

MIL-T-62114A(AT)

16 June 1970

SUPERSEDING

MIL-T-62114(AT)

8 May 1969

MILITARY SPECIFICATION

TRUCK, DUMP: 3/4-TON, 4X4, XM708

1. SCOPE

1.1 Scope. This specification covers a truck consisting of a commercial, 1 cubic yard capacity dump body and hoist mounted on a tactical 4X4 truck chassis, M53B1.

2. APPLICABLE DOCUMENTS

2.1 The following documents of the issue in effect on date of invitation for bids or request for proposal, form a part of this specification to the extent specified herein.

STANDARDS

Federal

FED-STD-No. 595 - Colors.

Military

MIL-STD-1223 - Administrative Wheeled Vehicles Treatment, Painting, Undercoating, Identification Marking, Data Plates and Warranty Notice Standards.

MS-35387 - Reflector, Indicating, Clearance.

MS-51302 - Stoplight, Vehicular-Blackout, 24-Volt Service Stop, Service Tail, Blackout Tail.

FSC-2320

FUP FILE

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- MS-51323 - Cover, Fitted, Vehicular Body-Top.
- MS-51324 - Curtain, Vehicular - End.
- MS-51329 - Stop Light - Taillight, Vehicular - 24 Volt, Service Stop, Service Tail, Blackout Tail.
- MS-51390 - Chassis, Truck, 3/4 Ton, 4X4, 112 Inch Wheelbase, Military Design, M53B1, with Winch.
- MS-53078 - Truck, Cargo, 3/4 Ton, 4X4, M37B1.
- MS-75021 - Connector, Receptacle, Electrical-12 Contact, Inter-vehicular, 24-Volt, Waterproof.

(Copies of specifications, standards, drawings and publications required by suppliers in connection with specific procurement functions should be obtained from the procuring activity or as directed by the contracting officer.)

2.2 Other publications. The following documents form a part of this specification to the extent specified herein. Unless otherwise indicated, the issue in effect on date of invitation for bids or request for proposal shall apply.

DEPARTMENT OF TRANSPORTATION
Motor Carrier Safety Regulations.

(Application for copies should be addressed to the Department of Transportation, Federal Highway Administration, Washington D.C. 20591).

(Technical society and technical association specifications and standards are generally available for reference from libraries. They are also distributed among technical groups and using Federal agencies.)

3. REQUIREMENTS

3.1 General. Truck shall consist of a commercial dump body and hoist provided and mounted by the body supplier on a tactical 3/4 ton, Government furnished M53B1 truck-chassis. Vehicle shall be complete and ready for operational use when delivered to the Government. Body shall include all body mounting hardware. The vehicle curb weight shall be not more than 6,650 pounds predicated on chassis curb weight of 5,100 pounds. Forward and reversible power take-off shall be installed and furnished on the M53B1 truck chassis by the Government.

3.1.1 Painting and marking. Treatment, painting, identification marking, and data plates shall be in accordance with MIL-STD-1223 for the Army, except exterior color shall match color No. 24087 of FED. STD. No. 595. The registration number shall be applied on the tailgate and shall be identical to the number on the truck chassis. In addition to the data plate secured on the Government furnished truck chassis, the body supplier shall furnish a non-ferrous metal data plate(s) installed in the driver's compartment, visible to the occupants. Data plate(s) shall be inscribed or stamped in such a manner that the legend will be discernable if inadvertently painted over. Data plate(s) shall contain at least the following information as applicable:

- (a) Nomenclature: Truck, Dump, 3/4 Ton, 4X4, XM708.
- (b) Make and model of body.
- (c) Contract Number.
- (d) Body manufacturer's serial number.
- (e) FSN number: FSN number furnished by the procuring activity.
- (f) Vehicle curb weight _____ pounds.
- (g) Payload _____ pounds.
- (h) Gross vehicle weight _____ pounds.
- (i) Overall length (inches).
- (j) Overall height (inches).
- (k) Overall width (inches).
- (l) Shipping cubage (feet).
- (m) Shipping weight (pounds).
- (n) Shipping tonnage _____ tons.
- (o) Center of gravity, located from rear axle _____ inches.
- (p) Curb weight _____ pounds.
- (q) Gross vehicle weight _____ pounds.

