

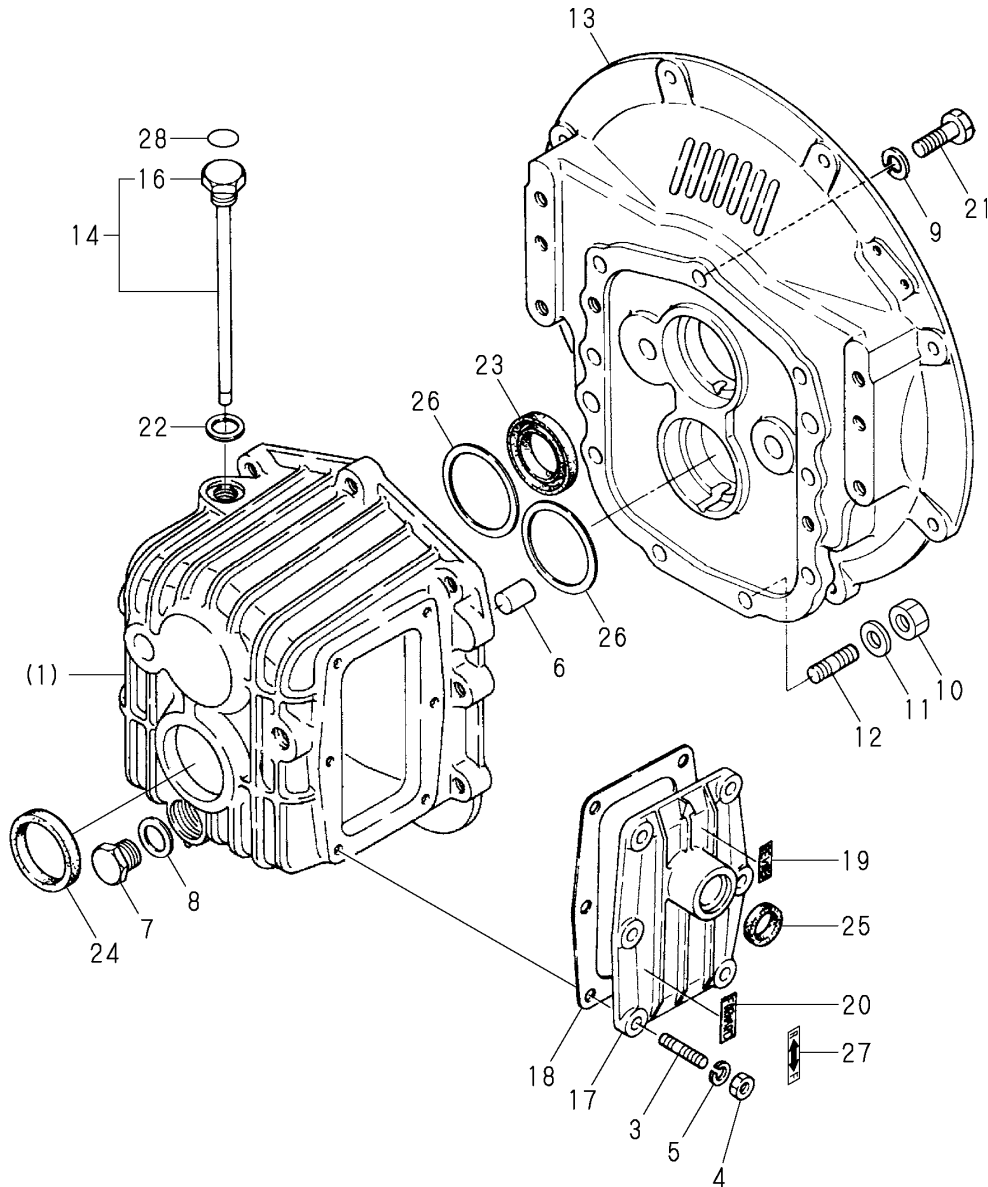


## Spare parts catalog- Yanmar engines

- (A) = KBW10-E
- (B) = KBW10-D
- (C) = KBW20
- (D) = KBW20-1
- (E) = KBW21

Fig.1.CLUTCH HOUSING

1 inc. (1) ~ 8



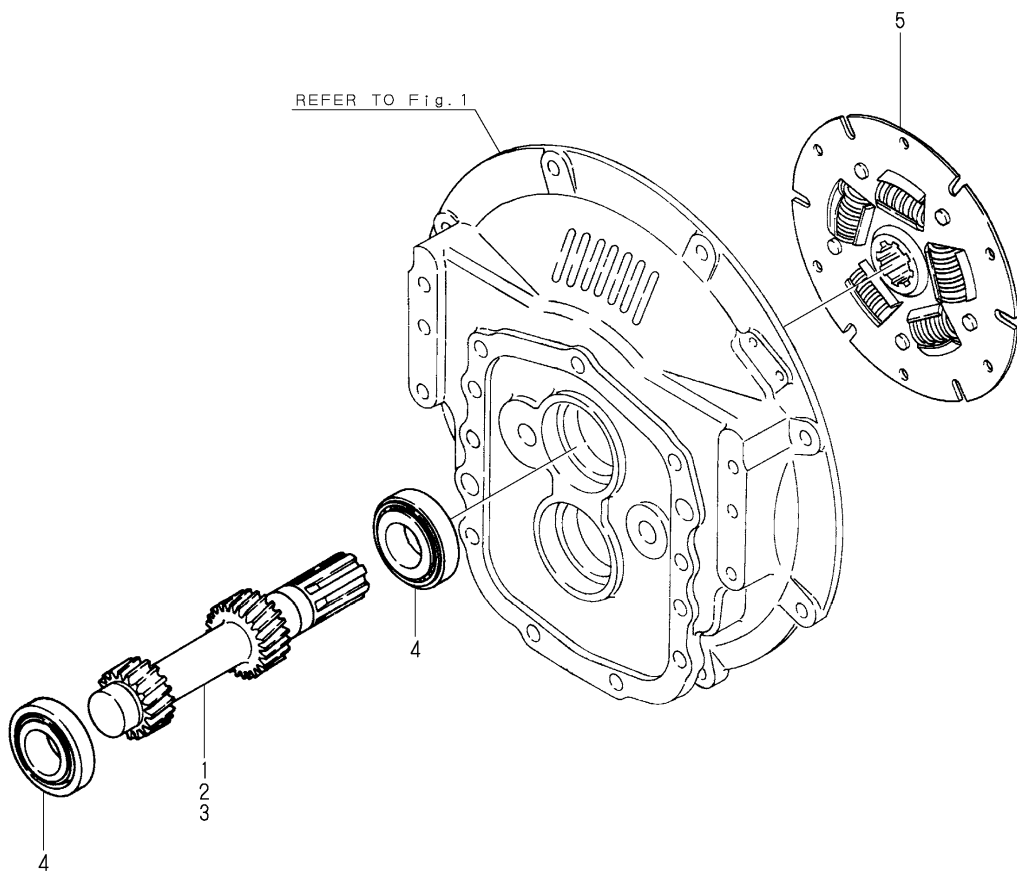
Y00R5470 1.CLUTCH HOUSING

(A)=KBW10-E (D)=KBW20-1  
 (B)=KBW10-D (E)=KBW21  
 (C)=KBW20 (F)=

REF.	LEV.	PARTS NO.	DESCRIPTION	QTY						I	R
				(A)	(B)	(C)	(D)	(E)	(F)		
1	1	777099-02550	HOUSING ASSY, CLUTCH	1							
3	2	26216-080222	STUD M 8X 22 PLATED	6							
4	2	26716-080002	NUT M 8	6							
5	2	22287-080000	LOCKING WASHER	6							
6	2	177099-02130	STRAIGHT PIN	2							
7	2	23887-160002	PLUG 16,HEX.	1							
8	2	23414-160021	GASKET 16	1							
9	1	22287-100000	WASHER 10	5							
10	1	26703-100002	NUT M10	4							
11	1	22133-100000	WASHER 10	4							
12	1	26223-100222	STUD M10X 22	4							
13	1	177080-02030	FLANGE, MOUNTING	1							
14	1	177099-02450	DIPSTICK W/BREATHER	1							
16	2	177099-02470	COVER	1							
17	1	177099-02081	COVER, SIDE	1							
18	1	177099-02091	GASKET	1							
I 19	1	177090-02630	LABEL	1							Z
		(A=*1980.11)									
I 20	1	177090-02620	LABEL	1							Z
		(A=*1980.11)									
21	1	26116-100302	BOLT 10X30	5							
22	1	23414-160021	GASKET 16	1							
23	1	177099-02950	SEAL TC30 52 8, OIL	1							
24	1	177099-02960	SEAL TC40 52 8, OIL	1							
25	1	177095-02980	SEAL, OIL	1							
26	1	177099-02250	SHIM SET	2							
I 27	1	177088-02430	LABEL	1							W
		(A=*1980.11)									
I 28	1	177075-02550	LABEL	1							W
		(A=*1994.05)									
I 28-1	1	177075-02551	LABEL,OIL	1							N
		(A=*1995.07)									

Fig.2.INPUT SHAFT

(A)=KBW10-E (D)=KBW20-1  
 (B)=KBW10-D (E)=KBW21  
 (C)=KBW20 (F)=

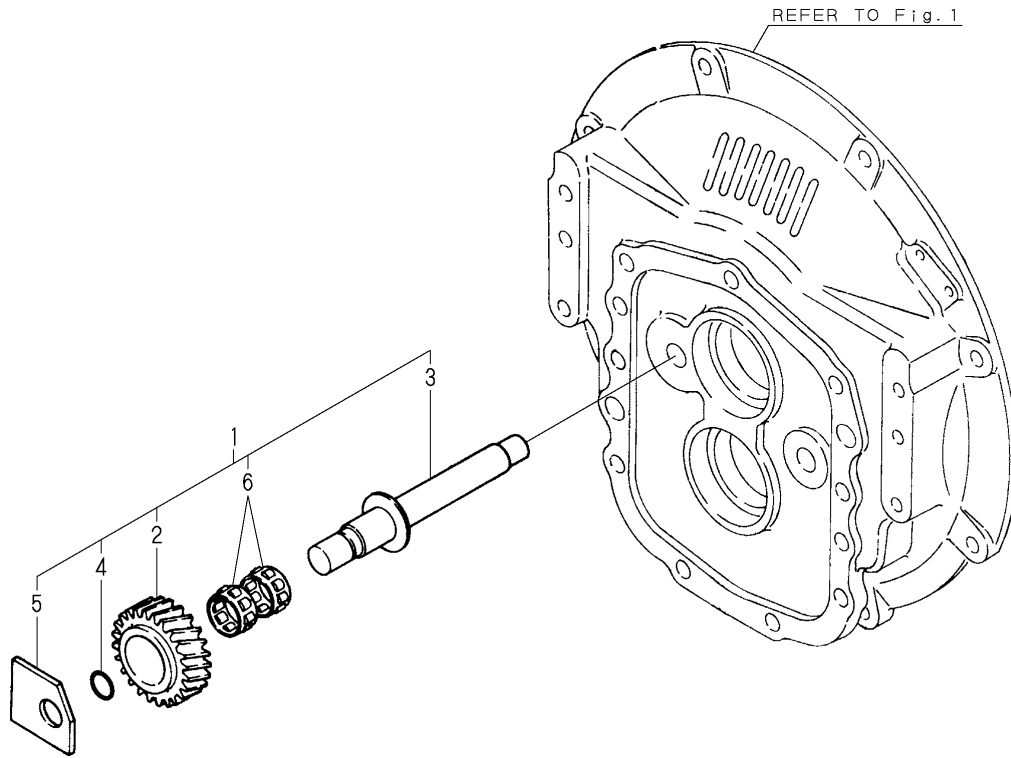


REF.	LEV.	PARTS NO.	DESCRIPTION	Q'TY						I	R
				(A)	(B)	(C)	(D)	(E)	(F)		
1	1	177099-03011	SHAFT, INPUT (I=2)	1							1
2	1	177099-03360	SHAFT,INPUT Z18	1							2
3	1	177099-03411	SHAFT, INPUT (I=3)	1							3
4	1	177099-03920	ROLLER BEARING	2							
5	1	177099-03500	DISK, (NON-ASB.)	1							

Remarks  
 (1)I=2.14  
 (2)I=2.45  
 (3)I=2.83

Fig.3.SUPPORT SHAFT

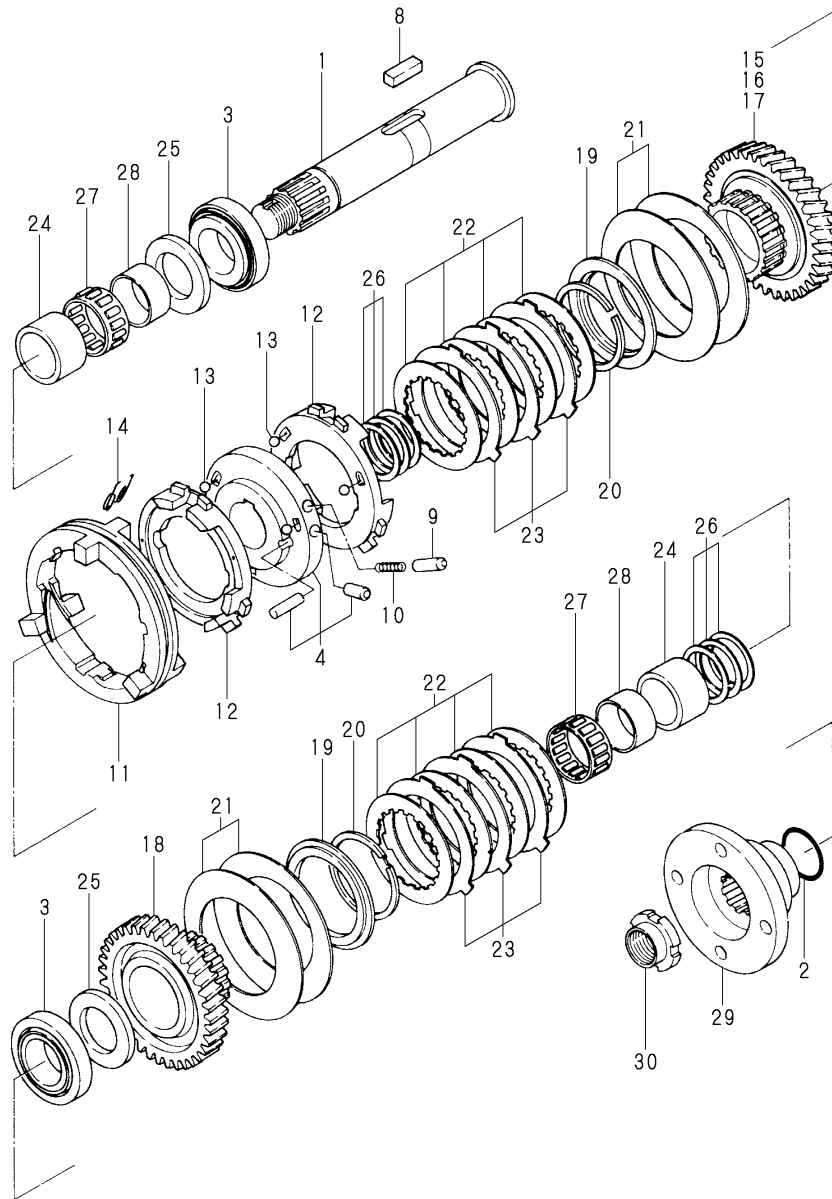
(A)=KBW10-E (D)=KBW20-1  
 (B)=KBW10-D (E)=KBW21  
 (C)=KBW20 (F)=



REF.	LEV.	PARTS NO.	DESCRIPTION	QTY						I	R
				(A)	(B)	(C)	(D)	(E)	(F)		
1	1	777099-03021	SHAFT ASY, IDLE GEAR	1							
2	2	177099-03301	GEAR (Z=25), IDLE	1							
3	2	177099-03980	SHAFT	1							
4	2	24341-000150	O-RING 1A S-15.0	1							
5	2	177099-03321	WASHER, THRUST	1							
6	2	177099-03901	NEEDLE BEARING	2							

