



VO-350/355-MHI

**Insulated Articulated
Overcenter Aerial**



FEATURES INCLUDED IN THE VO-350/355-MHI

INSULATED UPPER BOOM

The 10.5 in. x 12.5 in. (267 mm x 318 mm) rectangular upper boom is constructed of high strength filament-wound epoxy resin fiberglass. The fiberglass has a gel coat and a high gloss durable urethane finish for added weather protection and water beading. The fiberglass is inserted into a steel weldment at the elbow end of the boom then adhesive is pumped in under pressure to fill all voids. After the adhesive cures, 8 bolts are installed to assure maximum strength. The fiberglass boom is certified for 46 KV and below in accordance with ANSI A92.2 Category C dielectric rating requirements. The upper boom articulates a total of 210° relative to the lower boom. A side by side boom design allows low travel height and improved platform access. The upper boom articulation is accomplished by a double acting hydraulic cylinder and 4-bar mechanical linkage. The system does not use any cables and the booms can be stowed in any sequence. A double acting holding valve is provided. An upper boom storage cradle mounted on the turret assures solid boom support in the stowed position.

CONTINUOUS ROTATION

Rotation is continuous and unrestricted in either direction. The rotation system consists of a hydraulically driven worm and spur gear acting on a shear-ball rotation bearing. The critical bolts holding the lift to the rotation bearing and the rotation bearing to the pedestal are Grade 8. These critical bolts are torque seal marked to provide a quick means of detecting any loosening. An eccentric ring gearbox mounting allows for precise backlash adjustments sequence. An upper-boom storage cradle assures solid boom support when the boom is stowed.

LOWER BOOM

The lower boom is designed and constructed from high strength, 12 in. (300 mm) square, steel tube. Boom articulation is 115° from horizontal to 25° past vertical. Articulation is achieved by using a double-acting hydraulic cylinder equipped with two integral holding valves. In the event of a hydraulic failure, the integral holding valves prevent the booms from dropping by locking the booms in position. In addition, the cylinder rod eye is both threaded and welded.

PLATFORM LEVELING

Platform leveling is achieved automatically through a completely enclosed parallelogram system. The major components of this system include 3/4 in. (19 mm) diameter fiberglass leveling rods and No. 100 high strength roller chain. There are no cables used in this system. The fiberglass leveling rods maintain the insulation gaps in all boom positions and are 100% tested at twice the rated load. The tension is adjusted by means of a threaded rod in the upper and lower boom and platform leveling is adjusted by another threaded rod at the turret.

CHASSIS INSULATING SYSTEM (Lower Boom Insert)

Each end of a high strength filament-wound epoxy resin fiberglass is inserted into the steel boom sections. The fiberglass insert maintains a 12 in. insulation gap between the two steel sections.

LUBRICATION

Non-lube bearings are used at all pivot points. Only the rotation bearing and leveling chains require lubrication.



VO-350/355-MHI

Insulated Articulated Overcenter Aerial

GENERAL SPECIFICATIONS

(Based on 40 in (1.02 m) Frame Height)

	VO-350-MHI	VO-355-MHI
Horizontal Reach Overcenter	42 ft. 3 in. (12.9 m)	47 ft. 3 in. (14.4 m)
Horizontal Reach Non-Overcenter	31 ft. 9 in. (9.7 m)	34 ft. 8 in. (10.6 m)
Standard Platform Capacity (each platform)	300 lbs. (136 kg)	300 lbs. (136 kg)
Maximum Platform Capacity (each platform)	350 lbs. (160 kg)	350 lbs. (160 kg)
Maximum Jib Capacity	2,000 lbs. (905 kg)	2,000 lbs. (905 kg)
Lower Boom Lift Eye Capacity	3,500 lbs. (1587 kg)	3,500 lbs. (1587 kg)

With P-700 Pedestal

Height to Bottom of Platform	50 ft. 4 in. (15.34 m)	55 ft. 4 in. (16.87 m)
Working Height	55 ft. 4 in. (16.87 m)	60 ft. 4 in. (18.4 m)
Stowed Travel Height	10 ft. 11 in. (3.32 m)	10 ft. 11 in. (3.32 m)
Weight of Lift w/Outriggers and Sub-frame	10,140 lbs. (4600 kg)	10,330 lbs. (4685 kg)

Boom Action

Upper-Boom	Articulation is 210° relative to lower boom.	
Lower-Boom	Articulation is 100°, from horizontal to 10° past vertical.	
Rotation	360° continuous	

Upper Boom Insulation Gap

(with or without test bands)	145.5 in. (3.70 m)	175.5 in. (4.46 m)
------------------------------------	--------------------	--------------------

Lower Boom Insulation Gap

.....	24in (0.61 m)	24in (0.61 m)
-------	---------------	---------------

Hydraulic System

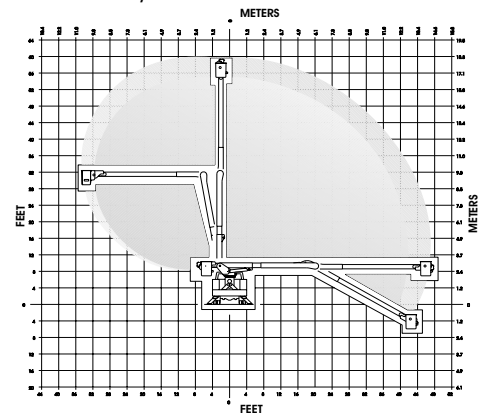
Operating Pressure	3000 PSI (210 kg/cm ²)	3000 PSI (210 kg/cm ²)
Flow Rate	10 GPM (38 lpm)	10 GPM (38 lpm)
Filtration	10 micron return	10 micron return
.....	100 mesh suction	100 mesh suction
System Type	Closed center	Closed center
Power Source	PTO pump	PTO pump

NOTE: 1. Specifications may vary without prior notification.
2. Required GVWR can vary significantly with chassis, lift mounting location, service body, accessories, and desired payload.

Options

- 400 lbs. Platform Capacity
- Two-Speed Manual Throttle-Control
- Hydraulic Extending Jib
- Emergency Power
- Category B Dielectric Testing & Certification
- Outrigger/Boom Interlock System
- Tool Port Flow Control
- Dual Platform Rotation Support

VO-350/355-MHI Platform Travel



P. O. Box 20368
Waco, TX 76702-0368
Tel.: 254-399-2100
Fax: 254-399-2651
www.timemfg.com



Controls designed with the operator in mind.



Platform tilt allows for easy cleaning.

