



**MOTORBRANSCHENS
YRKESNÄMND**

**The Vocational Board of
the Swedish Motor trades**



**LACKERARNAS
YRKESNÄMND**

**The Vocational Board of
the Swedish Car Painters**

**TRADE REQUESTS FOR BASIC
EDUCATION/TRAINING
November 2004**

REVIEWED CATEGORIES

- CAR MECHANIC**
- TRUCK MECHANIC**
- CONSTRUCTION EQUIPMENT/
AGRICULTURAL MACHINERY
MECHANIC**
- AUTO BODY REPAIRER**
- CAR PAINTER**

AREAS OF COMPETENCE

0 THEORETICAL FUNCTIONS AT COMPANIES IN QUESTION

- 00 General
- 01 Book keeping
- 02 Administration
- 03 Customer relations
- 04 Tools, equipment and measuring technique
- 05 Different materials and their ways of treatment
- 06 Different ways of attachments (including bonding)
- 07 Road safeties
- 08 Working environment, inner and outer
- 09 Misc.

1 SERVICE AND MAINTENANCE

- 10 General
- 11 Inspections
- 12 Lubrication
- 13 Outer car care (cosmetic)
- 14 Anti corrosion treatment
- 15 Tuning and adjustment
- 16 Oils and fluids
- 17 Inner car care (cosmetic)
- 18 Registration and compulsory inspections
- 19 Misc.

2 ENGINE WITH EQUIPMENT

- 20 General
- 21 Cylinder block
- 22 Lubrication systems
- 23 Fuel systems, Otto-engine
- 24 Fuel systems, Diesel-engine
- 25 Admission and exhaust systems
- 26 Cooling system
- 27 Engine regulating system
- 28 Turbo systems
- 29 Misc.

3 ELECTRICAL SYSTEM AND INSTRUMENTS

- 30 General
- 31 Battery
- 32 Current supply systems
- 33 Starters
- 34 Ignition systems
- 35 Light systems
- 36 Additional electrical equipment
- 37 Electrical wires and fuses
- 38 Instruments
- 39 Misc.

4 DRIVELINE

- 40 General
- 41 Clutches
- 42
- 43 Mechanical gearbox
- 44 Automatic gearbox
- 45 Propeller shaft
- 46 Diff. unit
- 47 Transaxle
- 48 Power take-offs
- 49 Misc.

5 BRAKES

- 50 General
- 51 Wheel brakes
- 52 Hydraulic brake system
- 53 Mechanical brake system
- 54 Assistant brake system
- 55 Parking brake system
- 56 Air brake system
- 57 Trailer brake system
- 58
- 59 Misc.

6 WHEEL SUSPENSION AND STEERING SYSTEM

- 60 General
- 61 Rigid front axle
- 62 Individual front suspension axle
- 63 Front-end, front wheel traction and 4-wheel traction
- 64 Steering
- 65 Rear axle suspension
- 66
- 67
- 68
- 69 Misc.

7 FRAME, SUSPENSION SYSTEM AND WHEELS

- 70 General
- 71 Frame
- 72 Leaf suspension
- 73 Coil suspension
- 74 Torsion bar suspension
- 75 Gas hydraulic or air suspension systems
- 76 Shock absorbers, antirollbars, level regulated suspension.
- 77 Wheel, tyres, hubs
- 78 Active suspension
- 79 Misc.

8 BODY AND INTERIOR

- 80 General
- 81 Body unit
- 82 Removable body parts
- 83 Glass and weather-strips
- 84 Drivers cab
- 85 Corrosion Protection
- 86 Paint work
- 87 Interior and upholstery
- 88 Air conditioning system
- 89 Misc.

9 ACCESSORIES AND OPTIONAL EQUIPMENT

- 90 General
- 91 Hydraulic systems and servo units for different operations
- 92 Mechanical equipment
- 93 Electrical equipment
- 94 Air operated equipment
- 95 Hydraulic equipment
- 96 Lifting/turning equipment
- 97 Load carriers
- 98 Accessories
- 99 Misc.

