

AERIAL DEVICE

AERIAL DEVICE - Combination articulating and telescopic, insulated 40' material handling aerial device, with side-by-side boom configuration for lower travel height. The aerial shall be manufactured in accordance with all OSHA and ANSI requirements, equipped as follows:

REACHES AND CAPACITIES

Height to Bottom of Platform	40'
Working Height	45'
Horizontal Reach	30' 2" (<u>at 20' elevation</u>)
Stowed Travel Height	10' 6" (+/- 2")
Rated Platform Capacity	600 Pounds with no winch and jib install. 500 Pounds with a winch and jib.

COMPLY YES _____ NO _____

PLATFORM - The fiberglass platform shall be **24" x 42" x 42"** deep with an inside and outside step for easy access. The rated platform capacity shall be **500** pounds with jib and winch. A tubular rubber platform support shall be provided.

COMPLY YES _____ NO _____

PLATFORM LINER- A 24" x **42"** platform liner with an inside step shall be provided. The liner shall be tested and rated for 50 KV AC.

COMPLY YES _____ NO _____

VINYL PLATFORM and CONTROLS COVER - A soft vinyl platform cover for the **24" x 42"** platform and controls shall be provided and installed.

COMPLY YES _____ NO _____

MASTER CONTROL - This control shall energize the platform and pedestal control circuits, which include the engine start/stop and two speed throttle control.

COMPLY YES _____ NO _____

SINGLE STICK PLATFORM CONTROL - The upper control shall be a single stick, aluminum handle pistol-grip, full-pressure full-flow open center control for better cold weather operation. A built-in safety trigger must be activated before any lift function can be operated. Designed as an extension of the operator's arm and hand, the single stick lever shall offer finely controlled boom movements that correspond to the direction the handle is moved. The safety trigger shall select lift functions when depressed into the single stick lever or tool functions when released to its normal position. An emergency stop valve shall also be provided. A protective plate between the levers and valves is provided with function plaques for each control.

COMPLY YES _____ NO _____

PLATFORM ELEVATOR – The platform elevator shall lift the platform **24" vertically** using a telescopic cylinder. This option adds **seven inches (7")** of length from the centerline of the platform rotator. ***NOTE: The elevator option reduces the platform capacity by 100 lbs.**

COMPLY YES _____ NO _____

HEAVY DUTY HYDRAULIC PLATFORM ROTATOR/SUPPORT – A heavy duty hydraulic platform rotator and support is required when the 2 ft. (24”) platform elevator is added to the aerial. The rotator shall rotate the platform **180-degrees** from one side of the upper boom assembly, across the end-hung position, and to the other side of the upper boom assembly.

COMPLY YES _____ NO _____

HYDRAULIC PLATFORM LEVELING - Platform leveling is controlled automatically by a master cylinder and a slave cylinder arrangement.

COMPLY YES _____ NO _____

PLATFORM TILT – The platform leveling system can be manually activated from the upper controls to adjust platform leveling, to tip the platform for clean-out, or to ease the removal of an injured operator.

COMPLY YES _____ NO _____

HYDRAULIC TOOL CIRCUIT - One (1) set of hydraulic tool ports shall be installed at the platform. This system shall be designed to use open center hydraulic tools only. The tool circuit shall provide **6 G.P.M. at 2,250 PSI**. One (1) set of Parker #FF371-8FP, & FF372-8FP quick disconnect couplers with dust covers shall be provided and installed.

COMPLY YES _____ NO _____

ENGINE START/STOP - The start/stop circuit shall be designed so that the lift cannot be operated unless the truck ignition is in the "run" position and the master control is turned "on". This feature shall make it difficult for unauthorized individuals to operate the lift when the truck is locked. An air cylinder at the upper controls and a toggle switch at the pedestal and rear of the truck shall be used to energize this system.

COMPLY YES _____ NO _____

TWO-SPEED MANUAL THROTTLE CONTROL - This system shall give the operator a choice of slower engine idle speeds or faster engine speeds with faster lift movements when required. The manual throttle control shall be designed to operate only if both the master control and the chassis ignition are turned "on". An air cylinder at the platform and a toggle switch at the pedestal and manual lift throttle at the rear of the truck shall be used to energize the manual throttle control.

