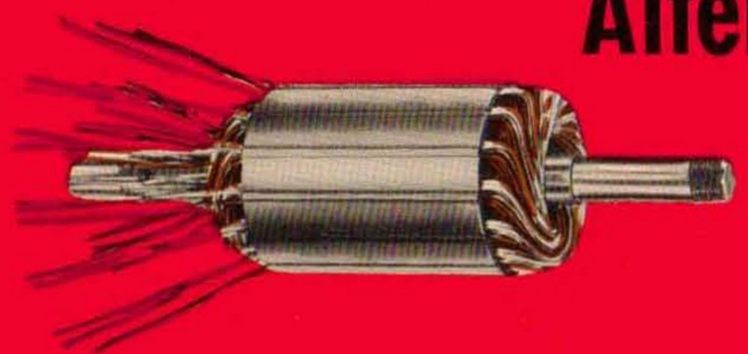
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SECTION 36 & 37

PREFORMED COIL WINDING DATA

Price
$25.00

Generator & Starter Armatures
Alternator Stators & Rotors





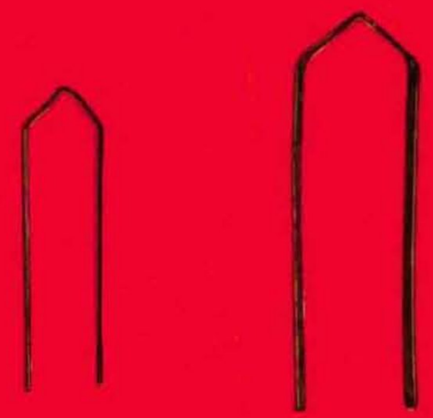


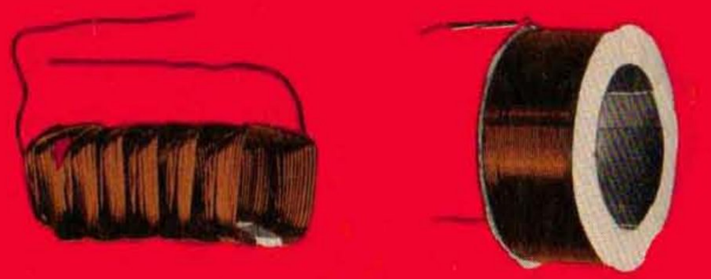












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FOREWORD

The International Products and Manufacturing Company's No. 36-37F01 Preformed Armature Coil Winding Information Manual is the most comprehensive and complete passenger car, light and heavy truck, tractor, off the road equipment, foreign car, outboard marine, motorcycle, light and heavy alternator stator winding data ever compiled for the armature rewinders.

Over thirty-five (35) years of painstaking research and records by the Experimental and Research Department of International Products & Manufacturing Co., of their armature winding data and compilation are incorporated into this valuable manual. In fact, invaluable and no rewinding shop is complete without it.

Pertinent winding information, data and armature component part numbers of Delco-Remy, Autolite, Chrysler, Ford, Prestolite, Leece-Neville, Ducellier, Fiat, Simca, Renault-Dauphine, German Bosch Volkswagen, Delco-Remy and Autolite Outboard Marine Armatures are listed. Also, Delco-Remy and Chrysler passenger car and heavy duty alternator stator winding and hook-ups.

Classification of armature coils are as follows: Magnet Wire – Heavy Round Copper Bar – Heavy Rectangular Copper Bar – Stator Coils – Magnet Wire & Rectangular Copper Bar. There is a numerical listing of original armatures by part number as well as numerical listing of IPM coil numbers and their application to original armature numbers.

Information of armature winding data includes original number of armature, preformed coil used, Line-up, IPM Shaft number, IPM Commutator number, proper placement and location of commutator on shaft, Width of Tuftan insulation, IPM End Fibre number, Commutator shoulder distance, Coil span, Commutator pitch, Location of top and bottom leads, slot insulation used, IPM Steel Lamination number. Also, other winding information when necessary. All specifications and data listed are duplicate of original specifications. All preformed coils are produced to original wire size and number of turns. This manual is respectfully dedicated to armature rewinders everywhere.

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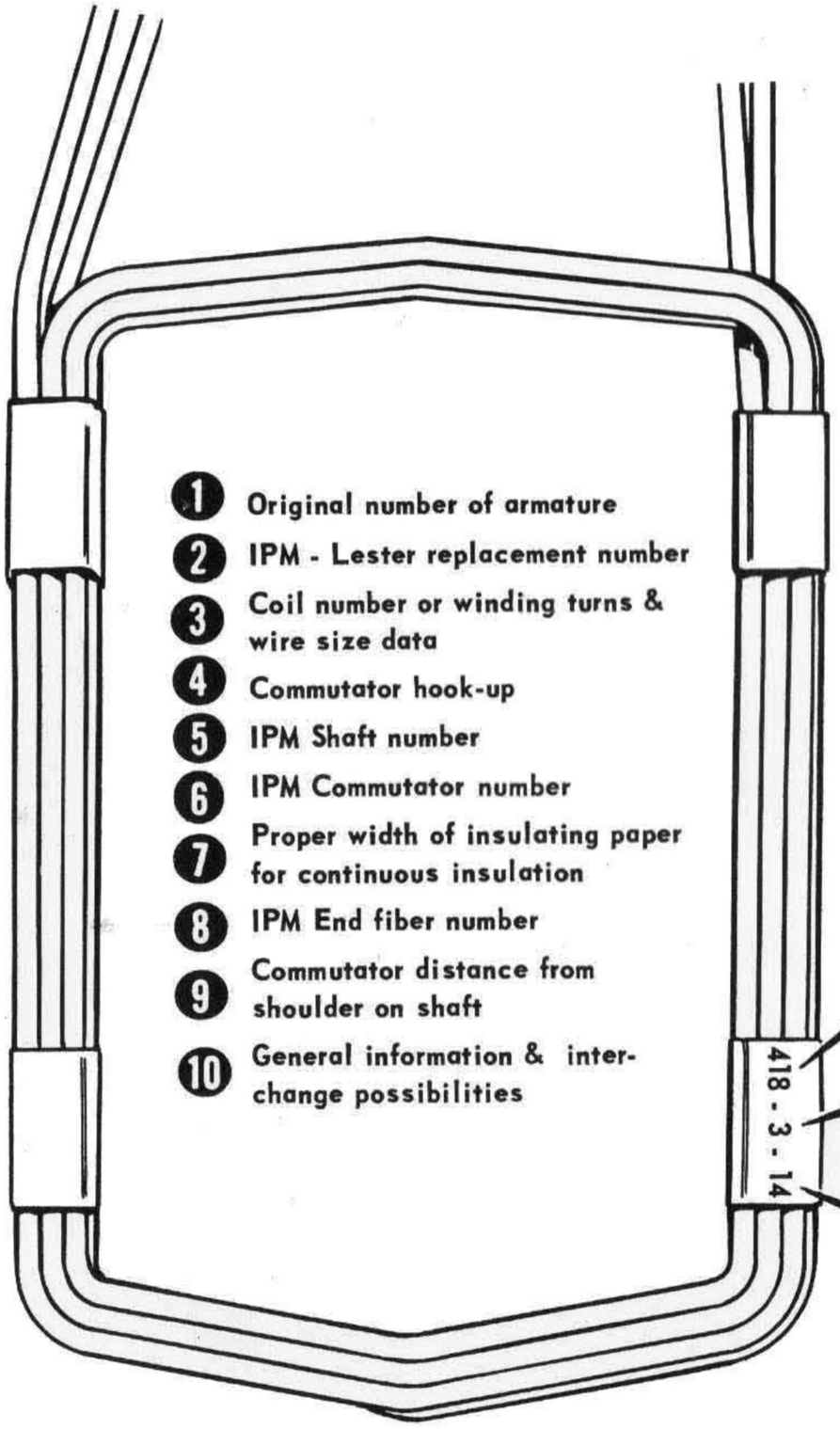
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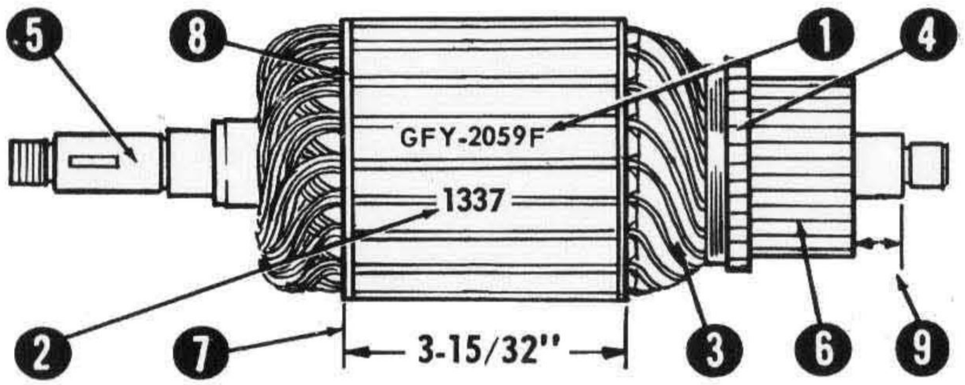
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Generator Armature Preform Coil Explanation



1. Original number of armature
2. IPM - Lester replacement number
3. Coil number or winding turns & wire size data
4. Commutator hook-up
5. IPM Shaft number
6. IPM Commutator number
7. Proper width of insulating paper for continuous insulation
8. IPM End fiber number
9. Commutator distance from shoulder on shaft
10. General information & interchange possibilities



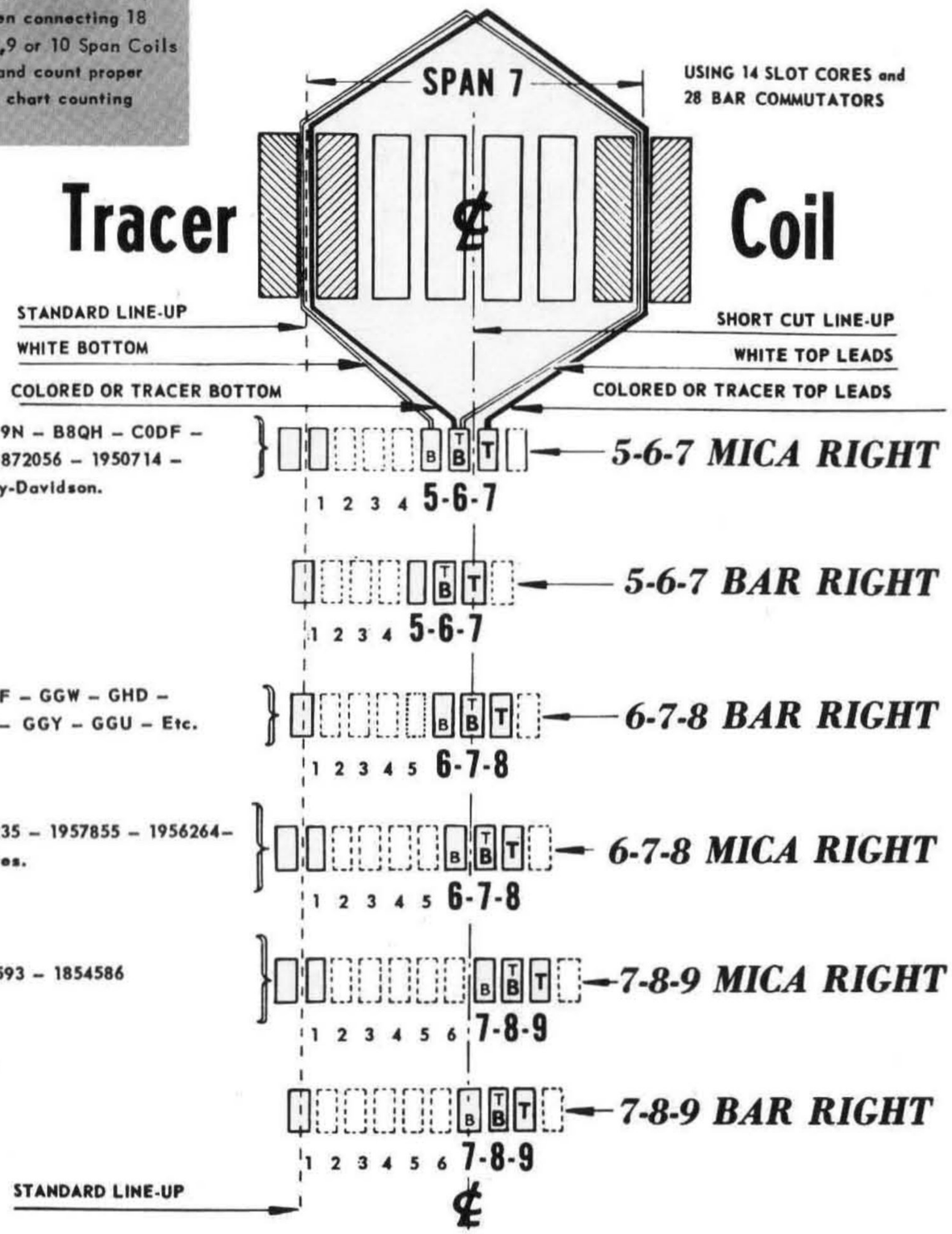
Interpreting Coil Code

A INDICATES USED ON 418 INSERTER. Note- Coils fit 4-3/16" core length. Same would apply to inserter No. 3, 4, 16, 33, etc.

B INDICATES AMOUNT OF TURNS. (Sample coil 3 turns). When center number is 23 or 34 this indicates alternate coils. Example: 23 in center number denotes half the number of coils per armature are 2 turn coils & half are 3 turn coils. When center number is 35 - this indicates 3½ turns per coil.

C INDICATES SIZE OF WIRE. Example - No. 14 indicates No. 14 wire. No. 145 indicates 14½ wire.

1910073 – 418, 1909996 – 588, GGJ-2101F – 80, GFY-2101F – 1320, NOTE: when connecting 18 Slot Armatures 8-9-10 BR or 8,9 or 10 Span Coils Line up on left side of the Coil and count proper numbers of bars as shown on the chart counting to the right.



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IPM Delco-Remy Generator Armatures (Magnet Wire Coils)

Original Armature Number	Lester Catalog Code No.	IPM Coil Number	Hook-Up	IPM Shaft Number	IPM Comm. Number	Tuftan Width	IPM End Fibre Number	Comm. Distance From Shoulder to Comm. Bar	Remarks
1841027 (A4)	733-A	4-6-17	6-7-8 MR	307	622	2-9/16	801	1/4"	Use 733 Core; 1853593, 1854856
1841027 (2-1/8" Core)	733	733-6-17	6-7-8 MR	307	622	2-5/16	801	1/4"	Can be wound on 7625 or 733 Inserter
1841982	3-A	3-6-17	7-8-9 BR	319	622	3-5/8	801	1/4"	Same as "B1" Core
1845816 (B4)	770	3-6-17	6-7-8 MR	271	622	3-5/8	801	7/16"	
1853593 (A3)	733	4-5-16	7-8-9 MR	307	622	2-9/16	801	1/4"	Superceded by 1871826
1854856	733	4-5-16	7-8-9 MR	307	622	2-9/16	801	1/4"	Superceded by 1871826
1855429	836	4-8-18	6-7-8 MR	307	622	2-5/8	800	9/32"	Same as "A1" Core
1861063	1271	3-8-18	6-7-8 MR	319	622	3-5/8	800	1/4"	Use "B1" Core (Deep Slot)
1861377	929	4-5-16	6-7-8 MR	269	622	2-5/8	801	7/32"	See "NOTE" (Page 12)
1862807		3-8-18	6-7-8 MR	319	622	3-5/8	800	1/4"	Use "B1" Core (Deep Slot)
1866789 (A2)	1006	4-5-16	7-8-9 MR	307	622	2-9/16	800	1/4"	Superceded by 1871826
1871826 (A1)	1006	4-5-16	7-8-9 BR	307	622	2-9/16	800	1/4"	Same as "A2" Core
1872056-1868730	1118	1118-4-14	5-6-7 MR	273	1426	3-7/8	908	1-5/16" END	14-slot. Span 7
1872608	217	4-7-17	6-7-8 MR	307	622	2-5/8	800	1/4"	Same as 1866789 Core
1873054	165	4-6-17	6-7-8 MR	285	622	2-9/16	801	1/4"	See "NOTE" (Page 12)
1873054	165	733-6-17	6-7-8 MR	285	622	2-5/16	801	1/4"	Can be wound on 7625 Inserter only. Tractor
1877882	1272	3-8-18	6-7-8 BR	319	622	3-5/8	800	9/32"	Same as "B1" Core (Deep Slot)
1878171	298	4-8-18	6-7-8 BR	307	622	2-5/8	800	9/32"	Same as "A1" Core
1878211	3	3-4-15	6-7-8 MR	319	622	3-5/8	801	1/4"	Superceded by 1921235
1878273	227	4-8-18	6-7-8 MR		622	2-5/8	800	1/4"	
1878415	236	4-8-18	6-7-8 MR	285	622	2-5/8	800	1/4"	
1879002 (B1)	3	3-4-15	6-7-8 MR	319	622	3-5/8	801	1/4"	
1879298	251	3-4-15	6-7-8 MR	278	622	3-5/8	801	1/4"	
1879790	258	3-6-17	6-7-8 BR	319	622	3-5/8	801	1/4"	

IPM Delco-Remy Generator Armatures (Magnet Wire Coils)

Original Armature Number	Lester Catalog Code No.	IPM Coil Number	Hook-Up	IPM Shaft Number	IPM Comm. Number	Tuftan Width	IPM End Fibre Number	Comm. Distance From Shoulder to Comm. Bar	Remarks
1880550	9	3-3-145	6-7-8 MR	319	622	3-5/8	801	1/4"	Same as "B1" Core
1880866 (B1)		3-4-15	6-7-8 MR	319	622	3-5/8	801	1/4"	Same as "B1" Core
1881288	354	3-4-15	6-7-8 MR	2446	622	3-5/8	993	3/16"	
1881296	357	3-4-15	5-6-7 MR	2446	622	3-5/8	993	3/16"	Same as 1881288 Core
1882588	330	3-4-15	6-7-8 MR	289	622	3-5/8	801	5/32"	
1883136	6	3-5-16	7-8-9 BR	279	622	3-5/8	801	1/4"	
1883880	414	4-8-18	6-7-8 MR	285	622	2-5/8	800	1/4"	
1884120	1230	4-7-17	6-7-8 MR	285	622	2-5/8	800	1/4"	Same as 1909152 – 1848415
1884168	1275	3-4-15	6-7-8 MR	2447	622	3-5/8	993	7/32"	
1887047	1226	3-3-145	6-7-8 MR	1160	622	3-5/8	801	13/32"	
1888493	1236	3-5-16	6-7-8 MR	1160	622	3-5/8	801	13/32"	Same as 1887047 Core
1902420	1488	3-5-16	7-8-9 BR		622	3-5/8	801	1/4"	Same as 1909854 Core
1903424	1226	3-3-145	6-7-8 MR	1160	622	3-5/8	801	13/32"	
1903852	1278	3-4-15	6-7-8 MR		622	3-5/8	801	1/4"	
1904248	1239	3-3-145	6-7-8 MR	279	622	3-5/8	801	9/32"	
1905526	1239	3-3-145	6-7-8 MR	279	622	3-5/8	801	1/4"	
1905671	1280	1280-8-18	6-7-8 MR	2166	622	1-5/16	800	1/4"	Same as 1917296 Core Marine Type
1907324	1282	3-4-15	6-7-8 MR	1160	622	3-5/8	801	13/32"	
1908042	1285	3-6-17	6-7-8 MR	2760	622	3-5/8	993	3/16"	Same as 1915876 Core
1908076	1286	3-5-16	5-6-7 MR	2760	622	3-5/8	993	5/32"	Same as 1915869 – 1915876 Core
1908087	1287	3-6-17	5-6-7 MR	2760	622	3-5/8	993	5/32"	Same as 1915869 – 1915876 Core
1908090	1288	3-5-16	6-7-8 MR	1314	622	3-5/8	801	13/32"	
1909152	1291	4-8-18	6-7-8 MR	285	622	2-5/8	800	1/4"	
1909631	1321	3-4-15	6-7-8 MR	3587	622	3-5/8	993	1/4"	Same as 1909488 Core
1910597	565	3-4-15	5-6-7 MR	3587	622	3-5/8	993	9/32"	Same as 1910601, 604, 1932146
1910601	1324	3-4-15	6-7-8 MR	3587	622	3-5/8	993	9/32"	Same as 1910597 – 1901604 – 1932146

