SHOULDER INNOVATIONS, INC.

AUDIT COMMITTEE CHARTER

(Effective as of July 30, 2025)

I. Purpose

The purpose of the Audit Committee (the "Committee") of the Board of Directors (the "Board") of Shoulder Innovations, Inc. (the "Company") is to assist the Board in its oversight of: (i) the integrity of the Company's financial statements; (ii) the Company's compliance with legal and regulatory requirements; (iii) the independent auditor's qualifications and independence; and (iv) the performance of the Company's internal audit function and independent auditor.

The Committee's responsibilities are limited to oversight. The Company's management is responsible for establishing and maintaining accounting policies and procedures in accordance with generally accepted accounting principles and other applicable reporting and disclosure standards and for preparing the Company's financial statements. The Company's independent auditors are responsible for auditing and reviewing those financial statements. Each member of the Committee is entitled to rely on the integrity of those persons within the Company and from the professionals and experts from which the Committee receives information and, absent actual knowledge to the contrary, the accuracy of the financial and other information provided to the Committee by such persons, professionals, or experts.

To implement the Committee's purpose, the Committee shall be charged with the below functions and responsibilities with the understanding, however, that the Committee may supplement or (except as otherwise required by applicable laws or requirements of any stock exchange on which any of the Company's capital stock may be listed) deviate from these activities as appropriate under the circumstances.

II. Composition

The Committee must consist of at least three directors, subject to any available exception. Each Committee member must satisfy the independence requirements of the New York Stock Exchange (the "NYSE") and the more rigorous independence rules for members of audit committees issued by the U.S. Securities and Exchange Commission (the "SEC"), subject in each case to applicable transition provisions or exceptions. Each Committee member must be financially literate as determined by the Board in its business judgment. In addition, at least one member of the Committee must be an "audit committee financial expert" as defined under SEC rules.

No Committee member may simultaneously serve on the audit committee of more than two other public companies, unless the Board determines that such simultaneous service would not impair the ability of the member to effectively serve on the Committee and this determination is disclosed in accordance with NYSE rules.

Committee members must be appointed and may be removed from the Committee, with or without cause, by the Board. Unless a Chair is designated by the Board, the Committee may designate a Chair by majority vote of the full Committee membership.

III. Meetings, Procedures and Authority

The Committee must meet at least once during each fiscal quarter. The Committee must meet separately, periodically, with management, the internal auditor (or other personnel responsible for the internal audit function), if any, and the independent auditor.

The Committee has the authority to establish its own rules and procedures for notice and conduct of its meetings so long as they are not inconsistent with any provisions of the Company's bylaws that are applicable to the Committee.

The Committee may retain any independent counsel, experts or advisors that the Committee believes to be necessary or appropriate. The Company must provide for appropriate funding, as determined by the Committee, for payment of compensation to the independent auditor for the purpose of preparing or issuing an audit report or performing other audit, review or attest services, for payment of compensation to any advisors employed by the Committee and for payment of ordinary administrative expenses of the Committee that are necessary or appropriate in carrying out its duties.

In addition to the duties and responsibilities expressly delegated to the Committee in this Charter, the Committee may exercise any other powers and carry out any other responsibilities consistent with this Charter, the purposes of the Committee, the Company's bylaws and applicable NYSE rules.

The Committee may conduct or authorize investigations into any matters within the scope of the duties and responsibilities delegated to the Committee. Without limiting the foregoing, the Committee is authorized to request that any officer or employee of the Company, any subject matter expert or professional retained by the Company to render advice to the Company, or any other subject matter expert or professional that the Committee may determine, attend a meeting of the Committee or meet with any members of, or advisors to, the Committee.

IV. Duties and Responsibilities

Interaction with the Independent Auditor

1. Appointment and Oversight. The Committee is directly responsible for the appointment, engagement, compensation, evaluation, termination, retention and oversight of the work of the independent auditor and any other registered public accounting firm engaged for the purpose of preparing or issuing an audit report or related work or performing other audit, review or attest services for the Company (including resolution of any disagreements between Company management and the independent auditor or other registered public accounting firm regarding financial reporting), and the independent auditor and each such other registered public accounting firm must report directly to the Committee.

