







# AUTOMOTIVE PARTS PRODUCTION MACHINE OPERATOR



**ASSESSMENT PACKAGE** 

National Vocational Certificate Level 4

Version 1 - November, 2019





#### Published by

National Vocational and Technical Training Commission Government of Pakistan

#### Headquarter

Plot 38, Kirthar Road, Sector H-9/4, Islamabad, Pakistan www.navttc.org

# Responsible

Director General Skills Standard and Curricula, National Vocational and Technical Training Commission

National Deputy Head, TVET Sector Support Programme, Deutsche Gesellschaft für Internationale Zusammenarbeit (GIZ) GmbH

#### Layout & design

**SAP Communications** 

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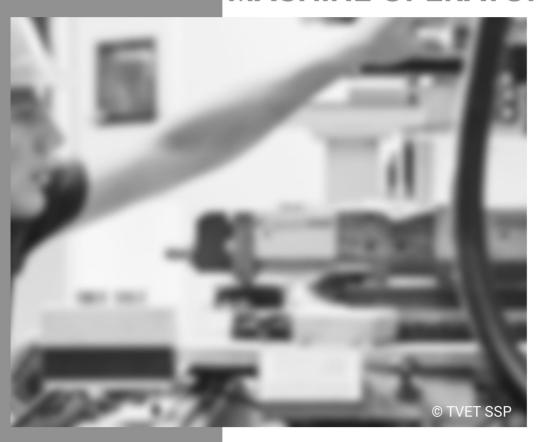
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This document has been produced with the technical assistance of the TVET Sector Support Programme, which is funded by the European Union, the Federal Republic of Germany and the Royal Norwegian Embassy and has been commissioned by the German Federal Ministry for Economic Cooperation and Development (BMZ). The Deutsche Gesellschaft für Internationale Zusammenarbeit (GIZ) GmbH in close collaboration with the National Vocational and Technical Training Commission (NAVTTC) as well as provincial Technical Education and Vocational Training Authorities (TEVTAs), Punjab Vocational Training Council (PVTC), Qualification Awarding Bodies (QABs)s and private sector organizations.

**Document Version** November, 2019 **Islamabad, Pakistan** 

# AUTOMOTIVE PARTS PRODUCTION MACHINE OPERATOR



ASSESSMENT PACKAGE
National Vocational Certificate Level 4

Version 1 - November, 2019

Title of Qualification:	CS Code:	Level:	Version:	
National Vocational Certificate Level-4 in Automotive parts production machine operator		4	1	
Integrated Assessment for Automotive parts production machine operator Level-3:	Assessment Date (DD/MM/YY): 00/00/0000			
Develop plastic part (injection moulding), hot forging part, die casting part and gear of automotive.				

Registration/Roll Number:
Γο meet this standard you are required to complete the following tasks within <b>six</b> nours timeframe:
Assessment Task 1: Perform injection moulding operation to develop plastic part.
Assessment Task 2: Perform hot forging operation to develop sprocket part.
<ol><li>Assessment Task 3: Perform die casting operation to develop battery terminal.</li></ol>
<ol> <li>Assessment Task 4: Perform gear hobbing operation to develop gear.</li> </ol>
And complete:
<ol> <li>Knowledge assessment test (Written)</li> <li>Portfolios at the time of assessment</li> </ol>
During a practical assessment, under observation by an assessor, you will complete:
Assessment Task 1: Perform injection moulding operation to develop plastic part.
Performance criteria 1: Select machine, material and tools as per job specification.
Performance criteria 2: Set parameters as per job specification.
Performance criteria 3: Operate the machine.
Performance criteria 4: Perform inspection of final product part.
<b>Performance criteria 5</b> : Establish and maintain the occupational health and safety system.
Assessment Task 2: Perform hot forging operation to develop sprocket part.
Performance criteria 1: Select machine, material and tools as per job specification.
Performance criteria 2: Set parameters as per job specification.
Performance criteria 3: Operate the machine.
Performance criteria 4: Perform inspection of final product part.
<b>Performance criteria 5</b> : Establish and maintain the occupational health and safety system.

# Assessment Task 3: Perform die casting operation to develop battery terminal.

**Performance criteria 1**: Select machine, material and tools as per job specification.

**Performance criteria 2**: Set parameters as per job specification.

Performance criteria 3: Operate the machine.

**Performance criteria 4:** Perform inspection of final product part.

**Performance criteria 5:** Establish and maintain the occupational health and safety system.

#### Assessment Task 4: Perform gear hobbing operation to develop gear.

Performance criteria 1: Select machine, material and tools as per job specification.

**Performance criteria 2**: Calculate feed and speed according to tools and job material.

Performance criteria 3: Set tool and job on designated post.

**Performance criteria 4**: Set parameters of machine as per job requirement.

**Performance criteria 5**: Perform gear hobbing operation.

**Performance criteria 6**: Perform inspection of final product part.

**Performance criteria 7**: Establish and maintain the occupational health and safety system.

# Portfolios required at the time of assessment (if any) for

<u>Performance criteria 1 for the evaluation of portfolio:</u> Diary log of practical work for the injection moulding for plastic product part.

<u>Performance criteria 2 for the evaluation of portfolio:</u> Diary log of practical work for the hot forging for sprocket part.

<u>Performance criteria 3 for the evaluation of portfolio</u>: Diary log of practical work for the die casting for battery terminal.

<u>Performance criteria 4 for the evaluation of portfolio:</u> Diary log of practical work for gear hobbing for gear.

Continued on following page

Candida Details	ate	Name:								
		COMPETENT□ NOT YET COMPETENT□								
Assessr Outcom		Name of the As Signature of the	Э							
		Assessor:								
		Assessme	ent Su		v (to be	filled I	ov the a	assess	or)	
	Activ				Method		<u>-, </u>			sult
Nature o	of Activity		Written	Oral	Observation	Portfolio	Role Play	Competent Not Yet Competent		
Practica	al Skill Den	nonstration			<b>✓</b>					
Knowled	dge Asses	sment	✓	✓						
Other R	equiremer	nt				✓				
Each As	ssessment	t Task (with perfo	rmance	e criter	ia)					
Assessr	ment Task	1			Descript Perform part.					develop plastic
During t		al assessment, c	andidat	te dem	ionstrate	d the	Yes	No	Remarks	
_	Select m	achine, material a	and too	ls as p	er job					
1	specificati	ion.								
2	Set parar	et parameters as per job specification.								
3	Operate t	perate the machine.						•		
4	Perform in	m inspection of final product part.								
5	Establish safety sys	and maintain the	e occup	ationa	ıl health	and				
Compet	tent 🗆			1	Not Yet	Compe	tent 🗆			

Assess	sment Task 2	· ·	assessment task 2 orging operation to develop sprocket part.				
During following	the practical assessment, candidate de ng:	monstrated the	Yes	No	Remarks		
1	Select machine, material and tools as specification.	per job					
2	Set parameters as per job specification	n.					
3	Operate the machine.						
4	Perform inspection of final product par	t.					
5	Establish and maintain the occupation safety system	al health and					
Compe	etent 🗆	Not Yet Compe	lot Yet Competent □				
		T					
Assess	Assessment Task 3		Description of assessment task 3 Perform die casting operation to develop battery terminal.				
During following	the practical assessment, candidate de ng:	monstrated the	Yes	No	Remarks		
1	Select machine, material and tools as specification.	per job					
2	Set parameters as per job specification.						
3	Operate the machine.						
4	Perform inspection of final product part.						
5	Establish and maintain the occupational health and safety system.						
Compe	etent□	Not Yet Compe	tent 🗆				

