

MILITARY SPECIFICATION

TRUCK, WRECKER: TELESCOPIC BOOM, 3/4-TON
4X4, XM711

1. SCOPE

1.1 Scope. This specification covers a truck consisting of a commercial wrecker body, Ashton Model 10-60 BW, mounted on a Government furnished 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

MILITARY

- MIL-STD-1223 - Administrative Wheeled Vehicle, Treatment, Painting, Undercoating, Identification Marking, Data Plates and Warranty Notice Standards.
- MS 35387 - Reflector, Indicating, Clearance.
- MS 51302 - Stop light, Vehicular- Blackout, 24 volt.
- MS 51324 - Stop light- Tail light, 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.

DRAWINGS

Army

- 7728126 - Winch, basic 7,500 lb. capacity.
- 10900895 - Cable assy, winch w/clevis and chain.

Federal

FEDERAL STD. NO. 595 - Colors.

(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
Federal Motor Vehicle Safety Standards
Motor Carrier Safety Regulations (Part 290-297)

(Applications 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, wrecker shall consist of a commercial model wrecker body 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. Forward and reversible power take-off and front mounted winch shall be furnished, installed, connected to power source, and made operational 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 be semi-gloss green matching color chip No. 24087 of FED-STD-No. 595. Registration number shall be identical to the registration number on the truck-chassis. 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 shall be discernable if inadvertently painted over. Data plate(s) shall contain at least the following information:

- (a) Nomenclature: Truck, 3/4 ton, 4X4, W/Wrecker Kit Mounted, XM711
- (b) FSN Number: FSN number furnished by the procuring activity.
- (c) Make and model of body.
- (d) Contract Number
- (e) Body manufacturer's serial No.
- (f) Wrecker unit rated capacity (tons).
- (g) Lifting capacity in lift ton load position (pounds).
- (h) Curb weight.
- (i) Gross vehicle weight.
- (j) Overall length.

- (k) Overall width.
- (l) Shipping cubage (feet).
- (m) Overall height.
- (n) Shipping weight (pounds).
- (o) Center of gravity, located from rear axle (inches).

3.1.2 Chassis. The chassis shall be a tactical, 3/4 ton, 4X4, M53B1, in accordance with MS 51390-1 and shall be furnished by the Government to the contractor for mounting the wrecker body.

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

3.2 Body. The body shall be the manufacturer's standard wrecker body, as specified herein (see 6.3).

3.2.1 Construction. Body shall be of full welded steel construction, with side panels and wheel housings of not less than 12 gauge (in thickness, exclusive of the projecting tread) steel tread plate. Floors shall be not less than 3/16 inch (in thickness, exclusive of the projecting tread) steel tread plate. Back plates shall be not less than 12 gauge (in thickness, exclusive of the projecting tread) steel tread plates reinforced with heavy-duty channel.

3.2.1.1 Dimensions. Body shall have minimum dimensions of 78 inches overall length, 74 inches overall width.

3.2.1.2 Tow rings. Two heavy-duty type 10-ton capacity tow rings shall be furnished at the rear of body. Tow rings shall be mounted in brackets which are welded to the body. Mounting shall be such that the force shall be transferred directly to the frame rails of the chassis. Rings shall hinge freely on a horizontal axis. Tow rings shall be capable of serving as lifting devices for the vehicle, without any damage to the devices themselves, or to the body or chassis.

3.2.1.3 Derrick winch. Heavy-duty winch assembly mounted behind the cab for operating the wrecker body components shall be furnished. Winch shall be powered by the power take-off (see 6.3). Winch shall be a single drum type having a rated single line pull capacity of not less than 30,000 pounds on the bare drum, and a 12,000 pound suspended load capacity. Winch shall be equipped with an air-cooled safety brake and a cable drum drag brake. Winch shall be capable of free spooling of the cable drum when clutch is disengaged. Safety brake shall be automatic in operation and engages whenever power is removed and when the load is in a suspended condition. Safety brake shall engage when power is reversed. Safety brake can be released when not required. Cable guard shall be provided on the winch.

3.2.1.3.1 Wire rope. Winch shall be provided with 250 feet of 7/16 inch diameter, 6 by 37 construction, flexible improved plow steel wire rope, with an 8.3 a ton minimum breaking strength. Wire rope shall be provided with a steel swedge spliced in drop forged hoist hook.

3.2.1.4 Boom. A telescopic boom shall be furnished and shall have a length of 90 inches retracted to 138 inches fully extended. Boom shall be of not less than 3 1/2 inch OD tube with the telescopic extension of at least 2 7/8 inches OD tube. A 6 inch diameter removable head sheave shall be provided. Two multipurpose safety chains of size 5/16 inch by 8 feet shall be furnished. A 3/8 inch diameter, 6 by 37 construction 4-part cable suspension shall be furnished. Capacity of boom shall be not less than 3 1/2 tons for normal towing position and 800 pounds fully extended.

3.2.1.5 Frame. Lift frame shall be of not less than 4 inch channel reinforced construction, all welded. Mounting plates shall be not less than 3/8 inches by 5 1/2 inches. Overall dimensions shall be not less than 36 inches in width, not less than 34 inches in length, and not less than 52 inches in height.

