

Tapping Out



HARRISON STEEL
CASTINGS COMPANY

VOLUME 92 | SEPTEMBER 2021

IN FULL COLOR

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Management Corner

We have received some positive news lately from our customers. Several of our Mining customers are forecasting increased truck builds for 2022. Currently we are working on reintroducing 4 track tightener castings for Caterpillar and 2 mounting pad castings for Komatsu. We have recently received orders to build new patterns for the Cat 793 "Dead Chicken" castings. We are also in the midst of a new product introduction for the Wabtec U68 wheel casting. This project was on hold for a couple of years and we are excited to see it back up and going. Oh, and don't let me forget to mention the "Platypus" casting. This part is being produced for

the Steel Founders' Society of America for testing. The testing on this part is to establish and verify the digital modeling of a casting and the actual casting properties.

This is great news coming from customers, which is beginning to impact the order book.

As you have all probably seen from our social media posts, we have added some new pieces of rolling stock - excavators, fork trucks, skid steer loaders, etc. In addition, the new Finish Machined Casting Storage Facility has been completed. Over the modified shutdown in early August,

we were able to change out the CM7 mixer trough, repair North Shakeout sand elevator and repair concrete outside the north end of Line 2; along with several other concrete repair jobs and many other maintenance repairs. Upcoming projects include more translucent panel replacement at 271 Floor Molding, Shipping Dock and finishing up the South Shakeout area, which will also include CM7.

Thanks to everyone for all your effort over the last few months.

Work Safe, Work Smart and God Bless.
Geoffrey H. Curtis

Shout Outs!

MILESTONES THIS ISSUE

NAME	YEARS OF SERVICE	DATE
Charles A. Swanson	40	5/27/81
Timothy M. Hays	35	8/1/86
Steven D. Estes	35	8/18/86
Trevor H. Curtis	30	6/1/91
Wade C. Harrison III	30	6/1/91
Ronald L. Walters	25	5/13/96
Shane A. Rogers	25	8/19/96
Dustin R. Beedle	20	5/28/01
Joshua L. Beedle	20	6/28/01
Anthony Chase VanEtta	15	5/1/06
Kenneth Edward Allen	15	6/12/06
Jose Miranda	15	7/10/06
Mario A. Santiago	15	7/31/06
Max L. Jordan	15	8/16/06
Evan D. Mickle	10	5/31/11
Kent A. Bolin	10	7/25/11
Cynthia L. Briles	10	8/8/11
Robert J. Hann	10	8/8/11
Mark S. Mitton	5	8/1/16

TWINS!



Ryan Gibson, Controls Engineer, is the proud father of

Rowan Lewis Gibson (on the right) born June 2, 2021 at 9:51am weighing 4lbs 2oz.

Adrian Bradley Gibson (on the left) born June 2, 2021 at 9:53am weighing 3lbs 15oz.



Alanna Westjohn, Assistant Human Resources Manager

would like to introduce to you:

Logan Cameron and William Arthur Westjohn

born on June 1st (but almost born on separate days!)

Logan was born at 12:00 am weighing 6lbs 7oz and William was born at 12:09am weighing 4lbs 15oz, both 19in long.

Best of luck to the next generation of our Harrison Steel family!

RETIREMENTS

Recently we had a couple of retirement celebrations to honor a couple of long-term employees: Matt Coats and George Vredenburg II. Below are photos of Harrison Steel wristwatches being presented by Trevor Curtis, VP of Operations. Both of these gentlemen have a vast knowledge of experience at Harrison Steel. We wish them the best in their well-deserved retirement and look forward to seeing them around the community.



Matt Coats – Started at H.S. on September 15, 1977 and retired after more than 43 years of service. His most recent position was as Supervisor in our Machine Shop.



George Vredenburg II – Originally started working at H.S. in 1972, but has been continuously employed since February 9, 1981 before retiring. George was in charge of our Sand Lab, ensuring our molding lines were able to operate to the best of their capabilities.