Fig.4.OUTPUT SHAFT

(A)=KBW10-E (D)=KBW20-1  
 (B)=KBW10-D (E)=KBW21  
 (C)=KBW20 (F)=

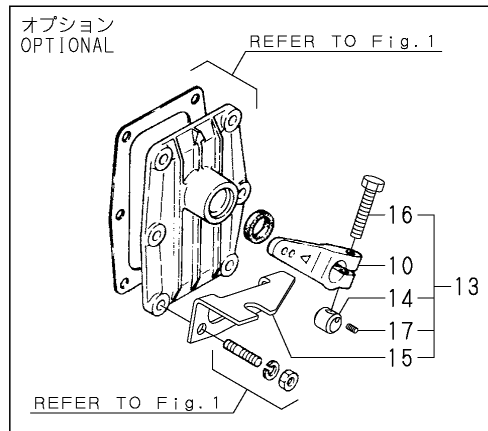
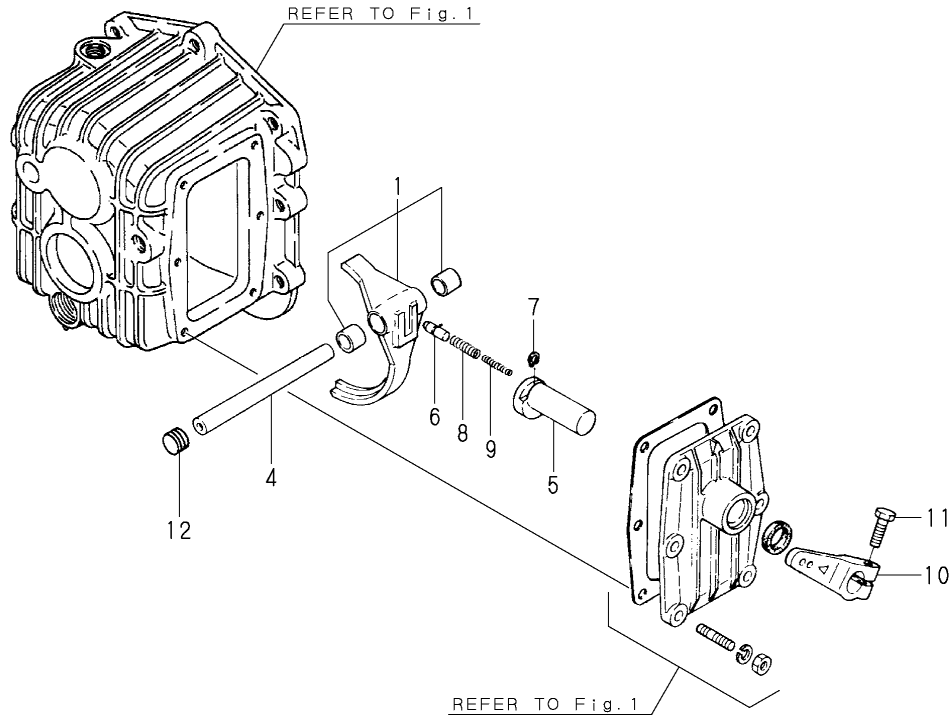


REF.	LEV.	PARTS NO.	DESCRIPTION	QTY						I	R
				(A)	(B)	(C)	(D)	(E)	(F)		
1	1	177099-03021	SHAFT, OUTPUT	1							
2	1	24341-000300	O-RING 1A S-30.0	1							
3	1	177099-03920	ROLLER BEARING	2							
4	1	177099-03040	PLATE ASSY, DRIVING	1							
8	1	177090-03230	KEY	1							
9	1	177095-03190	PIN	3							
10	1	177095-03200	SPRING	3							
11	1	177099-03070	RING, SHIFTING	1							
12	1	177099-03080	PLATE, PRESSURE	2							
13	1	177090-03180	BALL 8MM	6							
14	1	177095-03210	SPRING, RETURN	3							
15	1	177099-03101	GEAR (Z=47), FORWARD	1							1
16	1	177099-03370	GEAR(Z=51),AHEAD	1							2
17	1	177099-03431	GEAR (Z=51), FORWARD	1							3
18	1	177099-03111	GEAR (Z=45)	1							
19	1	177090-03110	RETAINER (B)	2							
20	1	177095-03280	CIRCLIP	2							
21	1	177090-03121	SPRING	2							
22	1	177090-03080	DISC, FRICTION	8							
23	1	177090-03090	PLATE, STEEL	6							
24	1	177099-03161	SPACER	2							
25	1	177090-03270	WASHER, THRUST	2							
26	1	177095-03800	SHIM SET	2							
27	1	177095-03900	ROLLER BEARING	2							
28	1	177099-03470	RACE INNER	2							
29	1	177099-03550	COUPLING, OUTPUT	1							
30	1	177099-03540	LOCK NUT	1							

Remarks  
 (1)l=2.14  
 (2)l=2.45  
 (3)l=2.83

Fig.5.CONTROL DEVICE

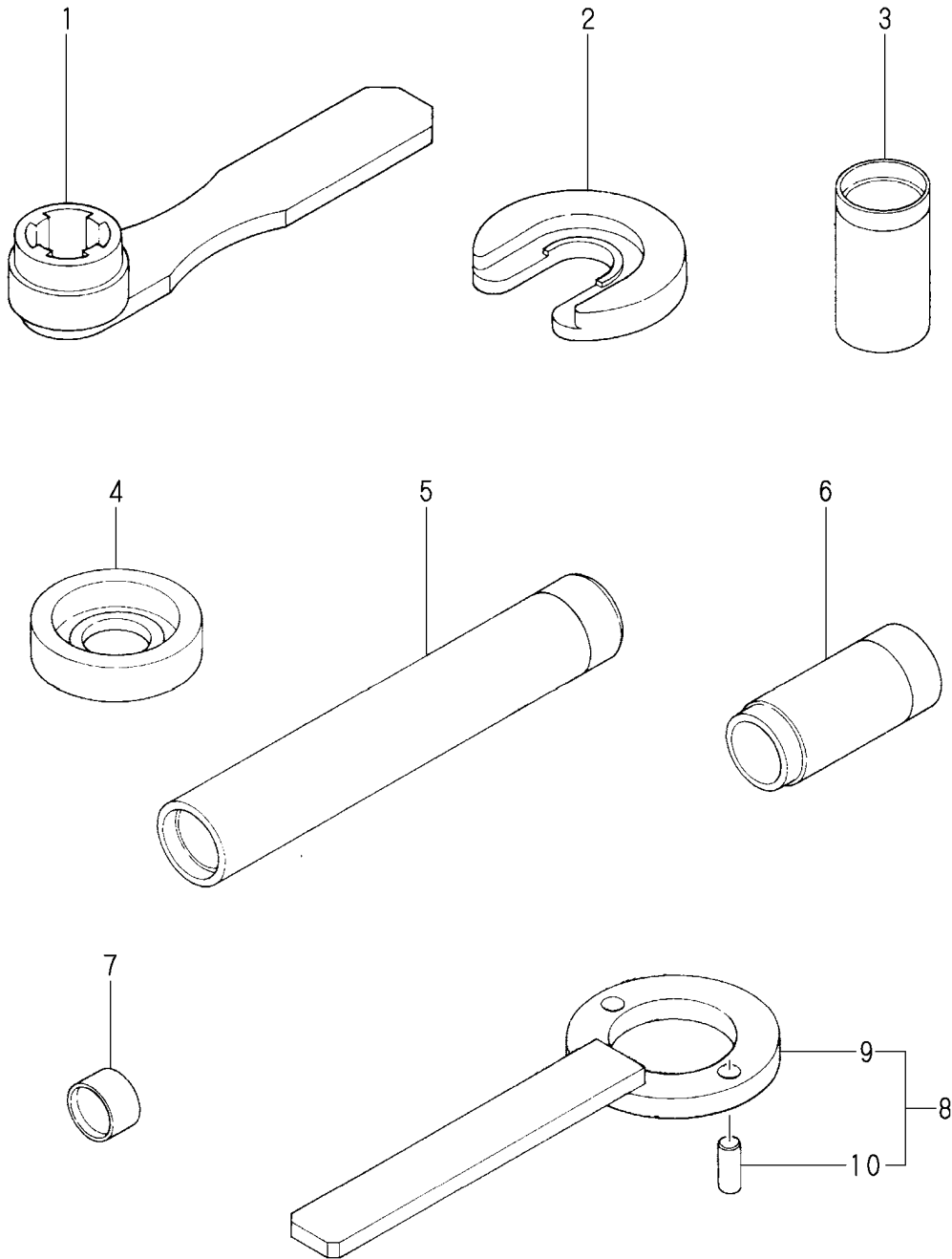
(A)=KBW10-E (D)=KBW20-1  
 (B)=KBW10-D (E)=KBW21  
 (C)=KBW20 (F)=



REF.	LEV.	PARTS NO.	DESCRIPTION	QTY						I	R
				(A)	(B)	(C)	(D)	(E)	(F)		
1	1	177099-06010	FORK ASSY, SHIFT	1							
4	1	177099-06041	SHAFT, SHIFT	1							
5	1	177095-06030	CAM, SHIFT	1							
6	1	177095-06050	PIN	1							
7	1	177095-06140	CIRCLIP	1							
8	1	177095-03200	SPRING	1							
9	1	177095-06060	SPRING	1							
10	1	177095-06040	LEVER	1							
11	1	26116-080252	BOLT M 8X 25 PLATED	1							
12	1	177099-06050	PLUG	1							
I 13	1	177084-06340	STAY ASSY, SWITCH	1							W
		(A=*1994.08)									
I 14	2	177074-06300	SETTING,SAFETY SWIT.	1							W
		(A=*1994.08)									
I 15	2	177084-06350	STAY, SAFETY SWITCH	1							W
		(A=*1994.08)									
I 16	2	26116-080404	BOLT M 8X 40 PLATED	1							W
		(A=*1994.08)									
I 17	2	26979-040082	SCREW M 4X 8	1							W
		(A=*1994.08)									

Fig.6.TOOL

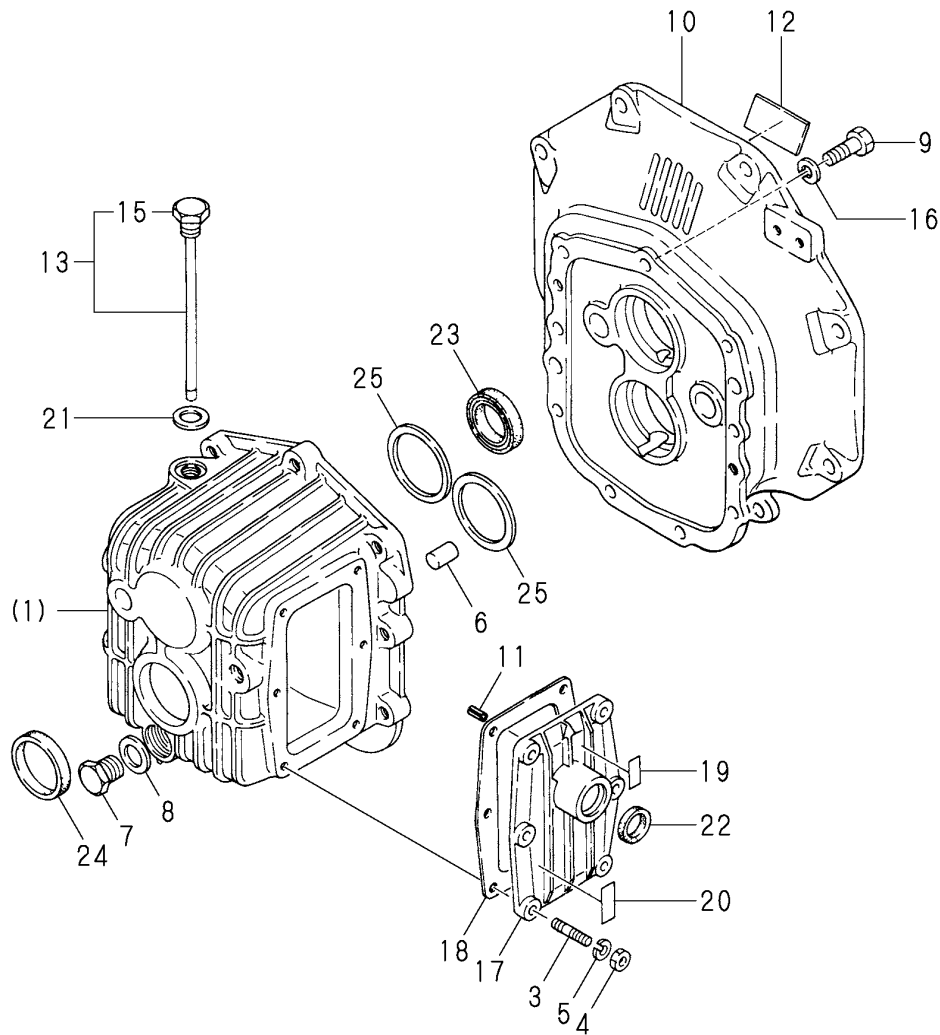
(A)=KBW10-E (D)=KBW20-1  
 (B)=KBW10-D (E)=KBW21  
 (C)=KBW20 (F)=



REF.	LEV.	PARTS NO.	DESCRIPTION	Q'TY						I	R
				(A)	(B)	(C)	(D)	(E)	(F)		
1	1	177099-09010	WRENCH	1							
2	1	177099-09030	REPLACER	1							
3	1	177095-09070	REPLACER	1							
4	1	177090-09010	SPACER	1							
5	1	177095-09020	REPLACER	1							
6	1	177099-09040	REPLACER	1							
7	1	177095-09170	REPLACER	1							
8	1	177099-09080	STOPPER ASSY.	1							
9	2	177099-09020	WRENCH W/PIN	1							
10	2	22312-100200	PARALLEL PIN 10X20	2							

Fig.7.CLUTCH HOUSING

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Y00R5470 7.CLUTCH HOUSING

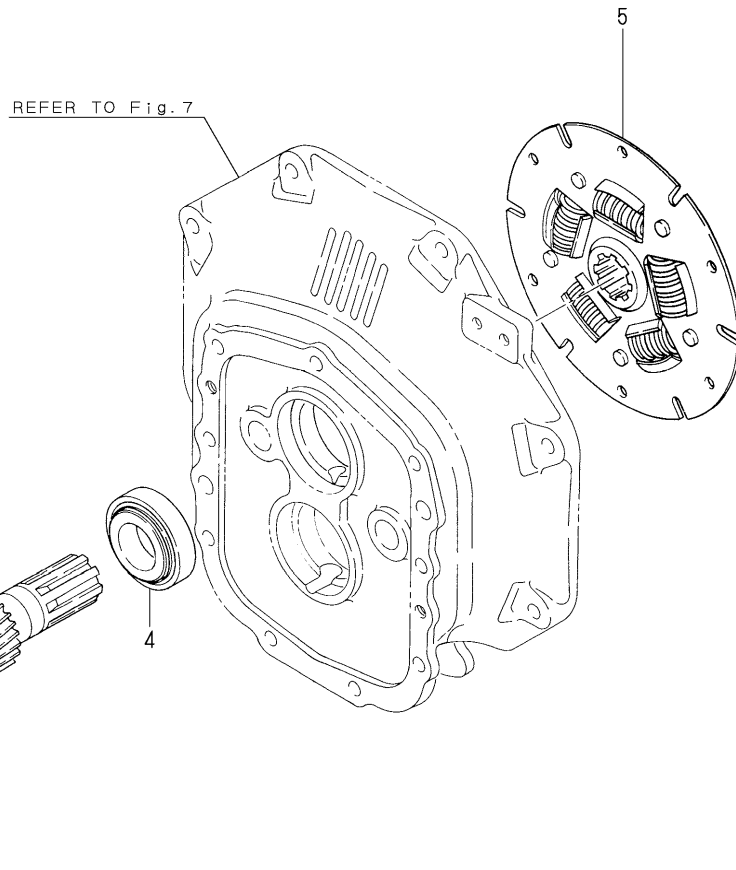
(A)=KBW10-E (D)=KBW20-1  
 (B)=KBW10-D (E)=KBW21  
 (C)=KBW20 (F)=

