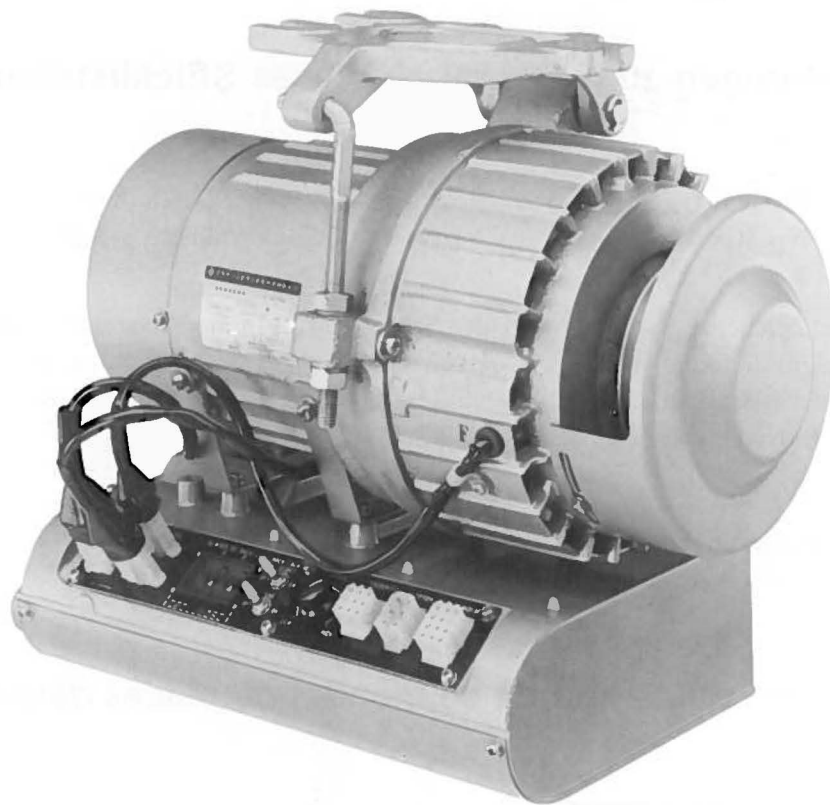


brother

PARTS BOOK

MD-402
MD-412




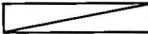
E. C. Motor

BROTHER INDUSTRIES, LTD.

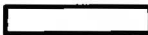
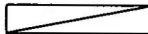
NAGOYA, JAPAN

From the library of: Superior Sewing Machine & Supply LLC


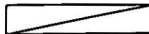
Notes for using this parts book

1. If the symbol  is found in the "Parts No." column or the "Assembly No." column, refer to the different parts list on page 4.
2. The symbol  in the "Parts No." column indicates that the parts is not available for supply. If, however, there is a number in the "Assembly No." column, the parts can be ordered as an assembly. Please, therefore, order by using the Assembly No.
3. This book was prepared based on information available in October, 1981.
4. Parts are subject to changes in design without prior notice.

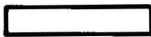
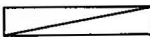
Anmerkungen zum Gebrauch dieses Stücklistebuches

1. Dieses Zeichen  in der Spalte "Parts No. (Teilnummer)" oder "Assembly No. (Gerätesatznummer)" verweist auf die Gesonderte Stückliste auf Seite 4.
2. Dieses Zeichen  in der Spalte "Teilnummer" bedeutet, daß dieser Teil nicht lieferbar ist. Wenn jedoch in der Spalte "Gerätesatznummer" eine Nummer steht, kann dieser Teil als ein Geräteteilsatz bestellt werden. Bestellen Sie daher bitte mit dieser Gerätesatznummer.
3. Dieses Buch basiert auf den Informationen vom October, 1981.
4. Modelländerungen sind vorbehalten.

Notes sur l'utilisation de ce manuel de pièces détachées

1. Si le symbole  se trouve dans la colonne "Parts No. (N° de pièce)" ou dans la colonne "Assembly No. (N° jeu de pces)", veuillez vous référer à la liste de pièces annexe page 4.
2. Le symbole  dans la colonne "N° de pièce" signifie que la pièce ne peut être fournie. Si, dans la colonne "N° jeu de pces", il y a un numéro de nomenclature, la pièce peut être commandée comme faisant partie d'un jeu de pièces. Donc, pour toute commande, veuillez spécifier le N° du jeu de pièces.
3. Ce manuel a été fait d'après les renseignements valables au mois de Octobre 1981.
4. Les pièces peuvent être sujettes à des modifications sans préavis.