The Harrison Profit Sharing and Retirement Plan

Harrison Steel made a \$303,629 profit sharing contribution resulting from the company's 2020 performance. This amount was in addition to \$527,763.08 in 2020 matching contributions. We were very pleased with how our employees adapted to the numerous operating challenges in 2020 despite the challenges of the COVID-19 pandemic, significant customer demand changes, product improvement challenges, and being short-handed in several areas.

2021 is shaping up to be a banner year. We are still navigating numerous operating challenges. However, the company has already made \$285,466 in matching contributions through June (equivalent to

\$570,932 annualized) and is set to make a significant profit sharing contribution. We could be looking at more than double last year's profit sharing contribution depending upon performance in the second half of this year. Employees are deferring 5.3% of wages toward their retirement. Participation rates for the plan by eligible employees is 97%. The plan's investments now exceed \$24 million. This is all very positive news.

Lastly, markets have been on an unprecedented upward climb for years. At some point, there will be a reversal or at least a leveling off. Investment advisors will say stay the course and keep diversification despite the ebb and flow of financial markets. Investing can be

emotionally troubling for people when their retirement funds are on the line. Please reach out to a qualified investment advisor should you have any doubts about your investment strategy. Qualified investment advisors typically have an accreditation such as CFA (Chartered Financial Advisor) or CFP (Certified Financial Planner). In the meantime, it's nice to run with the wind at our backs.

Robert S. Harrison

Vanguard®

WeCare

We have some great news to share. The WeCare clinic reopened for in-office appointments in May. We recently completed a renovation expanding the clinic's facilities to better accommodate more participants with another exam room, expanded storage for prescriptions, and a fresh coat of paint. Warren County joined the clinic. We are now partnering with The Attica School Corporation, City of Attica, and Warren County. Welcome!



As a reminder, the clinic and its services are free to Harrison Steel medical plan participants. Harrison Steel also incentivizes plan participants to do any of the following annually for a significant reduction in medical premiums: biometric screening, tobacco free certification, and SHIFT participation. Don't miss out.

Cost Reduction Team

Harrison Steel and Liebherr are working together to lower overall manufacturing costs. This work has generated an average annual savings of 6% on the parts addressed thus far. Cost reduction solidifies our partnership with customers. Thank you to the Machining and Cost staff for your efforts.

Pictured right is a Liebherr mining truck. Harrison Steel supplies parts for this and other models.



Quality

Well, I'm not sure how, but summer is almost over and schools are back in session. I hope everyone had a better summer this year than last year, since we were able to get out and be around other people. We were able to take a trip to Cancun to celebrate Matt's retirement. I can't imagine working at one place for 43-1/2 years! Congratulations to him and I promise that I'm not the type to make honey-do lists! He is able to go to our place at the lake and relax while I am working (I'm not sure that's fair, but I guess he deserves it, lol!)

It was also good to be able to watch kids playing sports again. We went to our fair share of t-ball and Little League games over the summer, along with some golf matches. Harrison Hills has a really nice program for

kids of all ages to learn the game and golf etiquette, while getting to have matches against teams from other golf courses. My grandson is only 7, but he has some natural talent apparently and enjoyed the program. We have gone straight from ball and golf to soccer, Fall ball, and football.

Be sure to stop for school buses and/or kids while at crosswalks. I love seeing all of the 1st day of school pictures that almost everyone posts nowadays. It's so cute to see the little ones that are either going to Preschool or Kindergarten. You can just see the excitement (and innocence) in their eyes! Now, it's usually a different story with the older kids. You can usually tell that they are less than thrilled with the idea of posing for a picture.

We'd like to welcome all of the new employees, while also saying goodbye to some with invaluable experience. It's not always easy to see some people go, but you can't blame them for taking advantage of better or different opportunities as they become available. With that being said, best of luck to Tim (Burton) Hays and Robert May on their new opportunities.

Layout purchased a new Hexagon Arm that has a longer reach than the Faro Arm that was being used. The new arm has the capability to measure more accurately, also. This will be a huge asset to HS.

