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No. 83
In the Matter of New York City
Asbestos Litigation.

Doris Kay Dummitt, &c.,
Respondent,

v.

A.W. Chesterton, et al.,
Defendants,

Crane Co.,
Appellant.

No. 84
In the Matter of Eighth Judicial
District Asbestos Litigation.

Joann H. Suttner, &c.,
Respondent,

v.

A.W. Chesterton Company, et al.,
Defendants,

Crane Co.,
Appellant.

Case No. 83:

Caitlin J. Halligan, for appellant.

Seth A. Dymond, for respondents.

Business Council of New York State et al.; Pacific
Legal Foundation; New York State Trial Lawyers Association; The
Retired Enlisted Association et al.; Product Liability Advisory
Council; United Steel et al.; Environmental Working Group et al.;
General Electric; CBS Corporation, amici curiae.

Case No. 84:

Caitlin J. Halligan, for appellant.

John N. Lipsitz, for respondent.

Business Council of New York State et al.; CBS
Corporation; United States Chamber of Commerce, amici curiae.

ABDUS-SALAAM, J.:

In these appeals, we are called upon to decide when, if ever, a manufacturer must warn against the danger inherent in using the manufacturer's product together with a product designed and produced by another company. Consistent with our decision in Rastelli v Goodyear Tire & Rubber Co. (79 NY2d 289 [1992]), we

hold that the manufacturer of a product has a duty to warn of the danger arising from the known and reasonably foreseeable use of its product in combination with a third-party product which, as a matter of design, mechanics or economic necessity, is necessary to enable the manufacturer's product to function as intended. We further conclude that, given the proof of defendant Crane Co.'s affirmative steps to integrate its valves with third-party asbestos-laden products and other relevant evidence, the courts below properly applied this principle to the instant cases and correctly resolved the remaining legal issues.

I.

Matter of New York City Asbestos Litigation (Dummitt v A.W. Chesterton, et al.)

There was evidence that, during World War II and thereafter, defendant Crane Co. (Crane) sold valves to the United States Navy for use in high-pressure, high-temperature steam pipe systems on Navy ships. As far as the record shows, Crane's valves did not contain asbestos or other hazardous materials. However, Crane's valves could not practically function in a high-pressure, high-temperature steam pipe system without gaskets, insulation and packing for the valve stems, and Crane's technical drawings for the valves specified the use of asbestos-based sealing components. Accordingly, when Crane supplied the valves to the Navy, it packaged the valves with bonnet gaskets, each of which consisted, in essence, of an asbestos disc sealed by a

layer of rubber. Crane also packaged the valves with braided asbestos-based stem packing. Crane's provision of asbestos-based components comported with Navy specifications, which called for gaskets, valves and insulation that contained asbestos.

As Crane knew, because the high temperatures and pressures in the steam pipe systems at issue caused asbestos-based gaskets and packing to wear out, Crane's customers, including the Navy, had to replace those components with similar ones. Thus, during the period in which Crane sold these valves and related parts, the company marketed a material called "Cranite," an asbestos-based sheet material that could be used to produce replacements for the asbestos-containing gaskets and packing originally sold with Crane's valves. In catalogs issued between 1923 and 1962, Crane recommended Cranite gaskets, packing and insulation for use in high-temperature, high-pressure steam services. The catalogs noted that gaskets and packing composed of other materials were available. The catalogs did not indicate the temperature or pressure ratings for some of those alternative products, and it rated others only for low-temperature services, low-pressure services or both.

A few years after Crane started supplying the valves at issue here and the associated asbestos-bearing components to the Navy, the Navy revised a manual entitled "Naval Machinery." The revised manual specified that Navy employees should install asbestos-based gaskets on the relevant valves on Navy ships. The

manual further noted that "insulation" generally "[wa]s essential to economical operation" of a ship's steam pipe systems, and the manual included diagrams of the attachment of asbestos-based gaskets, packing and insulation to valves of the kind supplied by Crane.¹ In the acknowledgments section, the manual stated that "valuable assistance" in the revision of the manual "was rendered by the manufacturers named herewith" and that "[m]any of the figures in the book were made from illustrations furnished by these manufacturers." The manual listed Crane among the manufacturers who assisted in the revision.

Meanwhile, starting in the 1930s, certain trade associations, including associations to which Crane executives and employees belonged, issued publications describing the hazards of exposure to dust from asbestos-based products. In the late 1960s, one such trade group published an article summarizing the growing evidence of a connection between asbestos exposure and a type of cancer called mesothelioma. By Crane's admission in this litigation, its executives became aware of the dangers of exposure to breathable asbestos dust in the early 1970s. From

¹ At trial, there was testimony indicating that the Navy used gaskets that did not contain asbestos. However, the testimony did not indicate whether those gaskets were used, or could be used in high-temperature, high-pressure steam pipe systems. The Navy manual stated that one could use non-asbestos materials to make packing, gaskets and insulation for valves, but it did not specify whether those materials were appropriate for use in steam pipe systems that moved steam at both high pressures and high temperatures.

the time of Crane's sale of valves to the Navy in the 1930s until at least 1980, Crane never provided warnings about the hazards of exposure to asbestos dust resulting from the combined use of its valves and asbestos-based products.

From 1960 to 1977, plaintiff Dorris Kay Dummitt's husband, decedent Ronald Dummitt (Dummitt), was a Navy boiler technician, and during part of his Navy career, he also acted as the liaison between the commanding officers and the boiler room staff on various ships. As staff liaison, Dummitt often received manufacturers' warnings about the perils of using their products and passed along those warnings to the boiler room technicians under his supervision. Throughout his time in the Navy, Dummitt frequently consulted manuals and instructional pamphlets for boiler room equipment, reading any safety warnings contained therein.

In the course of his duties in maintaining naval steam pipe systems, Dummitt worked on Crane's valves, on which were installed asbestos-based gaskets, packing and insulation. Those asbestos-bearing products were designed and manufactured by companies other than Crane. Dummitt regularly changed the gaskets and packing on the valves by removing lagging pads from each valve, pulling back the packing, scraping off the gaskets, blasting the assembly with compressed air and installing a replacement set of third-party sealing and insulating parts. Because those components contained friable asbestos, the routine

replacement process, which Dummitt completed numerous times, exposed him to carcinogenic asbestos dust.

In April 2010, Dummitt was diagnosed with pleural mesothelioma, which he had evidently contracted as a result of his exposure to asbestos dust. In June 2010, Dummitt and plaintiff commenced this negligence and strict products liability action by filing a complaint in Supreme Court against Crane and 67 other defendants who manufactured the asbestos-based gaskets, packing and insulation.² As relevant here, Dummitt and plaintiff alleged that Crane had "acted negligently in failing to warn Dummitt of the hazards of asbestos exposure for the components used with its valves, and that such negligence was a proximate cause of his injuries."

Supreme Court granted Dummitt and plaintiff an accelerated trial preference under CPLR 3403 and consolidated the case with, among others, Matter of New York City Asbestos Litigation (Konstantin v 630 Third Avenue Associates) (NY3d, 2016 NY Slip Op ___ [decided today]).³ At the joint jury trial, Crane called as a witness Admiral David Putnam Sargent, an expert in Navy procurement practices. Admiral Sargent, who had worked on procurement for the Navy starting in 1988, testified about

² Plaintiff commenced suit on her own behalf for loss of consortium, and after Dummitt's death following the trial, she also prosecuted Dummitt's claims as the executor of his estate.

³ By the time of trial, only Dummitt and Konstantin remained consolidated.

Navy specifications for valves and gaskets. He also opined that, generally, valve manufacturers have no role in determining whether, and with what materials, the Navy will choose to insulate the valves after the Navy has received them. When Crane sought to elicit Admiral Sargent's opinion as to whether Navy practices and specifications at the time of Dummitt's exposure to asbestos would have prevented warnings about the perils of asbestos dust released by the valves and sealing parts from reaching Dummitt, plaintiff objected, and the court sustained the objection on the ground that Admiral Sargent's proposed testimony was speculative.

After the parties rested at trial, Crane moved for a directed verdict, positing, among other things, that plaintiff had failed to present legally sufficient proof that Crane had an applicable duty to warn. Crane also argued that, because there was no evidence that Crane had acted recklessly in failing to warn the users of its valves about the release of asbestos dust from the combined use of the valves and third-party asbestos-laden sealing components, the court could not instruct the jurors on the potential applicability of the recklessness exception to CPLR 1601's provision for equitable allocation of liability among joint tortfeasors. The court denied Crane's motion for a directed verdict, overruled its objection to the court's proposal to issue a charge on the recklessness exception to the rule of CPLR 1601 and, later, instructed the jurors on that exception.

