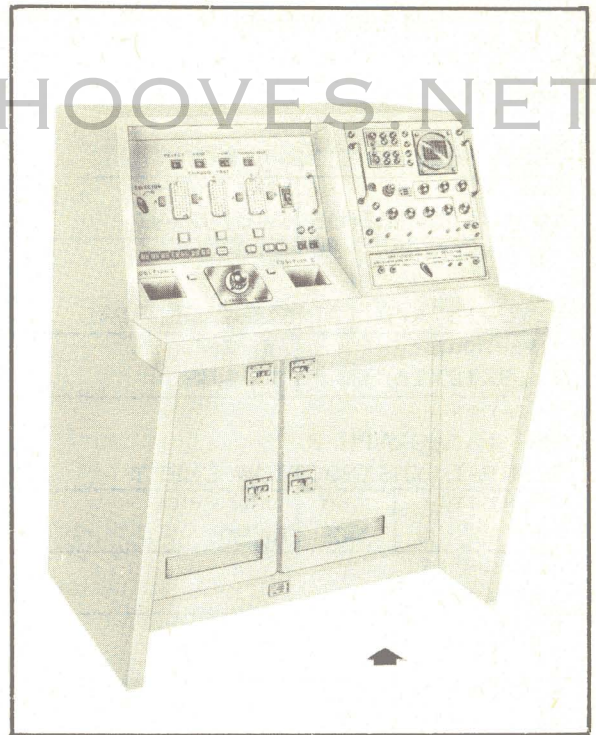


NOMENCLATURE		
TEST SET, COMPUTER		
FSN 4935-788-9915		PART NO. 207373
TYPE/MODEL NO.	MFRS NAME	
NA	REMINGTON-RAND	
DIMENSIONS 48X36X60 IN		WEIGHT 700 LBS
LOCATION SEE PARAGRAPH 2 GENERAL INSTRUCTION SHEET		
QUANTITY 6	COND 0-2	UNIT PRICE \$60,000
TECH ORDER 33D9-38-5-4		
DISCONNECT T 2 HRS	SPEC TOOLS/EQUIP LIFT/DOLLY	
REMOVAL TIME 1 HR	SPEC SKILLS ELECTRONIC TECH	



TECHNICAL DESCRIPTION

Test Set, Electronic circuit, plug-in unit, power input 115 volts 60 CPS. Tester will indicate condition of sealed chassis as either "Good" or "Reject." This unit consists of inverters, generators, amplifiers, oscillators and an oscilloscope.

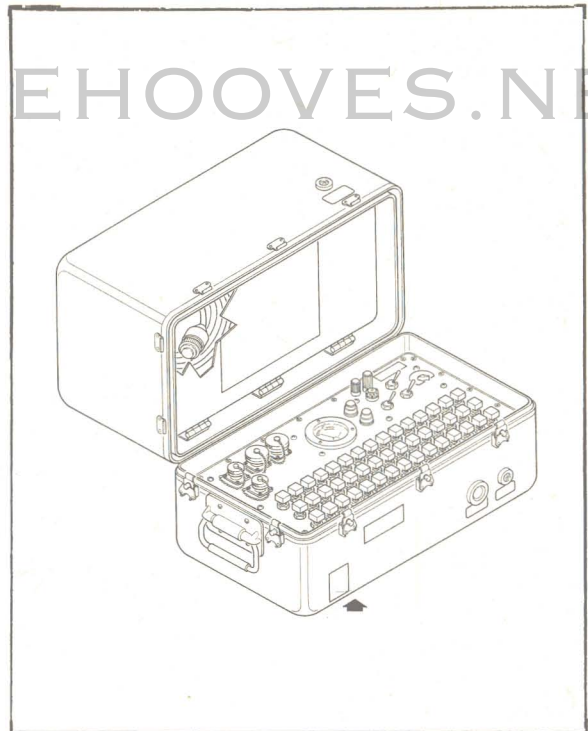
FUNCTIONAL DESCRIPTION

The chassis tester is a self-contained unit for quickly determining the readiness status of individual guidance computer plug-in chassis, either during routine preventive maintenance or corrective maintenance. Chassis are removed from the computer or from storage and inserted into jacks in the left panel of the tester. A rotary switch chooses internal circuitry to simulate operating conditions for the given chassis type; patch plugs on the right panel and switching plug-in assemblies provide further flexibility and speed in changing supply and load conditions. A built-in oscilloscope allows for waveform analysis.

ITEM NUMBER

174

NOMENCLATURE		
TEST SET, ENGINE ELECTRICAL		
FSN *	PART NO. *	
4935-476-3810AE	240732-9	
TYPE/MODEL NO.	MFRS NAME	
*TTU-167A/E	AEROJET GENERAL	
DIMENSIONS	WEIGHT	
21.5X12X16 IN	30 LBS	
LOCATION		
SEE PARAGRAPH 2		
GENERAL INSTRUCTION SHEET		
QUANTITY	COND	UNIT PRICE
13	0-2	\$650
TECH ORDER		
33D9-5-20-1, -4		
DISCONNECT T	SPEC TOOLS/EQUIP	
NA	NONE	
REMOVAL TIME	SPEC SKILLS	
NA	NONE	



*Quantity includes 4935-979-9826AE, Part No. 240732-29, Type No TTU-167A/E, 5 each; 4935-979-9827AE, Part No. 240733-39, Type No. TTU-184/E, 6 each, and 4935-476-3815AE, Part No. 240733-9, Type No. TTU-117/E, 1 each, which are similar.

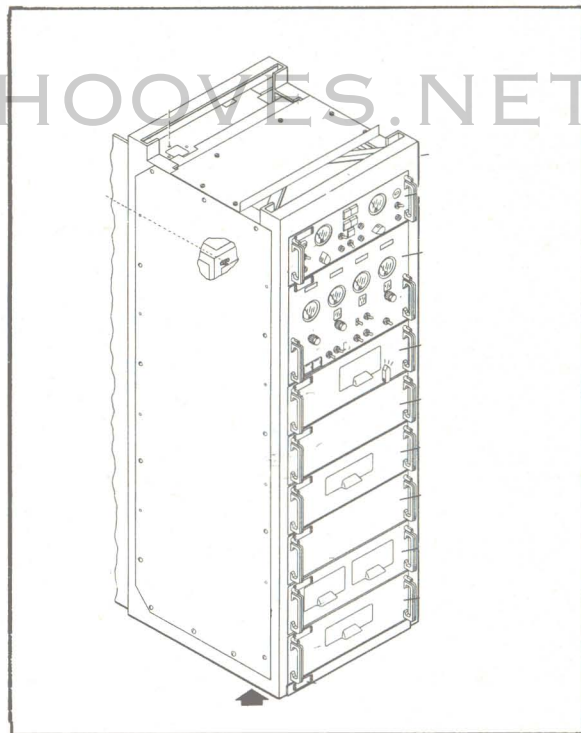
TECHNICAL DESCRIPTION

Rocket engine electrical circuit test set. Power requirements: 115VAC \pm 5V, 60 CPS, single Ph. Contains two jacks to which resistor decade boxes are connected to calibrate the set; one 5 A fuse; operate multiplier switch with meter ranges of OPR, X1, X10, X100 and X1000; one 0 to infinity direct reading ohmmeter; 30 pushbutton switches which connect circuits to meter, resistance limits labeled on pushbuttons; 14 spare switches (P/Ns 240733-9 and -39 have 40 pushbutton switches and 3 spare switches); and one pushbutton used for insulation resistance tests. The test set comes complete with 8 special purpose cable assemblies used during operation and calibration. These checkers contain two circuits, resistance (ohmmeter) test circuit and an isolation test circuit. Circuits are patch arranged, using taper pin connections.

FUNCTIONAL DESCRIPTION

Unit is portable instrument used for performing electrical resistance and isolation resistance tests to airborne electrical harnesses on Titan I Rocket Engines. Engine types LR87-AJ-3 and LR91-AJ-3.

NOMENCLATURE		
TEST SET, GUIDED MISSILE		
FSN * 4935-974-4994AE		PART NO. * GS58950B
TYPE/MODEL NO. NA	MFRS NAME WECO	
DIMENSIONS 24X26X68 IN		WEIGHT 450 LBS
LOCATION SEE PARAGRAPH 2 GENERAL INSTRUCTION SHEET		
QUANTITY 6	COND 0-2	UNIT PRICE \$100,000
TECH ORDER 33D9-3-48-4		
DISCONNECT T NA	SPEC TOOLS/EQUIP NONE	
REMOVAL TIME 1/4 HR	SPEC SKILLS ELECT TECHNICIAN	



*Quantity includes 4935-790-1664AE, Part No. GS58950A, and 4935-856-1579, Part No. GS58950 which are similar.

