

K100757

JUL - 1 2010

**Genesys Spine  
Genesys Spine TiLock Pedicle Screw System**

**510(k) Summary of Safety and Effectiveness**

**SUBMITTED BY** Genesys Spine  
1250 Capital of Texas Highway South  
Building Three, Suite 600  
Austin, Texas 78746

**ESTABLISHMENT  
REGISTRATION NUMBER** Pending

**CONTACT PERSON** Primary  
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**DATE PREPARED** March 15, 2010

**CLASSIFICATION NAME** NKB 888.3070 - Pedicle Screw Spinal System  
MNI 888.3070 - Pedicle Screw Spinal System  
MNH 888.3070 - Pedicle Screw Spinal System

**COMMON NAME** Spinal Fixation System

**PROPRIETARY NAME** TiLock Pedicle Screw System

**DEVICE DESCRIPTION**

The Genesys Spine TiLock Pedicle Screw System is comprised of polyaxial screws (standard and cannulated) and monoaxial screws in various lengths and diameters, lock plugs, cross-links, tulips and rods in various lengths. The TiLock System only allows the placement of 5.5 mm titanium rods.

The TiLock cannulated polyaxial screws may be implanted via a minimally invasive technique. Manual instrumentation for implantation of the system is available for both conventional and minimally invasive procedures. The minimally invasive procedure is performed using k-wire and fluoroscopy, which allows the implanting surgeon to employ two smaller incisions rather than a longer midline incision.

#### **INDICATIONS:**

The TiLock Pedicle Screw System is intended to provide immobilization and stabilization of spinal segments in skeletally mature patients as an adjunct to fusion in the treatment of the following acute and chronic instabilities or deformities of thoracic, lumbar, and sacral spine: degenerative disc disease (DDD) (defined as back pain of discogenic origin with degeneration of the disc confirmed by history and radiographic studies); spondylolisthesis; trauma (i.e., fracture or dislocation); spinal stenosis; curvatures (i.e., scoliosis, kyphosis, and/or lordosis); tumor; pseudoarthrosis; and failed previous fusion.

#### **SUBSTANTIAL EQUIVALENCE AND TECHNOLOGICAL CHARACTERISTICS**

The Genesys Spine TiLock System was determined to be substantially equivalent to the following predicate systems:

Interpore Cross Synergy Polyaxial (K984578)  
DePuy Spine Expedium (K081252, K041801)  
DePuy Spine Moss Miami (K955348)  
DePuy Spine VSP Spine System (K984350)  
US Surgical Rogozinski Spinal Rod System (K983904)

The subject and predicate device share the same intended use and material of manufacture. The subject and predicate device have similar technological characteristics and the minor differences do not raise any new issues of safety and effectiveness. Mechanical test results demonstrate that the minor differences do not impact device performance as compared to the predicate.

#### **DISCUSSION OF NON-CLINICAL AND CLINICAL DATA**

The following non-clinical tests were conducted, the results of which demonstrate that the Genesys Spine TiLock Pedicle Screw System is substantially equivalent to the predicate(s):

- Static and dynamic axial compression bending testing, conducted in accordance with ASTM F1717-04
- Static torsion testing, conducted in accordance with ASTM F1717-04



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Food and Drug Administration  
10903 New Hampshire Avenue  
Document Control Room W-066-0609  
Silver Spring, MD 20993-0002

Re: K100757

Trade/Device Name: TiLock Pedicle Screw System  
Regulation Number: 21 CFR 888.3070  
Regulation Name: Pedicle screw spinal system  
Regulatory Class: Class III  
Product Code: NKB, MNI, MNH  
Dated: June 17, 2010  
Received: June 18, 2010

Dear Mr. Kaufmann:

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.

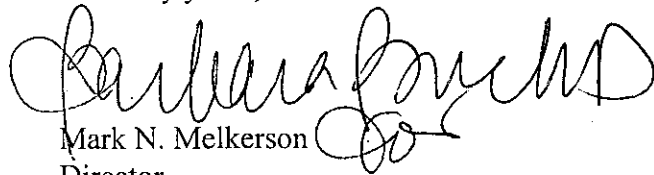
Please be advised that FDA's issuance of a substantial equivalence determination does not mean that FDA has made a determination that your device complies with other requirements of the Act or any Federal statutes and regulations administered by other Federal agencies. You must comply with all the Act's 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 go to <http://www.fda.gov/AboutFDA/CentersOffices/CDRH/CDRHOffices/ucm115809.htm> for the Center for Devices and Radiological Health's (CDRH's) Office of Compliance. 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,



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

Enclosure

