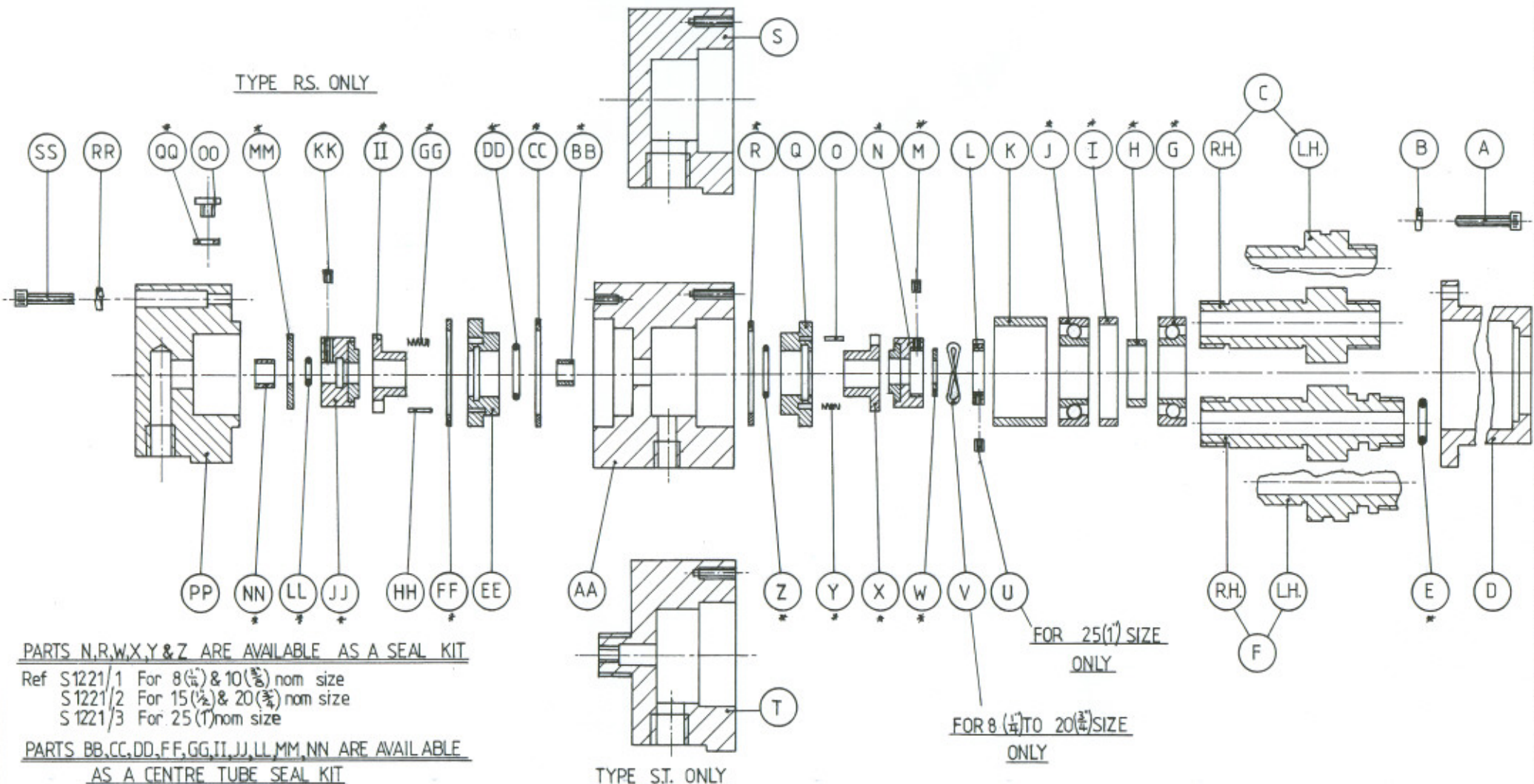


*RECOMMENDED STOCK SPARES

TYPE BE. ONLY

TYPE RS. ONLY



PARTS N,R,W,X,Y & Z ARE AVAILABLE AS A SEAL KIT

- Ref S1221/1 For 8($\frac{1}{4}$) & 10($\frac{3}{8}$) nom size
 S1221/2 For 15($\frac{1}{2}$) & 20($\frac{3}{4}$) nom size
 S1221/3 For 25(1) nom size

