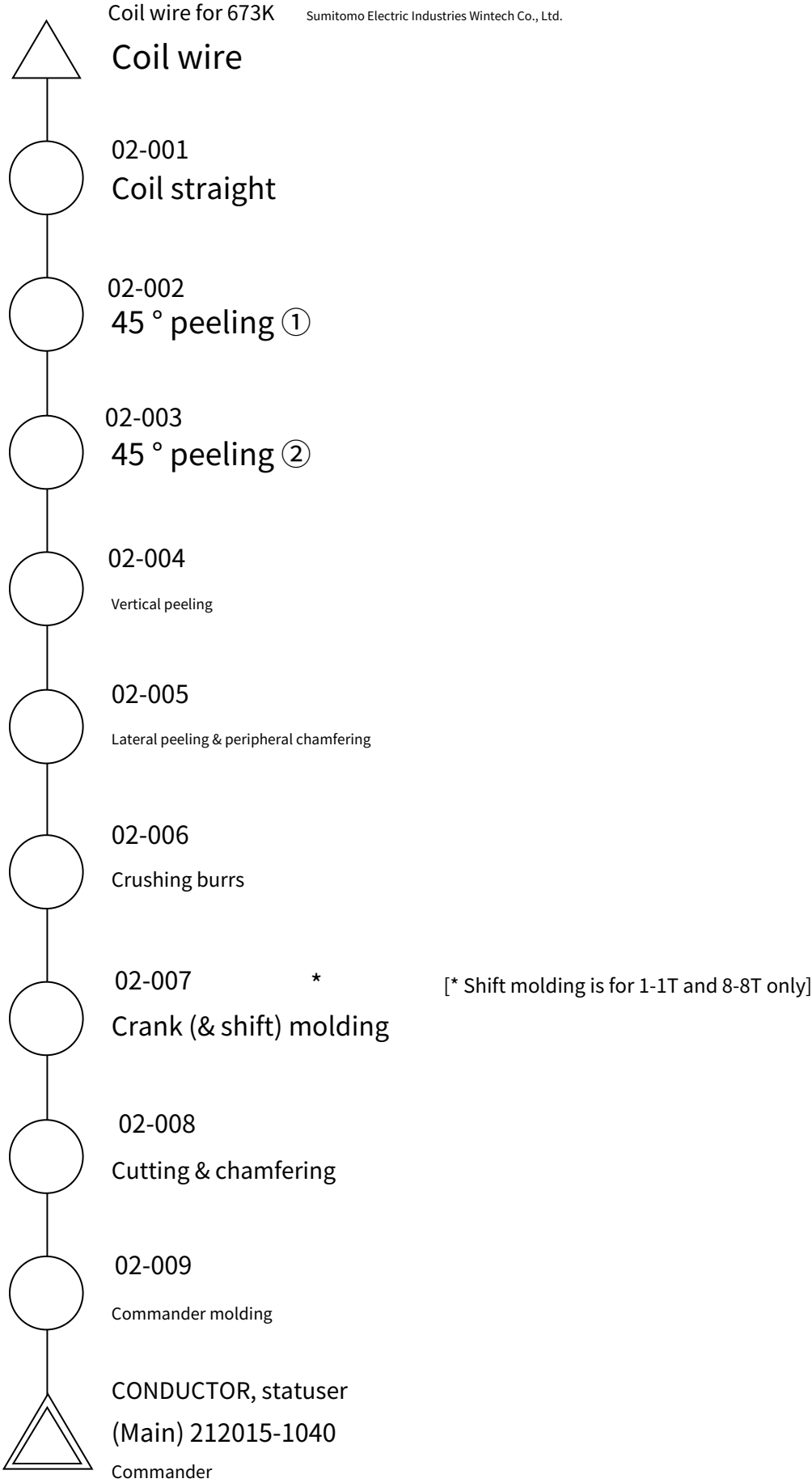


Structure system diagram	issuing section	Electric manufacturing department 2 production engineering room 4	approval	吉田	小坂	実松				Distribution					
	date of creation	2/8/2016	16/02/08	16/02/08	16/02/08					cloth Ahead					
Line name	690A MG Stereoline		Assembly part number, part name			name									
			212100-0080			For quantity confirmation									
			Stater S / A, Mo Tar			Priority management designation									
System No.	<1/1>		Model Product Name			Delivery destination, reserved vehicle type									
02 02			212015-1040			Toyota									
Straightening / peeling / cutting / molding			CONDUCTOR, Steer			690A									

* CONDUCTOR and STATOR have the following part numbers, but (-1040) is listed as a representative part number in the construction table.