Assess	sment Task 4	Description of a Perform gear h			sk 4 ion to develop gear.	
During followir	the practical assessment, candidate de ng:	monstrated the	Yes	No	Remarks	
1	Select machine, material and tools as specification.	per job				
2	Calculate feed and speed according to material.	tools and job				
3	Set tool and job on designated post.					
4	Set parameters of machine as per job	requirement.				
5	Perform gear hobbing operation.					
6	Perform inspection of final product par	t.				
7	Establish and maintain the occupational health and safety system.					
Compe	etent 🗆	Not Yet Compe	tent $\square$	l		
Portfoli	io(if any)	Description of plary log of pra	•			
Curren	t□ Sufficient□ Authenti	c□ Valid	□ Reliable □			
Portfoli	io meet the following performance stand	ards:	Yes	No	Remarks	
1	Performance criteria 1 for the evaluation of portfolio:  Diary log of practical work for the injection moulding for plastic product part.					
2	Performance criteria 2 for the evaluation of portfolio: Diary log of practical work for the hot forging for sprocket part.					
3	Performance criteria 3 for the evaluation of portfolio: Diary log of practical work for the die casting for battery terminal.					
4	Performance criteria 4 for the evaluation Diary log of practical work for the gear gear.					

Not Yet Competent □

Competent  $\square$ 

Title of Qualification:	CS Code:	Level:	Version:			
National Vocational Certificate Level-4 Automotive parts production machine operator		4	01			
Competency Standard Title:	Assessment Date (DD/MM/YY):					
Conduct moulding and extrusion operation.	00/00/0000					

Candidate Details	Name:					
	Registration/Roll Number:					
	To meet this standard, you are required to complete the following within the given time frame (for practical demonstration & assessment):					
	Assessment Task 1: Prepare for moulding and extrusion specified by your assessor correctly using proper method.					
	<b>Assessment Task 2:</b> Conduct pre-operational checks on machine specified by your assessor correctly.					
	<b>Assessment Task 3:</b> Prepare moulds (Injection, Compression, blow, rubber injection, PU) specified by your assessor correctly using proper method.					
	<b>Assessment Task 4:</b> Prepare die specified by your assessor correctly using proper method.					
	<b>Assessment Task 5:</b> Operate injection molding machine specified by your assessor correctly on required standard.					
Guidance	<b>Assessment Task 6:</b> Operate rubber compression mounding machine specified by your assessor correctly on required standard.					
for Candidate	Assessment Task 7: Operate blow moulding machine specified by your assessor correctly on required standard.					
	<b>Assessment Task 8:</b> Operate rubber injection mounding machine specified by your assessor correctly on required standard.					
	<b>Assessment Task 9:</b> Operate polyurethane mounding machine specified by your assessor correctly on required standard.					
	<b>Assessment Task 10:</b> Operate extrusion machine specified by your assessor correctly on required standard.					
	Assessment Task 11: Inspect final product specified by your assessor correctly on required standard.					
	<b>Assessment Task 12</b> : Perform workplace cleaning and maintenance specified by your assessor correctly as per organization standard.					
	And complete:					
	<ul><li>5. Knowledge assessment test (Written)</li><li>6. Portfolios at the time of assessment</li></ul>					
	During a practical assessment, under observation by an assessor, you will complete:					
Minimum Evidence	Assessment Task 1					
Required	Performance Criteria 1: Arrange material as per drawing or process sheet.  Performance Criteria 2: Select the tools and equipment.					
	Performance Criteria 3: Set machine as per job specification.					

Performance Criteria 1: Inspect all electrical connections.

Performance Criteria 2: Check all mechanical fitting and joints.

**Performance Criteria 3:** Check operation of emergency switches.

**Performance Criteria 4:** Check and maintain correct machine lubricant level.

**Performance Criteria 5:** Check chillier temperature.

**Performance Criteria 6:** Check function by operate machine manually.

# **Assessment Task 3**

**Performance Criteria 1:** Place the mould on machine (Moulding/Extrusion).

Performance Criteria 2: Align the mould on machine.

Performance Criteria 3: Operate machine manually and match the upper

and lower mould.

Performance Criteria 4: Clamp the mould.

Performance Criteria 5: Install the cooling water lines on mould.

**Performance Criteria 6:** Set the parameters.

**Performance Criteria 7:** Perform the trial of mould to verify the operation

### **Assessment Task 4**

**Performance Criteria 1:** Place the die on machine with lifting equipment.

Performance Criteria 2: Align the die on machine.

Performance Criteria 3: Operate machine manually and match the upper

and lower dies.

Performance Criteria 4: Clamp the die.

Performance Criteria 5: Set parameters

**Performance Criteria 6:** Perform the trial of die to verify the operation.

#### **Assessment Task 5**

Performance Criteria 1: Set all parameters.

Performance Criteria 2: Proceed with operation.

Performance Criteria 3: Monitor operation to ensure compliance with job

requirements.

#### **Assessment Task 6**

Performance Criteria 1: Perform degassing on mould.

Performance Criteria 2: Set all parameters.

**Performance Criteria 3:** Proceed with operation.

**Performance Criteria 4:** Monitor operation to ensure compliance with job requirements.

# **Assessment Task 7**

Performance Criteria 1: Set all Parameters.

Performance Criteria 2: Proceed with operation.

Performance Criteria 3: Monitor operation to ensure compliance with job

requirements.

#### **Assessment Task 8**

Performance Criteria 1: Perform degassing on mould.

Performance Criteria 2: Set all parameters.

Performance Criteria 3: Proceed with operation.

**Performance Criteria 4:** Monitor operation to ensure compliance with job requirements.

**Performance Criteria 1:** Mix the raw material polyurethane part A (Polyols) in the drum of mixing machine.

**Performance Criteria 2:** Mix the raw material polyurethane part B (Isocyanates) in the drum of mixing machine.

**Performance Criteria 3:** Fill the tank of polyurethane machine part A (Polyols) by using the pump.

**Performance Criteria 4:** Fill the tank of polyurethane machine part B (isocyanates) by using the pump.

**Performance Criteria 5:** Fasten the machine tank cover to avoid the moisture.

**Performance Criteria 6:** Circulate the water on machine tank to maintain the required temperature of raw material.

**Performance Criteria 7:** Set the water temperature according to the weather condition.

Performance Criteria 8: Set all parameters (Ratio A & B).

**Performance Criteria 9:** Operate the material circulating pump A (Polyols) and B (Isocyanates) on operating position.

**Performance Criteria 10:** Fill the de-flashing tank by hand and ensure safety.

**Performance Criteria 11:** Set the die on platform.

**Performance Criteria 12:** Proceed with operation.

**Performance Criteria 13:** Monitor operation to ensure compliance with job requirements.

### **Assessment Task 10**

Performance Criteria 1: Set all parameters.

Performance Criteria 2: Fix the nozzle in extruder according to job material.

Performance Criteria 3: Fill the water tank.

**Performance Criteria 4:** Set the cutting distance of material as per requirement.

Performance Criteria 5: Proceed with operation.

**Performance Criteria 6:** Monitor operation to ensure compliance with job requirements.

# **Assessment Task 11**

Performance Criteria 1: Perform visual inspection of defects.

Performance Criteria 2: Check dimensionally.

Performance Criteria 3: Check by go no go gauge.

Performance Criteria 4: Complete inspection report.

#### **Assessment Task 12**

**Performance Criteria 1:** Maintain all check sheets and work instructions on the machine.

Performance Criteria 2: Maintain the tools and equipment.

**Performance Criteria 3:** Keep tools and equipment at appropriate place.

Performance Criteria 4: Perform cleaning of machine, mould/die and floor.

Performance Criteria 5: Apply anti-rust spray/cleaning agent.

Performance Criteria 6: Perform lubrication.