Additionally, the court instructed the jury, over Crane's objection, as follows:

"A manufacturer has a duty to warn against latent dangers resulting from foreseeable uses of its product of which the manufacturer knew or should have known. Thus, a manufacturer's duty to warn extends to known dangers or dangers which should have been known in the exercise of reasonable care of the uses of the manufacturer's product with the product of another manufacturer if such use was reasonably foreseeable. Crane's dut[y] to warn hinges, in part, on whether it was foreseeable that asbestos containing gaskets, lagging and/or insulation and packing would be used with Crane's valves and whether it was foreseeable that routine maintenance and repair of the valves would create a dangerous condition by exposing a worker to asbestos in the dust created during such work."

The court also instructed the jurors on causation, stating:

"Ronald Dummitt alleges that Crane's and Elliott's failure to warn was a substantial factor in causing his mesothelioma. Mr. Dummitt contends that he would have heeded warnings and not have been injured. Mr. Dummitt is entitled to the presumption that had proper and adequate warnings been given regarding the use of the product, the warnings would have been heeded and injury avoided."

At a sidebar, Crane objected to this charge, asserting that the court should have instructed the jurors that any presumption that Dummitt would have heeded warnings was rebuttable. The court agreed with Crane and thereafter told the jurors that the presumption was rebuttable.

Following deliberations, the jury found Crane 99% liable and awarded \$32 million in damages. Crane moved to set

aside the verdict pursuant to CPLR 4404. Crane contended that, under Rastelli v Goodyear Tire & Rubber Co. (79 NY2d 289) and related case law, it had no duty to warn the users of its valves of asbestos-related hazards arising from the use of the valves in conjunction with third-party products containing asbestos. Consequently, Crane argued, the court had erroneously instructed the jurors that it had such a duty, and the evidence was legally insufficient to support the jury's verdict in the absence of any cognizable duty. Crane renewed its argument that Admiral Sargent should have been allowed to testify that, in his opinion, even if Crane had issued warnings regarding the hazardous release of asbestos dust during the process of replacing the gaskets and packing on its valves, Dummitt would never have received those warnings. Crane also asserted, inter alia, that the jury's allocation of liability was against the weight of the evidence and that the damages award was excessive.

In a comprehensive written decision, Supreme Court granted Crane's motion to set aside the verdict only to the extent of remitting for a new trial on damages or a stipulated reduction in damages, and it otherwise denied the motion. Subsequently, the parties stipulated to a reduced damages award of \$5.5 million for past pain and suffering and \$2.5 million for future pain and suffering, and the court entered judgment accordingly. Crane appealed.

A divided panel of the Appellate Division affirmed the

judgment (see Matter of New York City Asbestos Litigation [Dummitt v A.W. Chesterton, et al.], 121 AD3d 230, 235-256 [1st Dept 2014]). The Appellate Division decided that, although Crane had not manufactured, designed or sold the asbestos-containing products that Dummitt had installed on its valves, Crane had a duty to warn the users of its valves that the use of the valves with third-party asbestos-based products could result in exposure to hazardous asbestos particles (see id. at 248-252). Distinguishing Rastelli, supra, on its facts, the Appellate Division concluded that Crane's specification of asbestos-laden gaskets, packing and insulation, its promotion of the use of such asbestos-based replacement parts via its marketing of Cranite, and its contribution to the "Naval Machinery" manual mandating the use of such asbestos-containing products "'strengthened the connection'" between Crane's products and the other manufacturers' asbestos-laden products, and therefore, the Appellate Division ruled, Crane's "substantial interest" in the installation of asbestos-based products on its valves created a duty to warn of the dangers of that practice (id. at 251-252, quoting Surre v Foster Wheeler LLC, 831 F Supp 2d 797, 801 [SDNY 2011]). The Appellate Division also declined to reverse the trial court's judgment based on Crane's remaining complaints about the trial court's instructions to the jury, the preclusion of Admiral Sargent's proposed opinion testimony and the jury's verdict (see id. at 246-248, 252-255).

Two Justices dissented, voting to reverse and order a new trial (see id. at 256-263 [Friedman, J., dissenting]). In the dissent's view, the trial court's preclusion of Admiral Sargent's testimony and the court's jury instructions on an alleged heeding presumption, individually and cumulatively, constituted reversible error (see id. at 260-262). Crane appealed as of right pursuant to CPLR 5601 (a), and we now affirm.

Matter of Eighth Judicial District Asbestos Litigation (Suttner v A.W. Chesterton, et al.)

As the evidence at trial showed, in the 1930s, Crane sold its valves to General Motors (GM) for use in the high-pressure, high-temperature steam pipe systems in GM's factories. By Crane's own admission, it may have supplied GM with valves accompanied by asbestos-based gaskets and packing. In fact, Crane's schematics for the valves specified the use of asbestos-based packing and gaskets.

In 1936, a Crane catalog encouraged customers to install Cranite gaskets on its valves, noting that "Cranite gaskets are used on all Crane valves for high pressure, saturated or superheated steam." Crane's 1955 catalog recommended the use of Cranite packing for systems that, like GM's, featured high pressures and temperatures up to 750 degrees. As reflected in the testimony of plaintiff's material science expert, in the

1960s and 1970s, steam pipe systems that operated within the temperature and pressure range of GM's systems typically featured asbestos-laden gaskets. According to Crane's interrogatory responses, in the late 1970s or early 1980s, Crane sought a substitute for the asbestos-based sealing components often included with its valves, but Crane "encountered difficulty locating suitable substitute components." In 1943, a Crane document entitled "Piping Pointers for Industrial Maintenance" stated that metal gaskets could be installed on Crane's valves, but it observed that "[t]his [metal] type gasket [wa]s used only in very high pressure-temperature services" in excess of 750 degrees -- a temperature range above that of GM's steam pipe systems.

From 1960 to 1979, plaintiff Joann Suttner's husband, decedent Gerald Suttner (Suttner), worked as a pipe fitter at GM's Tonawanda Engine Plant, which had a steam pipe system featuring Crane valves with third-party gaskets and packing materials. Specifically, the gaskets, packing and surrounding insulation were not manufactured or designed by Crane, and they all contained asbestos. Suttner changed gaskets on Crane valves hundreds of times during his tenure at the plant, tearing open the asbestos-laden packing and insulation on each gasket, grinding the gasket in the manner recommended by Crane, scraping pieces of the gasket off the valve, cleaning the valve surface with an air hose, replacing the gasket, cutting new asbestos-

based packing and installing that packing along with a new asbestos-bearing gasket. The grind aspect of this process was recommended by the "Piping Pointers" document. This process released substantial amounts of friable asbestos into the air, exposing Suttner to the carcinogenic asbestos fibers.

In September 2010, Suttner was diagnosed with pleural mesothelioma. In December 2010, Suttner and plaintiff commenced this action by filing a complaint in Supreme Court against Crane and 37 other defendants who manufactured the asbestos-bearing products that Suttner had used while he was employed at the Tonawanda Engine Plant. Suttner and plaintiff asserted a cause of action for, among other things, failure to warn of the perils of the combined use of Crane's valves with the asbestos-containing third-party products.

After his pretrial deposition, Suttner died in 2011, prompting plaintiff to amend her complaint to include a wrongful death claim brought in her capacity as executor of his estate. Thereafter, plaintiff settled or discontinued the action against all defendants except Crane, against whom she proceeded to trial. At trial, the parties presented evidence reflecting the facts recited above, and the jury viewed a video recording of Suttner's deposition.

At the end of trial, the court, over Crane's objection, instructed the jurors about the duty of a manufacturer, such as Crane, to warn of the dangers of certain uses of its products.

The instructions incorporated concepts of foreseeability, knowledge, reasonableness and other pertinent matters. At the end of its deliberations, the jury returned a verdict finding that Crane had rendered its valves defective by failing to warn of the dangers of the joint use of the valves and the other manufacturers' products and that the pertinent defects in the valves were a substantial factor in causing Suttner's injuries and death. The jury apportioned 4% of the liability to Crane and awarded a total of \$3 million in damages.