CAR MECHANIC

Objective main targets

- Capacity to work with acceptable level of quality, function and road safety
- Capacity to use the existing words and designations accepted within the trade in Swedish as well as in English.
- Capacity to locate and analyse problems and malfunctions in the various systems of cars with the help of the manuals, computer aided instructions and equipment available in the workshop.
- Knowledge of the company's ambition, targets and organisation as well as the prevailing rules and conditions for the parties involved in the labour market.
- Knowledge of fundamental economic principles and subjects as regards company bookkeeping.
- Understanding of the customer's situation and a service- and trade professional appearance and behaviour.
- Capacity to use interview as support in trouble shooting.
- Capacity to plan own work in an effective way.
- Knowledge concerning the company routines as regards working instructions, service literature,
- Spareparts ordering, repair work follow-up systems as well as claims and warranty procedures.
- Knowledge of consumer laws and regulations.
- Capacity to pickup read and use information from drawings, electrical wiring diagrams, working instructions and workshop manuals in Swedish and English.
- Capacity to choose, use and take care of tools, measuring devices, machines and other equipment normally available in a workshop.
- Knowledge of the material used in car construction, its qualities areas of usage.
- Capacity to treat the material which is in common use on cars today.
- Capacity to handle all kinds of attachments used on cars for instance bolt/nut, bonding, gas welding and MIG/MAG-welding.
- Knowledge of the basic rules and regulation within the road safety and environmental areas which have an influence on car construction today.

- Knowledge of existing regulations and laws within the work trade environment and also knowledge concerning the meaning of good environmental surrounding within the motor trade.
- Knowledge of environmental and quality systems used within the trade.
- Knowledge of how to use the recommended protection equipment and be able to follow safety instructions for different tasks.
- Basic knowledge of the security rules for work with high-tension - 220 / 380 volts equipment.

Service and maintenance

- Capacity to perform periodical inspections and maintenance on cars and light commercials.
- Knowledge of suitable methods for cleaning and protection of vehicles.
- Knowledge of present methods for rust protection of chassis and bodies.
- Know-how of latest valid classification methods and areas for usage valid for motor oils, grease, brake fluid, cooling fluids, cold Medias and petrol and diesel fuel.
- Capacity to interpret and differ the inspections: Type approval, Registration inspection and annual compulsory inspection.
- Knowledge how to perform annual compulsory inspection and road safety check-up.

Engine with equipment

- Knowledge of the construction and function of two- and four stroke engines normally fitted to cars and light commercials.
- Capacity to perform replacement of pistons and camshaft.
- Capacity to rebuild a cylinder head.
- Capacity to measure and analyse the oil pressure of an engine.
- Knowledge of the construction and function of the mech. /electronic and the electronic regulated fuel- and ignitionsystems for an Otto-type engine.
- Knowledge of the common exhaust emission cleaning system for the Otto-engine.
- Capacity to diagnose, adjust and replace components in the fuel- and ignition system of the engine.

- Capacity to diagnose, adjust and replace components in the cooling system.
- Capacity to measure and adjust the turbo pressure and replace the turbocharger unit.
- Capacity to diagnose and analyse down to component level malfunctions found in the Otto-engine.

Electrical system and instruments

- Knowledge of the basic fundamentals of electronics and capacity to read electric wiring diagrams for vehicles.
- Capacity to use the appropriate measuring technique for electronic car components.
- Knowledge how to construct, calculate and fit simpler electric circuits i.e. for fog lights etc. on vehicles.
- Capacity how to perform condition test and charging of a car battery.
- Knowledge of how to analyse faults in electronic systems including Can bus systems.
- Capacity to understand codes from On Board Diagnosis system.
- Capacity for diagnose, faultfinding and repair of defects in the electrical system with the help of electrical diagrams, measuring devices and methodical working order.

Driveline

- Knowledge of the construction and function of a driveline with mechanical or automatic transmission.
- Capacity to replace a clutch disc.
- Possibility to replace faulty parts in manual gearboxes, propeller shafts, clutches and transmission gears.
- Capacity to test and diagnose the operation systems in the driveline.
- Capacity to test automatic gearboxes and repair defects possible without dismantling.

Brake system

- Understand the importance of particular accuracy during the work on the brake system.
- Knowledge of the construction and function of the parking- and conventional brake system, as well as ABS including additional functions (i.e. ESP etc).

- Capacity how to function test, adjust and replace components in the brake system.
- Capacity to overhaul the wheel brakes.

