# PARTS LIST & INSTRUCTION

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# Industrial Sewing Machines

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No. 210135



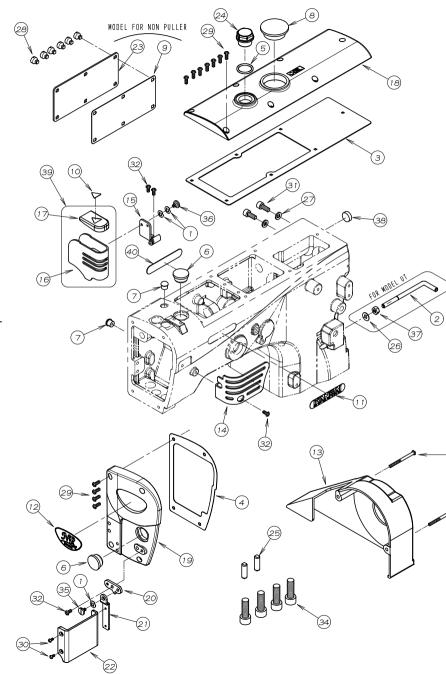


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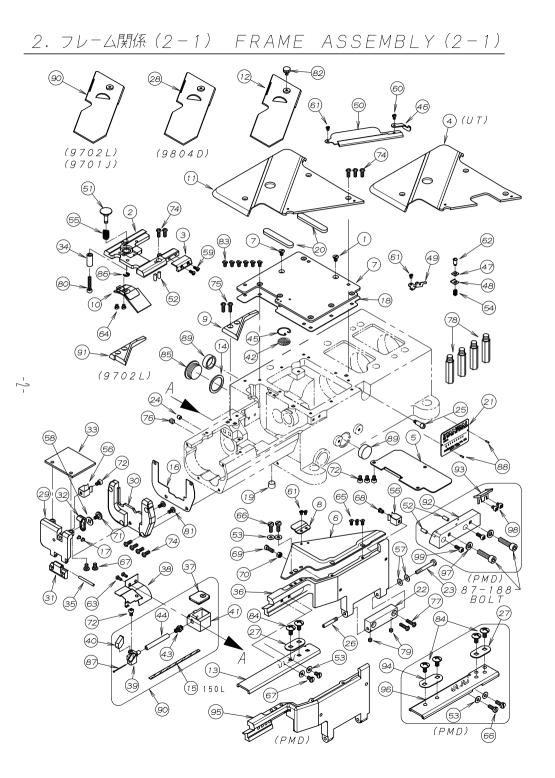
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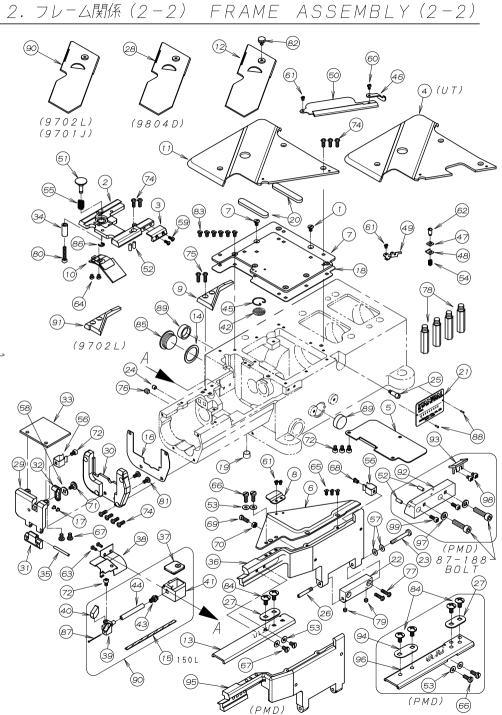
# 1. フレーム関係(1) FRAME ASSEMBLY(1)



REF.NO. PART NO.	品名	DESCRIPTION	Q′TY
01-0102-119	波座金	WASHER	3
01-0205-292	木°シ"ショナ-ハ"-	BAR	1
01-0323-041	トッフ゜カハ゛-ハ゜ッキン	GASKET	1
01-0423-045	面板ハ°ッキン	GASKET	1
01-0523-287	0-リング	O RING	1
01-0623-427	コ″ム栓	PLUG	2
01-0723-501	コ"ム栓	PLUG	2
01-0823-504	コ″ム栓	PLUG	1
01-0923-538	ハ゜ッキン	GASKET	1
01-1024-060	針棒カバーシール	SEAL	1
01-1124-069	銘版	BRAND NAME PLATE	1
01-1224-062	機種プレート	MODEL PLATE	1
01-1327-136	プーリーカバー	PULLEY COVER	1
01-1427-231	天秤カハ"-	COVER	1
01-1527-233	針棒カハ"-フ"ラケット	BRACKET	1
01-1627-234	針棒カハ"-	NEEDLE BAR COVER	1
01-1727-235	針棒カハ"-コ"ム	RUBBER	1
01-1827-237W	トッフ゜カハ゛-	TOP COVER	1
01-1927-238W	面板	HEAD COVER	1
01-2027-239	アイカ"-ト"ヒンシ"(1)	HINGE	1
01-2127-240	アイカ" - ト" ヒンシ" (2) アイカ" - ト"	HINGE	1
01-2227-241	アイカ"ート"	EYE GUARD	1
01-2327-323W	後カハ"-	REAR COVER	1
01-2439-235	オイルポット	OIL POT	1
01-2571-580	ノックヒ゜ン	PIN	2
01-2675-452	ワッシャ	WASHER	1
01-2775-552	ワッシャ	WASHER	2
01-2887-053	スリワリ付小ネジM6x6L	SCREW M6×6L	6
01-2987-483	プラマイナベ小ねじ	SCREW	11
01-3087-477	プラマイナベ小ねじ	SCREW	2 2 4 2 4
01-3187-171	六角穴付きボルト	BOLT	2
01-3287-482	プラマイナベ小ねじ	SCREW	4
01-3387-489	プラマイナベ小ねじ	SCREW	2
01-3487-228	六角穴付きボルト	BOLT	4
01-3587-264	段ネシ"	SCREW	1
01-3687-437	段ネジ	SCREW	1
01-3788-166	ナット	NUT	1
01-3894-504	シールキャッフ゜	PLUG	1
01-3920-0008	針棒カバーセット	NEEDLE BAR COVER ASS'Y	1
01-4024-052	銘版	BRAND NAME PLATE	1



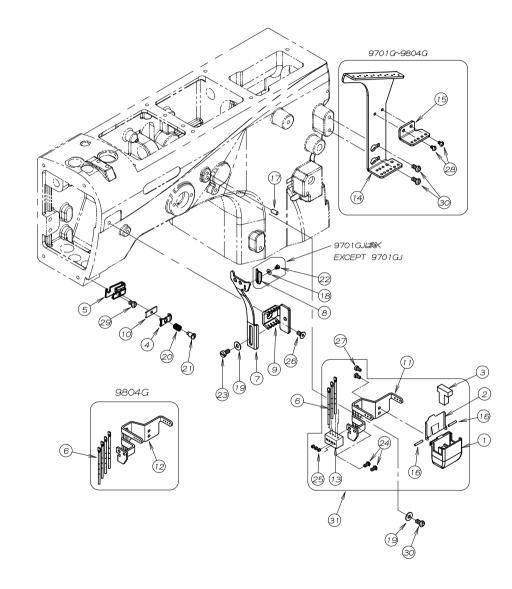
REF.NO. PART NO.	品名	DESCRIPTION	Q'TY
02-0105-061	ネシ "	SCREW	2
02-0214-167	針板土台	NEEDLE PLATE SUPPORT BRACKET	1
02-0314-168	針板補助フ"ラケット	BRACKET	1
02-0421-610W	上へ"ースカハ"ー	UPPER COVER	1
02-0521-640	防塵フ゜レート	PLATE	1
02-0621-642W	定規板	FRONT COVER	1
02-0721-643	上油カハ"-	CRANK CHAMBER COVER	1
02-0821-644	調子皿保護力八"-	COVER	1
02-0921-646W	差板補助カハ"ー	COVER	
02-1021-670	オイルカハ゛ー	OIL DIFENDER	1
02-1021-678W	上へ" - スカハ" -	UPPER COVER	
02-1221-679	差板	SLIDE COVER	
02-1321-874	補助カハ"ー	COVER	
02-1423-298	フタネジ用シール	SEAL	1
02-1523-341	フェルト	FELT	1
02-1623-510	ハ゜ッキン	GASKET	1
02-1723-512	クッションコ ム	CUSHION RUBBER	2
02-1823-513	ハ゜ッキン	GASKET	1
02-1923-528	フ゜ラク″	PLUG	1
02-2023-570	防振マット	CUSHION	2
02-2124-053	モテ"ルステッカー	TYPE PLATE	1
02-2225-516W	定規台ヒンシ	HINGE	1
02-2325-517	ヒンシ ネシ	SCREW	1
02-2425-521	<u> フ</u> ゜ラク゛	PLUG	1
02 - 25 - 52 - 52 - 52 - 52 - 52 - 52 -	カハ"-ストッフ゜ネシ"	SCREW	1
02-2625-527	カハ゛ーヒンシ゛ネシ゛	SCREW	1
02-2726-822	ラッハ。取付金具		2
02-2827-114	差板	SLIDE COVER	<u> </u>
02-2927-212W	 横カバー	SIDE COVER	
02-2927-212W 02-3027-213W	横カバーヒンジ土台	HING	
02-3127-214W	横カバーヒンジ	HING	+
02-3227-215			
02-3327-216	横カハ"ーフ゜レート	SIDE COVER PLATE	
02-3427-217	<u>カハ゛-ストッフ゜カラ-</u>	COLLAR	
02-3527-218	<u>ヒンシ</u> " ヒ <sup>®</sup> ン	PIN	1
<u>02-3627-223W</u>	定規台	FRONT COVER	1
02-3727-279	ニードルクーラー蓋	NEEDLE COOLER COVER	1
02-3827-303	<u>オイルフェンス(下軸)</u>	OIL DIFENDER	1
02-3927-522	ニート"ルクーラー	NEEDLE COOLER	1
02-4027-523	フェルト	FELT	1
02-4127-524	ニート"ルクーラータンク	NEEDLE COOLER TUNK	1
02-4231-503	濾過網	OIL FILTER SCREEN	1
02-4331-505	継手	JOINT	1
02-4435-522	ヒ ニールチューフ	TUBE	1
02-4539-503		CLAMP	1
02-4643-515	ルーハ゜ー糸道	THREAD EYELET	1
02-4743-516	調子皿(上)	TENSION DISK	1
02-4843-517	調子皿 (下)	TENSION DISK	
02-4943-527	調子皿力"イト"	TENSION DISK GUIDE	1
02-5043-528	ルーハ゜ー糸案内	LOOPER THREAD GUIDE	1
02 - 50 + 3 - 528 02 - 51 - 69 - 517	フ <sup>®</sup> ッシュホ <sup>®</sup> タン	PUSH BUTTON	1
	ノ ッシュホ タノ ノックヒ°ン	PIN	
02-5271-253			4
02-5375-455	ワッシャー コート フッシャー	WASHER	6
02-5479-524	調子ハ"ネ	TENSION SPRING	1
02-5579-528	ハ ネ	SPRING	1
02-5679-912	パネ	SPRING	2



REF.NO. PART NO.	品名	DESCRIPTION	Q'TY
02-5779-922	血ハ"ネ	SPRING	2
02-5879-927	皿ばね 6	SPRING	1
02-5984-154	ネジ	SCREW	2
02-6084-161	ネシ"	SCREW	1
02-6184-167	ネシ"	SCREW	4
02-6284-175	段ネシ"	SCREW	1
02-6387-375	タッピングネジ	SCREW	2
02-6484-364	ネシ"	SCREW	2
02-6584-464	ネシ"	SCREW	2 2 3 4 4
02-6684-566	ネシ	SCREW	4
02-6784-574	ネシ"	SCREW	4
02-6884-575	ネシ"	SCREW	1
02-6984-635	ネシ"	SCREW	1
02-7086-311	ナット	NUT	1
02-7187-066	段ネジ	SCREW	1
02-7287-092	六角穴付きボルト	BOLT	5
02-7320-0003	ニート" ルクーラーセット	NEEDLE COOLER ASS'Y	5
02-7487-483	<u>プ</u> ラマイナベ小ねじ	SCREW	
02-7587-484	プラマイナベ小ねじ	SCREW	9 2 1
02-7687-172	ネシ"	SCREW	1
02-7787-485	プラマイナベ小ねじ	SCREW	
02-7887-258	スタント ヒ ン	PIN	2 4 2
02-7987-274	ネシ	SCREW	2
02-8087-283	六角穴付きボルト	BOLT	1
02-8187-288	ネシ"	SCREW	2
02-8287-409	ネジ	SCREW	1
02-8387-415	ネシ"	SCREW	6
02-8487-436	ネシ"	SCREW	6
02-8587-812	ネシ"	SCREW	1
02-8693-205	Eリンク"	E - R I N G	1
02-8793-625	フェルトヒ゜ン	PIN	1
02-8893-701	t° y	PIN	2
02-8994-506	オイルシール	OIL SEAL	2
02-9021-798	差板	SLIDE COVER	1
02-9121-799W	差板補助カバー	COVER	1
02-9201-156	前プーラー取付台	BRACKET	1
02-9301-157	油受け	PLATE	1
02-9426-712	取付金具	WASHER	1
02-9527-226	定規台(PMD)	FRONT COVER	1
02-9627-227	補助カバー	COVER	1
02-9775-552	ワッシャ	WASHER	2
02-9887-067	六角穴付きボルト	BOLT	2
02-9987-113	ネジ	SCREW	2
02-9987-113	ネジ	SCREW	

# 3.糸調子機構

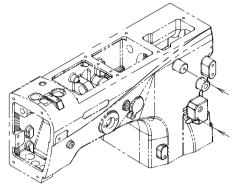
THREAD TENSION MECHANISM

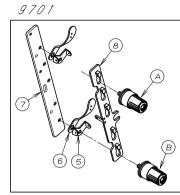


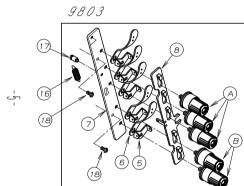
REF.NO. PART NO.	品名	DESCRIPTION	Q'TY
03-0127-039	シリコンタンク	SILICONE OIL RESERVOIR	1
03-0227-533	シリコンタンクフタ	COVER	1
03-0327-534	フェルト	FELT	1
03-0441-021	カメ糸道	THREAD NIPPER	1
03-0541-022	小調子台	THREAD GUIDE BRACKET	1
03-0645-031	糸道	THREAD EYELET	7
03-0745-033	上糸捌き	THREAD GUIDE	1
03-0845-034	補助上糸捌き	THREAD GUIDE	1
03-0945-038	上糸力" イト"	GUIDE	1
03-1045-508	針株小調子板	PLATE	1
03-1145-541	シリコンタンク糸道	THREAD EYELET	1
03-1245-551	シリコンタンク糸道	THREAD EYELET	1
03-1345-553	ホルタ"ー	HOLDER	1
03-1445-567	糸ガイド	THREAD GUIDE	1
03-1545-568	糸ガイド糸道	THREAD EYELET	1
03-1671-202	シリコンタンク用ヒ゜ン	SILICONE PIN	2
03-1771-209	平行ヒ <sup>°</sup> ン	PIN	1
03-1875-441	ワッシャ	WASHER	1
03-1975-455	ワッシャ	WASHER	2
03-2079-025	カメ糸道バネ	SPRING	1
03-2184-021	パネカ゚イト゚ネシ゚	SCREW	1
03-2287-093	ネシ"	SCREW	1
03-2387-096	ネシ ネシ ネシ ネシ	SCREW	1
03-2487-099	ネシ"	SCREW	2
03-2587-104	ネシ"	SCREW	3
03-2687-269	ネシ"	SCREW	1
03-2787-372	タッピングネジ	SCREW	2
03-2887-476	プラマイナベ小ねじ	SCREW	2
03-2987-481	プラマイナベ小ねじ	SCREW	1
03-3087-482	プラマイナベ小ねし	SCREW	3
03-3140-523W-3	シリコンタンク糸道セット	THREAD EYELET ASS'Y	1

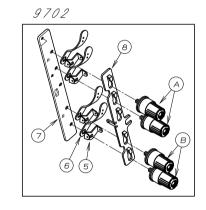
# 4. *糸調子機構(UT除外)*

THREAD TENSION MECHANISM (WITHOUT UT)

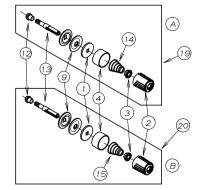


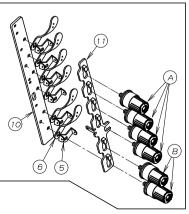






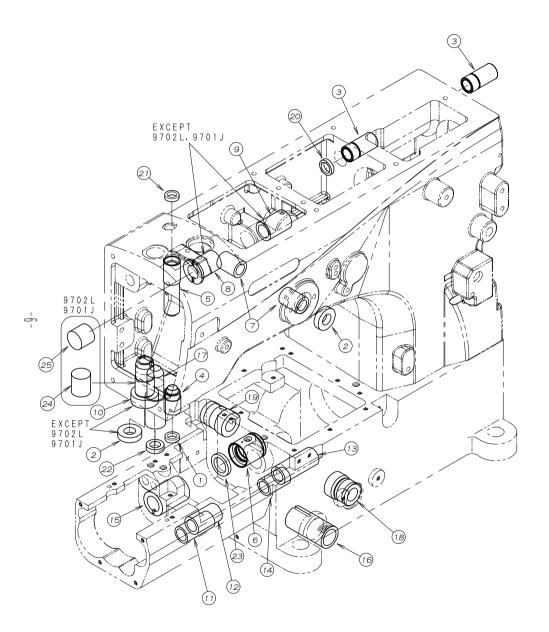




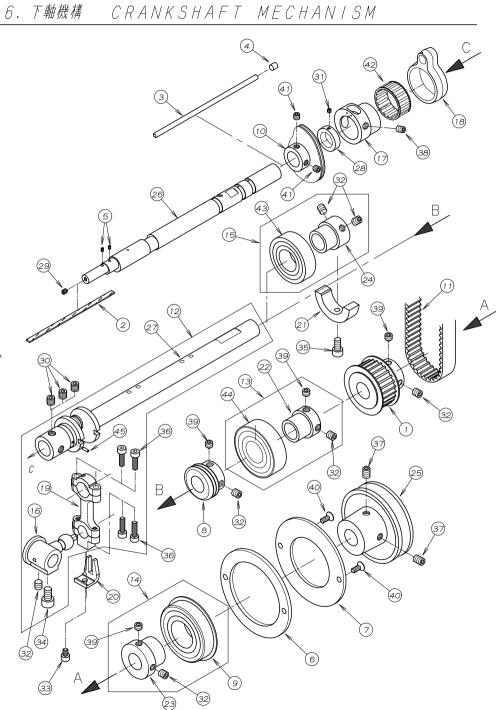


REF.NO. PART NO.	品名	DESCRIPTION	Q'TY
04-0123-324	フェルト	FELT	*
04-0241-104	チャンホ゜ン皿小ケ-ス	THREAD TENSION NUT	*
04-0341-105	チャンポン皿ラチェット	SPRING POST	米
04-0441-108	チャンホ゜ン大ケース	SPRING CUP	米
04-0541-115	糸道(上)	THREAD GUIDE	米
04-0641-117	糸道(下)	THREAD GUIDE	*
04-0741-501	ブラケット	BRACKET	1
04-0841-502	糸緩めプレート	THREAD RELEASER	1
04-0941-528	チャンポン皿	TENSION DISC	米
04-1041-518	フ"ラケット	BRACKET	1
04-1141-519	糸緩めフ゜レート	THREAD RELEASER	1
04-1241-531	調子棒カラー	COLLAR	*
04-1341-532	調子棒	SCREW STUD	*
04-1441-701	チャンポン調子バネ(強)	SPRING (HEAVY)	*
04-1541-702	チャンポン調子バネ(弱)	SPRING (LIGHT)	米
04-1679-514	引張りバネ	SPRING	1
04-1784-501	ネシ	SCREW	1
04-1887-482	プラマイナベ小ねじ	SCREW	2 *
04-1940-7510	チャンポンセット(強)	THREAD TENSION SET (HEAVE)	
04-2040-7520	チャンポンセット(弱)	THREAD TENSION SET(LIGHT)	*

5. ブッシュ機構 BUSHING

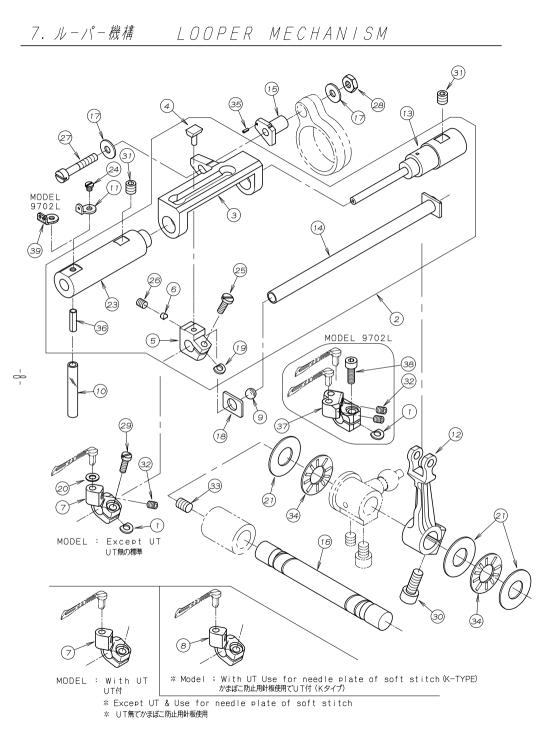


REF.NO. PART NO	. 品名	DESCRIPTION	Q' T'
05-0194-511	オイルシール	OIL SEAL	1
05-0294-804	オイルシール	OIL SEAL	2
05-0381-023	押工揚ケ <sup>®</sup> 連動シャフトフ <sup>®</sup> ッシュ		2
05-0481-047	針棒フ"ッシュ(下)	BUSHING	1
05-0581-048	針棒フ"ッシュ(上)	BUSHING	1
05-0681-049	下軸フ″ッシュ(後)	BUSHING (REAR)	1
05-0781-506	ブッシュ	BUSHING	2
05-0881-507	ブッシュ	BUSHING	1
05-0981-508	ブッシュ	BUSHING	Í
05-1081-587	飾り糸ルーハ°ー棒フ"ッシュ	BUSHING	Í
05-1181-511	ブッシュ	BUSHING	Í
05-1281-512	ブッシュ	BUSHING	Í
05-1381-513	ブッシュ	BUSHING	Í
05-1481-514	ブッシュ	BUSHING	
05-1581-515	ブッシュ	BUSHING	
05-1681-518	ブッシュ	BUSHING	
05-1781-546	ブッシュ	BUSHING	1
05-1881-580	ルーパー振り元軸ブッシュ	BUSHING	1
05-1981-581	ルーパー振り元軸ブッシュ	BUSHING	1
05-2094-102	オイルシール	OIL SEAL	1
05-2194-231	オイルシール	OIL SEAL	1
05-2294-503	オイルシール	OIL SEAL	1
05-2394-510	オイルシール	OIL SEAL	1
05-2425-506	詰栓	SEAL PLUG	1
05-2525-507	詰栓	SEAL PLUG	1



			Q'TY
	タイミングプ-リ-(下)	TIMING PULLEY	1
06-0223-341	フェルト	FELT	1
06-0323-547	フェルト	FELT	1
06-0423-548	フェルト	FELT	1
06-0523-554	フェルト	FELT	2
	ベアリング止め板(A)	SET PLATE (A)	1
06-0725-520	ベアリング止め板 (B)	SET PLATE (B)	1
	ポンプ駆動ギア	POMP DRIVING WARM	1
06-0934-826	ホ"ールへ"アリンク"	BEARING	1
06-1049-501	ハマク゛リ	LOOPER THREAD TAKE-UP	1
06-1158-007	タイミングベルト	TIMING BELT	1
06-1260-5020	ルーハ° -クランクロット セット	LOOPER CRANK ROD ASS'Y	1
06-1360-8510	ベアリングセット	BEARING ASS'Y	1
06-1460-8540	ベアリングセット	BEARING ASS'Y	1
	<u>ベアリングセット</u>	BEARING ASS'Y	1
	ルーパー振玉	DRIVE BALL	1
06-1761-522	針返エキセン	ECCENTRIC	1
06-1863-504	針返連結ロット	CONNECTING ROD	1
06-1963-505	ルーハ°ー振りロット	CONNECTING ROD	1
	振れ止め	GUIDE	1
	バランス	BALANCER	1
	ベアリングスリーブ	BEARING SLEEVE	1
06-2369-549	スリーブ	SLEEVE	1
06-2469-550	スリーブ	SLEEVE	1
06-2569-552	Vプ-IJ-	V-PULLEY	1
06-2671-540	下軸	LOWER SHAFT	1
06-2771-587	下軸クランク	CRANK SHAFT	1
	カラー	COLLAR	1
	ネシ"	SCREW	1
06-3085-113	ネシ"	SCREW	3
06-3187-104	ネシ"	SCREW	1
06-3287-172	ネシ"	SCREW	7
06-3387-092	六角穴付きボルト	BOLT	1
	六角穴付きボルト	BOLT	1
	六角穴付きボルト	BOLT	1
	六角穴付きボルト	BOLT	4
	ネシ"	SCREW	4
	ネシ"	SCREW	1
	ネシ"	SCREW	
	ネシ <sup>®</sup>	SCREW	4 2 2
06-4187-274	ネシ"	SCREW	2
06-4291-413	ニードルゲージ	NEEDLE BEARING	1
	<u>/ パノ ノ</u> ヘ" アリンク"	BEARING	1
	<u>へ</u> "アリンク"	BEARING	1
06-4593-718	スフ <sup>°</sup> リンク <sup>"</sup> ヒ <sup>°</sup> ン	SPRING PIN	1

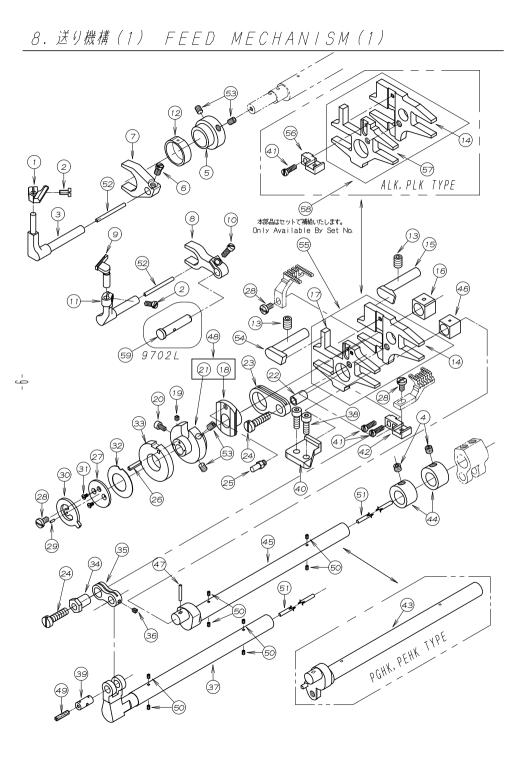




REF.NO. PART NO.	品名	DESCRIPTION	Q'TY
07-0106-375	スヘ゜ーサー	WASHER	2
07-0210-5010	ルーパー駆動元台セット	LOOPER GUIDE ASS'Y	1
07-0319-506	ルーパー駆動元台	LOOPER SHAFT GUIDE	1
07-04 19-507	カムフロアー	SLIDER	1
07-0519-508	カムフロアー取付台	SLIDER HOLDER	1
07-0619-509	カムフロアー押しヒ゜ン	PIN	1
07-0719-533	ルーパー台	LOOPER HOLDER	2
07-08 * 19-558	ルーパー台	LOOPER HOLDER	1
07-0923-515	詰栓	PLUG	1
07-1035-526	ヒ"ニールチューフ"	TUBE	1
07-1147-801	ルーハ゜ー案内糸道	THREAD EYELET	1
07-1267-505	ルーハ゜ー振元レハ゛ー	LEVER	1
07-1371-532	ルーハ。-案内棒	LOOPER SHAFT GUIDE BAR	1
07-1471-535	ルーハ゜ーシャフト	LOOPER SHAFT	1
07-1571-538	針返量調節ヒ゜ン	PIN	1
07-1671-539	振元シャフト	SHAFT	1
07-1775-467	ワッシャ	WASHER	2
07-1875-513	スラストワッシャ	WASHER	1
07-1975-514	スヘ°ーサー	WASHER	1
07-2075-532	スヘ° -サ-	SPACER	1
07-2175-901	ワッシャ	WASHER	3
07-22			
07-2381-573	ルーパー案内ブッシュ	BUSHING	1
07-2484-163	ネシ"	SCREW	1
07-2584-363	ネシ"	SCREW	1
07-2684-521	ネシ"	SCREW	1
07-2784-589	ネシ"	SCREW	1
07-2886-312	ナット	NUT	1
07-2987-011	ネシ	SCREW	1
07-3087-171	六角穴付きボルト	BOLT	1
07-3187-172	ネシ	SCREW	2
07-3287-181	ネシ"	SCREW	3
07-3387-242	ネシ	SCREW	1
07-3492-233	スラストヘ"アリンク"	BEARING	2
07-3593-717	スフ <sup>°</sup> リンク <sup>¨</sup> ヒ <sup>°</sup> ン	SPRING PIN	1
07-3693-719	スフ゜リンク゛ヒ゜ン	SPRING PIN	1
07-3719-769	ルーパー台	LOOPER HOLDER	1
07-3887-129	六角穴付きボルト	BOLT	1
07-3943-571	ルーハ゜ー案内糸道	THREAD EYELET	1