COMPLY YES _____ NO _____

EMERGENCY POWER - This system consists of a hydraulic pump driven by a 12-volt DC motor, which shall be powered by the truck's engine battery. The system is connected in parallel with the main pump and is designed for non-continuous operation. An air cylinder at the upper controls and a toggle switch at the pedestal and rear of the truck are used to energize this system.

COMPLY YES _____ NO _____

LINE LIFTING SOCKET – The line lifting socket shall be part of the platform support structure. The line lifting socket shall accommodate 3" diameter line lifting attachments. The vertical lifting capacity of the socket shall be a maximum capacity of 1,000 pounds.

COMPLY YES _____ NO _____

HYDRAULIC JIB AND WINCH PREP PACKAGE– A hydraulic jib and winch prep package shall be provided and installed. This package gets the aerial ready to use a hydraulic jib and winch.

COMPLY YES _____ NO _____

OUTER/INNER BOOM ASSEMBLY - The major components of the outer/inner boom assembly shall include an outer boom, a telescoping inner boom, an extension system, and hose assemblies. The outer boom shall consist of an 8" x 10" steel section and a 9" x 11" fiberglass section, providing insulation even when the inner boom is fully retracted. The 6-7/8" x 8-7/8" telescoping inner boom shall be made of rectangular, high-strength, Domex steel dimensional tubing and shall be housed within the outer boom. The inner boom shall be easily removed and disassembled for service and inspection. The extension system shall consist of a hydraulic cylinder, holding valves, and a hose carrier entirely housed inside the boom assembly. The hoses routed through the outer/inner boom assembly shall be non-conductive and fully contained within the boom assembly.

The telescoping outer/inner boom assembly shall articulate from 25-degrees below horizontal to 85-degrees above horizontal. Actuated by a double acting cylinder, equipped with two integral holding valves, the outer/inner boom assembly shall be offset to one side to provide easy access to the platform.

COMPLY YES _____ NO _____

BOOM STOW REST - A boom support and an over-center clamp type (not ratchet) boom hold-down device shall be provided.

COMPLY YES _____ NO _____

ELECTROGARD INSULATED BOOM END - The intermediate boom assembly shall include a 9" x 11" fiberglass section at the upper boom end, which shall provide a **46" clear electrical insulation gap even when the inner boom is fully retracted**. The outer/inner boom assembly shall be tested and certified for electrical work at 46 KV and below in accordance with ANSI A92.2-1990 requirements. The lower boom insert shall be tested per ANSI/SIA A92.2-1990. Ultra high molecular weight plastic slide pads are mounted on the inner boom. The Electrogard is equipped with infinitely adjustable screw in type slide pads on the sides and top. A pinned slide pad is used at the bottom of the Electrogard. All slide pads can be replaced without removing the inner boom.

COMPLY YES _____ NO _____

LOWER BOOM - The rectangular 8" x 10", high-strength steel boom shall be designed for maximum strength and rigidity. The lower boom's range of articulation shall begin at horizontal and sweeps to 84-degrees above horizontal. This shall be achieved by a double acting cylinder equipped with an integral holding valve. The lower boom shall be an external **parallelogram linkage** that maintains the knuckle at a constant angle to the turret.

COMPLY YES _____ NO _____

CHASSIS ISOLATION SYSTEM (Lower Boom Insert) - Each end of a high-strength fiberglass insert shall be installed over a steel section. Inside the fiberglass insert there shall be a **12"** insulation gap between the two steel sections. The steel and fiberglass sections shall be bonded with pressure injected epoxy, which fills all the voids. To assure maximum strength, 32 bolts shall be installed. The linkage inside the lower boom shall also include a fiberglass section to maintain the **12"** insulation gap in all the boom positions.