3.1.2 Chassis. The chassis shall be a tactical, 3/4 ton, 4X4, M35B1, in accordance with MS51390-1 and shall be furnished by the Government to the contractor for mounting the dump body.

3.2 Body. The body shall be a commercial dump body with a double hinged tailgate mounted on a cylinder(s), hydraulically operated hoist.

3.2.1 Capacity and dimensions. The dump body shall have not less than 1 cubic yard struck level capacity. Payload shall be 3,500 pounds uniformly distributed over the vehicle body load area. Interior length shall be 78 inches plus or minus 2 inches. The side height from the floor shall be 11 inches plus or minus 1 inch. The overall width shall be not more than 74 inches. The dump body sides shall not exceed 31 inches above the top of frame measured at the back of the cab. Clearance height from tire to dump body and its understructure shall be not less than 11 inches.

3.2.2 Body construction. Body shall be of all steel, light weight, heavy-duty construction. Body shall be fabricated from not less than 12 gauge (0.1046 inch) carbon steel. Body floor shall be one piece flat with no protrusions or depressions and fabricated from not less than 10 gauge (0.1345 inch) carbon steel. Full-length, formed, rub rail of minimum width to cover rear tire treads shall be provided. Triangular or box section side brace of not less than 12 gage (0.1046 inch) steel shall be equally spaced, between body front head and full box-type rear corner posts, and welded to side plates. Front head sheet shall be formed or reinforced for rigidity. Front head and tailgate shall be approximately 6 inches higher than the sides. The interior of body shell and side reinforcements shall be welded with continuous welds. The rub rail shall be attached using continuous welds, or with intermitten welds for not less than 50 percent of the edge length of contact edges.

3.2.3 Stake pockets. Stake pockets shall be furnished in each outside corner and middle of the dump body to accommodate cargo side racks and bows. The location of the stake pockets shall be identical to that furnished on the M37B1 cargo body (see MS53078) and shall be capable of accommodating installation of the M37 cargo body side racks and tarpaulin assembly, MS51323-7 and MS51324-5. The stake pockets shall have drain holes provided. The seats and racks supplied with Government-furnished vehicles shall be reworked and installed in a manner to permit the vehicle under contract to be used as a troop carrier.

3.2.4 Tailgate. Tailgate panel shall be not less than 10 gauge (0.1345 inch) steel. Tailgate shall be double acting, opening from top and bottom. Tailgate shall have spreader chains and two keyholes on each side shall be provided to facilitate various spreading operations. A lower tailgate latch operable by a control at the left front corner of vehicle body operable by driver in a seated position shall be furnished. Tailgate shall be reinforced to prevent deformation under load. Tailgate lower hardware shall be cast steel or formed steel. The tailgate provided shall be furnished with reinforcement of not less than 12 gauge (0.1046 inch) steel upper flange.

3.2.5 Tie downs. Tie downs on the side, front, and rear of body for tarpaulin shall be furnished and shall be so positioned as to facilitate tie down of M37 cargo tarpaulin, MS51323-7.

3.2.6 Mud shields. Rubber mud shields shall be provided rearward and forward of the rear wheels to preclude mud and stone splash. The mud shields shall not interfere with the tires and exhaust system during vehicle operation.

3.2.7 Reflectors. Reflectors shall be furnished on the dump body. Location of reflectors shall be front and rear on the curb side and street side and rear end of the body. The rear reflectors shall be red and the front reflectors shall be yellow. Reflectors shall be in accordance with MS35387.

3.2.8 Hydraulic hoist. Hoist shall be manufacturer's standard with a minimum lifting capacity of 3 ton. Hoist shall lift body to a minimum dumping angle of 45 degrees from the top of truck chassis frame. Pump and valve shall be furnished and shall be manufacturer's standard for the hoist model furnished. Valve and power take off controls shall be located in the cab and accessible to the driver while in seated position. The Government mounted power take off shall be mounted on the left side (street side) of vehicle transmission (see 3.2.9). When hydraulic pump and valve is exposed during dump truck loading operations a protector plate shall be provided to protect the hydraulic pump and valve from being damaged during loading of the dump body with dirt and stones. Protector plate shall be bolted to the chassis.

