

THE BRITISH THOMSON-HOUSTON CO., LTD., RUGBY.

CERTIFICATE OF TEST.

3rd November 1934

E COMPOUND, COMPOLE, D.C. MOTOR.

P. 29F/ Form	CB	Phase	Cycles	Serial No.	R. 57549
125- HP			Volts	Arm./Rotor	R. 73702
472		Speed	160/320-RPM	Cat. No.	
				Req.	300018/7000
er Messrs. J. & E. HALL LTD.				S.O. No.	H. 404919
er's Order No.				Date of Test	October 1934.

This Certificate covers tests taken at Rugby on the above machine.

The machine is equipped with two Marine type pedestal bearings, shaft with bare extension to take systems flexible coupling, Drip-Proof canopy over machine.

Sheet 2 - Heat Run.
Insulation Resistance Test.

Sheet 3 - High Potential Test.
Resistances.
Efficiencies.



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ENG/ELM

29F/56 MOTOR No. R. 57549

Sheet 2

1st October 1934

HEAT RUN for six hours as a generator driven by machine No. R. 57551 which was running as a motor for six hours on full load, followed by one hour on 20% overload:-

<u>Time</u>	<u>Line Volts</u>	<u>Line Amps.</u>	<u>Sh. fld. current</u>	<u>Speed RPM</u>
1-45 p.m.	220	380	4.0	301
Machine run for six hours as a generator driven by motor on full load.				
7-45 p.m.	220	380	4.0	305
Machine shut down and temperatures taken.				
8-30 p.m.	220	445	4.5	298
Machine run for one hour as a generator, driven by motor on 20% overload.				
9-30 p.m.	220	445	4.8	301
Machine shut down and temperatures taken.				

After heat run the main pole gaps were adjusted, after which the following readings were taken, the machine running as a motor:-

	<u>Line Volts</u>	<u>Line Amps.</u>	<u>Sh. fld. Current</u>	<u>Speed RPM</u>
Full load field rheostat "all in"	220	472	1.95	320
Full load field rheostat "all out"	220	-	7.5	153

Temperature rise by thermometer in °C. after above run:-

	<u>After 6-hrs. Driven by Motor on F.L.</u>	<u>After 1-hr. driven by motor on 20% O.L.</u>
Armature winding	15	20
Armature core	15	17
Commutator	12	16
Main spools	16	19
Compoles	21	26
Air temperature	17	17

INSULATION RESISTANCE TEST

The Insulation Resistance to earth was found to be:-

Armature winding, series and compole winding, brushgear and terminals	5 megohms hot
Shunt field winding	60 " "

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MP.29F/56 MOTOR No.R.57549

Sheet 3

HIGH POTENTIAL TEST

The windings, brushgear and terminals of the machine withstood a high potential test of 2,000 volts A.C. to earth for one minute, hot.

RESISTANCES

	<u>Resistance in Ohms at 17 C.</u>	<u>Resistance in Ohms hot.</u>
Armature winding	0.0223 (calc)	0.0256 (calc)
Series winding	0.00150 (test)	0.00161 (test)
Compole winding	0.00690 (test)	0.0073 (test)
Shunt field winding	28.0 (test)	29.8 (test)

EFFICIENCIES BY SEGREGATION OF MEASURABLE LOSSES AT 320-RPM

See results on Machine No.R.57551.

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BEG/ELM



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