- 2. Preapproval of Audit and Non-Audit Services. The Committee must pre-approve any audit and non-audit service provided to the Company by the independent auditor, unless the engagement is entered into pursuant to appropriate preapproval policies established by the Committee or if such service falls within available exceptions under SEC rules. Other than with respect to the annual audit of the Company's financial statements, the Chair of the Committee is authorized to pre-approve other audit services and non-audit services provided to the Company by the independent auditor on behalf of the Committee and each such pre-approval decision will be presented to the full Committee at its next scheduled meeting.
- 3. Annual Report on Independence and Quality Control. The Committee must, at least annually, obtain and review a report from the independent auditor describing (a) the auditing firm's internal quality-control procedures; (b) any material issues raised by the most recent internal quality-control review or peer review of the auditing firms, or by any inquiry or investigation by governmental or professional authorities within the preceding five years relating to any independent audit conducted by the auditing firm, and any steps taken to deal with any such issues; and (c) all relationships and services between the independent auditor and the Company in order to assess the independent auditor's independence.

Annual Financial Statements and Annual Audit

- 4. *Audit Problems*. The Committee must discuss with the independent auditor any audit problems or difficulties and management's response.
- 5. Form 10-K Review. The Committee must review and discuss with management and the independent auditor the annual audited financial statements, including the Company's disclosures under "Management's Discussion and Analysis of Financial Condition and Results of Operations" and shall recommend to the Board whether the audited financial statements should be included in the Company's Form 10-K.
- 6. Audit Committee Report. The Committee must provide the Company with the report of the Committee with respect to the audited financial statements for inclusion in each of the Company's annual proxy statements.

Quarterly Financial Statements

7. Form 10-Q Review. The Committee must review and discuss with management and the independent auditor the Company's quarterly financial statements, including the Company's disclosures under "Management's Discussion and Analysis of Financial Condition and Results of Operations."

Other Duties and Responsibilities

- 8. Review of Earnings Releases. The Committee must discuss the Company's earnings press releases, as well as financial information and earnings guidance provided to analysts and rating agencies.
- 9. Risk Assessment and Risk Management. The Committee must periodically review and discuss the Company's policies with respect to risk assessment and risk management and

oversee the management of the Company's financial risks and information technology risks, including cybersecurity and data privacy risks. The Committee must discuss with management the steps management has taken to monitor and control these risks.

- 10. Hiring of Independent Auditor Employees. The Committee must establish hiring policies for employees or former employees of the Company's independent auditor.
- 11. Complaint Procedures. The Committee must establish procedures for the receipt, retention and treatment of complaints received by the Company regarding accounting, internal accounting controls or auditing matters, and for the confidential and anonymous submission by Company employees of concerns regarding questionable accounting or auditing matters.
- 12. Review of Internal Control Over Financial Reporting. The Committee must review and discuss with management and the independent auditor the adequacy of the Company's internal control over financial reporting ("ICFR") and any steps management has taken to address material weaknesses in ICFR.
- 13. Review of Related Person Transactions. The Committee will periodically review the Company's policies and procedures for reviewing and approving "related person transactions" as defined by Item 404 of Regulation S-K and approve or recommend to the Board any changes to such policies and procedures. In accordance with the Company's Related Person Transaction Policy and Procedures and NYSE rules, the Committee will review and, if appropriate, approve related person transactions and oversee such transactions on an ongoing basis.
- 14. Review of Code of Business Conduct and Ethics. The Committee must periodically consider and discuss with management and the independent auditor the Company's Code of Business Conduct and Ethics (the "Code") and the procedures in place to enforce the Code. The Committee must also consider and discuss and, as appropriate, grant requested waivers from the Code brought to the attention of the Committee; provided that the Committee may defer any decision with respect to any waiver to the Board.
- 15. Reports to the Board of Directors. The Committee must report regularly to the Board regarding the activities of the Committee.
- 16. *Committee Self-Evaluation*. The Committee must at least annually perform an evaluation of the performance of the Committee.
- 17. *Review of this Charter*. The Committee must annually review and reassess this Charter and submit any recommended changes to the Board for its consideration.
- 18. Review of Whistleblower Policy. The Committee should periodically review and discuss the Company's policies with respect to the policies and procedures for complaints regarding accounting, internal accounting controls, fraud or auditing matters.

V. Delegation of Duties

In fulfilling its responsibilities, the Committee is entitled to delegate any or all of its responsibilities to a subcommittee of the Committee.