

Specification of Competency Standards for the Watch & Clock Industry

Unit of Competency

1. Title	Master the Principles of Structure and Functions of Basic Mechanical Movements
2. Code	WCZZDN301A
3. Level	3
4. Credit	9
5. Competency	<p style="text-align: center;"><u>Performance Requirements</u></p> <p>5.1 Master the operation principles of basic mechanical movements</p> <ul style="list-style-type: none"> ◆ Understand the emergence, background and brief history of development of mechanical time instruments or apparatus, including: <ul style="list-style-type: none"> • Emergence of mechanical timepieces of early times • System features of mechanical watches of early times ◆ Master the basic operation principles of a mechanical movement, including: <ul style="list-style-type: none"> • Starting from the action of winding • How to reserve power • How to release and adjust power • How the hands (hour hand, minute hand, second hand) show the normal time <p>5.2 Know about the system structure and functions of basic mechanical movements</p> <ul style="list-style-type: none"> ◆ Master the basic system titles and operation features of a basic mechanical movement, including: <ul style="list-style-type: none"> • Winding and Setting mechanism • Motor mechanism • Power Transmission mechanism • Escapement

	<ul style="list-style-type: none">• Regulating mechanism• Motor Work mechanism <p>◆ Know about the names and functions of the basic parts of the following mechanisms, including:</p> <ul style="list-style-type: none">• Winding and Setting mechanism• Motor mechanism• Power Transmission mechanism• Escapement• Regulating mechanism• Motor Work mechanism <p>◆ Know about the special features of individual mechanical movement system, including:</p> <p style="padding-left: 40px;">Escapement system: Coordination and functioning among escape wheel, pallet and roller</p> <p style="padding-left: 40px;">Regulating mechanism: Coordination between balance wheel and hairspring, and coordination and functioning between escapement and balance wheel</p> <p>5.3 Know about the features of mechanical movements of some special categories</p> <p>◆ Know about the operation principles of the following special categories of mechanical movements, including:</p> <ul style="list-style-type: none">• Pin Pallet• Co-xial
--	---

	<ul style="list-style-type: none"> ◆ Know about the special features of the above special categories of mechanical movements ◆ Know about the quality and features and compare mechanical movement systems of different origins, including: <ul style="list-style-type: none"> • Japanese movement • Chinese movement • Swiss movement <p>5.4 Guide the subordinate staff to understand the professional knowledge of products and skills of work</p> <ul style="list-style-type: none"> ◆ Instruct subordinate staff on professional skills for Timepiece products <p>5.5 Repair timepieces</p> <ul style="list-style-type: none"> ◆ Capable of understanding basic structure and function of mechanical movements for their repair
6. Range	In general Timepiece shops and workshops, capable of understanding the structure and functions of the basic mechanical movement system, assembling and repairing timepieces independently, and instructing subordinate staff on professional knowledge and skills of Timepiece products.
7. Assessment Criteria	The integrated outcome requirements of this unit of competency are: (i) capable of assembling and repairing timepieces independently based on an understanding of the structure and functions of the basic mechanical movement system.
8. Remarks	The credit of this unit of competency is set on the presumption that the learners already possess basic knowledge about Timepiece products.