3.2.8.1 Reservoir oil level. The hoist hydraulic oil reservoir shall have means to indicate when oil must be added.

3.2.9 Power take off and lever. Power take off and lever shall be furnished and installed by the Government on the M53B1 truck chassis furnished to the supplier. Power take off and lever shall be in accordance with drawings specified (see 6.3).

3.2.10 Safety locks.

3.2.10.1 Open position. A mechanical safety lock, permanently affixed to the vehicle, shall be furnished to provide positive retention of the dump body in the up position for service and repair. The safety lock shall not interfere with the operation of the body.

3.2.10.2 Closed position. A positive locking device shall be furnished to retain the dump body assembly in travel position and shall be capable of withstanding 2 G loading. Unlocking shall be accomplished by use of a mechanism independent of the power take off and tailgate release controls.

3.3 Body installation. Body shall be mounted in accordance with manufacturer's commercial practice. Body installation shall be such that the loaded vehicle shall be capable of operating on not less than 15 percent side slopes and 40 percent grades.

3.4 Chassis modification. Body supplier shall make changes to the Government furnished chassis as are necessary to mount his body for satisfactory dump truck application. When changes are made to the chassis by the contractor, the changes shall be approved by the Government.

3.4.1 Brakes. Contractor shall furnish and install a vacuum booster on the hydraulic brakes. The booster shall be compatible with the vehicle's existing brake system. Vacuum booster shall be hydrovac kit, and shall be as specified (see 6.3).

3.4.1.1 Electric brake kit. An automatic 12 volt electric brake kit conforming to brake kit specified (see 6.3) shall be furnished by the contractor. The automatic electric brake kit shall be installed and an instruction plate mounted on dashboard depicting that trailer brakes are to be wired in parallel to preclude damage. The truck chassis, 24 volt, 12 volt, intervehicular electrical receptacle shall be utilized to connect the 12 volt electric brake kit. Terminal designation "M", circuit number 53, shall activate the right side brakes of a towed vehicle, and terminal designation "N", circuit number 53, shall activate the left side brakes of the towed vehicle. The 24 volt 12 contact, intervehicular electrical receptacle shall be in accordance with MS75021-2.

3.4.2 Suspension. The existing rear springs shall be modified by installation of new spring leafs and heavy duty booster or complete new springs shall be installed to provide a suspension system with components having a rated capacity at least equal to the load imposed on each member, measured at the ground, with

a 3,500 pound payload evenly distributed over the vehicle body load area plus the portion of the body and hoist supported by the rear axle. In loaded or unloaded position the body shall not interfere with chassis components. Dry chassis weight on rear axle is 2,100 pounds.

3.4.3 Pintle. The pintle furnished on the truck chassis shall be utilized, and the body shall be capable of performing while in travel, dump, or spreading operations without interference with the pintle hook.

3.4.4 Gas tank filler. The body manufacture shall mount and support the existing filler neck for the gas tank with suitable reinforcements. Filler neck shall be reworked and repositioned to enable filling tank to tank capacity. Fuel tank shall be in accordance with Motor Carrier Safety Regulation 393.65 (a), (f) (8), and (h) (2). The filler neck shall not be positioned so as to create interference when operating the dump body.

3.4.5 Rear bumperettes. Government furnished rear bumperettes may be removed if necessary. Upon removal, contractor shall crate bumperettes in wooden crates for shipment. Contractor shall load wooden crates on common carrier for shipment. Shipping costs of the bumperettes from contractor's plant to destination will be borne by the Government. If bumperettes are removed, provisions shall be made to protect lights at the rear.

3.4.6 Safety shield. A safety shield, constructed of expanded metal, welded to end posts, shall be furnished. Edges of expanded metal shall be inclosed, using metal moulding securely attached. The end supports (posts) shall mount in the same location as the M37 cab rear side brackets mount. The height of the safety shield shall be the same as the top of the steering wheel.

3.4.7 Lighting. Lighting will be furnished and installed by the Government, on the rear of the truck chassis prior to delivery to the contractor and shall include the following:

<u>Military Standards</u>	<u>Location</u>
MS-51302	Right hand, rear, inboard on MS-51329.
MS-51329	Right hand and left hand, rear.

