



THE ENTIRE TEAM AT NTN WISHES YOU AND YOUR FAMILY A WONDERFUL HOLIDAY SEASON!

olidays

Meet NTN's Next Gen Council



NTN Proudly Supports The Dixie Bloor Neighbourhood Center's Family Sponsorship Campaign

Page / 17 /

IN THIS ISSUE



NTN Holds Training Seminar on Roller Bearing Application & Maintenance Practices

> Page / 15 - 16 /



NI

Success Report - NTN's Sentinel™ Series Keeps Produce Supplier on Schedule

> Page / 10 /

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PRODUCT PROFILE Bearing Solutions for the Food and Beverage Industry

Page / 6 - 8 /

Customer Newsletter

A holiday Message FOM UNF GED Paul Leo

As another year draws to a close, most of you will be in the midst of preparations for this festive season. This is a very special time of the year as it gives people a break from the hustle and bustle of our everyday working schedules. It provides many of us with some time to enjoy the company of family and friends that is all too often missing for the rest of the year. I urge each and every one of you to reflect on these special moments and savour the relationships that we have tried so hard to cultivate over the years.

Do all the good you can By all the means you can In all the ways you can In all the places you can At all the times you can To all the people you can As long as ever you can

I would also like to take this opportunity to thank the employees and industry partners for the tremendous effort they put in day in and day out to make sure that our customers are well looked after. Many of us do not see all the demands placed on our staff, but their work is greatly appreciated. Our employees are the source of the strength for NTN's operations in Canada. Above all, they reflect the immense talent, leadership and dedication to delivering the Ultimate Bearing Experience each and every day to our customer base.

I would also like to acknowledge and thank our employees for the tremendous generosity they have shown in collecting for those in our communities who need our support. I know we keep in our hearts our friends and neighbours who struggle and want them to know they are not alone. I am very proud of our staff members who have volunteered to help others by collecting a wide range of donations, from clothing to food items for local charities such as Haven Toronto, the Regeneration Marketplace and the Dixie Bloor Neighbourhood Centre to help bring comfort to those in need.

My wish this holiday season is for each of you to find joy in connection with friends, family and loved ones near and far. On behalf of the NTN Canada Executive Team, please accept our sincere best wishes for the holidays. We hope this holiday season is an exceptionally good and safe one and that the New Year brings you much health, happiness and prosperity.

RAL_

Paul Meo President & CEO NTN Bearing Corporation of Canada

MERRY CHRISTMAS



Andrew Gidge

Rita Payne

Dear Staff, From my family to yours we are sending love and warm wishes to you on this holiday season. May the new year bring you prosperity, happiness, and success. Wishing everyone nothing but the best for 2024!



Vice President of Human Resources & Operations



Thank you to everyone for your continued efforts and all you have done for this organization. May your holidays be filled with cheer, warm memories, and happiness. To all of you, Merry Christmas and Happy New Year.

Andrew Gidge

Vice President of Manufacturing

Wishing you all a happy, healthy holiday season and some well-deserved rest and relaxation! Thank you for your daily dedication to our vision of delivering the Ultimate Bearing Experience and looking forward to seeing what we can achieve together next year!

Rita Payne

Director of Sales, Automotive Aftermarket and Recreational Products Director of Corporate Marketing & Communications

On behalf of our Customer Service team, I would like to wish you and your families a Merry Christmas and Happy New Year filled with lots of love, laughter and happiness. Best wishes for a safe and healthy 2024!

Loren Almeida

Customer Service Manager

On behalf of the Industrial OEM sales department, I want to wish every NTN employee a safe and joyous holiday season shared with family, friends, co-workers and communities. We are living in difficult times and I truly hope each one of you can live in peace and prosperity throughout the year.



Director of Sales, OEM (Original Equipment Manufacturers)

Wishing you a healthy and happy holiday season. Thanks for a great year of work together. I am excited to see what next year will bring.

Sophia Bobb Bernard

Director of Finance

What, the year is over? How did we get to this time of the year again? If only I could be as efficient as Santa. I ate a lot of cookies this year but still not as efficient. Be safe, celebrate with those you love, and give thanks.