Wheel suspension and steering system

- Understand the importance of particular care during the repair of suspension and steering systems.
- Knowledge of the construction and function of front- and rear axles.
- Capacity to perform measurements and adjustments for front- and rear wheel alignment.
- Knowledge of the construction and function of the power steering system.
- Familiar with the replacement of parts in the steering system.

Frame, suspension system and wheels

- Familiar with the construction and function of the common suspension system on cars.
- Capacity to replace parts in the suspension system.
- Familiar with the classification system and the dimension of passenger car tyres.
- Capacity to change and balance wheels and analyse different tyre wear patterns.
- Capacity to check and replace wheel bearings.

Body and interior

- Knowledge of the construction of a unitary body.
- Capacity to replace both bonded and not bonded windscreens in accordance with recommended methods.
- Knowledge of recommended methods for corrosion protection of bodies.
- Capacity to adjust and replace common parts in the body interior.
- Knowledge of the latest rules a regulation for AC-equipment in accordance with the law for complete ban of Freon.
- Possibility to perform capacity test, diagnose and replacement of affected parts in the ventilation system equipped with climate control (ACC).

Accessories and optional equipment

- Capacity to fit trailer hitches, radio/stereo-equipment and additional heating equipment (electrical).

TRUCK MECHANIC

Main objective aims

- Capacity to work with acceptable level of quality, function and road safety.
- Capacity to use existing words and designations accepted within the trade in Swedish as well as English.
- Capacity to locate and analyse problems and malfunctions in the various systems of vehicles with the help of manuals, computer aided instructions and equipment available in the workshop.
- Knowledge of the company's ambition, targets and organisation as well as the prevailing rules and conditions for the parties involved in the labour market.
- Knowledge of fundamental economic principles and subjects as regards company bookkeeping.
- Understanding of the customer's situation and always has a service- and trade professional appearance and behaviour.
- Capacity to use interview as support in troubleshooting.
- Capacity to plan own work in an effective way.
- Knowledge concerning the company routines as regards working instructions, service literature, spare parts ordering, repair follow-up systems as well as claims- and warranty procedures.
- Knowledge of consumer laws and regulations.
- Capacity to pick up read and use information from drawings, electrical wiring diagrams, working instructions and workshop manuals in Swedish and English.
- Capacity to choose, use and take care of tools, measuring devices, machines and other equipment normally available in a workshop.
- Knowledge of the materials used in vehicle construction, its qualities and areas of usage.
- Capacity to treat the materials which are in common use in vehicles
- Capacity to handle all kinds of attachments used on vehicles i.e. bolt/nut, bonding, gas welding and MIG/MAG-welding as well as arch welding on trucks.
- Basic knowledge concerning reparation and reinforcement by welding.

- Knowledge of the basic rules and regulations within road safety and environmental areas which have an influence on vehicle construction today.
- Knowledge of environmental and quality systems used within the trade.
- Knowledge of existing regulations and laws within the work trade environment and also concerning the meaning of good environmental surrounding within the motor trade.
- Knowledge of how to use the recommended protection equipment and be able to follow safety instructions for different tasks.
- Basic knowledge of the security rules for work with high-tension -220/380 volts equipment.

Service and maintenance

- Capacity to perform periodical inspections and maintenance on trucks and buses.
- Knowledge of suitable methods for cleaning and protection of vehicles.
- Knowledge of present methods for rust protection of chassis and bodies.
- Knowledge of valid classification methods and areas for usage, for motor oils, grease, brake fluid, cooling fluid, cold medias and petrol- diesel fuel.
- Capacity to interpret and differ the inspections: Type approval, Rgistration inspection and Annual Compulsory Inspection.
- Knowledge how to perform annual compulsory inspection and road safety check-up.

Engine with equipment

- Knowledge of the construction and function of the four stroke diesel engine with turbocharger.
- Capacity to replace cylinder liner, crankshaft and camshaft.
- Capacity to rebuild a cylinder head.
- Capacity to measure and analyse the oil pressure of an engine.
- Knowledge of the construction and function of mechanical and electronical fuel systems for diesel engines.
- Knowledge of the common exhaust emission cleaning system for diesel engines.

