KR-1 B MOTORGLIDER

The KR-1B aircraft was designed by Ken Rand as a follow-on to the popular single place KR-1 airplane. The basic KR-1* is modified by replacing the original outer wing panels with extended wing sections incorporating the new improved performance GA(W)-1 airfoil section. The increased wing span, area, and improved airfoil are designed to permit limited power off soaring as a self-launch sailplane. The power-off lift to drag ratio (glide ratio) is approximately 20 to 1 at 65 mph TAS. The lift to drag ratio at low power cruise speeds is also significantly increased, thus improving the fuel economy. Provisions for an auxiliary fuel tank are also made in the design of the new wing to increase range. Take off and landing characteristics are greatly improved with the new wing which also incorporates a combined flap-spoiler system to decrease landing speed and to increase landing approach angles.

* Important Note: The new wing panels are designed for use only on the single place KR-1 airplane. The two place KR-2 aircraft is NOT stressed for the longer wing panels.

Span	27
Area	91
Length	12'10"
Empty weight	484
Gross weight	800
Never exceed speed	144
Max. cruising speed	130
Maneuvering speed	120
Maximum spoiler flap extension speed	100
Max. gear extended speed	144
Max. gear operating speed	120
Stall spoiler flap extended	45
Stall spoiler flap retracted	38
Take off	300
Take off over 50'	485
Land	300
Land over 50'	580
L over D or glide ratio	20 to 1
Wing loading	8.7 to 1
Power loading as tested	13.3 to 1

* NOTE: These drawings are a supplement to the KR-1 plans and should be attached to that literature.