Komatsu Pc78mr 6 Excavator Operation Maintenance Manual

This is likewise one of the factors by obtaining the soft documents of this **Komatsu Pc78mr 6 Excavator Operation Maintenance Manual** by online. You might not require more epoch to spend to go to the books foundation as with ease as search for them. In some cases, you likewise get not discover the message Komatsu Pc78mr 6 Excavator Operation Maintenance Manual that you are looking for. It will agreed squander the time.

However below, later you visit this web page, it will be correspondingly no question simple to acquire as with ease as download lead Komatsu Pc78mr 6 Excavator Operation Maintenance Manual

It will not agree to many become old as we tell before. You can accomplish it even if put on an act something else at house and even in your workplace. correspondingly easy! So, are you question? Just exercise just what we pay for below as well as evaluation **Komatsu Pc78mr 6 Excavator Operation Maintenance Manual** what you subsequently to read!

Pwc 2003 Philadelphia Writers Conference Staff 2004-04
Anne of the Island Illustrated Lucy Maud Montgomery 2021-01-16 Anne of the Island is the third book in the Anne of Green Gables series, written by Lucy Maud Montgomery about Anne Shirley.Anne leaves Green Gables and her work as a teacher in Avonlea to pursue her original dream of taking further education at Redmond College in Nova Scotia. Gilbert Blythe and Charlie Sloane enroll as well, as does Anne's friend from Queen's Academy, Priscilla Grant. During her first week of school, Anne befriends Philippa Gordon, a beautiful girl whose frivolous ways charm her. Philippa also happens to be from Anne's birthplace in Bolingbroke, Nova Scotia.
Myotatic, Kinesthetic and Vestibular Mechanisms A. V. S. de Reuck 2009-09-16 The Novartis Foundation Series is a popular collection of the proceedings from Novartis Foundation Symposia, in which groups of leading scientists from a range of topics across biology, chemistry and medicine assembled to present papers and discuss results. The Novartis Foundation, originally known as the Ciba Foundation, is well known to scientists and clinicians around the world.
The Complete Builder's Guide to Hot Rod Chassis and Suspensions Jeff Tann 2010 In How to Build Hot Rod Chassis, highly regarded hot rodding author Jeff Tann covers everything enthusiasts need to know about designing and building their new chassis and suspension system. It thoroughly explores both factory and aftermarket frames, modified factory solid-axle suspensions, and aftermarket independent front and rear suspension setups. No matter what design a reader may be considering for his own car, How to Build Hot Rod Chassis delivers a wealth of information on the pros and cons of all systems available.
Competition Engine Building John Baechtel 2012 Authored by veteran author John Baechtel, COMPETITION ENGINE BUILDING stands alone as a premier guide for enthusiasts and students of the racing engine. It will also find favor as a reference guide for experienced professionals for years to come.
The Washingtonienne Jessica Cutler 2006-05-31 The Capitol Hill aide who scandalized Washington, D.C., with her blog has now written a sharp, steamy, utterly unrepentant novel set against the backdrop of the nation's capitol. When Jacqueline Turner's fiancÉ gives her two days to move out of his apartment, she has no choice but to leave New York City and crash with her best friend in Washington, D.C. She needs an exciting new life--not to mention real employment. Where better to get a fresh start than the nation's capitol? Alas, D.C. turns out to be a lot more buttoned-up and toned down than she'd hoped. It's a town where a girl has to make her own excitement--and Jacqueline Turner is just the woman for the job. From the married presidential appointee who gives her cash after each tryst to the lascivious Georgetown lawyer who parades her around like something out of Pretty Woman, Jackie's roster of paramours grows so complicated that her friends ask her to start a blog so they can keep up. But in a small town like Washington, the line between private and public blurs very easily, and Jackie quickly realizes this blog idea may be more than she bargained for. Deliciously gossipy and impossible to put down, The Washingtonienne is every bit as steamy and outrageous as the real-life exploits that inspired it.
Stephen Colbert's Midnight Confessions Stephen Colbert 2017-09-05 Forgive him, Father, for Stephen Colbert has sinned. He knew it was wrong at the time. But he went ahead and did it anyway. Now he's begging for forgiveness. Based on his popular segment from The Late Show, Stephen Colbert and his team of writers now reveal his most shameful secrets to millions (although, actually, he'd like you not to tell anyone). Midnight Confessions is an illustrated collection of Stephen Colbert at his most brilliant and irreverent.