Performance Criteria 7: Transfer wastage material into the wastage area.

Performance Criteria 8: Return excess material to store.

# Portfolios required at the time of assessment (if any) for

<u>Performance criteria 1 for the evaluation of portfolio:</u> Diary log of practical work for preparation for moulding and extrusion.

<u>Performance criteria 2 for the evaluation of portfolio:</u> Diary log of practical work for conduct pre-operational checks on machine.

<u>Performance criteria 3 for the evaluation of portfolio:</u> Diary log of practical work for preparation moulds (Injection, Compression, blow, rubber injection, PU).

<u>Performance criteria 4 for the evaluation of portfolio:</u> Diary log of practical work for preparation of die.

<u>Performance criteria 5 for the evaluation of portfolio:</u> Diary log of practical work for operate of injection molding machine.

<u>Performance criteria 6 for the evaluation of portfolio:</u> Diary log of practical work for operate of rubber compression mounding machine.

<u>Performance criteria 7 for the evaluation of portfolio:</u> Diary log of practical work for operate of blow moulding machine.

<u>Performance criteria 8 for the evaluation of portfolio:</u> Diary log of practical work for operate of rubber injection mounding machine.

<u>Performance criteria 9 for the evaluation of portfolio:</u> Diary log of practical work for operate of polyurethane mounding machine.

<u>Performance criteria 10 for the evaluation of portfolio:</u> Diary log of practical work for operate of extrusion machine.

<u>Performance criteria 11 for the evaluation of portfolio:</u> Diary log of practical work for Inspection of final product.

<u>Performance criteria 12 for the evaluation of portfolio:</u> Diary log of practical work for perform workplace cleaning and maintenance.

Continued on following page

Candio Details		Name:Registration/Roll Number:  Candidate Signature:									
Asses Outco		COMPETENT   Not yet competent   Name of the Assessor:   Signature of the Assessor:   Assessor:									
		Assessmei	nt Sur		y (to l	20	filled	by the	2220	esor)	
	Activ		II Jui	IIIIai	Meth			Dy tile	; assc.	Res	sult
Nature of Activity		Written	Oral	Observation		Portfolio	Role Play		Competent	Not Yet Competent	
Praction	cal Skill De	emonstration			<b>√</b>			<u>.</u>			
Knowl	edge Asse	essment	✓	✓							
Other	Requirem	ent					✓				
Each	Assessm	ent Task (with	perfo	rman	ce cri	ter	ia)				
Asses	ssment Ta	ısk 1			Prepa	are	e for m	noulding	g and	ent task 1 extrusion s ing proper	specified by method.
During the practical assessment, candidate demonstrated the following:					Yes	No	Remarks	3			
1	Arrange material as per drawing or process sheet.										
2	Select th	ne tools and equ	uipmer	ıt.							
3	Set macl	hine as per job	specifi	catio	n						
Comp	etent 🗆				Not Y	et (	Comp	etent [			

A3563	Sinent iask 2	Conduct pre- specified by y	operati	onal cl	hecks on machine
_	g the practical assessment, candidatenstrated the following:	е	Yes	No	Remarks
1	Inspect all electrical connections.				
2	Check all mechanical fitting and joi	nts.			
3	Check operation of emergency swi	tches.			
4	Check machine lubricant.				
5	Check chillier temperature.				
6	Check function by operate machine	e manually.			
Comp	etent □	Not Yet Comp	etent I		
			ds (Inj on,PU)	ection, specif	Compression, blow, ied by your assessor
	g the practical assessment, candidatenstrated the following:	е	Yes	No	Remarks
1	Place the mould on machine (Moulding/Extrusion).				
2	Align the mould on machine.				
3	Operate machine manually and match the upper and lower mould.				
4	Clamp the mould.				
5	Install the cooling water lines on mould.				
6	Set the parameters.				
7	Perform the trial of mould to verify the operation.				

Not Yet Competent □

Competent □

Asses	Description of Prepare die susing proper in	specifie	ed by yo	ent task 4 our assessor correctly	
_	g the practical assessment, candidatenstrated the following:	9	Yes	No	Remarks
1	Place the die on machine with lifting	g equipment.			
2	Align the die on machine.				
3	Operate machine manually and ma and lower dies.	atch the upper			
4	Clamp the die.				
5	Set parameters				
6	Perform the trial of die to verify the	operation.			
Comp	etent 🗆	Not Yet Comp	etent l		
Each	Assessment Task (with performan	nce criteria)			
Assessment Task 5  Description Operate inje			tion m	olding	ent task 5 machine specified by required standard.
During the practical assessment, candidate demonstrated the following:			Yes	No	Remarks
1 Set all parameters.					
2	Proceed with operation.				
3	Monitor operation to ensure compliance with job requirements.				

Not Yet Competent  $\Box$ 

Competent □

Each Assessment Task (with performance criteria)							
Assessment Task 6 Des		Description	of ass	essme	ent task 6		
		Operate rubber compression mounding machine specified by your assessor correctly on required standard.					
	ng the practical assessment, candidat onstrated the following:	е	Yes	No	Remarks		
1	Perform degassing on mould.						
2	Set all parameters.						
3	Proceed with operation.						
4	Monitor operation to ensure compl requirements.	iance with job					
Com	petent 🗆	Not Yet Comp	etent I	]			
Each	Assessment Task (with performan	nce criteria)					
Assessment Task 7		Operate blow	Description of assessment task 7  Operate blow moulding machine specified by your assessor correctly on required standard.				
	ng the practical assessment, candidat onstrated the following:	е	Yes	No	Remarks		
1	Set all Parameters.						
2	Proceed with operation.						
3	Monitor operation to ensure compl requirements.	iance with job					
Com	petent 🗆	Not Yet Comp	etent I				
Each	Assessment Task (with performa	nce criteria)					
Assessment Task 8		Description of assessment task 8  Operate rubber injection mounding machine specified by your assessor correctly on require standard.			nounding machine		
	ng the practical assessment, candidat onstrated the following:	е	Yes	No	Remarks		
1 Perform degassing on mould.							
2	Set all parameters.						
3	Proceed with operation.						
4	Monitor operation to ensure compl requirements.	iance with job					
Com	petent 🗆	Not Yet Comp	etent I		∟L petent □		

Each Assessment Task (with performance criteria)						
Asses	ssment Task 9	Description of assessment task 9  Operate polyurethane mounding machine specified by your assessor correctly on required standard.				
_	the practical assessment, candidate strated the following:	е	Yes	No	Remarks	
1	Mix the raw material polyurethane (Polyols) in the drum of mixing made					
2	Mix the raw material polyurethane (Isocyanates) in the drum of mixing					
3	Fill the tank of polyurethane machin (Polyols) by using the pump.	ne part A				
4	Fill the tank of polyurethane machine (isocyanates) by using the pump.	ne part B				
5	Fasten the machine tank cover to avoid the moisture.					
6	Circulate the water on machine tan the required temperature of raw ma					
7	Set the water temperature according weather condition.	ng to the				
8	Set all parameters (Ratio A & B).					
9	Operate the material circulating pump A (Polyols) and B (Isocyanates) on operating position.					
10	Fill the de-flashing tank by hand and ensure safety.					
11	Set the die on platform.					
12	Proceed with operation.					
13	Monitor operation to ensure compliance with job requirements.					
Comp	etent 🗆	Not Yet Comp	etent I			

Each Assessment Task (with performance criteria)					
Operate extrus		of assessment task 10 usion machine specified by your rectly on required standard.			
During the practical assessment, candidate demonstrated the following:			Yes	No	Remarks
1	Set all parameters.				
2	Fix the nozzle in extruder according to job material.				
3	Fill the water tank.				
4	Set the cutting distance of material requirement.	as per			
5	Proceed with operation.				
6	Monitor operation to ensure compliance with job requirements.				
Competent □ No		Not Yet Comp	etent l		

