

# TECHNICAL SPECIFICATION

(OUTLINE SPECIFICATION)

NO. FS-SP-1106

TITLE: LHD VEHICLES (LEASE)  
DIVISION 14 - CONVEYING SYSTEMS  
SUBDIVISION - MATERIAL HANDLING SYSTEMS

APPROVED BY T. McKewon / G. Smith DATE 4/26/88  
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PART ONE - GENERAL

1.1 WORK INCLUDED

This performance specification defines the functional requirements of a rubber tired load haul dump (LHD) unit with an articulated frame equipped with a TBD yard (minimum) bucket.

1.2 REFERENCED PUBLICATIONS

The publications listed below form a part of this specification.

1.2.1 American National Standards Institute (ANSI)

- o B15.1 Safety Standards for Mechanical Power Transmission Apparatus
- o S1.13 Methods for Measurement of Soundpressure Levels

1.2.2 American Society for Testing and Materials (ASTM)

- o D975 Specification for Diesel Fuel Oils

1.2.3 American Welding Society (AWS)

- o D1.1 Structural Welding Code - Steel

1.2.4 California Administrative Code (CAC)

- o Title 8, Chapter and Subchapter 17, Mine Safety Orders
- o Title 8, Chapter and Subchapter 20, Tunnel Safety Orders

1.2.5 Code of Federal Regulations (CFR)

- o Title 30, Part 32, Engine Exhaust Systems (except for 32.4(e)(1) and 32.5(a)(4))
- o Title 30, Part 57, Health and Safety Standards, Metal and Non-metal Underground Mines

1.2.6 National Fire Protection Association (NFPA)

- o NFPA 17, Standard for Dry Chemical Extinguishing Systems

1.2.7 Federal Standard

- o 595A, Colors

1.2.8 Military Specification (MIL SPEC)

- o MIL-P-26916-B, Zinc Chromate Primer

1.2.9 Society of Automotive Engineers (SAE)

- o J726, Fine Dust Test
- o J818, Operating Load for Loaders
- o J1165, Reporting Cleanliness Levels of Hydraulic Fluids

1.3 SYSTEM DESCRIPTION

The system will be used for removing rock from the mine face to the skip loading system. The equipment will pick up load in the bucket, travel a distance of TBD feet, traversing some sharp corners, and dumping its load in the storage bin at the mucking shaft.

1.4 QUALITY ASSURANCE

1.4.1 The Quality Assurance Level Assignment for the LHD is III.

1.4.2 The Lessor shall have an approved Quality Assurance program.

PART TWO - PRODUCTS

2.1 MATERIALS (N/A)

2.2 EQUIPMENT

2.2.1 Self Propelled Load, Haul and Dump Vehicle

- o Engine
- o Maximum Dimensions
- o Standard Cab Controls
- o Transmission
- o Hydraulic Requirements
- o Canopy Requirements
- o Fire Suppression System
- o Tires
- o Lights
- o Bucket Requirements
- o Bucket Hydraulics - Safety Check Valve
- o Exhaust Requirements
- o Personnel Protection Requirements - Heat and Moving Parts
- o Maintenance Requirements
- o Data Requirements
- o Identification Requirements
- o Painting Requirements

PART THREE - EXECUTION

- 3.1 Perform surface check of all system components.
- 3.2 Disassemble LHD for transfer down shaft.
- 3.3 Transport to Main Test Level.

- 3.4 Reassemble LHD and service unit per manufacturers operations and maintenance instructions.
- 3.5 Inspect LHD to satisfy all performance and safety requirements per applicable codes and standards.