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IPM Delco-Remy Generator Armatures (Magnet Wire Coils)

Original Armature Number	Lester Catalog Code No.	IPM Coil Number	Hook-Up	IPM Shaft Number	IPM Comm. Number	Tuftan Width	IPM End Fibre Number	Comm. Distance From Shoulder to Comm. Bar	Remarks
1910604	1445	3-6-17	5-6-7 MR	3587	622	3-5/8	993	9/32"	Same as 1910601,-- 1932146 -- 1910597
1911454	29	3-4-15	6-7-8 MR	1168	622	3-5/8	801	5/32"	
1911880	1439	3-4-15	6-7-8 MR	1314	622	3-5/8	801	13/32"	Same as 1919567 Core
1912599	9	3-3-145	6-7-8 MR	319 or 51-319	622	3-5/8	801 or 993	1/4"	Same as "B1" Core
1913560	1313	4-4-15	6-7-8 MR	1546	622	2-5/8	801	1/4"	
1913597	35	3-4-15	6-7-8 MR	1167	622	3-5/8	801	7/32"	
1913666	1304	3-5-16	6-7-8 MR	319	622	3-5/8	801	1/4"	Same as "B1" Core
1913735	1455	4-6-17	6-7-8 MR	1546	622	2-5/8	801	1/4"	
1915869	1342	3-4-15	6-7-8 MR	2760	622	3-5/8	993	3/16"	Same as 1915876 Core
1915876	1343	3-4-15	5-6-7 MR	2760	622	3-5/8	993	3/16"	Same as 1915869 Core
1916798	252	3-3-145	6-7-8 MR	278	622	3-5/8	801	1/4"	
1917164	1344	4-4-15	6-7-8 MR	52-307	622	2-5/8	993	1/4"	Same as 1921351
1917296	1345	1345-6-17	6-7-8 MR	2166	622	1-5/16	801	1/4"	Same as 1905671 Core. Tractor
1917623	1456	3-3-145	6-7-8 MR	1314	622	3-5/8	801	13/32"	Same as 1908090 Core
1918009	1459	3-23-145*	6-7-8 MR	51-319	622	3-5/8	993	1/4"	Same as 1921621
1919349	1347	11 T No. 20	6-7-8 MR	3627	622	3-5/8	801	7/16	
1919387	1471	3-23-145*	6-7-8 MR	1160	622	3-5/8	801	13/32"	Same as 1887047 Core
1919387	1471	3-3-145	6-7-8 MR	1160	622	3-5/8	801	7/16"	
1919567	1348	3-23-145*	6-7-8 MR	1314	622	3-5/8	801	7/16"	
1920909	1461	3-34-15*	6-7-8 MR	51-319	622	3-5/8	993	1/4"	Same as 1921235
1921235	12	3-34-15*	6-7-8 MR	51-319	622	3-5/8	993	1/4"	Same as "B1" Core
1921351	1	4-4-15	6-7-8 MR	52-307	622	2-5/8	993	1/4"	Same as "A3" Core
1921621	13	3-23-145*	6-7-8 MR	51-319	622	3-5/8	993	1/4"	Same as "B1" Core
1921981	65	3-23-145*	6-7-8 MR	1167	622	3-5/8	801	1/4"	
1923003	31	3-3-145	6-7-8 MR	278	622	3-5/8	801	1/4"	Same as 1879298 Core
1923091	73	3-4-15	6-7-8 MR	278	622	3-5/8	801	1/4"	Same as 1879298 Core
1923299 3359	1491	3-8-18	6-7-8 MR	1160	622	3-5/8	800	13/32"	Same as 1887047 Deep Slot Core
1923535 (12V)	14	3-4-16	6-7-8 MR	51-319	622	3-5/8	995	1/4"	Same as "B1" Core

IPM Delco-Remy Generator Armatures (Magnet Wire Coils)

Original Armature Number	Lester Catalog Code No.	IPM Coil Number	Hook-Up	IPM Shaft Number	IPM Comm. Number	Tuftan Width	IPM End Fibre Number	Comm. Distance From Shoulder to Comm. Bar	Remarks
1924893	8	3-23-145*	6-7-8 MR	51-319	622	3-5/8	993	1/4"	Same as 1921621
1925210 (12V)	15	3-4-16	6-7-8 MR	1544X	622	3-5/8	995	1/4"	
1925348	2	4-3-145	6-7-8 MR	52-307	622	2-5/8	993	1/4"	Same as "A3" Core
1925556	1470	3-23-145*	6-7-8 MR	1544X	622	3-5/8	993	1/4"	Same as 1925210 Core
1925630	1467	3-4-15	6-7-8 MR	1544X	622	3-5/8	993	1/4"	Same as 1925210 Core
1925960	49	4-4-15	6-7-8 MR	1555	622	2-5/8	801	7/32"	
1927097	320	3-34-15*	6-7-8 MR	2301	622	3-5/8	801	1/4"	Same as 1932839 Core
1927182	1492	3-4-16	6-7-8 MR	278	622	3-5/8	801	1/4"	Same as 1879298 Core
1927482	1487	4-4-15	6-7-8 MR	2309	622	2-5/8	801	1/4"	Same as 1932746 Core
1928003	314	3-4-15	6-7-8 MR	1544X	622	3-5/8	993	1/4"	Same as 1925210 Core
1928952 (12V)	40	4-5-17	6-7-8 MR	52-307	622	2-5/8	995	1/4"	Same as "A3" Core
1929558	30	4-34-15*	6-7-8 MR	52-307	622	2-5/8	993	1/4"	Same as 1853593 Core
1929640 (12V)	34	3-4-16	6-7-8 MR	2232	622	3-5/8	995	3/16"	
1930238	1010	3-6-18	6-7-8 MR	"X"	622	3-5/8	995	1/4"	Same as 1931901 Core
1930614	1496	3-5-17	6-7-8 MR	51-319	622	3-5/8	993	1/4"	Same as 1923535 Core
1930814 (12V)	466	3-4-16	6-7-8 MR	51-319	622	3-5/8	995	1/4"	Same as 1923535 Core
1930888	1272	3-8-18	6-7-8 MR	319	622	3-5/8	800	1/4"	Same as "B1" Deep Slot Core
1931537	503	3-4-16	6-7-8 MR	2300	622	3-5/8	995	1/4"	
1931641	1024	3-5-16	6-7-8 MR	"X"	622	3-5/8	993	9/32"	
1931901	1011	3-5-16	5-6-7 MR	22	622	3-5/8	993	9/32"	Same as 1930238 Core
1931911	1191	3-6-18	6-7-8M R	1544X	622	3-5/8	995	1/4"	Same as 1925210 Core
1932069	176	3-5-16	6-7-8 MR	1544X	622	3-5/8	993	1/4"	Same as 1925210 Core
1932146	741	3-5-16	6-7-8 MR	3587	622	3-5/8	993	9/32"	Same as 1910601 – 1910604 – 597
1932263	536	3-23-145*	6-7-8 MR	2301	622	3-5/8	801	1/4"	Same as 1932839 Core
1932292	913	3-4-15	6-7-8 MR	1167	622	3-5/8	801	1/4"	Same as 1913597 Core
1932746	1013	4-6-17	6-7-8 MR	2309	622	2-5/8	801	1/4"	Same as 1866789 Core with Front Bearing tapped for Tachometer

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IPM Delco-Remy Generator Armatures (Magnet Wire Coils)

Original Armature Number	Lester Catalog Code No.	IPM Coil Number	Hook-Up	IPM Shaft Number	IPM Comm. Number	Tuftan Width	IPM End Fibre Number	Comm. Distance From Shoulder to Comm. Bar	Remarks
1932839	175	3-4-16	6-7-8 MR	2301	622	3-5/8	801	1/4"	Same as 1932263 Core
1932900	50	3-4-15	6-7-8 MR	319 or 51-319	622	3-5/8	801 or 993	1/4"	Same as "B1" Core
1933202	1014	4-6-17	6-7-8 MR	1310	622	2-5/8	801	3/16"	Same as 1935522 Core
1933352	71	4-5-17	6-7-8 MR	1555	622	2-5/8	801	1/4"	Same as 1925960 Core
1933855		3-4-15	6-7-8 MR	319	622		801	1/4"	Same as "B1" Core
1934326	72	3-4-16	6-7-8 MR	1167	622	3-5/8	801	1/4"	Same as 1913597 Core
1934550	471	3-4-15	6-7-8 MR	3588	622	3-5/8	993	9/32"	
1935277		3-4-15	6-7-8 MR	51-319	622	3-5/8	993	1/4"	Same as 1932900 Core
1935457	742	3-8-18	6-7-8 MR	3596	622	3-5/8	800	1/4"	Same as 1956264 Core
1935778	178	3-3-145	6-7-8 MR	51-319	622	3-5/8	993	1/4"	Same as "B1" Core
1935994		4-5-17	6-7-8 MR	52-307	622	2-5/8	995	1/4"	Same as 1928952 Core
1936665	1018	3-6-18	6-7-8 MR	51-319	622	3-5/8	995	1/4"	Same as 1923535 Core
1938761	177	3-4-15	6-7-8 MR	2232	622	3-5/8	993	3/16"	Same as 1929640 6V Core
1939182	557	3-3-145	5-6-7 MR	1544X	622	3-5/8	993	1/4"	Same as 1925210 Core
1939229	1090	3-6-17	6-7-8 MR	1544X	622	3-5/8	993	1/4"	Same as 1925210 Core
1939837	130	3-3-145	6-7-8- MR	1544 or 1544X	622	3-5/8	801 or 993	1/4"	Same as 1925210 Core
1939904	242	3-3-145	3-4 MR	1544	3114	3-5/8	801	1/4"	Same as 1945778 Core
1939954		4-4-145	3-4 MR	2831	3114	2-5/8	800	1/4"	Same as 1946903 Core w/800 Slot Depth
1940161	314	3-4-15	6-7-8 MR	3589	622	3-5/8	993	1/4"	Same as 1925210 Core
1940313	131	3-4-15	6-7-8 MR	2232X	622	3-5/8	801	3/16"	Same as 1938761 Core
1940737	337	3-4-15	6-7-8 MR	51-319	622	3-5/8	993	1/4"	Same as 1932900, Core, 50
1941447	1131	3-4-15	6-7-8 MR	1544	622	3-5/8	993	1/4"	Same as 1946719, 1940161, 1948005 Cores
1941997	1142	3-5-16	5-6-7 MR	1544	622	3-5/8	993	1/4"	Same as 1946719, 1940161 1948005 Cores
1945778	898	3-5-16	3-4 MR	1544	3114	3-5/8	801	1/4"	
1945818	716	3-4-15	6-7-8 MR	3590	622	3-5/8	993	9/32"	Same as 1950714, 1951674 Cores
1945922	558	3-35-15*	6-7-8 MR	1544X	622	3-5/8	993	1/4"	Same as 1925210 Core

Delco-Remy Generator Armatures (Magnet Wire Coils)

Original Armature Number	Lester Catalog Code No.	IPM Coil Number	Hook-Up	IPM Shaft Number	IPM Comm. Number	Tuftan Width	IPM End Fibre Number	Comm. Distance From Shoulder to Comm. Bar	Remarks
1946719	101	3-4-15	6-7-8 MR	1544X	622	3-5/8	993	1/4"	Same as 1925210 Core
1946903	582	4-5-17	6-7-8 MR	2831XX	622	2-5/8	995	1/4"	No. 40 with No. 203BB at Comm. End.
1946931	231	3-4-16	6-7-8 MR	1544X	622	3-5/8	995	1/4"	Same as 1925210 Core , No. 15
1947506	52	3-4-15	6-7-8 MR	2793	622	3-5/8	993	1/4"	
1947604	51	3-4-15	6-7-8 MR	2301	622	3-5/8	801	1/4"	Same as 1932839, 1927097, 1932263, 1957588 Cores
1948005	125	3-4-15	6-7-8 MR	1544X	622	3-5/8	993	1/4"	Same as 1925210 Core
1948007	207	3-6-17	6-7-8 MR	1544X	622	3-5/8	993	1/4"	Same as 1925210 Core
1948086	86	4-4-16	6-7-8 MR	2832	622	2-5/8	995	1/4"	Same as 1854856 Core (Left-hand thread) Corvair
1948264	720	3-6-17	6-7-8 BR	3591	622	3-5/8	993	1/4"	Same as 1962848, 1948410, 1946842 Cores
1948410	722	3-4-15	6-7-8 BR	3591	622	3-5/8	993	1/4"	Same as 1942842
1949651	900	3-6-17	5-6-7 MR	3607	622	3-5/8	993	1/4"	
1949917	717	4-6-17	6-7-8 MR	2831	622	2-5/8	993	1/4"	Same as 1946903 Core
1949922	221	4-8-18	6-7-8 MR	2831	622	2-5/8	800	1/4"	Same as 1946903 Core w/800 Slot Depth
1950521	46	3-4-15	5-6-7 MR	2981	622	3-5/8	993	1/4"	Same as 1951669 Core
1950714	224	3-4-15	6-7-8 MR	3590	622	3-5/8	993	9/32"	Same as 1945818, 1951674, 1951482 (Core Only)
1951482	723	3-6-17	6-7-8 MR	3590	622	3-5/8	993	1/4"	Same as 1945818, 1950714, 1951674 Cores
1951600	226	3-4-15	6-7-8 MR	3592	622	3-5/8	993	7/32"	Same as 1945818, 1950714 Cores
1951669	47	3-34-15*	6-7-8 MR	2981	622	3-5/8	801	1/4"	Same as 1925210 (Left-hand Thread) Corvair
1951674		3-4-15	6-7-8 MR	3590	622	3-5/8	993	9/32"	Same as 1945818, 1950714 Cores
1952297	901	3-3-145	6-7-8 MR	319	622	3-5/8	801	1/4"	Same as 1912599 Core
1952301	45	3-4-16	5-6-7 MR	2857	622	3-5/8	995	1/4"	Same as 1923535 (Left-hand Thread) Corvair

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IPM Delco-Remy Generator Armatures (Magnet Wire Coils)

Original Armature Number	Lester Catalog Code No.	IPM Coil Number	Hook-Up	IPM Shaft Number	IPM Comm. Number	Tuftan Width	IPM End Fibre Number	Comm. Distance From Shoulder to Comm. Bar	Remarks
1953818	208	3-5-17	6-7-8 MR	1544	622	3-5/8	933	1/4"	Same as 1939856
1954879	108	3-4-15	6-7-8 MR	1544	622	"X"		"X"	
1956264		3-5-16	6-7-8 MR	3596	622	3-5/8	801	1/4"	Same as 1935457 Core
1957588	206	3-4-15	6-7-8 MR	2301	622	3-5/8	801	1/4"	Same as 1947604, 1932839, 1927097, 1932263 Cores
1957855	1276	3-3-145	6-7-8 MR	1544	622	3-5/8	993	1/4"	Same as 1939837 Core
1958598	28	3-4-15	6-7-8 MR	X	622	3-5/8	993	1/4"	
1962842	722	3-4-15	6-7-8 BR	3591	622	3-5/8	993	1/4"	Same as 1948410 Core
1962848	720	3-6-17	6-7-8 BR	3591	622	3-5/8	993	1/4"	Same as 1948264 Core
1962949	232	3-4-15	5-6-7 MR	3592	622	3-5/8	993	7/32"	Same as 1951600 Core
1963848	720	3-6-17	6-7-8 MR		622	3-5/8	993	9/32"	Same as 1939523 Core

"X" We Do Not Manufacture

NOTE

Those Cores used in No. 4 Inserter

Due to these Cores being too short for proper Coil Insertion, add 5/16 steel laminations at Drive End, thus making core length same as standard Number 733 - 1853593, etc. The armature will now run cooler than original giving a safety factor against an early burn-out.

* - Alternately wound. 7 Coils each of specified number of turns.

(12V) - On 12-volt type Original D.R. Cores, the Slot Opening must be milled to equal Regular "B1", which is .156 Wide.

IPM Delco-Remy H.D. Generator Armatures

Original Armature Number	Lester Catalog Code No.	IPM Coil Number	Hook-Up	IPM Shaft Number	IPM Comm. Number	Tuftan Width	IPM End Fibre Number	Comm. Distance From Shoulder to Comm. Bar	Remarks
1909996	588	418-3-14	*8-9-10 BR	368	1496	4-3/16	990	5/16"	18 Slots, Coil Span 9.
1910073	418	418-2-12	*8-9-10 BR	368	1496X	4-3/16	990	5/16"	18 Slots, Coil Span 9.
1911361	693	418-4-15	*8-9-10 BR	368	1496	4-3/16	990	5/16"	18 Slots, Coil Span 9.
1912609		418-3-14	*8-9-10 BR	"X"	1496	4-3/16	990	3/16"	Same as 1912714 Core
1912714	1447	418-2-12	*8-9-10 BR	"X"	1496X	4-3/16	990	7/32"	18 Slots, Coil Span 9.
1916679	744	418-4-15	*8-9-10 BR	"X"	1496	4-3/16	990	3/16"	Same as 1912714 Core
1920297	1460	418-2-12	*8-9-10 BR	368	1496X	4-3/16	990	7/32"	
1926461	1419	418-2-12	*8-9-10 BR	2856	1496X	4-3/16	990	5/32"	
1927074	1164	418-3-14	*8-9-10 BR	2308	1499	4-3/16	990	1/8"	Same as 1929360 Core
1929360	465	418-3-14	*8-9-10 BR	2308	1499	4-3/16	990	1/8"	18 Slots, Coil Span 9.
1930412	1494	418-4-15	*8-9-10 BR	2414	1496	4-3/16	990	1/4"	18 Slots, Coil Span 9.
1931276	916	418-2-12	*8-9-10 BR	2794	1496X	4-3/16	990	9/32"	Same as 1934450 Core
1932349	383	418-3-14	*8-9-10 BR	2415	1499	4-3/16	990	1/8"	Same Slots, Coil Span 9.
1934450	289	418-3-14	*8-9-10 BR	2794	1496	4-3/16	990	9/32"	Same as 1931276 Core
1936778	1129	418-3-14	*8-9-10 BR	368	1496	4-3/16	990	1/8"	Same as 1909996 Core
1937386	1089	418-4-15	*8-9-10 BR	368	1496	4-3/16	990	5/16"	18 Slots, Coil Span 9.
1937419	418	418-2-12	*8-9-10 BR	368	1496X	4-3/16	990	5/16"	18 Slots, Coil Span 9.
1937818	618	418-3-14	*8-9-10 BR	2308	1499	4-3/16	990	1/8"	Same as 1929360 Core
1939563	749	418-2-12	*8-9-10 BR	2855	1496X	4-3/16	990	5/16"	
1940310	914	418-3-14	*8-9-10 BR	2415	1499	4-3/16	990	1/8"	Same as 1932349 Core
1940415	1156	418-3-14	*8-9-10 BR	368	1496	4-3/16	990	5/16"	Same as 1909996 Core
1949432	212	418-4-15	*8-9-10 BR	368	1496	4-3/16	990	5/16"	Same as 1937386 Core
1952018	305	418-2-12	*8-9-10 BR	"X"	1496	4-3/16	990	5/16"	

For 7625 Universal Inserter Use 7625-2-12.

1496X - Slotted For 12 Wire (.081).

