



Date of survey.....	XX/XX/XX	Name of vessel.....	XXXXXX
Date of report.....	XX/XX/XX	Manufacturer.....	Cape Dory
Official number...	XXXXXXXX	Model.....	CDT 28 Cruiser
Hull identification number (HIN).....	XXXXXXXXXX	LOA.....	27'11"
Fair market value	\$0.00	Displacement.....	7,500#
Replacement cost...	\$0.00	Beam.....	9'11"
		Draft.....	2'11"
		Year of Manufacture	1988

Seal

Submitted without prejudice,
McGoldrick Marine Surveying, LLC
By Kevin J. McGoldrick, President

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Survey Initiation

Survey requested by:

Mr. XXXXXXXXX
 XXXXXXXXXXXX
 XXXXXXXXXXXX

Intended Users:

This survey is prepared for the exclusive use of the client listed above who has requested it. This survey is not transferable to any other person or entity. The intended users of this report and appraisal are the client and those lenders and underwriters considering financing or insuring this vessel for this client only.

Type of survey: Condition & Valuation Survey	Date of request: XX/XX/XX
Location of Vessel: XXXXXXXXXXXXXXXXXX XXXXXXXXXXXXXXXXXX XXXXXXXXXXXXXXXXXX	Navigational limits: Underwriter Determined
Use of vessel: Pleasure	Hauled: No – vessel was docked at a slip.
Individuals present at time of survey: 1. Mr. Kevin McGoldrick – Surveyor 2. XXXXXXXXX – Owner	

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Scope of Services

At the request of Mr. XXXXXXXXX of XXXXXXXXXXXX, McGoldrick Marine Surveying, LLC examined the above vessel. The examination was for purposes of condition and valuation to support the owners’ intent of insuring the subject vessel.

The Fair Market Value listed on page one has been derived from the overall condition of the subject vessel and by using commercially published used boat price guides (*BCU, Power Boat Guide*) and similar vessels published for sale in print and/or on the internet.

Where relevant, the surveyor’s recommendations are based on *The Federal Rules and Regulations for Recreational Boats*, as excerpted from the United States Code of Federal Regulations (CFR) and published by the American Boat and Yacht Council (ABYC), as well as the voluntary *Standards and Technical Information Reports for Small Craft*, also published by the ABYC, and *NFPA 302: Standard for Pleasure and Commercial Motor Craft*, published by the National Fire Protection Association (NFPA). An assessment whether the boat is in full compliance with all of the regulations and standards is beyond the scope of this survey. The surveyor does not warrant expressly, or implied, or guarantee compliance of the boat with above mentioned regulations or standards.

The purpose of a marine survey inspection is to determine, insofar as possible within the limitations of visual and physical accessibility, through non-invasive and non-destructive means the boat's structure, systems, cosmetics, and levels of compliance with currently applicable federal law and commonly accepted industry standards and practices.

Certain parts of the boat's structure, systems, and equipment can only be inspected after removing flats, bulkheads, joinery, headliners, tanks, etc. This is prohibitively time consuming, potentially destructive, and costly to restore. No invasive or destructive methods were used during this survey. Recommendations to use invasive or destructive tests may appear in this survey to confirm conditions suspected, or discovered, during inspection of the boat.

Situations where dirt, marine growth, coatings buildup or corrosion restricted the surveyor's ability to inspect will be noted in this report.

Hull and deck moldings were subject to close visual inspection, random percussion sounding, and Electrophysics Moisture Meter Model GRP33 moisture meter readings. Moisture readings can only be taken on clean and dry surfaces and can only be conducted when temperatures are above freezing. They are only a guide and they are not a guarantee against present or future moisture intrusion into the laminate or core material or against the existence of, or future development of, osmotic blisters. They are generally not reliable on bottom laminate which is painted with cupreous paints, or on salt covered decks and topsides.

