START

TOM REEL 248

BM 33

THIS REEL INCLUDES

TRANSLATIONS OF THE

DOCUMENTS F.D. 2866/46 TO F.D. 2873/46

INCLUSIVE ON THE LIST OF TRANSLATIONS

WHICH FOLLOWS.

LIST OF TRANSLATIONS

T.O.M. 248 and 249

MINISTRY OF FUEL AND POWER

TECHNICAL MISSION TO GERMANY

PERFORMANCE AND UTILIZATION GROUP.

LIST OF FULL TRANSLATIONS PREPARED.

(See full Documents List dated 1.8.47.)

ESSO DEVELOPMENT COMPANY
16 Charles II Street,
LONDON, S.W.1.

Document Number	CIOS REFERENCE NUMBER	Title
F.D. 2873/46 It. 64 ✓	3996/2	Provisional specification for jet fuel J2 and running-in fuel Einlauf J2
F.D. 2873/46 It. 65 ✓	3996/2a	Specification for Aero Diesel Fuel K1
F.D. 2873/46 It. 66 ✓	3996/3	Specification for viation fuel A3
" " " 67 ✓	3996/4	Freezing Properties of A.3 and B.4
" " " 68 ✓	3996/5 pt.	Carburettor Fuels
" " " 69 ✓	3996-6	Specification for carburettor and diesel fuels for delivery to the services (Summer 1944)
" " " 70 ✓	3996-7	Tech. delivery specifications for Aviation Fuels A3 and B4 and their constituents
" " " 73 ✓	3996-10	Tech. Instruction 7/44
" " " 74 ✓	3996-11	" " 6/44
" " " 75 ✓	3996-12	Tech. Specifications for Aviation Oils S3, its components, and V2
" " " 76	3996-13	Tech. Delivery Specifications for starting fuels for use in Otto Engines
" " " 77 ✓	3996-14	Tech. Delivery Specifications for Aero-Engine Fuels for Active Service Use
" " " 78 ✓	3996-15	Provisional Tech. Delivery Specifications for Army Gear and Engine Oil
F.D. 2874/46 It. 6 ✓	3996/41	Copy of Ad. Specification German Navy Lubricating Oils
F.D. " " " 10 ✓	3996/30/301 No.45	Process for the Manufacture of a Burner Fuel from Acid Tar.

END OF T.O.M. 2448

BEGIN T.O.M. 2449

Document Number	Cios Reference Number	Title
F.D. 2874/46 It. 34 ✓	3998/59 pps. 5-27 Pt 11 ✓	DVL Lubricant Conferance About the Ageing of Oil and its Change in Use.
"	pps.29-40 ✓	The Chemistry of the Ageing of Hydrocarbon Oils
"	pps.183-190 ✓	Tests on piston-ring sticking in the NSU Engine
"	pps.191-203 ✓	The Testing of Aero Engine Oils in the DKW Engine
"	pps.237-242 ✓	Application of the Test Results to practical conditions
"	pps.243-267 ✓	Discussion after the lectures by Philippovich Morghen, Gieszmann
F.D. 2874/46 It. 35 ✓	3996/70 pps.15-21 ✓	The fundamental principles of the process of lube.
"	pps.23-41 ✓	On the Orientation of Molecules in Liquids and their Mechanical PPties.
"	pps 43-57 ✓	On the Orientation of Molecules at Boundary Surfaces, especially on metallic boundary surfaces
"	pps 63-75 ✓	The Nature of Wear
"	pps 91-105 ✓	Heating Friction and Abrasion under Conditions of Boundary Lubrication and their relation to Oiliness by Reg. - Rat.
"	pps 107 - 111 ✓	Boundary friction of chemically defined substances by Dr. Eicke Reich Physical-Chemical Institute.
"	pps 149-158 ✓	Static Friction and Oiliness.
	pps 185-190 ✓	The Oil Test Apparatus of the Z.F.