Each Assessment Task (with performance criteria)						
Inspect final		Description of Inspect final properties on received the correction of the correction	roduct	specif	ied by your assessor	
During the practical assessment, candidate demonstrated the following:		e	Yes	No	Remarks	
1	Perform visual inspection of defect	S.				
2	Check dimensionally.					
3 Check by go no go gauge.						
4 Complete inspection report.						
Competent □ Not Yet Comp		etent [	<b>_</b>			

Each Assessment Task (with performance criteria)					
Perform work			of assessment task 12 splace cleaning and maintenance your assessor correctly as per standard.		
During the practical assessment, candidate demonstrated the following:			Yes	No	Remarks
1	Maintain all check sheets and work instructions on the machine.				
2	Maintain the tools and equipment.				
3	Keep tools and equipment at appro	opriate place.			
4	Perform cleaning of machine, mou floor.	ld/die and			
5	Apply anti-rust spray/cleaning age	nt.			
6	Perform lubrication.				
7	Transfer wastage material into the wastage area.				
8	8 Return excess material to store.				
Competent □ Not Yet Comp		etent l			

Portfolio(if any)			Description of portfolio				
			Diary lo	g of p	ractica	l work	
Currer	nt □ Sufficient □ A	uthenti	ic 🗆	Valid			Reliable □
Portfo	lio meet the following performa	ance st	tandards	:	Yes	No	Remarks
1	Performance criteria 1 for the portfolio: Diary log of practical preparation for moulding and	al work	for				
2	Performance criteria 2 for the portfolio: Diary log of practica pre-operational checks on m	al work	for cond	duct			
3	Performance criteria 3 for the portfolio: Diary log of practical Preparation moulds (Injection blow, rubber injection, PU).	al work	for	١,			
4	Performance criteria 4 for the portfolio: Diary log of practical preparation of die.						
5	Performance criteria 5 for the portfolio: Diary log of practica of injection molding machine	al work		ate			
6	Performance criteria 6 for the portfolio: Diary log of practica of rubber compression moun	al work	for oper	ate			
7	Performance criteria 7 for the portfolio: Diary log of practica of blow moulding machine.			ate			
8	Performance criteria 8 for the portfolio: Diary log of practica of rubber injection mounding	al work	for oper	ate			
9	Performance criteria 9 for the portfolio: Diary log of practica of polyurethane mounding m	al work	for oper	ate			
10	Performance criteria 10 for the portfolio: Diary log of practical of extrusion machine.			_			
11	Performance criteria 11 for the evaluation of portfolio: Diary log of practical work for Inspection of final product.		<u>f</u>				
12	Performance criteria 12 for the portfolio: Diary log of practical workplace cleaning and main	al work	for perfe				
Comp	etent 🗆		Not Yet	Comp	etent		

Title of Qualification:	CS Code:	Level:	Version:			
National Vocational Certificate Level-4 Automotive parts production machine operator		4	01			
Competency Standard Title:	Assessment Date (DD/MM/YY):					
Perform hot forging operation	00/00/0000					

Candidate Details	Name:
	Registration/Roll Number:
	To meet this standard, you are required to complete the following within the given time frame (for practical demonstration & assessment):
	Assessment Task 1: Prepare for hot press forging specified by your
	assessor correctly using proper method.
	<b>Assessment Task 2:</b> Conduct pre-operational checks on machine specified by your assessor correctly.
Guidance	<b>Assessment Task 3:</b> Prepare mould/die specified by your assessor correctly using proper method.
for Candidate	<b>Assessment Task 4:</b> Operate machine specified by your assessor correctly on required standard.
	<b>Assessment Task 5:</b> Inspect final product specified by your assessor correctly on required standard.
	<b>Assessment Task 6</b> : Perform workplace cleaning and maintenance specified by your assessor correctly as per organization standard.
	And complete:
	<ul><li>7. Knowledge assessment test (Written)</li><li>8. Portfolios at the time of assessment</li></ul>
	During a practical assessment, under observation by an assessor, you will complete:
	Assessment Task 1
	Performance Criteria 1: Arrange material as per drawing or process sheet.  Performance Criteria 2: Select tools and equipment.
Minimum	Performance Criteria 3: Set machine as per job specification.
Evidence Required	Assessment Task 2  Performance Criteria 1: Inspect all electrical connection.  Performance Criteria 2: Check all mechanical fitting and joints.  Performance Criteria 3: Check operation of emergency switches.  Performance Criteria 4: Check air connections.  Performance Criteria 5: Check the control panel button.
	Performance Criteria 6: Check oil tank for proper lubrication.  Performance Criteria 7: Check the manual stroke for proper ram working.

Performance Criteria 1: Install mould/die with lifting equipment.

Performance Criteria 2: Set all parameters.

**Performance Criteria 3:** Turn on gas burner for pre-heating mould/die.

Performance Criteria 4: Maintain the idle temperature of mould/die.

#### **Assessment Task 4**

Performance Criteria 1: Release the mult/blank from induction heater.

Performance Criteria 2: Adjust mult/blank on mould/die.

Performance Criteria 3: Proceed with operation.

**Performance Criteria 4:** Monitor operation to ensure compliance with job requirements.

#### **Assessment Task 5**

**Performance Criteria 1:** Perform visual inspection of defects.

Performance Criteria 2: Check dimensionally.

Performance Criteria 3: Inspect the part for non-filling.

Performance Criteria 4: Complete inspection report.

#### **Assessment Task 6**

**Performance Criteria 1:** Maintain all check sheets and work instruction on machine.

**Performance Criteria 2:** Perform cleaning of mould, machine and floor.

Performance Criteria 3: Apply anti-rust spray/cleaning agent.

Performance Criteria 4: Perform lubrication on slides and mould/die.

**Performance Criteria 5:** Maintain tools and equipment.

**Performance Criteria 6:** Keep tools and equipment at appropriate place.

Performance Criteria 7: Transfer wastage material in to the.

#### Portfolios required at the time of assessment (if any) for

<u>Performance criteria 1 for the evaluation of portfolio:</u> Diary log of practical work for preparation for hot press forging.

<u>Performance criteria 2 for the evaluation of portfolio:</u> Diary log of practical work for conduct pre-operational checks on machine.

<u>Performance criteria 3 for the evaluation of portfolio:</u> Diary log of practical work for preparation of mould/die.

<u>Performance criteria 4 for the evaluation of portfolio:</u> Diary log of practical work for operate of machine.

<u>Performance criteria 5 for the evaluation of portfolio:</u> Diary log of practical work for inspection of final product.

<u>Performance criteria 6 for the evaluation of portfolio:</u> Diary log of practical work for perform workplace cleaning and maintenance.