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Autolite Generator Armatures (Magnet Wire Coils)

Original Armature Number	Lester Catalog Code No.	IPM Coil Number	Hook-Up	IPM Shaft Number	IPM Comm. Number	Tuftan Width	IPM End Fibre Number	Comm. Distance From Shoulder to Comm. Bar	Remarks
GAS-2076	726	726-6-18	4-5-6 BR		1401	2-5/8	904	3/8"	Tractors
GAS-2175	1279	726-6-18	4-5-6 BR	2854	1401	2-5/8	904	11/32"	
GAS-2218	444	726-6-18	4-5-6 BR	1854	1401	2-5/8	904	5/16"	Wound on 7625 Inserter only.
GAS-3076	1200	726-6-18	6-7-8 MR	"X"	1401	2-5/8	904	3/8"	Same as GAS–2076 Core. Tractor
GBM-2006F	888	4-5-16	6-7-8 MR	310	602	2-9/16	803	1/4"	See "Note"
GBM-2065F	888	888-5-16	6-7-8 MR	310	602	2-5/16	803	1/4"	Same as GBM–2006F Core. Tractor
GBM-2117B	1450	888-5-16	6-7-8 MR	"X"	602	2-5/16	803	9/32"	Wound on 7625 Inserter only.
GBM-2117F	1450	4-5-16	6-7-8 MR	"X"	602	2-9/16	803	9/32"	See "Note"
GBS-2116F	879	4-8-18	6-7-8 MR	311	602	2-9/16	803	1/4"	Same as GAR-2116F Core.
GBU-2116F	446	4-8-18	6-7-8 MR	311	602	2-9/16	803	1/4"	Same as GAR-2116F Core.
GBU-2227	1247	4-8-18	6-7-8 MR	"X"	602	2-9/16	803	1/4"	
GBW-2006F	4	4-5-17	6-7-8 MR	313	603	2-5/8	905	1/4"	Superceded by GDZ-2006F.
GBW-2037F	1034	4-5-17	6-7-8 MR	"X"	603	2-5/8	905	15/32"	Same as GDZ-2037F Core.
GBW-2057F	1035	4-5-17	6-7-8 MR	"X"	603	2-5/8	905	1/4"	Same as GDZ-2057F Core
GCJ-2006F	1048	4-5-16	6-7-8 MR	315	603	3-1/8	803	1/4"	Same as GDF-2006F Core.
GCJ-2030F	943	4-5-16	6-7-8 MR	324	603	3-1/8	803	9/16"	
GCJ-2091F	1375	4-5-16	6-7-8 MR	3594	603	2-9/16	803	9/32"	Same as GEJ-2091F – GCT-2091F Cores.
GCP-2006F	1248	4-6-18	6-7-8 MR	313	603	2-5/8	905	9/32"	Same as GDZ-2006 Core.
GCP-2018F	401	4-6-18	6-7-8 MR	"X"	603	2-5/8	905	5/16"	
GCT-2091F	637	4-8-18	6-7-8 BR	3594	603	2-9/16	803	9/32"	Same as GEJ-2091F GCJ-2091F Cores.
GDA-2018F	448	4-4-16	6-7-8 BR	"X"	603	2-5/8	905	5/16"	
GDF-2006F	1048	4-4-15	6-7-8 MR	315	603	2-9/16	803	1/4"	Same as GCJ-2006F Core.
GDF-2097F	1135	4-4-15	6-7-8 MR	272	603	2-9/16	803	17/32"	
GDZ-2006F	4	4-35-15*	6-7-8 MR	320	603	2-5/8	905	9/32"	For High-Speed heavy-duty, use Coil No. 4–3–145.
GDZ-2037F	620	4-35-15*	6-7-8 MR	"X"	603	2-5/8	905	1/2"	
GDZ-2057F	497	4-35-15*	6-7-8-MR	"X"	603	2-5/8	905	1/4"	
GDZ-2097F	5	4-35-15*	6-7-8 MR	290	603	2-5/8	905	1/2"	
GEJ-2006F	477	4-6-17	6-7-8 MR	315	603	2-9/16	803	1/4"	Same as GCJ-2006F Core.

IPM Autolite Generator Armatures (Magnet Wire Coils)

Original Armature Number	Lester Catalog Code No.	IPM Coil Number	Hook-Up	IPM Shaft Number	IPM Comm. Number	Tuftan Width	IPM End Fibre Number	Comm. Distance From Shoulder to Comm. Bar	Remarks
GEJ-2091F	1257	4-6-17	6-7-8 MR	3594	603	2-9/16	803	9/32"	Same as GCJ-2091F – GCT-2091F Cores.
GEJ-2080F	610	4-6-17	6-7-8 MR	"X"	603	2-9/16	803	9/32"	
GEJ-2115F	1258	4-6-17	6-7-8 MR	"X"	603	2-9/16	803	9/32"	
GGR-2065F	1270	733-6-17	6-7-8 MR	310	602	2-5/16	803	1/4"	Same as GBM-2006F Core.
GGU-2006F	20	3-23-145*	6-7-8 MR*	326	603	3-5/8	905	9/32"	
GGU-2042F	79	3-23-145*	6-7-8 MR*	1897	603	3-5/8	905	3/8"	
GGU-2054F	578	3-23-145*	6-7-8 MR*	1553	603	3-5/8	905	3/8"	
GGU-2059F	579	3-23-145*	6-7-8 MR*	2235	603	3-5/8	905	1/2"	
GGU-2071F	408	3-23-145*	6-7-8 MR*	2236	603	3-5/8	905	7/16"	
GGW-2006F	16	16-3-145	6-7-8 BR	1151	603	3-1/8	905	11/32"	
GGW-2030F	39	16-3-145	6-7-8 BR	2289	603	3-1/8	905	5/16"	Same as GJC-2030F Core.
GGW-2032F	1300	16-3-145	6-7-8 BR	2298	603	3-1/8	905	3/8"	
GGW-2044F	81	16-3-145	6-7-8 BR	1561	603	3-1/8	905	13/32"	
GGW-2045F	82	16-3-145	6-7-8 BR	1548	603	3-1/8	905	13/32"	
GGW-2090F	101	16-3-145	6-7-8 BR	2231	603	3-1/8	905	15/32"	
GGY-2006F	36	4-35-15*	6-7-8 MR	1151	603	2-5/8	905	3/8"	
GGZ-2006F	1330	3-35-15*	6-7-8 MR	326	603	3-5/8	905	9/32"	Same as GGU-2006F Core.
GHB-2006F	1339	4-2-135	6-7-8 BR	2294	620-14	2-5/8	905	1/4"	Same as GDZ-2006F Core.
GHB-2046F	451	4-2-135	6-7-8 BR	"X"	620-14	2-5/8	905	1/4"	
GHD-2006F	1340	1340-5-17	6-7-8 BR	2294	602	2-5/16	905	11/32"	Same as GHH-2006F Core.
GHH-2006F	1476	1746-8-18	6-7-8 MR	2294	602	2-5/16	803	3/8"	Same as GHD-2006F Core.
GHH-2032F	429	1746-8-18	6-7-8 BR	2765	602	2-5/16	803	11/32"	Same as GHH-2006F Type.
GHK-2006F	74	3-3-145	6-7-8 MR	326	603	3-5/8	905	9/32"	Same as GGU-2006F Core.
GHK-2059F	1267	3-3-145	6-7-8 MR	2235	603	3-5/8	905	15/32"	Same as GHM-2059F Core.
GHM-2006F	458	3-5-16	7-8-9 BR	326	603	3-5/8	803	9/32"	
GHM-2034F	103	3-5-16	7-8-9-BR	2194	603	3-5/8	803	15/32"	
GHM-2042F	83	3-5-17	6-7-8 MR	1897	603	3-5/8	803	3/8"	Same as GGU-2042F Core.

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IPM Autolite Generator Armatures (Magnet Wire Coils)

Original Armature Number	Lester Catalog Code No.	IPM Coil Number	Hook-Up	IPM Shaft Number	IPM Comm. Number	Tuftan Width	IPM End Fibre Number	Comm. Distance From Shoulder to Comm. Bar	Remarks
GHM-2045F	245	3-5-16	7-8-9 BR	2192	603	3-5/8	803	11/32"	Same as GJO-2006F Core.
GHM-2059F	459	3-5-16	7-8-9 BR	2235	603	3-5/8	803	15/32"	Same as GGU-2059F Core.
GHM-2071F	409	3-5-17	6-7-8 MR	2236	603	3-5/8	803	7/16"	Same as GGU-2071F Core.
GJC-2030F	67	16-4-16	6-7-8 BR	2289	603	3-1/8	905	11/32"	
GJC-2048F	419	16-4-16	6-7-8 BR	2306	603	3-1/8	905	1-5/16"*	* - From End.
GJC-2052F	95	16-4-16	6-7-8 BR	2296	603	3-1/8	905	11/32"	
GJC-2056F	422	16-4-16	6-7-8 BR	2303	603	3-1/8	905	1-1/32"*	* -From End.
GJC-2058F	58	16-4-16	6-7-8 BR	2761	603	3-1/8	905	11/32"	Same as GJC-2030 less Keyway & Thread.
GJC-2059F	104	16-4-16	6-7-8 BR	2193	603	3-1/8	905	15/32"	
GJC-2090F	68	16-4-16	6-7-8 BR	2231	603	3-1/8	905	15/32"	Same as GGW-2006F Core.
GJC-2098F	423	16-4-16	6-7-8 BR	2305	603	3-1/8	905	7/16"	
GJO-2006F	115	4-5-17	6-7-8 MR	2837	603	2-5/8	905	5/16"	
GJT-2006F	625	4-6-18	6-7-8 BR	2837	603	2-5/8	905	11/32"	Same as GJO-2006F Core.
GJT-2006FA	625	4-6-18	6-7-8 MR	95	603	2-5/8	905	11/32"	
GJW-2006F	1211	4-4-16	6-7-8 BR	2837	603	2-5/8	905	5/16"	Same as GJO-2006F Core.

"X" We Do Not Manufacture

NOTE

Those Cores used in No. 4 Inserter

Due to these cores being too short for proper Coil Insertion, add 5/16" steel laminations at Drive End, thus making core length same as standard "GAR" type.

IMPORTANT!! All Autolite Armatures listed above must have the slots milled .156 wide. Use IPM No. 2550 Slotting Saw.

* - Alternately Wound. 7 Coils each of specified number of turns.

IPM Autolite H.D. Generator Armatures

Original Armature Number	Lester Catalog Code No.	IPM Coil Number	Hook-Up	IPM Shaft Number	IPM Comm. Number	Tuftan Width	IPM End Fibre Number	Comm. Distance From Shoulder to Comm. Bar	Remarks
GGJ-2093F	1265	80-2-135	9-10-11 BR*	2847	1421	3-7/16	991 at Comm. End 991X at Drive End	9/16"	18 Slots, Coil Span 10. Same Core as GFY-2093F.
GGJ-2097F	1266	80-2-135	9-10-11 BR*	"X"	1421	3-7/16	Same as above	9/16"	18 Slots, Coil Span 10. Same Core as GFY-2093F.
GGJ-2101F	80	80-2-135	9-10-11 BR*	1189	1421	3-7/16	Same " "	9/16"	18 Slots, Coil Span 10. Same Core as GFY-2101F.
GGJ-2103F	24	80-2-135	9-10-11 BR*	1560	1421	3-7/16	Same " "	7/16"	18 Slots, Coil Span 10.
GGJ-2104F	78	80-2-135	9-10-11 BR*	1184	1421	3-7/16	Same " "	7/16"	18 Slots, Coil Span 10.
GGJ-2107F	498	80-2-135	9-10-11 BR*	1184	1421	3-7/16	Same " "	13/32"	18 Slots, Coil Span 10. Same Core as GFY-2107F.
GFY-2093	1315	80-3-14-9	8-9-10 BR*	2847	1421	3-7/16	Same " "	9/16"	18 Slots, Coil Span 9.
GFY-2096F	1263	80-3-14-9	8-9-10 BR*	"X"	1421	3-7/16	Same "	9/16"	18 Slots, Coil Span 9.
GFY-2097F	1264	80-3-14-9	8-9-10 BR*	"X"	1421	3-7/16	Same " "	9/16"	18 Slots, Coil Span 9.
GFY-2101F	1320	80-3-14-9	8-9-10 BR*	1189	1421	3-7/16	Same " "	9/16"	18 Slots, Coil Span 9.
GFY-2107F	1295	80-3-14-9	8-9-10 BR*	1184	1421	3-7/16	Same " "	9/16"	18 Slots, Coil Span 9.

"X" We Do Not Manufacture

NOTE

If Line-Up is marked with Asterisk (*), do not use Standard Hook-Up Chart, due to different coil span and number of slots.

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Ford Generator Armature (Magnet Wire Coils)

Original Armature Number	Lester Catalog Code No.	IPM Coil Number	Hook-Up	IPM Shaft Number	IPM Comm. Number	Tuftan Width	IPM End Fibre Number	Comm. Distance From Shoulder to Comm. Bar	Remarks
B6A-10005A	70	33-5-15	5-6-7 MR	298	620	2-3/8	1970	27/32"	Use deep slot cores only, "01A" or Standard 12 V.
B6A-10005B	75	33-5-15	5-6-7 MR	1558	620	2-3/8	1970	7/32"	Use deep slot cores only, "01A" or Standard 12 V.
B6A-10005C	77	33-5-15	5-6-7 MR	1558	620	2-3/8	1970	7/32"	Same as 75-B6A-10005A except laminations are .005 oversize and turned true to 3.005.
B6C-10005C	41	80-3-14-9	8-9-10 BR*	1189	1421	3-7/16	991	9/16"	Span 9. Same as GFY-2101F.
B8QH-10005	55	55-4-14	5-6-7 MR	1557	620-14	2-5/8	1970	3/16"	Same as FGP-10027A.
B9LF-10005A	102	3-3-145	6-7-8 MR	1544	622	3-5/8	801	1/4"	Same as 1939837.
C1AF-10005A	106	3-35-15	6-7-8 MR	1544	622	3-5/8	801	1/4"	
C1DF-10005A	108	3-4-15	6-7-8 MR	1544	622	3-5/8	801	1/4"	Same as 1954879 or 1946719.
C0DF-10005	75	33-5-15	5-6-7 MR	1558	620	2-3/8	1970	7/32"	
FAB-10005A	25	22-3-14	5-6-7 MR	1557	620-14	3-3/16	821	1/4"	
FBC-10005A	99	33-4-15	6-7-8 BR	1558X	620	2-3/8	821	1/4"	
FGP-10005A	55	55-4-14	5-6-7 MR	1557	620-14	2-5/8	1970	7/32"	Same as B6A-10005A.
FGP-10027A	55	55-4-14	5-6-7 MR	1557	620-14	2-5/8	1970	7/32"	
FGP-10027A	Spec. Heavy Duty	22-4-14	5-6-7 MR	1557	620-14	3-1/8	1970 or 900	7/32"	Use deep slot laminations, all dimensions same as FAB-10005A.
FGT-10005A	75	33-5-15	5-6-7 MR	1558	620	2-3/8	1970	7/32"	Same as B6A-10005A.
FGT-10027A	75	33-5-15	5-6-7 MR	1558	620	2-3/8	1970	7/32"	Same as B6A-10005B.
7EH-10005	22	22-3-14	5-6-7 MR	299X	620-14	3-3/16	821	31/32"	No keyway.
8BA-10005A	11	33-4-15	5-6-7 MR	298X	620	2-3/8	821	15/16"	Has keyway.
8EH-10005	22	22-3-14	5-6-7 MR	299X	620-14	3-3/16	821	31/32"	Has keyway.
01A-10005	11A	33-4-15	6-7-8 BR	298X	620	2-3/8	900	15/16"	Has keyway.
9N-Tractor	94-541	94-6-17	5-6-7 MR	276	1492	1-7/8	909	1-1/8"	Tractors.
2900199	44	22-4-15-8	7-8-9 MR*	1557	620	3-1/8	1970	7/32"	Coil Span 8. Same Core as FAB-10005A.

7625 Universal Inserter Use 7625-5-15.

NOTE

If Line-Up is marked with Asterisk (*), do not use Standard Hook-Up Chart, due to different coil span and number of slots.

IMPORTANT !! All Ford Armatures listed above must have slot milled .156 Wide.

For proper alignment, all "O1A" type cores must have one end fibre and one steel washer and metal tube (1-7/32") at drive end, same as original Armature.

All "EH" type cores must have two end fibres and one steel washer and metal tube (1-5/32") at drive end, same as original Armature.

Foreign Car Generator Armatures (Magnet Wire Coils)

Original Armature Number	Lester Catalog Code No.	IPM Coil Number	Hook-Up	IPM Shaft Number	IPM Comm. Number	Tuftam Width	IPM End Fibre Number	Comm. Distance From Shoulder to Comm. Bar	Remarks
Dauphine-Ducel (12V)	1692	1692-7-18	6-7-8 MR	"X"	1475	2-3/16	1967		14 Slots, Span 7.
Fiat	1634	1634-9-19	4-5-6 BR	"X"	1439	2-5/16	1974		12 Slots, Span 6.
Lucas (6V)	1651	1651-4-15	5-6-7 MR	1556	1441	2-3/8	996		14 Slots, Span 7.
Lucas (12V)	1650-1652	1652-6-17	5-6-7 MR	1556	1441	2-3/8	996 or 8502		14 Slots, Span 7.
Lucas (12V) w/Tachometer	1657	1652-6-17	5-6-7 MR	2422	1441	2-3/8	996 or 8502		14 Slots, Span 7.
Renault (6V)	1693	1693-4-155	6-7-8 MR	"X"	1475	2-3/16	1967		14 Slots, Span 7.
Simca (12V Std)	1691	1691-7-18	4-5-6 BR	"X"	3113	2-3/16	1977		12 Slots, Span 6.
Simca (12V H.D.)	1690	1690-4-165	6-7-8 BR	"X"	"X"	2-15/16	1915		14 Slots, Span 7.

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Leece-Neville Generator Armatures (Magnet Wire Coils)

Original Armature Number	Lester Catalog Code No.	IPM Coil Number	Hook-Up	IPM Shaft Number	IPM Comm. Number	Tuftan Width	IPM End Fibre Number	Comm. Distance From Shoulder to Comm. Bar	Remarks
GA-31930	930	LN-2-12	8-9-10 BR*	"X"	*1474	4-3/16	8501	7-32"	18 Slots, Span 9. Use FC-1118 Forming Cups.
GA-36482		LN-3-13	8-9-10 BR*	"X"	*1474	4-3/16	8501	7/32"	Same as GA-31930 Core.
GA-53825	917	LN-4-15	8-9-10 BR*	"X"	1474	4-3/16	8501	7/32"	Same as GA-31930 Core.
GA-53916	919	LN-5-16	8-9-10 BR*	"X"	1474	4-3/16	8501	7/32"	Same as GA-31930 Core.

* Slot For .080

Motorcycle Generator Armatures (Magnet Wire Coils)

HARLEY-DAVIDSON	IPM Coil Number	Hook-Up	IPM Shaft Number	IPM Comm. Number	Tuftan Width	IPM End Fibre Number	Remarks
Standard 2-1/8" OD, 2-1/4" Core	100-7-18	5-6-7 MR	"X"	1437	2-3/8	1953	12 Slots, Span 6.
Super-Duty 2-1/8" OD, 3" Core	200-7-17	5-6-7 MR	"X"	1439	3-1/8	1953	12 Slots, Span 6.
Police Super-Duty, 3" Core	300-6-17	5-6-7 MR	"X"	3195	3-1/8	1953	12 Slots, Span 6.

German Bosch Generator Armatures (Volkswagen)

Original Armature Number	IPM Inserter Number	IPM Coil Number	Hook-Up (See Chart)	IPM Shaft Number	IPM Comm. Number	Varnished DO-3 or Nomex .003 Cuffed	IPM End Fibre Number	Remarks
LJ-19L1	7840	19-3-17	3-4 ML (Cross Leads)	2423	1458	2-5/8"	1971	Most Popular Volkswagen
LJ-12L3	7840	19-3-17	3-4 ML (Cross Leads)	2423	1458	2-5/8"	1971	
LJ-12L41	7840	19-3-17	3-4 ML (Cross Leads)	2433	1458	2-5/8"	1971	
LJ-12L11	7840	19-4-18	3-4 ML (Cross Leads)		1458	2-5/8"	1971	
LJ-12L49	7840	19-4-18	3-4 ML (Cross Leads)		1458	2-5/8"	1971	
LJ-12L39	7840	19-4-18	3-4 ML (Cross Leads)		1458	2-5/8"	1971	
LJ-12L55	7840	19-4-18	3-4 ML (Cross Leads)		1458	2-5/8"	1971	
LJ-12L13Z	7840	19-4-18	3-4 ML (Cross Leads)	3641	3154	2-5/8"	1971	
LJ-12L43	7840	19-4-18	3-4 ML (Cross Leads)		1458	2-5/8"	1971	
LJ-12L56	7840	19-4-18	3-4 ML (Cross Leads)		1458	2-5/8"	1971	
LJ-12L37	7840	19-3-17	3-4 ML (Cross Leads)		1458	2-5/8"	1971	
LJ-12L102	7840	19-3-17	3-4 ML (Cross Leads)		1458	2-5/8"	1971	
LJ-5L6	7840	19-3-17	3-4 ML (Cross Leads)		1458	2-5/8"	1971	
LJ-12L1	7840	19-3-17	3-4 ML (Cross Leads)		1458	2-5/8"	1971	
LJ-19L3	7839	19-2-16	3-4 ML (Cross Leads)	3641	3154	2-7/8"	8507	(Longer Core Volkswagen)

Magnet Wire Coils

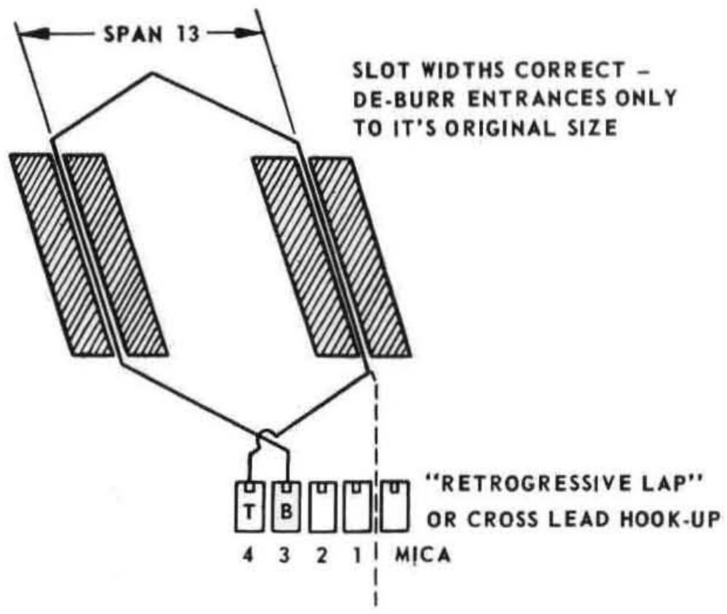
30 BAR – 30 SLOT GERMAN BOSCH GENERATOR ARMATURES – SLOT WIDTHS OK – DE-BURR ENTRANCES ONLY TO ITS ORIGINAL SIZE.