The use of electronic moisture detection equipment in marine surveying is a relatively new technology. These instruments and their readings are subject to expert techniques and interpretations. In our opinion, moisture detection equipment should never be relied upon exclusively or out of context of other usual and customary survey observation practices and field testing methods (some invasive and/or destructive).

Complete inspection of machinery, plumbing, electrical systems and equipment can only be made by disassembly or continuous operation. This was not done but may be advised in this survey report. With the exception of a compression test, no mechanical tests were performed on the propulsion equipment.

The findings in this survey have been compiled subsequent to the following activities:

- I. In water inspection while docked at XXXXXXXXXX located in XXXXXXXXXX.

A sea trial was not conducted as part of this survey. No actual measurements or calculations were made by the surveyor during the survey; reported measurements and capacities are taken from published information.

Internal inspections were made of representative hull compartments including the anchor locker, under the vee berth, and the forward bilge pump access area. A general inspection was made of accessible areas of the engine compartment bilges

The following systems and structures were observed and/or operated, to the extent possible given the limitations and constraints noted above, during the survey:

1. Hull structure
2. Main propulsion engine
3. Fuel storage and delivery
4. Sanitation system
5. DC distribution and support system
6. Safety equipment
7. Fire extinguishing system
8. Ground tackle
9. Dewatering system



Photo #2

← Cockpit view.

Conditions at Time of Survey

Inspection was conducted entirely on 7/14/03. Weather was cloudy approximately 77° F, 65% RH, and winds were calm.

Vessel Overview






← View of helm.

The Cape Dory 28 hard top is a lobster boat inspired vessel with a plumb bow and sweeping shear. The vessel is equipped with a new (as reported by the owner) Yanmar diesel engine (82 hrs.) and straight marine reduction gear. The cabin area is plain with minimal accoutrements such as an enclosed head and small galley with sink and two burner alcohol stove. The vessel is in very good shape overall with a complete inventory of quality electronics.

Recommendations Legend

The following icons will be used throughout this report to identify the surveyors' findings. A summary of all findings and recommendations, with a cross reference to specific report pages, is provided on page 17.

Recommendation Legend:

	Systems and/or equipment that fail to comply with applicable regulations or statutes.
	Non-regulatory or standards deficiencies observed during the survey inspection.
	Recommendations to upgraded equipment, or perform preventative maintenance for safe and/or convenient operation of the vessel based on vessels intended use.

Hull Composition and Structure

Hull material	Hull is of solid FRP construction
Hull to deck joint	“Shoe-Box” type construction, screwed and bolted every eight inches on-center
Stringer system	Fiberglass encapsulated wood
Decking/superstructure	Wood cored FRP construction
Bulkheads	Not accessible

Discussion:

Vessel was examined in the water therefore the hull below the waterline was not inspected and limited inspection of the exterior hull above the waterline was conducted. Exterior hull condition above the water line is in good condition for a vessel of this age with few dings and scratches.

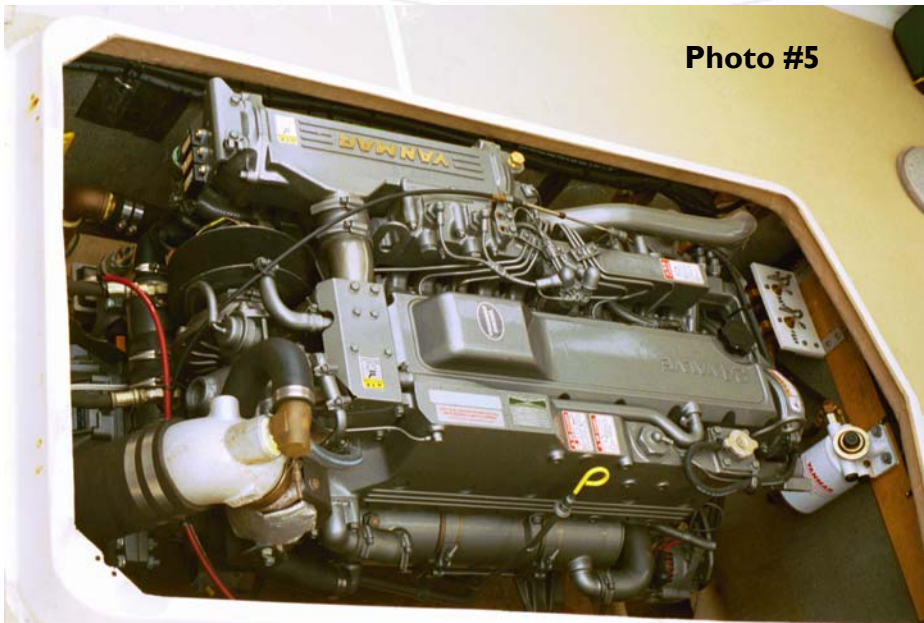
Interior hull is in good condition were inspection was possible. All observed and stringers and tabbing were sound.