Crane moved to set aside the verdict under CPLR 4404 (a), asserting that the court had erroneously instructed the jury to find that Crane had a duty to warn of any foreseeable use of its product that would cause harmful asbestos exposure via the use of replacement gaskets it did not manufacture. Along those lines, Crane challenged the sufficiency of the evidence based on the lack of proof that would support any duty to warn on Crane's part. In support of these arguments, Crane contended that this Court's decision in Rastelli, supra, precluded liability for a defendant's failure to warn of the dangers of third-party replacement parts if the defendant, like Crane here, did not place the parts into the stream of commerce or exercise any control over the production of the parts. Crane similarly asserted that the "component parts" doctrine articulated in Appellate Division case law and the Restatement (Third) of Torts shielded it from liability arising out of its failure to warn of

the pertinent asbestos-related hazard. Crane further claimed that the proof of causation was insufficient to support the verdict. In a thorough written decision, Supreme Court denied Crane's motion, and it later entered judgment on the verdict in plaintiff's favor. Crane appealed.

The Appellate Division unanimously affirmed Supreme Court's judgment (see Matter of Eighth Jud. Dist. Asbestos Litigation [Suttner v A.W. Chesterton], 115 AD3d 1218, 1218 [4th Dept 2014]). Specifically, the Appellate Division summarily affirmed on the decision below (see id.). We granted Crane leave to appeal, and we now affirm.

II.

In accordance with a longstanding and evolving common-law tradition, a manufacturer of a defective product is liable for injuries caused by the defect (see Liriano v Hobart Corp., 92 NY2d 232, 237 [1998]; Denny v Ford Motor Co., 87 NY2d 248, 254-259 [1995] Codling v Paglia, 32 NY2d 330, 338 [1973]; MacPherson v Buick Motor Co., 217 NY 382, 385 [1916]; Devlin v Smith, 89 NY 470, 476-479 [1882]; see also Restatement [Third] of Torts: Products Liability § 2; Michael Weinberger, New York Products Liability 2d § 1:02; 63 Am Jur 2d Products Liability § 10; Salmond on the Law of Torts, 571 [10th ed 1945]). Under New York's modern approach to products liability, a product has a defect that renders the manufacturer liable for the resulting injuries if it: (1) "contains a manufacturing flaw"; (2) "is

defectively designed"; or (3) "is not accompanied by adequate warnings for the use of the product" (Liriano, 92 NY2d at 237; see Hoover v New Holland, Inc., 23 NY3d 41, 53-54 [2014]; Speller v Sears, Roebuck & Co., 100 NY2d 38, 41 [2003]; Robinson v. Reed-Prentice Div. of Package Mach. Co., 49 NY2d 471, 478-479 [1980]; Micallef v Miehle Co., Div. of Miehle-Goss Dexter, Inc., 39 NY2d 376, 384-387 [1976]). While claims based on the third category of defect, a lack of adequate warnings, can be framed in terms of strict liability or negligence, failure-to-warn claims grounded in strict liability and negligence are functionally equivalent, as both forms of a failure-to-warn claim depend on the principles of reasonableness and public policy at the heart of any traditional negligence action (see Martin v Hacker, 83 NY2d 1, 8 n1 [1993]; Enright v Lilly & Co., 77 NY2d 377, 387 [1991]; Wolfgruber v Upjohn Co., 72 AD2d 59, 62 [4th Dept 1979], affd on opn below 52 NY2d 768 [1980]; see also Restatement [Third] of Torts: Products Liability § 1, comment a; cf. Bolm v Triumph Corp., 33 NY2d 151, 159 [1973]).

Given that failure-to-warn cases are governed by negligence principles, it is incumbent on the court in such cases, as in any case featuring a claim of negligence, to decide whether an applicable legal duty exists. Our decisions yield the general principle that the court must decide whether there is any proof in the record that might support the recognition of a duty to warn owed by the manufacturer to the injured party (see Darby

v Compagnie Nat'l Air France, 96 NY2d 343, 347 [2001]; Palka v Servicemaster Management Servs. Corp., 83 NY2d 579, 585 [1994]; Waters v New York City Housing Authority, 69 NY2d 225, 229 [1987]; De Angelis v Lutheran Medical Ctr., 58 NY2d 1053, 1055 [1983]). To discern whether a duty exists, the court must not engage in a simple weighing of equities, for a legal duty does not arise "when[ever] symmetry and sympathy would so seem to be best served" (De Angelis, 58 NY2d at 1055; see Waters, 69 NY2d at 229; Tobin v Grossman, 24 NY2d 609, 619 [1969]). Rather, the court must settle upon the most reasonable allocation of risks, burdens and costs among the parties and within society, accounting for the economic impact of a duty, pertinent scientific information, the relationship between the parties, the identity of the person or entity best positioned to avoid the harm in question, the public policy served by the presence or absence of a duty and the logical basis of a duty (see Peralta v Henriquez, 100 NY2d 139, 144-145 [2003]; Hamilton v Beretta U.S.A. Corp., 96 NY2d 222, 232 [2001]; Di Ponzio v Riordan, 89 NY2d 578, 583 [1997]; Palka, 83 NY2d at 586; Tobin, 24 NY2d at 614-615; Palsgraf v Long Island R. Co., 248 NY 339, 344 [1928]). Furthermore, the court cannot recognize a duty based entirely on the foreseeability of the harm at issue, though foreseeability defines the scope of a duty once it has been recognized (see Hamilton, 96 NY2d at 232; Palka, 83 NY2d at 585; Pulka v Edelman, 40 NY2d 781, 785 [1976]).

Although the appropriate balance of the factors pertinent to duty must often be appraised on a case-by-case basis because "the existence and scope of . . . a duty [to warn] are generally fact-specific" (Liriano, 92 NY2d at 240), our prior decisions in this area provide some broader guidance on the types of cases in which a manufacturer must warn of the jeopardy springing from certain uses of its products. Under our precedent, "[a] manufacturer has a duty to warn against latent dangers resulting from foreseeable uses of its product of which it knew or should have known" (Liriano, 92 NY2d at 237; see Rastelli, 79 NY2d at 297; McLaughlin v Mine Safety Appliances Co., 11 NY2d 62, 68 [1962]). Additionally, the manufacturer must warn of dangers arising from the product's "intended use or a reasonably foreseeable unintended use" (Lugo v LJM Toys, Ltd., 75 NY2d 850, 851 [1990]; see Liriano, 92 NY2d at 237; see also Magadan v Interlake Packaging Corp., 45 AD3d 650, 652 [2d Dept 2007]; cf. Micallef, 39 NY2d at 385-386). The manufacturer's duty also includes a legal obligation to issue warnings regarding hazards arising from foreseeable uses of the product about which the manufacturer learns after the sale of the product (see Adams v Genie Indus., Inc., 14 NY3d 535, 544 [2010]; Liriano, 92 NY2d at 240; Cover v Cohen, 61 NY2d 261, 274-277 [1984]; see also Restatement [Third] of Torts: Products Liability § 10; 63A Am Jur 2d Products Liability § 1066). The duty "extends to the original or ultimate purchasers of the product, to employees of

those purchasers and to third persons exposed to a foreseeable and unreasonable risk of harm by the failure to warn" (McLaughlin v Mine Safety Appliance Co., 11 NY2d 62, 69 [1962] [internal citations omitted]; see Levczuk v Babcock & Wilcox Co., 10 NY2d 830, 831 [1961], revq 12 AD2d 483 [1st Dept 1960]).

In Rastelli (79 NY2d 289), we outlined certain considerations relevant to the determination of whether a manufacturer has a duty to warn of the hazards that arise when a person attaches the manufacturer's product to a product made by another company. In that case, a truck, which was owned by the plaintiff's decedent's employer and used by the decedent, featured a non-defective Goodyear truck tire placed around a defective multi-piece rim assembly, which was designed and built by another company (see Rastelli, 79 NY2d at 293). Goodyear's tire was compatible with this particular rim assembly and with many, but not all, other multi-piece rim assemblies (see id. at 294). Other than this compatibility, Goodyear had no connection to the rim assembly; Goodyear had "never . . . been a manufacturer or marketer of the RH5 rim assembly model or its component parts" (id.). When the decedent filled the truck's tire with air, the rim assembly essentially exploded, causing a piece of it to strike and kill him (see id. at 293). Thereafter, the plaintiff sued Goodyear, asserting that it had negligently failed to warn users of its tires of the inherent dangers of using its tires in conjunction with defective multi-piece rims

(see id. at 294-295).