REF.	LEV.	PARTS NO.	DESCRIPTION	QTY						I	R
				(A)	(B)	(C)	(D)	(E)	(F)		
1	1	777099-02550	HOUSING ASSY, CLUTCH		1						
3	2	26216-080222	STUD M 8X 22 PLATED		6						
4	2	26716-080002	NUT M 8		6						
5	2	22287-080000	LOCKING WASHER		6						
6	2	177099-02130	STRAIGHT PIN		2						
7	2	23887-160002	PLUG 16,HEX.		1						
8	2	23414-160021	GASKET 16		1						
9	1	26116-100302	BOLT 10X30		9						
10	1	177094-02120	FLANGE, MOUNTING		1						
11	1	22352-040012	SPRING PIN 4X12		1						
12	1	177095-02400	LABEL		1						
13	1	177099-02450	DIPSTICK W/BREATHER		1						
15	2	177099-02470	COVER		1						
16	1	22287-100000	WASHER 10		9						
17	1	177099-02081	COVER, SIDE		1						
18	1	177099-02091	GASKET		1						
19	1	177090-02630	LABEL		1						
20	1	177090-02620	LABEL		1						
21	1	23414-160021	GASKET 16		1						
22	1	177095-02980	SEAL, OIL		1						
23	1	177099-02950	SEAL TC30 52 8, OIL		1						
24	1	177099-02960	SEAL TC40 52 8, OIL		1						
25	1	177099-02250	SHIM SET		2						



Fig.8.INPUT SHAFT

(A)=KBW10-E (D)=KBW20-1  
 (B)=KBW10-D (E)=KBW21  
 (C)=KBW20 (F)=

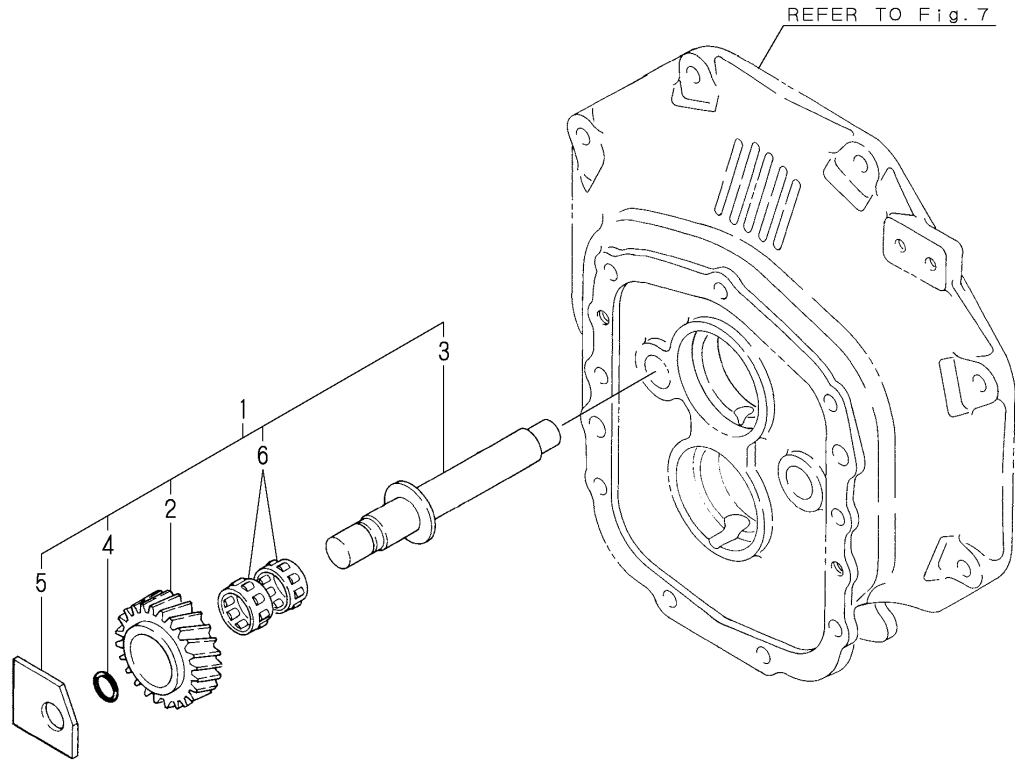


REF.	LEV.	PARTS NO.	DESCRIPTION	QTY						I	R
				(A)	(B)	(C)	(D)	(E)	(F)		
1	1	177099-03011	SHAFT, INPUT (I=2)		1						1
2	1	177099-03380	SHAFT, INPUT I=2.63		1						2
3	1	177099-03411	SHAFT, INPUT (I=3)		1						3
4	1	177099-03920	ROLLER BEARING				2				
5	1	177099-03500	DISK, (NON-ASB.)		1						

Remarks  
 (1)l=2.14  
 (2)l=2.63  
 (3)l=2.83

Fig.9.SUPPORT SHAFT

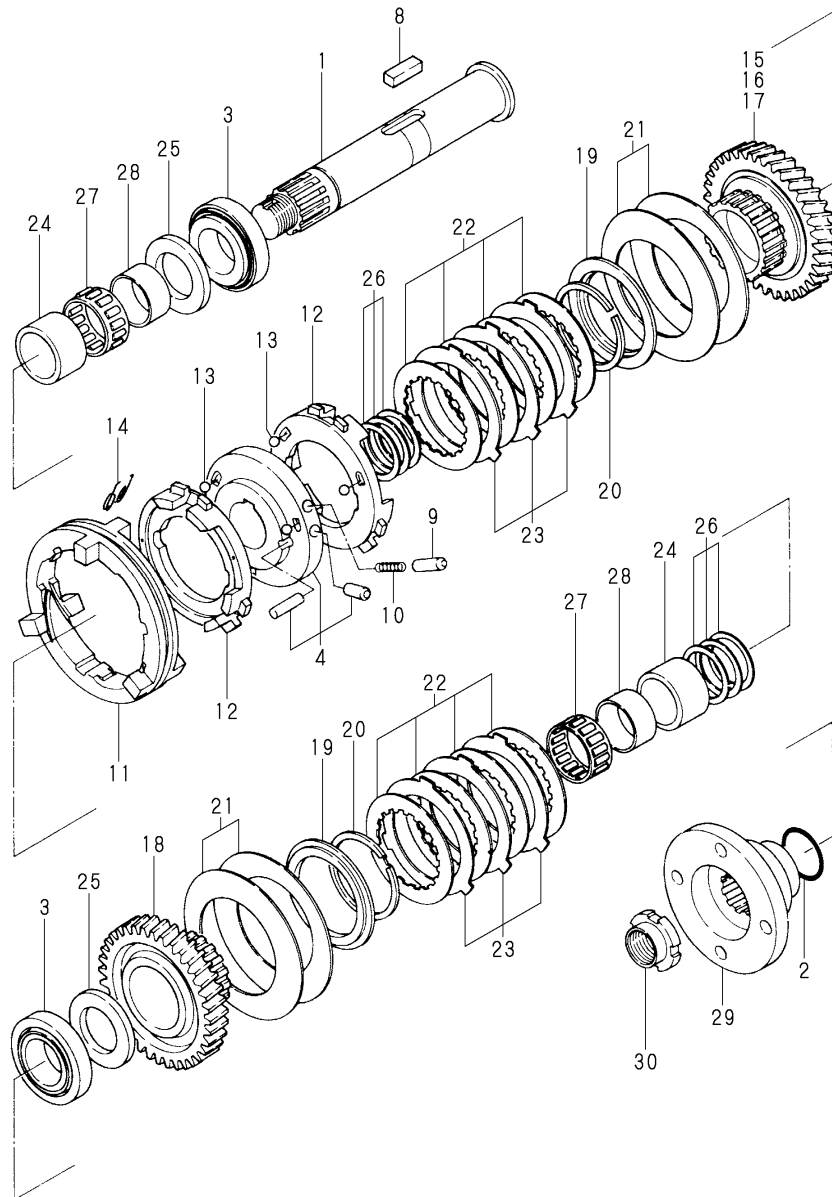
(A)=KBW10-E (D)=KBW20-1  
 (B)=KBW10-D (E)=KBW21  
 (C)=KBW20 (F)=



REF.	LEV.	PARTS NO.	DESCRIPTION	Q'TY						I	R
				(A)	(B)	(C)	(D)	(E)	(F)		
1	1	777099-03021	SHAFT ASY, IDLE GEAR		1						
2	2	177099-03301	GEAR (Z=25), IDLE		1						
3	2	177099-03980	SHAFT		1						
4	2	24341-000150	O-RING 1A S-15.0		1						
5	2	177099-03321	WASHER, THRUST		1						
6	2	177099-03901	NEEDLE BEARING		2						

Fig.10.OUTPUT SHAFT

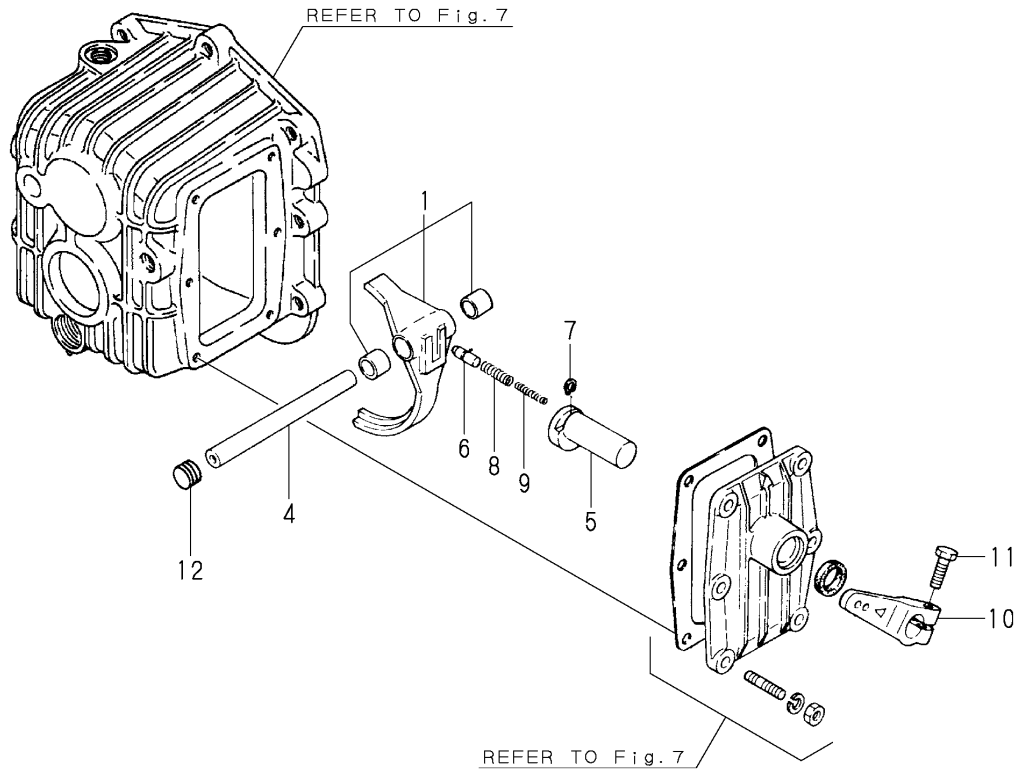
(A)=KBW10-E (D)=KBW20-1  
 (B)=KBW10-D (E)=KBW21  
 (C)=KBW20 (F)=



REF.	LEV.	PARTS NO.	DESCRIPTION	QTY						I	R
				(A)	(B)	(C)	(D)	(E)	(F)		
1	1	177099-03021	SHAFT, OUTPUT		1						
2	1	24341-000300	O-RING 1A S-30.0		1						
3	1	177099-03920	ROLLER BEARING		2						
4	1	177099-03040	PLATE ASSY, DRIVING		1						
8	1	177090-03230	KEY		1						
9	1	177095-03190	PIN		3						
10	1	177095-03200	SPRING		3						
11	1	177099-03070	RING, SHIFTING		1						
12	1	177099-03080	PLATE, PRESSURE		2						
13	1	177090-03180	BALL 8MM		6						
14	1	177095-03210	SPRING, RETURN		3						
15	1	177099-03101	GEAR (Z=47), FORWARD		1						1
16	1	177099-03390	GEAR (Z=50), FORWARD		1						2
17	1	177099-03431	GEAR (Z=51), FORWARD		1						3
18	1	177099-03111	GEAR (Z=45)		1						
19	1	177090-03110	RETAINER (B)		2						
20	1	177095-03280	CIRCLIP		2						
21	1	177090-03121	SPRING		2						
22	1	177090-03080	DISC, FRICTION		8						
23	1	177090-03090	PLATE, STEEL		6						
24	1	177099-03161	SPACER		2						
25	1	177090-03270	WASHER, THRUST		2						
26	1	177095-03800	SHIM SET		2						
27	1	177095-03900	ROLLER BEARING		2						
28	1	177099-03470	RACE INNER		2						
29	1	177099-03550	COUPLING, OUTPUT		1						
30	1	177099-03540	LOCK NUT		1						

Remarks  
 (1)l=2.14  
 (2)l=2.63  
 (3)l=2.83

Fig.11.CONTROL DEVICE

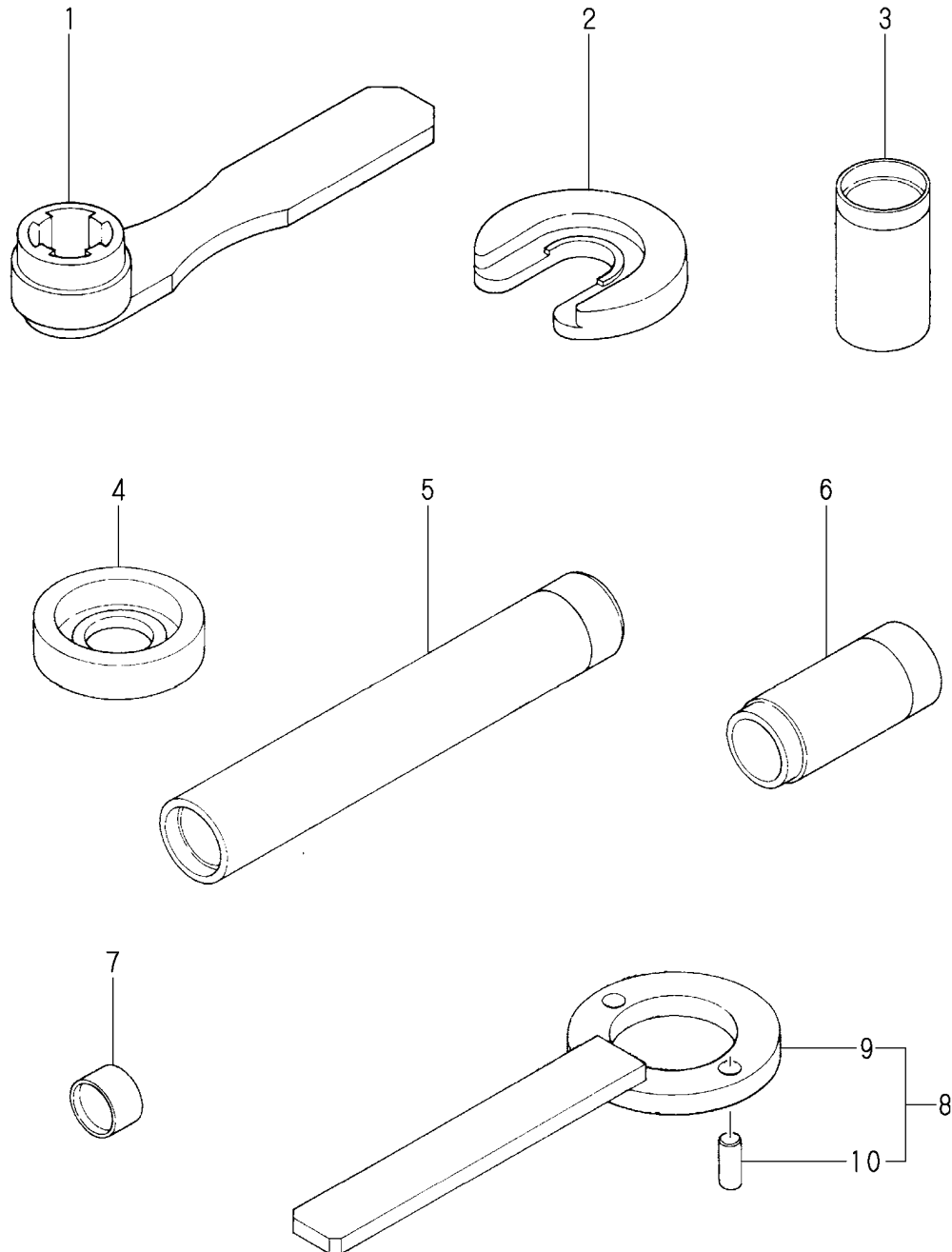


(A)=KBW10-E (D)=KBW20-1  
 (B)=KBW10-D (E)=KBW21  
 (C)=KBW20 (F)=

REF.	LEV.	PARTS NO.	DESCRIPTION	QTY						I R
				(A)	(B)	(C)	(D)	(E)	(F)	
1	1	177099-06010	FORK ASSY, SHIFT		1					
4	1	177099-06041	SHAFT, SHIFT		1					
5	1	177095-06030	CAM, SHIFT		1					
6	1	177095-06050	PIN		1					
7	1	177095-06140	CIRCLIP		1					
8	1	177095-03200	SPRING		1					
9	1	177095-06060	SPRING		1					
10	1	177095-06040	LEVER		1					
11	1	26116-080252	BOLT M 8X 25 PLATED		1					
12	1	177099-06050	PLUG		1					

