Statement of Changes in Beneficial Ownership

Filed pursuant to Section 16(a) of the Securities Exchange Act of 1934 or Section 30(h) of the Investment Company Act of 1940

Date: 09/06/2023

1. Name and Address of Reporting Person
   BAGSHAW Seth H
   C/O MKS INSTRUMENTS, INC.
   2 TECH DRIVE, SUITE 201
   ANDOVER MA 01810

2. Issuer Name and Ticker or Trading Symbol
   MKS INSTRUMENTS INC [ MKSI ]

3. Date of Earliest Transaction (Month/Day/Year)
   09/06/2023

4. If Amendment, Date of Original Filed (Month/Day/Year)

5. Relationship of Reporting Person(s) to Issuer (Check all applicable)
   X Director
   10% Owner
   Other (specify below)
   EVP, CFO & Treasurer

6. Individual or Joint/Group Filing (Check Applicable Line)
   X Form filed by One Reporting Person
   Form filed by More than One Reporting Person

Rule 10b5-1(c) Transaction Indication

Check this box to indicate that a transaction was made pursuant to a contract, instruction or written plan that is intended to satisfy the affirmative defense conditions of Rule 10b5-1(c). See Instruction 10.

Table I - Non-Derivative Securities Acquired, Disposed of, or Beneficially Owned

<table>
<thead>
<tr>
<th>1. Title of Security (Instr. 3)</th>
<th>2. Transaction Date (Month/Day/Year)</th>
<th>2A. Deemed Execution Date, if any (Month/Day/Year)</th>
<th>3. Transaction Code (Instr. 8)</th>
<th>4. Securities Acquired (A) or Disposed Of (D) (Instr. 3, 4 and 5)</th>
<th>5. Amount of Securities Beneficially Owned Following Reported Transaction(s) (Instr. 3 and 4)</th>
<th>6. Ownership Form: Direct (D) or Indirect (I) (Instr. 4)</th>
<th>7. Nature of Indirect Beneficial Ownership (Instr. 4)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Common Stock</td>
<td>09/06/2023</td>
<td></td>
<td>S</td>
<td>17,927 D</td>
<td>27,619.596</td>
<td>D</td>
<td></td>
</tr>
<tr>
<td>Common Stock</td>
<td>09/06/2023</td>
<td></td>
<td>S</td>
<td>7,073 D</td>
<td>20,546.596</td>
<td>D</td>
<td></td>
</tr>
</tbody>
</table>

Table II - Derivative Securities Acquired, Disposed of, or Beneficially Owned (e.g., puts, calls, warrants, options, convertible securities)

<table>
<thead>
<tr>
<th>1. Title of Derivative Security (Instr. 3)</th>
<th>2. Conversion or Exercise Price of Derivative Security</th>
<th>3. Transaction Date (Month/Day/Year)</th>
<th>3A. Deemed Execution Date, if any (Month/Day/Year)</th>
<th>4. Transaction Code (Instr. 8)</th>
<th>4A. Number of Derivative Securities Acquired (A) or Disposed Of (D) (Instr. 3, 4 and 5)</th>
<th>4B. Date Exercisable and Expiration Date (Month/Day/Year)</th>
<th>5. Title and Amount of Securities Underlying Derivative Security (Instr. 3 and 4)</th>
<th>6. Ownership Form: Direct (D) or Indirect (I) (Instr. 4)</th>
<th>7. Nature of Indirect Beneficial Ownership (Instr. 4)</th>
</tr>
</thead>
</table>

Explanation of Responses:

1. This transaction was executed in multiple trades at prices ranging from $96.50 to $97.49. The price reported above reflects the weighted average sale price. The reporting person hereby undertakes to provide, upon request, the full information regarding the number of shares and prices at which the transaction was effected.

2. This transaction was executed in multiple trades at prices ranging from $97.50 to $97.95. The price reported above reflects the weighted average sale price. The reporting person hereby undertakes to provide, upon request, the full information regarding the number of shares and prices at which the transaction was effected.

/s/ M. Kathryn Rickards, attorney-in-fact 09/07/2023
** Signature of Reporting Person Date

Reminder: Report on a separate line for each class of securities beneficially owned directly or indirectly.

* If the form is filed by more than one reporting person, see Instruction 4 (b)(v).


Note: File three copies of this Form, one of which must be manually signed. If space is insufficient, see Instruction 6 for procedure.

Persons who respond to the collection of information contained in this form are not required to respond unless the form displays a currently valid OMB Number.