On appeal, we concluded that Goodyear could not be held liable for the plaintiff's injuries based on its failure to warn of the perils of the combined use of its tire and the multi-piece rim made by another company (see id. at 297-298). In reaching this conclusion, we cited a number of significant "circumstances of th[e] case," including the following: (1) "Goodyear had no control over the production of the multipiece rim"; (2) Goodyear "had no role in placing that rim in the stream of commerce"; (3) Goodyear "derived no benefit from [the rim's] sale"; and (4) "Goodyear's tire did not create the alleged defect in the rim that caused the rim to explode" (id. at 297-298). We further noted that "[t]his [wa]s not a case where the combination of one sound product with another sound product create[d] a dangerous condition about which the manufacturer of each product ha[d] a duty to warn," and we reiterated that "Goodyear had no duty to warn about the use of its tire with potentially dangerous multipiece rims produced by another where Goodyear did not contribute to the alleged defect in the product, had no control over it, and did not produce it" (id. at 298).

In the instant appeals, Crane primarily relies on Rastelli to assert that it had no duty to warn the end users of its valves that they could be exposed to carcinogenic asbestos dust released by the installation and replacement of third-party asbestos-based gaskets, packing and insulation on Crane's valves.

Crane contends that, like Goodyear in Rastelli, it had no control over the production of the other companies' asbestos-bearing products and did not place those products in the stream of commerce. Therefore, Crane urges, it had no duty to warn anyone of the perils of combining its valves with third-party asbestos-based products in the high-pressure, high-temperature steam systems in which the valves were meant to be used. In response, plaintiffs in these cases contend that Crane's strong interest in its customers' use of third-party asbestos-based products and its valves' close connection to those other products bound Crane to warn of the dangers of using its valves and those other products together. As will be explained, we conclude that Rastelli and our other precedents, as well as sound public policy, support the recognition of a duty to warn under these circumstances.

III.

In deciding whether a manufacturer has a duty to warn certain users of its product about the hazards of using that product with another company's product, we must consider whether the manufacturer is in a superior position to know of and warn against those hazards, for in all failure-to-warn cases, this is a major determinant of the existence of the duty to warn (see Liriano, 92 NY2d at 240-241; Cover, 61 NY2d at 274-277; see also Rekab, Inc. v Frank Hrubetz & Co., 261 Md 141, 146-149 [MD 1971]; Tibbetts v Ford Motor Co., 4 Mass App Ct 738, 741 [App Ct Mass 1976]; see also Restatement [Third] of Torts: Products Liability

§ 10 [b]; 63A Am Jur 2d Products Liability § 1039). As we have previously recognized, "[c]ompared to purchasers and users of a product, a manufacturer is best placed to learn about post-sale defects or dangers discovered in use[,] . . . modifications made to or misuse of a product" (Liriano, 92 NY2d at 240-241). A manufacturer's superior ability to "garner information" about dangerous uses of its product extends to combined uses with other manufacturers' products (id. at 241).

Furthermore, where one manufacturer's product is a durable item designed for continuous use with the other manufacturer's fungible product, which by contrast deteriorates relatively quickly and is designed to be replaced, the manufacturer of the durable product typically is in the best position to guarantee that those who use the two products together will receive a warning; the end user is more likely to interact with the durable product over an extended period of time, and hence he or she is more likely to inspect warnings on that item or in associated documentation, than to review warnings supplied by the maker of the "wear item" (cf. Bich v General Electric Co., 27 Wn App 25, 32-33 [Ct App Wash 1980] [in a strict liability failure-to-warn action, manufacturer had duty to warn of danger of replacing the fuses on its product with third-party fuses]; Victor E. Schwartz & Christopher E. Appel, Effective Communication of Warnings in the Workplace: Avoiding Injuries in Working with Industrial Materials, 73 Mo L Rev 1, 7-9 [2008]

[noting that, because fungible industrial materials are generally quickly replaced and repackaged by users, warnings from the manufacturers of such products are unlikely to be received by most end users]).⁴ Accordingly, because a manufacturer who learns that its product is used in conjunction with another company's product has the knowledge and ability to warn of the dangers of the joint use of the products, especially if the other company's product is a "wear item," the manufacturer's superior position to warn is a factor -- though by no means dispositive -- supporting the recognition of a duty to warn under certain circumstances.

Recognition of a manufacturer's duty to warn against the certain perils of using its product with another company's product will likely have a balanced and manageable economic

⁴ When the "wear item" is used by itself or with another product, the duty of the manufacturer of the durable product does not eliminate the obligation of the other manufacturer to provide warnings of the hazards caused by the deterioration of its product that does not result from ordinary wear and tear known to the user (see Gary T. Schwartz, Symposium: The Passage of Time: The Implications for Product Liability: New Products, Old Products, Evolving Law, Retroactive Law, 58 NYUL Rev 7096, 839 [1983]; Parsons v Honeywell, Inc., 929 F2d 901, 906-907 [2d Cir 1991] [producer of gas had duty to warn of dangerous deterioration of odorant in gas]; Chysky v Drake Bros. Co., 192 AD 186, 193-194 [1st Dept 1920] [a manufacturer is "chargeable with negligence where the manufacturer knew or should have known that the product was liable to deteriorate and become dangerous to health, either by time, climate or temperature or by the manner in which it was kept, if it failed to affix to the package the date of manufacture and the time during which the ingredients might safely be used, or the manner in which they should be handled and preserved to prevent deterioration"]).

impact. The manufacturer incurs a relatively modest cost from complying with the duty because the cost of issuing a warning about combined uses of its product and another product under certain circumstances is not significantly more burdensome than the manufacturer's pre-existing duty to warn of the dangers of using the manufacturer's product separately -- a well-established cost that is itself relatively low (see Liriano, 92 NY2d at 239-240; see also Anderson v Hedstrom Corp., 76 F Supp 2d 422, 440 [SDNY 1999]; May v Air & Liquid Sys. Corp., 129 A3d 984, 993 [MD 2014]).

Nor is the cost of liability and litigation likely to become unreasonable. Prior judicial recognition of a manufacturer's duty to warn of the perils of reasonably foreseeable uses of its product has not imposed extreme or unreasonable financial liability on manufacturers (see Schwartz, 58 NYUL Rev at 811-812; cf. Joanna M. Shepard, Products Liability and Economic Activity: An Empirical Analysis of Tort Reform's Impact on Businesses, Employment, and Production, 66 Vand L Rev 257, 268-314 [2013] [noting that, while tort litigation costs in general rose greatly over the 20th century, certain judicial and legislative limits on product liability suits have made costs manageable for businesses]), and there is no evidence before us that judicial approval of a duty to warn about the hazards of the combined use of two manufacturers' products, if sensibly confined, would saddle manufacturers with an untenable financial

burden, especially given that they can obtain insurance coverage for this type of liability (see Appalachian Ins. Co. v General Elec. Co., 8 NY3d 162, 166-167 [2007]).

The endorsement of a manufacturer's duty to warn against certain combined uses of its product and a third-party product comports with the longstanding public policy underlying products liability in New York. As we observed long ago, "[t]oday as never before the product in the hands of the consumer is often a most sophisticated and even mysterious article," and given the practical inability of the users of modern products to detect the dangers inherent in their operation, "from the standpoint of justice as regards the operating aspect of today's products, responsibility should be laid on the manufacturer, subject to the limitations we set forth" (Codling, 32 NY2d at 340-341; see Sprung v MTR Ravensburg, Inc., 99 NY2d 468, 472-473 [2003]). Where two products are used together, the user has even less ability to comprehend the risk without a warning from the manufacturers because he or she rarely has access to sufficient technical information about both products to anticipate the perils of their joint use.⁵

However, as mentioned above, a duty to warn must have a

⁵ Of course, this does not hold true in cases where the danger inherent in the combined use of two products is obvious to the user. In such situations, a manufacturer cannot be liable for failing to warn of that danger (see Gebo v Black Clawson Co., 92 NY2d 387, 395 [1998]; Liriano, 92 NY2d at 241-242).

logical basis and scope that "limit[s] the legal consequences of wrongs to a controllable degree" (Tobin, 24 NY2d at 619; see Hamilton, 96 NY2d at 232), and therefore, we must draw a commonsense line at which duty ends based on the closeness of the connection between the manufacturer's product, the other product and their uses. In ascertaining the contours of the requisite close connection, we look to the factors reflected in the circumstances that we found decisive in Rastelli, which is our most significant prior examination of the duty to warn of the perils of synergistic product uses. The balance of those factors supports the following rule: the manufacturer of a product has a duty to warn of the danger arising from the known and reasonably foreseeable use of its product in combination with a third-party product which, as a matter of design, mechanics or economic necessity, is necessary to enable the manufacturer's product to function as intended.

