

**APR 10 2014**

**510(k) Summary Pursuant to 21 CFR 807.92**

**Sponsor:** Pioneer Surgical Technology, Inc.  
(RTI Surgical, Inc.)  
375 River Park Circle  
Marquette, MI. 49855 USA  
Contact: Sarah McIntyre  
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Prepared: March 18, 2014

**Name:** Streamline TL Spinal System

**Trade name:** Streamline TL Spinal Fixation System

**Common name:** Pedicle screw system

**Classifications:** 21 CFR 888.3060, Spondylolisthesis Spinal Fixation Device System and 21 CFR 888.3070 Pedicle Screw Spinal System, Class III

**Product Codes:** NKB, KWQ, MNI, MNH

**Panel/ Branch:** Orthopaedic and Rehabilitation Devices Panel; Panel Code 87

**Predicates:** Pioneer Streamline TL Spinal System (K131100)  
Blackstone Medical, Inc. Firebird Spinal Fixation System (K093926)

**Description:** The Streamline TL Spinal System consists of a variety of rods, screws (poly-axial, fixed, and reduction), transverse connectors, set screws and other connecting components used to build a spinal construct. The implant components can be rigidly locked into a variety of configurations, with each construct being tailor-made for the individual case. Sacral/iliac screws are designed for posterior fixation. The Streamline TL Spinal System includes Class I manual instrumentation to facilitate implantation of the device components.

The Streamline TL Spinal System may be used with the Streamline TL Crosslink, SpineWorks FixxSure Crosslink or the Quantum® Spinal System X-Link® and rods.

**Description of Device Modification:** This 510(k) is intended to introduce a line extension to the existing Streamline TL Spinal System. The line extension consists of additional diameters for the poly-axial screws.

**Intended Use:** The Streamline TL Spinal System components are non-cervical spinal fixation devices intended as an adjunct to fusion for use as a pedicle screw (T1-S2), sacral/iliac screw fixation or as an anterolateral fixation system (T8 – L5). Pedicle screw fixation is limited to skeletally mature patients. These devices are indicated for all of the following indications: degenerative disc disease (defined as discogenic back pain with degeneration of the disc confirmed by history and radiographic studies), spondylolisthesis, trauma, (i.e., fracture or dislocation), deformities or curvatures (i.e., scoliosis, kyphosis, and/or lordosis, Scheuermann's Disease), tumor, stenosis, pseudoarthrosis, and failed previous fusion.

**Materials:** The implant components of the Streamline TL Spinal System are manufactured from implant grade Titanium Alloy per ASTM F136. Spinal rods are also available in Cobalt Chromium Alloy per ASTM F1537.

**Substantial Equivalence** The Streamline TL Spinal System, with incorporation of the subject components, is substantially equivalent to the predicate in terms of material, design, and indications for use. Engineering analysis was completed for the subject components and demonstrated no pre-clinical performance data was required to demonstrate equivalence of the product. There are no significant differences between the Streamline TL Spinal System and the predicate devices which would adversely affect the use of the product.



DEPARTMENT OF HEALTH & HUMAN SERVICES

Public Health Service

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

April 10, 2014

Pioneer Surgical Technology, Incorporated  
Ms. Sarah McIntyre  
Regulatory Affairs Associate II  
375 River Park Circle  
Marquette, Michigan 49855

Re: K140696  
Trade/Device Name: Streamline TL Spinal System  
Regulation Number: 21 CFR 888.3070  
Regulation Name: Pedicle screw spinal system  
Regulatory Class: Class III  
Product Code: NKB, MNI, MNH, KWQ  
Dated: March 18, 2014  
Received: March 19, 2014

Dear Ms. McIntyre:

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 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.

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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) Number (if known)

K140696

Device Name

Streamline TL Spinal System

Indications for Use (Describe)

The Streamline TL Spinal System components are non-cervical spinal fixation devices intended as an adjunct to fusion for use as a pedicle screw (T1-S2), sacral/ilic screw fixation or as an anterolateral fixation system (T8 – L5). Pedicle screw fixation is limited to skeletally mature patients. These devices are indicated for all of the following indications: degenerative disc disease (defined as discogenic back pain with degeneration of the disc confirmed by history and radiographic studies), spondylolisthesis, trauma, (i.e., fracture or dislocation), deformities or curvatures (i.e., scoliosis, kyphosis, and/or lordosis, Scheuermann's Disease), tumor, stenosis, pseudoarthrosis, and failed previous fusion.

Type of Use (Select one or both, as applicable)

Prescription Use (Part 21 CFR 801 Subpart D)

Over-The-Counter Use (21 CFR 801 Subpart C)

**PLEASE DO NOT WRITE BELOW THIS LINE – CONTINUE ON A SEPARATE PAGE IF NEEDED.**

**FOR FDA USE ONLY**

Concurrence of Center for Devices and Radiological Health (CDRH) (Signature)

James P. Bertram - S

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