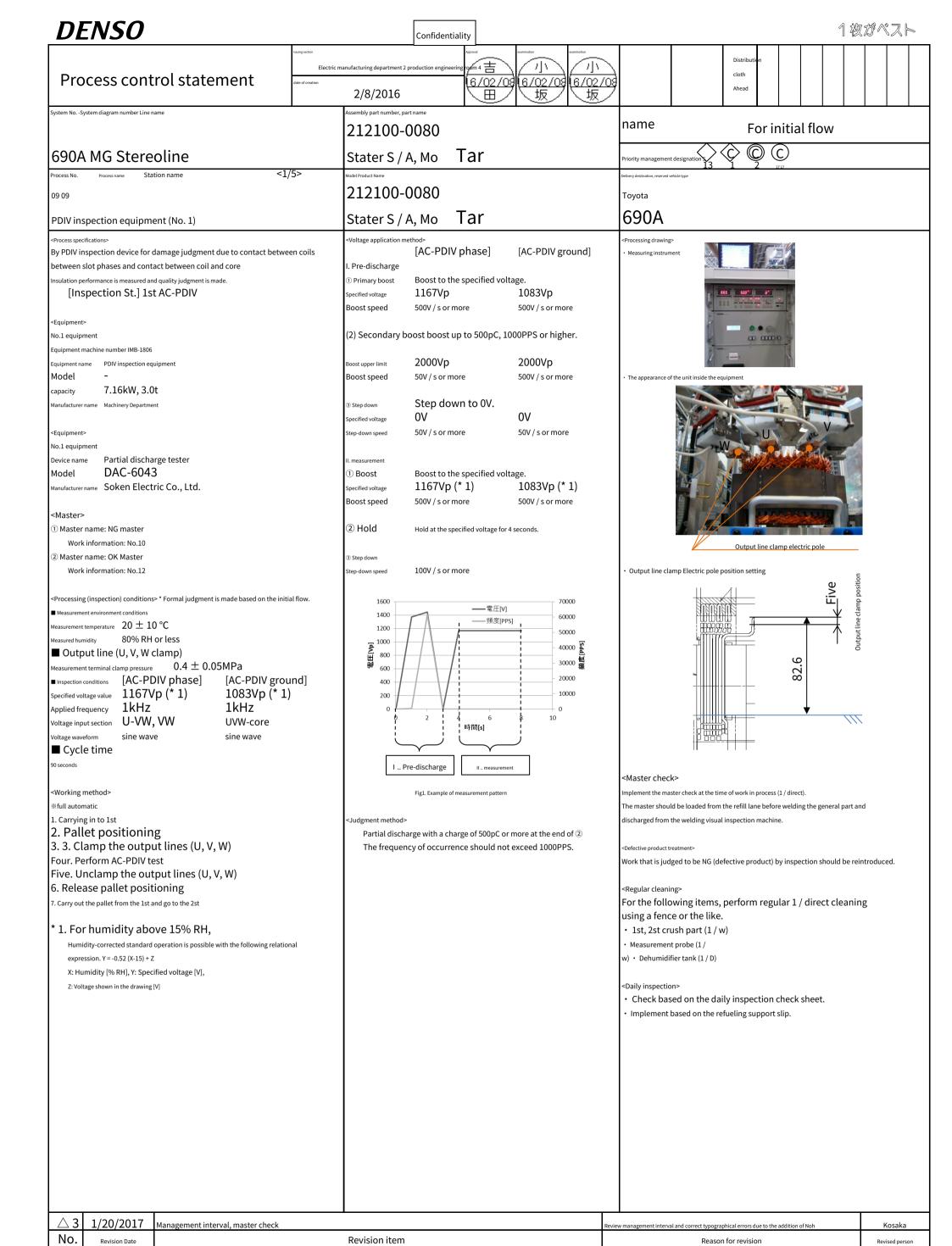
<b>DENSO</b>			Parties outs	side the secre	<u>et</u>							120	ØN]	スト	
	Issuing section  Electric manufacturing department	2 production engineering room			Distribution										
Structure system	date of creation 2/8/201	6	6/02/08	6/02/03 坂	6/02/03 坂			Ahead							
Line name		Assembly part number, 212100		name For initial flow											
690A MG2 Stereolir	ne		S / A, motor			Priority management designation CC									
System No. systematic name	<0/	5> Model Product Name 212100	0-0080				Delivery destination, reserved vehicle type								
09 09  PDIV inspection equipment							Toyota 690A								
AS 21  09  09  09  09  09  09  09  09  09  0	SSY DRAWING, statused 2101-0080  0-001  ork input (1st)  0-002  ork positioning  0-003  ork push up  0-004  ad wire clamp, core of s-VsWs, Vs-Ws, UsVs  0-005  0-006  ad wire unclamp, core of s-VsWs, Vs-Ws, UsVs  0-007  ork return  0-008  ove to work 2st  0-009  ork input (2st)  0-010  ork positioning  0-011  ork push up  0-012  ad wire clamp  e-Us, Ve-Vs, We-Ws)  0-013  outse PDIV inspection  0-014  and wire unclamp  e-Us, Ve-Vs, We-Ws)	clamp sWs-core)	S/A, motor	09 Lee (U 09 Lee (U 09 No	2-015 ad wire clant leveWe-UsN 2-016 bulse leak inspection 2-017 and wire unleveWe-UsN 2-018 and wire clant is-vsWs, vs- 2-019 actric strength inspection 2-020 and wire unles-vsWs, vs- 2-021 brk return 2-022 rk discharge 3-SY DRAWING 2-101-0080	on clamp VsWs) np -Ws)									
△ 3 1/20/2017 Manager	ment interval, master check					Revie	w management interv	al and correct typograp	ohical errors o	due to the add	lition of Noh		Kos	saka	
No. Revision Date		Revision ite				1	Reason for	revision				T	Revised	d person	



