

BALDOR® • RELIANCE

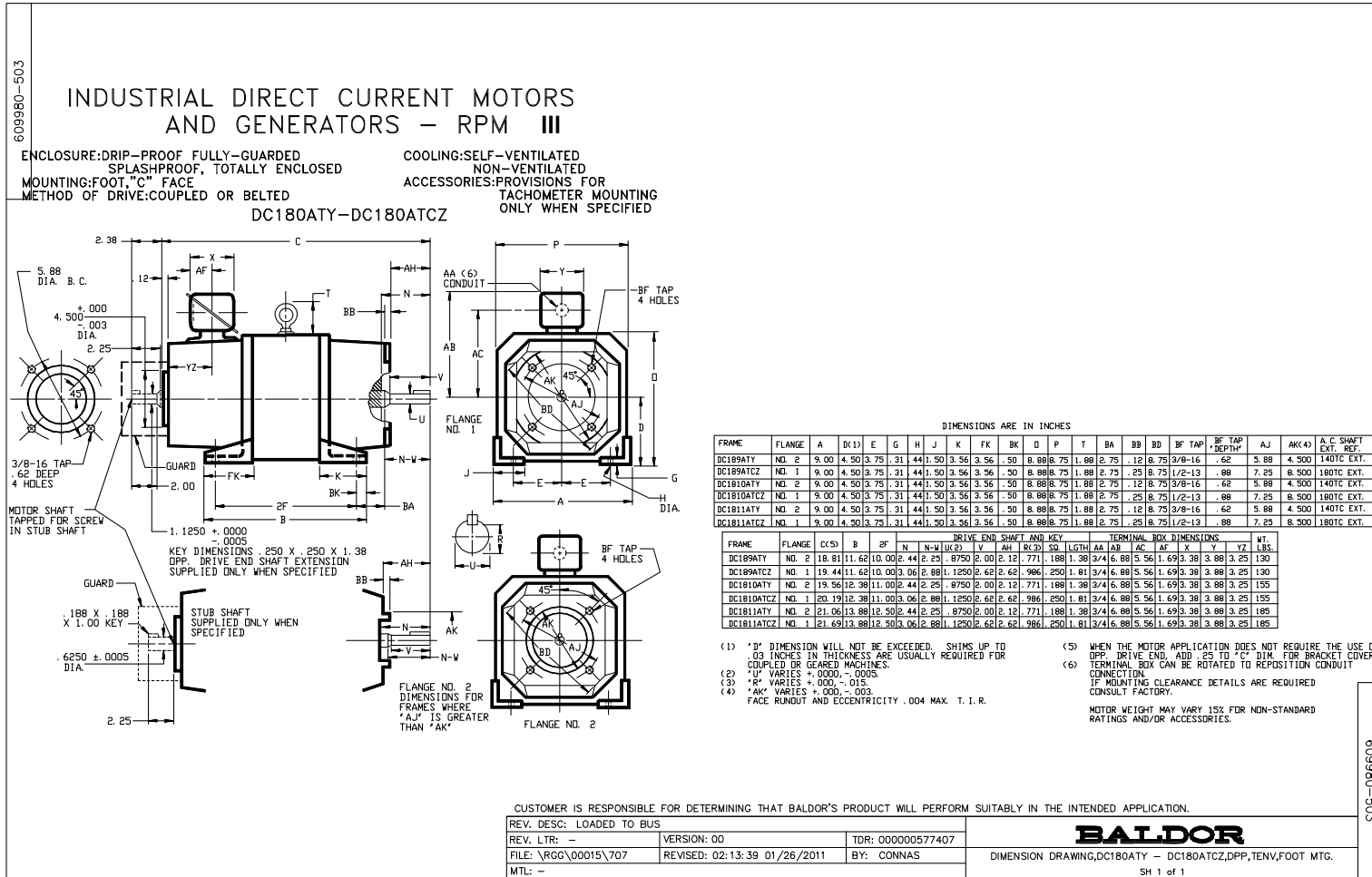
Product Information Packet

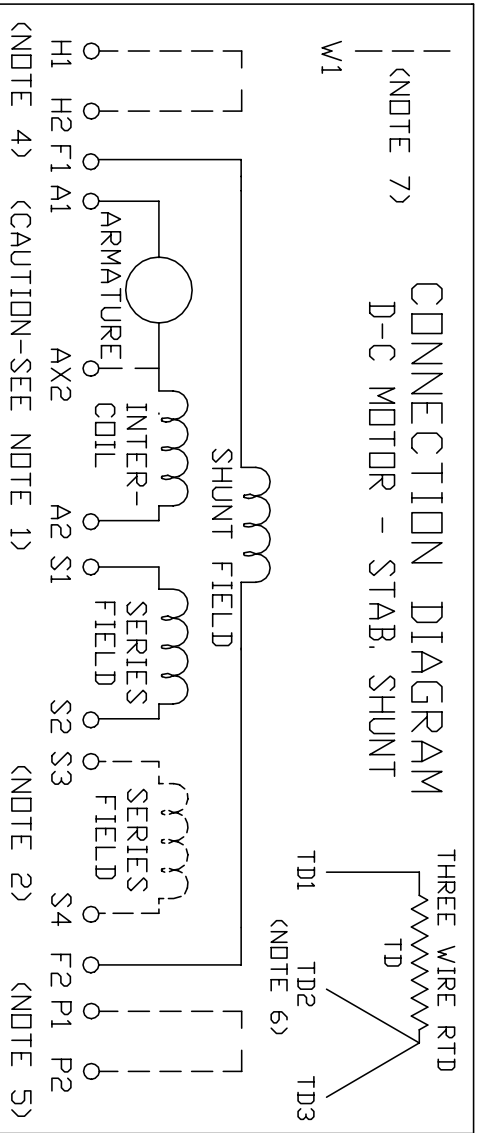
D2003R

3HP, 1750RPM, DC, 189ATCZ, DPG,

Copyright © All product information within this document is subject to Baldor Electric Company copyright © protection, unless otherwise noted.

Part Detail			
Type:	DC	Prod. Type:	TR
Power Code:	C	Weight:	161
Frame Group:	DC 0189ATCZ	Mounting Pos.:	F3
HP:	3	Enclosure:	DPG
RPM:	1750/2300	Wound:	STAB SHUNT
Service Factor:	1.0	Arm V:	240
Arm A:	11.00	Field V:	150
Field A:	1.52	Field A Hot:	1.13/.62
Insulation Class:	F	Ambient:	40
Duty:	CONT	DE Bearing:	30BC02JPP30A
ODE Bearing:	30BC02JPG30A	Brushes:	419904-50A
Brush Qty.:			





