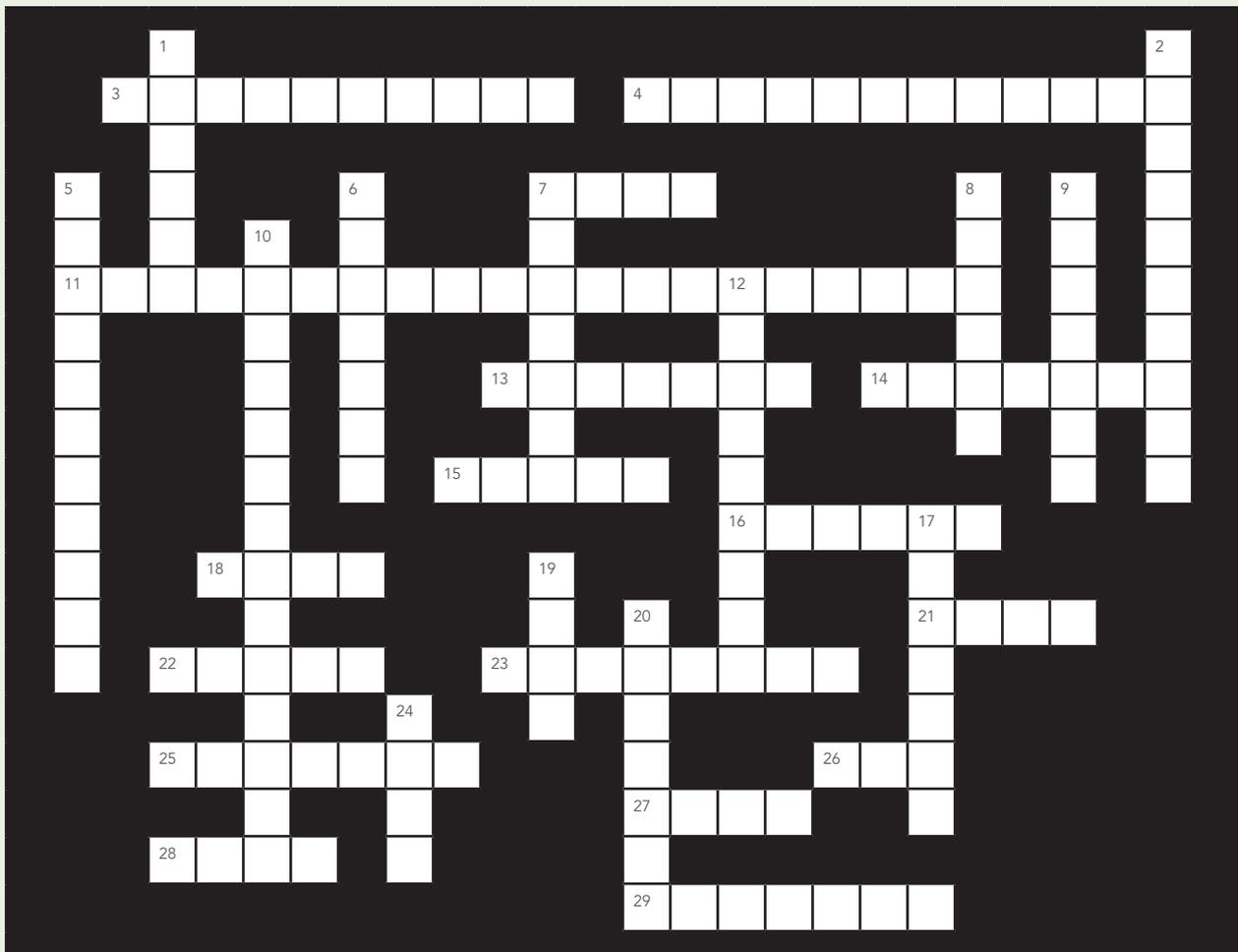


steel puzzle

LOOKING FOR A CHALLENGE? *Modern Steel Construction's* monthly Steel Quiz tests your knowledge of steel design and construction. This month, try your hand at our Steel Puzzle, a feature you can expect to see every few months. Consider it a twist on our traditional Steel Quiz to help you ring in the New Year.