PARTS BB,CC,DD,FF,GG,II,JJ,LL,MM,NN ARE AVAILABLE AS A CENTRE TUBE SEAL KIT

- Ref S1222/1 For 8($\frac{1}{4}$) nom size
 S1222/2 For 10($\frac{3}{8}$) nom size
 S1222/3 For 15($\frac{1}{2}$) nom size
 S1222/4 For 20($\frac{3}{4}$) nom size
 S1222/5 For 25(1) nom size

PARTS G,H,I ARE AVAILABLE AS A MATCHED BEARING AND SPACER KIT

- Ref S1223/1 For 8($\frac{1}{4}$) & 10($\frac{3}{8}$) nom size
 S1223/2 For 15($\frac{1}{2}$) & 20($\frac{3}{4}$) nom size
 S1223/3 For 25(1) nom size

ALSO USED ON:-				SCALE :	DIMENSIONS IN MILLIMETRES				
MATERIAL.	SPECN.	FORM.	TREATMENT.	DRN.	No./UNIT	ISSUE	1		
				CHD.	APD.	No.			
FILTON LIMITED		GENERAL TOLERANCES:- MACHINING ± 0.3 CASTING ± 1.0 ANGLES ± 1/2°			<u>SPARES LIST FOR ROTARY (MCT) UNIONS</u>			PART No.	S1225 SHEET 1 OF 5

NOM SIZE	ROTARY (M.C.T.) UNION WITH SPIGOT			ROTARY (M.C.T.) UNION WITHOUT SPIGOT		COMMON PARTS										
	ROTARY UNION PART NO'S	F	E	ROTARY UNION PART NO'S	C	A	B	D	G	H	I	J	K	L	M	N
		SPINDLE	O RING		SPINDLE	BOLT	SPRING WASHER	BODY	BEARING	BEARING SPACER	GREASE LANTERN	BEARING	SPACER	LOCKING RING	GRUBSCREW	CARBON S/A
		QTY:-1	QTY:-1		QTY:- 1	QTY:- 3	QTY:- 3	QTY:-1	QTY:-1	QTY:-1	QTY:-1	QTY:-1	QTY:-1	QTY:-1	QTY:-1	QTY:- 1
8	16310,16311,16312.	16310/1	M124/32	16260,16261,16262	15197/2	M133/M5/0-8/25	M132/M5	16263/7	15173/5	14238/13	14238/14	15173/5	16263/6	15173/8	M134/M4/0/7/5	16263/9
10	16313,16314,16315.	16313/1	M124/37	16263,16264,16265.	15173/9	M133/M5/0-8/25	M132/M5	16263/7	15173/5	14238/13	14238/14	15173/5	16263/6	15173/8	M134/M4/0/7/5	16263/9
15	16316,16317,16318.	16316/1	M124/18	16266,16267,16268	16266/2	M133/M6/1-0/30	M132/M6	16269/3	15640/9	13800/6	13800/5	15640/9	16269/7	16269/2	4BA x 3/16 LG *	16269/9
20	16319,16320,16321.	16321/1	M124/65	16269,16270,16271.	16269/4	M133/M6/1-0/30	M132/M6	16269/3	15640/9	13800/6	13800/5	15640/9	16269/7	16269/2	4BA x 3/16 LG *	16269/9
25	16322,16323,16324.	16322/1	M124/71	16272,16273,16274.	16272/6	M133/M8/1-25/30	M132/M8	16272/5	16272/10	16272/4	16272/3	16272/10	16272/2	16272/9	2BA x 1/4 LG *	16272/12

* 2 OFF

COMMON PARTS								
O	Q	R	U	V	W	X	Y	Z
TORQUE PIN	R. RING CARRIER	GASKET	GRUBSCREW	WAVY WASHER	GASKET	RUBBING RING	SPRING	O RING
QTY:-3	QTY:-1	QTY:-1	QTY:-2	QTY:-1	QTY:-1	QTY:-1	QTY:-3	QTY:-1
M157/5	16263/1	M152/34	NONE	17082/2	M152/125	16263/3	15060/8	M124/36
M157/5	16263/1	M152/34	NONE	17082/2	M152/125	16263/3	15060/8	M124/36
M157/5	16269/5	M152/6	NONE	16269/10	M152/1	16269/1	15060/8	M124/42
M157/5	16269/5	M152/6	NONE	16269/10	M152/1	16269/1	15060/8	M124/42
M157/5	16272/8	M152/39	M134/M3/0-5/6	NONE	M152/2	16272/1	15060/8	M124/44