COMPLY YES _____ NO _____

TURRET - The turret wings shall be designed for strength and rigidity. The bearing cover shall be continuously welded to seal out moisture and prevent foreign materials from obstructing the turret's rotation. The turret plate shall be machined to provide a flat surface to support the rotation bearing.

COMPLY YES _____ NO _____

CONTINUOUS ROTATION - Rotation shall be continuous and unrestricted in either direction. This shall be accomplished by a hydraulically-driven worm and spur gear with a shear-ball rotation bearing. The critical bolts holding the lift to the rotation bearing and the rotation bearing to the pedestal shall be SAE Grade 8. These critical bolts shall be marked with a torque seal indicator to provide a quick means of detecting any loosening upon inspection. An eccentric ring backlash adjustment shall be provided.

COMPLY YES _____ NO _____

LOWER CONTROL VALVES - Full pressure control levers below rotation control the following: rotation; the outer/inner boom assembly's raise, lower, and extension functions; platform leveling; and the lower boom's raise and lower functions. The lower controls shall be equipped with a manual selector valve to override the upper controls. There is also a control to run the jib winch only with raise and lower functions.

COMPLY YES _____ NO _____

PEDESTAL - The pedestal is tubular with a reinforced mounting plate. The hydraulic oil reservoir is built into the pedestal. The top plate of the pedestal is 1-¹/₄" thick and machined flat to support the rotation bearing.

Note: The aerial shall be rotated 90 degrees so that the hydraulic oil fill spout faces the rear of the unit.

COMPLY YES _____ NO _____

HYDRAULIC OIL RESERVOIR - Designed as an integral part of the pedestal, the reservoir shall have anti-splash baffles and easy-to-read fluid level gauges (sight gauges). The hydraulic oil capacity of the reservoir shall be 17 gallons.

COMPLY YES _____ NO _____

OUTRIGGERS - One (1) set of modified A-frame outriggers shall be installed inside the front compartment the body. The outriggers shall be equipped with pilot operated check valves, internal

thermal relief valves, and separate operating controls for each outrigger at the rear of the vehicle. Pivoting feet shall be provided.

COMPLY YES_____ NO_____

OUTRIGGER BOOM INTERLOCK AND DOWN MOTION ALARM SYSTEM - The outrigger/boom interlock option is a feature designed to prevent the lift from being operated until the outriggers contact the ground. The interlock also prevents the outriggers from being retracted before the aerial lift is properly stored. An alarm shall sound whenever the outriggers are lowered.

COMPLY YES_____ NO_____

HYDRAULIC SYSTEM - The open center hydraulic system shall operate at 3,000 PSI at 6 G.P.M. The suction strainer shall have a 100 mesh rating, and shall be easily removed for cleaning. A gate valve shall be located below the reservoir to prevent oil loss when the pump is serviced. A 10 micron return line filter shall be mounted above the tank and inside the pedestal. The return line filter shall be easily changed without draining the reservoir. Sight gauges shall be furnished for checking the fluid level. The system shall be filled with Mil. Spec. 5606 hydraulic oil. The system shall be powered by a transmission mounted PTO and hydraulic pump.

COMPLY YES_____ NO_____

CYLINDERS - Both the upper and lower cylinders shall be a threaded end-cap design. The upper cylinders shall be equipped with two integral holding valves to prevent the down creep of the booms and to lock the booms in position in the event of a hose failure. The lower cylinder shall be equipped with one integral holding valve.

COMPLY YES_____ NO_____

PINS - Pins shall be high-strength alloy steel which are chrome-plated and center-less ground for a hard finish and corrosion resistance. Pins shall be bolted in place with a welded pin tab at one end and a pin cap at the other for redundant retention.

COMPLY YES_____ NO_____

HOSES AND FITTINGS - The hoses routed through the booms shall be high pressure, non-conductive hoses with swaged hose end fittings. Precautions shall be taken where hoses might chafe or rub. Retainers shall be used to separate the hoses inside the booms to prevent chafing. Nylon sleeves shall be installed over hoses at points of movement.

