



DEPARTMENT OF THE NAVY

USS KEARSARGE (LHD 3)

FPO AE 09534-1662

LHD3INST 4790.10

AIMD

AUG 31 2007

USS KEARSARGE (LHD 3) INSTRUCTION 4790.10

Subj: SUPPORT EQUIPMENT (SE) AND MATERIAL HANDLING EQUIPMENT (MHE) CUSTODY, MAINTENANCE, OPERATION, TRAINING, CERTIFICATION AND LICENSING

- Ref:
- (a) COMNAVAIRFORINST 4790.2, Naval Aviation Maintenance Program (NAMP)
 - (b) NAVSUP PUB 538, Management of Materials Handling Equipment
 - (c) NAVSUP PUB 572, Joint Service Manual (JSM) for Storage and Material Handling
 - (d) NAVSEA SW023-AH-WHM-010, Handling Ammunition, Explosives and Hazardous Materials with Industrial Material Handling Equipment (MHE)
 - (e) OPNAVINST 8020.14/MCOP8020.11, Department of the Navy Explosive Safety Policy
 - (f) COMNAVSURFLANTINST 8023.4, Explosive Qualifications and Certification Program
 - (g) LHD3INST 8100.1C, Non-nuclear Ordnance/Explosive Safety Precautions and Handling Procedures
 - (h) OPNAVINST 5100.19, Navy Occupational Safety and Health (NAVOSH) Program Manual for Forces Afloat
 - (i) JLG (AMP) Operators and Safety Manual
 - (j) ANSI Standard A92.5-1992, American National Standard for boom-supported elevating work platforms
 - (k) NAVAIR 00-80R-19, NATOPS US Navy Aircraft Crash and Salvage Operations Manual
 - (l) NAVAIR 00-80T-96, US Navy Common Support Equipment Basic Handling and Safety Manual
 - (m) NAVAIR 00-80T-106, LHA/LHD NATOPS Manual
 - (n) NAVAIR 00-80T-119, Weight Handling Support Equipment
 - (o) NAVMED P-117, Manual of Medical Department

- Encl:
- (1) SE Operator's License OPNAV 4790/102
 - (2) HE Operator's License
 - (3) Medical Examiner's Certificate
 - (4) SE Preoperational Record OPNAV 4790/52
 - (5) MHE Inspection Form
 - (6) Fueling Instructions cards
 - (7) Minimum Manning Matrix for Evolution Watchbill
 - (8) SE License Certification Phase I/II Form
 - (9) SE Transaction Report OPNAV 4790/64
 - (10) SE Misuse/Abuse Form OPNAV 4790/108

1. Purpose. Assigns responsibilities for custody, maintenance, operation, training, certification and licensing of SE/MHE per references (a) thru (o).

2. Discussion. Proper training and licensing of SE/MHE is an extremely important safety issue. Improper use of SE/MHE has resulted in numerous personnel injuries and costly damage to equipment, which adversely affects operational readiness. Investigations reveal the major reason for mishaps is the lack of proper training of personnel who operate and perform operational inspections on SE/MHE. Establishment and adherence to a standardized training and licensing program are essential to the efficient and safe execution of the ship's material handling and maintenance evolution.

3. Only the Commanding Officer will designate in writing the AIMD Officer to authorize the issue of SE and MHE licenses and qualified E-5 or above explosive ordnance MHE instructors.

4. Responsibilities

a. Aircraft Intermediate Maintenance Department (AIMD) Officer

- (1) Sub-custody SE/MHE to supported departments.
- (2) Ensure equipment custody and maintenance records are maintained properly.
- (3) Provide Operator Training Course of instruction for MHE per references (b) and (d). Designate in writing an AIMD SE instructor E-5 or above to conduct all SE/MHE training.
- (4) Issue Support Equipment Licenses (OPNAV 4790/102), enclosure (1), per reference (a) for all Aviation Support Equipment. Per references (b), issue MHE Operator's Licenses, enclosure (2), for all forklift truck operators.
- (5) Direct IM4 Division to maintain a current list of licensed SE/MHE personnel in the Monthly Maintenance Plan (MMP) and distribute monthly to all departments and embarked units.
- (6) Direct IM4 Division to perform and document unscheduled and scheduled maintenance on all assigned SE/MHE.
- (7) Direct IM4 Division to maintain positive key control of all the forklifts in IM4 Division physical custody. Positive key control shall be per paragraph 4.d.(1) and (2) of this instruction.
- (8) Direct AIMD QA to perform routine monitors twice a month or as directed by the Maintenance Officer on all aspects of SE/MHE custody, maintenance, operations, training, certification, and licensing.
- (9) Ensure all hands are aware of the requirement to have a license before operating SE.

b. Weapons (WEPS) Officer

- (1) Verify those operators assigned to handle ammunition, ordnance, and explosives are qualified per references (b), (d), (e), (f), and (g).
 - (a) Ensure operators involved in ordnance evolutions requiring the use of forklifts maintain positive control of forklift keys at all times. Positive key control shall be per paragraph 4.d.(1) and (2) of this instruction. Their supervisor shall be responsible for completing pre-operational checks and ensuring that only qualified/certified personnel operate forklifts.
 - (2) Notify the AIMD Officer when an operator's qualification changes due to driver license revocation, suspension, Driving Under the Influence (DUI), etc.