* 2 OFF

* 6 OFF

NOM SIZE	INDIVIDUAL PARTS							
	TYPE BE.		TYPE S.J.		TYPE RS.			
	ROTARY UNION PART NO	S ADAPTOR QTY:-1	ROTARY UNION PART NO	T ADAPTOR QTY:-1	ROTARY UNION PART NO	AA ADAPTOR QTY:-1	BB D.U. BEARING QTY:-1	CC GASKET QTY:-1
8	16260 16310	16260/1	16261 16311	16311/1	16262 16312	16262/3	16262/4	M152/34
10	16263 16313	16263/4	16264 16314	16264/1	16265 16315	16265/7	16265/6	M152/34
15	16266 16316	16266/1	16267 16317	16267/1	16268 16318	16268/4	14556/1	M152/6
20	16269 16319	16269/6	16270 16320	16270/1	16271 16321	16271/1	14543/1	M152/6
25	16272 16322	16272/7	16273 16323	16273/1	16274 16324	16274/3	16274/5	M152/6

INDIVIDUAL PARTS															
TYPE RS.															
EE	FF	GG	HH	II	JJ	KK	LL	MM	NN	OO	PP	QQ	RR	SS	
R. RING CARRIER	GASKET	SPRING	TORQUE PIN	RUBBING RING	SEAL S/A	GRUBSCREW	O RING	THRUST RING	D.U. BEARING	COVER	END CAP	BONDED SEAL	SPRING WASHER	BOLT	
QTY:-1	QTY:-1	QTY:-3	QTY:-3	QTY:-1	QTY:-1	QTY:-2	QTY:-1	QTY:-1	QTY:-1	QTY:-1	QTY:-1	QTY:-1	QTY:-3	QTY:-3	
16263/1	M152/38	15060/8	M157/5	16263/3	16262/5	M134/M3/0-5/8	M124/2	M180/25	16262/4	16265/4	16262/1	S871/I%	M132/M5	M133/M5/0-8/25	
16263/1	M152/38	15060/8	M157/5	16263/3	16265/8	M134/M3/0-5/8	M124/26	M180/25	16265/6	16265/4	16265/1	S871/I%	M132/M5	M133/M5/0-8/25	
16269/5	M152/6	15060/8	M157/5	16269/1	16268/5	M134/M5/0-8/6	M124/30	M180/26	14556/1	16265/4	16268/1	S871/I%	M132/M6	M133/M6/1-0/30	
16269/5	M152/6	15060/8	M157/5	16269/1	16271/3	M134/M5/0-8/6	M124/33	M180/26	14543/1	16265/4	16384/1	S871/I%	M132/M6	M133/M6/1-0/30	
16269/5	M152/6	15060/8	M157/5	16269/1	16274/4	M134/M5/0-8/6	M124/37	M180/26	16274/5	16265/4	16274/1	S871/I%	M132/M6	M133/M6/1-0/30	

ALSO USED ON:-					SCALE :		DIMENSIONS IN MILLIMETRES						
MATERIAL.		SPECN.	FORM.	TREATMENT.	DRN.	No./UNIT		ISSUE	2				
					CHD.	APD.		No.					
FILTON LIMITED		GENERAL TOLERANCES:- MACHINING ± 0.3 CASTING ± 1.0 ANGLES ± 1/2°			<u>SPARES LIST FOR ROTARY (M.C.T.) UNIONS</u>					PART No.	S1225 SHEET 2 OF 5		

Fluids:- Mineral Oil, machine tool coolants and compressed air (lubricated). All fluids should be clean and free from abrasive particles. Special tungsten carbide seals are available for abrasive conditions.

Vacuum - 740 mm Hg maximum.