TECHNICAL DESCRIPTION

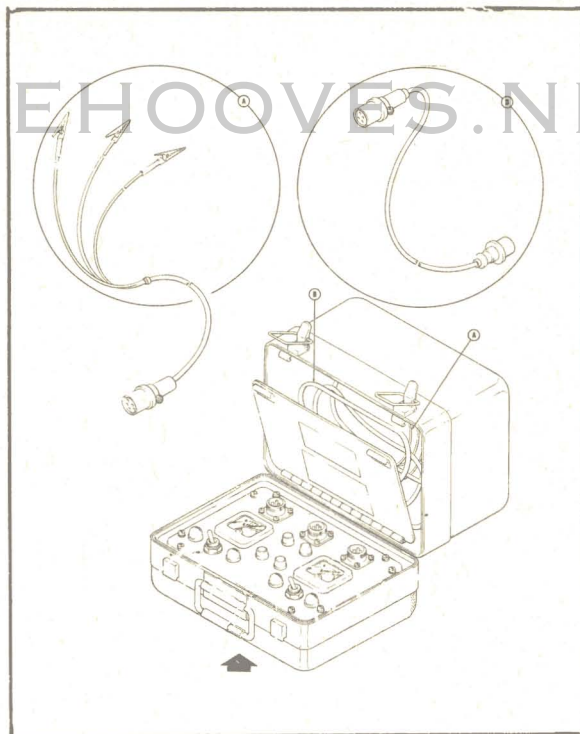
Test Set, Guided Missile (Rime Checkout Set) Power requirements are: 3 Ph, 4 wire system, neutral grounded source with 200 watts per Ph from 400 Cy, 120/208 V source single Ph 400 Cy 120 V, 300 watts; 28 V DC supply load unknown. (Operational) (PNS)

FUNCTIONAL DESCRIPTION

Provides means of making complete checkout tests of the Missile Borne Guidance Equipment, including measurement of operating margins and methods whereby faulty operation can be localized to a particular missile borne package, i.e., a receiver, transmitter, or decoder.

ITEM NUMBER
217

NOMENCLATURE		
TEST SET, LAUNCHER ELECTRICAL		
FSN 4935-886-8997AE		PART NO. 59-209-1695
TYPE/MODEL NO. NA		MFRS NAME AM&F
DIMENSIONS 11X10X8 IN		WEIGHT 50 LBS
LOCATION SEE PARAGRAPH 2 GENERAL INSTRUCTION SHEET		
QUANTITY 7	COND 0-2	UNIT PRICE \$350
TECH ORDER NA		
DISCONNECT T NA		SPEC TOOLS/EQUIP NONE
REMOVAL TIME NA		SPEC SKILLS NONE



TECHNICAL DESCRIPTION

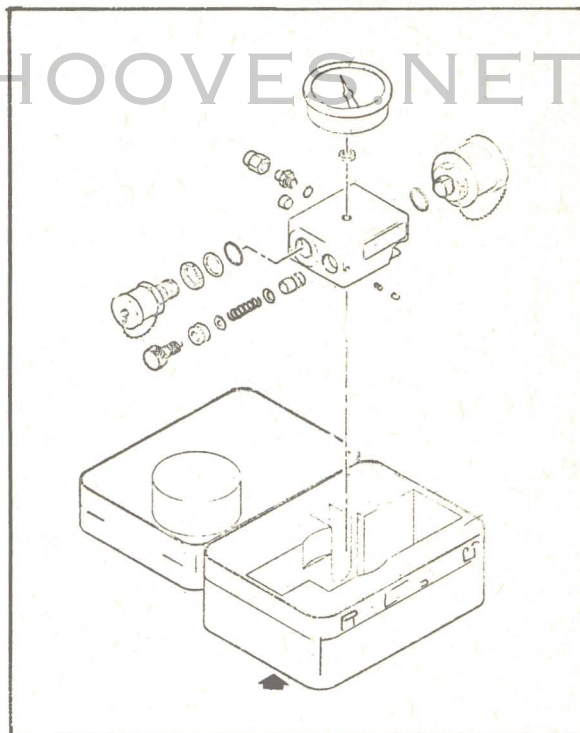
Test Set, Electrical Circuit, Guided Missile Launcher: Aluminum Box with (2) Ammeters (2202), (4) Panel Light Assemblies. (101-5030-976 and 972), and (4) cables with alligator clips attached, and power input cable. Input power requirements 28 volts direct current; Output power 28 volts direct current.

FUNCTIONAL DESCRIPTION

A remote switching device for activating solenoids when desirable to operate a system contrary to logic circuitry. It is used for trouble shooting. Attachment rings provided in Control Box are used to secure box to structure to permit operator to perform tests in precarious locations of Launcher System. Equipment is a locally controlled electrical switching device to permit bypassing silo circuitry in order to actuate electrical solenoid controlled hydraulic operated valves in the upper and lower silo door opening and closing sequences. This device is used to make adjustments to the timing of the door opening and closing sequences and to isolate circuit or valve faults.

ITEM NUMBER
216

NOMENCLATURE TEST SET, MANIFOLD PRESSURE, HYDRAULIC		
FSN 4935-864-2122AE		PART NO. 327N1760000-009
TYPE/MODEL NO. TTU-156/E		MFRS NAME MARTIN COMPANY
DIMENSIONS NA		WEIGHT NA
LOCATION SEE PARAGRAPH 2 GENERAL INSTRUCTION SHEET		
QUANTITY 7	COND 0-2	UNIT PRICE \$2,500
TECH ORDER 33DA36-79-3		
DISCONNECT T NA	SPEC TOOLS/EQUIP NONE	
REMOVAL TIME NA	SPEC SKILLS NONE	



TECHNICAL DESCRIPTION

Operates on pressure of 80 PSIG, proofs at 120 PSIG. Has a dial pressure gage and quick disconnect couplings.

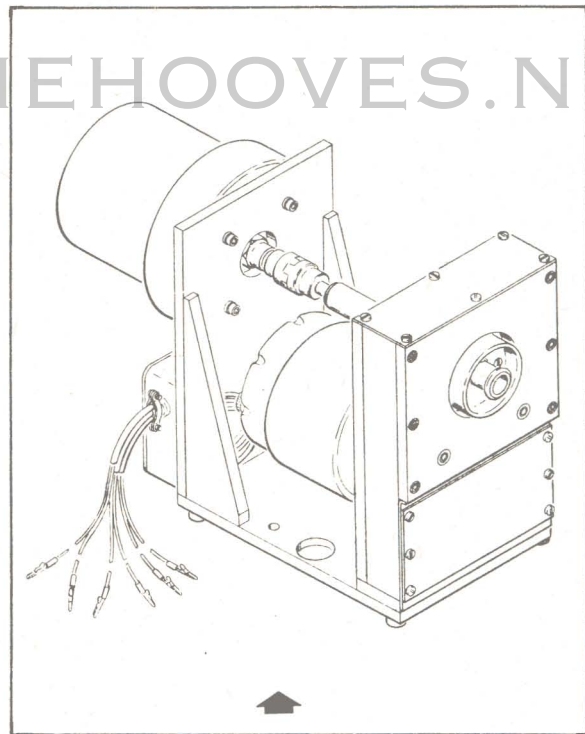
FUNCTIONAL DESCRIPTION

Portable Test Unit in metal box. Used to proof pressure test missile hydraulic return system in Titan I system.

ITEM NUMBER

209

NOMENCLATURE		
TEST SET OVERSPEED GOVERNOR		
FSN 4935-821-9315		PART NO. 59-209-1167
TYPE/MODEL NO.	MFRS NAME	
NA	AM&F	
DIMENSIONS 12X11X8 IN		WEIGHT 100 LBS
LOCATION SEE PARAGRAPH 2 GENERAL INSTRUCTION SHEET		
QUANTITY 4	COND 0-2	UNIT PRICE \$3,000
TECH ORDER 35M29-3-3		
DISCONNECT T NA	SPEC TOOLS/EQUIP DOLLY	
REMOVAL TIME NA	SPEC SKILLS NONE	



TECHNICAL DESCRIPTION

Motor driven gear assy contains 1/4 HP synchronous split phase 115 VAC 60 Cy motor, 1800 RPM driven gear assy, idler gear assy, 3 sets of 3 conductor test cables with alligator clamps attached. Putput RPM is either 1475 or 1525. The instrument panel is provided with 3 pilot lights, motor on-off switch, light on-off switch. 28VDC lead 3 pin connector and 115 VAC 3 pin connector. This test set is manufactured from oilite, steel, aluminum, and corrosion resistant steel.

FUNCTIONAL DESCRIPTION

Used to test the overspeed limit switches on the overspeed governor. The governor is designed to allow 3 settings so that the governor will trip or cut off at a desired speed.