Lori Coats



Pattern Shop

This year has been a busy one for the Pattern Shop and Foundry Engineering. We've introduced new castings and reintroduced several older patterns such as the track tighteners and wheels. Our next project will be brand new patterns for two of the dead chicken castings. We hope the new rigging design will alleviate several of the Foundry, Core Room, and Cleaning Room problems.

We would like to welcome David Hays back to HS for another semester. David has worked at HS the past two summers alongside the Pattern Shop and Cleaning Room. This fall David will be studying the use of sensors at HS to collect data such as humidity, temperature, and mold quality. Over the past few months David and Amir Baghani have employed our accelerometer and mold quality indicator (MQI) to record the vibration acceleration and mold quality for several molds. Combination of these two data sets will help us to quantitatively evaluate the mold quality and find a correlation between molding processes and burn-on sand defects observed on the casting. Continuing data collection and building a strong database will help us to effectively upgrade our molding equipment for producing a sound, well-compacted mold.



At the beginning of August, Amir attended SFSA research review meeting in Chicago where researchers from different US universities presented latest updates of their research projects. Most interesting studies pertinent to Harrison Steel are as follows: Detection and modeling of inclusion and shrinkage porosities, mechanical properties of commercial steel castings (UIOWA), digital surface analysis and robotic grinding (ISU) and wireless foundry (UNI). In the future we'd like to see a team including members from different departments working together to implement new ideas into our production plant.

As always, stay safe and have a great rest of the year.

Mushroom Contest



Remember when Harrison Steel held that morel mushroom contest, way back last Spring?

This guy took the Grand Prize!

Shane Bryant, Maintenance Mechanic

brought in the biggest fungus among us at 249 grams!

Runners-up were Larry Askren and Valerie Gray.

Congratulations to all three!

Human Resources

Human Resources is very glad to welcome two employees to our team.



Michelle Richards joins us as our Human Resources Manager and brings a wealth of knowledge into the position. Her career in Human Resources began nearly 30 years ago and has been primarily in the manufacturing and logistics industries. She obtained a Bachelor of Science in Human Resource Development from Indiana State University focusing on employee and organizational development. She has resided in Fountain County with her husband for the last 25 years. Along with their children and grandchildren, they are strongly rooted in Fountain County!



David 'Dave' Clark joins us as our Employee Development and Engagement Specialist and has years of experience with development. Dave brings 40+ years of experience working in various capacities and diverse communities, all with the goal of helping people get the tools they need to develop. Originally from Chicago, Dave and his wife moved to Attica in 2016. He enjoys playing the piano, creating music, riding his Harley, hosting guests at The Sanctuary, and discovering and eating good food.

A few thoughts from Dave:

Flourish is my absolute favorite word! Flourish is defined as "grow or develop in a healthy or vigorous way, especially as the result of a particularly favorable environment." My purpose and goal for my time here at Harrison Steel is to contribute my efforts – time, talents, and energy – towards the continued development of a healthy and favorable environment that will see people growing and developing in a healthy and vigorous way. I am committed to do everything I possibly can to SEE YOU FLOURISH!

Oh yeah . . . I'm also committed to "live 'till I die" which means I am on a continual journey of learning.

Thanks to all of you for the warm, genuine welcome!

Feel free to stop in and see them, or stop them as they're making their rounds within the plant!

Additionally, we are happy to welcome Alanna Westjohn back from maternity leave. She is enjoying her new role as Assistant Human Resources Manager.

HS IS HIRING!

Our customers are wanting more product, driving up our production needs. To meet their demands, we are aiming to sell 51 tons per day (12,240 tons annually). To consistently achieve this goal, we need 483 full time employees. This is an increase of nearly 20% from our current staffing levels! Positions are available, ranging from entry-level to senior managers. You can view open positions at careers.hscast.com.

Know of anyone looking for work? Referrals improve our chances of finding good quality candidates significantly and you make some money! Let Human Resources know of anyone you think we should invite for an interview.



IMPORTANT COVID UPDATE



New records are being set for the number of COVID-19 cases across Indiana. August was the highest number of confirmed cases for Harrison Steel employees since the pandemic began as well, creating the largest absenteeism rate since January.