ARMATURE AND FIELD EXTERNAL CONNECTIONS
WARNING- SEE NOTE 8 FOR GROUNDING INSTRUCTIONS



ROTATION FACING COMMUTATOR END

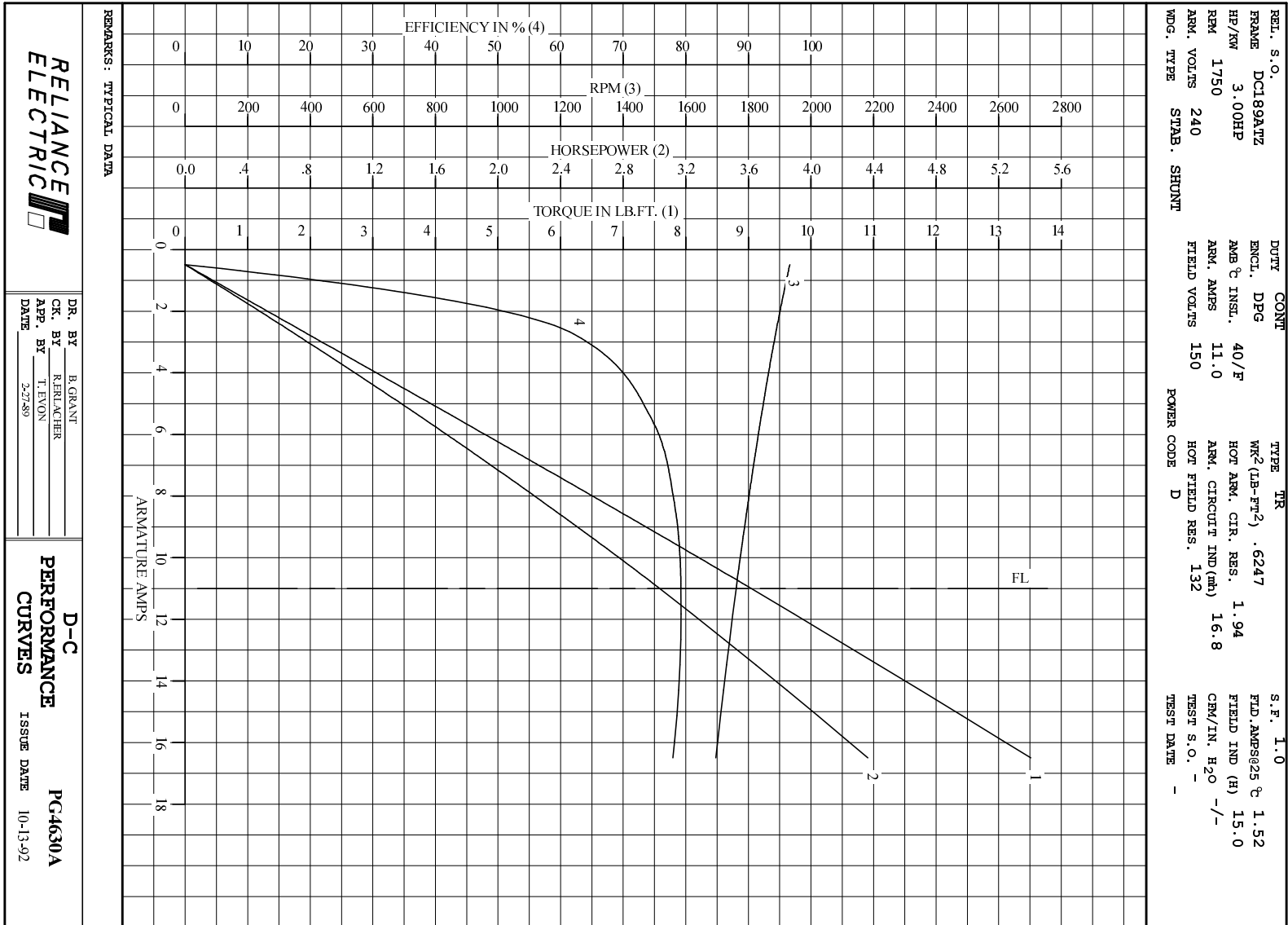
1. **CAUTION** — ARMATURE AND SERIES FIELD MAY HAVE MULTIPLE LEADS. CONNECT ALL LUGS WITH THE SAME MARKING TOGETHER.
2. OPTIONAL SERIES FIELD IS MARKED S3 AND S4. FOR CUMULATIVE SERIES FIELD, CONNECT S3 TO S2 AND CONNECT S4 TO NEGATIVE. FOR DIFFERENTIAL SERIES FIELD CONNECT S4 TO S2 AND S3 TO NEGATIVE.
3. OPTIONAL CONTROL SIGNAL LEAD IS MARKED AX2. ALWAYS TAKE INTERPOLE DROP BETWEEN A2 AND AX2. NOTE: NEMA DESIGNATION FOR AX2 IS LETTER C.
4. SPACE HEATERS, WHEN PROVIDED, WILL HAVE LEADS MARKED H1 AND H2, H3, H4, ETC.
5. THERMAL PROTECTOR, WHEN PROVIDED, WILL HAVE LEADS MARKED P1 AND P2, P3, P4, ETC.
6. WINDING RTDS, WHEN PROVIDED, WILL HAVE LEADS MARKED TD1, TD2, & TD3.
7. BRUSH WEAR SENSOR, WHEN PROVIDED, WILL HAVE LEAD MARKED W1.
8. **WARNING** — MOTOR MUST BE GROUNDED TO PREVENT SERIOUS INJURIES TO PERSONNEL. GROUND THE MOTOR PER IEC, NATIONAL ELECTRICAL CODE AND ANY APPLICABLE LOCAL ELECTRICAL CODES. A TAPPED HOLE IS PROVIDED IN THE CONDUIT BOX, ON THE FOOT. FRAME BRACE OR OPPOSITE OPPOSITE DRIVE END BRACKET, ADJACENT TO THE TERMINAL BOX FOR FOR MOTOR GROUNDING. GROUND LEAD, WHEN PROVIDED, WILL BE GREEN.

CUSTOMER _____ RELIANCE
ORDER NO. _____ S.D. NO. _____

<p>RELIANCE ELECTRIC</p> <p>CLEVELAND, OHIO 44117 U.S.A.</p>	<p>Rev. by <u>N.L. EVANS</u> Ck. by <u>N. JESCHKE</u> App. by <u>E. J. HINER</u> DATE <u>5-5-69</u></p>
<p>CONNECTION DIAGRAM</p> <p>406770-1</p> <p>ORIGINAL AT RCC</p>	

