Tel 204-885-3259 Fax 204-888-5871

PRAIRIE SEA SERVICES
MARINE SURVEYING and INSTRUCTION

159 Whitegates Crescent
Winnipeg, MB
R3K 1L1

To: Lynn Funk
Oldfield Kirby Esau Inc.
330 St. Mary Avenue
Winnipeg, MB.
R3C 3Z5

Date: January 9, 2020

Ms. Lynn Funk:

This is to certify that the undersigned surveyor did proceed to Gimli, on October 7, 2019 and there did survey the below named vessel for the purposes of ascertaining the condition and seaworthiness of the said vessel. The vessel was not in the water at the time of the survey. The vessel was appropriately supported on a 'road-ready' trailer of sufficient size and strength to safely support and transport the vessel. The report is furnished to Oldfield Kirby Esau Ink., and the current owners.

While the surveyor performs to his ability, these judgments are estimations. This surveyor, agents, or employees are not to be held responsible for any inaccuracies, omissions, misstatements or errors in judgment. It does not create any liability on the part of the surveyor or agents arising out of reliance on the contained information. It can be adjudged as an evaluation opinion of the attendant surveyor.

This Survey Report has been compiled from examination without necessarily opening concealed parts in their entirety.

The Recommendations that occur at the end of the Report have been discussed with the owner.

Submitted without prejudice.

George D. Bush
Marine Surveyor
Prairie Sea Services

MARINE SURVEY REPORT

Vessel Identity

Vessel Owner	Cliff Carefoot,
Vessel name	*Paragon (*Photo #1, #2)
Vessel	Tartan 10
Manufacturer	Tartan Marine Corporation, Grand River, Ohio.
Designer	Sparkman & Stevens
Hull Number	TAR33346M84A
Hull Number	346
License Number	WS4820CW
Year Built	1984
Length	33.15 ft
LWL	27 ft
Beam	9.25 ft
Displacement	7100 lb
Ballast	3440 lb
Draft	5.58 ft
Keel	Lead fin with spade rudder

Many of the above specifications were taken from printed material and manufacturer's brochures.

TERMINOLOGY USED IN THIS SURVEY

"Satisfactory" denotes items or components that appear to be in serviceable condition only where entirely available for visual or other appropriate inspection as determined by the surveyor.

"Recommendation" refers to the need to take some kind of repair, maintenance or upgrade action. Items identified in this manner are posted in the "Recommendations" section of this report.

Hull and Deck

The entire hull both above and below the waterline was carefully examined and found to be in good condition and completely fair. (Photo #3). There are several above waterline gel coat scrapes and gouges but these are cosmetic in nature and no FRP (fiber reinforced plastic) under the gel coast has been exposed. The existing bottom paint is in satisfactory condition.

Moisture readings were carefully taken on the entire hull, with a *Wagner model L606* moisture meter. Percussion testing with a phenolic hammer was also used to explain any variations in the readings where thicker layers of FRP were expected and stringers were present. The deck was randomly examined for moisture content with the aforementioned moisture meter. There were no areas in which any significant moisture content was found. The rudder was checked for moisture and found to be dry. There was, however, some slight play in the rudder post. Satisfactory.

The keel to hull joint is in satisfactory condition although some separation is evident (Photo #4). Recommendation #1.

The bilge in this vessel is quite shallow and at sometime was painted white. The bilge was found to be dirty and contained approximately 1L of water. The hose for the bilge pump was not attached to the floor of the bilge and so operation of the bilge pump in the cockpit although drawing air did not remove any of the water. Recommendation #2. Under the cockpit the hose that moves bilge water outboard was cracked.(Photo #5). The *Henderson MK V* bilge pump was only connected to one hose. (Photo #6).

Ballast keel bolts are clearly visible from beneath the cabin sole. The tops of these nuts as well as the stainless steel keel bolts showed no evidence of corrosion. The best maintenance for the bilge and its contents is to keep it dry and clean. There is no evidence of stress on the keel being mounted to the FRP keel stub.

Deck Fittings

The area around each stanchion was carefully examined, as the stanchions are an integral part of the aluminum toe rail, limited gel coat crazing was evident (Photo # 7). All lifelines are in satisfactory condition, except that the lifeline turnbuckles on both sides of the vessel at the stern do not have any split rings to prevent the lines from failing. Recommendation #3. Both pulpit and pushpit are constructed of a single formed stainless steel tube with welded supports. Both are in satisfactory condition.

All fitting on the deck have been well organized and arranged to allow efficient sail control. (Photo #8) Many deck fitting were professionally installed during the original manufacture, however, all additional fittings installed by the previous owners including the current owners were examined for appropriate mounting on the deck.

A pair of *Ritchie Powerdamp* compasses have been mounted the side decks to detect wind shifts and tacking angles.

An examination of the gasket for the opening hatch forward of the mast was in good condition and should be impervious to water when closed and locked. There was no evidence of water staining on the cabin headliner below the hatch.

