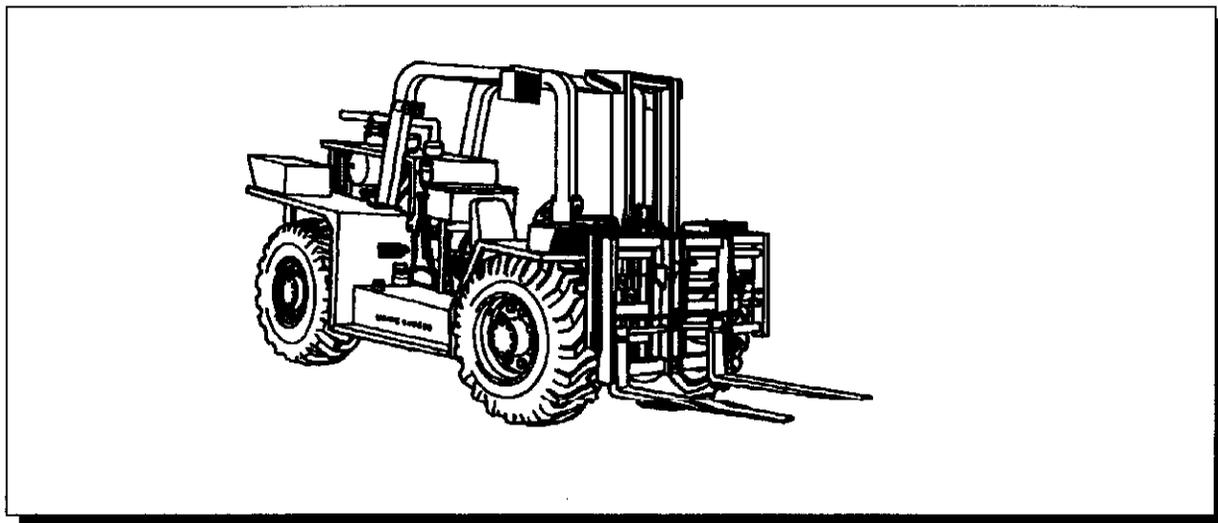


SOW-00-837-09135A-2/1

STATEMENT  
OF  
WORK (SOW)  
FOR THE  
TRUCK, FORK LIFT 4K, MODEL 8606  
INSPECT AND REPAIR ONLY AS NECESSARY (IROAN)



NSN 3930-01-275-6420

EFFECTIVE DATE: 9 April 1999

Supersedes SOW-837-09135A-2/1 dated 15 October 1998

**TABLE OF CONTENTS**

<b>Section and Reading</b>	<b>Page</b>
1.0 Scope	1
1.1 Background	1
1.2 Item Identification	1
2.0 Applicable Documents	1
2.1 Military Standards	1-2
2.1.1 Military Standards-Guidance Only	2
2.2 Other Government Documents and Publications	2-3
2.3 Industry Documents	3
3.0 Requirements	3
3.1 General Tasks	3
3.2 IROAN Objective and Functions	3-4
3.3 Specific Tasks	4
3.3.1 Phase I Pre Induction	4-5
3.3.2 Phase II IROAN	5-18
3.3.3 Phase III Inspection, Testing and Acceptance	18
3.3.4 Phase IV Packing Handling Storage and Transportation (PHS&T)	19
3.4 Configuration Management	19
3.4.1 Configuration Status Accounting (CSA)	19-20
3.4.2 Configuration Control	20
3.5 Government Furnished Equipment Accountability (GFE)	20

# SOW-00-837-09135A-2/1

3.6	Contractor Furnished Material (CFM)	21
3.7	Quality Assurance Provisions	21
3.8	Acceptance	22
3.9	Rejection	22
4.0	Reports	22
4.1	Forklift 4K Pre-Induction Checklist	22
4.2	Forklift 4K Final Inspection Checklist	23
4.3	Configuration Inspection Checklist	23
Appendix A	Forklift 4K Pre-Induction Checklist	
Appendix B	Forklift 4K Final Inspection Checklist	
Appendix C	Configuration Inspection Checklist	

**STATEMENT OF WORK FOR THE  
TRUCK, FORKLIFT 4K, MODEL 8606  
Inspect and Repair Only As Necessary (IROAN)**

1.0 . **SCOPE.** This Statement of Work (SOW) establishes and sets forth tasks and identifies the work efforts that shall be performed by the Contractor. These documents contain the minimum requirements to assemble, integrate, make fully operational, calibrate, install, test and inspect the Truck, Forklift 4K, NSN 3930-01-275-6420. Weapon System Code KV, to a serviceable condition Condition Code "A." Condition Code A is defined as Serviceable/Issuable without qualification, new, used, repaired or reconditioned material which is serviceable and issuable to all customers without limitation or restriction. This includes material with more than six months shelf-life remaining. The National Stock Number (NSN) listed here shall be known as the Forklift 4K. This SOW along with the Forklift 4K Technical Manuals covers the minimum requirements applicable to the restoration of the Forklift 4K.

Additionally, the Forklift 4K Technical Manuals sets forth guidelines within which the Forklift 4K shall be refurbished, repaired and restored. The basic configuration of the Forklift 4K is established by the Forklift 4K Technical Manuals that are currently in the Marine Corps inventory. All materiel (including repair parts) shall be provided by the Contractor. Installation and testing shall be performed by the Contractor. All special tools and test equipment required to perform any task on the Forklift 4K are listed in the Forklift 4K Technical Manuals, and shall be provided by the Contractor.

Questions related to this SOW should be addressed to the Forklift 4K Weapon System Manager, Life Cycle Management Center, Code 837-2, MARCORLOGBASES, Albany Ga., Commercial Telephone (912) 439-6533 or DSN 567-6533.

1.1 **BACKGROUND.** IROAN is defined as: The maintenance technique which determines the minimum repairs necessary to restore equipment components or assemblies to prescribed maintenance serviceability standards by utilizing all available diagnostic equipment and test procedures in order to minimize disassembly and parts replacement.

1.2 **ITEM IDENTIFICATION.** The Forklift 4K is a diesel engine powered, rough terrain, automatic transmission vehicle with a 4000 pound maximum load rating. The hydraulic lift mechanism has a 24 inch maximum free lift height. This forklift is capable of towing/pushing the M198 Howitzer.

2.0 **APPLICABLE DOCUMENTS.** The following documents specified herein form a part of this SOW to the extent specified. In the event of conflict between the documents referenced herein and the contents of this SOW, the content of the SOW shall be the superseding requirement.

2.1 **MILITARY STANDARDS**

MIL-STD-129

DoD Standard Practice for Military Marking

MIL-STD-130 U.S. Military Property, Identification Marking of

2.1.1 **MILITARY STANDARDS-GUIDANCE ONLY**

MIL-STD-973 Configuration Management

2.2 **OTHER GOVERNMENT DOCUMENTS AND PUBLICATION.** The issues of those documents cited below shall be used.

ATPD 2241 Vehicles, Wheeled: Preparation For Shipment and Storage of

DoD 4000.25-1-M MILSTRIP Manual

NAVICPINST 4491.2A Requisitioning of Contractor Furnished Material From The Federal Supply System

TM-4750-15/1 Painting and Registration Marking for Marine Corps Combat and Tactical Equipment.

MI-09135A-25/1A Installation of Enhance Operator Visibility

MI-09135A-25/2A Installation for the Relocation of the Air Tank Hose

MI-09135A-25/3 Installation of Tie-Down Straps on Front Wiring Harness

MI-09135A-35/4A Installation of Transmission Oil Cooler Protective Grill

MI-09135A-35/5 Installation of Flood Light Protective Covers

MI-09135A-35/6 Installation of Fork Rotation Cylinder Protective Cover

MI-09135A-35/7A Reposition of the Hydraulic Directional Control Valve Assembly

MI-09135A-25/10 Fabrication and Installation of Fitting Guards for the Side Shift Cylinder

MI-09135A-25/11 Removal of Indicator Assembly

MI-09135A-35/12 Mounting Hydraulic Indicator

TM 3080-34 Corrosion Prevention and Control

TM-09135A-15/1 Truck, Forklift 4K dated 9007

# SOW-00-837-09135A-2/1

TM-09135A-10/1	Operators Manual
SL-4-09135A	Repair Parts List
MCO P11262.2	Inspection, Testing, and Certification of Tactical Ground Load Lifting Equipment

## 2.3 **INDUSTRY DOCUMENTS**

ANSI/ISO/ASQC Q9002-1994	Quality Systems
ISO 4021	Hydraulic Fluid Power Particular Contamination Analysis-Extraction of Fluid From Lines of an Operational System

(Copies of military specifications and standards are available from the Naval Publications and Forms Center, (Attn.: NPODS), 5801 Tabor Avenue, Philadelphia, PA 19120-5099. Copies of other government documents shall be obtained through the contracting officer: Commander, Marine Corps Logistics Bases, (Code 891), 814 Radford Blvd, Albany, Georgia 31704-1128, commercial telephones number (912) 439-6410 or DSN 567-6410. Marine Corps engineering drawings, Engineering Change Proposals and Request for Deviations/Waivers if required by the Contractor in connection with this SOW, can be obtained from the Repository Unit, Code 825-3, address: Commander (Code 825-3), Marines Corps Logistics Bases, 814 Radford Blvd., Albany, Georgia 31704-1128, commercial telephone number (912) 439-6410 or DSN 567-6410.