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GERMAN BOSCH GENERATOR ARMATURES (VOLKSWAGEN) WITH CROSS REFERENCE

Original Armature Number	IPM Inserter Number	IPM Coil Number	Hook-Up (See Chart)	IPM Shaft Number	IPM Comm. Number	Varnished DO-3 or Nomex .003 Cuffed	IPM End Fibre Number	Remarks
LJ-19L4	7839	19-2-16	3-4 ML (Cross Leads)		** 1458	2-7/8"	8507	
LJ-20L1	7841	20-2-16	3-4 ML (Cross Leads)		3115	2-5/8"	8529	
LJ-20L4	7841	20-4-17	3-4 ML (Cross Leads)		3119	2-5/8"	1917	
LJ-21L4	7841	20-4-18	3-4 ML (Cross Leads)		3119	2-5/8"	1917	
LJ-21L3	7841	20-4-18	3-4 ML		3119	2-5/8"	1917	
LJ-21L1	7841	20-4-18	3-4 ML		3119	2-5/8"	1917	

30 BAR — 30 SLOT — GERMAN BOSCH GENERATOR ARMATURES



** NOTE: No. 1458 commutator must be milled .051 otherwise same as standard 1458.

* (Not superseded)

Abbreviated Number	Complete Bosch Number	Corresponding Bosch (IBM) Part Number	Superseding Part Number
LJ-19L3	LJAN19L3Z	1 104 012 061	*
LJ-19L4	LJAN19L4Z	1 104 012 062	*
LJ-20L1	LJAN20L1Z	------ --- ---	1 104 013 940
LJ-20L4	LJAN20L4Z	1 104 013 420	1 104 013 427
LJ-21L1	LJAN21L1Z	------ --- ---	- --- --- ---
LJ-21L3	LJAN21L3Z	1 104 013 427	*
LJ-12L11	LJAN12L11Z	1 104 012 024	*
LJ-12L49	LJAN12L49Z	------ --- ---	1 104 012 937
LJ-12L1	LJAN12L1Z	1 104 012 020	*
LJ-12L3	LJAN12L3Z	1 104 012 021	1 104 012 923
LJ-12L39	LJAN12L39Z	1 104 012 402	*
LJ-12L55	LJAN12L55Z	------ --- ---	- --- --- ---
LJ-12L13	LJAN12L13Z	1 104 012 025	*
LJ-12L43	LJAN12L43Z	------ --- ---	1 104 012 940
LJ-12L56	LJAN12L56Z	1 104 012 039	*
LJ-12L37	LJAN12L37Z	1 104 012 032	*
LJ-12L102	LJAN12L102Z	1 104 012 929	*
LJ-5L6	LJAN5L6Z	------ --- ---	- --- --- ---
LJ-19L1	LJAN19L1Z	------ --- ---	1 104 012 028
Starters			
LJ-12L41	LJAN12L41Z	1 104 012 033	*
122/1	DAN 122/1Z	2 004 004 012	2 004 004 043

IPM Delco-Remy Starting Motor Armatures (Round Wire)

Original Armature Number	Lester Catalog Code No.	IPM Coil Number	No. Of Slots & Bars	Span	Top Leads	Bottom Leads	Comm. Pitch	Wire Size	End Fibres I. D.	End Fibres IPM No.	IPM Comm. Number	IPM Shaft Number	IPM Steel Lamination Number
1926626	1706	3934	27	8	4-B-R	4-B-L	14	10.5	.750	1959	1481	1562	345
1927343	1726	3934	27	8	4-B-R	4-B-L	14	10.5	.750	1959	1481	1559	345
1932185	1760	3934	27	8	4-B-R	4-B-L	14	10.5	.750	1959	1481	2295	345
1933762		3934	27	8	4-B-R	4-B-L	14	10.5	.750	1959	1481	2445	345
1933789	1789	3934	27	8	4-B-R	4-B-L	14	10.5	.750	1959	1481	2363	345
1935588	2065	3934	27	8	4-B-R	4-B-L	14	10.5	.750	1959	1481	355X	345
1935829	1729	3934	27	8	4-B-R	4-B-L	14	10.5	.750	1959	1481	2360	345
1935851	1751	3934	27	8	4-B-R	4-B-L	14	10.5	.750	1959	1481	2412	345
1938178	1978	3934	27	8	4-B-R	4-B-L	14	10.5	.750	1959	1481	2307	345
1946226	1736	3934	27	8	4-B-R	4-B-L	14	10.5	.750	1959	1481	2443	345
1947353	1826	3934	27	8	4-B-R	4-B-L	14	10.5	.750	1959	1481	3631	345
1950563	1709	3934	27	8	4-B-R	4-B-L	14	10.5	.750	1959	1481	2947	345
1952766	1756	3934	27	8	4-B-R	4-B-L	14	10.5	.750	1959	1481	2980	345
1956211	1891	3934	27	8	4-B-R	4-B-L	14	10.5	.750	1959	1481	*3593X **3593	345

* .755 Knurl

** .628 Knurl

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Delco-Remy Starting Motor Armatures -H.D.

(Rectangular Wire)

Original Armature Number	Lester Catalog Code No.	IPM Winding Head No.	IPM Coil Number	No. Of Slots & Bars	Span	Top Leads	Bottom Leads	Comm. Pitch	IPM End Fibre Number	IPM Comm. Number	IPM Shaft Number	IPM Steel Lamination Number	IPM Slot Insulation Number
818002	1704	7722	3913	23	7	3-MR	3-ML	12	915	1417	1150	"X"	8523
823881	1702	7722	3913	23	7	3-MR	3-ML	12	916	1417	358	"X"	8523
829042	1827	7720	3904	25	5	3-BR	3-BL	9	1960	1420X	1552	"X"	8516
1837058	1919	7720	3912	25	5	3-BR	3-BL	9	1960	1420X	1174	"X"	8517
1843657	1947	7720	3904	25	5	3-BR	3-BL	9	1960	1420X	2444	"X"	8516
1847432	1954	7722	3913	23	7	3-MR	3-ML	12	915	1417	356	"X"	8523
1857480	1972	7720	3912	25	5	3-BR	3-BL	9	1960	1420X	1318	"X"	8517
1867897	1700	7722	3913	23	7	3-MR	3-ML	12	916	1417	281	"X"	8523
1872505	2027	7722	3913	23	7	3-MR	3-ML	12	915	1417	1898	"X"	8523
1873064	2034	7720	3904	25	5	3-BR	3-BL	9	1961	1424	X	"X"	8516
1878400	1890	X	3903	15	4	3-BR	3-BL	8	1958	1489	X	"X"	8538
1878077	2033	7722	3913	23	7	3-MR	3-ML	12	915	1417	1150	"X"	8523
1880232	1980	7720	3904	25	5	3-BR	3-BL	9	1961	1424	"X"	"X"	8516
1880888	1883	"X"	3903	15	4	3-BR	3-BL	8	1958	1489	1171		8538
1883889	1739	7720	3904	25	5	3-BR	3-BL	9	1960	1420X	2786	"X"	8516
1884069	1716	7720	3912	25	5	3-BR	3-BL	9	1960	1420X	1315	"X"	8517
1907110	2049	7720	3904	25	5	3-BR	3-BL	9	1960	1420X	"X"	"X"	8516
1907785	1842	7722	3907	23	7	3-MR	3-ML	12	915	1417	2299	"X"	8521
1908058		"X"	3903	15	4	3-BR	3-BL	8	1958	1489	"X"	"X"	8538
1909465	2129	7720	3901	25	7	4-BR	4-BL	13	1961	1424	2768	39	8516
1909467	1858	7720	3905	25	7	4-BR	4-BL	13	1960	1420X	1316	"X"	8517
1909535	1862	"X"	3903	15	4	3-BR	3-BL	8	1958	1489	2768	"X"	8538
1909535	1862	7720	3901	25	7	3-ML	3-MR	LAP	1961	1424	2768	39	8516
1909595	2132	7720	3901	25	7	4-BR	4-BL	13	1961	1424	2293	39	8516
1909597	1907	7720	3901	25	7	3-ML	3-MR	LAP	1961	1424	2293	39	8516
1909604	2127	7720	3901	25	7	3-ML	3-MR	LAP	1961	1424	1899	39	8516

IPM Delco-Remy Starting Motor Armature -H.D.

Original Armature Number	Lester Catalog Code No.	IPM Winding Head No.	IPM Coil Number	No. Of Slots & Bars	Span	Top Leads	Bottom Leads	Comm. Pitch	IPM End Fibre Number	IPM Comm. Number	IPM Shaft Number	IPM Steel Lamination Number	IPM Slot Insulation Number
1909605	2167	7720	3901	25	7	4-BR	4-BL	13	1961	1424	1899	39	8516
1910067	1868	7720	3901	25	7	4-BR	4-BL	13	1960	1420X	1172	39	8516
1910490	1871	7720	3905	25	7	4-BR	4-BL	13	1960	1420X	2233	"X"	8517
1911168	1878	7720	3901	25	7	4-BR	4-BL	13	1961	1424	2364	39	8516
1911785		7720	3901	25	7	4-BR	4-BL	13	1960	1420X	"X"	39	8516
1911832	1875	7722	3913	23	7	3-MR	3-ML	12	915	1417	1216	"X"	8523
1912600	2133	7720	3901	25	7	3-ML	3-MR	LAP	1961	1424	2364	39	8516
1913955	2140	7720	3901	25	7	4-BR	4-BL	13	1960	1420X	3642	39	8516
1915389		7720	3901	25	7	4-BR	4-BL	13	1960	1420X	1172	39	8516
1917220	1912	"X"	3918	25	5	3-BR	3-BL	9	8514	1454	2769	"X"	8539
1917855	1700	7722	3913	23	7	3-MR	3-ML	12	916	1417	281	"X"	8523
1918153	2161	7720	3912	25	5	3-BR	3-BL	9	1960	1420X	"X"	"X"	8517
1918929	2170	7720	3905	25	7	4-BR	4-BL	13	1960	1420X	"X"	"X"	8517
1919267	1702	7722	3913	23	7	3-MR	3-ML	12	916	1417	358	"X"	8523
1920387	2171	"X"	3903	15	4	3-BR	3-BL	8	1958	1489	2304	"X"	8538
1920387	2171	7720	3901	25	7	3-ML	3-MR	LAP	1961	1424	2304	39	8516
1921110	1828	7720	3901	25	7	4-BR	4-BL	13	1961	1424	2768	39	8516
1923040	1735	7722	3913	23	7	3-MR	3-ML	12	915	1417	"X"	"X"	8523
1923285	1914	"X"	3903	15	4	3-BR	3-BL	8	1958	1489	2292	"X"	8538
1923285	1914	7720	3901	25	7	3-ML	3-MR	LAP	1961	1424	2292	39	8516
1925939	2163	7722	3913	23	7	3-MR	3-ML	12	915	1417	"X"	"X"	8523
1924129	2173	7720	3901	25	7	4-BR	4-BL	13	1961	1424	2292	39	8516
1926408	2179	7720	3905	25	7	4-BR	4-BL	13	1960	1420X	"X"	"X"	8517
1929113	2180	7720	3901	25	7	4-BR	4-BL	13	1961	1424	"X"	39	8516
1929292	1792	"X"	3903	15	4	3-BR	3-BL	8	1958	1489	2768	"X"	8538
1929292	1792	7720	3901	25	7	3-MR	3-ML	LAP	1961	1424	2768	39	8516
1929404	1754	7722	3913	23	7	3-MR	3-ML	12	916	1417	2307	"X"	8523

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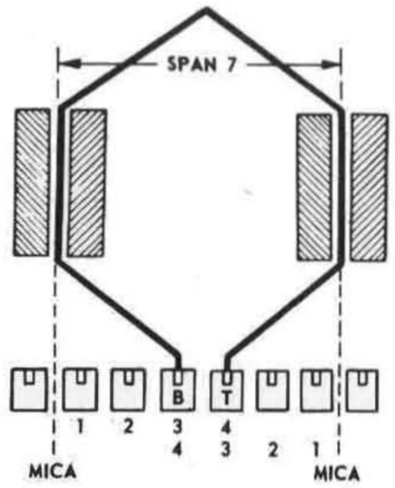
IPM Delco-Remy Starting Motor Armatures -H.D.

Original Armature Number	Lester Catalog Code No.	IPM Winding Head No.	IPM Coil Number	No. Of Slots & Bars	Span	Top Leads	Bottom Leads	Comm. Pitch	IPM End Fibre Number	IPM Comm. Number	IPM Shaft Number	IPM Steel Lamination Number	IPM Slot Insulation Number
1930667	2051	7720	3905	25	7	4-BR	4-BL	13	1960	1420X	"X"	"X"	8517
1930812	1748	7722	3907	23	7	3-MR	3-ML	12	916	1417	20	"X"	8521
1931397	1768	7722	3913	23	7	3-MR	3-ML	12	916	1417	2413	"X"	8523
1931797	2013	7721	3906	25	7	4-BR	4-BL	13	8506	1420	2763	"X"	8522
1932279	1766	7722	3913	23	7	3-MR	3-ML	12	916	1417	"X"	"X"	8523
1932621	2058	7721	3906	25	7	4-BR	4-BL	13	8506	1420	"X"	"X"	8522
1932872	1802	7721	3906	25	7	4-BR	4-BL	13	8506	1420	12	"X"	8522
1932883	2059	7721	3906	25	7	4-BR	4-BL	13	8506	1420	2763	"X"	8522
1933138	1918	7720	3901	25	7	3-ML	3-MR	LAP	1960	1420X	3642	39	8516
1933466	2060	7721	3906	25	7	4-BR	4-BL	13	8506	1420	2767	"X"	8522
1933839	2061	7721	3906	25	7	4-BR	4-BL	13	8506	1420	3630	"X"	8522
1933970	2062	7721	3906	25	7	4-BR	4-BL	13	8506	1420	"X"	"X"	8522
1935254	2063	7720	3901	25	7	4-BR	4-BL	13	1960	1420X	3608	39	8516
1935259	1910	7721	3906	25	7	4-BR	4-BL	13	8506	1420	12	"X"	8522
1935321	2064	7721	3906	25	7	4-BR	4-BL	13	8506	1420	2762	"X"	8522
1935529	1834	7720	3901	25	7	4-BR	4-BL	13	1961	1424	2293	39	8516
1937071	1961	7720	3901	25	7	4-BR	4-BL	13	1961	1424	2421	39	8516
1937111	2047	7720	3901	25	7	3-ML	3-MR	LAP	1961	1424	3254	39	8516
1937616	1933	7720	3901	25	7	3-ML	3-MR	LAP	1961	1424	2421	39	8516
1938045	1963	7720	3901	25	7	4-BR	4-BL	13	1960	1420X	1172	39	8516
1938048	2073	7720	3901	25	7	4-BR	4-BL	13	1960	1420X	"X"	39	8516
1938603	1924	7722	3907	23	7	3-MR	3-ML	12	916	1417	2785	"X"	8521
1938966	1917	7721	3906	25	7	4-BR	4-BL	13	8506	1420	2986	"X"	8522
1939106	1853	7722	3907	23	7	3-MR	3-ML	12	1960	1420X	"X"	"X"	8521
1940151	2014	7721	3906	25	7	4-BR	4-BL	13	8506	1420	3589	"X"	8522
1940624	1759	7722	3913	23	7	3-MR	3-ML	12	916	1417	2360	"X"	8523
1941888	2035	7722	3913	23	7	3-MR	3-ML	12	916	1417	2295	"X"	8523
1942244	2096	7721	3906	25	7	4-BR	4-BL	13	8506	1420	12	"X"	8522
1942825		7722	3907	23	7	3-MR	3-ML	12	916	1417	2785	"X"	8521
1943416	2016	7720	3901	25	7	4-BR	4-BL	13	1961	1424	"X"	39	8516

IPM Delco-Remy Starting Motor Armatures -H.D.

Original Armature Number	Lester Catalog Code No.	IPM Winding Head No.	IPM Coil Number	No. Of Slots & Bars	Span	Top Leads	Bottom Leads	Comm. Pitch	IPM End Fibre Number	IPM Comm. Number	IPM Shaft Number	IPM Steel Lamination Number	IPM Slot Insulation Number
1943820	2022	7721	3906	25	7	4-BR	4-BL	13	8506	1420	"X"	"X"	8522
1945500	2023	7720	3901	25	7	4-BR	4-BL	13	1961	1424	2796	39	8516
1945688	1758	7722	3913	23	7	3-MR	3-ML	12	916	1417	2412	"X"	8523
1945906	1804	7720	3901	25	7	3-ML	3-MR	LAP	1961	1424	2796	39	8516
1947296	1807	7722	3907	23	7	3-MR	3-ML	12	916	1417	2785	"X"	8521
1947535	2026	7722	3913	23	7	3-MR	3-ML	12	916	1417	"X"	"X"	8523
1948600	2079	7720	3901	25	7	4-BR	4-BL	13	1960	1420X	"X"	39	8516
1948999	2080	7720	3901	25	7	3-ML	3-MR	LAP	1960	1420X	3609	39	8516
1949190	2081	7722	3907	23	7	3-MR	3-ML	12	916	1417	20	"X"	8521
1949770	1757	7722	3913	23	7	3-MR	3-ML	12	916	1417	2947	"X"	8523
1955857		7722	3913	23	7	3-MR	3-ML	12	916	1417	"X"	"X"	8523
1956941	1776	7722	3913	23	7	3-MR	3-ML	12	916	1417	2985	"X"	8523
1961320	1866	7720	3901	25	7	3-ML	3-MR	LAP	1961	1424	2796	39	8516

LAP CONNECTION 25 BAR - 25 SLOT STARTER ARMATURES



HEAVY DUTY END FIBRE SPECIFICATION

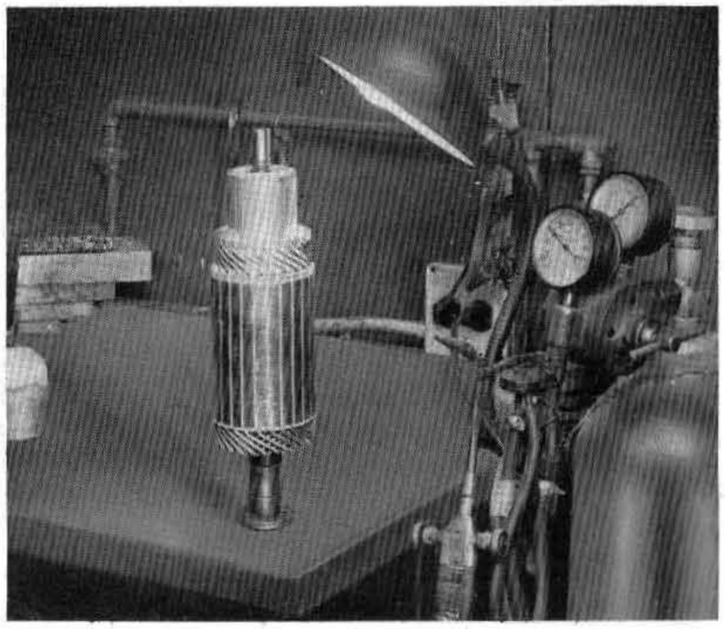
1960 - 3/4" I.D. X 3-5/16" O.D. X 3/32" Thick - Fibre
1960X - 7/8" I.D. X 3-5/16" O.D. X 3/32" Thick - Fibre
1961 - 7/8" I.D. X 3-5/16" O.D. X 3/32" Thick - Glass Fibre
8534 - 3/4" I.D. X 3-5/16" O.D. X 3/32" Thick - Glass Fibre