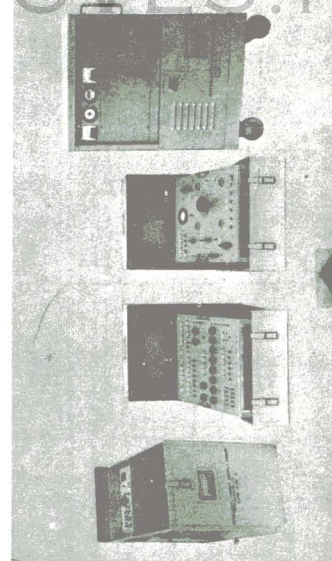
ITEM NUMBER

207

NOMENCLATURE

TEST SET, POWER SUPPLY

FSN		PART NO.	
4935-812-0384AE		210301	
TYPE/MODEL NO.		MFRS NAME	
AN/PSM-16		REMINGTON RAND UNIVAC	
DIMENSIONS		WEIGHT	
30X30X40 IN		500 LBS	
LOCATION			
SEE PARAGRAPH 2			
GENERAL INSTRUCTION SHEET			
QUANTITY	COND	UNIT PRICE	
6	0-2	\$17,000	
TECH ORDER			
31X7-23-4-4			
DISCONNECT T		SPEC TOOLS/EQUIP	
NA		NONE	
REMOVAL TIME		SPEC SKILLS	
NA		NONE	



TECHNICAL DESCRIPTION

Consists of the following units: Power Supply (interconnection drawers) Test Set 208V AC, 420 cycle, 3 phase. Test set, control-monitor, TS-1418/PSM-16 (Voltage Sensor, Sequencer and MG Zener diode reference testing unit, capacitor reforming unit). Test Set Power Supply SX-1417/PSM-16 (DC power supply and absorber unit) self-contained in individual trunk type cabinets equipped with carrying handles. Motor-Generator PU-494/PSM-16 self-contained portable, 60 cycle single phase 110V input and 208V 420 cycle, 3 phase output.

FUNCTIONAL DESCRIPTION

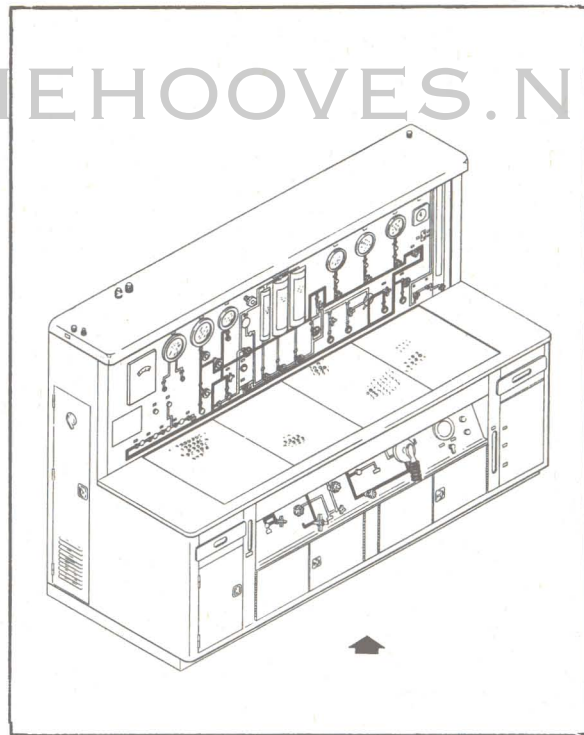
Power source for performance of various tests on the Computer components.

ITEM NUMBER

198

WWW.CHRO

NOMENCLATURE		
TEST STAND		
FSN		PART NO.
4935-790-9852AE		327M1510000-009
TYPE/MODEL NO.		MFRS NAME
NA		MARTIN COMPANY
DIMENSIONS		WEIGHT
140X48X80 IN		NA
LOCATION		
SEE PARAGRAPH 2		
GENERAL INSTRUCTION SHEET		
QUANTITY	COND	UNIT PRICE
6	0-2	\$31,600
TECH ORDER		
33D9-4-9-1 and -4		
DISCONNECT T	SPEC TOOLS/EQUIP	
4 HRS	FORK LIFT	
REMOVAL TIME	SPEC SKILLS	
2 HRS	PNEU-HYDR MECHS	



TECHNICAL DESCRIPTION

Self contained bench type test stand containing five operating systems: Hydraulic, Hydraulic Filtration, Water Cooling, Electrical and Nitrogen with pressure gauges, Flow-meters, pressure regulators, adapters, quick-disconnect fitting and operational timer. Operates on 460 (+23)V AC, 3 phase, 60 CPS, 100 KVA. For the 75 HP motor also has provisions for 115V AC and 28V DC. 0-38 GPM Flow of fluid at 5000 PSI. Hand pump delivers 25,000 PSIG for static tests. Meters over 600 PSI have snubbers. Government type AF42T1.

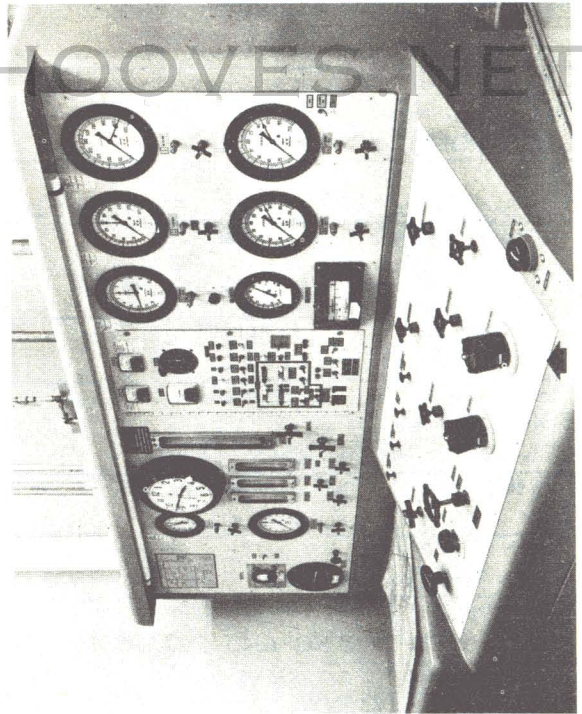
FUNCTIONAL DESCRIPTION

Designed to test the operation of missile airborne and ground operating equipment hydraulic system components under simulated operating conditions.

ITEM NUMBER

195

NOMENCLATURE		
TEST STAND, CRYOGENIC SYSTEMS		
FSN		PART NO.
4935-788-2569AE		327M1590000-029
TYPE/MODEL NO.		MFRS NAME
A/F99T-3 (XC-1)		MARTIN COMPANY
DIMENSIONS		WEIGHT
96X48X78 IN		4000 LBS
LOCATION		
SEE PARAGRAPH 2 GENERAL INSTRUCTION SHEET		
QUANTITY	COND	UNIT PRICE
1	0-2	\$114,472
TECH ORDER		
33D9-122-2-1		
DISCONNECT T	SPEC TOOLS/EQUIP	
2 HRS	CRANE	
REMOVAL TIME	SPEC SKILLS	
4 HRS	ELEC & PIPE FTR MECH	



TECHNICAL DESCRIPTION

Test Stand, Cryogenic System Components, a self-contained console type, welded steel construction, w/vertical and sloping control panels, test chamber w/observation window, vent system, work table and storage facilities for fixtures, adapters and tools. Input power voltage, 115 volts, AC 60 cps, single phase; Power consumption, 10 amps. Pneumatic input, gaseous nitrogen (GN2), liquid nitrogen (LN2), vacuum supply; input pressure 2250 PSIG (GN2), 0 to 150 PSIG (LN2); 500 microns of Hg (max) at ambient temperature; flow rate 125 scfm (GN2) and 5 gpm (LN2). A 50 gallon LN2 storage tank is provided; relief pressure valve operates at 171.5 PSIG. Red indicator lamps for filter obstruction, test chamber door interlock and vent system are provided as safety features.

FUNCTIONAL DESCRIPTION

Is designed to use liquid nitrogen (LN2), gaseous nitrogen (GN2), and a vacuum system to test airborne missile components and ground support equipment components for minimum performance standards. The stand also used LN2 and GN2 and an electrical system to simulate operating conditions of the cryogenic components. The electrical system actuates solenoid operated valves, and monitors the performance of components under test. It also provides safety and self-check features within the test stand. The stand also may be used to test vacuum valves for vacuum tightness.

ITEM NUMBER

223

NOMENCLATURE		
TEST STAND, ELECTRONIC EQUIPMENT		
FSN		PART NO.
4935-897-6436AE		327N1810000-019
TYPE/MODEL NO.		MFRS NAME
NA		MARTIN COMPANY
DIMENSIONS		WEIGHT
48X66X73 IN		NA
LOCATION		
SEE PARAGRAPH 2		
GENERAL INSTRUCTION SHEET		
QUANTITY	COND	UNIT PRICE
11	0-2	\$72,000
TECH ORDER		
33D9-123-2-1,2,3		
DISCONNECT T	SPEC TOOLS/EQUIP	
NA	SLING AND DOLLY	
REMOVAL TIME	SPEC SKILLS	
NA	ELECT TECHNICIAN	



TECHNICAL DESCRIPTION

The electronic equipment test stand is a console type maintenance bench composed of the following chassis:

Power Distribution--Located at the rear of the test stand. Power sources are 115 volts AC 400 CPS, 3 phase, 115 volts AC, 60 CPS, 3 phase, and 28 VDC.

Power Control--Adjust the voltages from the Power Distribution to the required test levels.

Signal Control Chassis--Establishes test set up and signal flow to the desired unit under test.

Patch Panel Indicator--Contains eight digital read out units and associated hardware. Used to verify condition of test.

Special Inputs Chassis--Allows external signals to be injected into unit under test.

Special Loads Nr 1 and 2--Consists of circuit breakers and load resistor to simulate external loading to unit under test.