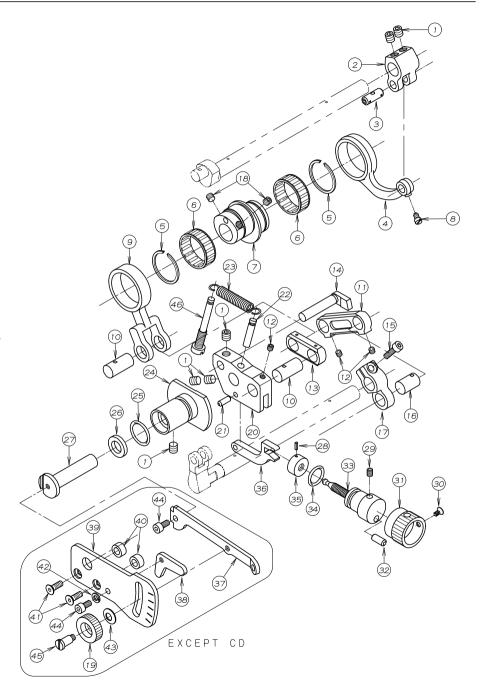
\* かまぼこ防止用針板の品番は、49ページのゲージパーツ表を参照して下さい。

\* Please refer to Page 49 GAUGE PARTS LIST for soft stitch



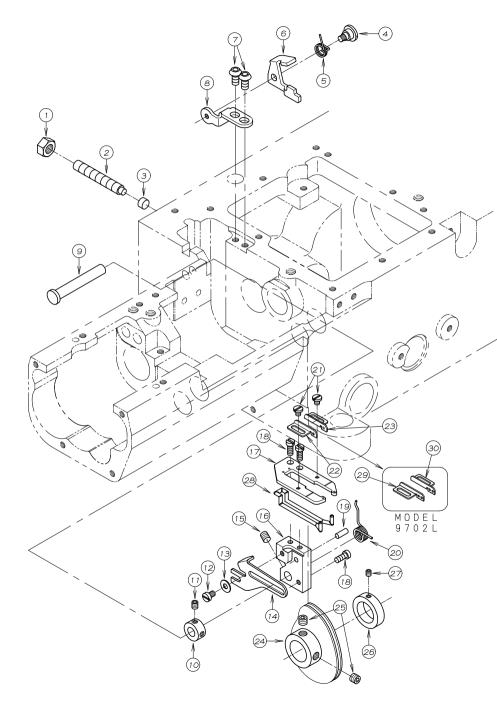
REF.NO.	PART NO.	品名	DESCRIPTION	Q'TY
	18-805	針受	NEEDLE GUARD	1
08-02	84-155	ネシ"	SCREW	2
	18-804	針受フ"ラケット	BRACKET	1
	87-274	ネシ	SCREW	2
	61-530	計グエキセン	ECCENTRIC	1
	84-616	ネシ <sup>"</sup>	SCREW	1
	18-800	119 針受レバー	NEEDLE GUARD LEVER	$\frac{1}{1}$
	18-801	ゴンレハ 針カ゛イト゛レハ゛ー	NEEDLE GUARD LEVER	1
	18-806	<u>計ガーイト</u> 針力 <sup>「</sup> イト <sup>「</sup>	NEEDLE GUARD LEVER	$\frac{1}{1}$
			SCREW	
	84-376	ネシ <sup>®</sup> 針カ『 イト『 フ『 <del>ラ</del> ケット		$\frac{1}{1}$
	18-803			
	18-799	針受エキセン角ゴマ	BLOCK	
	87-242	ネジ	SCREW	2
	51-827	主送り台	MAIN FEED BAR	1
08-15	69-514	送り台カ゛イト゛	FEED ROCKER GUIDE	1
	51-822	角ゴマ(後)	FEED LIFT BLOCK (REAR)	1
08-17	51-826	差動送り台	DIFFERENTIAL FEED BAR	1
08-18	61-504	スライト" エキセン	ECCENTRIC	1
	87-104	ネジ	SCREW	1
08-20	87-123	ネシ <sup>"</sup>	SCREW	1
08-21	61-503	送りエキセン	FEED ECCENTRIC	1
08-22	71-530	主送り連結リンクヒ゜ン	PIN	1
08-23	51-823	主送り連結リンク	CONNECTING LINK	1
	87-235	ネシ"	SCREW	2
	69-511	エキセンカム案内ピッン	PIN	1
	52-308	スプリングピン	SPRING PIN	1
	69-509	() ))) C ) 押工板	PLATE	1
	84-374	ネジ	SCREW	3
08-29	93-716	ネン スプ リング ピ ン	SPRING PIN	1
	69-510	送り調節ストッパー	FEED REGULATING STOP	+
	87-107			2
		ネジー	SCREW	12
	79-525		SPRING	
	69-512	送りエキセンカム	CAM	1
	51-819	調節エキセン	ECCENTRIC	1
	51-820	連結リンク	CONNECTING LINK	1
	87-234	ネシ"	SCREW	1
	71-558	差動送り軸	FEED SHAFT	1
	87-129	ネジ	SCREW	2
08-39	71-528	リンクピ ン	PIN	1
08-40	51-883	送り土台カ゛イト゛プ・レート	FEED BAR GUIDE PLATE	1
08-41	84-158	ネジ	SCREW	3
08-42	51-825	差動送り歯取付台	DIFFERENTIAL FEED DOG BASE	1
08-43	71-634	送り上下軸	FEED LIFT SHAFT	1
	75-512	カラー	COLLER	2
08-45	71-566	送り上下軸	FEED LIFT SHAFT	1
	51-821		FEED LIFT BROCK (FRONT)	1
	23-531	フェルト	FELT	1
	60-5070	送りエキセンセット	FEED ECCENTRIC ASS' Y	1
	23-341	フェルト	FELT	$\frac{1}{1}$
	23-554	フェルト	FELT	8
	23-535	フェルト フェルト	FELT	2
		フェルト	FELT	2
	23-552			_
	87-181	ネシ <sup>®</sup>	SCREW	4
	69-531	送り台力 イト	FEED ROCKER GUIDE	$\frac{1}{1}$
	50-8260	送り土台セット	FEED BRACKET SET	$\frac{1}{1}$
	51-849	取り付けブラケット	BRACKET	1
	51-850	差動送り台	DIFFERENTIAL FEED BAR	1
	50-8270	送り土台セット	FEED BRACKET SET	1
	71-766	ピン	PIN	11

# 9. 送り機構(2) FEED ME<u>CHANISM(</u>2)

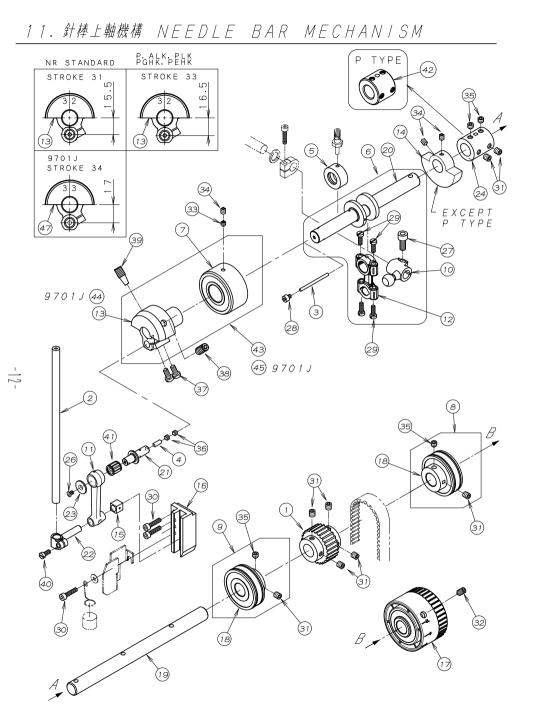


REF.NO.	PART NO.	品名	DESCRIPTION	Q' TY
09-01	87-172	ネシ	SCREW	6
09-02	67-504	送り上下レバー	FEED LEVER	1
	71-431	ダルマピン	PIN	1
09-04	63-502	送り上下連結ロット	CONNECTING ROD	1
09-05	93-402	サークリップ	SNAP RINK	2
	91-412	ニート゛ルケ゛ーシ゛	NEEDLE BEARING	2
	61-505	送りダ ルマエキセン	FEED ECCENTRIC	1
	84-366	ネジ	SCREW	1
	63-503	連結ロット	CONNECTING ROD	1
	71-518	リンクピッン	PIN	2
09-11	51-817	リンク	LINK	1
	87-233	ネジ	SCREW	3
	51-816	リンク	LINK	1
	69-515	 ロット゛ガ゛イト゛	CONNECTING ROD GUIDE	
	87-129	ネジ	SCREW	1
	71-525	リンクヒ゜ン	PIN	1
	67-509	差動送りレバー	FED LEVER	1
	87-274	ネジ	SCREW	2
	51-808	ナット	NUT	
	51-811	調節士台	BRACKET	$-\frac{1}{1}$
0 <u>9 20</u> 09-21	71-520		PIN	1
	51-812	う張りバ ネ取付ピ ン	PIN	$-\frac{1}{1}$
	79-527	引張りバネ(切)と シー	SPRING	1
	51-809	ブ ツシュ	BUSHING	1
	23-283	ローリング		1
	94-222	オイルシール	OIL SEAL	1
	51-866	調節レハ"ー軸	CONTROL LEVER SHAFT	
$\frac{09-27}{00-29}$	32-281	スプ リング ピ ン	SPRING PIN	1
	87-181		SCREW	$- _1$
	87-212	ネジー	SCREW	-
	51-815	 調節ノフ <sup>®</sup>	ADJUSTING KNOB	1
	71-208	mgリノ ストップ ピ ン	PIN	
	51-814		SCREW	
		- inguネシ ローリンク		
	23-192		O-RING	1
	51-813	ナット リンク	NUT Control Link	1
	51-810			1
	51-865	調節レハ <sup>*</sup> ー ストツパ <sup>®</sup> ー	DIFFERENTIAL FEED CONTROL LEVER	
	51-804	<u>ストツハー</u>     目盛板	STOPPER	1
	51-801		FEED GRADUATIONS	
	51-805	スペースカラー	COLLAR	2
	87-265	ネジ	SCREW	2
	75-410	ワッシャ	WASHER	
	51-806	<u> </u>	SPRING	$-\frac{1}{2}$
	87-177	ネジ <sup>"</sup>	BOLT	2
	51-807	段ネジー コード・コート	SCREW	
U9-46	51-818	引張ハ"ネ取付ネシ"	STUD BOLT	

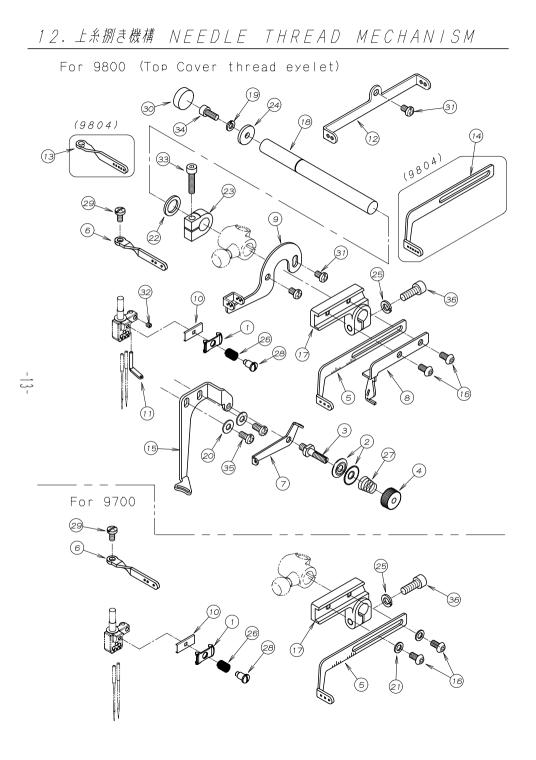
# 10. F糸捌き機構 LOOPER THREAD MECHANISM



REF. NO. PART NO.	品名	DESCRIPTION	Q'TY
10-01 88-166	ナット	NUT	1
10-02 87-229	ネシ	SCREW	1
10-03 23-511	キャップ	CAP	1
10-04 84-174	ネジ	SCREW	1
10-05 79-523	ハ <sup>*</sup> ネ レハ <sup>*</sup> ー	SPRING	1
10-06 43-513		LEVER	1
10-07 87-272	ネジ	SCREW	2
10-08 43-506	ストップ 台	STOP BRACKET	1
10-09 43-507	取付台軸	SHAFT	1
10-10 75-105	カラー	COLLAR	1
10-11 84-314	ネジ	SCREW	1
10-12 84-161	ネジ	SCREW	1
10-13 75-224	ワッシャ	WASHER	1
10-14 43-538	糸案内	CAST-OFF PLATE	1
10-15 84-521	ネジ	SCREW	1
10-16 43-536	フ゛ラケット	BRACKET	1
10-17 43-537	プ レート	PLATE	1
10-18 84-155	ネシ	SCREW	3
10-19 71-207	ピン	PIN	1
10-20 79-520	スプ リング	SPRING	1
10-21 87-083	ネジ	SCREW	2
10-22 43-512	糸道 (左)	THREAD EYELET (LEFT)	1
10-23 43-510	糸道(右)	THREAD EYELET (RIGHT)	1
10-24 49-501	ハマクリ	LOOPER THREAD TAKEUP CAM	1
10-25 87-274	ネシ	SCREW	2
10-26 75-511	カラー	COLLAR	1
10-27 87-104	ネシ	SCREW	1
10-28 23-319	巻き付き防止モール	LACED WIRE	1
10-29 43-572	ハマグリ糸道左	THREAD EYELET (LEFT)	1
10-30 43-573	ハマグリ糸道右	THREAD EYELET (RIGHT)	1

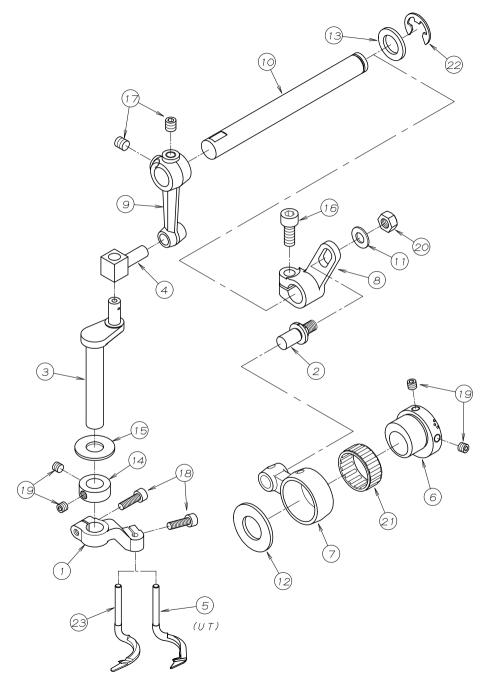


REF. NO. PART NO.	品名	DESCRIPTION	Q'TY
11-0106-238	タイミングプーリー (上)	TIMING PULLEY	1
11-0211-409	針棒	NEEDLE BAR	1
11-0323-063	フェルト	FELT	1
11-0423-567	フェルト	FELT	1
11-0535-559	オイルスリーフ	OIL SLEEVE	1
11-0660-5160	上軸左糸捌きロット"セット	CONNECTING ROD ASS'Y	1
11-0760-8490	ベアリングセット	BEARING ASS'Y	1
11-0860-8500	ベアリングセット	BEARING ASS'Y	1
11-0960-8510	ベアリングセット	BEARING ASS'Y	1
11-1061-745	針糸捌きロッド玉	ECCENTRIC	1
11-1163-427	針棒リンク	LINK	1
11-1263-518	針糸捌きロット	CONNECTING ROD	1
11-1366-523	針棒クランク(32)	NEEDLE CRANK ASS' Y	1
11-1469-142	クランクモーション	BALANCE WEIGHT	-1
11-1569-532	角コ <sup>"</sup> マ	BLOCK	<u> </u>
11-1669-533	針棒力"イト"	GUIDE	-1
11-1769-540	ハント"フ゜ーリー	HAND WHEEL	-1
11-1869-544	ベアリングスリーブ	BEARING SLEEVE	2
11-1971-830	上軸 (右)	UPEER SHAFT (RIGHT)	1
11-2071-836	上軸(左)	UPPER SHAFT (LEFT)	1
11-2171-837	針棒リンクヒ°ン(0.5) 針棒抱き	LINK PIN	
<u>1 1 - 2 2 7 3 - 5 0 4</u> 1 1 - 2 3 7 5 - 0 0 4		NEEDLE BAR BRACKET	
<u>1 1 - 2 3 7 5 - 0 0 4</u> 1 1 - 2 4 7 5 - 2 7 1	<u>針棒リンクエント"フ゜レート</u> 下軸シ"ョイント	WASHER JOINT COLLAR	
11-25	「軸ン ヨイノト	JUINI CULLAR	
11-2684-463	ネシ"	SCREW	1
11-2787-057	ネン 六角穴付ボルトM6x14L	SCREW M6x14L	1
11-2887-067	六角穴付きボルト	BOLT	1
11-2987-097	ネシ"	SCREW	4
11-3087-112	六角穴付きボルト	BOLT	3
11-3187-172	ネシ"	SCREW	8
11-3287-241	ネシ"	SCREW	1
11-3387-253	ネシ"	SCREW	1
11-3487-254	ネシ"	SCREW	3
11-3587-259	ネシ"	SCREW	4
11-3687-274	ネシ"	SCREW	1 2
11-3787-278	ネシ"	SCREW	2
11-3887-368	ネジ	SCREW	2
11-3987-369	ネジ	SCREW	1
11-4087-520	ネジ	SCREW	1
11-4191-264	ニート゛ルヘ゛アリンク゛	BEARING	1
11-4275-273	上軸ジョイント(P用)	JOINT COLLAR (for P model)	1
11-4360-8492	へ"アリンク"セット図	BEARING ASS'Y	1
11-4466-525	針棒クランク(33)	NEEDLE CRANK ASS'Y	1
11-4560-8493	へ"アリンク"セット図	BEARING ASS'Y	1



REF.NO. PART NO.	品名	DESCRIPTION	Q'TY
12-0141-021	カメ糸道	THREAD NIPPER	1
12-0241-155	チャンホ <sup>°</sup> ン皿	DISC	2
12-0341-504	調子棒	TENSION POST	1
12-0443-568	小チャンホ゜ンナット	NUT	1
12-0545-032	針糸サバキ	NEEDLE THREAD TAKE-UP	1
12-0645-035	針棒糸道	THREAD EYELET	1
12-0745-036	糸道	THREAD EYELET	1
12-0845-502	飾り糸捌き	THREAD TAKE-UP	1
12-0945-507	飾り糸捌き糸道	THREAD EYELET	1
12-1045-508	針株小調子板	PLATE	1
12-1145-514	飾り糸道	THREAD EYELET	1
12-1245-515	飾り糸道	THREAD EYELET	1
12-1345-535	針棒糸道	THREAD EYELET	1
12-1445-536	針糸捌き	NEEDLE THREAD TAKE-UP	1
12-1545-540	飾り糸案内	BRACKET	1
12-1687-272	ネシ"	SCREW	2
12-1767-502	針糸捌き取付台	LEVER	1
12-1871-514	針糸捌きシャフト	SHAFT	1
12-1975-410	スフ゜リンク゛ ワッシャ	SPRING WASHER	1
12-2075-455	ワッシャ	WASHER	2
12-2175-468	ワッシャ	WASHER	2
12-2275-504	ワッシャ	WASHER	1
12-2375-505	カラー	COLLAR	1
12-2475-508	ワッシャ	WASHER	1
12-2575-526	スフ゜リンク゛ ワッシャ	SPRING WASHER	1
12-2679-025	カメ糸道バネ	SPRING	1
12-2779-534	ハ"ネ	SPRING	1
12-2884-021	ハ"ネカ"イト"ネシ"	SCREW	1
12-2984-374	ネシ"	SCREW	1
12-3094-504	シールキャッフ゜	PLUG	1
12-3187-481	プラマイナベ小ねじ	SCREW	3
12-3287-104	ネシー	SCREW	1
12-3387-112	六角穴付きボルト	BOLT	1
12-34 87-113	六角穴付きボルト	BOLT	1
12-3587-482	プラマイナベ小ねじ	SCREW	2
12-3687-224	六角穴付きボルト	BOLT	1

# 13. 上飾り機構 SPREADER DRIVE MECHANISM



REF.NO. PART NO.	品名	DESCRIPTION	Q'TY
13-01 04-501	スフ゜レッタ゛-ホルタ゛-	HOLDER	1
13-02 04-502	調節レハ゛ーヒ゜ン	PIN	1
13-03 04-507	飾りルーハ。-棒	CRANK	1
13-04 04-508	· 連結ヒ <sup>®</sup> ン	CONNECTING HOLDER	1
13-05 19-505	上飾りル-パ-	SPREADER	1
13-06 61-527	上飾りエキセン玉	ECCENTRIC	1
13-07 63-500	飾り振りロット	CONNECTING ROD	1
13-08 67-510	飾り振りレハ゛-	LEVER	1
13-09 67-511	ルーハ°ー振りレハ <sup>*</sup> ー	LEVER	1
13-10 71-513	飾り駆動軸	SHAFT	1
13-11 75-452	ワッシャ	WASHER	1
13-12 75-502	ワッシャ	WASHER	1
13-13 75-509	ワッシャ	WASHER	1
13-14 75-537	カラー	COLLAR	1
13-15 75-549	ワッシャ	WASHER	1
13-16 87-171	六角穴付きボルト	BOLT	1
13-17 87-172	ネシ	SCREW	2
13-18 87-214	六角穴付きボルト	BOLT	
13-19 87-274	ネシ	SCREW	4
13-20 88-166	ナット	NUT	1
13-21 91-416	ニート"ルケ"ーシ"	NEEDLE BEARING	1
13-22 93-202	E-リンク"	E - R I N G	1
13-23 19-751	上飾りル-パ-	SPREADER	1

### (39 (35) Q 46 (9) (42) 36 24) (37 (26) (16) (41) (43 18 (23 (( 9 6) Ø R -5-P 30 (31 60) (51) (12) Ì M O D E L 9 7 0 1 J (40) (1)q (UT) Ę (10) (41) 45 (8) 49 (50) 38 5 (1) (4)29 (48) 3 C (29) 6 4) 2 28

14. 押え揚げ機構 PRESSER FOOT MECHANISM

14-0205-853	品 名 スプリングピン	DESCRIPTION SPRING PIN	Q'TY
14-0205-853			1
	糸緩め連結片	HOLDER	1
14-0305-958	クランクレハ"ー	LEVER	1
	<u></u> 押え棒油止シール	SEAL	1
14-0527-232	<u>」 デルギニュン ル</u> フィンカ゛ーカ゛ート゛	FINGER GUARD	1
14-0667-036		LEVER	1
14-0767-037	レハ <sup>"</sup> - レハ <sup>"</sup> -	LEVER	1
14-0871-203	<u>ッハ</u> 平行ピン	PIN	1
	連動シャフト	SHAFT	1
	糸緩メ軸	SHAFT	1
14-1171-280	レハ" ーシャフト (UT)	SHAFT	1
	押え棒	PRESSER FOOT BAR	1
	ワッシャ	WASHER	1
	ワッシャ	WASHER	1
	ワッシャ	WASHER	
14-1677-030	ブラケット	BRACKET	2
14-1777-033	押え浮かしストッパー	STOPPER	1
14-1877-051	連結フ。レート	PLATE	1
14-1977-052	リンク	LINK	1
	押揚ケ"レハ"-	LEVER	1
	押え揚クランク	CRANK	1
	押え棒抱き	CLAMP	1
	押え棒ガイド	GUIDE	1
	<u>押工棒ハ"ネ(上)</u>	SPRING	1
	<u>押工棒ハ"ネ(下)</u>	SPRING	1
	巻きハ『ネ	SPRING	1
	巻きバネ	SPRING	1
	ネシ"	SCREW	1
	ネシ"	SCREW	2
	ネシ"	SCREW	$\frac{1}{1}$
	段ネシ"	SCREW	2
	六角ボルト	BOLT	1
	ネシ"	SCREW	1
	ナット 切らは 符 カン "	NUT SCREW	2
	<u>押え棒筒ネシ"</u> 六角穴付きボルト	BOIT	
14-3787-483	<u> パカバヤさホルト</u> プラマイナベ小ねじ	ISCREW	+ 4
14-3887-476	<u></u> プラマイナベ小ねじ	SCREW	2 1 2 2 1 2 1 2 1
	六角穴付きボルト	BOIT	1 0
	六角穴付きボルト	BOLT	$\frac{1}{1}$
	六角穴付きボルト	BOLT	2
	ネシ <sup>"</sup>	SCREW	1
	<u>ネシ</u> ネシ <sup>"</sup>	SCREW	1
	<u>ホン</u> 段付ネジ	SCREW	1
	<u>段ネシ</u> ()	SCREW	1
	「筒ネシ"ナット	NUT	1
14-4793-205	<u> </u>	E - R I N G	1
14-4877-270	糸緩めプレート	PLATE	1
	ネジ	SCREW	1
14-5087-286	ネジ	SCREW	1
14-5171-038	押え棒	PRESSER FOOT BAR	1

# 2 Ì O<sup>©</sup> (1)Ô (12) 6 5 ⊕ 14 26 (2)9 Ó (4)10-(15)--@9 P 16-(13) Ĭ (8) (21)

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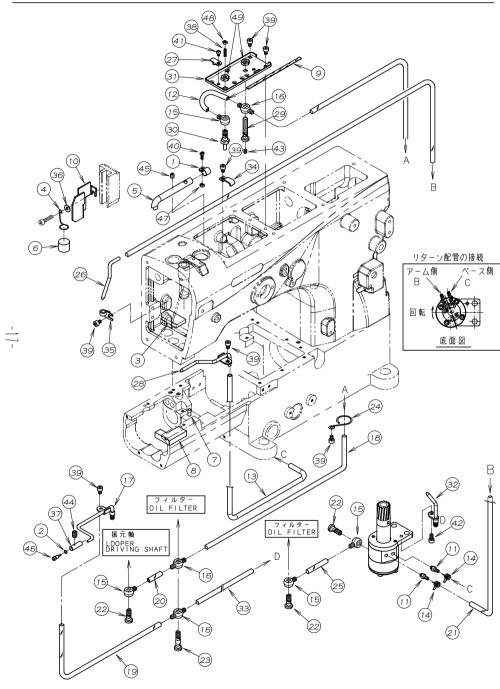
9 Ì 24) 27 <u>(1</u>)

18

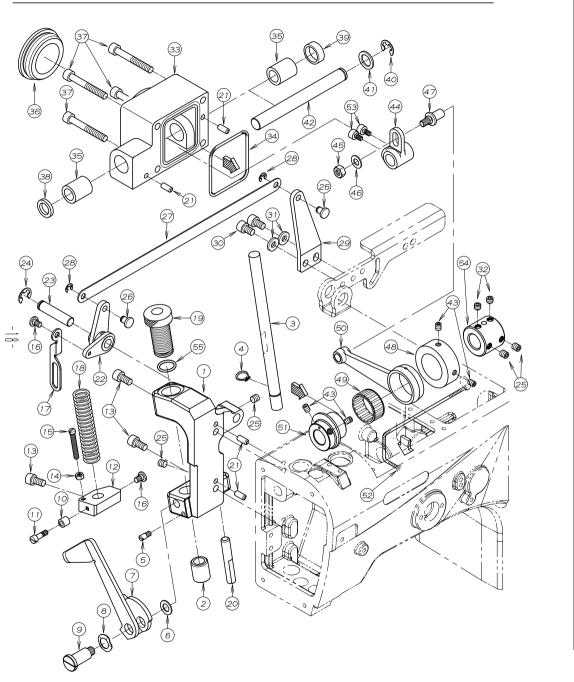
15 給油機構(1) LUBRICATION MECHANISM(1)

REF.NO. PART NO.	品名	DESCRIPTION	Q'TY
15-0121-632W	オイルフィルターキャッフ゜	OIL FILTER CAP	1
15-0223-304	シール	SEAL	1
15-0323-506	0-リンク"	0 - R I N G	1
15-0423-508	0-リンク"	O – R I NG	1
15-0530-0019	木°ンフ°セット	PUMP ASS'Y	1
	オイルタンクセット	OIL TANK ASS'Y	1
15-0731-222	フィルター	OIL FILTER	1
15-0831-507	オイルタンク	OIL RESERVOIR	1
15-0931-530	アウターローター	OUTER ROTER	2
15-1031-531	インナーローター	INNER ROTER	1
15-1131-539	ポンプギア	PUMP GEAR	1
15-1231-549	ホ゜ンフ゜取付板	PLATE	1
15-1331-542	木。ンフ。軸	PUMP SHAFT	1
15-1431-543	木゜ンフ゜ハウシ゛ンク゛(上)	PUMP HOUSING	1
	木゜ンフ゜ハウシ゛ンク゛(下)	PUMP HOUSING	1
15-1631-545	インナーローター	INNER ROTER	1
15-1731-546	ホ゜ンフ゜裏板	PLATE	1
	木゜ンフ゜メッシュ	PUMP MESH	1
15-1931-548	ホ゜ンフ゜メッシュ止め板	PLATE	1
	継手	JOINT	1
15-2139-504	オイルケ"ーシ"	OIL SIGHT GAUGE	1
15-2287-484	プラマイナベ小ねじ	SCREW	3
15-2387-171	六角穴付きボルト	BOLT	2
15-2487-285	六角穴付きボルト	BOLT	2
15-2587-286	ネシ	SCREW	2
15-2687-311	フタネシ"	SCREW	1
15-2787-391	六角穴付ホ゛ルト	BOLT	2
15-2887-663	六角穴付きボルト	BOLT	4
15-2930-0020	木°ンフ°セット	PUMP ASS'Y	1

16 給油機構(2) LUBRICATION MECHANISM(2)

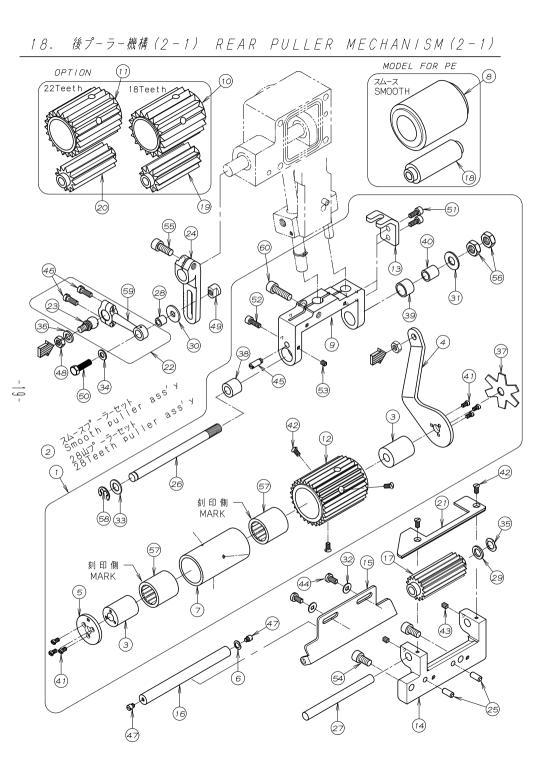


REF. NO. PART NO.	品名	DESCRIPTION	Q'TY
16-0107-008	調節バンド	BAND	1
16-0223-373	0-リング	0 - R I NG	1
16-0323-386	フェルト	FFIT	1
16-0423-558	<u>お油サホ</u> ゜ート	SUPPORT	1
16-0523-560	給油ハ゜イフ゜	PIPE	1
16-0623-562	スホ゜ンシ	SPONGE	1
16-0723-567	フェルト	FELT	1
16-0823-571	フェルト	FFIT	1
16-0923-574	フェルト	FFIT	1
16-1027-301	オイルフェンス	OIL COVER	1
16-1131-314	継手	JOINT	2
16-1235-005	E″ニールチューフ″ 80L	TUBE	1
16-1335-318	ヒ゛ニールチューフ゛	TUBE	1
16-1435-413	止め金具	CLAMP	2
16-1535-505	片口継手	JOINT	4
16-1635-506	両口管継手	JOINT	3
16-1735-512	給油配管	OIL DISTRIBUTOR	1
16-1835-517	L"ニーリチューフ" 540L	TUBE	1
16-1935-519	ヒ"ニールチューフ"	TUBE	1
16-2035-520	<u>ヒ ニ ルチュ</u> ーフ	TUBE	1
16-2135-521	ヒ"ニールチューフ"	TUBE	1
16-2235-528	管継手木" ルト	JOINT SCREW	3
16-2335-529	管継手ホ"ルト	JOINT SCREW	1
16-2435-530	チューフ゛ハ゛ント゛	CLAMP	1
16-2535-537	ヒ ニールチューフ	TUBE	1
16-2635-540	リターン用ハ°イフ°	PIPE	1
16-2735-551	油調節フ。レート	PLATE	1
16-2835-553	リターン用パイプ	PIPE	1
16-2935-556	オイル噴出し継手	JOINT SCREW	1
16-3035-557	ノス <sup>*</sup> ル	OIL SIGHT TOP NOZZLE	1
16-3135-558	油受け	OIL RELEASER	1
16-3235-560	木。ンフ。キ"ャ給油配管	PIPE	1
16-3335-562	ヒ"ニールチューフ"	TUBE (Ø6xØ4, 300L)	1
16-34 39-139	ハ゜イフ゜サホ゜-ト	PIPE SUPPORT	1
16-3539-501	配管止め	CLAMP	1
16-3675-455	ワッシャ	WASHER	1
16-3781-371	油量調節ブッシュ	ADJUSTING BUSHING	1
16-3887-072	六角穴付止めねじ	SCREW	1
16-3987-092	六角穴付きボルト	BOLT	7
16-4087-128	ネジ	SCREW	1
16-4187-142	ネジ	SCREW	1
16-4287-177	六角穴付きボルト	BOLT	1
16-4387-181	ネシ"	SCREW	1
16-4487-241	ネシ"	SCREW	1
16-4587-254	ネシ"	SCREW	1
16-4687-371	油量調節ネジ	ADJUSTING SCREW	1
16-4788-136	ナット	NUT	1
16-4888-137	ナット	NUT	1
16-4988-165	六角ナット	NUT	2

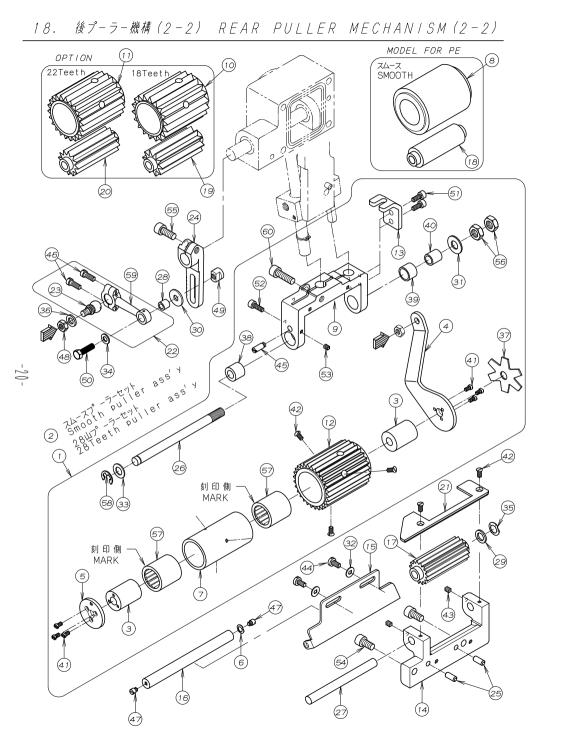


17. 後プーラー機構(1) REAR PULLER MECHANISM(1)