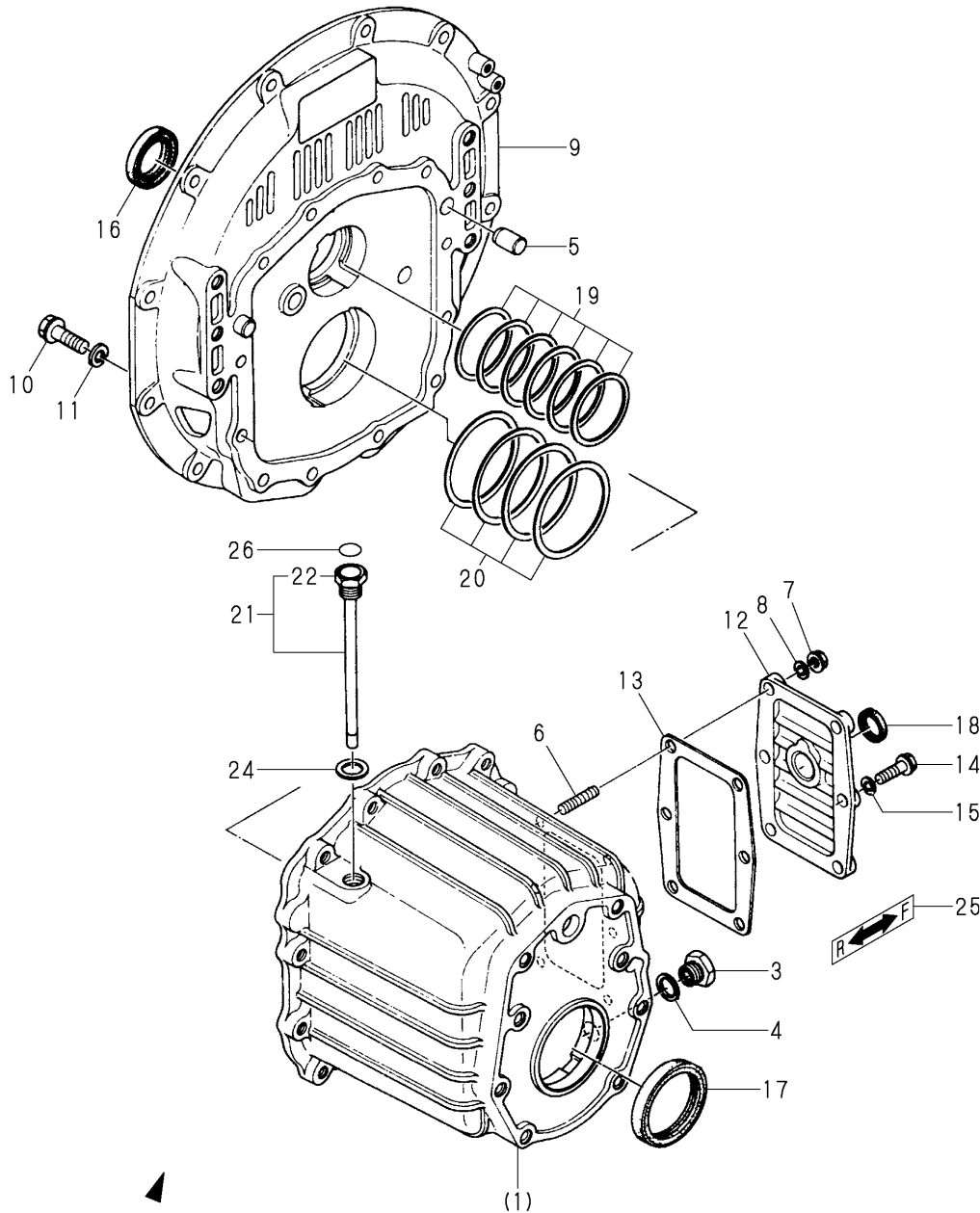
(A)=KBW10-E (D)=KBW20-1  
 (B)=KBW10-D (E)=KBW21  
 (C)=KBW20 (F)=

Fig.12.CONTROL DEVICE



REF.	LEV.	PARTS NO.	DESCRIPTION	QTY						I	R
				(A)	(B)	(C)	(D)	(E)	(F)		
1	1	177099-09010	WRENCH		1						
2	1	177099-09030	REPLACER		1						
3	1	177095-09070	REPLACER		1						
4	1	177090-09010	SPACER		1						
5	1	177095-09020	REPLACER		1						
6	1	177099-09040	REPLACER		1						
7	1	177095-09170	REPLACER		1						
8	1	177099-09080	STOPPER ASSY.		1						
9	2	177099-09020	WRENCH W/PIN		1						
10	2	22312-100200	PARALLEL PIN 10X20		2						

Fig.13.CLUTCH HOUSING



1inc.(1) ~ 8

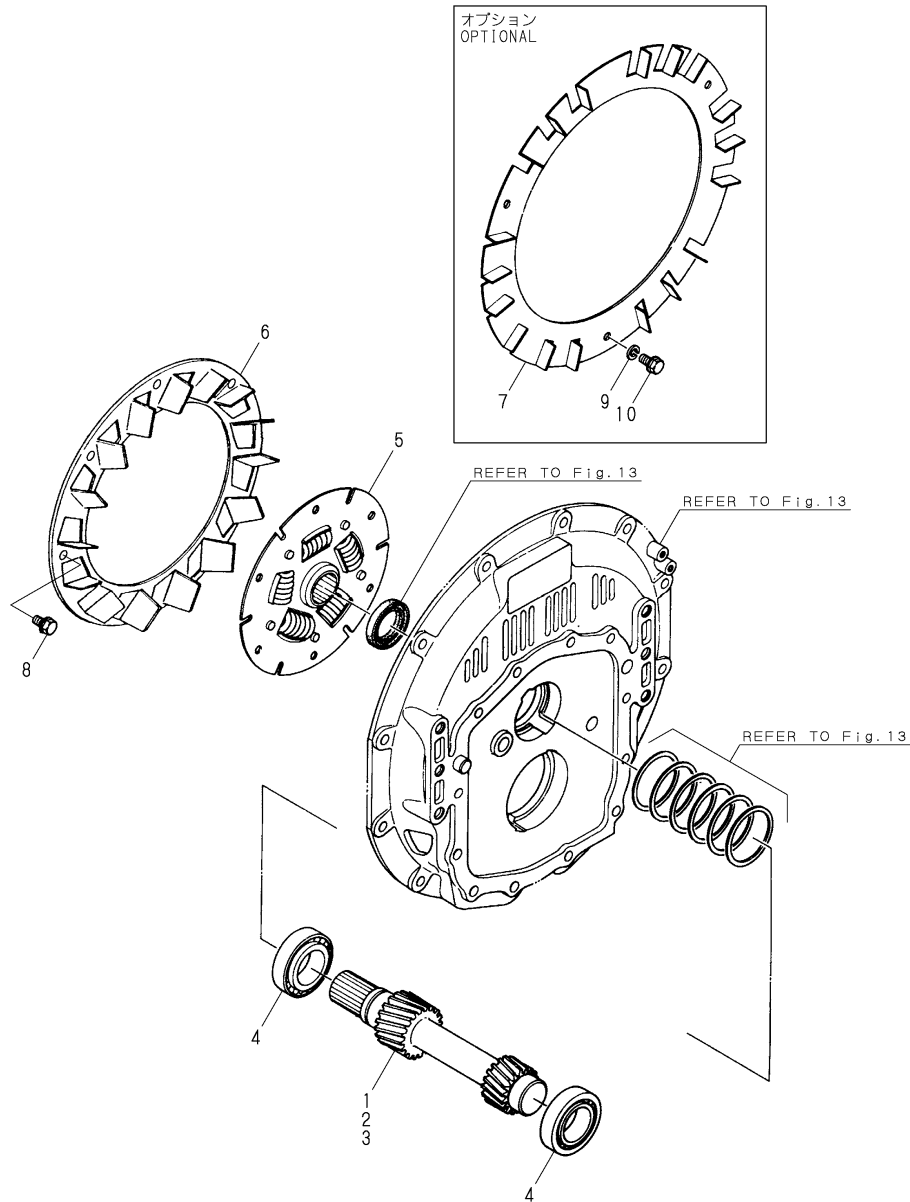
(A)=KBW10-E (D)=KBW20-1  
 (B)=KBW10-D (E)=KBW21  
 (C)=KBW20 (F)=

REF.	LEV.	PARTS NO.	DESCRIPTION	QTY						I	R	
				(A)	(B)	(C)	(D)	(E)	(F)			
1	1	777075-02550	HOUSING ASSY, CLUTCH									
3	2	177035-02920	PLUG M16X1.5,MAGNET.									
4	2	23414-160021	GASKET 16									
5	2	177099-02130	STRAIGHT PIN									
6	2	26216-080222	STUD M 8X 22 PLATED									
7	2	26366-080002	NUT M 8									
8	2	22287-080000	LOCKING WASHER									
9	1	177075-02041	FLANGE									
10	1	26106-100302	BOLT M10X 30 PLATED									
I	10-1	1	26016-100302 (C=*1997.12)									N
I	11	1	22287-100000 (C=*1997.12)									Z
12	1	177099-02081	COVER, SIDE									
13	1	177099-02091	GASKET									
14	1	26106-080252	BOLT M 8X 25 PLATED									
I	14-1	1	26016-080252 (C=*1997.12)									N
I	15	1	22287-080000 (C=*1997.12)									Z
16	1	177095-02960	SEAL SB35 47 7, OIL									
17	1	177090-02970	SEAL TC54 70 9, OIL									
18	1	177095-02980	SEAL, OIL									
19	1	177075-02150	SHIM SET									
20	1	177075-02250	SHIM									
21	1	177099-02450	DIPSTICK W/BREATHER									
22	2	177099-02470	COVER									
24	1	23414-160021	GASKET 16									
I	25	1	177088-02430 (C=*1994.05)									W
I	26	1	177075-02550 (C=*1994.05)									W
I	26-1	1	177075-02551 (C=*1995.07)									N

Fig.14.INPUT SHAFT

(A)=KBW10-E (D)=KBW20-1  
 (B)=KBW10-D (E)=KBW21  
 (C)=KBW20 (F)=

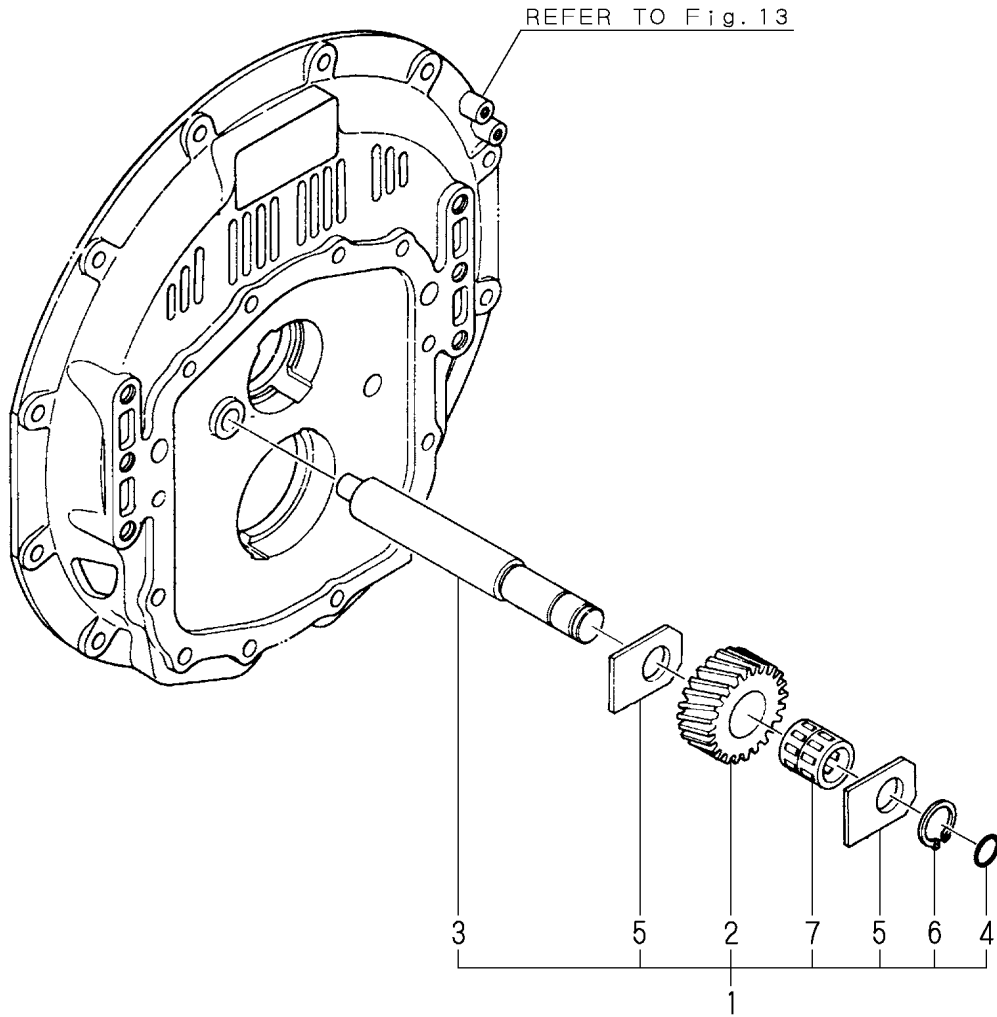
REF.	LEV.	PARTS NO.	DESCRIPTION	QTY						I	R
				(A)	(B)	(C)	(D)	(E)	(F)		
1	1	177075-03611	SHAFT, INPUT						1		1
2	1	177075-03011	SHAFT, INPUT						1		2
3	1	177075-03411	SHAFT, INPUT						1		3
4	1	24141-320070	ROLLER BEARING						2		
5	1	177090-03500	DISC, DAMPER						1		
6	1	177073-03191	FAN						1		
7	1	177075-03510	FAN						1		
8	1	26106-080162	BOLT M 8X 16 PLATED						6		
9	1	22217-080000	SPRING WASHER 8						3		
10	1	26106-080162	BOLT M 8X 16 PLATED						3		



