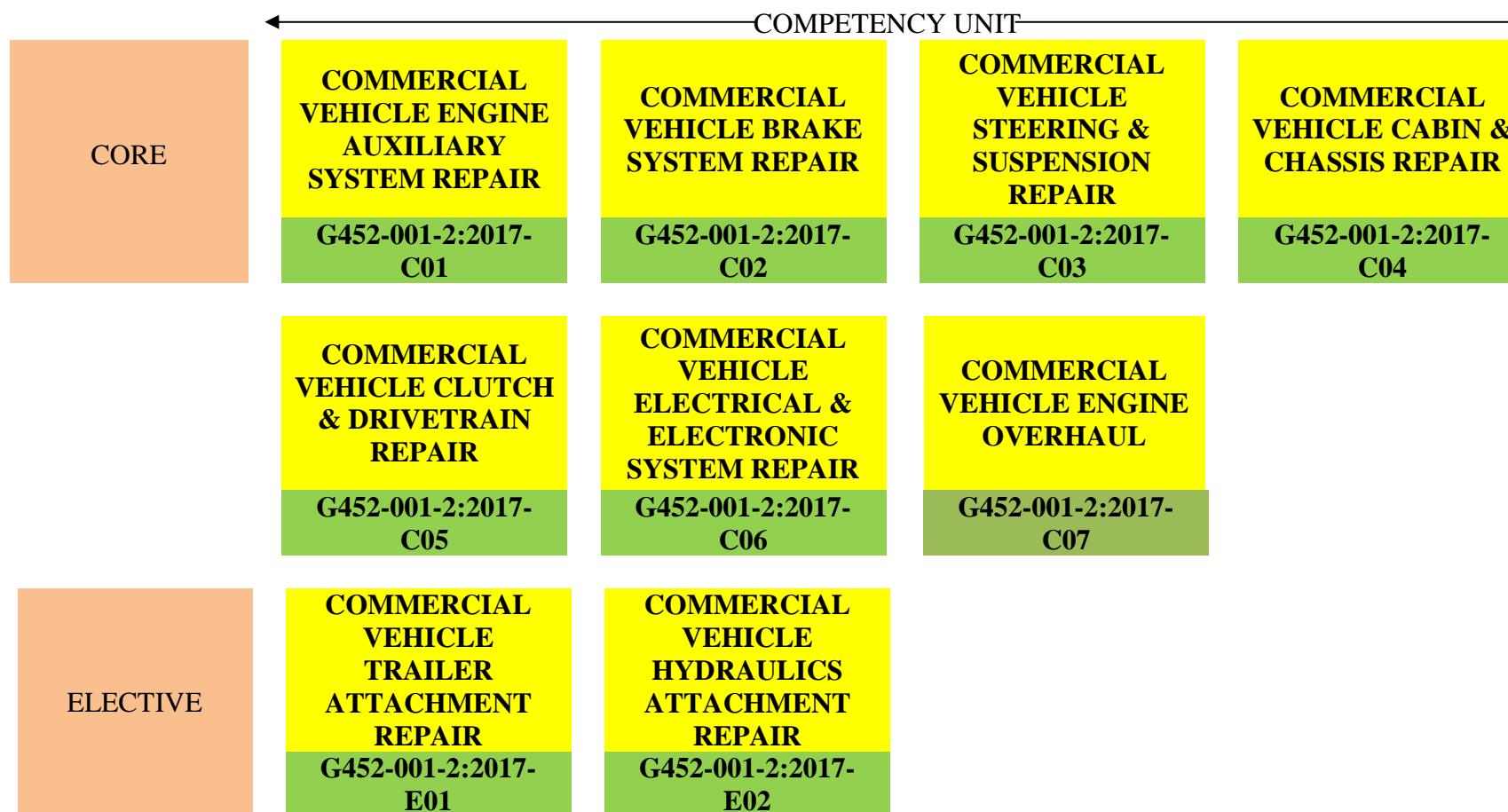


7. Competency Profile Chart (CPC)

SECTOR	WHOLESALE AND RETAIL TRADE, REPAIR OF MOTOR VEHICLES AND MOTORCYCLES (G)		
SUB SECTOR	MAINTENANCE AND REPAIR OF MOTOR VEHICLES (452)		
JOB AREA	AUTOMOTIVE WORK		
NOSS TITLE	COMMERCIAL VEHICLES - REPAIR SERVICE		
JOB LEVEL	TWO (2)	NOSS CODE	G452-001-2:2017



8. Competency Profile (CP)

SECTOR	WHOLESALE AND RETAIL TRADE; REPAIR OF MOTOR VEHICLES AND MOTORCYCLES (G)		
SUB SECTOR	MAINTENANCE AND REPAIR OF MOTOR VEHICLES (452)		
JOB AREA	AUTOMOTIVE WORK		
NOSS TITLE	COMMERCIAL VEHICLE-REPAIR SERVICE		
LEVEL	TWO (2)	NOSS CODE	G452-001-2:2017

CU TITLE	CU CODE	CU DESCRIPTOR	WORK ACTIVITIES	PERFORMANCE CRITERIA
1. Commercial Vehicle Engine Auxiliary System Repair	G452-001-2:2017-C01	<p>Commercial vehicle engine auxiliary system repair is a scope of competency to examine and restore the engine components to meet manufacturers' specifications and tolerances during the maintenance work. Proper dimensions and tolerances must be completed to obtain proper performance and maximum engine life.</p> <p>The competency includes repair intake & exhaust system, repair cooling system, repair lubrication system and repair fuel system in accordance with workshop manual.</p>	1. Repair Intake & Exhaust System.	<p>1.1 Job order received & acknowledged.</p> <p>1.2 Intake & exhaust system servicing requirements such as work area, material & parts, man hour requirement interpreted and confirmed in accordance with workshop manual.</p> <p>1.3 Tools, equipment, materials, work area and vehicle safely prepared in accordance with workshop manual.</p> <p>1.4 Intake & exhaust system dismantled in accordance with workshop manual.</p> <p>1.5 Defective parts confirmed in accordance with workshop manual.</p> <p>1.6 Rectification requirements such as changing parts and</p>