← View of foredeck/anchor pulpit.

Propulsion Machinery

Main engines and model	Yanmar Model: 6LPA-STP Serial #: XXXXXX
Fuel type	Diesel
Backfire flame arrestor installed?	NA
Rated horsepower	300 HP @ 3000 RPM
Age of units, last over-haul and/or hours of operation	Owner reported that the engine is brand new, 82 hours was observed on the engine hour meter
Reduction gear and attached units	Hurth ZF Model: HSW-630-A1-I.6 Serial #: XXXXXX
Engine cooling system	Fresh water cooled
Engine compartment ventilation and blowers	Single blower, inoperable at time of survey
Propellers, material, number of blades	Not inspected
Shaft material and size	1 1/2" Stainless Steel
Steering system, type and number of stations	Cable steering, single helm



← Engine.

Discussion:

No abnormal conditions were observed with the installation and condition of the engine.

Tankage and Piping

Fuel	
Material	Aluminum
Location	Tanks are located under the cockpit sole approximately amidships, one to port, one to starboard
Capacity	50 gals. in each of two tanks
Installation	Inaccessible
Water Heater	None
Water	
Material	Polyethylene
Location	Under vee berth
Capacity	≈ 20 gals.
Installation	Held in place with wood strips
Holding	
Material	Unknown – inaccessible
Location	Under cockpit sole near helm
Capacity	≈ 20 gals.
Installation	Unknown – inaccessible
Cooking	Two burner non-pressure alcohol
Marine sanitation device (MSD) system compliance	Type III MSD
Fuel system compliance	Yes

Discussion:

Seacock supplying raw water to the head is frozen in the open position. This seacock should be worked free; all seacocks should be cleaned and lubricated so that they operate freely. Seacocks should be operated monthly to ensure operate smoothly and close securely.

⊗ I FINDING	RECOMENDATION
Seacock supplying raw water to the head is frozen in the open position.	This seacock should be worked free; all seacocks should be cleaned and lubricated so that they operate freely. Seacocks should be operated monthly to ensure operate smoothly and close securely.

Electrical Systems

D/C systems and voltages	12-volt DC
Storage batteries, number and type	Two group 27, 12-volt lead acid batteries
Battery stowage method, fastenings and ventilation	Strapped in battery boxes located under cockpit sole near the helm
Wiring system	Observed wiring is marine grade cable
Power distribution system	Switch panel located at helm
Circuit protection devices	MDL type fuses
Battery charging system (charger, alternator)	Engine mounted alternator
Cathodic protection (zinc anodes)	Not accessible
Bonding systems (electrical, fuel system)	Yes



← Helm gauges and DC switches and fuses.

Discussion:

All observed components of the electrical system were normal.

Navigation Equipment

	Make and Model
Compass	Ritchie Powerdamp
VHF	1. Standard model GX23105 serial # XXXXXX 2. Icom model IC-M402S serial # XXXXXX
Depth Finder	Furuno model CV-600L serial # XXXXX
GPS/Chartplotter	North Star model 952X serial # XXXXX
Radar	Raymarine model Pathfinder SL72 Radar antenna serial # XXXXXX

Discussion:


This vessel is well equipped with onboard navigation and communication equipment given its size.