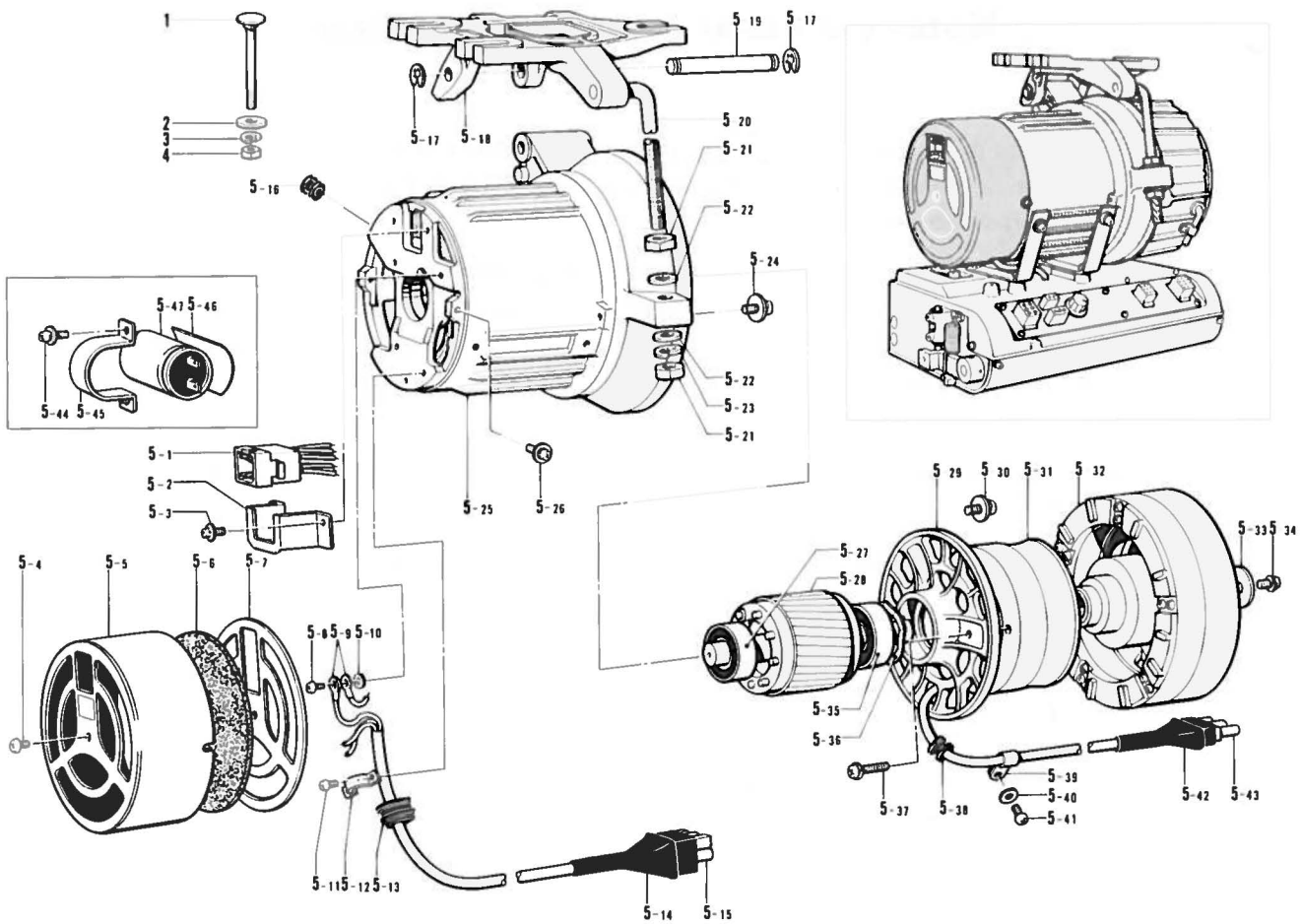
Notas para usar este Libro de Piezas

1. De haber un símbolo  junto al "Parts No. (Número de Pieza)" o en la columna del "Assembly No. (Número de Juego)", habrá que mirar la lista de piezas separada de la página 4.
2. El símbolo , que se encuentra en la columna del "Número de Pieza", quiere decir que no se dispone de dicha pieza sola. Cuando, empero, hay un número en la columna del "Número de Juego", se podrá ordenar la pieza con todo el juego. Por