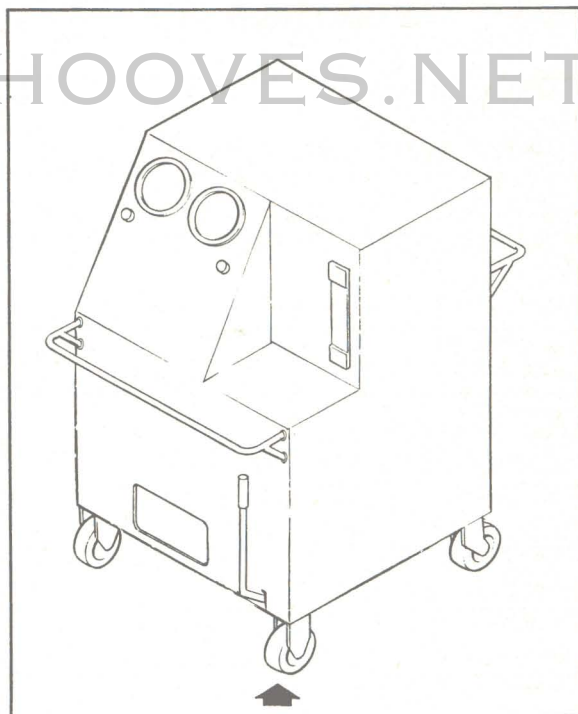
FUNCTIONAL DESCRIPTION

The electronic equipment test stand is used to test (check out and trouble shoot) chassis, modules, and printed circuit boards of the aerospace ground equipment. Each chassis to be tested is connected to the test stand by adapter cables supplied with the test stand. Each module and printed circuit board to be tested is connected to the test stand through an interconnecting box and adapter cable. The test stand thus provides a convenient means of isolating malfunctions while the component is operating under simulated normal conditions.

ITEM NUMBER

169

NOMENCLATURE		
TEST STAND, HYDRAULIC		
FSN 4935-082-8975AE		PART NO. 59-209-1227
TYPE/MODEL NO.	MFRS NAME	
NA	AM&F	
DIMENSIONS SEE BELOW		WEIGHT NA
LOCATION SEE PARAGRAPH 2 GENERAL INSTRUCTION SHEET		
QUANTITY 6	COND 0-2	UNIT PRICE \$3,258
TECH ORDER NA		
DISCONNECT T NA	SPEC TOOLS/EQUIP NONE	
REMOVAL TIME NA	SPEC SKILLS NONE	



TECHNICAL DESCRIPTION

Test Stand, Hydraulic System Components: Consists of an aluminum cabinet 37.50 IN lg by 35.50 IN w by 57.50 IN h, mounted on four (4) 6 IN diameter swivel casters. The following controls and monitoring devices are included: Pressure Relief Valve 227-1253-2; Pressure Gage 227-1002 and Gage 227-1002 and -3; Pressure Indicator 59-209-1525; Flow Control Valves 227-1025, -2 and -3; Selector Valve 59-209-1524 and 59-209-1523; Flowmeter 59-209-1281; Check Valve 227-1010; Hand Pump 59-209-1526; and hose assembly 227-1182-0180, 227-1182-600, 227-2108-6000. It operates on 440V/AC 60 Cy, 3 Ph current.

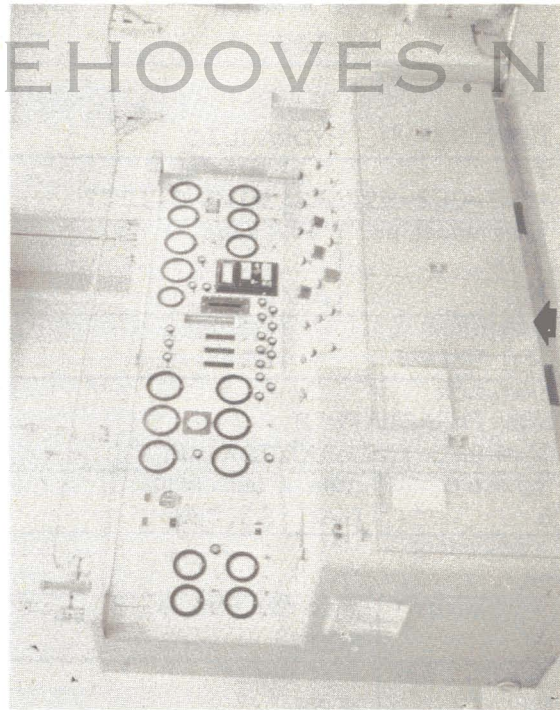
FUNCTIONAL DESCRIPTION

Used to adjust "in place" and "remove to calibrate" items of OGE, utilizing Multimeter. Test Set is connected to item being calibrated, and will regulate hydraulic flow, utilizing system hydraulic supply w/partial power pack operation, which can be controlled to comply w/control specifications and adjustment requirements. Due to the "in place calibration" advantages of this unit, considerable time is saved, lessening "down time". This unit will eliminate the removal of multiple cabling in conduit from the end item to the junction box when removing calibration items. Removing it would require new cabling being fitted and potted prior to reinstallation. Contamination of system is lessened.

ITEM NUMBER

193

NOMENCLATURE		
TEST STAND, PNEUMATIC		
FSN 4935-784-8771AE		PART NO. 327M152000-009
TYPE/MODEL NO.	MFRS NAME	
AF 47T-1	MARTIN COMPANY	
DIMENSIONS 126X48X80 IN	WEIGHT 4,200 LBS	
LOCATION SEE PARAGRAPH 2 GENERAL INSTRUCTION SHEET		
QUANTITY 5	COND 0-2	UNIT PRICE \$43,010
TECH ORDER 33D9-31-10-1		
DISCONNECT T NA	SPEC TOOLS/EQUIP LIFT/DOLLY	
REMOVAL TIME NA	SPEC SKILLS NONE	



TECHNICAL DESCRIPTION

Access to the interior areas are provided by front and rear doors. Controls, gages and indicating devices are mounted on the sloping panel and vertical panel on the front of the test stand. Electrical controls are located on the electrical box control panel. Emergency shut-off switches are located on the sloping panel and the cabinet. Test cell contains reservoirs, ullage tanks, and related components. The cell is approximately 66 in. long, 58 in. wide, 55 in. high and weighs approximately 3500 pounds. The top plate or mounting plate is equipped with threaded inserts for the mounting of various components to be tested. Three ullage tanks, 1.0 cubic foot GN2 reservoir, 1.5 cubic foot HE reservoir, 100 cubic in. reservoir and 1.5 cubic foot GN2 reservoir function as accumulators. The test stand requires two sources of electrical power, 28 VDC and 115V, 60 CPS, single-phase.

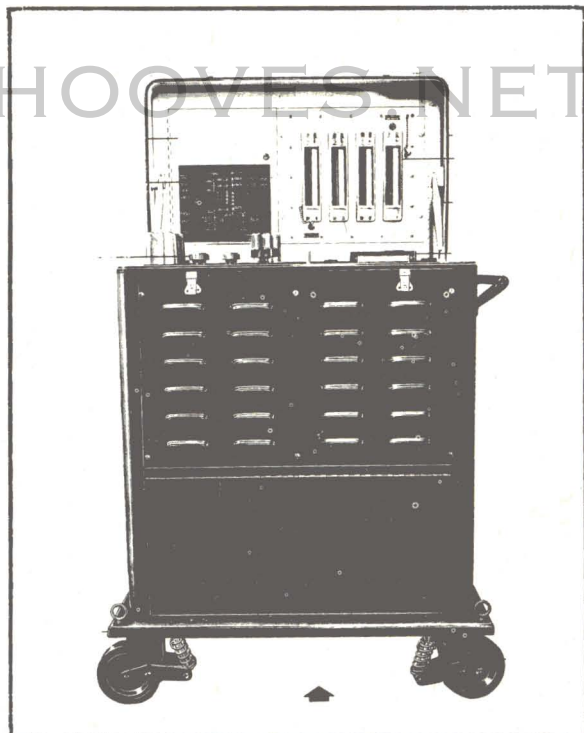
FUNCTIONAL DESCRIPTION

The pneumatic system components test stand provides a means of testing under simulated conditions, the operation of various types of components removed from the pneumatic system of missile airborne and ground support equipment. The test stand is limited to the testing of pneumatic components requiring cleanliness for liquid oxygen service.