COMPLY YES_____ NO_____

SLOPE INDICATORS – Two (2) slope indicators shall be provided and installed (*mounting locations to be determined at the pre-paint inspection*).

COMPLY YES_____ NO_____

NON-LUBE BEARINGS - Non-lube bearings shall be used at all points of motion. The rotation bearing and the extension chain shall be the only components that require lubricating maintenance.

COMPLY YES _____ NO _____

PAINTING PROCESS - The complete unit shall be primed and painted prior to assembly.

COMPLY YES _____ NO _____

MANUALS - Two operator and two service manuals shall be included with the aerial.

COMPLY YES _____ NO _____

CONTOURED FIBERGLASS SERVICE BODY

BRAND FX model #BFXB-84DLS

MINIMUM DIMENSIONS

Overall Length	132"
Overall Width	94"
Compartment Depth	20"
Compartment Height	42"
Load-bed Width	54"
Cab-to-Axle Application	84"

COMPLY YES _____ NO _____

EXTERIOR WALLS & SURFACES - Body side compartments shall include a laminated PVC core to provide sufficient compression for strength and rigidity. Core shall be minimum 3/8" thickness, providing a density of 5 to 6 pounds per cubic foot. Minimum 18 mil fiberglass skin shall fully enclose the inner PVC core. All exterior surfaces shall have a minimum 20 mils. Gelcoat and .50 mil. skin coat.

COMPLY YES _____ NO _____

ROCK GUARDS – Aluminum rock guards shall be installed to protect the front of the body.

COMPLY YES _____ NO _____

NON-SKID COMPARTMENT TOPS – The tops of the compartments shall have textured non-skid surfaces.

COMPLY YES _____ NO _____

CARGO FLOOR (Aluminum) – Load bed floor shall be constructed of 3/16" aluminum treadbrite and shall be painted with a black non-skid coating. Load bed floor shall be flanged up body sidewalls a minimum of 4".

COMPLY YES _____ NO _____

UNDERSTRUCTURE (Steel) - Steel understructure shall consist of 4" x 5.4 foot-pound longitudinals. All crossmembers shall be 4" x 5.4 foot-pound minimum dimension. To insure maximum structural

integrity, 6" x 5.4 foot-pound front and rear channels shall be provided. Understructure shall be primed with a premium epoxy primer and finished with an acrylic enamel coating.

COMPLY YES_____ NO_____

BULKHEAD (Aluminum) - A full-width front bulkhead shall be constructed from minimum 1/8" smooth aluminum.

COMPLY YES_____ NO_____

DOORS - All body compartment doors shall be sandwich-style construction, consisting of a 1/2" thick lower density PVC core enclosed by a 1/8" fiberglass skin on each side. Structural core material shall have minimum shear strength of 151 PSI and minimum 3,995 PSI shear modulus. All doors shall be manufactured using a closed mold system to provide a high quality automotive finish on both sides and insure structural strength. All compartment doors shall have radius corners to maintain a positive seal and insure maximum weather protection.

COMPLY YES_____ NO_____

WEATHER STRIP - All doors shall be fitted with a specially designed automotive-type weather strip, for maximum assurance of weather tight compartments. The weather strip shall be removable to facilitate its replacement as required. The weather strip shall incorporate a built-in rain diverter which eliminates the need for a drip rail.

COMPLY YES_____ NO_____

DOOR RESTRAINTS (Vinyl-Coated Cables) - Each vertical and horizontal compartment door shall be equipped with a vinyl-coated stainless steel cable door stop. The horizontal compartment door cables shall be detachable to provide for greater access to the interior of the compartment. The horizontal compartment shall have rubber bumpers to prevent direct contact between the door and body.

COMPLY YES_____ NO_____

DOOR LOCKS - All doors, vertical and horizontal, shall be equipped with a rotary **stainless steel**, key locking, and spring-loaded slam paddle latch, to be flush mounted in the door. An adjustable striker plate shall be mated to the door latch.

COMPLY YES_____ NO_____

HINGES - Each compartment door shall be equipped with two (2) **stainless steel** hinges. Piano-type hinges shall not be acceptable.