In that regard, as we implicitly recognized in Rastelli, a manufacturer's duty to warn of combined use of its product with another product depends in part on whether the manufacturer's product can function without the other product (see Rastelli, 79 NY2d at 293, 297-298), as it would be unfair to allow a manufacturer to avoid the minimal cost of including a warning about the perils of the joint use of the products when the manufacturer knows that the combined use is both necessary and dangerous. And, the justification for a duty to warn becomes

particularly strong if the manufacturer intends that customers engage in the hazardous combined use of the products at issue, for we have long regarded a manufacturer's intent to have its customers operate its product in a dangerous fashion as a significant cornerstone of its liability for injuries caused by its product (see Rosebrock v General Electric Co., 236 NY 227, 238 [1923]; MacPherson, 217 NY at 387-388; see also 63A Am Jur 2d Products Liability § 1046; cf. Rastelli, 79 NY2d at 297).

It is true that, in every case involving the synergistic use of a manufacturer's product and another company's product, one of the Rastelli factors, the manufacturer's lack of control over the production of the other company's product, militates against recognition of a duty to warn (see Rastelli, 79 NY2d at 298). But, the remaining factors delineated in Rastelli support the recognition of a manufacturer's duty to warn in cases like the ones now before us, especially insofar as they highlight the manufacturer's intention that its customers carry out the perilous combined use of the manufacturer's product and the third-party product. In that regard, where a manufacturer creates a product that cannot be used without another product as a result of the design of the product, the mechanics of the product or the absence of economically feasible alternative means of enabling the product to function as intended, the manufacturer has a substantial, albeit indirect, role in placing the third-party product in the stream of commerce (cf. id. [emphasizing

that Goodyear "had no role in placing th(e) (third-party) rim in the stream of commerce"]. Specifically, when the manufacturer produces a product that requires another product to function, the manufacturer naturally opens up a profitable market for that essential component, thereby encouraging the other company to make that related product and place it in the stream of commerce.

The manufacturer also derives a benefit from the sale of the essential third-party product, as the manufacturer is able to sell its own product to customers precisely because the third party has sold to those customers another item that is essential to the product's function (cf. id. [observing that Goodyear "derived no benefit from (the) sale" of the other company's product]). Additionally, because the manufacturer's product is critical to the dangerous joint use of the two products, it does substantially create a defective condition insofar as both products combine to generate a defective and dangerous condition (cf. id. [relieving Goodyear from any duty to warn in part because its tire "did not create the alleged defect in the rim that caused the rim to explode"]).⁶ Accordingly, we recognize a

⁶ It is for this reason that the standard of duty articulated in the instant decision fully comports with our conclusion in Rastelli that mere "compatib[ility]" between a manufacturer's product and another company's product cannot subject the manufacturer to a duty to warn of the perils of the combined use of the two products (Rastelli, 79 NY2d at 298). Today's decision, like Rastelli, appropriately limits liability by declining to recognize a duty based on simple compatibility, for, here, we base the standard for the imposition of a duty to warn not on compatibility, but instead on the multiple elements

manufacturer's duty to warn of the peril of a known and foreseeable joint use of its product and another product that is necessary to allow the manufacturer's product to work as intended.

Our adoption of this principle is no radical innovation. Decades ago, in Levczuk v Babcock & Wilcox Co., we implicitly laid the foundation of a manufacturer's duty to warn of the perils of using the manufacturer's product with items constructed by another company (see Levczuk, 10 NY2d at 831). There, in summarily reversing a grant of summary judgment to the defendant, which had manufactured a boiler that exploded, we approved the plaintiff's claim that, because the defendant manufacturer had acquiesced in another company's construction of a safety-device bypass that the other company installed on the manufacturer's boiler to enable the boiler to function properly, the manufacturer might be responsible for negligently failing to warn the plaintiff that the use of the two products together "created new dangers" (id. at 830). Likewise, in Sage v

outlined above, including, importantly, necessity. Indeed, while countless modern products are mutually compatible and frequently used in combination, very few products must be used together, as a matter of design, mechanics or economics, to function as intended. That being so, the necessity element of the standard set forth in this decision plays an important role in cabining liability to a sensible degree. Of course, beyond the necessity element, the other essential elements of the standard articulated in this decision ensure that we remain faithful to Rastelli and other precedents which confine liability to a manageable level.

Fairchild-Swearingen Corp. (70 NY2d 579 [1987]), we recognized a parallel principle in the somewhat related design defect context,⁷ ruling that a company which designed and manufactured an airplane and a hook on the plane's ladder could be held liable for injuries caused by a replacement hook made by someone else in accordance with the original manufacturer's unsafe design (see Sage, 70 NY2d at 586-588).

Furthermore, for years, Appellate Division decisions have held that a manufacturer has a duty to warn about the dangers resulting from the combined use of its product with another product that is essential to the intended function of the manufacturer's product (see Baum v Eco-Tec, Inc., 5 AD3d 842, 845 [3d Dept 2004]; Berkowitz v. A.C. & S., Inc., 288 AD2d 148, 149 [1st Dept 2001]; Rogers v Sears, Roebuck & Co., 268 AD2d 245, 246 [1st Dept 2000]; Village of Groton v Tokheim Corp., 202 AD2d 728, 729-730 [3d Dept 1984]; cf. Hess v Mack Trucks, 159 AD2d 557, 558 [2d Dept 1990]). Thus, our decision here adds but a note to a

⁷ In New York, a claim of design defect sounds primarily in strict liability rather than negligence, whereas a negligence claim based on the manufacturer's failure to warn and a strict liability claim based on its failure to warn are doctrinally and functionally interchangeable (see Martin, 83 NY2d at 8 n1; Enright, 77 NY2d at 387). Nonetheless, there is considerable overlap in the policy considerations underlying the recognition of a duty to warn under negligence principles and the imposition of liability for a design defect (see Enright, 77 NY2d at 386; Denny, 87 NY2d at 257-258; Restatement [Third] of Torts: Products Liability § 1, comment a), and therefore, it is sometimes appropriate to analogize design defect cases to failure-to-warn cases as a matter of logic while still maintaining the doctrinal distinctions between them.

familiar anthem in failure-to-warn jurisprudence.⁸

Crane mostly concedes as much, but it maintains that the duty to warn arises only if the manufacturer's product, as designed, is physically incapable of working as intended without the other company's product. In Crane's view, as long as the manufacturer's product could still technically work without the other product, it does not matter that the manufacturer's customers cannot afford to maintain the intended operation of the product for any reasonable period of time with any alternative product. But we see no reason to ground the duty to warn purely in mechanical necessity while ignoring financial necessity.

After all, the determination of whether a duty exists turns to a substantial degree on a reasonable and fair allocation of costs and burdens, and Crane's proposed rule with respect to duty would impose an unreasonable monetary cost and an inappropriate burden exclusively on manufacturers' customers. In

⁸ Contrary to Crane's suggestion, our decision is consistent with the "component parts" doctrine outlined in the Restatement (Third) of Torts, which indicates that a manufacturer of a component part of another company's product should be liable only if, as relevant here: (1) "the seller or distributor of the component substantially participates in the integration of the component into the design of the product"; (2) "the integration of the component causes the product to be defective"; and (3) "the defect in the product causes the harm" (Restatement [Third] of Torts: Products Liability § 5 [b]; see Gray v R.L. Best Co., 78 AD3d 1346, 1349 [3d Dept 2010]). In virtually every situation triggering the duty to warn under today's decision, the elements of the component parts doctrine will be met because it will be the exceedingly rare case in which the necessary proof of intent will exist in the absence of the participation, integration and defect elements of the component parts doctrine.

that regard, in some circumstances, a manufacturer's product might be able to function as intended with either an unsustainably costly third-party product, which does not create any danger when joined with the manufacturer's product, or an affordable third-party product, which combines with the manufacturer's product to create a hazardous condition. In such instances, under Crane's rule, the customer would face an untenable choice between spending unsustainable amounts of money to make the manufacturer's product operate safely and trying to discover the dangers inherent in using the cheaper product with the manufacturer's product and then warning the users of the two products about that danger. In doing so, Crane's rule would either shift the burden of issuing a warning exclusively to consumers in contravention of our law's general aversion to such an allocation of the duty to warn (see Codling, 32 NY2d at 340-341; Sprung, 99 NY2d at 472-473) or punish consumers who do not incur potentially ruinous financial costs via the installation of the alternative component to prevent a danger that could be more efficiently managed by a low-cost warning from the manufacturer of the primary product. We decline to adopt such an unduly narrow and insensible view of the duty to warn.

