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### **FACTS ABOUT TABLE SAW SAFETY STANDARDS**

The Power Tool Institute (PTI) is a trade association comprised of the nation's largest manufacturers of portable and stationary power tools. PTI members have invested hundreds of millions of dollars in an effort to make table saws and other power tools safe when used properly. As a result, injury rates are declining even as saw usage has more than doubled in the past 10 years.

The updated voluntary standard for table saw safety, UL 987, includes new guard designs and other safety features and the results have been positive.

In fact, since 2007, manufacturers have introduced over 800,000 saws with newly designed guards which meet the requirements of the UL 987 safety standard. To date, there have been no reported blade contact injuries on a table saw with the new guard. These new guarding systems are modular and offer excellent visibility and ease of removal and installation. The guards protect the operator from blade contact as well as and injuries caused by thrown objects from kickback.

The Consumer Product Safety Commission (CPSC) is being asked to impose mandatory standards, requiring a specific technology for all table saws. The company petitioning the CPSC to act is SawStop, which is owned by patent attorney Stephen Gass. Mr. Gass, who holds an extensive network of over 70 U.S. patents (with more than 120 patents filed), has represented that SawStop's patent web would give it a monopoly if the CPSC were to adopt the standard requested in SawStop's petition. If this is so, the CPSC would be imposing a *design* standard rather than a *performance* standard as the Consumer Product Safety Act requires. This proposed standard would generate millions of dollars for SawStop while hurting consumers; undermining the development of new table saw safety technology; and creating a monopolistic advantage for SawStop in the marketplace.

SawStop saws are available to any consumer who chooses to purchase them. SawStop technology is currently available on belt-driven saws such as cabinet or contractor saws. These cabinet and contractor saws constitute 30.6% of saws on the market. SawStop has stated that it hopes to develop a portable bench top saw with SawStop technology that will cost under \$1,000. Portable bench top saws on the market today range in price from \$99 to \$600 for a premium model. While each company would independently establish its own pricing, the price of a current inexpensive saw model could increase in price from \$100 to approximately \$400 and the price of a current professional benchtop saw model could increase from \$500 to approximately \$800.

SawStop is demanding an 8% royalty on the retail value of all table saws with its technology, among other onerous terms. If the SawStop CPSC petition were granted, it could be tantamount to the elimination of portable benchtop saws from the market due to the cost of compliance. The increased cost of even the least expensive table saws would result in power tool users resorting to unsafe methods to accomplish cuts normally performed on a table saw.

SawStop is neither appropriate for all table saws nor does it mitigate injuries caused by kickback or ejected material. SawStop's own data show that operators are nearly five times more likely to contact the SawStop's saw blade as opposed to an operator of a conventional saw. This increase in the accident rate on SawStop saws is likely due primarily to a user's decision to use the blade guard less frequently due to a "sense of security" in having the SawStop flesh-sensing technology on the saw. This absence of the blade guarding system will result in an increased rate of facial or eye injuries from high velocity particles ejected by the saw blade as well as injuries caused by workpiece kickback.

PTI encourages the CPSC to work with the power tool industry and others in the table saw community to promote safety through the voluntary standard process. The voluntary standard is already working, has demonstrated positive acceptance by table saw users, and is in the best interest of safety.



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### **PTI FACTS-AT-A-GLANCE**

#### **INJURIES**

- The annual averages of all table saw injuries are 38,490 injuries for 2001/2002 and 39,750 injuries for 2007/2008.
- SawStop cannot mitigate fractures and crushing injuries caused by workpiece kickback or loss of vision caused by high velocity particles ejected by saw blade.
- SawStop technology can mitigate only injuries caused by a contact with the blade, therefore, only **blade contact injuries** should be considered in light of the petition.
- The **blade contact injuries** identified by CPSC follow-up studies are 28,300 annually for 2001/2002 years and 33,450 annually for 2007/2008.
- The estimated population of all table saws on the market in US for 2001/2002 was 8.0 million and for 2007/2008 was 9.5 million.
- The **blade contact injury rate** for all table saw categories combined, for 2001/2002 years and for 2007/2008 years are unchanged.
- Portable bench saws account for only 11% of the accidents although they comprise 69% of table saw population in 2008. These also are the low cost saws Stephen Gass has claimed are dangerous and should be removed from the market.

#### **SOCIETAL COST OF BLADE CONTACT TABLE SAW INJURIES**

- For 2001/2002 CPSC estimated annual cost of all table saw injuries was \$2 billion.
- The percentage of injuries requiring hospitalization was 6.7%. In most cases, the victim was examined or treated and released from the hospital on the same day.
- Dr. John Graham, Dean of the Indiana School of Public and Environmental Affairs, hired by advocates of SawStop technology to make an economic evaluation of table saw injuries has concluded that an average table saw blade contact injury in 2001/2002 was \$22,917. Based on Dr. Graham's Injury Cost Model, the societal cost of 28,300 blade contact injuries for 2001/2002 is \$648.5 million annually, significantly less than the CPSC estimate.
- Dr. Kip Viscusi, a Professor of Economics at Vanderbilt University hired by a table saw manufacturer, estimates a range of societal costs attributable to table saw blade contact injuries for 2001/2002 to be approximately \$62,000,000 per year at the low end and approximately \$220,000,000 per year at the upper end. Even at the upper end, this is 10% of the figure being used by the CPSC.