<b>DENSO</b>				Confidential	ity							11	THA.	スト		
Process control	statement	Electric man	nufacturing depar	rtment 2 production engineering		/小 3/02/08 地	7]\ 6/02/08		Distributi cloth Ahead	•n						
System NoSystem diagram number Line name			Assembly part number, part name 212100-0080					name For initial flow								
690A MG Stereolir	ne				ar	Priority management designation										
Process No. Process name Station nar	2/1	<u>5</u> >	Model Product Name	00-0080				Priority management designation 3 1 2 17.17  Delivery destination, reserved vehicle type								
09 09					Tar			Toyota								
PDIV inspection equipment (N < Quality>	No. 1)		Stater	S/A, Mo T	ar			690A								
At the time of measure theretvy No.	Characteristi Measuring instr			Management interval	Management method  Management method	Adminis	trator	Process capability σ, X, Cp, Cpk		emarks			Qualit			
	OK / NG master value confirmation This machine		1	/ Y	Recording paper	Team leader										
2	Must check OK / NG Judgm	ent $\triangle$	1/	Direct (at the time of work in process	s Check sheet	worker										
3	Main air pressure 0.4 ± 0.05MPa		1/	Direct (at the time of work in process	S Condition management check sheet	worker		Comm	non to 1st and 2st			+				
<del></del>	This machine (0.01)  Measurement temperature 20 ± 10 °C		4/	Direct (at the time of work in process	S Condition management check sheet	worker						+				
<del></del>	This machine (0.1) Measured humidity 80% RH or less		4/	Direct (at the time of work in proces:	S Condition management check sheet	worker						+				
	This machine (0.1)  Phase-to-phase AC-PDIV (U-VW, 1167Vp applied)	Discharge frequency less than 100	000PPS 1	00%	P control chart	Team leader						+				
	This machine (1PPS)		4,	/ Nao(Existing / Noh increase)	xR control chart	Team leader						+				
	This machine (1PPS)	Discharge frequency less than 100	4,	/ Nao(Existing / Noh increase)	xR control chart	<u> </u>						$\bot$				
\\\T\  \	Ground AC-PDIV (UVW-core, 1083Vp applied) This machine (1PPS)	Discharge frequency less than 100		00% \( \sum_{\text{Nao(Existing / Noh increase)}}	P control chart xR control chart	Team leader										
	Characteristi	c		Λ.	Management method			Process capability				$\overline{}$	Qualit	v ID		
At the time of measure Herdvy NO.	Measuring instr			Management interval	Management method	Adminis	trator	σ, X, Cp, Cpk	ı	remarks			Relationship			
	gement interval, master check						Revie	ew management interval and correct t			of Noh			osaka		
No. Revision Date			Revision	item				F	Reason for revision	on			Revise	ed person		

## ⁴吉 Process control statement 6/02/0 6/02/08 2/8/2016 $\blacksquare$ 坂 坂 ystem No. -System diagram number Line name sembly part number, part name

212100-0080

Tar 690A MG Stereoline Stater S / A, Mo <3/5>

PDIV inspection equipment (No. 1)

Insulation performance is measured by an impedance inspection device to \*full automatic

determine damage due to contact between coils in the slot phase. Make a pass / fail judgment

09 09

[Inspection St.] 2st Impulse PDIV, Impulse Thread

No.1 equipment PDIV inspection equipment Model

7.16kW, 3.0t capacity Manufacturer name Machinery Department

<Equipment> No. 1 device Oscilloscope DPO 4104B Model

anufacturer name Tektronix No. 2 equipment

Impals winding tester Device name Model DWX-05A Manufacturer name ECG-KOKUSAI

<Master>

 Master name: NG master Work information: No.10 ② Master name: OK Master Work information: No.12

Processing (inspection) conditions>  $^\star$  Formal judgment is made based on the initial flow.