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c. Medical Officer. Examine all MHE operator candidates per reference (o) as specified by Article 15-107 and document their suitability on a Medical Examiner's Certificate, enclosure (3).

d. Engineering Officer. Provide and maintain battery-charging services for the ship's 4K EE forklifts.

e. Department Heads

(1) Contact IM4 Division Officer to schedule classes for SE/MHE licensing.

(2) Ensure an adequate number of operators are qualified within the department.

(3) Notify the AIMD Officer when an operator's qualification changes due to driver license revocation, suspension, DUI, etc.

(4) Assign refresher training to licensed SE/MHE operators who have not operated the equipment for a period of 6 months or greater, provided the license has not expired.

(5) Ensure SE Preoperational Records (OPNAV 4790/52), enclosure (4), are turned into IM4 Division to be placed in the equipment's History Record (as applicable).

f. SE/MHE Users shall:

(1) Ensure SE/MHE is properly checked out, stowed, and chained down with a minimum of two chains fore and aft when not in use.

(2) Maintain positive control over any keys checked out for that particular forklift. At **NO** time will keys be exchanged or swapped between operators.

(3) Ensure SE pre/post-operational inspections are performed using the applicable NAVAIR preoperational checklist and recorded on the SE Preoperational Record (OPNAV 4790/52), enclosure (4), prior to checking out and using SE/MHE equipment.

NOTE. A joint inspection will be conducted between IM4 Division personnel and the user department when checking out and returning SE or MHE. The joint inspection will ensure SE/MHE is Ready For Use (RFU) upon check out and that all discrepancies are documented when SE/MHE is returned to AIMD. GSE shall keep inspections forms for 30 days.

(4) Ensure MHE pre/post-operational inspections are performed per SYSCOM MIPS and recorded on the MHE Inspection Form (NAVSUP Publication 538), enclosure (5). MHE Inspection Forms shall be returned to IM4 Division for filing in equipment maintenance records.

(5) Ensure Aerial Maintenance Platform (AMP) pre/post-operational inspections are performed utilizing the JLG Operator's Safety Manual daily walk-around inspection checklist. Document inspections on the SE Preoperational Record (OPNAV 4790/52), enclosure (4).

(6) Ensure that during periods when SE/MHE is sub-custodied for extended evolutions, the SE Preoperational Record (OPNAV 4790/52), enclosure (4), is maintained documenting all pre/post-operational inspections. Completed records will be returned to IM4 Division and a new SE Preoperational Record will be issued. MHE Inspection Forms, enclosure (5), shall be returned to IM4 Division weekly, or upon completion of the sub-custody period, whichever occurs first.

(7) Ensure that SE/MHE equipment is fueled before it reaches 1/4 tank of fuel remaining using the Fueling Instructions card, enclosure (6).

(a) Underway, fueling is accomplished by calling the Duty ABF in Flight Deck control at J-dial 7039 and asking them to pump up auxiliary fuels. They will instruct the operator where to station the unit to receive fuel.

(b) In port it is not practical, usually, to pump fuel. Therefore the operator must call the Duty ABF in the V-4 division office at J-dial 7419. The operator must then pick up Jerry Cans in the V-4 office and be escorted to the pump room to fill them for transfer into the unit.

(8) Ensure equipment deficiencies are promptly reported to IM4 Production Control. Users/Sub-Custodians shall **NOT** perform any repairs to equipment.

(9) Adhere to proper safety procedures per references (a) thru (o), including but not limited to:

(a) Assignment of ONE qualified safety observer, with whistle and hearing protection, to direct operation of self-propelled equipment in the hangar, upper vehicle stowage, lower vehicle stowage and well deck.

(b) Assignment of TWO ramp guards and two additional safety observers, with whistles, hard hats and hearing protection, to direct operation of self-propelled equipment involving travel up or down ramps. One safety observer will be positioned at each end of the ramp and direct equipment movements.

NOTE. Equipment shall not traverse ramps until clear of all personnel. Permission from the OOD is required during sea conditions that could impose safety hazards due to ship's movement.

(c) For MHE operations in confined or restricted spaces such as the mess decks or weapons magazines, TWO safety observers are required to direct operations of MHE.

(d) SE/MHE equipment operators shall remain in the seat, platform, or ground control station while equipment is running and follow directions of safety observers to ensure safe operation of equipment.

(e) SE/MHE operators shall utilize all safety devices/PPE required to operate equipment, such as hard hats, cranial, hearing protection, seat belts, harnesses, etc.

