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R048

June 11, 2020

Re: 1990 Viking 45 Convertible | Flybridge

Dear Mr. Rapoza,

This letter reports the results of a survey of the above vessel which was inspected on the 11th of June 2020 at the Pleasure Marina in Warwick, Rhode Island while afloat. You requested the inspection to establish its condition and value.

*The survey guidelines are provided, for the most part, by the "N.F.P.A., and A.B.Y.C., Coast Guard Standards, and the "Code of Federal Regulations", as published for pleasure yachts, and the values guideline is the current edition of the "BUC" book along with current market conditions.*

The survey of this vessel is based solely on a careful visual inspection of all accessible portions of it's hull and equipment. Certain parts of the hull and structure can be inspected only by removing decking, liners, bulkheads and sheathing. These areas were not inspected. It is my normal practice to conduct a survey which includes a sea trial. The sea trial enables me to make a determination concerning the engines and reduction gears. In order to make a proper inspection of these important components, they must be brought up to operating temperature and run under a load at RPM for a period of time. Inspection and operation of the engines was limited to a visual inspection.



#### General

The vessel was built by Viking Yacht Company of New Greta, New Jersey, in 1990. Moulded into the hull at the transom is the hull ID number VKY445290. Pertinent dimensions of the vessel are: the LOA 45' 5", and the beam is 15', the draft is approximately 4' and the displacement, according to the book, is 39,000 pounds.

## *Preface*

*In May of 2017 I surveyed this vessel while it was afloat. You had just completed the purchase and had plans for an extensive refit. In addition to the plans you listed a complete re-built of the Port engine and reduction gear.*

*The port engine was disassembled and removed from the vessel, totally rebuilt and re-installed including the I beam motor supporting fixture. I have note that the rebuild and relater work was completed in a professional mahher.*

*During the past three years this vessel has been the subject of an extensive refit and refinish regime with little regard foe expense.*

*Some of the items mentioned in this refit include:*

*The port side freeboard was stripped and refinished in white epoxy.*

*The flybridge deck was replaced.*

*New helm seats have been installed.*

*Other reccomended components and work from the previous survey have been instakked.*

*They are: Co Detector, Backup ground tackle, a complete Coast Guard Safety and Signalling package, proper AC ground, secure Bonding system, proper routing of cooling hoses to engine components, new raw water intake, and miscellaneous twelve volt wiring harnessing.*

## General



This vessel was designed for off-shore yacht service. She was heavily built to withstand years of off shore service. The hull is a heavily laid-up polyester laminate reinforced with fiberglass matt and woven roving in a modified "V" configuration. The finish is off white Epoxy Paint. The finish is in very good condition, overall, with just a few noticeable mars or scratches. There are no serious structural abrasions on the free-board part of the hull. The hull-deck attachment is secure, and trimmed with a stainless rub rail. I was unable to locate

any delamination or separating of glass, including the engine bearers and stringers. The hull below the waterline is solid fiberglass. A closed cell PVC foam along with Balsa core is used in the topsides and superstructure. There is an adequately sized anchor with appropriate line properly mounted along with the electric windlass at the bow. The ground tackle is more than adequate and in good condition. The electric windlass is in good shape and operational. The bridge and forward deck are constructed of cored fiberglass. The structural integrity of the hull is good. The bulkheads and interior tabbing are in good condition and secure. All bulkheads are marine grade plywood. All stringers and frames are in good condition. The bulkheads are properly tabbed and rigid. The interior surface of

the hull, as can be observed at the bilge area, is epoxy coated and in good condition, and clean. There are adequate large chrome plated bronze cleats provided for docking. The cleats are secure and properly backed. The bridge unit is properly secured to the hull structure.

The cockpit finish is also off white Epoxy paint. The finish is in very good condition, overall, with no noticeable mars or scratches. There are no serious structural abrasions in the cockpit or deck areas. There is a stainless steel bow pulpit installed, along with a fiberglass anchor pulpit and they are secure. The stainless ladder to the bridge is in good condition and secure. The cockpit

components and lockers are in good condition. The deck is well supported and the deck hatches are secure. The navigation lights conform to the CFR.

The bottom (sections below the water line) was not inspected. All through hulls below the boot are bronze and been recently serviced, and their related valves are working properly.



## Bridge and Operating Station

The bridge operating station is well designed and the controls are easy to operate. The upholstery is in very good condition, some new this year. The compass is accurate on its present heading. The shifts and steering are also smooth operating and in good condition. Steering is hydraulic to manual and the related lines and connections are in good condition. There is a complete color keyed canvas enclosure that covers the entire operating station and bridge



area. The canvas enclosure, and supporting structure appear to be a recent upgrade. The bridge is equipped with stainless life rails which are secure and properly backed. Overall, the bridge, including the operating station and upholstery is in excellent condition. The top of the bridge is solid fiberglass and well secured and sturdy.



