

LUBRICATION & MAINTENANCE

BS 30K-BS 135K

PRE-LUBRICATED WITH GREASE TYPE

No lubrication maintenance is required. [Special grease for very temperatures must be used in surroundings below -10 C.]

BS 160K-BS 350K

GREASE LUBRICATED TYPE

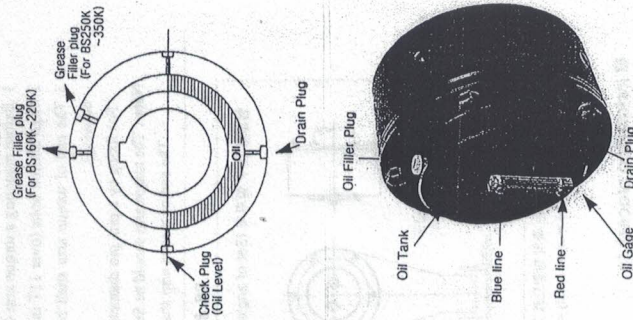
1. Use four plugs on the clutch outer race for grease fill, level check and drain. [locate one of the plugs at the top as grease filler then, the other plugs are for grease level checking and grease draining]
2. Detach plugs for grease level check, and pour grease through grease filler hole [top] until grease flows out from level check hole [middle]. Then attach the plugs and screw tightly.

3. Grease shall be added at 3 months intervals after initial grease fill and change whole grease at six months one year intervals. [after draining old grease, clean inside of the clutch and fill the clutch with new grease.]

BS 160RK-BS 350RK

OIL-LUBRICATED OIL RESERVOIR TYPE

1. Detach the oil plug installed on the oil reservoir and pour oil into the oil reservoir up the blue line of the oil level gage. Oil level : blue line on the oil gage show level for oil fill, Red line shows the lowest level of oil during operation
2. Periodical check is necessary to maintain proper oil level, that is, oil is above the red line of the oil gage. Whole oil shall be changed once a year to receive the fine long life service of the cam clutch.



[Maintenance of each series]

Series	Lubrication	Maintenance
MZ-K, LD-K B200K, PB-K, NFS-CK MG, MI, MR, PNC, PHC, GFR, BSD-K	Pre-lubricated with grease Grease lubrication Oil lubrication	No lubrication maintenance required Change the grease every six months Add Oil every 100 hours, change every 3 months
MX-K MG-RK	Oil Lubrication Oil Lubrication	Change oil every 300hours Add Oil every 300hrs, change every 3 months
BS-K 30-135 160-350 160R-350R	Pre-lubricated with grease Grease lubrication Oil lubrication	No lubrication maintenance required Change grease two times a year Change oil once a year * Ref : Clean inside of clutch when change oil or grease.

[Recommended Oil]

Maker	Overrunning application
Shell oil	In low speed or temperature -10°C to 30°C applications Dexron II Rimula CT Oil 10W Shell Clavus Oil 17 Rotella S Oil 10W
Mobil Oil	In high speed or temperature -30°C to 50°C applications Rimulla CT Oil 20W/20,30 Rotella S Oil 20W/20,30 Delvac 1330 Gargyle Arctic Light

[Recommended Grease]

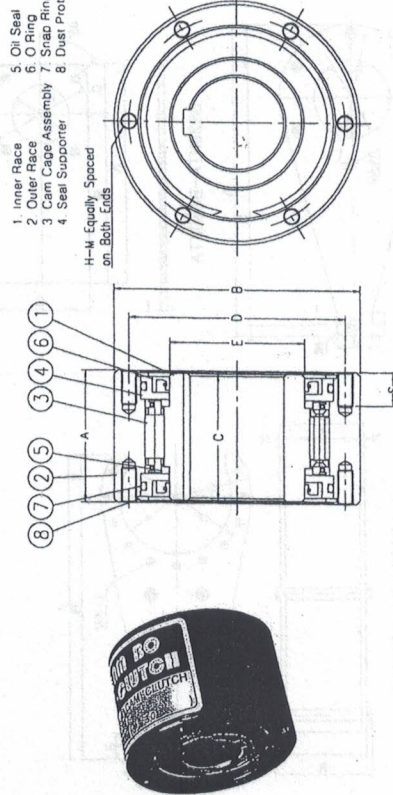
Shell Oil	BS-K Series Alvania Grease No. 1	B200, PB, LD, NFS, MZ, K Series Alvania Grease No. 2
Mobil Oil	Mobilux Grease No. 1	Mobilux Grease No. 2

역전방지기 전용

FOR BACKSTOP APPLICATION ONLY.