(f) For all forklift evolutions (including stores on-load/offload, MEU onload/offload), a watchbill, using Minimum Manning Matrix,

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enclosure (7), will be put together by the Department doing the evolution. It will be submitted to the XO, via the Safety Department, within 24 hours prior to the evolution. Meal reliefs will also be listed on watch bill if evolution spans over meal times or past regular working hours.

(g) Departments requesting the use of SE/MHE for evolutions shall provide the proper PPE required in the form of Hard Hats, Hearing Protection and Whistles. Evolutions shall not commence until all personnel involved have their PPE on.

(h) An on-site Safety Brief will be conducted by the senior person in charge for everyone involved, before each evolution begins.

4. Action

a. Licensing Procedures for SE

(1) All operators of self-propelled SE must have a valid state driver's license. If the operator's state driver's license is revoked, suspended, or expired without a military auto-extension, the SE license is invalid.

(2) Phase I SE training is conducted by AIMD using training material furnished and prepared by the Center for Naval Aviation Technical Training (CNATTT), consisting of unit familiarization and basic safety training. Upon completion of Phase I training, AIMD will issue the SE License Certification form, enclosure (8), to the individual. Phase II training must be accomplished by a licensed operator of the individual's parent department.

(3) Phase II training is required for each item of SE and consists of required reading, OJT, and practical and written exams. These requirements ensure individuals become qualified to operate SE on specific T/M/S aircraft handling, servicing, or testing operations. Phase II SE training is required before licensing.

(4) Phase II training shall be conducted by a licensed operator after receipt of the SE License Certification form, enclosure (8). It will consist of several OJT sessions and a practical examination under the direct supervision of a licensed operator.

NOTE. License candidates shall complete formal Phase II training no later than 90 days after completing formal Phase I training. Candidates will be required to complete formal Phase I training again if Phase II training is not completed within the 90 days time period.

(5) AIMD QA shall administer all required Phase II written examinations. A passing grade of 85 percent or higher is required.

(6) Upon completion of Phase II training, the SE License Certification form, enclosure (8), shall be forwarded to IM4 Division, via departmental chain of command, for final certification by the AIMD Officer and issuance of a SE Operator's License (OPNAV 4790/102), enclosure (1).

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b. Licensing Procedures for MHE

(1) All operators of MHE must have a valid state driver's license. If an operator's state driver's license is revoked, suspended or expired without a military auto-extension, the MHE license is invalid.

(2) References (b) Appendix B and (d) Appendix A require that all MHE operators be trained to a competency level sufficient to ensure safe and efficient operation of MHE. Upon successful completion of all prescribed phases of instruction member will be issued a MHE Operator's License, enclosure (2).

NOTE. Per reference (o), MHE operators must have an initial medical examination documented using form 35 FR 6460, enclosure (3), from 49 CFR Ch. III (10-1-05 Edition). The initial medical examination is valid for 3 years; re-examination has to occur every 3 years from initial examination. An annual Physical Health Assessment (PHA) shall be completed yearly from initial medical examination. If any potential disqualifying medical conditions are identified, the member shall be referred to a shipboard Medical Officer for evaluation. The MHE license will be suspended if MHE operator allows PHA to lapse. The MHE license shall be reinstated upon completion of PHA.

(3) Per reference (d), AIMD will provide training and licensing for MHE operators to encompass handling of general materials (general cargo or stores). WEPS will provide training for MHE Operators that handle ammunition, ordnance and explosives. Only qualified Aviation Ordnance personnel that meet the instructor criteria as outlined in reference (d) shall conduct forklift certification for ordnance handling personnel.

(4) The instructor shall submit a MHE Operator's License for each graduating trainee to the AIMD Officer for signature. The license shall be accompanied by the following documents: Medical Examination Certificate, operational skills test raw score sheet, written exam test scores, and MHE operator training certificate. A passing grade of 85 percent or higher is required.

c. SE/MHE Sub-Custody Procedures

(1) All personnel shall have in their possession a valid SE/MHE Operator's License, enclosures (1) or (2), and comply with all applicable safety precautions for specific equipment being checked in/out.

(2) Issuing and receiving personnel shall perform a joint preoperational inspection, using applicable MRCs/MIPs, prior to use.

(3) The SE Preoperational Record (OPNAV 4790/52), enclosure (4), MHE Inspection form, enclosure (5), the pink (customer) copy of the SE Transaction Report (OPNAV 4790/64), enclosure (9), and any keys (if applicable) will accompany the SE/MHE.

(4) Joint post-operational inspections and inventories shall be performed, using applicable MRC/MIMS, upon return of the items.

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(5) The sub-custody period shall not exceed one working day or completion of the evolution, whichever is shorter.

d. MHE Key Control Procedures

(1) MHE keys will be maintained in an inventoried, locked key box. All keys removed from the lock box will be checked out in a green log book which is located in the key box and will include the following information: Date Out, Time Out, Nomenclature, Serial Number, Operator's Name, MHE License Number, Expiration Date Verification, Dept/Division, Date In, Time In, and Issued By. For AIMD, if the key is checked out on a sub-custody basis, it will be annotated on a SE Transaction Report (OPNAV 4790/64), enclosure (9).