- Continue to practice what we know works to reduce spreading infections:
- Stay home or immediately leave work if you become sick
- Social Distancing (maintaining 6 feet from others)
- Follow basic infection prevention measures such as:
 - Frequent hand washing or sanitizing
 - Covering coughs and sneezes
- All employees must pass First Aid's return-to-work process after an illness

Vaccinations are the best defense against the virus and are more effective than past infections. The Food and Drug Administration (or FDA) has recently granted full approval for the Pfizer-BioNTech COVID-19 vaccine for anyone ages 16 and older. Other vaccines are expected to receive full approval in the near future as well. To schedule a vaccination, contact the Fountain & Warren County Health Department (FW Health) at (765) 762-3035 and press 6.

Are you showing symptoms of COVID? Please help prevent the spread of COVID within our community by quarantining and seeing a medical diagnosis. Ideally, the first contact you should make is with your healthcare provider. However, if your symptoms are similar to COVID and do not have an alternate explanation, they will most likely recommend that you complete a COVID test. You can schedule a test at FW Health by calling (765) 762-3035 and pressing 6 or emailing bvaughnfwhealth@gmail.com. Multiple other locations also offer tests, such as CVS, Walgreens, hospitals, and other clinics around the area. Schedule in advance as testing can become booked up well in advance, and some locations require appointments.

In the Community

Attica Baseball Softball Association finished a strong return to "Summer Ball" this year. ABSA had over 140 boys and girls participate and hopes to improve that number next year. The Attica program has long benefited from strong community and Harrison Steel support. As a result of this strong support and in an effort to revitalize the fields, Harrison Steel was pleased to sponsor up to \$91,000 in upgrades. Planned upgrades include electrical work, scoreboards, drainage, bathrooms, dugouts, and bleacher improvements. Many of these improvements were completed preseason with the remaining items to be completed this fall.



Season opener of Attica Summer Ball



Foundry

The Foundry's 6G Room received a significant cosmetic upgrade during the June shutdown. Below are some before and after pictures. Many of the employees seemed very pleased with the new facelift.



Before



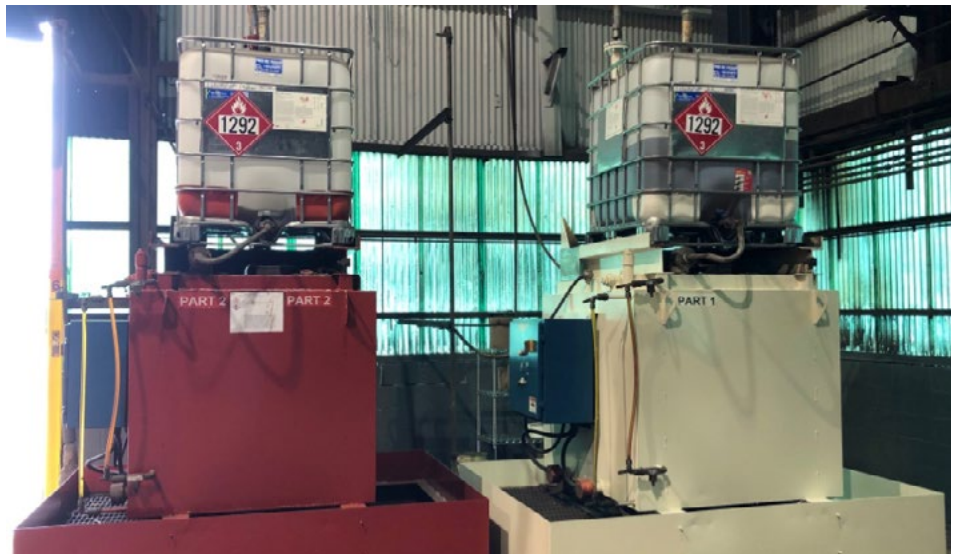
After



Before



After





Day shift operator Ron Walters with the new skid steer

In addition to the new Kalmar fork lift that was pictured in the last issue of Tapping Out, the Foundry also received a new John Deere skid steer this year. Pictured with the new skid steer is the day shift operator Ron Walters.

