

3979 - 30/4.02

ITEM
NO.

Real

A. HYDROGENATION

- 8.1. Report - Instrument Controls, liquid & Gas phase hydrogenation.
2. Note on damages to HP reactor vessels 10 Feb. 45
3. Report - Hydrogen penetration of steels
4. Note on savings of chromium for high pressure hydrogenation vessels.
5. Summary of Building Materials.
- 9.6. I. G. Standards - 325 Atm.

DRAWINGS ON HYDROGENATION & HIGH PRESSURE EQUIPMENT

DWG. No.	Subject
7. M-5934-1	Abstich Generator
8. M-11688-2	" "
9. M-4461d-1	DHD Converter
10. N-10379c-2	Modified Cone Joint
11. M-9708-2	Extended Vessel
12. M-5496b-1	Maulwurf Pump
13. M-4892-1	Silver Lined Converter
14. M-4427a-1	1000-atm. vessel
15. M-5145-2	Modified Converter Cover
16. M-6126-1	1200 mm Converter
17. M-8561-4	Lined Double-Bend
18. M-9850-4	Gas-H.O.L.D. Exchanger

B. ENGINE RATING OF FUELS & LUBRICANTS

19. Comparison of Laboratory and Road Tests. Knock-Test Research.
20. Miscellaneous Engine Test Data.
21. Standard Reference Curves.
22. Comparison of Knock-Tests, Different Engines
23. Knock Test Data Outside of Leuna
24. Knock-Boundary Curves - Oppau Method.
25. Diesel Engine Test Curves.
26. Outside Reports, etc.
- 26a. Knock-Test Curves, 1934-1943

C. SYNTHETIC LUBRICATING OIL

27. Report-Lube Oil from Ethylene, 22 May 1937

DWG. No.	Subject
28. M-3052-2	Flow Sheet - Entire Plant
29. M-4412-2	Plot Plan - all Equipment
30. M-3977-2	Ethane Cracking Furnace
31. M-1640-1	Plot Plan & Elevations, Ethane Cracking Equipment.
32. M-2095-16	Flow Sheet - Purification of Cracked Gases, before Linde Plant.
32a M-5104-4	Reaction vessel for Acetylene Hydrogenation
33 M3720-2	Benzol Washer
34 M-3779-16	Flow Sheet, Alkazid Plant.
35. M-1748-16	Flow Sheet - Linde Plant
36. M-2620a-4	" " Polymerization Plant, Jan. 1937
37. M-2424-1	" " " & Distillation, Nov. 1938
38. M-2500-1	" " " " Dec. 1938
39. M-2614a-1	Plan & Elevations, Poly. Equipment, Feb. 1939
40. M-3546-1	Flow Sheet Polymerization & Distillation, Aug. 1940
41. M-3648-1	Plan & Elevations, Poly. Equipment, Sept. 1940. (changes not completed in May 1945)

- 42. M-4581-1 Ethylene Polymerization Reactor
- 43. M-1573-8 Stuffing Box - Polymerization Autoclave
- 44. M-2623-4 Flow Sheet-Equipment following reactors
- 45. M-5509-2 Layout of Scraper Centrifuges
- 46. M-7574-2 Lube Oil Treating
- 47. M-6404a-2 Bubble Cap Column-Oil Fractionation
- 48. M-3035-2 Flow-Sheet-Proposed Vacuum Fraction (1936)
- 49. M-5289-2 Water & Steam Summary - 4 Reactors
- 50. M-3034-2 Flow Sheet - Atmospheric Distillation (Prop)
- 51. M-2694a-8 Flow Sheet - Distillation Equipment
- 52. M-3090-4 Electrical Flow Sheet

D. BUTANE DEHYDROGENATION

- 53. Report - Carbonization of Sieromal 8 and FF30 tubes with Isobutane and n-Butane.
- 54. Report - Butane (Propane) Dehydrogenation in Tubular Reactors over fixed bed catalysts.