Marcus Wickert

Director of Engineering





Loren Almeida



ophia Bobb Bernard



Marcus Wickert

SPIRIT LISSUE 3 2023

















On behalf of the Quality Assurance Team at CMF, wishing you all a joyful holiday season. May your celebrations be filled with warmth, laughter, and cherished moments. Happy holidays!

Puneetpal Singh Makkar

Quality Assurance Manager NTN Bearing Manufacturing Canada

I hope this festive season will bring good luck and good health for you and your family. Wishing you a happy Christmas and a fulfilling year ahead

Naotaka Matsuo

Executive VP of Manufacturing NTN Bearing Manufacturing Canada

May the Christmas season bring positive energy and happiness to you and your family. Have a wonderful Christmas with your entire family, friends, with loads of love!

Tvy Li

Controller NTN Bearing Manufacturing Canada

I wish everyone in my NTN family a relaxing, enjoyable, and safe Holiday Season, spent with family and friends. Wishing you all good health and happiness for 2024! Merry Christmas!

Qeborah Smyth

Human Resources Manager NTN Bearing Manufacturing Canada

Our company focus on innovation is fabulous and working alongside every one of you is an absolute pleasure. Wishing you all a season filled with warmth, light, and joy as we celebrate the holidays!

Phuoc (Eric) Do

Engineering Manager NTN Bearing Manufacturing Canada

Warmest Christmas greetings to you and family and thank you for your hard work and devotion to our common goals in Environment, Health & Safety at work. Unplug, unwind, and settle in for a relaxing holiday season. Have a wonderful New Year's Eve and return safely!

Rosemarie Yau

Enviromental Health & Safety Manager

Thank you all for all your support throughout the year. May Santa pour all the luck upon you this festive season. Hope you and your family have a terrific and incredible Christmas. Enjoy the holidays!

Jarosław Matuszewski

Production and Material Control Manager NTN Bearing Manufacturing Canada

Wishing health and happiness to our clients and colleagues over the holiday season. Hoping everyone can disconnect from their daily stresses and enjoy time with loved ones. All the best in 2024!

Chris Rempel

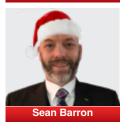
Engineering Manager



















Sending the warmest holiday wishes to you and yours during this beautiful season. Wishing you all that is merry and bright for the New Year ahead!

Stephane Chaboud

Corporate Sales Manager IAM (Industrial Aftermarket)

Let's take this time to reflect upon the importance of family and friends. I wish everyone a safe and happy holiday. Merry Christmas and Happy New Year!

Mario Borsella

Manager, Field Service Engineering Group

I hope you can all spend this Christmas season with close friends and family creating great memories to enjoy for years to come. Have a very Merry Christmas and a Happy New Year!

Fos Sueters

Director of Sales IAM (Industrial Aftermarket)

Let's take this time to reflect upon the importance of family and friends. I wish everyone a safe and happy holiday. Merry Christmas and Happy New Year!

Sean Barron

Sales Manager - IAM (Industrial Aftermarket)

I hope the magic of Christmas fills your heart and home with joy, peace and laughter. Wishing you and your family happy holidays and a new year filled with health and happiness.

Marina Calado

Human Resources Manager

Wishing all our incredible employees and coworkers a joyous holiday season filled with warmth, laughter, and cherished moments. Merry Christmas and a Happy New Year ahead! Your hard work and dedication are truly appreciated.

Ymer Dushaj

Production Manager NTN Bearing Manufacturing Canada

I would like to wish everyone a Merry Christmas from myself and the AOE Team. It's been a good year in which our young team was able to achieve great things. All the best and make sure to enjoy yourself this holiday season!

Fohn Kasunic,

Sales and Engineering Manager, Automotive OE

Warmest thoughts and best wishes for a wonderful holiday and a Happy New Year.

Aida Fankovic

Payroll and Benefits Manager



and best wishes for a wonderful ho

Bearing Solutions for the Food and Beverage Industry

Get rid of production bottlenecks

Keep your productivity flowing.