GLASS COLLARING INSULATION

7802 - 7/8" X .010 - 36 Yd. Roll Fibre
GLASS STRIP INSULATION

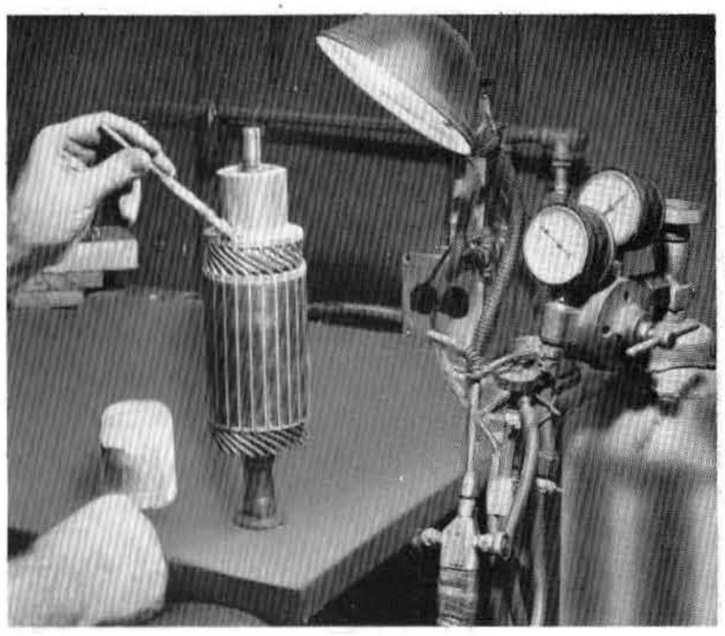
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Silver Soldering Heavy Duty Starter Armature Procedure



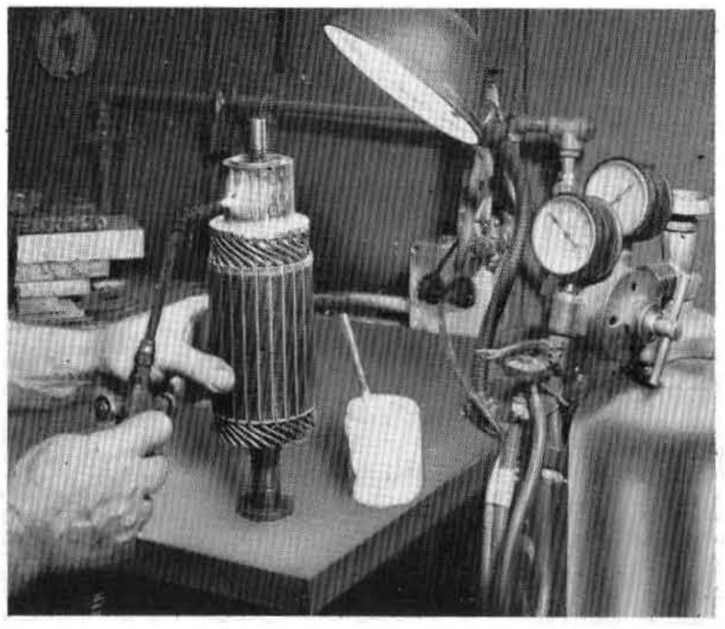
1

Shows Diesel Starter Armature to be silver-soldered. Note that coil leads are cut off even with commutator riser. Always make certain that only a non-organic insulating material such as IPM No. 7802 is used between top and bottom leads. Note simplicity & minimum of equipment needed; oxygen tank, valve with gauges, acetylene torch. *Natural gas & oxygen is properly mixed in torch valves. At this point make certain the proper torch is selected for best results. A small concentrated, white hot flame is required using approximately fifteen (15) pounds of pressure. If flood light is directed on commutator to be soldered, no smoked lens goggles are needed to guard against eye strain or damage. Note galvanized hood above work area. This is a ventilating system, keeping fumes and at a minimum.



2

Proper positioning of starter armature to be silver-soldered is as shown in photograph No. 2 Armature must be vertical with commutator up. Also, for best results, seating should be level. IPM Flux paste No. 3634 mixed with water to near liquid state is applied to the joints with a brush (see Photograph)

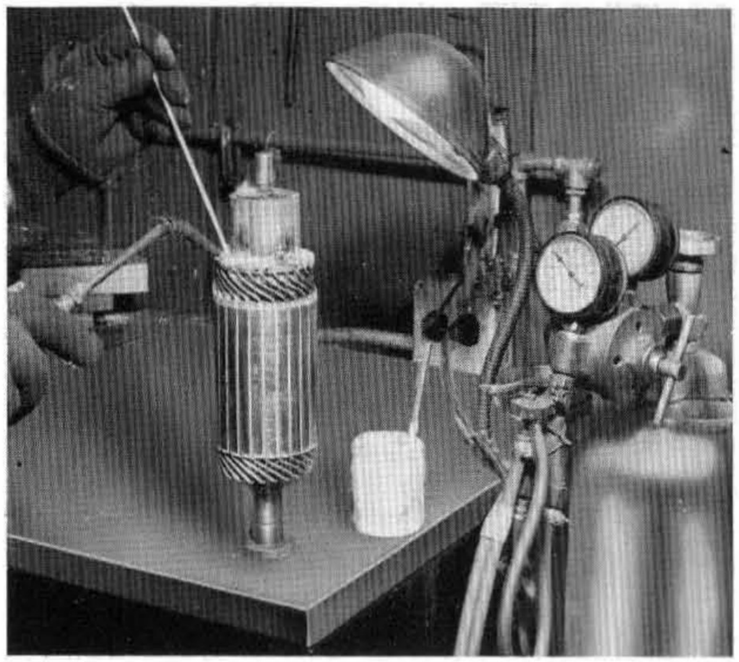


3

Note: Flux paste is applied to Commutator before the preheating. Note: If all commutator surfaces are clean and free of oxidation, flux is not necessary.

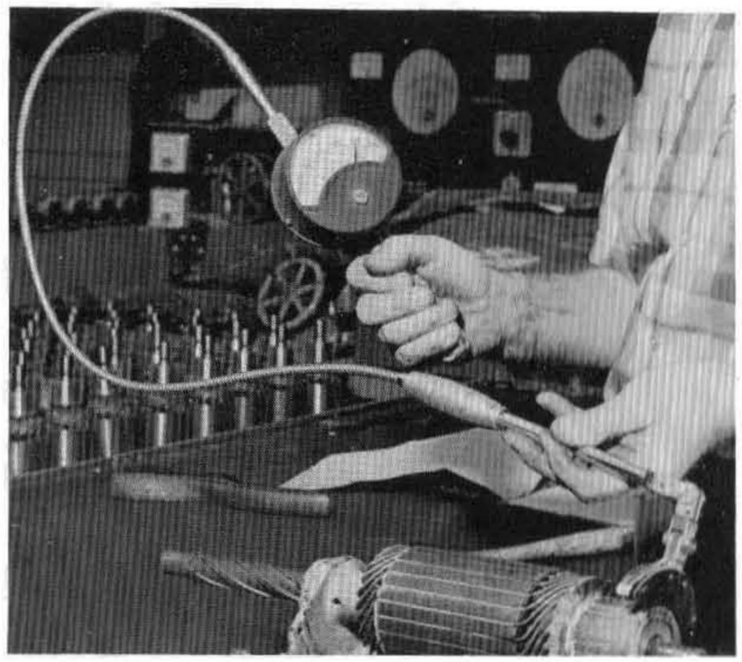
Commutator is being preheated uniformly all the way around it to approximately 450 degrees fahrenheit. This preheating eliminates chance of warpage and loose commutator bars if done properly prior to starting actual soldering operation.

* No gas is needed if using acetylene and oxygen.



4

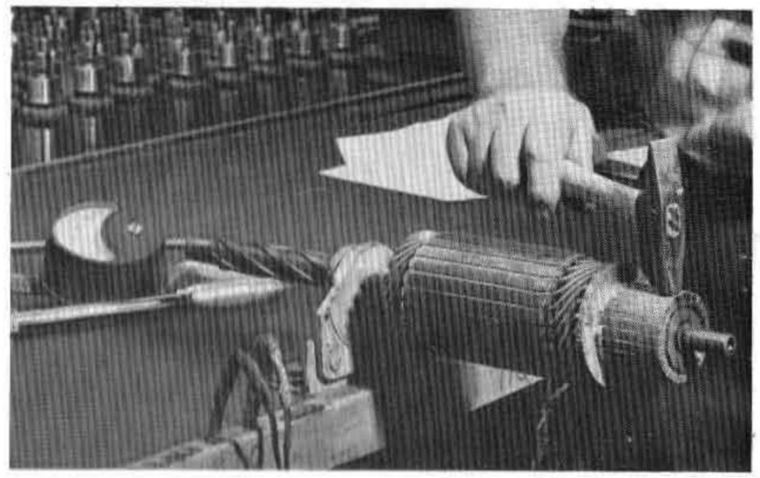
The actual silver-soldering of leads now begins by focusing small concentrated white hot flame on the joint long enough for it to turn white, (Joint need not be glowing red from heat.) Now wipe tip of rod slightly over the joint which is now at approximately 1300 degrees fahrenheit. (Note: copper melts at over 2000 degrees fahrenheit). Do not attempt to load crevices. As soon as silver rod material (No. 3633 flows out, withdraw rod from flame immediately. A small amount of silver-solder rod goes a long way, if applied correctly, and an indestructible, low resistant joint has been achieved. Continue quickly now from bar to bar. Do not use any more heat than necessary for free flow of silver-solder rod. Five minutes or less should be a sufficient amount of time to completely solder all the joints on a 25 bar commutator.



5

NOTE: The following photograph and procedure is for laboratory purposes only and not necessarily a part of silver-soldering operation.

Temperatures are being recorded directly after soldering operation is completed. A 'pyrocon' Thermometer is being used. The commutator bar temperature at end of commutator is 600 degrees fahrenheit; the armature winding at entrance of slot insulation is 500 degrees fahrenheit. These temperatures indicate that silver-soldering can be done safely without destroying or affecting the life expectancy of a commutator. (Note: It is imperative that only a properly cured and heat-resistant new commutator be used if the O E M commutator is too thin or does not test out



6

properly.) Coil leads will never break or open directly in back of joint as possible in some other method of brazing operations.

Commutator segments are being tapped with a small hammer to test & verify good solid condition of commutator bars & mica insulation. Please note: After silver-soldering commutator do not face off front of riser where joints have been silver-soldered when turning the commutator on the lathe.

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IPM Autolite Starting Motor Armatures (Round Wire Coils)

Original Armature Number	Lester Catalog Code No.	IPM Coil Number	No. Of Slots & Bars	Span	Top Leads	Bottom Leads	Comm. Pitch	Wire Size	End Fibres I.D.	End Fibres IPM No.	IPM Comm. Number	IPM Shaft Number	IPM Steel Lamination Number
MDL-2006	1876	3932	27	8	4-ML	4-MR	15	10.5	.625	1964	1443	2361	346X
MDL-2048	1817	3932	27	8	4-ML	4-MR	15	10.5	.625	1964	1443	2840	346X
MDL-2049	1785	3932	27	8	4-ML	4-MR	15	10.5	.750	1965	1443	2853	346
MDL-2070	1795	3932	27	8	4-ML	4-MR	15	10.5	.750	1965	1443	1175	346
MDL-2085	1793	3932	27	8	4-ML	4-MR	15	10.5	.750	1965	1443	2851	346
MDL-2088	1888	3932	27	8	4-ML	4-MR	15	10.5	.750	1965	1443	2362	346
MDL-2089	1794	3932	27	8	4-ML	4-MR	15	10.5	.625	1964	1443	2852	346X
MDL-2095	1749	3932	27	8	4-ML	4-MR	15	10.5	.625	1964	1443	3197	346X
Other MDL & MDM Armatures		3932	27	8	4-ML	4-MR	15	10.5					

IPM Autolite Starting Motor Armatures -H.D. (Rectangular Wire Coils)

Original Armature Number	Lester Catalog Code No.	IPM Winding Head No.	IPM Coil Number	No. Of Slots & Bars	Span	Top Leads	Bottom Leads	Comm. Pitch	IPM End Fibre Number	IPM Comm. Number	IPM Shaft Number	IPM Steel Lamination Number	IPM Slot Insulation Number
ML-2035	1953	"X"	3910	25	7	4-BR	4-BL	13	1907	3193	369	3091	8509
ML-2085	1900	"X"	3910	25	7	4-BR	4-BL	13	1907	3193	"X"	3091	8509
ML-2115	1886	"X"	3910	25	7	4-BR	4-BL	13	1907	3193	245	3091	8509
ML-2126	2147	"X"	3910	25	7	4-BR	4-BL	13	1907	3193	"X"	3091	8509
ML-2133	1847	"X"	3910	25	7	4-BR	4-BL	13	1907	3193	40	3091	8509
ML'S (ALL)		"X"	3910	25	7	4-BR	4-BL	13	1907	3193	"X"	3091	8509

IPM Autolite Starting Motor Armatures -H.D.

Original Armature Number	Lester Catalog Code No.	IPM Winding Head No.	IPM Coil Number	No. Of Slots & Bars	Span	Top Leads	Bottom Leads	Comm. Pitch	IPM End Fibre Number	IPM Comm. Number	IPM Shaft Number	IPM Steel Lamination Number	IPM Slot Insulation Number
MBR-2212	1896	"X"	3909	17	5	3-BR	3-BL	9	1972	1453	"X"	"X"	8543
MBR-2215	1786	"X"	3909	17	5	3-BR	3-BL	9	1972	1453	"X"	"X"	8543
MBR-2316	2230	"X"	3909	17	5	3-BR	3-BL	9	1972	1453	"X"	"X"	8543
MBR'S (ALL)		"X"	3909	17	5	3-BR	3-BL	9	1972	1453	"X"	"X"	8543
MCK-2006	2136	"X"	3914	17	5	3-BL	3-BR	9	1972	1453	"X"	"X"	8544
MCK-2021	2177	"X"	3914	17	5	3-BL	3-BR	9	1972	1453	"X"	"X"	8544
MCK-2045	2145	"X"	3914	17	5	3-BL	3-BR	9	1972	1453	"X"	"X"	8544
MCK-2052	1866	"X"	3914	17	5	3-BL	3-BR	9	1972	1453	"X"	"X"	8544
MCK'S (ALL)		"X"	3914	17	5	3-BL	3-BR	9	1972	1453	"X"	"X"	8544
MCO-2288	2146	"X"	3909	17	5	3-BR	3-BL	9	1972	1453	"X"	"X"	8543
MCO-2397	2176	"X"	3909	17	5	3-BR	3-BL	9	1972	1453	"X"	"X"	8543

IPM Ford Starting Motor Armatures (Round Wire Coils)

Original Armature Number	Lester Catalog Code No.	IPM Coil Number	No. Of Slots & Bars	Span	Top Leads	Bottom Leads	Comm. Pitch	Wire Size	End Fibres I. D.	End Fibres IPM NO.	IPM Comm. Number	IPM Shaft Number	IPM Steel Lamination Number
18-11005	1950	3935	23	6	4-BR	4-BL	12	7	.625	919	1476	353	3203
1CM-11005A	1708	3935	23	6	4-BR	4-BL	12	7	.625	919	1476	1173	3203
8RN-11005A		3935	23	6	4-BR	4-BL	12	7	.625	919	1476	2402	3203
B6A-11005A	2003	3935	23	6	4-BR	4-BL	12	7	.625	919	1476	354	3203
FAC-11005B	2002	3935	23	6	4-BR	4-BL	12	7	.625	919	1476	354	3203
CODF-11005A	1750	3938	25	7	4-BR	4-BL	13	8	.625	1909	3110	2836	2919
C1VF-11005A	1796	3938	25	7	4-BR	4-BL	13	8	.625	1909	1476	3245	2919
C2AF-11005A		3935	23	6	4-BR	4-BL	12	7	.625	919	1476	2934	3203

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Ford Starting Motor Armatures

Original Armature Number	Lester Catalog Code No.	IPM Coil Number	No. Of Slots & Bars	Span	Top Leads	Bottom Leads	Comm. Pitch	Wire Size	End Fibres I.D.	End Fibres IPM No.	IPM Comm. Number	IPM Shaft Number	IPM Steel Lamination Number
C2AZ-11005A	1753	3935	23	6	4-BR	4-BL	12	7	.625	919	1476	2934	3203
C2DF-11005A	1798	3939	25	7	4-BR	4-BL	13	12	.625	3219	3235	3221	3234
C2DZ-11005A	1742	3939	25	7	4-BR	4-BL	13	12	.625	3219	3235	3221	3234
C2OZ-11005A	1734	3938	25	7	4-BR	4-BL	13	8	.625	1909	3110	3209	2919
C2OZ-11005A	1734	3938	25	7	4-BR	4-BL	13	8	.625	1909	3110	3209	2919
C4DZ-11005A	1722	3939	25	7	4-BR	4-BL	13	12	.625	3219	3235	1129	3234
C4OZ-11005A	1774	3938	25	7	4-BR	4-BL	13	8	.625	1909	3110	1131	2919
C6VY-11005A	1774	3938	25	7	4-BR	4-BL	13	8	.625	1909	3110	1131	2919
C4OF-11005A	1774	3938	25	7	4-BR	4-BL	13	8	.625	1909	3110	1131	2919
C4TZ-11005B	1774	3938	25	7	4-BR	4-BL	13	8	.625	1909	3110	1131	2919

No. 3936 – IPM CONVERSION FORD FALCON STARTER ARMATURE COIL SET

12 volt coil set to produce Comet, Falcon, Fairlane, and Lincoln Starter Armatures by using proper length of original Ford Starter Armature 23 slot laminations and older type 23 bar Commutator or IPM No. 1476 Commutator and IPM's No. 2836, 3209 or 3245 Shaft as desired. Use IPM No. C-919 End Fibre. 1960-1964.
Span and hook-up to be same as on Lester No. 2003 - 1950

No. 3937 – IPM CONVERSION FORD FALCON STARTER ARMATURE COIL SET

12 volt coil set to produce Comet, Falcon, Fairlane and Lincoln Starter Armatures by using proper length of original Ford Starter Armature 23 slot laminations and older type 23 bar Commutator or IPM No. 1476 Commutator and IPM's No. 2836, 3209 or 3245 Shaft as desired. Use IPM No. C-919 End Fibre. 1960-1964.
Span and hook-up to be same as on Lester No. 2003 - 1950

CONVERSION SHAFTS

SO 2836 Converting 1867897 To CODF-11005A (¾" Knurl)
3645 Converting 1867897 To C4OZ-11005A (¾" Knurl)

Ford Starting Motor Armatures -H.D.
(Rectangular Wire Coils)

Original Armature Number	Lester Catalog Code No.	IPM Coil Number	IPM Winding Head No.	No. Of Slots & Bars	Span	Top Leads	Bottom Leads	Comm. Pitch	Type	End Fibres I.D.	End Fibres IPM No.	IPM Comm. Number	IPM Shaft Number	IPM Steel Lamination Number	Insulation Number
B8QH-11005A	1886	3910	Coils w/Wings	25	7	4-BR	4-BL	13	Rectangular Wire	.875	1907	3193	245	"X"	8509
B9TF-11005B	1917	3906	7721	25	7	4-BR	4-BL	13	Rectangular Wire	.750	8506	1420	2986	"X"	8522

Chrysler Starting Motor Armatures
(Round Wire Coils)

Original Armature Number	Lester Catalog Code No.	IPM Coil Number	No. Of Slots & Bars	Span	Top Leads	Bottom Leads	Comm. Pitch	Wire Size	End Fibres I.D.	End Fibres IPM No.	IPM Comm. Number	IPM Shaft Number	IPM Steel Lamination Number
1889079	2181	7571-27-105	27	8	4-ML	4-MR	15	10.5	.750	1965-HD	1443	3204	346
2095094	2182	7571X-27-105X	27	8	4-ML	4-MR	15	10.5	.625	3739	3377	3205	3740

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IPM Lucas Starting Motor Armatures (Rectangular Wire Coils)

Original Armature Number	Lester Catalog Code No.	IPM Winding Head No.	IPM Coil Number	No. Of Slots & Bars	Span	Top Leads	Bottom Leads	Comm. Pitch	IPM End Fibre Number	IPM Comm. Number	IPM Shaft Number	IPM Steel Lamination Number	IPM Slot Insulation Number
250851	2350	"X"	3900	29	8	4-MR	4-ML	15	*8503	3111	"X"	"X"	8518
251438	2350	"X"	3900	29	8	4-MR	4-ML	15	*8503	3111	"X"	"X"	8518
251991	2350	"X"	3900	29	8	4-MR	4-ML	15	*8503	3111	"X"	"X"	8518
54250096	2350	"X"	3900	29	8	4-MR	4-ML	15	*8503	3111	"X"	"X"	8518

X - We Do Not Manufacture

*8503X To Fit Over Spacer Washer (¼" Larger I.D.)