- Capacity to test, adjust and replace components in the fuel system.
- Capacity to diagnose, adjust and replace components in the cooling system.
- Capacity to measure turbocharger pressure, check leakage in intercooling system and test and replace turbocharger.
- Capacity to diagnose and analyse down to component level at malfunctions in the diesel engine.

Electrical system and instruments

- Knowledge of the basic fundamentals of electronics and capacity to read electric wiring diagrams for vehicles.
- Capacity to use the appropriate measuring technique for electronic components.
- Knowledge how to construct, calculate and fit a simple electric circuit on vehicles i.e. for fog lights.
- Capacity how to perform condition test and charging of a car battery.
- Knowledge of how to analyse faults in electronic systems including Can bus systems.
- Capacity to understand codes from On Board Diagnosis system.
- Capacity to diagnose, faultfinding and repair of defects in the electrical system with the help of electrical diagrams, measuring devices and methodical working order.

Driveline

- Knowledge of the construction and function of a driveline with manual- or automatic gearbox and hydraulic/electrical brake.
- Capacity to replace clutch disc.
- Capacity to replace faulty parts in manual transmissions, transfer boxes, power take-offs, propeller shafts, diff.units and reduction hub gears.
- Capacity to test and diagnose the operation systems in the driveline.
- Capacity to test automatic gearboxes and repair defects possible without dismantling.

Brake system

- Understand the importance of particular accuracy during the work on brake systems and know about the importance of brake balance.

- Knowledge of the construction and function of common airbrake systems for trucks and trailers.
- Knowledge of the construction and function of an anti lock air braking system.
- Capacity to replace all components in such a system.
- Capacity to perform brake test and adjustments of the airbrake system of a truck and trailer.
- Capacity to overhaul wheel brakes.

Wheel suspension and steering system

- Understand the importance of particular care during the repair of suspension and steering systems.
- Knowledge of the construction and function of the axles and their suspension.
- Knowledge of the construction and function of the power steering system.
- Capacity to measure the pressure and fluid flow in the power steering system
- Capacity to perform measurements and adjustments of the axle positions and the wheel alignment.
- Capacity to replace all parts in the steering system.

Frame, suspension system and wheels

- Knowledge of the rules for drilling, welding, cutting and stretching of truck frames.
- Knowledge of construction/function of leaf spring- air suspension systems.
- Capacity to replace parts in the suspension system
- Capacity to check and adjust the load sensitive valve.
- Familiar with the classification system and the dimension of truck tyres.
- Capacity to balance wheels and analyse different tyre wear patterns.
- Capacity to check and replace all parts in the suspension system.

Body and interior

- Knowledge of the components and their functions in a standard cab.
- Capacity to adjust and replace parts in a standard cab.
- Capacity to replace windscreen and windows.
- Knowledge of suitable methods for antirust treatment of cab/body.
- Knowledge of the construction/function of an air suspended driver's seat and capacity to perform necessary repairs.
- Knowledge of the latest rules and regulation for AC-equipment in accordance with the law for complete ban of Freon.
- Possibility to perform capacity test, diagnose and replacement of affected parts in the ventilation system equipped with climate control (ACC).

Accessories and optional equipment

- Knowledge of the fundamental principles of hydraulic systems on trucks.
- Knowledge of the construction/function of a simple hydraulic system i.e. bed unloader equip.
- Capacity to diagnose and replace necessary components in the hydraulic system equivalent to a bed unloader system.
- Knowledge of common existing constructions of load carriers and shifters.
- Knowledge of common existing antiskid brakes.
- Knowledge of common existing parking heater equipment.

Special

- Capacity to fit radio/stereo equipment and additional heating.

