

ALDOT 366-89
TEST METHOD FOR PULL OUT ON STEEL TIE BARS
SECURED IN CONCRETE WITH EPOXY

1. Scope

- 1.1. This test method covers the procedure to be used in checking the pull out strength on steel tie bars secured in concrete paving with epoxy.

2. Applicable Documents

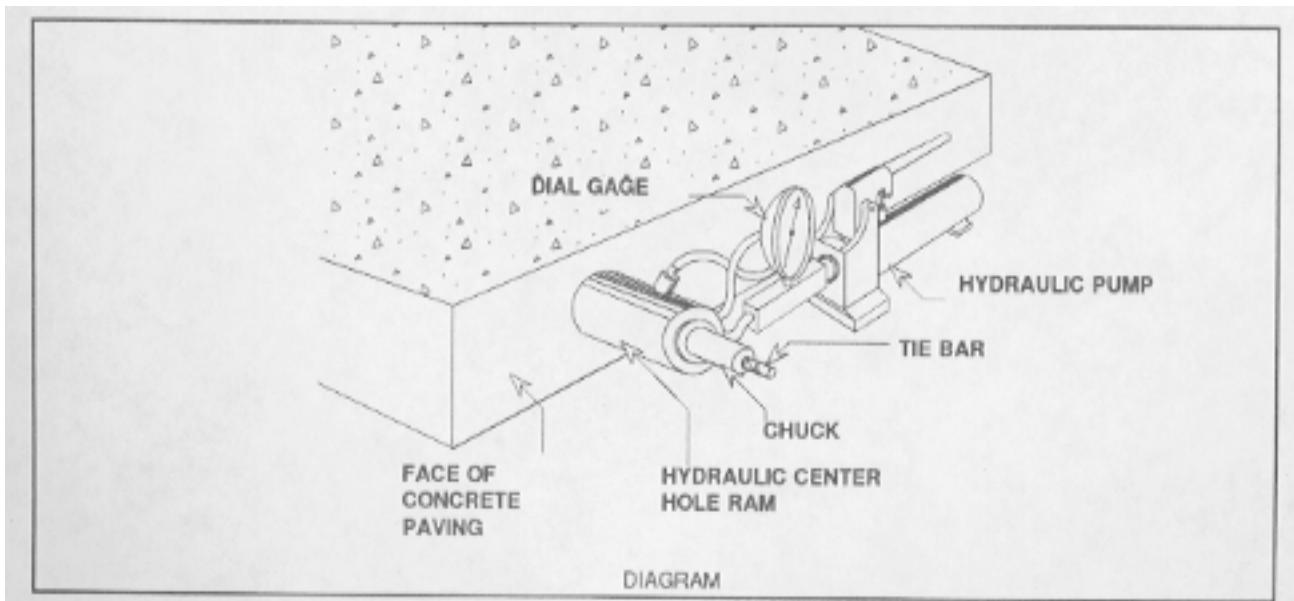
- 2.1. Alabama Department of Transportation Specifications Sections 450 and 453.

3. Summary Of Method

- 3.1. After epoxy has cured as recommended by the producer, 7200 lbs. (32 kN) pull out force shall be applied to the steel tie bar. Should the steel tie bar pull out before the required force is attained the test will be considered a failure.

4. Apparatus

- 4.1. Hydraulic pump capable of producing required load. Center hole ram with travel of at least 3 in. (75 mm).
- 4.2. Chuck of sufficient size to hold bar being tested.



- 4.3. Gage to measure hydraulic pressure accurate to 2 percent of required load.
- 4.4. Pump and gage to be calibrated as a unit in accordance with ALDOT-358.

5. Procedure

- 5.1. Place ram over steel tie bar with base against face of concrete.
- 5.2. Place chuck over steel tie bar against face of ram.
- 5.3. Apply 7200 lbs (32 kN) pull out force with hydraulic pump.
- 5.4. If tie bar pulls out at less than 7200 lbs (32 kN) all the tie bars shall be pulled until at least five consecutive pulls in each direction have been made that do not pull out at an applied load 7200 lbs (32 kN) or in the case of a full depth spall repair, until all tie bars in the area being repaired have been tested.