BS-K Series

역회전방지용 (FOR BACKSTOP APPLICATION)



■ 사양 (Specification)

Model	Max Torque (kg-m)	Stock Bore Size	Nominal Overrunning Drag (mg/min) Inner Faces	Max. Overrunning Drag (mg/min) Inner Faces	A	B	C	D	E	S	H-M No. of Tapped Holes x Dia x Pitch	Grease Filler Hole	G' of Grease (g)	Weight (kg)
BS 30K	30	20-30	0.06	200	64	90	64	80	45	10	4 x M6 x 1.0	-	-	2.1
BS 50K	80	30-50	0.1	200	67	125	67	110	70	12	4 x M8 x 1.25	-	-	4.0
BS 65K	160	40-65	0.4	150	90	160	85	140	90	20	6 x M10 x 1.5	-	-	11.5
BS 75K	250	50-75	0.6	150	90	170	85	150	100	20	6 x M10 x 1.5	-	-	13.5
BS 85K	600	60-85	0.8	150	115	210	110	185	115	30	6 x M12 x 1.75	-	-	24.7
BS 95K	800	70-95	1.0	150	115	230	110	200	130	30	6 x M14 x 2.0	-	-	29.4
BS 110K	1,100	80-110	1.5	150	115	270	110	220	150	30	6 x M16 x 2.0	-	-	34.2
BS 135K	1,800	90-135	2.0	100	135	320	130	280	180	30	8 x M16 x 2.0	-	-	68.0

■ 특징

1. 경사콘베어, 버킷엘레베이터 등 지축의 역전방지 전용.
2. 그리스 윤활이며, 특별히 그리스 주입할 필요없다.

■ Character

1. For the only backstop application in slant conveyors and bucket elevators.
2. Pre-lubricated with grease and no lubrication maintenance required.

※ 주문시 내경 & 키홀치수를 명기할 것 (키홀치수 참조 : Page 42-43)

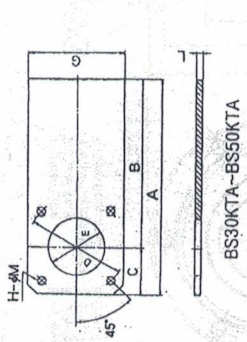
Specify the Bore & keyway dimension when ordering (Refer to page 42-43)

※ 설치 및 취급방법에 대해서는 16 Page 참조 (Refer to page 16 for installation)

TORQUE ARM (선택품목)

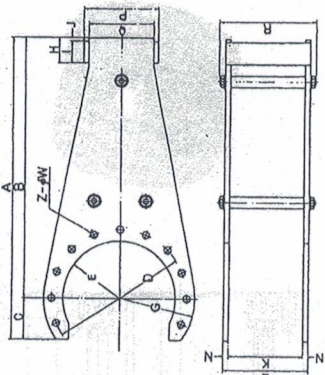
Torque Arm is at your option (For BS-K, BS-RK SERIES)

(Single Type)

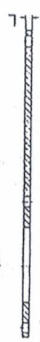


BS30KTA-BS50KTA

(Double Type)



BS220KTA-BS350KTA



BS65KTA-BS200KTA

■ 치 수 Dimension of BS30KTA-BS200KTA (Single Type)

Torque Arm No.	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Approx. Weight(kg)	
BS 30KTA	168	130	38	80	55	-	75	-	-	-	-	6	4-6.6	0.5														
BS 50KTA	230	180	50	110	80	-	100	-	-	-	-	6	4-9	0.8														
BS 65KTA	306	210	80	140	90	16	50	30	13.5	6	6-11	6	6-11	1.7														
BS 75KTA	354	250	85	150	100	19	65	35	16.5	6	6-11	6	6-11	2.3														
BS 85KTA	434	300	105	185	115	28	95	45	20.5	9	6-14	5.0																
BS 95KTA	497	350	115	200	130	32	105	55	20.5	9	6-16	6.2																
BS 110KTA	560	385	135	220	140	40	110	60	26	12	6-18	10.5																
BS 135KTA	666	470	160	280	180	36	120	65	26	12	8-16	14.8																
BS 160KTA	792	580	180	315	260	32	120	65	31	19	10-22	27.4																
BS 200KTA	838	580	215	380	310	43	130	70	41	19	8-24	34.2																

■ 치 수 Dimension of BS220KTA-BS350KTA (Double Type)