C/R 290048, 354478, 354480

REL. S.O.	FRAME	RATING	REM	ARM. VOLTS	ARM. AMPS																														
	DC189ATZ	3.00HP	1750	240	11.0																														
WINDING TYPE																																			
S.F.	ENCL.	AMB °C/INSUL	DUTY	FIELD VOLTS																															
1.0	DPG	40/F	CONT	150																															
STAB. SHUNT																																			
POWER CODE																																			
TYPE	WK ² (LB-FT ²)	HOT ARM. CIR. RES.	FLD. AMPS@25 °C	HOT FIELD RES																															
D	TR	.6247	1.94	1.52	132																														
ARM. CIR. IND. (mh)																																			
16.8	FIELD IND. (H)	COOLING AIR (CFM/IN H 20)	TURNS PER COIL SHUNT/SERIES	1450/12	TEST DATE																														
	15.0	-/-			-																														
LOAD PERFORMANCE																																			
LOAD	AMPERES	TORQUE IN LB.-FT.	OUTPUT IN HP	REM	% EFFICIENCY																														
NO LOAD	.49	0	0	1933	0																														
1/4	2.8	1.97	.708	1887	62.2																														
2/4	5.5	4.36	1.53	1840	74.5																														
3/4	8.2	6.72	2.30	1799	78.2																														
4/4	11	9.05	3.03	1761	79.2																														
O.L.	17	13.5	4.36	1696	77.9																														
REMARKS: TYPICAL DATA																																			
MAXIMUM SAFE SPEED = 4500 RPM																																			
REMARKS: TYPICAL DATA																																			
<table border="1"> <thead> <tr> <th>FIELD AMPS</th> <th>RPM N.L.</th> <th>RPM F.L.</th> <th>Eg N.L. @ BASE SPEED</th> <th>Eg F.L. @ BASE SPEED</th> </tr> </thead> <tbody> <tr> <td>1.13</td> <td>1932</td> <td>1760</td> <td>215</td> <td>209</td> </tr> <tr> <td>1.00</td> <td>1975</td> <td>1830</td> <td>211</td> <td>199</td> </tr> <tr> <td>.876</td> <td>2062</td> <td>1933</td> <td>202</td> <td>186</td> </tr> <tr> <td>.749</td> <td>2223</td> <td>2080</td> <td>188</td> <td>170</td> </tr> <tr> <td>.621</td> <td>2493</td> <td>2300</td> <td>168</td> <td>150</td> </tr> </tbody> </table>						FIELD AMPS	RPM N.L.	RPM F.L.	Eg N.L. @ BASE SPEED	Eg F.L. @ BASE SPEED	1.13	1932	1760	215	209	1.00	1975	1830	211	199	.876	2062	1933	202	186	.749	2223	2080	188	170	.621	2493	2300	168	150
FIELD AMPS	RPM N.L.	RPM F.L.	Eg N.L. @ BASE SPEED	Eg F.L. @ BASE SPEED																															
1.13	1932	1760	215	209																															
1.00	1975	1830	211	199																															
.876	2062	1933	202	186																															
.749	2223	2080	188	170																															
.621	2493	2300	168	150																															
<table border="1"> <thead> <tr> <th>FIELD AMPS</th> <th>RPM N.L.</th> <th>RPM F.L.</th> <th>Eg N.L. @ BASE SPEED</th> <th>Eg F.L. @ BASE SPEED</th> </tr> </thead> <tbody> <tr> <td>1.13</td> <td>1932</td> <td>1760</td> <td>215</td> <td>209</td> </tr> <tr> <td>1.00</td> <td>1975</td> <td>1830</td> <td>211</td> <td>199</td> </tr> <tr> <td>.876</td> <td>2062</td> <td>1933</td> <td>202</td> <td>186</td> </tr> <tr> <td>.749</td> <td>2223</td> <td>2080</td> <td>188</td> <td>170</td> </tr> <tr> <td>.621</td> <td>2493</td> <td>2300</td> <td>168</td> <td>150</td> </tr> </tbody> </table>						FIELD AMPS	RPM N.L.	RPM F.L.	Eg N.L. @ BASE SPEED	Eg F.L. @ BASE SPEED	1.13	1932	1760	215	209	1.00	1975	1830	211	199	.876	2062	1933	202	186	.749	2223	2080	188	170	.621	2493	2300	168	150
FIELD AMPS	RPM N.L.	RPM F.L.	Eg N.L. @ BASE SPEED	Eg F.L. @ BASE SPEED																															
1.13	1932	1760	215	209																															
1.00	1975	1830	211	199																															
.876	2062	1933	202	186																															
.749	2223	2080	188	170																															
.621	2493	2300	168	150																															
<table border="1"> <thead> <tr> <th>FIELD AMPS</th> <th>RPM N.L.</th> <th>RPM F.L.</th> <th>Eg N.L. @ BASE SPEED</th> <th>Eg F.L. @ BASE SPEED</th> </tr> </thead> <tbody> <tr> <td>1.13</td> <td>1932</td> <td>1760</td> <td>215</td> <td>209</td> </tr> <tr> <td>1.00</td> <td>1975</td> <td>1830</td> <td>211</td> <td>199</td> </tr> <tr> <td>.876</td> <td>2062</td> <td>1933</td> <td>202</td> <td>186</td> </tr> <tr> <td>.749</td> <td>2223</td> <td>2080</td> <td>188</td> <td>170</td> </tr> <tr> <td>.621</td> <td>2493</td> <td>2300</td> <td>168</td> <td>150</td> </tr> </tbody> </table>						FIELD AMPS	RPM N.L.	RPM F.L.	Eg N.L. @ BASE SPEED	Eg F.L. @ BASE SPEED	1.13	1932	1760	215	209	1.00	1975	1830	211	199	.876	2062	1933	202	186	.749	2223	2080	188	170	.621	2493	2300	168	150
FIELD AMPS	RPM N.L.	RPM F.L.	Eg N.L. @ BASE SPEED	Eg F.L. @ BASE SPEED																															
1.13	1932	1760	215	209																															
1.00	1975	1830	211	199																															
.876	2062	1933	202	186																															
.749	2223	2080	188	170																															
.621	2493	2300	168	150																															
<table border="1"> <thead> <tr> <th>FIELD AMPS</th> <th>RPM N.L.</th> <th>RPM F.L.</th> <th>Eg N.L. @ BASE SPEED</th> <th>Eg F.L. @ BASE SPEED</th> </tr> </thead> <tbody> <tr> <td>1.13</td> <td>1932</td> <td>1760</td> <td>215</td> <td>209</td> </tr> <tr> <td>1.00</td> <td>1975</td> <td>1830</td> <td>211</td> <td>199</td> </tr> <tr> <td>.876</td> <td>2062</td> <td>1933</td> <td>202</td> <td>186</td> </tr> <tr> <td>.749</td> <td>2223</td> <td>2080</td> <td>188</td> <td>170</td> </tr> <tr> <td>.621</td> <td>2493</td> <td>2300</td> <td>168</td> <td>150</td> </tr> </tbody> </table>						FIELD AMPS	RPM N.L.	RPM F.L.	Eg N.L. @ BASE SPEED	Eg F.L. @ BASE SPEED	1.13	1932	1760	215	209	1.00	1975	1830	211	199	.876	2062	1933	202	186	.749	2223	2080	188	170	.621	2493	2300	168	150
FIELD AMPS	RPM N.L.	RPM F.L.	Eg N.L. @ BASE SPEED	Eg F.L. @ BASE SPEED																															
1.13	1932	1760	215	209																															
1.00	1975	1830	211	199																															
.876	2062	1933	202	186																															
