

Department of the Army
Pamphlet 621-58

**The US Army
Transportation
School
Apprenticeship
Program for the
Trade of Marine
Hull Repairer,
Ironworker
(Boatbuilder, Steel)**

Headquarters
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SUMMARY of CHANGE

DA PAM 621-58

The US Army Transportation School Apprenticeship Program for the Trade of Marine
Hull Repairer, Ironworker (Boatbuilder, Steel)

The US Army Transportation School Apprenticeship Program for the Trade of Marine Hull Repairer, Ironworker (Boatbuilder, Steel)

By Order of the Secretary of the Army:

E. C. MEYER
General, United States Army
Chief of Staff

Official:

ROBERT M. JOYCE
Brigadier General, United States Army
The Adjutant General

History. This publication has been reorganized to make it compatible with the Army electronic publishing database. No content has been changed.

Summary. The purpose of this pamphlet is to announce the US Army Transportation School Apprenticeship Program for the Trade of Marine Hull Repairer, Ironworker (Boatbuilder, Steel) (DOT Code 806.381-046).

Applicability. This pamphlet applies to all elements of the active Army. This pamphlet does not apply to Army National Guard and Army Reserve.

Proponent and exception authority. The proponent agency of this regulation is the Adjutant General's Office.

Interim changes. Interim changes are not official unless they are authenticated by The Adjutant General. Users will destroy interim changes on their expiration dates unless sooner superseded or rescinded.

Suggested Improvements. Users are invited to send comments and suggested improvements on DA Form 2028 (Recommended Changes to Publications and Blank Forms) direct to Commandant, US Army Transportation School, ATTN: ATSP-ET/IAP, Fort Eustis, VA 23604.

Distribution. To be distributed in accordance with DA Form 12-9A requirements for DA Pamphlets, Education plus 5 copies each to All Education Centers and Sub-centers.

Active Army: B
ARNG: None
USAR: None

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1. Purpose.

The purpose of this pamphlet is to announce the US Army Transportation School Apprenticeship Program for the Trade of Marine Hull Repairer, Ironworker (Boatbuilder, Steel) (DOT Code 806.381-046).

2. Applicability.

This pamphlet applies to all elements of the active Army. This pamphlet does not apply to Army National Guard and Army Reserve.

3. General.

Policies and procedures for participation in the program are contained in AR 621-5. This pamphlet is designed to be used in conjunction with that regulation.

4. Apprenticeship Program Number and Occupational Skill Code.

a. The following apprenticeship program number and occupational skill code are used to identify the US Army Transportation School apprenticeship program for the trade of Marine Hull Repairer, Ironworker (Boatbuilder, Steel).

(1) Apprenticeship Program Number: 99903

(2) Occupational Skill Code: 04

b. The apprenticeship program number and occupational skill code must be entered on DA Form 4409-R (Apprenticeship Application) to identify the program for which the soldier is making application.

5. Eligibility for Participation in the Program.

Soldiers holding as primary or secondary the MOS of 61F Marine Hull Repairer and serving in the MOS may participate in the program.

6. The Marine Hull Repairer, Ironworker (Boatbuilder, Steel) Apprenticeship Program.

This is an 8,000 hour program which leads to certification as journeyworker in the trade of Marine Hull Repairer, Ironworker (Boatbuilder, Steel). Participation in the program is voluntary, and no membership in labor unions or professional associations is required. The work process schedule and schedule of related instruction for the trade are attached (app A and B). The purposes of the work process schedule and the schedule of related instruction are as indicated below:

a. The work process schedule reflects categories of work experience required by soldier-apprentices to qualify as journeyworker and hours of work experience required in each category.

b. The schedule of related instruction identifies courses which may be taken by soldier-apprentices to satisfy the 576 hours of related instructions required for completion of the program.

7. Enrollment in the Program.

Soldiers may enroll in the program by contacting their installation education services officers (ESOs) who will explain requirements of the program and assist in the preparation of the apprenticeship application form (DA Form 4409-R).

8. Apprentice Log Forms.

Apprentice log forms and instructions on use of forms will be issued to soldiers by installation ESOs at the time of registration in the program. Log instruction sheets will be maintained by soldiers in a three ring binder. Soldier-apprentices will be required to annotate their work experience on log sheets on a daily basis. The standard for the amount of work experience logged will be 132 hours per month. Hours logged above this standard amount must be justified in the remarks section of the daily work experience record and attested to by the signature and rank of the shop craft supervisor or an individual holding a comparable position. Log entries must be verified by the soldier-apprentice's immediate supervisor on a weekly basis.

