**Rustler 24 Piper One Design Class Rules**

**Class Name** Rustler 24 Piper class

**Aims** To offer OD racing between Rustler 24s and Piper One Designs.

**Area of jurisdiction** Those boats racing from SMSC and, with agreement, the Falmouth area covered by POFSA, to include Falmouth week and the village regattas. Otherwise, boats will use the YTC or equivalent handicap.

**Range of** 1. 57 Piper ODs built or finished by Robertson Yard.

**eligible boats** 2.6 Piper OD built by Cornish Crabbers.

3.All the Rustlers 24 that have been built to 2006-18 specification by Rustler Yachts, Penryn.

All boats have been constructed to the same hull specification ie. heavy GRP lay up with encapsulated lead ballast keel.

No alterations should be made to any hull, keel or rudder, except for necessary repairs.

**Hull weights** All boats will declare a hull weight of 1640 kg.

**Repairs** Any necessary repairs and refurbishment should not reduce the

 strength or weight of the manufactured boat.

**Scrubbing and Polishing** Restrictions to Lifting (going ashore), use of divers or robotic

**of Hulls** drones etc to scrub or polish the hull is restricted to twice during the

season: this includes time ashore for any repair work. Scrubbing using any hand operated methods from the deck or alongside (for instance from a tender), is not restricted.

**Anti-fouling** 1. All boats will be anti fouled.

2. Dry sailing is not allowed.

**Ballast** 1. No additional fixed ballast to be added.

2. No moving or shipping of ballast allowed.

**Masts** 1. Masts to be constructed of alloy.

2. Profile is unrestricted but not of a size to give an unfair increase in white sail area [WSA].

 3. Spreaders and jumpers are allowed.

4. The mast heal is to be fixed after stepping. It should not be adjusted during racing.

5. Shrouds should be of a diameter to provide safe support of optional materials. They should also not be adjusted during racing.

6. Running back stays are not allowed.

7. Back stay and fore stay lengths may be adjusted during racing.

8. Use of mast rams or hydraulics are not allowed.

**Booms** To be constructed of alloy of a profile not to unfairly increase WSA.

**Sails** 1. The Piper and Rustler have distinctive, yet different, sail plans. They must not be mixed and matched. However, if

 desired, any boat could be re-rigged with either sail and spar

 plan. Each rig style should remain in its entirety.

2. Laminate or moulded sails are not allowed.

3. Construction: the body of the sail shall be single-ply. The ply material for the mainsail and headsail shall be of woven polyester [white in colour] and no less than 240gmtr2 and no more than 300gmtr2.

4. Windows: the mainsail and headsail can each be fitted with not more than one vision window of any material. If fitted, no dimension of any window shall be more than 1.3mtr in any direction. Any edge of any window shall be not less than 80mm from the nearest sail edge.

 Headsails may also be fitted with a tell-tale window of any material. If fitted, no dimension of the tell-tale window shall exceed 0.25mtr.

5. Mainsail: the following are permitted: stitching, glues, tapes, bolt ropes or luff slides, corner eyes, headboard with fixings, Cunningham eye or pulley, batten pocket patches, batten pocket elastic, batten pocket end caps, leech line with cleat, tell-tales, sail shape indicator stripes and items as permitted by other applicable rules.

 There should be no more than four battens of any length and they should be of fiberglass construction.

6. Headsail: the following are permitted: stitching, glues, tapes, bolt ropes, zip luff pocket or hanks, corner eyes, clew board, leech line with cleat, tell tales, sail shape indicator stripes, Cunningham eye or pulley and items as permitted by other applicable rules.

 The headsail leech should not extend beyond a straight line from the aft head point to the clew point.

7. Roach area: to be calculated and included in WSA and measured according to Appendix B. Any combination of sails must not exceed the maximum agreed WSA for the RP class.

 The foot round allowed is the maximum perpendicular distance from a straight line drawn between the tack and the clew. It shall be 130mm for headsail and 90mm for mainsail.

 8. Jib roller furling: may be positioned above or below deck.

 9. Position of jib tack: as manufacturers specification.

 10. Replacement of sails is permitted: however, the mainsail

cannot be changed during a regatta or a series, unless functionally damaged.

