



Performance of Aromatic Fuels

due to supercharging

(Performance with ethyl propyl bensol at $\lambda = 0.9$ taken as 100%)

Mixture of 50 vol% benzine from hydrogenation ex hard coal, O.N.73, plus 0.12 vol % Pb, with	% performance at air excess index of		octane number	
	$\lambda=0.9$	$\lambda=1.1$	Motor Method	Research Method
ethyl propyl bensol	100	71	99	110
di-ethyl bensol	95	67	97	107
aviation fuel	81	60	94	104
aromatics from dehydrogenation 150-175°C	80	59	93	103
aromatics from dehydrogenation, 175-200°C	77	55	92	101
iso-octane	60	52	100	101
For comparison: known high-performance fuels:				
Aviation benzine ex hard coal, (0.09 vol % Pb)	44	33	88	91
motor fuel, O.N.100 containing about 50 vol % isoparaffins (0.09 vol % Pb)	56	49	101	104
aromatized benzine ex hard coal (300 atmospheres pressure) (0.12 vol % Pb)	64	50	90	100
aromatized benzine ex pitch (700 atmospheres pressure) 0.12 vol % Pb)	80	59	93	103
iso-octane pure (0.09 vol % Pb)	72	67	114	115