9. Credit for Previous Experience.

a. Newly enrolled soldier-apprentices who have partially completed an approved Federal or State registered civilian apprenticeship in the trade of Marine Hull Repairer, Ironworker (Boatbuilder, Steel) or a related trade will, upon presentation of documentation, be awarded credit for all experience related to categories of work contained in the work process schedule at appendix A.

b. Up to 4,000 hours of credit for previous military work experience may be awarded upon presentation of authenticated documentation of satisfactory performance. Such experience must be directly related to the occupation in which the apprenticeship is being performed. Statements from previous supervisors or other such documentation which certify category of work, number of hours by category, and quality of performance will be submitted by soldier-apprentices to their installation ESOs for consideration. ESOs will forward these documents to the Commandant, US Army Transportation School, ATTN: ATSP-ET-IAP, Fort Eustis, VA 23604.

10. Related Instruction Credit for Previous Military and Civilian Schooling.

Credit for previous military or civilian schooling may be awarded to satisfy related instruction requirements by presenting certificates of course completion or other such documentation from official military records or other sources. The installation ESO will determine the amount of credit to be awarded. The ESO will consult appropriate Service schools, as required, in order to determine the appropriate amount of credit for each course.

11. Completion of the Program.

Upon successful completion of the program, a Certificate of Completion of Apprenticeship will be awarded by the US Department of Labor. While the award of a Certificate of Completion of Apprenticeship will not guarantee a job, it will certify that journeyworker status has been attained, and should enable completers of the program to be more competitive with civilians in the trade.

12. Partial Completers.

Soldiers leaving the service prior to completion of the program will receive documented credit for that portion of the program which they did complete. This documentation may be presented for satisfaction of requirements of civilian apprenticeship programs in the field of Marine Hull Repairer, Ironworker (Boatbuilder, Steel) or a related trade. (See app C).

Appendix A
Work Process Schedule for the Trade of Marine Hull Repairer, Ironworker
(Boatbuilder, Steel)

	<i>Hours</i>
A. TOOLROOM	370
1. Learning names of tools	
2. Proper care of tool and welding equipment.	
B. WELDING CUTTING AND BRAZING	1,400
1. Welding theory—gas, electric, heliarc, MIG and TIG.	
2. Setting up machines.	
3. Setting up torches and gauges.	
4. Identification and use of rods and flux.	
5. Knowledge of metals to be used.	
6. Welding procedures, overhead, straight machine and circular.	
7. High pressure techniques.	
8. Stainless steel techniques.	
9. Brazing	
C. RIGGING	700
1. Tying proper knots necessary for hoisting and rigging.	
2. Revising quickly all types of rigs.	
3. Splicing eyes.	
4. Knowledge of block and tackle.	
5. Employs rigging techniques for precise removal and replacement of equipment, piping, wiring, and machinery.	
D. POWER TOOL USAGE	500
1. Hand drill and drill press.	
2. Power saw.	
3. Abrasive cut-off wheel.	
4. Overhead cranes and hoists.	
5. Shears.	
E. FABRICATION	1,500
1. Laying out from blueprints, sketches, marking symbols; laying out from patterns, required work and preparing marine repair specifications.	
2. Bending and rolling; use of proper equipment; heating and tempering procedure; learning proper sizes and use of tubes, tubing, and flanges; developing plates and shapes.	
F. ERECTION	2,000
1. Assisting Hull Repair Supervisor.	
2. Laying out on ship from blueprints, sketches or templates.	
3. Lining up and placing assembly on ship.	
4. Tacking and welding.	
5. Bolding, reaming, countersinking and riveting.	
6. Installing frames, beams, stiffeners.	
7. Applies techniques of straightening, fairing and curving damaged plate and framework so as not to distort or weaken hull.	
G. OTHER PROCESSES	1,330
1. Crops damaged plates, framing and fittings.	
2. Cleans, finishes and preserves metal surfaces by sealing, scraping and sandblasting.	
3. Cuts and forms steel, aluminum or other metals to forms, molds and templates by cold or hot processes in place or on the bending table.	
4. Applies soft patches of metal or other materials.	

H. TESTING	<i>Hours</i> 200
1. Perform dye-penetrant testing.	
2. Perform magnetic particle testing.	
3. Perform ultrasonic testing.	
	TOTAL <u>8,000</u>

Appendix B
Schedule of Related Instruction for Trade of Marine Hull Repairer, Ironworker
(Boatbuilder, Steel) (DOT CODE: 806.381-046)

A total of 576 hours of related instruction is required to complete this program. Credit for courses not listed below may be awarded upon presentation of authenticated documentation of satisfactory completion. A synopsis of the course must be submitted with documentation. Documentation and synopsis for courses not listed below will be forwarded by ESO's to US Army Transportation School ATTN: ATSP-ET-IAP, Fort Eustis, VA 23604.