Belts and Chains Deere & Company 1974
Tabletop Vignettes Sharon Dlugosch 1991 Enjoy this series of descriptive sketches for any-occasion table setting. Find basic tips on easy centerpieces, care tips, and selective shopping. Pronounced vin yets'.
Digital Filters Andreas Antoniou 1979
Pell's Equation Edward J. Barbeau 2006-05-04 Pell's equation is part of a central area of algebraic number theory that treats quadratic forms and the structure of the rings of integers in algebraic number fields. It is an ideal topic to lead college students, as well as some talented and motivated high school students, to a better appreciation of the power of mathematical technique. Even at the specific level of quadratic diophantine equations, there are unsolved problems, and the higher degree analogues of Pell's equation, particularly beyond the third, do not appear to have been well studied. In this focused exercise book, the topic is motivated and developed through sections of exercises which will allow the readers to recreate known theory and provide a focus for their algebraic practice. There are several explorations that encourage the reader to embark on their own research. A high school background in mathematics is all that is needed to get into this book, and teachers and others interested in mathematics who do not have (or have forgotten) a background in advanced mathematics may find that it is a suitable vehicle for keeping up an independent interest in the subject.
The Teslin Tlingit Council Self-Government Agreement Among the Teslin Tlingit Council and the Government of Canada and the Government of the Yukon Teslin Tlingit Council 1993 Text of the Agreement (under the Yukon Umbrella Final Agreement) between the Tlingit Indians of the Teslin area of southern Yukon, on self government, further to Chapter 24 of the Final Agreement.
Sazzae J. L. Morin 2009 An award-winning novel, Sazzae opens the door to a wondrous cityscape where Japanese and American youth find each other in Tokyo. Discover the machinations of a lovers' triangle, a painter's inspiration, and a teen idol's dark secret through sensuous and evocative language. The pain and pleasures of Japan are remembered with lyric passion.
Well Integrity for Workovers and Recompletions Les Skinner 2021-02-25 Well Integrity for Workovers and Recompletions delivers the concise steps and processes necessary to ensure that production wells minimize failure. After understanding the introductory background on well integrity and establishing the best baseline, the reference advances into various failure modes that can be expected. Rounding out with an explanation and tools concerning economic considerations, such as how to increase reserve potential and rate of return, the book gives oil and gas engineers and managers a vital solution to keeping their assets safe and effective for the long-term gain. Helps readers understand how to protect wells through the production, workover and recompletion lifecycle, both from an economic standpoint and technical view Includes real-world examples with quizzes included at the end of each chapter Examines why establishing an integrity baseline is important, along with a Well Integrity Management System
Surface Production Operations, Volume 1 Maurice Stewart 2011-03-31 The latest edition of this best-selling title is updated and expanded for easier use by engineers. New to this edition is a section on the fundamentals of surface production operations taking up topics from the oilfield as originally planned by the authors in the first edition. This information is necessary and endemic to production and process engineers. Now, the book offers a truly complete picture of surface production operations, from the production stage to the process stage with applications to process and production engineers. New in-depth coverage of hydrocarbon characteristics, the different kinds of reservoirs, and impurities in crude Practical suggestions help readers understand the art and science of handling produced liquids Numerous, easy-to-read figures, charts, tables, and photos clearly explain how to design, specify, and operate oilfield surface production facilities
Internal Combustion Engines Institution of Mechanical Engineers 2014-10-10 This book presents the papers from the Internal Combustion Engines: Performance, fuel economy and emissions held in London, UK. This popular international conference from the Institution of Mechanical Engineers provides a forum for IC engine experts looking closely at developments for personal transport applications, though many of the drivers of change apply to light and heavy duty, on and off highway, transport and other sectors. These are exciting times to be working in the IC engine field. With the move towards downsizing, advances in FIE and alternative fuels, new engine architectures and the introduction of Euro 6 in 2014, there are plenty of challenges. The aim remains to reduce both CO2 emissions and the dependence on oil-derivate fossil fuels whilst meeting the future, more stringent constraints on gaseous and particulate material emissions as set by EU, North American and Japanese regulations. How will technology developments enhance performance and shape the next generation of designs? The book introduces compression and internal combustion engines' applications, followed by chapters on the challenges faced by alternative fuels and fuel delivery. The remaining chapters explore current improvements in combustion, pollution prevention strategies and data comparisons. presents the latest requirements and challenges for personal transport applications gives an insight into the technical advances and research going on in the IC Engines field provides the latest developments in compression and spark ignition engines for light and heavy-duty applications, automotive and other markets