.749	2223	2080	188	170																															
.621	2493	2300	168	150																															
<table border="1"> <thead> <tr> <th>FIELD AMPS</th> <th>RPM N.L.</th> <th>RPM F.L.</th> <th>Eg N.L. @ BASE SPEED</th> <th>Eg F.L. @ BASE SPEED</th> </tr> </thead> <tbody> <tr> <td>1.13</td> <td>1932</td> <td>1760</td> <td>215</td> <td>209</td> </tr> <tr> <td>1.00</td> <td>1975</td> <td>1830</td> <td>211</td> <td>199</td> </tr> <tr> <td>.876</td> <td>2062</td> <td>1933</td> <td>202</td> <td>186</td> </tr> <tr> <td>.749</td> <td>2223</td> <td>2080</td> <td>188</td> <td>170</td> </tr> <tr> <td>.621</td> <td>2493</td> <td>2300</td> <td>168</td> <td>150</td> </tr> </tbody> </table>						FIELD AMPS	RPM N.L.	RPM F.L.	Eg N.L. @ BASE SPEED	Eg F.L. @ BASE SPEED	1.13	1932	1760	215	209	1.00	1975	1830	211	199	.876	2062	1933	202	186	.749	2223	2080	188	170	.621	2493	2300	168	150
FIELD AMPS	RPM N.L.	RPM F.L.	Eg N.L. @ BASE SPEED	Eg F.L. @ BASE SPEED																															
1.13	1932	1760	215	209																															
1.00	1975	1830	211	199																															
.876	2062	1933	202	186																															
.749	2223	2080	188	170																															
.621	2493	2300	168	150																															
<table border="1"> <thead> <tr> <th>FIELD AMPS</th> <th>RPM N.L.</th> <th>RPM F.L.</th> <th>Eg N.L. @ BASE SPEED</th> <th>Eg F.L. @ BASE SPEED</th> </tr> </thead> <tbody> <tr> <td>1.13</td> <td>1932</td> <td>1760</td> <td>215</td> <td>209</td> </tr> <tr> <td>1.00</td> <td>1975</td> <td>1830</td> <td>211</td> <td>199</td> </tr> <tr> <td>.876</td> <td>2062</td> <td>1933</td> <td>202</td> <td>186</td> </tr> <tr> <td>.749</td> <td>2223</td> <td>2080</td> <td>188</td> <td>170</td> </tr> <tr> <td>.621</td> <td>2493</td> <td>2300</td> <td>168</td> <td>150</td> </tr> </tbody> </table>						FIELD AMPS	RPM N.L.	RPM F.L.	Eg N.L. @ BASE SPEED	Eg F.L. @ BASE SPEED	1.13	1932	1760	215	209	1.00	1975	1830	211	199	.876	2062	1933	202	186	.749	2223	2080	188	170	.621	2493	2300	168	150
FIELD AMPS	RPM N.L.	RPM F.L.	Eg N.L. @ BASE SPEED	Eg F.L. @ BASE SPEED																															
1.13	1932	1760	215	209																															
1.00	1975	1830	211	199																															
.876	2062	1933	202	186																															
.749	2223	2080	188	170																															
.621	2493	2300	168	150																															
<table border="1"> <thead> <tr> <th>FIELD AMPS</th> <th>RPM N.L.</th> <th>RPM F.L.</th> <th>Eg N.L. @ BASE SPEED</th> <th>Eg F.L. @ BASE SPEED</th> </tr> </thead> <tbody> <tr> <td>1.13</td> <td>1932</td> <td>1760</td> <td>215</td> <td>209</td> </tr> <tr> <td>1.00</td> <td>1975</td> <td>1830</td> <td>211</td> <td>199</td> </tr> <tr> <td>.876</td> <td>2062</td> <td>1933</td> <td>202</td> <td>186</td> </tr> <tr> <td>.749</td> <td>2223</td> <td>2080</td> <td>188</td> <td>170</td> </tr> <tr> <td>.621</td> <td>2493</td> <td>2300</td> <td>168</td> <td>150</td> </tr> </tbody> </table>						FIELD AMPS	RPM N.L.	RPM F.L.	Eg N.L. @ BASE SPEED	Eg F.L. @ BASE SPEED	1.13	1932	1760	215	209	1.00	1975	1830	211	199	.876	2062	1933	202	186	.749	2223	2080	188	170	.621	2493	2300	168	150
FIELD AMPS	RPM N.L.	RPM F.L.	Eg N.L. @ BASE SPEED	Eg F.L. @ BASE SPEED																															
1.13	1932	1760	215	209																															
1.00	1975	1830	211	199																															
.876	2062	1933	202	186																															
.749	2223	2080	188	170																															
.621	2493	2300	168	150																															
<table border="1"> <thead> <tr> <th>FIELD AMPS</th> <th>RPM N.L.</th> <th>RPM F.L.</th> <th>Eg N.L. @ BASE SPEED</th> <th>Eg F.L. @ BASE SPEED</th> </tr> </thead> <tbody> <tr> <td>1.13</td> <td>1932</td> <td>1760</td> <td>215</td> <td>209</td> </tr> <tr> <td>1.00</td> <td>1975</td> <td>1830</td> <td>211</td> <td>199</td> </tr> <tr> <td>.876</td> <td>2062</td> <td>1933</td> <td>202</td> <td>186</td> </tr> <tr> <td>.749</td> <td>2223</td> <td>2080</td> <td>188</td> <td>170</td> </tr> <tr> <td>.621</td> <td>2493</td> <td>2300</td> <td>168</td> <td>150</td> </tr> </tbody> </table>						FIELD AMPS	RPM N.L.	RPM F.L.	Eg N.L. @ BASE SPEED	Eg F.L. @ BASE SPEED	1.13	1932	1760	215	209	1.00	1975	1830	211	199	.876	2062	1933	202	186	.749	2223	2080	188	170	.621	2493	2300	168	150
FIELD AMPS	RPM N.L.	RPM F.L.	Eg N.L. @ BASE SPEED	Eg F.L. @ BASE SPEED																															
1.13	1932	1760	215	209																															
1.00	1975	1830	211	199																															
.876	2062	1933	202	186																															
.749	2223	2080	188	170																															
.621	2493	2300	168	150																															
<table border="1"> <thead> <tr> <th>FIELD AMPS</th> <th>RPM N.L.</th> <th>RPM F.L.</th> <th>Eg N.L. @ BASE SPEED</th> <th>Eg F.L. @ BASE SPEED</th> </tr> </thead> <tbody> <tr> <td>1.13</td> <td>1932</td> <td>1760</td> <td>215</td> <td>209</td> </tr> <tr> <td>1.00</td> <td>1975</td> <td>1830</td> <td>211</td> <td>199</td> </tr> <tr> <td>.876</td> <td>2062</td> <td>1933</td> <td>202</td> <td>186</td> </tr> <tr> <td>.749</td> <td>2223</td> <td>2080</td> <td>188</td> <td>170</td> </tr> <tr> <td>.621</td> <td>2493</td> <td>2300</td> <td>168</td> <td>150</td> </tr> </tbody> </table>						FIELD AMPS	RPM N.L.	RPM F.L.	Eg N.L. @ BASE SPEED	Eg F.L. @ BASE SPEED	1.13	1932	1760	215	209	1.00	1975	1830	211	199	.876	2062	1933	202	186	.749	2223	2080	188	170	.621	2493	2300	168	150
FIELD AMPS	RPM N.L.	RPM F.L.	Eg N.L. @ BASE SPEED	Eg F.L. @ BASE SPEED																															
1.13	1932	1760	215	209																															
1.00	1975	1830	211	199																															
.876	2062	1933	202	186																															
.749	2223	2080	188	170																															
.621	2493	2300	168	150																															
