

M.S. SKOTAAF

J. & H. McLAREN, Ltd,
Engineers

Contract 31162.

Airedale Works.
LEEDS, 10

DIESEL ENGINE TEST REPORT.

DATE 18th April, 1951.

DESCRIPTION McLaren Generating Set.

ENGINE No. A21439

26.5KW at 1000 RPM.

TEST

FOR Messrs. Polytex Ltd. Oslo, Norway.

OBSERVED BY

Mr Wennberg.
(Norwegian Veritas).
L. Wilbert, McLaren.
H. Wood. FUEL "

VALVE SETTINGS

Measured in inches on Flywheel from the nearest Dead Centre for Cylinder concerned. Diameter of Flywheel	Air	Cylinder	1	2	3	4	
		Commences to open	85mm				
	Exhaust	Closes	355mm				
		Commences to open	325mm				
	Tappet Clearance	Closes	85mm				
		Air	.012"				
	Fuel Pump	Exhaust	.015"				
		Injection commences	7.92" before T.D.C.				
	21 0"		Stroke of pump	Effective stroke varies with			

Description B.P. Pool.
Spec. Grav. .850
Viscosity (Redwood No. 1) at
100° F. 35 seconds.
Lubricating Oil
Description Approved Grade.
Dynamometer
Formula Generator.

VOLTAGE REGULATION

Automatic	
Volts No Load	10.0
Full Load	11.0
% variation	12.0
Hand Control	
Volts No Load	116
Full Load	110
% variation	5.4
Governing	
Permanent Variation	
R.P.M. No Load	1035
Full Load	1000
% variation	3.5
Momentum Variation	
Full Load off Max. R.P.M.	1080
% variation	8
Full Load on Min. R.P.M.	965
% variation	3.5

READINGS

Time	R.P.M.	Volts	Amps	Oil Temp.	Oil Press.	Ex Temp.	Cooling Water		Air Temp.	Fuel in Tank lbs.	Fuel used lbs
							Inlet °F	Outlet °F			
10.0	1000	110	241	45	40	310	-	58	15	Fuel used	
11.0	"	"	"	54	40	310	-	60	16	= 15.40 lbs	
12.0	"	"	"	58	40	310	-	62	17	per hour	
1.0	"	"	"	59	40	310	-	63	17		
2.0	"	"	"	61	40	310	-	63	18		
2.15	"	265	61	40	350	350	-	64	18	-	-
3.15	"	"	"	63	40	350	-	66	19	-	-

4 hours on normal load.
1 hour on 10% overload.

Campbell & Isherwood Gen. No. 45784.

RESULTS OF TEST

Lubricating Oil		% Normal Full Load	Average		Fuel	
Pressure	lbs/ins ²		B.H.P.	R.P.M.	Lbs. per hour	Lbs. per B.H.P. hour
40		100%	26.5	1000	15.40	.581
Temperature at start 45°C	°F	110%	29.15	1000		
after 4 hours 59°C	°F					
Total Oil used	lbs.					
Oil per B.H.P.	lbs.					
hour						

J. & H. McLAREN LTD.
ENGINEERS, LEEDS, 10

Register
Foundation

004055-004061-0192