Candid Details		Name:Registration/Roll Number:  Candidate Signature:									
Asses: Outcom		Name of the A	COMPETENT   NOT YET COMPETENT   Name of the Assessor: Assessor's code:   Signature of the  Assessor:								
		Assessmer	nt Sur		r\/	/to he	filled	by the	2550	esor)	
	Activ		It Guii	IIIIai		lethoo		Бу пте	asse		sult
Nature of Activity			Written	Oral		Observation	Portfolio	Role Play		Competent	Not Yet Competent
Practio	cal Skill De	emonstration		Ŭ		✓					
Knowl	edge Asse	essment	✓	✓							
Other	Requirem	ent					✓				
Each	Assessm	ent Task (with	perfo	rman	ıce	e crite	ria)		•		_
Assessment Task 1					Р	Prepare	e for h	ot pres	s forgi	ent task 1 ng specific roper metl	ed by your nod.
During the practical assessment, candidate demonstrated the following:				lidate	Э			Yes	No	Remarks	8
Arrange material as per drawing or sheet.				pr	rocess	<del></del>					
2	Select to	ools and equipm	ent.								
3	Set macl	hine as per job	specifi	catio	n.						
Competent □ Not				Not Yet Competent □							

Asse	ssment Task 2	Description of assessment task 2 Conduct pre-operational checks on machine specified by your assessor correctly.			
	g the practical assessment, candidatenstrated the following:	е	Yes	No	Remarks
1	Inspect all electrical connection.				
2	Check all mechanical fitting and joi	nts.			
3	Check operation of emergency swi	tches.			
4	Check air connections.				
5	Check the control panel button.				
6	Check oil tank for proper lubrication	n.			
7	Check the manual stroke for prope working.	r ram			
Comp	petent 🗆	Not Yet Comp	etent I		
Assessment Task 3		Description of assessment task 3 Prepare mould/die specified by your assessor correctly using proper method.			
	g the practical assessment, candidat nstrated the following:	e	Yes	No	Remarks
1	Install mould/die with lifting equipm	ent.			
2	Set all parameters.				
3	Turn on gas burner for pre-heating	mould/die.			
4	Maintain the idle temperature of me	ould/die.			
Comp	petent 🗆	Not Yet Competent □			
Assessment Task 4		Description of assessment task 4 Operate machine specified by your assessor correctly on required standard.			d by your assessor
	g the practical assessment, candidat nstrated the following:	е	Yes	No	Remarks
1	Release the mult/blank from induction heater.				
2	Adjust mult/blank on mould/die.				
3	Proceed with operation.				
4	Monitor operation to ensure complirequirements.	ance with job			
Comp	petent 🗆	Not Yet Comp	etent I		

1		1				
Asses	ssment Task 5	Inspect final p	Description of assessment task 5 Inspect final product specified by your assessor correctly on required standard.			
During the practical assessment, candidate demonstrated the following:			Yes	No	Remarks	
1	Perform visual inspection of defect	S.				
2	Check dimensionally.					
3	Inspect the part for non-filling.					
4	Complete inspection report.					
Comp	etent 🗆	Not Yet Comp	petent 🗆			
Assessment Task 6		Perform work specified by y	Description of assessment task 6 Perform workplace cleaning and maintenance specified by your assessor correctly as per organization standard.			
During the practical assessment, candidate demonstrated the following:		е	Yes	No	Remarks	
1	Maintain all check sheets and work instruction on machine.					
2	Perform cleaning of mould, machin	ne and floor.				
3	Apply anti-rust spray/cleaning age	nt.				
4	Perform lubrication on slides and n	nould/die.				

Not Yet Competent  $\square$ 

5

6

7

Competent □

Maintain tools and equipment.

Transfer wastage material in to the

Keep tools and equipment at appropriate place.

Portfo	olio(if any)	Description (	of port	folio			
		Diary log of p	Diary log of practical work				
Currer	nt □ Sufficient □ Authent	ic □ Valid			Reliable □		
Portfol	lio meet the following performance s	tandards:	Yes	No	Remarks		
1	Performance criteria 1 for the evaluation portfolio: Diary log of practical work preparation for hot press forging.						
2	Performance criteria 2 for the evaluation portfolio: Diary log of practical work pre-operational checks on machine	for conduct					
3	Performance criteria 3 for the evaluation portfolio: Diary log of practical work preparation of mould/die.						
4	Performance criteria 4 for the evaluation of portfolio: Diary log of practical work for operate of machine.						
5	Performance criteria 5 for the evaluation of portfolio: Diary log of practical work for inspection of final product.						
6	Performance criteria 6 for the evaluation of portfolio: Diary log of practical work for perform workplace cleaning and maintenance.						
Comp	etent 🗆	Not Yet Comp	petent				

CS Code:	Level:	Version:			
	4	01			
Assessment Date (DD/MM/YY):					
00/00/0000					
	Assessment	4 Assessment Date (DD/MM/			

Candidate Details	Name:
	Registration/Roll Number:
	To meet this standard, you are required to complete the following within the given time frame (for practical demonstration & assessment):
	Assessment Task 1: Prepare for die casting specified by your assessor
	correctly using proper method.
	<b>Assessment Task 2:</b> Conduct pre-operational checks on machine specified by your assessor correctly.
Guidance	<b>Assessment Task 3:</b> Prepare casting mould specified by your assessor correctly using proper method.
for Candidate	<b>Assessment Task 4:</b> Operate machine specified by your assessor correctly on required standard.
	Assessment Task 5: Inspect final product specified by your assessor correctly on required standard.
	<b>Assessment Task 6</b> : Perform workplace cleaning and maintenance specified by your assessor correctly as per organization standard.
	And complete: 9. Knowledge assessment test (Written) 10. Portfolios at the time of assessment
	During a practical assessment, under observation by an assessor, you will complete:
	Assessment Task 1
	Performance Criteria 1: Arrange material as per drawing or process sheet.  Performance Criteria 2: Select tools and equipment.
	Performance Criteria 3: Prepare the melting furnace (Crucible).
Minimum	Performance Criteria 3: Set machine as per job specification.
Evidence	Assessment Task 2
Required	Performance Criteria 1: Inspect all electrical connection.  Performance Criteria 2: Check all mechanical fitting and joints.
	Performance Criteria 3: Check operation of emergency switches.
	Performance Criteria 4: Check the plunger
	Performance Criteria 5: Check cooling lines. Performance Criteria 6: Check and maintain proper lubrication.
	Performance Criteria 7: Check air pressure.
	Performance Criteria 8: Check water connection.

Performance Criteria 1: Lift mould with lifting equipment.

**Performance Criteria 2:** Place the mould between the mould platen.

Performance Criteria 3: Align mould in the centre of platen.

Performance Criteria 4: Set cutting part size.

**Performance Criteria 5:** Connect hydraulic and water connection. **Performance Criteria 6:** Clamp mould with bolts/ hydraulic clamps.

Performance Criteria 7: Apply releasing spray/ beads.

#### **Assessment Task 4**

Performance Criteria 1: Set all parameters.

**Performance Criteria 2:** Lift the material with ladle from the holding furnace.

Performance Criteria 3: Pour the material in the plunger.

Performance Criteria 4: Proceed with operation.

**Performance Criteria 5:** Monitor operation to ensure compliance with job requirements.

# **Assessment Task 5**

**Performance Criteria 1:** Perform visual inspection of defects.

Performance Criteria 2: Check dimensionally.

Performance Criteria 3: Check part on checking fixture.

Performance Criteria 4: Complete inspection report.

#### **Assessment Task 6**

**Performance Criteria 1:** Maintain all check sheets and work instruction on machine.

Performance Criteria 2: Perform cleaning of die, machine and floor

Performance Criteria 3: Perform lubrication on slides, tie bar and mould.

Performance Criteria 4: Apply anti rust spray/cleaning agent.

Performance Criteria 5: Maintain tools and equipment.

Performance Criteria 6: Keep tools and equipment at appropriate place.

**Performance Criteria 7:** Transfer wastage material in to the wastage area.

Performance Criteria 8: Return excess material to store.

# Portfolios required at the time of assessment (if any) for

<u>Performance criteria 1 for the evaluation of portfolio:</u> Diary log of practical work for preparation for die casting.

<u>Performance criteria 2 for the evaluation of portfolio:</u> Diary log of practical work for conduct pre-operational checks on machine.

<u>Performance criteria 3 for the evaluation of portfolio:</u> Diary log of practical work for preparation of casting mould.