In your plant, every minute of uptime matters. But harsh chemicals, grease washout, corrosion and contamination work together to slow your plant's productivity to a trickle. Not to worry: NTN has products for your entire plant, each one engineered to last longer in harsh environments. So you can focus on operational improvement and keep your production going strong.

THE NTN ADVANTAGE: SOLID LUBRICATION

- **21X** the grease washout resistance
- Zero grease leakage
- Zero re-lubrication
 requirements
- Zero maintenance

NTN SENTINEL® SERIES Radial Ball Bearings

Specially designed stainless steel bearings with full-contact seals and H1 solid lubricant prevent grease washout encountered in bottle washing, filling and capping applications

Quality capped off with expertise.

NTN gives you the total package: products designed to exceed industry standards, expertise in training and installation, and readily available replacement parts through your local distributor at a moment's notice. After decades of experience in the industry, we know exactly what it takes to get the job done right.

NTN ULTRA-CLASS[™] SERIES

Our flagship mounted ball bearing line features a heavy duty housing and black-oxide coated insert that guards against corrosion, humidity and moisture—ideal for the environment stressors you face. At the same time, its unique flinger design and elastomeric seal keeps out contaminants for longer-lasting performance.

NTN ULTRA-CLASS Mounted Ball Bearings

Heavy-duty bearing units built to last longer in your nonwashdown applications, and available with H1 solid lubricant or H1 grease

NTN SENTINEL[®] SERIES

With premium features like corrosion resistant materials, full-contact seals and solid lubricant, our latest line of maintenance-

free bearings defend against your plant's harsh chemicals and wet environments. Available in both radial ball and mounted unit styles for a wide variety of applications.



NTN SENTINEL® SERIES Mounted Ball Bearings

All units come standard with corrosion-resistant materials, caps and solid lubricant to last longer on conveyors in washdown applications

Beyond Bearings

Training. Installation Support. Trouble-shooting. And more.



Technical Training Unit

On-site, mobile training unit offering specialized, hands-on instruction from NTN engineers



Product Training School

Three days of in-depth instruction from NTN engineers at headquarters (https://ntn.ca/company/product-training-school)



eKnowledge

WEB-BASED TRAINING PROGRAM

Six online product training modules covering different bearing types and nomenclature (www.ntnamericas.com/eknowledge)

NTN Bearing Finder

Customizable search tool featuring exhaustive data sets, comprehensive part interchanges and interactive CAD drawings (bearingfinder.ntnamericas.com)



How to Choose The Correct Sentinel™ Series Housing



NTN's Sentinel Series is a premium line of corrosion-resistant mounted ball bearing products developed for the harsh conditions of the food & beverage industry. The entire Sentinel Series line features insert bearings constructed from 440C stainless steel with integral bearing seals.

For housing materials, the customer is presented with two options to choose from – PBT thermoplastic, or 304 stainless steel. Sentinel Series units with either of these housing materials provide the following features for outstanding performance in a wide variety of conditions:

- Robust mounting support for the precision insert bearing
- Smooth surface and solid mounting base without cavities for prevention of contaminant capture, mold growth, etc.
- Excellent resistance to a variety of chemicals

• Available with separate covers for additional contamination resistance (closed, or open ended with seals)

This raises the question, which housing material is the appropriate choice for your particular application needing a corrosion-resistant bearing unit? Outlined below are some factors to consider when making a determination between NTN Sentinel Series housing materials.

Thermoplastic Housing Considerations:

- Economy Thermoplastic is the more economical choice where conditions permit its use
- Color The white color of the Sentinel Series thermoplastic housing facilitates ease of visual inspection in cases where this is particularly critical
- Enhanced Cover Seal A premium spring-loaded seal is incorporated into the open ended cover

Stainless Steel Housing Considerations:

- Strength Maximum long-term durability under heavy or shock loaded applications
- Optimum Food Safety No chipping, flaking, or peeling of housing material (best choice for installation directly over food)
- Additional Chemical Resistance Excellent resistance to sulfuric, nitric, and acetic acids

NTN_®

SUCCESS REPORT SENTINEL SERIES STAINLESS STEEL BEARING UNITS

NTN's Sentinel™ Series Keeps Produce Supplier on Schedule

A major supplier of produce was experiencing catastrophic bearing failures every <u>four months</u> on both its produce cleaning and packaging lines. The regular bearing failures forced production shutdowns that resulted in <u>\$90,000 in lost production each year</u>.