<table border="1"> <thead> <tr> <th>FIELD AMPS</th> <th>RPM N.L.</th> <th>RPM F.L.</th> <th>Eg N.L. @ BASE SPEED</th> <th>Eg F.L. @ BASE SPEED</th> </tr> </thead> <tbody> <tr> <td>1.13</td> <td>1932</td> <td>1760</td> <td>215</td> <td>209</td> </tr> <tr> <td>1.00</td> <td>1975</td> <td>1830</td> <td>211</td> <td>199</td> </tr> <tr> <td>.876</td> <td>2062</td> <td>1933</td> <td>202</td> <td>186</td> </tr> <tr> <td>.749</td> <td>2223</td> <td>2080</td> <td>188</td> <td>170</td> </tr> <tr> <td>.621</td> <td>2493</td> <td>2300</td> <td>168</td> <td>150</td> </tr> </tbody> </table>						FIELD AMPS	RPM N.L.	RPM F.L.	Eg N.L. @ BASE SPEED	Eg F.L. @ BASE SPEED	1.13	1932	1760	215	209	1.00	1975	1830	211	199	.876	2062	1933	202	186	.749	2223	2080	188	170	.621	2493	2300	168	150
FIELD AMPS	RPM N.L.	RPM F.L.	Eg N.L. @ BASE SPEED	Eg F.L. @ BASE SPEED																															
1.13	1932	1760	215	209																															
1.00	1975	1830	211	199																															
.876	2062	1933	202	186																															
.749	2223	2080	188	170																															
.621	2493	2300	168	150																															
<table border="1"> <thead> <tr> <th>FIELD AMPS</th> <th>RPM N.L.</th> <th>RPM F.L.</th> <th>Eg N.L. @ BASE SPEED</th> <th>Eg F.L. @ BASE SPEED</th> </tr> </thead> <tbody> <tr> <td>1.13</td> <td>1932</td> <td>1760</td> <td>215</td> <td>209</td> </tr> <tr> <td>1.00</td> <td>1975</td> <td>1830</td> <td>211</td> <td>199</td> </tr> <tr> <td>.876</td> <td>2062</td> <td>1933</td> <td>202</td> <td>186</td> </tr> <tr> <td>.749</td> <td>2223</td> <td>2080</td> <td>188</td> <td>170</td> </tr> <tr> <td>.621</td> <td>2493</td> <td>2300</td> <td>168</td> <td>150</td> </tr> </tbody> </table>						FIELD AMPS	RPM N.L.	RPM F.L.	Eg N.L. @ BASE SPEED	Eg F.L. @ BASE SPEED	1.13	1932	1760	215	209	1.00	1975	1830	211	199	.876	2062	1933	202	186	.749	2223	2080	188	170	.621	2493	2300	168	150
FIELD AMPS	RPM N.L.	RPM F.L.	Eg N.L. @ BASE SPEED	Eg F.L. @ BASE SPEED																															
1.13	1932	1760	215	209																															
1.00	1975	1830	211	199																															
.876	2062	1933	202	186																															
.749	2223	2080	188	170																															
.621	2493	2300	168	150																															
<table border="1"> <thead> <tr> <th>FIELD AMPS</th> <th>RPM N.L.</th> <th>RPM F.L.</th> <th>Eg N.L. @ BASE SPEED</th> <th>Eg F.L. @ BASE SPEED</th> </tr> </thead> <tbody> <tr> <td>1.13</td> <td>1932</td> <td>1760</td> <td>215</td> <td>209</td> </tr> <tr> <td>1.00</td> <td>1975</td> <td>1830</td> <td>211</td> <td>199</td> </tr> <tr> <td>.876</td> <td>2062</td> <td>1933</td> <td>202</td> <td>186</td> </tr> <tr> <td>.749</td> <td>2223</td> <td>2080</td> <td>188</td> <td>170</td> </tr> <tr> <td>.621</td> <td>2493</td> <td>2300</td> <td>168</td> <td>150</td> </tr> </tbody> </table>						FIELD AMPS	RPM N.L.	RPM F.L.	Eg N.L. @ BASE SPEED	Eg F.L. @ BASE SPEED	1.13	1932	1760	215	209	1.00	1975	1830	211	199	.876	2062	1933	202	186	.749	2223	2080	188	170	.621	2493	2300	168	150
FIELD AMPS	RPM N.L.	RPM F.L.	Eg N.L. @ BASE SPEED	Eg F.L. @ BASE SPEED																															
1.13	1932	1760	215	209																															
1.00	1975	1830	211	199																															
.876	2062	1933	202	186																															
.749	2223	2080	188	170																															
.621	2493	2300	168	150																															
<table border="1"> <thead> <tr> <th>FIELD AMPS</th> <th>RPM N.L.</th> <th>RPM F.L.</th> <th>Eg N.L. @ BASE SPEED</th> <th>Eg F.L. @ BASE SPEED</th> </tr> </thead> <tbody> <tr> <td>1.13</td> <td>1932</td> <td>1760</td> <td>215</td> <td>209</td> </tr> <tr> <td>1.00</td> <td>1975</td> <td>1830</td> <td>211</td> <td>199</td> </tr> <tr> <td>.876</td> <td>2062</td> <td>1933</td> <td>202</td> <td>186</td> </tr> <tr> <td>.749</td> <td>2223</td> <td>2080</td> <td>188</td> <td>170</td> </tr> <tr> <td>.621</td> <td>2493</td> <td>2300</td> <td>168</td> <td>150</td> </tr> </tbody> </table>						FIELD AMPS	RPM N.L.	RPM F.L.	Eg N.L. @ BASE SPEED	Eg F.L. @ BASE SPEED	1.13	1932	1760	215	209	1.00	1975	1830	211	199	.876	2062	1933	202	186	.749	2223	2080	188	170	.621	2493	2300	168	150
FIELD AMPS	RPM N.L.	RPM F.L.	Eg N.L. @ BASE SPEED	Eg F.L. @ BASE SPEED																															
1.13	1932	1760	215	209																															
1.00	1975	1830	211	199																															
.876	2062	1933	202	186																															
.749	2223	2080	188	170																															
.621	2493	2300	168	150																															
<table border="1"> <thead> <tr> <th>FIELD AMPS</th> <th>RPM N.L.</th> <th>RPM F.L.</th> <th>Eg N.L. @ BASE SPEED</th> <th>Eg F.L. @ BASE SPEED</th> </tr> </thead> <tbody> <tr> <td>1.13</td> <td>1932</td> <td>1760</td> <td>215</td> <td>209</td> </tr> <tr> <td>1.00</td> <td>1975</td> <td>1830</td> <td>211</td> <td>199</td> </tr> <tr> <td>.876</td> <td>2062</td> <td>1933</td> <td>202</td> <td>186</td> </tr> <tr> <td>.749</td> <td>2223</td> <td>2080</td> <td>188</td> <td>170</td> </tr> <tr> <td>.621</td> <td>2493</td> <td>2300</td> <td>168</td> <td>150</td> </tr> </tbody> </table>						FIELD AMPS	RPM N.L.	RPM F.L.	Eg N.L. @ BASE SPEED	Eg F.L. @ BASE SPEED	1.13	1932	1760	215	209	1.00	1975	1830	211	199	.876	2062	1933	202	186	.749	2223	2080	188	170	.621	2493	2300	168	150
FIELD AMPS	RPM N.L.	RPM F.L.	Eg N.L. @ BASE SPEED	Eg F.L. @ BASE SPEED																															
1.13	1932	1760	215	209																															
1.00	1975	1830	211	199																															
.876	2062	1933	202	186																															
.749	2223	2080	188	170																															
.621	2493	2300	168	150																															