IPM Leece-Neville Starting Motor Armatures -H.D. (Rectangular Wire Coils)

Original Armature Number	Lester Catalog Code No.	Core Identification	IPM Coil Number	No. of Slots & Bars	Span	Top Leads	Bottom Leads	Comm. Pitch	IPM End Fibre Number	IPM Comm. Number	IPM Shaft Number	IPM Steel Lamination Number	IPM Slot Insulation Number
MA-20039		Open Slots	3916	19	5	3-MR	3-ML	10	8579	1413	3636	"X"	8542
MA-20045	2045	Open Slots	3908	27	7	4-MR	4-ML	14	8524	1448	1579	"X"	8540
MA-20046	2036	Open Slots	3908	27	7	4-MR	4-ML	14	8524	1448	1579	"X"	8540
MA-20046	2036	Closed Slots	3917	27	7	4-MR	4-ML	14	8528	1448	1579	"X"	8520
MA-20047		"X"	3908	27	7	4-MR	4-ML	14	8524	1448	1579	"X"	8520
MA-20370	2088	Open Slots	3908	27	7	4-MR	4-ML	14	8524	1447	"X"	"X"	8540
MA-20370	2088	Closed Slots	3917	27	7	4-MR	4-ML	14	8528	1447	"X"	"X"	8520
MA-22415		Open Slots	3916	19	5	3-MR	3-ML	10	8579	1465	"X"	"X"	8542
MA-33690	2090	Open Slots	3916	19	5	3-MR	3-ML	10	8579	1413	"X"	"X"	8542
MA-38415		Closed Slots	3917	27	7	4-MR	4-ML	14	8528	1448	3636	"X"	8520
MA-55346		Closed Slots	3916	19	5	3-MR	3-ML	10	8527	1413	3636	"X"	8541

IPM WINDING DATA & APPLICATION BY GROUPINGS

DELCO-REMY — AUTOLITE — FORD — LEECE-NEVILLE — LUCAS

STARTER RECTANGULAR WIRE ARMATURE COILS

IPM Coil Number	IPM Winding Head No.	IPM No. Comm. Used	No. of Slots	IPM No. End Fibre Used	Hook-Up	Span	Slot Insulation Number	Original Starter Armature & Make
3900	" X"	3111	29	8503	4-MR-15 Left	8	8518	Lucas - small 250851 - 251438 - 251991 - 5420096 - 54250096
3901	7720	1424	25	1961	4-BR-13 Left	7	8516	Delco Remy Starter 1911168 - 1909465 - * 1909595 - 1909605 - 1921110 - 1924129 - 1929113 - 1935529 - 1937071 - 1943416 - 1945500
3901	7720	1420X	25	1960	4-BR-13 Left	7	8516	Delco Remy Starter - 1910067 - 1911785 - 1913955 - 1915389 - 1935254 - 1938045 - 1938048 - 1948600
3901	7720	1424	25	1961	3-MR LAP Connection	7	8516	Delco Remy Starter - 1909535 - 1909597 - 1909604 - 1912600 - 1920387 - 1923285 - 1929292 - 1937111 - 1937616 - 1945906 - 1961320
3901	7720	1420X	25	1960	3-MR LAP Connection	7	8516	Delco Remy Starter - 1933138 - 1948999
3903	Coils w/Wings	1489	15	1958	3-BR-8 Left	4	8538	Delco Remy Starter - 1880888 - 1878400 - 1908058 - 1909535 - 1920387 - 1920389 - 1923285 - 1929292
3904	7720	1420X	25	1960	3-BR-9 Left	5	8516	Delco Remy Starter - 829042 - 1843657 - 1883889 - 1907110
3904	7720	1424	25	1961	3-BR-9 Left	5	8516	Delco Remy Starter - 1873064 - 1880232
3905	7720	1420X	25	1960	4-BR-13 Left	7	8517	Delco Remy Starter - 1909467 - 1910490 - 1918929 - 1926408 - 1930667
3906	7721	1420	25	8506	4-BR-13 Left	7	8522	Delco Remy Starter - 1931797 - 1932621 - 1932872 - 1932833 - 1933466 - 1933839 - 1933790 - 1935259 - 1935321 - 1938966 - 1940151 - 1942244 - 1943820 - B9TF-11005B
3907	7722	1417	23	915	3-MR-12 Left	7	8521	Delco Remy Starter - 1907785
3907	7722	1417	23	916	3-MR-12 Left	7	8521	Delco Remy Starter - 1938603 - 1930812 - 1939106 - 1942825 - 1947296 - 1949190

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IPM WINDING DATA & APPLICATION BY GROUPINGS

DELCO-REMY — AUTOLITE — FORD — LEECE-NEVILLE — LUCAS

STARTER RECTANGULAR WIRE ARMATURE COILS

IPM Coil Number	IPM Winding Head No.	IPM No. Comm. Used	No. of Slots	IPM No. End Fiber Used	Hook-Up	Span	Slot Insulation Number	Original Starter Armature & Make
3908	Coils w/Wings	1448	27	8524	4-MR-14 Left	7	8540	Leece-Neville - Open Slots - MA-20046
3908	Coils w/Wings	1447	27	8524	4-MR-14 Left	7	8540	Leece-Neville - Open Slots - MA-16034 - MA-20370
3909	Coils w/Wings	1453	17	1972	3-BR-9 Left	5	8543	Autolite or Prestolite - MBR-2212 - MBR-2215 - MBR-2316 - MCO-2397 - MCO-2288
3910	Coils w/Wings	3193	25	1907	4-BR-13 Left	7	8509	Autolite or Prestolite - ML-2035 - ML-2085 - ML-2115 - ML-2126 - ML-2133 - B8QH-11005A
3912	7720	1420X	25	1960	3-BR-9 Left	5	8517	Delco Remy Starter - 1837058 - 1857480 - 1884069 - 1918153
3913	7722	1417	23	915	3-MR-12 Left	7	8523	Delco Remy Starter - 818002 - 1847432 - 1872505 - 1911832 - 1923040 - 1923939 - 1878077
3913	7722	1417	23	916	3-MR-12 Left	7	8523	Delco Remy Starter - 823881 - 1867897 - 1917855 - 1919267 - 1929404 - 1931397 - 1932297 - 1940624 - 1941888 - 1945688 - 1947535 - 1949770 - 1955857 - 1956941
3914	Coils w/Wings	1453	17	1972	3-BR-9 Left	5	8544	Autolite or Prestolite - MCK-2006 - MCK-2021 - MCK-2052 - MCK-2045
3916		1413	19	8527	3-MR-10 Left	5	8541	Leece-Neville - Closed Slots - MA-55346
3917		1448	27	8528	4-MR-14 Left	7	8520	Leece Neville - Closed Slots - LN-38415
3918	Coils w/Wings	1454	25	8514	3-BR-9 Left	5		Delco Remy Starter - 1917220 - Etc.

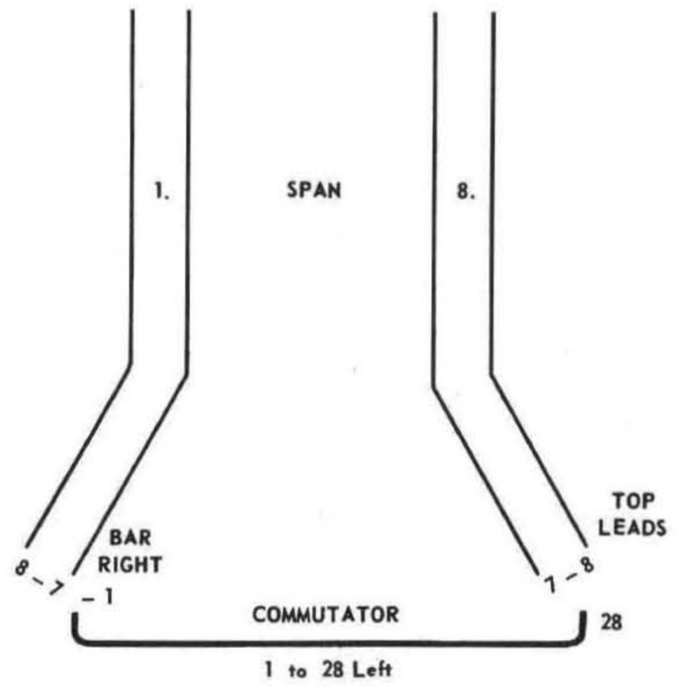
IPM DELCO-REMY HEAVY DUTY GENERATOR ARMATURES (RECTANGULAR WIRE COIL)

IPM Coil Number	IPM Winding Head No.	IPM No. Comm. Used	No of Slots	Hook-Up	Span	Slot Insulation Number	Original Generator Armature and Make
3915	Coils w/Wings	1418	61	9-BR-31 Left	15	X	Delco Remy Heavy Duty Generator Bus Armature No. 1911021
3920	X	3116	82	8 Top Leads 7-8BL Bottom Leads 7-8BR	1-8	Open	Delco Remy Generator Armature - No. 1924527 - Bus Type 160 Ampere. 1 - 28 Coil hook-up to the left (your left) NOTE: Glass Insulated Wire used in Coils.
3921	X	3116	82	8 Top Leads 7-8BL Bottom Leads 7-8BR	1-8	Open	Delco Remy Generator Armature - No. 1912972 - Bus Type 140 Ampere. 1 - 28 Coil hook-up to the left (your left) NOTE: Glass Insulated Wire used in Coils.

Wiring Diagram and Hook-Up of Delco-Remy Bus Generator Armatures

Original Nos. 1924527 & 1939058 – 2½" Core uses IPM Coil No. 3920

Original Nos. 1909861, 1912972 & 1920585 – 2" Core uses IPM Coil No. 3921.



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Delco-Remy Starting Motor Armatures Outboard Marine

Original Armature Number	Lester Catalog Code No.	IPM Coil Number	Hook-Up	IPM Shaft Number	IPM Comm. Number	Tuftan Insulation Width	IPM End Fibre Number	Remarks
1943464	2194	2195-3-165	2-3 BR		3050	2-1/8"	8510	"OEM" is wound with 3 turns of 13½ wire - IPM Coil has same carrying capacity. Hook-up same as Autolites MDO & MDW.
1943749	2199	2199-3-165	2-3 BR		3050	3-1/8"	8510	
1943799	2195	2195-3-165	2-3 BR		3050	2-1/8"	8510	
1948611	2196	2195-3-165	2-3 BR		3050	2-1/8"	8510	**10 BAR COMMUTATOR – 10 SLOT ROUND WIRE (NOTE: Open Slots to .156 when winding with IPM No. 7625 Preformed Coil Inserter)**
1949068	2197	2195-3-165	2-3 BR		3050	2-1/8"	8510	
1951825	2199	2199-3-165	2-3 BR		3050	3-1/8"	8510	

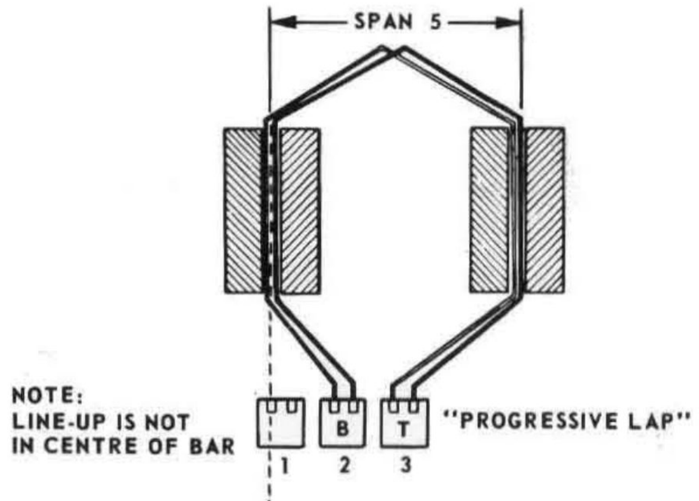
NOTE: Line-up is Not in Center of Bar!! See Hook-up Chart "Progressive Lap"

Autolite & Prestolite Starter Armatures Outboard Marine

Original Armature Number	Lester Catalog Code No.	IPM Coil Number	Hook-Up	IPM Shaft Number	IPM Comm. Number	Tuftan Insulation Width	IPM End Fibre Number	Remarks
MDO-2006	1940	1940-3-175	2-3 BR		3117	2-3/16"	8500	**10 BAR COMMUTATOR – 10 SLOT-ROUND WIRE – PROGRESSIVE LAP (NOTE: Open slots to .156 when winding with IPM No. 7625 Preformed Coil Inserter).**
MDO'S (All)	1940	1940-3-175	2-3 BR		3117	2-3/16"	8500	
MDW-2006	1945	1945-3-175	2-3 BR		3117	3-1/8"	8500	
MDW'S (All)	1945	1945-3-175	2-3 BR		3117	3-1/8"	8500	

10 BAR — 10 SLOT Autolite & Delco-Remy Marine Starter Armatures

OPEN SLOTS .156 IF WOUND ON NO. 7625 INSERTER



IPM Delcotron Alternator Stators (Magnet Wire Coils)

Original Delcotron Stator No.	Amperage	IPM Coil Kit	Number Of Slots	Wedge Number	Slot Insulation	Span	Steel Laminations and Pins	Remarks
1959381	32-42	3169	42	3177	3176	4	4 - 3317 (Large) 14 - 3174 (Small) 7 - 3175 (Pins)	
1959531	52	4741	42	3177	3177	4	4 - 3317 (Large) 14 - 3174 (Small) 7 - 3175 (Pins)	

* IPM No. 3176 & 3177 Used.

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IPM INSTRUCTIONS

Delco-Remy Alternator Stator Coil Insertion

Place Delcotron Stator on bench so thru bolt groove nearest index groove is on the left side. (When index groove is farthest away from you).

The index is between two slots. Mark the slot numbers 18, 22 and number 26 on side which faces upward (lead side). These slots are starting points for each of the three phases. (Figure No. 1)

Clamp Stator Core in a bench vise or a stator holder with the index groove on top, and lead side to your left, as you view the edge of stator. Stator may be clamped in different positions as stator winding progresses.

Insulate stator with insulators provided.

To prevent coil turns from slipping behind insulation, it may be desirable to "flare" the protruding edges of insulation fibre away from slot openings.

Take out one of the three phase-coil groups. Arrange them so small ends of coils are pointing to your left. Grasp the first six coils with the left hand so that coil leads are pointed outward and away from the palm of the hand. Hold No. 6 coil firmly between thumb and forefinger. With the right hand, grasp the far side of coil No. 7 (Figure No. 2) and pull it away and down until coil No. 7 makes a right angle with other coils; small end pointing upward. (Caution: Take care NOT to bend coils).

Insert lead side of coil No. 7 into slot No. 26 with lead facing your left. The remaining six coils suspended in a group out of the way. Rock the coil in an upright position until the second side is over the first side.

This is quite important as it shapes the coil so that when it is rocked in the opposite direction, second side will fall into slot No. 29 easily. Take two of the special form IPM Wedges and insert them into slots containing coil No. 7.

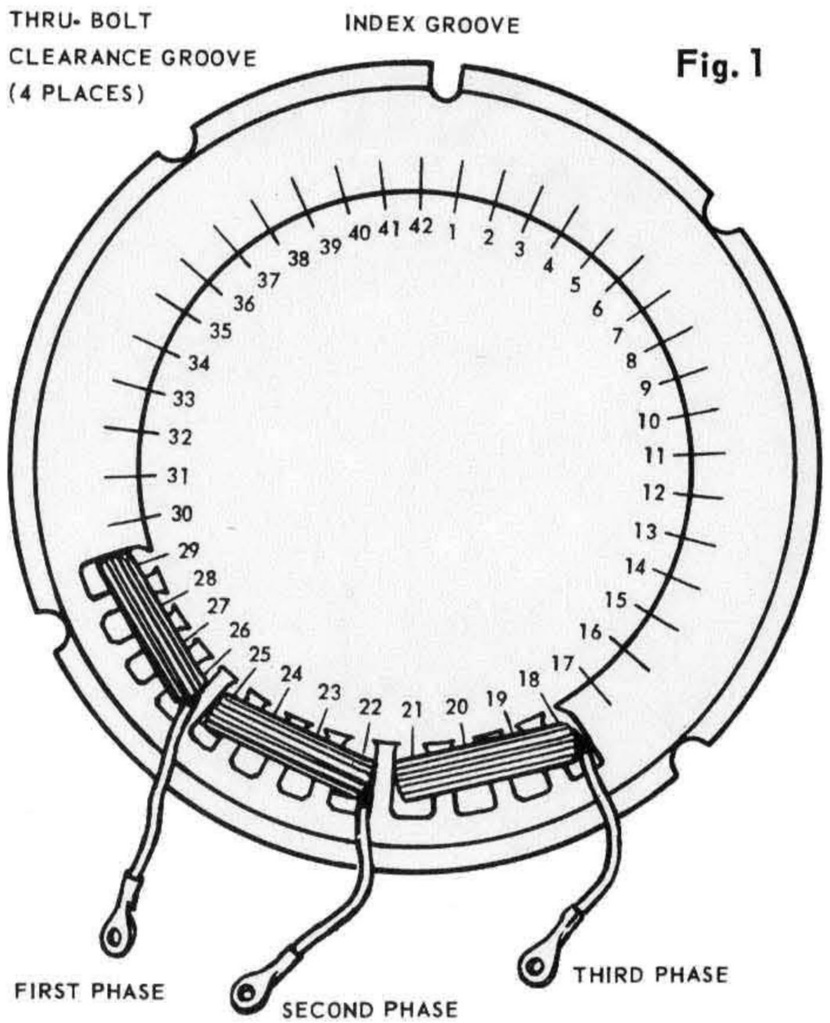


Fig. 1

Delco-Remy Alternator Stator Coil Insertion

(CONTINUED)

Take coil No. 6 and insert into slots No. 32 and 35 using same procedure as on coil No. 7. Repeat this process until all seven coils are installed. Note the pattern of the coils. Each coil spans four slots, and between coils, there are two slots.

Using IPM Tamping block provided with coil kit, tap with hammer with force enough to bend turns of coils so there will be ample space for another coil side. Repeat the operation in all slots spanned by coils.

Start second phase of winding in slot No. 22, installing all coils following same same procedure as No. 1 phase. Install wedging the same as phase one. With tamping block forming the remaining open slots to make sufficient room in slots for the third phase.

The third phase of winding originates in slot No. 18 Insert remaining coils following same procedure as phase one then wedge. Place wound stator on bench with lead side up. With small plastic hammer shape wound coils. Make certain inside area of stator is free and clear of coils and wire. Make certain stator coils are shaped to minimum diameter. Bend coil connecting wires in proximity to coils so varnish will bond and solidify them to stator winding. Turn stator over and form opposite side. A good practice at this point is to check formed stator coils in alternator end frames to insure coil wires are not touching them.

CONNECTING STATOR COILS

Form two outside leads (phase one & three) on top of coils, bringing them to center lead (phase two) and bend to right angles (parallel with center lead). Clean insulation from all three lead wires ONLY where they touch. Twist leads a few turns tightly; then solder. Trim soldered connection to approximately 1/2 inch in length. Bend soldered connection vertical to the stator. Test stator. Dip and bake stator windings.

