



Missouri Department of Transportation Specifications for 70' Non-Insulated Aerial Platform Truck

General Description

Basic unit includes base assembly supporting rear mounted rotating turret, hydraulically powered continuous rotation mechanism, oil reservoir mounted to truck frame, oil, and manual hydraulic controls mounted to turret. Electronic proportional three stick remote controls on platform. Base mounted "MH" type hydraulically powered, individually controlled rear main outriggers and "A" secondary outriggers behind cab. Steel three section hydraulically telescoping boom with one double acting 6-1/2" lift cylinder. One exposed cable carrier to boom tip. Hydraulically self-leveling and rotating 30" x 54" EZR work platform with remote leveling from platform. Power take off and pump drive, pressure gauge, pump and holding valves on all cylinders. Remote start/stop at upper and lower controls, 12-volt emergency pump with switch at upper and lower controls, PTO hour meter, backup alarm, fire extinguisher, and two body harnesses and lanyards. Installed on chassis, tested, checked and ready to operate. Unit certified to ANSI A92.2 for Vehicle-Mounted Elevating and Rotating Aerial Devices. Platform capacity 500 Lbs.

Minimum Platform Height

65' ground to platform floor.

Working Range

70' max. height and 62' max. side reach.

Work Platform

30" x 54" EZR work platform with 40" high rails. Equipped with two safety lanyard attachment loops and two safety harnesses and 72" lanyards. Platform capacity 500 Lbs.

Platform Leveling System

Hydraulic "closed" system consisting of twin platform cylinders interacting with a boom-actuated master cylinder mounted in boom support turret. System provided with factory-set relief valves to compensate for oil expansion or overload during platform leveling operation. Remote re-leveling controls provided in platform and at ground controls to give precise re-leveling capability.

Platform Controls

Three individual proportional electronic controllers meter pilot-operated, pressure-compensated modulating valves. Remote controls for boom operations from platform operate from a removable remote control box. Hi/Lo range, start/stop and engine speed toggle controls are also located at platform. Electric remote control cable extends through the electrical slip ring to cable carrier on side of boom to extending boom sections.

Lower Controls

Mounted on roadside of turret.

Outrigger Controls

Parallel open-center stack valve for lever-operated control of right and left outriggers. The outrigger valves are mounted at the rear, under each corner of the bed with roadside valve controlling roadside outriggers and curbside valve controlling curbside outriggers.

Outriggers

"MH" out-and-down main outriggers with 18 ft. spread. "A" type secondary outriggers with 12-1/2 ft. spread.

Frame

One piece, all welded, box-type fabrication with integral outrigger mounts. Bolt-on torque frame distributes load to front of truck.

Turret

Reverse offset turret is one-piece weldment. Turret rotates on large diameter ball bearing.

Rotation

Continuous turret rotation with no stops. Hydraulic motor drives turret through self-locking gear box.

Boom

High Strength steel rectangular tube sections with 1/4 " wall thickness. Assembly includes heavy-duty cylinder fittings, pivot pins, and replaceable wear pads.

Boom Extension

One 3 " "Piggyback" internal cylinder extends the outer boom sections.

Lift

One double-acting 6-1/2 " full displacement, long stroke cylinders provide smooth and stable boom elevation. Holding valve prevent boom from falling in event of hose failure.

Cylinders

All cylinders use microhoned cylinder tubing, chrome shafts, top grade packing and protective rod wipers. Cylinder-mounted holding valves provided on all load-holding cylinders.

Hoses

All high pressure hose is wire braid reinforced with a minimum safety factor of 4 to 1.

Oil Tank Capacity

35 gallon mounted to truck frame on roadside.

Hydraulic System

Operating pressure approximately 2,500 PSI. System is parallel open center type and is equipped with liquid-filled pressure gauge. Oil is supplied to upper cylinders through hydraulic union in center of turret to cable carrier along side of the boom.

Pump

Gear type, direct mount to truck PTO. 14 GPM @ 2,500 PSI on high engine speed.

PTO

Heavy-duty, high-speed. Cable engaged from cab.

Cab Equipment

PTO cable with indicator lights installed in truck cab. Engine speed control and start/stop installed with control switches in platform remote control box and also located at lower controls. U/L approved 5:BC dry chemical fire extinguisher installed in truck cab.

Operators Manual & Video

Two copies of operation, maintenance, safety and parts manual provided with each unit. Operational and safety video provided at delivery.

Installation

Unit installed on vendor-supplied cab/chassis, painted, system and tank filled with oil, tested, inspected, certified and ready to operate.

Color

Cab/chassis to be Highway Yellow. Aerial equipment can be OEM standard white, or Highway Yellow. Outriggers OEM standard, boxes black. Top of bed painted with black nonskid surface.

Bumper

Bureau of Motor Carrier Safety rear bumper.

Weight

Approximately 17,200 lbs. with 18' steel-floor bed less truck.

Truck Chassis Required

Approx. 168 " C.A. RBM 1,600,000 in-lb. per rail, 12,000 lb. front axle and 33,000 lb. GVWR required. Trucks must have extended rear frame, increased cooling, heavy-duty front and rear springs, 12V electrical system with high capacity alternator, cab clearance stop/tail/backup lights, and I.D. lamps. Additional equipment to consider: front tow hook, mud and snow tires for off highway use. Recommended GVWR is minimum for aerial with flatbed only.