- | DWG. NO. | |
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| 55. M-3364-1 | Flow Sheet |
| 56. M-3075a-1 | Assembly of Tube Bundle Dehydro. Furnace |
| 57. M-9077a-2 | Tube Bundle " " |
| 58. M-3074b-1 | " " Mid-Section " " |
| 59. M-6776b-2 | Details of Catalyst Outlet |
| 60. M-4091c-1 | Experimental Catalyst Outlet |
| 61. M-8222-4 | Details of Dwg. M-4091c-1 |
| 62. M-2742-8 | Driver for Catalyst Outlet Assembly |
| 63. M-8320a-2 | Details of Catalyst Outlet |
| 64. M-4023-1 | " " " " |
| 65. M-4000-1 | Housing for Catalyst Outlet |
| 66. M-4047a-1 | Details of Catalyst Outlet. |
| 67. M-8354-2 | Assembly of Catalyst Outlet Arrangement |
| 68. M-3078h-1 | Catalyst Outlet Assembly (cast iron) |
| 69. M-4620-8 | Catalyst Outlet Assembly |
| 70. M-9883a-2 | Pneumatic Valve for Catalyst Outlet |
| 71. M-4794-16 | Sand-Pocket for Tube Bundle |
| 72. M-4295-16 | Jet Details |
| 73. M-2959-1 | Catalyst Receiver - Dehydro Furnace |
| 74. M-5070-1 | Regeneration Furnace |
| 75. M-5181-1 | " " |
| 76. M-5071-1 | " " |

E. OXO AND SYNOL SYNTHESSES

- 77. Report - Research on Estonian shale oil . . . as raw material for OXO-syntheses and for chemicals manufacture.
 - 78. Report - Experiences with the semi-commercial synol research plant Me 458.
- | DWG. NO. | |
|-----------------|---|
| 79. M-3458-16 | Flow diagram - OXO Plant (Research) |
| 80. M-3636b-1 | Detail Flow Sheet OXO Plant |
| 81. M-9519-2 | Synthesis reactor, OXO Plant |
| 82. M-7430a-2 | " " " " |
| 83. M-3836-1 | " " " " |
| 84. M-10,007b-2 | " " " " |
| 85. M-5377-1 | " " " " |
| 86. M-7366-2 | " " " " |
| 87. M-4025-16 | Flow Diagram Synol Pl't (10,000 t/yr) |
| 88. M-3689-1 | Detail Flow Sheet " " |
| 89. M-4375d-1 | Scheme for Synthesis from Liquid Product. Synol Plant |
| 90. M-4342-1 | Distillation Scheme, Synol Plant. |
| 91. M-4728-1 | " " " " |
| 92. M-4799a-1 | Scheme for Working Up Synol Product. |
| 93. M-9270e-2 | Tube Insert for Cooling Synol Reactor. |

Reel.

F. LIQUEFIED PETROLEUM GAS

- 94. Report - LPG for Breaking-In Airplane Engines (1939)
- 95. " " " " " " " " (1939)
- 96. Report - Changing of Diesel Truck Engines to LPG (1939)
- 97. Misc. data on LPG, especially vaporizers.
- 98. Dwg. TV 1934b, New Type Gasifier

G. MISCELLANEOUS REPORTS & NOTES

- 99. Isomerization of n-Butane with Al Cl₃
- 100. Aviation Gasoline thru Catalytic Cracking
- 101. Catalytic Cracking of Pure Hydrocarbons.
- 102. Quantitative determination of low-boiling Phenols in Phenol-oils by fractionation.
- 103. Concentration of Phenolic water with Phenol
- 104. Extraction of a Rumanian Gas Oil with Phenol
- 105. Investigation of an Austrian Crude Oil.
- 106. Report on Dswaxing Research at Ludwigshafen (1941)
- 107. Concentration of low-boiling olefins from olefin-paraffin mixtures by silver nitrate washing
- 108. Investigation & Comparison of Bottoms products from DHD and HF Processes▶
- 109. Lab. Research on preparation of adipic acid and alkyl adipates.
- 110. Report on KW-Synthesis Research, Leuna, First half of 1939.
- 111 Appendix to Item 110.
- 112. Instrumentation. Sketches
- 113. Data on heating of catalyst spheres (4 curves)
- 114. Investigation of high pressure vessels damaged by bomb fragments
- 115. Resistance of Different Materials to CO
- 116. Substitute materials for Copper in Methanol and Isobutanol Plants
- 24 Nov. 43
- 117 " " " " " " " " 27 Nov. 43
- 118 Corrosion from Alkazid Liquor
- 119 Report of the Class-Kallen Commission on Steel Analyses
- 120 Note on Steels for Low Temperatures
- 121 Summary of Steels for High-Pressure Piping
- 122 Note on Compressor Lubrication
- 123 Handbook on Explosion-Proof Electrical Equipment
- 124 Table of Steel Analyses