## 3.0 **REQUIREMENTS**

3.1 **GENERAL TASKS.** In fulfilling the specified requirements, the Contractor shall render, yet shall not be limited to the following tasks:

- a. Provide materials, labor, facilities, repair parts and services necessary to troubleshoot, test, diagnose, engineer, integrate, install, repair and calibrate as required to make fully operational, the Forklift 4K.
- b. Conduct final-on-site testing for witness by the Weapon System Manager and/or their Representatives.
- c. The Contractor shall be responsible for all structural, electrical and mechanical requirements associated with the repair and restoration of the Forklift 4K.

3.2 **IROAN OBJECTIVE AND FUNCTIONS** After IROAN, the Forklift 4K shall have as a minimum the following characteristics:

- a. Reliable as per system specifications. System specifications for the Forklift 4K can be found throughout the Forklift 4K Technical Manuals. These specifications are not always expressed in numbers but in some cases, specifications are expressed as an inspection.

Specifications are listed with each assembly/subassemblies remove, inspect, and repair procedures in the Technical Manual that addresses the component being repaired or IROANed.

- b. Maintainable
- c. Serviceable (Condition Code "A")
- d. Latest Marine Corps Configuration
- e. All Forklift 4K systems and components shall operate as designed intended.
- f. All Forklift 4K shall have a Like New appearance.

3.3 **SPECIFIC TASKS.** The following tasks describe the different phases for the IROAN of the Forklift 4K.

- Phase I Pre-Induction (Initial Inspection)
- Phase II IROAN
- Phase III Inspection, Testing and Acceptance
- Phase IV Preparation for shipment and/or storage

3.3.1. **Phase I Pre-Induction**

a. The Contractor shall inspect in detail Forklift 4K transported to the Contractor for IROAN under provisions of this SOW. The Contractor shall ensure that the inspection is sufficient to determine the condition of the inspected Forklift 4K and the extent of work and repair parts required. The findings of this inspection shall be annotated on the Forklift 4K Pre-Induction Checklist (Appendix A) and shall be maintained and made available upon request by the Weapon System Manager and/or their Representatives. The Forklift 4K Pre-Induction Checklist (Appendix A), Final Inspection Checklist (Appendix B), and Configuration Checklist (Appendix C) may be duplicated in a electronic data base and maintained in that data base. If data is selected to be provided electronically to the Weapon System Manager and/or their Representatives, the Data base program must be agreed to by both the Contractor and the Weapon System Manager and/or their representative.

b. Test equipment shall be used to determine that assemblies and subassemblies meet prescribed reliability, performance, and work requirements. In those cases when conformance to the SOW cannot be certified through existing inspection and testing procedures and by use of diagnostic equipment, the assembly shall be removed, disassembled, inspected, tested and repaired to the degree necessary to assure full conformance with this SOW. Forklift 4K will be operational tested 100 per cent in accordance with Sections 4.1 and 4.2 of this SOW.

d. Oil seals and gaskets leakage. Evidence of lubricating or hydraulic oils passing through or around a seal is in itself not a defect; however, consideration must be given to the fluid capacity in the item being checked/inspected. Inspection shall normally be performed during and

immediately following an operational test, but not sufficient duration to allow the fluids to return to ambient temperatures. The following shall be used as a guide in determine degree of oil loss:

1. Class I - Seepage of fluid ( indicated by wetness or discoloration) not great enough to form drops.
2. Class II - Leakage of fluid great enough to form drops, but not enough to cause drops to fall from the item being checked/inspected.
3. Class III - Leakage of fluid great enough to form drops that fall from the item being checked/inspected.

A CLASS I OR II LEAK, EXCEPT FUEL SYSTEM, BRAKE SYSTEM, AND POWER STEERING SYSTEMS IS AN ACCEPTABLE CONDITION AT ANY TIME AND DO NOT REQUIRE CORRECTIVE ACTION.

3.3.2 **PHASE II - IROAN.** After pre-induction tests and inspections have been completed, IROAN of the Forklift 4K shall be accomplished in accordance with this SOW and the Forklift 4K Technical Manuals. Deficiencies noted on the Forklift 4K Pre-Induction Checklist (Appendix A) during Phase I shall be repair/replaced. The following efforts shall be performed as part of the IROAN:

**A. SERVICE AND PARTS MANUAL:** The Service and Parts Manuals listed below contains repair procedures and repair parts for the complete Forklift 4K. The Trouble Shooting Guide contained in these manuals are to be used along with the Pre-Induction Checklist (Appendix A) in helping identify deficiencies with the Forklift 4K. Repair procedures contained in these manuals are to be used to repair deficiencies identified on the Pre-Induction Checklist.

TM 09135A-10/1	Operators Manual
TM 09135A-15/1	Organization and Maintenance Manual
SL-4-09135A	Repair Parts Manual

The Service and Parts Manuals listed may contain provision for corrosion control, painting, and packaging. Provisions for corrosion control, painting, and packaging is provided within this SOW and shall be the superseding requirement.

**B. DETAILED MECHANICAL WORK:** Forklift 4K received for IROAN shall be worked in accordance with the following paragraphs. All discrepancies noted on the IROAN Pre-Induction Checklist (Appendix A) shall be repaired/replaced.

**C. HARDWARE**

(1) Replace broken, unserviceable and/or missing hardware, including nuts, bolts, screws, washers, turnlock fasteners, safety, and one time use items, etc., in accordance with the IROAN. Unserviceable would include any of the above that failed to function properly.

(2) Ensure proper hardware locking devices are present on all moving mechanical assemblies.

(3) Hardware normally supplied with commercial parts shall be used unless specifically prohibited.

(4) Hardware used in this IROAN shall be in accordance with existing technical publications.

#### **D. ENGINE ASSEMBLY.**

Prior to initial inspection, always make visual checks to assure normal operating conditions exist (fluid levels are correct, belt tension, etc.). Engine will not be removed from the Forklift 4K unless major defects are found during the initial inspection, oil analysis and road testing. If repair is required, remove and repair per technical references shown in TM 09135A-15/1. Each engine assembly will be IROANed of all reported deficiencies. The engine will be detail cleaned and inspected for loose, damage, or missing parts. Special emphasis will be in place on mechanical noises which may identify internal engine damage. No unusual vibrations, excessive oil consumption, excessive exhaust smoke, leakage of exhaust gases, exhaust restrictions, loss of coolant, low engine oil pressure or engine overheating are permitted. Repair/replace procedures are found in TM-09135A-15/1. Engine shall operate without any engine symptoms identified in the troubleshooting chart located in TM 09135A-15/1, pages 4-5 through 4-10. If the engine requires removal for repairs, remove engine and transmission as a single unit.

#### **E. FUEL SYSTEM**

(1) Inspect fuel injectors lines and injectors to assure proper operations. Injector lines shall be securely mounted in their proper place. Leakage is not permitted. Lines shall contain no damage that may restrict fuel flow to the injectors or that may result in leakage after short use. Fuel injectors shall be tested as per TM 09135A-15/1. Injectors found to be faulty shall be replaced. Fuel line fittings shall not be rounded off or be in such a condition that will prevent them from being tightened to correct torque specifications. Fuel system test, repair, replace, and specification are found in TM 09135A-15/1.

(2) Inspect fuel injection pump and shutoff solenoid for proper operation. Check and adjust (if required) fuel injection pump timing in accordance with TM 09135A-15/1. Repair/Replace fuel injection pump and shutoff solenoid as required. Fuel pump, test, specification, and repair/replace procedures are found in TM 09135A-15/1.

(3) Replace fuel filters 100 percent. Inspect fuel pump for damage, leakage, and proper operation. Clean, repair, replace separators and priming pump as needed. Inspect fuel pump lines for damage that may restrict fuel flow or that may result in leakage after short use. Fuel line fittings shall not be rounded off or be in such a condition that will prevent them from being tightened to correct torque specifications. Repair/replace procedures are found in TM 09135A-15/1.

(4) Inspect fuel tank for cracks or leakage. Repair as necessary. Inspect fuel tank screen for damage. Repair/replace as necessary. Inspect fuel sender unit for correct operation. Repair/Replace as needed.