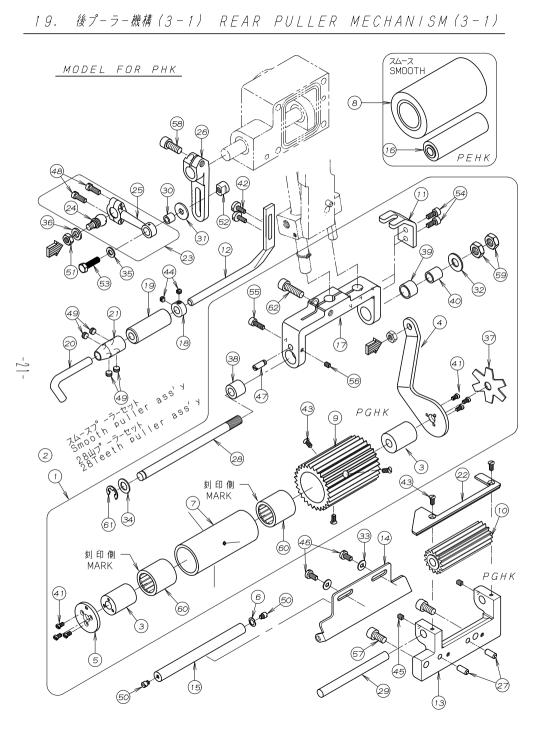
REF. NO.	PART NO.	品名	DESCRIPTION	Q'TY
	02-225W	後プ ーラーフ <sup>゛</sup> ラケット	REAR PULLER BRACKET	1
	81-133	フッシュ	BUSHING	1
17-03	71-464	後プ ーラー立シャフト	SHAFT	1
17-04	93-261	Eリンク"	E-RING	1
17-05		段ネシ"	SCREW	1
17-06	75-519	ワッシャ	WASHER	1
17-07	02-216	手揚用金具	PULLER LIFTING LEVER	1
	02-112	波フッシャ	CORRUGATED WASHER	1
17-09	85-671	ネジ	SCREW	1
	75-211	カラー	COLLAR	1
	84-582	ネジ	SCREW	1
17-12	02-217	後プ。-ラ-立シャフト抱き	BRACKET	1
	87-225	ネジ	SCREW	3
17-14	86-311	ナット	NUT	1
	84-569	ネシ <sup>®</sup>	SCREW	1
17-16	84-581	ネジ	SCREW	2
17-17	02-659	後プ ーラー抱き連結プ レート	CONNECTING PLATE	1
17-18	79-640	バネ	SPRING	1
17-19	87-759	フ゜-ラ-筒ネシ″	SCREW	1
17-20	71-729	プ ーラー回り止メヒ゜ン	GUIDE PIN	1
17-21	71-208	ノックピ ン	PIN	4
	02-219	後プ ーラー揚レバ ー	LEVER	1
17-23	71-726	シャフト	SHAFT	1
17-24	93-222	Eリンク	E-RING	1
	87-172	ネジ	SCREW	4
	77-419	押湯連結ヒ゜ン	PIN	2
	77-037	押揚連結板	PLATE	1
	93-205	Eリンク	E-RING	2
	77-421	押揚レバー	LEVER	1
	87-203	ネジ	SCREW	2
	75-458	ワッシャ	WASHER	2
17-32	87-259	ネジ	SCREW	2
17-33	02-220W	上プ。-ラー軸ケース	BRACKET	1
	23-542	ロリンク	0-RING	1
	81-559	上プ。-ラ-軸ブ ッシュ	BUSHING	2
17-36	23-541	ゴム栓	PLUG	1
	87-186	ネジ	SCREW	4
	94-502	オイルシール	OIL SEAL	1
17-39		シールキャップ	PLUG	1
	93-223	Eリンク	E-RING	1
	75-187	ワッシャ	WASHER	1
	71-727	上プーラー駆動軸	SHAFT	1
	87-254	ネジ	SCREW	4
	67-528	上プ ーラー振りレハ ー	LEVER	1
	88-166	ナット	NUT	1
	75-452	ワッシャ	WASHER	1
	04-502	調節レバーピン	PIN	1
17-48	75-272	スラストカラー	COLLAR	1
	91-413	ニート゛ルベアリング	NEEDLE BEARING	1
	63-535	プ ーラークランクロット"	CRANK ROD	1
17-51	61-551	プ ーラーエキセン	ECCENTRIC	1
	23-556	フェルト	FELT	1
17-53		六角穴付ボルト	BOLT	2
	75-273	上軸ジョイント(P用)	JOINT COLLAR (for P model)	1
17-55	23-289	0リンク"	O - R I N G	1



REF. NO. PART NO.	品名	DESCRIPTION	Q'TY
18-0100-3282	28山プーラーセット	28TEETH REAR PULLER ASS'Y	1
18-0200-2008	スムースプーラーセット	SMOOTH PULLER ASS'Y	1
18-0301-115	スリーフ <sup>"</sup>	SLEEVE	2
18-0402-017	後プーラー連結板	CONNECTING PLATE	1
18-0502-117	後フ <sup>°</sup> - ラ - ハ <sup>°</sup> イフ <sup>°</sup> フタ	PLATE	1
18-0602-118	波ワッシャ	WĀSHĒR	1
18-0702-123	ワンウェイクラッチ用ハウシ゛ンク゛(中)		1
18-0802-136	スム-ス(中)	REAR PULLER (SMOOTH)	1
18-0902-158	後フ゜ラ-台	REAR PULLER HOLDER	1
18-1002-176	後プ-ラ-上ギャ-18山	UPPER REAR PULLER18	1
18-1102-177	後プ-ラ-上ギャ-22山	UPPER REAR PULLER22	1
18-1202-178	後プ-ラ-上ギャ-28山	UPPER REAR PULLER28	1
18-1302-250	回り止フ"ラケット	BRACKET	1
<u>18-1402-252W</u>	下フ。-ラ-土台	BRACKET	1
18-1502-253	補助ローラー取り付板	PLATE	1
18-1602-254	補助ローラー	ROLLER	1
18-1702-255	後フ゜-ラ-下(15山)	LOWER REAR PULLER GEAR (15 TEETH)	1
18-1802-451	<u> </u>	REAR PULLER (SMOOTH)	
18-1902-452	下ローラー(10山)	REAR PULLER GEAR (10TEETH)	1
18-2002-453	下ローラー(12山)	REAR PULLER GEAR (12TEETH)	1
18-2121-715	<u> 下フ゜-ラ-カ゜イト゜</u>	PULLER GUIDE	1
18-2260-8090	フ゜ーラー連結ロットセット	CONNECTING ROD ASS'Y	1
18-2361-810	フ゜ーラー連結ロット「玉	CONNECTING ROD BALL	1
18-2467-529	上プーラー駆動レバー	LEVER	1
18-2571-208	<u>ノックヒ<sup>®</sup> ソ</u>	PIN	2
18-2671-444	後フ゜-ラ-台シャフト(中)	SHAFT	
18-2771-728	後フ <sup>®</sup> - ラー下シャフト	LOWER REAR PULLER SHAFT	
18-2875-247	連結メカ"ネローラー		
<u>18-2975-356</u> 18-3075-407	ワッシャ ワッシャ	WASHER WASHER	+
18-3175-451	<u>フッシャ</u> ワッシャ	WASHER	
18-3275-455	<u>フッシャ</u> ワッシャ	WASHER	2
18-3375-519	<u> フッシャ</u> ワッシャ	WASHER	
18-3475-520	ワッシャ	WASHER	
18-3575-528	波座金	WASHER	
18-3675-552	ワッシャ	WASHER	
18-3779-551	フ゜ーラー板ハ゛ネ	PULLER PLATE SPRING	
18-3881-321	ブッシュ	BUSHING	
18-3981-322	ブッシュ	BUSHING	1
18-4081-323	ブッシュ	BUSHING	1
18-4184-162	ネシー	SCREW	6
18-4284-462	ネシ"	SCREW	6 5 2 2
18-4384-521	ネシ	SCREW	2
18-4484-571	ネシ"	SCREW	2
18-4584-573	段ネシ"	SCREW	1
18-4684-635	ネシ	SCREW	2
18-4785-607	段ネシ"	SCREW	2
18-4886-411	ナット	NUT	1
18-4988-005	ナット	NUT	
18-5087-015	ネジ	SCREW	1
18-5187-113	六角穴付きボルト	BOLT	2
<u>18-5287-129</u>	六角穴付きボルト	BOLT	1
18-5387-181	ネシー	SCREW	1
18-5487-225	六角穴付きボルト	BOLT	2
18-5587-171	六角穴付きボルト	BOLT	+
18-5688-179	ナット	NUT	2

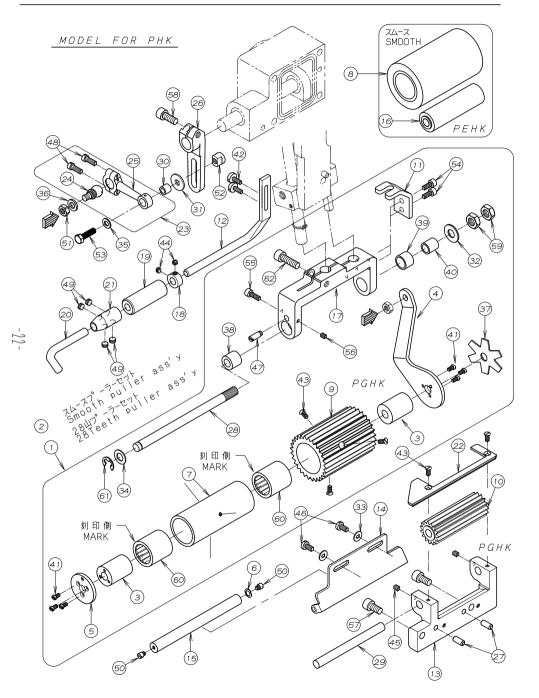


REF.NO. PART NO.	品名	DESCRIPTION	Q'TY
18-5791-407	ワンウェイクラッチ	BEARING	2
18-5893-221	ストッフ゜リンク゛	E - R I N G	1
18-5963-809	連結メガネ	BALL JOINT	1
18-6087-173	六角穴付きボルト	BOLT	1

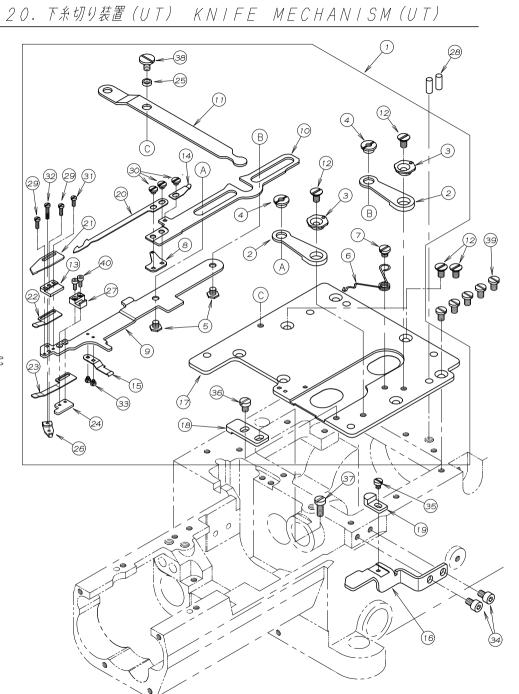


REF.NO. PART NO.	品名	DESCRIPTION	[Q' ΤΥ
19-0100-4280	28山プ-ラ-セット	28 TOOTH REAR PULLER ASS'Y	1
19-0200-4283	スムースプーラーセット	SMOOTH PULLER ASS'Y	1
19-0301-115	スリーフ" スリーフ"	SLEEVE	2
19-0402-018	後プーラー連結板	CONNECTING PLATE	1
19-0502-117	後フ°-ラ-ハ°イフ°フタ	PLATE	1
19-0602-118	波ワッシャ	WASHER	1
19-0702-124	<u>パンプランマー</u> ワンウェイクラッチ用ハウシ <sup>®</sup> ンク <sup>®</sup> (大)		1
19-0802-138	後フ°-ラ-(コ゛ム)	REAR PULLER	1
19-0902-228	後フ <sup>°</sup> - ラー上28山	REAR PULLER GEAR (28 TEETH)	1
19-1002-245	後フ <sup>®</sup> - ラ - 下15山	LOWER REAR PULLER GEAR (15 TEETH)	1
19-1102-246	回り止つ"ラケット	BRACKET	
19-1202-247	<u>コ゛ムカ゛イト゛軸</u>	ELASTIC TAPE GUIDE SHAFT	1
19-1302-252W	<u>コ ムル キド 輪</u> 下フ <sup>®</sup> - ラ - 土台	BRACKET	1
19-1402-253	<u>オリーフェロ</u> 補助ローラー取り付板	PLATE	1
19 - 1502 - 255	補助ローラー 補助ローラー	ROLLER	
19-1602-455	補助 <u>ローフー</u>  下ローラースムース	REAR PULLER (SMOOTH)	
19-1702-159	<u>                                    </u>		
		BRACKET	1
<u>19-1809-917</u> 19-1909-919	カラー コ゛ムカ゛イト゛ローラー		
19-2009-923	<u>フ゜ーラーコ゛ムカ゛イト゛</u> コ゛ムカ゛イト゛止めカラー	ELASTIC GUIDE	
19-2109-984		END COLLAR	
19-2227-038		PULLER GUIDE	
19-2360-8090	フ゜ーラー連結ロット"セット	CONNECTING ROD ASS'Y	
19-24 61-810	フ゜ーラー連結ロット『玉	CONNECTING ROD BALL	
19-2563-809	プーラー連結ロット	BALL JOINT	1
19-2667-529	上プーラー駆動レバー	LEVER	1
19-2771-208	ノックヒ <sup>®</sup> ン	PIN	2
19-2871-445	後フ゜-ラ-台シャフト(大)	SHAFT	1
19-2971-728	後フ <sup>°</sup> - ラ - 下シャフト	LOWER REAR PULLER SHAFT	1
<u>19-3075-247</u>	連結メカ゛ネローラー	ROLLER	1
19-3175-407	ワッシャ	WASHER	1
<u>19-3275-451</u>	ワッシャ	WASHER	1
<u>19-3375-455</u>	ワッシャ	WASHER	2
19-3475-519	ワッシャ	WASHER	1
19-3575-520	ワッシャ	WASHER	1
19-3675-552	ワッシャ	WASHER	1
19-3779-551	フ <sup>°</sup> ーラー板ハ <sup>°</sup> ネ	PULLER PLATE SPRING	1
19-3881-321	ブッシュ	BUSHING	1
19-3981-322	ブッシュ	BUSHING	1
19-4081-323	ブッシュ	BUSHING	1
19-4184-162	ネシ"	SCREW	6
19-4284-368	ネシ"	SCREW	2
19-4384-462	ネシ	SCREW	2
19-44 84-511	ネシ"	SCREW	2
19-4584-521	ネシ"	SCREW	2
19-4684-571	ネシ"	SCREW	2
19-4784-573	段ネシ"	SCREW	1
19-4884-635	ネシ"	SCREW	2
19-4984-711	ネシ	SCREW	4
19-5085-607	段ネシ"	SCREW	2
19-5186-411	ナット	NUT	1
19-5288-005	ナット	NUT	1
19-5387-015	ネジ	SCREW	1
19-5487-113	六角穴付きボルト	BOLT	2
19-5587-129	六角穴付きボルト	BOLT	1

*19. 後プーラー機構(3-2) REAR PULLER MECHANISM(3-2)* 

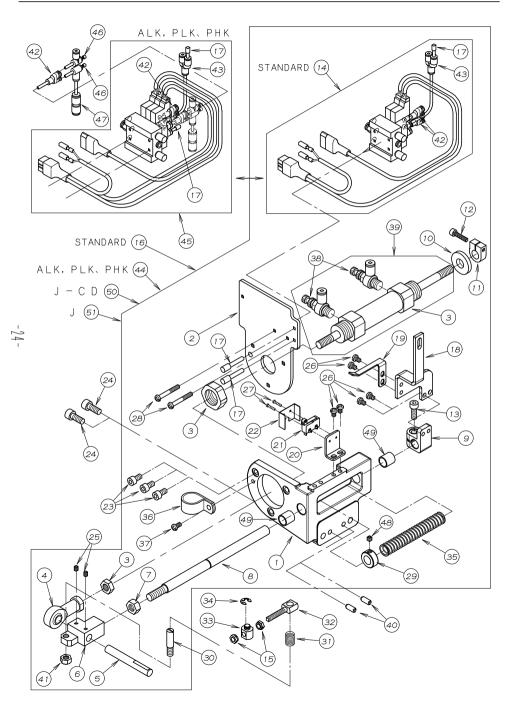


REF.NO.	PART NO.	品名	DESCRIPTION	Q'TY
19-57	87-225	六角穴付きボルト	BOLT	2
19-58	87-171	六角穴付きボルト	BOLT	1
19-59	88-179	ナット	NUT	2
19-60	91-407	ワンウェイクラッチ	BEARING	2
19-61	93-221	ストッフ <sup>®</sup> リンク <sup>®</sup>	E – R I N G	1
19-62	87-173	六角穴付きボルト	BOLT	1



REF.NO. PART NO.	品名	DESCRIPTION	Q'TY
20-0100-8031	メスセット	THREAD TRIM ASSEMBLY	1
20-0205-051	メスカ゛イト゛レハ゛ー	LEVER	2
20-0305-052	メスカ゛イト゛レハ゛-調節リンク゛	RING	2
20-0405-053	リンク゛ナット	NUT	2
20-0505-054	ネシ"	SCREW	2
20-0605-055	固定メス台ハ゛ネ	SPRING	1
07-0705-056	平頭付段ネシ"	SCREW	1
20-0805-057	ルーハ゜ー糸緩め糸道	THREAD EYELET	1
20-0905-058	固定メス土台	UPPER KNIFE HOLDER	1
20-1005-059	可動メス土台	LOWER KNIFE HOLDER	1
20-1105-060	駆動レハ"-	LEVER	1
20-1205-061	ネシ	SCREW	4
20-1305-062	可動メスカ"イト"	GUIDE	1
20-1405-063	固定メス台補助ハ゛ネ	SPRING	1
20-1505-064	固定メス台支エハ゜ネ	SPRING	1
20-1605-065	カ゛イト゛フ゛ラケット	GUIDE BRACKET	1
20-1705-066	メス土台フ°レート	BASE PLATE	1
20-1805-067	固定メス台ストッハ°-	STOPPER	1
20-1905-068	可動メス台カ゛イト゛	GUIDE	1
20-2005-658	可動メス	LOWER KNIFE	1
20-2105-812	固定メス	UPPER KNIFE	1
20-2205-794	裏ハ"ネ(上) 裏ハ"ネ(下)	LEAF SPRING (UPPER)	1
20-2305-799	裏ハ゛ネ(下)	LEAF SPRING (LOWER)	1
20-2405-822	フ゛ラケット	BRACKET	1
20-2505-882	カ゛イト゛ロ-ラ-(小)	GUIDE ROLLER	1
20-2605-894	裏ハ"ネ調節板	PLATE	1
20-2705-898	可動メスガイド	GUIDE	1
20-2871-253	ノックヒ°ン	PIN	2
20-2987-075	ネシ	SCREW	2
20-3087-077	ネシ	SCREW	3
20-3187-078	ネシ"	SCREW	1
20-3287-079	ネシ"	SCREW	1
20-3387-091	ネシ"	SCREW	2
20-3487-092	六角穴付きボルト	BOLT	2
20-3587-095	ネシ	SCREW	1
20-3687-098	ネシ	SCREW	1
20-3787-145	ネシ	SCREW	1
20-3887-414	ネシ	SCREW	1
20-3987-415	ネシ	SCREW	5
20-4087-398	六角穴付きホ ルト	BOLT	2

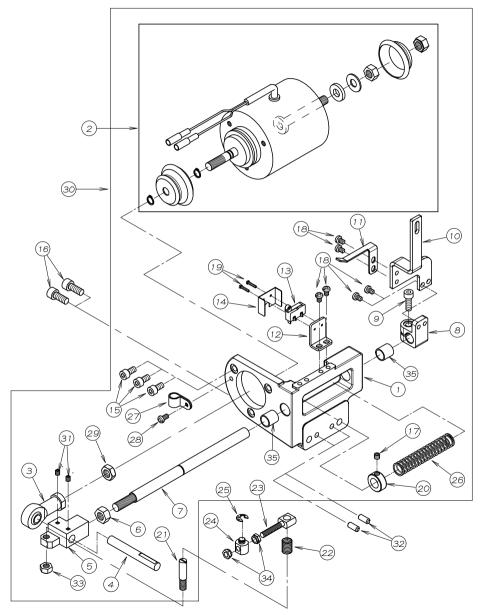
# 21. UT駆動装置(エアー式) THREAD TRIMMING MECHANISM(PNEUMATIC TYPE)



REE.NO.	PART NO.	品名	DESCRIPTION	Q't у
21-01	05-901	<u>シリンダ 一取付フ ラ</u> ケット	BRACKET	1
21-02	05-646	シリンダ 一取竹板	PLATE	1
21-03	05-205	メス駆動シリンタ -	CYLINDER	1
21-04	05-842	ロットエント	ROD	1
21-05	05-904	連結シャフト	SHAFT	1
21-06	05-828	連結フ゛ラケット	BRACKET	1
21-07	88-176	ナット	NUT	1
21-08	05-905	戻しシャフト	SHAFT	1
21-09	05-927	レバー取付台	BRACKET	1
21-10	05-907	クッションゴ ム	SHOCK RUBBER	1
21-11	05-220	クッションストッパー	COLLAR	1
21-12	87-245	ネジ	SCREW	1
21-13	87-245	六角穴付きボルト	BOLT	1
21-14	05-647	電磁弁2連セット	SOLENOID VALVE ASSEMBLY	1
21-15	88-004	調節ナット	NUT	2
21 - 16	00-6114		AIR CYLINDER ASSEMBLY	1
21 - 17	06-597	プラグ	PLUG	3
21 - 18	05-226	メ緩め連結プ レート	PLATE	1
21-19	05-294	スイッチカ゛イト゛	SWITCH PLATE	1
21-20	05-910	スイッチ取り板	PLATE	1
21-21	05-911	スイッチ	SWITCH	1
21-22	05-912	スイッチカバー	COVER	1
21-23	87-213	ネジ	SCREW	
21-24	87-171	ネジ	SCREW	2
21-25	87-181	ネシ	SCREW	2
21-26	87-481	プラマイナペリねじ	SCREW	6
21-27	87-282	+字穴付ナヘ、小ネシ、	SCREW	3 2 2 6 2 2 2
21-28	87-488	プラマイナベリねじ	SCREW	2
21-29	75-537	カラー	COLLAR	1
21-30	05-829	連結ピン(2)	PIN	1
21-31	79-540	連結し。ン用スプ リング	SPRING	1
21-32	05-913	<u>連結ネシ</u>	SCREW	1
21-33	05-045	連結L <sup>®</sup> ン	PIN	1
21-34	93-211	<u></u> Fリンク <sup>®</sup>	ERING	1
21-35	79-644	戻しい ネ	SPRING	1
21-36	06-927	ナイロンクリップ	CORD CLAMP	1
21-37	87-482	プラマイナベリねじ	SCREW	1
21 - 38	06-580	スピ <sup>®</sup> ート" コントローラ	SPPED CONTROLLER	2
21-39		メス駆動シリンダ ーセット	CYLINDER ASS' Y	1
	71-208	ノックヒ゜ン	PIN	2
	88-166	ナット	NUT	1
	05-484	ブランチュニオンワイ	JOINT	2~3
	05-482	ユニオンワイ	JOINT	1
	00-6121	UTIMIK置	AIR CYLINDER ASSEMBLY	1
	05-648	電磁弁3連セット	SOLENOID VALVE ASSEMBLY	1
	05-221	スヒ°ート゛コントローラー	SPEED CONTROLER	2
	05-224	異径ストレート	JOINT	1
	87-274	ネシ"	SCREW	1
	81-588	フ ッシュ	BUSHING	2
	00-6140	UTINNIKE	AIR CYLINDER ASSEMBLY	1
	00-6123		AIR CYLINDER ASSEMBLY	1

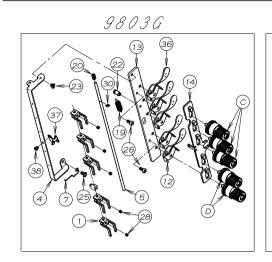
# 22.UT駆動装置(電気式)

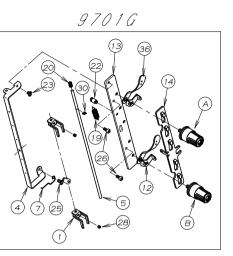
THREAD TRIMMING MECHANISM (ELECTRIC TYPE)



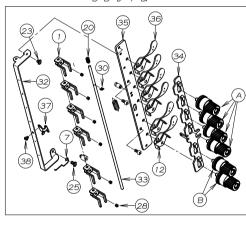
REF.NO.	PART NO.	品名	DESCRIPTION	Q′TY
22-01	05-901	シリンダ 一取付ブ ラケット	BRACKET	1
22-02	06-336	メス用ソレノイト"	SOLENOID	1
22-03	05-842	ロットエント	ROD	1
22-04	05-904	連結シャフト	SHAFT	1
22-05	05-828	連結フ゛ラケット	BRACKET	1
22-06	88-176	ナット	NUT	1
22-07	05-905	戻しシャフト	SHAFT	1
	05-927	レバー取拍	BRACKET	1
22-09	87-245	六角穴付きボルト	BOLT	1
22-10	05-226	糸緩め連結プ レート	PLATE	1
22-11	05-294	スイッチカ イト	SWITCH PLATE	1
	05-910	スイッチ取付板	PLATE	1
	05-911	スイッチ	SWITCH	1
22-14	05-912	スイッチカバー	COVER	1
	87-213	ネシ	SCREW	3
	87-171	ネシ	SCREW	2
22-17	87-274	ネジ	SCREW	1
	87-481	プラマイナベリねじ	SCREW	6
	87-282	十字穴付ナヘ゛小ネシ゛	SCREW	2
22-20	75-537	カラー	COLLAR	1
22-21	05-829	連結ピ。ン(2)	PIN	1
22-22	79-540	連結ヒ゜ン用スフ゜リンク゛	SPRING	1
22-23	05-913	連結ネシ	SCREW	1
22-24	05-045	連結ピッン (1)	PIN	1
22-25	93-211	Eリンク"	E RING	1
22-26	79-642	戻しハ ネ	SPRING	1
22-27	06-928	ナイロンクリップ 7N	CODE CLAMP	1
22-28	87-482	プラマイナベリねじ	SCREW	1
22-29	88-179	ナット	NUT	1
22-30	00-6115	UT電気式下糸切裝置	SOLENOID ASSEMBLY	1
22-31	87-181	ネシ	SCREW	2
	71-208	ノックヒ゜ン	PIN	2
	88-166	ナット	NUT	1
	88-004	調節ナット	NUT	2
22-35	81-588	ブッシュ	BUSHING	2

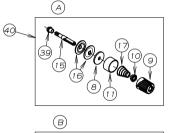
# 23. 糸調子機構(UT) THREAD TENSION MECHANISM(UT)





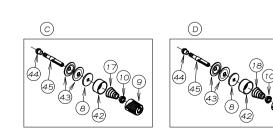
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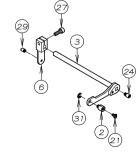






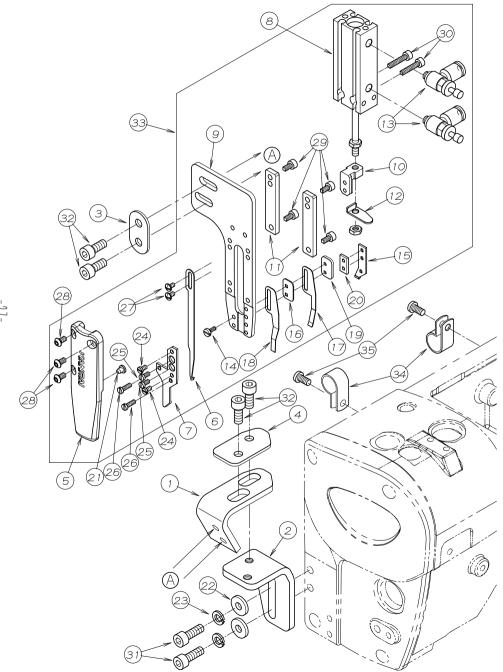
**(41)** 





REF.NO. PART NO.	品名	DESCRIPTION	Q'TY
23-0105-850	糸緩めブロック(大)	HOLDER (LARGE)	5 - 6
23-0205-853	糸緩め連結片	HOLDER	1
23-0305-955	糸緩め軸	SHAFT	1
23-0405-956	糸緩め糸道	THREAD EYELET	1
23-0505-957	糸緩め棒	SHAFT	1
23-0605-958	クランクレハ" -	LEVER	1
23-0705-961	糸緩め防振ハ″ネ	SPRING	1
23-0823-324	フェルト	FELT	5 - 6
23-0941-104	チャンポン皿小ケース	THREAD TENSION NUT	5 - 6
23-1041-105	チャンポン皿ラチェット	SPRING POST	5 - 6
23-1141-106	大ケース	SPRING CUP	5 - 6 5 - 6 5 - 6
23-1241-115	糸道(上)	THREAD GUIDE (UPPER)	5 - 6
23-1341-501	ブラケット	BRACKET	1
23-1441-502	糸緩めプレート	THREAD RELEASER	1
23-1541-527	調子棒	SCREW STUD	5 - 6
23-1641-509	チャンポン皿	TENSION DISC	10-12
23-1741-701	チャンポン調子バネ(強)	SPRING (HEAVY)	<u>3</u> <u>1 - 2</u> 1
23-1841-702	チャンポン調子バネ(弱)	SPRING (LIGHT)	1 - 2
23-1979-514	引張りバネ	SPRING	1
23-2079-542	糸緩め棒防振バネ	SPRING	1
23-2184-361	ネシ"	SCREW	1
23-2284-501	ネシ"	SCREW	1
23-2384-553	ネシ"	SCREW	1
23-2484-561	ネシ *	SCREW	1
23-2584-574	ネシ *	SCREW	1
23-2687-177	六角穴付きボルト	BOLT	2
23-2787-224	六角穴付きボルト	BOLT	1
23-2887-286	ネシ"	SCREW	5 - 6
23-2987-423	段ネシ"	SCREW	1
23-3093-201	Eリング	E – R I N G	1
23-3193-205	E-リンク"	E – R I N G	1
23-3205-962	糸緩め糸道	THREAD EYELET	1
23-3305-963	糸緩め棒	SHAFT	1
23-3441-519	糸緩めフ゜レート	THREAD RELEASER	1
23-3541-525	フ゛ラケット	BRACKET	1
23-3641-117	糸道(下)	THREAD GUIDE	*
23-3741-514	ルーハ゜ー糸道	THREAD EYELET	1
23-3884-364	ネシ"	SCREW	1
23-3941-526	調子棒カラー	COLLAR	5 - 6
23-4040-7510	チャンホ。ンセット(強)	THREAD TENSION SET (HEAVY)	* * * * * *
23-4140-7520	チャンホ゜ンセット(弱)	THREAD TENSION SET (LIGHT)	米
23-4241-108	チャンホ゜ン大ケース	SPRING CUP	*
23-4341-528	チャンポン皿	TENSION DISC	*
23-4441-531	調子棒カラー	COLLAR	*
23-4541-532	調子棒	SCREW STUD	*

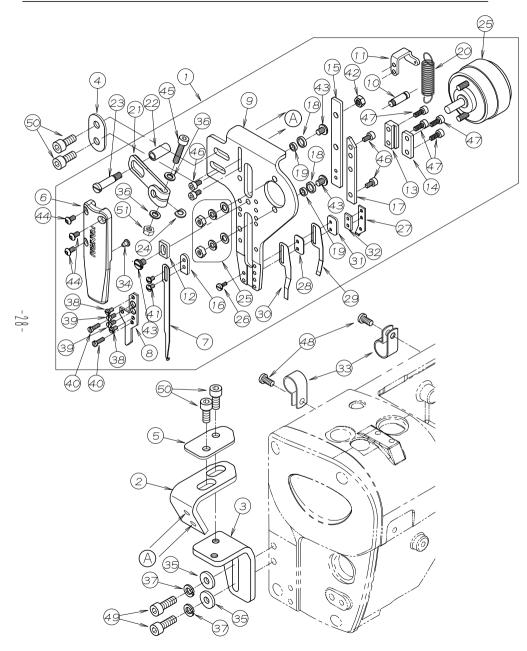
<u>24. 上飾り糸切装置(エア-式) SPREADER THREAD TRIMMING MECHANISM (PNEUMATIC TYPE)</u>