CU TITLE	CU CODE	CU DESCRIPTOR	WORK ACTIVITIES	PERFORMANCE CRITERIA
		<p>The outcome of this competency is to make sure no abnormal knocking sound, no visible and possible leaking from the engine and free from defective to ensure the engine functions in full optimal performance also defective free.</p>	<p>2. Repair Cooling System.</p>	<p>tightening loose parts completed in accordance workshop manual.</p> <p>1.7 Intake & exhaust system reassembled in accordance with workshop manual.</p> <p>1.8 System performance, functionality and condition checked in accordance with workshop manual.</p> <p>1.9 Intake & exhaust system servicing report prepared in accordance with workshop manual.</p> <p>2.1 Job order received & acknowledged in accordance with workshop manual.</p> <p>2.2 Cooling system servicing requirements such as work area, material & parts, man hour requirement interpreted and confirmed in accordance with workshop manual.</p> <p>2.3 Tools, equipment and materials prepared for cooling system servicing requirement in accordance with workshop manual.</p> <p>2.4 Functionality of the</p>

CU TITLE	CU CODE	CU DESCRIPTOR	WORK ACTIVITIES	PERFORMANCE CRITERIA
				<p>cooling system confirmed in accordance with workshop manual.</p> <p>2.5 Cooling system components dismantled in accordance with workshop manual.</p> <p>2.6 Defective parts and components functionality confirmed in accordance with workshop manual.</p> <p>2.7 Rectification requirements for defective parts completed in accordance with workshop manual.</p> <p>2.8 Cooling system reassembled in accordance with workshop manual.</p> <p>2.9 Cooling system performance, functionality and condition confirmed in accordance with workshop manual.</p> <p>2.10 Cooling system servicing report prepared in accordance with workshop manual.</p>
			3. Repair Lubrication System.	<p>3.1 Job order received & acknowledged in accordance with workshop manual.</p> <p>3.2 Lubrication system</p>

CU TITLE	CU CODE	CU DESCRIPTOR	WORK ACTIVITIES	PERFORMANCE CRITERIA
				<p>servicing requirements such as work area, material & parts, man hour requirement interpreted and confirmed in accordance with workshop manual.</p> <p>3.3 Tools, equipment and materials prepared for lubrication system servicing requirement in accordance with workshop manual.</p> <p>3.4 Engine lubrication functionality test performed in accordance with workshop manual.</p> <p>3.5 Engine lubrication test reports analysed and compared to the manufacturers specifications in accordance with workshop manual.</p> <p>3.6 Lubrication system components dismantled in accordance with workshop manual.</p> <p>3.7 Defectives parts and components functionality confirmed in accordance with workshop manual.</p> <p>3.8 Rectification requirements for defective parts completed</p>

CU TITLE	CU CODE	CU DESCRIPTOR	WORK ACTIVITIES	PERFORMANCE CRITERIA
				<p>in accordance with workshop manual.</p> <p>3.9 Lubrication system reassembled in accordance with workshop manual.</p> <p>3.10 Lubrication system performance, functionality and condition checked in accordance with workshop manual.</p> <p>3.11 Lubrication system servicing report prepared in accordance with workshop manual.</p>
			4. Repair Fuel System.	<p>4.1 Job order received & acknowledged in accordance with workshop manual.</p> <p>4.2 Fuel system servicing requirements such as work area, material & parts, man hour requirement interpreted and confirmed in accordance with workshop manual.</p> <p>4.3 Tools, equipment and materials prepared for fuel system servicing requirement.</p> <p>4.4 Fuel system functionality test performed in accordance with</p>

CU TITLE	CU CODE	CU DESCRIPTOR	WORK ACTIVITIES	PERFORMANCE CRITERIA
				<p>workshop manual.</p> <p>4.5 Fuel system components dismantled in accordance with workshop manual.</p> <p>4.6 Defectives parts and components functionality confirmed in accordance with workshop manual.</p> <p>4.7 Rectification requirements for defective parts completed in accordance with workshop manual.</p> <p>4.8 Fuel system reassembled in accordance with workshop manual.</p> <p>4.9 Fuel system performance, functionality and condition checked in accordance with workshop manual.</p> <p>4.10 Fuel system servicing report prepared in accordance with workshop manual.</p>
2. Commercial Vehicle Brake System Repair	G452-001-2:2017-C02	<p>Commercial vehicle brake system repair is a scope of competency to restore brake system in order to slow or stops the wheels and the vehicle.</p> <p>The competency includes repair hydraulic brake</p>	1. Repair Hydraulic Brake System.	<p>1.1 Job order received & acknowledged in accordance with workshop manual.</p> <p>1.2 Hydraulic brake system maintenance requirements such as work area, material & parts, man hour requirement interpreted and confirmed</p>

CU TITLE	CU CODE	CU DESCRIPTOR	WORK ACTIVITIES	PERFORMANCE CRITERIA
		<p>system, repair mechanical brake system, repair full air brake system, repair air-over-hydraulic hydraulic brake system and repair parking brake system in accordance with the workshop manual.</p> <p>The outcome of this competency is to make sure the continuous of the brake functions, free of any fluid leakages, and to ensure the safeness of the driver.</p>	<p>2. Repair Mechanical Brake System.</p>	<p>in accordance with workshop manual.</p> <p>1.3 Tools, equipment, materials, work area and vehicle safely prepared in accordance with workshop manual.</p> <p>1.4 Hydraulic brake system dismantled in accordance with workshop manual.</p> <p>1.5 Defective parts confirmed in accordance with workshop manual.</p> <p>1.6 Rectification requirements such as changing parts and tightening loose parts completed in accordance with workshop manual.</p> <p>1.7 Hydraulic brake system reassembled in accordance with workshop manual.</p> <p>1.8 Hydraulic brake system performance, functions and condition checked in accordance with workshop manual.</p> <p>1.9 Hydraulic brake system maintenance report prepared in accordance with workshop manual.</p> <p>2.1 Job order received & acknowledged in accordance with workshop</p>