Remarks  
 (1)l=2.17  
 (2)l=2.62  
 (3)l=3.28

Fig.15.SUPPORT SHAFT

(A)=KBW10-E (D)=KBW20-1  
 (B)=KBW10-D (E)=KBW21  
 (C)=KBW20 (F)=

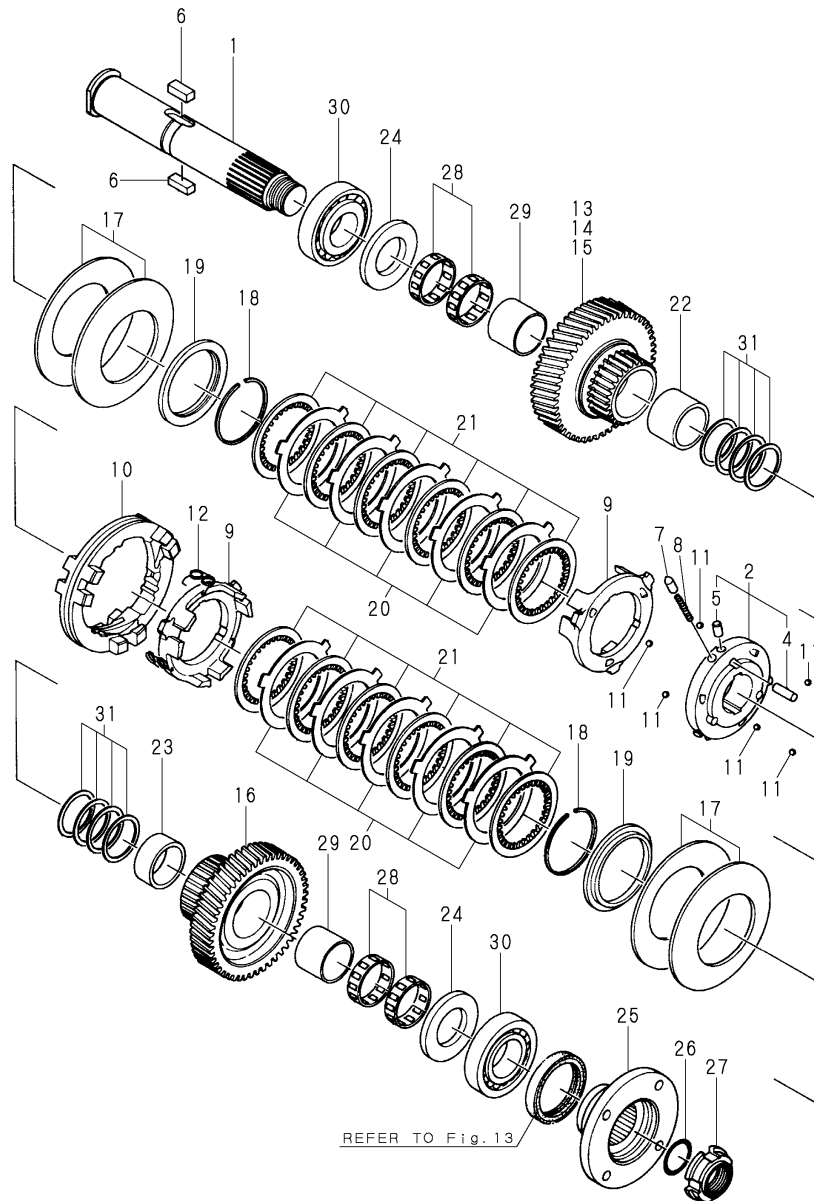


REF.	LEV.	PARTS NO.	DESCRIPTION	QTY						I	R	
				(A)	(B)	(C)	(D)	(E)	(F)			
1	1	777075-03021	SHAFT ASSY, COUNTER									
2	2	177075-03300	GEAR									
3	2	177075-03311	SHAFT									
4	2	24311-000180	O-RING 1A P-18.0									
5	2	177075-03320	WASHER									
6	2	22242-000220	CIRCLIP 22									
7	2	24161-222916	NEEDLE BEARING									



Fig.16.OUTPUT SHAFT

(A)=KBW10-E (D)=KBW20-1  
 (B)=KBW10-D (E)=KBW21  
 (C)=KBW20 (F)=

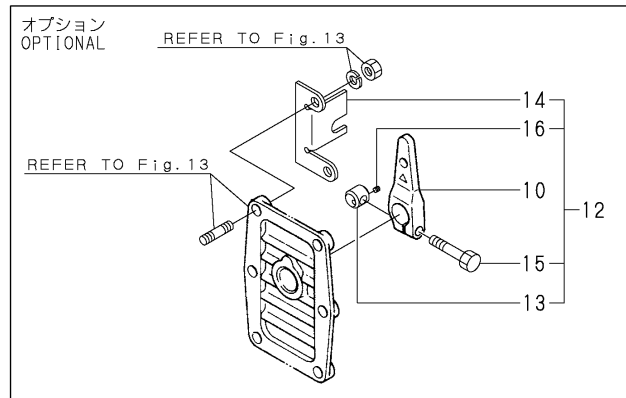
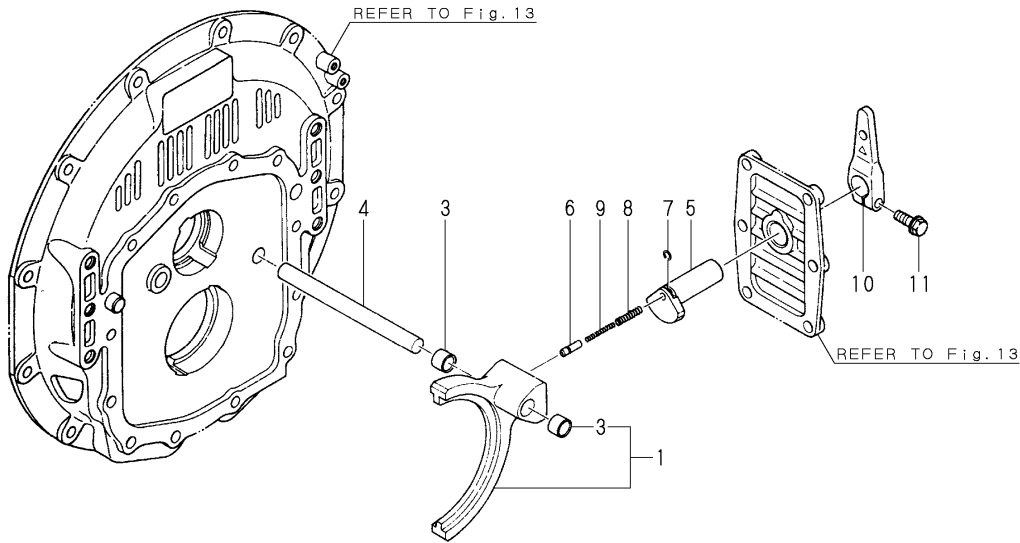


REF.	LEV.	PARTS NO.	DESCRIPTION	QTY						I	R		
				(A)	(B)	(C)	(D)	(E)	(F)				
1	1	177075-03020	SHAFT, THRUST										
2	1	177075-03040	PLATE ASSY, DRIVING										
4	2	177095-03030	PARALLEL PIN										
5	2	177095-03040	PARALLEL PIN										
6	1	177090-03230	KEY										
7	1	177095-03190	PIN										
8	1	177095-03200	SPRING										
9	1	177075-03250	RETAINER										
10	1	177075-03220	RING										
11	1	24190-120001	BALL 3/8,STEEL										
12	1	177095-03210	SPRING, RETURN										
13	1	177075-03630	GEAR Z=52										
14	1	177075-03100	GEAR										1
15	1	177075-03430	GEAR										3
16	1	177075-03110	GEAR										
17	1	177075-03960	SPRING										
18	1	177075-03280	CIRCLIP										
19	1	177075-03130	RETAINER										
20	1	177075-03880	DISK, FRICTION										
21	1	177020-03380	PLATE, STEEL										
22	1	177075-03160	SPACER										
23	1	177075-03170	SPACER										
24	1	177075-03270	COLLAR										
25	1	177075-03550	COUPLING										
26	1	24311-000350	O-RING 1A P-35.0										
27	1	177075-03540	NUT										
28	1	24161-455017	NEEDLE BEARING										
29	1	177075-03470	RACE, INNER										
30	1	24141-302080	ROLLER BEARING										
31	1	177075-03800	SHIM										

Remarks  
 (1)l=2.17  
 (2)l=2.62  
 (3)l=3.28

Fig.17.CONTROL DEVICE

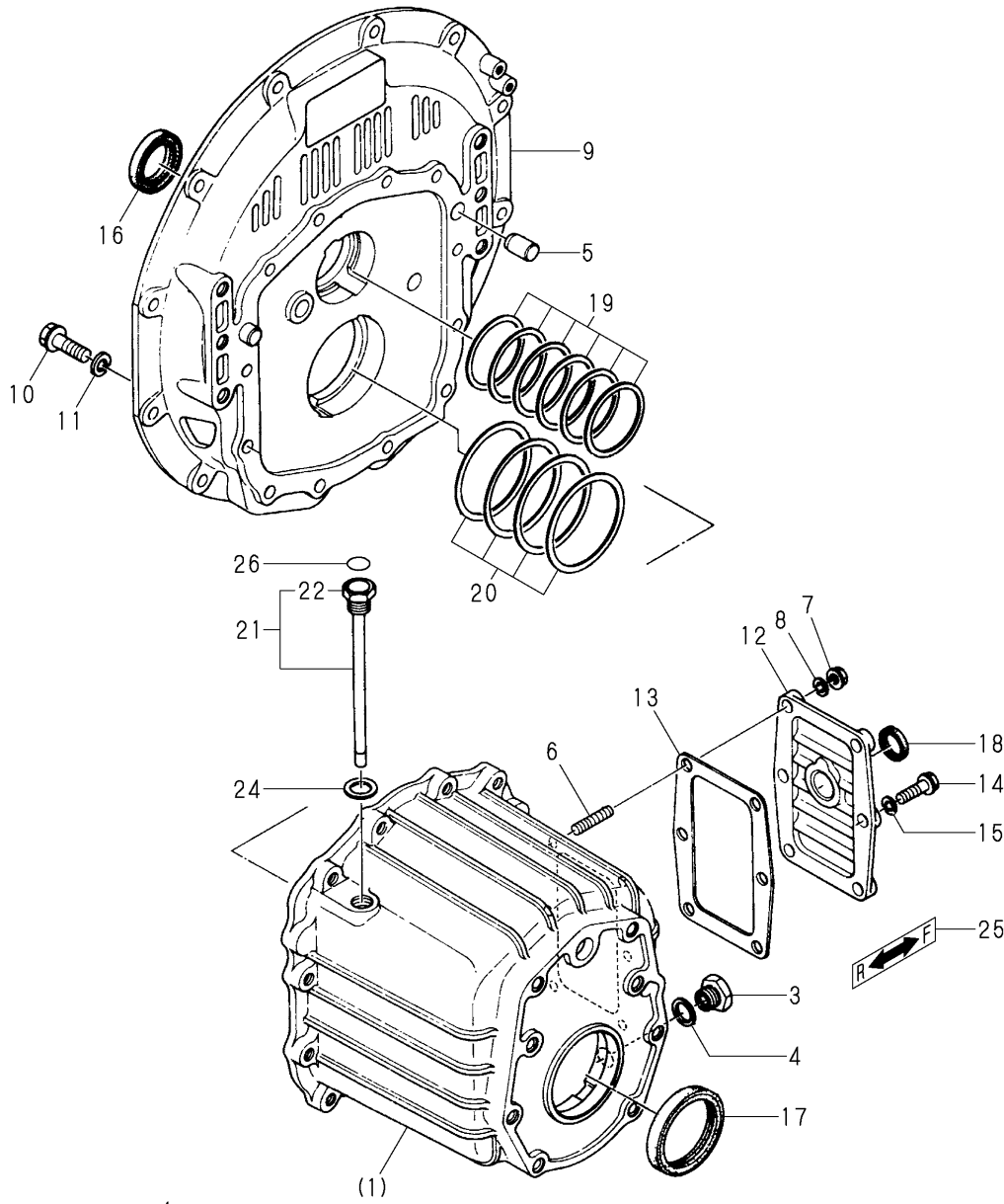
(A)=KBW10-E (D)=KBW20-1  
 (B)=KBW10-D (E)=KBW21  
 (C)=KBW20 (F)=



REF.	LEV.	PARTS NO.	DESCRIPTION	----- QTY -----						I	R
				(A)	(B)	(C)	(D)	(E)	(F)		
1	1	177075-06011	FORK ASSY, SHIFT						1		
3	2	177095-06070	BEARING, SHIFT FORK						2		
4	1	177075-06040	BAR, SHIFT						1		
5	1	177095-06030	CAM, SHIFT						1		
6	1	177095-06050	PIN						1		
7	1	177095-06140	CIRCLIP						1		
8	1	177095-03200	SPRING						1		
9	1	177095-06060	SPRING						1		
10	1	177075-06050	LEVER						1		
11	1	26106-080252	BOLT M 8X 25 PLATED						1		
I 12	1	177075-06340	STAY ASSY, SWITCH (C=*1994.08)						1		W
I 13	2	177074-06300	SETTING, SAFETY SWIT. (C=*1994.08)						1		W
I 14	2	177075-06350	STAY, SAFETY SWITCH (C=*1994.08)						1		W
I 15	2	26116-080404	BOLT M 8X 40 PLATED (C=*1994.08)						1		W
I 16	2	26979-040082	SCREW M 4X 8 (C=*1994.08)						1		W