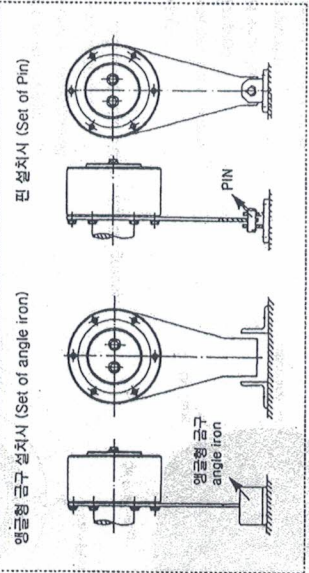
Torque Arm No.	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Approx. Weight(kg)	
BS 220KTA	950	820	130	420	176	235	80	70	10	235	259	12	238	200	311	11-22	58											
BS 250KTA	1170	1000	170	530	214	300	100	90	10	295	319	12	288	250	375	11-26	95											
BS 270KTA	1270	1100	170	575	235	325	110	100	10	295	319	12	298	260	375	11-26	110											
BS 300KTA	1460	1300	180	650	285	390	135	120	15	295	333	19	356	300	395	11-32	200											
BS 350KTA	1850	1600	250	815	328	465	135	120	15	320	365	19	414	350	430	11-39	330											

Installation

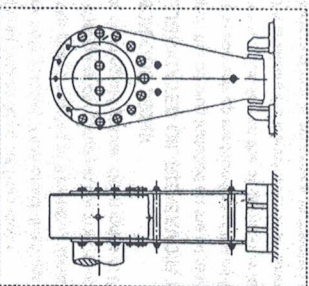
토르크암 설치 Installation of Torque Arm (BS Series)

1. Before mounting a torque arm onto a clutch outer race, clean off contact-area of a torque arm and a clutch outer race.
 2. High tension bolts (over 11T in Jis standard) are recommended for torque arm fixing, and screw all bolts tightly.
 3. The end of torque arm shall be restrained to prevent rotation either by a pin or a set of angle iron. (refer the below drawing)
- For fixing by a pin, pin diameter should be smaller by 1-2mm than that of pin hole on the torque arm end.
 - The torque arm should be free axially in order to prevent the clutch from any load induced by misalignment and distortion.
 - The end of torque arm shall not be welded.

BS 30K~BS 200K



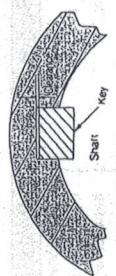
BS 220K~BS 350K



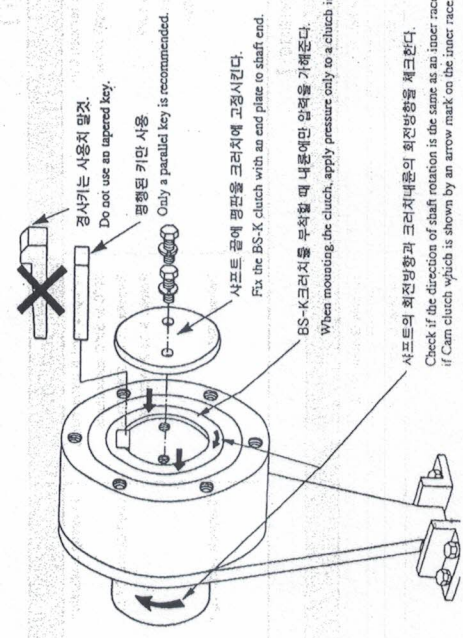
NOTE : 토르크암 끝단은 축의 방향으로 자유롭게 회전
 Torque Arm end must be axially free

■ Installation procedure

1. Before installation, check if the direction of shaft rotation is the same as an inner race if cam clutch which is shown by an arrow mark on the inner race.
2. Recommended fit of bore to shaft is H8 (clutch bore) to h8 (shaft) or H7 to h7. Interference fit and shrinkage fit are prohibited for clutch fixing.
3. When mounting the cam clutch, apply pressure only to a clutch inner race with soft hammer. (Do not hit a clutch outer race, a seal supporter nor a dust protective cover.)
4. Only a parallel key is recommendable for clutch fixing. Do not use an inclined key. And there shall be clearance between clutch keyway and key ceiling. (refer the drawing)
5. Fix clutch with an end plate to shaft end. (refer the drawing)



Loose on top key
 Tight fit on both sides of key



경사키는 사용하지 마것
 Do not use an tapered key.
 평행된 키만 사용
 Only a parallel key is recommended.

사프트 끝에 평판을 크러치에 고정시킨다.
 Fix the BS-K clutch with an end plate to shaft end.

BS-K 크러치를 부착할 때 내공에미 압력을 가해준다.
 When mounting the clutch, apply pressure only to a clutch inner race.

사프트의 회전방향과 크러치내공의 회전방향을 체크한다.
 Check if the direction of shaft rotation is the same as an inner race
 if Cam clutch which is shown by an arrow mark on the inner race.