



V-22
SUSTAINMENT SERVICES

WORLDWIDE SUPPLIER

Moog Inc. is a worldwide designer, manufacturer, and integrator of precision motion control products and systems. Over the past 60 years, we have developed a reputation for delivering innovative solutions for the most challenging motion control applications. As a result, we have become a key supplier to the world's leading aircraft manufacturers and are positioned on virtually every platform in the marketplace – supplying reliable actuation systems that are highly supportable and add significant value for our customers.

A key element of our success has been our customer focus. With Moog, you will find a team of people ready to deliver quality products and support services, all while being flexible and responsive to your needs. Our superior products and services directly reflect the creativity, work ethic and remarkable attention to purpose of our people. We exhibit our commitment by supporting our products throughout the life cycle of a platform, from idea conception and design of original parts, to aftermarket support and service.

Moog provides a wide spectrum of products, services and support from a dedicated and trustworthy organization. Our culture, coupled with our commitment to our customers, process control and product innovation, will continue to drive the success of our company and yours.

Photo courtesy AFSOC Public Affairs - Chief Master Sgt. Gary Emery

MOOG CONTENT ON V-22

There are 21 flight control actuators on the V-22 Osprey. Moog's portfolio provides five primary flight control assemblies for the V-22 swashplate, flaperon, elevator, rudder and fluid compensation module. The swashplates support each rotor, which control collective and cyclic blade pitch, to provide all directional control in helicopter mode and thrust when in airplane mode, while the flaperon actuators control flap function during airplane mode. Elevator servoactuators provide pitch control to a single elevator surface, the rudder actuators control the yaw, and the fluid compensation module draws flow to and from the pressure port.

The Vibration Control Actuation System (VCAS) is a subsystem of the Active Vibration Control System that generates airframe loads used to control the vibration levels in the cockpit and cabin. The VCAS is made up of one three-channel electronic unit (EU) and three force generators.

The Active Vibration Control Computer (AVCC) determines the frequency, amplitude, and phase of forces required for the force generators to produce the desired vibration environment in the aircraft.

The bladefold actuators allow the rotor blades of the helicopter to fold for stowage position. There are six actuators per aircraft. Each bladefold actuator is made up of the power module, the leading edge planetary gearbox, and the trailing edge planetary gearbox.





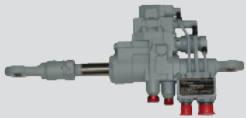
Moog also provides a slip ring assembly with resolver, providing power and signals for rotor de-ice, flight controls, blade positioning, tip light power, sensor data and feedback.

V-22 FLIGHT AND VIBRATION CONTROL ACTUATION



**Part location is approximate*

1		Vibration Suppression Actuation System
2		NVIS Compatible LCD
3		Pendulum Dampener
4		Bladefold Actuator
5		Flaperon Servoactuator
6		Fluid Compression Module

7		Connector Assembly
8		Main Rotor Slip Ring
9		Swashplate Servoactuator
10		Elevator Servoactuator
11		Rudder Actuator

HARDWARE FOR V-22

Home Site	Nomenclature	Moog P/N	NSN	Shipset Quantity
East Aurora NY	Swashplate Servoactuator	C30840-001	1680-01-474-9949	6
East Aurora NY	Flaperon Servoactuator	B87870-003	4810-01-461-1917	8
East Aurora NY	Elevator Servoactuator	C29855-001	1680-01-472-6186	3
East Aurora NY	Rudder Actuator	P468A0001-02	1680-01-515-5144	2
East Aurora NY	Fluid Compression Module	B94550-003	4810-01-418-3262	2
East Aurora NY	VCAS EU Genr	C22561-002	1680-01-521-5092	1
East Aurora NY	VCAS EU Genr	C51880-001	1680-01-592-0028	1
Torrance CA	VCAS MU Genr	CA13523-001	1680-01-521-5193	4
Torrance CA	Power Module	2741480-2-1	6125-01-418-0846	6
Torrance CA	Blade Fold Actuator	2741478-9-1	3040-01-418-0811	3
Torrance CA	Blade Fold Actuator	2741478-10-1	3040-01-418-0812	3
Torrance CA	Blade Fold Actuator	2741478-11-1	3040-01-418-0813	3
Torrance CA	Blade Fold Actuator	2741478-12-1	3040-01-418-0815	3
Blacksburg VA	Main Rotor Slip Ring Assembly	AC6094NHA-1	5977-01-505-3982	2
Blacksburg VA	Main Rotor Slip Ring Assembly	AC6094NHA-2	5330-01-539-9064	2
Blacksburg VA	Penulum Damper Slip Ring	AC6252-1	3040-01-476-0166	6
Blacksburg VA	Battery Indicator - LCD	90100000-02	6625-01-418-3249	1

MOOG

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