

Project

HANDSTRAND REPLACEMENT DETAIL.

Job Ref

Part of structure

Calc sheet no rev

Drawing ref

33111/AB/31

Calc by

Date

28/04/2011

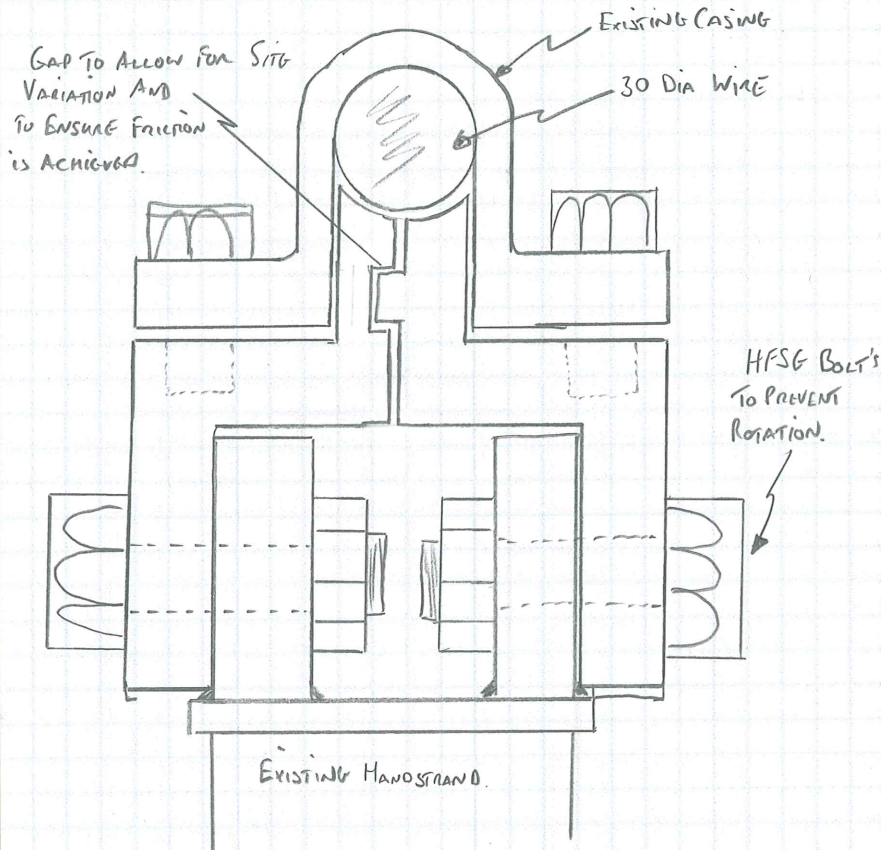
Check by

Date

Ref

Calculations

Output



PROPOSED SECTION

Assumption:

A SINGLE STAND WILL NOT SUPPORT CABLE TENSION.
CABLE TENSIONED TO 75kN.

APPROXIMATE SLIP RESISTANCE OF 2 NO. HSFG BOLTS

BSS400-3
14.5.4.2

$$P_D = k_h \frac{F_v \mu N}{\gamma_m \gamma_{F3}}$$

$$P_D = 1.0 \times \frac{150.5 \times 0.45 \times 2}{1.1 \times 1.2}$$

$$P_D = 147.71 \text{ kN}$$

F_v - Proof Load BS4395-3 M20 = 150.5kN

μ - Slip Resistance

CL 14.5.4.4 - ASSUMED SHOT BLASTED
= $0.5 \times 0.9 = 0.45$

N - NUMBER OF FRICTION PLATES

k_h - FACTOR FOR HOLT $\phi = 1$

FRICTION SUFFICIENT TO ACCOMMODATE SLIPAGE.