CU TITLE	CU CODE	CU DESCRIPTOR	WORK ACTIVITIES	PERFORMANCE CRITERIA
				<p>manual.</p> <p>2.2 Mechanical brake system maintenance requirements such as work area, material & parts, man hour requirement interpreted and confirmed in accordance with workshop manual.</p> <p>2.3 Tools, equipment, materials, work area and vehicle safely prepared in accordance with workshop manual.</p> <p>2.4 Mechanical brake system dismantled in accordance with workshop manual.</p> <p>2.5 Defective parts confirmed in accordance with workshop manual.</p> <p>2.6 Rectification requirements such as changing parts and tightening loose parts completed in accordance with workshop manual.</p> <p>2.7 Mechanical brake system reassembled in accordance with workshop manual.</p> <p>2.8 Mechanical brake system performance, functionality and condition checked in accordance with workshop manual.</p> <p>2.9 Mechanical brake system maintenance report</p>

CU TITLE	CU CODE	CU DESCRIPTOR	WORK ACTIVITIES	PERFORMANCE CRITERIA
				prepared in accordance with workshop manual.
			3. Repair Full Air Brake System.	3.1 Job order received & acknowledged in accordance with workshop manual. 3.2 Full air brake system maintenance requirements such as work area, material & parts, man hour requirement interpreted and confirmed in accordance with workshop manual. 3.3 Tools, equipment, materials, work area and vehicle safely prepared in accordance with workshop manual. 3.4 Full air brake system dismantled in accordance with workshop manual. 3.5 Defective parts confirmed in accordance with workshop manual. 3.6 Rectification requirements such as changing parts and tightening loose parts completed in accordance with workshop manual. 3.7 Full air brake system reassembled in accordance with workshop manual. 3.8 Full air brake system performance, functionality and condition checked in

CU TITLE	CU CODE	CU DESCRIPTOR	WORK ACTIVITIES	PERFORMANCE CRITERIA
				<p>accordance with workshop manual.</p> <p>3.9 Full air brake system maintenance report prepared in accordance with workshop manual.</p>
			<p>4. Repair Air-Over-Hydraulic Hydraulic Brake System</p>	<p>4.1 Job order received & acknowledged in accordance with workshop manual.</p> <p>4.2 Air-over-hydraulic brake system maintenance requirements such as work area, material & parts, man hour requirement interpreted and confirmed in accordance with workshop manual.</p> <p>4.3 Tools, equipment, materials, work area and vehicle safely prepared in accordance with workshop manual.</p> <p>4.4 Air-over-hydraulic brake system dismantled in accordance with workshop manual.</p> <p>4.5 Defective parts confirmed in accordance with workshop manual.</p> <p>4.6 Rectification requirements such as changing parts and tightening loose parts</p>

CU TITLE	CU CODE	CU DESCRIPTOR	WORK ACTIVITIES	PERFORMANCE CRITERIA
				<p>completed in accordance with workshop manual.</p> <p>4.7 Air-over-hydraulic brake system reassembled in accordance with workshop manual.</p> <p>4.8 Air-over-hydraulic brake system performance, functionality and condition checked in accordance with workshop manual.</p> <p>4.9 Air-over-hydraulic brake system maintenance report prepared in accordance with workshop manual.</p>
			5. Repair Parking Brake System.	<p>5.1 Job order received & acknowledged in accordance with workshop manual.</p> <p>5.2 Parking brake system maintenance requirements such as work area, material & parts, man hour requirement interpreted and confirmed in accordance with workshop manual.</p> <p>5.3 Tools, equipment, materials, work area and vehicle safely prepared in</p>

CU TITLE	CU CODE	CU DESCRIPTOR	WORK ACTIVITIES	PERFORMANCE CRITERIA
				<p>accordance with workshop manual.</p> <p>5.4 Type of parking brakes (cable operated and spring operated) confirmed in accordance with workshop manual.</p> <p>5.5 Defective parts and components confirmed in accordance with workshop manual.</p> <p>5.6 Parking brake assembly removed from the vehicle in accordance with workshop manual</p> <p>5.7 New parking brake assembly replaced in accordance with workshop manual.</p> <p>5.8 Parking brake manually release and reset in accordance with workshop manual.</p> <p>5.9 Parking brake light indicator functionality confirmed.</p> <p>5.10 Parking brake system performance, functionality and condition checked in accordance with workshop manual.</p>

CU TITLE	CU CODE	CU DESCRIPTOR	WORK ACTIVITIES	PERFORMANCE CRITERIA
				5.11 Parking Brake System Maintenance report prepared in accordance with workshop manual.
3. Commercial Vehicle Steering & Suspension Repair	G452-001-2:2017-C03	<p>Commercial vehicle steering & suspension repair is a scope of competency to ensure steering and suspension responsible for providing optimal ride comfort and handling performance.</p> <p>The competency includes inspect steering system condition, inspect suspension system condition, repair steering system and repair suspension system in accordance with workshop manual.</p> <p>The outcome of this competency is to provide free leakages, vibration and stiff defective, smooth performance and operational of vehicle steering, free stiff, noise defective and safety ensure for suspension.</p>	1. Inspect Steering System Condition.	<p>1.1 Job order received & acknowledged in accordance with workshop manual.</p> <p>1.2 Steering system condition inspection requirements such as work area, material & parts, man hour requirement interpreted and confirmed in accordance with workshop manual.</p> <p>1.3 Tools, equipment, materials, work area and vehicle safely prepared in accordance with workshop manual.</p> <p>1.4 Types of steering system (manual and power) confirmed in accordance with workshop manual.</p> <p>1.5 Steering assembly removed from the vehicle in accordance with workshop manual</p> <p>1.6 Steering systems components condition checked in accordance with workshop manual.</p>

CU TITLE	CU CODE	CU DESCRIPTOR	WORK ACTIVITIES	PERFORMANCE CRITERIA
				1.7 Steering system condition Inspection report prepared in accordance with workshop manual.
			2. Inspect Suspension System Condition.	2.1 Job order received & acknowledged in accordance with workshop manual. 2.2 Suspension system condition inspection requirements such as work area, material & parts, man hour requirement interpreted and confirmed in accordance with workshop manual. 2.3 Tools, equipment, materials, work area and vehicle safely prepared in accordance with workshop manual. 2.4 Type of suspension system (mechanical and air) confirmed in accordance with workshop manual. 2.5 Suspension system assembly removed from the vehicle in accordance with workshop manual 2.6 Suspension systems condition components checked in accordance with workshop manual.