CONSTRUCTION EQUIPMENT/AGRICULTURAL MACHINERY MECHANIC

Main objective aims

- Capacity to work with acceptable level of quality, function and machinery safety.
- Capacity to use the existing words and designations accepted within the trade in Swedish as well as English.
- Capacity to locate and analyse problems and malfunctions in the various systems of machines with the help of manuals, computer aided instructions and equipment available in the workshop.
- Knowledge of the company's ambition, targets and organisation as well as the prevailing rules and conditions for the parties involved in the labour market.
- Knowledge of fundamental economic principles and subjects as regards company bookkeeping.
- Understanding of the customer's situation and always has a service- and trade professional appearance and behaviour.
- Capacity to use interview as support in troubleshooting.
- Capacity to plan own work in an effective way.
- Knowledge concerning the company routines as regards working instructions, service literature, spare parts ordering, repair work follow-up systems as well as claims and warranty procedures.
- Knowledge of consumer laws and regulations.
- Capacity to pick up read and use information from drawings, electrical wiring diagrams, working instructions and workshop manuals in Swedish and English.
- Capacity to choose, use and take care of tools, measuring devices, machines and other equipment normally available in a workshop.
- Knowledge of the material used in car construction, its qualities and areas of usage.
- Capacity to treat the material which is in common use on cars today.
- Capacity to handle bolt/nuts and bonded attachments as well as gas-, MIG/MAG- and arch welding on heavy machinery.
- Knowledge of fundamental rules for repair and reinforcement by welding.
- Knowledge of the existing laws and regulations within road safety and environmental areas which have an influence on vehicle construction.

- Knowledge of EU laws and regulations in the area.
- Knowledge of existing regulations and laws within the work trade environment and also concerning the meaning of good environmental surroundings within the motor trade.
- Knowledge of environmental and quality systems used within the trade.
- Knowledge of how to use the recommended protection equipment and be able to follow safety instructions for different tasks.
- Knowledge of rules and regulations when working with open fire (Heta Arbeten).
- Knowledge of the insurance companies demands for fire protection in machines (RUS 127).
- Basic knowledge of the security rules for work with high-tension -220/380 volts equipment.

Service and maintenance

- Capacity to perform periodical inspections and service required for heavy machinery.
- Knowledge of suitable methods for cleaning and protection of vehicles.
- Knowledge of valid classification methods and areas for usage for motor oils, grease, brake fluid, coolingfluid, coldmedias and petrol-/diesel fuels.
- Capacity to value oil tests.
- Knowledge of common central lubrication systems.
- Capacity to perform road safety inspections on heavy working machinery of all kinds.

Engine with equipment

- Knowledge of the construction and function of four stroke diesel engines.
- Capacity to replace cylinder liner, crankshaft and camshaft
- Capacity to rebuild a cylinder head.
- Capacity to measure and analyse the oil pressure of an engine.
- Knowledge of the construction and function of the fuel system for diesel engines.
- Knowledge of the common exhaust cleaning system for diesel engines.

- Capacity to test, adjust and replace injection pump, fuel feed pump and injectors.
- Capacity to perform smoke density test.
- Capacity to diagnose, adjust and replace components in the cooling system.
- Capacity to measure the turbocharger pressure, check and replace the charger unit.
- Capacity to diagnose and analyse down to component level at malfunctions in the diesel engine.

Electrical system and instruments

- Knowledge of the basic fundamentals of electronics and capacity to read electric wiring diagrams for vehicles.
- Capacity to use the appropriate measuring technique for electronic components.
- Knowledge how to construct, calculate and fit a simple electric circuit on vehicles i.e. for fog lights.
- Capacity to perform condition test and charging of car batteries.
- Capacity to measure and diagnose pulses and frequencies.
- Knowledge of how to analyse faults in electronic systems including Can bus systems.
- Capacity to understand codes from On Board Diagnosis system.
- Capacity to diagnose /locate and repair faults in the electrical system with the help of electrical diagrams, measuring devices and methodical working order.

Driveline

- Knowledge of the construction and function of the driveline in heavy machinery.
- Knowledge of the construction and function of transmissions (not automatic) where the gears are shifted through disc clutches.
- Knowledge of steering systems used for excavating bulldozers.
- Capacity to replace defective parts in transfer boxes, differential units, propeller shafts and final gears.
- Capacity to test and diagnose the operation systems in the driveline.

Brakes

- Understand the importance of particular care during work on the brake system.
- Knowledge of the construction and function of the airbrake system on a working machine.
- Knowledge of the construction and function of the all hydraulic brake system for a working machine.
- Capacity to test, replace and renovate all components in the brake system.
- Capacity to perform function test and adjustment of the airbrake system.
- Capacity to rebuild wheel brakes and closed discbrake systems.

Steering system

- Knowledge of the construction and function of steering system with orbitrol valve on a working machine with frame steering.
- Capacity to replace all components in the steering system.
- Capacity to perform function check and adjustments of the steering system.

