

Full Condition Survey.

Name of Vessel: Crosby

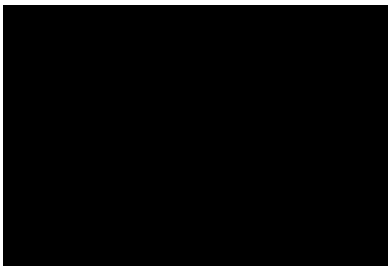


Survey Commissioned by :



■ DipMarSur. MRina. NABSE Partner

Yacht, inland waterway and Small Craft Surveyor



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1.1-8 About the Survey and this Report

This survey was carried out by [REDACTED] at the request of [REDACTED] who is the buyer of the vessel.

1. Scope of Survey ,This is a pre purchase survey and its purpose is to establish the structural and general condition of the vessel. Where items of equipment have been tested this is stated in the text.
2. Limitations This report has been prepared for the use of the commissioning client and no liability is extended to others who may read it.
3. The hull could not be inspected where the vessel lay on shores or under the trolley that prevented access to the bottom of the narrowboat.
4. In some cases it is not possible to detect latent and hidden defects without destructive testing which was not possible without owner's consent.
5. A general inspection of the engine and its installation was be made and it was briefly run, but not under load. It should be appreciated that some components may appear serviceable but may be defective when the engine used for navigation.
6. Electrical and electronic equipment was not tested, though in some cases equipment was switched on to see if it powered up.
7. Conditions of Survey The survey took place on 13th June 2021 at [REDACTED] dry dock. The weather on the day of the survey dry
8. **Methods.** The craft was lying ashore at Thickness Gauging. The thickness of the steel hull was measured using a Cygnus 3 multiple echo ultrasonic gauge. The use of multiple echoes provides readings that are accurate and reliable without the need for grinding. Protective coatings such as paint and resin need not be removed as the gauge will measure through such layers but not include their thickness in the reading. The calibration of the gauge was checked

against a test piece at the start of the survey. One probe was used in taking the measurements: 2.25 MHz three quarter inch large diameter probe Where scale, dirt, or loose coatings were present, they were removed using a scraper

Measuring Pit Depth, Pit depths were measured using a Mitutoyo depth gauge, The gauge has a resolution of 0.01mm and an accuracy of ± 0.01 mm. However, measurements in this report have been rounded to the nearest tenth of a millimetre. Prior to the start of the survey the gauge was zeroed.

Recommendations.

Recommendations in this report fall into two categories, which are explained below.

Recommendations are limited to those defects which should be rectified before the vessel is used (or within a given time span if specified) or may affect the ability to obtain insurance for the vessel.

Advice.

Advice is given concerning defects that do not restrict the use of the vessel or her safe use. These defects may be cosmetic or concern actions that will prevent more serious defects developing in the future. Although these defects may be considered minor, do not assume repair costs are low. Recommendations and advice made in the body of the report are both printed in italic font. A table of all recommendations and advice is reproduced at the end of the conclusions.

2. Particulars of the Vessel

Crosby was I believe constructed by Black Prince. the year of construction is 1995. The narrowboat has a cruiser style stern with an elliptical counter over the swim. Forward there is a well deck. The cabin is constructed of steel.

Length: 20.4m

Beam: 2.08m

BW Index No: 500726

Boat safety expires June 2025

3. Hull

Blacking was in the form of a bitumen-based coating. Blacking included the hull sides below rubbing strake, below the waterline and uxtter plate, but not the bottom. The hull was hammer sounded (but not where access was prevented by the shores) and no defects were detected.

The tables in Appendix A show the results of gauging the thickness of the hull plating. Thickness measurements were taken as described in Section 1.

Readings were taken every 1m on both sides of the hull, but not under the narrowboat where it lay on the shores.

Measurements were taken at the waterline, the foot and midway between the two points where appropriate.

Measurements on the bottom were taken at the chine and near the centre line. At the stern additional readings were taken on the uxtter plate and swim plate.

The nominal thickness of the plates when constructed are assumed to be: •

Bottom plate and Uxter Plate. 10mm •
Hull sides and swim plates - 6 mm

The table reveals there has been some diminution of plate thickness. Some pits were noted where areas of blacking were cleaned off. The bottom plate does not appear to have been blacked in the recent past

Widespread shallow pit corrosion was noted on the side plates in all parts that it was possible to view. Pit depths were measured the deepest being 2.1mm, but the majority were in the range 0.3mm to 2.0mm. The deepest pits could be plug welded at the next blacking, however they are not detrimental to the hull thickness at the moment.

The sacrificial chine, which is formed by the bottom plate where it extends beyond the width of the hull sides, was examined, some additional plating has been carried out at the start of the swims to prevent further wear. Along the sides of the narrowboat the chine extended between 6mm and 10mm and at this width it provides adequate protection at the moment for the hull.

The thickness of the steel comprising the weed hatch was gauged in two locations as follows; 5.8mm and 5.7mm. The hatch and the fastening mechanism was visually inspected and hammer tested and found to be secure. No weld defects were noted.