(5) Inspect fuel supply lines, both metallic and nonmetallic, for cracks or damage that may restrict fuel flow or may result in leakage after short use. Fuel line fittings shall not be rounded off or be in such a condition that will prevent them from being tightened to correct torque specifications. Repair/replace as necessary. Repair/replace procedures can be found in TM 09135A-15/1.

(6) Inspect and test operate the throttle control pedal and linkage for binding and proper function. Repair/replace assembly components as required.

#### **F. ENGINE ACCESSORIES**

##### **(1) COLD START ASSEMBLY.**

Inspect and test the cold start assembly. Clean all components with suitable cleaning solvent. Inspect all tubes, electrical wires, and components for damage and wear. Cold Start Kit shall function as intended. Cold Start Kit shall be IROANed of all deficiencies annotated on the Pre-Induction Checklist (Appendix A).

##### **(2) AIR CLEANER ASSEMBLY.**

Inspect air cleaner assembly for corrosion, damage and leakage. Inspect the air cleaner indicator for proper function. Repair/replace air cleaner assembly/components as required. Replace air filters 100 percent.

##### **(3) ALTERNATOR.**

Alternator shall meet alternator test checks identified in TM 09135A-15/1, page 4-182. Repair/replace alternator as required. Replace alternator drive belts 100 percent. Replace alternator drive pulley and belt tensioner assembly if damaged.

##### **(4) ENGINE STARTER.**

Engine Starter and starter solenoid shall function as intended and shall be free of any and all symptoms related to the starter that is identified in the troubleshoot chart. Repair/replace starter and/or starter solenoid as required.

#### **G. ENGINE COOLING SYSTEM**

(1) Inspect and test cooling system by pressurizing the system 5 PSI above the pressure marked on the radiator pressure cap. Check all connections and hoses for the cooling

system for leakage. Cooling System shall retain a pressure reading of 5 PSI above pressure marked on radiator cap for at least five minutes. Loss of coolant is not permitted under the provisions of this SOW.

(2) Inspect radiator for cracks, leaks, bent fins, and clogging that will prevent air flow through radiator. Clean, repair or replace radiator as required. Reverse flush, clean, and inspect radiator core 100 percent. Straighten bent fins that can be straighten.

(3) Inspect water inlet manifold, thermostat housing, and water pump for leakage. Inspect water pump assembly for unusual noise that may indicate that the pump bearings require replacement. Repair/replace as required. Repair/replacement procedures are found in TM 09135A-15/1.

(4) Inspect fan assembly for breaks, bends, and missing hardware. Inspect fan assembly for missing bolts and washers. Repair/replace as required.

(5) Inspect fan shroud for breaks or cracks. Inspect fan shroud and guard for missing mounting hardware (nuts, bolts, washers, and brackets). Repair/replace as required.

(6) Inspect water pump drive assembly for damage, looseness, worn bearings, and correct function. Inspect mounting hardware for looseness, missing, or damage parts. Repair/replace as required.

(7) Replace hose clamps that do not remain tight or can not be tightened. Replace coolant hoses 100 percent.

(8) Replace coolant. Antifreeze protection shall be to a temperature of -35 degrees Fahrenheit.

#### **H. TRANSMISSION.**

Inspect metallic and nonmetallic hydraulic lines and hoses for damage that may resist flow or may result in rupture. Check hose and line fittings to assure they are tight and do not leak. Replace lines, hoses and fittings that are rounded off and can not be tightened. Replace transmission filter 100 percent. Operational test transmission. Transmission shall operate as intended without overheating or slippage. Inspect transmission housing for cracks. Repair transmission as required.

Inspect and operational test transmission shift lever assembly for proper operation. Repair/replace components as required. If transmission requires removal, remove engine and transmission as a single unit. After removal, separate engine and transmission. Inspect torque converter and flex plates for loose hardware (bolts and washers). Inspect torque converter and flex plates for damage and wear that will prevent correct operation. Inspect and test transmission oil cooler and hydraulic lines and hoses. Inspect metallic and nonmetallic hydraulic lines and hoses for damage that may resist flow or may result in rupture. Check hose and line fittings to

assure they are tight and do not leak. Replace lines, hoses and fittings that are rounded off and can not be tightened. Replace all hydraulic hoses that contain damage that will result in failure. Inspect oil cooler for cracks, leaks, bent fins, and clogging that will prevent air flow through cooler. Clean, repair or replace oil cooler as required. Reverse flush, clean, and inspect oil cooler core 100 percent. Straighten bent fins that can be straightened.

Transmission and torque converter repair, replace, and specifications are founded in TM 09135A-15/1.

### **I. DRIVE SHAFTS**

Inspect universal joints for excessive wear or damage. Replace as needed. Inspect slip joint and drive shaft for cracks or damage. Repair/replace as required. Repair/replace procedures are found in TM 09135A-15/1.

### **J. AXLES**

The front axle is mounted to the vehicle frame and receives its power through a drive shaft directly from the output shaft of the transmission. The axle transmits power directly to the two front wheels. The rear steering axle is mounted to the vehicle frame on a pivot point and provides steering through the hydraulic system to move the wheels either to the right or left. The rear axle is also a drive axle, making the vehicle four-wheel drive.

Axles shall be removed from vehicle for disassembly. Disassembly axles down to the two basic assemblies (differential, left and right axle assemblies). Inspect the differential and axle assemblies as per instructions in TM 09135A-15/1, Section 5-14 and 5-15. Repair/replace as per requirements identified in TM 09135A-15/1, Sections 5-14 and 5-15.

### **I. VEHICLE BRAKES**

(1) The vehicle brake disk are located in the vehicle axles. During axle tear down, these disk shall be inspected for minimum thickness (0.177 in.). Replace all brake disk contained in any single axle, if any one disk does not meet the minimum allowed thickness. Remove, clean, inspect, and test brake piston assembly in the differential housings that are located between the main differential housing and axle housing (front axle assembly, items 34 through 40, page 5-85, Rear axle assembly, items 76 through 82, page 5-98 of TM 09135A-15/1).

(2) Inspect all brake hoses and lines for leakage and damage. Replace metallic hydraulic lines that contains flat spots or kicks that may restrict flow or eventually result in leakage. Stripped or rounded off fittings are not permitted. Replace nonmetallic hydraulic lines that contain blisters or deformations to the outer covering. No excessive abrasion or scrubbing areas on outer surface of both the nonmetallic and metallic hoses and lines are acceptable.

(3) Inspect front and rear glad hands for hardened, cracked, and missing grommets. Inspect front and rear glad hand ball valves for leaks and proper function. Front and Rear glad hands and ball valves are required to function as intended without leakage.

(4) The parking/hand brake shall be complete with all linkage in serviceable condition and properly adjusted. Parking/hand brake lining shall have at least 50 percent of original thickness remaining or they must be replaced. No evidence of grease or oil shall be on the parking brake lining.

(5) Repair/Replace the spring brake dash control valve, brake relay valves (front and rear), wet reservoir safety valve, air reservoir check valve, limiting valve, front axle control valve, spring parking brake valve, air bleeder valve, brake throttle valve, air governor valve, alcohol evaporator, check valves, and air compressor if leaking and not operating properly.

#### **J. TIRES, WHEELS.**

Inspect tire inflation. Inspect tire for cupping, chunking, cuts, and cracks. Inspect wheels for cracks, breaks, and damaged mounting holes. Each tire must have 4/32 inch or more of tread remaining and be in good serviceable condition. All tires on a vehicle shall be matched to provide proper performance and approximately equal life. Tires shall not show evidence of chunking. Tires shall not have cuts or cracks greater than one inch in length, 1/8 inch width. Tires shall not have cuts or breaks, regardless of length or width, which extend to the fabric, rubber separation or bulges on tire side walls are not acceptable. Check TM 09135A-15/1 for the appropriate tire size.

#### **K. CHASSIS ASSEMBLY**

The chassis assembly consists of the following assemblies. These assemblies are to be cleaned, inspected, repaired/replaced as required.

(1) ROLLOVER PROTECTION SYSTEM. Repair of the rollover protection system is limited to the replacement of common hardware (screws, nuts, and washers). Replace all common hardware found to be damaged during inspection.

(2) TOW BAR ASSEMBLY. Inspect tow bar assembly for structural damage. Repair by welding if possible. Replace all parts found to be damaged or missing during the Pre-Induction inspection.

(3) TOOL BOX ASSEMBLY. Inspect tool box for structural damage. Repair by welding if possible. Inspect and operational test hinges and latch assemblies for proper operation. Repair as required.

(4) COUNTERWEIGHT. The counterweight requires no repairs. Inspect counterweight to assure counterweight is securely mounted in its' proper place. Missing hardware (screws, nuts, and washers) is not permitted.