ITEM NUMBER

236

NOMENCLATURE		
TESTER, RECORDER		
FSN 4935-979-9831AE		PART NO. 1-239804-19
TYPE/MODEL NO.	MFRS NAME	
A/M 46T-2	AEROJET GENERAL	
DIMENSIONS 35X25X48 IN	WEIGHT 400 LBS	
LOCATION SEE PARAGRAPH 2 GENERAL INSTRUCTION SHEET		
QUANTITY 6	COND O-2	UNIT PRICE \$18,925
TECH ORDER 33D9-104-4-1 & -4		
DISCONNECT T NA	SPEC TOOLS/EQUIP NONE	
REMOVAL TIME NA	SPEC SKILLS NONE	



TECHNICAL DESCRIPTION

Hydraulic System: Pressurizing medium - RP1 Fuel
 Capacity - 2.5 gallons
 Proof test pressure 3000 PSIG
 Operating Range 350 to 600 PSIG

Pneumatic System: Pressurizing medium Nitrogen (dry)
 Proof test pressure 3000 PSIG
 Operating Range 15 to 750 PSIG

Electrical System: AC 115 \pm 5 volts, 60 CPS
 DC 28 \pm 3 volts

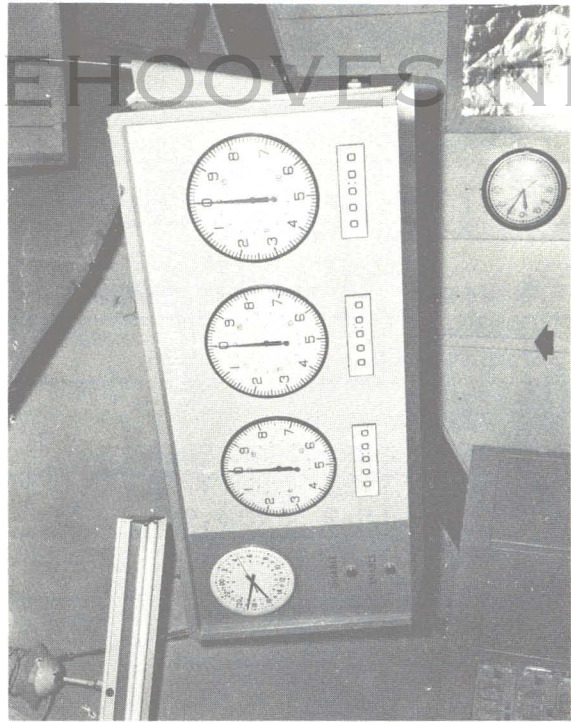
FUNCTIONAL DESCRIPTION

The Tester-Recorder is used to leak check and functionally test the propellant system of either the LR87-AJ-3 or LR91-AJ-3 Rocket Engine. A single control panel is used to perform tests for either rocket engine and a two-channel analog recorder provides a permanent record of each test.

ITEM NUMBER

16

NOMENCLATURE		
TIME DISPLAY BOARD		
FSN 1440-819-3279AE		PART NO. 327N4905000-009
TYPE/MODEL NO. A/E 37J-1 (XC-1)		MFRS NAME MARTIN CO
DIMENSIONS 4X6 FT		WEIGHT 75 LBS
LOCATION SEE PARAGRAPH 2 GENERAL INSTRUCTION SHEET		
QUANTITY 6	COND 0-2	UNIT PRICE \$6,571
TECH ORDER NA		
DISCONNECT T 1/2 HR	SPEC TOOLS/EQUIP NONE	
REMOVAL TIME 1/2 HR	SPEC SKILLS ELECTRICIAN	



TECHNICAL DESCRIPTION

Time display board is an assembly of seven clocks mounted on a 4 X 6 Ft board, one 24 hour military clock, three 1,000 second countdown time clocks, three digital hold time indicators.

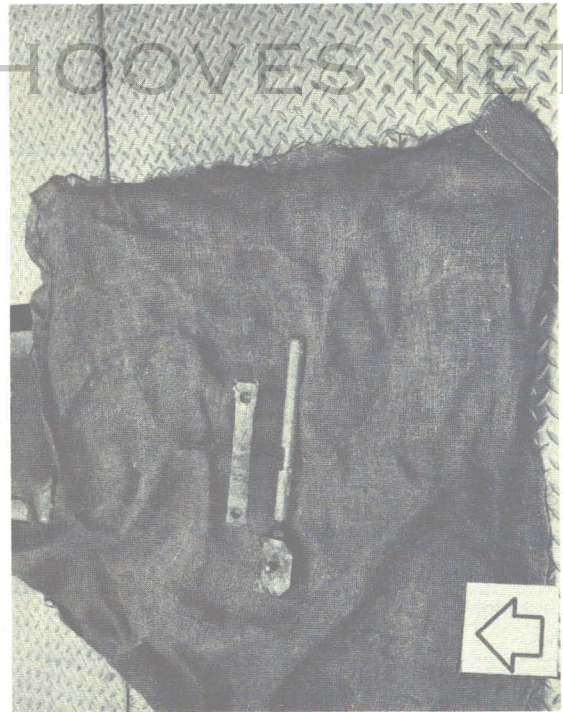
FUNCTIONAL DESCRIPTION

Clocks provide continuous indication of local time, launch start and sequence time, and hold points in launch sequence when launch is restarted.

ITEM NUMBER

256

NOMENCLATURE		
TOOL, ADJUST		
FSN 5120-019-7042		PART NO. 8042 - 0005
TYPE/MODEL NO. NA	MFRS NAME NORDBERT MFG CO	
DIMENSIONS 18X2 IN	WEIGHT 10 LBS	
LOCATION SEE PARAGRAPH 2 GENERAL INSTRUCTION SHEET		
QUANTITY 6	COND 0-2	UNIT PRICE \$185
TECH ORDER NA		
DISCONNECT T NA	SPEC TOOLS/EQUIP NONE	
REMOVAL TIME NA	SPEC SKILLS NONE	



TECHNICAL DESCRIPTION

This item is a portable, hand operated hydraulic pump capable of producing 20,000 PSIG hydraulic pressure. Has pressure gauge and flexible line attached. The operational characteristics are those of a 10 ton hydraulic jack. It is also used to stretch the head studs on the Nordberg engine and to remove and replace the timing gears of this engine. This unit is commonly known as a "porto power", used extensively in automobile body shops.

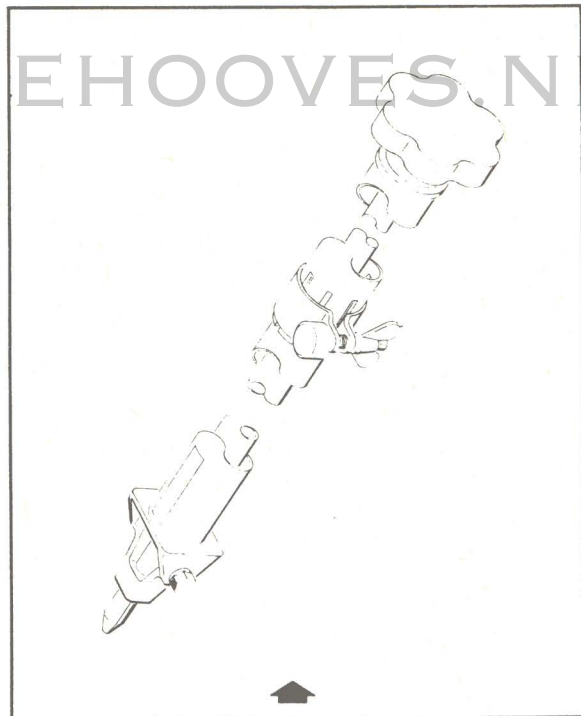
FUNCTIONAL DESCRIPTION

Used to advance and retard cams to obtain maximum firing pressure in diesel engines. (Nordberg).

ITEM NUMBER

253

NOMENCLATURE		
TOOL HOOK, INSTALLATION		
FSN 5120-NC541099M		PART NO. 59-209-9059
TYPE/MODEL NO.	MFRS NAME	
NA	AM&F	
DIMENSIONS 1.25X120 IN		WEIGHT 20 LBS
LOCATION SEE PARAGRAPH 2 GENERAL INSTRUCTION SHEET		
QUANTITY 21	COND 0-2	UNIT PRICE \$200
TECH ORDER 35M3-2-4-14		
DISCONNECT T NA	SPEC TOOLS/EQUIP NONE	
REMOVAL TIME NA	SPEC SKILLS NONE	



TECHNICAL DESCRIPTION

Aluminum Tubing, crimped, 1-1/4 in diameter X 120 IN length with aluminum slotted bar 4 IN long attached at one end by screw and wing nut to permit universal adjustment of bar.

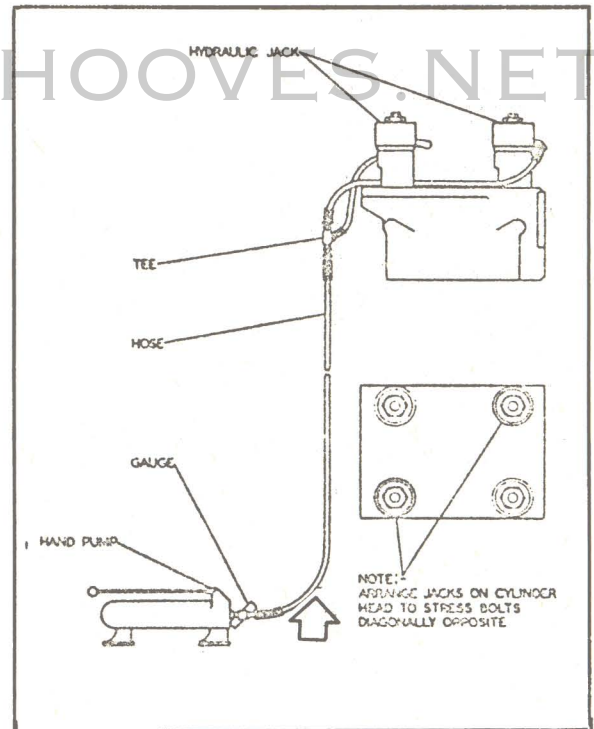
FUNCTIONAL DESCRIPTION

Permits safe method for attaching hooks at various levels from inside. Required to attach silo wall hooks to unistrols in silo wall.