COMPLY YES_____ NO_____

BOLTS & FASTENERS - All bolts and screws shall be stainless steel, and shall include self-locking stainless steel nuts.

COMPLY YES_____ NO_____

LIGHTS & ELECTRICAL - All exterior lights shall be provided in compliance with FMVSS-108 standards. All exterior body lighting shall be **LED including the backup lights**. All exterior lights shall

be flush-mounted and include rubber grommet shock mount fixtures. A lighted license plate bracket shall be furnished.

NOTE: The rear lights shall be installed in the tail shelf.

COMPLY YES _____ NO _____

**COMPARTMENTATION:
CURBSIDE - Front to Rear**

First vertical compartment with single door.

- Outrigger cutout – 10” Wide
- Three (3) adjustable fiberglass shelves with dividers.

Second vertical compartment with single door.

- Seven (7) locking swivel hooks mounted 2-3-2.

Horizontal compartment with single drop door.

- One (1) adjustable fiberglass shelf with dividers.

Rear vertical compartment - Delete

- Accessway with grip strut steps.
- One (1) grab handle.

STREETSIDE - Front to Rear

First vertical compartment with single door.

- Outrigger cutout – 10” Wide
- Three (3) adjustable fiberglass shelves with dividers.

Second vertical compartment with single door.

- Three (3) adjustable fiberglass shelves with dividers.

Horizontal compartment with single drop door.

- One (1) adjustable shelf with dividers.

Rear vertical compartment with single door.

- Seven (7) locking swivel hooks mounted 2-3-2.

COMPLY YES _____ NO _____

COMPARTMENT LIGHTING - All body compartments shall be illuminated by **LED** Rope lighting mounted vertically on each side of the doors and near the top of each compartment. The lights shall be manually activated by an illuminated rocker switch, mounted on the chassis dash.

COMPLY YES _____ NO _____

WHEEL CHOCKS AND CHOCK HOLDERS – Two (2) wheel chock holders shall be provided molded into the CURBSIDE fender skirt of the body. Two (2) rubber wheel chocks shall be provided.

COMPLY YES _____ NO _____

SIDE ACCESS STEP – One (1) rubber mounted grip strut side access step shall be installed beneath the rear side accessway.

COMPLY YES_____ NO_____

TAILBOARD – One (1) 2” x 6"Recycled Plastic board secured in aluminum channels at rear of C3/S3 compartments.

COMPLY YES_____ NO_____

BODY PAINT – The body shall be gelcoated White.

COMPLY YES_____ NO_____

ACCESSORIES

WIRED-RITE SST SYSTEM - One (1) Wired Rite SST-4 (stop, start & throttle) control system will be provided and installed.

COMPLY YES_____ NO_____

ALUMINUM SADDLE-TYPE TAILSHELF - A saddle-type rear tail shelf shall be furnished to facilitate bucket entry from load bed level. Tail shelf shall be constructed from minimum **1/8" aluminum** tread brite. Size of the tail shelf to be determined by area needed for bucket storage with no overhang past the bumper (24" x 42"bucket). The tail shelf shall include an approximately 5.5" high (I.D.) thru-storage shelf with two vertically hinged doors and automotive type crimp on gaskets. Latches and hinges shall be **stainless steel** and keyed alike and to match the body latches. The top of the tail shelf shall be coated with black non-skid paint.

COMPLY YES_____ NO_____

REAR STEP BUMPER with RECESS - One (1) steel grip strut rear step bumper shall be fabricated and installed. The bumper shall include a suitable recess for a hitch.

COMPLY YES_____ NO_____

TOWING PACKAGE - Provide and install a towing package to include one (1) combination pintle hook and 2” ball, 1235 6-way round trailer socket, and one (1) pair of D-ring safety chain keepers. Hitch shall be reinforced with suitable channels to the chassis frame.

COMPLY YES_____ NO_____

GRAB RAIL - One (1) Steel hoop style mounted to rear of the C4 accessway,

COMPLY YES_____ NO_____

BACK-UP ALARM - One (1) electronic backup alarm shall be provided and installed.