(5) VEHICLE SHEET METAL COMPONENTS.

Repair or replace damaged sheet metal panels, covers, skirts, fenders, floor panels, inspection panels, and other metal items as needed. Replace sheet metal components where corrosion has penetrated component. Repair/replace as needed. Replace/repair all broken brackets and braces. Repairs shall be in accordance with best commercial practices.

(6) OPERATORS' SEAT.

Inspect operator's seat and tracks for damage, sagging, broken springs, deteriorated frames and proper function. Replace cushion/seat pads as required. Cushions/seat pads are to be replaced if they contain tears/rips greater than one inch in length and a cushion or seat pad contains more than two tears/rips. Repair/Replace seat/ seat backs, frames and tracks that have damaged, worn, broken springs, deteriorated frames, and tracks that do not operate properly. Repair/replace procedures are found in TM 09135A-15/1 Section 4-11.

(7) WINCH ASSEMBLY.

All winch assemblies are to be removed from the Forklift 4K that are IROANed under provisions of this SOW. Removal is to be in accordance with MI-09135A-35/7A and Section 4-12, paragraph a. of TM 09135A-15/1. Winch and associated parts are to be disposed of utilizing the local Defense Reutilization and Marketing Office (DRMO).

Items to be disposed of per vehicle are:

1. Wire Rope Assembly	NSN 4010-01-319-4833	1 Each
2. Winch Assembly	Part Number 22479	1 Each
3. Hose Assembly	Part Number 242R6-J90S6-JSN6-1	2 each.
4. Screw	NSN 5305-00-071-2057	4 Each
5. Nut, Self Locking	NSN 5310-00-241-6659	4 Each

(8) PINTLE HITCH ASSEMBLY. Inspect pintle hook for damage and proper operation. Rotate pintle hook to ensure freedom of movement. Ensure the pintle will open and close. No binding is allowed. Inspect all threaded parts for stripped or damaged threads. Inspect assembly for weld cracks. Weld all parts found to have cracks at the welds. Replace all parts found to be worn or damaged. Repair, replace, and lubricate as required.

(9) RIGID PINTLE HOOK. Inspect pintle hook for damage and proper operation. Rotate pintle hook to ensure freedom of movement. Ensure the pintle will open and close. No binding is allowed. Repair, replace, and lubricate as required.

### **M. STEERING SECTION**

(1) Inspect steering column assembly for bends, breaks, cracks, and wear. Repair/replace as required.

(2) Inspect steering wheel for cracks. Steering wheels with minor cracks 1/8 of an inch wide or less which do not extend to the steering wheel core may be repaired by filling with a non-shrinking epoxy and sanded smooth. Hairline cracks are permitted. Replace as required.

(3) Inspect steering gear for leaks, damage, wear, and proper function. Steering gear shall operate as intended without leakage greater than Class II. Repair/replace as required.

(4) All steering cylinders shall be removed and new seal kits installed.

(5) Replace drag link, tubes that are bent, cracked, and deformed. The steering mechanism shall operate without binding or roughness on the drag link and steering linkage.

(6) Inspect the steering bypass valve for proper operation, damage, and leakage. Replace bypass valves that do not function as intended. Replace bypass valves that contains leakage under system pressure that can not be stopped by tightening fittings.

(7) Inspect all steering system hoses and lines for leakage and damage. Replace metallic hydraulic lines that contains flat spots or kicks that may restrict flow or eventually result in leakage. Stripped or rounded off fitting are not permitted. Replace nonmetallic hydraulic lines that contain blisters or deformations to the outer covering. No excessive abrasion or scrubbing areas on outer surface of both the nonmetallic and metallic hoses and lines are acceptable.

### **N. MAST ASSEMBLY**

The mast assembly consists of a two-rail, carriage, two forks, chains and pulleys, and the associated hydraulic equipment. Forks are manually adjustable and are locked in position by bolts on the forks. Hydraulic cylinders tilt the mast forward and backward, and lift cylinders raise the mast beams. A side shift cylinder, located behind the carriage, shifts the carriage right or left and a rotate cylinder, mounted at the top of the carriage, rotates the carriage in a clockwise or counterclockwise direction. The removable pintle hook assembly is positioned on the forks and is used primarily for towing the M-198 howitzer.

(1) MAST. Operate all controls for the mast while observing mast for correct movement. Mast assembly and its' components shall operate smoothly and without any irregular or jerking motion that indicates binding of mast assembly. Repair/replace components as required.

(2) LIFTING CHAIN AND ROLLERS. Inspect mast assembly lifting chains, connecting links, and rollers for damage and proper operation. Tighten chains as necessary for

correct tension. Replace chains that can not be correctly tighten. Replace chains as sets only. Replace worn connecting links and rollers as required.

(3) ROTATE CARRIAGE. Inspect rotate carriage assembly for proper operation and damage. Inspect assembly for weld cracks. Weld as required. Inspect carriage rotation bushing and retaining ring for wear and damage. Replace as required. Carriage assembly shall be complete with no missing bracket, plates, and hardware. Replace missing components as required.

(4) MAST FRAME ASSEMBLY. Inspect frame assembly for proper operation. Inspect bar assemblies to assure they are not bent. Replace bent bars as required. Inspect spine assembly for wear and damage. Repair/replace as required. Frame assembly shall be complete with no missing bracket, plates, and hardware. Replace missing components. Inspect side shift chain, rollers, and pins for wear and proper operation. Replace chain, rollers, and pins that are worn or damaged.

(5) INTER, OUTER RAIL ASSEMBLY. Clean, inspect, test, and repair/replace inter, outer rail assembly and components as required. Inspect rails for deformities such as bends and cracks. Inspect rails for excessive wear. Bends, cracks, and excessive wear is not allowed. Repair/replace as required. Inspect rail assembly for missing and broken clamps, plates, brackets, bushings, and bearings. Replace missing or damage clamps, brackets, plates, bushings, and bearings as required.

(6) MAST HYDRAULIC CYLINDERS. The mast assembly contains two tilt cylinders, one side shift cylinder, one rotation cylinder, and three free lift cylinders. These cylinders are to be cleaned, inspected, tested, and repaired as required. The mast cylinders shall contain no leakage. Cylinders shall contain no damage that prevents cylinder from proper operation (bends in cylinder wall, bent or pitted shafts). All cylinders shall be firmly secured in their proper mounting position with no missing of worn mounting hardware and brackets.

(7) MAST HYDRAULIC SYSTEM. Inspect all mast system hoses and lines for leakage and damage. Replace metallic hydraulic lines that contains flat spots or kicks that may restrict flow or eventually result in leakage. Stripped or rounded off fitting are not permitted. Replace nonmetallic hydraulic lines that contain blisters or deformations to the outer covering. No excessive abrasion or scrubbing areas on outer surface of both the nonmetallic and metallic hoses and lines are acceptable. Inspect mast assembly hydraulic fittings, clamps, and manifolds for damage and leakage. Replace fitting that are damage and leaks. No leakage is permitted. Inspect and test clamps for tightness. Tighten as required. Inspect hose roller for damage and proper operation. Replace hose rollers that are damaged and do not function as intended.

**O. VEHICLE HYDRAULIC SYSTEM.** The vehicle hydraulic system consist of the main hydraulic pump, reservoir, direction control valve bank, inching brake pedal, holding valve, hydraulic lines and hoses, priority valve, gauge, differential lock actuator, and directional control valve. These items are to be cleaned, inspected, tested, and repair/replaced as required.

Samples of hydraulic oil should be drawn from reservoir using ISO Standard 4021 or an equivalent method of sampling. Oil is analyzed to determine if it is suitable for further use. If there is evidence of a grossly contaminated hydraulic system, caused by pump or motor failure, water contamination, or vandalism, hydraulic system shall be flushed and new oil and filters replaced.

**NOTE:**

Since hydraulic system flushing is expensive, time consuming, and results not totally assured, flushing should be done only when absolutely necessary.

(1) HYDRAULIC PUMP. Clean, inspect, test, and repair/replace hydraulic pump as required. Inspect hydraulic pump for proper operation. Inspect pump for looseness, damage, and leakage. Inspect pump for extreme heating, unusual noise, and poor performance. Inspect pump hose fittings for looseness, damage, and leakage. Repair/replace pump and pump components as required. Replace filter 100 per cent. Inspect pump and pump hose fittings for leakage. None allowed.

(2) HYDRAULIC TANK. Inspect hydraulic tank assembly for damage, corrosion, and leakage. Inspect tank mounting hardware for looseness and missing components. None allowed. Inspect hydraulic tank filler cap for correct fit and water tightness. Replace filler caps that do not fit as intended. Repair/replace reservoir and reservoir components as required.

