SNTP Technologies

ISI MARK REINFORCEMENT COUPLERS

IS 16172

CM/L No. 8800140512

INSPECTION/TIGHTENING PROCEDURE MANUAL

SNTP TorquePro

www.sntp.in

SNTP IronJaw

www.sntp.in

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INSPECTION/TIGHTENING PROCEDURE FOR SNTP COUPLERS

ITP – 01/P

1. Purpose and Scope of Works

To set out the process for inspection procedure for SNTP Couplers.

2. Procedure

Inspection of SNTP couplers comprise of the following three areas.

Area 1: Inspection of Threading of Reinforcement Bar

The reinforcement bar yard engineer shall check and verify the thread length with ring gauges to check thread accuracy and configuration done by the threading operator after every 200 thread intervals randomly. The reinforcement threading will be checked and recorded.

Area 2: Coupler Installation (tightening and fixing)

All the joints should be tightened by pipe wrench by the client. After tightening, the site engineer shall check the joints as tightened by contractor with a Torque Wrench at every 200 joint intervals. The specified Torque for each dia. Is mentioned on the meter on the ***SNTP TorquePro and the tightening shall be done strictly accordingly*** *The engineer shall visually see the exposed threads on the couplers and check joints where several threads are exposed (Max. tolerance for exposed threads is 2-3 threads), then should be tightened again by placement team of the client.*

Step 1. *The coupler bar tightening will be checked by site engineer and verified by QA/QC.*

Step 2. *Site engineer will check once again the tightening of all the joints if any of the coupler joint found is loose and request for verification.*

METHOD STATEMENT FOR INSTALLATION OF SNTP COUPLERS

1. PURPOSE AND SCOPE OF WORKS

This method statement describes the process for Threading of rebar and subsequent installation of SNTP Couplers.

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2. MATERIAL

Rebar size as per requirement.

3. TOOLS

Rebar Cutter……As required.
Rebar Threading machine…… As required
Rebar Upset Forging machine……..As required
SNTP IronJaw …… As required.
SNTP TorquePro……..As required
SNTP Couplers ……..…… As required
Thread Gauges (Dia 16mm-32mm)……...As required

4. INSTALLATION PROCEDURE

The couplers will be supplied by SNTP. The work of threading of rebars would be carried out by threading operator and the installation and tightening of the couplers will be carried out by the contractors workers. In one end of the bar, SNTP couplers can be tightened by the contractors workers after threading under supervision. The rebar along with the tightened coupler should be casted in concrete first for vertical applications as this minimizes the chances of thread damage of the casted rebar end.

4.1 Cutting and Threading of Reinforcement steel

Reinforcement steel bars are cut at steel yard by the client to the required length and then transferred onto the threading stands where threading operations would be performed. If required the face of the Rebar shall be square faced by our Facing Grinder.

4.2 Threading of Reinforcement

(a) Workers will place the reinforcement onto reinforcement threading stands. The machine operator will then start threading work. It is important that the threading is done before bending of rebars due to convenience in operation and safety of workers.

(b) It is recommended that a coupler shall then be fully tightened on the rebars with pipe wrench(IronJaw) so as to achieve the minimum required Strength.

(c) The threaded bar end shall be protected by the plastic caps (If required).

(d) Prepared bars shall be stored properly before using.

4.2.1 TYPE A Threading system:

*The **SNTP Type A** system utilizes internally threaded couplers with a single right hand thread and is suitable for applications where the continuation bar can be rotated. The ends of the bars are upset forged and threaded for half the length of the coupler as shown in Fig. 1.0*

