	RADIUS DIE, 114-3	1	2	61107	BACK SHOE, 114-1	2
1	60877	RADIUS DIE, 138-3	1	2	61109	BACK SHOE, 138-1	2
1	61260	RADIUS DIE, 138-4	1	2	61000	BACK SHOE, 112-1	2
1	60221	RADIUS DIE, 112-3	1	2	61111	BACK SHOE, 158-1	2
1	60222	RADIUS DIE, 112-4	1	2	61001	BACK SHOE, 134-1	2
1	61044	RADIUS DIE, 158-3	1	2	61002	BACK SHOE, 178-1	2
1	60878	RADIUS DIE, 158-4	1	2	61003	BACK SHOE, 200-1	2
1	61083	RADIUS DIE, 158-5	1	2	61086	BACK SHOE, 218-1	2
1	60225	RADIUS DIE, 134-3	1	2	61004	BACK SHOE, 214-1	2
1	60226	RADIUS DIE, 134-4	1	2	61116	BACK SHOE, 238-1	2
1	60227	RADIUS DIE, 134-5	1	2	61005	BACK SHOE, 212-1	2
1	60230	RADIUS DIE, 178-3	1	2	61122	BACK SHOE, 234-1	2
1	60231	RADIUS DIE, 178-4	1	2	61006	BACK SHOE, 300-1	2
1	60232	RADIUS DIE, 178-5	1				
1	60235	RADIUS DIE, 200-3	1				
1	60236	RADIUS DIE, 200-4	1				
1	60237	RADIUS DIE, 200-5	1	3	61108	HALF SHOE, 114-H	1
1	61084	RADIUS DIE, 218-3	1	3	61110	HALF SHOE 138-H	1
1	61085	RADIUS DIE, 218-4	1	3	61014	HALF SHOE, 112-H	1
1	61082	RADIUS DIE, 218-5	1	3	61112	HALF SHOE, 158-H	1
1	60240	RADIUS DIE, 214-3	1	3	61015	HALF SHOE, 134-H	1
1	60241	RADIUS DIE, 214-4	1	3	61016	HALF SHOE, 178-H	1
1	60242	RADIUS DIE, 214-5	1	3	61017	HALF SHOE, 200-H	1
1	61114	RADIUS DIE, 238-4	1	3	61087	HALF SHOE, 218-H	1
1	61115	RADIUS DIE, 238-5	1	3	61018	HALF SHOE, 214-H	1
1	60245	RADIUS DIE, 212-4	1	3	61117	HALF SHOE, 238-H	1
1	60246	RADIUS DIE, 212-5	1	3	61019	HALF SHOE, 212-H	1
1	61121	RADIUS DIE, 234-5	1	3	61123	HALF SHOE, 234-H	1
1	61020	RADIUS DIE, 300-5	1				
				4	61879	THREE QUARTER SHOE, 114-0	1
				4	61880	THREE QUARTER SHOE, 138-0	1
				4	61008	THREE QUARTER SHOE, 112-0	1
				4	61045	THREE QUARTER SHOE, 158-0	1
				4	61009	THREE QUARTER SHOE, 134-0	1
				4	61010	THREE QUARTER SHOE, 178-0	1