(2) AIMD QA shall routinely perform on-the-spot monitors twice a month or as directed by the Maintenance Officer of proper check in and check out procedures, paying particular attention to MHE key control procedures. All monitors will be performed on a routine basis as directed by the AIMD Officer. Inventories will be conducted daily and at shift change to account for all keys.

e. Misuse/Abuse Reporting Program.

(1) Per reference (a), any person witnessing unsafe or abusive SE/MHE equipment operation shall submit a Support Equipment Misuse/Abuse Report (OPNAV 4790/108), enclosure (10), to AIMD QA Division.

(2) Any unsafe action or incident involving SE/MHE shall be reported to KEARSARGE Safety Department and AIMD QA. Safety or AIMD may halt an evolution until initial investigation is completed and is safe to resume operations.

f. Renewal Procedures. There are two types of license renewal procedures. A proficiency certification may be accomplished PRIOR to expiration of the SE license or a renewal certification may be accomplished AFTER the expiration of the SE license. MHE license is valid for three years after issued. Contact the IM4 Division Officer for further procedures.

g. Review. The Assistant Maintenance Officer (AMO) is responsible for the annual review of this instruction.


J. GREGORSKI

Distribution: (LHD3INST 5216.1B)
List I

Minimum Manning Matrix For Evolution Watchbill

Evolution Location From/To	# of Ramp Guards	# of Forklift Drivers	# of Safety Observers	# of E-7 and Above Observers
From Pier to Upper V	2	As Required	2 (One each level)	1
From Pier to Hangar	4	As Required	3 (One each Level)	1
From Pier to Flightdeck	6	As Required	4 (One Each Level)	2 (One Upper V, One Flightdeck)
From Pier to Lower V	4	As Required	3 (One Each Level)	1
From Hangarbay to Flightdeck	2	As Required	2 (One Each Level)	1
From Hangarbay to Lower V	4	As Required	3 (One Each Level)	1
From Flightdeck to Lower V	6	As Required	4 (One Each Level)	2 (One Hangar, One Lower V)

** The numbers apply to the reverse as well (i.e. Upper V to Pier)**

To begin, place your cursor in the "Issuing Activity's Name" field. Then "tab" to complete other fields. After completing the information, print this page, cut at the dashed lines, and sign (as appropriate). Fold in half vertically down the dotted line in the middle, then fold across (above date issued/date expires/licensed to operate). If possible, laminate each license prior to issue.

Operating Notes.

1. Use "Space Bar" or "Mouse" to mark boxes.
2. Type all dates as follows (with no Slashes): Example - For July 1, 1962, enter "1 July 1962".

MHE OPERATOR'S LICENSE					Physical Limitations (e.g., requires corrective lenses, requires hearing aid, etc.)		
Issuing Activity's Name							
Operator's Name			Sex				
Date of Birth		Local Card Number					
Height	Weight	Hair	Eyes	Other Local Requirements			
Date Issued		Date Expires		-----			
LICENSED TO OPERATE							
General Supply Authorized		YES <input type="checkbox"/>		Class/ Lift Code	SWL	Type Designations	
Explosives Authorized		YES <input type="checkbox"/>					
Issuing Authority's Signature							
Operator's Signature							
Medical Certificate:							
On File <input type="checkbox"/>		On Person <input type="checkbox"/>					

The MHE Operator's License shall serve as the Official License for the purpose of handling general supplies with industrial Navy MHE at U.S. Navy Activities.

Class	Lift Code	Description
1	1	Electric, Counterbalanced Rider-Type, Stand Up
	4	Three Wheel Electric Truck, Sit Down
	5	Electric, Counterbalanced Rider, Solid Tires, Sit Down
	6	Electric, Counterbalanced Rider, Pneumatic Tires, Sit Down
2	1	High Lift Straddle
	2	Order Picker
	3	Reach Type Outrigger (e.g., Reaching and Tying)
	4	Sideloader, Turret Trucks, Swingmast and Convertible Turret/Stock Pickers
	6	Low Lift, Electric Pallet and Platform Truck (Rider)
	3	1
2		Low Lift, Electric Walkie Pallet Truck
4	3	Internal Combustion, Counterbalanced Forklift Truck (Solid Tires)
5	4	Internal Combustion, Counterbalanced Forklift Truck (Pneumatic Tires)
6	1	Electric and Internal Combustion, Sit Down Rider Tractor (Solid and Pneumatic Tires)
7	1	Rough Terrain Forklift Truck (Pneumatic Tires)

MHE OPERATOR'S LICENSE					Physical Limitations (e.g., requires corrective lenses, requires hearing aid, etc.)		
Issuing Activity's Name							
Operator's Name			Sex				
Date of Birth		Local Card Number					
Height	Weight	Hair	Eyes	Other Local Requirements			
Date Issued		Date Expires		-----			
LICENSED TO OPERATE							
General Supply Authorized		YES <input type="checkbox"/>		Class/ Lift Code	SWL	Type Designations	
Explosives Authorized		YES <input type="checkbox"/>					
Issuing Authority's Signature							
Operator's Signature							
Medical Certificate:							
On File <input type="checkbox"/>		On Person <input type="checkbox"/>					

The MHE Operator's License shall serve as the Official License for the purpose of handling general supplies with industrial Navy MHE at U.S. Navy Activities.