<table border="1"> <thead> <tr> <th>FIELD AMPS</th> <th>RPM N.L.</th> <th>RPM F.L.</th> <th>Eg N.L. @ BASE SPEED</th> <th>Eg F.L. @ BASE SPEED</th> </tr> </thead> <tbody> <tr> <td>1.13</td> <td>1932</td> <td>1760</td> <td>215</td> <td>209</td> </tr> <tr> <td>1.00</td> <td>1975</td> <td>1830</td> <td>211</td> <td>199</td> </tr> <tr> <td>.876</td> <td>2062</td> <td>1933</td> <td>202</td> <td>186</td> </tr> <tr> <td>.749</td> <td>2223</td> <td>2080</td> <td>188</td> <td>170</td> </tr> <tr> <td>.621</td> <td>2493</td> <td>2300</td> <td>168</td> <td>150</td> </tr> </tbody> </table>						FIELD AMPS	RPM N.L.	RPM F.L.	Eg N.L. @ BASE SPEED	Eg F.L. @ BASE SPEED	1.13	1932	1760	215	209	1.00	1975	1830	211	199	.876	2062	1933	202	186	.749	2223	2080	188	170	.621	2493	2300	168	150
FIELD AMPS	RPM N.L.	RPM F.L.	Eg N.L. @ BASE SPEED	Eg F.L. @ BASE SPEED																															
1.13	1932	1760	215	209																															
1.00	1975	1830	211	199																															
.876	2062	1933	202	186																															
.749	2223	2080	188	170																															
.621	2493	2300	168	150																															
<table border="1"> <thead> <tr> <th>FIELD AMPS</th> <th>RPM N.L.</th> <th>RPM F.L.</th> <th>Eg N.L. @ BASE SPEED</th> <th>Eg F.L. @ BASE SPEED</th> </tr> </thead> <tbody> <tr> <td>1.13</td> <td>1932</td> <td>1760</td> <td>215</td> <td>209</td> </tr> <tr> <td>1.00</td> <td>1975</td> <td>1830</td> <td>211</td> <td>199</td> </tr> <tr> <td>.876</td> <td>2062</td> <td>1933</td> <td>202</td> <td>186</td> </tr> <tr> <td>.749</td> <td>2223</td> <td>2080</td> <td>188</td> <td>170</td> </tr> <tr> <td>.621</td> <td>2493</td> <td>2300</td> <td>168</td> <td>150</td> </tr> </tbody> </table>						FIELD AMPS	RPM N.L.	RPM F.L.	Eg N.L. @ BASE SPEED	Eg F.L. @ BASE SPEED	1.13	1932	1760	215	209	1.00	1975	1830	211	199	.876	2062	1933	202	186	.749	2223	2080	188	170	.621	2493	2300	168	150
FIELD AMPS	RPM N.L.	RPM F.L.	Eg N.L. @ BASE SPEED	Eg F.L. @ BASE SPEED																															
1.13	1932	1760	215	209																															
1.00	1975	1830	211	199																															
.876	2062	1933	202	186																															
.749	2223	2080	188	170																															
.621	2493	2300	168	150																															
<table border="1"> <thead> <tr> <th>FIELD AMPS</th> <th>RPM N.L.</th> <th>RPM F.L.</th> <th>Eg N.L. @ BASE SPEED</th> <th>Eg F.L. @ BASE SPEED</th> </tr> </thead> <tbody> <tr> <td>1.13</td> <td>1932</td> <td>1760</td> <td>215</td> <td>209</td> </tr> <tr> <td>1.00</td> <td>1975</td> <td>1830</td> <td>211</td> <td>199</td> </tr> <tr> <td>.876</td> <td>2062</td> <td>1933</td> <td>202</td> <td>186</td> </tr> <tr> <td>.749</td> <td>2223</td> <td>2080</td> <td>188</td> <td>170</td> </tr> <tr> <td>.621</td> <td>2493</td> <td>2300</td> <td>168</td> <td>150</td> </tr> </tbody> </table>						FIELD AMPS	RPM N.L.	RPM F.L.	Eg N.L. @ BASE SPEED	Eg F.L. @ BASE SPEED	1.13	1932	1760	215	209	1.00	1975	1830	211	199	.876	2062	1933	202	186	.749	2223	2080	188	170	.621	2493	2300	168	150
FIELD AMPS	RPM N.L.	RPM F.L.	Eg N.L. @ BASE SPEED	Eg F.L. @ BASE SPEED																															
1.13	1932	1760	215	209																															
1.00	1975	1830	211	199																															
.876	2062	1933	202	186																															
.749	2223	2080	188	170																															
.621	2493	2300	168	150																															
<table border="1"> <thead> <tr> <th>FIELD AMPS</th> <th>RPM N.L.</th> <th>RPM F.L.</th> <th>Eg N.L. @ BASE SPEED</th> <th>Eg F.L. @ BASE SPEED</th> </tr> </thead> <tbody> <tr> <td>1.13</td> <td>1932</td> <td>1760</td> <td>215</td> <td>209</td> </tr> <tr> <td>1.00</td> <td>1975</td> <td>1830</td> <td>211</td> <td>199</td> </tr> <tr> <td>.876</td> <td>2062</td> <td>1933</td> <td>202</td> <td>186</td> </tr> <tr> <td>.749</td> <td>2223</td> <td>2080</td> <td>188</td> <td>170</td> </tr> <tr> <td>.621</td> <td>2493</td> <td>2300</td> <td>168</td> <td>150</td> </tr> </tbody> </table>						FIELD AMPS	RPM N.L.	RPM F.L.	Eg N.L. @ BASE SPEED	Eg F.L. @ BASE SPEED	1.13	1932	1760	215	209	1.00	1975	1830	211	199	.876	2062	1933	202	186	.749	2223	2080	188	170	.621	2493	2300	168	150
FIELD AMPS	RPM N.L.	RPM F.L.	Eg N.L. @ BASE SPEED	Eg F.L. @ BASE SPEED																															
1.13	1932	1760	215	209																															
1.00	1975	1830	211	199																															
.876	2062	1933	202	186																															
.749	2223	2080	188	170																															
.621	2493	2300	168	150																															
<table border="1"> <thead> <tr> <th>FIELD AMPS</th> <th>RPM N.L.</th> <th>RPM F.L.</th> <th>Eg N.L. @ BASE SPEED</th> <th>Eg F.L. @ BASE SPEED</th> </tr> </thead> <tbody> <tr> <td>1.13</td> <td>1932</td> <td>1760</td> <td>215</td> <td>209</td> </tr> <tr> <td>1.00</td> <td>1975</td> <td>1830</td> <td>211</td> <td>199</td> </tr> <tr> <td>.876</td> <td>2062</td> <td>1933</td> <td>202</td> <td>186</td> </tr> <tr> <td>.749</td> <td>2223</td> <td>2080</td> <td>188</td> <td>170</td> </tr> <tr> <td>.621</td> <td>2493</td> <td>2300</td> <td>168</td> <td>150</td> </tr> </tbody> </table>						FIELD AMPS	RPM N.L.	RPM F.L.	Eg N.L. @ BASE SPEED	Eg F.L. @ BASE SPEED	1.13	1932	1760	215	209	1.00	1975	1830	211	199	.876	2062	1933	202	186	.749	2223	2080	188	170	.621	2493	2300	168	150
FIELD AMPS	RPM N.L.	RPM F.L.	Eg N.L. @ BASE SPEED	Eg F.L. @ BASE SPEED																															
1.13	1932	1760	215	209																															
1.00	1975	1830	211	199																															
.876	2062	1933	202	186																															
.749	2223	2080	188	170																															
.621	2493	2300	168	150																															
<table border="1"> <thead> <tr> <th>FIELD AMPS</th> <th>RPM N.L.</th> <th>RPM F.L.</th> <th>Eg N.L. @ BASE SPEED</th> <th>Eg F.L. @ BASE SPEED</th> </tr> </thead> <tbody> <tr> <td>1.13</td> <td>1932</td> <td>1760</td> <td>215</td> <td>209</td> </tr> <tr> <td>1.00</td> <td>1975</td> <td>1830</td> <td>211</td> <td>199</td> </tr> <tr> <td>.876</td> <td>2062</td> <td>1933</td> <td>202</td> <td>186</td> </tr> <tr> <td>.749</td> <td>2223</td> <td>2080</td> <td>188</td> <td>170</td> </tr> <tr> <td>.621</td> <td>2493</td> <td>2300</td> <td>168</td> <td>150</td> </tr> </tbody> </table>						FIELD AMPS	RPM N.L.	RPM F.L.	Eg N.L. @ BASE SPEED	Eg F.L. @ BASE SPEED	1.13	1932	1760	215	209	1.00	1975	1830	211	199	.876	2062	1933	202	186	.749	2223	2080	188	170	.621	2493	2300	168	150