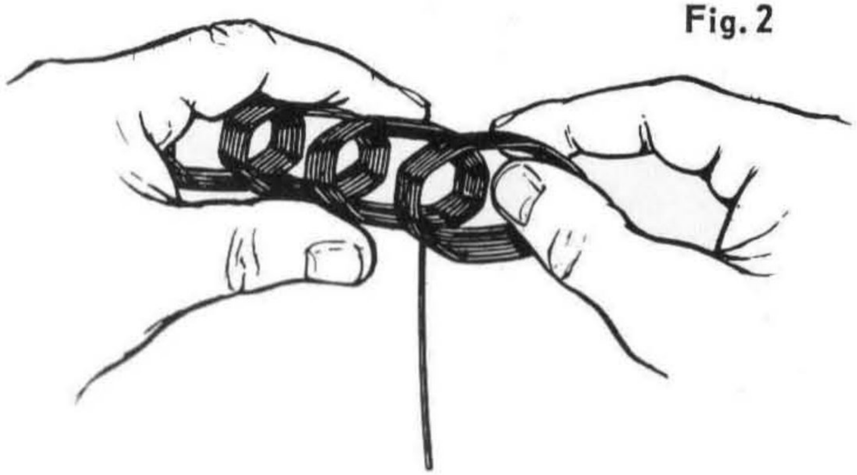


Fig. 2

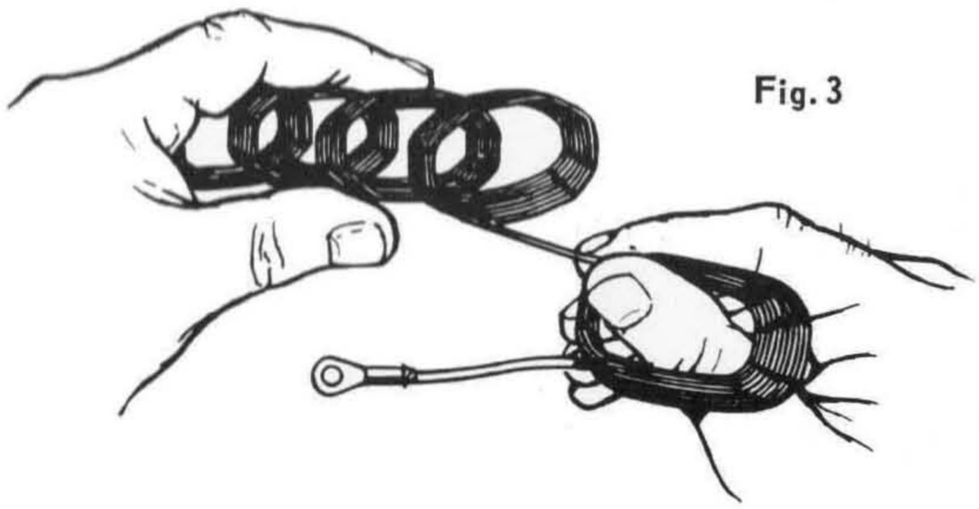


Fig. 3

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Delco-Remy Delcotron Alternator Stators - Heavy Duty (Rectangular Wire Coils)

IPM Coil Number	IPM Winding Head No.	IPM End Fibre Number	Hook-Up	Span	IPM No. Slot Insulation	Number Of Slots	Description
3911	"X"	8505	See Chart	7	HML	72	Delco Remy Stator - Orig. Nos. 1941018 - 1956306 - Heavy Duty Bus Type - Long Type Stator takes long type coil - (early production) - 200 Ampere 3" Lamination Stack. NOTE: Same Coil as No. 3922 except longer.
3922	"X"	8505	See Chart	7	8547 HML	72	Delco Remy Stator - Orig. Nos. 1941018 - 1956306 - Heavy Duty Bus Type - Short Type Stator takes short type coil - (Later Production) - 200 Ampere 2½" Lamination Stack. NOTE: Same Coil as No. 3911 except shorter.
3923	"X"		See Chart	5	8546 Glass Insul. HML	54	Delco Remy Stator - Orig. No. 1964000 - Heavy Duty - Bus Type - 300 Ampere. NOTE: No. 8526 Steel Laminations used.

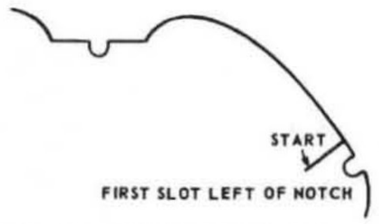
Winding Diagram of Delco-Remy Alternator Stators - Heavy Duty

Legend
S - SHORT
LL - LONG LEFT
LR - LONG RIGHT
T - TERMINAL

OLD STYLE COILS & OLD HOOK-UP
CORE 2¾" WIDE ONLY
IPM NO. 3911 COILS
SLOT INSULATION IPM NO. 8519

ORIGINAL NOS. 1941018 & 1956306 – 200 AMP. – 72 SLOT

SPAN 1 – 7
TWIST SPAN 1 – 4



54 – 47 – 2 GO TOGETHER TO MAKE JUMPER

4								4								4								5								4								5								4								5								4								5								4							
S	S	S	S	LL	LR	S	S	S	S	LL	LL	LR	S	S	S	S	LL	LR	S	S	S	S	S	LL	LR	S	S	S	S	LL	LR	S	S	S	S	S	LL	LR	S	S	S	S	LL	T	S	S	S	S	S	LL	T	S	S	S	S	LL	LR	S	S	S	S	S	LL	LR	S	S	S	S	LL	LR	T
72	71	70	69	68	67	66	65	64	63	62	61	60	59	58	57	56	55	54	53	52	51	50	49	48	47	46	45	44	43	42	41	40	39	38	37	36	35	34	33	32	31	30	29	28	27	26	25	24	23	22	21	20	19	18	17	16	15	14	13	12	11	10	9	8	7	6	5	4	3	2	1

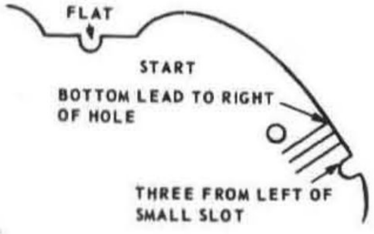
Winding Diagrams of Delco-Remy Alternator Stators - Heavy Duty

Legend
S – SHORT
LL – LONG LEFT
LR – LONG RIGHT
T – TERMINAL

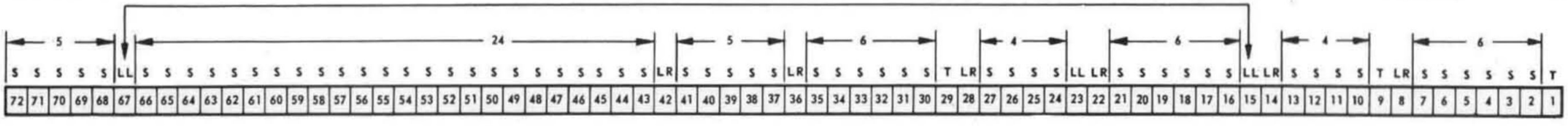
LATE MODEL COILS & HOOK-UP
CORE 2¼" WIDE & 2⅜" WIDE
IPM NO. 3922 COILS
IPM NO. 8547 SLOT INSULATION

SPAN 1 – 7
TWIST SPAN 1 – 4

ORIGINAL NOS. 1941018 & 1956306 – 200 Amp. – 72 Slot



67 – 23 – 15 GO TOGETHER TO MAKE JUMPER

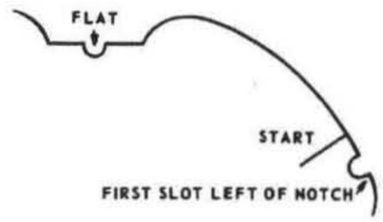


Legend
S – SHORT
LL – LONG LEFT
LR – LONG RIGHT
T – TERMINAL

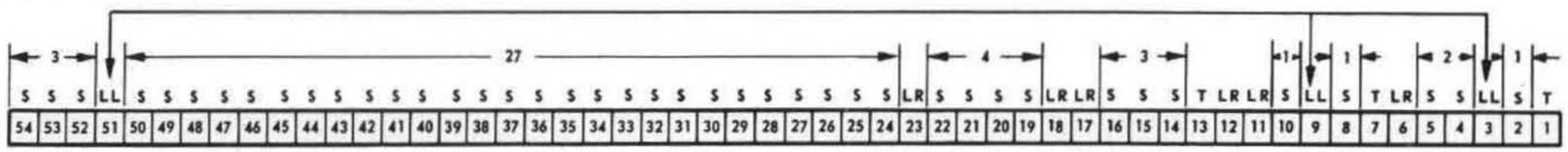
IPM NO. 3923 COILS
IPM NO. 8546 SLOT INSULATION

SPAN 1 – 5
TWIST SPAN 1 – 3

ORIGINAL NO. 1964000 – 300 AMP. – 54 SLOT



51 – 3 – 9 GO TOGETHER TO MAKE JUMPER



INTERNATIONAL PRODUCTS & MFG. COMPANY
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Chrysler Alternator Stators - (Magnet Wire Coils)

Original Chrysler Stator No.	Amperage	IPM Coil Kit	Number Of Slots	Wedge Number	Slot Insulation	Span	Steel Laminations & Pins	Remarks
2095002	30-35-40	8002	36	3518	3517	4	20-8052 Laminations 9-8051 Pins	
2095427	30-35-40	8002	36	3518	3517	4	20-8052 Laminations 9-8051 Pins	

Instructions for Chrysler Stator Coil Insertion

Place Chrysler Stator on bench so thru bolt hole nearest index groove is on the Chrysler Stator right side. (When index groove is farthest away from you)

The index groove is between two slots. Mark the slot on the right side No. 1. Mark remaining slots in clockwise direction through No. 36. Mark the slots numbers 18, 20 and number 22 on side which faces upward (lead side). These slots are starting points for each of the three phases. (Figure No. 1)

Clamp stator core in a bench vise or a stator holder with the index groove on top, and lead side to your left, as you view the edge of stator. Stator may be clamped in different positions as stator winding progresses.

Insulate stator with insulators provided.

To prevent coil turns from slipping behind insulation, it may be desirable to "flare" the protruding edges if insulation fibre away from slot openings.

Take out one of the three phase of coil groups. Arrange them so small ends of coils are pointing to your left. Grasp the first five coils with the left hand so that coil leads are pointed outward & away from the palm of the hand, Hold No. 5 coil firmly between thumb and forefinger. With the right hand, grasp the far side of coil No. 6 (Figure No. 2) and pull it away and down until coil No. 6 makes a right angle with other coils; small end pointing upward. (Caution: Take care NOT to bend coils)

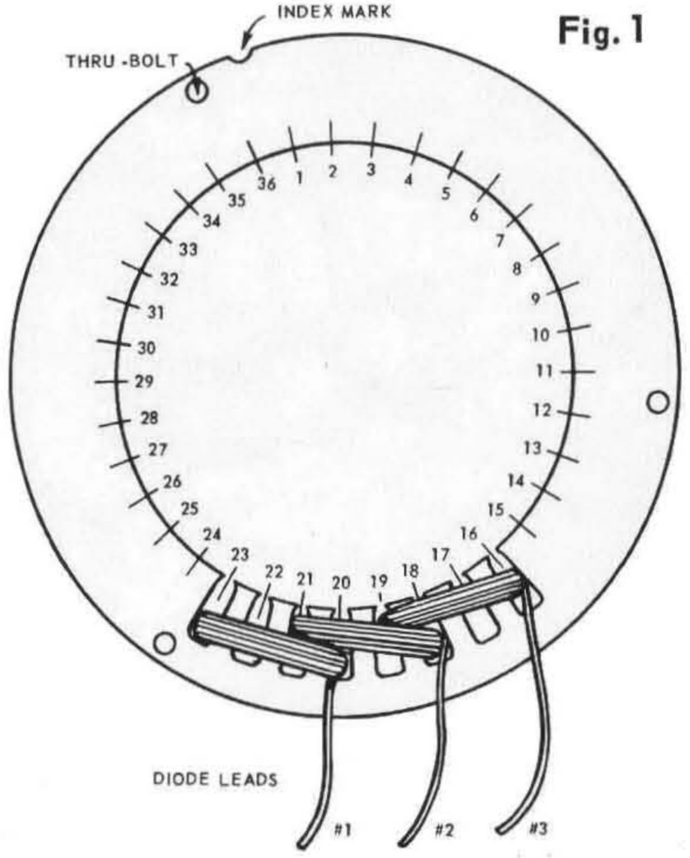


Fig. 1

Instructions for Chrysler Stator Coil Insertion

(CONTINUED)

Insert lead side of coil No. 6 into slot No. 18 with lead facing your left. The remaining five coils suspended in a group out of the way. Rock the coil in an upright position until the second side is over the first side.

This is quite important as it shapes the coil so that when it is rocked in the opposite direction, second side will fall into slot No. 21 easily. Take two of the special formed IPM wedges and insert them into slots containing coil No. 6.

Take coil No. 5 and insert into slots Nos. 24 & 27 using same procedure as on coil No. 6. Repeat this process until all six coils are installed.

Note the pattern of the coils. Each coil spans four slots, and between coils, there are two slots.

Using IPM Tamping Block provided with coil kit, tap with hammer with force enough to bend turns of coils so there will be ample space for another coil side. Repeat the operation in all slots spanned by coils.

Start second phase of winding in slot No. 20, installing all coils following same procedure as phase No. 1. Install wedging the same as phase one. With tamping block for remaining open slots to make sufficient room in slots for the third phase.

The third phase of winding originates in slot No. 22. Insert remaining coils following same procedure as described in phase one and wedge. Place wound stator on bench with lead side up. With small plastic hammer shape wound coils. Make certain inside area of stator is free and clear of coils and wire. Make certain stator coils are shaped to minimum diameter. Bend coil connecting wires in proximity to coils so varnish will bond and solidify them to stator winding. Turn stator over and form opposite side. A good practice at this point is to check formed stator coils in alternator end frames to insure coil wires are not touching them.

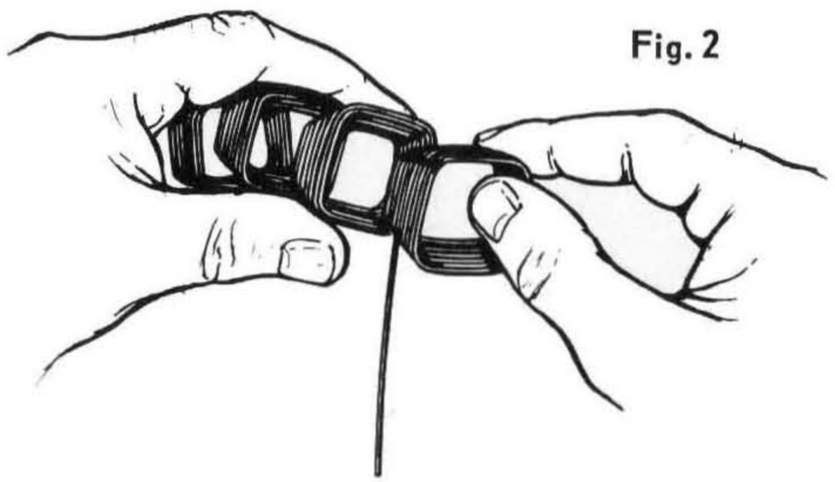


Fig. 2

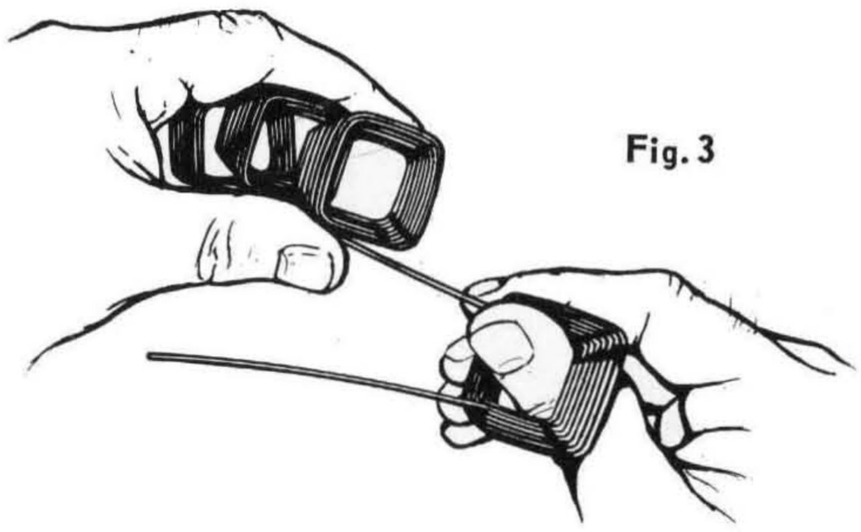


Fig. 3

CONNECTING STATOR COILS

Form finish leads of Phase No. 3 & Phase No. 2 on top of coils bringing them to finish lead No. 1 and bend to right angles (parallel with center lead). Clean insulation from all three lead wires ONLY where they touch. Twist leads a few turns tightly; then solder. Trim soldered connection to approximately ½" in length. Bend soldered connection vertical to the stator. Test stator. Dip and bake stator windings.

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INSTRUCTIONS

Ford Alternator Stator Coil Insertion

Place Ford Alternator Stator on bench (either side of stator down).

Position Stator so that either one of the three grooves (Note: In earlier stators – 6 grooves) is farthest away from you. You will find that this groove is between two slots of stator.

Mark the slot on the right side of the groove No. 1. The remaining slots are counted in clockwise direction through slots No. 36.

Mark the slots numbers 5, 7 and 9 on side which faces upward (lead side). These slots so numbered are starting points for each of the three phases of winding (Figure No. 1).

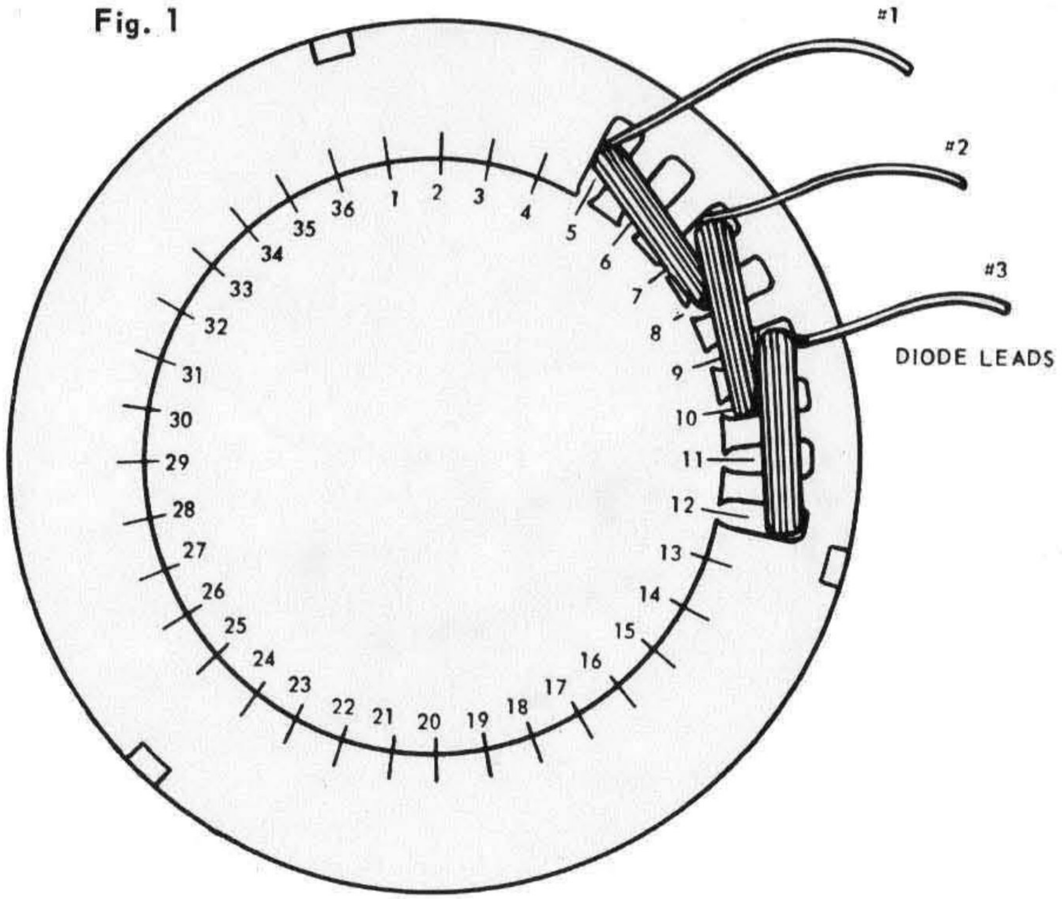
Take out one of the three phase of stator coil groups. Arrange coils so that small ends of coils are pointing to your left. Grasp the first five coils with the left hand so that coil leads are pointed outward and away from the palm of the hand. Hold No. 5 coil firm between thumb and forefinger. With the right hand, grasp the far side of coil No. 6 (Fig. No. 2) and pull it away and down until coil No. 6 makes a right angle with other coils; small end pointing upward. (Caution: Take care NOT to bend coils out of shape).