NTN's engineering and sales support team performed a comprehensive evaluation of the applications and determined the bearing failures were being caused by grease washout from regular equipment washdowns. Additionally, over lubrication was a contributing factor as the NTN team observed a number of blown seals.

The NTN Solution

NTN's team recommended that the bearings being used in the production line be replaced with our Sentinel Series mounted units. NTN Sentinel Series features corrosion-resistant stainless steel ball bearings with seals and NSF H1 registered solid lubricant. The solid lubrication provides up to 21 times better washout resistance than standard grease and the seals provide improved protection over the standard ball bearing design that was being used, which is critical to extending the life of equipment exposed to high-pressure washing. Additionally, NTN solid grease provides lubrication for the life of the bearing, eliminating the need for regreasing. Furthermore, our Sentinel Series line of mounted units is cap capable, providing an additional layer of protection for both the product and the maintenance personnel.

The Result

The NTN solution lasted over <u>the entire 12 month season</u>, completely eliminating unplanned downtime. The solution also eliminated the need for weekly lubrication, saving the facility <u>over 100 hours</u> in yearly maintenance. The increased uptime, reduced maintenance, and decrease in bearing spend resulted in <u>\$133,065</u> in documented savings for the customer.







VALUE ADDED BREAKDOWN REDUCED ACQUISITION COST \$68,080 UPTIME IMPROVEMENT \$60,923 MAINTENANCE REDUCTION \$4,062

DOCUMENTED COST SAVINGS \$133,065

CS-1100, CS-1101 & CS-1102

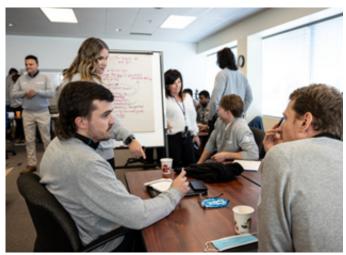
ANNUALIZED COST SAVINGS \$133,065



We are pleased to share that NTN Canada held its first Next Gen Council advisory meeting designed for Millennials and Gen Z members in November 2023. The Next Gen Council will deliver the Ultimate Bearing Experience by amplifying the voices of the next generation of NTN leaders and fostering a community-driven culture of continuous improvement, innovation, collaboration, and diversity that will propel NTN into a forward-thinking future.



This initiative seeks to provide valuable networking opportunities and foster connections among its participants. It was a truly enjoyable and productive gathering, where our participants had the chance to engage with a diverse group of like-minded individuals to learn, discuss, and advocate on issues that matter to them. The exchange of ideas, experiences, and insights was both enriching and inspiring.





This networking event is a testament to the power of collaboration and the benefits that arise when individuals with shared interests and aspirations come together. The council will meet regularly to enable NTN's next generation of leaders to exchange knowledge and explore opportunities for personal and professional growth.



We also wish to acknowledge the council's volunteer efforts at the Regeneration Marketplace, providing services to people who are experiencing homelessness in Brampton, Ontario. Our Next Gen members demonstrated their commitment to giving back to their community by donating and sorting over six pallets of food items, donated by the NTN Social Fund. Their gift of time and loving aid will have a significant effect on the lives of others.

REGENERATION MARKETPLACE

The Regeneration Marketplace serves hundreds of families and individuals weekly through an appointment-based free food service. The Next Gen Council shares Regeneration's unwavering commitment to building a stronger, more inclusive society.



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THE NTN ULTIMATE BEARING EXPERIENCE

2023 YEAR IN REVIEW

TECHNICAL ROADSHOW

The 2023 NTN Ultimate Bearing Experience (UBE) Technical Roadshow was an opportunity like no other, allowing customers across the country to get hands on experience with NTN's premium bearing lines. The state-of-the-art trailer paired with our sales team has proven to be a gamechanger for maintenance staff, technicians, and engineers, offering end users the opportunity to explore the latest NTN-bearing technology on site at their plant facility.