ITEM NUMBER

263

NOMENCLATURE		
TOOL, STRESSING		
FSN 5120-472-9261		PART NO. 9181-0015
TYPE/MODEL NO. NA	MFRS NAME NORDBERG MFG, CO	
DIMENSIONS 24X6X3 IN	WEIGHT 10 LBS	
LOCATION SEE PARAGRAPH 2 GENERAL INSTRUCTION SHEET		
QUANTITY 10	COND 0-2	UNIT PRICE \$1,704
TECH ORDER 35R1-151-4 & 35A2-5-21-3		
DISCONNECT T NA	SPEC TOOLS/EQUIP NONE	
REMOVAL TIME NA	SPEC SKILLS NONE	



TECHNICAL DESCRIPTION

Consists of 1 hydraulic pressurizing unit with calibrated gauges capable of delivering 20,000 PSIG, 2 hydraulic jacks with special adapters for obtaining 4,000 to 7,000 PSIG, 1 long hose, 1 tee fitting and 2 short hoses.

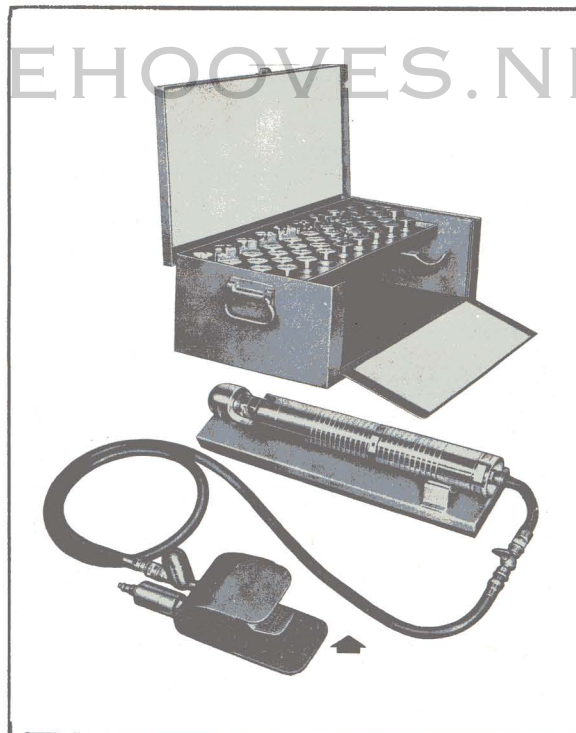
FUNCTIONAL DESCRIPTION

Unit is required to stretch the diesel engine, cylinder head studs during cylinder head installation and for tightening of the head nuts to the correct torque.

ITEM NUMBER

265

NOMENCLATURE		
TOOL, SWAGING		
FSN 5120-529-4979		PART NO. NA
TYPE/MODEL NO.	MFRS NAME	
PORTABLE	KEARFOTT	
DIMENSIONS 31X7X6.6 IN		WEIGHT 66 LBS
LOCATION SEE PARAGRAPH 2 GENERAL INSTRUCTION SHEET		
QUANTITY 6	COND 0-2	UNIT PRICE \$645
TECH ORDER NA		
DISCONNECT T NA	SPEC TOOLS/EQUIP NONE	
REMOVAL TIME NA	SPEC SKILLS NONE	



TECHNICAL DESCRIPTION

Swaging tool, flexible cable terminal: Portable type; range ball swaging tool 1/16 to 1/8 in. cable size; range sleeve type swaging roll 1/16 to 3/16 in. cable size. Spec MIL-S-6180 type 1.

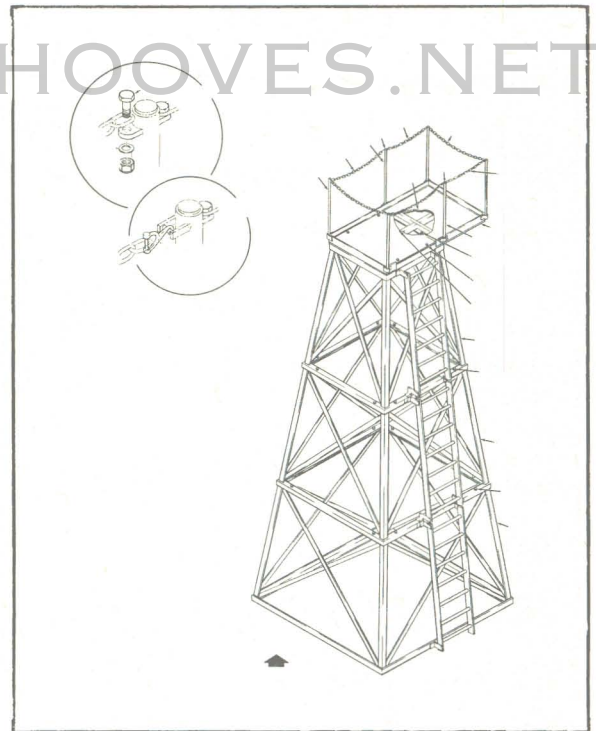
FUNCTIONAL DESCRIPTION

This tool is necessary to facilitate the changing of lanyards used on the nitrogen, helium stir conditioner and hydraulic ground half quick disconnect. The swaged balls are AN664 type single shank and are to fit 1/16, 3/32 and 1/8 dis. steel cable when changing these lanyards.

ITEM NUMBER

81

NOMENCLATURE		
TOWER ASSEMBLY, FRAME ALIGNMENT		
FSN 1450-807-1123AE		PART NO. 59-209-1191
TYPE/MODEL NO.	MFRS NAME	
NA	AM&F	
DIMENSIONS SEE BELOW		WEIGHT 3,100 LBS
LOCATION SEE PARAGRAPH 2 GENERAL INSTRUCTION SHEET		
QUANTITY 4	COND 0-2	UNIT PRICE \$5,749
TECH ORDER 21M-HGM25A-2-2-1		
DISCONNECT T NA	SPEC TOOLS/EQUIP NONE	
REMOVAL TIME NA	SPEC SKILLS NONE	



TECHNICAL DESCRIPTION

Tower Assembly Data:

Dimensions: 23 Ft high, 8 Ft sq, bottom 4 Ft sq top.

Operational Use: Provides access and work area for level and alignment operations.

Material Used: Aluminum welded and bolted.

Configuration: Pylon type.

Platform Material: Aluminum

Work Area: 4X6 Ft.

Safety Features: Safety chain, all sides, 40 IN above platform.

No. of Sections: 3

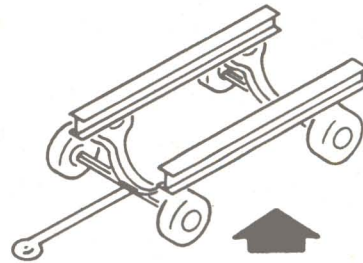
FUNCTIONAL DESCRIPTION

Tower is used as a base in conjunction with Kit, Alignment "A" frame AMF P/N 59-209-1191. The alignment kit and tower are used together to align and level the "A" frame and missile release mechanisms.

ITEM NUMBER

24

NOMENCLATURE		
TRAILER, ENGINE		
FSN *1450-726-1119AC		PART NO. 106051
TYPE/MODEL NO.	MFRS NAME	
NA	AIR LOGISTICS CORP	
DIMENSIONS 152X96X30 IN		WEIGHT 725 LBS
LOCATION SEE PARAGRAPH 2 GENERAL INSTRUCTION SHEET		
QUANTITY 14	COND 0-2	UNIT PRICE \$3,063
TECH ORDER 2K-LR91-14		
DISCONNECT T NA	SPEC TOOLS/EQUIP NONE	
REMOVAL TIME NA	SPEC SKILLS NONE	



*Quantity includes 1450-NC750431RAC which is similar.

TECHNICAL DESCRIPTION

Trailer consists of two (2) parallel rails mounted on four (4) wheels with a base of 90 inches. It can be towed at speeds up to 25 mph. Used for LR87-AJ-3 and LR91-AJ-3 rocket engines. Equipped with individually operated parking brakes. Bracket provide a means of stowing for towbar. Rail height from ground is 30 inches. Load capacity is 3000 lbs. Tire size is 750 x 10, 6 ply.