CU TITLE	CU CODE	CU DESCRIPTOR	WORK ACTIVITIES	PERFORMANCE CRITERIA
				2.7 Suspension system inspection report prepared in accordance with workshop manual.
			3. Repair Steering System.	3.1 Tools, equipment and parts confirmed in accordance to job requirement. 3.2 Steering system components disassembled in accordance with the workshop manual 3.3 Steering system components condition inspected in accordance with workshop manual 3.4 Steering system components functionality determined 3.5 Defective steering system components replaced in accordance with the manufacturer specification 3.6 Steering system components reassembled in accordance with workshop manual. 3.7 Steering system functionality test performed In accordance with service manual. 3.8 Steering system service report prepared in accordance with workshop

CU TITLE	CU CODE	CU DESCRIPTOR	WORK ACTIVITIES	PERFORMANCE CRITERIA
			<p>4. Repair Suspension System.</p>	<p>manual.</p> <p>4.1 Tools, equipment and parts confirmed in accordance to job requirement.</p> <p>4.2 Suspension system components disassembled in accordance with the workshop manual</p> <p>4.3 Suspension system components condition inspected in accordance with workshop manual</p> <p>4.4 Suspension system components functionality determined</p> <p>4.5 Defective suspension system components replaced in accordance with the manufacturer specification</p> <p>4.6 Suspension system components reassembled in accordance with workshop manual.</p> <p>4.7 Suspension system functionality test performed In accordance with service manual.</p> <p>4.8 Suspension system service report prepared in accordance with workshop manual.</p>

CU TITLE	CU CODE	CU DESCRIPTOR	WORK ACTIVITIES	PERFORMANCE CRITERIA
4. Commercial Vehicle Cabin & Chassis Repair	G452-001-2:2017-C04	<p>Commercial vehicle cabin & chassis repair is a scope of competency to restore vehicle cabin and chassis condition for more optimum comfort.</p> <p>The competency includes repair instrumentation panel, repair cabin seats, repair cabin tilt mechanism, repair cabin suspension system and inspect chassis structure in accordance with workshop manual.</p> <p>The outcome of this competency is to ensure the comfortability of the cabin to the driver and also the durability of the chassis for holding the cabin parts and components especially for long and hardy driving time.</p>	1. Repair Instrumentation Panel.	<p>1.1 Job order received & acknowledged in accordance with workshop manual.</p> <p>1.2 Instrumentation panel maintenance requirements such as work area, material & parts, man hour requirement interpreted and confirmed in accordance with workshop manual.</p> <p>1.3 Tools, equipment, materials, work area and vehicle safely prepared in accordance with workshop manual.</p> <p>1.4 Instrumentation panel component and parts dismantled from the vehicle in accordance with workshop manual.</p> <p>1.5 Defectives parts confirmed in accordance with workshop manual.</p> <p>1.6 Rectification requirements for changing parts completed in accordance with workshop manual.</p> <p>1.7 Instrumentation panel parts and components reassembled into the vehicle in accordance with workshop manual.</p> <p>1.8 Instrumentation panel assembly functionality and condition checked in</p>

CU TITLE	CU CODE	CU DESCRIPTOR	WORK ACTIVITIES	PERFORMANCE CRITERIA
				<p>accordance with workshop manual.</p> <p>1.9 Instrumentation panel maintenance report prepared in accordance with workshop manual.</p>
			2. Repair Cabin Seats.	<p>2.1 Job order received & acknowledged in accordance with workshop manual.</p> <p>2.2 Cabin seats maintenance requirements such as work area, material & parts, man hour requirement interpreted and confirmed in accordance with workshop manual.</p> <p>2.3 Tools, equipment, materials, work area and vehicle safely prepared in accordance with workshop manual.</p> <p>2.4 Cabin seat mechanical components and parts functions and conditioned determined in accordance with workshop manual.</p> <p>2.5 Cabin seat mechanical components and parts rectification work carried out in accordance with workshop manual.</p> <p>2.6 Cabin seats removed from the vehicle in accordance with workshop manual.</p>

CU TITLE	CU CODE	CU DESCRIPTOR	WORK ACTIVITIES	PERFORMANCE CRITERIA
				<p>2.7 Defect cabin seats replaced in accordance with workshop manual.</p> <p>2.8 New cabin seats installed in to the vehicle in accordance with workshop manual.</p> <p>2.9 Cabin seats maintenance report prepared in accordance with workshop manual.</p>
			<p>3. Repair Cabin Tilt Mechanism.</p>	<p>3.1 Job order received & acknowledged in accordance with workshop manual.</p> <p>3.2 Cabin tilt mechanism maintenance requirements such as work area, material & parts, man hour requirement interpreted and confirmed in accordance with workshop manual.</p> <p>3.3 Tools, equipment, materials, work area and vehicle safely prepared in accordance with workshop manual.</p> <p>3.4 Type of cabin tilt (manual, hydraulic and electric) confirmed in accordance with workshop manual.</p> <p>3.5 Cabin tilt mechanism component and parts dismantled from the</p>

CU TITLE	CU CODE	CU DESCRIPTOR	WORK ACTIVITIES	PERFORMANCE CRITERIA
				vehicle in accordance with workshop manual. 3.6 Defectives parts confirmed in accordance with workshop manual. 3.7 Rectification requirements for changing parts completed in accordance with workshop manual. 3.8 Cabin tilt mechanism parts and components reassembled into the vehicle in accordance with workshop manual. 3.9 Cabin tilt mechanism assembly functionality and condition checked in accordance with workshop manual. 3.10 Cabin tilt mechanism maintenance report prepared in accordance with workshop manual.
			4. Repair Cabin Suspension System.	4.1 Job order received & acknowledged. 4.2 Cabin suspension system maintenance requirements such as work area, material & parts, man hour requirement interpreted and confirmed in accordance with workshop manual.