The NTN UBE technical trailer travelled across Canada with a dedicated team of sales representatives, territory managers, and technical service staff to engage with customers and industry partners from various industries, including paper and forestry, mining and quarries, food and beverage, and automotive. Each NTN UBE Roadshow featured product demonstrations tailored to meet customers' needs, providing product knowledge, insights into preventive maintenance, and best practices to maximize cost savings.

When entering the NTN UBE technical trailer, customers were greeted by one of the NTN

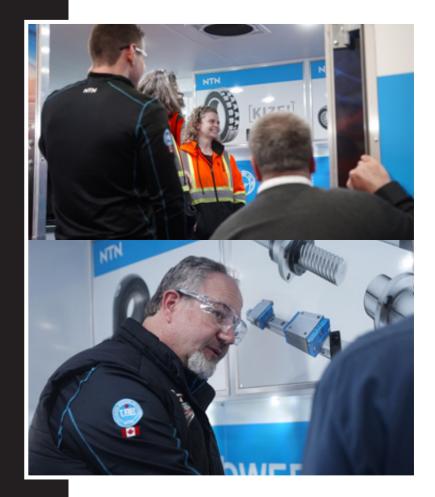




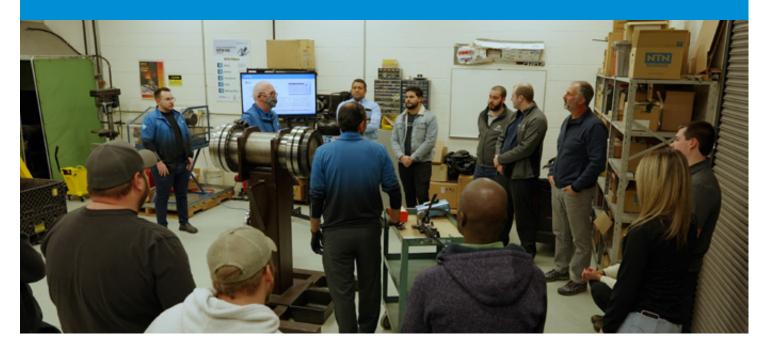
sales reps and technical service staff who provided an overview of the different product lines offered by NTN. Display units from each line were available for customers to get hands-on experience with NTN bearings. Each demonstration and product knowledge session included live demonstrations and focused on the radical increase in operational efficiency and significant reduction in downtime that comes with using NTN technology. Following product demonstrations, customers raced against the clock in the NTN UBE Pit Stop Challenge, a timed tire-changing competition. Over 400 people put their technical skills to the test and competed to win a trip to the 2024 NASCAR Cup Series season-opener held annually at Daytona International Speedway. Of the many outstanding participants, there were two exceptional competitors: Mike Gagwe from Lactalis Canada who clocked the fastest time at 9.42 seconds, followed closely by Brandon Hendel from Capital Gear, who clocked an impressive 10.66 seconds.

A few of the NTN UBE roadshow events were timed to coincide with the NASCAR Pinty's Series race schedule and featured a display of Hall of Fame NASCAR driver Alex Tagliani's official backup race car. Customers were able to get an up-close look at the incredible technology and engineering that goes into building an elite NASCAR race car. Alex Tagliani made several special guest appearances throughout the year to engage with customers and explain why he uses NTN bearings exclusively.

Manufacturing plants and facilities across Canada have welcomed the NTN UBE Technical Roadshow with open arms. From new technicians to seasoned maintenance professionals, the response has been phenomenal. We are excited to continue sharing our bearing knowledge and delivering the Ultimate Bearing Experience in the coming 2024 season.



