



Table 1: Comparison overview of KKK/NFPA/CAAS ambulance vehicle standards

Requirement	KKK-A-1822F	NFPA 1917, 2016	CAAS GVS v.1.0
AMD testing to verify compliance	AMD Tests #1, #4-26 required	AMD tests 1, 4-6, 8, 10-12, 15-16, 18, 21, 24-25, 27 required	AMD Tests #1, #4-26 required
Payload requirement	Type II 1,500 pounds before options; Type I/III 1,750 pounds before options; Type I/III AD 2,250 pounds before options	Finished vehicle weight plus permanently mounted equipment. Loose equipment as specified by purchaser Type I, 750 lbs.; Type I-AD, 1,250 lbs.; Type II, 500 lbs.; Type III, 750 lbs.; Type III-AD, 1,250 lbs. 171 lbs. times number of seat-belted positions, 171 lbs. patient, cot 100 lbs. or Power cot 250 lbs. plus 200 lbs. spare.	All Types 1,300 pounds minimum, payload after all options
Vehicle type certification	Proof of compliance and complete certification testing by ISO-approved laboratory is required for each type	Third party testing required for some parts of standard	Proof of compliance and complete certification testing by ISO-approved laboratory is required for each type
Occupant payload calculations	Weight calculated at 175 lbs./person	Weight calculated at 171 lbs./person	Weight calculated at 171 lbs./person
Vehicle cold start	AMD 022 or chassis manufacturer certification	Requires own test	AMD 022 or chassis manufacturer certification
Engine hourmeter	Optional	Required	Optional
Suspension clearance angles	Approach: 20 degrees; Breakover: 10 degrees; Departure: 10 degrees	Approach: 10 degrees; Breakover: 10 degrees; Departure: 10 degrees	Approach: 20 degrees; Breakover: 10 degrees; Departure: 10 degrees
Tire pressure monitor	Optional	Visual indicator or monitor required	Optional
CO monitor	Testing per AMD 007 required	Monitor required	Testing per AMD 007 required
Bulkhead/Partition	Bulkhead with latchable door (Type III only)	Bulkhead with window	Bulkhead with window required and sliding door optional (Type III only)
Floor loading height	Maximum is 34"	Maximum suggested load height 34"	Maximum is 34"
Access handrails	Grab handle on inside of each door or adjacent body structure	Interior or exterior grab handles on cab and patient compartment at each step location	Grab handle on inside of each door and recessed overhead grab rail required
Required door openings	Two doors required—minimum dimensions provided	Two means of escape required—minimum size 30" x 46"	Rear and side doors required—minimum dimensions provided
Floor testing requirements	AMD 20 floor deflection test required to prove floor load capacity	ASTM E661 compliance required	AMD 20 floor deflection test required to prove floor load capacity
Equipment stowage criteria	Minimum 35 cubic feet of interior storage; all devices to be fastened to manufacturers' req.	All equipment 3 lbs. or more to be mounted or stored in enclosure or bracket	Purchaser to specify stowage requirements
Cabinet storage load	Not specified, pending SAE requirements	Each cabinet to be labeled with max load	Not specified, pending SAE requirements
Equipment mounting and retention	Per equipment manufacturer's recommendation	SAE J3043 required	Oxygen mounts and fire extinguishers shall meet SAE J3043
Communication devices	Optional	Communication devices installed in patient compartment shall be within reach of EMSPs while seated and restrained	No requirement
Seat belt requirements	Seat belts must meet all FMVSS, AMD and SAE J3026 requirements	Meet all required FMVSS and requires special length type I or type II seat belts for vehicles with a GVWR of 19,500 or more	Seat belts must meet all FMVSS requirements
Access to patient	Primary attendant seat min 25" from head of cot	Seat to cot dimension provided to allow multiple cot positions	Primary attendant seat min 25" from head of cot
Seat belt warning	"Fasten Seat Belt" label required	Seat belt monitoring system required with visual and audible alarms in cab and pt compartment	"Fasten Seat Belt" label required
Main electrical printed circuit board	Certified to "Class 3 life support" standard	Non life-saving systems certified to Class 2 commercial/industrial assy. std. Life-saving systems certified to Class 3 life support std.	Certified to "Class 3 life support" standard
Wire harness protective loom	300 degree F maximum rated	194 degree F minimum continuous-rated	300 degree F maximum rated
Warning lights	KKK, SAE or NFPA configuration acceptable	NFPA zone lighting or KKK acceptable	Purchaser to specify
Ground lighting under vehicle	Step wells to be illuminated	Under-body lighting required at all step/access points	Step wells to be illuminated
Exterior compartment lighting	Requires exterior compartments to be lighted	Each exterior compartment greater than 4 ft ³ or opening greater than 144 in. ² shall have minimum of 1 fc at any location	Requires exterior compartments to be lighted
Warning indicators	"DOOR NOT CLOSED" light	"DO NOT MOVE" light attached to open door, equipment rack not stowed, or attached device open or deployed	"DOOR NOT CLOSED" light
Generator requirements	Not specified	Detailed requirements for generators under 11 hp	Not specified
Reflective striping	6"-14" orange reflective stripe around body or equivalent	Min 6" reflective stripe or combination design on 25% length of cab and 75% length of body	Purchaser to specify
Chevrons	Optional	50% of rear (excluding glass) reflective with any design; chevrons optional	Purchaser to specify

DISCLAIMER: This document is not a comprehensive comparison and has not been independently verified. Regulatory and purchasing decisions should be made solely upon a comprehensive review of the contents of the most recent versions of these documents and the rules of the state in which the ambulance is intended to be licensed. Questions should be directed to the standards document caretaker and your state EMS office. For more information please see www.SafeAmbulances.org.