

THE ANCESTRY OF FREEDOM MOTORS

Market Development

1965 Fichtel Sachs Wankel engine used in snowmobile but was underpowered and unreliable.

1973 OMC develops a snowmobile Wankel engine. Used as a test product in anticipation of stricter marine emission standards.

1974 Mazda develops Wankel auto engine but poor fuel economy and energy crisis limit future to sports car.

1976 Snowmobile market plateaus, OMC exits market despite their reliable Wankel engine .

1978 John Deere purchases Curtiss Wright Wankel engine assets but aero-design production costs limit market opportunity.

1980 Stricter pollution standards do not materialize and OMC offers orphan Wankel engine assets for sale.

1995 New federal standards set for industrial and auto engines emissions. Full impact not expected until 2000.

1997 Ultra-low emission standards are set for CA. Rotapower engine demonstrates ability to meet these extreme standards in hybrid car without catalytic converter.

1999 Two stroke engines continue to be outlawed in many parts of the world. CARB and EPA mandate emission limits for marine market.

2001 Snowmobiles are banned in all National Parks due to CO emissions

Rotapower Engine Development

1965 P.Moller begins discussions with Curtiss Wright and initiates Aero program at UC Davis w/ Wankel engine test lab

1968 Moller forms M Research company to develop Wankel powered personal commuter aircraft

1974 Fictel Sachs Wankel engine used in XM-4 (M200X predecessor) but was underpowered

1985 Purchases OMC Wankel snowmobile engine production technology, engineering time and hardware

1989 Modified version of OMC engine powers M200X in flight before International press

1994 Develops a twin rotor (1600cc/2-rotor) engine to be produced by Infinite Machines Corp for UAV applications

1995 Develops prototype, 1060cc/twin rotor, liquid cooled engine. Receives patent for lubricationless coating.

1996 Acquires the assets of Infinite Machines Corporation (NASDAQ listed company). Assets include OMC liquid cooled rotary engine marine technology licensed from OMC by IMC

1999 Rotapower engine demonstrates ability to operate on alcohol, diesel and natural gas. Additional key technologies are patented.

2001 Freedom Motors is spun off as independent company with license to manufacture and distribute Rotapower engines for all applications except aircraft and ducted fans

2005

ROTAPOWER® engines can:

- replace 2-stroke engines world-wide
- become the engine of choice for hybrid cars
- effectively compete with 4-stroke piston in markets like auxiliary power units (APU) where weight, size and multi-fuel capability are important