Class	Lift Code	Description
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	6	Electric, Counterbalanced Rider, Pneumatic Tires, Sit Down
2	1	High Lift Straddle
	2	Order Picker
	3	Reach Type Outrigger (e.g., Reaching and Tying)
	4	Sideloader, Turret Trucks, Swingmast and Convertible Turret/Stock Pickers
	6	Low Lift, Electric Pallet and Platform Truck (Rider)
	3	1
2		Low Lift, Electric Walkie Pallet Truck
4	3	Internal Combustion, Counterbalanced Forklift Truck (Solid Tires)
5	4	Internal Combustion, Counterbalanced Forklift Truck (Pneumatic Tires)
6	1	Electric and Internal Combustion, Sit Down Rider Tractor (Solid and Pneumatic Tires)
7	1	Rough Terrain Forklift Truck (Pneumatic Tires)

§ 391.43

49 CFR Ch. III (10-1-05 Edition)

MEDICAL EXAMINER'S CERTIFICATE

I certify that I have examined _____ in accordance with the Federal Motor Carrier Safety Regulations (49 CFR 391.41-391.49) and with knowledge of the driving duties, I find this person is qualified, and, if applicable, only when:

wearing corrective lenses

wearing hearing aid

accompanied by a _____ waiver/exemption _____

_____ driving within an exempt intracity zone (49 CFR 391.62)

_____ accompanied by a Skill Performance Evaluation Certificate (SPE)

_____ Qualified by operation of 49 CFR 391.64

The information I have provided regarding this physical examination is true and complete. A complete examination form with any attachment embodies my findings completely and correctly, and is on file in my office.

SIGNATURE OF MEDICAL EXAMINER _____ TELEPHONE _____ DATE _____

MEDICAL EXAMINER'S NAME (PRINT) _____

MD DO Chiropractor

Physician Assistant Advanced Practice Nurse

MEDICAL EXAMINER'S LICENSE OR CERTIFICATE NO. / ISSUING STATE _____

SIGNATURE OF DRIVER _____ DRIVERS LICENSE NO. _____ STATE _____

ADDRESS OF DRIVER _____

MEDICAL CERTIFICATE EXPIRATION DATE _____

[35 FR 6460, Apr. 22, 1970, as amended at 68 FR 56199, Sept. 30, 2003]

EDITORIAL NOTE: For FEDERAL REGISTER citations affecting § 391.43, see the List of CFR Sections Affected, which appears in the Finding Aids section of the printed volume and on GPO Access.

NAVSUP PUBLICATION 538 SECOND REVISION

MHE INSPECTION FORM

DATE	REGISTRATION NO. (USN)	MHE CLASS (see table 4-1)
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POWERED MHE TO BE CHECKED DAILY BY OPERATOR

NOTES

1. USE THIS FORM WHEN INSPECTING MHE BEFORE AND AFTER OPERATION. CHECK (X) IN APPROPRIATE COLUMNS TO INDICATE SATISFACTORY OR UNSATISFACTORY CONDITIONS.
2. NOT APPLICABLE INSPECTION PROCEDURES MAY BE OBLITERATED FOR THAT PARTICULAR MHE CLASS.
3. IF DEFECTS ARE FOUND, REMOVE MHE FROM SERVICE, NOTIFY IMMEDIATE SUPERVISOR AND RETAIN FORM UNTIL REPAIRS ARE MADE.
4. IF NO DEFECTS ARE FOUND:
 - (A) INITIAL OPERATOR: SIGN AND DATE FORM. ATTACH TO MHE.
 - (B) LAST OPERATOR: MAINTAIN FORM IN ACCORDANCE WITH LOCAL PROCEDURES.
5. THIS FORM IS NOT AVAILABLE IN THE SUPPLY SYSTEM. REPRODUCTION OF THIS FORM FROM THIS MANUAL IS AUTHORIZED.

SHIFT HOUR-METER READING	
END	
START	
DIFF.	

