

Spinal Elements, Inc.  
Premarket Notification – Spinal Elements Lotus® Posterior Cervical/Thoracic Spinal System

**510(k) Summary**  
**Lotus®**

**510(k) Number K131427**

**Manufacturer Identification**  
**Submitted by:**

Spinal Elements, Inc.  
3115 Melrose Drive, Suite 200  
Carlsbad, CA 92010  
760-607-0121

OCT 24 2013

**Contact Information:**

Benjamin A. Kimball  
Regulatory Affairs Manager  
Spinal Elements, Inc.  
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Carlsbad, CA 92010  
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**Date Prepared:**

May 15, 2013

**Proprietary Name**  
**Common Name**

Lotus®  
Spinal Interlaminar Fixation and Spinal Intervertebral  
Fixation Orthosis and/or Pedicle Screw System

**Device Classification**  
**Proposed Regulatory Class**  
**Device Product Code**

21 CFR 888.3050, and / or 21 CFR 888.3070  
Class II  
KWP, MNI, MNH

**Purpose of this Traditional 510(k)**

This 510(k) seeks clearance for a line addition to the previously cleared (K120467) Lotus system and a minor modification to the indication for use by adding language relative to the device's ability to be used in conjunction with Spinal Elements' Mercury® system.

**Device Description**

The Spinal Elements Lotus Posterior Cervical/Thoracic System consists of a variety of fixation devices that are attached to the spine by means of screws and hooks placed in/on the pedicles or posterior elements of the various vertebrae, rods that span the distance between the screws/hooks. Screws are intended for attachment to the thoracic (T1-T3) spine only. The system achieves fixation by the mechanical joining of the rods, screws, and hooks. A variety of constructs may be assembled to suit the individual pathology and anatomy of the patient.

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**Connectors**

Connectors are offered in a variety of sizes and configurations and are manufactured from titanium alloy (Ti-6Al-4V) conforming to ASTM F 1472 and / or F 136. The following connectors are being added to the system:

- Offset connector
- Round offset connector
- Axial rod to rod connector
- Ø3.5mm Axial rod to rod connector
- Ø 5.5mm Axial rod to rod connector
- Parallel rod to rod connector
- Ø 3.5mm Parallel rod to rod connector
- Ø 5.5mm Parallel rod to rod connector
- Transition rods

**Intended Use of the Device**

The Spinal Elements Lotus Posterior Cervical/Thoracic Spinal System is intended for posterior fixation of the cervical and thoracic spine (C1-T3) for the following conditions: degenerative disc disease (neck pain of discogenic origin with degeneration of the disc as confirmed by patient history and radiographic studies); spondylolisthesis; spinal stenosis; trauma (fracture/dislocation); failed previous fusion; tumors. The Spinal Elements Lotus Posterior Cervical/Thoracic Spinal System may be used in conjunction with the Spinal Elements Mercury system for transition at T1 – T3.

The use of polyaxial pedicle screws is limited to placement in T1-T3 for treating thoracic conditions only. The screws are not intended to be placed in the cervical spine.

**Performance Data**

The following testing was performed:

- Static Compression Bending per ASTM F1717
- Dynamic Compression Bending per ASTM F1717
- Static Torsion testing per ASTM F1717
- Torsion testing per ASTM F1798
- Axial grip testing per ASTM F1798

**Substantial Equivalence**

Spinal Elements Posterior Cervical/Thoracic Spinal System is substantially equivalent to the previously cleared Spinal Elements Posterior Cervical/Thoracic Spinal System (Lotus) cleared in 510(k) K120467.



Food and Drug Administration  
10903 New Hampshire Avenue  
Document Control Center – WO66-G609  
Silver Spring, MD 20993-0002

October 24, 2013

Spinal Elements, Incorporated  
Mr. Benjamin A. Kimball  
Regulatory Affairs Manager  
3115 Melrose Drive, Suite 200  
Carlsbad, California 92010

Re: K131427

Trade/Device Name: Lotus<sup>®</sup> Posterior Cervical/Thoracic Spinal System  
Regulation Number: 21 CFR 888.3050  
Regulation Name: Spinal interlaminar fixation orthosis  
Regulatory Class: Class II  
Product Code: KWP, MNI, MNH  
Dated: September 25, 2013  
Received: September 26, 2013