CU TITLE	CU CODE	CU DESCRIPTOR	WORK ACTIVITIES	PERFORMANCE CRITERIA
				<p>4.3 Tools, equipment, materials, work area and vehicle safely prepared in accordance with workshop manual.</p> <p>4.4 Type of cabin suspension system (mechanical and air) confirmed in accordance with workshop manual.</p> <p>4.5 Cabin suspension system assembly dismantled from the vehicle in accordance with workshop manual.</p> <p>4.6 Defectives parts confirmed in accordance with workshop manual.</p> <p>4.7 Rectification requirements for changing parts completed in accordance with workshop manual.</p> <p>4.8 Cabin suspension system parts and components reassembled into the vehicle in accordance with workshop manual.</p> <p>4.9 Cabin suspension system assembly functionality and condition checked in accordance with workshop manual.</p>

CU TITLE	CU CODE	CU DESCRIPTOR	WORK ACTIVITIES	PERFORMANCE CRITERIA
				4.10 Cabin suspension system maintenance report prepared in accordance with workshop manual.
			5. Inspect Chassis Structure.	5.1 Job order received & acknowledged in accordance with workshop manual. 5.2 Chassis maintenance requirements such as work area, material & parts, man hour requirement interpreted and confirmed in accordance with workshop manual. 5.3 Tools, equipment, materials, work area and vehicle safely prepared in accordance with workshop manual. 5.4 Type of chassis (ladder & step) confirmed in accordance with workshop manual. 5.5 Chassis assembly dismantled from the vehicle in accordance with workshop manual. 5.6 Defectives parts confirmed in accordance with workshop manual. 5.7 Chassis parts and components reassembled into the vehicle in accordance with workshop manual.

CU TITLE	CU CODE	CU DESCRIPTOR	WORK ACTIVITIES	PERFORMANCE CRITERIA
				<p>5.8 Chassis assembly functionality and condition checked in accordance with workshop manual.</p> <p>5.9 Chassis maintenance report prepared in accordance with workshop manual.</p>
5. Commercial Vehicle Clutch & Drivetrain Repair	G452-001-2:2017-C05	<p>Commercial vehicle manual drive train repair is a scope of competency to restore drive train in order to reduce the speed of the axle shafts while increasing the torque applied to them and axle differential unit to allow different rates of wheel rotation on curves.</p> <p>The competency includes repair front & rear axle, repair clutch assembly, repair torque convertor assembly, repair manual transmission, repair automatic transmission, repair transfer case and repair driveline in accordance with workshop manual.</p> <p>The outcome of this competency is to provide free of leakages, other defectives and smooth</p>	1. Repair Front & Rear Axle.	<p>1.1 Job order received & acknowledged in accordance with workshop manual.</p> <p>1.2 Vehicle manual drive train maintenance requirements such as work area, material & parts, man hour requirement interpreted and confirmed in accordance with workshop manual.</p> <p>1.3 Tools, equipment, materials, work area and vehicle safely prepared in accordance with workshop manual.</p> <p>1.4 Type of axles (drive & non-drive) confirmed in accordance with workshop manual.</p> <p>1.5 Front & rear axle differential condition confirmed in accordance with workshop manual.</p> <p>1.6 Front & rear axle differential unit dismantled from the vehicle in</p>

CU TITLE	CU CODE	CU DESCRIPTOR	WORK ACTIVITIES	PERFORMANCE CRITERIA
		<p>performance of the rear / front axle.</p> <p>The outcome of this competency is the ability to ensure that customer complaints are well managed, customer needs are managed in a good and proper way, customer outreach program is well organised, and the continuity of good customer relations can be maintained.</p>		<p>accordance with workshop manual</p> <p>1.7 Front & rear axle differential unit rectification work carried out in accordance with workshop manual.</p> <p>1.8 Front & rear axle differential unit assembled into the vehicle in accordance with workshop manual.</p> <p>1.9 Front & rear axle unit functionality and condition checked in accordance workshop manual.</p> <p>1.10 Front & rear axle unit maintenance report prepared in accordance with workshop manual.</p>
			2. Repair Clutch Assembly	<p>2.1 Job order received & acknowledged in accordance with workshop manual.</p> <p>2.2 Clutch system maintenance requirements such as work area, material & parts, man hour requirement interpreted and confirmed in</p>

CU TITLE	CU CODE	CU DESCRIPTOR	WORK ACTIVITIES	PERFORMANCE CRITERIA
				<p>accordance with workshop manual.</p> <p>2.3 Tools, equipment, materials, work area and vehicle safely prepared in accordance with workshop manual.</p> <p>2.4 Type of clutches (mechanical, hydraulic & electrical) confirmed in accordance with workshop manual.</p> <p>2.5 Clutch condition and functionality confirmed in accordance with workshop manual.</p> <p>2.6 Clutch Assembly disassembled from the vehicle in accordance with workshop manual.</p> <p>2.7 Rectification requirements for changing parts completed in accordance with workshop manual.</p> <p>2.8 Clutch system parts and components reassembled into the vehicle in accordance with workshop manual.</p> <p>2.9 Clutch system assembly functionality and</p>

CU TITLE	CU CODE	CU DESCRIPTOR	WORK ACTIVITIES	PERFORMANCE CRITERIA
				<p>condition checked in accordance with workshop manual.</p> <p>2.10 Clutch system maintenance report prepared in accordance with workshop manual.</p>
			<p>3. Repair Torque Convertor Assembly.</p>	<p>3.1 Job order received & acknowledged in accordance with workshop manual.</p> <p>3.2 Clutch system maintenance requirements such as work area, material & parts, man hour requirement interpreted and confirmed in accordance with workshop manual.</p> <p>3.3 Tools, equipment, materials, work area and vehicle safely prepared in accordance with workshop manual.</p> <p>3.4 Torque convertor assembly condition and functionality confirmed in accordance with workshop manual.</p> <p>3.5 Torque convertor assembly disassembled from the vehicle in accordance with workshop manual.</p> <p>3.6 Rectification requirements for changing parts completed in accordance</p>

CU TITLE	CU CODE	CU DESCRIPTOR	WORK ACTIVITIES	PERFORMANCE CRITERIA
				<p>with workshop manual.</p> <p>3.7 Torque convertor parts and components reassembled into the vehicle in accordance with workshop manual.</p> <p>3.8 Torque convertor assembly functionality and condition checked in accordance with workshop manual.</p> <p>3.9 Torque convertor maintenance report prepared in accordance with workshop manual.</p>
			4. Repair Manual Transmission.	<p>4.1 Job order received & acknowledged in accordance with workshop manual.</p> <p>4.2 Clutch system maintenance requirements such as work area, material & parts, man hour requirement interpreted and confirmed in accordance with workshop manual.</p> <p>4.3 Tools, equipment, materials, work area and vehicle safely prepared in accordance with workshop manual.</p> <p>4.4 Manual transmission unit functional test performed in accordance with workshop manual.</p>