(3) HYDRAULIC CONTROL VALVE BANK. Hydraulic control valve bank shall be secured in its proper mounting position. No missing mounting hardware is allowed. Each control valve shall operate as intended. Replace leaking hose fittings if correct tightness will not stop leakage under system operation pressure. Repair/replace control valves that do not operate as intended. Inspect control valve bank operator control mechanical linkages to assure proper operation and adjustment. Repair/replace control valve bank and mechanical linkage as required.

(4) HYDRAULIC VALVES. Clean, inspect, test, and repair/replace directional control valve, priority valve, and the holding valve as required. Hydraulic valves shall be secured in its proper mounting position. No missing mounting hardware is allowed. Each control valve shall operate as intended. Replace leaking hose fittings if correct tightness will not stop leakage under system operation pressure. Repair/replace valves that do not operate as intended. Inspect valve mechanical linkages to assure proper operation and adjustment. Repair/replace valves and mechanical linkage as required.

(5) DIFFERENTIAL LOCK ACTUATOR. Clean, inspect, test, and repair/replace differential lock actuator as required. Replace all parts having stripped or damaged threads. Inspect actuator for leakage. Class II leaks are permitted. Inspect rubber boot and retaining ring for damage, dry rot, rips and tears. Replace defective boots and retaining ring. Test lever locking mechanism for correct function. Repair locking mechanisms that fail to function as intended. Repair/replace actuators that do not function as intended.

(6) INCHING BRAKE ASSEMBLY. Clean, inspect, test, and repair/replace inching brake assembly as required. Replace all parts having stripped or damaged threads. Inspect inching brake assembly for leakage. None Allowed. Inspect assembly for missing or worn bushings, spacers, housings, brake pedal, and brackets. Repair replace defective components as required.

(7) HYDRAULIC HOSES AND LINES. Inspect all system hoses and lines for leakage and damage. Replace metallic hydraulic lines that contains flat spots or kicks that may restrict flow or eventually result in leakage. Stripped or rounded off fitting are not permitted. Replace nonmetallic hydraulic lines that contain blisters or deformations to the outer covering. No excessive abrasion or scrubbing areas on outer surface of both the nonmetallic and metallic hoses and lines are acceptable.

#### **P. VEHICLE ELECTRICAL SYSTEM.**

The Forklift 4K operator station contain gauges, meters, switches, and other various electrical components. These components shall be inspected, operational tested, repaired or replaced as required. Inspect all wiring harnesses, battery cables for corrosion, bent or missing pins, and ripped or torn insulation and tie wraps. Repair/replace all missing and bent pins. Repair of insulation less than four inches in length may be accomplished using electrical tape. Tears or rips in excess of four inches shall require installation of new conduit. Corrosion shall be removed from components. Upon removal of corrosion, if component does not function properly, replace component. Replace all damaged battery cables. Replace any missing or damaged tie wraps. The following electrical systems shall be inspected and tested for proper operation.

(1) Inspect electrical panel gauges and meters for proper operation. Replace any electrical gauge or switch that does not function properly after assuring that the sending unit is not defective. Replace hour meters if nonfunctional.

(2) Inspect instrument panel warning lights. Replace warning lights that are not operational. Test warning light activation devises to assure they function correctly. Repair/replace as required.

(3) Inspect slaving receptacle for proper operation. Repair/replace as required.

(4) Inspect and test operate all switches, fuses, and circuit breakers. Replace electrical switches that do not operate as intended. Replace all relays, fuses, and circuit breakers that are not functioning properly or are blown out.

(5) Inspect all wiring harnesses. Replace any wiring that is frayed or broken. Electrical wiring with deteriorated or defective insulation shall be repair/replaced as required. Repair by splicing is acceptable when the wire use to make the splice is the same wire size and color. The wire splice joint shall be soldered and covered by heat shrinkable electrical insulation tubing shrunk to finished wire size and extending one inch beyond each side of the spliced joint.

(6) Vehicle batteries shall be replaced 100 percent with wet, fully charged batteries. All battery to ground cable/straps shall be replaced. Battery clamps shall be clean and securely fasten to battery post. No cracks are allowed. Battery box shall be free of corrosion and damage. Clean and repair as needed. Battery hold down devices shall operate as intended. Repair/replace as required.

(7) Inspect the headlights, blackout lights, turn signals, rear composite lights, flood lights, reflectors, and instrument panel lights for cracks, corrosion, moisture, broken and blown bulbs. Replace any headlights, blackout lights, turn signals, flood lights, side marker lights reflectors, and instrument panel lights that are blown out or broken.

**Q. VEHICLE AIR SYSTEM.** Forklift 4K air system shall be inspected for and shall be free of any and all problems identified in the troubleshooting guide contained within TM 09135A-15/1. Truck 4K air assembly contains the following subassemblies. These assemblies are to be inspected , tested, and repair/replace as required.

(1) Air Compressor. Air compressor shall function as intended. Air compressor shall be securely mounted to the engine assembly with no missing or broken hardware. Hose fittings shall not be stripped or damage. Repair/replacement procedures are found in TM 09135A-15/1.

(2) Air System Components. Air system components shall operate as intended. Air system components are the governor, safety valve, air reservoirs, service brake valve, trailer brake valve, trailer service brake couplings, and shutoff valve. These components are to be inspected, tested, adjusted, repaired, or replaced as per operational requirements contained in TM 09135A-15/1.

(3) Brake Chamber. Brake chamber shall operate as intended without binding or sticking. Brake chamber shall be inspected, tested, adjusted, repaired, or replaced as per operational requirements contained within TM 09135A-15/1.

(4) Inspect air lines, both metallic and nonmetallic, for cracks or damage that may restrict air flow or may result in leakage after short use. Air line fittings shall not be rounded off or be in such a condition that will prevent them from being tightened to correct torque specifications. Repair/replace as necessary. Repair/replace procedures can be found in TM 09135A-15/1.

(5) Inspect vehicle brake pedal valve assembly for proper operation. Valve shall operate free of binding and leaks. Valve assembly shall be securely mounted to the vehicle floor panel. Repair/replace brake valve that do not function as intended.

(6) Inspect vehicle accelerator valve for proper operation. Valve shall operate free of binding and leaks. Inspect rubber boot for dry rot, tears and rips. Replace boot as required. Valve assembly shall be securely mounted to the vehicle floor panel. Repair/replace brake valve that do not function as intended.

(7) Inspect hand control valve for proper operation. Valve shall operate free of binding and leaks. Valve assembly shall be securely mounted to the vehicle instrument panel. Repair/replace brake valve that do not function as intended.

**R. MISCELLANEOUS COMPONENTS.** There are components labeled as miscellaneous. These items are listed below. Clean, inspect, test, and repair/replace as required.

(1) THROTTLE LINKAGE. Replace all parts having damaged threads, elongated holes, distortion or bends. Repair/replace throttle valve assemblies that fail to function as intended. Leakage is not allowed. Inspect assembly to ensure assembly is securely mounted in its' proper place with no loose or missing hardware.

(2) HYDRAULIC RESERVOIR. Replace all parts having stripped or damaged threads. Inspect all parts for cracks, holes, or abrasions. Replace parts as required. No leakage of the reservoir assembly is permitted. Repair/replace reservoir and components as required.

(3) ALCOHOL INJECTOR. Replace all parts having stripped or damaged threads. Inspect all nonmetal parts for cracks, holes, or abrasions. Replace parts as required. No leakage of the injector assembly is permitted. Repair/replace injector assembly and components as required.

(4) WATER SEPARATOR. Replace all parts having stripped or damaged threads. Inspect all nonmetal parts for cracks, holes, or abrasions. Replace parts as required. No leakage of the separator assembly is permitted. Repair/replace separator assembly and components as required.

(5) EXHAUST SYSTEM. Replace all parts having stripped or damaged threads. Replace all parts and components that are bent, distorted, or contains burn holes. Inspect exhaust system for missing clamps, brackets, and plates. Replace as required. Check rubber mounts for tears, rips, and dry rot. Check rubber mounts to ensure all are functional and are mounted in their proper place. Replace rubber mounts as required.

**S. RUST PROOFING AND PAINTING (Exterior/Interior).** Inspect vehicle for body damage, cleanliness, and rust.

**NOTE**

Rust proofing does not apply to processing of fuel tanks, radiator, engine, transmission, vehicle suspension, transfer, and axles. Repair all body and rust damage before rust proofing vehicle. All vehicles shall be rust proofed 100 percent

Procedures for Corrosion Prevention and Control are in accordance with TM 3080-34.

All exterior surfaces of the Forklift, 4K shall be painted with Chemical Agent Coating (CARC) paint. Paint color shall be Desert Sand or Green 383. Color of individual Forklift 4K will be identified by the Weapon System Manager and/or their representative(s) upon induction into the IROAN cycle.