				4	61011	THREE QUARTER SHOE, 200-0	1
				4	61783	THREE QUARTER SHOE, 218-0	1
				4	61012	THREE QUARTER SHOE, 214-0	1
				4	61784	THREE QUARTER SHOE, 238-0	1
				4	61013	THREE QUARTER SHOE, 212-0	1
				4	62011	THREE QUARTER SHOE, 234-0	1

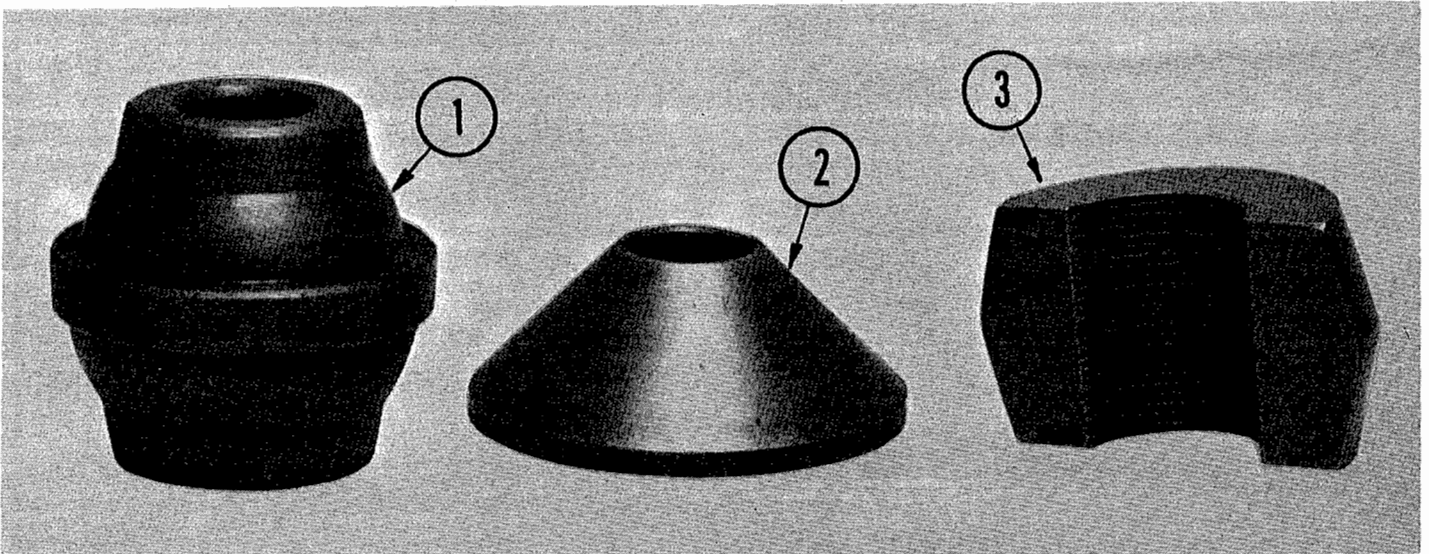
SEGMENTED BUICK BALLS CHEVROLET FLANGE TOOLS



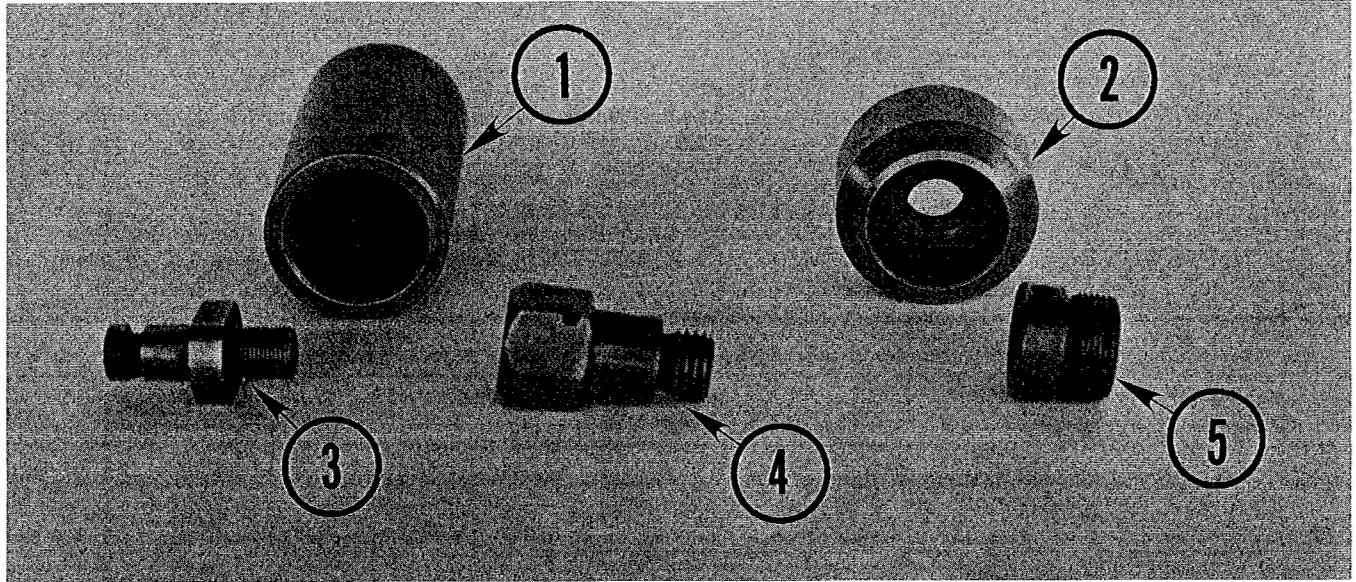
CODE	PART NUMBER	PART NAME	QUANTITY		
			BP79		
1	61544	Segmented Buick Ball, 2	1		
2	61754	Segment, 2 (8)			
3	60256	O'Ring (2)			
1	61545	Segmented Buick Ball, 2-1/4	1		
2	61755	Segment, 2 1/4 (8)			
3	60257	O'Ring (2)			
1	61546	Segmented Buick Ball, 2 1/2	1		
2	61756	Segment, 2 1/2 (8)			
3	60283	O'Ring (2)			
4	60857	Segmented Chevrolet Flange Tool, 2	1		
5	60905	Segment, 2 (8)			
6	60257	O'Ring (2)			
4	60867	Segmented Chevrolet Flange Tool, 2 1/4	1		
5	60906	Segment, 2 1/4 (8)			
6	60283	O'Ring (2)			
#	61533	Flattening Tool Structure			
#	61835	O'Ring Kit - Segmented Tools (Assorted)	1		
#		NOT SHOWN			



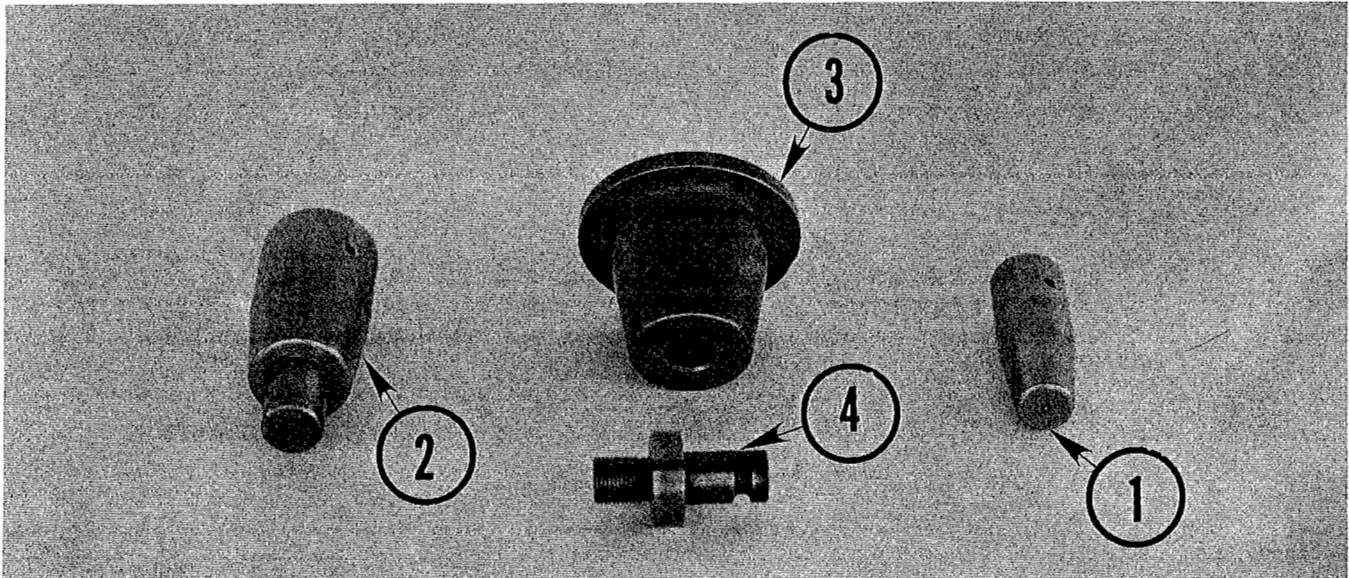
CODE	PART NUMBER	PART NAME	QUANTITY		
			BP79		
*1	61046	Segmented Expander, 1 1/4 and 1 3/8	1		
2	61060	Segment (6)			
3	60364	O'Ring (2)			
1	61967	Segmented Expander, 1 1/2 and 1 5/8	1		
2	61968	Segment (8)			
3	60364	O'Ring (2)			
1	61548	Segmented Expander, 1 3/4 Thru 2	1		
2	61758	Segment (8)			
3	60364	O'Ring (2)			
1	61549	Segmented Expander, 2 1/8 Thru 2 1/2	1		
2	61777	Segment (8)			
3	60366	O'Ring (2)			
1	61550	Segmented Expander, 2 5/8 Thru 3	1		
2	61759	Segment (8)			
3	60258	O'Ring (2)			
4	61136	Segmented 45 Degree Flare, 1 1/2	1		
5	61551	Segment (6)			
6	60256	O'Ring (2)			
4	61542	Segmented 45 Degree Flare, 1 3/4 & 1 7/8 - 2 1/4 & 2 3/8	1		
5	61753	Segment (8)			
6	60256	O'Ring (2)			