REF.NO. PART NO.	品名	DESCRIPTION	Q'TY
24-01 05-271	調節金具	BRACKET	1
24-02 05-272	取付ブラケット	BRACKET	1
24-03 05-273	取付金具(1)	BRACKET	1
24-04 05-274	取付金具(2)	BRACKET	1
24-05 05-275	カバー	COVER	1
24-06 05-276	可動メス	TRIMMING KNIFE	1
24-07 05-277	固定メス	FIXED KNIFE	1
24-08 05-278	エアーシリンダー	AIR CYLINDER	1
24-09 05-279	取付へ" - スフ゜レート	BASE PLATE	1
24-10 05-280	シリンダーブロック	CYLINDER BLOCK	1
24-11 05-281	ガイド	GUIDE	2
24-12 05-282	調節レバー	LEVER	1
24-13 05-481	<u>スヒ゜ート゛コントローラー</u>	SPEED CONTROLER	2
24-14 06-601	ネシ"	SCREW	1
24-15 06-602	ハ"ネ調節ライナー	LINER	1
24-16 06-603	メス裏ハ"ネライナー	LINER	1
24-17 06-604	メス裏ハ"ネ(強)	LEAF SPRING	1
24-18 06-605	メス裏ハ"ネ(弱)	LEAF SPRING	1
24-19 06-608	裏ハ『ネ止板	PLATE	1
24-20 06-630	ハ"ネ調節スへ。-ス板	PLATE	1
24-21 23-512	クッションコ゛ム	CUSHION RUBBER	1
24-22 75-456	ワッシャ	WASHER	2
24-23 75-526	スフ゜リンク゛ ワッシャ	SPRING WASHER	2
24-24 85-102	ネシ"	SCREW	2
24-25 85-105	ネジ	SCREW	2
24-26 85-106	ネジ	SCREW	2
24-27 85-613	ネシ"	SCREW	2
24-28 87-099	ネシ"	SCREW	2 2 2 2 2 2 2 2 2 2 2 2 3 4 4 2 2 4
24-29 87-123	六角穴付きボルト	BOLT	4
24-30 87-140	六角穴付きボルト	BOLT	2
24-31 87-245	六角穴付きボルト	BOLT	2
24-32 87-252	六角穴付きボルト	BOLT	4
24-33 00-8096	上飾り糸切セット(エアー)	THREAD TRIM ASS'Y (AIR)	1
24-34 06-928	ナイロンクリップ	CLAMP	2
24-35 87-482	プラマイナベ小ねじ	SCREW	2

# 25. 上飾り糸切装置(電気式)

SPREADER THREAD TRIMMING MECHANISM (ELECTRIC TYPE)



REF. NO. P	ART NO.	品名	DESCRIPTION	Q'TY
	)-8097	上飾り糸切セット(電気式)	THREAD TRIM ASS'Y	1
25-02 05	5 - 2 7 1	調節金具	BRACKET	1
25-03 05		取付ブラケット	BRACKET	1
25-04 05	5-273	取付金具(1)	BRACKET	1
25-05 05	5-274	取付金具(2)	BRACKET	1
25-06 05	5-275	カバー	COVER	1
25-07 05		可動メス	TRIMMING KNIFE	1
25-08 05		固定メス	FIXED KNIFE	1
	5-283	取付ベースプレート	BASE PLATE	1
25-10 05	5-284	ピン	PIN	1
	5-285	フック	HANGER	1
		ストッパー	STOP PLATE	1
	5-287	メス押えカバー (A)	COVER	1
25-14 05	5-288	<u>メス押えカバー(B)</u>	COVER	1
		可動メスペース	BRACKET	1
	<u>5 - 2 9 0</u>	スペーサー	PLATE	1
		ガイド	GUIDE	1
			GUIDE ROLLER	2 2
	5-882	<u>カ"イト"ローラー(小)</u> 別語 マイル い" キ	GUIDE ROLLER	2
		引張コイルハ"ネ	SPRING	1
	3 - 371	ソレノイト"回転レハ"ー		1
	<u>5 - 3 7 2</u> 5 - 3 7 4	<u>カ゛イト゛ローラー</u> カ゛イト゛ローラーネシ゛	GUIDE ROLLER GUIDE SCREW	1
		<u>ル イト ローフーネン</u> スヘ <sup>®</sup> ーサー		1
	<u>5 - 3 7 5</u> 5 - 3 7 6	ロータリーソレノイト	WASHER SOLENOIDO	
	5 - 576 5 - 601	<u>コータリー ソレノィト</u> ネシ <sup>®</sup>	SCREW	1
		<u> </u>	LINER	1
	5 - 603	<u>ハ 不過即フィブ</u> メス裏ハ"ネライナー	LINER	1
	5 - 604	メス裏ハ ネノイノ メス裏ハ ネ (強)	LEAF SPRING	1
		メス裏ハ ネ (弱)	LEAF SPRING	1
	608		PLATE	
	5 - 6 3 0	ハ"ネ調節スへ <sup>。</sup> -ス板	PLATE	1
	5 - 9 2 8	ナイロンクリップ	CLAMP	2
	3-512	クッションコ <sup>®</sup> ム	CUSHION RUBBER	2
25-35 75		 ワッシャ	WASHER	2
	5-468	ワッシャ	WASHER	2
	5-526	スフ゜リンク゛ ワッシャ	SPRING WASHER	2 2 2 2 2 2 2 2 2 2 2 2 1 3 3 3 1
	5 - 1 0 2	ネシ	SCREW	2
25-39 85	5-105	ネジ	SCREW	2
	5-106	ネジ	SCREW	2
25-41 85	5-613	ネシ <sup>"</sup>	SCREW	2
		ナット	NUT	1
	7-080	ネシ"	SCREW	3
	7-099	ネシ"	SCREW	3
		六角穴付きボルト	BOLT	1
		六角穴付きボルト	BOLT	4
		ネジ	SCREW	4
25-48 87	7 - 4 8 2	プラマイナベ小ねじ	SCREW	2
		六角穴付きボルト	BOLT	4 4 2 2 4
	7 - 252	六角穴付きボルト	BOLT	
25-51 88	8-146	ナット	NUT	1

DESCRIPTION

AIR NOZZL

BRACKET

LEVER

PIN

SOLENOID

GUIDE PIN

SPEED CONTROLER

BRACKET

WIPER

SPRING

BRACKET

WASHER

SCREW

BOLT

BOLT

BOLT

BOLT

SCREW

E-RING

F - R I N G

JOINT

SPRING PIN

AIR NOZZLE

BRACKET

WASHER

NUT

SPEED CONTROLER

WIPER MECHANISM ASS'Y (AIR)

WIPER MECHANISM ASS'Y (AIR)

WIPER MECHANISM ASS'Y (AIR

WIPER MECHANISM ASS'Y (ELECTRIC)

AIR TUBE Ø4x260mm

AIR TUBE Ø4×400mm

0' T Y

1

1

1

1

1

4

1

2

2

1

3

1

2

1

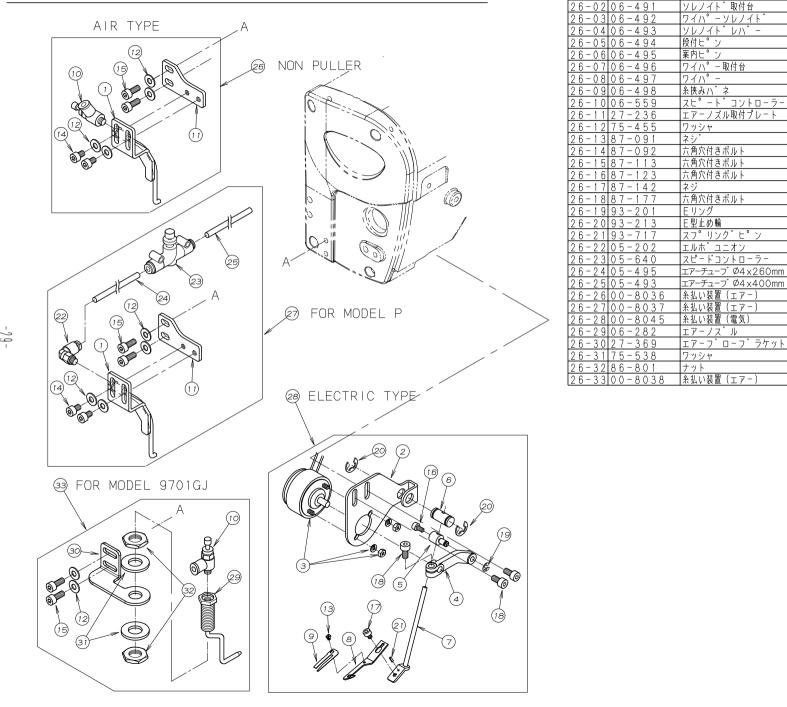
2

REF.NO. PART NO.

26-0106-283

品名

エアーノズル

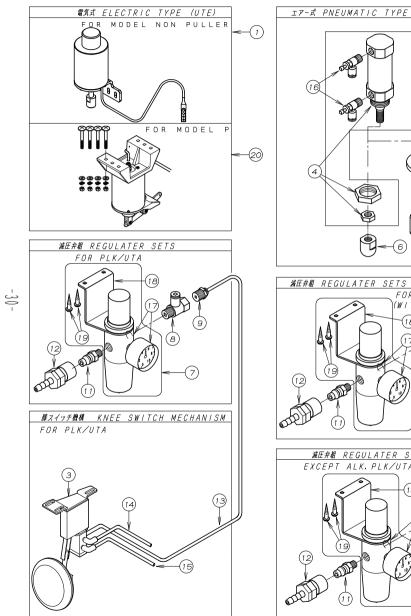


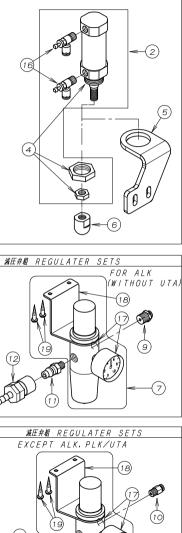
THREAD WIPER MECHANISM

26. 上糸払い装置

# 27. 押え揚げ装置、レギュレーターセット、膝スイッチ機構

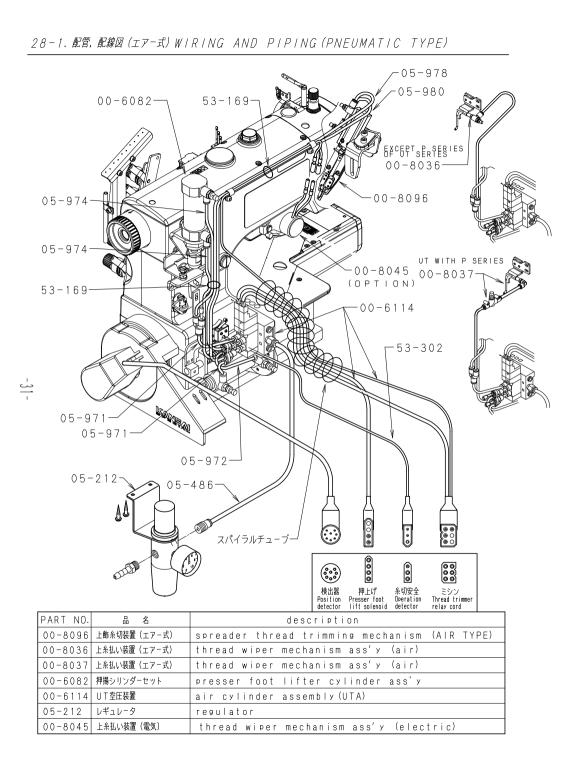
FOOT LIFTER MECHANISM, REGULATER SETS, KNEE SWITCH MECHANISM

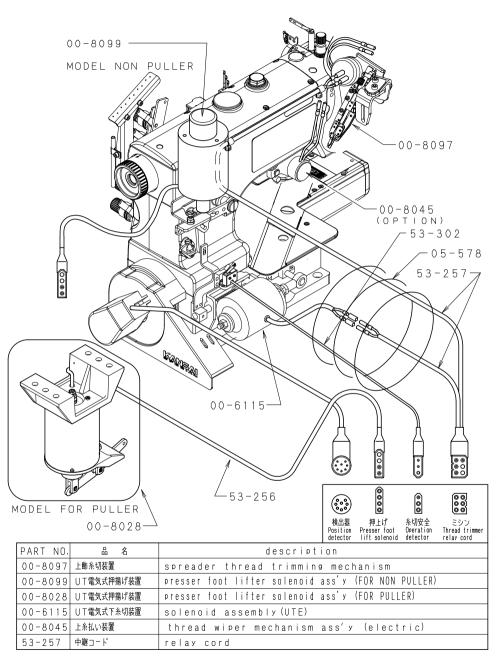




-(7)

REF.NO.	PART NO.	品名	DESCRIPTION	Q'TY
27-01 (	00-8099	電気式明え揚げセット	FOOT LIFTER SOLENOID ASS'Y	1
		押え揚ボシリンダ ーセット	AIR CYLINDER ASS' Y	1
27-03(	00-6118	膝スイッチセット	KNEE SWITCH ASS'Y	1
27-04 (	05-207	押え揚ボシリンダ -	AIR CYLINDER	1
27-05	77-032	シリンダ ーブ ラケット	BRACKET	1
27-06(		作動金具	BRACKET	1
27-070	05-212	フィルタレキ゛ュレータ	REGULATOR	1
	05-214	ユニハ"ーサルメスエルホ"	JOINT	1
27-090	05-217	ハーフユニオン	JOINT	1
	05-218	レキ"ュレーター用継手	JOINT	1
27-11(	06-516	カフ <sup>°</sup> ラメス	CONNECTOR	1
27-120	06-517	カフ°ラオス	CONNECTOR	1
27-130	05-932	エアーチューフ゛ダ4×1500mm	AIR TUBE Ø4×1500mm	1
27-140	05-938	エアーチューフ゛ダ4×450mm	AIR TUBE Ø4x450mm	1
27-150	05-939	エアーチューフ゛ダ4×500mm	AIR TUBE Ø4×500mm	1
27-160	06-580	スピードコントローラー	SPEED CONTROLER	2
27-170		フィルタ・レキ゛ュレータ	REGULATOR	1
27-18(		取付けブラケット	BRACKET	1
27-198	87-905	木ネジ	SCREW	2
27-200	00-8028	UT電気式押え揚げ装置	FOOT LIFTER SOLENOID ASS'Y	1

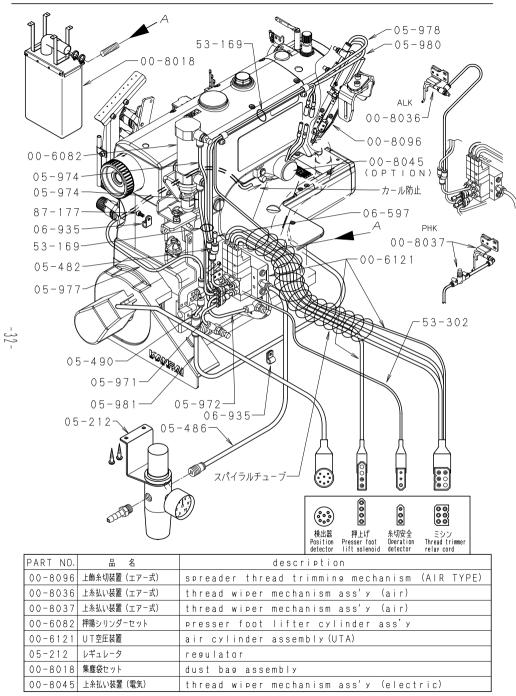




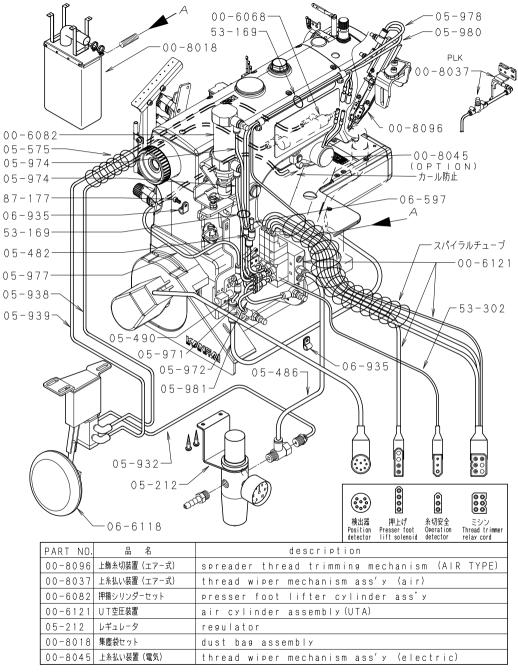
28-2. 配線図(電気式) CORD CONNECTION (ELECTRIC TYPE)



28-3. 配管, 配線図 (ALK, PHK エアー式) WIRING AND PIPING (PNEUMATIC TYPE)

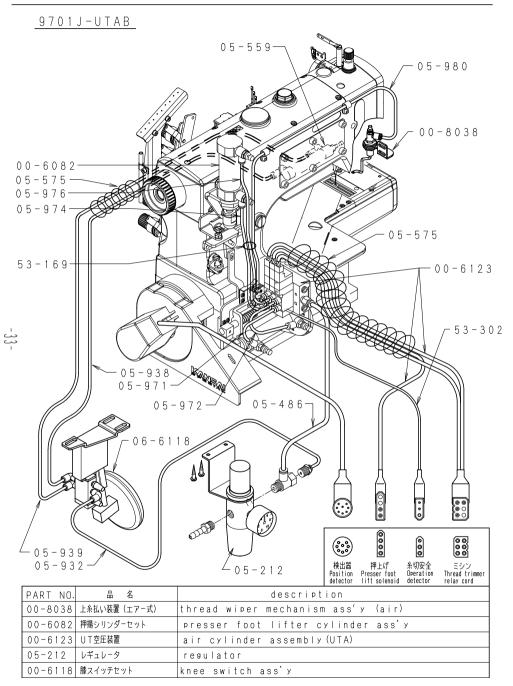


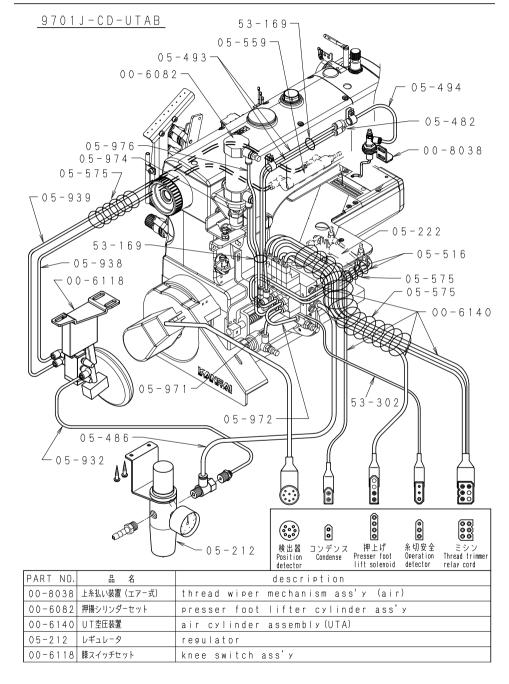
28-4. 配管, 配線図(PLK エアー式)WIRING AND PIPING(PNEUMATIC TYPE)



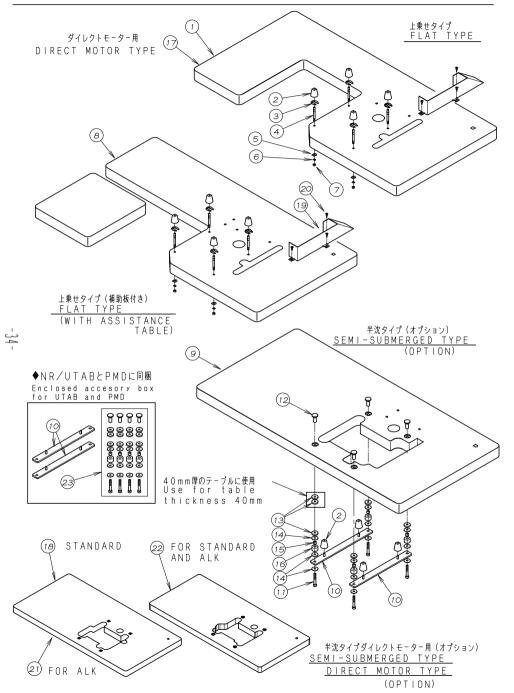
28-5. 配管, 配線図 (J エア-式) WIRING AND PIPING (PNEUMATIC TYPE)

28-6. 配管, 配線図(J-CD エア-式)WIRING AND PIPING(PNEUMATIC TYPE)

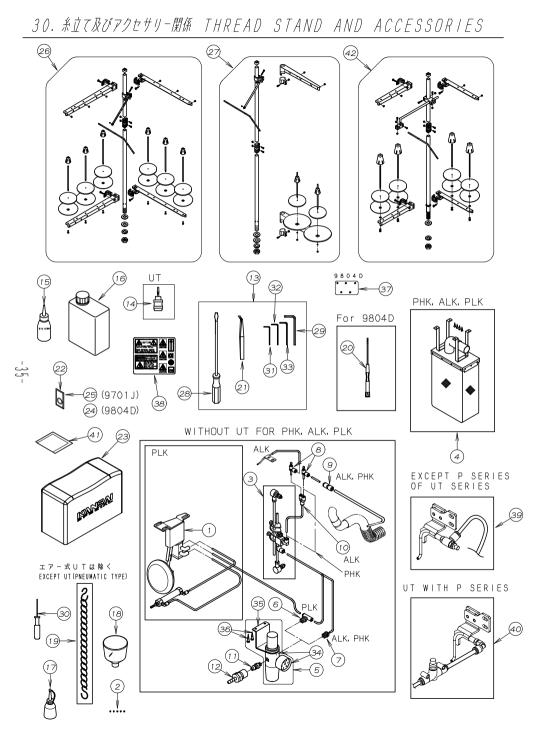




29. テーブル関係 TABLE



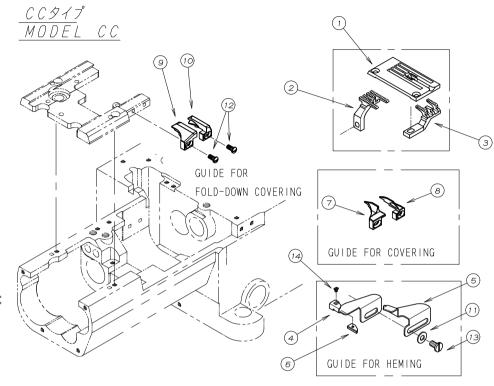
REF.NO.	PART NO.	品名	DESCRIPTION	Q'TY
29-01	21-027	シリンダ ーフラットテーフ ル	FLAT TABLE	1
29-02	23-509	クッションゴ ム	CUSHION RUBBER	4
29-03	93-501	U型止め輪	U-RING	4
29-04	42-501	クッションコ゛ム取付ネシ゛	SCREW	4
29-05	75-536	平ワッシャ	WASHER	4
29-06	75-527	M6用/、" 字座金	WASHER	4
29-07	88-166	固定ナット	NUT	4
29-08	21-025	補助板付テーフ゛ル	WITH ASSISTANCE TABLE	1
29-09	21-026	シリンダ「一半沈テーフ」ル	SEMI SUBMERGED TABLE	1
29-10	25-524	タンク取付金具(D)	SUPPORTING BOARD	2
29-11	87-281	六角穴付木" ルト	BOLT	4
29-12	42-503	本体据付ナット	NUT	4
29-13	42-507	スペ゜ーサー	SPACER	4
29-14	75-535	ワッシャ	WASHER	12
29-15	42-509	防振コ゛ムカラー	SWING PROOF RUBBER COLLAR	4
29-16		防振ゴム	SWING PROOF RUBBER	4
29-17	27-312	上乗せテーブルダイレクトモーター用	FLAT TABLE DIRECT MOTOR	1
29-18	27-311	半沈テーブルダイレクトモーター用	SEMI SUBMERGED TABLE DIRECT MOTOR	1
29-19	21-629W	補助カバー	COVER	1
29-20	87-901	ネジ	SCREW	3
29-21	27-354	半沈テーブルダイレクトモーター用	SEMI SUBMERGED TABLE DIRECT MOTOR	1
29-22	NR-789	半沈テーブルダイレクトモーター用	SEMI SUBMERGED TABLE DIRECT MOTOR	1
29-23	20-0040	ミシン据付部品セット	ACCESSORIES	1



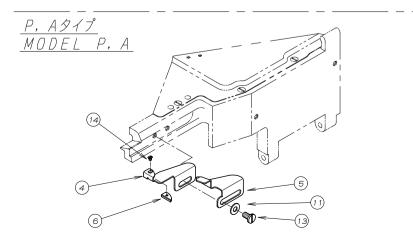
REF. NO. PART NO.	品名	DESCRIPTION	Q'TY
30-0100-6118	膝スイッチセット	KNEE SWITCH ASS'Y	1
30-0287-104	ネジ	SCREW	Ę
30-0300-8014	吸込み用ハ゛ルフ゛セット	TREADLE AIR SWITCH ASSEMBLY	1
30-0400-8018	集塵袋セット	FABRIC BAG ASSEMBLY	1
30-0505-212	フィルタレキ゛ュレータ	REGULATOR	1
30-0605-215	両口チ-ス゛ユニオン	JOINT	Í
30-0705-217	ハーフユニオン	JOINT	1
30-0805-221	スヒ゜ート゛コントローラー	SPEED CONTROLER	1
30-0905-224	異径ストレート	JOINT	
30-1005-482	ユニオンワイ	JOINT	
30-1106-516	カフ゜ラメス	CONNECTOR	
30-1206-517	カフ°ラオス	CONNECTOR	
30-1320-0010	付属部品ケース	ACCESSORIES	
30-1428-454	ト"ライハ"-(小)	DRIVER (SMALL)	
30-1528-612	シリコンオイル	SILICON OIL	
30-1628-618	オイル	OIL	
30-1728-614	油差し	OILER	
30-1828-615	シ゛ョウコ゛	OIL FUNNEL	
30-1928-920	チェーン	CHAIN	
30-2028-318	精密マイナスト"ライハ"-2.5mm		
30-2128-011	ピンセット	TWEZERS	
30-2213-0110-6		NEEDLE UY×128GAS #11	
30-2328-557	ミシンカバー	COVER	
30-24 13-3020-5		NEEDLE (9804D-6.4mm) #10S	
<u>30-2513-1510-5</u>		NEEDLE TV×5 #21 (RX9701J)	
30-2642-706	6本糸立	THREAD STAND ASSEMBLY	
30-2742-002	2本糸立	THREAD STAND ASSEMBLY	
30-2828-452	ドライバー (大)	DRIVER (LARGE)	
30-2928-314	六角レンチ 5mm	ALLEN KEY (5mm)	_
30-3028-317	グリップ付六角レンチ1.5mm		-
30-3128-311	六角レンチ 2 mm	ALLEN KEY (2mm)	
30-3228-312	六角レンチ 2.5mm	ALLEN KEY (2.5mm)	1
30-3328-313	六角レンチ 3mm	ALLEN KEY (3mm)	
<u>30-3405-2120-A</u>		REGULATOR	
<u>30-3505-2120-B</u>	取付けブラケット	BRACKET	<u> </u>
30-3687-905	<u>ネネジ</u> ネジ	SCREW	
<u>30-3785-603</u> 30-3820-6200		SCREW	+
<u>30-3820-6200</u> 30-3900-8036	警告ラベルシール 糸払い装置(エアー)	INFORMATION SEAL WIPER MECHANISM ASS'Y(AIR)	-
30-3900-8036	糸払い装直(エア-)   糸払い装置(エア-)	WIPER MECHANISM ASS'Y(AIR) WIPER MECHANISM ASS'Y(AIR)	
30-4000-8037		CORROSION INHIBTOR	
30-4128-610	<u>丸1に住防師剤</u>   4 本糸立て	THREAD STAND ASSEMBLY	
[3 v - 4 Z] 4 Z - 7 V 4	4 平 ボ 辻 〔	LIUKEAN SIANN ASSEMRFI	

# 31. CCタイプ, Pタイプ 生地ガイト"関係

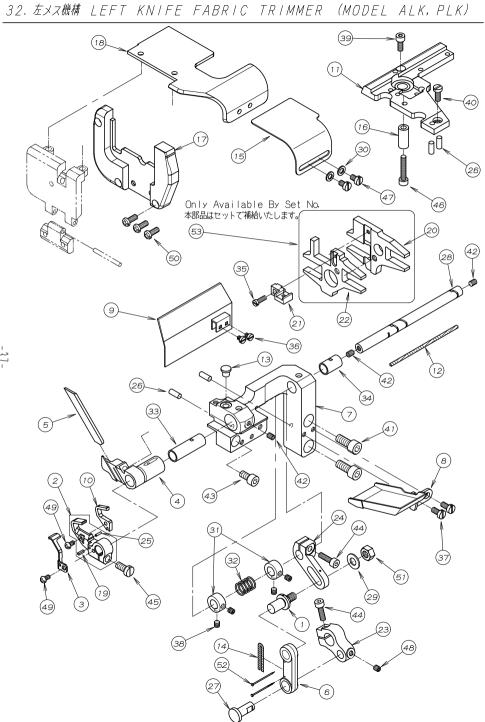
FABRIC GUIDE FOR MODEL CC, P, A



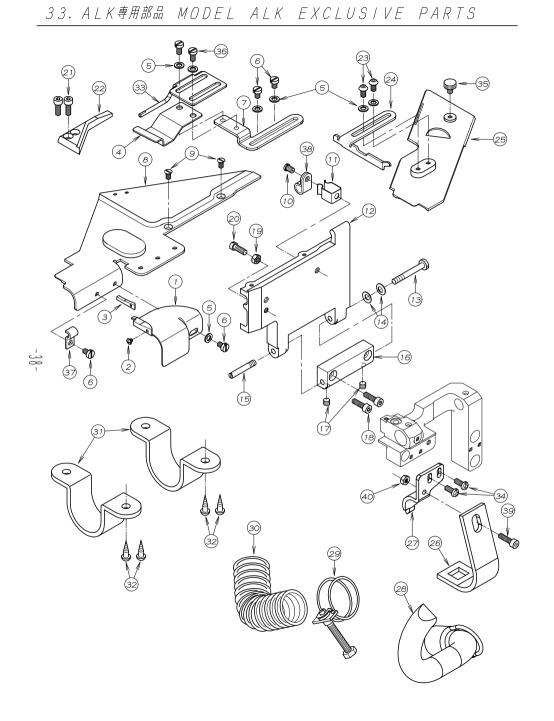
\*Enclosing accessory box



REF.NO. PART NO.	品名	DESCRIPTION	Q'TY
31-01 *	針板	NEEDLE PLATE	1
31-02 *	後送歯	REAR FEED DOG	1
31-03 *	前送歯	FRONT FEED DOG	1
31-0426-556	裾引定規(左)	HEMMING GUIDE (LEFT)	2
31-0526-557	裾引定規 (右)	HEMMING GUIDE (RIGHT)	2
31-0626-558	定規チッフ゜	FOLDER CHIP	2
31-0726-831	C用ガイド左	EDGE GUIDE (LEFT)	1
31-0826-832	C用ガイド右	EDGE GUIDE(RIGHT)	1
31-0926-833	CL用ガイド左	EDGE GUIDE (LEFT)	1
31-1026-834	CL用ガイド右	EDGE GUIDE(RIGHT)	1
31-1175-455	ワッシャ	WASHER	2
31-1284-154	ネジ	SCREW	2
31-1384-574	ネシ	SCREW	2
31-1487-105	ネシ	SCREW	2