**T. DATA PLATES AND DECALS**

DATA PLATE. Each IROAN Forklift 4K shall have an a IROAN data plate affixed next to the original vehicle data plate. The data plate shall meet the requirements of MIL-STD-130 and TM 09135A-15/1. Replace all data plates and decals that are missing and illegible. IROAN data plates shall be prepared by the Contractor and contain the following information:

VEHICLE SERIAL NO \_\_\_\_\_  
REPAIRED IN ACCORDANCE WITH SOW 837-09135A-2/2.  
CONTRACTOR \_\_\_\_\_  
DATE \_\_\_\_\_  
HOUR METER READING AT TIME OF IROAN \_\_\_\_\_

*NOTE: Hour meters on vehicles IROANed under provisions of this SOW shall not be turned back to zero.*

**3.3.3. PHASE III - INSPECTION, TESTING AND ACCEPTANCE.**

a. Inspection, testing and acceptance of the Forklift 4K shall be conducted in accordance with TM 09135A-15/1 and this SOW.

b. The Contractor shall be responsible for conducting required tests and shall ensure all necessary personnel are available to complete the final acceptance. Acceptance test shall be held at the Contractor's facility. Weapon System Manager and/or their representative(s) shall be given a minimum of two weeks notice prior to beginning acceptance testing. The test area shall be cleared of all equipment part, components, ect, not required for the test.

**RECORD JACKET:** All major equipment or components serial numbers that are replaced during IROAN are to be identified by the Contractor to be recorded in the record jacket of the Forklift 4K (This include engines, transmissions, etc.). Information will list the Forklift 4K serial number, name of equipment/component(s) replaced, serial number of deficiency equipment/component(s), serial number of replacement equipment/component(s), and if the equipment/component(s) is new or rebuilt.

c. The Contractor shall be responsible for correcting any deficiencies identified during inspection/testing. Weapon System Manager and/or their representative(s) may require the Contractor to report tests or portions thereof, if the original tests fail to demonstrate compliance with this SOW.

d. Forklift 4K shall be lubricated and greased in accordance with the vehicle lubrication chart contained within TM 09135A-15/1. All coolant and oil levels shall be full to proper levels.

e. Vehicle Markings. Registration numbers and other markings shall be applied in accordance with TM 4750-15/1. Lifting and tie down attachments shall be identified with one inch letters indicating "SLING POINT" or "TIE DOWN."

**3.3.4. PHASE IV - PACKAGING HANDLING STORAGE AND TRANSPORTATION (PHS&T).**

a. The Forklift 4K, shall be prepared for shipment/storage in accordance with ATPD 2241. Forklifts 4K scheduled for long term storage shall be Level A. Forklift 4K scheduled for immediate shipment to all locations, with the exception of Maritime Prepositioned Forces (MPF), shall be Level B, Drive-on/ Drive-off. Forklift 4K preserved to Level B, Drive-on/Drive-off being prepared for overseas shipment shall have a label affixed which reads, "NOT FOR WEATHER DECK STOWAGE." Forklift 4K scheduled for shipment to MPS shall be Level B, MPS Modified Drive Away.

b. The Terms Drive-on/Drive-off and MPF Modified Drive Away are defined as follows:

(1) Drive-on/Drive-off: Batteries will be hot and disconnected from vehicle electrical system. Terminals and leads will be taped. Fuel tank will be filled ¼ full. The air intake system, exhaust and brake systems, drive-train and gauges are to be depreserved.

(2) MPS Modified Drive Away: Batteries shall be hot and connected to vehicle electrical system. Fuel tank shall filled ¾ full of JP5. The air intake system, exhaust and brake systems, drive-train and gauges are to be depreserved. Fire extinguisher bracket and seats (all) shall be installed.

c. Marking shall be in accordance with MIL-STD-129.

d. The Marine Corps will provide the contractor with the shipping address(es) for delivery of the repaired equipment, and the contractor shall be responsible for arranging for shipment to the pre designated site. The Marine Corps will be responsible for transportation costs associated with shipping equipment to and from the contractor

**3.4 CONFIGURATION MANAGEMENT**

**3.4.1 CONFIGURATION STATUS ACCOUNTING (CSA)**

a. The Contractor shall determine the application status of approved configuration changes by visual inspections to the extent possible. The government will identify the configuration changes to be inspected by furnishing a Configuration Checklist (Appendix C) to the Contractor. The Contractor shall use one checklist for each Forklift 4K to record the inspection findings along with other required data.

b. The Contractor shall record serial numbers of the assemblies listed on the Configuration Checklist. The Contractor shall record the information on the same form that was used to record the application status of configuration changes.

c. The following approved Modification Instructions (Mis) and Technical Instructions (TIs) shall be applied during Phase II of the IROAN process:

MI-09135A-25/1A	Installation of Enhance Operator Visibility
MI-09135A-25/2A	Installation for Relocation of the Air Tank Hose
MI-09135A-25/3	Installation of Tie-Down Straps on Front Wiring Harness
MI-09135A-35/4A	Installation of Transmission Oil Cooler Protective Grill
MI-09135A-35/5	Installation of Floodlight Protective Covers
MI-09135A-35/6	Installation of Fork Rotation Cylinder Protective Cover
MI-09135A-35/7A	Repositioning of the Hydraulic Directional Control Valve Assembly
MI-09135A-25/10	Fabrication and Installation of Fitting Guards for the Side Shift Cylinder
MI-09135A-25/11	Removal of Indicator Assembly
MI-09135A-35/12	Mounting Hydraulic Indicator

3.4.2 **CONFIGURATION CONTROL.** The Contractor shall apply configuration control to established baseline configuration item. Deviations from the established baseline configuration will not be allowed without written approval by the Weapon System Manager (Code 837-2). If it is necessary to depart from the authorized configuration, the Contractor shall prepare and submit a Request for Deviation or Request for Waiver using MIL-STD-973, paragraphs 5.4.3 and 5.4.4., subparagraphs and appendix E as guidance.

### 3.5 **GOVERNMENT FURNISHED EQUIPMENT ACCOUNTABILITY (GFE)**

In the event Government Furnished Equipment(GFE)/Government Furnished Materiel (GFM) is identified, Management Control Activity (G316-2/MCA) at Marine Corps Logistics Bases, Albany, is the point of contact. The contractor shall maintain accountability of all Marine Corps's GFE received under this contract. The MCA (G316-2) will maintain the control and accountability for all Marine Corps assets in the contractor's possession. The MCA will forward a Marine Corps GFE/Accountability Agreement to the contractor for signature to establish a chain of custody for property responsibilities.

### 3.6 **CONTRACTOR FURNISHED MATERIEL (CFM)**

In the event Contractor Furnished Materiel (CFM) is required for repair parts, the DoD 4000.25-1-M, (MILSTRIP) Chapter 11 authorizes contractor to requisition through the DoD Supply System. The Marine Corps has adapted the Navy's procedures regarding Contractor

Furnished Material (NAVICPINST 4491.2A). This would require specific provisions in section H of the contract to place total responsibility on the contractor to obtain direct electronic access to the DoD Supply System, electronically submit their requisitions, maintain status, receive billing from the source of supply and provide direct payments to DFAS.

### **3.7 QUALITY ASSURANCE PROVISIONS**

The performances of the Contractor and the quality of work delivered, material provided and documents written shall be subject to in-process review and inspection by the Weapon System Manager and/or their representative(s) during contract performance. Inspection may be accomplished at any work location. Authorized Weapon System Manager representative(s) shall be permitted to observe the work/task accomplishment or to conduct inspections at all reasonable hours within contractor normal working hours. Acceptance tests shall be held in-plant. Inspection by Weapon System Manager and/or their representative(s) of all acceptance tests plans, materials and associated lists furnished hereunder does not relieve the Contractor from any responsibility regarding defects or other failures to meet contract requirements which may be disclosed prior to final acceptance.

The Contractor shall provide and maintain a Quality System that as a minimum, adheres to the requirements of ANSI/ISO/ASQC Q9002-1994 Quality System Model for Quality Assurance in Production, Installation, and Servicing. The Contractors work shall be subject to in-process reviews and inspections for compliance with Quality Systems by Weapon System Manager and/or their representative(s). Noncompliance with procedures resulting in degraded quality of work may result in a stop-work order requiring action by the contractor to correct work performance and to enforce compliance with quality assurance procedures or face contract termination. Notwithstanding such Weapon System Manager and/or their representative's inspection, it shall be the Contractor responsibility to ensure that the system meets the performance requirements delineated and addressed in the Forklift 4K TM 09135A-15/1 and this SOW.