- (Main) 212015-1040 × 3
- 212015-1050 × 3
- 212015-1060 × 18
- 212015-1070 × 48
- 212015-1080 x 48
- 212015-1090 × 48
- 212015-1100 × 24



△ 3	1/19/2017	Tool specification changes, typographical errors corrected	Changed and erroneously revised as a countermeasure for problems during initial flow	Positive Kosaka
No.	Revision Date	Revision item	Reason for revision	Revised person

1枚がベスト

Confidentiality

Process control statement

issuing section

Electric manufacturing department 2 production engineering room 4

date of creation

2/8/2016

approval

吉田

examination

小坂

create

實松

Distribution

cloth

Ahead

System No. -System diagram number Line name

690A MG Stereoline

Assembly part number, part name

212100-0080
Stater S / A, Mo Tar

name

For initial flow

Process No.

02 02

Process name

<1/3>

Station name

Straightening / Peeling / Cutting / Molding (No. 1 & No. 2)

Model Product Name

212015-1040
CONDUCTOR, Steer

Delivery destination, reserved vehicle type

Toyota
690A

<Process specifications>

Straighten the connector wound on the reel and apply the enamel film.
Peeling & crushing, crank forming (& shifting), then cutting to form a segment shape. Mold with a la.

<Equipment>

NO.1 equipment

Equipment machine number

SMC-0806, -0807

Equipment name

Conductor peeling molding machine (No. 1 & No. 2)

Model

—

capacity

13.7kW, 3t

Manufacturer name

Machinery Department

Dust collector machine number

EH-7573, -7574

Model

V-3SDR

Manufacturer name

Amano

<Tools> 3

NO.1 tool

Tool No.

Y1631-08370

Tool name

45 ° peeling ① Punch (life: 500,000 shots)

Tool grade

Diamond

NO.2 Tool

Tool No.

Y1611-07640

Tool name

45 ° peeling ① Die (life: 500,000 shots)

Tool grade

MAP10 (super steel)

NO.3 Tool

Tool No.

Y1601-07770

Tool name

45 ° peeling ①, ② Precut blade (life: 100,000 shots)

Tool grade

SKD11 * 45 ° peeling ① and ② common blade

NO.4 Tools

Tool No.

Y1631-08380

Tool name

45 ° peeling ② Punch (life: 500,000 shots)

Tool grade

Diamond

NO.5 Tool

Tool No.

Y1611-07680

Tool name

45 ° peeling ② Die (life: 500,000 shots)

Tool grade

MAP10 (super steel)

NO.6 Tool

Tool No.

Y1631-08390

Tool name

Vertical peeling punch (life: 300,000 shots)

Tool grade

Diamond

NO.7 Tool

Tool No.

Y1611-07780

Tool name

Vertical peeling die (life: 300,000 shots)

Tool grade

HAP10

NO.8 Tool

Tool No.

Y1631-07700

Tool name

Horizontal peeling punch (life: 200,000 shots)

Tool grade

Carbide (Z10)

<Material>

Material name

Thick enamel coil wire (TS-AS-1)

Material Grade

PIW-81B

Maker

Sumitomo Electric

Size

2.141 x 3.547

<Processing conditions>

Straight roller dimension (the side closer to the reel is the first roller)

La) Flatwise 1st row La 1.27mm *Reference value

2nd row La 1.52mm *Reference value

3rd row La 2.06mm *Reference value

Edge Wise 1st Row La 3.37mm *Reference value

2nd row La 3.45mm *Reference value

3rd row La 3.49mm *Reference value

Cycle time

0.7s

<Working method>

1. Set the coil wound on the reel into the equipment.

2. Press the equipment operation preparation button to put it in the automatic operation state.

3. Press the auto-start button.

4. Check the dimensions.

5. Make sure that there are no coil scratches or peeling of the film.

<Processing drawing>

[45 ° peeling ②]

[Vertical peeling]

[Horizontal peeling & peripheral chamfering]

[Crushing burrs]

[Crank molding (shift molding)]

[Cut & chamfer]

<Daily inspection>

• Implement based on the daily inspection check sheet.

• Implement based on the refueling guidance table.

△ 3

1/19/2017

Tool specification changes, typographical errors corrected

No.