Fig.19.CLUTCH HOUSING

(A)=KBW10-E (D)=KBW20-1  
 (B)=KBW10-D (E)=KBW21  
 (C)=KBW20 (F)=

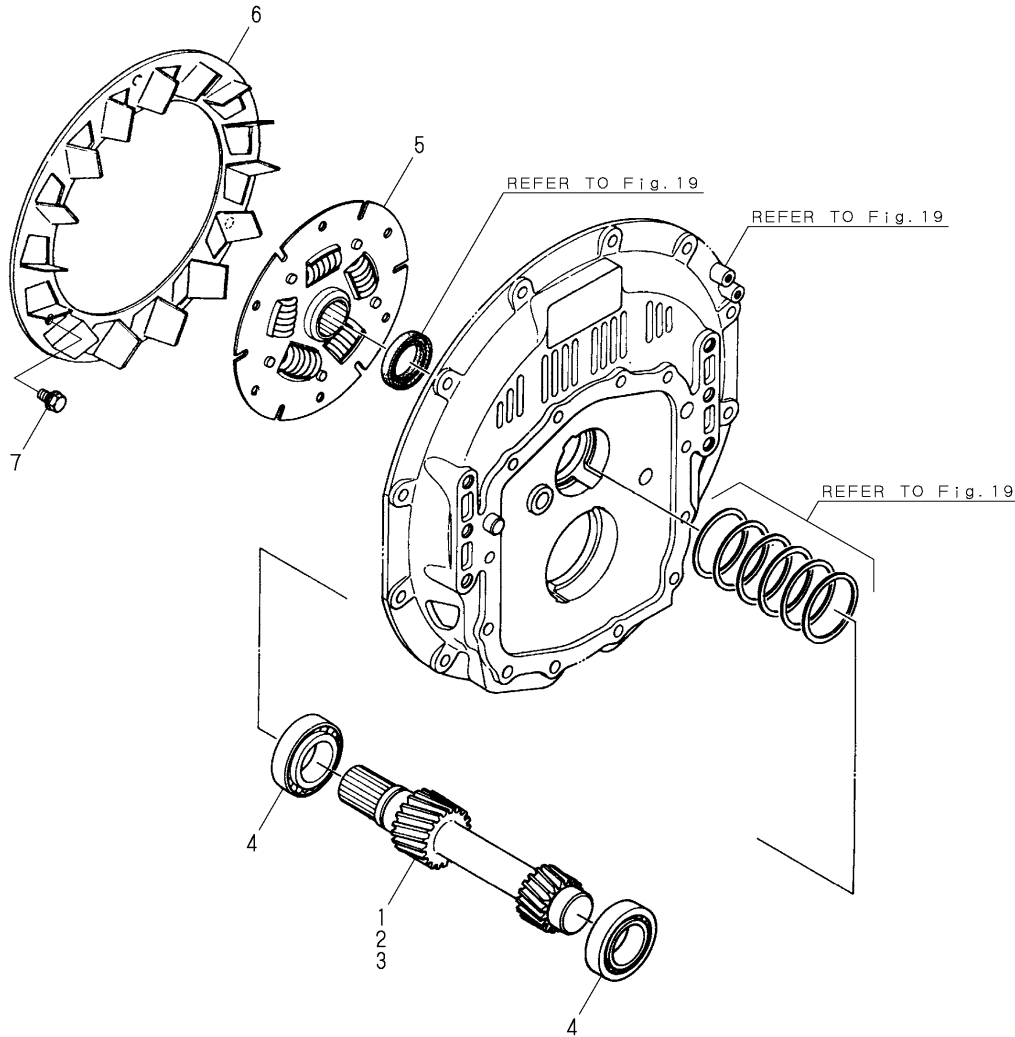


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REF.	LEV.	PARTS NO.	DESCRIPTION	----- QTY -----						I	R
				(A)	(B)	(C)	(D)	(E)	(F)		
1	1	777075-02550	HOUSING ASSY, CLUTCH				1				
3	2	177035-02920	PLUG M16X1.5,MAGNET.				1				
4	2	23414-160021	GASKET 16				1				
5	2	177099-02130	STRAIGHT PIN				2				
6	2	26216-080222	STUD M 8X 22 PLATED				3				
7	2	26366-080002	NUT M 8				3				
8	2	22287-080000	LOCKING WASHER				3				
9	1	177075-02070	FLANGE				1				
10	1	26106-100302	BOLT M10X 30 PLATED				12				
I	10-1	1	26016-100302	BOLT M10X 30			12				N
				(D=*1997.12)							
I	11	1	22287-100000	WASHER 10			12				Z
				(D=*1997.12)							
12	1	177099-02081	COVER, SIDE				1				
13	1	177099-02091	GASKET				1				
14	1	26106-080252	BOLT M 8X 25 PLATED				3				
I	14-1	1	26016-080252	BOLT M 8X 25			3				N
				(D=*1997.12)							
I	15	1	22287-080000	LOCKING WASHER			3				Z
				(D=*1997.12)							
16	1	177095-02960	SEAL SB35 47 7, OIL				1				
17	1	177090-02970	SEAL TC54 70 9, OIL				1				
18	1	177095-02980	SEAL, OIL				1				
19	1	177075-02150	SHIM SET				1				
20	1	177075-02250	SHIM				1				
21	1	177099-02450	DIPSTICK W/BREATHER				1				
22	2	177099-02470	COVER				1				
24	1	23414-160021	GASKET 16				1				
25	1	177088-02430	LABEL				1				
26	1	177075-02551	LABEL,OIL				1				

Fig.20.INPUT SHAFT

(A)=KBW10-E (D)=KBW20-1  
 (B)=KBW10-D (E)=KBW21  
 (C)=KBW20 (F)=

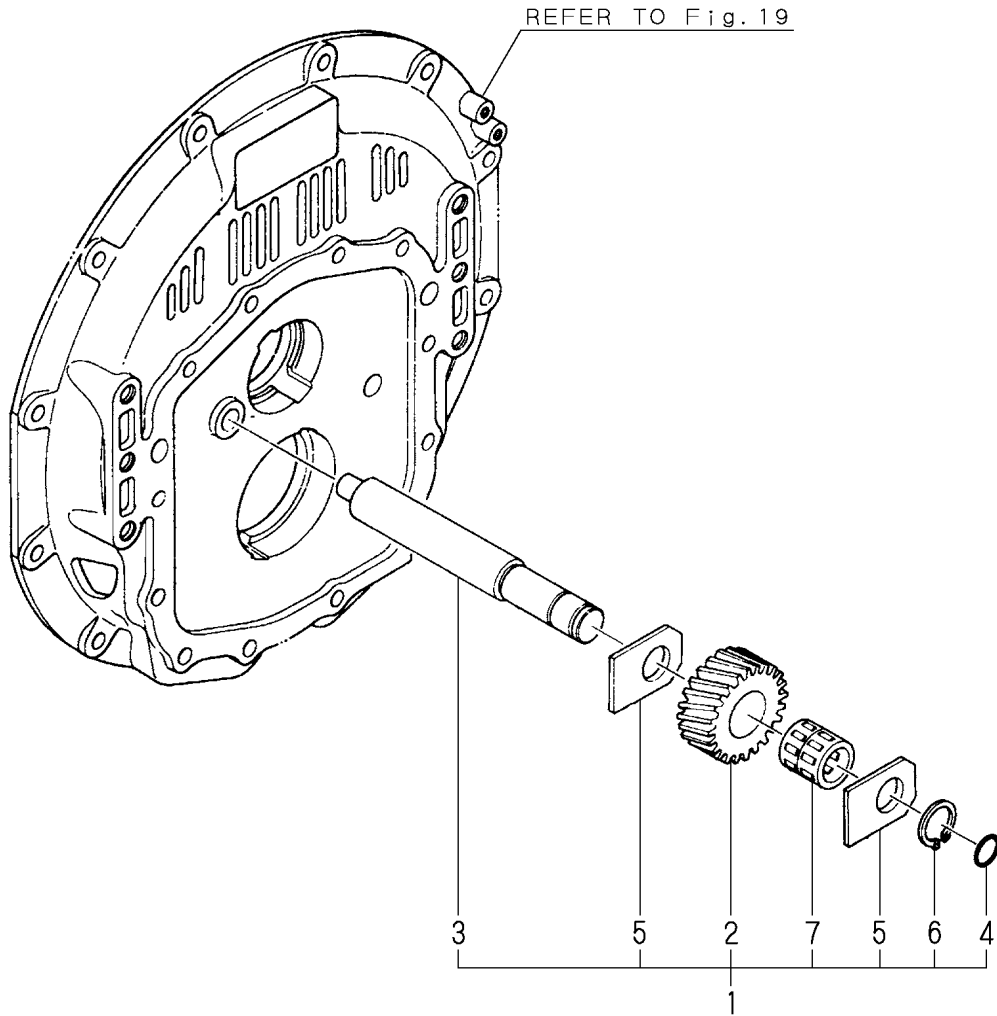


REF.	LEV.	PARTS NO.	DESCRIPTION	QTY						I	R
				(A)	(B)	(C)	(D)	(E)	(F)		
1	1	177075-03611	SHAFT, INPUT				1				1
2	1	177075-03011	SHAFT, INPUT				1				2
3	1	177075-03411	SHAFT, INPUT				1				3
4	1	24141-320070	ROLLER BEARING				2				
5	1	177090-03500	DISC, DAMPER				1				
6	1	177073-03191	FAN				1				
7	1	26106-080162	BOLT M 8X 16 PLATED				6				

Remarks  
 (1)I=2.17  
 (2)I=2.62  
 (3)I=3.28

Fig.21.SUPPORT SHAFT

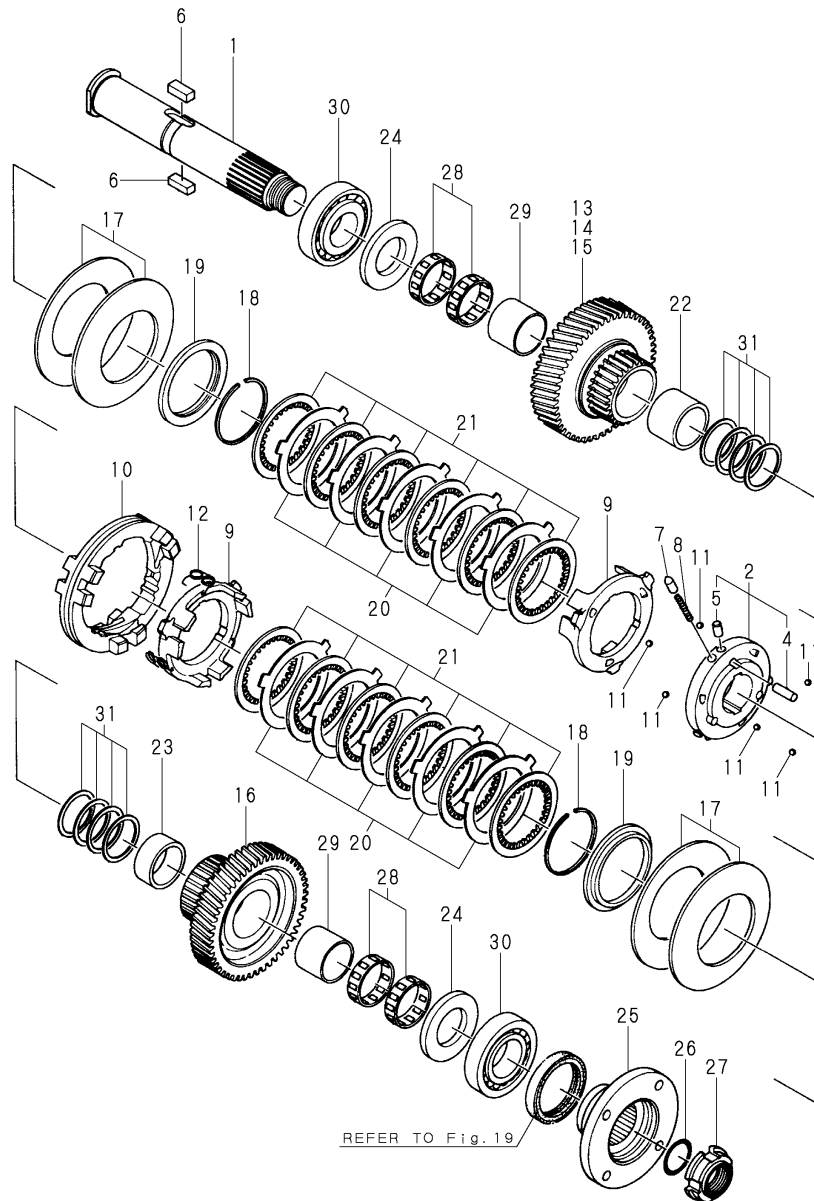
(A)=KBW10-E (D)=KBW20-1  
 (B)=KBW10-D (E)=KBW21  
 (C)=KBW20 (F)=



REF.	LEV.	PARTS NO.	DESCRIPTION	QTY						I	R
				(A)	(B)	(C)	(D)	(E)	(F)		
1	1	777075-03021	SHAFT ASSY, COUNTER				1				
2	2	177075-03300	GEAR				1				
3	2	177075-03311	SHAFT				1				
4	2	24311-000180	O-RING 1A P-18.0				1				
5	2	177075-03320	WASHER				2				
6	2	22242-000220	CIRCLIP 22				1				
7	2	24161-222916	NEEDLE BEARING				2				

Fig.22.OUTPUT SHAFT

(A)=KBW10-E (D)=KBW20-1  
 (B)=KBW10-D (E)=KBW21  
 (C)=KBW20 (F)=

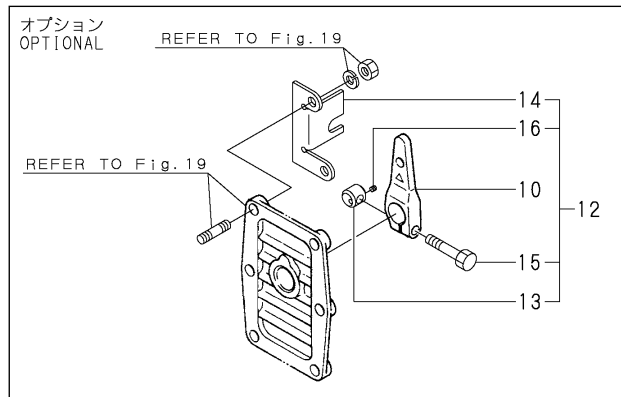
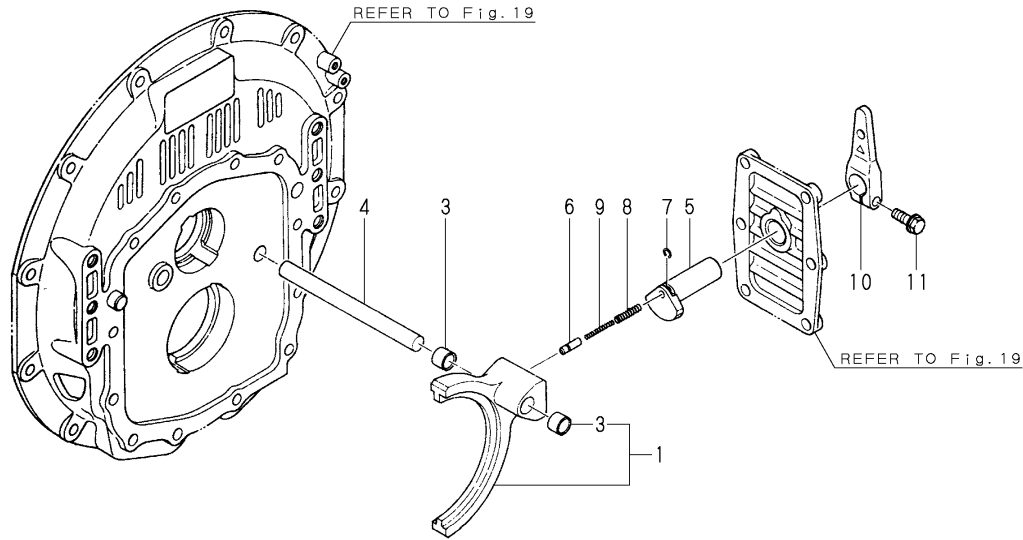


REF.	LEV.	PARTS NO.	DESCRIPTION	QTY						I	R
				(A)	(B)	(C)	(D)	(E)	(F)		
1	1	177075-03020	SHAFT, THRUST				1				
2	1	177075-03040	PLATE ASSY, DRIVING				1				
4	2	177095-03030	PARALLEL PIN				3				
5	2	177095-03040	PARALLEL PIN				3				
6	1	177090-03230	KEY				2				
7	1	177095-03190	PIN				3				
8	1	177095-03200	SPRING				3				
9	1	177075-03250	RETAINER				2				
10	1	177075-03220	RING				1				
11	1	24190-120001	BALL 3/8,STEEL				6				
12	1	177095-03210	SPRING, RETURN				3				
13	1	177075-03630	GEAR Z=52				1				1
14	1	177075-03100	GEAR				1				2
15	1	177075-03430	GEAR				1				3
16	1	177075-03110	GEAR				1				
17	1	177075-03960	SPRING				4				
18	1	177075-03280	CIRCLIP				2				
19	1	177075-03130	RETAINER				2				
20	1	177075-03880	DISK, FRICTION				12				
21	1	177020-03380	PLATE, STEEL				10				
22	1	177075-03160	SPACER				1				
23	1	177075-03170	SPACER				1				
24	1	177075-03270	COLLAR				2				
25	1	177075-03550	COUPLING				1				
26	1	24311-000350	O-RING 1A P-35.0				1				
27	1	177075-03540	NUT				1				
28	1	24161-455017	NEEDLE BEARING				4				
29	1	177075-03470	RACE, INNER				2				
30	1	24141-302080	ROLLER BEARING				2				
31	1	177075-03800	SHIM				2				

