

AIR-A-PLANE CORPORATION

Operations, Service and Parts Manual, Model 4490DA

1-3-1 PURPOSE AND BASIC OPERATIONAL PRINCIPLES

The 4490DA is a complete, self-contained, mobile cooling unit totally enclosed in a weatherproof steel housing, primarily used for the on-ground comfort conditioning of aircraft cabins. Outside air is drawn into the unit by the blower, conditioned and then discharged through a flexible, insulated hose. Cooling is achieved through standard vapor cycle refrigeration.

1-3-2 MOUNTING

The basic unit is skid mounted with additional mounting option available. The unit may be mounted on shock absorbing caster and pulled by its front tow bar (equipped with a standard 3" lunette eye). Additionally, an axle type rear end mounted on leaf springs maybe supplied.

1-3-3 SPECIFICATIONS AND CAPABILITIES

A. Physical

Length	10'8"
Width	7'6"
Height	54" or 66"
Weight	6300 lbs.
Tow Bar Length	42"
Maximum Towing Speed	5 mph
Turn Radius	13'

B. Air Conditioner

Air flow (3200 RPM)	200lbs./min.
Air flow (3600 RPM)	250lbs./min.
Air pressure (3200 RPM)	17 in. W.G.
Air pressure (3600 RPM)	22 in. W.G.
Cooling Capacity (ASRE)	44 tons

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C. Compressor- Trane Model 3F5B80

# of cylinders	8
# of unloaders	4
Bore	2.75 inches
Stroke	2.00 inches
Refrigerant Charge	160 lbs.
Oil capacity	3 gallons
Oil	Trane Oil - 15

D. Engine - Onan Model L634DT

# of cylinders	6
Displacement	210 cu. inches
Horsepower (3600 RPM)	114
Oil capacity	9 qts.
Oil	SAE 30HD-31
Cooling system capacity	16 gallons
Fuel capacity	51 gallons

1-3-4 NOTE: THE SPATIAL ORIENTATION OF THE UNIT IS AS FOLLOWS: THE FRONT OF THE UNIT IS THE END WITH THE TOW BAR AND AIR DELIVERY HSOE. THE "LEFT" SIDE OF THE UNIT IS WHERE THE BLOWER INTAKE IS LOCATED. THE REAR OF THE UNIT IS WHERE THE INSTRUMENT PANEL, ENGINE AND COMPRESSOR ARE LOCATED.

1-3-5 REFRIGERANT SYSTEM

This unit utilizes a vapor cycle refrigerant system with R-22 as the refrigerant. The refrigerant piping system is in line with good commercial practice and employs all of the refrigerant accessories to assure full unit performance and provide for ease of service and maintenance. Additionally, the refrigerant piping system contains the necessary safety devices as required by municipal operating codes and as required to protect the unit itself.