Revision Date

Revision item

Changed and corrected typographical errors as a countermeasure for problems during initial flow

Kosaka

Reason for revision

Revised person

品質と安全のデンソー

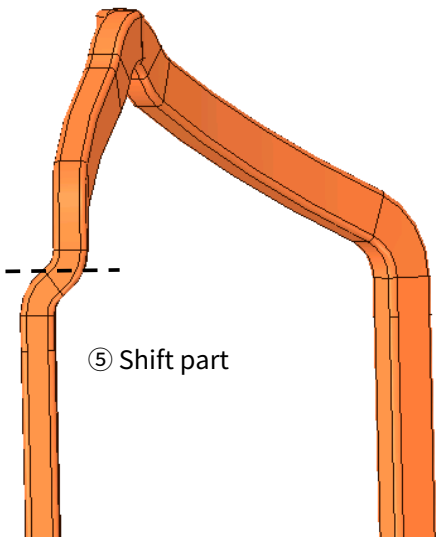
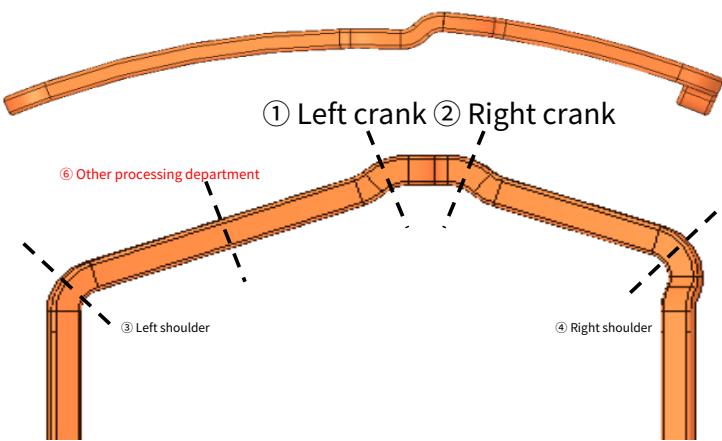
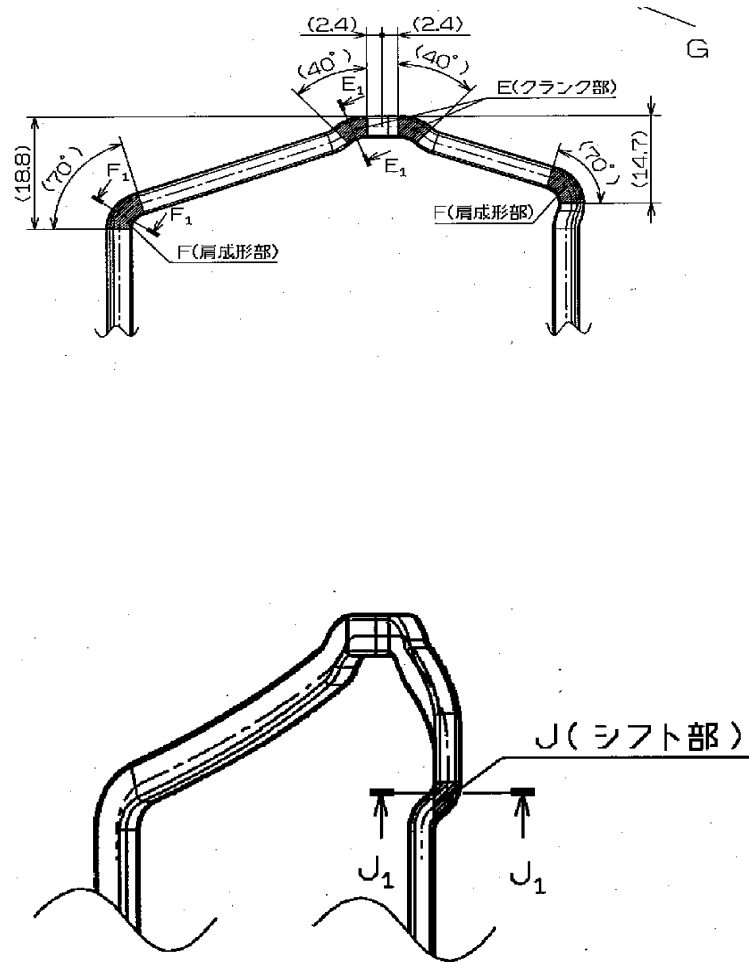
Process control statement		issuing section Electric manufacturing department 2 production engineering room 4		approval 吉田 16/02/08	examination 小坂 16/02/08	create 實松 16/02/08			distribution cloth Ahead										
System No. -System diagram number Line name 690A MG Stereoline		date of creation 2/8/2016		Assembly part number, part name 212100-0080 Stater S / A, Mo Tar			name For initial flow												
Process No. 02 02		Process name Station name <2/3>		Model Product Name 212015-1040 CONDUCTOR, Steer			Priority management designation C2												
Straightening / Peeling / Cutting / Molding (No. 1 & No. 2)					Delivery destination, reserved vehicle type Toyota 690A														
<Quality>																			
	At the time of measurement	Heavy	No.	Characteristic Measuring instrument	Management method			Process capability σ, X, Cp, Cpk		remarks		Quality ID Relationship criteria							
			1	Main air pressure 0.4 ± 0.05MPa Pressure gauge (0.001)	1 / Direct (at the time of work)	Condition management Check sheet	worker												
			2	Pinchroller clamp pressure 0.3 ± 0.1MPa Pressure gauge (0.1)	1 / Direct (at the time of work)	Condition management Check sheet	worker												
			3	Dust collector differential pressure 2.0kPa or less Aneroid barometer (0.1)	1 / Direct (at the time of work)	Condition management Check sheet	worker												
			Four	Dust collector negative pressure -5.0 kPa or less Pressure gauge (0.1)	1 / Direct (at the time of work)	Condition management Check sheet	worker												
			Five	Copper wire tension pressure 2.0kgf or less Push pull (0.1)	When adjusting the tension pressure	Condition management Check sheet	worker												
			Five	Vertical peel length 7.6 ± 0.2 Tool microscope (0.01)	1 / At setup	Recording paper	worker			Setup = model setup, cutting tool setup									
			6	Lateral peel length 7.6 ± 0.2 Tool microscope (0.01)	1 / At setup	Recording paper	worker			Setup = model setup, cutting tool setup									
			7	Circumferential chamfer 2-C0.1 or higher [0.5 ± 0.2] Tool microscope (0.01)	1 / straight + blade setup	Recording paper	worker			[0.5 ± 0.2] is an in-process standard									
			8	Diameter chamfer C0.1 or more [0.5 ± 0.2] Tool microscope (0.01)	1 / straight + blade setup	Recording paper	worker			[0.5 ± 0.2] is an in-process standard									
			9	Lateral peel width 3.07 ± 0.1 Blade Micro (0.01)	1 / straight + blade setup	Recording paper	worker												
			Ten	Vertical peel width 1.66 ± 0.1 Blade Micro (0.01)	1 / straight + blade setup	Recording paper	worker												
			11 11	Square peeling dimension 4-C0.4 ± 0.2 Tool microscope (0.01)	1 / straight + blade setup	Recording paper	worker												
			12	Tolerance of film turning 1.0 or less Tool microscope (0.01)	1 / At setup	Recording paper	worker			Setup = model setup, cutting tool setup									
		13	Detachment root angle 45 ° ± 2 ° Tool microscope (0.01)	1 / straight + blade setup	Recording paper	worker													