His Reluctant Omega L. C. Davis 2017-01-28 Mitchell is an alpha among alphas in the brutal Mountain Ridge Pack. He rules with equal parts fear and respect, but his pack is growing restless after decades without an heir to his proverbial throne. Only an alpha and an omega pair can sire another alpha to lead the pack, but Mitchell's not-so-secret shame is the fact that he hasn't been able to impregnate any of his female omegas.Unlike the other weaker packs, the Mountain Ridge wolves have always kept their omegas in line and at a safe distance through the infamous yet efficient Breeding Program. On the recommendation of an old rival turned tentative friend, Mitchell decides to try his hand--among other things--in a last-ditch effort at siring an heir with a rare male omega. When a transfer request for one of the only male omegas in the pack uncovers unspeakable abuse and corruption within the Breeding Program, the very future of the pack is thrown into question. -Angel's heart has turned to stone after a lifetime of abuse at the hands of the alpha shifters who oversee the Breeding Program in his pack unit. The only love he has left belongs to the three other omegas he shares his little corner of hell with. Angel will do whatever it takes to protect them, even if it means becoming the mate of the top alpha himself.Angel knows better than to believe the gruff Mitchell when he claims that he's not like the others. Despite his best attempts to steel himself against the strange bond that forms between them, Angel discovers that Mitchell is the most dangerous alpha of all because he wants the one thing Angel has sworn never to give--his heart.With war looming on the horizon, a pack in chaos and two hardened hearts melted by an unlikely spark of love, only one outcome is certain. The Mountain Ridge Pack will never be the same.Disclaimer: See inside cover for content warnings. This is the second book in The Mountain Shifters series. Reading His Unclaimed Omega may provide context, but this book can be read as a standalone.
Bicycle 1985 Identifies the parts of a bicycle and explains how to maintain and repair various models of bicycles
Weird But True 9 National Geographic Kids 2017 Offers a collection of true facts about animals, food, science, pop culture, outer space, geography, and weather.
Working Guide to Drilling Equipment and Operations William Lyons 2009-09-16 Working Guide to Drilling Equipment and Operations offers a practical guide to drilling technologies and procedures. The book begins by introducing basic concepts such as the functions of drilling muds; types of drilling fluids; testing of drilling systems; and completion and workover fluids. This is followed by discussions of the composition of the drill string; air and gas drilling operations; and directional drilling. The book identifies the factors that should be considered for optimized drilling operations: health, safety, and environment; production capability; and drilling implementation. It explains how to control well pressure. It details the process of fishing, i.e. removal of a fish (part of the drill string that separates from the upper remaining portion of the drill string) or junk (small items of non-drillable metals) from the borehole. The remaining chapters cover the different types of casing and casing string design; well cementing; the proper design of tubing; and the environmental aspects of drilling. Drilling and Production Hoisting Equipment Hoisting Tool Inspection and Maintenance Procedures Pump Performance Charts Rotary Table and Bushings Rig Maintenance of Drill Collars Drilling Bits and Downhole Tools
Step by Step to Stand-up Comedy Greg Dean 2000 If you think you're funny, and you want others to think so too, this is the book for you! Greg Dean examines the fundamentals of being funny and offers advice on a range of topics, including: writing creative joke material rehearsing and performing routines coping with stage fright dealing with emcees who think they're funnier than you are getting experience and lots more. Essential for the aspiring comic or the working comedian interested in updating his or her comedy routine, Step by Step to Stand-Up Comedy is the most comprehensive and useful book ever written on the art of the stand-up comedian.
David Vizard's How to Port and Flow Test Cylinder Heads David Vizard 2012 Author Vizard covers blending the bowls, basic porting procedures, as well as pocket porting, porting the intake runners, and many advanced procedures. Advanced procedures include unshrouding valves and developing the ideal port area and angle.