	START		FINISH		
	SAT	UNSAT	SAT	UNSAT	
1					1
2					2
3					3
4					4
5					5
6					6
7					7
8					8
9					9
10					10
11					11
12					12
13					13
14					14
15					15
16					16
17					17
18					18
19					19
20					20
21					21
22					22
23					23

AREA	INITIAL OPERATOR'S SIGNATURE	LAST OPERATOR'S SIGNATURE
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SEE REVERSE SIDE FOR INSPECTION CRITERIA PROCEDURES

FIGURE 8-1. MHE Inspection Form

MHE Inspection Form - Inspection Criteria

1. **Tires and Rims.** Inspect tires for excessive wear and damage. Remove foreign material from tire treads. Reject tires for illegible or missing markings or labels. Reject pneumatic tires when the tire tread has worn down to the tread wear mark or if fabric is exposed through the sidewall. Inspect the rims for dents, bends, and cracks. Refer to figure 8-3 for examples of solid rubber tire defects and the probable causes.
2. **Engine Oil and Fluid Levels.** Check engine oil, hydraulic, transmission and brake fluid levels. If low, add oil/fluid to raise the level to the full mark.
3. **Radiator Coolant Levels.** CAUTION: Do not check radiator coolant level when engine is hot. Check the radiator coolant level, if low, add coolant to the full mark.
4. **Battery.** CAUTION: Do not attempt to charge a battery when the battery charge indicator window is yellow. Verify the condition of the battery or batteries and inspect the battery cables for damage, cuts and abrasions. Verify that the cables are securely fastened to the connector lugs and are free of corrosion, verdigris, arcing, pitting, exposed conductor material, and loose connections. Verify that the vent hole on the side of a maintenance free battery is clean and unobstructed. Newer models have a green indicator, which indicates adequate charge. Dark or black indicator window indicates battery needs charging. Yellow window indicates TROUBLE; reject and call for service.
5. **Fuel System.** Visually inspect the entire fuel system assembly for any leaks or any abnormal odors. Where accessible, inspect the fuel tank or gas cylinder for leakage, denting, bulging, or evidence of rough usage.
6. **Unusual Engine Noises.** Start engine. Should any unusual noises be noted with the engine running, turn off MHE, reject and discontinue this check.
7. **Lights.** Check that the headlights, brake lights, and any other installed lights are working. All lights must operate properly for night work.
8. **Horn.** Depress the horn push button to verify that the horn is operating properly.
9. **Hoist.** Raise and lower hoist to verify the hoist assembly and controls operate smoothly. Inspect all hoses for cracked coverings, wear, bulges or leaks. Verify all fittings are free of cracks or leaks. Inspect for loose or binding (i.e., dry/not lubricated, frozen or rusted) chains.
10. **Tilt and Side Shift.** Tilt forward and backward to verify the tilt operates smoothly. Operate side shift to verify the carriage moves immediately and smoothly to the left and the right. Verify all hoses are serviceable and that these fittings are free of cracks or leaks. For any additional accessory controls installed on the MHE; verify proper operation with the manufacturer's recommendations.
11. **Transmission/Clutch.** Verify that the transmission/clutch operates smoothly with no unusual noises. Where applicable, test the neutral start switch on most fuel-powered MHE. Verify that the parking brake is set and that no one is in front of or behind the MHE. A periodic check can be made by attempting to stall the engine with the directional control lever in either the forward or reverse position. If the engine starts, the MHE shall be rejected.
12. **Directional Controls.** Shift directional controls into forward, neutral and reverse directions to verify the MHE operates properly and smoothly. Figure 8-4 shows a typical example of the directional controls.
13. **Brake System Check.** With the parking brake engaged, attempt to drive MHE forward by applying a moderate amount of power to the MHE and verify that it does not move. Visually inspect that no fluid is leaking from the brake system. Check the service brakes to verify they stop the MHE smoothly and evenly without pulling or binding. Where applicable, check the dead-man brake or travel control disconnect device for proper operation.
14. **Gauges/Meters.** Where applicable, inspect the following:
 - a. **Warning Indicators.** With the engine running at normal operating temperature, check the oil pressure gauge (figure 8-5) for normal operating pressure. If any warning indicator lights signal a malfunction, the MHE shall be rejected until repaired.
 - b. **Coolant Temperature Gauge.** With the engine running at normal operating temperature, check that the gauge is indicating within the proper indicating range.
 - c. **Fuel Gauge.** Check the fuel gauge for proper reading. On types LP and CN MHE, the mechanical-type fuel gauge may be mounted directly on the gas tank. Dual-fueled MHE shall not be operated unless the gasoline fuel tank is at least 1/4 full.
 - d. **Voltmeter/Ammeter.** With the engine running, check the voltmeter/ammeter to verify that its in the green range when the engine is running at least 550 rpm.
 - e. **Hourmeter.** Verify that the hourmeter (figure 8-6) is registering while the engine is running.
 - f. **Weight Scales.** With forks elevated, and no load, verify that the weight scales read zero. Adjust accordingly.
15. **Fire Extinguisher.** When equipped, visually inspect the extinguisher cylinder for dents. Check that the gauge is registering in the green (if so equipped) and check that the wire seal has not been broken. Verify periodic checks are current. Check nozzle and hose for defects. Reject extinguisher if not serviceable. Replace rejected extinguishers.
16. **Operator Restraint System.** If MHE is equipped with an operator restraint system (e.g., seat belt) it shall be inspected to verify that they fully extend out, can be properly secured, and fully retract back. Additionally, they shall not exhibit any evidence of the following discrepancies: (a) nicks or cuts (figure 8-7, view A), (b) frayed webbing (figure 8-7, view B), (c) holes (figure 8-7, view C), and (d) broken or worn retractor (figure 8-7, view D).
17. **Forks.** Visually examine the forks for surface cracks, including under the heel of the forks. Verify that blade and shank are straight, properly installed, and fork tips are even. Verify that load ratings of forks match MHE load rating. Surface cracks appearing on the forks shall be cause for rejection until forks are repaired or replaced.
18. **Fork Positioning Locks/Stops.** Verify the fork positioning locks/stops secure each fork in position. Verify forks are securely engaged to the carriage.
19. **Fork Safety Chains.** Verify the presence and operation of fork safety chains (equipped on units with folding forks) and associated locking pins.
20. **Overhead Guards.** Inspect all welds and hardware. Verify that overhead guard and hardware is in place and all structural members are secured.
21. **Ground Straps or Static Conductive Tires/Wheels.** For EE type MHE, verify the presence of two ground straps and that they touch the floor/deck or two conductive tires/wheels. For EX type MHE, verify the presence of two conductive tires/wheels.
22. **Structural Cracks/Broken Weldments.** Inspect all external weldments for structural cracks or defects. Reject MHE until repaired or replaced.
23. **Mandatory Markings.** Verify the following is clearly and properly marked: (a) safe working load (SWL) and vehicle weight (VW) on both sides, and (e) for tow tractors, the drawbar pull rating (DBP) on both sides and rear, and coupler height on rear, and (f) for ammunition and explosives handling only, the weight test certification form (figure 5-5). Reject if any marking is missing, illegible, expired or incorrect. All other required markings that are rejected shall be recorded on the MHE Inspection Form, but is not a cause for removal from service.