4	61778	Segmented 45 Degree Flare, 2 and 2 1/2	1		
5	61781	Segment (8)			
6	60365	O'Ring (2)			
4	60447	Segmented 45 Degree Flare, 3	1		
5	60898	Segment (8)			
6	60363	O'Ring (2)			
#	60366	O'Ring (1)			



CODE	PART NUMBER	PART NAME	QUANTITY		
			BP79		
*1	60780	Female Ball Joint Tool 1 3/4 and 2	1		
*1	60779	Female Ball Joint Tool 2 1/4 and 2 1/2	1		
*2	61049	Flare 45 Degree and 90 Degree	1		
3	61432	Collet 1 1/4	2		
	61431	Collet 1 3/8	2		
	61430	Collet 1 1/2	2		
	61429	Collet 1 5/8	2		
	61428	Collet 1 3/4	2		
	61427	Collet 1 7/8	2		
	61426	Collet 2	2		
	61425	Collet 2 1/8	2		
	61424	Collet 2 1/4	2		
	61752	Collet 2 3/8	2		
	61423	Collet 2 1/2	2		
	62227	Collet 3	2		
*		Must Be Used On 61233 Swager to Operate			
	62086	Cat Pack (Ball Joint Tooling Package)			



CODE	PART NUMBER	PART NAME	QUANTITY		
			BP79		
-	62160	1 5/8 Reducer Tool Assembly	1		
1		1 - 62161 Reducer Tool 1 5/8			
5		1 - 61248 Adapter Assembly Includes:			
		1 - 61311 Hardened Pin 1/4 x 7/8			
-	62212	1 3/4 Reducer Tool Assembly	1		
1		1 - 62211 Reducer Tool 1 3/4			
5		1 - 61248 Adapter Assembly Includes:			
		1 - 61311 Hardened Pin 1/4 x 7/8			
-	61254	1 7/8 Reducer Tool Assembly	1		
1		1 - 61255 Reducer Tool 1 7/8			
5		1 - 61248 Adapter Assembly Includes:			
		1 - 61311 Hardened Pin 1/4 x 7/8			
-	61252	2 Reducer Tool Assembly	1		
1		1 - 61253 Reducer Tool 2			
		1 - 61248 Adapter Assembly Includes:			
		1 - 61311 Hardened Pin 1/4 x 7/8			
-	61250	2 1/4 Reducer Tool Assembly	1		
1		1 - 61251 Reducer Tool 2 1/4			
5		1 - 61248 Adapter Assembly Includes:			
		1 - 61311 Hardened Pin 1/4 x 7/8			
-	62233	2 1/2 Reducer Tool Assembly	1		
1		1 - 62230 Reducer Tool 2 1/2			
5		1 - 61248 Adapter Assembly Includes:			
		1 - 61311 Hardened Pin 1/4 x 7/8			