The vessel does not have an anchor locker, see section on Safety. A round plastic inspection port has been installed on the foredeck. (Photo #9). There was approximately 75 ml of water found directly under this port. Recommendation #4.

Running Rigging

The primary winches are a pair of *Lewmar* two speed 30's and the secondary winches for flying sails are a pair of *Lewmar* two speed 40's. A pair of single speed *Lewmar* 8's are mounted on the coach roof behind *Spinlock STX* line clutches for halyards and other controls like spin pole uphaul, *Cunningham*, and outhaul. All line controls, winches, cleats, and lifeline stanchions have been meticulously backed with stainless steel plates. (Photo #10). An FRP hard vang has been installed to improve speed and safety when reefing the mainsail.

It should be noted that the majority of blocks and deck hardware are either *Harkin* or *Lewmar*. These are two of the most reliable manufacturers of excellent quality marine hardware. The traveler and line controls for the Harkin main sheet system are located forward of the helm steering station. The main sheet controls are unique in that there are two complementary lines for rapid adjustment or fine tuning of the main sail with respectively a double or a single line use.

The T-track on either side of the deck that accommodates the headsail genoa fairleads are solidly attached. The fairlead cars have split rings that have been covered with tape but should be replaced to avoid injury when adjusting their position under load.

All rope halyards, sheets, and lines are in satisfactory condition.

Standing Rigging

The Kenyon mast, spreaders, and boom are in satisfactory condition. The both mast and boom paint has undergone UV degradation, and some chipping of paint. However, there are no dents, cracks or visible damage to these spars. A careful examination of the fore and aft 1 x 19 stainless steel stays together with both sets of shrouds showed no flaws in the wire rigging. To maintain the integrity of wire rigging, owners and crew should ensure that appropriate coiling and securing is done when the mast is stepped and un-stepped.

Thru-deck chain plates for the mast shrouds are located below decks as are the turnbuckles. The terminated ends were inspected for secure locking nuts, and to ensure no separation from the terminated knees. All fittings are in very good condition.

The mast is deck stepped and is supported by an aluminum compression post located directly beneath the mast deck tabernacle and descending through the cabin sole to the cross-members in the hull. The support base was clean, and free of corrosion. The vessel is equipped with laminated wooden tiller with an extension handle and cover.

Cockpit

The Tartan 10 has aft cockpit with helm tiller steering aft of the traveler. The cockpit sole and seating is a combination of solid FRP and FRP cored with end-grained balsa in high stress areas. Moisture content in the cockpit was measured by the previously listed moisture meter and carefully checked with the phenolic hammer. Both tests indicated minimum moisture readings.

Cockpit lockers provide adequate access to the anchor, various boat fenders, the fuel tank and the bilge pump mechanism. The locker hatches are in fair condition.

Engine gauges, ignition switch and engine stop are located on the port side of the cockpit with easy view of the helmsman. The engine controls are mounted on the starboard side of the cockpit.

Access to the manual bilge pump is on the port side of the cockpit.

Interior

The well designed but spartan interior of the Tartan 10 reflects the true nature of the vessel as a club racer. The teak and holly veneer plywood sole has been replaced since the vessel was manufactured in 1984, and is still in good condition.

All bulkheads are of marine grade plywood with teak veneer and are fit and finished. There are two primary interior bulkheads. One bulkhead is located at the forward end of the main cabin isolating the v-berth, and the other separating the main cabin from the two quarter berths. Secondary bulkheads (Photo #11) are amidships and are important structural components providing athwartship rigidity to the hull.

Careful inspection of the hull to deck joint area showed no incursion of any moisture from the hull joint. Fabric has been applied to the cabin wall to create a more comfortable appearance. Visual monitoring of the fabric liner would easily identify any issues with moisture through the hull to deck joint.

Cabinets, lockers, and shelving are well suited for the vessel. Storage areas have an unfinished interior that is consistent with Tartan 10 construction.

There is a small stainless steel sink on the starboard side of the cabin. The upholstery is in only fair condition as some of the original covering has been damaged. (Photo #12). The headliner has been slightly ripped near the teak trim that runs longitudinally on the ceiling of the cabin.

There are three 12 volt lighting fixtures in the vessel that operated and tested appropriately.

Propulsion

Paragon was observed and inspected both out of the water and in water to observe the operation of the engine, drive chain and the helm controls.

Auxiliary power is provided by a *Universal Atomic Diesel Model 5411* rated at 11 Hp with SN302859 as sighted on the engine. No hour meter has been installed. The engine bed is an FRP molded stringer and is integrated into the aft floor plan. There are adjustable motor mounts attached to the wood risers. Both risers and rubber mounts appear to be in good condition. The absence of excessive vibration when motoring confirmed the status of the motor mounts and the overall alignment of the various components of the propulsion system.

An integrated reverse /reduction gearbox is attached to the ¾ inch stainless shaft by a flange coupling on which the attachment bolts have been secured by wire.