Document Number	Cios Reference Number	Title
F.D. 2874/46 It. 35	3996/30.01-70 pps. 191-203	Test Methods and the Influence of Lubricating oils in false Brinelling of Ball and Roller Bearings
" " " " "	pps. 245-270 ✓	Investigation of Lubricants in the I.G. Cold Box.
" " " " "	pps. 271-286 ✓	The Behaviour of Lubricating Oils at Low Temperatures.
" " " " "	pps. 287-297 ✓	Test on the Low Temperature Behaviour of Lubricating Greases
" " " " "	pps. 299-311 ✓	Viscosity of Lubricating Oils and the Starting-up of Engines at Low Temperatures.
" " " " "	pps. 313-333 ✓	A Short Summary of Discussions
" " " " "	pps. 334-352 ✓	Session on 12.12.41. Lectures: Buske, Bartel, Halder, Soden
F.D. 2875/46 It. 13 ✓	3996/147	Improvement of the ageing stability of synthetic Brightstock and aviation oils by co-polymerisation of distillates cracked in the vapour phase, with aromatics or aromatic-rich fractions.
F.D. 2876/46 It 33 ✓ 50 ✓	UM 757 UM 518	A process for producing fluids with physical characteristics independent of temperature over a wide range.
F.D. 2876/46 It. 53 ✓	F.B. 300	Oil tests co-operative programme commissioned by the DVL.
" " " It. 66 ✓	F.B. 804	Tests on a synthetic oil of the Ruhrchemie A.G. in the liquid cooled (Reissgekühlt) single-cylinder test engine
" " " It. 60 ✓	F.B. 912	Determination of the Thermal stability of various Aviation Oils.
" " " It. 62 ✓	F.B. 952	Physico-chemical investigations into the combustion process in the engine.
" " " It. 64 ✓	F.B. 1074	The Properties of Safety fuels
" " " It. 65 ✓	F.B. 1077	The Chemistry of Deposit formation in hydrocarbon oils.
" " " It. 67 ✓	F.B. 1106	The Low temperature behaviour of lubricating oils.
" " " It. 69 See next page		
" " " It. 71 ✓	F.B. 1244	The DVL blow-by method for testing lubricants.

Documents Number	Cios Reference Number	Title
F.D. 2876/46 It. 73 ✓	F.B. 1292	An exact and rapid method for the determination of lead in fuels
" " " It. 75 ✓	F.B. 1331	On the behaviour of Greases Diesel fuels, Instrument oils and Brake fluids at low temperatures
" " " It. 79 ✓	F.B. 1476	Determination of the lead tetraethyl content of fuels by means of X-ray adsorption
" " " It. 82 ✓	F.B. 1610 pps. 20-29	Influence of varied valve overlaps on various fuels in the DB 601 engine.
" " " It. 83 ✓	F.B. 1657	The Influence of the valve overlap on the knock-limit of various fuels in the DB 601 Engine.
" " " It. 86 ✓	F.B. 1722	The Influence of various oils on the knock limit curve of aromatic fuels
" " " It. 88 ✓	F.B. 1859	Extension of the FKMS rapid method for determining the lead tetraethyl content of fuels.
" " " It. 89 ✓	F.B. 1869	Different Knock behaviour of fuels of different chemical structure in the Engines BMW 132 N and DB 601E
" " " It. 90 ✓	F.B. 1905	The Rating of Fuels on their tendency to vapour-lock.
" " " It. 69 ✓	F.B. 1150	Measuring Knocking by the DVL Pressure Acceleration Method.
" " " It. 50 ✓	U.M. 518	On the constitution and properties of lubricating oils and on the change through oxidation.
" " " It. 33 ✓	U.M. 757	A process for producing fluids with physical characteristics which are independent of temperature over a wide range.

Document Number	Cios Reference Number	Title
F.D. 2876/46 It. 97 ✓	NID 24-PG 25402	DVL Report on the conference on knock characteristics and storage of fuels (pp65-75) 16,17 June 1941.
" " " " "	"	pps. 83 - 84
" " " " "	"	pps. 85 - 96
" " " " "	"	pps. 111 - 112
" " " " "	"	from page 118 to end
F.D 2877/46 It. 3 ✓	NID /PG/25409	Improvement of low temperature starting capacity.
" " " It. 9 ✓	2744-30/5.01 Doc. 4 pt.	Laboratory test method for the ageing of lubricants
" " " It. 12 ✓	2744-30/5.05 Doc. 12.	Specification for fuel gas.
" " " It. 14 ✓	2744-30/5.05 Doc. 23	Analytical methods. Comparative investigations at the B.V.
" " " It. 23 ✓	3441-30/5.01-76	Tar oil, and the use of tar oil and crude oil in gas turbines for the Luftwaffe
" " " It. 30 ✓	3445-30/5.01 -58	The Construction of an Apparatus for determining the critical temperature for vapour-lock of gasoline (abreisstemperatur), in aero-engines.
It 31 ✓	3445/58	Grading of fuels with respect to vapor locks.
" " " It. 55 ✓	Miscellaneous	Process for production of polymerisation products of tetrahydrofurane.
" " " It. 53 ✓	"	Extract from "Report on more recent work of the "Institute" compiled by Dr. phil. A.v. Philippovich.