FUELING INSTRUCTIONS

UNDERWAY : DIAL DUTY ABF IN FLIGHT DECK CONTROL AT 7039 AND POSITION GEAR WHERE INSTRUCTED.

INPORT: CALL DUTY ABF IN V-4 OFFICE AT 7419 AND ARRANGE TO PICK UP JERRY CANS AND FILL IN PUMP ROOM.

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Minimum Manning Matrix For Evolution Watchbill

Evolution Location From/To	# of Ramp Guards	# of Forklift Drivers	# of Safety Observers	# of E-7 and Above Observers
From Pier to Upper V	2	As Required	2 (One each level)	1
From Pier to Hangar	4	As Required	3 (One each Level)	1
From Pier to Flightdeck	6	As Required	4 (One Each Level)	2 (One Upper V, One Flightdeck)
From Pier to Lower V	4	As Required	3 (One Each Level)	1
From Hangarbay to Flightdeck	2	As Required	2 (One Each Level)	1
From Hangarbay to Lower V	4	As Required	3 (One Each Level)	1
From Flightdeck to Lower V	6	As Required	4 (One Each Level)	2 (One Hangar, One Lower V)

** The numbers apply to the reverse as well (i.e. Upper V to Pier)**

SE LICENSE CERTIFICATION

Last Name	First	MI	Rate Rank	SSN	Activity	T M S Aircraft
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State Driver's License				U.S. Government Motor Vehicle Operator's License	
State	License No.	Expiration Date	Auto Extend Yes / No	License No.	Expiration Date

PHASE I SECTION

Training Activity		
Support Equipment	Course Number	Date Completed
Self Propelled Vehicle — Yes — No	Flight Line Training Date	Weight Handling Equipment: Physical
SE DIVISION OFFICER		DATE:

PHASE II SECTION

- NEW (Parts A, B, C, D, and E required)
- RENEWAL (Parts C, D and E required)
- PROFICIENCY (Parts C and E required)

PART A. REQUIRED READING	Trainee Signature	Date Read
A. COMNAVAERFORINST 4790.2, Volume V, Chapter 17		
B. NAVAIR 00-80T-96, Chapter ____, Page __		
C. NAVAIR 00-80T-105 "Aircraft Emergency Procedures", Chapter ____, Page __		
D.		
E.		

PART B. ON THE JOB TRAINING	Instructor's Signature	Date	Instructor's Signature	Date	Instructor's Signature	Date
1. Discuss ramp flight line hangar deck procedures.						
2. Discuss safety precautions.						
3. Discuss emergency procedures: Fuel spill, A/C or SE fire, etc.						
4. Discuss personnel requirements and positioning.						
5. Discuss hand signals and other communication devices.						
6. Perform and document pre-operational inspection.						
7. Perform proper driving/towing procedure.						
8. Properly position and hook-up SE.						
9. Perform maintenance servicing tasks with the SE.						
10. Perform normal shutdown/disconnect procedure.						
11. Perform postoperational inspection.						