The stuffing box and related brass fittings are quite dirty and should be cleaned to ensure that when the engine is idling, the box gland should just slightly drip water. The engine oil was sampled and appeared clear but dark in colour. The oil had not been over filled. The oil filter was not checked.

The cutlass bearing was inspected out of water and appeared to be in satisfactory condition. The vessel is equipped with a non geared double blade Martek folding propeller.(Photo #13).

The wet exhaust system was observed both when cold and also under power. All hoses were found to be correctly clamped with nominal wear. Satisfactory operation.

The aluminum 12 gallon diesel fuel tank is located under the port aft quarter berth and extends into the port side aft storage locker. The fuel fill hose is grounded and the clamps were all double and in very good condition. The fuel shut off valve on the tank turned easily.

Electrical and Electronics

The vessel has a 12 volt starting battery connected through wiring installed during the manufacture of the vessel. The electrical wiring was found to be satisfactory. There is a small Tartan 10 breaker panel located just above the navigation station on the port side of the main cabin. This panel contains the main electrical switch for the vessel as well as breakers for running lights, steaming light, cabin lights and two accessories.

The following electronic instrumentations were tested and functioned appropriately:

Velocitek Pro Start.	Replacement cost $700
Velocitek Shift.	Replacement cost $800
Raymarine ST 60+ Wind speed / direction	Replacement cost $1500

Ground Tackle

The vessel has a 12 kg *Danforth* anchor that is stored in the stern starboard storage locker. The anchor is attached to approximate 3m of chain and approximately 20m of 5/8 (16 mm) twist line. The bitter end was not secured and the line was not stored such that it could be rapidly deployed.

Safety Equipment The following list indicates what safety equipment is required by Transport Canada for a vessel between 9m and 12m. Recommendation #5

1. 1 PFD or lifejacket for each person on board	NA
2. 1 buoyant heaving line of not less than15 m	Yes
3. 1 approved 24 inch or 30 inch life ring buoy	No
attached to 15m of buoyant line	Yes
4. re-boarding ladder	No
5. 1 anchor with not less than 30 m of rode	Yes
6. 1 manual bailer	Yes
7. 1 water tight flashlight	NA
8. 12 Canadian approved flares	NA
9. 1 sounding device	NA
10. Navigation lights	Yes
11. 1 magnetic compass	Yes
12. 1 x 10 BC fire extinguisher	Yes (out of date)

Sail Inventory

The sails on this vessel have all been purchased from excellent, well respected sail lofts around North America and when new were of excellent design and quality. However, with use in many types of heavy weather sailing, sails tend to depreciate quickly. An estimate of the current value for the following sail inventory listed below would be approximately $16,500. As an example of the initial cost of a new design product, the #4 nordac main sail is now priced at over $10,000.

The following sails were inspected.

Sail		Date of Manufacture	Sail Loft	Material	Condition
Main	1	unknown	*North*	Dacron	Fair
	2	2006	*Doyle*	Dacron	Good
	3	2012	*Quantum*	Dacron	VG
	4	2018	*North*	Nordac	Excellent
100 % Jib	1	unknown	*North*	Dacron	Good
	2	~2008	*Sobstad*	Mylar/Kevlar	Good
	3	2016	*Doyle*	Mylar/Kevlar	Good
150% Genoa	1	unknown	*North*	Dacron	Good
	2	~2006	*Sobstad*	Mylar/Kevlar	Fair
	3	2016	*Doyle*	Mylar/Kevlar	Excellent
Spinnakers	1.5oz	unknown	*North*	Nylon tri-radial	Good
	0.75oz	2006	*North*	Nylon tri-radial	Good
	0.76oz	2010	*Doyle*	Nylon tri-radial	Good

REMARKS & RECOMMENDATIONS

#1. The hull to keel joint should be monitored to ensure no moisture is entering the boats bilge.

#2. The hose to the bilge pump should be attached to the lowest section of the bilge to perform its function of removing water. The bilge pump must have hoses attached to both sides to operate affectively.

#3. All turnbuckles in lifelines should have split rings to negate the possibility of becoming detached and causing a accidental loss of a person on board.

#4. The plastic circular inspection port on the foredeck should be replaced and the surrounding deck repaired.

#5. All required safety equipment according to Transport Canada was available during the sailing season but has been removed for Winter storage. This equipment should be on board the vessel prior to next seasons boat launch.

VALUATION

In consideration of the foregoing survey, this surveyor finds the following as fair market value for the aforementioned vessel.

$36,000 Fair market value with full equipment (excluding the trailer)

The market value listed above also reflects the geographic location of the vessel in Gimli Manitoba, as prices elsewhere in Canada are often lower. However, these prices often reflect the number of quality used boats that are available in that market.

This condition and valuation survey is submitted in good faith and on a without prejudice basis to all concerned.

Respectfully submitted

_____

George D. Bush
Prairie Sea Services