REF.NO. PART NO.	品名	DESCRIPTION	Q'TY
32-0104-502	調節レハ"ーヒ゜ン	PIN	1
32-0207-012	上メス土台	BRACKET	1
32-0307-013	可動メスカ゛イト゛	COVER	1
32-0407-557	下メスフ"ラケット	BRACKET	1
32-0507-558	下メス	LOWER KNIFE	1
32-0607-561	上メス駆動リンク	LINK	1
32-0707-562W	下メス土台	LOWER KNIFE BRACKET	1
32-0807-563	油受け	OIL COVER	1
32-0907-564	油カハ –	OIL DEFENSE	1
32-1007-642	上メス	KNIFE	1
32-1114-171	針板土台	NEEDLE SUPPORT BRACKET	1
32-1223-124	フェルト	FELT	1
32-1323-425	クッションコ゛ム	RUBBER	1
32-1423-540	フェルト	FELT	1
32-1526-564	補助カハ″ー	COVER	1
32-1627-217	カハ゛ーストッフ゜カラー	COLLAR	1
32-1727-253W	横カバーヒンジ土台	HINGE	1
32-1827-254	クロスプレート	COVER	
32-1932-281	」 スフ <sup>®</sup> リンク <sup>™</sup> ヒ <sup>®</sup> ン	SPRING PIN	-
32-2051-827	主送り台	MAIN FEED BAR	
32-2151-849	取付フ"ラケット	BRACKET	-
32-2251-850	差動送り台	DIFFERENTIAL FEED BAR	
32-2367-527		UPPER KNAIFE DRIVING LEVER	1
32-2467-531	メス調節レハ゛-	LEVER	
32-2571-225	   平行ヒ <sup>®</sup> ン	PIN	
32-2671-253	ノックヒ <sup>®</sup> ン	PIN	4
32-2771-724	リンクヒ゜ン リンクヒ゜ン	LINK PIN	1
32-2871-755	メスシャフト	SHAFT	
32-2975-452	<u></u> ワッシャ	WASHER	
32-3075-468	ワッシャ	WASHER	
32-3175-561	カラー	COLLAR	
32-3279-568	上メスハ"ネ	SPRING	
32-3381-537	ブッシュ	BUSHING	
32-3481-558	ブッシュ	BUSHING	-
32-3584-158	  ネシ"	SCREW	
32-3687-095	  ネシ"	SCREW	
32-3787-096	  ネシ"	SCREW	
32-3887-106	ネジ	SCREW	
32-3987-113	 六角穴付きボルト	BOLT	-
32-4087-145	ネシ	SCREW	<u> </u>
32-4187-171	六角穴付きボルト	BOLT	
32-4287-181	ネシ"	SCREW	
32-4387-213	六角穴付きボルト	BOLT	
32-4487-214	六角穴付きボルト	BOLT	
			- 4
32-4587-278	<u>ネシ</u> 六角穴付きボルト	SCREW	
32-4687-283	ハ <u>用バ11さホルト</u>  ネシ <sup>"</sup>	BOLT	
32-4787-284	1.7	SCREW	
32-4887-286	<u>ネシ</u> 	SCREW	<u> </u>
32-4987-477	プラマイナベ小ねじ	SCREW	
32-5087-483	<u>プラマイナベ小ねじ</u>	S C R E W	
32-5188-166	<u>+ ット</u>		-
32-5293-625	フェルトヒ゜ン		2
32-53 50-8270	送り台セット	FEED BAR ASS'Y	



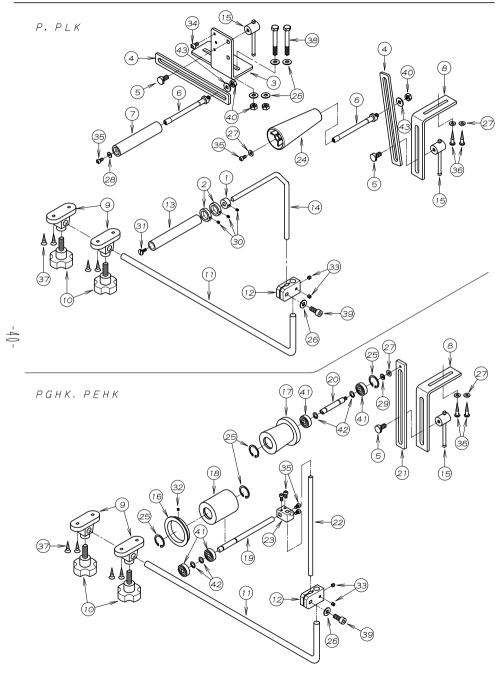
	PART NO.	品名	DESCRIPTION	Q'TY
33-01	26-567	布力 イト (左)	GUIDE (LEFT)	1
33-02	85-611	ネジ	SCREW	1
33-03	26-568	定規チップ	BLOCK	1
33-04	26-565	裾 定規 (右)	GUIDE (RIGHT)	1
33-05	75-468	ワッシャ	WASHER	7
33-06	87-284	ネシ"	SCREW	4
33-07	26-572	裾に規(右)取付台	BRACKET (RIGHT)	1
33-08	21-752W	定規板	FRONT PLATE	1
33-09	84-464	ネジ	SCREW	2
33-10	84-575	ネシ	SCREW	1
33-11	79-912	定規台板ハーネ	SPRING	1
33-12	21-743W	定規台	FRONT COVER	1
33-13	25-517	ヒンジ ネジ	SCREW	1
33-14	79-922	見べれ	FLAT SPRING	2
33-15	25-527	ヒンシ ネジ	SCREW	1
33-16	25-516W	ヒンシ	HINGE	1
33-17	87-274	ネジ	SCREW	2
33-18	87-214	ネジ	SCREW	2
33-19	86-311	ナット	NUT	1
33-20	84-635	۲۶۶	SCREW	1
33-21	87-129	ネジ	SCREW	2
33-22	21-737W	差板補助カバー	COVER	1
33-23	87-272	ネジ	SCREW	2
33-24	26-570	布力 イト"(右)	FABRIC GUIDE (RIGHT)	1
33-25	21-767	差板	SLIDE COVER	1
33-26	07-010	吸込みハ゜イフ゜止め金具	PIPE BAND	1
33-27	07-009	吸込ハ。イフ。フ、ラケット	BRACKET	1
33-28	07-011	吸込ハ゜イフ゜	PIPE	1
33-29	07-573	ホースバント	BELT	1
33-30	07-572	ホース	HOSE	1
33-31	07-542	ホースクランプ	CLAMP	2
33-32	87-902	ネジ	SCREW	4
33-33	26-573	カール防止パイプ	PIPE	1
33-34	87-483	プラマイナベリねじ	SCREW	2
33-35	87-409	ネジ	SCREW	1
33-36	87-096	ネジ	SCREW	2
33-37	39-131	パ イプ サポ ート	CLAMP	1
33-38	06-935	ナイロンクリップ	CLAMP	1
33-39	87-299	六角穴付きボルト	BOLT	1
33-40	88-146	ナット	NUT	1

# (51) ( to $\bigcirc$ 43 (42) 44 (33) Ø 36 [2] (4)001 (19) (21) -22 P (16) - DO (18) (17) (5) Ø (13) (8 S (14) (12) 25 6 6 (50) (55) (47) (49)

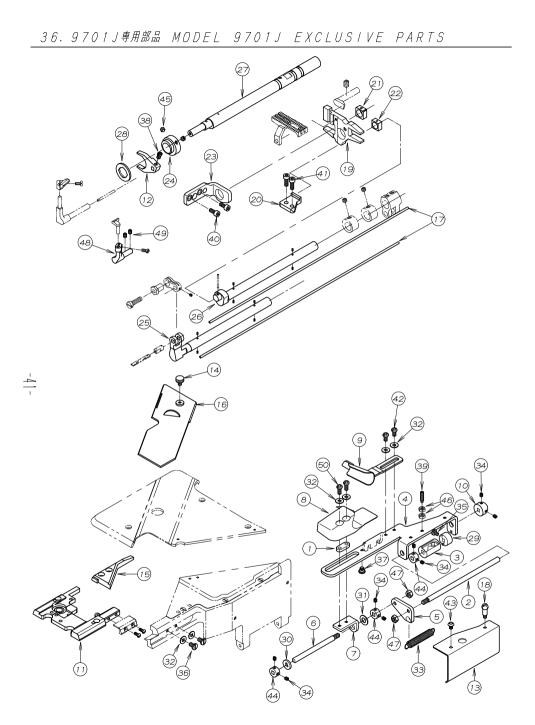
34. PLK専用部品 MODEL PLK EXCLUSIVE PARTS

REF. NO.	PART NO.	品名	DESCRIPTION	Q'T
34-01	87-270	皿ネジ	SCREW	4
34-02	09-533	ゴ ムガ イド (L)	GUIDE (UPPER)	
34-03	09-534	」」 ムガ「イト」(下)	GUIDE (LOWER)	
34-04	09-537	カバー	COVER	
34-05	09-538	スライト"フ"ラケット	BRACKET	
34-06	09-539	止め金具	PLATE	
34-07	87-145	ネジ	SCREW	4
	09-541	スライト" ブ ラケット	BRACKET	
34-09	75-453	ワッシャ	WASHER	
	88-157	ナット	NUT	
34-11	09-540	カ゛イト゛ 棒	SHAFT	
34-12	06-556	ゴムガイト・シリンダー	AIR CYLINDER	
	05-202	דוג ידוע	JOINT	
34-14	09-504	フ ッシュ	BUSHING	1
	09-506	クッションゴ ム	RUBBER	
	75-108	カラー	COLLAR	- ·
<u>34 10</u> 34-17	84-521	ネジ	SCREW	
	87-098	ネン ネシ <sup>″</sup>	SCREW	
	79-912	板/、ネ	SPRING	`
	09-536	シリンダ ーフ ラケット	BRACKET	
<u>34 20</u> 34-21	75-457	フッシャ ワッシャ	WASHER	
<u>34 21</u> 34-22	87-213	<u>ネジ</u>	SCREW	
<u>34-22</u> 34-23		ネシ カール防止パイプ	PIPE	
	26-571			
34-24	87-096		SCREW	2
	00-6068	ゴム案内用シリンダーセット	SYLINDER ASS' Y	-
	87-905	ネシ <sup>"</sup>	SCREW	4
34-27	88-146	ナット		
	26-569	布ガーイト (右)取け台	BRACKET (RIGHT)	1
34-29	84-635	ネジ	SCREW	1
	86-311	ナット	NUT	
34-31	21-743W	定規台	FRONT COVER	1
34-32	25-522	カバーストップネジ	STOP PIN	1
34-33	21-752W	定規板	FRONT PLATE	1
34-34	84-464	ネジ	SCREW	2
	87-284	ネジ	SCREW	2
	75-468	ワッシャ	WASHER	6
34-37	87-267	ネジ	SCREW	2
	75-410	// * ネ座金	SPRING WASHER	4
34-39	26-566	裾に規(右)取付台	BRACKET (RIGHT)	
	09-543	右身頃力" イト"	FABRIC GUIDE	
34-41	09-544	布カ゛イト゛(左)	GUIDE (LEFT)	
34-42	21-767	差板	SLIDE COVER	
34-43	87-129	ネシ	SCREW	
34-44	21-737W	差板補助カバー	COVER	
34-45	26-570	布力 イト (右)	FABRIC GUIDE (RIGHT)	
	87-272	ネジ	SCREW	1
34-47	07-009	吸込/ ペイプ ブ ラケット	BRACKET	
	07-010	吸込べ イプ バ ント	BELT	
34-49	07-011	吸込パイプ	JOINT	
	87-483	プラマイナペリねじ	SCREW	
34-51	87-409	ネジ	SCREW	
<u>34-51</u>	07-573	ホースパント	BELT	
<u>34 52</u> 34-53	07-572	ホース	HOSE	
<u>34-53</u> 34-54	07-542	ホースクランプ	CLAMP	
	IV/ U4Z	アハー 人ノ ノノフ		1 4

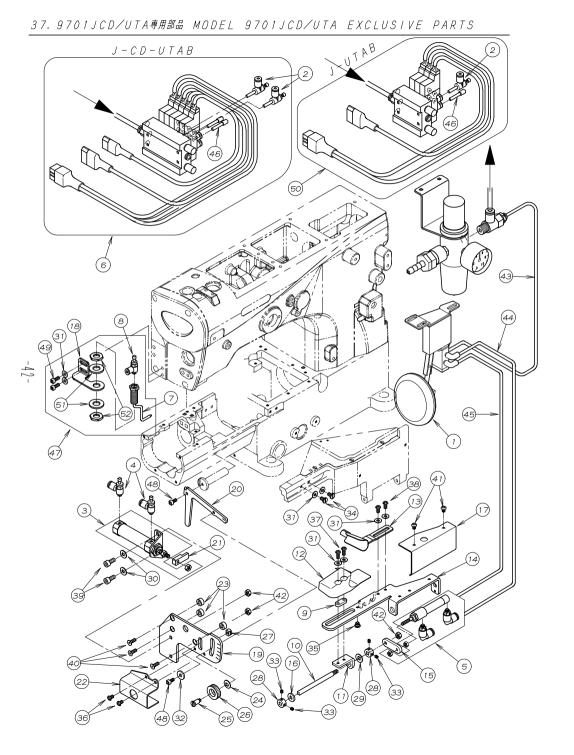
# 35. ゴム張り機構, GUIDE ROLLER MECHANISM



REF.NO. PART NO.	品名	DESCRIPTION	Q'TY
35-0109-145	カラー	COLLAR	1
35-0209-147	カラー	COLLAR	2
35-0309-519	リアーローラーフ・ラケット	REAR ROLLER BRACKET	1
35-0409-521	リアーローラースライト	SLIDE PLATE	2
35-0509-522	リアーローラー止めネシ"	SCREW	$\frac{2}{1-2}$
35-0609-523	リアーローラー調整軸	SHAFT	2
35-0709-524	リアーローラー	REAR ROLLER	1
35-0809-525	テンションフ゛ラケット	BRACKET	1
35-0909-526	ローラーフ゛ラケット	BRACKET	2
35-1009-527	ノフ"	КNOB	2
35-1109-528	ローラーフ ラケット ハー	BAR	1
35-1209-529	ローラー軸継手	JOINT BLOCK	1
35-1309-530	前ローラー	ROLLER	1
35-1409-531	ローラーフ"ラケットハ"ー	BAR	1
35-1509-553	ハント"ル	HANDLE	1 2
35-1609-603	コ゛ムスラストカラー	FRONT ROLLER GUIDE	1
35-1709-614	下ローラー	TAPER ROLLER	1
35-1809-615	前ローラー	FRONT ROLLER	1
35-1909-616	前ロ-ラ-シャフト	FRONT ROLLER SHAFT	1
35-2009-617	下ローラー軸	ROLLER SHAFT	1
35-2109-618	下ローラースライド	SLIDE PLATE	1
35-2209-619	前ロ-ラ-縦シャフト	SHAFT	1
35-2309-620	ローラー軸継手	JOINT BRACKET	1
35-2409-727	テーハ゜ーローラー	TAPER ROLLER	1
35-2593-238	穴用C形止め輪呼び 26	C-RING 26	4
35-2675-451	ワッシャ	WASHER	1 5
35-2775-452	ワッシャ	WASHER	2 3
35-2875-453	ワッシャ	WASHER	1
35-2975-527	スフ <sup>°</sup> リンク ワッシャ	SPRING WASHER	1
35-3084-521	ネシ"	SCREW	3
35-3184-570	ネシ"	SCREW	1
35-3287-106	ネジ	SCREW	1
35-3387-172	ネシ"	SCREW	2
35-34 87-203	六角穴付きボルト	BOLT	1
35-3587-213	六角穴付きボルト	BOLT	$2^{-4}$
35-3687-501	丸木ネシ"	SCREW	2
35-3787-502	皿木ネシ"	SCREW	4
35-3887-503	六角ボルト	BOLT	2
35-3987-663	六角穴付きボルト	BOLT	1
35-4088-176	ナット	NUT	4
35-4191-110	ボールヘ゛アリンク゛	BALL BEARING	4
35-4293-228	軸用丸S形止め輪	SNAP RING	4
35-4375-501	ワッシャ	WASHER	2



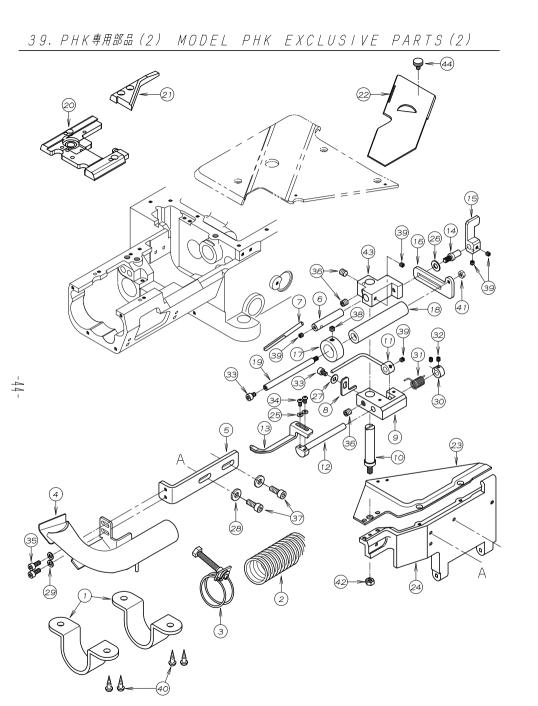
REF.NO. PART NO.	品名	DESCRIPTION	Q'TY
36-0109-015	スライト"金具	BRACKET	1
36-0209-016	ホルタ <sup>*</sup> - 案内棒(B)	GUIDE BAR (B)	1
36-0309-017	ホルタ゛-案内金具	САМ	1
36-0409-018	ホルタ"-取付台	BRACKET	1
36-0509-019	ホルタ -連結フ レート	PLATE	1
36-0609-020	ホルタ"-案内棒(A)	GUIDE BAR (A)	1
36-0709-021	ホルタ"ー取付フ"ラケット	BRACKET	1
36-0809-022	ホルタ"-(左)	GUIDE (LEFT)	1
36-0909-023	ホルタ"- (右)	GUIDE (RIGHT)	1
36-1009-159	フ゜ッシュ金具	BRACKET	1
36-1114-169	針板土台	NEEDLE SUPPORT BRACKET	1
36-1218-010	針受レハ"-	LEVER	1
36-1321-232	DAN" -	COVER	1
36-1487-409	ネジ	SCREW	1
36-1521-244	差板補助力八"一	COVER	1
36-1621-798	差板	SLIDE COVER	
36-1723-535	フェルト	FELT	2
36-1825-522	カハ゛ーストッフ゜ネシ゛	SCREW	1
36-1951-001	送り台	FEED BAR	1
36-2051-883	送り土台カ"イト"フ゜レート	FEED BAR GUIDE PLATE	1
36-2151-872	角コ"マ(後)	FEED LIFT BLOCK (REAR)	1
36-2251-875	角コ"マ(前)	FEED LIFT BLOCK (FRONT)	1
36-2351-876	送土台力"イト"(左)	GUIDE (LEFT)	1
36-2461-016	針受エキセン	ECCENTRIC	1
36-2571-024	差動送り軸	FEED SHAFT	1
36-2671-025	送り上下軸	FEED LIFT SHAFT	1
36-2771-039	下軸	LOWER SHAFT	1
36-2875-013	平座金	WASHER	1
36-2975-090	ストッフ゜カラー	COLLAR	1
36-3009-506	ワッシャ	WASHER	1
36-3175-452	ワッシャ	WASHER	1
36-3275-455	ワッシャ	WASHER	6
36-3379-021	引張ハ" ネ	SPRING	1
36-3484-314	ネシ"	SCREW	8
36-3584-361	ネシ"	SCREW	1
36-3684-574	ネシ	SCREW	2
36-3784-585	段ネシ"	SCREW	2
36-3884-616	ネシ"	SCREW	1
36-3987-016	六角穴付き止めねじ	SCREW	1
36-4087-113	六角穴付きボルト	BOLT	
36-4187-129	六角穴付きボルト	BOLT	2 2 2
36-4287-177	六角穴付きボルト	BOLT	2
36-4387-267	ネシ"	SCREW	1
36-4475-105	カラー	COLLAR	3
36-4587-274	ネシ"	SCREW	2
36-4688-146	ナット	NUT	2
36-4788-157	ナット	NUT	1 3 2 2 2 2 1
36-4818-813	針ガイドブラケット	BRACKET	1
36-4987-181	ネジ	SCREW	2
36-5087-483	プラマイナベ小ねじ	SCREW	2



REF.NO. PART NO.	品名	DESCRIPTION	Q'TY
37-0100-6118	膝スイッチセット	KNEE SWITCH ASS'Y	1
37-0205-221	スヒ゜ート゛コントローラー	SPEED CONTROLER	2
37-0305-222	エアーシリンタ゜ー	CYLINDER	1
37-0405-481	スヒ゜ート゛コントローラー	SPEED CONTROLER	2
37-0505-559	エアーシリンター	AIR CYLINDER	
37-0605-969	電磁弁5連セット	SOLENOID VALVE ASSEMBLY	1
37-0706-282	エアーノズル	AIR NOZZLE	1
37-0806-559	スヒ°ート コントローラー	SPEED CONTROLER	1
37-0909-015	スライト"金具	BRACKET	1
37-1009-020	ホルタ"ー案内棒(A)	GUIDE BAR	1
37-1109-021	ホルタ"ー取付フ"ラケット	BRACKET	
37-1209-022	<u>ホルタ"ー(左)</u>	GUIDE (LEFT)	
37-1309-023	ホルタ"ー(右)	GUIDE (RIGHT)	1
37-1409-024	ホルタ"ー取付台	BRACKET	1
37-1509-025	ホルタ"ー連結フ゜レート	PLATE	1
37-1609-506	ワッシャ	WASHER	1
37-1721-232	<u> </u>		1
37-1827-369	 	COVER BRACKET	
37 - 1951 - 141	<u> エアーブローブラグット</u>   目盛板		
37-2051-142	日盛牧   コンテ"ンスレハ" -	FEED GRADUATIONS CONDENSE LEVER	
		DLOOK	1
37-2151-143	<u>シリンタ"-先端金具</u>	BLOCK	
37-2251-144	安全カハ"-	COVER	
37-2351-805	スヘ゜ースカラー	COLLAR	3
37-24 51-806		SPRING	1
37-2551-807	段ネシ"	SCREW	1
37-2651-808	ナット	NUT	1
37-2751-846	ストッハ゜ー	STOPPER	1
37-2875-105	カラー	COLLAR	2
37-2975-452	ワッシャ	WASHER	1
37-3075-453	ワッシャ	WASHER	2
37-3175-455	ワッシャ	WASHER	8
37-3275-456	ワッシャ	WASHER	1
37-3384-314	ネシ"	SCREW	4
37-34 84-574	ネシ"	SCREW	2
37-3584-585	段ネシ"	SCREW	1
37-3687-481	プラマイナベ小ねじ	SCREW	2
37-3787-483	プラマイナベ小ねじ	SCREW	2
37-3887-482	プラマイナベ小ねじ	SCREW	2
37-3987-252	六角穴付きボルト	BOLT	2
37-4087-265	六角穴付き皿ホ゜ルト	SCREW	2
37-4187-267	ネシ	SCREW	
37-4288-157	ナット	NUT	2
37-4305-932	エアーチューフ Ø4×1500mm	AIR TUBE Ø4x1500mm	1
37-4405-938	エアーチューブ Ø4×450mm	AIR TUBE Ø4x450mm	1
37-4505-939	エアーチューフ゛ Ø4×500mm	AIR TUBE Ø4x500mm	1
37-4606-597	プラグ	PIUG	2
37-4700-8038	糸払い装置(エア-)	WIPER MECHANISM ASS'Y (AIR)	1
37-4887-177	六角穴付きボルト	BOLT	2
37-4987-113	六角穴付きボルト	BOLT	
37-5005-966	電磁弁3連セット	SOLENOID VALVE ASSEMBLY	
37-5175-538	電磁升3 建ビット    ワッシャ	WASHER	2
		NUT	
37-5286-801	ナット		

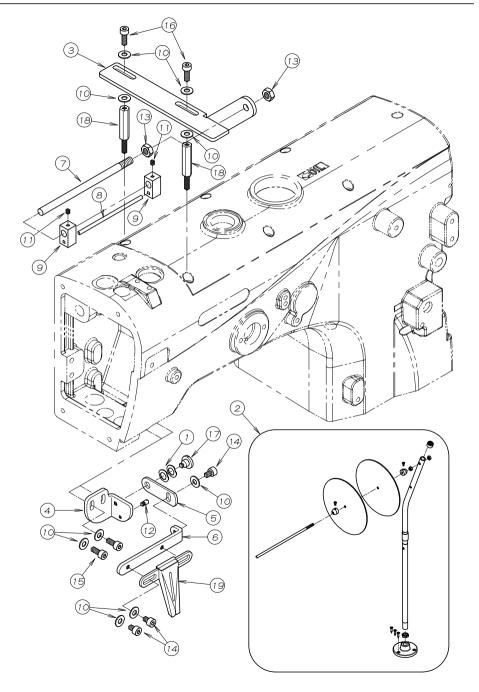
38. PHK専用部品(1) MODEL PHK EXCLUSIVE PARTS(1) 29 23 5 (46) (8) - Contraction of the second se (33 (44) (41 53 (14) (7 48 (56) ČØ a 0 (43) 20 (28 (34) (19 (32) 2) (16) (56) (18

REF.NO. PART NO.	品名	DESCRIPTION	Q'TY
38-0107-586	フ <sup>"</sup> ロック	BLOCK	1
38-0207-587	連結リンク	LINK	
38-0307-588	連結リンク	LINK	1
38-0407-589	駆動ヒ <sup>°</sup> ン	PIN	1
38-0507-590	角コ"マ	BLOCK	1
38-0607-591	上メス調整レハ"ー	LEVER	1
38-0707-592	スフ゜リンク゛ホルタ゛ー	SPRING HOLDER	1
38-0807-593	スフ゜リンク゛止めネシ゛	LOCK SCREW	1
<u>38-0907-594W</u>	右メス土台	BRACKET	1
38-1007-595	<u> </u>	O RING	1
38-1107-596	下メス (厚み1.5mm)	LOWER KNIFE (THICK 1.5mm)	1
38-1207-597	上メス	UPPER KNIFE	-1
38-1307-599	下メス土台	BRACKET	-1
38-1407-610	上メス土台	BRACKET	$ \frac{1}{1}$
38-1507-611	下メス台力"イト"	GUIDE PLATE	
38-1607-612	調節レハ"ー用ストッハ。-	STOPPER	
38-1707-613	<u>フ゜シュホ゛タン用ホルタ゛-</u>   フ゜ッシュナ゛タン	HOLDER Dush Botton	
<u>38-1807-614</u> 38-1907-615	フ゜ッシュホ゛タン ト゛ロッフ゜レハ゛ー	PUSH BOTTON LEVER	
38-2007-616W	<u>    ロック レハ - </u>   横カハ" -	COVER	
38 - 2107 - 617	(横刀)// ー   布力" イト"	CLOTH GUIDE	
38-2223-124	フェルト	FELT	
38-2323-341	フェルト	FELT	2
38-2423-512	クッションコ <sup>®</sup> ム	CUSHION RUBBER	2
38-2523-554	フェルト	FELT	4
38-2623-566	横カハ"-ハ°ッキン	GASKET	1
38-2767-536	メス駆動レハ"-	LEVER	1
38-2871-253	ノックヒ゜ン	PIN	2
38-2971-596	上メスロット" ヒ°ン	CONNECTING ROD PIN	1
38-3071-634	送り上下軸	FEED LIFT SHAFT	1
38-3171-648	上メスシャフト	SHAFT	1
38-3271-650	ト"ロッフ゜レハ"ー軸	SHAFT	1
38-3371-660	上メスリンクヒ <sup>°</sup> ン	LINK PIN	1
<u>38-3475-561</u>	カラー	COLLAR	3
<u>38-3579-558</u>	スフ <sup>°</sup> リンク"	SPRING	1
38-3679-559	フ゜ッシュホ゛タン用ハ゛ネ	SPRING	1
38-3779-568		SPRING	1
38-3881-576	<u>下メス台フ『ッシュ</u> メス軸フ』ッシュ	BUSHING	1
<u>38-3981-577</u> 38-4084-463	<u> メス軸ノーツンユ</u>  ネシ"	BUSHING SCREW	1
38-4187-010	ネシ"	SCREW	1
38-4287-092	六角穴付きボルト	BOLT	
38-4387-106	ネジ	SCREW	26
38-4487-112	六角穴付きボルト	BOLT	1
38-4587-477	プラマイナベ小ねじ	SCREW	2
38-4687-181	ネシ"	SCREW	2 3 2
38-4787-213	六角穴付きボルト	BOLT	2
38-4887-214	六角穴付きボルト	BOLT	2
38-4987-234	ネシ"	SCREW	1
38-5087-253	ネシ	SCREW	1
38-5187-271	ネシ	SCREW	2
38-5287-276	六角穴付きボルト	BOLT	1
38-5387-278	ネシ"	SCREW	1
<u>38-5493-195</u>	E形止め輪	E-RING	1
38-5593-506	スフ゜リンク゛ヒ゜ン	SPRING PIN	1
38-5687-123	六角穴付きボルト	BOLT	3



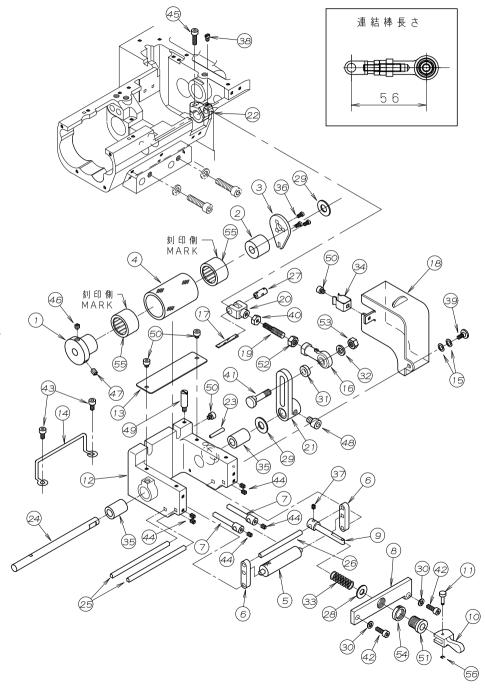
REF. NO. PART NO.	品名	DESCRIPTION	Q'TY
39-0107-542	ホースクランフ。	CLAMP	2
39-0207-572	ホース	HOSE	1
39-0307-573	ホースハ゛ント゛	BAND	1
39-0407-574		PIPE	1
39-0507-575	吸込ハ。イフ。取付フ。レート	PLATE	1
39-0607-577	コ ムカ イト 取付け棒	ELASTIC TAPE GUIDE BAR	1
39-0707-578	コ"ムカ"イト"	ELASTIC GUIDE	1
39-0807-579	カ゛イト゛棒用ストッハ゜-	STOPPER	1
39-0907-580	カ イト 棒取付け台	BRACKET	1
39-1007-581	支柱ネシ"	SCREW	1
39-1107-582	カ"イト"棒	GUIDE BAR	1
39-1207-619	布押え取付棒	SHAFT	1
39-1307-620	布押え	FABRIC GUIDE	1
39-1409-607	レハ゛ー取り付ヒ゜ン	PIN	1
39-1509-608	クランフ゜レハ゛ー	CLAMP LEVER	1
39-1609-610	上ロ-ラ-フ゛ラケット	BRACKET	1
39-1709-611	カ゛イト゛カラー	COLLAR	1
39-1809-612	前ローラー	FRONT ROLLER	1
39-1909-613	上ローラー軸	UPPER ROLLER SHAFT	1
39-2014-170	針板土台	NEEDLE SUPPORT BRACKET	1
<u>39-2121-799W</u>	差板補助カハ"ー	COVER	1
39-2227-026	差板	SLIDE COVER	1
<u>39-2327-027W</u>	定規板	FRONT COVER	1
39-2427-028W	定規台	FRONT COVER	1
39-2575-441	ワッシャ	WASHER	2
39-2675-453	ワッシャ	WASHER	1
39-2775-455	ワッシャ	WASHER	1
39-2875-458	ワッシャ	WASHER	2
39-2975-468	ワッシャ	WASHER	2
39-3075-556	カラー	COLLAR	1
39-3179-071	巻ハ"ネ	SPRING	1
39-3284-314	ネシ"	SCREW	2
39-3387-092	六角穴付きボルト	BOLT	2
39-3487-099	ネシ"	SCREW	2 2 2 2 3 3 2
39-3587-113	六角穴付きボルト	BOLT	- 2
39-3687-172	ネシ"	SCREW	- 3
39-3787-224	六角穴付きボルト	BOLT	
39-3887-274	ネシ"	SCREW	1
<u>39-3987-286</u> 39-4087-902	ネシ <sup>"</sup>   木ネシ <sup>"</sup>	SCREW	5
		S C R E W	4
39-4188-146	ナット	NUT	
39-4288-157	<u>ナット</u> っ"(カ"() わけけん	NUT	
<u>39-4307-576</u> 39-4487-409	<u>コ゛ムカ゛イト゛取付け台</u> ネジ	BRACKET	
<u>[39-44]8/-409</u>	イン	SCREW	