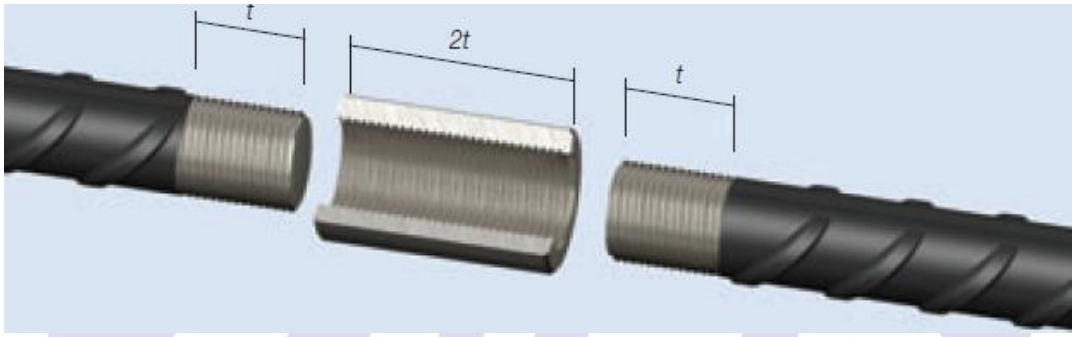

Fig. 1.0 (Where't' is the half Length of the Coupler)

4.2.2 TYPE B Threading System:

*The **SNTP Type B** Threading System uses the same coupler as the Type A system, but one bar is threaded for a full coupler length. It is used for applications where it is difficult but not impossible to rotate the continuation bar. The Fig. 1.2 visually depicts the procedure*

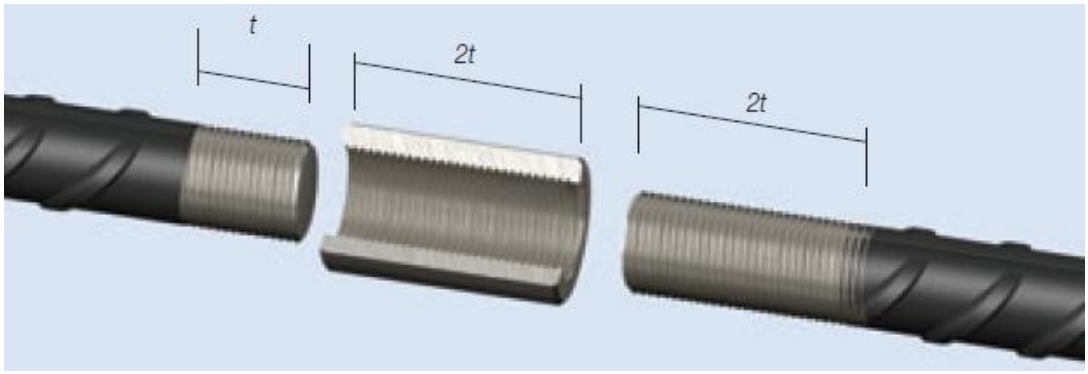

Fig 1.1(Where't' is the half length of the coupler)

4.3 Installation of Bars

1. Ensure couplers used are of correct size. Always keep inner threads of couplers clean and free from grease.

2. Screw couplers onto threaded bar by hand (Roughly 5 Turns). Complete tightening by using SNTP IronJaw wrench to achieve full tightening of joints. ***(Max. tolerance for exposed threads is 2-3 nos.). Then assure the tightening of the splice by using SNTP TorquePro and the torque mentioned as per bar size in table 1 below, in case the splice doesn't achieve the specified torque then re-tighten the bar and check again by SNTP TorquePro and wait for the click sound.***

5. QUALITY ASSURANCE

The work of threading of coupled rebars will be inspected and tested in accordance with Inspection and Test Procedure ITP-01/P.

6. SAFETY MEASURE

Pre-work briefing will be given to all workers engaged in the works. All persons engaged in cutting and threading work will be provided with a safety helmet and gloves at all times.

INSPECTION OF SNTP P-Bar COUPLERS AT PROJECT SITE

All SNTP Couplers come BIS Certified – ISI Marked Couplers from the manufacturing unit.

13 test reports of each lot/batch size per dia with 5 tests each per report.

Table 1

Size of the Bar	16	20	25	28	32	36	40
Torque Required(Nm)	100	200	260	320	320	360	360