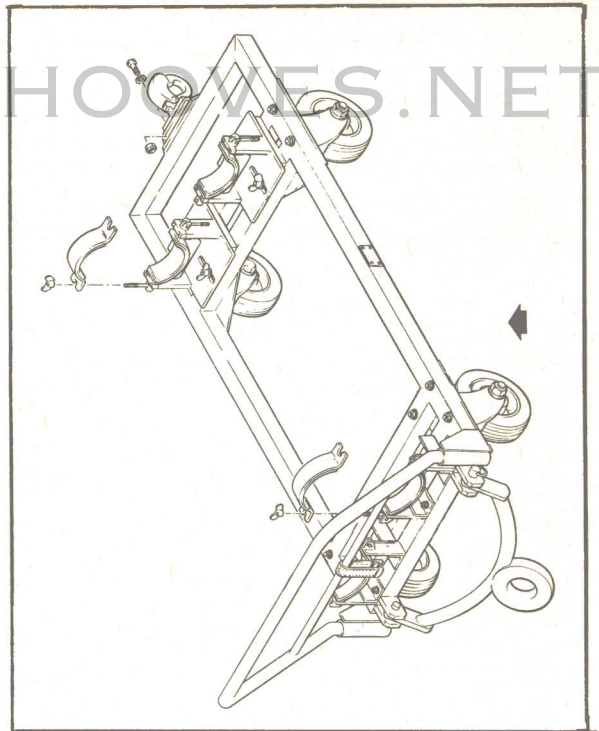
FUNCTIONAL DESCRIPTION

Used to accomplish the transferring of rocket engines from the engine maintenance stand to the mobiltainers and to provide limited mobility for the engines during overhaul and modification.

ITEM NUMBER

115

NOMENCLATURE		
TRAILER, ROCKET		
FSN 1450-972-6967AE		PART NO. 59-202-1558
TYPE/MODEL NO.		MFRS NAME
NA		AM&F
DIMENSIONS 36X69X26 IN		WEIGHT NA
LOCATION SEE PARAGRAPH 2 GENERAL INSTRUCTION SHEET		
QUANTITY 6	COND 0-2	UNIT PRICE \$2,000
TECH ORDER NA		
DISCONNECT T NA	SPEC TOOLS/EQUIP NONE	
REMOVAL TIME NA	SPEC SKILLS NONE	



TECHNICAL DESCRIPTION

Trailer, rocket guided missile: is a trailer platform mounted on (4) conductive casters; with: Two (2) floating adjustable mounting blocks. Three (3) ground straps. Two (2) alligator clips. One (1) pintle hook and towbar.

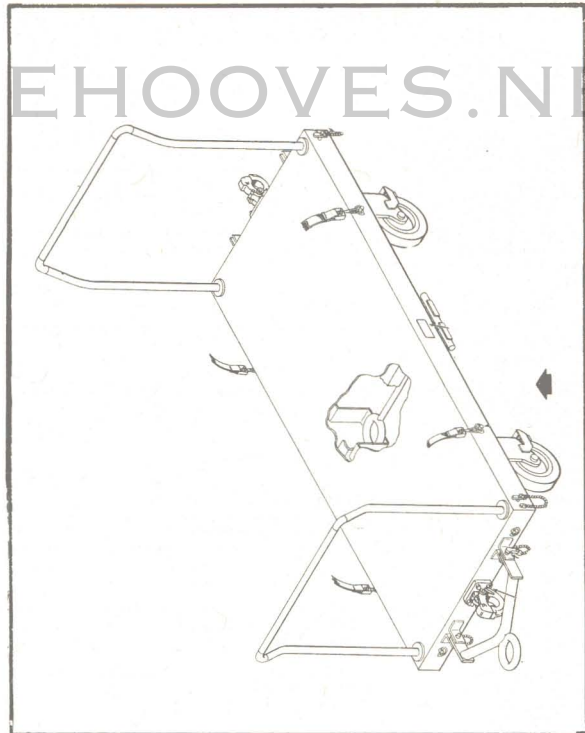
FUNCTIONAL DESCRIPTION

Trailer, rocket guided missile: Used for transporting separation rockets throughout the complex area. Stage separation rocket, which is approximately 5 Ft long and weighs 100 lbs is attached to dolly platform by means of mounting blocks and neoprene lined clamps, so that it does not roll, slide or bounce from the dolly. Dolly can be loaded on a truck if necessary; and serve as a cradle. Grounding straps are provided to prevent static build-up.

ITEM NUMBER

139

NOMENCLATURE		
TRAILER, WAREHOUSE		
FSN	PART NO.	
3920-855-8620	59-202-1785-2	
TYPE/MODEL NO.	MFRS NAME	
NA	AM&F	
DIMENSIONS	WEIGHT	
84X36X20 IN	350 LBS	
LOCATION SEE PARAGRAPH 2 GENERAL INSTRUCTION SHEET		
QUANTITY	COND	UNIT PRICE
19	0-2	\$950
TECH ORDER		
NA		
DISCONNECT T	SPEC TOOLS/EQUIP	
NA	NONE	
REMOVAL TIME	SPEC SKILLS	
NA	NONE	



Items 139 and 137

TECHNICAL DESCRIPTION

Item is an aluminum platform trailer designed for towing at 5 miles per hour. It is equipped with 4 conductive rubber wheels and center locking casters, each caster is equipped with foot brake. Platform trailer is equipped with hinged automatic coupling tow-bar, two removable end gates and has a rated capacity of 2000 lbs.

FUNCTIONAL DESCRIPTION

Transport heavy tools, equipment and components.

ITEM 137 NOMENCLATURE: Truck, hand, Platform Non-Tilt, FSN3920-554-0078, P/N NA, Mfr NA, Dim 72x36x14 in., weight NA, Qty 8 each, Unit Price \$93, all other block data same as item 139.

TECHNICAL DESCRIPTION

2500 lbs rated capacity, wood platform, double push bar type handle, solid rubber tires. Does not have tow bar coupling or caster foot brakes as depicted in the illustration.

FUNCTIONAL DESCRIPTION

Same as item 139.

ITEM NUMBER

135

NOMENCLATURE		
TRUCK HAND, SHELF		
FSN 3920-202-1279		PART NO. NA
TYPE/MODEL NO.	MFRS NAME	
NA	NA	
DIMENSIONS 36.4X25.4X35.5IN		WEIGHT 150 LBS
LOCATION SEE PARAGRAPH 2		
GENERAL INSTRUCTION SHEET		
QUANTITY 49	COND 0-2	UNIT PRICE \$161
TECH ORDER NA		
DISCONNECT T NA	SPEC TOOLS/EQUIP NONE	
REMOVAL TIME NA	SPEC SKILLS NONE	



TECHNICAL DESCRIPTION

Truck; Hand, Shelf: 3 tray type, fixed shelves, w/11 in. spacing, 32 3/4 in. long, 21 3/4 in. w; 2 swivel and 2 rigid type casters w/8 in. diameter wheels, w/solid rubber tires; 1 push bar type handle; chassis; w/rubber bumpers; MIL-T-16549, Size 1 Style A.

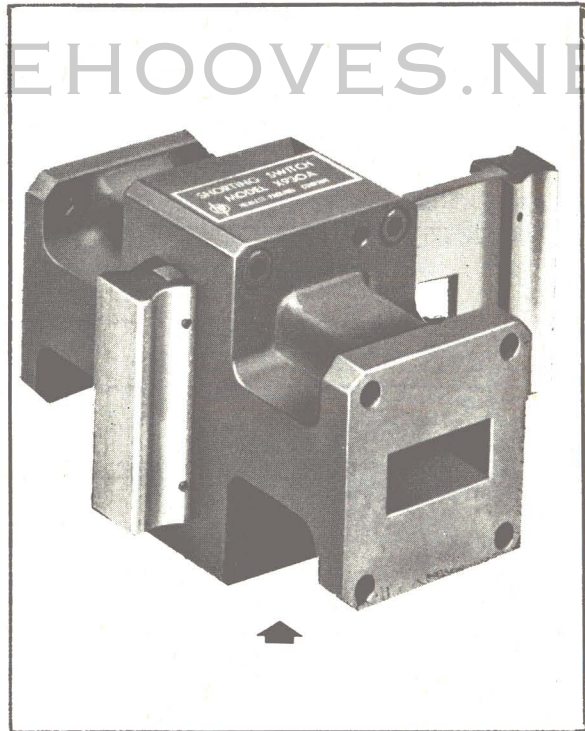
FUNCTIONAL DESCRIPTION

These hand propelled trucks are used during routine maintenance to transport tools, equipment, and components throughout the Launcher Complex Area.

ITEM NUMBER

179

NOMENCLATURE		
WAVEGUIDE		
FSN 4935-624-8778AE		PART NO. X930A
TYPE/MODEL NO. X930A		MFRS NAME HEWLETT-PACKARD CO
DIMENSIONS 4X6X3 IN		WEIGHT 1 LB
LOCATION SEE PARAGRAPH 2 GENERAL INSTRUCTION SHEET		
QUANTITY 5	COND O-2	UNIT PRICE \$161
TECH ORDER 33D9-3-48-4, 21-SM68-2J-7-4		
DISCONNECT T NA	SPEC TOOLS/EQUIP NONE	
REMOVAL TIME NA	SPEC SKILLS NONE	



TECHNICAL DESCRIPTION

Switch, Shorting. Short waveguide section with push-pull manual shorting attenuator at right angles to length dimension. On position shorted, other position open. SWR less than 1.02 in "open" position and greater than 1.25 in short position. Insertion loss, less than 0.05 DB in "open" position. Frequency range 8.2 to 12.4 KMC.