<u>Performance criteria 4 for the evaluation of portfolio:</u> Diary log of practical work for operate of machine.

<u>Performance criteria 5 for the evaluation of portfolio:</u> Diary log of practical work for inspection of final product.

<u>Performance criteria 6 for the evaluation of portfolio:</u> Diary log of practical work for perform workplace cleaning and maintenance.

Candidate Details		Name:Registration/Roll Number:  Candidate Signature:								
Assessment Outcome	Name of the A	COMPETENT   NOT YET COMPETENT   Name of the Assessor: Assessor's code:   Signature of the Assessor:   Assessor:								
Assessment Summary (to be filled by the assessor)										
Ac	tivity		a.		/letho		<i></i>			sult
Nature of Activity		Written	Oral		Observation	Portfolio	Role Play		Competent	Not Yet Competent
Practical Skill	Demonstration				<u>√</u>					П
Knowledge As	sessment	<b>✓</b>	✓							П
Other Require	ment					✓				
Each Assess	ment Task (with	perfo	rman	nce	e crite	ria)	•			_
Assessment	Task 1			F	Prepar	e for d		ing spe	•	your assessor
During the practical assessment, candidate demonstrated the following:					Yes	No	Remarks	3		
Arrange material as per drawing or process sheet.										
2 Select	Select tools and equipment.									
3 Prepar	Prepare the melting furnace (Crucible).									
4 Set ma	achine as per job	specifi	icatio	n.						
Competent □ Not Yet Competent □										

Asses	ssment Task 2	Description of assessment task 2 Conduct pre-operational checks on machine specified by your assessor correctly.					
During the practical assessment, candidate demonstrated the following:				No	Remarks		
1	Inspect all electrical connection.						
2	Check all mechanical fitting and joi	nts.					
3	Check operation of emergency swi	tches.					
4	Check the plunger						
5	Check cooling lines.						
6	Check and maintain proper lubricate	tion.					
7	Check air pressure.						
8	Check water connection.						
Comp	etent □	Not Yet Comp	etent □				
Assessment Task 3  Description Prepare concorrectly to			ng mo	uld spe	ecified by your assessor		
During the practical assessment, candidate demonstrated the following:				No	Remarks		
1	Lift mould with lifting equipment.						
2	Place the mould between the mould platen.						
3	Align mould in the centre of platen.						
4	Set cutting part size.						
5	Connect hydraulic and water conne	ection.					
6	Clamp mould with bolts/ hydraulic of	clamps.					
7	Apply releasing spray/ beads		П	П			

Not Yet Competent  $\square$ 

Competent □

Each Assessment Task (with performance criteria)							
Assessment Task 4  Description Operate maccorrectly on			hine s	pecifie	d by your assessor		
During the practical assessment, candidate demonstrated the following:				No	Remarks		
1	Set all parameters.						
2	Lift the material with ladle from the holding furnace.						
3	Pour the material in the plunger.						
4	Proceed with operation.						
5	Monitor operation to ensure compliance with job requirements.						
Comp	etent 🗆	Not Yet Comp	etent I				

Each Assessment Task (with performance criteria)							
Assessment Task 5		Description of assessment task 5 Inspect final product specified by your assessor correctly on required standard.					
During the practical assessment, candidate demonstrated the following:		e	Yes	No	Remarks		
1	Perform visual inspection of defect	S.					
2	2 Check dimensionally.						
3 Check part on checking fixture.							
4 Complete inspection report.							
Competent □ Not Yet Com			etent [	]			

Each Assessment Task (with performance criteria)							
Asses	ssment Task 6	Description of assessment task 6					
		Perform workplace cleaning and maintenance specified by your assessor correctly as per organization standard.					
_	the practical assessment, candidatenstrated the following:	е	Yes	No	Remarks		
1	Maintain all check sheets and work on machine.	instruction					
2	Perform cleaning of die, machine a	ind floor					
3	Perform lubrication on slides, tie ba	ar and mould.					
4	Apply anti rust spray/cleaning ager	nt.					
5	Maintain tools and equipment.						
6	Keep tools and equipment at appro	priate place.					
7	Transfer wastage material in to the area.	wastage					
8	Return excess material to store.						
Comp	etent □	Not Yet Comp	petent 🗆				
Portfo	lio(if any)	Description o Diary log of p	•				
Currer	nt □ Sufficient □ Authent	ic □ Valid	d □ Reliable □				
Portfo	lio meet the following performance s	tandards:	Yes	No	Remarks		
1	Performance criteria 1 for the evaluation portfolio: Diary log of practical work preparation for die casting.						
2	Performance criteria 2 for the evaluation of portfolio: Diary log of practical work for conduct pre-operational checks on machine.						
3	Performance criteria 3 for the evaluation of portfolio: Diary log of practical work for preparation of casting mould.						
4	Performance criteria 4 for the evaluation of portfolio: Diary log of practical work for operate of machine.						
5	Performance criteria 5 for the evaluation of portfolio: Diary log of practical work for inspection of final product.						
6	Performance criteria 6 for the evaluportfolio: Diary log of practical workworkplace cleaning and maintenan	for perform					

Not Yet Competent □

Competent □

Title of Qualification:	CS Code:	Level:	Version:			
National Vocational Certificate Level-4 Automotive parts production machine operator		4	01			
Competency Standard Title:	Assessment Date (DD/MM/YY):					
Perform gear cutting operation	00/00/0000					

Candidate Details	Name:						
	Registration/Roll Number:						
	To meet this standard, you are required to complete the following within the given time frame (for practical demonstration & assessment):						
	Assessment Task 1: Prepare for gear cutting specified by your assessor correctly using proper method.						
	<b>Assessment Task 2:</b> Conduct pre-operational checks on hobbing machine specified by your assessor correctly.						
Cuidonos	Assessment Task 3: Select tools specified by your assessor correctly.						
Guidance for Candidate	<b>Assessment Task 4:</b> Operate machine specified by your assessor correctly on required standard.						
Candidate	<b>Assessment Task 5:</b> Inspect final product specified by your assessor correctly on required standard.						
	<b>Assessment Task 6</b> : Perform workplace cleaning and maintenance specified by your assessor correctly as per organization standard.						
	And complete: 11. Knowledge assessment test (Written) 12. Portfolios at the time of assessment						
	During a practical assessment, under observation by an assessor, you will complete:						
	Assessment Task 1						
	Performance Criteria 1: Arrange material as per drawing or process sheet.  Performance Criteria 2: Select tools and equipment.						
	Performance Criteria 3: Set machine as per job specification.						
Minimum Evidence Required	Assessment Task 2  Performance Criteria 1: Inspect all electrical connections.  Performance Criteria 2: Check all mechanical fitting and joint.  Performance Criteria 3: Check operation of emergency switches.						
	<b>Performance Criteria 4:</b> Check and maintain correct machine lubricant and coolant level.						
	Assessment Task 3						
	Performance Criteria 1: Select the cutter as per gear type and module.						
	Performance Criteria 2: Select the clamping device as per job.						
	Performance Criteria 3: Select measurement tools.						

Performance Criteria 1: Clamp the tool.

Performance Criteria 2: Clamp the work piece.

Performance Criteria 3: Set all parameters.

**Performance Criteria 4:** Align the tool according to work piece.

Performance Criteria 5: Proceed with operation.

**Performance Criteria 6:** Monitor operation to ensure compliance with job requirements.

# **Assessment Task 5**

Performance Criteria 1: Perform visual inspection of defects.

Performance Criteria 2: Check dimensionally.

Performance Criteria 3: Complete inspection report.

# **Assessment Task 6**

**Performance Criteria 1:** Maintain all check sheets and work instruction on machine.

**Performance Criteria 2:** Perform cleaning of machine and floor.

Performance Criteria 3: Apply Anti-rust spray/Cleaning agent.

