

## Industrial Mechanic (Millwright) Publishing Notes 2023-24

#### **Millwright Quality Assurance**

The Millwright Quality Assurance meetings were held in March and April of 2024, where instructors from various Alberta Millwright Programs came together to discuss feedback, comments, and corrections to the newly published First Period and Second Period ILMs. There were 62 different maintenance items to address, impacting 27 different ILMs across the two periods.

Due to the scope of these changes, and the time needed to make the corrections to the modules, ILM will not be publishing updated versions as part of this year's publishing release. ILM has procured the necessary resources to support the required content updates and will begin addressing the necessary changes over the next several months. As these updated modules will not be released until May 2025, the ILM office is planning to provide an errata sheet as an interim solution and resource for Programs.

The errata sheet is a new type of resource being piloted by ILM. It is a document, separate from the ILMs, listing the known errors within the modules and their associated corrections. The intent is to provide the errata sheet as a reference tool and resource to Programs to flag known issues within the ILMs until those content corrections can be addressed and republished in a new version of the ILM. We expect the Millwright errata sheet for Period 1 and Period 2 ILMs to be available for Fall 2024.

We would like to express our appreciation to those who reached out to provide feedback on the ILM content, and to the instructors who attended the Quality Assurance meeting to collaborate and advise on content updates. We are grateful for your ongoing support of our content quality assurance process.

We encourage your continued submission of ongoing feedback through the Comments page of the ILM website. For more information on the ILM Comments and QA Maintenance process, please visit our website:

- ILM Maintenance : <a href="https://www.ilmlearning.ca/ilm-maintenance">https://www.ilmlearning.ca/ilm-maintenance</a>
- Comments: https://www.ilmlearning.ca/comments



#### Millwright Third Period Development Project Complete

The Millwright third period content development project is complete. The outcomes, learning objectives and related content in the newly updated ILMs for third period are now aligned to the current Alberta curriculum guide. The updated module numbers and names are listed in the Updated Module List below.

#### Millwright Fourth Period Development Update

The content development project to update ILMs in Millwright Period 4, as well as modules in the Supplementary Math Package, is still in progress. The tentative timeline for completion of this remaining project work is December 2024, with the intent to publish the new material in May 2025.

While the Period 4 development project is in progress, the ILM office will maintain availability of some of the older Millwright ILM products that are still needed as an interim solution until all new modules are released. Due to the release of the new third period modules, some of these older, interim modules need to be renumbered to distinguish them from the new Period 3 modules. The content of these modules has not changed—we have only updated the module numbers to include "\_2013", as per the following table.

| 2020 Outline – Period 4 Package*                      |   |                      |         |  |  |  |
|---|---|----------------------|---------|--|--|--|
| OLD MODULE<br>NUMBER                                  | MODULE TITLE                            | NEW MODULE<br>NUMBER | VERSION |  |  |  |
| 160302i   | Compressor Fundamentals - Part A        | 160302i_2013         | 24      |  |  |  |
| 160304a   | Compressor Fundamentals - Part B        | 160304a_2013         | 24      |  |  |  |
| 160304b   | Compressor Valves                       | 160304b_2013         | 24      |  |  |  |
| 160304c   | Compressor Cylinder Components - Part A | 160304c_2013         | 24      |  |  |  |
| 160304d   | Compressor Cylinder Components - Part B | 160304d_2013         | 24      |  |  |  |
| *All other 4th Period modules have remained unchanged |   |                      |         |  |  |  |