A few key Foundry employees had some work anniversaries in August; Jerry Howard, 33 years and Steve Estes, 35 years. Thank you for your years of service!

I would like to take this opportunity to thank all Harrison Steel employees for their hard work and dedication to this company. It has been extremely hot of late and these hardworking employees have pushed through it without complaint.

Jeff Pycke

Metlab and Furnaces

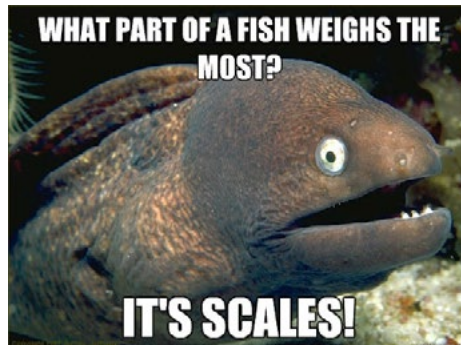
The Harrison Steel metlab and furnace department has been continuing to focus on bolstering department processes alongside production in 2021. To date, the furnace department has poured 923 heats in 2021; the department is on track for 1,246 by the end of the year.

The department poured 1,581 heats in 2019 and 1,296 heats in 2020.

The metlab, on the other hand, has been busy testing material and polishing micros for customer certifications and various studies. We have broken 775 tensile bars thus far in 2021 and are on track to break over 1,000 by year end. This amount of testing is right on track with 2019 (1,022 tensiles) and 2020 (947 tensiles).

The furnace department has finished a trial on a castable arch and successfully extended the life of the furnace from 300~ heats to nearly 550 heats (that's an 83% increase in the number of heats!). Another big improvement to the department was hose routings – O2 lines were rerouted to get them out of harm's way and eliminate the tripping hazard. Blocks are about to be welded on the roof ring to guide the roof installations to reduce downtime during roof-changes. By year end, the department will hopefully eliminate the argon tanks stored within the pulpit. An external tank rack and manifold will be placed outside the building near the pulpit

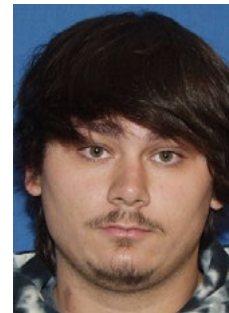
and route the argon into the office via an outlet. This project will eliminate the need for employees to haul tanks across the foundry and into the pulpit on a dolly. The delivery truck will back up to the rack and replace our tanks to make the switch frictionless.



Speaking of scales, the furnace department has recently completed another CI card with a new method to pull the mat off of the scales without tearing the mat.

The Metlab is getting a face lift with a new fume hood. The hood is being installed at the time of this writing. Alongside a quench study in partnership with the SFSA, a study has been completed on oxide types within our sand system with help from UNI. Y-blocks are currently being processed to look at mechanicals and microstructures from tracked placements in various ovens; this study stemmed from a program that

was written to analyze heat treat oven temperature charts. With regards to EPS, the Metlab is getting closer to finishing a test material scheduler to assist the foundry (with a lot of help from IT), a reverse scheduler to help Steve and Jacob in the lab track and identify which material is needed from high priority certifications, and a program to keep lab processing instructions updated based off of the primary source of data.



Finally, we want to welcome Levi Lameau back to the furnace department! We are happy to have him back!

Jacob Melvin
Furnace and Lab

Engineering/Maintenance



The new 10,000 sq ft machined castings storage building

Harrison Steel has had a few rolling stock additions in the last few months as well. Plant 2 has a new Deere 50G mini-excavator. 271 area has a trial Deere skid-steer working and a new CAT 305 mini-excavator on the way. The foundry is also eagerly awaiting a new 18,000lb Toyota fork truck to be delivered in December that will match the three working in the Cleaning Room now.