Quality assurance operations performed by the Contractor shall be subject to the Weapon System Manager and/or their representative(s) verification at any time. The Weapon System Manager and/or their representative(s) verification can include, but not limited in any matter, to the following:

- a. Inspection of material, products, assemblies, and documentation to assess compliance with quality standards.
- b. Surveillance of operations to determine that quality assurance, practices, methods, and procedures are being properly applied.
- c. Inspections of deliverable products to assure compliance with all requirements of the Forklift, 4K, this SOW, and applicable documents used herein.

d. Failure of the repair facility to promptly correct deficiencies discovered, shall be a reason for suspension of acceptance until corrective action has been made.

### 3.8 ACCEPTANCE

The performance of the Contractor and the quality of work delivered, including all equipment furnished and documentation written or compiled, shall be subject to in process review and inspection during performance. Inspection may be accomplished in plant or at any work site or location, and Marine Corps representatives shall be permitted to observe the work or to conduct inspection at all reasonable hours. Final inspection and acceptance testing shall be conducted at the Contractor's facility. Finally acceptance shall be conducted on 100 percent of items to verify that the units meet all requirements. Forklifts 4K IROANed under the provisions of this SOW shall be accomplished in accordance with TM 09135A-15/1 and this SOW.

a. Acceptance Testing. The Forklifts 4K IROANed under provisions of this SOW shall be accomplished in accordance with TM 09135A-15/1 and the Final Inspection Checklist (Appendix B).

b. As Required by MCO P11262.2, contractor shall provide Condition Inspection Record for each Forklift 4K IROANed under provision of the SOW. The Forklift 4K shall be stenciled, in a position on the fork mast that is clearly visible to the operator and ground personnel, with certification data indicating the test status (Example: CAP 4,000 lbs. Certified 01 Jan 1999). Condition Inspection Record is found in MCO P11262.2, Table 4-2.

### 3.9 REJECTION

Failure to comply with any of the specified requirements listed herein shall be reason for rejection by the Weapon System Manager and/or their representative(s). The Contractor at no additional cost to the Marine Corps provide the following:

a. Develop an approach for modification or correction of all deficiencies.

b. On approval of a documented approach, the Contractor shall correct the deficiencies and repeat verification until acceptable compliance with acceptance test procedures is demonstrated.

### 4.0 REPORTS

The following reports shall be provided to the Weapon System Manager and/or their representative. Reports shall be forward to: ATTN: Weapon System Manager (Code 837-2), 814 Radford Blvd, Marine Corps Logistic Bases, Albany Ga., 31704-1128.

4.1 Pre-Induction Checklist. The Contractor shall complete the Pre-Induction Checklist (Appendix A) for each Forklift 4K IROANed. This document shall be available during final

acceptance testing. One copy of each document shall be provided to the Weapon System Manager and/or their representative(s) after final acceptance of the Forklift 4K, or upon request.

4.2 Final Inspection Checklist. The Contractor shall complete the Final Inspection Checklist (Appendix B) for each Forklift 4K IROANed. This document shall be available during final acceptance testing. One copy of each document shall be provided to the Weapon System Manager/or their representative(s) after final acceptance of the Forklift 4K, or upon request.

4.3 Configuration Checklist. The Contractor shall complete the Configuration Checklist (Appendix C) for each Forklift 4K IROANed. This document shall be available during final acceptance testing. One copy of each document shall be provided to The Weapon System Manager and/or their representative(s) after final acceptance of the Forklift 4K, or upon request.

**IROAN  
PRE-INDUCTION CHECKLIST  
TRUCK, FORKLIFT 4K, MODEL 8606**

Vehicle NSN: \_\_\_\_\_

Vehicle Serial Number: \_\_\_\_\_

Vehicle Hours: \_\_\_\_\_

Use this list to record operational checkout results. Preform operational checks before installing test equipment.

<b>TRUCK, FORKLIFT 4K MODEL 8606</b>	<b>S A N G E T</b>	<b>M I S S I O N S I N G E T</b>	<b>S E R V I C E T R</b>	<b>A D J U S T R</b>	<b>R E P A I R E D</b>	<b>M O D I F I E D</b>	<b>REMARKS</b>
<b>1. Engine Assembly</b> Condition Operation Mounting <b>Paint</b> Spec. Conformance Coverage <b>Lubrications</b> Application and type Level <b>Oil Analysis Results</b> PASS _____ FAIL _____							
<b>2. Fuel System.</b> Condition Leakage Fittings Mounting <b>Components</b> Injector and Injector Lines Shutoff Solenoid Injection Pump Fuel Pump Fuel Tank Fuel Supply Lines Throttle Control Assembly							

<p><b>3. Engine Accessories</b>                  Condition                  Operation                  Mounting  <b>Components</b>                  Cold Start Assembly                  Air Cleaner Assembly                  Alternator                  Starter</p>									
<p><b>4. Engine Cooling System</b>                  Condition                  Operation                  Leakage                  Clamps and Fittings  <b>Components</b>                  Radiator                  Water Inlet Manifolds                  Fan Assembly                  Fan Shroud and Guards                  Water Pump Drive                  Assembly</p>									
<p><b>5. Transmission</b>                  Condition                  Operation                  Mounting                  Leakage  <b>Oil Cooler</b>                  Condition                  Leakage                  Mounting  <b>Shift Assembly</b>                  Condition                  Operation                  Mounting</p>									
<p><b>6. Drive Shafts</b>                  Condition                  Operation                  Mounting</p>									
<p><b>7. Vehicle Axles</b>                  Condition                  Operation                  Leakage                  Mounting</p>									

<p><b>8. Vehicle Brakes</b>                  Condition                  Operation                  Leakage  <b>Parking Brake</b>                  Condition                  Operation                  Linkage  <b>Brake Components</b>                  Brake Dash Valve                  Relay Valves                  Safety Valve                  Limiting Valves                  Brake Throttle Valve</p>								
<p><b>9. Tires and Wheels</b>                  Condition                  Mounting</p>								
<p><b>10. Chassis Assembly</b>                  Condition                  Operation                  Mounting  <b>Components</b>                  Rollover Protection                  Tow Bar Assembly                  Tool Box Assembly                  Counterweight                  Sheet Metal Components                  Operator Seat                  Winch Assembly                  Pintle Hook Assembly                  Rigid Pintle Hook</p>								
<p><b>11. Steering</b>                  Condition                  Operation                  Mounting                  Leakage  <b>Components</b>                  Steering Column                  Steering Wheel                  Steering Cylinders                  Drag Link                  Steering Bypass Valve</p>								

<p><b>12. Mast Assembly</b>                  Condition                  Operation                  Mounting                  Leakage  <b>Components</b>                  Mast                  Chains and Rollers                  Rotate Carriage                  Frame Assembly                  Inter, Outer Rail Assy                  Mast Hydraulic Cylinders                  Hoses and Lines</p>								
<p><b>13. Vehicle Hydraulic System</b>                  Condition                  Operation                  Leakage                  Mounting  <b>Components</b>                  Hydraulic Pump                  Hydraulic Tank                  Control Valve Bank                  Valves                  Differential Lock Actuator                  Inching Brake Assembly                  Hoses and Lines</p>								
<p><b>14. Vehicle Electrical System</b>                  Condition                  Operation                  Mounting  <b>Components</b>                  Guages and Meters                  Warning Lights                  Slave Recepticle                  Switches                  Fuses &amp; Circuit Breakers                  Wiring Harnesses                  Batteries                  Vehicle Lights</p>								
<p><b>15. Vehicle Air System</b>                  Condition                  Operation                  Mounting                  Leakage</p>								

<p><b>Components</b>                  Air Compressor                  Governor/Safety Valve                  Trailer Brake Fittings                  Gladhands                  Brake Chamber                  Brake Pedal Valve                  Accelerator Valve                  Hand Control Valve                  Hoses and Lines</p>										
<p><b>16. Miscellaneous Components</b>                  Condition                  Operation                  Mounting                  Leakage  <b>Components</b>                  Throttle Linkage                  Hydraulic Reservoir                  Alcohol Injector                  Water Separator                  Exhaust System</p>										
<p><b>17. Data Plates and Decals</b>                  Condition                  Mounting</p>										
<p><b>18. Vehicle Paint</b>                  Spec Conformance                  Coverage</p>										

**ADDITIONAL REMARKS:**

## FINAL INSPECTION CHECKLIST TRUCK, FORKLIFT 4K, MODEL 8606

Vehicle NSN: \_\_\_\_\_

Vehicle Serial Number: \_\_\_\_\_

Vehicle Hours: \_\_\_\_\_

TRUCK, FORKLIFT, 4K MODEL 8606		S A C E	S E R V I C E	T E S T E D	L U B R I C A T I O N	U N D E R S T A N D A R D	REMARKS
<b>1. Engine Assembly</b> Condition Operation Mounting <b>Paint</b> Spec. Conformance Coverage <b>Lubrication</b> Application and Type Level <b>Oil Filter(s) Replaced 100 Pre Cent? YES: _____ NO: _____</b>							
<b>2. Fuel System</b> Condition Operation Leakage Mounting <b>Components</b> Injector and Injector Lines Shutoff Solenoid Injection Pump Fuel Pump Fuel Tank FuelSupply Lines Throttle Control Assembly <b>Fuel Filter(s) Replaced 100 Per Cent? YES: _____ NO: _____</b>							