## Fore and aft decks

The fore deck area is in good, clean condition and free from any damage. The stainless deck, rails and structures appear lightly used and are in very good condition. Also mounted on the forward deck is a dinghy cradle and motorized davit for the tender. The davit is well supported through to below the main deck.

The aft deck is equipped with a transom entry door which is in good shape and well secured. The aft deck is provided with overboard scuppers, port and starboard. The cockpit trim and furnishings are in excellent condition. Overall the Fore-deck and Aft deck and all walkways are secure and in excellent condition.

## Main Cabin



The main cabin houses the salon, galley, and dinette. This area is spacious, nicely finished and in better than average condition. The jointer work is made up of solid Mahogany, teak, and vinyl, and for the most part, appears lightly used.

Note that new color keyed Nylon carpet is on board, cut and ready for installation this week. The main salon plywood deck is well supported and sturdy. All deck supports were checked from below and all are secure.



The upholstered sections show light use, good care, and maintenance.

The doors and ports are in good condition and tight to the weather. The entire interior area is in excellent condition and bright. The overhead vinyl liner also appears in excellent condition, clean, and well secured. Blinds, and miscellaneous furnishings are all in very good taste and condition. The furniture appears to be recent upgrades and is also in lightly used condition. The audio and video systems are contemporary.

Lighting is good throughout the vessel. The large sofa converts to sleep two adults. The main salon, overall, is in excellent condition.



Easy access to the main AC/DC control panel is located here in the main salon. The panel is in good condition and appears original.



## Galley



There is a complete inventory of full size galley appliances, two burner surface mounted stove, microwave oven, and full size refrigerator, which appear in lightly used condition. The counter top in the galley is comprised of Formica which is in good shape. There is a large sink located between the stove and refrigerator in the galley area. The sink and its related faucets and over board drain are in good condition and clean. The sole in the galley is Teak and Holy striping and is in excellent condition and secure. No rot was found in any deck timbers or supports. The galley is located a few steps forward and below the main salon and dinette. The galley, overall, is in excellent condition.

## Forward berths



A large custom sized bed is located beneath the forward deck. This area is clean, nicely finished and upholstered. There is adequate lighting and ventilation in this area. The deck (fitted with new Nylon moisture resistant Nylon carpet) in this area is properly supported, and in overall good condition. Some of the this area is sheathed with vinyl and some in nylon, the jointer work is solid Mahogany with a bright finish. I was unable to locate any excess moisture on any surface in this area.



The forward head with shower and hand basin are located in this area. The marine toilet, hand basin, and their related fittings, including overboard discharges and through hulls, are in good condition. The marine electric toilet is equipped with a macerator and proper holding tank system. The head is clean and odor free. The entire area is free from rot, any type of blistering and in good condition. (Photo on next page). No septic odor was noted.



## Electrical and Electronics

The electrical panels are in good shape. There are three 3 position battery disconnect switches mounted on a bulkhead below deck. They are in good condition and properly wired. All DC circuits were rung out and found to be in good condition. The 120 Volt power panel, breakers, and circuits were found to be in operating condition. All wiring is properly harnessed and secure, as can it be observed through out the vessel. Two shore

power cables are on board and in good condition, as are the connections. The running lights conform to the CFR and ring out okay.

Electronics includes, Autopilot, Radar, Horn and Intercom, GPS with chart plotters. There are two VHF transceivers, a depth finder, knot log. The electric motors which operate the toilet pump and fresh water system are in good working order.

The shore power system is in good condition, as are the cables. The automatic battery charger was not checked out, but appears fairly new. The navigation equipment and electronics has been operated.

## Piping, Tanks, and Systems



The water heater appears to be a recent upgrade and is in working order.

The fuel fills, vents, and feed lines are in good condition and equipped with proper fuel shut-offs. Air/Heat systems are in good shape.

## Ground Tackle

Appropriate ground tackle is installed. A second (backup) ground tackle system is on board. Adequate dock lines and fenders are on board. The anchor windlass and davit winch/hoist (operational) also appears lightly used.

## Propulsion and Mechanical



Propulsion is by a pair of fresh water cooled, turbo charged, 671 Detroit Diesel engines with Twin Disc reduction gears, coupled to monel shafts and on to bronze propellers. The shaft logs are in good condition. The engines and gen set were not operated as you just returned from a trip.