To be clear, while economic necessity plays a role in establishing a duty to warn under certain circumstances, we do not mean to suggest that a manufacturer has a duty to warn whenever there is a version of an essential third-party product,

related to its own, which is cheaper and more hazardous than the alternatives. Nor do the principles pronounced in this decision support any kind of cost/utility analysis that turns on a balancing of the relative cost and value of a variety of third-party products that might allow the manufacturer's product to operate as intended. Practical necessity, not relative affordability, is the key. Thus, where all the other relevant circumstances outlined above are present, if the evidence supports an inference that the third-party product is the only product that both enables the intended function of the manufacturer's product and is available at a cost that is reasonably sustainable for the average individual or entity that purchases the manufacturer's product for the use at issue, the manufacturer has a duty to warn of the perils of the economically necessary and foreseeable combined use of its product with the third-party product.

As Crane observes, the federal courts, as well as the courts of our sister states, have not universally embraced this approach, but the decisions of the courts disfavoring recognition of a duty to warn in this context do not persuade us to follow a different path. Initially, some of those courts are in jurisdictions that, unlike New York, impose strict liability without fault based on a manufacturer's failure to warn of the inherent dangerousness of a particular use of the manufacturer's product, and therefore those courts' decisions place stricter

limits on the existence and scope of the duty to warn to avoid the injustice of widespread application of true strict liability in the failure-to-warn context (see Niemann v McDonnell Douglas Corp., 721 F Supp 1019, 1028-1030 [SD Ill 1986]; O'Neil v Crane Co., 266 P3d 987, 994-1005 [CA 2012]; Simonetta v Viad Corp., 197 P3d 127, 129-134 [Wash 2008]; Braaten v Saberhagen Holdings, 198 P3d 493, 494-496 [Wash 2008]; see generally 63 Am Jur 2d Products Liability § 208). The concern animating those decisions, however, simply does not arise under New York's failure-to-warn doctrine, which is a doctrine of reasonableness and negligence rather than absolute strict liability (see Martin, 83 NY2d at 8 n1). Other decisions declining to recognize a duty to warn are uninformative because they do not specify whether the manufacturer's product could function, as a mechanical, design or economic matter, without the third-party product at issue (see Baughman v General Motors Corp., 780 F2d 1131, 1132-133 [4th Cir 1986]; cf. Surre, 831 F Supp 2d at 801-804 [finding that Crane was not liable for injuries caused by third-party insulation because there was no proof that the use of such insulation was foreseeable and observing that the result would be different if "additional circumstances strengthen(ed) the connection between the manufacturer's product and the third party's defective one"]).

In declining to endorse a manufacturer's duty to warn of the hazards of jointly using its product and another company's

product, some courts have relied in part on the fact that a manufacturer has no control over the third-party product and in fairness cannot be expected to inspect for the dangers of the synergistic use (see Walton v Harnischfeger, 796 SW2d 225, 226-227 [Tex Ct App 4th Dist 1990]; Baughman, 780 F2d at 1133; see also Restatement [Third] of Torts: Product Liability § 5, comment a). But we engender no comparable unfairness in requiring a manufacturer to issue warnings where, as here, it "substantially participates in the integration of the two products" (Restatement [Third] of Torts § 5 [b]) in a manner consistent with the principles outlined in this decision. In that particular scenario, the manufacturer gains the same knowledge of the peril as it would have acquired via inspection or testing, and there is no reason to relieve the manufacturer of the obligation to provide warnings about that peril to those who might foreseeably use the products together (see Hoffeditz v. AM Gen., LLC [In re Asbestos Products Liability Litigation], 2011 US Dist LEXIS 110282, *10-*11 [EDPA 2011]). Indeed, a company that "substantially participates in the integration" of the two products in a manner that creates the necessity of a hazardous joint use and evinces the requisite intent, knowledge and foreseeability can surely be expected to learn of and warn of the relevant dangers (Restatement [Third] of Torts § 5 [b]). In any event, to the extent other courts have adopted the cramped view of duty advanced by Crane, we have already explained at length

why we, like many other courts, disagree with that approach (see May, 129 A3d at 988-996; see also Osterhout v Crane Co., 2016 US Dist LEXIS 39890, *33-*40 [NDNY 2016]; Schwartz v Abex Corp., 106 F Supp 3d 626, 628 [EDPA 2015]) .

IV.

A.

Beyond its disagreement with the standard of duty set forth above, Crane contends that the trial court in Dummitt erroneously instructed the jurors on the nature of the duty to warn. As Crane correctly observes, in Dummitt, the trial court gave erroneous instructions to the jurors regarding the nature of Crane's duty to warn. Specifically, because the court told the jurors that Crane had a duty to warn based purely on the reasonable foreseeability of the hazardous combined use of its valves with third-party asbestos-based products, the court improperly suggested that the existence of a duty to warn turns on foreseeability alone, thereby running afoul of our clear precedent to the contrary (see Hamilton, 96 NY2d at 232; see also Martino v Stolzman, 18 NY3d 905, 908 [2012]; Pulka, 40 NY2d at 785). Plaintiff posits that the error in the court's instructions on duty could not have affected the outcome of the trial because the jurors had no role in deciding whether Crane had a duty to warn. Specifically, plaintiff insists that, because the question of whether a duty existed was to be resolved solely by the court, not the jurors, the court's instructions

were entirely irrelevant to the jury's deliberations and verdict. We agree that the error was harmless, though not exactly for the reasons asserted by plaintiff.

It is true that, because the court alone decides whether a duty exists in the first instance before permitting the jury to deliberate on liability, the court's instructions on whether and to what extent a duty exists in a particular case have a limited impact on the outcome of the trial insofar as the jury has no role in deciding the threshold legal question of whether there is minimally sufficient evidence showing that the defendant has a duty to warn. But it does not follow that the court's instructions on duty have absolutely no bearing on the jury's task. After all, since the jury still must decide, at a minimum, whether the evidence persuades it of disputed threshold facts relating to duty, such as the fact that the defendant in a particular case did actually manufacture, design or distribute a product relevant to the existence of the duty to warn, the court's instructions on duty may have some effect on such a determination in a given case. And, because the jury must decide whether the quality of the evidence is sufficiently convincing to show that the defendant has committed a breach within the scope of the relevant duty, the court's instructions on the source and nature of the duty impact the jury's deliberations depending on the facts of the case (see Heller v Encore of Hicksville, Inc., 53 NY2d 716, 718 [1981]; Palsgraf, 248 NY at 345; Condran v Park

& Tilford, 213 NY 341, 346 [1915]; see also Weinberger, New York Products Liability 2d § 17:12). As a result, a trial court can commit a significant error in issuing an incorrect or confusing instruction on the issue of duty (see generally Weinberger, New York Products Liability 2d § 23:01).

Nonetheless, here, the court's error was harmless because there was "no view of the evidence under which appellant could have prevailed" (Marine Midland Bank v John E. Russo Produce Co., 50 NY2d 31, 43 [1980]; see Kuci v Manhattan & Bronx Surface Transit Operating Authority, 219 AD2d 486, 487 [1st Dept 1995], affd 88 NY2d 923 [1996]). In that regard, Crane did not significantly contest the critical evidence demonstrating that Crane had a duty to warn Dummitt under the standard we have articulated based on the dangers flowing from the release of asbestos dust during the synergistic use of Crane's valves and other companies' asbestos-based gaskets, packing and insulation.