<p><b>3. Engine Accessories</b>                  Condition                  Operation                  Mounting  <b>Components</b>                  Cold Start Assembly                  Air Cleaner Assembly                  Alternator                  Starter  <b>Air Filter(s) Replaced 100 Per Cent? YES: ___ NO: ___</b></p>					
<p><b>4. Engine Cooling System</b>                  Condition                  Operation                  Leakage                  Clamps and Fittings  <b>Components</b>                  Radiator                  Water Inlet Manifolds                  Fan Assembly                  Fan Shrouds and Guards                  Water Pump Drive Assy.  <b>Cooling System Freeze Protected to at least -35 Degrees as per SOW? YES: ___ NO: ___</b></p>					
<p><b>5. Transmission</b>                  Condition                  Operation                  Mounting                  Leakage  <b>Oil Cooler</b>                  Condition                  Leakage                  Mounting  <b>Shift Assembly</b>                  Condition                  Operation                  Mounting</p>					
<p><b>6. Drive Shafts</b>                  Condition                  Mounting</p>					
<p><b>7. Vehicle Axles</b>                  Condition                  Operation</p>					

Mounting Leakage <b>Axles Rebuilt in Accordance with SOW Requirements?</b>					
<b>8. Vehicle Brakes</b> Condition Operation <b>Brake Disk within SOW Specifications?</b> <b>Brake Piston Assembly within SOW Specification?</b>					
<b>9. Tires and Wheels</b> Condition <b>Tires are within SOW Specifications?</b>					
<b>10. Chassis Assembly</b> Condition Operation Mounting <b>Components</b> Rollover Protection Tow Bar Assembly Tool Box Assembly Counterweight Sheet Metal Components Operators Seat Pintle Hook Assembly Rigid Pintle Hook <b>Winch Assembly Removed in Accordance with SOW?</b>					
<b>11. Vehicle Steering</b> Condition Operation Leakage Mounting <b>Components</b> Steering Column Steering Wheel Steering Cylinders Drag Link Bypass Valve					

<p><b>12. Mast Assembly</b>                  Condition                  Operation                  Leakage                  Mounting  <b>Components</b>                  Mast                  Chains and Rollers                  Rotate Carriage                  Frame Assembly                  Inter, Outer Rail                  Mast Hydraulic Cylinders                  Hoses and Lines</p>					
<p><b>13. Vehicle Hydraulic System</b>                  Condition                  Operation                  Leakage                  Mounting  <b>Components</b>                  Hydraulic Pump                  Hydraulic Tank                  Control Valve Bank                  Valves                  Differential Lock Actuator                  Inching Brake Assembly                  Hoses and Lines  <b>Hydraulic filter Replaced 100                  Per Cent? YES: _____ NO: _____</b></p>					
<p><b>14. Vehicle Electrical System</b>                  Condition                  Operation                  Mounting  <b>Components</b>                  Guages and Meters                  Warning Lights                  Slave Receptical                  Switches                  Fuses &amp; Circuit Breakers                  Wiring Harnesses                  Batteries                  Vehicle Lights</p>					

<p><b>15. Vehicle Air System</b>                  Condition                  Operation                  Leakage                  Mounting  <b>Components</b>                  Air Compressor                  Governor Assembly                  Trailer Brake Fittings                  Gladhands                  Brake Chamber                  Brake Pedal Valve                  Accelerator Valve                  Hand Control Valve                  Hoses and Lines</p>						
<p><b>16. Miscellaneous Components</b>                  Condition                  Operation                  Leakage                  Mounting  <b>Components</b>                  Throttle Linkage                  Hydraulic Reservoir                  Alcohol Injector                  Water Separator                  Exhaust System</p>						
<p><b>17. Data Plates and Decals</b>                  Condition                  Mounting  <b>IROAN Data Plate Installed in accordance with SOW Specifications?</b></p>						
<p><b>18. Vehicle Paint</b>                  Spec. Conformance                  Coverage</p>						
<p><b>19. Vehicle Condition Tested and Marked in Accordance with MCO P11262.2 ?</b></p>						

**Additional Remarks:**

**SOW-00-837-09135A-2/1**

**CONFIGURATION CHECKLIST  
TRUCK, FORKLIFT 4K, MODEL 8606  
NSN 3930-01-275-6420**

**Vehicle Serial Number** \_\_\_\_\_

**VEHICLE ENGINE:**

Original Vehicle Engine Serial Number: \_\_\_\_\_

Replacement Engine Serial Number: \_\_\_\_\_

**VEHICLE TRANSMISSION:**

Original Vehicle Transmission Serial Number: \_\_\_\_\_

Replacement Transmission Serial Number: \_\_\_\_\_

**APPROVED CONFIGURATION CHANGES:**

Modification Instruction	Applied Prior IROAN	Applied during IROAN
MI-09135A-25/1A	_____	_____
MI-09135A-25/2A	_____	_____
MI-09135A-25/3	_____	_____
MI-09135A-35/4A	_____	_____
MI-09135A-35/5	_____	_____
MI-09135A-35/6	_____	_____
MI-09135A-35/7A	_____	_____
MI-09135A-25/10	_____	_____
MI-09135A-25/11	_____	_____
MI-09135A-35/12	_____	_____

---

**REMARKS:**

# CONTRACT DATA REQUIREMENTS LIST

(1 Data Item)

Form Approved  
OMB No. 0704-0188

The public reporting burden for this collection of information is estimated to average 110 hours per response, including the time for reviewing instructions, searching existing data sources, gathering and maintaining the data needed, and completing and reviewing the collection of information. Send comments regarding this burden estimate or any other aspect of this collection of information, including suggestions for reducing the burden, to Department of Defense, Washington Headquarters Services, Directorate for Information Operations and Reports (0701-0188), 1215 Jefferson Davis Highway, Suite 1204, Arlington, VA 22202-4302. Respondents should be aware that notwithstanding any other provision of law, no person shall be subject to any penalty for failing to comply with a collection of information if it does not display a currently valid OMB control number. Please DO NOT RETURN your form to the above address. Send completed form to the Government Issuing Contracting Officer for the

<b>A. CONTRACT LINE ITEM NO.</b>	<b>B. EXHIBIT</b>	<b>C. CATEGORY:</b> TDP _____ TM _____ OTHER <input checked="" type="checkbox"/>
----------------------------------	-------------------	---

<b>D. SYSTEM/ITEM</b> Truck Forklift 4K, Model 8606	<b>E. CONTRACT/PR NO.</b>	<b>F. CONTRACTOR</b>
--	---------------------------	----------------------

<b>1. DATA ITEM NO.</b> A001	<b>2. TITLE OF DATA ITEM</b> Request For Deviation	<b>3. SUBTITLE</b> Configuration Management
---------------------------------	---	--

<b>4. AUTHORITY (Data Acquisition Document No.)</b> DI-CMAN-80640B	<b>5. CONTRACT REFERENCE</b> SOW Paragraph 3.4.2	<b>6. REQUIRING OFFICE</b> MCLBA (825)
---	---	---

<b>7. DD 250 REQ</b> LT	<b>9. DIST STATEMENT REQUIRED</b> A	<b>10. FREQUENCY</b> ASREQ	<b>12. DATE OF FIRST SUBMISSION</b> SEE BLK 16	<b>14. DISTRIBUTION</b>			
<b>8. APP CODE</b>		<b>11. AS OF DATE</b>	<b>13. DATE OF SUBSEQUENT SUBMISSION</b>	<b>a. ADDRESSEE</b> MCLBA (825-2)	<b>b. COPIES</b>		
					Draft	Final	
						Reg	Repro

<b>16. REMARKS</b> Blk 4 - Contractor format is authorized.  Blks 10 & 12 - RFDs shall be submitted to obtain authorization to deliver nonconforming material which does not meet prescribed configuration documentation.  RFDs will be reviewed and disposition determined within 30 calendar days upon receipt by the Government.  RFDs shall be submitted on a 3.5" disk in ASCII format.  Distribution Statement A: Approved for public release, distribution is unlimited	
	<b>15. TOTAL</b> → 0 1 0

<b>17. PRICE GROUP</b>
<b>18. ESTIMATED TOTAL PRICE</b>

<b>G. PREPARED BY</b> <i>Carol L. [Signature]</i>	<b>H. DATE</b> 3-30-99	<b>I. APPROVED BY</b> <i>[Signature]</i>	<b>J. DATE</b> 4-7-99
--	---------------------------	---	--------------------------