lo tanto, será mejor hacer el pedido recurriendo al número del juego respectivo.
3. Este libro ha sido compilado basándose en los datos de que se disponía en octubre de 1981.
4. Las piezas quedan sujetas a cambios de diseño sin aviso previo.

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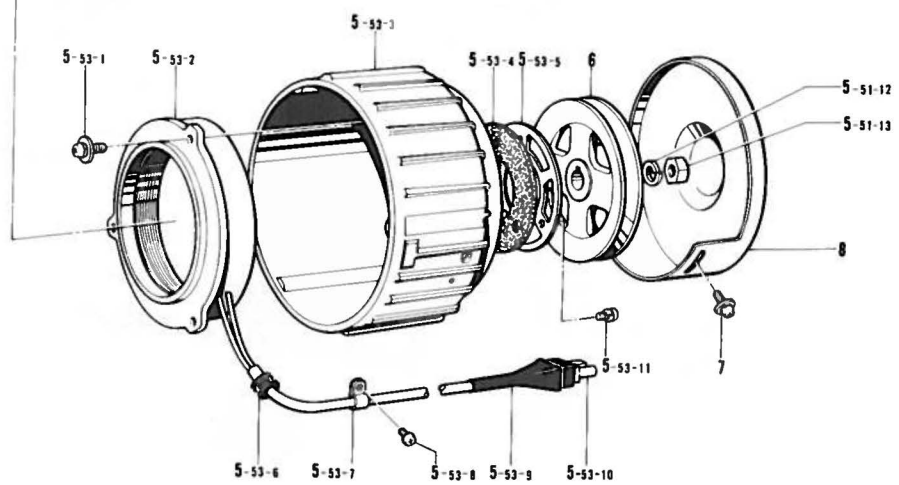
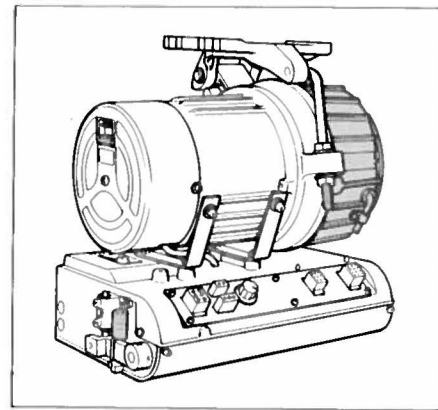
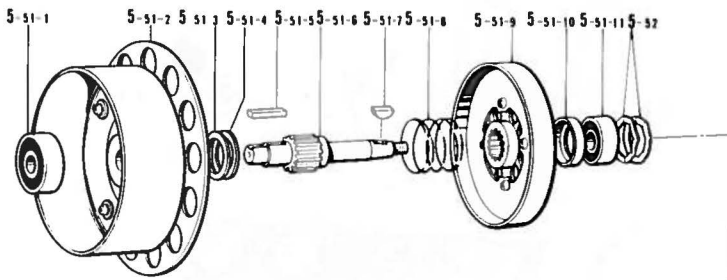
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A. Motor (1)