CU TITLE	CU CODE	CU DESCRIPTOR	WORK ACTIVITIES	PERFORMANCE CRITERIA
				<p>4.5 Manual transmission unit remove from vehicle in accordance with workshop manual</p> <p>4.6 Manual transmission overhauling procedure performed in accordance with workshop manual.</p> <p>4.7 Manual transmission installing into the vehicle procedure performed in accordance with workshop manual.</p> <p>4.8 Manual transmission assembly functionality and condition checked in accordance with workshop manual.</p> <p>4.9 Manual transmission maintenance report prepared in accordance with workshop manual.</p>
			<p>5. Repair Automatic Transmission.</p>	<p>5.1 Job order received & acknowledged in accordance with workshop manual.</p> <p>5.2 Clutch system maintenance requirements such as work area, material & parts, man hour requirement interpreted and confirmed in accordance with workshop manual.</p>

CU TITLE	CU CODE	CU DESCRIPTOR	WORK ACTIVITIES	PERFORMANCE CRITERIA
				<p>5.3 Tools, equipment, materials, work area and vehicle safely prepared in accordance with workshop manual.</p> <p>5.4 Automatic transmission unit functional test performed in accordance with workshop manual.</p> <p>5.5 Automatic transmission unit remove from vehicle in accordance with workshop manual</p> <p>5.6 Automatic transmission overhauling procedure performed in accordance with workshop manual.</p> <p>5.7 Automatic transmission installing into the vehicle procedure performed in accordance with workshop manual.</p> <p>5.8 Automatic transmission assembly functionality and condition checked in accordance with workshop manual.</p> <p>5.9 Automatic transmission maintenance report prepared in accordance with workshop manual.</p>

CU TITLE	CU CODE	CU DESCRIPTOR	WORK ACTIVITIES	PERFORMANCE CRITERIA
			6. Repair Transfer Case	<p>6.1 Job order received & acknowledged in accordance with workshop manual.</p> <p>6.2 Clutch system maintenance requirements such as work area, material & parts, man hour requirement interpreted and confirmed in accordance with workshop manual.</p> <p>6.3 Tools, equipment, materials, work area and vehicle safely prepared in accordance with workshop manual.</p> <p>6.4 Transfer case unit functional test performed in accordance with workshop manual.</p> <p>6.5 Transfer case unit removed from vehicle in accordance with workshop manual</p> <p>6.6 Transfer case overhauling procedure performed in accordance with workshop manual.</p> <p>6.7 Transfer Case installing into the vehicle procedure performed in accordance with workshop manual.</p> <p>6.8 Transfer case assembly functionality and condition checked in accordance with workshop manual.</p>

CU TITLE	CU CODE	CU DESCRIPTOR	WORK ACTIVITIES	PERFORMANCE CRITERIA
				6.9 Transfer case maintenance report prepared.
			7. Repair Driveline.	<p>7.1 Job order received & acknowledged in accordance with workshop manual.</p> <p>7.2 Clutch system maintenance requirements such as work area, material & parts, man hour requirement interpreted and confirmed in accordance with workshop manual.</p> <p>7.3 Tools, equipment, materials, work area and vehicle safely prepared in accordance with workshop manual.</p> <p>7.4 Driveline unit functional test performed in accordance with workshop manual.</p> <p>7.5 Driveline unit removed from vehicle in accordance with workshop manual</p> <p>7.6 Driveline rectification procedure performed in accordance with workshop manual.</p> <p>7.7 Driveline installing into the vehicle procedure performed in accordance with workshop manual.</p> <p>7.8 Driveline assembly functionality and condition</p>

CU TITLE	CU CODE	CU DESCRIPTOR	WORK ACTIVITIES	PERFORMANCE CRITERIA
				checked in accordance with workshop manual. 7.9 Driveline maintenance report prepared in accordance with workshop manual.
6. Commercial Vehicle Electrical & Electronic System Repair	G452-001-2:2017-C06	<p>Commercial vehicle electrical & electronic system repair is a scope of competency to restore electrical and electronic system, producing electricity and delivering electric energy from these sources on demand to any other electrical component in the vehicle.</p> <p>The competency includes rectify charging system, rectify starting system, rectify lighting system, rectify auxiliary electrical system, rectify battery and rectify electrical circuit connectivity in accordance with workshop manual.</p> <p>The outcome of this competency is to provide clear engine ignition, smooth operations of electrical</p>	1. Rectify Charging System.	<p>1.1 Job order received & acknowledged in accordance with workshop manual.</p> <p>1.2 Charging system maintenance requirements such as work area, material & parts, man hour requirement interpreted and confirmed in accordance with the workshop manual.</p> <p>1.3 Tools, equipment, materials, work area and vehicle safely prepared in accordance with the workshop manual.</p> <p>1.4 Charging system components functionality tested with scan tool in accordance with workshop manual</p> <p>1.5 Faulty charging system components replaced in accordance with workshop manual</p> <p>1.6 Charging system functionality or continuity</p>

CU TITLE	CU CODE	CU DESCRIPTOR	WORK ACTIVITIES	PERFORMANCE CRITERIA
		equipment, auxiliary equipment such as power side mirror, wiper and cabin light also provide steady power supply from the battery.	2. Rectify Starting System.	<p>tests carry out in accordance with workshop manual</p> <p>1.7 Charging system maintenance report in accordance with workshop manual prepared in accordance with workshop manual.</p> <p>2.1 Job order received & acknowledged in accordance with workshop manual.</p> <p>2.2 Starting system maintenance requirements such as work area, material & parts, man hour requirement interpreted and confirmed in accordance with the workshop manual.</p> <p>2.3 Tools, equipment, materials, work area and vehicle safely prepared in accordance with the workshop manual.</p> <p>2.4 Starting system component functionality tested in accordance with workshop manual</p> <p>2.5 Starting system faulty components replaced in accordance with workshop manual.</p> <p>2.6 Starting system functionality or continuity</p>

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				<p>tests carried out using scan tool in accordance with workshop manual.</p> <p>2.7 Starting system maintenance report prepared in accordance with workshop manual</p>
			<p>3. Rectify Lighting System.</p>	<p>3.1 Job order received & acknowledged in accordance with workshop manual.</p> <p>3.2 Lighting system maintenance requirements such as work area, material & parts, man hour requirement interpreted and confirmed in accordance with the workshop manual.</p> <p>3.3 Tools, equipment, materials, work area and vehicle safely prepared in accordance with workshop manual.</p> <p>3.4 Vehicle lighting system component functionality inspection carried out in accordance with workshop manual.</p> <p>3.5 Vehicle lighting system components replaced in accordance to workshop manual.</p>

