## EV and HEV Comparison Chart

Electric & Hybrid Electric Vehicles	<complex-block></complex-block>	CDX Learning Systems Light Duty Hybrid and Light Vehicles Provide States Provide States P	
Pearson	Cengage	CDX	Goodheart-Wilcox
2023 copyright	2023 copyright	2023 copyright	First Edition
ISBN 9780137532124	ISBN-13: 9781305952577	ISBN 9781284198010	ISBN-13: 978-1-68584-267-3
20 chapters	12 chapters	10 Chapters	15 Chapters
<ul> <li>(311 Pages, 397 figures, 6 photo sequences)</li> <li>1. Hybrid and Electric Vehicle Safety</li> <li>2. Introduction to Electric and Hybrid Electric Vehicles</li> <li>3.Health and Environmental Concerns</li> <li>4. Hybrid Engine Systems</li> <li>5. Hybrid and Electric Vehicles Preventative Maintenance</li> <li>6. Digital Storage Oscilloscopes</li> <li>7. Energy and Power</li> <li>8. Advanced Electricity and Electronics</li> <li>9. Low-Voltage Batteries and Stop-Start Systems</li> <li>10. High-Voltage Batteries</li> <li>11. EV and HEV Motors, Converters and Inverters</li> <li>12. EV and PHEV Charging</li> <li>13. Electric Vehicle Charging Equipment</li> <li>14. Regenerative Brakes</li> <li>15. Electric Power Steering</li> <li>16. EV and HEV HVAC</li> <li>17. EV and HEV Transmissions</li> <li>18. EV and HEV ADAS</li> <li>19. Fuel Cells and Advanced Technologies</li> <li>20. First Responder Procedures</li> </ul>	<ul> <li>(191 Pages,290 figures, 0 photo sequences)</li> <li>1. Introduction to Hybrid and Electric</li> <li>Vehicles</li> <li>2. Hybrid and Electric Vehicle Service</li> <li>Safety</li> <li>3. Electrical Basics</li> <li>4. Hybrid and Electric Vehicle Service and</li> <li>Maintenance</li> <li>5. Battery Basics</li> <li>6. Motor and Generator</li> <li>7. High Voltage Control.</li> <li>8. Hybrid and Battery Electric Vehicle</li> <li>Support Systems</li> <li>9. Hybrid Vehicle Operation</li> <li>10. Electric Vehicle Operation</li> <li>11. Diagnostic Strategies</li> <li>12. Alternative Fuels and Future Technology</li> </ul>	<ul> <li>(298 pages,420 figures,9 photo sequences)</li> <li>1. Hybrid and Electric Vehicle High-Voltage Safety</li> <li>2. Advanced Internal Combustions Engine Technologies <ol> <li>Battery Chemistry Technologies</li> <li>Power Inverters, Converters and</li> <li>Regenerative Braking Systems</li> <li>Electric Machine Drive Systems</li> <li>Electric Vehicle Thermal Control</li> <li>Systems</li> <li>Micro, Mild and Two-Mode Hybrid</li> <li>Vehicle Technologies</li> <li>Extended-range Electric Vehicles and</li> <li>Fuel Cell Technologies</li> <li>Automotive Vehicle Connectivity</li> <li>Autonomous and Collison</li> </ol></li></ul>	<ul> <li>(409 pages,466 figures, 0 photo sequences)</li> <li>1. Introduction to Electric Vehicle Drive Trains</li> <li>2. General Service Facility Safety</li> <li>3. High-Voltage Electricity Safety</li> <li>4. High-Voltage Drive Train Topology</li> <li>5. Adapting the ICE and Transmission for HEV Drive</li> <li>6. Fuel Cell Source Power</li> <li>7. Electrical Energy Storage Systems</li> <li>8. CAN Bus and Electronic Control Systems</li> <li>9. Drive Train Electricity and Electronics</li> <li>10. Traction Motors</li> <li>11. Charging and Hydrogen Refueling</li> <li>12. Training Standards</li> <li>13. Specialty Tools, Circuit Isolation, and First Responder Practices</li> <li>14. Service and Diagnostic Routines</li> <li>15. Alternative Electric Vehicle Applications</li> </ul>

In Text Features: Learning Objectives Key Terms Case Studies Tech Tips Photo Sequences Frequently Asked Questions Warnings	In Text Features: Learning Objectives Key Terms Review Questions Cautions Warnings	In-Text Features Learning Objectives Photo Sequences Wrap- Up (summary) Key Terms (defined) Review Questions (multiple choice) ASE Technician A and B Style Questions	In-Text Features Objectives Technical Terms Summary Review Questions Tech Tips Cautions Warnings
Cautions Summaries Review Questions Chapter Quiz			
Advantages         1. Written by automotive instructors, for automotive instructors to use in their classroom to teach future automotive service technicians.         2. Practical information throughout including case studies and tech tips including author photos that make the subject come alive.         3. Many full-color photos and line drawings are used to help explain the technical content.         Disadvantages None         Features/Text that is missing that other titles include:         1. Electric construction and commercial vehicles. (G-W)         2. Fewer photo sequences compared to CDX.         3. Slightly fewer figures compared to CDX and G-W	Advantages         1. Short textbook that covers most of the technical aspects of EV and HEVs.         2. Many half-page line drawings and photos.         Disadvantages         1. Little if any practical type information such as case stories or tech tips that help make the subject more interesting and useful.         2. Weird organization that would make this textbook hard to teach from.         Features/Text that is missing that the Pearson title includes:         1. Photo sequences         2. More chapters and clarity of chapters         3. Sidebars such as Tech Tips, FAQs, and Case Studies	Advantages 1. The textbook covers most of the technical aspects of EV and HEVs. 2. A mix of photos and line drawings are used to help explain the technical content. Disadvantages 1. Long sections of straight text would make it hard for students to keep focused on the topics. 2. Lacks tech tips and case studies that are used in the Pearson text to surround the student with practical real-world experiences. Features/Text that is missing that the Pearson title includes: 1, Photo sequences 2.More chapters and clarity of chapters 3.Sidebars such as Tech Tips, FAQs, and Case Studies	Advantages         1. While this title is about 100 pages longer, this is mainly due to the use of full- and half-page size line drawings.         2. Include electric construction and commercial vehicles.         Disadvantages         1. Limited information on hybrid electric vehicles (HEVs).         2. Limited practical information that would be helpful to the service technician such as case studies or technicians' tips.         Features/Text that is missing that the Pearson title includes:         1, Photo sequences         2.More chapters and clarity of chapters         3.Sidebars such as FAQs and Case Studies