Safety Equipment

Personal flotation devices (PFD's), number, size and type	Three Type II Two Type I
Throwable device, number and type	One seat cushion
Sound signals (bell, horn, whistle)	Portable air horn
Visual distress signals (number, type, currency)	Expired
Navigational lighting	Okay
Vapor detector (CO)	None
Reboarding Means	None


Discussion:

The inventory of safety equipment onboard does not meet USCG requirements. The visual distress signals have expired.

 2 FINDING	RECOMENDATION
The following USCG requirement was not met: Visual distress signals	Current VDS should be aboard prior to operating the vessel.


ABYC standards state:

A-24.7.1 *A carbon monoxide detection system shall be installed on all boats with an enclosed accommodation compartment...*

 3 FINDING	RECOMENDATION
Carbon monoxide detector is not installed.	Install a CO detector in the main cabin area.

There is no means to reboard the vessel by a person in the water. ABYC Standards state:

H-41.9.1 *Means of unassisted reboarding shall be provided on all boats for the purpose of reboarding the boat from the water.*

 4 FINDING	RECOMENDATION
There is no means for a person in the water to reboard the vessel.	Install a means for a person in the water to reboard the vessel unassisted such as a swim ladder or emergency ladder deployable from the water.

Fire Extinguishing Systems

Type, size and location of units	USCG approved type B-I: one located in the cabin Automatic Halon extinguisher located in engine compartment
Unit inspection certificates	None
Regulatory and standard compliance	On board units are USCG approved

Discussion:

Onboard fire extinguishing equipment does not meet USCG or ABYC requirements. ABYC standards state:

Table A

Type of Boat	Number of Extinguishers	USCG Type	Location
Boats 26 ft. to under 40 ft. in length	3	B-I	Outside engine compartment, steering position and galley*, or passenger cockpit

* Note: On boats having galley stoves, one of the required extinguishers shall be readily accessible thereto.

⊗5 FINDING	RECOMENDATION
Onboard fire extinguishing equipment does not meet USCG or ABYC requirements.	Provide for three USCG approved type B-I fire extinguishers in the locations stated in Table A .

Ⓜ6 FINDING	RECOMENDATION
Portable fire extinguishers require maintenance.	Inspect portable fire extinguishers monthly by checking the pressure gauges, and by weighing the units. Recharge or replace units after any discharge and have all units checked annually by a qualified technician.

Ground Tackle

Anchor(s), size and type	1. Danforth anchor ≈ 10 Lbs. 2. Bruce anchor ≈ 10 Lbs.
Chain and line, size and type	Nylon rode with shot of chain
Windless	None

Discussion:

The anchor is too small for the vessel. I recommend that the anchor be increased to at least 16#. The existing anchor and rode should be kept onboard as a back up.

P-7 FINDING	RECOMENDATION
The anchor is too small for the vessel.	The anchor should be increased to at least 16#.

Dewatering Systems

Pumps quantity and type	Keel Area: 1. 750 GPH automatic electric centrifugal type bilge pump
High water bilge alarm	None



← Bilge pump located in keel sump and dripless shaft packing.

Discussion:

The bilge pump installed on this vessel will provide marginal dewatering capabilities for spray and rain water that finds its way into the bilge. The bilge pumping system will have a difficult time keeping up with any type of flooding.

8	FINDING	RECOMENDATION
	Capacity of bilge pump system is inadequate for a vessel of this size.	Consider adding more bilge pumps, upgrading existing pump capacity, or both. This vessel should carry a minimum of 2 pumps capable of pumping a total of 7000 GPH or more.

9	FINDING	RECOMENDATION
	Vessel is not equipped with a high water bilge alarm.	On vessels with enclosed cabins, consideration should be given to installing an alarm system to indicate that the bilge water is approaching the maximum bilge water level.