ACROSS

- 3** The full force of an ____ using an ordinary spud wrench to bring plies in full contact is all that is needed for a snug tightened joint
- 4** This type of bolted joint requires special faying surface requirements
- 7** Cutout in a structural member to allow the shape to conform to that of an intersecting member
- 11** The #1 source for information about structural steel
- 13** Limit state of crack initiation and growth resulting from the repeated application of live loads
- 14** A 2008 summer superhero movie that both AISI and AISC could endorse
- 15** The primary member that extends through a truss connection
- 16** Weld of generally triangular cross section made between intersecting surfaces of elements
- 18** Galvanized coatings are formed by a chemical process during which steel and ____ metallurgically bond
- 21** A structure, in pure compression, capable of spanning a space while supporting significant weight

- 22** This truss type includes vertical members and diagonals that slope down towards the center
- 23** The man of Steel
- 25** The ____ ratio is the transverse strain divided by the axial strain
- 26** Abbreviation for a compressible-washer-type capable of indicating the achievement of a specified minimum bolt tension in a structural bolt
- 27** Transverse center-to-center spacing of fasteners
- 28** The segment of a beam that is located between the ends of two diagonal braces or between the end of a diagonal brace and a column (EBF)
- 29** City where the AISC headquarters was previously located

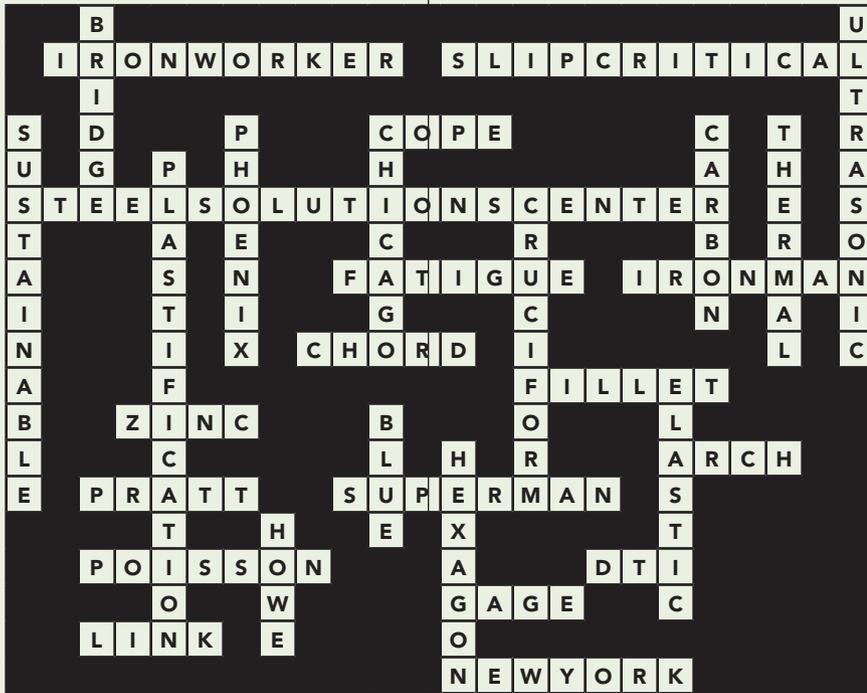
DOWN

- 1** Part of NSBA
- 2** This type of testing relies on the transmission of high-frequency sound waves through the material
- 5** The high recycled content and high reclamation rate of steel make it a highly ____ material

- 6** Pack your bags! The 2009 NASCC will be held in this desert city
- 7** City where the first steel skyscraper was built
- 8** Steel is a metallurgical mix between iron and ____
- 9** This type of cutting can be done with gas, plasma, or a laser
- 10** Limit state based on an out-of-plane flexural yield line mechanism in the chord at a branch member connection
- 12** This column type is symmetric in both directions, with one column web cut and welded to the other column web
- 17** This type of analysis is based on the assumption that the structure returns to its original geometry upon the removal of the load
- 19** This color, located at the end of an F1554 anchor rod, is used to identify Grade 36 steel
- 20** The shape of the head of the bolt and nut for high-strength bolts
- 24** This truss type includes vertical members and diagonals that slope up towards the center

steel puzzle

ANSWERS



Anyone is welcome to submit questions and answers for Steel Quiz. If you are interested in submitting one question or an entire quiz, contact AISC's Steel Solutions Center at 866.ASK.AISC or at solutions@aisc.org.



Steel
SolutionsCenter