4. Hull Internal

access was possible beneath the cabin sole (the floor) at the stern, the floor was lightly corroded but dry..

5. Decks

The fore deck is painted steel, the aft deck has board sections which cover the engine bay, they are in good condition, Paintwork on and around the decks are in good condition.

6. Through hull openings

All through hulls were examined and found to be secure, the sink and basin waste are secure to prevent down flooding.

7. Stern Gear

The right hand propeller appeared to be cast in manganese bronze with an estimated 18 inch diameter. There was no evidence of dezincification and there was no damage to the blades. The propeller was fastened by means of a nut secured with a split pin. The nut was hammer tested and found to be secure. The propeller shaft was non-magnetic and appeared to be manufactured from marine grade (austenitic) stainless steel. There was no play in the outboard bearing. The propeller turned freely by hand. A traditional packing gland was fitted at the inboard side of the propeller shaft tube. The bolts securing the gland were hammer tested and found to be secure. The gland was fed by a remotely located stern tube greaser.

8. Rudder and Steering

The rudder is supported on a skeg. It was made of steel plate. Its movement was free, there is no excessive wear in the rudderstock top or bottom bearing. The narrowboat is steered by means of a simple tiller. A removable brass tiller bar.

9. Cathodic Protection

There is 4 good anodes fitted. There is a number of years life left in them at the moment. Several part spent anodes are in place as well.

10. Cabin

The cabin is constructed of steel; four ultrasound measurements were taken of the roof and cabin sides which confirmed that the nominal thickness is 4.00mm The cabin sides are tidily painted blue. The cabin roof was also painted and in good condition.

11. Access to Accommodation

Access to accommodation at the bow is through double doors that were secured by a lock and bolts. The doors and surrounding frame was in good condition. Aft there are traditional double doors and sliding hatch. The doors are of timber construction. The hatch is of mild steel and slides easily on its runners.

12. Windows and Ports

There are anodised aluminium sliding windows in the forward cabin area. The surrounding wood work is in good condition, the remaining windows are domestic UPVC windows.

13. Mooring Arrangements

There is a mooring tee on the bow and two at the stern. All are strong. There is a centre morning cleat on the roof, there is a rack for storing a barge pole and gangplank. The bow fender is in good condition the stern one is a part tyre.

14. Navigation Lights

A tunnel light was fitted forward of the cabin it was tested and was seen to light. The horn was tested and it sounded. There were no navigation lights fitted.

15. Bilge Pumping Arrangements

A bilge pump was fitted in the stern under the stern tube it operated correctly.

16. Firefighting Equipment

The following firefighting equipment was found on board the narrowboat. • Rear cabin 1Kg dry powder fire extinguisher, rating 8A-55B-C • Fire blanket in galley • Galley, 1Kg dry powder fire extinguisher, rating 8A-55B-C, • Saloon 1Kg dry powder fire extinguisher, rating 8A-55B-C All fire extinguishers had gauges that were in the green sector. The combine rating of the fire extinguishers meets the requirements of the Boat Safety Scheme (BSS).

17. Emergency

There was no life ring noted, 2 CO alarms are fitted.

18. Engine and Installation

The engine was not covered by this survey as it was being replaced

I believe the original engine was a Lister Alpha LPW4 water cooled engine with hydraulic pump for the bow thruster

Although many of these craft had a Nanni diesel based on a Kubota

19. Fuel System

Fuel is stored in a built in tank around the counter stern. The steel was gauged at 6mm. There was a drain point in the tank. There was a filler point and air vent on the counter, Fuel is delivered from the tank via steel and copper pipe, which is fitted with a fuel cock near the off take from the tank. The fuel line feeding the engine was well supported and included 2 lengths of hose labelled ISO 7840 and therefore suitable for this use.

20. General Accommodation

This report does not describe the interior accommodation in detail. Walking through the narrowboat there is a saloon/galley with cooking facilities and a fridge, a bathroom with cassette toilet, shower and basin, the aft cabin gives access to the stern deck. The accommodation is clean and tidy for its age.

21. Gas Installation

The gas system was examined with the aim of finding visually identifiable deficiencies in the gas system. There may be other defects in the system that cannot be found by visual examination. The visual examination does not constitute any kind of gas safety certificate, which is only obtainable in the UK after comprehensive pressure testing and assessment by a qualified person registered by Gas Safe (www.gassaferegister.co.uk). There is a gas locker built into the narrowboat on the stern which provides a seating area. The locker has adequate drain holes. A Gas regulator connected to the cylinders were noted, a copper pipe was connected to a bulkhead fitting. There was three gas appliances located in the galley • A oven, 4 burner hob and a instantaneous water heater. The copper gas pipe runs through the cabin under the gunwhales. It was estimated to be of 1/2 inch diameter and was well supported.

Advise. The cooker hob has a yellow flame and needs servicing



22. Fresh Water and Sanitation

A galvanised steel water tank is under the well deck forward of the cabin. A filler is located in the bow. All taps were opened and water was seen to flow. The water pump was heard to operate. The water was tasted and found to be fresh. A shower has been installed in the bathroom along with a hand basin, The bathroom is fitted with a Cassette toilet.