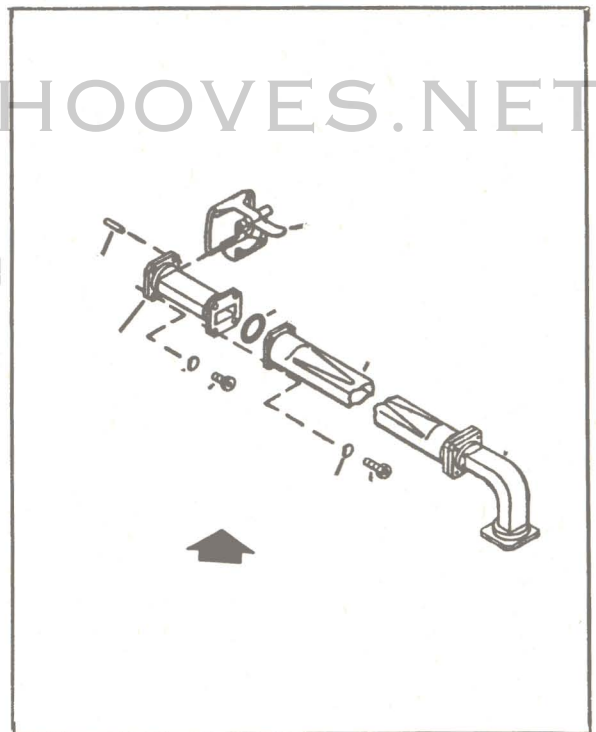
FUNCTIONAL DESCRIPTION

Provides a time saving means of interrupting power flow in a power measuring test circuit in order to allow zero-setting of the microwave power meter. May also be used to establish a reflection coefficient of 1. Used to calibrate and adjust the Radio Frequency power meter circuit in the GS65480 and GS65481 drawers of the Test Set, Guided Missile.

ITEM NUMBER

184

NOMENCLATURE		
WAVE GUIDE ASSEMBLY		
FSN 4935-732-0443AE		PART NO. G346114
TYPE/MODEL NO.	MFRS NAME	
NA	WECO	
DIMENSIONS 264X1.5 IN		WEIGHT 25 LBS
LOCATION SEE PARAGRAPH 2 GENERAL INSTRUCTION SHEET		
QUANTITY 12	COND 0-2	UNIT PRICE \$120
TECH ORDER 33D9-3-48-4		
DISCONNECT T 1/2 HR	SPEC TOOLS/EQUIP NONE	
REMOVAL TIME 1/2 HR	SPEC SKILLS NONE	



TECHNICAL DESCRIPTION

Wave Guide Assembly, flexible, rubber covered, wave guide with fixed E bend and standard flange one end. Quick disconnect flange with attachment other end.

FUNCTIONAL DESCRIPTION

Provides RF connection from GS58950 Test Set, Guided Missile to the GS65586 Test Hood Antenna.

ITEM NUMBER

56

NOMENCLATURE

WINCH, GEAR DRIVEN CABLE

FSN 1450-739-4158AE	PART NO. 59-202-1970-2
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TYPE/MODEL NO.	MFRS NAME
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NA	AM&F
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DIMENSIONS 18X12X8 IN	WEIGHT 30 LBS
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LOCATION SEE PARAGRAPH 2 GENERAL INSTRUCTION SHEET

QUANTITY 50	COND 0-2	UNIT PRICE \$2,400
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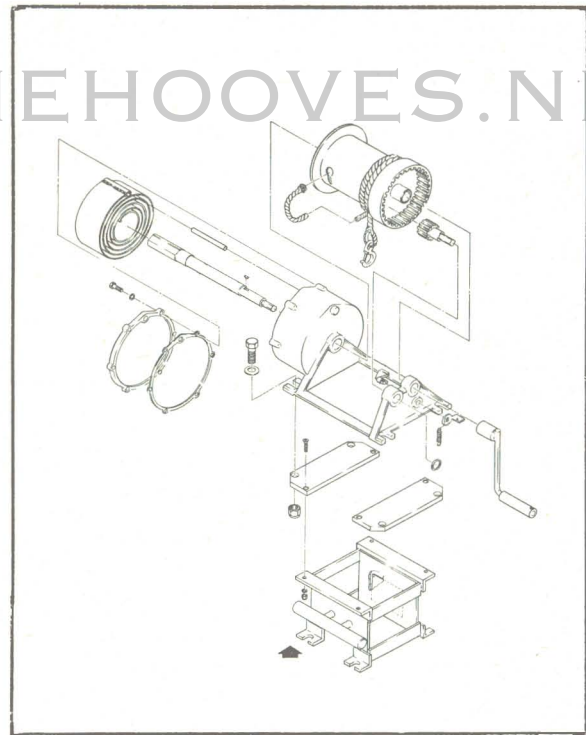
TECH ORDER 35M3-2-4-14, 21-SM68-2J-2-1

DISCONNECT T	SPEC TOOLS/EQUIP
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NA	NONE
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REMOVAL TIME	SPEC SKILLS
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NA	NONE
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TECHNICAL DESCRIPTION

This assembly is a hand-operated, gear-driven cable winch with a spiral spring for preloading. Crank has two drive sockets, 6 IN and 12 IN from handle. Winch gear ratio is 5.25 to 1. A direct drive crank connection is also included. Stand and adapter plate for mounting to silo foundation are included. The rope attached to the winch drum is 5/8 IN manila rope, 20 Ft long. Winch has a lifting capacity of 2,000 lbs.

FUNCTIONAL DESCRIPTION

The winch and adapter assembly is a hand-operated gear-driven cable winch. This item (4 required) is used to assist in positioning and rotating Stages I and II when installing the missile in the launcher.

ITEM NUMBER

261

NOMENCLATURE		
WRENCH, GEARED HEAD		
FSN 5120-446-0742		PART NO. TD-1500
TYPE/MODEL NO.		MFRS NAME
TOOL		X-4 CORP
DIMENSIONS 30.5X5.2 IN		WEIGHT 7 LBS
LOCATION SEE PARAGRAPH 2 GENERAL INSTRUCTION SHEET		
QUANTITY 6	COND 0-2	UNIT PRICE \$375
TECH ORDER 21SM68-2J-2-1		
DISCONNECT T NA	SPEC TOOLS/EQUIP NONE	
REMOVAL TIME NA	SPEC SKILLS NONE	



TECHNICAL DESCRIPTION

Wrench Geared head. Male square drive 1-1/2 IN, female square drive 1 IN. Multiplier ratio 4.33 to 1; maximum output torque rating 4,000 Ft lbs head dia. 5.2 IN; length of handle 25-1/4 IN; assembled length 30-1/2 IN.

FUNCTIONAL DESCRIPTION

Used with gear head wrench P/N TD1000 to tighten missile release mechanism locking bolt after missile emplacement.

ITEM NUMBER
285

NOMENCLATURE WRENCH SET, TORQUE		
FSN 5180-736-9526		PART NO. 1-223165-20
TYPE/MODEL NO. KMU-81/E		MFRS NAME AEROJET GENERAL
DIMENSIONS NA		WEIGHT NA
LOCATION SEE PARAGRAPH 2 GENERAL INSTRUCTION SHEET		
QUANTITY 13	COND 0-2	UNIT PRICE \$1,040
TECH ORDER 2K-LR91-4		
DISCONNECT T NA	SPEC TOOLS/EQUIP NONE	
REMOVAL TIME NA	SPEC SKILLS NONE	



TECHNICAL DESCRIPTION

Tool kit contains the following special tools:

<u>QTY</u>	<u>P/N</u>	
1	2-213746	Key, Socket Head Screw
1	1-236620	Wrench Assy, Pump Drive
1	1-222135	Wrench Assy, Torque APDA
2	FX24	Bar, Extension
1	1-223900	Adapter, Torque Wrench
1	1-240803	Adapter, Torque Testing
1	1-225724	Wrench, Torque (P/N TQ3SPX)
1	1-225725	Wrench, Torque (P/N TQ20SPX)
1	1-223166	Tool, Box, Rocket Engine Maintenance

FUNCTIONAL DESCRIPTION

Tool kit containing special tools necessary to torque various components on the LR91-AJ-3 Rocket Engine.

ITEM NUMBER

297

NOMENCLATURE		
VOICE GUN, BULL HORN		
FSN		PART NO.
*6110-873-1574		A12
TYPE/MODEL NO.		MFRS NAME
PORTABLE		WM A HOLMIN CORP
DIMENSIONS		WEIGHT
10.5X9.5X7 IN		3.5 LBS
LOCATION		
SEE PARAGRAPH 2		
GENERAL INSTRUCTION SHEET		
QUANTITY	COND	UNIT PRICE
22	0-2	\$72
TECH ORDER		
NA		
DISCONNECT T	SPEC TOOLS/EQUIP	
NA	NONE	
REMOVAL TIME	SPEC SKILLS	
NA	NONE	



*Quantity also includes FSN 6110-873-1575 which is similar.

TECHNICAL DESCRIPTION

Self-contained with transistorized amplifiers, 3 flashlight battery operated.

FUNCTIONAL DESCRIPTION

A portable voice gun used for voice amplification in personnel safety and emergency rescue operations.