Remarks  
 (1)l=2.17  
 (2)l=2.62  
 (3)l=3.28

Fig.23.CONTROL DEVICE

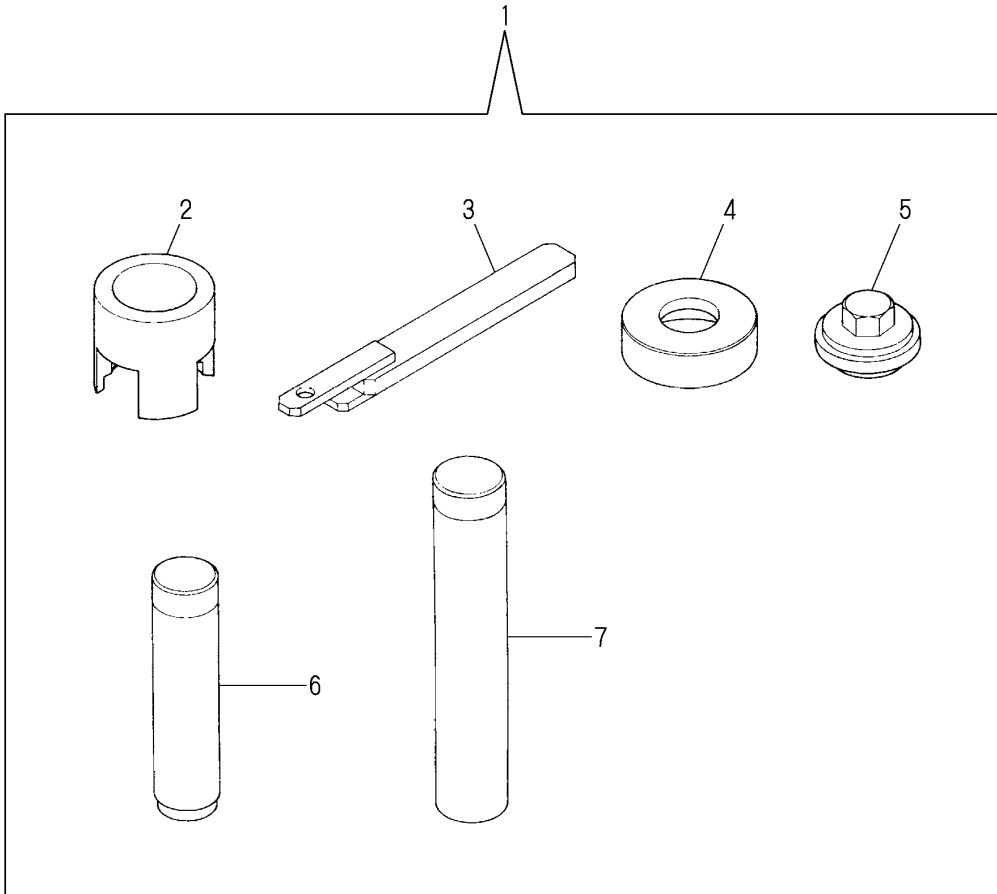
(A)=KBW10-E (D)=KBW20-1  
 (B)=KBW10-D (E)=KBW21  
 (C)=KBW20 (F)=



REF.	LEV.	PARTS NO.	DESCRIPTION	----- QTY -----						I	R
				(A)	(B)	(C)	(D)	(E)	(F)		
1	1	177075-06011	FORK ASSY, SHIFT				1				
3	2	177095-06070	BEARING, SHIFT FORK				2				
4	1	177075-06040	BAR, SHIFT				1				
5	1	177095-06030	CAM, SHIFT				1				
6	1	177095-06050	PIN				1				
7	1	177095-06140	CIRCLIP				1				
8	1	177095-03200	SPRING				1				
9	1	177095-06060	SPRING				1				
10	1	177075-06050	LEVER				1				
11	1	26106-080252	BOLT M 8X 25 PLATED				1				
12	1	177075-06340	STAY ASSY, SWITCH				1				
13	2	177074-06300	SETTING, SAFETY SWIT.				1				
14	2	177075-06350	STAY, SAFETY SWITCH				1				
15	2	26116-080404	BOLT M 8X 40 PLATED				1				
16	2	26979-040082	SCREW M 4X 8				1				

Fig.24.TOOL

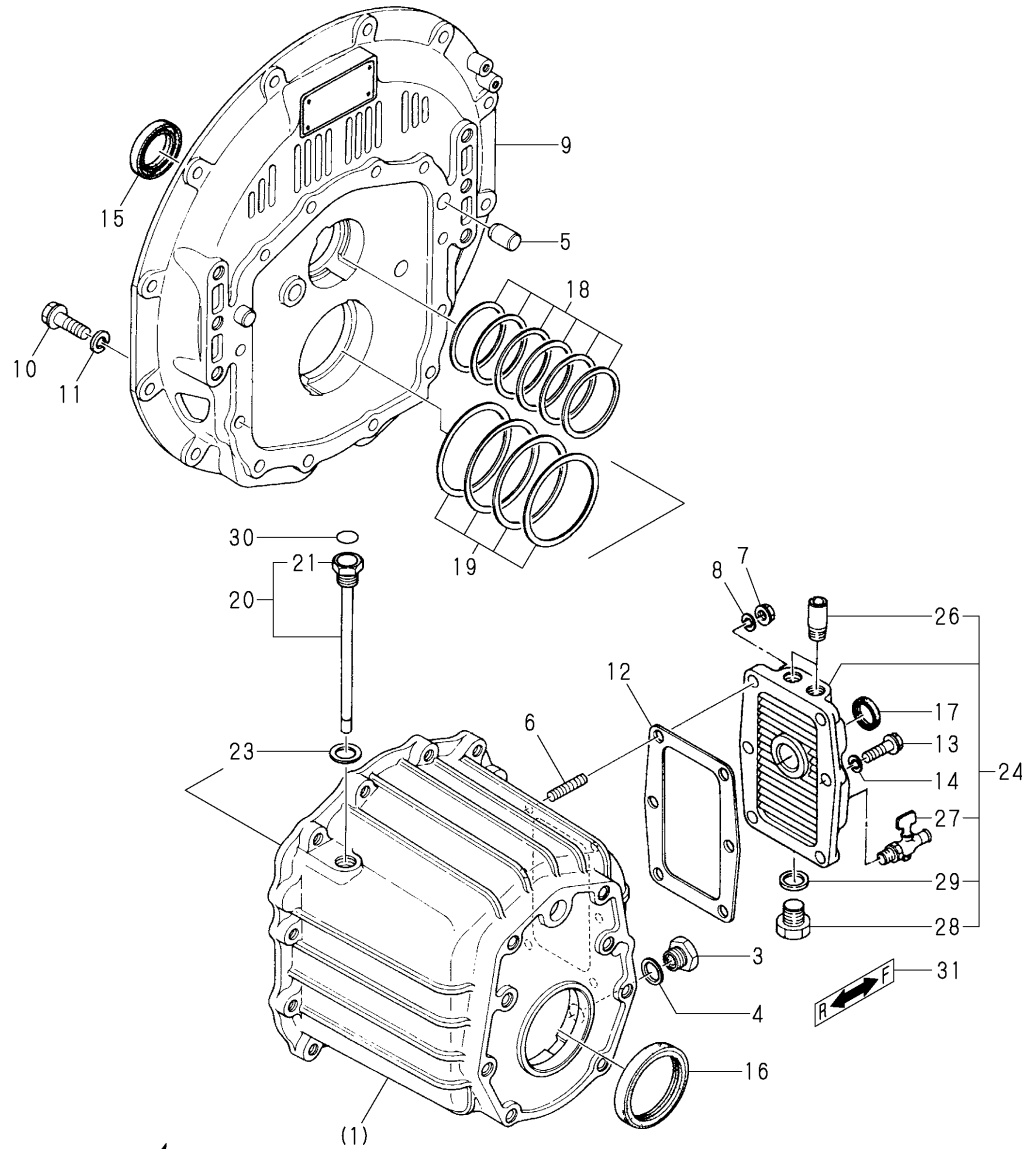
(A)=KBW10-E (D)=KBW20-1  
 (B)=KBW10-D (E)=KBW21  
 (C)=KBW20 (F)=



REF.	LEV.	PARTS NO.	DESCRIPTION	Q'TY						I	R	
				(A)	(B)	(C)	(D)	(E)	(F)			
1	1	777075-09500	TOOLS ASSY				1					
2	2	177095-09070	REPLACER				1					
3	2	177075-09050	CIRCLIP				1					
4	2	177075-09010	SPACER				1					
5	2	177075-09020	SOCKET				1					
6	2	177075-09030	TOOL				1					
7	2	177075-09040	TOOL				1					



Fig.25.CLUTCH HOUSING



1inc.(1) ~ 8

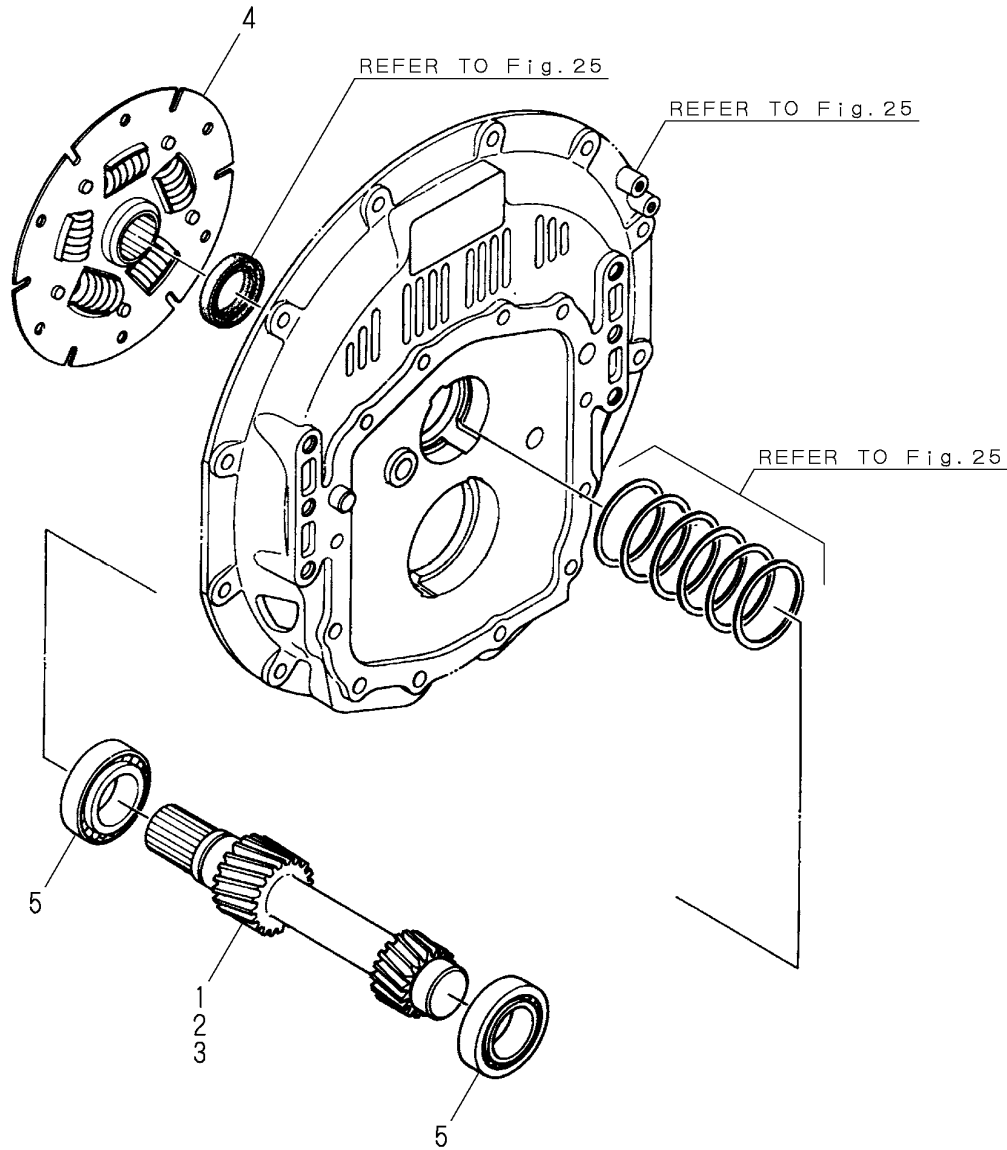
Y00R5470 25.CLUTCH HOUSING

(A)=KBW10-E (D)=KBW20-1  
 (B)=KBW10-D (E)=KBW21  
 (C)=KBW20 (F)=

REF.	LEV.	PARTS NO.	DESCRIPTION	QTY						I	R
				(A)	(B)	(C)	(D)	(E)	(F)		
1	1	777075-02550	HOUSING ASSY, CLUTCH							1	
3	2	177035-02920	PLUG M16X1.5,MAGNET.							1	
4	2	23414-160021	GASKET 16							1	
5	2	177099-02130	STRAIGHT PIN							2	
6	2	26216-080222	STUD M 8X 22 PLATED							3	
7	2	26366-080002	NUT M 8							3	
8	2	22287-080000	LOCKING WASHER							3	
9	1	177075-02050	FRANGE							1	
10	1	26106-100302	BOLT M10X 30 PLATED							12	
I	10-1	1	26016-100302	BOLT M10X 30						12	N
						(E=*1997.12)				12	Z
I	11	1	22287-100000	WASHER 10						12	Z
						(E=*1997.12)				12	Z
12	1	177099-02091	GASKET							1	
13	1	26106-080252	BOLT M 8X 25 PLATED							3	
I	13-1	1	26016-080252	BOLT M 8X 25						3	N
						(E=*1997.12)				3	Z
I	14	1	22287-080000	LOCKING WASHER						3	Z
						(E=*1997.12)				3	Z
15	1	177095-02960	SEAL SB35 47 7, OIL							1	
16	1	177090-02970	SEAL TC54 70 9, OIL							1	
17	1	177095-02980	SEAL, OIL							1	
18	1	177075-02150	SHIM SET							1	
19	1	177075-02250	SHIM							1	
20	1	177099-02450	DIPSTICK W/BREATHER							1	
21	2	177099-02470	COVER							1	
23	1	23414-160021	GASKET 16							1	
24	1	777075-04800	COOLER ASSY.							1	
26	2	177075-04050	JOINT, PIPE							2	
27	2	128695-44090	COCK PT1/8							1	
28	2	23884-160002	PLUG 16							1	
29	2	23414-160021	GASKET 16							1	
I	30	1	177075-02550	LABEL						1	W
						(E=*1994.05)				1	N
I	30-1	1	177075-02551	LABEL,OIL						1	N
						(E=*1995.07)				1	W
I	31	1	177088-02430	LABEL						1	W
						(E=*1994.05)				1	W