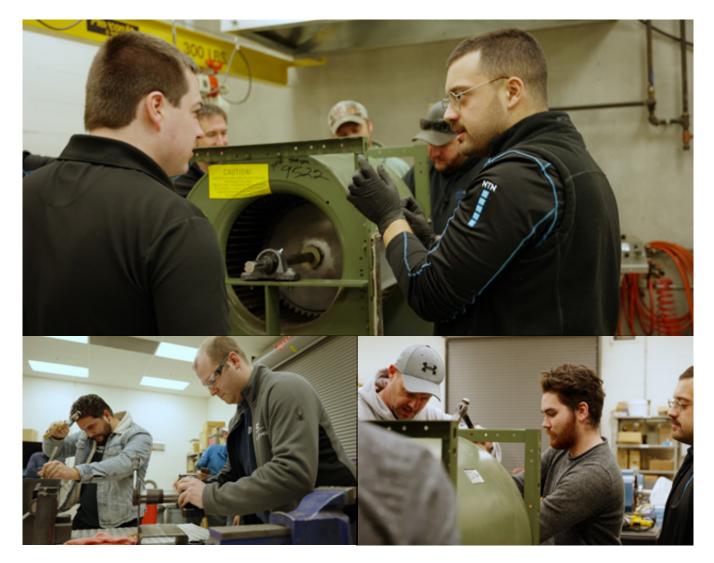
NTN CANADA HOLDS TRAINING SEMINAR ON ROLLER BEARING APPLICATION & MAINTENANCE PRACTICES







NTN Bearing Corporation of Canada hosted a Roller Bearing Application & Maintenance Seminar from November 28 to November 30 at NTN's training center in Mississauga. Held in conjunction with classroom lectures, industry partners participated in handson workshops to highlight common maintenance problems which result in premature bearing failure. The 3 day training course provided attendees with an overview of bearings and the bearing industry, and training on each type of bearing NTN manufactures.



Breakout sessions were dedicated to individual bearing types and how they work with specific applications. Classroom lectures covered generic topics such as bearing basics, lubrication, clearance, fitting practice, as well as handling and storage. To supplement the lectures, the class enjoyed participating in several hands-on labs relating to bearing units, tapered bore mounting and radial internal clearance, as well as receiving an exclusive tour of NTN's manufacturing facility in Mississauga.



THIS WAS A FANTASTIC GROUP OF PROFESSIONALS AND WE THANK THEM FOR THEIR PARTICIPATION DURING THIS EVENT!

NTN®

NTN is proud to support THE DIXIE BLOOR NEIGHBOURHOOD CENTER'S

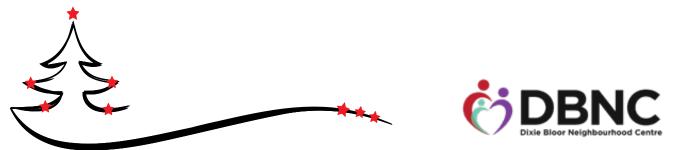
2023 Family Sponsorship Campaign



The staff at NTN Bearing Corporation of Canada partnered with the Dixie **Bloor Neighbourhood Centre** (DBNC) to provide Christmas for less fortunate families in Mississauga. DBNC's annual Family Sponsorship Campaign aims to bring a little joy during the holidays for families who are newcomers and/or lower income. NTN Canada is proud to contribute to this amazing initiative for the 11th year in a row as Christmas can be a verv stressful time for families on fixed or low incomes.

The Dixie-Bloor neighbourhood is one of the areas where Mississauga's low-income and impoverished residents live. Through the Christmas Sponsorship Program, NTN sponsored 6 families and raised \$4,000 which was used to purchase toys, books, household items, boots and warm clothing. By sponsoring families in the DBNC program this holiday season, NTN employees were able to make their Christmas shine brighter and help give kids a Christmas morning they otherwise may not have.

We thank our NTN donors for their contributions. Your generosity will provide hope and dignity, and an improved quality of life to those in need.



TEAM MEMBER SPOTLIGHT Sean Barron

Sales Manager, Industrial Aftermarket Canada

NTN



Meet Sean Barron, Sales Manager, Industrial Aftermarket Canada. He's a high-energy team member with over 28 years of bearing industry experience. Sean joined NTN in 2015 and rapidly progressed from Territory Manager to Sales Manager, overlooking programs and operations for the Quebec market. Today Sean is responsible for managing aftermarket accounts and supporting new business development across Canada. Outside of work, Sean enjoys cycling. As a former national champion of the Canadian mountain-biking downhill racing series, Sean is always pushing his limits to find ways to go faster.

