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METHOD STATEMENT OF PULL-LOAD TEST
BY USING LOAD CELL WITH HYDRAULIC JACK

(BS 5080: Part 1: 1993 Cl. 6 & 7.1.3 With modification (by incremental loading))

This procedure is in accordance BS5080: Part 1: 1993 with the following modification: BS5080 requires testing until failure, this procedure only tests to the stated load.

EQUIPMENT:

- Load cell, hydraulic jack, hydraulic pump & loading frame.
Accuracy for Load Cell : Allowance differences:
1 – 600kN: +/- 5%;

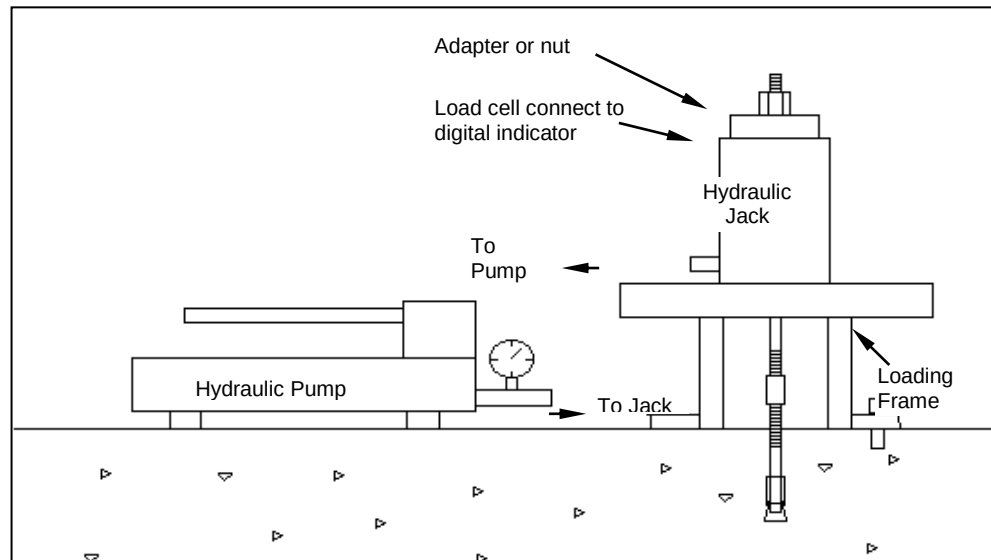
PROCEDURE:

- 1) Identify the testing anchor bolt model type and size;
- 2) Checking the bolt nut size and thread rod head mark to make sure anchor type and size, (width across and thread rod head mark, request by hilti fastening technology manual setting detail.)
- 3) Checking the bolt nut size and thread rod head mark to make sure anchor type and size, (width across and thread rod head mark, request by Hilti fastening technology manual setting detail.)
- 4) Locate the loading frame in right position such that the test anchor located at the centre of the frame, the loading frame shall be applied to the base material at least 8A (A = anchor bolt diameter) from axis of the fixing;
- 5) Connect a threaded rod to the test anchor by means of a coupler (special adapter will be used for hexagon head type anchor);
- 5.1) One additional anchor should be installed for the vertical face or over-head line to prevent transferring the self-load from the frame to sample.
- 6) Align the threaded rod be perpendicular to the loading frame using an angle ruler;
- 7) Place the hydraulic jack and load cell on the loading frame;
- 8) Tighten a nut to the threaded end of the threaded rod;
- 9) Close the valve of the hydraulic pump;
- 10) Apply the pressure via the hydraulic pump according to the test load is reached. The load applied should not greater than 105% of the test load
- 11) Hold the test load 2mins;
- 12) Record the readings from the digital indicator of the load cell until the test load is reached;
- 13) For any load dropped more than 5% of test load value will be treated as fail.