CU TITLE	CU CODE	CU DESCRIPTOR	WORK ACTIVITIES	PERFORMANCE CRITERIA
				<p>3.6 Vehicle lighting system performance test is performed in accordance to workshop manual.</p> <p>3.7 Lighting system maintenance report prepared in accordance with workshop manual.</p>
			4. Rectify Auxiliary Electrical System.	<p>4.1 Job order received & acknowledged in accordance with workshop manual.</p> <p>4.2 Auxiliary electrical system maintenance requirements such as work area, material & parts, man hour requirement interpreted and confirmed in accordance with the workshop manual.</p> <p>4.3 Tools, equipment, materials, work area and vehicle safely prepared in accordance with workshop manual.</p> <p>4.4 Vehicle Auxiliary Electrical system component functionality inspection carried out in accordance with workshop manual.</p> <p>4.5 Vehicle Auxiliary Electrical system</p>

CU TITLE	CU CODE	CU DESCRIPTOR	WORK ACTIVITIES	PERFORMANCE CRITERIA
				<p>components replaced in accordance to workshop manual.</p> <p>4.6 Vehicle lighting system performance test is performed in accordance to workshop manual.</p> <p>4.7 Auxiliary Electrical system maintenance report prepared in accordance with workshop manual.</p>
			<p>5. Rectify Battery.</p>	<p>5.1 Job order received & acknowledged in accordance with workshop manual.</p> <p>5.2 Battery system maintenance requirements such as work area, material & parts, man hour requirement interpreted and confirmed in accordance with the workshop manual.</p> <p>5.3 Tools, equipment, materials, work area and vehicle safely prepared in accordance with workshop manual.</p> <p>5.4 Battery functionality inspection carried out in accordance with workshop manual</p>

CU TITLE	CU CODE	CU DESCRIPTOR	WORK ACTIVITIES	PERFORMANCE CRITERIA
				<p>5.5 Battery replaced in accordance to workshop manual.</p> <p>5.6 Battery performance test is conducted in accordance to workshop manual.</p> <p>5.7 Battery maintenance report prepared in accordance with workshop manual.</p>
			6. Rectify Electrical Circuit Connectivity.	<p>6.1 Job order received & acknowledged in accordance with workshop manual.</p> <p>6.2 Electrical circuit connectivity maintenance requirements such as work area, material & parts, man hour requirement interpreted and confirmed in accordance with the workshop manual.</p> <p>6.3 Tools, equipment, materials, work area and vehicle safely prepared in accordance with workshop manual.</p> <p>6.4 Vehicle electrical circuit connectivity component functionality inspection carried out in accordance with workshop manual.</p>

CU TITLE	CU CODE	CU DESCRIPTOR	WORK ACTIVITIES	PERFORMANCE CRITERIA
				<p>6.5 Vehicle electrical circuit connectivity components replaced in accordance to workshop manual.</p> <p>6.6 Vehicle lighting system performance test is performed in accordance to workshop manual.</p> <p>6.7 Electrical circuit connectivity maintenance report performed in accordance with workshop manual.</p>
7. Commercial Vehicle Engine Overhaul	G452-001-2:2017-C07	<p>Commercial vehicle engine overhaul is a scope of competency to examine and restore the engine components to meet manufacturers' specifications and tolerances during overhaul. Proper dimensions and tolerances must be met to obtain proper performance and maximum engine life.</p> <p>The competency includes carry out engine compression test, carry out engine cylinder leakages test, carry out engine lubrication test, remove engine from</p>	1. Carry Out Engine Compression Test	<p>1.1 Job Order interpreted in accordance with the vehicle engine overhauling requirement.</p> <p>1.2 Tools, equipment and materials prepared for engine condition test overhauling requirement.</p> <p>1.3 Engine compression test performed.</p> <p>1.4 Engine compression test reports prepared</p> <p>1.5 Engine compression test reports analysed and compared to the manufacturer's specifications.</p> <p>1.6 Engine overhaul recommendation is prepared in accordance with the workshop manual.</p>

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		<p>vehicle, perform engine overhaul, reinstall engine onto vehicle, and conduct engine test.</p> <p>The outcome of this competency is to make sure no abnormal knocking sound, no visible and possible leaking from the engine and free from defect to ensure the engine functions in full optimal performance also defect free.</p>	<p>2. Carry Out Engine Cylinder Leakages Test.</p>	<p>2.1 Tools, equipment and materials prepared for engine condition test overhauling requirement.</p> <p>2.2 Engine cylinder leakage test using scan tool performed.</p> <p>2.3 Engine cylinder leakage test reports analysed and compared to the manufacturer's specifications.</p> <p>2.4 Engine overhaul recommendation is prepared in accordance with the workshop manual.</p>
			<p>3. Carry Out Engine Lubrication Test</p>	<p>3.1 Tools, equipment and materials prepared for engine condition test overhauling requirement.</p> <p>3.2 Engine lubrication test performed.</p> <p>3.3 Engine lubrication test reports analysed and compared to the manufacturer's specifications.</p> <p>3.4 Engine overhaul recommendation is prepared in accordance with the workshop manual.</p>
			<p>4. Remove Engine From Vehicle</p>	<p>4.1 Tools and equipment prepared for engine removal requirement</p> <p>4.2 Vehicle operation fluids</p>

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				<p>and lubricant drained out.</p> <p>4.3 Refrigerant gases recovered.</p> <p>4.4 Engine auxiliary components and attachments removed.</p> <p>4.1 Crane-out the engine from vehicle.</p>
			5. Perform Engine Overhaul	<p>5.1 Engine external components removed in accordance with workshop manual.</p> <p>5.2 Engine internal components such as cam shaft, crank shaft removed and strip down.</p> <p>5.3 Engine parts and components cleaned-up in accordance with workshop manual.</p> <p>5.4 Engine parts and components inspected in accordance with the workshop manual.</p> <p>5.5 Engine part and components wear and tear measured in accordance with the workshop manual.</p> <p>5.6 Machine shop work prepared according with the workshop manual coordinated</p> <p>5.7 Worn or damaged parts and components changed in accordance with the</p>