**Downwind sails** 1. The RP Class is white sail only.

2. No additional down wind sails to be used when racing.

3. The changing of headsails during a race is forbidden, as is roller reefing of the headsail.

**Sail measurement** The approved sail dimensions are outlined in Appendix A.

Approved ORC sail measurement criteria are outlined in Appendix B. The appointed class sail measurer is Gavin Watson from Penrose Sailmakers, Falmouth. His role is to arbitrate should any disputes occur.

**Whisker Pole** 1. The jib may be polled out from the clew on downwind legs.

2. Use of uphaul / downhaul to control the whisker pole is permitted.

3. Length, material, storage location and means of deployment of pole are optional.

**Winches** Bilateral jib winches, as well as a single winch at the mast, are allowed.

**Reefing** 1. Reefing of the main sail during racing is optional.

2. A smaller working jib is allowed, but not to be changed during a race.

**Sail Controls** 1. Deck layout and use of sail controls are optional.

2. The use of hydraulics or electric winches are forbidden.

3. Controls for Cunningham outhaul kicker/vang main tracks, bridle and mounting for the main sheet jammer are optional.

**Toe straps** 1. Use of toe straps or hiking aid is not allowed.

2. Sitting in or use of the side decks is optional.

**Number of crew** 1. The boats are physically undemanding for a crew of two. However, additional crew are allowed.

2. If single handed racing, no additional ballast is allowed.

3. A maximum number of crew or maximum combined weight of crew may be enforced if the above freedom is deemed to be exploited.

**Electronics** 1. VHF is mandatory.

2. Instruments and applications that show wind speed and direction, timings and compass bearings are permitted. Those that provide VMG, graphical display of lay lines or best course sailed are not permitted. Electronic depth indicators must not be used routinely during racing, the only exception would be of single use, to avoid grounding.

**Safety equipment** All boats must carry the normal safety equipment:

1. Anchor & line.

 2. Manual bilge pump [additional electric pump is optional].

 3. Bucket.

 4. Paddles/oars and/or outboard.

 5. Flares [if offshore].

**Personal buoyancy** Life jackets should be worn:

 1. where racing conditions dictate.

2. if crew are outside the safety of the cockpit.

**Local Rules** These rules are to be approved by the inaugural members of

of the local RP class. These rules and the attached appendices can be amended or added to by consensus.

These rules amend the rules of the Piper class - but do not constitute a replacement of the Piper OD class rules for Piper OD class racing.

**Appendix A** Approved sail dimensions, measured to ORC.

**Appendix B** Approved ORC sail measurement criteria**.**

**Appendix C** YTC Handicapping Policy.

April 2022

**APPENDIX A**

**Approved ORC sail dimensions**

 Piper maximum sizes Rustler 24 maximum sizes

|  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- |
| **Main** | **Size**[mtr] | **Genoa**  | **Size** [mtr] |  | **Main** | **Size**[mtr] | **Genoa**  | **Size** [mtr] |
| Luff | 7.87 | Luff | 6.58 |  | Luff | 8.48 | Luff | 7.42 |
| Leach | 8.5 | Leach | 6.1 |  | Leach | 8.9 | Leach | 7.0 |
| Foot | 3.53 | Foot | 3.5 |  | Foot | 3.35 | Foot | 2.37 |
| MUW | 0.67 | L/P | 3.3 |  | MUW | 0.79 | L/P | 2.3 |
| MTU | 1.21 | HUW | 0.42 |  | MTU | 1.42 | HUW | 0.3 |
| MHW | 2.2 | HTW | 0.82 |  | MHW | 2.31 | HTW | 0.57 |
| MQW | 2.99 | HHW | 1.62 |  | MQW | 3.0 | HHW | 1.15 |
| Head width | 0.15 | HQW | 2.44 |  | Head width | 0.15 | HQW | 1.67 |
|  |  | Head width | 0.055 |  |  |  | Head width | 0.045 |
| ORC area | 16.20 | ORC area | 10.78 |  | ORC area | 17.98 | ORC area | 8.47 |

Piper combined upwind area 26.98m2 Rustler combined upwind area 26.45 m2

1. The Piper and Rustler have distinctive, yet different, sail plans. They must not be mixed and matched. However, if desired, any boat could be re-rigged with either sail and spar plan. Each rig style should remain in its entirety.