Documents translated not included in The Document List.

Cios Reference Number	Title
F.D. 4975/45 - Folder III ✓	On the Conference of the Ministry of Economic Expansion of the 8th and 9th July 1941
Folder XII ✓	Demand and supply of isobutyl oils 1944
" " Folder XIII ✓	Building certificates for the expansion of the ester oil plants
" " Folder XXII ✓	The plenipotentiary for special problems of chemical production
" " - Foldor XIV ✓	(Diagram) Extension of Ester Oil III to 21,400 tons per annum
" " - Folder XXVIII ✓	Synthetic Plant Auschwitz
" " - Folder XXXI ✓	Research and Development problems under investigation
" " - Folder XXXII ✓	The replacement of "Kogasin" by other basic materials for Sulfo-chlorination - report for the "Ware" experts' conference 28.3.44.
F.D. 5616/45 ✓	Synopsis of cold-resistant lubricants
G.D.C. Unit No. 10 Serial 10,105 ✓ German Academy of Aeronautical Research, 1939 Vol. 9 pps 133-168	The physic-chemical basis of combustion in engines.
G.D.C. 10/10,228 ✓	Atomic-physical changes in the sliding of metal surfaces
G.D. C. 10/10, 314 ✓	Physico- Molecular Processes in Lubrication
3979/105 ✓	Examination of Austrian Petroleum
3979/109 ✓	Laboratory Experiments for Obtaining Adipic Acid and Alkyl Adipic Acids.
Miscellaneous M.T.Z. Feb. 1943 pps. 41-46 ✓	Engine and Physcial Investigations into the Nature of Knock.
Miscellaneous ✓	German Organisation of Fuel Research and Development.
" ✓	C.I.O.S. Report No. 9 (Unclassified.).
" ✓	Description and working instructions for the Ruhrchemie vapour lock apparatus.

Cios Reference Number		Title
Miscellaneous	✓	F.I.A.T. 873- The Self-ignition reaction of hydrocarbons with brief induction times.
"		United Strategic Air Forces in Europe - Office of Asst. Chief of Staff A-2. AVIATION LUBRICANT RESEARCH IN GERMANY DURING THE WAR.
Micro-film 135. At.II	✓	On the Principle of Lubricating Oil - Mixed Polymeristaion.
" At.III	✓	Mixed Polymerisation of SS Oil with Mineral Oil
" At. VI	✓	Description of the Lubricating Oil Plant Rheinpreussen
" At. VIII	✓	The Scientific principles of the synthesis of lubricants
" At. X	✓	Ester Oils
" At. XI	✓	Esters as Lubricants.

FULL TRANSLATIONS NOT DUPLICATED FOR DISTRIBUTION.

Document No.	CIOS Ref.No.	Title
FD 2866/46, Item 6	1893/A8	The determination of knock intensity.
" " Item 20	1893/A24	The electrical indication and recording of detonation waves.
FD 2867/46, Item 88	1893/B107	Ignition test on the BMW single tube combustion chamber.
FD 2868/46, Item 10	1893/D6	The photoelectric measurement of the pollution of lubricating oil.
		The exhaust thrust of aero-engines.
FD 2869/46, Item 30	1893/F13	Investigation of lab. methods for determination of lead content of fuels. ZWB.FB 1382.
" " " , Item 37	1893/F19	Diagrams for the determination of heat content, temperature after adiabatic expansion, and adiabatic heat drop, between 0° and 3000°C.
FD 2874/46, Item 35	3996/70 pp.185/191	The oil test machine of the Z.F.

LIST OF FULL TRANSLATIONS

Correction Slip.

P. 5 and 6	FD 2872/46, Items 49 to 99 inclusive, under CIOS reference number. Delete 3996, insert 3966.
P. 7	FD 2873/46, Item 18. Delete FD 2873/46, Item 18. insert FD 2877/46, Item 57.
P. 9	FD 2874/46, Item 35. Change "lube" to "lubrication".
P.10	FD 2876/46, Item 66. Change "Reissgekuhlt" to "Heiss-gekuhlt".

END TOM 249