3.5 Servicing and adjustment. Prior to acceptance of the vehicle by the Government inspector, contractor shall service and adjust each vehicle and its mounted equipment for operational use including at least the following: focusing of lights; adjustment of electrical and brake systems; filling and charging of batteries; inflation of all tires; complete lubrication of mounted equipment with grades of lubricants recommended for the ambient air temperature at the delivery point; and servicing of windshield washer reservoir with water and appropriate additives.

3.6 Screw threads and fittings. All vehicle components and accessories shall be equipped with screw threads and fittings based on United States Standards. Metric type threads and fittings are not acceptable.

3.7 Workmanship. Defective components or parts and assemblies which have been repaired or modified to overcome deficiencies shall not be furnished. Welded, bolted, and riveted construction utilized shall be in accordance with the highest standards of industry.

4. QUALITY ASSURANCE PROVISIONS

4.1 Responsibility for inspection. Unless otherwise specified in the contract or purchase order, the supplier is responsible for the performance of all inspection requirements as specified herein. Except as otherwise specified in the contract or order, the supplier may use his own or any other facilities suitable for the performance of the inspection requirements specified herein, unless disapproved by the Government. The Government reserves the right to perform any of the inspections set forth in the specification where such inspections are deemed necessary to assure supplies and services conform to prescribed requirements.

4.2 Government verification. Quality assurance operations performed by the contractor will be subject to Government verification at unscheduled intervals. Verification will consist of observation of the operations to determine that practices, methods, and procedures of the contractor's inspection are being properly applied. Failure of the contractor to promptly correct product deficiencies discovered shall be cause for suspension of acceptance until correction has been made or until conformance of product to specification criteria has been demonstrated.

4.3 First production vehicle inspection. The first production vehicle produced under the contract shall be inspected by the contractor at his plant under the direction and in the presence of Government representatives. The purpose of the inspection shall be to determine vehicle conformity with the contract. Acceptance of the first production vehicle shall not constitute a waiver by the Government of its rights under the provisions of the contract.

4.3.1 Weight and payload capacity. The first production vehicle shall be weighed to determine curb weight and distribution of curb weight on front and rear axles. The imposed loading on front and rear axle will be computed to ascertain that the suspension furnished is of adequate capacity to meet contract requirements. Distribution of weight will be computed by using the curb weight, the operator weight at 175 pounds, and the payload to provide the specified GVW.

4.3.2 Road test. The first production vehicle shall be examined and road tested by the supplier to assure that the vehicle will operate in accordance with contract requirements. The vehicle, loaded with payload and with all equipment specified herein, shall be driven at speeds up to at least 50 mph, for a minimum

distance of 50 miles. The distance traveled shall consist of highway, rough dirt roads, partly surfaced gravel roads, puddles, and sharp turns. For each 10 miles of travel at least one sudden stop shall be accomplished. Upon completion of the road test all equipment shall be thoroughly examined. The body equipment shall show no evidence of damage.

4.3.3 Production sample. Upon acceptance of the first production vehicle, it shall remain at the manufacturing facility as a production sample, and be the last vehicle shipped on the contract. The contractor shall maintain the vehicle in a serviceable condition for the duration of the contract.

4.3.4 Failure. Failure of the first production vehicle to meet requirements of the contract shall be cause for the Government to refuse acceptance of all vehicles under contract until corrective action has been taken.

4.4 Inspection of production vehicles. The contractor's inspection system shall as a minimum assure that the vehicle conforms to the physical and dimensional requirements and is capable of meeting performance requirements contained herein.

5. PREPARATION FOR DELIVERY

5.1 Vehicle processing. Vehicle shall be processed for shipment, from manufacturer's plant to initial receiving activity, in accordance with manufacturer's standard commercial practice.

6. NOTES

6.1 Intended use. The vehicles covered by this specification are intended for tactical use by the Government for construction tasks.

6.2 Ordering data. Procurement documents should specify the following:

(a) Title, number and date of this specification.

6.3 Components. The following components shall be furnished as specified herein:

DRAWINGS

GENERAL Chrysler Corporation

CC-1668739 - Assembly-Winch Power Take Off.

CC-1668740 - Lever-Winch Power Take off Shift.

Bendix Westinghouse

379474 - Brake Vacuum Booster, Hydrovac-Kit.

Kelsey-Hayes

81740 - Electric Brake Kit, 12-Volt.

Custodian:
Army - AT

Preparing activity:
Army - AT

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