

## 58-22 Pelton & Crane Spirit 2005 Dental Chair (Project 98-55) (2/00)

The Spirit 2005 Dental Chair is the newest offering in the Pelton & Crane line. The model evaluated by DIS was integrated with the Spirit 2120 Dental Unit. The Spirit 2005 is hydraulically powered and has synchronous operation of the chair back and seat that reduces the need for patient realignment during positioning. The standard features of the chair include seamless upholstery, an articulating headrest, and lockable sliding armrests that facilitate patient entry and exit from the chair. Chair positioning is controlled via a five-position foot switch or a touch pad that is included on the control head of the unit. The touch pad is illustrated with icons that indicate the four positioning functions (incline, recline, chair-up, and chair-down). Also featured on the touch pad are an icon for the light switch and two numerals that represent programmable positions. Designed to accommodate stand-up and sit-down dentistry, the Spirit 2005 features a modified traverse mechanism that is purported to eliminate the need for patients to reposition themselves after being placed in the supine position. The touch pad or foot switch allows users to bring patients to an upright position for consultation, rinsing, or impression making; when activated again, the chair returns to its previous operating position. Four strategically located Internal Safety Switches discontinue the automatic chair-repositioning program if the chair encounters an obstacle. In addition, the Stop Motion feature allows the user to stop automatic repositioning program cycles by activating any of the keys that control the chair. A thin-profile, U-shaped back is purported to comfortably support the patient while increasing provider access. Other standard features include a clear-vinyl toeboard cover, sculptured foam cushioning on the back, seat, and headrest, and a painted finish on exterior metal surfaces. A swivel-brake lever located beneath the seat provides a 30° rotation in either direction for patient access and provider comfort. The chair measures 34 inches high by 87.5 inches long by 28 inches wide and has a shipping weight of 285 pounds. The Spirit 2005 can be configured in either 110 or 220 volts and is UL, ETL, CSA listed and IEC certified.



### **Manufacturer:**

Pelton & Crane  
PO Box 7800  
Charlotte, NC 28241-7800  
(800) 659-3212  
(704) 587-7283  
(704) 588-6543 FAX

### **Suggested Retail Price:**

\$5,760 Includes seamless upholstery, five-position foot switch, removable articulating headrest, sliding armrests, clear vinyl toeboard cover, and standard swivel base.

### **Government Price:**

\$3,168 Same as above.

### **ADVANTAGES:**

- + Attractive and modern looking.
- + Stable in all operating positions.
- + Armrests were easy to move into and out of position.
- + Upholstery is easy to clean.

- + Touch pad and foot controls sealed for ease of disinfection.
- + Easily converted from right-hand to left-hand use.
- + Five programmable presets for patient positioning.
- + Adjustable articulating headrest.
- + Installation and maintenance manuals were well detailed.
- + Is UL, ETL, CSA listed and IEC certified.

**DISADVANTAGES:**

- Evaluators reported that the chair was uncomfortable for tall patients.
- Operational positions and foot controls were difficult to adjust.
- Clinical evaluators reported that the chair did not provide easy access for patients.
- Burrs and sharp edges of interior framework may damage electrical and water lines.
- Headrest attachment bolts could be felt by patients through padding.
- Operating instructions were judged by clinical evaluators to be incomplete.
- Failed to meet all requirements of military standard for dental chairs.

**SUMMARY AND CONCLUSIONS:**

The Pelton & Crane Spirit 2005 Dental Chair supports the patient during normal sit-down or stand-up dental procedures in either the upright or supine position. Although no safety hazards were reported, patients found chair access to be inconvenient. The sleek, modern design facilitates established infection control procedures such as disinfection and barrier protection. Standard seamless upholstery makes cleaning easy and relatively quick. Providers liked the esthetics, sliding armrests, and the ease of conversion from right- to left-hand use. Users found it difficult to adjust the chair's position using the foot control. The majority of evaluators reported that patients were often uncomfortable in the chair, especially those who were taller than average. Installation and maintenance instructions were complete, but evaluators found the operating instructions to be incomplete. The Spirit 2005 failed to meet all the requirements of the military standard for dental chairs due to the presence of burrs and sharp edges on the interior framework surfaces where the main wiring harness and waterlines were routed. DIS evaluators found the headrest padding to be inadequate. Eighty-three percent of evaluators rated the Spirit 2005 as "Poor" or "Unsatisfactory." The **Spirit 2005 Dental Chair** is rated **Marginal** for use by the federal dental services.