23. Electrical Installation

There were three domestic batteries and one engine battery onboard batteries are charged by means of the alternator. A digital voltmeter was used to measure a voltage of 12.4 volts across the terminals of the domestic batteries. The reading is indicative of a discharged battery condition. The battery switches for the engine and cabin are located adjacent to the batteries and work properly, a isolation switch for the inverter is located in the rear cupboard. It was not possible to access a great deal of the wiring for the 12 volt system, the engine bay wiring is all in good condition and reasonably tidy, behind the engine control panel. The fuse box and switch panel located in the rear cabin was all neat and securely connected.

The 240v mains system was provided by a victron inverter charger, the wiring is tidy, fully protected.

24. Heating and Ventilation

The craft is fitted with squirrel Stove with a back boiler. The Unit heats a number of radiators in the cabin. The stove is showing distortion from the heat, it may if it gets any worse leak fumes into the cabin. vents were fitted in the cabin roof and there were a further high and low level vents in the front and rear doors. This conforms to the boat safety scheme requirements.

Advise. Regularly check the stove for further distortion to the back and top.

CONCLUSIONS AND RECOMMENDATIONS:

Conclusions. Inspection of the hull indicates it was in good condition for its age. The accommodation was in good clean condition. When any minor defects are rectified and other more minor deficiencies are dealt with it represents a well-appointed narrowboat with many years of life ahead of her.

List of Recommendations

The recommendations made in the report are listed below. All recommendations should be carried out before use of the vessel.

None

List of Advice

The advice notes given in the report are listed below. It is not necessary to carry out advice before use of vessel.

Advise. Regularly check the stove for further distortion to the back and top.

Advise. The cooker hob has a yellow flame and needs servicing

Port:

Appendix A: Ultrasonic Thickness Gauging Port

Distance from bow.	Waterline.	Midline.	Lower side.	Base outer.	Base midsection.	Pitting
1m.	5.9.	5.7.	6.0.	10.0	8.9	0.2
2m.	5.7.	5.8.	6.0	9.1	8.7	0.8
3m.	5.8.	5.7.	6.0.	8.5	Not recorded.	0.2
4m.	5.7.	5.6.	5.9.	7.9	7.8	0.2
5m.	5.8.	5.0.	5.8.	9.0	8.7	1.4
6m.	5.9.	5.1.	5.7.	9.1	8.8	2.0
7m.	5.9.	5.7.	5.7.	9.0	8.6	1.3
8m.	5.7.	5.6.	5.8.	9.1	8.3	1.3
9m.	5.9.	5.7.	5.8.	8.8	7.9	1.1
10m.	5.8.	5.3.	5.7.	9.0	7.9	0.9
11m.	5.7.	5.6.	5.9.	9.0	Not recorded	0.9
12m.	5.9.	5.8.	5.7.	8.6	8.2	2.0
13m.	5.9.	5.7.	5.7.	8.6	8.3	1.1
14m.	5.8.	5.9.	6.0.	8.3	8.2	2.0
15m.	5.8.	5.0.	6.0.	8.7	8.6	1.3
16m.	5.9.	5.1.	6.0.	8.0	7.7	1.1
17m.	5.9.	5.7.	5.7.	8.1	7.9	1.3
18m.	5.7.	5.6.	5.8.	9.9	8.9	0.4
19m.	5.9.	5.7.	5.8.	10.0	9.8	0.7

Starboard.

Distance from bow.	Waterline.	Midline.	Lower side.	Base outer.	Base midsection.	Pitting
1m.	5.9.	5.8	6.0.	8.8	As above	1.2
2m.	5.8.	5.9	5.9.	8.8	"	0.7
3m.	5.8.	5.8.	5.9.	9.1	Not recorded.	0.2
4m.	5.7.	5.7.	5.8.	9.3	"	1.0
5m.	5.7.	5.7.	5.7.	7.9	"	0.4
6m.	5.9.	5.7.	5.9.	8.8	"	1.3
7m.	5.6.	5.7.	5.8.	8.6	"	1.7
8m.	5.7.	5.9.	5.9.	8.7	"	2.0
9m.	5.9.	5.7.	5.7.	8.2	"	0.8
10m.	5.7.	5.3.	5.8.	8.0	"	0.9
11m.	5.7.	5.6.	5.6.	7.9	Not recorded	1.1
12m.	5.7.	5.7.	5.8.	8.7	"	1.2
13m.	5.9.	5.7.	5.7.	8.6	"	0.3
14m.	5.9.	5.9.	6.0.	8.1	"	2.0
15m.	5.8.	5.8.	6.0.	8.3	"	1.3
16m.	5.9.	5.9.	6.0.	8.6	"	1.2
17m.	5.9.	5.7.	5.7.	8.5	"	1.1
18m.	5.7.	5.7.	5.9	9.2	"	0.8
19m.	5.9.	5.7.	5.8.	10.0	"	0.9

Signed



By email