-	62232	2 3/4 Reducer Tool Assembly	1		
1		1 - 62228 Reducer Tool 2 3/4			
5		1 - 61311 Hardened Pin 1/4 x 7/8			
-	61258	1 1/2 & 2 Super Flange Tool Assembly Includes:	1		
2		1 - 61259 Super Flange Tool 1 1/2 & 2			
4		1 - 61256 Flange Extension Assembly Includes:			
		1 - 61311 Hardened Pin 1/4 x 7/8			
-	61792	1 3/4 & 2 1/4 Super Flange Tool Assembly	1		
2		1 - 61794 Super Flange Tool 1 3/4 & 2 1/4			
4		1 - 61256 Flange Extension Assembly Includes:			
		1 - 61311 Hardened Pin 1/4 x 7/8			
3	61247	Adapter (Use With All Above Parts)	1		



CODE	PART NUMBER	PART NAME	QUANTITY		
			BP79		
1	61245	1 1/4 Swager Die Assembly – Includes: 1 – 61311 Hardened Pin 1/4 x 7/8	1		
1	61243	1 3/8 Swager Die Assembly – Includes: 1 – 61311 Hardened Pin 1/4 x 7/8	1		
1	61241	1 1/2 Swager Die Assembly – Includes: 1 – 61311 Hardened Pin 1/4 x 7/8	1		
1	61239	1 5/8 Swager Die Assembly – Includes: 1 – 61311 Hardened Pin 1/4 x 7/8	1		
1	61237	1 3/4 Swager Die Assembly – Includes: 1 – 61314 Hardened Pin 1/4 x 1 1/4	1		
1	61235	1 7/8 Swager Die Assembly – Includes: 1 – 61314 Hardened Pin 1/4 x 1 1/4	1		
2	61233	2 Swager Die Assembly – Includes: 1 – 61314 Hardened Pin 1/4 x 1 1/4	1		
1	61506	2 1/8 Swager Die Assembly – Includes: 1 – 61317 Hardened Pin 1/4 x 1 3/4	1		
1	61231	2 1/4 Swager Die Assembly – Includes: 1 – 61317 Hardened Pin 1/4 x 1 3/4	1		
1	61750	2 3/8 Swager Die Assembly – Includes: 1 – 61317 Hardened Pin 1/4 x 1 3/4	1		
1	61229	2 1/2 Swager Die Assembly – Includes: 1 – 61317 Hardened Pin 1/4 x 1 3/4	1		
1	62231	3 Swager Die Assembly – Includes: 1 – 61317 Hardened Pin 1/4 x 1 3/4	1		
3	62216	Header Collector Tool Assembly 1 – 62217 Header Collector Tool 2 – 61318 Groove Pin 2	1		
4	61247	Adapter (Use With All Above Parts)	1		