SKILLING, HELLE, CHRISTIANSEN, ROBERTSON — Structural & Civil Engineers

PROJECT: THE WORLD TRADE CENTER | TITLE: SHEAR STUD CONNECTOR TABLE FORMAT | DATE: 7-19-68

REVISIONS

9-20-68

DESCRIPTION OF SHEAR STUD CONNECTOR TABLES 1, 2 AND 3

BEAM - NOMINAL BEAM SIZE FROM A.I.S.C. LISTING

STUD - NOMINAL STUD SIZE (DIAMETER X LENCTH)

TABLE NO. 1 - THE NUMBER OF SHEAR STUDS CALCULATED USING FORMULA (19) A.I.S.C. FOR THE CONCRETE AND STEEL RANGE SHOWN

TABLE NO. 2 - SAME AS TABLE 1

TABLE NO. 3 - SAME AS TABLE 1

DESCRIPTION OF SHEAR STUD CONNECTOR TABLES 4, 5 AND 6

BEAM SIZE RANGE - NOMINAL BEAM SIZES FOR WHICH ADJACENT TABLES APPLY

STUD - NOMINAL STUD SIZE (DIAMETER X LENCTH)

SLAB T - THICKNESS OF CONCRETE SLAB

TABLE NO. 4 - THE NUMBER OF SHEAR STUDS CALCULATED USINC FORMULA (18) A.I.S.C. FOR THE CONCRETE RANCE SHOWN

TABLE NO. 5 - SAME AS TABLE 4

TABLE NO. 6 - SAME AS TABLE 4

USE OF TABLES

1. REQUIRED: NOMINAL BEAM SIZE AND YIELD STRENGTH OF THE STEEL BEAM; COMPRESSIVE STRENGTH AND THICKNESS OF THE CONCRETE SLAB.
2. A STUD COUNT CAN BE SELECTED FROM TABLES 1, 2 OR 3 USING ONLY THE FIRST THREE OF THE ABOVE REQUIREMENTS.
3. A STUD COUNT SELECTION IS MADE ALSO FROM TABLES 4, 5 OR 6 USING THE ABOVE REQUIREMENTS EXCEPT FOR YIELD STRENGTH OF THE STEEL BEAM. WHERE SLAB THICKNESSES EXCEED THE SCOPE OF THESE TABLES, USE THE STUD COUNT FOR THE LARGEST TABULATED SLAB THICKNESS.
4. TWICE THE SMALLER OF THE TWO VALUES OBTAINED IN STEPS 2 AND 3 IS THE TOTAL NUMBER OF STUDS REQUIRED.

NOTES:

1. WHERE A SYMBOL ( ) IS SHOWN ON PLANS, SEE STUD SCHEDULE ON 12-JK2-8.
   FOR 300 SERIES, SEE SCHEDULE B ON 12-JK2-18.
   FOR 400 SERIES, SEE SCHEDULE C ON 12-JK2-19.
2. STUD SPACINCS: LONGITUDINAL - 2'-0" MAX. 3" MIN.
   TRANSVERSE - I-7/8" MIN.
   DISTANCE FROM EDGE OF FLANGES - I" MIN.
3. SHEAR CONNECTORS FOR BEAMS AT EL. 264, SEE 12-JK2-5.

LICENSED PROFESSIONAL ENGINEER

DESIGNED

DRAWN

REVIEWED

12-JK2- 20