40.9702L専用部品 MODEL 9702L EXCLUSIVE PARTS

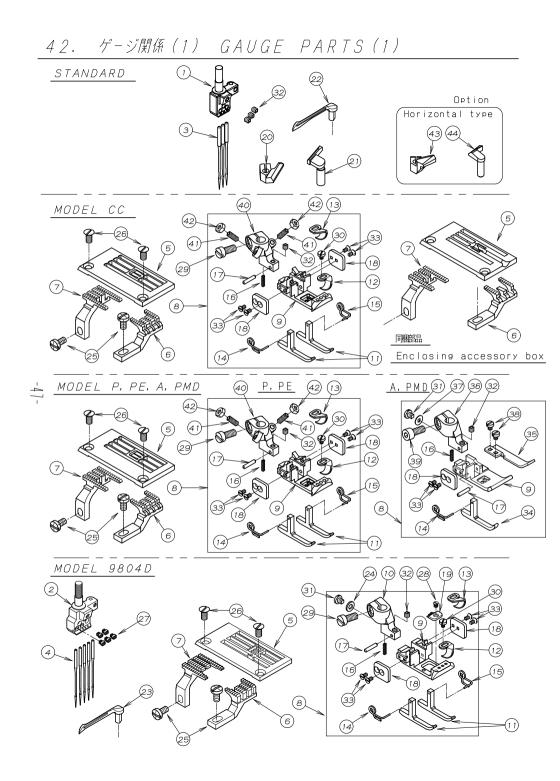


REF.NO. PART NO.	品名	DESCRIPTION	Q'TY
40-0102-119	波座金	WASHER	2
40-0220-6020	テーフ。立て	TAPE STAND	1
40-0326-606	コ゛ムフ゜-ラ-案内板	BRACKET	1
40-0426-608	フ"ラケットA	BRACKET A	1
40-0526-609	フ゛ラケットB	BRACKET B	1
40-0626-610	フ゛ラケットC	BRACKET C	1
40-0726-751	コ″ムフ゜-ラ-取付棒	BAR	1
40-0826-752	コ゛ムフ゜ーラー案内棒	BAR	1
40-0926-753	コ゛ムフ゜-ラ-取付金具	BRACKET	2
40-1075-455	ワッシャ	WASHER	9
40-1184-112	ネシ	SCREW	2
40-1284-114	ネジ	SCREW	1
40-1386-411	ナット	NUT	2
40-1487-092	六角穴付きボルト	BOLT	3
40-1587-113	六角穴付きボルト	BOLT	2
40-1687-129	六角穴付きボルト	BOLT	2
40-1787-264	段ネシ"	SCREW	1
40-1887-309	支柱ネシ"	SCREW	2
40-1997-5010-1	ハ゜インタ゜ーセット(9mm)	FOLDER ASS'Y	1

# 41. MD機構 METERING DEVICE MECHANISM

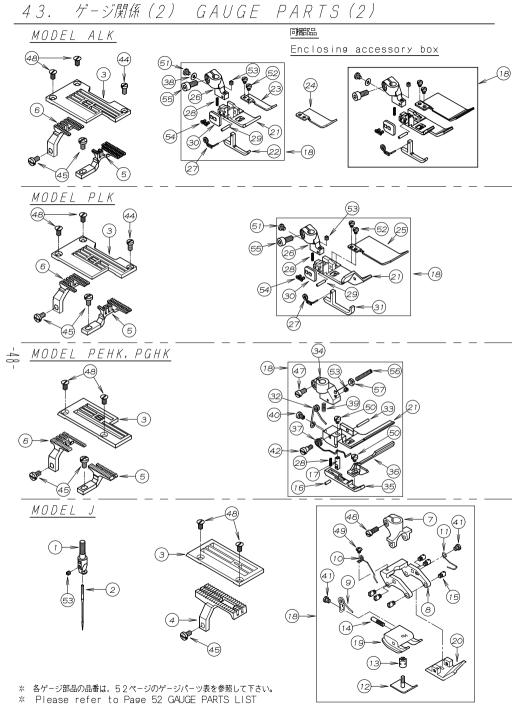


REF.NO. PART NO.	品名	DESCRIPTION	Q'TY
41-0101-102	フタ側スリーフ	SLEEVE	1
41-0201-103	連結板側スリーフ	SLEEVE	1
41-0301-116	前フ。-ラ-回り止め蓋	PLATE	1
41-0401-132	前プーラーローレット	PULLER	1
41-0501-134	前フ。-ラ-小ロ-ラ-	LOWER ROLLER	1 2 2 1
41-0601-136	前フ。-ラ-小ロ-ラ-取り付金具	ROLLER HOLDER	2
41-0701-138	前フ。-ラ-コ、ム案内金具	PIVOT SHAFT HOLDER	2
41-0801-141	前フ <sup>®</sup> -ラ-締め金具	RUBBER TIGHTENER	1
41-0901-143	小ロ-ラ-締め金具	ROLLER CONTROLER	1
41-1001-145	ワンタッチ レハ゜ー	LEVER	1
41-1101-147	レハ"-連結ヒ°ン	PIN	1
41-1201-153	前プーラー土台	BRACKET	1
41-1301-154	前プーラーカバー	COVER	1
41-1401-155	前プーラー台取付ガイド	GUIDE	1
41-1502-118	波ワッシャ	WASHER	2
41-1605-954	ロット"エント"	ROD	1
41-1723-341	フェルト	FELT	1
41-1827-168	前プーラー連結レバーカバー	COVER	1
41-1965-337	前プーラー連結棒	CONNECTING BAR	1
41-2066-131	連結片メカ゛ネ	CONNECTING LINK	1
41-2167-419	前プーラー連結レバー	LEVER	1
41-2267-533	連結レバー	LEVER	1
41-2371-227	テーハ゜ーヒ゜ン	PIN	1
41-2471-350	前フ゜-ラ-土台シャフト	SHAFT	1
41-2571-361	案内棒大	PIVOT SHAFT (LARGE)	2
41-2671-362	案内棒小	PIVOT SHAFT (SMALL)	1
41-2771-432	メカ <sup>™</sup> ネヒ°ン	FEED ROCKER LINK PIN	1
41-2875-446	ワッシャ	WASHER	1
41-2975-451	ワッシャ	WASHER	2 2 1
41-3075-468	ワッシャ	WASHER	2
41-3175-480	ワッシャ	WASHER	
<u>4 1 - 3 2 7 5 - 5 5 2</u> 4 1 - 3 3 7 9 - 1 7 1	<u> フッシャ</u>	WASHER	1
41-3479-912	圧縮ハ"ネ ハ"ネ	SPRING SPRING	1
41-3581-125	ブッシュ	BUSHING	1
41-3684-162	<u></u> ネシ"	SCREW	2 3
41-3784-314	ネシ"	SCREW	1
41-3884-365	ネシ"	SCREW	1
41-3984-396	キン   段ネシ <sup>"</sup>	SCREW	1
41-4086-701	<u>ナット</u>	NUT	1
41-4187-006	<u>リット</u> ロットエント"止ネシ"	SCREW	1
41-4287-129	<u>ロッドエンド エネン</u> 六角穴付きボルト	BOLT	2
41-4387-177	六角穴付きボルト	BOLT	2 2 6
41-4487-181	ネシ <sup>"</sup>	SCREW	6
41-4587-214	六角穴付きボルト	BOLT	1
41-4687-253	ネシ"	SCREW	1
41-4787-254	ネシ"	SCREW	1
41-4887-255	六角穴付きボルト	BOLT	1
41-4987-268	カハ"ーストッフ°ネシ"	SCREW	1
41-5087-287	六角穴付きボルト	BOLT	4
41-5187-456	調節ネシ"	SCREW	1
41-5288-161	ナット	NUT	1
41-5388-166	ナット	NUT	1
41-5488-456	ナット	NUT	1
41-5591-405	ワンウェイクラッチ	BEARING	2
41-5693-200	ストッフ゜リンク゛	E – R I N G	1



REF. NO.     PART NO.     品名     DESCRIPTION       42-01 %     針株     NEEDLE HOLDER       42-02 %     針株     NEEDLE HOLDER       42-03 13-0110-6 針 (UYX128GAS #11) NEEDLE     HOLDER       42-04 13-3020-5 針 (SM1014H #10S) NEEDLE	Q'TY 1 1 3 5
42-02 ※ 針株 NEEDLE HOLDER 42-0313-0110-6針(UYX128GAS #11)NEEDLE	
42-0313-0110-6針(UYX128GAS #11) NEEDLE	3
42-0413-3020-5\$# (SM1014H #10S) NEEDLE	-
	1 5
42-05 ※ 針板 NEEDLE PLATE	1
4 2 - 0 6 × 前送歯 FRONT FEED DOG	1
4 2 - 0 7 米 後送歯 REAR FEED DOG	1
42-08 ※ 押えセット PRESSER FOOT ASS'Y	1
42-09 × 押え足 BOTTOM	1
42-1017-7680-A押え足ホ"ス SHANK	1
4 2 - 1 1 1 7 - 7 6 8 0 - B 補助押え足 GUIDE	2
42-1217-7680-K 生地カ"イト" GUIDE	1
4 2 - 1 3 1 7 - 7 6 8 0 - L 生地カ イト GUIDE	1
42-14 17-8190-D 補助押え足ハ"ネ(左) SPRING(LEFT)	1
4 2 - 1 5 1 7 - 8 1 9 0 - E 補助押え足ハ"ネ(右) SPR I NG(R I G H T)	1
42-1617-8190-Fハ <sup>*</sup> ネ SPRING	1
42-1717-8190-G L <sup>e</sup> ン PIN	1
42-18 17-8190-Jカ イト フ <sup>°</sup> レート GUIDE PLATE	2
42-1917-8430-B押え爪 STITCH TONGUE	1
42-2018-805 針受 NEEDLE GUARD	1
42-21 18-806 針カ"イト" NEEDLE GUIDE	1
42-2219-525 N-N- LOOPER	1
42-2319-534	1
42-2475-228 ワッシャ WASHER	1
42-2584-374 ネシ" SCREW	2 2 5
42-2684-464 ネシ SCREW	2
42-2785-603 ネシ" SCREW	5
42-2885-616 ネシ" SCREW	1
42-2987-034 ネシ SCREW	1
42-3087-035 ネシ" SCREW	1
42-3187-083 ネシ SCREW	1
42-3287-104 ネシ SCREW	米
42-3387-107 ネシ SCREW	4
4 2 - 3 4 1 7 - 8 1 2 0 - E 補助押工足 GUIDE	1
42-3517-8120-F 布押え(幅狭) GUIDE PLATE(S)	1
42-3617-8190-A押え足ホ"ス SHANK	1
42-3775-441 ワッシャ WASHER	1
42-3887-093 ネシ SCREW	2
42-3987-113 六角穴付きボルト BOLT	1
<u>42-4017-9380-A</u> 押え足ホ <sup>®</sup> ス SHANK	1
42-41 <u>87-071 ネジ SCREW</u>	2
42-4288-136 ナット NUT	2
42-4318-831 針受け NEEDLE GUARD	1
42-4418-832 針カ"イト" NEEDLE GUIDE	1

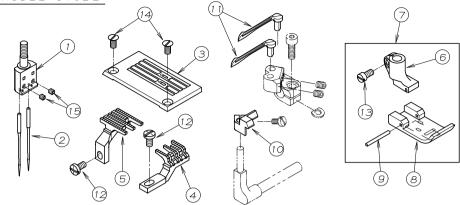
※ 各ゲージ部品の品番は、52ページのケ<sup>\*</sup>ーシ<sup>\*</sup>ハ<sup>°</sup>ーツ表を参照して下さい。
 ※ Please refer to Page 52 GAUGE PARTS LIST



REF.NO. PART NO.	品名	DESCRIPTION	Q'TY
4 3 - 0 1 *	針株	NEEDLE HOLDER	1
43-0213-1510-5		NEEDLE	1
43-03 *	針板	NEEDLE PLATE	1
43-0415-800	送歯	FEED DOG	1
43-05 *	前送歯	FRONT FEED DOG	1
43-06 *	後送歯	REAR FEED DOG	1
4 3 - 0 7 1 7 - 5 5 3 0 - A		SHANK	1
43-0817-5530-C		BOTTOM HOLDER	1
	押えカ"イト"足ハ"ネ	SPRING	1
43-1017-5530-F		SPRING	1
4 3 - 1 1 1 7 - 5 5 3 0 - G		SPRING	1
43-1217-5530-H		GUIDE	1
43-1317-5530-1	押えカ゛イト゛足調節ナット	NUT	1
43-1417-5530-J		SCREW	1
43-1517-5530-K	ネシ	SCREW	6
43-1617-7760-D	t°ン	PIN	1
43-1717-7760-F		GUIDE PIN	1
43-18 *	押えセット	PRESSER FOOT ASSEMBLY	1
43-1917-8000-A	押え足(後)	BOTTOM (REAR)	1
43-2017-8000-B	押え足(前)	BOTTOM (FRONT)	1
43-21 *	押工足	ВОТТОМ	1
43-2217-8120-E	補助押工足	GUIDE	1
43-2317-8120-F	布押え(幅狭)	GUIDE PLATE (S)	1
4 3 - 2 4 1 7 - 8 1 2 0 - G	布押え(幅広)	GUIDE PLATE(L)	1
4 3 - 2 5 1 7 - 8 1 4 0 - D		GUIDE PLATE	1
43-2617-8190-A	押え足ホ゛ス	SHANK	1
4 3 - 2 7 1 7 - 8 1 9 0 - D	補助押え足ハ"ネ(左)	SPRING (LEFT)	1
43-2817-8190-F		SPRING	1
43-2917-8190-G		PIN	1
	カ゛イト゛フ゜レート	GUIDE PLATE	1
4 3 - 3 1 1 7 - 8 2 2 0 - B	補助押え足	GUIDE	1
43-3217-8260-F		SPRING	1
4 3 - 3 3 1 7 - 8 2 6 0 - G	ヒ°ン	PIN	1
43-3417-8290-D		SHANK	1
4 3 - 3 5 1 7 - 9 2 9 0 - B		GUIDE	1
	コ゛ム当て定規	ELASTIC TAPE GUIDE	1
4 3 - 3 7 1 7 - 9 2 9 0 - D	カ゛イト゛足ハ゛ネ	SPRING	1
43-3875-441	ワッシャ	WASHER	1
43-3979-191	ハ゛ネ	SPRING	1
43-4084-161	ネシ	SCREW	1
43-4184-167	ネシ	SCREW	2
43-4284-171	段ネシ"	SCREW	1
43-4384-360	ネシ "	SCREW	1
43-4484-362	ネシ"	SCREW	1
43-4584-374	ネシ"	SCREW	1 - 2
43-4684-376	ネシ"	SCREW	1
43-4784-382	ネシ"	SCREW	1
43-4884-464	ネシ"	SCREW	2
43-4985-611	ネシ"	SCREW	1
43-5085-621	ネシ	SCREW	2
43-5187-083	ネシ"	SCREW	1
43-5287-093	ネシ"	SCREW	2 * 2
43-5387-104	ネシ	SCREW	*
43-5487-107	ネシ"	SCREW	2
43-5587-113	六角穴付きボルト	BOLT	1
43-5687-130	ネシ"	SCREW	1
43-5788-136	ナット	NUT	1

# 44. ゲージ関係(3) GAUGE PARTS(3)

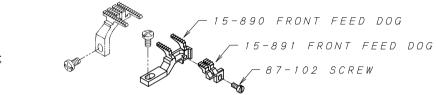
MODEL 9702L



REF.NO. PART NO.	品名	DESCRIPTION	Q'TY
44-0112-563	針株(1/4)	NEEDLE HOLDER	1
		NEEDLE	2
	針板(1/4)	NEEDLE HOLDER	1
	前送歯	FEED DOG FRONT	1
44-0515-770	後送歯	FEED DOG REAR	1
44-0617-4430-A	押えホ゛ス	SHANK	1
44-0717-5480-1	押えセット	PRESSER FOOT ASSEMBLY	1
44-08 17-5480-B	押え足テ-フ <sup>°</sup> 付け用(1/4)	ВОТТОМ	1
44-0917-5480-G	平行ヒ <sup>°</sup> ン	PIN	1
44-10 18-769	針受後	NEEDLE GUARD REAR	1
44-11 19-525	ルーパー	LOOPER	2
44-1284-374	ネシ"	SCREW	2
44-1384-382	ネシ	SCREW	1
	ネシ "	SCREW	2
44-1587-104	ネシ	SCREW	2

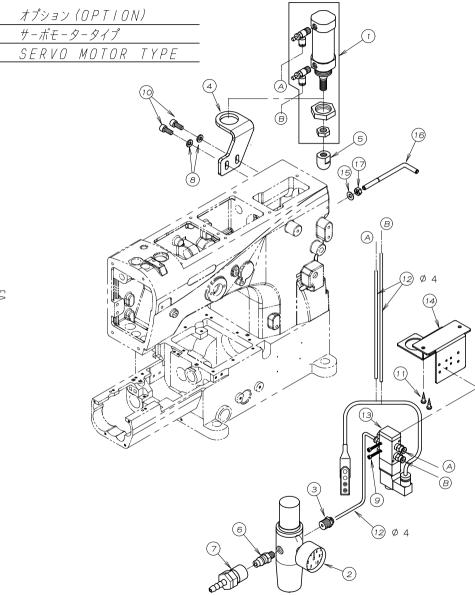
\* 各ゲージ部品の品番は、52ページのケ゛ーシ゛ハ°ーツ表を参照して下さい。 \* Please refer to Page 52 GAUGE PARTS LIST

OPTION PARTS FOR CC



# 45. 押え揚げ装置(エアー式)FL-8

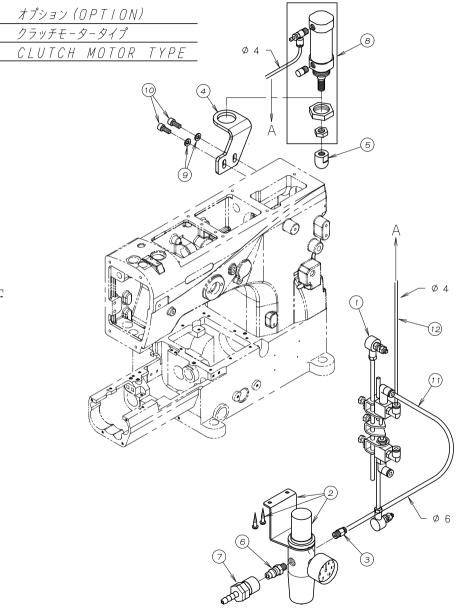
FOOT LIFTER MECHANISM (PNEUMATIC TYPE)FL-8



REF.NO.	PART NO.	品名	DESCRIPTION	Q'TY
45-01	00-6082	押え揚げシリンダーセット	AIR CYLINDER ASS'Y	1
45-02	05-2120-A	フィルタレギュレータ	REGULATOR	1
45-03	05-217	レギュレーター用継手	JOINT	1
45-04	77-032	押え揚げシリンダーブラケット	BRACKET	1
45-05	05-897	シリンダー作動チップ	CHIP	1
45-06	06-516	カプラメス	CONNECTOR	1
45-07	06-517	カプラオス	CONNECTOR	1
45-08	75-552	ワッシャ	WASHER	2
45-09	87-438	六角穴付ボルト	SCREW	2
45-10	87-171	六角穴付ボルト	SCREW	2
45-11	87-902	木ネジ	SCREW	2
45-12	05-979	チューブダ4x700mm	TUBE (Ø4x700L)	3
45-13	05-982	電磁弁セット	SOLENOID VALVE ASS'Y	1
45-14	05-644	電磁弁取付板	BRACKET	1
45-15	75-452	ワッシャ	WASHER	1
45-16	05-292	ポジショナーバー	BAR	1
45-17	88-166	ナット	NUT	1

# 46. 押え揚げ装置(エアー式)FL-9

FOOT LIFTER MECHANISM (PNEUMATIC TYPE)FL-9



REF.NO.	PART NO.	品名	DESCRIPTION	Q'TY
46-01	00-8040	吸込み押え揚げ用バルブセット	TREADLE AIR SWITCH ASS'Y	1
46-02	05-212	フィルタレギュレータ	REGULATOR	1
46-03	05-218	レギュレーター用継手	JOINT	1
46-04	77-032	押え揚げシリンダーブラケット	BRACKET	1
46-05	05-897	シリンダー作動チップ	СНІР	1
46-06	06-516	カプラメス	CONNECTOR	1
46-07	06-517	カプラオス	CONNECTOR	1
46-08	00-6130	押え揚げシリンダーセット	AIR CYLINDER ASS'Y	1
46-09	75-552	ワッシャ	WASHER	2
46-10	87-171	六角穴付ボルト	SCREW	2
46-11	05-486	チューブダ6x1000mm	TUBE (Ø6×1000mm)	1
46-12	05-932	チューブダ4 x 1 5 0 0 m m	TUBE (Ø4x1500mm)	1

<u>47. ゲージパーツ表 GAUGE PARTS LIST</u>

機種 MODEL	タイプ TYPE	針数 NEEDLE	ゲージ GAUGE	針株 NEEDLE HOLDER	押え組 PRESSER FOOT ASS'Y	後送り歯 FEED DOG (REAR)	前送り歯 FEED DOG (FRONT)	針板 NEEDLE PLATE Standard	ルーパー LOOPER	上飾り ルーパー SPREADER	針受(後) NEEDLE GUARD (REAR)	針ガイド(前) NEEDLE GUARD (FRONT)	
	СС		7/32	12-0260-1	17-9380-1	15-881 ★15-861	15-880 ★15-862	14-871 <b>★</b> 14-846					
			1/4	12-0270-1	17-9390-1	15-881 ★15-861	15-880 ★15-862	14-880					
	Δ		7/32	12-0260-1	17-8120-1	15-881	15-880						
	A		1⁄4	12-0270-1	17-8130-1	15-881	15-880	14-880					
	Р		7/32	12-0260-1	17-9380-1	15-881	15-880	14-871	19-525	19-751 (None	18-805	18-806	
	PE 3 RLK		1/4	12-0270-1	17-9390-1	15-881	15-880	14-880		UT) 19-505			
		3	7/32	12-0260-1	17-8120-1 ★17-9360-1	15-854	15-784 -	14-781	_	(UT)			
NR			1/4	12-0270-1	17-8130-1 ★17-9370-1			14-782					
			7/32	12-0260-1	17-8150-1			14-812					
	PLK		1/4	12-0270-1	17-8160-1		15-853	14-813					
	РЕНК		7/32	12-0260-1	17-9290-1			14-929					
	PGHK		1/4	12-0270-1	17-9300-1	15-869	15-868	14-930					
		4	6 m m	12-8480-1	17-7120-1	1 - 000	1 - 0 0 0	14-712	10 504				
	D	4	6.4mm	12-8490-1	17-8430-1	15-883	15-882	14-849	19-534				
	J	1		12-8770-1	17-8000-1	15-	800	14-800	19-580				
	PMD	3	7/32 1/4	12-0260-1 12-0270-1	17-8120-1 17-8130-1	15-856 15-858		14-890 14-891	19-525	19-751			

※★同梱部品です。 ★ Enclosing accessory box

\* その他、特殊ステッチ対応針板品番は,53ページのゲージパーツ表を参照して下さい。 \* Please refer to Page 53 GAUGE PARTS LIST for special needle plate.

# 48. 特注針板パーツ表 EXTRA NEEDLE PLATE PARTS LIST

機種	タイプ	針数	ゲージ	標準 Standard				かまぼこ防止用Kタイプ For soft stitch formation			
MODEL	F				針 板 NEEDLE PLATE	針 板 NEEDLE PLATE	針 板 NEEDLE PLATE	針 板 NEEDLE PLATE	ルーパー台 LOOPER HOLDER	ルーパー台 LOOPER HOLDER	
		7/32	14-871	14-871L	14-871S	14-871U	14-871K				
NR	PE	)	1/4	14-880	14-880L	14-880S	14-880U	14-880K	19-533	19-558	
		0	7/32	14-812	14-812L	14-8125		14-812K	(None UT)	(UT)	
	PLK	3	1⁄4	14-813	14-813L	14-8135		14-813K			

# ※ ルーパー台の組み合わせは、8ページを参照して下さい。

\* Please refer to Page 8 for Looper holder assembly.

特注パーツ EXTRA PARTS

針棒ストローク STROKE	ゲージ GAUGE	針高さ, ルーパーゲージ NEEDLE&LOOPER SETTING GAUGE	左針 Left needle
31mm	7/32 1/4	16-8221	$\begin{array}{c ccccccccccccccccccccccccccccccccccc$
33mm	7/32	16-8222	ルーパー引量 Looper setting
	1/4		distance

# INDEX 1

REF. PART NO.	REF. PART NO.	REF. PART NO.	REF. PART NO.	REF. PART NO.	REF. PART NO.	REF. PART NO.	REF. PART NO.	REF. PART NO.	REF. PART NO.	REF. PART NO.	REF. PART NO.
NO. 品 番	NO. 品 番	NO. 品 番	NO. 品 番	NO. 品 番	NO. 品 番	NO. 品 番	NO. 品 番	NO. 品 番	NO. 品 番	NO. 品 番	NO. 品 番
18-02 00-2008	01-01 02-119	20-18 05-067	01-02 05-292	27-13 05-932	24-15 06-602	38-09 07-594W	34-08 09-541	42-13 17-7680-L	01-39 20-0008	32-13 23-425	33-15 25-527
18-01 00-3282	40-01 02-119	20-19 05-068	45-16 05-292	37-43 05-932	25-27 06-602	38-10 07-595	34-40 09-543	43-16 17-7760-D	30-13 20-0010	01-06 23-427	31-04 26-556
19-01 00-4280	18-07 02-123	26-22 05-202	21-19 05-294	46-12 05-932	24-16 06-603	38-11 07-596	34-41 09-544	43-17 17-7760-F	29-23 20-0040	01-07 23-501	31-05 26-557
19-02 00-4283	19-07 02-124	34-13 05-202	22-11 05-294	27-14 05-938	25-28 06-603	38-12 07-597	35-15 09-553	43-19 17-8000-A	40-02 20-6020	01-08 23-504	31-06 26-558
34-25 00-6068	18-08 02-136	21-03 05-205	14-01 05-404	37-44 05-938	24-17 06-604	38-13 07-599	35-16 09-603	43-20 17-8000-B	30-38 20-6200	15-03 23-506	32-15 26-564
27-02 00-6082	19-08 02-138	27-04 05-207	24-13 05-481	27-15 05-939	25-29 06-604	38-14 07-610	39-14 09-607	42-34 17-8120-E	29-08 21-025	15-04 23-508	33-04 26-565
45-01 00-6082	18-09 02-158 19-17 02-159	27-07 05-212 30-05 05-212	37-04 05-481 21-43 05-482	37-45 05-939 41-16 05-954	24-18 06-605	38-15 07-611 38-16 07-612	39-15 09-608 39-16 09-610	43-22 17-8120-E 42-35 17-8120-F	29-09 21-026 29-01 21-027	29-02 23-509 02-16 23-510	34-39 26-566 33-01 26-567
21-39 00-6083 21-16 00-6114	19-17 02-159	46-02 05-212		41-16 05-954 23-03 05-955	25-30 06-605 24-19 06-608	38-16 07-612 38-17 07-613	39-16 09-610 39-17 09-611	42-35 17-8120-F 43-23 17-8120-F	29-01 21-027 36-13 21-232		33-01 26-568
22-30 00-6115	18-11 02-176	27-17 05-2120-A	30-10 05-482 21-42 05-484	23-03 05-955	25-31 06-608	38-18 07-614	39-18 09-612	43-24 17-8120-F	37-17 21-232	10-03 23-511 02-17 23-512	34-28 26-569
27-03 00-6118	18-12 02-178	30-34 05-2120-A	46-11 05-486	23-05 05-957	24-20 06-630	38-19 07-615	39-19 09-613	43-25 17-8140-D	36-15 21-244	24-21 23-512	33-24 26-570
30-01 00-6118	17-07 02-216	45-02 05-2120 A	26-25 05-493	14-03 05-958	25-32 06-630	38-20 07-616W	35-17 09-614	42-36 17-8190-A	02-04 21-610W	25-34 23-512	34-45 26-570
37-01 00-6118	17-12 02-217	27-18 05-2120-B	26-24 05-495	23-06 05-958	21-36 06-927	38-21 07-617	35-18 09-615	43-26 17-8190-A	29-19 21-629W	38-24 23-512	34-23 26-571
21-44 00-6121	17-22 02-219	30-35 05-2120-B	37-05 05-559	23-07 05-961	22-27 06-928	39-12 07-619	35-19 09-616	42-14 17-8190-D	15-01 21-632W	02-18 23-513	33-07 26-572
21-51 00-6123	17-33 02-220W	27-08 05-214	26-23 05-640	23-32 05-962	24-34 06-928	39-13 07-620	35-20 09-617	43-27 17-8190-D	02-05 21-640	07-09 23-515	33-33 26-573
46-08 00-6130	17-01 02-225W	30-06 05-215	45-14 05-644	23-33 05-963	25-33 06-928	32-10 07-642	35-21 09-618	42-15 17-8190-E	02-06 21-642W	02-19 23-528	40-03 26-606
21-50 00-6140	19-09 02-228	27-09 05-217	21-02 05-646	37-51 05-966	33-38 06-935	36-01 09-015	35-22 09-619	42-16 17-8190-F	02-07 21-643	08-47 23-531	40-04 26-608
30-03 00-8014	19-10 02-245	30-07 05-217	21-14 05-647	37-06 05-969	16-01 07-008	37-09 09-015	35-23 09-620	43-28 17-8190-F	02-08 21-644	08-51 23-535	40-05 26-609
30-04 00-8018	19-11 02-246	45-03 05-217	21-45 05-648	45-12 05-979	33-27 07-009	36-02 09-016	35-24 09-727	42-17 17-8190-G	02-09 21-646W	36-17 23-535	40-06 26-610
27-20 00-8028	19-12 02-247	27-10 05-218	20-20 05-658	45-13 05-982	34-47 07-009	36-03 09-017	19-18 09-917	43-29 17-8190-G	02-10 21-670	01-09 23-538	02-94 26-712
20-01 00-8031	18-13 02-250	46-03 05-218	20-22 05-794	11-01 06-238	33-26 07-010	36-04 09-018	19-19 09-919	42-18 17-8190-J	02-11 21-678W	32-14 23-540	40-07 26-751
26-26 00-8036	18-14 02-252W	21-11 05-220	20-23 05-799	06-01 06-239	34-48 07-010	36-05 09-019	19-20 09-923	43-30 17-8190-J	02-12 21-679	17-36 23-541	40-08 26-752
30-39 00-8036	19-13 02-252W	21-46 05-221	20-21 05-812	26-29 06-282	33-28 07-011	36-06 09-020	19-21 09-984	43-31 17-8220-B	18-21 21-715	17-34 23-542	40-09 26-753
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16-13 35-318	04-10 41-518	03-12 45-551	06-12 60-5020	08-25 69-511	07-16 71-539	13-11 75-452	29-06 75-527	22-22 79-540	08-02 84-155	18-43 84-521	17-14 86-311
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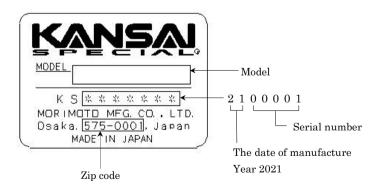
# **NR** Series Instruction Manual

## <u>INTRODUCTION</u>

Thank you for your purchasing Kansai Special's NR Series. Read and study this instruction manual carefully before beginning any of the procedures and save it for later use.

- 1. This instruction manual describes adjustments and maintenance procedures on this machine.
- 2. Before starting the machine, check to make sure the pulley cover, safety cover, etc. are secured.
- 3. Before adjusting, cleaning, threading the machine or replacing the needle, be sure to turn off the power.
- 4. Never start the machine with no oil in the reservoir.
- Refer to the parts list as well as this instruction manual before maintenance. If the machine includes a thread trimmer, read and study the instruction manual for the thread trimmer carefully.
- 6. The contents described in this instruction manual are subject to change without notice.

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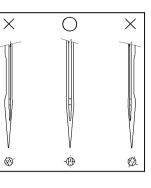
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## [1] NEEDLES & THREADING

#### 1-1 Needles

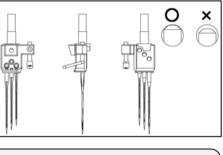
UY128GAS of Schmetz, Organ or Groz-Beckert. Select the proper needle for the fabric and thread.

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Organ UY128GAS	#09	#10	#11	#12	#14	1
Schmetz UY128GAS	Nm65	Nm70	Nm75	Nm80	Nm90	
Groz UY128GAS	Nm65	Nm70	Nm75	Nm80	Nm90	



#### 1-2 Replacing the needle

To replace the needle, check the needle carefully to see that the scarf is turned to the rear of the machine (see the illustration). Then install the needle correctly.



#### <Note>

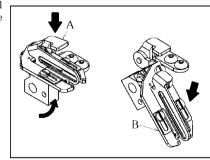
Before replacing the needle, be sure to turn off the machine. A clutch motor continues running for a while after the machine is turned off. Therefore keep on pressing the pedal until the machine stops.

#### 1-3 Threading to the looper thread support plate

Press lever A and support plate B will spring up. After threading, return it to the original position by pressing B.