FIELD AMPS	RPM N.L.	RPM F.L.	Eg N.L. @ BASE SPEED	Eg F.L. @ BASE SPEED																															
1.13	1932	1760	215	209																															
1.00	1975	1830	211	199																															
.876	2062	1933	202	186																															
.749	2223	2080	188	170																															
.621	2493	2300	168	150																															
<table border="1"> <thead> <tr> <th>FIELD AMPS</th> <th>RPM N.L.</th> <th>RPM F.L.</th> <th>Eg N.L. @ BASE SPEED</th> <th>Eg F.L. @ BASE SPEED</th> </tr> </thead> <tbody> <tr> <td>1.13</td> <td>1932</td> <td>1760</td> <td>215</td> <td>209</td> </tr> <tr> <td>1.00</td> <td>1975</td> <td>1830</td> <td>211</td> <td>199</td> </tr> <tr> <td>.876</td> <td>2062</td> <td>1933</td> <td>202</td> <td>186</td> </tr> <tr> <td>.749</td> <td>2223</td> <td>2080</td> <td>188</td> <td>170</td> </tr> <tr> <td>.621</td> <td>2493</td> <td>2300</td> <td>168</td> <td>150</td> </tr> </tbody> </table>						FIELD AMPS	RPM N.L.	RPM F.L.	Eg N.L. @ BASE SPEED	Eg F.L. @ BASE SPEED	1.13	1932	1760	215	209	1.00	1975	1830	211	199	.876	2062	1933	202	186	.749	2223	2080	188	170	.621	2493	2300	168	150
FIELD AMPS	RPM N.L.	RPM F.L.	Eg N.L. @ BASE SPEED	Eg F.L. @ BASE SPEED																															
1.13	1932	1760	215	209																															
1.00	1975	1830	211	199																															
.876	2062	1933	202	186																															
.749	2223	2080	188	170																															
.621	2493	2300	168	150																															
<table border="1"> <thead> <tr> <th>FIELD AMPS</th> <th>RPM N.L.</th> <th>RPM F.L.</th> <th>Eg N.L. @ BASE SPEED</th> <th>Eg F.L. @ BASE SPEED</th> </tr> </thead> <tbody> <tr> <td>1.13</td> <td>1932</td> <td>1760</td> <td>215</td> <td>209</td> </tr> <tr> <td>1.00</td> <td>1975</td> <td>1830</td> <td>211</td> <td>199</td> </tr> <tr> <td>.876</td> <td>2062</td> <td>1933</td> <td>202</td> <td>186</td> </tr> <tr> <td>.749</td> <td>2223</td> <td>2080</td> <td>188</td> <td>170</td> </tr> <tr> <td>.621</td> <td>2493</td> <td>2300</td> <td>168</td> <td>150</td> </tr> </tbody> </table>						FIELD AMPS	RPM N.L.	RPM F.L.	Eg N.L. @ BASE SPEED	Eg F.L. @ BASE SPEED	1.13	1932	1760	215	209	1.00	1975	1830	211	199	.876	2062	1933	202	186	.749	2223	2080	188	170	.621	2493	2300	168	150
FIELD AMPS	RPM N.L.	RPM F.L.	Eg N.L. @ BASE SPEED	Eg F.L. @ BASE SPEED																															
1.13	1932	1760	215	209																															
1.00	1975	1830	211	199																															
.876	2062	1933	202	186																															
.749	2223	2080	188	170																															
.621	2493	2300	168	150																															
<table border="1"> <thead> <tr> <th>FIELD AMPS</th> <th>RPM N.L.</th> <th>RPM F.L.</th> <th>Eg N.L. @ BASE SPEED</th> <th>Eg F.L. @ BASE SPEED</th> </tr> </thead> <tbody> <tr> <td>1.13</td> <td>1932</td> <td>1760</td> <td>215</td> <td>209</td> </tr> <tr> <td>1.00</td> <td>1975</td> <td>1830</td> <td>211</td> <td>199</td> </tr> <tr> <td>.876</td> <td>2062</td> <td>1933</td> <td>202</td> <td>186</td> </tr> <tr> <td>.749</td> <td>2223</td> <td>2080</td> <td>188</td> <td>170</td> </tr> <tr> <td>.621</td> <td>2493</td> <td>2300</td> <td>168</td> <td>150</td> </tr> </tbody> </table>						FIELD AMPS	RPM N.L.	RPM F.L.	Eg N.L. @ BASE SPEED	Eg F.L. @ BASE SPEED	1.13	1932	1760	215	209	1.00	1975	1830	211	199	.876	2062	1933	202	186	.749	2223	2080	188	170	.621	2493	2300	168	150
FIELD AMPS	RPM N.L.	RPM F.L.	Eg N.L. @ BASE SPEED	Eg F.L. @ BASE SPEED																															
1.13	1932	1760	215	209																															
1.00	1975	1830	211	199																															
.876	2062	1933	202	186																															
.749	2223	2080	188	170																															
.621	2493	2300	168	150																															
<table border="1"> <thead> <tr> <th>FIELD AMPS</th> <th>RPM N.L.</th> <th>RPM F.L.</th> <th>Eg N.L. @ BASE SPEED</th> <th>Eg F.L. @ BASE SPEED</th> </tr> </thead> <tbody> <tr> <td>1.13</td> <td>1932</td> <td>1760</td> <td>215</td> <td>209</td> </tr> <tr> <td>1.00</td> <td>1975</td> <td>1830</td> <td>211</td> <td>199</td> </tr> <tr> <td>.876</td> <td>2062</td> <td>1933</td> <td>202</td> <td>186</td> </tr> <tr> <td>.749</td> <td>2223</td> <td>2080</td> <td>188</td> <td>170</td> </tr> <tr> <td>.621</td> <td>2493</td> <td>2300</td> <td>168</td> <td>150</td> </tr> </tbody> </table>						FIELD AMPS	RPM N.L.	RPM F.L.	Eg N.L. @ BASE SPEED	Eg F.L. @ BASE SPEED	1.13	1932	1760	215	209	1.00	1975	1830	211	199	.876	2062	1933	202	186	.749	2223	2080	188	170	.621	2493	2300	168	150
FIELD AMPS	RPM N.L.	RPM F.L.	Eg N.L. @ BASE SPEED	Eg F.L. @ BASE SPEED																															
1.13	1932	1760	215	209																															
1.00	1975	1830	211	199																															
.876	2062	1933	202	186																															
.749	2223	2080	188	170																															
.621	2493	2300	168	150																															
<table border="1"> <thead> <tr> <th>FIELD AMPS</th> <th>RPM N.L.</th> <th>RPM F.L.</th> <th>Eg N.L. @ BASE SPEED</th> <th>Eg F.L. @ BASE SPEED</th> </tr> </thead> <tbody> <tr> <td>1.13</td> <td>1932</td> <td>1760</td> <td>215</td> <td>209</td> </tr> <tr> <td>1.00</td> <td>1975</td> <td>1830</td> <td>211</td> <td>199</td> </tr> <tr> <td>.876</td> <td>2062</td> <td>1933</td> <td>202</td> <td>186</td> </tr> <tr> <td>.749</td> <td>2223</td> <td>2080</td> <td>188</td> <td>170</td> </tr> <tr> <td>.621</td> <td>2493</td> <td>2300</td> <td>168</td> <td>150</td> </tr> </tbody> </table>						FIELD AMPS	RPM N.L.	RPM F.L.	Eg N.L. @ BASE SPEED	Eg F.L. @ BASE SPEED	1.13	1932	1760	215	209	1.00	1975	1830	211	199	.876	2062	1933	202	186	.749	2223	2080	188	170	.621	2493	2300	168	150