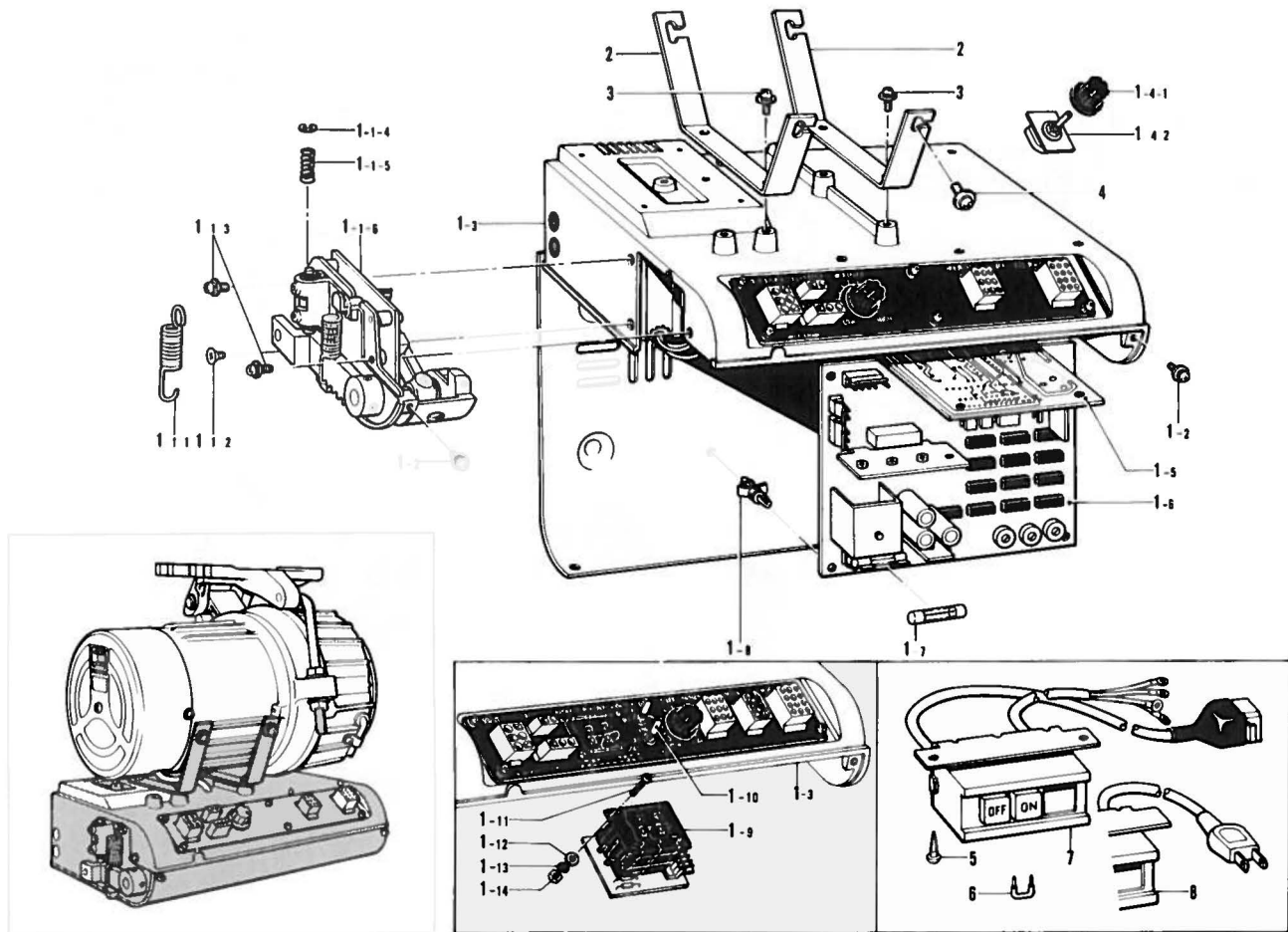
Ref. No.	Name of Parts	Q'ty	Parts No.	Assembly No.	Ref. No.	Name of Parts	Q'ty	Parts No.	Assembly No.
A-1	Bolt	3	280722-0-01		A-5-23	Spring Washer 2-10	1	028100-2-43	
A-2	Washer	3	280723-0-01		A-5-24	Screw	3	280729-0-01	
A-3	Spring Washer 2-8	3	028080-2-43		A-5-25	Frame & Stator	1		
A-4	Nut M8	3	021080-1-06		A-5-26	Screw M4 x 8DB	2	216410-0-01	
A-5- 1	12P Socket	1	281141-0-01	A-5 Motor Assembly	A-5-27	Bearing #6203	1	072620-3-60	A-5 Motor Assembly
A-5- 2	Socket Holder	1	281142-0-01		A-5-28	Rotor with Shaft	1		
A-5- 3	Screw M4 x 8DB	2	216410-0-01		A-5-29	Middle Bracket	1	281150-0-01	
A-5- 4	Screw M5 x 6	1	002500-6-05		A-5-30	Screw	3	280729-0-01	
A-5- 5	Frame Cover	1	281143-0-01		A-5-31	Clutch Coil Assembly	1	281151-0-01	
A-5- 6	Air Filter	1	281144-0-01		A-5-32	Drive Member Assembly	1		
A-5- 7	Air Filter Holder	1	281145-0-01		A-5-33	Washer	1	281152-0-01	
A-5- 8	Screw M4 x 8	1	002400-8-63		A-5-34	Screw M6 x 14D	1	281187-0-01	
A-5- 9	Terminal	2	280758-0-01		A-5-35	Bearing #6204	1	281185-0-01	
A-5-10	Toothed Lock Washer B4	1	280759-0-01		A-5-36	Preload Spring Washer	1	281149-0-01	
A-5-11	Screw M4 x 4	2	002400-4-03		A-5-37	Screw M5 x 20D	1	281186-0-01	
A-5-12	Bushing Set Plate	1	280715-0-01		A-5-38	Rubber Bushing	1	280718-0-01	
A-5-13	Rubber Bushing	1	280716-0-01		A-5-39	Nylon Clip	1	281153-0-01	
A-5-14	Connector Cover #11	1	219603-0-01		A-5-40	Washer 4	1	025040-2-35	
A-5-15	6P Connector RM-N	1	219582-0-01		A-5-41	Screw M4 x 8	1	002400-8-05	
A-5-16	Rubber Bushing	1	280718-0-01		A-5-42	Connector Cover	1	219591-0-01	
A-5-17	E Ring Type 9	2	048090-3-42		A-5-43	3P Connector RM-N	1	219589-0-01	
A-5-18	Base	1	281147-0-01		A-5-44	Screw M4 x 8DB	2	216410-0-01	
A-5-19	Pin	1	281148-0-01		A-5-45	Capacitor Set Plate	1	280760-0-01	
A-5-20	Bolt Adjusting Rod	1	281146-0-01		A-5-46	Insulation Sheet	1	280762-0-01	
A-5-21	Nut M10	2	021100-2-06	A-5-47	Capacitor	1	280761-0-01		
A-5-22	Washer 10	2	025100-2-36						