Drilling Fluids Processing Handbook ASME Shale Shaker Committee 2011-03-15 Written by the Shale Shaker Committee of the American Society of Mechanical Engineers, originally of the American Association of Drilling Engineers, the authors of this book are some of the most well-respected names in the world for drilling. The first edition, Shale Shakers and Drilling Fluid Systems, was only on shale shakers, a very important piece of machinery on a drilling rig that removes drill cuttings. The original book has been much expanded to include many other aspects of drilling solids control, including chapters on drilling fluids, cut-point curves, mud cleaners, and many other pieces of equipment that were not covered in the original book. Written by a team of more than 20 of the world's foremost drilling experts, from such companies as Shell, Conoco, Amoco, and BP There has never been a book that pulls together such a vast array of materials and depth of topic coverage in the area of drilling fluids Covers quickly changing technology that updates the drilling engineer on all of the latest equipment, fluids, and techniques
Never Date Your Ex Jules Barnard 2014-11-17 She's the one woman I'd give anything to forget--and now I'm stuck living with her. I'm making a fresh start in Lake Tahoe, until my stubborn sister decides to move Mira into our cabin. I'll be damned if I move out on Mira's account. Nothing has changed in the years since I last saw Mira. Her tempting body and smart mouth taunt me daily. The only hope I have at keeping my sanity is the knowledge that Mira is hiding something. Sooner or later I'll discover her secret, and knowing her, it'll be damning. But first, I have to ignore the urge to kiss and touch and make Mira mine again. --EXCERPT-- I grab her waist, guiding her back against the shelves. She kisses my cheekbone, nibbles my earlobe. "We can't do this here." That nibble shoots straight to my groin. "I beg to differ. I think we can manage." Once the walls come down, emotions run hot. Grab Never Date Your Ex, a sexy, second-chance romance! Keywords: second chance romance, New Adult, second chances, enemies to lovers, suspense, first love, feel-good, casino romance, men of lake tahoe, romantic comedy, rom-com, steamy romance, second-chance romance, new adult romance, enemies-to-lovers, vacation read, beach read, workplace romance, alpha hero, high school crush, unrequited love
Tractor Operator National Learning Corporation 2014 The Tractor Operator Passbook(R) prepares you for your test by allowing you to take practice exams in the subjects you need to study.
Chainsaw Operator's Manual ForestWorks 2009-10 The Chainsaw Operator's Manual is an essential safety tool for chainsaw operators. It is the ultimate guide to basic chainsaw operating techniques covering safety, maintenance and cross-cutting, but not tree felling. Detailed diagrams illustrate horizontal, vertical and boring cuts, as well as trimming and cross-cutting techniques. Safety considerations are discussed, including workplace safety, occupational hazards, kick-back and identifying dangerous trees. An explanation of the 'tension' and 'compression' forces in timber is also provided to help you understand where to begin cutting to avoid jamming the saw. The book covers chainsaw maintenance in detail, explains all aspects of the equipment and helps you select the right chainsaw and personal protection equipment for your needs. Trouble-shooting charts are included to help you solve operating problems. This manual has been updated to take into account the most recent changes in nationally accredited competency standards. It is a must-have for anyone operating a chainsaw.
