AHV-IV

COMMANDER

FEATURES

- Accurate weighted-sum ground force estimate
- Stiffer baseplate designed for improved coupling
- Increased force output
- Lower distortion
- INOVA's Patented Pre-Loaded Stilt Structure provides simplified maintenance
- Certified Roll-Over Protection
- Articulated, Oscillated Steering

TECHNICAL SPECIFICATIONS - PLS-364 ACTUATOR

Shaker Model:	P-Wave Vibrator; PLS-364
Peak Force:	275 kN (61,800 lb)
Piston Area:	132.9 sq cm (20.6 sq in)
Mass Weight:	4,998 kg (11,020 lb)
Driven Weight:	2,027 kg (4,469 lb)
Useable Stroke:	9.83 cm (3.87 in)
Frequency Limit:	<1 Hz to 250 Hz*
Mass Accumulators (2):	3.8 L (1.0 gal.) Servo Manifold
Lift Stroke:	97 cm (38 in)
Balance Method:	Airbags
Isolation Method:	Airbags
Hydraulic System:	Closed-loop
Hydraulic System Pumps:	2 x 119 cc (7.25 in^3); Denison P-7
Servo Valve:	Atlas 240H (with DR modification)
Pilot Valve:	MOOG
Hydraulic Fluid Filtration:	3-micron absolute servo filter; 3-micron absolute, high and low pressure, triple element
Accumulators:	2 x 19 L (5 gal); bladder-type
Heat Exchanger:	Steel core; multi-wing fan; hydraulically-driven
Hydraulic Reservoir:	170 L (45 gal)
Baseplate Type:	Reinforced rectangular
Baseplate Area:	2.5 m^2 (3,864 in^2)
Baseplate Clearance:	46 cm (18 in) - Tires

* Max peak force from 5.18 Hz

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AHV-IV COMMANDER (PLS-364)

TECHNICAL SPECIFICATIONS - CHASSIS

Engine:	Detroit Diesel – S60, 425 BHP Tier 3 Cummis QSG, 429 HP, Tier 4
Air Cleaner:	Dry-type, 3-stage with pre-cleaner
Cooling:	Water-cooled radiator to +50° C (+122 °F) for hot climate and -50 °C (-58 °F) for cold climate
Air Compressor:	13 CFM
System Warning Device:	Engine shutdown system for low oil pressure, high engine water temperature, and low coolant level
Fuel Capacity:	757.1 L (200 gal)
Drive Pumps:	100 cc (6.1 in^3) with electric displacement control
Drive Motors:	250 cc (15.25 in^3) variable displacementwith electronic control for 6 forward and 2 reverse speeds
Frame:	Solid-steel frame for maximum strength and reliability; hydraulic power steering
Axles:	Inboard planetary axle with enclosed wet disc brakes and differential lock
Gearboxes:	Single speed
Cab:	Fabricated-steel construction; high visibility with adjustable driver and passenger seat; 3-point shoulder harness; air-conditioning; heater; defroster; wiper; dome light and side-mounted mirrors
Electrical:	+12 V start; +12 V run with 170-amp alternator and two, heavy-duty, +12 V, 8D batteries; battery-disconnect switch

PHYSICAL SPECIFICATIONS

Buggy Length:	10.01 m (400 in)
Buggy Width:	3.4 m (134 in) with 66 x 44 in tires*** 2.44 m (96 in) with 23.5 x 25 in tires
Height (maximum):	3.50 m (138 in) for tires
Wheelbase:	4.77 m (188 in)
Turning radius – inside:	6.93 m (273 in)
Speed:	23 km/hr (14 mph)
Gradeability:	60% (31 degrees) for tires
Gross Vehicle Weight:	Minimum 25,968 kg (57,250 lb) Maximum** 29,937 kg (67,000 lb)
Hold-down Weight:	Minimum 22,383 kg (50,350 lb) Maximum** 29,030 kg (64,000 lb)
Front axle Weight:	Minimum 13,789 kg (30,400 lb) Maximum** 15,853 kg (34,950 lb)
Rear axle Weight:	Minimum 12,179 kg (26,850 lb) Maximum** 14, 084 kg (31,050 lb)

COMMON VEHICLE OPTIONS****

- Winch with capacity of 13,608 kg (30,000 lb)
- Engine upgrade to 500 BHP (Tier 3) or 513 HP (Tier 4)
- Various Tire and Wheel Options On Request
- Tracks
  - Suitable for Artic or Desert Operations
- 295 L (78 gal) Hydaulic reservoir
- 1135 L (300 gal) or 1325 L (350 gal) fuel tank options
- Accumulator charging manifold kit
- Automatic greasing system
- Central tire inflation system
- Wiggins fuel system
- Safety Kits
  - Emergency stop,fire extinguisher,backup camera

** Desired weight achieved with removable slide-on frame weight

***Buggy width will vary depending on tires selected

**** Common options listed

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