PART C. PRACTICAL EXAMINATION		SAT/ UNSAT	Examiner's Signature/Date:
1. Discuss ramp flight line hangar deck procedures.			Remarks:
2. Discuss safety precautions			
3. Discuss emergency procedures (fuel spill, A/C or SE, fire, etc.).			
4. Discuss personnel requirements and positioning.			
5. Discuss hand signals and other communication devices.			
6. Perform and document preoperational inspection.			
7. Perform proper driving/towing procedures.			
8. Properly position and hookup SE.			
9. Perform maintenance servicing tasks with the SE.			
10. Perform normal shutdown/disconnect procedures.			
11. Perform postoperational inspection.			

PART D. QUALITY ASSURANCE WRITTEN EXAMINATION			
QAR Examiner:	Signature	Exam Score: _____ (Min. Passing Score 85%)	Date

PART E. CERTIFICATION				
Work Center Supervisor	Signature	Recommended	Yes	No
Division Officer	Signature	Recommended	Yes	No
Support Equipment Officer (IMA only)	Signature	Recommended	Yes	No
AMO (OMA only)	Signature	Recommended	Yes	No
MO	Signature	Recommended	Yes	No

AUG 31 2007

OPNAVINST 4790.2D

SUPPORT EQUIPMENT TRANSACTION REPORT

1. PROGRAM INDICATOR <input type="checkbox"/> IMRL <input type="checkbox"/> TOL <input type="checkbox"/> LAMS <input type="checkbox"/> CAL STD <input type="checkbox"/> LOCAL					2. JULIAN DT	3. TR SER NO	4.
5. REPORTING ACTIVITY				6. RECEIVED FROM/TRANSFERRED TO ACTIVITY			
5a. AAI	5b. ACTIVITY NAME (Short Title)			6a. AAI	6b. ACTIVITY NAME (Short Title)		
7. QTY	8. TYPE TRANSACTION <input type="checkbox"/> GAIN <input type="checkbox"/> TRANSFER <input type="checkbox"/> SURVEY			9. T/C	10. TOT O/H	11. FSCM	12. SER NO
13. PART NUMBER				14. NSN		15.	
16. NOMENCLATURE					17. TRANSPORTATION CONTROL NO		
18. ITEM NO	19. RWK CNTRL	20. TEC	21. QTY AUTH	22. LAST TR NO	23. PRINT DT	24.	
25. RE-IDENTIFICATION DATA		25a. FSCM	25b. RE-IDENTIFIED PART NUMBER			25c. TOT O/H	
26. SUBCUSTODY		26a. TYPE	26b. <input type="checkbox"/> ISSUE <input type="checkbox"/> CORRECTION		26c. CAL/PM/RWK/ACT	26d. CAL/PM/RWK/DUE	26e. QTY
27. ISSUE	27a. DATE	27b. TIME	27c. ORG	27d. W/C	27e. STATUS	27f. RECEIVED BY (Signature, Rank/Rate)	
28. RETURN	28a. DATE	28b. TIME	28c. ORG	28d. W/C	28e. STATUS	28f. RECEIVED BY (Signature, Rank/Rate)	
29. AUTHORITY/COMMENTS/LOCAL USE							

OPNAV 4790/64 (REV. 5-88)

S/N 0107-LF-001-6600

AUG 31 2007

SUPPORT EQUIPMENT MISUSE/ABUSE			
OPNAV 4790/108 (6-81) S/N 0107-LF-047-9550		CONTROL NO.	
FROM		TO	
THE FOLLOWING INFORMATION IS SUBMITTED IN REGARDS TO A REPORT OF MISUSE/ABUSE:			
PERSON WHO MISUSED/ ABUSED EQUIPMENT	NAME	RANK/RATE	
	ORGANIZATION/UNIT	SE LICENSE NO.	
		GOVT OPERATOR LICENSE NO.	
LOCATION AND EQUIPMENT INVOLVED	LOCATION	TYPE EQUIPMENT PN/FSN	TIME
			DATE
		EQUIPMENT SERIAL NO.	JCN
NARRATIVE DESCRIPTION			
PERSON CITING MISUSE/ ABUSE	NAME	RANK/RATE	
	ORGANIZATION/UNIT		
WAS SE LICENSE CONFISCATED? IF YES, LICENSE IS BEING HELD BY:		<input type="checkbox"/> YES <input type="checkbox"/> NO	REMARKS
SIGNATURE AND TITLE OF REPORTING OFFICIAL			DATE

AUG 31 2007

OPNAV 4790/108 (6-81) (BACK)	
FIRST ENDORSEMENT	DATE
FROM:	
TO:	
VIA:	
SUBJ: MISUSE/ABUSE	
1. ACTION TAKEN / RECOMMENDATIONS:	
SIGNATURE AND TITLE	