A. Motor (2)



Ref. No.	Name of Parts	Q'ty	Parts No.	Assembly No.	Ref. No.	Name of Parts	Q'ty	Parts No.	Assembly No.
A-5-51-1	Bearing #6302	1	281188-0-01	A-5-51 Brake Lining Assembly 281154-0-01	A-5-53-1	Screw	3	280729-0-01	A-5-53 Load Side Bracket Assembly 281164-0-01
A-5-51-2	Driven Member Assembly	1	281155-0-01		A-5-53-2	Brake Coil Assembly	1	281165-0-01	
A-5-51-3	Washer #1	1	281156-0-00		A-5-53-3	Load Side Bracket	1	281738-0-01	
A-5-51-4	Washer #2	1	281157-0-00		A-5-53-4	Air Filter (Load Side)	1	281168-0-01	
A-5-51-5	Key 5 x 22	1	281158-0-00		A-5-53-5	Air Filter Holder (Load Side)	1	281169-0-01	
A-5-51-6	Clutch Shaft	1	281159-0-00		A-5-53-6	Rubber Bushing	1	280718-0-01	
A-5-51-7	Woodruff Key 4 x 13 #2	1	216205-0-00		A-5-53-7	Nylon Clip	1	281153-0-01	
A-5-51-8	Coil Spring	1	281161-0-00		A-5-53-8	Tap-Screw 4 x 8	1	281772-0-01	
A-5-51-9	Lining	1	280732-0-01		A-5-53-9	Connector Cover #5	1	216384-0-01	
A-5-51-10	Spring Receive	1	281162-0-01		A-5-53-10	2P Connector RM-N	1	219616-0-01	
A-5-51-11	Bearing #6202	1	072620-2-60		A-5-53-11	Tap-Screw 4 x 8	3	281772-0-01	
A-5-51-12	Spring Washer 2-10	1	028100-2-43		A-6	Pulley	1		
A-5-51-13	Nut M10	1	281160-0-01		A-7	Screw M4 x 8DB	2	216410-0-01	
A-5-52	Preload Spring Washer	2	281163-0-01	A-8	Belt Cover M	1	281171-0-01		