The engines are rated at approximately four hundred and eighty horsepower each. Visual inspection of the engines, oil, filters, and related connections show no signs of abuse. The fuel lines are of the approved type and are in good condition. The stringers that support the engine mounts are heavily built of fibreglassed wood beams and properly secured to the structure. The stringers also provide rigidity to the hull. The stringers are in good condition. The raw water intakes are equipped with a proper outboard sea water strainers. The engines exhaust through an approved rubber composite hose on to fiberglass tubes and silencers and then through the transom. The exhaust system (as can be inspected) is in good condition. The AC generator engine exhausts through approved rubber hose and silencer to overboard. The fuel lines and filters to the generator set are in good condition. The raw water intake which supplies the generator is in good condition. There are appropriate bilge pumps mounted. The fuel tanks (as can be inspected) are in clean condition. There are two water cooled Cruise Air conditioners properly installed that provide heat and air-conditioning to all living compartments. The units were checked out while operating.

The bonding system installed is in serviceable condition and had a recent upgrade. There are no traces of oil in the bilge, and the bilge is clean overall. The batteries on board are properly boxed and secured. The batteries appear to be recent upgrades. The custom hydraulic steering gear is in good condition and operates smoothly. They are properly connected to the approved three way switches and then on to a the custom breaker panel. The wiring and terminals that could be observed are in good serviceable condition. The water tank, water heater, and holding tank as can be examined, are in good condition.

Boat Detail Sheet  
From the current edition "BUC Book"

VIKING YACHT COMPANY, NEW GRETNA, NJ (MIC: VKY)

Model Year 1990 Hull Material Fiberglass

Model CONVERTIBLE 45 Hull Configuration Semi Vee (Modified Vee)

Length Overall 45' 5" Draft 4' Length On Deck Beam 15'

Boat Type Sedan Sport Fisherman | Flybridge Weight 39000 lbs.

Engine Type Inboard Twin 485D General Motors 671TIB Johnson & Towers

The information presented here is believed to be reliable but not guaranteed. For various reasons, including the subjective nature of vessel evaluations and the possibility of incomplete or inaccurate information regarding comparable vessels and sales thereof, we do not make any warranties whatsoever regarding this report, and WE EXPRESSLY DISCLAIM ALL WARRANTIES OF MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE. BUC does not provide expert witness testimony.

Current Retail Value Range \$134,500-\$148,000 118th edition.

Fair Market Value Adjusted for Better Condition in the North Atlantic  
\$152,000-\$167,000

Replacement Value \$1,490,000

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Safety equipment

Fire extinguishers and safety equipment on board include:

Kidde BC size 10 dry chemical four units.

Adequate PFD's (in good condition)

A throw ring, Signal Flares, Whistle, Bell, and Fire extinguishers are on board.

### *Item Specific List*

1. Coast Guard Safety and Signalling package..... complete

#### Electrical

2. AC/DC Isolation..... Isolation system installed, GFCI installed
3. AC/DC ground system..... DC ground in accordance with ABYC standards.  
AC ground, as originally equipped (Closed loop system).
4. DC control panel..... original, at control station, well maintained. DC wiring is original stranded copper with original harnessing in place.
5. AC control panel..... In main salon in original condition.

#### Fuel system

6. Fuel lines.... Flex line, recently upgraded and properly secured, US Coast Guard approved type rubber line.
- 6a. Fuel line shut-off valve..... bronze valves, at tank
7. Fuel tank.....well secured, sections that can be observed are in good, clean condition.

#### Propulsion system

8. Carburetor back fire flame arrester..... NA Diesels
9. Exhaust system.....US Coast Guard Approved type rubber and some fiberglass tube, appropriate silencers, in serviceable condition, with original supports in place.
- 9a. Exhaust system risers.....All look good
10. Engine mounts..... secure
11. Engine shaft logs..... secure, properly clamped

#### Hull and Mechanical systems

- 11A. Engine compartment ventilation.....two Coast Guard Approved type 12 volt blowers along with appropriate flexible ductwork to hull outlets.
12. Rudder shaft logs.... secure
13. Rudder towers.... secure
14. Steering gear and controls.... Hydraulic to manual, lines and hardware are original and are in good condition
15. Overboard fittings..... all bronze fittings below the water line, shut-off valves are working properly and are well maintained, appear original.  
US Coast Guard approved type and are double clamped.  
Overboard fittings are plastic above the waterline and in serviceable condition
16. Backup ground tackle.....observed

*Other photos page*



*Exhaust system hardware and rudder shafts at transom, in good shape.*



*Inboard side of Port engine*



*Another view of fly bridge*



*Shore Power entry points (Cockpit)*



*Battery charger*

## Conclusion

This survey can not be construed to guarantee or warrant the condition or operational condition of the vessel as a sea trial and engine test was not conducted

This vessel is in excellent overall condition, and shows about average use.

As you are just completing an extensive upgrade and refit of the vessel It is obvious that you have completed the list of items that make the vessel contemporary.

I feel the value would be approximately \$125,000.00 in todays market.

### Recommendations:

None, as this vessel has just undergone a thorough refit and is read for duty. All recommendations from the previous survey have been completed and this vessel is in seaworthy condition.

Cordially,



James Cross, Certified Marine Surveyor

JC/pam



Battery switch control panel