Table B
Schedule of Related Instruction

Course No.	Course Title	School	Resident	Non-Resident	Hours Credit
A 704-61F10	Marine Hull Repairer	USATS	X		356 ^{bc}
B 704-61F20	Marine Hull Repairer	USATS	X		100 ^{bcd}
C	Marine Hull Repairer (MOS 61F)	USATS		X	3
D TRANS 300	Transportation Orientation	USATS		X	3
E TRANS 403	Marine Casualty Investigation	USATS		X	3
F TRANS 404	Rigging Ships Gear and Proper Storage	USATS		X	3
G TRANS 412	Marine Transportation Current and Proposed	USATS		X	3
H TRANS 428	Inspection and Maintenance of Floating Craft	USATS		X	3
Z ENGR 562	Painting I	USAES		X	10
AA ENGR 564	Heating and Ventilation	USAES		X	15
BB ORD 424	Machine Shop Practice	USAO C&S		X	19
CC ORD 425	Welding	USAO C&S		X	16
DD ORD 426	Allied Trades	USAO C&S		X	15
EE QM 418	Hand Tools	USAQMS		X	1
FF QM 492	Ecology and Oil Spills	USAQMS		X	2
GC SIG 98	Metric System of Linear Measure	USASIGS		X	1
HH CDC 53151	Metals Processing Specialist	USAF		X	87
II NAVEDTRA 91589-2A	Steelworker 3 & 2	USN		X	72
JJ NAVEDTRA 91591-2	Steelworker 1 & C	USN		X	36
KK NAVEDTRA 91507-2C	Machinery Repairer 3 & 2	USN		X	54
LL NAVEDTRA 91509-2D	Machinery Repairer	USN		X	18
MM NAVEDTRA 91249-A	Hull Maintenance Technician 1 & C	USN		X	48
I TRANS 452	Blocks and Tackle Used in Marine Operations	USATS		X	2
J TRANS 477	Low Pressure Marine Boilers	USATS		X	3
K TRANS 489	Vessel Emergency Repairs	USATS		X	7
L TRANS 492	Water Terminal Safety	USATS		X	2
M TRANS 493	The Hull Repairer Supervisor	USATS		X	2
N TRANS 495	Marine Pollution Control	USATS		X	2
O TRANS 917	Nondestructive Testing	USATS		X	2
P TRANS 967	Corrosion Control	USATS		X	3
Q ENGR 13	Engineering Drawing I	USAES		X	22
R ENGR 131	Engineering Drawing II	USAES		X	28
S ENGR 428	Strength of Materials	USAES		X	22
T ENGR 538	Sheetmetal Work I	USAES		X	16
U ENGR 539	Sheetmetal Work II	USAES		X	10

Table B
Schedule of Related Instruction—Continued

Course No.	Course Title	School	Resident	Non-Resident	Hours Credit
V ENGR 540	Sheetmetal Work III	USAES		X	19
W ENGR 541	Plumbing I	USAES		X	20
X ENGR 542	Plumbing II	USAES		X	17
Y ENGR 547	Plumbing III	USAES		X	12

Notes:

^A Persons who have not had resident instruction in Marine Hull Repair may meet the required 576 hours of related instruction by completing all Army non-resident courses listed above with an additional 234 hours taken from any combination of the remainder.

^B Persons who have successfully completed the 61F Marine Hull Repair Course presented at the US Army Transportation School prior to 15 March 1976 will be considered to have met 536 of the 576 hours of related instruction necessary for this program. Graduates of this course will be required to take an additional 40 hours of related instruction. This requirement can be met by completing courses lettered O and P above with an additional 35 hours taken from any combination of the remainder of the nonresident courses listed.

^C Persons who have successfully completed the course lettered A above after 15 March 1976 will be considered to have met 326 of the 576 hours of related instruction necessary for this program. Graduates of this course will be required to take an additional 250 hours. This requirement can be met by completing courses lettered C, E, I, K, Y, EE, FF, and GG with an additional 165 hours from any combination of the remaining nonresident courses listed above.

^D Persons who have successfully completed the courses lettered A and B above after 15 March 1976 will be considered to have met 426 of the 576 hours of related instruction necessary for this program. Graduates of this course will be required to take an additional 150 hours. This requirement can be met by completing courses lettered E, G, H, I, J, Z, and FF with an additional 124 hours from any combination of the nonresident courses listed above.

Appendix C
Example of a Partial Completion Letter

(Enter Office Symbol)

(Enter Date)

TO WHOM IT MAY CONCERN:

This is to certify that _____ was enrolled in the Army
 (Name)

Apprenticeship Program for _____
 (Name of Occupational Skill Area)

_____ during the period _____ to _____. During that period
 (Registration Number) (Date) (Date)

he successfully completed the following hours:

<i>Work Process</i>	<i>Hours</i>
A	_____
B	_____
_____	_____
_____	_____

Army Apprentice Programs are registered with the US Department of Labor and the fact that this individual did participate can be verified with the Bureau of Apprenticeship and Training, Patrick Henry Building, Washington, DC 20213, or by contacting Headquarters, TRADOC, ATTN: ATPL-AGE, Fort Monroe, VA, 23651.

Sincerely,

ESO's SIGNATURE BLOCK

Figure C. Partial Completion Letter

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