B. Control Box



Ref. No.	Name of Parts	Q'ty	Parts No.	Assembly No.	Ref. No.	Name of Parts	Q'ty	Parts No.	Assembly No.
B-1- 1-1	Coil Spring	1	281179-0-01	B-1-1 Treadle Unit Assembly 281178-0-01	B-1- 8	Locking Support	10	281181-0-01	B-1 Control Box Assembly
B-1- 1-2	Screw M5 x 8	1	281189-0-01		B-1- 9	Control Circuit Unit F	1	281751-0-01	
B-1- 1-3	Screw M5 x 10D	2	216596-0-01		B-1-10	Switch	2	281752-0-01	
B-1- 1-4	E-Ring Type 4	1	048040-3-46		B-1-11	Screw M2 x 10	4	002021-0-05	
B-1- 1-5	Coil Spring	1	281180-0-01		B-1-12	Washer 2	4	025020-1-33	
B-1- 1-6	Treadle Unit	1			B-1-13	Spring Washer 2-2	4	028020-2-43	
B-1- 2	Screw M4 x 8DB	1	216410-0-01	B-1-14	Nut M2	4	021020-3-05		
B-1- 3	Control Box	1		B-2	Mounting Plate	2	281184-0-01		
B-1- 4-1	Speed Control Knob	1	281183-0-01	B-3	Screw M5 x 12	4	211528-0-01		
B-1- 4-2	Speed Control VR	1		B-4	Fitting Screw	4	280729-0-01		
B-1- 5	Control Circuit Unit B	1	281773-0-01	B-5	Wood Screw 4.1 x 16	2	031451-6-03		
B-1- 6	Control Circuit Unit A	1		B-6	Staple	10	200190-0-01		
B-1- 7	8A Fuse	1	219225-0-00	B-7	Power Switch Assembly	1			

DIFFERENT PARTS LIST

1 Phase

Ref. No.	Name of Parts	110V 60Hz		110/220V 60Hz	240V 50Hz		230V 50Hz	220V 50Hz		200V 50Hz	
		U.S.A.	Canada		Lamp 12V						
		4300 spm						5000 spm		4300 spm	
A- 5	Motor Assembly	281756-0-01		281757-0-01	281758-0-01	281759-0-01	281760-0-01	281761-0-01		281762-0-01	
B- 1	Control Box Assembly	281767-0-01 (LA-BB-24)						281768-0-01 (LA-BB-25)	281742-0-01 (LA-BB-14)		
B- 1- 6	Control Circuit Unit A	281135-0-04						281135-0-05	281135-0-04		
B- 7	Power Switch Assembly	281771-0-01	281748-0-01	281749-0-01	281750-0-01						

3 Phase

Ref. No.	Name of Parts	220V 60Hz		380V 50Hz		400/415V 50Hz		
		U.S.A.	Canada	Lamp 12V				
		4300 spm			5000 spm		4300 spm	
A- 5	Motor Assembly	281763-0-01		281764-0-01		281765-0-01	281766-0-01	
B- 1	Control Box Assembly	281767-0-01 (LA-BB-24)		281769-0-01 (LA-BB-34)	281770-0-01 (LA-BB-35)	281769-0-01 (LA-BB-34)		
B- 1- 6	Control Circuit Unit A	281135-0-04			281135-0-05	281135-0-04		
B- 7	Power Switch Assembly	281747-0-01	281745-0-01	281746-0-01	281747-0-01			

PULLEY

Ref. No.	Name of Parts	Parts No.	Sewing Speed	
			50Hz	60Hz
A- 6	Pulley Q120	281173-0-01	4300 spm (LA-BB- ¹⁴ ₂₄ ³⁴)	4300 spm (LA-BB- ²⁴ ₃₄₎
	Pulley Q135	281744-0-01	5000 spm (LA-BB-25)	5000 spm (LA-BB-35)

