BELL SYSTEM PRACTICES
Outside Plant Construction and Maintenance

SECTION G41.124
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AT&T Co Standard

MAIN CONDUIT
LAYING STEEL PIPE

1. GENERAL

1.01 Steel pipe will, in general, be used in main conduit construction only for avoiding obstructions or for such special purposes as in crossing bridges or for mechanical or electrolysis protection. Detail plans will usually be furnished to cover such construction.

1.02 Unless otherwise specified, the pipe should be of the 3-1/2 inch size and should be of the type known commercially as black or ungalvanized pipe. It should be obtained in the "Standard" weight in random lengths for ordinary construction. For further information regarding weights, lengths and coupling provisions, see G40.060.

2. INSPECTION

2.01 Remove oil, dirt and loose, scaly rust from the walls of the pipe. Examine the bores to be certain they are free of any foreign material. Ream the ends of all sections to remove burrs that might damage the cable.

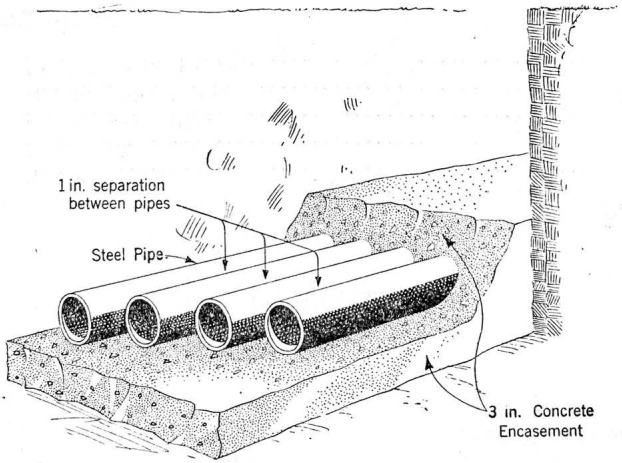
3. LAYING STEEL PIPE

3.01 Particular care must be taken to slope steel pipe toward manholes or other outlets. Should freezing occur in pipes containing cable, damage to the cable is almost certain to result.

3.02 Steel pipe will ordinarily be laid with threaded ends and couplings, using chain pipe tongs or wrenches to turn up the successive lengths. In constricted working conditions, particularly where the lengths of pipe used must be bent to conform to irregularities of the trench, it may be difficult or impossible to turn the pipe to tighten the threaded couplings. In such cases consideration should be given to obtaining the pipe furnished with plain ends and sleeve couplings.

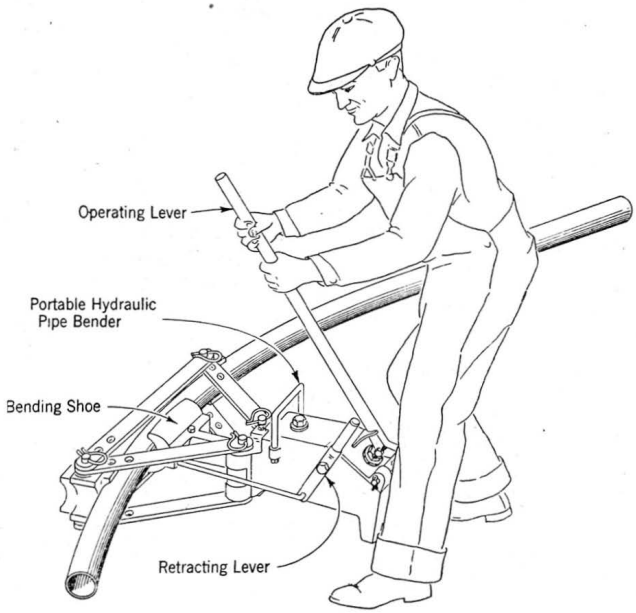
3.03 Place a 3 inch base of the Class 2B concrete on the bed of the trench, following the instructions of G41.120 for Clay Conduit encasement, except that reinforcement should be omitted.

3.04 Lay the pipes on the base with about 1 inch separation between them. Fill the spaces between the pipes with Class 2B concrete and complete the encasement with 3 inches of concrete on the sides and top.



4. BENDING STEEL PIPE

4.01 When steel pipe must be shaped in the field to adapt it to irregularities of the trench, arrangements should be made to obtain a portable hydraulic pipe bender for the purpose. With a tool such as that illustrated, pipe from 2-1/2 inches to 4-1/2 inches in diameter can be bent to any desired radius.



5. STEEL PIPE ON BRIDGES

5.01 When steel pipe is placed on bridges, viaducts, etc., and it is not practicable to encase the pipes in concrete, do not allow the pipes to come in contact with foreign pipes or the steelwork of the bridge structure. Where necessary use plank or other insulating material to separate the pipe from foreign structures. Such construction will usually appear on the detail plans.

5.02 Attention should be paid to the grading of pipes placed on bridges to avoid accumulation of drainage water. Because of their exposed location, pipes on bridges are particularly susceptible to freezing.