Frame, Suspension and Wheels/Track

- Knowledge of the construction and function of the frame and suspension system on working machines.
- Knowledge of the construction and function of track chassis for working machines.

Cab and interior

- Knowledge of fire extinguishes equipment for working machines.
- Knowledge of common components in the cab and their function.
- Knowledge of the construction and function of climate systems.
- Knowledge of the latest rules a regulation for AC-equipment in accordance with the law for complete ban of Freon.
- Possibility to perform capacity test, diagnose and replacement of affected parts in the ventilation system equipped with climate control (ACC).

Hydraulic System and Optional Equipment

- Knowledge of cleanliness during work with hydraulic systems.
- Knowledge of fundamental hydraulic systems and their construction and function, their filter system, common types of pumps and engines, direction- and pressure-regulating valves and hydraulic pistons.
- Knowledge of different connectors and pressure classes for hydraulic tubes and hoses.
- Knowledge of the installation and function of hydraulic systems on wheel loaders and digging machines.
- Knowledge of the principle for hydrostatic drive.
- Capacity to replace all components in the hydraulic system.
- Capacity to perform measurement and adjustment of the hydraulic pressure to recommended values.
- Capacity to measure operation and cycle times and periods in the hydraulic system.
- Capacity to diagnose, locate and correct malfunctions in the hydraulic system with the help of diagrams, measuring instruments and methodical working order.

Special

- Capacity to fit radio/stereo- and communication equipment as well as additional heaters.

AUTOBODY REPAIRER

Main objective aims

- Capacity to work with acceptable level of quality, function and safety.
- Knowledge of the company` ambition, targets and organisation as well as the prevailing rules and conditions for the parties involved in the labour market.
- Knowledge of fundamental economic principles and subjects as regards company book keeping.
- Understanding of the customer`s situation and always has a service- and trade professional appearance and behaviour.
- Capacity to plan own work in an effective way.
- Knowledge of company routines as regards working instructions, service literature, spare parts ordering, repair work follow up systems as well as claims- and warranty procedures.
- Knowledge of consumer laws and regulations.
- Capacity to pick up, read and use information from drawings, diagrams, working instructions, computer aided instructions and workshop manuals in Swedish and English.
- Knowledge of existing regulations and laws within the work trade environment and also concerning the meaning of good environmental surrounding within the motor trade.
- Knowledge of environmental and quality systems used within the trade.
- Knowledge of how to use the recommended protection equipment and be able to follow safety instructions for different tasks.
- Knowledge of applicable regulations for exhaust cleaning.
- Capacity to range vehicles waiting for repairs.
- Capacity to use the existing words and designations accepted within the trade in Swedish as well as English.
- Knowledge of the common used tools, material and equipment for body repair work, their marking, prescriptions and warnings.
- Capacity to interpret warranty validities.
- Capacity to perform daily and periodical maintenance of workshop equipment.

- Basic knowledge of the security rules for work with high tension -220/380 volts equipment.
- Knowledge of the material used in frames and bodies, their qualities and areas of usage.
- Capacity to treat steel with hand tools and drills.
- Capacity to remove and fit parts- and details with recommended attachment procedure, bolt/nut- or bonding.
- Capacity to use all kinds of welding, gas-, MIG/MAG or TIG as well as hard- and soft soldering for all straightening work in steel, composites or galvanized steel.
- Know-how of the latest valid classification methods and areas for usage for motor oils, grease, brake fluid, cooling fluid, cold medias and petrol- and diesel fuel.

Service and maintenance

- Capacity to interpret and differ: Type approval, registration inspection and annual compulsory inspection.
- Knowledge of fundamental rust protection methods and common repair techniques and rust protection warranties.
- Knowledge of methods for cleaning, recondition and polish of bodywork parts.
- Capacity to perform daily check of vehicles.

Electrical system and instruments

- Capacity to understand simple electrical wiring diagrams and to perform measurement of an electrical circuit.
- Capacity to dismantle electrical components and wiring harnesses from the interior, engine compartment and luggage boot.
- Capacity to remove fit and charge batteries.
- Capacity to adjust and check headlamps.

Brake system

- Understand the importance of particular accuracy during the work on brake systems.

Wheel suspension and steering system

- Capacity to perform wheel alignment and adjustment of wheel angles.