<Note>

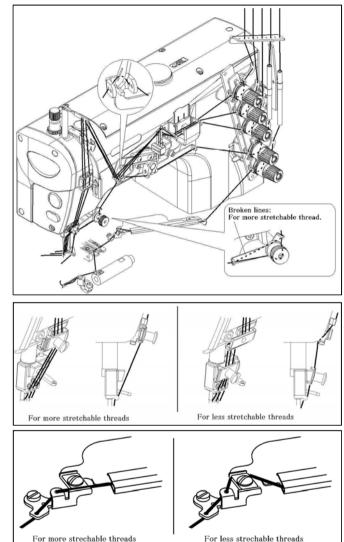
Be sure to return the support plate B correctly when the machine is starting.



#### 1-4 Threading

Thread the machine correctly by referring to the illustration below.

Threading the machine incorrectly may cause skip stitching, thread breakage and/or uneven stitch formation. Thread tension should be changed according to various kinds of conditions such as the thread to be used and/or the feeding amount (see Chapter 10 for "Stitch formation").



 $\mathbf{2}$ 

# [2] MACHINE SPEED

## 2-1 Machine speed & operating direction

Refer to the table below for maximum and standard speeds of the Series. To extend machine life, run the machine approximately  $15\sim20\%$  below the maximum speed for the first 200 hours of operation (approx. 1 month). Then run the machine at the standard speed.

The machine pulley turns clockwise as the handwheel does as seen from the machine pulley

## 2-2 Motor & belt

Motor : 3-phase, 2-pole, 400W clutch motor

Belt : M type V belt

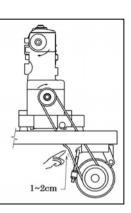
Select the proper motor pulley according to the machine speed (refer to the motor pulley outer diameter on the table below). Adjust where to position the motor by pressing the finger onto the middle of the belt so that  $1\sim2cm$  deflection can be achieved (see the illustration on the right)

#### < Machine speed >

· machine oper	Ju	
TYPE	MAXIMUM SPEED	STANDARD SPEED
NR9803	6,000rpm	5,500rpm
NR9803ALK	5,500rpm	5,000rpm
NR9803PLK	4,800rpm	4,300rpm
NR9803PHK	4,800rpm	4,300rpm

#### < Motor pulley selection table >

Motor pulley outer diameter (mm)	Machine speed (rpm)		
	50 Hz	60 Hz	
80	3,500	4,200	
90	4,000	4,800	
100	4,400	5,300	
110	4,900	5,800	
120	5,300	6,300	
130	5,700		
140	6,200		



NR25

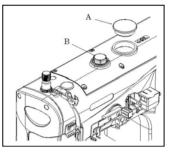
# [3] LUBRICATION

## 3-1 Oil

Use Kansai Special's genuine oil. (Part No. 28-618 :700cc)

#### 3-2 Oiling

To fill the machine with oil Remove rubber plug A from the oil hole. Fill the machine with oil until the oil level is at the top line (see H in the illustration) on oil gauge C. After the first lubrication, add oil so that the oil level will be between H and L.



#### ■ To check for proper oil flow

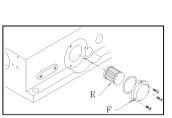
After filling the machine with oil, run the machine to check the oil is splashing to oil flow sight window B.

#### 3-3 Replacing the oil and the oil element

To extend machine life, be sure to replace the oil after the first 250 hours of operation.

- To replace the oil, follow the procedures below.
   Remove the V belt from the motor pulley and then remove the machine from the table.
- 2. Remove screw D and then drain the oil. Be careful not to stain V belt with the oil.
- 3. After draining the oil, be sure to tighten screw D.
- 4. Fill the machine with oil by referring to 3-2 shown above.

If element E is contaminated, proper oiling may not be performed. Clean the filter element every six months. If just a little or no oil flows out from the nozzle with the proper amount of oil in the machine, check the element. To do so, remove oil filter cap F.



D

Replace the element if necessary.

#### <Note>

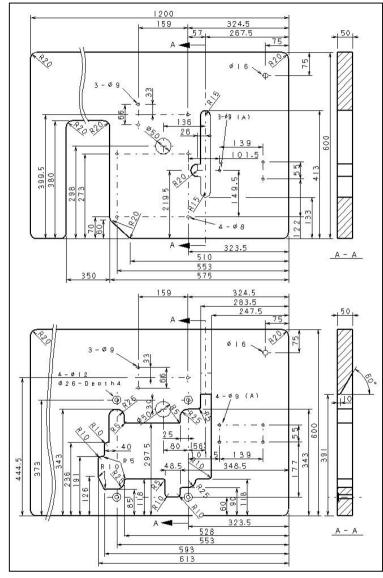
When the oil filter cap is removed, the oil collected on the element drips. Be careful.

4

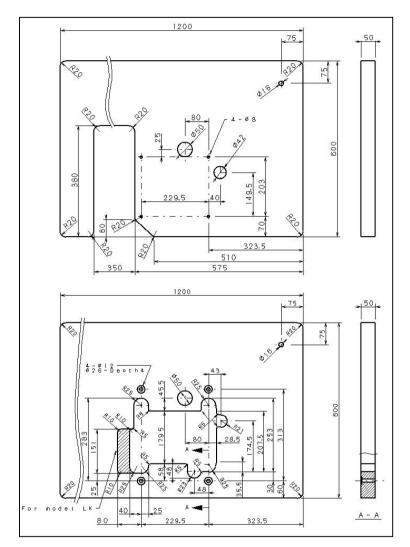
# [4] SEWING MACHINE INSTALLATION

## 4-1 Cutting the machine table

■Hole A shown below is for installing the electric presser foot lift (for model P/UTE)



# ■ For the Direct-Drive machine



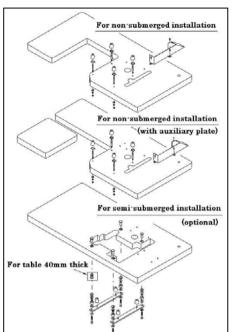
#### 4-2 Installing the machine

The NR Series is available in two kinds of installations, non-submerged and semi-submerged.

#### ■Non-submerged installation

Install the machine correctly by referring to the illustration. Install the bolts and nuts to the machine table.

Fit the rubber cushions onto the bolts. Then mount the machine properly onto the rubber cushions.



#### ■Semi-submerged installation

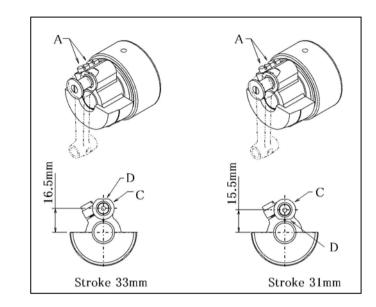
Install the machine correctly by referring to the illustration. Secure the oil reservoir installation brackets to the machine table with screws. Fit the rubber cushions onto the screws.

Then mount the machine properly onto the rubber cushions.

## [5] TIMING OF THE LOOPER TO THE NEEDLES

#### 5-1 Changing the needle bar stroke

Loosen screws A and turn needle bar link C. To change the needle bar stroke, bring flat surface D to the top or bottom. When the needle bar and flat surface D come to the highest position, the stroke of needle bar stroke is set to 33mm. At the time of shipment of the machine, needle bar stroke is 31mm.



#### <Note>

Before changing the needle bar stroke, be sure to turn off the power.

After the needle bar stroke adjustment, make sure that retighten the two screws A securely.

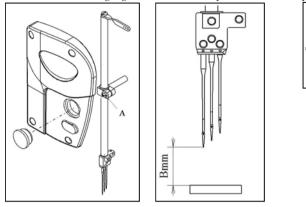
When the needle bar stroke changing, check to make sure the timing of the needle and looper. (See chapter 5)

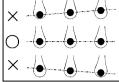


8

## 5-2 Adjusting the needle height

When the needle bar is at the bottom of its stroke, remove the plug on the head cover, loosen screw A, and move the needle bar up or down. Setting distance B varies according to the needle stroke or gauge size for further adjustment. (See chapter 5-4)

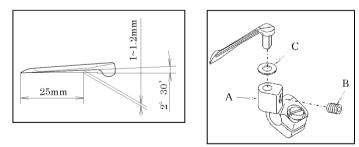




< Note > After the above adjustment, check to make sure each needle drops into the center of each needle hole.

#### 5-3 Angle and height for installing the looper

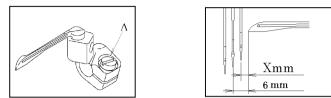
To obtain the proper angle and height, insert the looper fully into looper holder A and then tighten screw B. The proper angle for the looper is  $2^{\circ}$  30'. Distance at 25mm from the point of the looper between the bottom of the looper blade and the extension line from the point of the looper : Approximately 1.1mm.



< Note > There is no need for washer C with UT series.

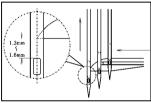
#### 5-4 Looper setting distance

When the looper is at its farthest position to the right, looper setting distance is the fundamental distance from the point of the looper to the center of the needle should be 6mm. Also, setting distance X varies according to the needle stroke or gauge size for further adjustment. (See the table below)



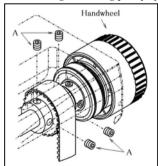
Needle stroke	Needle height (Bmm)			Looper setting distance (Xmm)	
gauge (mm)	None UT	UT	None UT	UT	31/33
(inch)	31 (STANDARD)		NDARD) 33		31/33
3.2 (1/8)	$9.1 \pm 0.2$	$8.6 {\pm} 0.2$	$10.2 {\pm} 0.2$	$9.7 {\pm} 0.2$	4.4
4.0 (5/32)	$8.7 \pm 0.2$	$8.2 {\pm} 0.2$	$9.8 \pm 0.2$	$9.3 \pm 0.2$	4.0
4.8 (3/16)	$8.3 \pm 0.2$	$7.8 {\pm} 0.2$	$9.4 \pm 0.2$	$8.9 {\pm} 0.2$	3.6
5.6 (7/32)	$7.9 {\pm} 0.2$	$7.4 {\pm} 0.2$	$9.0 \pm 0.2$	$8.5 {\pm} 0.2$	3.2
6.4 (1/4)	$7.5 \pm 0.2$	$7.0 \pm 0.2$	$8.6 \pm 0.2$	$8.1 \pm 0.2$	2.8

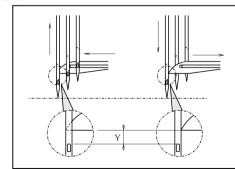
The point of the looper should pass the center of the left needle and  $1.3{\sim}1.6{\rm mm}$  above the top of its needle's eye when the looper moves to left on the back side of the left needle .



## 5-5 Needle/looper front-to-back relationship

When the point of the looper moves to the left needle should be same distance Y from the top of its needle's eye to the point of the looper by referring to the illustration below. To adjust the timing of the looper to the needles, remove the machine cover, loosen screws A on the timing pulley (upper), and shift the timing pulley (upper) by turning the handwheel while holding the timing pulley by hand.



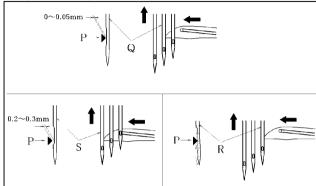




## $5\mathchar`-6$ Adjusting the needle/looper setting distance

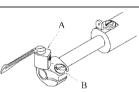
The looper set the clearance between back side of the center needle Q and the point of the looper at  $0\sim0.05$ mm. To make this adjustment, loosen screw B on the looper holder first. At this time the looper should barely touch the right needle R. And the point of the looper at this position, set the clearance between the left needle S at approximately  $0.2\sim0.3$ mm.

If you can not make this adjustment, please change the looper's orbit.(See below chapter) Then see chapter 6-1 for right needle adjustment.

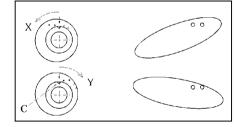


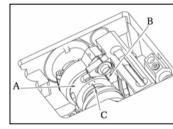
#### <Note >

When adjusting the looper holder front or back, be careful not to change the looper setting distance and don't touch the needle guard (rear) and needle.



To change the looper's orbit, loosen screw B on eccentric A and shift the timing mark C by moving eccentric A front or back by referring to the illustration below.



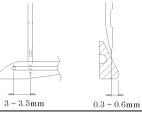


#### <Note>

When the timing mark moves to the direction of X unnecessary, the clearance between the point of the looper and the left needle when the looper moves to the left decreases. Cause of occur triangle skip stitch, and improper chaining off. When the timing mark moves to the direction of Y unnecessary, the clearance between the point of the looper and the left needle when the looper moves to the left increases. Cause of occur needle loop skip stitch, and easy to break the tip of the needle.

## 5-7 Changing the amount of the looper front-to-back movement

The clearance between the point of the left needle and the back side of the looper when the looper moves to the right from the extreme left end of its travel should be  $0.3\sim0.6$ mm (The needle is pressed to the back). The distance between the point of the left needle and the center of the looper's eye on the back side of the looper should be  $3\sim3.5$ mm.

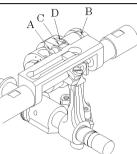


The amount of the looper front-to-back movement is factory-set properly for needle count #11 (Nm75).

If you use needle counts Nm80~90, adjust the amount as required.

Remove the inside cover.Loosen nut B while holding screw A for the looper front-to-back adjusting pin with a screwdriver.

Then move the front-to-back rod front or back. To increase the amount, move alignment mark D on the front-to-back rod to the front from mark C on the looper bar guide. To decrease the amount, move mark D to the back. Adjust according to the needle count.



#### <Note>

After the above adjustment, check to make sure the chapter 5-6.

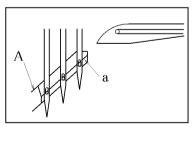
#### <Note>

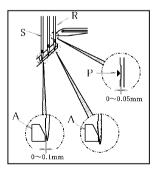
When the amount of the looper adjusting decrease more than necessary, easy to break the tip of the needle. When the amount of the looper adjusting increase more than necessary, cause of occur triangle skip stitch,

#### [6] FRONT AND REAR NEEDLE GUARDS

#### 6-1 Position of the needle guard (rear)

- ■Align line a with the center of needle's hole when the needle is at the bottom of the stroke.
- Following the 5-6section, when the point of the looper has reached the center of the right needle(R), the clearance between the needle and the looper should be 0~0.05mm. Loosen screw B and move the needle guard (A) slightly to the front. Then the clearance between the left needle(S) and the needle guard (A) should be 0~0.1mm.



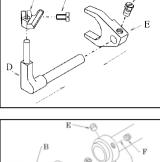




- To adjust the needle guard (A) front to back, loosen screws C. The vertical adjustment, and angle adjustment by loosen screw B correctly.
- To readjust the timing of the needle guard (rear) movement, loosen screws E and F and move eccentric D. Align the alignment mark on the shaft with the center of screw F which turns afterward in the operating direction.

#### <Note>

Retighten the screws while checking there is no left-to-right shake on the needle guard (A).

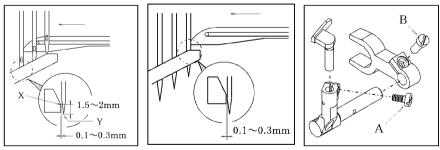


Alignment mark

#### 6-2 Position of the needle guard (front)

When looper has reached at the center of left needle. The position of needle guard (front)'s height should be 1.5~2mm from the tip of left needle Y to the line of needle guard X.

When looper has reached at the center of the right needle. The clearance between the needle guard and needles should be  $0.1\sim0.3$ mm. Also, when looper has reached at the center of the left needle. The clearance between the needle guard and needles should be  $0.1\sim0.3$ mm.



■ To adjust the needle guard front to back, loosen screws B. The vertical adjustment, and angle adjustment, by loosen screw A correctly.

## <Note>

Retighten the screws while checking there is no left-to-right shake on the needle guard (front).

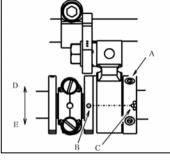
# [7] SPREADER

#### 7-1 Timing of the spreader

Adjust according to the thread to be used or other conditions. To make this adjustment, remove the top arm cover and loosen two screws for looper eccentric A on the upper shaft. Then shift alignment mark C front or back while referring to alignment mark B.

To advance the timing of the spreader to the needle, shift mark C in the direction of D.

To delay the timing of the spreader to the needle, shift mark C in the direction of E.



## 7-2 Position of the spreader

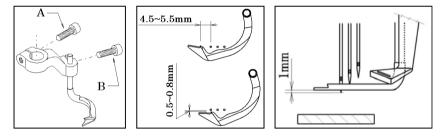
## Height

The distance from the point of the left needle to the bottom surface of the spreader should be 1mm.

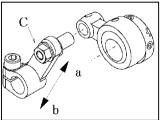
■ Left-to-right position

When the spreader is at the extreme left end of its travel, the distance from the center of the left needle to the point of the thread carrying notch should be  $4.5 \sim 5.5$  mm.

When the spreader passes the left needle, the clearance between the point of the thread carrying notch and the left needle should be  $0.5\sim0.8$ mm. To make the above adjustment, loosen screws A and B.



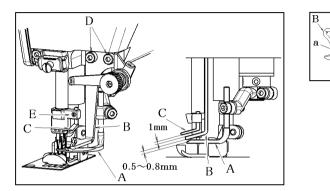
■Adjust *V* n according to the number of spreader threads and/or the fabric weight. To make this adjustment, remove the arm top cover, loosen nut C and then move the adjusting lever pin in direction (a) or (b). To decrease the amount, move the pin in the direction of (a). To increase the amount, move the pin in the direction of (b).





# 7-3 Position of the spreader thread guide

The clearance between spreader thread guide B and spreader A should be 0.5~0.8mm. When the spreader is at the extreme right end of its travel, point (a) of the spreader thread carrying notch should be aligned with the centerline of the slot of spreader thread guide B. When the needle bar is at the bottom of its stroke, the clearance between the spreader thread guide and spreader thread guide C should be 1mm and the eyelet of spreader thread guide C should be approximately 0.5mm left to the center line of the slot of spreader thread guide B. To make this adjustment, loosen two screws D and screw E and move each thread guide up or down, left or right, or front or back as required.



## [8] FEED DOGS & STITCH LENGTH

#### 8-1 Feed dog height & tilt

#### ■Height

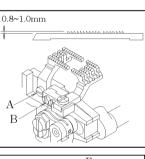
When the feed dogs are at the top of their stroke, the feed dog teeth should be parallel with and  $0.8\sim1.0$  mm above the top surface of the needle plate.

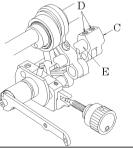
To make this adjustment, loosen screws A and B and move the main (back) and differential (front) feed dogs up or down.

#### ∎Tilt

When the feed dogs are at their top of their stroke, the feed dogs should be parallel with the top surface of the needle plate. To make this adjustment, loosen screws D and move shaft E.

■When using thick materials or stretchable materials, the front of the feed dog teeth tilt slightly become up. When using thick materials or stretchable materials, the front of the feed dog teeth tilt upward slightly. The top of the feed dog teeth should be parallel with above the top surface of the needle plate.





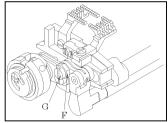
## 8-2 Front-to-back position of the feed dogs

## ■ Maximum feed dog movement

- < Amount of the front feed: 4.0 mm >
- < Amount of the back feed: 3.6mm >

Center the feed dogs in the needle plate so that they do not touch the needle plate.

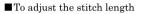
To make a fine front-to-back adjustment on the differential (front) feed dog, tighten screw G on front-to-back adjusting eccentric F and turn the eccentric.



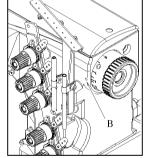
## 8-3 Adjusting stitch length

The stitch length is adjustable from  $1.4\sim3.6$  mm. The following table shows the number of stitches within 1 inch (25.4 mm) or 30 mm according to the stitch length.

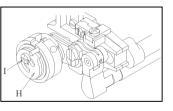
Stitch	No. of stitches	No. of stitches
length (mm)	(within 1-inch)	(within 30mm)
3.6	7.0	8.0
2.4	10.5	12.5
1.4	18.0	21.0



- 1. Press push button A lightly until its end touches the inside part and clicks.
- Turn handwheel by hand while pressing the push button lightly until the push button goes further into the depth.
- 3. Then press down the push button strongly again while turning handwheel as required.
- 4. Align the desired stitch length with alignment mark B and release the push button.



■ Max. feeding amount for the NR Series: 4.5mm To obtain a max. feeding amount of 4.5mm, loosen screw I on stopper H to release stopper H. Adjust while check to make sure the feed dogs do not touch the needle plate.



<Note>

Before adjusting the stitch length, be sure to turn off the power.



## 8-4 Differential feed

The NR Series is equipped with independently driven main (back) and differential (front) feed dogs. Adjust the feeding amount of the differential (front) feed dog by positioning differential feed adjusting lever B or turning adjusting knob A.

The normal and reverse differential feeds can be obtained as required.

- Feeding amount of the differential (front) feed dog The readings indicate the feeding amount of the differential (front) feed dog. Loosen nut C. Set differential (front) feed adjusting lever B as required at 1.0~4.0mm or adjust by turning adjusting knob A.
- If you use differential feed lever, secure lever B as required with nut C within the range from the reading which differential feed lever B read when knob A is turned to stopper D.
- If you change the feeding amount of the differential feed dog during sewing, connect a chain to differential feed lever B.

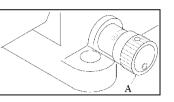
Each of the front (differential) and back (main) feed dog drives independently.

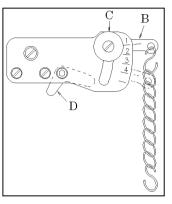
Therefore if you change the feeding amount of the back (main) feed dog (stitch length), the differential feed ratio will be changed. Readjust the differential feed ratio.

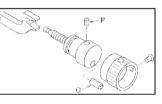
## <u>< Differential feed ratio ></u>

Dinoronniai roba ratio				
Stitch	Max. normal	Max. reverse		
length (mm)	diff. Feed	diff. Feed		
3.6	1:1.1	1:0.3		
2.5	1:1.6	1:0.4		
2.0	1:2	1:0.5		
1.4	1:2.9	1:0.7		

■On the NR Series the feeding amount can be changed mechanically up to 4.5mm. To obtain 4.5mm, loosen screw F and move stop pin G to release the stopping position. If you change to the maximum feeding amount, adjust the feed dogs front to back while checking to make sure the feed dogs do not touch the needle plate.





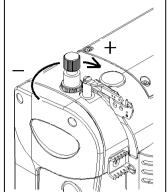


## [9] PRESSER FOOT

#### 9-1 Adjusting presser foot pressure

The presser foot pressure should be as light as possible, yet be sufficient to feed the fabric and produce uniform stitches.

To increase the presser foot pressure, turn the adjusting knob clockwise.



#### 9-2 Position of the presser foot & foot lift

Fit the presser foot onto the presser bar so that the needle can drop correctly to the center of the presser foot needle drop hole.

#### $\blacksquare$ Position of the presser foot

Loosen screw A. Adjust by moving the presser foot left or right while checking to make sure the needle drops correctly to the center of the presser foot needle drop hole.

#### ■ Foot lift

For machines with the spreader, the presser foot should be 6mm above the top surface of the needle plate. Check to make sure presser foot does not touch the spreader with the presser foot in the above position. For machines without the spreader, the presser foot should be 8mm above the top surface of the needle plate.

Set stopper B at the required position. Fasten the presser foot lift lever with nut C so that the lever cannot be lowered.

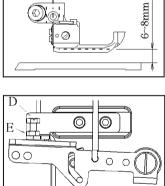
#### 9-3 Adjusting the float-foot

When the adjusting screw D is turned clockwise or counterclockwise, the presser bar lifting lever is pressed down to lift the presser foot.

Adjusting the height of the float-foot according to the sewing condition.

#### <Note>

In case of the float-foot is not used, use the sewing machine with the screw E moves to top.



0

Needle drop



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# [10] STITCH FORMATION

## 10-1 Position of the needle thread guides

The distance from the center of the eyelet of the needle thread guide to that of the set screw should be approximately 17.5mm (see the illustration).

Adjust the height of the thread guides by loosening screws A and moving each thread guide up or down (refer to the mark shown in the illustration).

If the stitch formation cannot be changed extremely by adjusting the height of the thread guides because of the thread to be used, unravel the thread after test sewing and adjust the height of the thread guides while checking the tension of the needle thread.

## 10-2 Position of the thread guide on the needle thread take-up

When the needle bar is at the bottom of its stroke, needle thread take up bracket A should be level and refer to the mark shown in the right figure the position of the thread guide of needle thread take up B. To make this adjustment, loosen screws C and D.

To tighten the needle thread, move needle thread take-up to Y. To loosen the needle thread, move needle thread take-up to X.

## 10-3 Timing of the needle thread take-up

The timing of the needle thread take-up in relation to the up-and-down movement of the needles can be adjusted. This timing is factory-set to synchronize with the up-and-down movement of the needle bar.

#### <Note>

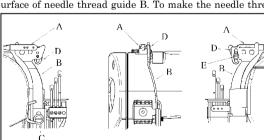
The rod ball is factory-set at 5.5mm from the rear end of the shaft. To make the needle thread loop small, move the rod ball to the front. To make the needle thread loop large, move the rod ball to the back. Remove the rubber top plug. Loosen the screw of (A) with a 5mm wrench. Then move the rod ball to the front or back.

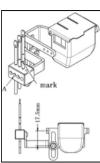
#### 10-4 Position of the needle thread guide

When the needle bar is at the bottom of its stroke, the center of the needle bar eyelet A should be level with the top surface of needle thread guide B. To make the needle thread

loop large, move up the thread guide B, for more stretchable threads. To make the needle thread loop small, move down the thread guide B, loosen screw C and move guide B up or down.

Also, loosen screw E and move up or down thread guide D as required.



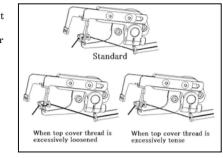


 $\mathbf{C}$ 

6

## 10-5 Position of the thread guide of the spreader thread take-up

When the needle bar is at the top of it stroke, thread any one of parts on the spreader thread take-up with spreader thread. (see the illustration)



## 10-6 Position of the thread guide of the looper thread take-up

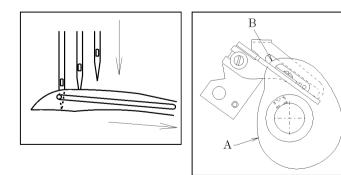
Position thread guide A according to the amount of looper thread supplied by the looper thread take-up.

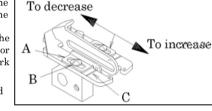
To do so, loosen screw B and move the eyelet of thread guide A to the front or back while referring to alignment mark C on the bracket.

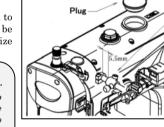
- To increase the amount of looper thread Move the evelet of A to the front.
- To decrease the amount of looper thread Move the eyelet of A to the back.

#### 10-7 Position of the looper thread take-up

When the point of the left needle descending to the back side of the looper has reached the bottom surface of the looper blade while the looper is moving to the right from the extreme left end of its travel, the looper thread should be removed properly from position B on the looper thread take-up.







/R

20



## [11] ADJUSTING THE ALK AND PLK

#### 11-1 Specifications of the ALK and PLK

- 1. Needle bar stroke ·······33mm
- 2. Upper knife stroke ……4.5mm

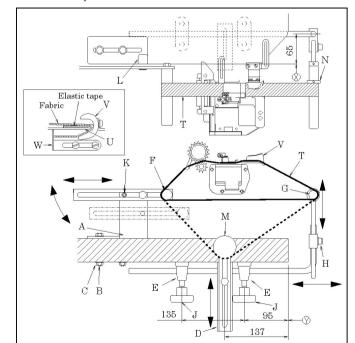
- 5. With rear puller ......No. of threads on the upper puller : 28 (PLK)

#### 11-2 Adjusting the PLK for inserting elastic into waists of tubular goods

1. To install each elastic tension roller

- a. Secure rear roller bracket  $\boldsymbol{A}$  with bolt  $\boldsymbol{B}$  and nut  $\boldsymbol{C}$  onto the top surface of the machine table.
- b. Install front roller installation bracket E on the underside of the machine table (refer to the distances from table ends X and Y shown below).
- c. Install lower taper roller bracket D on the underside of the machine table (refer to the distance from table end Y shown below).
- 2. To sew the fabric
  - a. Raise the presser foot and position elastic tape T as shown below.
  - b. Cover elastic tape T with the fabric positioned along lower elastic guide (U). Rotate the fabric in the operating direction.

The fabric is folded along lower elastic guide (U) and right fabric guide (V). Go on until the fabric edge reaches left fabric guide (W). Then lower the presser foot.



- c. Place the fabric on rear roller F and protrude the fabric edge sufficiently to the right to form a hem. Hold the fabric lightly by hand so that the fabric will not move to the left or right. Do not form a hem forcibly during sewing. It may cause trouble due to the change of tension on the fabric.
- d. When the start of sewing comes close to lower elastic guide (U) and right fabric guide (V), stop sewing and then press the knee switch under the machine table. The whole elastic guide moves to the left.

Remove the fabric from lower elastic guide (U) and right fabric guide (V). Sew the fabric while checking to see if the fabric edge is uniform and/or seams at the start of sewing match those at the end of sewing.

- 3. To adjust each elastic tension roller
  - a. Position rear roller F and front roller G according to the size of the fabric which is spread properly. Loosen lever L and adjust rear roller F front to back. The rear roller can be lowered on bracket A by changing the position of screw K. In addition, the rear roller can be adjusted front to back and tilted forward or backward with lever L (see below). If the fabric is large, adjust by moving up or down lower taper roller M. Lower taper roller M can be adjusted up and down easily by loosening the lever.
  - b. Adjust elastic guide N for front roller G left to right by positioning elastic guide N correctly along to the right side of the elastic tape. Loosen screw H and adjust the height and direction of the front roller.

Loosen knob J and adjust the front roller front to back.

#### 11-3 Adjusting each holder

 To adjust the height of the lower elastic guide The clearance between lower elastic guide U and top surface N of the needle plate is factory-set at approximately 5mm. Adjust this clearance according to the fabric to be used. Loosen screw E and move elastic guide bracket H up or down as required.

Dosen screws E. Adjust upper elastic guide D left to right so that the clearance between the left edge of elastic tape and the right needle is approximately 2mm.
 To adjust the elastic width

Loosen screws G and adjust lower elastic guide U left to right according to the elastic width.

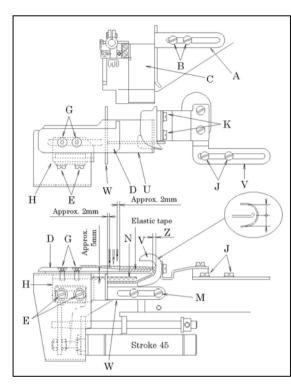
4. To adjust the hem width

Adjust fabric guide (right) V and rear fabric guide (right) A. Loosen screws J and B. Adjust V and A left to right according the hem width. To adjust fabric guide (right) V up and down, loosen screws K and position lower elastic guide U so that it is approximately centered in the fabric guide (right). Adjust clearance Z between fabric guide (right) V and lower elastic guide U according to the fabric. Loosen screws J and adjust fabric guide (right) V left to right. If the hem width is smaller than the width of fabric pressing plate C, file or grind the right edge of C.

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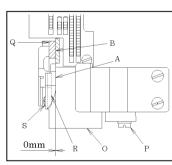
NRseries

 To adjust the width of the fabric edge to be cut Loosen screws M. Adjust fabric guide (left) W left to right so that the clearance between the raw edge of the fabric and the left needle is approximately 2mm.



## 11-4 Adjusting the hem guide (ALK)

Between A line and B line of the side of upper knife should be make same line. To adjustment of hem guide, loosen screw P on the guide O.



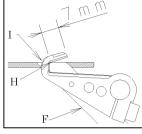
## 11-5 Adjusting the fabric trimmer positioned to the left of the needle

- 1. To adjust the width of the fabric edge to be cut
  - Loosen screw A and adjust by moving upper knife holder D and lower knife holder W simultaneously left to right as required. Then tighten screw A.

## <Note>

Add a small amount of oil from oil holes P and Q periodically.

- 2. To remove/install the lower knife
- < To remove the lower knife >
- a. Open the front and side covers.
- b. Loosen screw C on collar (left) B.
- c. Press upper knife holder D to the left to create the clearance between the upper and lower knives.

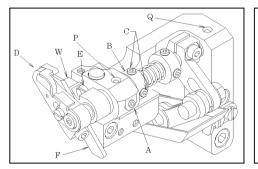


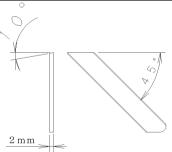
d. Tighten screws C on collar (left) B temporarily.

e. Loosen screw E on lower knife holder W and remove the lower knife.

