Table 1.8.5 Structural misalignment and fit (steel and aluminium)

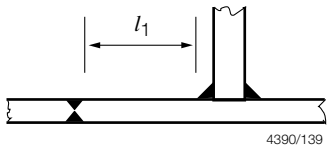
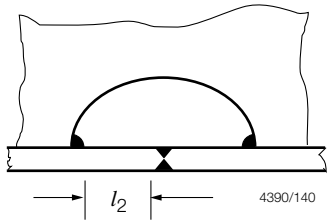
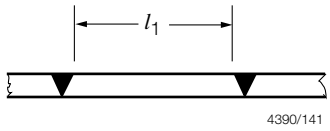
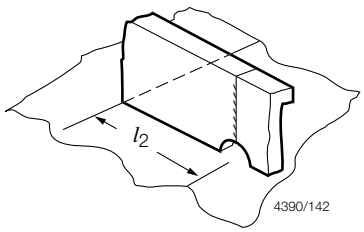
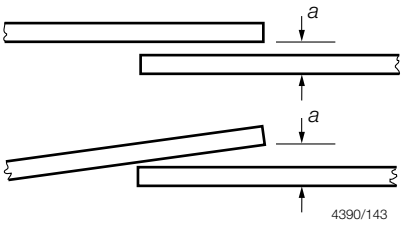
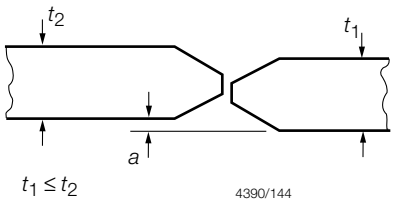
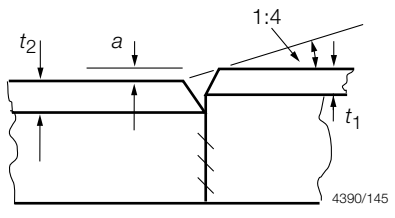
Joint	Location	Acceptable dimensions (mm)	Remedial action	
	All	$l_1 \geq 40$ mm	–	Adjust to suit
	All	$l_2 \geq 20$ mm	–	Adjust to suit
	All	$l_1 > 50$ mm	$l_1 < 30$ mm	Treat as an insert
	All	$l_2 \geq 20$ mm	$l_2 < 15$ mm	Adjust to suit
	All All	$a \leq 1,0$ $a \leq 1,0$	$a < 5$ $a \leq 5$	Increase weld leg length by actual 'a' Adjust to suit
	Strength members Other	$a \leq 0,15t_1$ (max 3,0 mm) $a \leq 0,2t_1$ (max 3,0 mm)	$a > 0,15t_1$ $a > 0,2t_1$	Reject Reject
	All	For angle or tee longitudinal $a \leq 0,2t_1$ For offset bulb longitudinal $a \leq 0,2t_2$	$a > 0,2t_1$ $a > 0,2t_2$	Reject Reject

Table 1.8.6 Plate deformation limits

Position	s/t	δ_p/s
in 0,6L amidship	≤ 80	1/100
	> 80	1/75
Remainder	all	1/50

where

s = stiffener spacing, in mm

t = plating thickness, in mm

δ_p = panel deflection, in mm

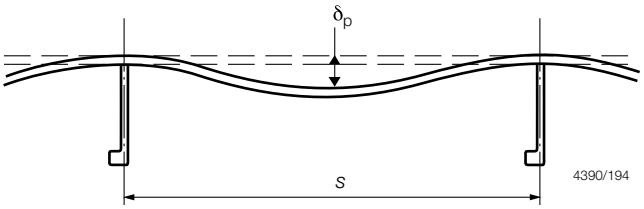


Figure 1.8.1 Measurement of plate deformation

Section 1
General

1.1 Application

1.1.1 The requirements of this Chapter are applicable to mono-hull and multi-hull craft of aluminium construction as defined in *Ch 1, 1 Background*.

1.2 General

1.2.1 The failure modes criteria contained within this Chapter are to be used in the formulae from the preceding Chapters to determine the scantling requirements. In addition, they are to be used when direct calculation methods are proposed as an alternative.

1.3 Symbols and definitions

1.3.1 The symbols and definitions applicable to this Chapter are defined in the appropriate Sections.

1.3.2 The slamming zone area referred to in this Chapter is defined as the region where the operational non-displacement mode pressures exceed the operational displacement mode pressures.

1.4 Direct calculations

1.4.1 Where direct calculations are proposed, the requirements of *Pt 3, Ch 1, 2 Direct calculations* are to be complied with.

1.4.2 In addition, with the agreement of Lloyd's Register (hereinafter referred to as 'LR'), tests may be conducted to demonstrate the actual response of the structure and the results verified against the failure mode criteria in this Chapter.

Section 2
Deflection control

2.1 General

2.1.1 The limiting deflection requirements for plate panels and stiffening members are given in terms of limiting deflection coefficient, f_δ, *see Table 7.2.1 Limiting deflection ratio*. The coefficient equates to a span/deflection ratio in consistent units.

Table 7.2.1 Limiting deflection ratio

Item	Deflection ratios, f_δ
Bottom structure:	
• secondary stiffening	475
• primary girders and web frames	625
Side structure:	
• secondary stiffening	475
• primary girders and web frames	625
Main/strength deck structures:	
• secondary stiffening	625
• primary girders and web frames	775
• hatch covers	775
Superstructures/deckhouses stiffeners:	
(a) Generally: • secondary	400
• primary	475
(b) Coachroof: • secondary	475
• primary	625
(c) House top: • secondary	400
• primary	400
Lower/inner decks and house top, subject to personnel loading:	
• secondary members	475
• primary members	625
Deep tank stiffeners:	
• secondary members	625
• primary members	775
Watertight bulkhead stiffeners:	
• secondary members	400
• primary members	475
Multi-hull cross-deck stiffeners:	
• secondary members	475
• primary members	625
Vehicle deck stiffeners:	
• secondary members	625
• primary members	775
Helicopter/flight deck stiffeners:	