FIELD AMPS	RPM N.L.	RPM F.L.	Eg N.L. @ BASE SPEED	Eg F.L. @ BASE SPEED																															
1.13	1932	1760	215	209																															
1.00	1975	1830	211	199																															
.876	2062	1933	202	186																															
.749	2223	2080	188	170																															
.621	2493	2300	168	150																															
<table border="1"> <thead> <tr> <th>FIELD AMPS</th> <th>RPM N.L.</th> <th>RPM F.L.</th> <th>Eg N.L. @ BASE SPEED</th> <th>Eg F.L. @ BASE SPEED</th> </tr> </thead> <tbody> <tr> <td>1.13</td> <td>1932</td> <td>1760</td> <td>215</td> <td>209</td> </tr> <tr> <td>1.00</td> <td>1975</td> <td>1830</td> <td>211</td> <td>199</td> </tr> <tr> <td>.876</td> <td>2062</td> <td>1933</td> <td>202</td> <td>186</td> </tr> <tr> <td>.749</td> <td>2223</td> <td>2080</td> <td>188</td> <td>170</td> </tr> <tr> <td>.621</td> <td>2493</td> <td>2300</td> <td>168</td> <td>150</td> </tr> </tbody> </table>						FIELD AMPS	RPM N.L.	RPM F.L.	Eg N.L. @ BASE SPEED	Eg F.L. @ BASE SPEED	1.13	1932	1760	215	209	1.00	1975	1830	211	199	.876	2062	1933	202	186	.749	2223	2080	188	170	.621	2493	2300	168	150
FIELD AMPS	RPM N.L.	RPM F.L.	Eg N.L. @ BASE SPEED	Eg F.L. @ BASE SPEED																															
1.13	1932	1760	215	209																															
1.00	1975	1830	211	199																															
.876	2062	1933	202	186																															
.749	2223	2080	188	170																															
.621	2493	2300	168	150																															
<table border="1"> <thead> <tr> <th>FIELD AMPS</th> <th>RPM N.L.</th> <th>RPM F.L.</th> <th>Eg N.L. @ BASE SPEED</th> <th>Eg F.L. @ BASE SPEED</th> </tr> </thead> <tbody> <tr> <td>1.13</td> <td>1932</td> <td>1760</td> <td>215</td> <td>209</td> </tr> <tr> <td>1.00</td> <td>1975</td> <td>1830</td> <td>211</td> <td>199</td> </tr> <tr> <td>.876</td> <td>2062</td> <td>1933</td> <td>202</td> <td>186</td> </tr> <tr> <td>.749</td> <td>2223</td> <td>2080</td> <td>188</td> <td>170</td> </tr> <tr> <td>.621</td> <td>2493</td> <td>2300</td> <td>168</td> <td>150</td> </tr> </tbody> </table>						FIELD AMPS	RPM N.L.	RPM F.L.	Eg N.L. @ BASE SPEED	Eg F.L. @ BASE SPEED	1.13	1932	1760	215	209	1.00	1975	1830	211	199	.876	2062	1933	202	186	.749	2223	2080	188	170	.621	2493	2300	168	150
FIELD AMPS	RPM N.L.	RPM F.L.	Eg N.L. @ BASE SPEED	Eg F.L. @ BASE SPEED																															
1.13	1932	1760	215	209																															
1.00	1975	1830	211	199																															
.876	2062	1933	202	186																															
.749	2223	2080	188	170																															
.621	2493	2300	168	150																															
<table border="1"> <thead> <tr> <th>FIELD AMPS</th> <th>RPM N.L.</th> <th>RPM F.L.</th> <th>Eg N.L. @ BASE SPEED</th> <th>Eg F.L. @ BASE SPEED</th> </tr> </thead> <tbody> <tr> <td>1.13</td> <td>1932</td> <td>1760</td> <td>215</td> <td>209</td> </tr> <tr> <td>1.00</td> <td>1975</td> <td>1830</td> <td>211</td> <td>199</td> </tr> <tr> <td>.876</td> <td>2062</td> <td>1933</td> <td>202</td> <td>186</td> </tr> <tr> <td>.749</td> <td>2223</td> <td>2080</td> <td>188</td> <td>170</td> </tr> <tr> <td>.621</td> <td>2493</td> <td>2300</td> <td>168</td> <td>150</td> </tr> </tbody> </table>						FIELD AMPS	RPM N.L.	RPM F.L.	Eg N.L. @ BASE SPEED	Eg F.L. @ BASE SPEED	1.13	1932	1760	215	209	1.00	1975	1830	211	199	.876	2062	1933	202	186	.749	2223	2080	188	170	.621	2493	2300	168	150
FIELD AMPS	RPM N.L.	RPM F.L.	Eg N.L. @ BASE SPEED	Eg F.L. @ BASE SPEED																															
1.13	1932	1760	215	209																															
1.00	1975	1830	211	199																															
.876	2062	1933	202	186																															
.749	2223	2080	188	170																															
.621	2493	2300	168	150																															
<table border="1"> <thead> <tr> <th>FIELD AMPS</th> <th>RPM N.L.</th> <th>RPM F.L.</th> <th>Eg N.L. @ BASE SPEED</th> <th>Eg F.L. @ BASE SPEED</th> </tr> </thead> <tbody> <tr> <td>1.13</td> <td>1932</td> <td>1760</td> <td>215</td> <td>209</td> </tr> <tr> <td>1.00</td> <td>1975</td> <td>1830</td> <td>211</td> <td>199</td> </tr> <tr> <td>.876</td> <td>2062</td> <td>1933</td> <td>202</td> <td>186</td> </tr> <tr> <td>.749</td> <td>2223</td> <td>2080</td> <td>188</td> <td>170</td> </tr> <tr> <td>.621</td> <td>2493</td> <td>2300</td> <td>168</td> <td>150</td> </tr> </tbody> </table>						FIELD AMPS	RPM N.L.	RPM F.L.	Eg N.L. @ BASE SPEED	Eg F.L. @ BASE SPEED	1.13	1932	1760	215	209	1.00	1975	1830	211	199	.876	2062	1933	202	186	.749	2223	2080	188	170	.621	2493	2300	168	150
FIELD AMPS	RPM N.L.	RPM F.L.	Eg N.L. @ BASE SPEED	Eg F.L. @ BASE SPEED																															
1.13	1932	1760	215	209																															
1.00	1975	1830	211	199																															
.876	2062	1933	202	186																															
.749	2223	2080	188	170																															
.621	2493	2300	168	150																															
<table border="1"> <thead> <tr> <th>FIELD AMPS</th> <th>RPM N.L.</th> <th>RPM F.L.</th> <th>Eg N.L. @ BASE SPEED</th> <th>Eg F.L. @ BASE SPEED</th> </tr> </thead> <tbody> <tr> <td>1.13</td> <td>1932</td> <td>1760</td> <td>215</td> <td>209</td> </tr> <tr> <td>1.00</td> <td>1975</td> <td>1830</td> <td>211</td> <td>199</td> </tr> <tr> <td>.876</td> <td>2062</td> <td>1933</td></tr></tbody></table>						FIELD AMPS	RPM N.L.	RPM F.L.	Eg N.L. @ BASE SPEED	Eg F.L. @ BASE SPEED	1.13	1932	1760	215	209	1.00	1975	1830	211	199	.876	2062	1933												
FIELD AMPS	RPM N.L.	RPM F.L.	Eg N.L. @ BASE SPEED	Eg F.L. @ BASE SPEED																															
1.13	1932	1760	215	209																															
1.00	1975	1830	211	199																															
.876	2062	1933																																	



DR. BY B. GRANT
 CK. BY R. REINACHER
 APP. BY T. EVONN
 DATE 2-7-89

D-C PERFORMANCE CURVES
 ISSUE DATE 10-13-92
PG4630A