Modern Engine Blueprinting Techniques Mike Mavrigian 2013 Engine production for the typical car manufactured today is a study in mass production. Benefits in the manufacturing process for the manufacturer often run counter to the interests of the end user. What speeds up production and saves manufacturing costs results in an engine that is made to fall within a wide set of standards and specifications, often not optimized to meet the original design. In short, cheap and fast engine production results in a sloppy final product. Of course, this is not what enthusiasts want out of their engines. To maximize the performance of any engine, it must be balanced and blueprinted to the exact tolerances that the factory should have adhered to in the first place. Four cylinder, V-8, American or import, the performance of all engines is greatly improved by balancing and blueprinting. Dedicated enthusiasts and professional racers balance and blueprint their engines because the engines will produce more horsepower and torque, more efficiently use fuel, run cooler and last longer. In this book, expert engine builder and veteran author Mike Mavrigian explains and illustrates the most discriminating engine building techniques and perform detailed procedures, so the engine is perfectly balanced, matched, and optimized. Balancing and blueprinting is a time consuming and exacting process, but the investment in time pays off with superior performance. Through the process, you carefully measure, adjust, machine and fit each part together with precision tolerances, optimizing the design and maximizing performance. The book covers the block, crankshaft, connecting rods, pistons, cylinder heads, intake manifolds, camshaft, measuring tools and final assembly techniques. For more than 50 years, balancing and blueprinting has been an accepted and common practice for maximi
Performance Exhaust Systems Mike Mavrigian 2014-08-15 To extract maximum performance, an engine needs an efficient, well-designed, and properly tuned exhaust system. In fact, the exhaust system's design, components, and materials have a large impact on the overall performance of the engine. Engine builders and car owners need to carefully consider the exhaust layout, select the parts, and fabricate the exhaust system that delivers the best performance for car and particular application. Master engine builder and award-winning writer Mike Mavrigian explains exhaust system principles, function, and components in clear and concise language. He then details how to design, fabricate, and fit exhaust systems to classic street cars as well as for special and racing applications. Air/exhaust-gas flow dynamics and exhaust system design are explained. Cam duration and overlap are also analyzed to determine how an engine breathes in air/fuel, as the exhaust must efficiently manage this burned mixture. Pipe bending is a science as well as art and you're shown how to effectively crush and mandrel bend exhaust pipe to fit your header/manifold and chassis combination. Header tube diameter and length is taken into account, as well as the most efficient catalytic converters and resonators for achieving your performance goals. In addition, Mavrigian covers the special exhaust system requirements for supercharged and turbocharged systems. When building a high-performance engine, you need a high-performance exhaust system that's tuned and fitted to that engine so you can realize maximum performance. This comprehensive book is your guide to achieving ultimate exhaust system performance. It shows you how to fabricate a system for custom applications and to fit the correct prefabricated system to your car. No other book on the market is solely dedicated to fabricating and fitting an exhaust system in high-performance applications.
Performance Automotive Engine Math John Baechtel 2011 Multi-time author and well-regarded performance engine builder/designer John Baechtel has assembled the relevant mathematics and packaged it all together in a book designed for automotive enthusiasts. This book walks readers through the complete engine, showcasing the methodology required to define each specific parameter, and how to translate the engineering math to hard measurements reflected in various engine parts. Designing the engine to work as a system of related components is no small task, but the ease with which Baechtel escorts the reader through the process makes this book perfect for both the budding engine enthusiast and the professional builder.
Troubleshooting and Repair of Diesel Engines Paul Dempsey 2007-11-05 Harness the Latest Tools and Techniques for Troubleshooting and Repairing Virtually Any Diesel Engine Problem The Fourth Edition of Troubleshooting and Repairing Diesel Engines presents the latest advances in diesel technology. Comprehensive and practical, this revised classic equips you with all of the state-of-the-art tools and techniques needed to keep diesel engines running in top condition. Written by master mechanic and bestselling author Paul Dempsey, this hands-on resource covers new engine technology, electronic engine management, biodiesel fuels, and emissions controls. The book also contains cutting-edge information on diagnostics...fuel systems...mechanical and electronic governors...cylinder heads and valves...engine mechanics...turbochargers...electrical basics...starters and generators...cooling systems...exhaust aftertreatment...and more. Packed with over 350 drawings, schematics, and photographs, the updated Troubleshooting and Repairing Diesel Engines features: New material on biodiesel and straight vegetable oil fuels Intensive reviews of troubleshooting procedures New engine repair procedures and tools State-of-the-art turbocharger techniques A comprehensive new chapter on troubleshooting and repairing electronic engine management systems A new chapter on the worldwide drive for greener, more environmentally friendly diesels Get Everything You Need to Solve Diesel Problems Quickly and Easily • Rudolf Diesel • Diesel Basics • Engine Installation • Fuel Systems • Electronic Engine Management Systems • Cylinder Heads and Valves • Engine Mechanics • Turbochargers • Electrical Fundamentals • Starting and Generating Systems • Cooling Systems • Greener Diesels
Korean Jaehoon Yeon 2019-06-25 Korean: A Comprehensive Grammar is a reference to Korean grammar, and presents a thorough overview of the language, concentrating on the real patterns of use in modern Korean. The book moves from the alphabet and pronunciation through morphology and word classes to a detailed analysis of sentence structures and semantic features such as aspect, tense, speech styles and negation. Updated and revised, this new edition includes lively descriptions of Korean grammar, taking into account the latest research in Korean linguistics. More lower-frequency grammar patterns have been added, and extra examples have been included throughout the text. The unrivalled depth and range of this updated edition of Korean: A Comprehensive Grammar makes it an essential reference source on the Korean language.