#### **PATENTS**

- Stephen Gass, a patent attorney, has filed more than 120 U.S. patent applications, and has over 70 issued U.S. patents which pertain to the SawStop technology.
- Stephen Gass told the U.S. government that it should assume that no manufacturer will be able to introduce injury mitigation technology that does not infringe on his patents.
- After the PTI-JV technology became known, SawStop amended one of their then-pending patent applications to purportedly cover any table saw that retracts the blade rapidly within 14 milliseconds – using any retraction technique after detecting contact. This patent

application which was subsequently allowed by the U.S. Patent Office, is arguably not limited to SawStop's blade brake technology for retracting the blade, but rather is designed to cover any retraction technique, hindering the development of alternative blade retraction technologies and blocking competing inventors from using their own inventions.

### **ROYALTIES / LICENSING**

- At one time SawStop approached table saw manufacturers offering to license its patent portfolio technology demanding an 8% royalty on the retail value of all table saws with the technology in addition to other terms that were onerous and would have resulted in millions of dollars being paid to SawStop.
- Recently, a table saw manufacturer that is not a member of PTI tried to license SawStop's patent portfolio technology but negotiations failed when the manufacturer alleged that SawStop demanded unreasonable royalty in excess of what was originally being sought. Gass has indicated he is unlikely to reach agreement on licensing terms in the absence of CPSC action since his business would be hurt unless royalties sufficiently offset his losses.

### **SAWSTOP**

- SawStop is currently available in the marketplace to any consumer who chooses to purchase it.
- Activation of SawStop brake results in additional costs to owner of new blade (\$30-\$90) and new break cartridge (\$69).
- To date, SawStop has not developed a saw for the largest segment of the table saw market – consumer, bench top-style saws.

### **UNINTENDED CONSEQUENCES OF THE SAWSTOP TECHNOLOGY**

- Data supplied by SawStop concerning the number of table saw units sold and the number of reported blade contact incidences, proves that operators are nearly five times more likely to contact the saw blade of a SawStop saw as opposed to the operator of a conventional table saw.
- Logic dictates that this increase in accident rate on SawStop saws is due primarily to a user's decision to use the blade guard less frequently due to a "sense of security" in having the SawStop flesh-sensing technology on the saw.
- The absence of the blade guarding system will result in increased rate of facial or eye injuries caused by high velocity particles ejected by saw blade or injuries caused by workpiece kickback.
- The increased cost of even the least expensive table saws, as discussed below, would result in power tool users resorting to unsafe methods to accomplish cuts normally performed on a table saw.

### **COSTS OF TABLE SAWS**

- SawStop has stated that it hopes the portable bench top saw with SawStop technology will cost under \$1,000. Portable bench top saws on the market today range in price from \$99 to \$600 for a premium model.
- Stephen Gass continues to claim the saw brake technology adds about \$100 to the retail cost of a saw. However, in legal proceedings, Stephen Gass has admitted that the additional

components and the re-design of the saw would increase the cost of the table saw by \$100-\$150 at the wholesale and not at retail level.

- A current inexpensive saw selling for \$100 could increase to approximately \$400 and a current professional benchtop saw selling for \$500 could increase to approximately \$800.
- Included in the costs are the current cost of the saw, redesign and additional components at retail and 8% royalty. Actual mark up from wholesale to retail will depend on each individual company's pricing policy.

### **ALTERNATIVE TECHNOLOGY**

- A PTI JV has developed a flesh sensing technology that reacts faster, has a lower replacement cost of firing, and mitigates injury to a greater degree when compared to the SawStop technology. SawStop has stated that the JV system likely will infringe its patents. In light of this situation, manufacturers have to take this into consideration knowing that introducing this technology will result in costly patent infringement litigation (estimated to be at least 7-10 million dollars for each party) with uncertain outcomes.

### **IMPROVEMENTS IN GUARDING**

- Since 2007, PTI members have introduced over 800,000 saws with newly designed guards which meet the requirements of UL 987 safety standard. Table saws meeting these requirements are considered safe for their intended use.
- To date, there have been no reported blade contact injuries on a table saw with the new guards.
- These saws now require a riving knife and feature a new modular guarding system that offers excellent visibility and ease of removal and installation.
- The guards protect the operator from blade contact and injuries caused by thrown objects from kickback. SawStop protects from only blade contact injuries.

### **STATUTORY REQUIREMENTS APPLICABLE TO CPSC MANDATORY STANDARD**

- Section 7(a) of the Consumer Product Safety Act, as amended, requires that in order for the CPSC to impose a mandatory standard, such standard must be reasonably necessary to prevent or reduce an *unreasonable risk of injury*.
- Section 7(b) of the Act provides that the CPSC cannot impose a mandatory standard if compliance with a voluntary standard would eliminate or adequately reduce the risk of injury and it is likely that there would be substantial compliance with such voluntary standard.
- As described above, the voluntary standard for table saw safety, UL 987, recently has been updated to include new guard designs and other safety features and the results have been positive.
- Section 7(a) of the Act restricts the CPSC to adopting *performance* standards.
- Mr. Gass has represented that SawStop's patent web would give it a monopoly if the CPSC were to adopt the standard requested in SawStop's petition. If this is so, the CPSC would be imposing a *design* standard rather than a *performance* standard as the Act requires.
- If the SawStop petition were granted, it could be tantamount to a ban of the portable benchtop saws due to the cost of compliance described above.
- Under Section 8 of the Act, CPSC can only ban a product if it presents an unreasonable risk of injury and no feasible consumer product safety standard under the Act would adequately protect the public from the unreasonable risk of injury.