- < To install the lower knife >
- a. Align the cutting edge of lower knife  ${\rm F}$  with the top surface of the needle plate.Then tighten screw E.
- b. Loosen screw C on collar (left) B temporarily.
- c. The upper knife turns to the right with spring pressure to mate with the lower knife.
- d. Place a thread between the upper and lower knives and check for the proper cutting action by turning the machine pulley by hand.
- e. The distance between the point of upper knife and the point H of the cutting edge of lower knife F should be 7mm and tighten screw C on the collar B.
- f. Recheck for the proper cutting action of the upper and lower knives.
- 3. To resharpen the lower knife

When the upper and lower knives become dull, resharpen the lower knife. Reserve new upper and lower knives for replacement.





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- 4. To remove/install the upper knife
- < To remove the upper knife >
- b. Loosen screw G and remove the upper knife bracket D.
- c. Loosen screw H and remove the upper knife I.
- < To install the upper knife >
- a. Install the upper knife I and tighten screw H.
- b. Install the upper knife bracket D and tighten screw G temporarily.
- c. When the upper knife I is at the bottom of its stroke, adjust the overlap of upper knife I and lower knife F by referring to the illustration on the below (1).

And tighten screw G

- d. To increase overlap, loosen screw  ${\rm C}$  on collar  ${\rm B}$  the overlap are pressure by the spring.
- e. Place a thread between the upper and lower knives and check for the proper cutting action by turning the machine pulley by hand.
- f. The distance between the point of upper knife and the point H of the cutting edge of lower knife F should be 7mm and tighten screw C on the collar B.
- g. Place a thread between the upper and lower knives and check for proper cutting action by turning the machine pulley by hand again.
- 5. To adjust the stroke of the upper knife

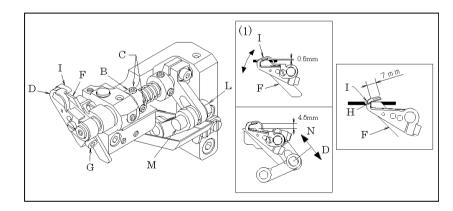
To decrease of upper knife's stroke. Loosen nut L, and the upper knife lever pin M should be move to downward. And tighten nut L.

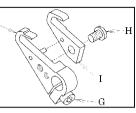
To increase of upper knife's stroke. Loosen nut L, and the upper knife lever pin  ${\rm M}$  should be move to upward. And tighten nut L.

## <Note>

When the stroke was changed, the overlap 05mm between upper and lower knives needs to re adjust at the above mention of c to g. Factory adjustment.

The stroke of upper knife is adjusted by 4.5mm, which is minimum of it (The upper knife lever pin M is the point of bottom). For gaud of upper and lower knives, the distance between the point of upper knife I and the point H of the cutting edge of lower knife F should be 7mm then tighten screw C on the collar B.

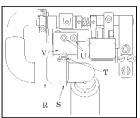




6. To adjust the sucking pipe

Loosen screws U on bracket V and adjust sucking pipe R up and down.

Loosen screw T on band S and adjust sucking pipe R front to back and left to right. Install sucking pipe R properly.



## 7. To adjust the support cover

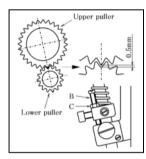
When the position of vacuum pipe was changed, also, the position of support cover K should be change by loosen screw J.



## [12] ADJUSTING THE REAR PULLER

## 12-1 Position of the hand lever and the stopper

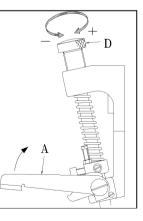
To position or remove the fabric, raise hand lever A. With the hand lever lowered, adjust stopper B so that the clearance between the upper and lower pullers is 0.5mm. Then tighten nut C.



## 12-2 To adjust the puller pressure

The puller pressure should be as light as possible, yet be sufficient to feed the fabric smoothly.

To increase the pressure, turn adjusting knob D clockwise. To decrease the pressure, turn adjusting knob D counterclockwise.





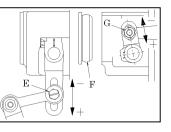
## from the library of Diamond Needle Corp

mm

0.5~

## 12-3 To adjust the feeding amount of the rear puller

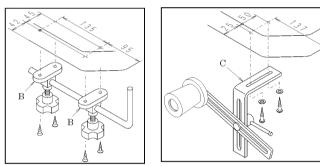
The feeding amount of the rear puller should be the same as that of the feed dog. Loosen nut E. To decrease the amount, move upward. To increase the amount, move downward. If the proper feeding amount is still not obtained after the above adjustment, remove rubber plug F and loosen screw G with a hex. wrench. To decrease the amount, move upward. To increase the amount, move downward.



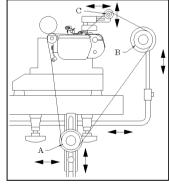
## [13] ADJUSTING THE PHK

## 13-1 Adjusting the roller

■Adjustment for elastic band's tension the parts B and C should be fit with the bottom surface of table correctly with referring to dimensions. (see the illustration)

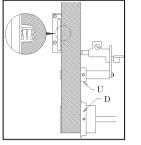


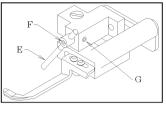
Rollers A, B, C are adjustable with finished waist size so that rollers adjust the proper position for elastic band's size.



■ In order to locate the elastic band by moving properly (L-R direction).

Adjust by the elastic slast collar D on the front roller B, the elastic guide collar U on the front roller C, and the elastic guide pole E on the upper side of the ruler plate.  $25{\sim}45$ mm widths of the elastic band can be used.

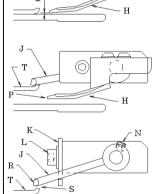




## 13-2 Adjusting the cloth presser

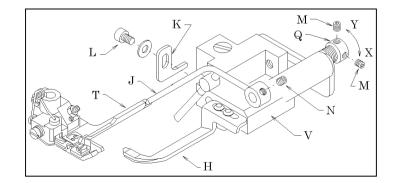
- Spring pressure of the cloth presser can be adjusted by loosing screw M on the collar Q. Turning the collar to the direction of arrow X can strengthen spring presser, and turning the collar to the direction of arrow Y can weaken it.
- Make the distance of 0.5~1.0mm between the edge P of the cloth presser H and needle plate when presser foot descends as shown in the figure. Locate the edge P of the cloth presser H at the middle point between needle plate and presser foot.

Make the gap S between the presser foot T and the edge R of the guide bar J by loosing screw N on the guide bar J and screw L on the stopper K. Tighten the screw N and L after this adjustment.



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< Note > Guide bar Attachment table V has a hole to fill oil. Insert some oil from it periodically.



## 13-3 Adjusting the knife apparatus

- 1. Adjusting the width of knife (Adjusting the cutting point of clothe)
  - a. Detach cloth guide.
  - b. Locate lower knife table S properly by loosening screw A on the lower knife table S and screw B on the upper knife drive lever.
  - c. Tighten screw A on the lower knife table an screw B on the upper knife drive lever.

## <Note>

Do not tighten the screw A on the lower knife too much.

- d. Make sure whether you can move the upper knife table C to the right against spring pressure. If you cannot move it, loosen the screw B on the upper knife drive lever and move the upper knife table C to the right.
- e. Increase spring pressure properly by loosening screw D on collar ((left).

## <*Note* > Insert some oil from a hole E periodically.

2. How to detach/attach the lower knife

<Detaching the lower knife>

- a. Detach the cloth guide.
- b. Loosen screw F on the lower knife table S.
- c. Remove lower knife G downward by making a gap between the upper knife K and the lower knife G, while pulling the upper knife table C to the right.

<Attaching the lower knife>

- a. Tighten screw F while locating the edge of the lower knife G on the surface of the needle plate.
- b. Make sure the sharpness of the upper and lower knives by putting a thread between them and rotating a pulley manually.

## 3. How to detach/attach the upper knife.

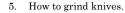
<Detaching the upper knife>

- a. Temporally tighten screw B at which you can see the screw J on the upper knife, while loosening.
- b. Detach the upper knife by loosening screw J on the upper knife K.

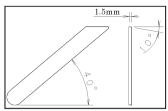
<Attaching the upper knife>

- a. Tighten screw J while attaching the upper knife K to the upper knife table C.
- b. Make sure the sharpness of the upper and lower knives by putting a thread between them and rotating a pulley manually.
- 4. Adjusting the contact of the upper and the lower knives.

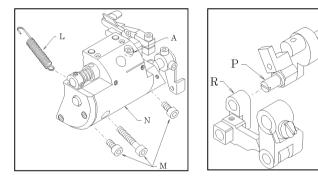
Adjust the contact of the upper knife K and the lower knife G by loosening the screw B on the upper knife drive lever as shown on the figure when the upper knife K descends to its lowest point. Tighten the screw B after this adjustment.



Not necessary to grind the upper knife for about a year due to cemented carbide. Grind the lower knife if you find blunt for the period.

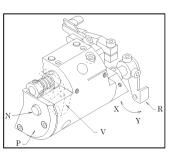


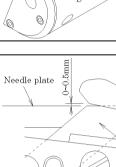
- 6. How to detach the right knife table.
  - a. Open the side cover and detach upper knife adjust spring L.
  - b. Remove 3 screws M on the right knife table N.
  - c. Move the needle bar to the upper death point by rotating puller manually.
  - d. Detach the right knife table from its bed. You can loosen screw A on the lower knife table if you cannot do so.
  - e. Detach the link R from drive pin P attaching the edge of the up-down feeding axis.



## 13-4 Adjusting the mechanism of knife drops

- 1. In case you function the mechanism of knife drops.
  - a. Descent the upper knife and stop its movement by rotating the drop lever R to the direction of arrow X.
  - b. You can lock the movement of the upper knife by pressing the drop lever R to the last and pressing the push bottom N to the point at which the bottom reaches the upper knife adjust lever V.





Κ





- c. Pull the drop lever R to the direction Y slightly until the edge of the push bottom N touches the upper knife adjust lever V. You can lock the movement of the upper knife after this.
- In order to unlock it, push the drop lever R to the direction of Y.
   Push bottom N will be away from the upper knife adjust lever V.
   At this stage, you can unlock the drop of the upper limit of the state large here P.

the upper knife by pulling the drop lever  ${\rm R}$  to the direction of Y.

- 2. Adjusting the mechanism of knife drops.
  - a. Detach the side cover P.
  - b. Adjust by above-mentioned guidance (13.4:1-a, b) by loosening screw T on the adjust lever stopper S.
    Be careful not to change the contact of the knives this procedure.
  - $c. \quad Tighten \ the \ screw \ T \ after \ this \ adjustment.$

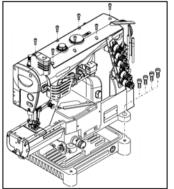
## [14] REPLACING THE TIMING BELT

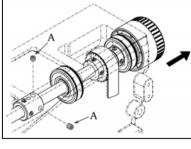
## 14-1 To remove the timing belt

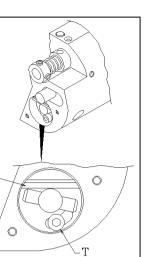
1. Loosen the seven arm cover set screws and the four oil reservoir set screws (see the illustration).

Remove each part.

- 2. Loosen two screws A. Remove the handwheel to the right while turning it slowly (see the illustration).
- 3. Remove the pulley, plates and bearing in sequence by referring to the illustration. Then remove the timing belt from the hole for the bearing.

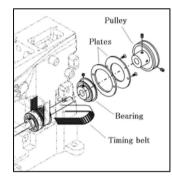


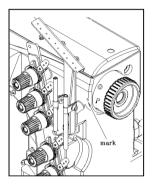




## 14-2 To place the timing belt

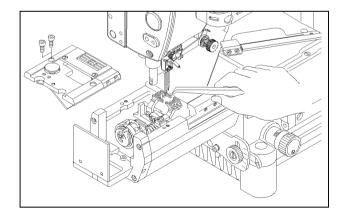
- 1. Install the timing belt, bearing, plates, pulley and cover by performing the reverse procedure of 14-1.
- 2. Position the bearing so that the point of the screw is fitted correctly into the positioning hole on the lower shaft. Then tighten the screw to secure the bearing.
- 3. Move the looper to the extreme right end of its travel by turning the machine pulley. Bring the needle bar down to the bottom of its stroke by hand.
- 4. Then place the belt onto the timing pulley on the upper shaft. Tighten two screws A.
- 5. Bring the needle bar up to the top of its stroke by turning the machine pulley. Check to make sure mark "P" on the handwheel is aligned with alignment mark "O" on the bed.
- 6. To make a fine adjustment for the timing of the needle and looper, refer to 5-5.





## [15] CLEANING THE MACHINE

At the end of each day, remove the needle plate and clean the slots of the needle plate and the area around the feed dogs.



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## **NR-UT** Series Instruction Manual



## INTRODUCTION

Thank you for your purchasing Kansai Special's NR/UT Series.

Read and study this instruction manual carefully before beginning any of

the procedures and save it for later use.

This instruction manual describes adjustments and maintenance procedures for the thread trimmer.

Refer to the NR Series instruction manual for other information.

## 1. HOW TO USE THE THREAD TRIMMER 1 2. INSTALLING THE POSITION DETECTOR ...1 3.ADJUSTING THE THREAD TRIMMER AIR CYLINDER 3-1 Air cylinder stroke .....2 3-2 Air cylinder return spring .....2 4. ADJUSTING THE THREAD TRIMMER SOLENOID 4-1 Solenoid stroke .....2 4-2 Adjusting the solenoid return spring $\cdots\cdots\cdots 2$ 5. ADJUSTING THE THREAD TRIMMER 5-1 Position of the movable knife and the stationary 5-2 Adjusting the looper thread clamp spring .....3 5-3 Adjusting the movable knife pressure spring 3 5-4 Adjusting the stationary knife holder stopper ...4 5-5 Adjusting the movable knife holder left and right 5-6 Adjusting the movable knife front to back $\cdots 4$ 5-7 Adjusting the movable knife up and down .....5 5-8 Relationship between the movable knife, needle thread and looper thread ......5 5-9 Looper thread clamp spring pressure ......5 6. ADJUSTING THE THREAD RELEASER 6-6-

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## 10. THREAD WIPER ADJUSTMENT(UTE) ...9 11. ADJUSTING THE PRESSER FOOT LIFT .....9 12. ADJUSTING THE TOP COVER THREAD TRIMMER 12-1 Relationship between the position of the movable knife and the stationary knife ....10 12-2 Adjusting the top cover thread clamp spring 12-3 Adjusting the top cover thread rear spring 12-4 Adjusting the thread clamp pressure 10 12-5 Adjusting the movable knife left to right ...11 12-6 Adjusting the movable knife front to back ...11 12-7 Adjusting the height of the movable knife ...11 12-8 Adjusting the solenoid return spring (UTE) 12 12-9 Adjusting the top cover thread releaser hook ...12 13. WIRING AND PIPING .....13



## [1] HOW TO USE THE THREAD TRIMMER

## <Note>

Do not use this thread trimmer with no fabric under the presser foot.

- Pressing the pedal with toe (position A) starts the machine. Releasing the pedal (position B) stops the needle at the top/bottom of its stroke (adjustable with the motor).
- If the needle stops at the bottom of its stroke as adjusted, pressing the pedal with heel (position C) raises the needle. As soon as the needle stops at the top of its stroke by pressing the pedal with heel, the thread trimmer gets actuated (if the needle stops at the top of its stroke as adjusted, the thread trimmer gets actuated by pressing the pedal with heel).
- A, Start B, Neutral C, To cut the threads To raise the presser foot
- Returning the pedal to position B lowers the presser foot.
- The presser foot can be raised or lowered freely by releasing the pedal (position B) or pressing the pedal with heel (position C) until the pedal is placed at position A for the next sewing operation after the threads are cut.

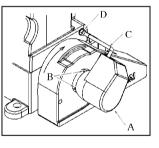
## [2] INSTALLING THE POSITION DETECTOR

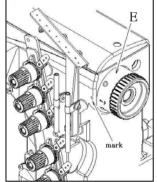
- ■Install position detector A and tighten screw B temporarily.
- Fit positioner bar C onto the guide groove of the position detector. Then tighten screw D.
- ■Turn on the motor.

## <Note>

Remove the connector for the thread trimmer cylinder. Make sure the knife is retracted all the way.

- Press the pedal with heel after two to three stitches are formed by pressing the pedal with toe. Then the needle stops.
- ■Loosen screws B for the position detector. Turn the machine pulley while checking that the position of screws B is not shifted. Align mark P on handwheel E with the alignment mark on the arm. Then the needle bar is at the top of its stroke. Tighten screws B to secure the position detector.
- Check to see if the needle bar stops at the top of its stroke by pressing and then releasing the pedal.

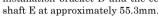


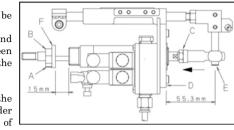


## [3] ADJUSTING THE THREAD TRIMMER AIR CYLINDER (UTA)

## 3-1 Air cylinder stroke

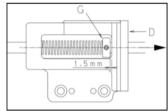
The stroke of the air cylinder should be approximately 15mm. To adjust this stroke, loosen collar B and screw A. Set the clearance between rubber cushion F and the rear end of the cylinder at 15mm. To position shaft E, loosen nut C. With the cylinder retracted, set the distance from the left end of cylinder installation bracket D and the center of





## 3-2 Air cylinder return spring

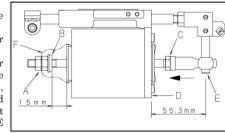
With the cylinder plunger protruded, there should be clearance slightly between collar G and bracket D.



## [4] ADJUSTING THE THREAD TRIMMER SOLENOID (UTE)

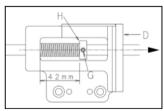
## 4-1 Solenoid stroke

The stroke of the solenoid should be approximately 15mm. To adjust this stroke, remove rubber cover F and loosen nut A. Set the clearance between rubber cushion B and the rear end of the solenoid at 15mm. To position shaft E, loosen nut C. With the solenoid retracted, set the distance from the left end of bracket D and the center of shaft E at approximately 55.3mm.



## 4-2 Adjusting the solenoid return spring

With the solenoid plunger protruded, there should be approximately 42mm clearance between collar H and bracket D. To make this adjustment, loosen screw G of solenoid return spring collar H.





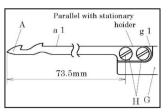
## [5] ADJUSTING THE THREAD TRIMMER

## $5\mathchar`-1$ Position of the movable knife and the stationary knife

 $\blacksquare$  Position of the movable knife

Set the (a 1) part of the movable knife A parallel to the (g 1) part of the stationary holder G. Set the distance from point of movable knife A and

the center of left screw H at approximately 73.5mm.



Relation between the stationary knife and the movable knife.

Adjust the engagement between blade (a 3) for trimming looper thread and stationary knife to be 2.5mm when

movable knife is at the extreme right. So that the point of blade (a 2) for cutting needle thread

pass the corner (b 1) of stationary knife B.

## The adjustment is made by loosening screw C.

## 2.5mm 2.

## 5-2 Adjusting the looper thread clamp spring

Position of looper thread clamp spring D so that the part (a 1) of movable knife and the part (d 1) of looper thread clamp spring are on the same plane.

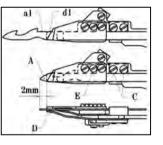
And adjust it will protrude approximately 2mm from the point of movable knife A when movable knife is at the extreme right.Adjustment is made by loosening screw C.

To adjust the pressure of thread clamp spring D, turn adjusting screw E. To increase the pressure, turn it clockwise. To decrease the pressure, turn it counterclockwise.

## 5-3 Adjusting the movable knife pressure spring

Position of movable knife pressure spring F so that the part (a 1) of movable knife and the part (f 1) of movable knife pressure spring are on the same plane. And adjust it will protrude approximately 5.2mm from the point of movable knife A when movable knife is at the extreme right.

Adjustment is made by loosening screw E.

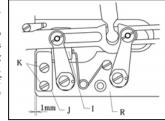


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## 5-4 Adjusting the stationary knife holder stopper

The stationary knife holder I slides to the left and stops by stationary knife holder stopper J.

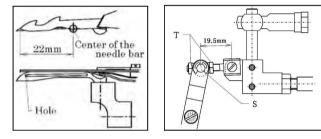
Never slide the stationary knile holder stopper J. Never slide the stationary knile holder I to the left too much because the looper thread clamp spring touches the looper. The adjustment is made by loosening screw K and moving stationary knife stopper left and right. The standard position, the left end of stationary knife holder stopper is 1mm right from the left end of base plate R.



## 5-5 Adjusting the movable knife holder left and right

With movable knife A at the extreme left end of its travel, there should be a distance of 22mm from the center of the needle bar to the point of movable knife A.

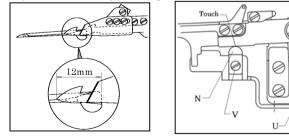
To make the above adjustments, loosen nut T and move the pin S make a fine left-to-right adjustment by turning nut T. The point of the movable knife is center between the point of the looper and the eye's of the looper when move extremely left position of the knife.



## 5-6 Adjusting the movable knife front to back

To adjust the movable knife front to back, center the point of movable knife over the looper with the point of movable knife 12mm moved to the left from the right end of looper. To adjust, when loosening screw U and turning guide lever ring P clockwise, the movable knife point moves forward and turning it counterclockwise, the point moves backward. At the same time, movable knife holder guide N should slightly touch the end of movable

knife holder. The adjustment is made by loosening screw V.



## $\langle \text{Note} \rangle$

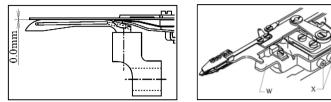
In case of the extremely large or small feed amount, necessary fine adjustment of the movable knife position. (See chapter 5-8)





## 5-7 Adjusting the movable knife up and down

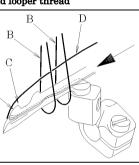
There should be a clearance of 0mm between movable knife and the top surface of looper. The adjustment is made by loosening screw X and moving stationary knife holder guide. After the above adjustment, make sure the movable and stationary knife holders move smoothly.



## 5-8 Relationship between the movable knife, needle thread and looper thread

After all the adjustments are made, check the following before threading to start the machine.  $% \left( {{{\rm{A}}_{{\rm{B}}}} \right)$ 

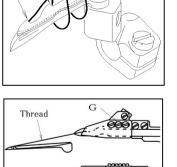
■ Movable knife A should enter needle thread loops B. Cutting edge C for the looper thread should pass looper thread D.



When the movable knife is returning home, the needle threads and looper thread are pulled to the right by cutting edges E and F and cut by the stationary knife.

## 5-9 Looper thread clamp spring pressure

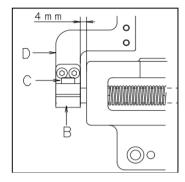
The looper thread clamp spring holds the looper thread after it is cut. To adjust the pressure of thread clamp spring H, turn adjusting screw G. To increase the pressure, turn it clockwise. To decrease the pressure, turn it counterclockwise. The machine is supplied with a spun thread (#60). The pressure of the thread clamp spring is factory-set at approximately 90g.Adjust the pressure for other threads.



## [6] ADJUSTING THE THREAD RELEASER

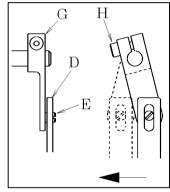
## 6-1 Thread releaser block

With the thread trimmer air cylinder rod at the left end (the air cylinder is not operating), set the clearance between thread trimmer air cylinder bracket A and thread releaser block B at 4mm. Then tighten screw C.



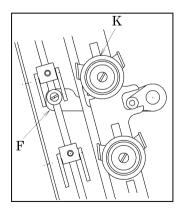
## 6-2 Thread releaser connection plate

Fit thread releaser connection plate D to guide screw E. Create a clearance between plate D and thread releaser connection lever G. Adjustment is made by loosening screw H.



## 6-3 Thread releaser lever

Position thread releaser lever F so that the thread tension disk can open as fast as possible. Then tighten screw H for thread releaser connection lever G at the rear of the arm.





6

## 6-4 Thread releaser plate

Install thread releaser bar D to thread releaser bar connection plate F with screw G. The top end of thread releaser bar D should protrude 39mm from the top surface of thread releaser bar guide E. There should be a clearance of 4mm between washer H and thread releaser bar guide E.

## 6-5 Thread releaser hook

The needle thread should not protrude long from the underside of the fabric at the start of sewing. Loosen screw I and adjust thread releaser hook J. To decrease the amount of the thread supplied by the thread take-up, raise the thread releaser hook. To increase the amount, lower the thread releaser hook. If the amount is too little, the stitches cannot be formed at the start of sewing.

## [7] SAFETY DETECTOR

The safety detector is included so that the machine will not start until the thread trimmer cuts the threads and returns home safely.

Switch A of the detector must be pressed (ON) during sewing (with the thread trimmer completely returned home). Adjust by loosening screws B and E and moving brackets C and D.

## The position of air blow Loosen screw C and air Adjusting amount of bl

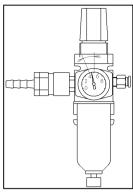
## [8] ADJUSTING THE SPEED CONTROLLER AND AIR PRESSURE (UTA)

■ Speed controller F controls the speed when the thread trimmer knife holder protrudes. Speed controller G controls the speed when the thread trimmer knife holder retracts. If screw F is too loosened, the holder will protrude too fast and then the position of the movable knife will be unstable, causing cutting error.

If screw G is too loosened, the holder will retract too fast and then the looper thread may not be held properly (the speed controllers are factory-set).

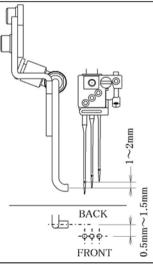
## <Note>

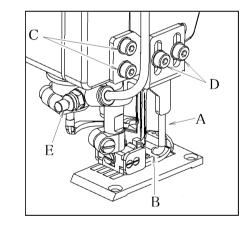
Set the regulator at  $4\sim 5 kg/cm^2$ . To in crease the pressure, turn the adjusting knob clockwise. Too fast speed will give a shock to the knife holder. Then the threads will be cut before they are caught by the knife or the threads will not be held properly. It may cause trouble.



## [9] AIR WIPER ADJUSTMENT (UTA, UTAB)

- ■When the needle bar is at the top of its stroke, position air blowing outlet B 1~2mm below the left needle's eye. Loosen screw D and air wiper up or down required.
- The position of air blowing outlet B should be 0.5~1.5mm from backside of the needles. Loosen screw C and air wiper front or back required.
- ■Adjusting amount of blowing air by adjust screw E.





<u>NR-UTseries</u>

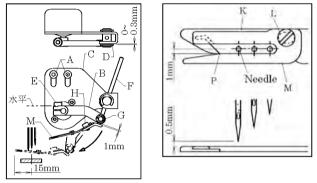
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## [10] THREAD WIPER ADJUSTMENT (UTE)

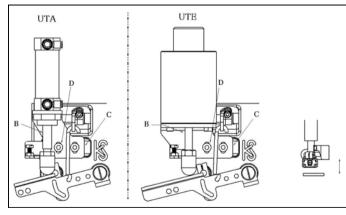
■ Tighten screw E to position lever B horizontally. There should be a 0 to 0.3mm clearance between bracket C and stopper ring D.

- Position thread wiper K with screw H. The distance between the left end of the thread wiper and the center of the needle bar should be approximately 15mm when the thread wiper is all the way to the left and clearance between the needle center and point P of the thread wiper should be approximately 1mm.
- The distance between the left needle and thread wiper K should approximately 0.5mm with screw A.
- Position of thread wiper K is parallel with flat spring M with screw L.



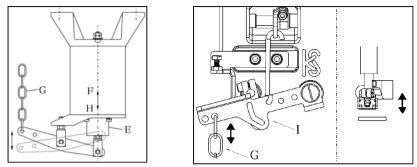
## [11] ADJUSTING THE PRESSER FOOT LIFT

Foot lift on the machine with spreader 6mm above the top surface of the needle plate
Foot lift on the machine without spreader 8mm above the top surface of the needle plate
To make these adjustment, loosen screw D. Move bracket C up or down.



## ■ Electric presser foot lifter for P-UTE

When plunger E moves in direction of F, the presser foot should be 6mm or 8mm above the top surface of the needle plate. Adjust by using chain G. Note that there is a little slack on chain I when plunger E moves in the direction of H. Then make sure the presser foot whether or not the floating when the machine running.

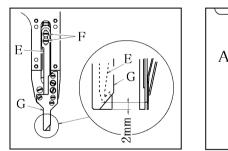


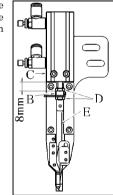
## [12] ADJUSTING THE TOP COVER THREAD TRIMMER

## 12-1 Relationship between the position of the movable knife and the stationary knife

When the movable knife E retracts all the way, Set the clearance between mount bracket B and the end of the air cylinder C at 8mm. Tighten nut D.(Model for UTA)

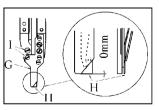
When the movable knife E retracts all the way, Set the clearance between the end of fixed knife G and the top of the movable knife E at 2mm. Loosen screw A to open the cover, then loosen screw F and adjust knife position.





## 12-2 Adjusting the top cover thread clamp spring

Top cover thread clamp spring H should parallel and same line with end of the stationary knife G. Loosen screws I and adjust spring H







## 12-3 Adjusting the top cover thread rear spring

Top cover thread rear spring J should parallel and set to approximately 4mm from end G of the stationary knife. Loosen screws I and adjust spring J

## 12-4 Adjusting the thread clamp pressure

The spring H holds the top cover thread after it is cut. To adjust the pressure of the spring, turn adjusting screw K. To increase the pressure, turn it clockwise. To decrease the pressure, turn it counterclockwise.

## 12-5 Adjusting the movable knife left to right

Movable knife C should pass clearance B between spreader A and the left needle. Loosen screw H for bracket G.

Adjust movable knife C while checking it does not touch spreader A or the left needle.

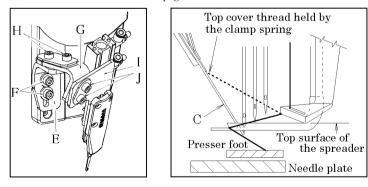
## 12-6 Adjusting the movable knife front to back

The movable knife should hook the top cover thread when the movable knife returns home.

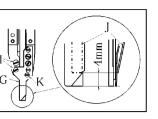
Loosen screws J on movable knife installation base I. Set the clearance between hook end D of movable knife C and the top cover thread at approximately 1mm.

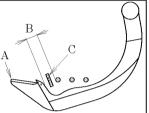
## 12-7 Adjusting the height of the movable knife

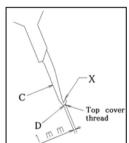
When the movable knife is at the bottom of its travel, hook point X of the movable knife should be aligned with the top surface of the spreader. Then tighten screws F when bracket E is in the lowest position. In case of the UTE series, adjustment is made by moving stoppers A. Loosen screw B for stopper. (See the illustration on the next page)



< Note > Turn off the motor, position the fabric under the presser foot and then adjust by hand.

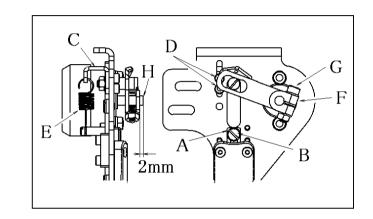






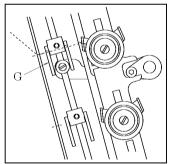
## 12-8 Adjusting the solenoid return spring (UTE)

To adjust the returning pressure of the movable knife, loosen screw D for spring hook C and move spring hook C up or down. To increase the pressure, move up hook C. To decrease the pressure, move down hook C. The pressure of spring E should be as light as possible, yet be sufficient to return the movable knife home correctly when the solenoid gets actuated. Set the clearance between drive lever F and solenoid shaft H at approximately 2mm. Then tighten screw F for drive lever B.



## 12-9 Adjusting the top cover thread releaser hook

To decrease the amount of the thread supplied by the thread take-up, move up thread releaser hook G. To increase the amount of the thread supplied by the thread take-up, move down thread releaser hook G. If the amount is too small, the top cover thread cannot be held after it is cut.





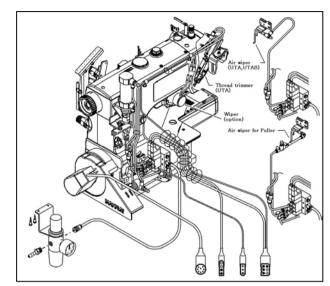




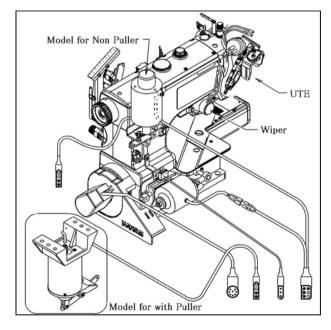
[13] WIRING AND PIPING FOR PNEUMATIC DEVICES

## ■Model for UTA, UTAB

Connect air lines and cords by referring to the illustration below and the parts list.



## ■Model for UTE



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