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				workshop manual. 5.8 External and internal engine components reassembled.
			6. Reinstall Engine Onto Vehicle	6.1 Vehicle operation fluids and lubricant refilled in accordance with workshop manual. 6.2 Refrigerant gases refilled. 6.3 Engine auxiliary components and attachments fitted. 6.4 Engine is craned-in onto vehicle in accordance with the OEM specification.
			7. Conduct Engine Test	7.1 Leakages checked in accordance with the service manual in accordance with workshop manual. 7.2 Abnormal noises checked for audio inspection. 7.3 On Board Diagnostic (OBD) test performed in accordance with the workshop manual. 7.4 Vehicle test drive is carried out to determine the engine performance in accordance with the workshop manual. 7.5 Final control test on the overall vehicle performance is performed in accordance with the OEM specification.

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				7.6 Engine test report is prepared in accordance with the workshop manual.
8. Commercial Vehicle Trailer Attachment Repair	G452-001-2:2017-E01	<p>Commercial vehicle trailer attachment repair is a set of skills to carry out trailer repairing that includes knowledge about types of turn tables / fifth wheels and locking mechanism.</p> <p>The competency includes prepare trailer servicing requirement, perform mechanical coupler servicing, perform trailer frame servicing and perform trailer parts & components maintenance in accordance with workshop manual.</p> <p>The outcome of this competency is to provide free of leakages, other defectives and smooth performance of the turn table, fifth wheel and tow hook & eye, and to make sure the performance of the trailer good for the safety of the driver and other driver.</p>	1. Prepare Trailer Servicing Requirement.	<p>1.1 Job order received & acknowledged in accordance with workshop manual.</p> <p>1.2 Lighting system maintenance requirements such as work area, material & parts, man hour requirement interpreted and confirmed in accordance with the workshop manual.</p> <p>1.3 Tools, equipment, materials, work area and vehicle safely prepared in accordance with workshop manual.</p>
			2. Perform Mechanical Coupler Servicing.	<p>2.1 Vehicle mechanical coupler functionality inspection carried out in accordance with workshop manual.</p> <p>2.2 Vehicle mechanical coupler parts and components replaced in accordance to workshop manual.</p> <p>2.3 Vehicle mechanical coupler performance test is performed in accordance to workshop manual.</p> <p>2.4 Mechanical coupler servicing report performed</p>

CU TITLE	CU CODE	CU DESCRIPTOR	WORK ACTIVITIES	PERFORMANCE CRITERIA
				in accordance with workshop manual.
			3. Perform Trailer Frame Servicing.	3.1 Vehicle trailer frame functionality inspection carried out in accordance with workshop manual. 3.2 Vehicle trailer frame parts and components replaced in accordance to workshop manual. 3.3 Vehicle trailer frame performance test is performed in accordance to workshop manual. 3.4 Trailer frame servicing report performed in accordance with workshop manual.
			4. Perform Trailer Parts & Components Maintenance.	4.1 Trailer parts & components functionality inspection carried out in accordance with workshop manual. 4.2 Trailer parts & components replaced in accordance to workshop manual. 4.3 Trailer parts & components performance test is performed in accordance to workshop manual. 4.4 Trailer parts & components maintenance report prepared in accordance with workshop manual.

CU TITLE	CU CODE	CU DESCRIPTOR	WORK ACTIVITIES	PERFORMANCE CRITERIA
9. Commercial Vehicle Hydraulics Attachment Repair	G452-001-2:2017-E02	<p>Commercial vehicle hydraulics attachment repair is a set of skills to carry out hydraulic system servicing that includes knowledge about hydraulic system components and hydraulic system operation.</p> <p>The competency includes prepare hydraulic system servicing requirement, rectify hydraulic pump, rectify reservoir, filter & piping system, rectify hydraulic cylinder boom & seal and rectify Power-Take-Off (PTO) assembly in accordance with workshop manual.</p> <p>The outcome of this competency is to provide smooth operation performance of the hydraulic system, free of defective of leakages and to make sure the performance of the trailer good for the safety of the driver and other driver.</p>	1. Prepare Hydraulic System servicing Requirement.	<p>1.1 Job order received & acknowledged in accordance with workshop manual.</p> <p>1.2 Hydraulic system servicing requirements such as work area, material & parts, man hour requirement interpreted and confirmed in accordance with the workshop manual.</p> <p>1.3 Tools, equipment, materials, work area and vehicle safely prepared in accordance with workshop manual.</p>
			2. Rectify Hydraulic Pump.	<p>2.1 Hydraulic pump functionality inspection carried out in accordance with workshop manual.</p> <p>2.2 Hydraulic pump replaced in accordance to workshop manual.</p> <p>2.3 Hydraulic pump performance test is performed in accordance to workshop manual.</p> <p>2.4 Hydraulic pump maintenance report performed in accordance with workshop manual.</p>
			3. Rectify Reservoir, Filter & Piping system.	3.1 Reservoir & filter functionality inspection carried out in accordance with workshop manual.

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				<p>3.2 Reservoir & filter parts and components replaced in accordance to workshop manual.</p> <p>3.3 Reservoir & filter performance test is performed in accordance to workshop manual.</p> <p>3.4 Reservoir & filter maintenance report performed in accordance with workshop manual.</p>
			4. Rectify Hydraulic Cylinder Boom & Seal.	<p>4.1 Hydraulic pump functionality inspection carried out in accordance with workshop manual.</p> <p>4.2 Hydraulic pump replaced in accordance to workshop manual.</p> <p>4.3 Hydraulic pump performance test is performed in accordance to workshop manual.</p> <p>4.4 Hydraulic pump maintenance report performed in accordance with workshop manual.</p>
			5. Rectify Power-Take-Off (PTO) assembly.	<p>5.1 Power-Take-Off (PTO) functionality inspection carried out in accordance with workshop manual.</p> <p>5.2 Power-Take-Off (PTO) replaced in accordance to workshop manual.</p> <p>5.3 Power-Take-Off (PTO)</p>

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				performance test is performed in accordance to workshop manual. 5.4 Power-Take-Off (PTO) maintenance report performed in accordance with workshop manual.