COMPLY YES_____ NO_____

MUD FLAPS - One (1) pair of rubber mud flaps shall be provided and installed behind the rear wheels.

COMPLY YES_____ NO_____

OUTRIGGER PAD HOLDERS - Two (2) aluminum outrigger pad holders shall be fabricated and installed under body behind each front outrigger.

COMPLY YES _____ NO _____

OUTRIGGER PADS – Two (2) high density polyethylene outrigger pads shall be provided.

COMPLY YES _____ NO _____

LED STROBE LIGHTS – Two (2) SYFLAT6-AA LED surface mount strobes shall be installed in the chassis grill area, and Two (2) DLXTHR-4-A 4” round LED strobes shall be mounted in the rear tail shelf.

COMPLY YES _____ NO _____

WARNING LIGHT – One (1) Star model # 200S amber strobe light shall be provided and pipe mounted on the front corner of the street side compartment.

COMPLY YES _____ NO _____

REMOTE DUAL CONTROLLED SPOT LIGHT - One (1) Go Light model # 20074 LED spot light shall be provided and installed (*Mounting Location to be determined at pre-paint inspection*) The spotlight shall have wireless dash-mount and hand-held remote controls.

COMPLY YES _____ NO _____

INVERTER PACKAGE - Provide and install one (1) Dimensions model #TMC-12/2400N **pure sine** 12 Volt - to - 120 Volt inverter with continuous rated output of 2400 watts. The inverter is equipped with two (2) AC outlets, and operates without the vehicle's engine running. The inverter includes a built-in solid state automatic low battery shutdown at 10.5 volts DC which allows for the truck to be started. The inverter shall be wired directly to the chassis batteries.

COMPLY YES _____ NO _____

CONE HOLDER - One (1) steel cone holder (consisting of a steel rod welded to a steel base plate) shall be fabricated and installed (*mounting location to be determined at a pre-paint inspection*).

COMPLY YES _____ NO _____

COLOR SCHEME

The body and aerial features shall be finished as follows:

- The aerial shall be painted in Time Manufacturing’s standard **WHITE**.
- The body exterior shall be gelcoated Brand FX’s standard **WHITE**.
- The compartment interiors and shelving shall be left in natural fiberglass.
- The top of the tailshelf and the floor of the body shall be painted with a **BLACK non-skid coating**.
- All steel surfaces normally painted shall be painted **BLACK**.
- Any stainless steel, chrome or aluminum surfaces shall be left in an unpainted state.

COMPLY YES_____ NO_____

CHASSIS SPECIFICATION

2019 FORD F-550 4 x 4 REGULAR CAB CHASSIS

F5H 2019 Ford F-550 4x4 Regular Cab
660A Ford F-550 Truck Order Code
425 50 State Emissions
99T 6.7L Diesel Engine
44W Transmission: TorqShift 6-Speed Automatic
X8L Limited Slip w/4.88 Axle Ratio
68M GVWR: 19,500 lb Payload Plus Upgrade Package
TGB Tires: 225/70Rx19.5G BSW Max Traction
64Z Wheels: 19.5" Argent Painted Steel
1 Cloth 40/20/40 Split Bench Seat
PAINT Monotone Paint Application
169WB 169" Wheelbase, 84" CA
525 Steering Wheel-Mounted Cruise Control (LPO)
425 50-State Emissions System
63C Aft-Axle Frame Extension Pack
473 Snow Plow Prep Package
41H Engine Block Heater
62R Transmission Power Take-Off Provision
67A Dual Alternators (Total 332 Amps)
52B Trailer Brake Controller
18B Platform Running Boards
STD Radio: AM/FM Stereo
STD Rubber floor - Delete carpet
STD Air Conditioning
Interior Colors: AS 01 Earth Gray
Exterior Colors: Z1 01 Oxford White
Single 40 gallon fuel tank aft of rear axle
Upfitter Switches (6) Located Overhead

COMPLY YES_____ NO_____