Measurement temperature  $20\pm10\,^{\circ}\mathrm{C}$ 80% RH or less Measured humidity ■ Output line (U, V, W clamp)

 $0.4 \pm 0.05$ MPa Measurement terminal clamp pressure

■ Inspection conditions [Impulse PDIV] [Impulse rare] Specified voltage value 2700Vp (\*2)3000Vp Voltage input section Ue-Us, Ve-Vs, We-WsUeVeWe-UsVsWs **Impulse Impulse** Once

umber of applications ■ Cycle time

<sup>1</sup> 2. For the range where the humidity exceeds 15% RH,

X: Humidity [% RH], Y: Specified voltage [V],

 $Humidity-corrected\ standard\ operation\ is\ possible\ with\ the\ following\ relational\ expression.$ 

5 times

Y = -3.1 (X-15) + Z

Z: Voltage shown in the drawing [V]

212100-0080

Tar Stater S / A, Mo

<Working method>

1. Carrying in to 2st

2. Pallet positioning

3. 3. Clamp the output lines (U, V, W)

Four. Perform impulse PDIV / impulse leak inspection 5. To insulation withstand voltage inspection at the same st

<Voltage application method> ① Impulse Apply the impedance voltage with the impedance tester

[Impulse PDIV] [Impulse rare] 2700Vp 3000Vp Specified voltage Once umber of applications

Calculate the specified value from the me

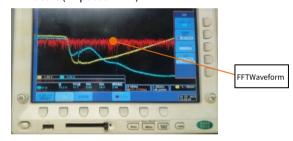
[Impulse PDIV] [Impulse rare]

FFT Peak voltage, zero cross time

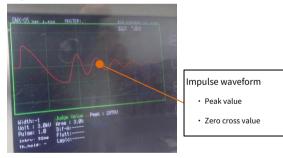
<Judgment method>

[Impulse PDIV] [Impulse rare] From the FFT waveform From the impulse waveform 20M-200MHz band Primary / secondary / tertiary peak value Derived the sum, Zero cross secondary / tertiary value Satisfy the standard. Derived from each standard Satisfaction.

• FFT result (Impulse PDIV)



Voltage waveform result (impulse rare)



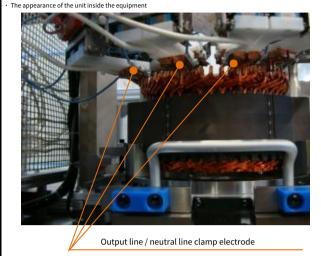
name

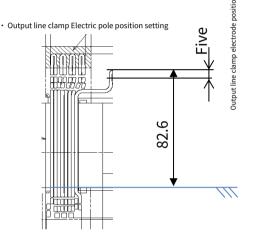
For initial flow

 $\bigcirc$   $\bigcirc$ 

Toyota

690A





△3	1/20/2017	Management interval, master check	Review management interval and correct typographical errors due to the addition of Noh	Kosaka
No.	Revision Date	Revision item	Reason for revision	Revised person

DEN	SC	)				Confidentiali	ty								14	TH'	<b>%</b> Z1	
Proces	s co	ontro	ol statement	Issuing section  Electric ma		epartment 2 production engineering	opm 4 吉 6/02/03 6	亦入	6/02/08	)		Distributi cloth Ahead	en .					
System NoSystem diag	ram numb	er Line name			2/8/2016					name For initial flow								
690A MG	Sta	ereol	ine		212100-0080 Stater S / A, Mo					Priority management designations © ©								
	ss name	Station		/5>	Model Product N	ame	<u> </u>			Priority management designations 2								
09 09						100-0080				Toyota								
PDIV inspection equipment (No. 1) <quality></quality>				State	er S / A, Mo T	ar			690A									
At the time of mea	sure <b>n<del>lan</del>a</b> v	No.	Characteris Measuring ins			Management interval	lanagement method  Management method	Admini	istrator	Process capability σ, X, Cp, Cpk		r	emarks				lity ID	
r<	>	1	OK / NG master value confirmation This machine			1/Y	Recording paper	Team leader				•						
	>	2	Must check OK / NG Judgn	nent $\triangle$		1 / Direct (at the time of work in process	Check sheet	worker										
<del> </del>	) (\$)	3	Intraphase PDIV Ue-Us 2700Vp applie	d FFT value 7.6 or	rless	100%	P control chart	Team leader										
	) } \$	Fo	This machine (0.01)  Intraphase PDIV Ve-Vs 2700Vp applied	d FFT value 7.6 or	less	4 / Nao 100%	xR control chart  P control chart	Team leader										
.	) } \$		This machine (0.01)  Intraphase PDIV We-Ws 2700Vp applie		r less	4 / Nao 100%	xR control chart P control chart	Team leader			1							
	) }	6	This machine (0.01)  Aiuchi Inhalthrea UeVeWe-UsVsWs	OK judgi	ment	4 / Nao 100%	xR control chart P control chart	Team leader			<del>                                     </del>							
	-	7	This machine								1							
	$\vdash$	8									1							
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1		ı							T									
NI.a	0/202 vision Dat		nagement interval, master check		Revisio	on item			Revi	ew management interval and		phical errors d		n of Noh			Kosaka	