Specifically, the essentially undisputed proof showed that Crane endorsed the use of asbestos-based sealing components in high-pressure, high-temperature systems in the specifications for its valves and packaged the valves with such components when it sold them to the Navy, thereby inviting the Navy to continue using asbestos-based gaskets and packing with the valves by replacing the asbestos-laden parts supplied by Crane with nearly identical asbestos-based products provided by other companies. This was reinforced by Crane's efforts to market asbestos-based

Cranite as an appropriate material from which to construct replacement sealing parts. Certainly, Crane's direct distribution and marketing of asbestos-based products were powerful signs of its intent that these products be used with its valves. Likewise, Crane's promotion of asbestos-containing packing and gaskets as suitable for use in high-temperature, high-pressure systems showed that Crane endorsed, as a matter of practical necessity, the joint use of its product and asbestos-laden products that it had promoted. Indeed, having recommended such a dangerous use in the valve's specifications and originally supplied the asbestos-based components needed to carry out that perilous activity, Crane could hardly deny that it was readily foreseeable under the circumstances that Navy employees like Dummitt would install and replace asbestos-bearing gaskets, packing and insulation on the valves.

Furthermore, after distributing the valves to the Navy, Crane knew that the Navy was using the valves with asbestos-based products in the manner prescribed by Crane. By helping to revise, after the sale of the valves to the Navy, a Navy manual that directed Navy personnel to install asbestos-based packing and gaskets on valves of the kind produced by Crane, Crane exhibited its knowledge of that practice. And, as a Crane representative testified at his deposition, Crane continued to market and sell asbestos-based products for decades after it originally sold such products to the Navy. Consequently, Crane's

ongoing post-sale promotion of asbestos-based sealing components, viewed in light of the company's vigorous efforts to encourage the Navy to use asbestos-containing gaskets and packing on its valves, demonstrated the highly significant affirmative steps that Crane took to ensure that the Navy's employees would continue to replace the gaskets and packing with new asbestos-laden parts. In addition, Crane's representative acknowledged that, by the time of Dummitt's exposure to asbestos dust as a result of this practice, Crane knew that such exposure could occur and lead to serious illness, as indicated in several trade association articles published during the relevant period.

With respect to practical necessity, there was proof that Crane's valves could not function as intended in a high-pressure, high-temperature steam pipe system without asbestos-based gaskets, packing and insulation. In that regard, the Crane representative's testimony, Crane's specifications and the Navy manual demonstrated that Crane's valves could not transport steam under high temperatures and high pressures without gaskets, packing and insulation. And, there was unrebutted proof that asbestos-based gaskets were routinely used to facilitate this essential function in the Navy's high-pressure, high-temperature steam pipe systems, as Crane was well aware. Plaintiff's asbestos exposure expert similarly testified that, although a valve could theoretically function in some services with sealing components made of non-asbestos materials, it was "absolutely not

true" that gaskets composed of alternative materials could be used in steam services, such as high-pressure, high-temperature systems, for which asbestos-based parts were specified.

Tellingly, too, Crane promoted asbestos-based gaskets and packing as appropriate for high-pressure, high-temperature services, but it never suggested to its customers that other materials could be used to seal its valves in such services. Based on this evidence, the jurors could only have concluded that the design and mechanics of Crane's valves prevented the valves from operating properly without asbestos-bearing components in the high-pressure, high-temperature steam service for which the Navy had purchased them.

Moreover, even if Crane's valves were mechanically capable of functioning without asbestos-laden gaskets and packing, it was indisputable that asbestos-containing sealing components were economically necessary to allow Crane's valves to work in a high-pressure, high-temperature steam pipe system. Crane promoted only the use of asbestos-based components as an affordable and mechanically viable means of enabling its valves to work in such systems, the Navy and other industrial consumers universally employed asbestos-laden parts in such systems in a manner suggesting that they provided the only financially feasible sealing method, and nothing indicated that alternative gaskets were an economically viable option for such systems. In other words, there was no question of fact presented to the jury

regarding the existence of a financially workable alternative to asbestos-bearing sealing and insulation products.

Lastly, to the extent Crane insinuates that there was legally insufficient evidence in Suttner that could support the jury's verdict that it had breached the applicable duty to warn, there is no merit to such a claim. Briefly, there was evidence that: (1) Crane's valves had no mechanical ability to function as intended in a steam pipe system without gaskets, packing and insulation; (2) Crane's valve schematics called for asbestos-based gaskets and packing; (3) Crane admitted that it could not find any suitable replacement for asbestos-based gaskets at the time of Suttner's work in the GM plant; (4) plaintiff's material science expert believed that Crane had probably originally sold valves to GM with asbestos-laden gaskets and packing; (5) Crane produced a document called "Piping Pointers for Industrial Maintenance," in which it declared that "many plants, having need for numerous gaskets of rubber and asbestos, find it economical to buy these materials in sheet form and cut gaskets as required"; (6) although the "Piping Pointers" document deemed metal gaskets to be compatible with Crane valves and suitable for most services, it also stated that metal valves are primarily used for steel pipe systems and not the kind of systems used by GM; and (7) Crane recommended the removal of gaskets via the technique employed by Suttner. From this evidence, it was readily inferable that Crane intended, affirmatively recommended

and could have reasonably foreseen that the users of its valves would install asbestos-containing sealing components on the valves, that Crane learned that its customers were engaging in this practice post sale, and that no non-asbestos products were suitable as a matter of economic or mechanical necessity to allow the valves to function in high-pressure, high-temperature steam pipe systems.

B

Contrary to Crane's further contention, plaintiff in Dummitt carried her burden of proving that Crane's failure to issue warnings about the dangers of asbestos dust exposure resulting from the joint use of its valves and asbestos-based sealing components proximately caused Dummitt's exposure to carcinogenic asbestos fibers (see Doomes v Best Transit Corp., 17 NY3d 594, 608 [2011]; Burgos v Aqueduct Realty Corp., 92 NY2d 544, 550 [1998]; see also Kosmyinka v Polaris Industries, Inc., 462 F3d 74, 79-80 [2d Cir 2006]). In his deposition, Dummitt testified that: he would have read and heeded any warnings about the hazardous release of asbestos as a result of replacing the components on Crane's valves; he would have worn a mask to protect himself from that hazard; he had read pamphlets and manuals associated with the equipment that he encountered on the job; and he was the officer responsible for ensuring that his coworkers took adequate safety precautions in the workplace. In light of Dummitt's past practice of reviewing relevant safety

warnings, his duty to ensure that appropriate action was taken in response to such warnings and his claim that he would have taken additional precautions had he seen warnings in this case, the jury could have inferred that Dummitt would have heeded warnings by taking steps to avoid exposure to the asbestos dust that caused his cancer. Therefore, plaintiff's proof sufficed to show that Crane's failure to issue warnings proximately caused Dummitt's injuries.

Alternatively, Crane argues that, even if plaintiff presented legally sufficient evidence of proximate causation, the court deprived Crane of the chance to rebut that evidence and abused its discretion as a matter of law by refusing to allow Admiral Sargent to testify that, in his opinion, Navy procurement practices and specifications would have prevented any warnings from reaching Dummitt. Crane maintains that, because Admiral Sargent's proposed opinion testimony was relevant evidence pertaining to the critical issue of proximate causation, the court had no grounds for excluding that evidence. But, in our view, while the proposed testimony was relevant, the trial court did not abuse its discretion in refusing to admit the testimony into evidence because, at the time Crane sought to elicit the testimony, it did not adequately set forth the factual foundation for the proposed testimony (cf. Werner v Sun Oil Co., 65 NY2d 839, 840 [1985]).

In particular, although Admiral Sargent had ample

experience with Navy procurement practices, he gained personal knowledge of those practices only once he started working on procurement for the Navy more than a decade after Dummitt's work on Crane's valves ended and several decades after the Navy bought the valves. As a result, Admiral Sargent had no personal knowledge of the effects of the Navy procurement practices that existed when Crane might have tried to provide warnings to Dummitt and similarly situated workers, and hence Admiral Sargent could opine on that issue only if he acquired an adequate factual foundation for such an opinion by, for example, reviewing documents or scholarly materials discussing the procurement practices in effect in that prior era (see generally Admiral Ins. Co. v Joy Contrs., Inc., 19 NY3d 448, 457 [2012]). Since Crane never suggested to the court that Admiral Sargent had acquired such a factual basis for his proposed testimony, the court did not abuse its discretion as a matter of law in precluding the testimony.