2. The maximum luff and foot lengths are defined in table above.

3. Laminate or molded sails are not allowed.

4. Construction: the body of the sail shall be single-ply. The ply material for the mainsail and headsail shall be of woven polyester [white in colour] and no less than 240gmtr2 and no more than 300gmtr2.

5. Windows: the mainsail and headsail can each be fitted with not more than one vision window, of any material. If fitted, no dimension of any window shall be more than 1.3mtr in any direction. Any edge of any window shall be not less than 80mm from the nearest sail edge.

Headsails may also be fitted with a tell-tale window of any material. If fitted, no dimension of the tell-tale window shall exceed 0.25mtr.

6. Mainsail: the following are permitted: stitching, glues, tapes, bolt ropes or luff slides, corner eyes, headboard with fixings, Cunningham eye or pulley, batten pocket patches, batten pocket elastic, batten pocket end caps, leech line with cleat, tell-tales, sail shape indicator stripes and items as permitted by other applicable rules.

There should be no more than four battens of any length and be of fiberglass construction.

7. Headsail: the following are permitted: stitching, glues, tapes, bolt ropes, zip luff pocket or hanks, corner eyes, clew board, leech line with cleat, tell tales, sail shape indicator stripes, Cunningham eye or pulley and items as permitted by other applicable rules.

The headsail leech should not extend beyond a straight line from the aft head point to the clew point.

8. Roach area: to be calculated and included in WSA and measured according to Appendix B. Any combination of sails must not exceed the maximum agreed WSA for the RP class.

The foot round allowed from the maximum perpendicular distance from a straight line drawn between the tack and the clew shall be 130mm for headsail and 90mm for mainsail.

9. Jib roller furling: may be positioned above or below deck.

10. Position of jib tack: as manufacturers specification.

11. Replacement of sails is permitted: however the mainsail cannot be changed during a regatta or a series, unless functionally damaged.

**Sail measurement**

The approved sail dimensions outlined in this appendix are measured to ORC criteria.

The appointed class sail measurer for the RP Class is Gavin Watson from Penrose Sailmakers, Falmouth. He is happy to receive queries from any sailmaker.

**APPENDIX B**

**Approved ORC sail measurement criteria**

The following diagrams may help those wishing to measure their sails to ORC criteria.

Please note, no battens are permitted in the headsail.





**APPENDIX C**

**YTC handicapping policy**

All boats in the RP Class will submit the following data to comply with the YTC handicapping policy:

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
|  **Piper** |  |  | **Rustler 24** |  |
|  |  |  |  |  |
| Draft | 1.06 m |  | Draft | 1.07 m |
| Beam | 1.91 m |  | Beam | 1.91 m |
| LOA | 7.44 m |  | LOA | 7.44 m |
| Sail area\* | 26.98 m2 |  | Sail area\* | 26.45 m2 |
| Displacement | 1640 kg |  | Displacement | 1640 kg |
| LWL | 4.95 m |  | LWL | 5.15 m |
| L = LWL+0.5\*(LOA-LWL) | 6.195 |  | L = LWL+0.5\*(LOA-LWL) | 6.295 |

\* using Max WSA as defined by Penrose

The maximum WSA has been set at a level to incorporate both existing Rustler 24’s, with original Hyde cut sails, as well as Pipers with sails in line with the current Piper class rules. This measurement is to ORC formula and is detailed in Appendix A. The maximum WSA for each class [as outlined in the above table] is the figure to be used for submission.

No fixed engine.\*

No spinnaker.

In the event of a YTC handicap discrepancy occurring, it should be acknowledged that the RP Class has agreed to for all boats to sail to the lower YTC calculated figure. The exception to this would be a boat with an inboard engine.

\* Any boat fitted with an inboard engine will be weight adjusted to give a displacement of 1640kg. In this instance, YTC policy should be followed for prop blade configuration.