(A)=KBW10-E (D)=KBW20-1  
 (B)=KBW10-D (E)=KBW21  
 (C)=KBW20 (F)=

Fig.26.INPUT SHAFT

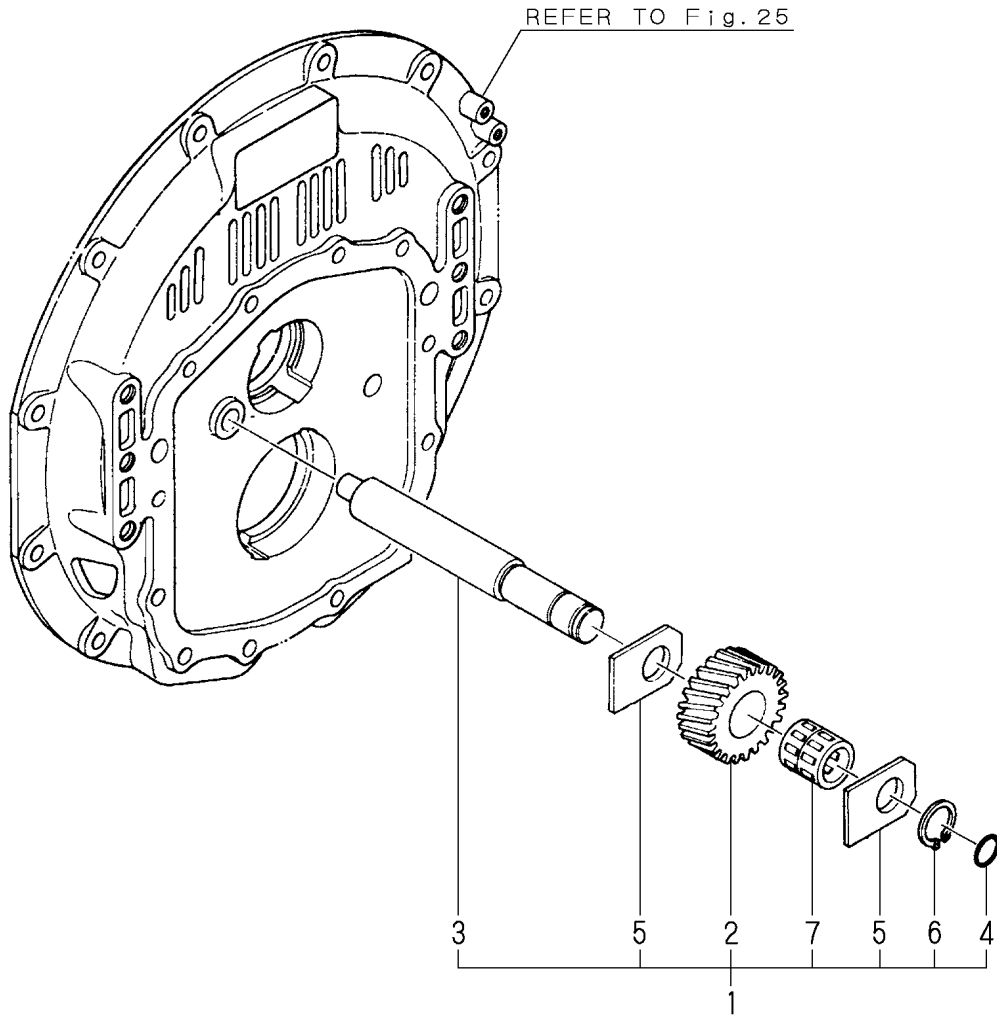


REF.	LEV.	PARTS NO.	DESCRIPTION	QTY						I	R
				(A)	(B)	(C)	(D)	(E)	(F)		
1	1	177075-03621	INPUT SHAFT I2.17						1		1
2	1	177075-03031	INPUT SHAFT I2.62						1		2
3	1	177075-03421	SHAFT, INPUT I3.28						1		3
4	1	177090-03500	DISC, DAMPER						1		
5	1	24141-320070	ROLLER BEARING						2		

Remarks  
 (1)I=2.17  
 (2)I=2.62  
 (3)I=3.28

Fig.27.SUPPORT SHAFT

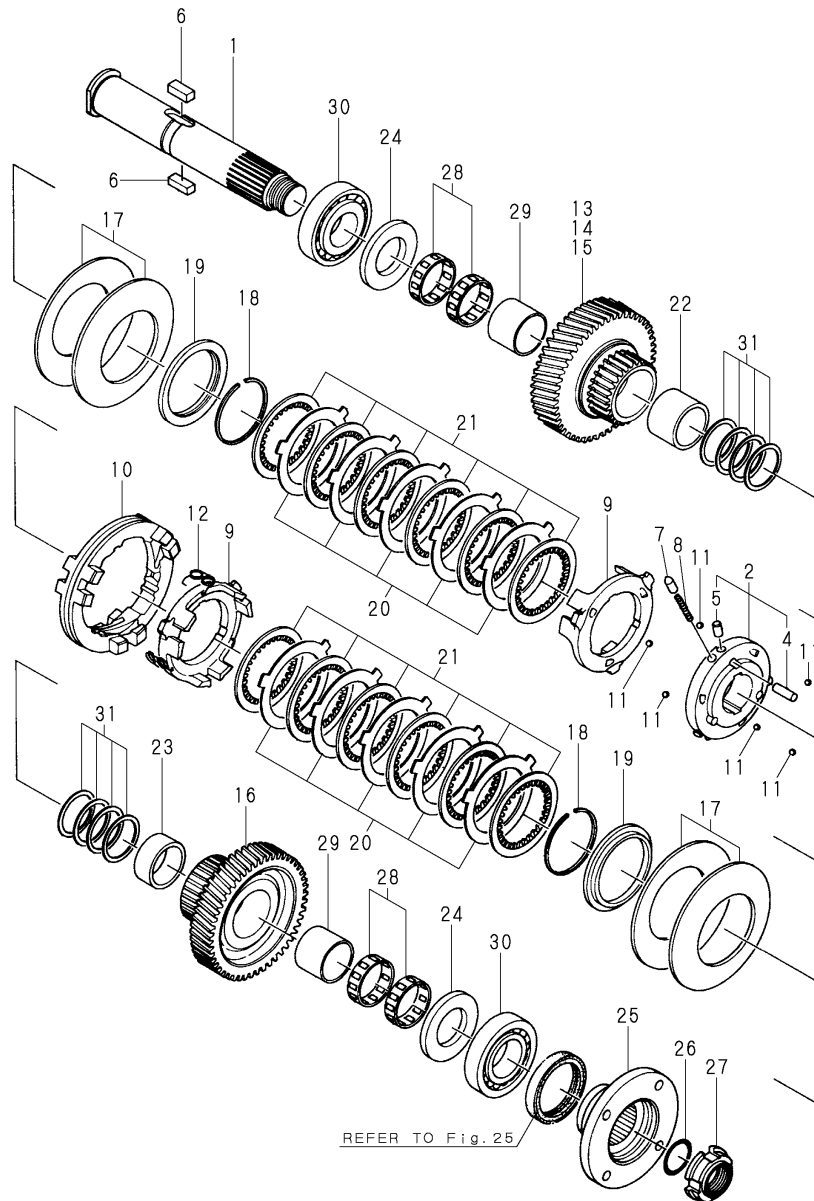
(A)=KBW10-E (D)=KBW20-1  
 (B)=KBW10-D (E)=KBW21  
 (C)=KBW20 (F)=



REF.	LEV.	PARTS NO.	DESCRIPTION	QTY						I	R		
				(A)	(B)	(C)	(D)	(E)	(F)				
1	1	777075-03021	SHAFT ASSY, COUNTER										
2	2	177075-03300	GEAR										1
3	2	177075-03311	SHAFT										1
4	2	24311-000180	O-RING 1A P-18.0										1
5	2	177075-03320	WASHER										2
6	2	22242-000220	CIRCLIP 22										1
7	2	24161-222916	NEEDLE BEARING										2

(A)=KBW10-E (D)=KBW20-1  
 (B)=KBW10-D (E)=KBW21  
 (C)=KBW20 (F)=

Fig.28.OUTPUT SHAFT

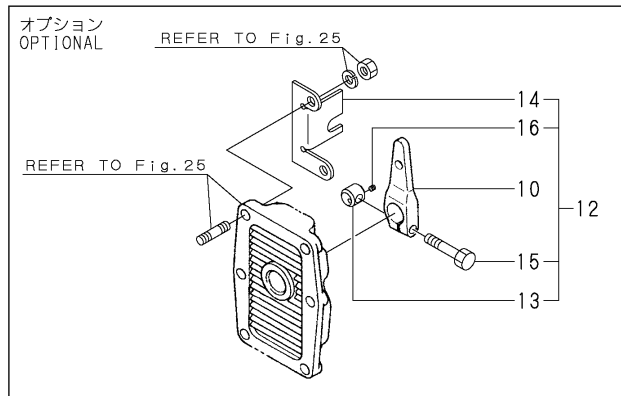
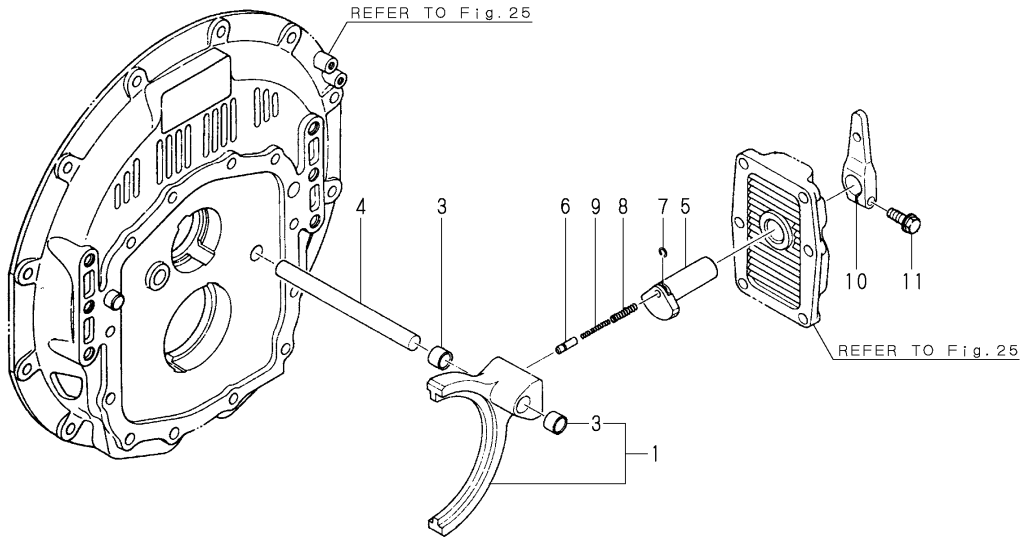


REF.	LEV.	PARTS NO.	DESCRIPTION	QTY						I	R	
				(A)	(B)	(C)	(D)	(E)	(F)			
1	1	177075-03020	SHAFT, THRUST								1	
2	1	177075-03040	PLATE ASSY, DRIVING								1	
4	2	177095-03030	PARALLEL PIN								3	
5	2	177095-03040	PARALLEL PIN								3	
6	1	177090-03230	KEY								2	
7	1	177095-03190	PIN								3	
8	1	177095-03200	SPRING								3	
9	1	177075-03250	RETAINER								2	
10	1	177075-03220	RING								1	
11	1	24190-120001	BALL 3/8,STEEL								6	
12	1	177095-03210	SPRING, RETURN								3	
13	1	177075-03640	GEAR Z52 I2.17								1	1
14	1	177075-03090	GEAR Z55 I2.62								1	2
15	1	177075-03440	GEAR Z59 I3.28								1	3
16	1	177075-03110	GEAR								1	
17	1	177075-03960	SPRING								4	
18	1	177075-03280	CIRCLIP								2	
19	1	177075-03130	RETAINER								2	
20	1	177075-03880	DISK, FRICTION								12	
21	1	177020-03380	PLATE, STEEL								10	
22	1	177075-03160	SPACER								1	
23	1	177075-03170	SPACER								1	
24	1	177075-03270	COLLAR								2	
25	1	177075-03550	COUPLING								1	
26	1	24311-000350	O-RING 1A P-35.0								1	
27	1	177075-03540	NUT								1	
28	1	24161-455017	NEEDLE BEARING								4	
29	1	177075-03470	RACE, INNER								2	
30	1	24141-302080	ROLLER BEARING								2	
31	1	177075-03800	SHIM								2	

Remarks  
 (1)I=2.17  
 (2)I=2.62  
 (3)I=3.28

Fig.29.CONTROL DEVICE

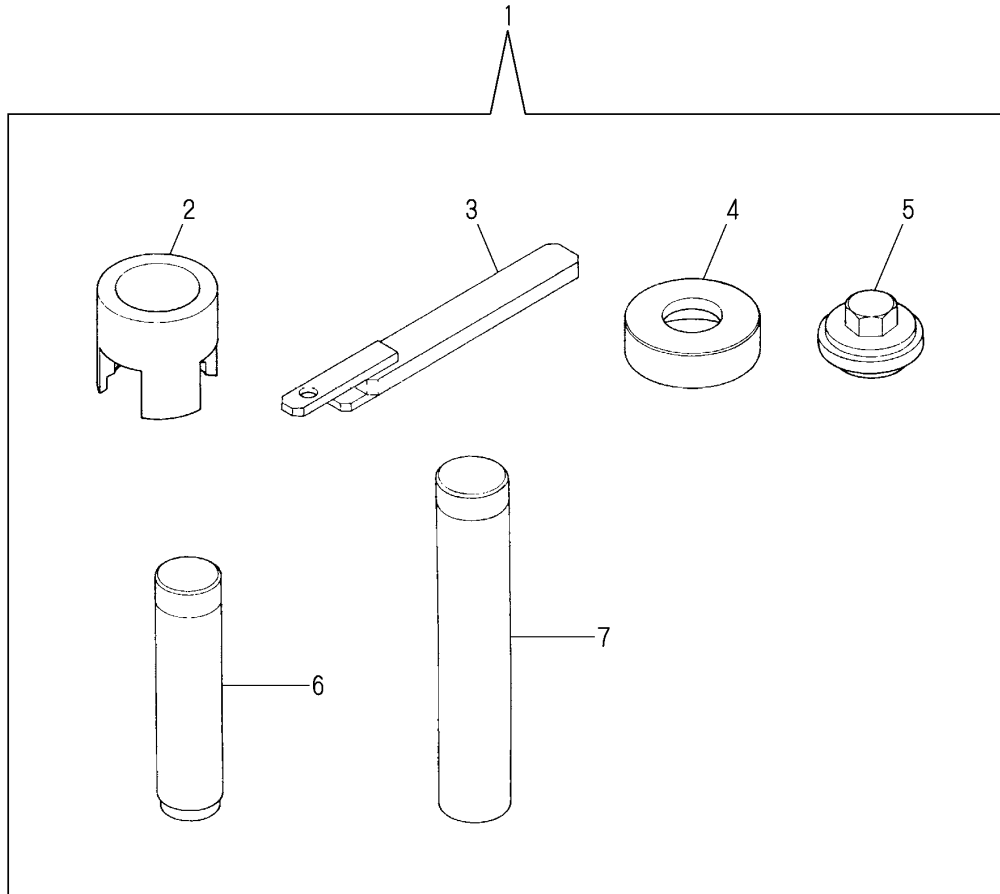
(A)=KBW10-E (D)=KBW20-1  
 (B)=KBW10-D (E)=KBW21  
 (C)=KBW20 (F)=



REF.	LEV.	PARTS NO.	DESCRIPTION	QTY						I	R
				(A)	(B)	(C)	(D)	(E)	(F)		
1	1	177075-06011	FORK ASSY, SHIFT							1	
3	2	177095-06070	BEARING, SHIFT FORK							2	
4	1	177075-06040	BAR, SHIFT							1	
5	1	177095-06030	CAM, SHIFT							1	
6	1	177095-06050	PIN							1	
7	1	177095-06140	CIRCLIP							1	
8	1	177095-03200	SPRING							1	
9	1	177095-06060	SPRING							1	
10	1	177075-06050	LEVER							1	
11	1	26106-080252	BOLT M 8X 25 PLATED							1	
I 12	1	177075-06340	STAY ASSY, SWITCH							1	W
				(E=*1994.08)							
I 13	2	177074-06300	SETTING,SAFETY SWIT.							1	W
				(E=*1994.08)							
I 14	2	177075-06350	STAY, SAFETY SWITCH							1	W
				(E=*1994.08)							
I 15	2	26116-080404	BOLT M 8X 40 PLATED							1	W
				(E=*1994.08)							
I 16	2	26979-040082	SCREW M 4X 8							1	W
				(E=*1994.08)							

Fig.30.TOOL

(A)=KBW10-E (D)=KBW20-1  
(B)=KBW10-D (E)=KBW21  
(C)=KBW20 (F)=



REF.	LEV.	PARTS NO.	DESCRIPTION	Q'TY						I	R	
				(A)	(B)	(C)	(D)	(E)	(F)			
1	1	777075-09500	TOOLS ASSY								1	
2	2	177095-09070	REPLACER								1	
3	2	177075-09050	CIRCLIP								1	
4	2	177075-09010	SPACER								1	
5	2	177075-09020	SOCKET								1	
6	2	177075-09030	TOOL								1	
7	2	177075-09040	TOOL								1	