品質と安全のデンソー

Structure system diagram	Electrical Engineering Development Department, Electrical Engineering Department	Approval 吉田 16/10/24	山田 16/10/23	create 宮松 16/10/21			Distribution cloth Ahead					
	date of creation 10/12/2016	Assembly part number, part name 212100-0080 Stationer S / A, motor			name For initial flow							
Line name 690A MG Stereoline		System No. 02 02			Model Product Name 212015-1040 CONDUCTOR, StayTa			Delivery destination, reserved vehicle type Toyota 690A				
Systematic name <1/1> Straightening / peeling / cutting / molding					Priority management designation 2							

● Film thickness Examination site and frequency

	Product name	Product number	Interval	rotation	Site					
					①	②	③	④	⑤	⑥
1 issue	1-1T (A)	212015-1040	1 / W	1	○○	○○	○○	○○	○○	○○
	1-1T (B)	212015-1050	—	—	—	—	—	—	—	—
	1-1T (C)	212015-1060	—	—	—	—	—	—	—	—
	2-3T	212015-1070	1 / W	1	○○	○○	○○	○○	—	○○
	4-5T	212015-1080	1 / W	1	○○	○○	○○	○○	—	○○
2 issue	6-7T	212015-1090	1 / W	2	○○	○○	○○	○○	—	○○
	8-8T	212015-1100	1 / W	2	○○	○○	○○	○○	○○	○○
3 issue	1-1T (A)	212015-1040	1 / W	3	○○	○○	○○	○○	○○	○○
	1-1T (B)	212015-1050	—	—	—	—	—	—	—	—
	1-1T (C)	212015-1060	—	—	—	—	—	—	—	—
	2-3T	212015-1070	1 / W	3	○○	○○	○○	○○	—	○○
	4-5T	212015-1080	1 / W	3	○○	○○	○○	○○	—	○○
Four issue	6-7T	212015-1090	1 / W	Four	○○	○○	○○	○○	—	○○
	8-8T	212015-1100	1 / W	Four	○○	○○	○○	○○	○○	○○
Film thickness standard					63μ or more			53μ or more		71μ or more



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