**UPDATE** For updated information on this product, [click here](#).

### 59-24 Spirit 2005 Dental Chair (Improved Version) (Project 99-49) (1/00)

The Spirit 2005 Dental Chair (Improved Version) is the latest version of the Spirit dental chair series manufactured by Pelton & Crane. **The "Improved" Version of the chair refers to those with a serial number of 1077 or higher.** In a previous evaluation of the Spirit 2005 (DIS 58-22), DIS rated the chair "Marginal." Pelton & Crane has claimed that all deficiencies noted in the original evaluation have been corrected. As a result, DIS agreed to re-evaluate the

2005 to determine its acceptability for use in federal dental facilities. The model evaluated by DIS was integrated with the Spirit 2120 Dental Unit (Improved Version). The chair is hydraulically powered and has synchronous operation of the chair back and seat which reduces the need for patient realignment during positioning. Standard features of the chair include seamless upholstery, an articulating headrest, and lockable sliding armrests that facilitate patient entry and exit from the chair. Patient positioning is adjusted via a five-position foot switch and a touch pad that is included on the control head of the unit. The touch pad is illustrated with icons that indicate the four positioning functions (e.g., incline, recline, chair-up, and chair-down). Also present on



the touch pad are an icon for the light switch and two numerals that represent programmable positions. Designed to accommodate stand-up and sit-down dentistry, the Spirit 2005 (Improved Version) features a modified traverse mechanism that is purported to eliminate patient repositioning when placed in a supine position and to keep the oral cavity in the same relative operating plane. Either the touch pad or the foot switch can be used to bring patients to an upright position for consultation, rinsing, or impression making and then return them to the previous operating position when reactivated. Four strategically located Internal Safety Switches stop the automatic chair-repositioning program if they encounter an obstacle. In addition, the Stop Motion feature allows the user to stop automatic repositioning program cycles by activating any of the keys that control the chair. A thin-profile U-shaped back is purported to support the patient comfortably while increasing provider access. Other standard features include a clear-vinyl toeboard cover, sculptured foam cushioning on the back, seat, and headrest, and a painted finish on exterior metal surfaces. A swivel-brake lever located beneath the seat provides a 30-degree rotation in either direction for patient access and provider comfort. The chair measures 34 inches high by 87.5 inches long by 28 inches wide and has a shipping weight of 285 pounds. The Spirit 2005 (Improved Version) can be configured in either 110 or 220 volts and is UL, ETL, CSA listed and IEC certified.

#### **Manufacturer:**

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#### **Suggested Retail Price:**

\$5,760 Includes seamless upholstery, five-position foot switch, removable articulating headrest, sliding armrests, clear vinyl toeboard cover, and standard swivel base.

#### **Government Price:**

\$3,168 Same as above.

#### **ADVANTAGES:**

- + Attractive, modern-looking chair.
- + Stable in all operating positions.
- + Armrests are easy to move into and out of position.

- + Upholstery is easy to clean.
- + Touch pad and foot controls are sealed for ease of disinfection.
- + Can be converted from right-handed to left-handed use.
- + Five programmable presets for patient positioning.
- + Adjustable articulating headrest.
- + Burrs and sharp edges of interior framework noted on original evaluation unit were not present on improved model.
- + Headrest has more foam padding for patient comfort.
- + Nylon flange rollers have been redesigned to improve chair positioning angles.
- + Removable tubing cover has been added to confine and protect electrical wires on the undersurface of the chair.
- + Met all requirements of military standard for dental chairs.
- + Operation, installation, and maintenance manuals are well detailed.
- + Is UL, ETL, CSA listed and IEC certified.

**DISADVANTAGES:**

- Operational positions and foot controls are difficult to adjust.

**SUMMARY AND CONCLUSIONS:**

The Pelton & Crane Spirit 2005 Dental Chair (Improved Version) supports the patient during normal sit-down or stand-up dental procedures in either the upright or supine position. The sleek modern design of the chair facilitates established infection control procedures such as disinfection and barrier protection. Standard seamless upholstery makes cleaning easy and relatively fast. Providers liked the esthetics, sliding armrests, and the ease of converting from right- to left-handed use. Evaluators found it difficult to use the foot control and to adjust operational positions. Operating, installation, and maintenance instructions were complete. The Spirit 2005 (Improved Version) met all of the requirements of the military standard for dental chairs. DIS evaluators found the headrest padding of the improved model to be adequate. The **Spirit 2005 Dental Chair ("Improved" Version, i.e., those with a serial number of 1077 or higher)** is rated **Acceptable** for use by the federal dental services.