For the past few months, we have had the pleasure of working with Tyler Haygood, who is interning with us from Texas A&M. Tyler will be heading back to school this month, but he has left his mark at HS with several excellent design projects. Among other things, Tyler designed racks for the larger castings in the new casting storage building, a hydraulic pressing system for the Machine Shop, and extensions to the Coreroom flow-coat tank (for use with larger cores), which were installed over the past shutdown week (photo right). Thank you Tyler for all of your great work and we wish you the best of luck next year in school.

In addition to the above, the Maintenance Department has been working on Continuous Improvement projects. Approximately 60 employee-submitted CI cards have been completed thus far in 2021 with more to come. And an outside contractor has been hired to complete restroom upgrades in the last half of 2021.

Last, but definitely not least, we wanted to say congratulations to Ryan Gibson (Controls Engineer) and his wife on the recent birth of their twins!! Ryan has a vague recollection of what sleep used to be like.

It has been an exciting 2021 so far, and we can't wait to see what the rest of the year brings.

Derek Hughes

Summer 2021 has been a very busy one for the Maintenance and Engineering Department. One of the most noticeable projects that has been completed is the new machined castings storage building. This 10,000 sq ft building project began last fall and began storing machined castings in June.

You may also have noticed the new translucent panels in the Line 5/7 Cleaning Room bay. These panels are letting in a LOT more light. Look for more translucent panels to be installed soon at Shipping, CM7 core area, and 271 Molding.

Over the past couple of foundry shutdown periods, the DM1 Mixer room and 271 Molding have received a nice facelift. These areas received a good cleaning, a lot of fresh/bright paint, and some new concrete. Much-needed concrete has been placed over large areas outside of Plant 2, as well, which has helped with the drainage problems in that area. New safety banners have been installed in several areas of the plant (look for more soon). Lastly, a new BUG-O machine burning station has been installed in Plant 2.



The new Deere 50G mini-excavator.



Extensions to the Coreroom flow-coat tank designed by intern Tyler Haygood

Cleaning Room

NEW BUILDING IN TOWN

Harrison Steel has recently completed construction on a new storage building on the south of the plant. This building stores finished machined castings saving space in the cleaning room and machine shop.



New storage building



Finished machined castings being stored in new building

NEW PUZZLE PLATE STORAGE AREAS

The cleaning room recently implemented new puzzle plates to help prevent damage to the floors. The plates were cast and worked in house and placed in multiple locations throughout the cleaning room during the shutdown.

NEW CONCRETE SLAB POURED

In front of the new cleaning room a fresh slab of concrete has been poured. Not only does this help with vehicle traffic but also provides a cleaner looking environment for the staff.

NEW FACES IN TOWN

Vanessa Cintron

My name is Vanessa Cintron and I am from Hammond, Indiana. I moved out to Lafayette in 2012 and lived there for a few years until I met my fiancé Derrick Mullins. We have two children and currently live in Williamsport. In my free time I like to read, cook, hunt, watch YouTube videos, watch Disney+ with my children, get my hair and nails done, and be lazy with my family. I am excited for the fall season to begin. I love the coloring of the leaves, sweater weather (even though Indiana weather is unpredictable), and the upcoming holidays. I am looking forward to working here!

Ian McDermott

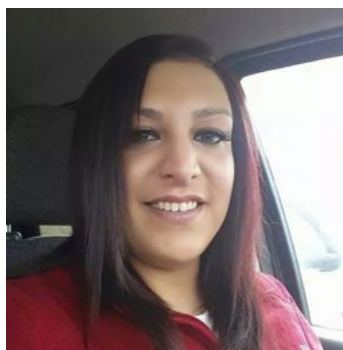
My name is Ian McDermott and I am the new process engineer in the cleaning room. I am originally from Roswell, Georgia where I got my love for the outdoors: hiking, golfing, kayaking, and fishing. I attended the University of Alabama where I studied metallurgical engineering and graduated in May 2021. Harrison Steel is my first job out of college and I am very excited to be part of the family and learn and grow as an engineer.



New puzzle plates



New concrete slab in front of cleaning room



Vanessa Cintron



Ian McDermott



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