Scheduling Wheel 2013-05-01 Scheduling Chart WheelThis calculator provides the following information with one setting for a great scheduling.- Front - Date (Month, No. of Weeks, No. of Days) -Back - Perpetual Calendar (Month, Year 2010 - 2030)Size: 6" /ISBN No. 9781622709847
Building Design and Construction Handbook Frederick S. Merritt 1982 Provides updated, comprehensive, and practical information and guidelines on aspects of building design and construction, including materials, methods, structural types, components, and costs, and management techniques.
Tractor Transmissions 1969
Manga Majesty Next 2019-10-08 This last book in the six-volume series from NEXTmanga combines cutting-edge illustration with fast-paced storytelling to deliver biblical truth to an ever-changing, postmodern culture. More than 10 million books in over 40 different languages have been distributed worldwide in the series.
Development Through the Lifespan Laura E. Berk 2013-08-05 Laura Berk's Development Through the Lifespan is relied upon in classrooms worldwide for its clear, engaging writing style, exceptional multicultural and cross-cultural focus, cutting-edge consideration of the interrelationships between heredity and environment, rich examples, and long-standing commitment to presenting the most up-to-date scholarship. This new edition continues to offer students research-based practical applications that they can relate to their personal and professional lives. Laura Berk, renowned professor and researcher, has revised the text with new pedagogy, a heightened emphasis on the interplay between heredity and environment, and an enhanced focus on many social policy issues, while emphasizing the lifespan perspective throughout. The latest theories and findings in the field are made accessible to students in a manageable and relevant way. Berk's signature storytelling style invites students to actively learn beside the text's "characters." Students are provided with an especially clear and coherent understanding of the sequence and underlying processes of human development, emphasizing the interrelatedness of all domains-physical, cognitive, emotional, social-throughout the text narrative and in special features. Berk also helps students connect their learning to their personal and professional areas of interest. Her voice comes through when speaking directly about issues students will face in their future pursuits as parents, educators, health care providers, social workers, and researchers. As members of a global and diverse human community, students are called to intelligently approach the responsibility of understanding and responding to the needs and concerns of both young and old. While carefully considering the complexities of human development, Berk presents classic and emerging theories in an especially clear, engaging writing style, with a multitude of research-based, real-world, cross-cultural, and multicultural examples. Strengthening the connections among developmental domains and of theory and research with applications, this edition's extensive revision brings forth the most recent scholarship, representing the changing field of human development. Visit the Preview Website to see sample chapters, get information on the supplements (including sample videos and on-line simulations), and much more, click here. 0205968988 / 9780205968985 Development Through the Lifespan Plus NEW MyDevelopmentLab with Pearson eText -- Access Card Package Package consists of: 0205909744 / 9780205909742 NEW MyDevelopmentLab with Pearson eText -- Valuepack Access Card -- for Laura E. Berk 0205957609 / 9780205957606 Development Through the Lifespan
Total Training for Young Champions Tudor O. Bompa 2000 Collects conditioning programs for athletes between the ages of six and eighteen, offering over three hundred exercises for increasing coordination, flexibility, speed, endurance, and strength
Game On! 2019 Scholastic 2018-01-12 Learn all about the hottest games like Marvel Vs. Capcom: Infinite and Spider-Man, how they were developed, and how to beat them in this annual gaming guide. Get ready for another awesome year of gaming with this ultimate guide to the best games including a definitive list of the biggest games of the past year and the new ones coming in 2019. Featuring Five Nights at Freddy's and Hello Neighbor! Game On! 2019, the most comprehensive guide to all the best games, tech, and YouTube stars, features some of the year's greatest moments including exclusive interviews with YouTube legends, top streamers and game developers. This complete guide is packed with information on all the latest gaming hardware, tech, and essential mobile games. Also including the best gaming secrets, stats, tips, and tricks to help unlock achievements and trophies on games like Marvel Vs. Capcom: Infinite, Spider-Man, GT Sport, Sea of Thieves, and so much more! All games featured in Game On! 2019 are rated T for Teen or younger keeping it appropriate for young gamers.

Downloaded from ruralhealth.uams.edu on June 25, 2022 by guest