3.2.1.6 Controls. Controls shall be furnished at left side of body at the rear and shall include a throttle control. Controls shall be provided with positive neutral lock and shall require minimum of adjustment.

3.2.1.7 Accessories. The following accessories shall be provided:

- (a) Telescoping tow hitch, with face bar attached, with rated capacity not less than cable breaking strength. Two tow chains of high test coil grade with grab hooks on both ends: 7/16 inch by 7 feet.
- (b) Two swivel-type, sealed-beam 24 volt floodlights, with base-mounted, weatherproof switches, installed on topping lift frame. Wiring shall be properly routed, and securely anchored with chafe-proof type clamps. Wiring shall be heavy-wall thermoplastic insulated cable. Fasteners shall be corrosion resistant.

3.3 Electrical. Lighting shall be 24 volt. Lighting and reflectors shall conform to Motor Carrier Safety Regulations 293.11(b), 293.19, 293.22, 293.23, 293.25 through 293.29, 293.32 and 293.33.

3.3.1 Lighting. The following lighting shall be furnished by the Government to be installed by the body contractor.

MILITARY STANDARDS

LOCATION

MS 35387-1

Right and left rear body.

MS 51302

Right rear, inboard of MS 51329.

MS 51329

Right and left hand rear inboard of MS 35387-1.

When Government furnished vehicles are received without the lighting specified herein, the body contractor shall notify the procurement activity. When lighting is to be furnished by the contractor, the lighting shall be as specified herein.

3.3.2 Front mounted winch. A front mounted winch with cable assembly shall be furnished and installed by the Government. Winch shall be in accordance with drawing 7728126, and cable assembly shall be in accordance with drawing 10900895. When vehicles are received without front mounted winches, the body contractor shall notify the procurement activity. When winches are to be furnished by the contractor, the winch shall be model No. LU-4 (see 6.3) or equal, and the cable assembly shall be equal to drawing 10900895.

3.4 Chassis modification. The contractor shall make the following modifications:

- (a) Remove bumperettes.
- (b) Remove pintle and remount on the rear of the body face plate.
- (c) Provisions shall be made for location of the filler neck and opening in the side of the body panel. Any portion of the filler neck which may extend inside the body shall be adequately protected, and shall be in accordance with Motor Carrier Safety Regulations 293.65 (a), (f)(8)(b), and (h) (2).
- (d) Provide additional leaf or leaves to each front spring to at least equal imposed loads, measured at the ground.
- (e) Provide additional leaf or leaves and auxiliary springs with brackets, to each rear spring to at least equal the imposed loads, measured at the ground, when vehicle is in the towed load position (see 3.2.1.4).
- (f) Provide caution plate on dashboard in the vehicle cab for operating the front and rear winch.
- (g) Provide instruction plate inscribed, with winch operating instructions in the cab in a location visible to driver.
- (h) Install Government furnished lighting (see 3.2.1).

3.5 Body mounting. Body shall be secured to the chassis frame by use of a combination body mounting and chassis frame reinforcing plate. Reinforcement shall run at least from back of cab to front of rear spring front hanger bracket and shall be bolted to chassis frame rails. Mounting shall also withstand lifting of the vehicle by the lifting devices (see 3.2.1.2) without separation of the chassis body.

3.6 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 the industry.

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

3.8 Servicing and adjusting. Prior to acceptance of the vehicle by the Government inspector, contractor shall service and adjust each vehicle for operational use including at least the following: focusing of lights; adjustment of electrical and brake system; filling and charging of battery; inflation of all tires; complete lubrication of the body, 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.

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. The first production vehicle shall be weighed to determine curb weight and distribution of curb weight on front and rear axle. 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 GW.

4.3.2 Road test. The first production vehicle shall be road tested by the supplier with rated payload for normal travel position and with the wrecker booms fully extended. The vehicle loaded with payload and all equipment shall be driven a minimum distance of 50 miles. Road test will assure that vehicle will operate in accordance with contract requirements. Upon completion of the road test, all equipment furnished by the body supplier shall be thoroughly examined. Equipment shall show no evidence of damage. Road test to be accomplished at contractors' site.

4.3.3 Wrecker winch capacity verification. The vehicle manufacturer shall furnish certified test results or perform tests to determine conformance to the winch drum pull capacity.

4.3.4 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.

4.3.5 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 had 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. Vehicles 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 servicing disabled vehicles.

6.2 Ordering date. 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:

BODY

Ashton Equipment Company, Incorporated
Model 10-60 BW - Body, with Han-D- Side Full width body

Braden Winch
Model No. IU-4-7,500 pd capacity with cable assembly.

DRAWINGS

Chrysler Corporation
CC - 1668739 - Assembly - Winch Power Take-off shift.
CC - 1668740 - Lever - Winch Power Take-off shift.

6.4 Superseding data. This specification includes the requirements of DAFD-1235, dated 10 April 1964.

Custodian:

Army - AT

Preparing activity:

Army - AT

Project No. 2320 - A701