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Parts No.	Ref. No.	Remark	Parts No.	Ref. No.	Remark	Parts No.	Ref. No.	Remark	Parts No.	Ref. No.	Remark
002021-0-05	B- 1-11		219589-0-01	A- 5-43		281150-0-01	A- 5-29		281189-0-01	B- 1- 1- 2	
002400-4-03	A- 5-11		219591-0-01	A- 5-42		281151-0-01	A- 5-31		281738-0-01	A- 5-53- 3	
002400-8-05	A- 5-41		219603-0-01	A- 5-14		281152-0-01	A- 5-33		281742-0-01	B- 1	
002400-8-63	A- 5- 8		219616-0-01	A- 5-53-10		281153-0-01	A- 5-39		281744-0-01	A- 6	
002500-6-05	A- 5- 4		280715-0-01	A- 5-12		281153-0-01	A- 5-53- 7		281745-0-01	B- 7	
021020-3-05	B- 1-14		280716-0-01	A- 5-13		281154-0-01	A- 5-51		281746-0-01	B- 7	
021080-1-06	A- 4		280718-0-01	A- 5-16		281155-0-01	A- 5-51- 2		081747-0-01	B- 7	
021100-2-06	A- 5-21			A- 5-38		281156-0-00	A- 5-51- 3		281748-0-01	B- 7	
025020-1-33	B- 1-12			A- 5-53- 6		281157-0-00	A- 5-51- 4		281749-0-01	B- 7	
025040-2-35	A- 5-40		280722-0-01	A- 1		281158-0-00	A- 5-51- 5		281750-0-01	B- 7	
025100-2-36	A- 5-22		280723-0-01	A- 2		281159-0-00	A- 5-51- 6		281751-0-01	B- 1- 9	
028020-2-43	B- 1-13		280729-0-01	A- 5-24		281160-0-01	A- 5-51-13		281752-0-01	B- 1-10	
028080-2-43	A- 3			A- 5-30		281161-0-01	A- 5-51- 8		281756-0-01	A- 5	
028100-2-43	A- 5-23			A- 5-53- 1		281162-0-01	A- 5-51-10		281757-0-01	A- 5	
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031451-6-03	B- 5			280732-0-01	A- 5-51- 9		281164-0-01	A- 5-53		281759-0-01	A- 5
048040-3-46	B- 1- 1- 4		280758-0-01	A- 5- 9		281165-0-01	A- 5-53- 2		281760-0-01	A- 5	
048090-3-42	A- 5-17		280759-0-01	A- 5-10		281168-0-01	A- 5-53- 4		281761-0-01	A- 5	
072620-2-60	A- 5-51-11		280760-0-01	A- 5-45		281169-0-01	A- 5-53- 5		281762-0-01	A- 5	
072620-3-60	A- 5-27		280761-0-01	A- 5-47		281171-0-01	A- 8		281763-0-01	A- 5	
200190-0-01	B- 6		280762-0-01	A- 5-46		281173-0-01	A- 6		281764-0-01	A- 5	
211528-0-01	B- 3		281135-0-04	B- 1- 6		281178-0-01	B- 1- 1		281765-0-01	A- 5	
216205-0-00	A- 5-51- 7		281135-0-05	B- 1- 6		281179-0-01	B- 1- 1- 1		281766-0-01	A- 5	
216384-0-01	A- 5-53- 9		281141-0-01	A- 5- 1		281180-0-01	B- 1- 1- 5		281767-0-01	B- 1	
216410-0-01	A- 5- 3		281142-0-01	A- 5- 2		281181-0-01	B- 1- 8		281768-0-01	B- 1	
	A- 5-26		281143-0-01	A- 5- 5		281182-0-01	B- 1- 4		281769-0-01	B- 1	
	A- 5-44		281144-0-01	A- 5- 6		281183-0-01	B- 1- 4- 1		281770-0-01	B- 1	
	A- 7		281145-0-01	A- 5- 7		281184-0-01	B- 2		281771-0-01	B- 7	
	B- 1- 2		281146-0-01	A- 5-20		281185-0-01	A- 5-35		281772-0-01	A- 5-53- 8	
216596-0-01	B- 1- 1- 3		281147-0-01	A- 5-18		281186-0-01	A- 5-37			A- 5-53-11	
219225-0-00	B- 1- 7		281148-0-01	A- 5-19		281187-0-01	A- 5-34		281773-0-01	B- 1- 5	
219582-0-01	A- 5-15		281149-0-01	A- 5-36		281188-0-01	A- 5-51- 1				

