



**Gujarat Council of Vocational Training
Gandhinagar**



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1. Name of Course :

Fitter in (ship building industries)

Centre :

ITI AMOD/ VAGRA

7233.62

N.C.O. No. for Skills Covered:
(Please refer National Classification of
Occupations -2004 available
on www.dget.nic.in)

2. Engineering OR Non-engineering :
& Course objective

Engineering
To prepare skilled and specialized fitters for ship
building industries

3. No. of students per batch :

10 per batch

4. Duration in Hours. :

400 hours

5. Duration in Month :

2.5 Months @ 42 hours/Week.

Duration in Month :

4.5 Months @ 22 hours/Week.

5. Examination Scheme:

No.	Name of Subject	Teaching Hours during full course.	Maximum Marks. (Excluding Sessional)	Minimum Marks required for Passing (Excluding Sessional).	Sessional Marks if any.
Subject-1	Trade Practical	280	As per GCVT norms	-	-
Subject-2	Trade Theory	120	As per GCVT norms	-	-

Sr.No.	Practical Competencies	Underpinning Knowledge (Theory)
1	Engineering Terms	Engineering Terms
	--	Allowances, Tolerances, Clearances, Ductability, Malleability, Hardness, Tempering, Jigs & Fixtures, Templates, Go / No-Go Gauge
2	Lifting Devices:	Lifting Devices:
	Tackle, Shackle, V-Belts, V-Blocks, Chain Pulley Block, Cranes, Fork Lifter, Hydras, Slings etc.	Tackle, Shackle, V-Belts, V-Blocks, Chain Pulley Block, Cranes, Fork Lifter, Hydras, Slings etc.



2

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Gujarat Council of Vocational Training Gandhinagar



	Precautions / safety procedures during lifting & hoisting	Precautions / safety procedures during lifting & hoisting
3	Safety of personnel / Equipments / Fire / Accidents:	Safety of personnel / Equipments / Fire / Accidents:
	Training of Manpower Development of various tools etc. Procedures.	--
4	Weights / Measures	Weights / Measures
	--	Conversion factors, Various standards, inches to mm to thous
5	Engineering Special Tools	Engineering Special Tools
	Pressure gauge, Temperature gauge, Vernier calipers, micrometers, Feeler gauge, T-squares, Bridge gauge, Poker gauge, Depth gauge etc.	Pressure gauge, Temperature gauge, Vernier calipers, micrometers, Feeler gauge, T-squares, Bridge gauge, Poker gauge, Depth gauge etc.
6	Bearing – Types of bearings	Bearing – Types of bearings
	--	Journal, ball, roller, taper, needle shell, lubricants, cooling, precautions while working etc.

Sr. No.	Practical Competencies	Underpinning Knowledge (Theory)
1	Pumps – Various types	Introduction of Ship's Hull
2	Fire fighting system, CO2 system, Various types extinguishers, fire detection and control system	Main Engines, Gear-boxes couplings, plumber blocks, thrust blocks, Stern-tube, Shaft=tube, A' brackets, Korts-nozzle.
3	Diesel alternators motors – construction, system, installation procedure, control system	Steering gears, thrusters, rudders.
4	Power Generation & Distribution system – Principle, generation, distribution, main switch board, D.B., J.B., Transformer etc.	Capstan, windlass, anchor, cranes, davits, winches etc.
5	Safety of Equipments / Personnel / Ship : Causes of accidents, types of accidents, Accident agents, Precautions, Personnel	Air compressors, AC & Ref.



1337 (3)



Gujarat Council of Vocational Training Gandhinagar



	safety, Individual safety, Equipment / Stores safety.	
6	--	Pumps – Various types
7	--	Hydraulics, pneumatics, system.
8	--	Domestic systems – Fresh water, sanitary system, fresh water, boilers, calorifiers
9	--	FW Generators

1317

7. Entry qualification for Trainee:

Minimum entry qualification (Essential):	10 th pass
Desirable:	-

3. Minimum qualification for Trainer:

Minimum qualification (Essential):	Diploma in Mechanical Engineer
Desirable:	-

9. Syllabus Committee Member: Will be finalized by Head Office

Sr. No.	Name	Organization	Designation	Technical Qualification	Experience in Years	Signature
1.	Shri J.B.Parikh	ITI AMOD	Principal	DME	32 Year	[Signature]
2.	Shri V.D.Vasava	Employment Exchange, Bharuch	Employment officer	B.A.	8 years	[Signature]
3.	Shri Chakra	ABG Shipyard	Vice President	MPM L.B. B.Sc(Hons)	25 yrs.	[Signature]
4.	Shri B.B. Talavia	Gujarat Maritime Board	Chief Engineer	BC (C)	227	[Signature]

10. Terminal Skills of trainee: (Should be well defined and having reference to NCO):

The trainee, after successful completion of training, will have following skills...

1. Having knowledge of specialized fitter in ship building industry.
2. Good knowledge of Mechanical Trade.
3. Good knowledge in fitting in difference machines in ships

(please attach separate sheet, if more space is required)





Gujarat Council of Vocational Training
Gandhinagar



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11. Approximate cost of Tools / Equipments / Machinery for starting one batch of the course:

Rupees
1.10 lakh

Reference Year
2011-12

12. Area required for practical / Workshop for one batch.

97.5 Sq meter

13. Minimum Power connection required

.....1.82..... K.W.

14.1 No of items in Standard list of Machinery :

As per list

14.1.1. Page NO from ___ to ___.

14.2 No of items in Standard list of Shop outfit :

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14.2.1. Page NO from ___ to ___.

14.3 No of items in Standard list of Trainee Toll-Kit :

As per list

14.1.1. Page NO from ___ to ___.

***** FOR OFFICIAL USE *****

Approved by GCVT in Governing Body meeting on

19/01/2012

Syllabus implemented w.e.f. admission session

with immediate effect

Revision History :

1. Revision No..... Revision Date.
2. Revision No..... Revision Date.
3. Revision No..... Revision Date.





Gujarat Council of Vocational Training
Gandhinagar



24
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e/324

Standard List of Machinery - Equipment / Shop-outfit / or Trainee Toolkit
for Trade of Fitter in (ship building industries)

Sr. No.	Description of Item with detailed specifications	Item type i.e. Machinery / Equipment OR Shop Outfit OR Trainee Toolkit	Quantity Required per one Batch of Students	Quantity Required per one Batch of Students for Instructor	Total Quantity Required (Total of previous two columns)
1.	Tackle, Shackle, V-Belts, V-Blocks, Chain Pulley Block, Cranes, Fork lifter, Hydras, Slings etc.	Toolkit	10	1	11
2.	Pressure gauge, Temperature gauge, Vernier calipers, micrometers, Feeler gauge, T-squares, Bridge gauge, Poker gauge, Depth gauge etc.	Toolkit	10	1	11
3.	Fire fighting system, CO2 System	Toolkit	4	1	5
4	Distribution, main switch board, D.B., J.B., Transformer etc.	consumable	As per requirement		
5	Diesel alternators motors	Machinery	As per requirement		
6	Power Baxo Machine (Hydraulic Machine)	Machinery	As per requirement		
7	Pillar type Drilling machine 12 MM capacity	Machinery	As per requirement		
8	Benchvice 5'Jaw	Machinery	As per requirement		
9	Pipe Vice 4 'Jaw	Machinery	As per requirement		
10	Grinder Machine (General purpose) De Pedestal with 20 CM dia wheels Rough & smooth 2800 RPM	Machinery	As per requirement		

(As many sheets as required should be used to accommodate all items)