Insert lead side of coil No.6 into slot No. 5 with the lead facing your left. The remaining five coils suspended in a group out of the way. Rock the coil in an upright position until the second side is over the first side.

This operation is quite important as it shapes the coil so that when it is rocked in the opposite direction, the second side of the coil will fall into slot No. 8 easily. Take 2 of the special formed IPM Wedges and insert them into slots containing coil No. 6.

Take coil No.5 and insert into slots No.11 and No.14 using the same procedure as with coil No.6. Now repeat this process until all six coils are installed into slots of stator.

Fig. 1



Ford Alternator Stator Coil Insertion

. . . CONTINUED

Note the pattern of the coils. Each coil spans four (4) slots and between coils there are two (2) slots.

Using the IPM Tamping Block provided with coil kit, tap with small hammer with sufficient force to bend turns of coils so there will be ample space in slot for another coil side. Repeat this operation in all slots spanned by stator coils.

Start second phase of stator winding in slot No. 7 installing all coils following the same procedure as the first phase. With Tamping Block form remaining open slots to make sufficient room in slots for the third phase of winding.

The third phase of stator winding originates in slot No. 9. Insert remaining coils following the same procedure as phase No. 1, then install wedges.

Place wound stator on bench with lead side up. With small plastic hammer shape wound coils by gently tapping. Make certain that inside area of wound stator is free and clear of coils and/or wire. Make certain stator coils are shaped to minimum diameter. Bend coil connecting wires in proximity to coils so varnish will bond and solidify them to stator winding. Turn stator over and form opposite side. A good practice, at this point, is to check formed stator winding in alternator end frames to insure coil wires are not touching them. Dip in baking varnish and bake stator windings.

Fig. 2

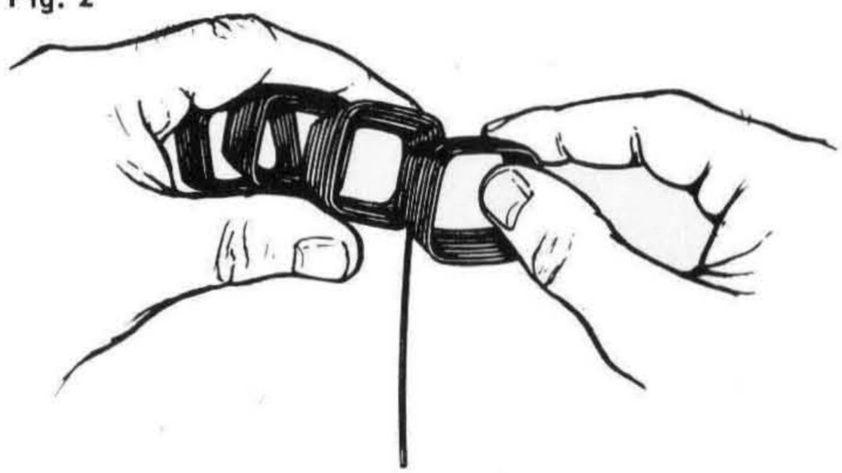
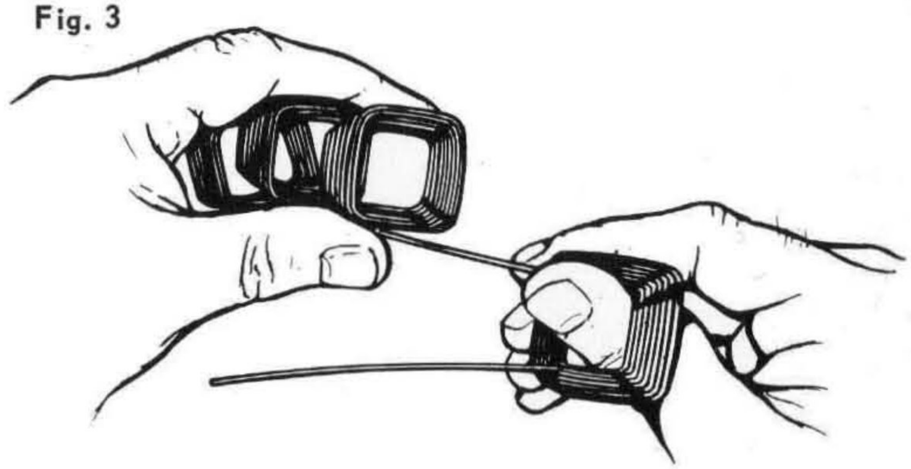


Fig. 3



CONNECTING STATOR COILS

Stators having two (2) short and one (1) long leads. (Up to 1965) Connect leads coming out of slots two (2), four (4) and six (6) together. Leads coming out of slots five (5), seven (7) and nine (9) are connected to diodes.

Ford stators for 1965 connect wires from slots five (5), seven (7) and nine (9) together. Leads from slots two (2), four (4) and six (6) are connected to diodes.

INTERNATIONAL PRODUCTS & MFG. COMPANY
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IPM Ford Alternator Stators (Magnet Wire Coils)

Original Ford Stator No.	Amperage	IPM Coil Kit	Number Of Slots	Wedge Number	Slot Insulation Plastic Mould	Span	Steel Laminations and Pins	Rotor Coils	Remarks
C3XF-10336-A1 (Early)	30-38	4770	36	3177	3818	4	6-Pins 27-Steel Laminations	3370	See instructions for Ford Stator Coil Insertion.
C5DF-10336-A1 (Late) C5DZ-10336-A1 (Late)	35-38	4770	36	3177	3818	4	6-Pins 27-Steel Laminations	3807	See instructions for Ford Stator Coil Insertion.
C3SZ-10336E (Early)	42-45	4738	36	3177	3818	4	6-Pins 27-Steel Laminations	3808	See instructions for Ford Stator Coil Insertion.
C5AF-10336-A1 (Late) C5AZ-10336-A1	42-45	4738	36	3177	3818	4	6-Pins 27-Steel Laminations	3808	See instructions for Ford Stator Coil Insertion.
C4SZ-10336-A1 (Early)	55	4772	36	3177	3818	4	6-Pins 27-Steel Laminations	3808	See instructions for Ford Stator Coil Insertion.
C5SF-10336-A1 (Late) C5SZ-10336-A1 (Late)	55	4772	36	3177	3818	4	6-Pins 27-Steel Laminations	3808	See instructions for Ford Stator Coil Insertion.

Additional Alternator Stator & Rotor Information

IPM Coil No.	Original Make	Type Coils	Amperes	Core Diameter	Remarks
3316	Delco Remy Delcotron	Rotor Coil	32-52	1.940" I D	For all Passenger Car Models of Delco Remy Delcotron except 1100648
3169	Delco Remy Delcotron	Stator Coil Set	32-42		For all Passenger Car Models 3 group of 7 coils each
3355	Ford - Falcon	Rotor Coil	30		For Ford - Falcon - Comet 1963-65 Such as No. C3SZ-10335C

Additional Alternator Stator & Rotor Information

IPM Coil No.	Original Make	Type Coils	Amperes	Core Diameter	Remarks
3362	Ford - Falcon	Stator Coil Set	40		For all Ford cars 1963-65 3 groups of six coils each
3370	Mercury - Lincoln	Rotor Coil	40-42	1.740" I D	Also Thunderbirds – Ford light trucks 1963-65 Such as C3SZ - 10335B
3389	IPM - Prestolite	Rotor Coil	40		For International Products No. 8901 and Prestolite No. ALD-5005 Early Production
3417	IPM - Prestolite	Rotor Coil	55		For International Products No. 8925 and Prestolite No. ALH-5101S
3433	IPM - Prestolite	Rotor Coil	35		For International Products No. 8930 and Prestolite No. ALK-5101S
4737	Delco Remy Delcotron	Rotor Coil	52		For Delco Remy Delcotron No. 1100648 breakerless ignition
*4738	Ford - Mercury Lincoln	Stator Coil Kit	40		Also for Thunderbirds and Ford trucks 1963-1965
*4739	Delco Remy Delcotron	Stator Coil Kit	32-42		For Buick - Chevrolet - Cadillac - Oldsmobile - Pontiac - and light trucks 1962-1965
*4740	Delco Remy Delcotron	Stator Coil Kit	52		3 groups of seven coils each G M Cars with accessories
4741	Delco Remy Delcotron	Stator Coil Set	52		3 groups of seven coils each Delco Remy equipped cars with accessories
*4742	Leece-Neville For Fords	Stator Coil Kit	40		For Leece-Neville Alternator No. 6000AC - 3 groups of 6 coils each - Ford - Fairlane 1963-1965
4743	Leece-Neville For Fords	Stator Coil Set	40		For Leece-Neville Alternator No. 6000AC - 3 groups of 6 coils each - Ford - Fairlane 1963-1965

* Asterisk before number denotes Stator Coil Kit which includes set of coils, wedges, insulating paper and fibre block for inserting wedges.

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Additional Alternator Stator & Rotor Information

IPM Coil No.	Original Make	Type Coils	Amperes	Core Diameter	Remarks
*4750	Leece-Neville	Stator Coil Kit	60		For Leece-Neville Alternator No. 2002 A - Note: 3 groups of 12 coils each - 1962-1965
4751	Leece-Neville	Stator Coil Set	60		For Leece-Neville Alternator No. 2002 A - Note: 3 groups of 12 coils each - 1962-1965
8001	Chrysler	Stator Coil Set	35-40		Chrysler Passenger cars - All - 1960-1965 - 3 groups of six coils each
*8002	Chrysler	Stator Coil Kit	35-40		Chrysler Passenger cars - All - 1960-1965 - 3 groups of six coils each
8034	Chrysler	Rotor Coil	35-40	1.995" I D	Early Chrysler Alternators such as No. 2095000 - 1960-1961 - No. 2095236 Aluminum wire coil w/copper Leads
8035	Chrysler	Rotor Coil	35-40	1.740" I D	For all Chrysler manufactured cars 1962-1965 Aluminum wire coil w/copper Leads
8056	Chrysler Lancer Valiant	Rotor Coil	30	1.740" I D	For Lancer and Valiant - 1960-1965
8084	Chrysler	Rotor Coil	35-40	1.995" I D	Early Chrysler Alternators such as No. 2095000 - 2098231 - 1960-61 Note: Same coil as 8034 except copper wire
8085	Chrysler	Rotor Coil	35-40	1.740" I D	For all Chrysler manufactured cars 1962-1965 Note: Same cool as 8035 except copper wire
8098	Chrysler	Stator Coil	59		Heavy Duty Chrysler alternator

* Asterisk before number denotes Stator Coil Kit which includes set of coils, wedges, insulating paper and fibre block for inserting wedges.

REALAR MAGNET WIRE

Manufactured exclusively for

IPM

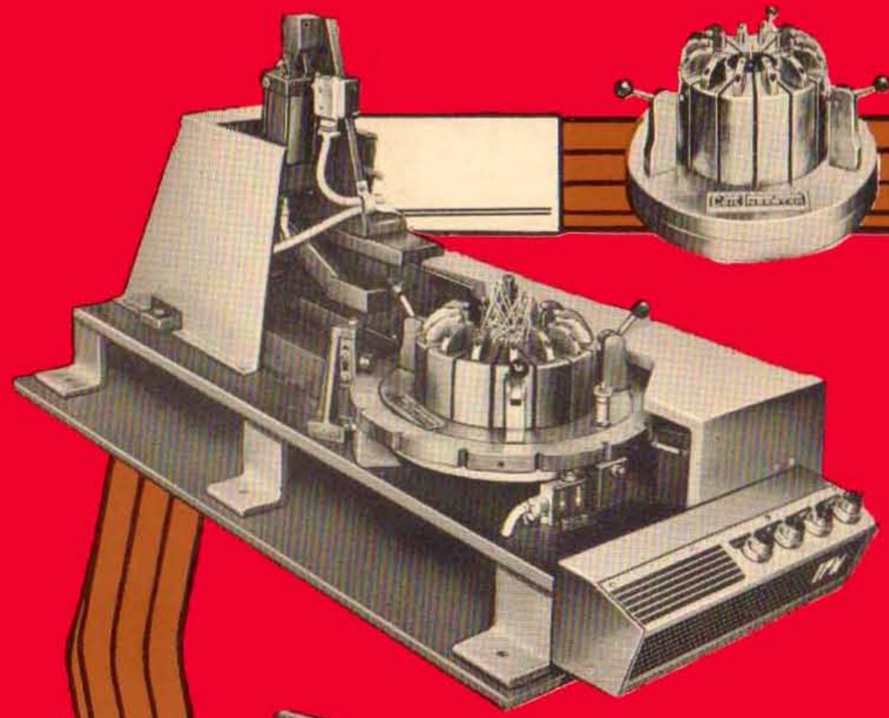
All IPM Generator Armature Preformed Coils are wound with the internationally famous "REALAR" virgin copper wire, a heat and abrasive resistant insulation giving armatures greater life expectancy. Realar Wire is exceptionally soft and flexible. Covered with tough - non raveling - long staple - premium quality textile that will not loosen at the stripped leads.

No armature winding is better than the insulation used on the Magnet Wire. "Realar Insulation" means "Extra built-in Durability and Quality."

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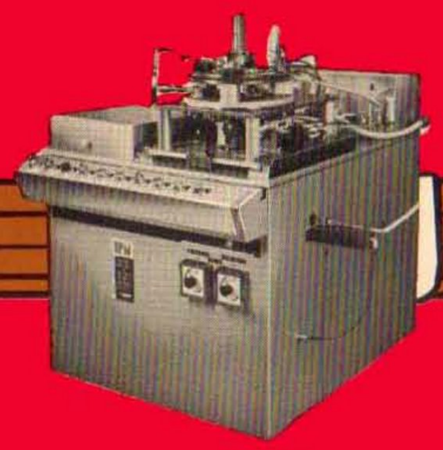
IPM Generator-Starter Armature & Alternator Stator Winding Equipment

#7594 – Automatic Armature Wedging Machine

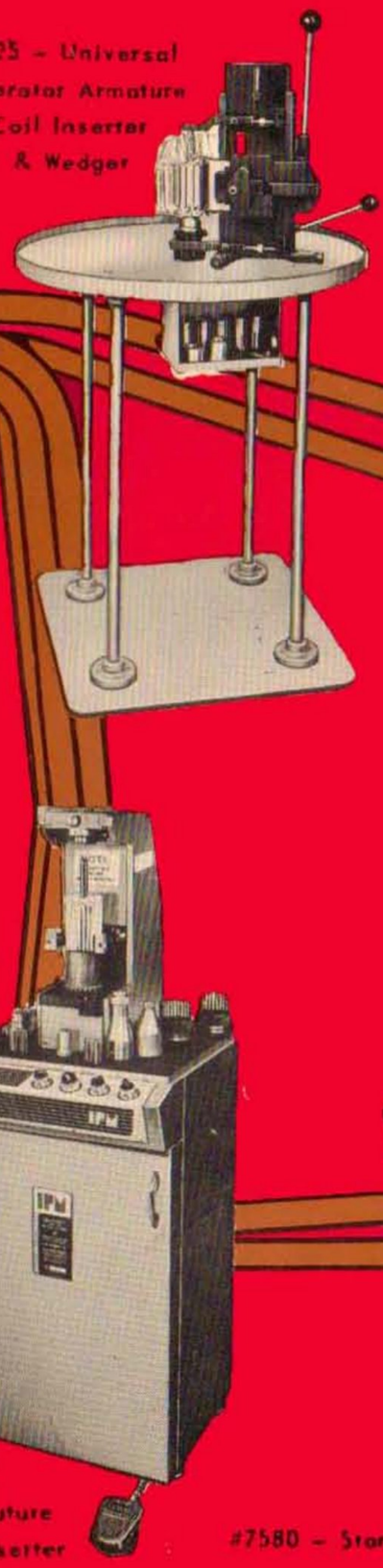


#418 – Inserter

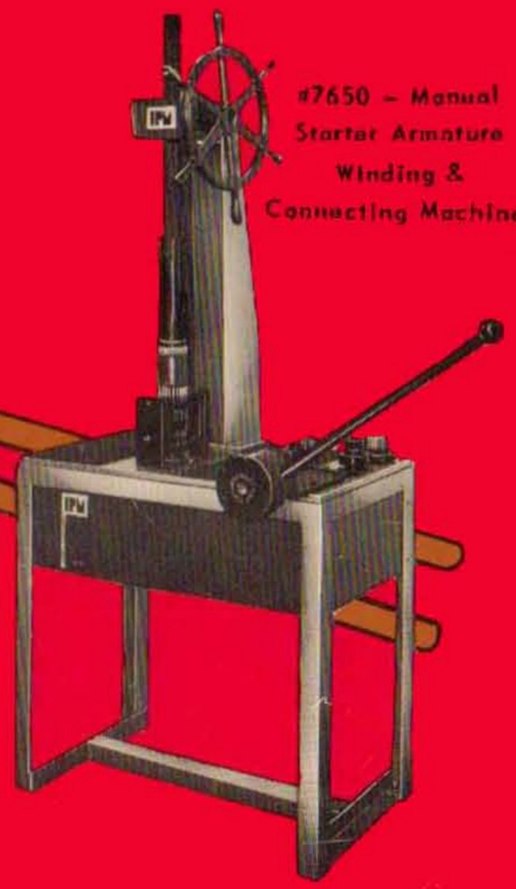
#7735 – Alternator Stator Winder



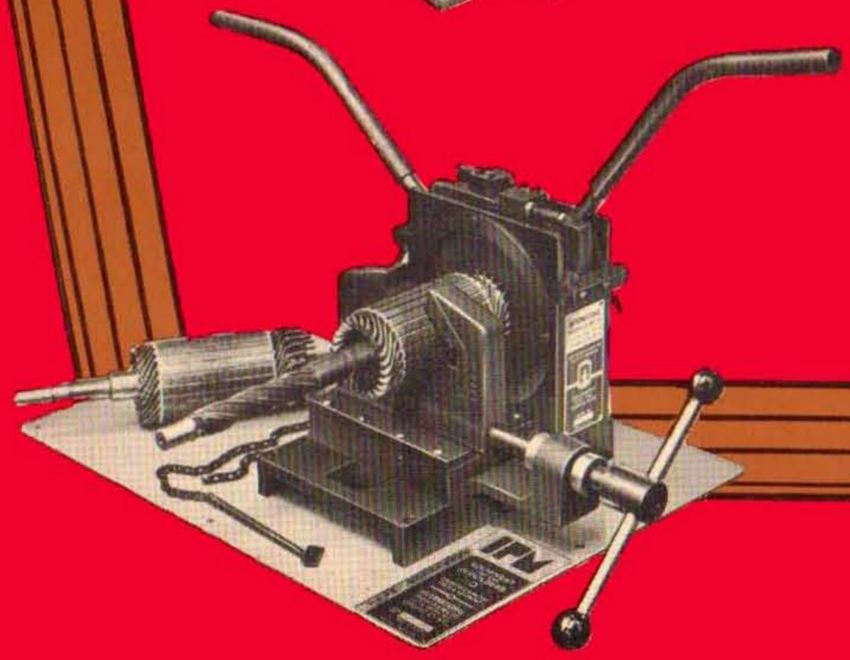
#7625 – Universal Generator Armature Coil Inserter & Wedger



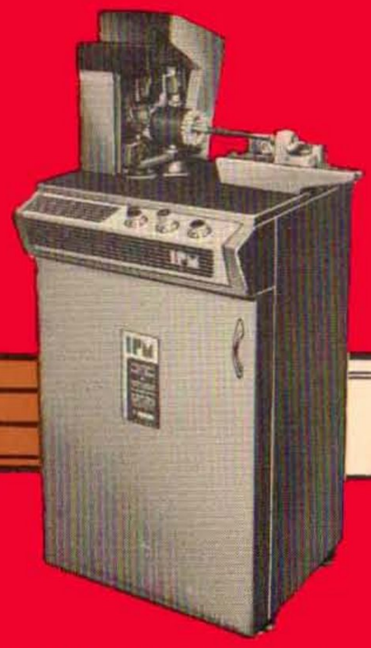
#7650 – Manual Starter Armature Winding & Connecting Machine



#7791 – H.D. Starter Armature Coil Twist Unit



#7585 – Starter Armature Lead Former



#7570 Starter Armature "Hairpin" Inserter

#7580 – Starter Armature Lead Locator & Twister

