§ 23.525 Application of loads.

(a) Unless the applicant makes a rational analysis of the water loads, §§ 23.523 through 23.537 apply.

(b) In applying the loads resulting from the load factors prescribed in § 23.527, the loads may be distributed over the hull or main float bottom (in order to avoid excessive local shear loads and bending moments at the location of water load application) using pressures not less than those prescribed in § 23.533(c).

(c) For twin float seaplanes, each float must be treated as an equivalent hull on a fictitious seaplane with a weight equal to one-half the weight of the twin float seaplane.

(d) Except in the takeoff condition of § 23.531, the aerodynamic lift on the

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<table>
<thead>
<tr>
<th>Tow point Position</th>
<th>Load</th>
<th>Magnitude No.</th>
<th>Direction</th>
</tr>
</thead>
<tbody>
<tr>
<td>Swiveled 45° from forward</td>
<td>0.15W 9</td>
<td>Forward, in plane of wheel.</td>
<td></td>
</tr>
<tr>
<td>Swiveled 45° from aft</td>
<td>0.15W 11</td>
<td>Aft, in plane of wheel.</td>
<td></td>
</tr>
</tbody>
</table>

[Amdt. 23–14, 38 FR 31821, Nov. 19, 1973]

§ 23.527 Design weights and center of gravity positions.

(a) Design weights. The water load requirements must be met at each operating weight up to the design landing weight except that, for the takeoff condition prescribed in § 23.531, the design water takeoff weight (the maximum weight for water taxi and takeoff run) must be used.

(b) Center of gravity positions. The critical centers of gravity within the limits for which certification is requested must be considered to reach maximum design loads for each part of the seaplane structure.

[Amdt. 23–7, 34 FR 13090, Aug. 13, 1969]