Performance Criteria 4: Perform lubrication.

**Performance Criteria 5:** Maintain tools and equipment.

**Performance Criteria 6:** Keep tools and equipment at appropriate place. **Performance Criteria 7:** Transfer wastage material in to the wastage area.

Performance Criteria 8: Return Excess material to store.

#### Portfolios required at the time of assessment (if any) for

<u>Performance criteria 1 for the evaluation of portfolio:</u> Diary log of practical work for Preparation for gear cutting.

<u>Performance criteria 2 for the evaluation of portfolio:</u> Diary log of practical work for conduct pre-operational checks on hobbing machine.

<u>Performance criteria 3 for the evaluation of portfolio:</u> Diary log of practical work for selection of tools.

<u>Performance criteria 4 for the evaluation of portfolio:</u> Diary log of practical work for operate of machine.

<u>Performance criteria 5 for the evaluation of portfolio:</u> Diary log of practical work for inspection of final product.

<u>Performance criteria 6 for the evaluation of portfolio:</u> Diary log of practical work for perform workplace cleaning and maintenance.

Candid Details		Name:Registration/Roll Number:  Candidate Signature:								
Asses Outco	ssment ime	COMPETENT  NOT YET COMPETENT  Name of the Assessor:  Assessor's code:  Signature of the Assessor:  Assessor:								
	Assessment Summary (to be filled by the assessor)									
	Activ		II Juii	Illiai	y (to be Metho		Ву итс	3 4330.	-	sult
Nature of Activity			Written	Oral	Observation	Portfolio	Role Play		Competent	Not Yet Competent
Praction	cal Skill D	emonstration			<b>√</b>		-			
Knowl	ledge Asse	essment	✓	✓						
Other	Requirem	ent				✓				
Each	Assessm	ent Task (with	perfo	rman	ce crite	ria)				
Assessment Task 1  Description of assessment task 1  Prepare for gear cutting specified by your a correctly using proper method.						your assessor				
During the practical assessment, candidate demonstrated the following:						Yes	No	Remarks	3	
1	Arrange material as per drawing or process sheet.									
2	Select to	ools and equipm	ient.							
3	Set mac	hine as per job	specifi	cation	n.					
Comp	Competent □ Not Yet Competent □									

Asse	ssment Task 2	Description of assessment task 2				
		•	•		hecks on hobbing assessor correctly.	
•	ng the practical assessment, candidate onstrated the following:	e	Yes	No	Remarks	
1	Inspect all electrical connections.					
2	Check all mechanical fitting and join	nt.				
3	Check operation of emergency swit	tches.				
4	Check and maintain correct machinand coolant levels.	ne lubricant				
Comp	petent 🗆	Not Yet Comp	etent l			
Asse	essment Task 3	Description of Select tools s			ent task 3 our assessor correctly.	
	ng the practical assessment, candidate onstrated the following:	e	Yes	No	Remarks	
1	Select the cutter as per gear type a	and module.				
2	Select the clamping device as per j	job.				
3	Select measurement tools.					
Comp	petent 🗆	Not Yet Comp	etent l			
Asse	essment Task 4	Description of assessment task 4 Operate machine specified by your assessor correctly on required standard.				
	ng the practical assessment, candidate onstrated the following:	е	Yes	No	Remarks	
1	Clamp the tool.					
2	Clamp the work piece.					
3	Set all parameters.					
4	Align the tool according to work piece.					
5	Proceed with operation.					
6	Monitor operation to ensure compli requirements.	ance with job				
Competent □ Not Yet Compe			etent l			

		correctly on re		•	lard.
_	the practical assessment, candidatenstrated the following:	e	Yes	No	Remarks
1	Perform visual inspection of defect	S.			
2	Check dimensionally.				
3	Complete inspection report.				
Compe	etent □	Not Yet Comp	etent [	<u> </u>	
Assessment Task 6			place o	cleanin sessor	ent task 6 g and maintenance correctly as per
_	the practical assessment, candidatenstrated the following:	e 	Yes	No	Remarks
_	· ·		Yes	No	Remarks
demor	nstrated the following:  Maintain all check sheets and work	cinstruction			Remarks
demor	nstrated the following:  Maintain all check sheets and work on machine.	c instruction			Remarks
demor	Maintain all check sheets and work on machine.  Perform cleaning of machine and fleaters.	c instruction			Remarks
demor 1 2 3	Maintain all check sheets and work on machine.  Perform cleaning of machine and fleathers and Apply Anti-rust spray/Cleaning age	c instruction			Remarks
1 2 3 4	Maintain all check sheets and work on machine.  Perform cleaning of machine and fl Apply Anti-rust spray/Cleaning age Perform lubrication.	c instruction loor.			Remarks

**Assessment Task 5** 

Return Excess material to store.

Competent □

Description of assessment task 5

Not Yet Competent □

Portfolio(if any)  Description o			•		
Currer	Diary log of practical work  Current □ Sufficient □ Authentic □ Valid □ Reliable □				
Portfo	lio meet the following performance s	tandards:	Yes	No	Remarks
1	Performance criteria 1 for the evaluation of portfolio: Diary log of practical work for Preparation for gear cutting.				
2	Performance criteria 2 for the evaluation of portfolio: Diary log of practical work for conduct pre-operational checks on hobbing machine.				
3	Performance criteria 3 for the evaluation of portfolio: Diary log of practical work for selection of tools.				
4	Performance criteria 4 for the evaluation of portfolio: Diary log of practical work for operate of machine.				
5	Performance criteria 5 for the evaluation of portfolio: Diary log of practical work for inspection of final product.				
6	Performance criteria 6 for the evaluation of portfolio: Diary log of practical work for perform workplace cleaning and maintenance.				
Comp	etent 🗆	Not Yet Comp	petent		

Title of Qualification:	CS Code:	Level:	Version:
National vocational certificate level 4 in Automotive parts production machine operator		4	1
Competency Standard Title:	Assessment D	oate (DD/MM/YY	):
Conduct moulding and extrusion operations			

Guidance	To complete your assessment for this Competency Standard, you need to
for	answer the questions on the following pages successfully.
Candidate	

Candidate Details	Name:  Candidate Signature:	. Registration/Roll Number:
Written Assessment Outcome	COMPETENT  Name of the Assessor:  Signature of the Assessor:	NOT YET COMPETENT□ . Assessor's code:

Title of Qualification:	CS Code:	Level:	Version:
National vocational certificate level 4 in Automotive parts production machine operator		3	1
Competency Standard Title:	Assessmen	t Date (DD/MI	M/YY):
			i i

Question		Candidate's answer
1.	Enlist three important steps of mould setting in the machine?	<ol> <li>Lift the mould with the help of lifting equipment and place on machine bed.</li> <li>Centralized the mould.</li> <li>Clamp the mould with bed.</li> </ol>
2.	What is the most common reason of damage of die / Mould during operation?	Loose clamping is the most common reason of damage of die / Mould during operation
	3. Enlist three main reasons defects of productive parts?	<ol> <li>Shortage of material.</li> <li>Improper setting of pressure and degassing</li> <li>Overheated the mould.</li> </ol>
4.	What is the main reason of short moulding during moulding operation?	Injection pressure or material melting temperature is not appropriate.
5.	Which chemicals are used in polyurethane product?	Polyols (Part-A)     Isocyanates (Part-B)
6.	Define curing time in PU process?	It is the time taken for chemical reaction when part A (Polyols) and Part B (Isocyanates) are injected in the mold
7.	Select the blow moulding product in given list.  a) Cup  b) Pet Bottle c) Spoon d) Bumper	b) Pet Bottle
8. <b>a)</b> b) c) d)	Which of the following is the main part of Injection mould? Core, Cavity Crank Piston Cam	a) Core, Cavity

Question	Candidate's answer
9. In injection moulding process	c) Ejection of part
Injector is used to;	
a) Ejection of material	
b) Ejection of mould	
c) Ejection of part.	
d) Ejection of waste material	
10. Which defect is produce by	a) Pinhole, air bubble, air cut.
improper degassing?	
a) Pinhole, air bubble, air cut	
b) Part color, location, and thick	
c) Part hole, position, and surfa	ice
d) All on the above	

Title of Qualification:	CS Code:	Level:	Version:
National vocational certificate level 4 in Automotive parts production machine operator		4	1
Competency Standard Title:	Assessment D	Date (DD/MM/YY	·):
Perform hot forging operations			

Guidance for Candidate

To complete your assessment for this Competency Standard, you need to answer the questions on the following pages successfully.