"Pushing past your limits means taking on newer, progressively harder challenges. I have been competing in sports all my life from wrestling and skiing to diving and motorcross, and I've been an avid mountain biker, racing for over 32 years. I've ridden through the alps and all across the country. I even do all of the bearing installations on my gear myself. When you are doing what you love, it's a life-long dedication that gets you there."

Sean is most often complimented on his determination to resolve issues. "There is always a solution, you just have to look for it," he says. His determination has proven to be a major benefit to all on our team, as well as to our customers," and it all stems from his passion for racing. "I've been racing my entire life. It's not just about going out there and biking. It is knowing what type of equipment to use; It's not about driving better than someone else; it's knowing your bike better." This "know better" mentality is evident in the way Sean manages and supports his sales team. As a driven and attentive individual, Sean applies his competitive spirit and attention-to-detail to decipher, plan, and execute the successful delivery of NTN bearing solutions to meet customer needs.

"Everyday, as a National Sales Manager it is important to think 'outside the box', in order to identify areas of improvement for our client's operations. Our customers want machines that run faster, longer, cleaner and more safely. Success with a customer is based on providing a superior solution that creates more value," says Sean. Sean also attributes his success to the friendly, passionate environment at NTN. "Our business development team is close-knit and shares a passion and dedication for helping customers. We're a mini support system, encouraging one another to thrive. NTN is constantly growing and our leadership team is constantly mentoring, coaching, and motivating their employees to go above and beyond."

Thanks Sean for all that you do to deliver the Ultimate Bearing Experience at NTN!

Obituary: Remembering NTN Canada Employee Ms. Gail Roberta Maillet



It is with great sadness and heavy hearts that we share that Ms. Gail Maillet passed away on September 9th after a lengthy illness.

Throughout her 40+ years at NTN, Ms. Maillet shared her insight and wisdom with those of us who had the privilege to work with her in her role as Customs/Traffic Co-ordinator and as Inside Sales Associate. She was an incredible team player, friend, and positive influence, and was devoted to providing the highest standard of service to our customers and the NTN community.

Ms. Maillet was a long-time employee of NTN Bearings, transferring to several

Canadian locations during her tenure with NTN Canada. She frequently spoke of many co-workers, but we would especially like to thank Mark Robinson for his hospital visits, complete with videos, which were both welcome and appreciated.

Gail will be greatly missed by Donna, husband Jim, whom Gail affectionately referred to as "the big guy," and Winnipeg friend, Suzie aka "the Mrs." We will all miss your "tell it like it is" approach to life. Gail was pre-deceased by another very dear friend, Ray. May you both have the joyous reunion you so richly deserve!





NTN Canada Hours Schedule

Please take note of our holiday hours in order for us to continue to be of service to you.

We thank you for your business.

| Friday | December 22 | 2023 | Open |
|-----------|-------------|------|---------------|
| Monday | December 25 | 2023 | Closed |
| Tuesday | December 26 | 2023 | Closed |
| Wednesday | December 27 | 2023 | 8am - 5 pm ET |
| Thursday | December 28 | 2023 | 8am - 5 pm ET |
| Friday | December 29 | 2023 | 8am - 5 pm ET |
| Monday | January 1 | 2024 | Closed |
| | | | |

PROVEN RELIABILITY FOR LONGER LASTING PERFORMANCE

PRODUCTS

- Sentinel Series Maintenance-Free Washdown Bearings
- ULTRA CLASS Bearing Units

ENGINEERING SERVICE

- Dedicated applications engineering team
- Mobile Technical Training Unit
- On-site technical assistance
- Bearing failure analysis

ADVANTAGES

- Maintenance free solid lubrication
- Optimum sealing from contaminants
- Verified Value Added Savings

LATEST INNOVATIONS

- Sentinel Series range:
 - 100% stainless steel bearings are corrosion resistant

- NTN food-grade solid lubricant provides permanent bearing lubrication
- Protective covers provide additional protection and safety for personnel