Shipboard Amenities

Heads, Quantity and type	Single enclosed head
Showers, quantity and type	None
Cooking facilities, type and energy source	Two burner non pressure Origo model 4000 galley stove
Heating and air conditioning systems	None
Other	Stereo, remote spotlight, dual voltage refrigerator, TV/VCR



← Head.

Photo #8

Miscellaneous

Placards, regulatory and instructional	Oil placard posted in engine compartment, no garbage placard posted
Canvas and covers	Canvas to enclose hardtop area (not the cockpit area)

⊗ 10 FINDING	RECOMENDATION
No garbage pollution placard is posted as required by CFR Title 33 Section 151.59.	Display placard in a prominent location(s) and in sufficient numbers so that they can be read by crew and passengers.

Remarks

This report is based on the opinion of the undersigned and covers items observed at the time of the survey only. No warranty is given or implied by this report. No liability is assumed for errors or omissions of this report. It is agreed by all parties who make use of this report that this surveyor, this office and its heirs are indemnified and discharged of any and all liabilities that may arise therefrom. This report represents the unbiased findings of McGoldrick Marine Surveying, LLC.




Submitted without prejudice,

McGoldrick Marine Surveying, LLC
By Kevin J. McGoldrick, President




Summary of Surveyors Findings and Recommendations


Recommendation Legend:

	Systems and/or equipment that fail to comply with applicable regulations or statutes.
	Non-regulatory or standards deficiencies observed during the survey inspection.
	Recommendations to upgraded equipment, or perform preventative maintenance for safe and/or convenient operation of the vessel based on vessels intended use.


See pg. 9

 1	FINDING	RECOMENDATION
	Seacock supplying raw water to the head is frozen in the open position.	This seacock should be worked free; all seacocks should be cleaned and lubricated so that they operate freely. Seacocks should be operated monthly to ensure operate smoothly and close securely.


See pg. 11

 2	FINDING	RECOMENDATION
	The following USCG requirement was not met: Visual distress signals	Current VDS should be aboard prior to operating the vessel.


See pg. 11

 3	FINDING	RECOMENDATION
	Carbon monoxide detector is not installed.	Install a CO detector in the main cabin area.

See pg. 11

 4	FINDING	RECOMENDATION
	There is no means for a person in the water to reboard the vessel.	Install a means for a person in the water to reboard the vessel unassisted such as a swim ladder or emergency ladder deployable from the water.

See pg. 12

 5	FINDING	RECOMENDATION
	Onboard fire extinguishing equipment does not meet USCG or ABYC requirements.	Provide for three USCG approved type B-I fire extinguishers in the locations stated in Table A .

See pg. 12

Ⓜ6	FINDING	RECOMENDATION
	Portable fire extinguishers require maintenance.	Inspect portable fire extinguishers monthly by checking the pressure gauges, and by weighing the units. Recharge or replace units after any discharge and have all units checked annually by a qualified technician.

See pg. 13

Ⓜ7	FINDING	RECOMENDATION
	The anchor is too small for the vessel.	The anchor should be increased to at least 16#.

See pg. 14

Ⓜ8	FINDING	RECOMENDATION
	Capacity of bilge pump system is inadequate for a vessel of this size.	Consider adding more bilge pumps, upgrading existing pump capacity, or both. This vessel should carry a minimum of 2 pumps capable of pumping a total of 7000 GPH or more.

See pg. 14

Ⓧ9	FINDING	RECOMENDATION
	Vessel is not equipped with a high water bilge alarm.	On vessels with enclosed cabins, consideration should be given to installing an alarm system to indicate that the bilge water is approaching the maximum bilge water level.

See pg. 15

Ⓧ10	FINDING	RECOMENDATION
	No garbage pollution placard is posted as required by CFR Title 33 Section 151.59.	Display placard in a prominent location(s) and in sufficient numbers so that they can be read by crew and passengers.