# **Updated Module List**

# MIL MODULES (23/24) 3rd PERIOD

| MIL MODULES (23/24) 31d PERIOD  |   |   |  |  |  |  |  |
|---|---|---|--|--|--|--|--|
| NAME  | SECTION   | PAGES   | VERSION  |  |  |  |  |
| Compressors: Gas Laws and Compressor Types  | Compressors   | 68  | 25   |  |  |  |  |
| Compressors: Reciprocating Positive Displacement Compressor Components, Valves, and Pistons | Compressors   | 84  | 25   |  |  |  |  |
| Compressors: Reciprocating<br>Compressor Cylinders, Rod Packing,<br>and Distance Pieces     | Compressors   | 72  | 25   |  |  |  |  |
| Compressors: Reciprocating<br>Compressor Connecting Rods,<br>Frames, and Crankshafts        | Compressors   | 64  | 25   |  |  |  |  |
| Compressors: Reciprocating Compressor Systems   | Compressors   | 80  | 25   |  |  |  |  |
| Compressors: Screw Compressors  | Compressors   | 52  | 25   |  |  |  |  |
| Compressors: Vane Compressors   | Compressors   | 48  | 25   |  |  |  |  |
| Compressors: Liquid Ring<br>Compressors and Lobe Blowers                                    | Compressors   | 68  | 25   |  |  |  |  |
| Compressors: Dynamic Compressors  | Compressors   | 76  | 25   |  |  |  |  |
| Fluid Power Fundamentals  | Fluid Power   | 84  | 25   |  |  |  |  |
| Fluid Power Fundamentals:<br>Calculations   | Fluid Power   | 60  | 25   |  |  |  |  |
| Hydraulic Components: Pressure,<br>Directional, and Flow Control Valves                     | Fluid Power   | 68  | 25   |  |  |  |  |
| Hydraulic Components: Stack,<br>Cartridge, and Electro-Hydraulic<br>Valves                  | Fluid Power   | 48  | 25   |  |  |  |  |
| Hydraulic Components: Pumps   | Fluid Power   | 68  | 25   |  |  |  |  |
| Hydraulic Components: Actuators and Accessories   | Fluid Power   | 76  | 25   |  |  |  |  |
| Hydraulic Components: Fluids,<br>Reservoirs, and Conductors                                 | Fluid Power   | 64  | 25   |  |  |  |  |
| Hydraulic Components:<br>Contamination Control, Maintenance,<br>and Troubleshooting         | Fluid Power   | 84  | 25   |  |  |  |  |
|   | Compressors: Gas Laws and Compressor Types  Compressors: Reciprocating Positive Displacement Compressor Components, Valves, and Pistons  Compressors: Reciprocating Compressor Cylinders, Rod Packing, and Distance Pieces  Compressors: Reciprocating Compressor Connecting Rods, Frames, and Crankshafts  Compressors: Reciprocating Compressor Systems  Compressors: Screw Compressors  Compressors: Vane Compressors  Compressors: Liquid Ring Compressors and Lobe Blowers  Compressors: Dynamic Compressors  Fluid Power Fundamentals:  Calculations  Hydraulic Components: Pressure, Directional, and Flow Control Valves  Hydraulic Components: Stack, Cartridge, and Electro-Hydraulic Valves  Hydraulic Components: Pumps  Hydraulic Components: Actuators and Accessories  Hydraulic Components: Fluids, Reservoirs, and Conductors  Hydraulic Components: Contamination Control, Maintenance, | Compressors: Gas Laws and Compressors Compressors Types Compressors: Reciprocating Positive Displacement Compressor Components, Valves, and Pistons Compressors: Reciprocating Compressor Cylinders, Rod Packing, and Distance Pieces Compressor Connecting Rods, Frames, and Crankshafts Compressors: Reciprocating Compressors Systems Compressors: Reciprocating Compressors Compressors Compressors: Screw Compressors Compressors: Vane Compressors Compressors: Uquid Ring Compressors Compressors: Dynamic Compressors Compressors: Dynamic Compressors Fluid Power Fundamentals Fluid Power Fluid Power Fundamentals: Fluid Power Fluid Power Fundamentals: Fluid Power Hydraulic Components: Pressure, Directional, and Flow Control Valves Hydraulic Components: Pumps Hydraulic Components: Pumps Fluid Power Hydraulic Components: Fluids, Reservoirs, and Conductors Hydraulic Components: Fluids, Reservoirs, and Conductors Hydraulic Components: Fluids, Reservoirs, and Conductors Fluid Power | Compressors: Gas Laws and Compressors: Gas Laws and Compressor Types  Compressors: Reciprocating Positive Displacement Compressor Components, Valves, and Pistons  Compressors: Reciprocating Compressors Cylinders, Rod Packing, and Distance Pieces  Compressor Cylinders, Rod Packing, and Distance Pieces  Compressors: Reciprocating Compressors Connecting Rods, Frames, and Crankshafts  Compressors: Reciprocating Compressors  Compressors: Reciprocating Compressors  Compressors: Reciprocating Compressors  Compressors: Reciprocating Compressors  Compressors: Vane Compressors  Compressors: Vane Compressors  Compressors: Vane Compressors  Compressors: Liquid Ring Compressors  Compressors: Liquid Ring Compressors  Compressors: Dynamic Compressors  Compressors: Dynamic Compressors  Fluid Power Fundamentals  Fluid Power Fundamentals  Fluid Power  Fluid Power Fundamentals: Fluid Power  Fluid Power Fundamentals: Fluid Power  Hydraulic Components: Pressure, Directional, and Flow Control Valves  Hydraulic Components: Pumps  Fluid Power  48  Hydraulic Components: Pumps  Fluid Power  68  Hydraulic Components: Pumps  Fluid Power  68  Hydraulic Components: Fluids, Reservoirs, and Conductors  and Accessories  Fluid Power  64  Hydraulic Components: Fluids, Reservoirs, and Conductors  Fluid Power  Fluid Powe |  |  |  |  |



### MIL MODULES (23/24) 3rd PERIOD

| NUMBER    | NAME                             | SECTION   | PAGES | VERSION |
|-----------|----------------------------------|---|-------|---------|
| 160302d-e | Pneumatic Components and Systems | Fluid Power   | 88    | 25      |
| 160303a   | Fans                             | Fans, Heat Exchangers, Industrial<br>Refrigeration and Dryers | 84    | 25      |
| 160303b   | Heat Exchangers                  | Fans, Heat Exchangers, Industrial Refrigeration and Dryers    | 88    | 25      |
| 160303cA  | Industrial Refrigeration: Part A | Fans, Heat Exchangers, Industrial<br>Refrigeration and Dryers | 56    | 25      |
| 160303cB  | Industrial Refrigeration: Part B | Fans, Heat Exchangers, Industrial Refrigeration and Dryers    | 56    | 25      |
| 160303d   | Gas and Air Dryers               | Fans, Heat Exchangers, Industrial<br>Refrigeration and Dryers | 72    | 25      |
| 160304aA  | Levelling: Part A                | Levelling, Alignment and Pipe<br>Strain                       | 72    | 25      |
| 160304aB  | Levelling: Part B                | Levelling, Alignment and Pipe<br>Strain                       | 32    | 25      |
| 160304b   | Laser Shaft Alignment            | Levelling, Alignment and Pipe<br>Strain                       | 28    | 25      |
| 160304c   | Bore Alignment                   | Levelling, Alignment and Pipe<br>Strain                       | 36    | 25      |
| 160304d   | Pipe Strain                      | Levelling, Alignment and Pipe<br>Strain                       | 40    | 25      |