Frame, suspension system and wheels

- Capacity to perform MIG/MAG and TIG-welding of body parts i.e. front end frame member, rear floor pan, door and door pillar.
- Capacity to perform spot welding of details i.e. doorsill, wheel housings, rear floor pan, door and door pillar.
- Knowledge of induction heating and its use in body repair.

Body and interior

- Capacity to judge a repair object, dismantle for straitening , replacement or repair of an average damage of for instance a fender, door, bonnet, rear panel or front parts.
- Capacity to remove and fit a window regulator, door window and handle.
- Capacity to remove and fit a complete driveline (with certain assistance).
- Capacity to repair with pulling equipment a front wheel housing, front end, rear panel or luggage boot floor panel.
- Capacity to perform measurement of a body and frame by using a common alignment bench, analyse the dimensions for the damage and suggest a suitable repair method together with the instructor.
- Capacity to perform replacement by welding of front end parts.
- Capacity to join cut parts.
- Capacity to perform surface straightening of body panels, pressing and shrinking.
- Capacity to perform tin soldering of a straightened surface i.e. door, doorsill or bonnet.
- Capacity to applicate adhesive sealant to body seams where parts have been replaced.
- Capacity to replace bonded and not bonded windows and glasses in accordance with recommended instructions.
- Capacity to drain fuel tanks.
- Capacity to treat cold medias in accordance with valid regulation/instructions.

- Capacity to decide type of plastic material used, repair minor damages on details such as headlamp housings, bumpers and their stays, grills with brackets and stays.
- Capacity to fill and sand a straightened surface before the final filling.
- Capacity to fit minor special body equipment and styling parts (plastic filling of joints).
- Interior painting of body parts such as fender, doorsill, and cut economy parts.

Accessories and optional equipment

- Capacity to remove and fit accessories and their brackets and test the equipment after its refitting.

CAR PAINTER

Main objective aims

- Capacity to work with acceptable level of quality, function and safety.
- Knowledge of the company's ambition, organisation and the aims and targets for the parties involved in the labour market.
- Knowledge of fundamental economic principles and subjects as regards company book keeping.
- Understanding for the customer's situation and a service- and trade professional appearance and behaviour.
- Capacity to plan own work in an effective way.
- Knowledge concerning the company's routines as regards working instructions, welding permissions, service literature, spare parts ordering, and repair work follow up systems and claims and warranty procedures.
- Knowledge of consumer laws and regulations.
- Capacity to pick up, interpret and understand how to use information from drawings, diagrams, working instructions, computer aided instructions and workshop manuals in Swedish and English.
- Knowledge of existing regulations and laws within the work trade environment and also knowledge concerning the meaning of good environmental surrounding within the motor trade.
- Knowledge of environmental and quality systems used within the trade.
- Knowledge of how to use the recommended protection equipment and be able to follow safety instructions for different tasks.
- Capacity to range vehicles waiting for repairs.
- Capacity to use the established words and designations within the car painter trade in Swedish as well as English.
- Knowledge of the common used material, products and tools for car painting as well as their markings, prescriptions and risks.
- Capacity to interpret warranty validities.
- Capacity to perform daily and periodical maintenance of workshop equipment.

- Basic knowledge of the security rules for work with high tension -220/380 volts equipment.

Trade specific aims

- Capacity to perform a complete respray with 2C high solid- and metallic paint as well as water-soluble materials on repaired surface of steel, plastic material or galvanized steel with Owen- or IR-drying.
- Capacity to perform part spraying with metallic paint with instructors help.
- Capacity to mix and make ready paint for spraying both with scales and mixing machine.
- Capacity to remove and refit minor body parts, accessories and equipment in connection with paintwork.
- Capacity to perform simpler straightening and primary filling of damaged body panels.
- Capacity to perform partly resprays on surface with solid paint.
- Capacity to perform complete reconditions of body parts sprayed surfaces.
- Capacity to fit and remove stripes and decorations.

Special (for added competence)

- Capacity to evaluate different types of plastic materials, repair and paint i.e. bumper, headlamp housing, grill with brackets.
- Capacity to establish cost estimates for paintworks.
- Capacity to perform blastering of frame- and body parts.
- Capacity to paint parts with usual industrial methods.
- Capacity to know how to perform spray painting of metal outward facades on buildings.