Candidate Details	Name:  Candidate Signature:	3
Written Assessment Outcome	COMPETENT  Name of the Assessor:  Signature of the Assessor:	NOT YET COMPETENT□ . Assessor's code:

Title of Qualification:	CS Code:	Level:	Version:
National vocational certificate level 4 in Automotive parts production machine operator		3	1
Competency Standard Title:	Assessmen	t Date (DD/MI	M/YY):
Competency Standard Title: Perform hot forging operations	Assessmen	t Date (DD/MI	M/YY):
•	Assessmen	t Date (DD/MI	M/YY):

	WRITTEN ASSESSMENT		
Qu	estion	Candidate's answer	
1.	Enlist the types of presses used in hot forging?	<ol> <li>Pneumatic Press</li> <li>Hydraulic Press</li> <li>Mechanical Press</li> </ol>	
2.	What is the Carbon steel deformation temperature?	1100 C° to 1200 C°	
3.	Enlist the three hot forging operations?	<ol> <li>Up sitter</li> <li>Blocker</li> <li>Finisher</li> </ol>	
4.	Write any three advantages of hot forging?	<ol> <li>Increase the part strength.</li> <li>Heavy parts can be formed easily.</li> <li>Maintain the required dimension easily.</li> </ol>	
5.	Enlist the common PPE's used in Hot Forging?	<ol> <li>Helmet</li> <li>Goggle</li> <li>Leather Gloves</li> <li>Safety Apron</li> <li>Ear Plugs</li> </ol>	
6.	Select which one is forging defect in	c) Non filling	
	below list.		
a.	Soaking		
b.	Gas marks		
c.	Non filling		
d.	Pin hole		
7.	Which is the right method for pre heating of mould in below list?  a) Gas Burner b) Kerosene burner c) Ceramic heater d) Stove	a) Gas burner	

Qu	estion	Candidate's answer
8.	Select main operation name during forging in below list.	b) Blocker
	<ul><li>a) Creeper</li><li>b) Blocker</li><li>c) Holder</li><li>d) Finder</li></ul>	
9.	Can deep draw performed on forging	b) False
	press?	
	a. True <b>b. False</b>	
10.	ISO stands for?	a) International Standard Organization
	<ul> <li>a) International Standard         Organization</li> <li>b) International System Organization</li> <li>c) Industry System Organization</li> </ul>	

Title of Qualification:	CS Code:	Level:	Version:
National vocational certificate level 4 in Automotive parts production machine operator		4	1
Competency Standard Title:	Assessment D	ate (DD/MM/YY	<b>)</b> :
	00/00/0000		
Perform metal die casting operations	00/00/0000		
Perform metal die casting operations	00/00/0000		

Guidance for	To complete your assessment for this Competency Standard, you need to answer the questions on the following pages successfully.
Candidate	

Candidate Details	Name:Registration/Roll Number:Candidate Signature:	
Written Assessment Outcome	COMPETENT  Name of the Assessor:  Signature of the Assessor:	NOT YET COMPETENT□ Assessor's code:

Title of Qualification: National Vocational Certificate Level 4 in Automotive parts production machine operator	CS Code:	Level: 4	Version: 1
Competency Standard Title: Perform metal die casting operations	Assessmer	nt Date (DD/N	IM/YY):

Questi	on	Candid	date's answer
1.	Enlist any three metal die casting defects?	2.	Porosity Blister Crakes
2.	Write any three advantages of metal die casting process.	2.	High seed production Dimensional accuracy Complex shape
3.	Write the three types of casting process.	1. 2. 3.	<u> </u>
4.	What is the function of plunger?	It is a p	part of machine that helps in feeding the material in ld.
5.	Write any four components of casting die.	1. 2. 3. 4.	Cavity Ejector plate
6.	Select the right molten temperature of aluminum in below list.  a) 660 degree Celsius b) 1260 degree Celsius c) 1600 degree Celsius d) 250 degree Celsius	a)	660 degree Celsius
a)	Which material in below list is not used in die casting process? Aluminum Plastic Lead Zinc	b)	Plastic
8. a) b) c) d)	HPDC stands for?  High Pressure Die Casting High pouring die casting High pouring define cost Not in above	a)	High Pressure Die Casting

Question	Candidate's answer
Is zinc melting temperature is     320 degree Celsius.	b) False
a) True <b>b) False</b>	
10. Can we use hot chamber machine for the material melt upto 400 degree Celsius.	a). True
<b>a) True</b> b) False	

Title of Qualification:	CS Code:	Level:	Version:	
National vocational certificate level 4 in Automotive parts production machine operator		4	1	
Competency Standard Title:	Assessment D	ate (DD/MM/YY	·):	
			00/00/0000	
Perform gear cutting operations	00/00/0000			
Perform gear cutting operations	00/00/0000			

Guidance for	To complete your assessment for this Competency Standard, you need to answer the questions on the following pages successfully.
Candidate	

Candidate Details	Name:Registration/Roll Number:Candidate Signature:	
Written Assessment Outcome	COMPETENT  Name of the Assessor:  Signature of the Assessor:	NOT YET COMPETENT□ . Assessor's code:

Title of Qualification: National Vocational Certificate Level 4 in Automotive parts production machine operator	CS Code:	Level: 4	Version:
Competency Standard Title: Perform gear cutting operations	Assessme	l nt Date (DD/	MM/YY):

Question	Candidate's answer
11. Enlist the three types of gears	<ol> <li>Helical Gear</li> <li>Bevel gear</li> <li>Worm gear</li> </ol>
12. What is the difference between the spur gear and helical gear?	The teeth of spur gear are straight. The teeth of helical gear are inclined.
13. Write any three advantages of gear hobbing?	High rate of production     Teeth profile are accurate     Low tooling cost
14. What is cutting feed formula?	Cutting Feed= N x Fz x Z N=Spindle Speed Fz= Feed per Tooth Z= Number of flutes
15. Write the cutting speed formula?	Cutting speed = (π X Dia X Height) / 100
<ul> <li>16. What is the bilateral tolerance?</li> <li>a) Total tolerance is in one direction</li> <li>b) Total tolerance is in both direction</li> </ul>	b) Total tolerance is in both direction
<ul><li>c) May or not may be in one direction</li><li>d) Tolerance provided all over the component body</li></ul>	

Question	Candidate's answer
17. Which gear has higher torque ability? a. Spur gear b. Rack gear c. Helical gear d. Worm gear	c) Helical Gear
<ul><li>18. For higher rate of gear production, we use milling machine.</li><li>a. True</li><li>b. False</li></ul>	b) False
19. M-series high speed steel tool has more efficient that T-series high special steel tool?  a. True b. False	a) True
20. Spur Gear has straight teeth?  a. True  b. False	a) True

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