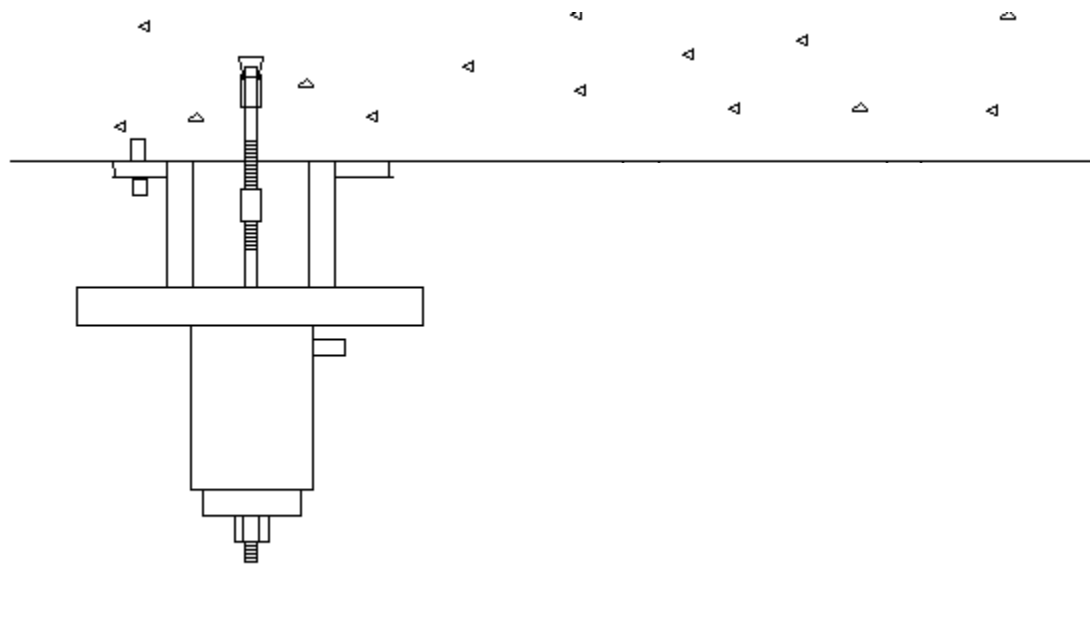
REMARK:

- According to BD's requirement, the test load should be 1.5 times the recommended load of the test anchor. The recommended load is referenced to Hilti Fastening Technology Manual.
- If a selected test load is required, the information should be provided before testing. The acceptance of the altered test load is subjected to the discretion of our company.
- The location of test anchors should be provided and marked by your company prior to the commencement of testing.
- Your representatives are suggested to present as a witness in the test.
- The test anchor can be external threaded or hexagon head type for connection.
- The test anchor should be free from any obstacles. Make sure there is sufficient space for locating the equipment.

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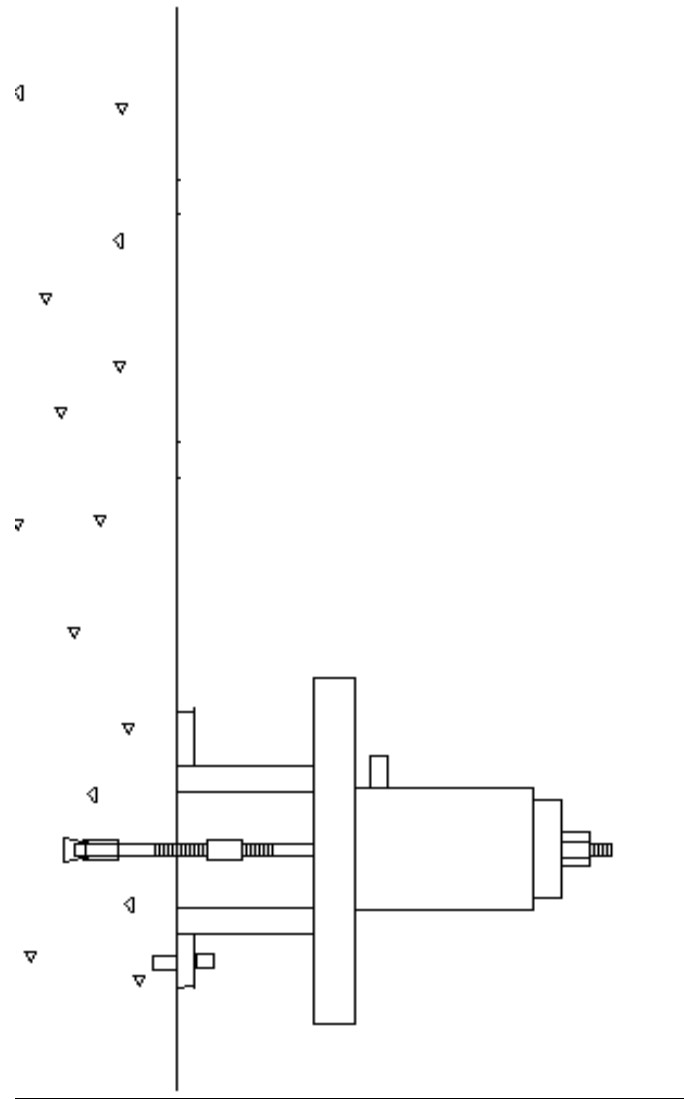


Horizontal setup diagram



Overhead setting detail

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Vertical setting detail