In its final claim relating to the issue of proximate causation, Crane asserts that the trial court incorrectly instructed the jurors to apply a presumption that, if Crane had issued warnings, Dummitt would have heeded them. In Crane's view, any form of this presumption, whether rebuttable or not, improperly shifts the burden of proof on causation to the defendant, and therefore the court here erred in instructing the jurors on the presumption. However, at trial, Crane did not

raise this argument; Crane objected to the court's failure to specify that the presumption was rebuttable, prompting the court to tell the jury that the presumption could be rebutted, but Crane never asserted, as it does now, that the court could not instruct the jury on any heeding presumption, even if the presumption was rebuttable. As a result, Crane's current complaint about the court's instructions on the presumption is unpreserved. Of course, our rejection of Crane's claim on preservation grounds should not be taken as an acceptance or rejection of the trial court's heeding instructions on the merits, and regardless of the propriety of those instructions, trial courts must continue to ensure that their jury instructions honor the principle that the burden of proving proximate causation, which in a case like this one includes the burden of demonstrating that the injured party would have heeded warnings, falls squarely on plaintiffs (see Doomes, 17 NY3d at 608; see also Sosna v American Home Prods., 298 AD2d 158 [1st Dept 2002]).

C

In Dummitt, Crane also posits that the court should not have instructed the jurors on the recklessness exception to the principle of equitable allocation of liability among joint tortfeasors, which is set forth in CPLR 1601, because plaintiff presented no evidence that Crane "acted with reckless disregard for the safety of others" (CPLR 1602 [7]). But, assuming, without deciding, that the court should not have allowed the jury

to consider the applicability of the recklessness exception to CPLR 1601, any error was harmless. Where, as here, the jury finds that the defendant's liability exceeds 50% of the total liability of all tortfeasors, CPLR 1601's equitable limitation does not apply in the first instance (see CPLR 1601 [1]), and thus, here, regardless of whether the court correctly told the jurors that they could rely on the recklessness exception to hold Crane responsible for more than its equitable share of plaintiff's loss, the jurors were ultimately authorized to render the verdict that they did, holding Crane liable to plaintiff for 99% of the loss without equitable limitations.⁹ Finally, we cannot review Crane's claims that the verdict was against the weight of the evidence with respect to liability and recklessness, nor can we review its contention that the damages award was excessive (see Rios v Smith, 95 NY2d 647, 654 [2001]; Vadala v Carroll, 59 NY2d 751, 752 [1983]; Gutin v Frank Mascali & Sons, Inc., 11 NY2d 97, 99 [1962]).

V.

The courts below properly determined that Crane had a duty to warn the reasonably foreseeable users of its valves that the synergistic use of the valves and third-party asbestos-

⁹ Crane also asserts that the language of the court's instruction on the recklessness exception deviated from the principles articulated in Maltese v Westinghouse Electric Corp. (89 NY2d 955 [1997]). However, because Crane never objected to the terms of the disputed charge as given, it failed to preserve this claim.

containing products could expose them to carcinogenic asbestos dust, and the evidence was legally sufficient to support the jury's finding of Crane's liability in each case. Crane's remaining claims are either unreviewable, meritless or insufficient to warrant reversal. Accordingly, in each case, the order of the Appellate Division should be affirmed, with costs.

In the Matter of New York City Asbestos Litigation
Dorris Kay Dummitt v A.W. Chesterton, et al., and Crane Co.
No. 83

In the Matter of Eighth Judicial District Asbestos Litigation
Joann H. Suttner v A.W. Chesterton, et al., and Crane Co.
No. 84

GARCIA, J. (concurring):

I am in agreement with the majority's recitation of the facts, its holding that Crane had a duty to warn, and its determination regarding the trial court's instructions on proximate cause and recklessness. I part company with the majority over the articulation of the test we should apply to determine when a manufacturer has such a duty to warn of the dangers arising from the use of its product in conjunction with a product manufactured by a third party.

The majority holds that a manufacturer has a duty to warn of the danger "arising from the known and reasonably foreseeable use of [a manufacturer's] product in combination with a third-party product which, as a matter of design, mechanics or economic necessity, is necessary to enable the manufacturer's product to function as intended" (majority op. at 1-2). I believe this test opens too broad an avenue of potential liability and that, in line with our precedent in this area, any standard must focus on the affirmative action taken by the manufacturer in placing the harmful product containing asbestos into the stream of commerce.

As the majority notes, in Rastelli v Goodyear Tire & Rubber Co. (78 NY2d 289 [1992]), this Court considered a manufacturer's duty to warn of hazards arising from the combination of its product with a product made by another company (see majority op. at 19). In concluding that the failure to warn was not unreasonable in that case, we focused on whether the defendant: (1) had *control* over the production of the second product; (2) had a role in *placing* that product in the stream of commerce; (3) *derived a benefit* from the sale; (4) *contributed* to the alleged defect in some way; and (5) *created* the dangerous condition related to the second product (see 79 NY2d at 298). Such actions constitute circumstances which "strengthen the connection between the manufacturer's product and the third party's defective one" (Surre v Foster Wheeler LLC, 831 F Supp 2d 797, 801 [SD NY 2011]). In Rastelli, absent any finding of those affirmative acts, this Court held the manufacturer had no duty to warn (see 79 NY2d at 297-298).

The same analysis applied to the facts of this case yields a different conclusion; namely, Crane had a duty to warn. Here, Crane originally sold its valves with the asbestos-containing internal parts; marketed asbestos-containing replacement parts under its own brand name; and generally recommended and promoted the use of asbestos-containing replacement parts for use with its valves in the high-heat conditions at issue in this case (see majority op. at 2-4, 11-

13). Those actions justify imposing a duty to warn in the instant case involving the placement of asbestos-containing parts into the stream of commerce (Osterhout v Crane Co., 2016 US Dist LEXIS 39890, *44 [ND NY, Mar. 21, 2016, No. 5:14-CV-208 (MAD/DEP)]; May v Air & Liquid Sys. Corp., 446 Md 1, 19, 129 A3d 984, 994 [2015]).

This approach, in addition to being more consistent with our precedent, has also been followed by other courts in similar cases. For example, the Court of Appeals of Maryland, in a case involving pumps that contained asbestos material when originally placed into the stream of commerce by the manufacturer, held as one part of its test for imposing duty to warn liability that "asbestos is a critical part of the pump sold by the manufacturer" (May, 446 Md at 19, 129 A3d at 994; see also Quirin v Lorillard Tobacco Co., 17 F Supp 3d 760, 769-770 [ND Ill 2014]). That Court also stressed that the duty to warn could be found only in the "limited circumstances" outlined in its test (May, 446 Md at 19, 129 A3d at 994).

We need not decide which of the actions taken by Crane are essential to the imposition of a duty to warn. Crane sold a product containing asbestos, marketed replacement parts containing asbestos, and generally recommended and promoted asbestos replacement parts. Given the circumstances of this asbestos-related litigation, we need not go beyond grounding the duty to warn in such actions. Rather than basing liability on

the defendant's actions here, the majority, in my view, focuses on forces acting upon the product downstream from the manufacturer. While "design" does suggest some affirmative step, under the majority's test liability may also be premised, in the alternative, on "mechanics" -- undefined -- or, most troubling, "economic necessity" (majority op. at 2). What level of necessity is required and when it may arise, or what "mechanics" means in this context, will assuredly become questions for future juries in an expanding pool of litigation.

The risk of the majority's approach is further demonstrated by the jury charge in Dummitt, where the court instructed the jury, over Crane's objection, that "a manufacturer's duty to warn extends to known dangers or dangers which should have been known in the exercise of reasonable care of the uses of the manufacturer's product with the product of another manufacturer if such use was reasonably foreseeable" (majority op. at 8). This is the "'mere foreseeability'" test rejected by many courts considering the duty to warn (Osterhout, 2016 US Dist LEXIS 39890, *44; see Quirin, 17 F Supp 3d at 769). We should, as the Appellate Division did below, disavow that test to prevent a further expansion of the standard (see 121 AD3d 230, 252, 258 [1st Dept 2014]).

Consistent with our existing precedent, liability under these circumstances should attach where use of asbestos parts was "for some . . . reason so inevitable that, by supplying the

product, the defendant was responsible for introducing asbestos into the environment at issue" (Quirin, 17 F Supp 3d at 769; see Osterhout, 2016 US Dist LEXIS, *34). I would hold that, at a minimum, some action by the manufacturer in originally marketing the product with asbestos and promoting or recommending asbestos-containing replacement parts is necessary to impose a duty to warn.

* * * * *

In Each Case: Order affirmed, with costs. Opinion by Judge Abdus-Salaam. Judges Pigott, Rivera, Stein and Fahey concur. Judge Garcia concurs in result in a separate concurring opinion. Chief Judge DiFiore took no part.

Decided June 28, 2016