Dear Mr. Kimball:

We have reviewed your Section 510(k) premarket notification of intent to market the device referenced above and have determined the device is substantially equivalent (for the indications for use stated in the enclosure) to legally marketed predicate devices marketed in interstate commerce prior to May 28, 1976, the enactment date of the Medical Device Amendments, or to devices that have been reclassified in accordance with the provisions of the Federal Food, Drug, and Cosmetic Act (Act) that do not require approval of a premarket approval application (PMA). You may, therefore, market the device, subject to the general controls provisions of the Act. The general controls provisions of the Act include requirements for annual registration, listing of devices, good manufacturing practice, labeling, and prohibitions against misbranding and adulteration. Please note: CDRH does not evaluate information related to contract liability warranties. We remind you, however, that device labeling must be truthful and not misleading.

If your device is classified (see above) into either class II (Special Controls) or class III (PMA), it may be subject to additional controls. Existing major regulations affecting your device can be found in the Code of Federal Regulations, Title 21, Parts 800 to 898. In addition, FDA may publish further announcements concerning your device in the Federal Register.

Please be advised that FDA's issuance of a substantial equivalence determination does not mean that FDA has made a determination that your device complies with other requirements of the Act or any Federal statutes and regulations administered by other Federal agencies. You must comply with all the Act's requirements, including, but not limited to: registration and listing (21 CFR Part 807); labeling (21 CFR Part 801); medical device reporting (reporting of medical device-related adverse events) (21 CFR 803); good manufacturing practice requirements as set

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forth in the quality systems (QS) regulation (21 CFR Part 820); and if applicable, the electronic product radiation control provisions (Sections 531-542 of the Act); 21 CFR 1000-1050.

If you desire specific advice for your device on our labeling regulation (21 CFR Part 801), please contact the Division of Small Manufacturers, International and Consumer Assistance at its toll-free number (800) 638-2041 or (301) 796-7100 or at its Internet address <http://www.fda.gov/MedicalDevices/ResourcesforYou/Industry/default.htm>. Also, please note the regulation entitled, "Misbranding by reference to premarket notification" (21 CFR Part 807.97). For questions regarding the reporting of adverse events under the MDR regulation (21 CFR Part 803), please go to <http://www.fda.gov/MedicalDevices/Safety/ReportaProblem/default.htm> for the CDRH's Office of Surveillance and Biometrics/Division of Postmarket Surveillance.

You may obtain other general information on your responsibilities under the Act from the Division of Small Manufacturers, International and Consumer Assistance at its toll-free number (800) 638-2041 or (301) 796-7100 or at its Internet address <http://www.fda.gov/MedicalDevices/ResourcesforYou/Industry/default.htm>.

Sincerely yours,

**Ronald P. Jean -S** for

Mark N. Melkerson  
Director  
Division of Orthopedic Devices  
Office of Device Evaluation  
Center for Devices and  
Radiological Health

Enclosure

## Indications for Use

510(k) K: K131427

Device Name: Spinal Elements Lotus<sup>®</sup> Posterior Cervical / Thoracic Spinal System

### Indications for Use:

The Spinal Elements Lotus Posterior Cervical/Thoracic Spinal System is intended for posterior fixation of the cervical and thoracic spine (C1-T3) for the following conditions: degenerative disc disease (neck pain of discogenic origin with degeneration of the disc as confirmed by patient history and radiographic studies); spondylolisthesis; spinal stenosis; trauma (fracture/dislocation); failed previous fusion; tumors. The Spinal Elements Lotus Posterior Cervical/Thoracic Spinal System may be used in conjunction with the Spinal Elements Mercury<sup>®</sup> system for transition at T1 – T3.

The use of polyaxial pedicle screws is limited to placement in T1-T3 for treating thoracic conditions only. The screws are not intended to be placed in the cervical spine.

Prescription Use  X  AND/OR Over-The-Counter Use \_\_\_\_\_  
(Part 21 CFR 801 Subpart D) (21 CFR 807 Subpart C)

(PLEASE DO NOT WRITE BELOW THIS LINE-CONTINUE ON ANOTHER PAGE IF NEEDED)

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Concurrence of CDRH, Office of Device Evaluation (ODE)

**Ronald P. Jean -S**

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(Division Sign-Off)  
Division of Orthopedic Devices  
510(k) Number: K131427