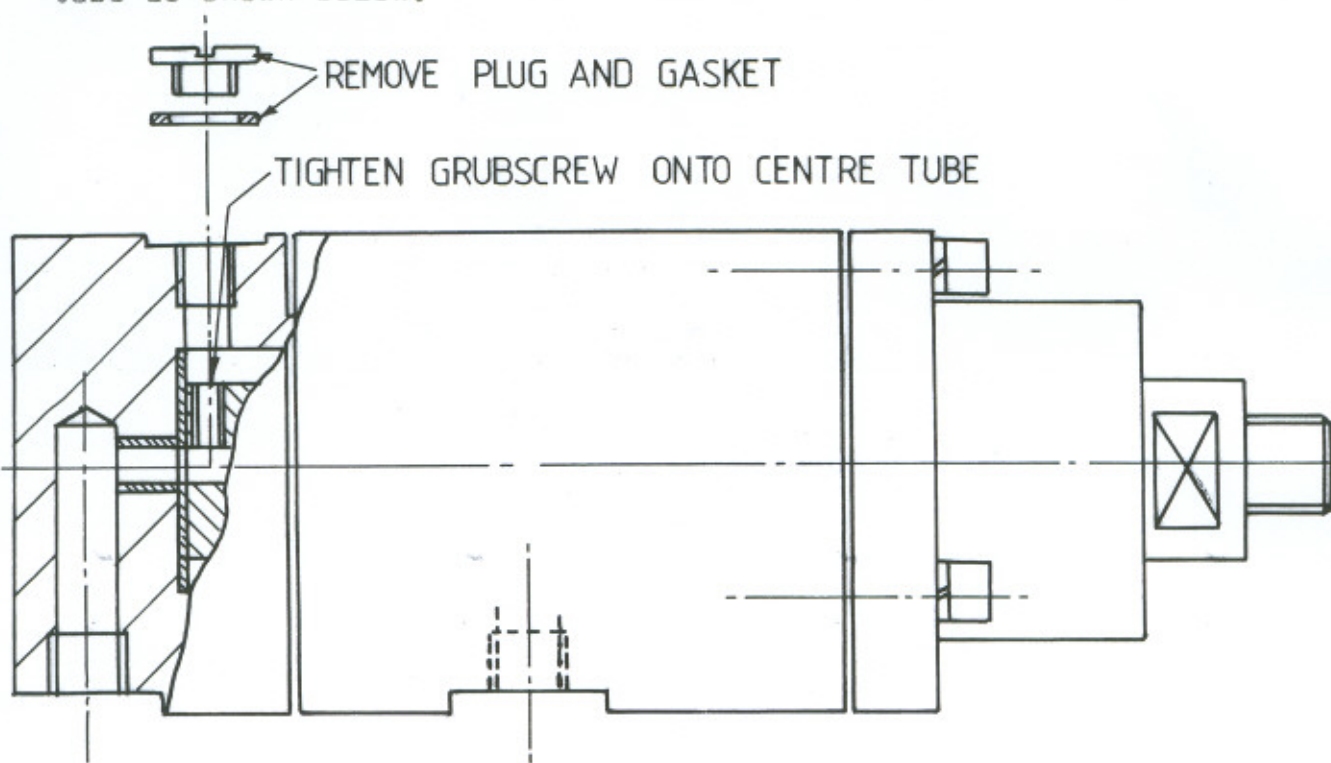
Temperature - 75°C maximum.

Speed - 1,500 rpm maximum without a locating spigot
3,000 rpm maximum with a locating spigot.

INSTALLATION

If the Rotary (MCT) Union to be fitted has been in stock for more than 3 months, it should be rotated without pressure for approximately 15 minutes at 300 rpm.

The end of the machine shaft should be prepared with a concentric female B.S.P. parallel thread, handed right or left to suit the direction of rotation. For LOCATING SPIGOT SPINDLES a concentric recess is required. The shaft abutment face must be square with the rotational axis. The Rotary (MCT) Union without spigot is provided with a soft aluminium abutment sealing washer, those with spigots are provided with an 'O' ring - do not seal the thread with hemp or tape which could cause eccentricity. For type S.T. the centre tube should be screwed into the Rotary (MCT) Union, before it is fitted to the machine. For type R.S. the centre tube must be fixed to the machine before the Rotary (MCT) Union is fitted. After the Rotary (MCT) Union has been fitted, remove the access plug on the adaptor end and tighten the centre tube seal locking screw on to the centre tube as shown below.

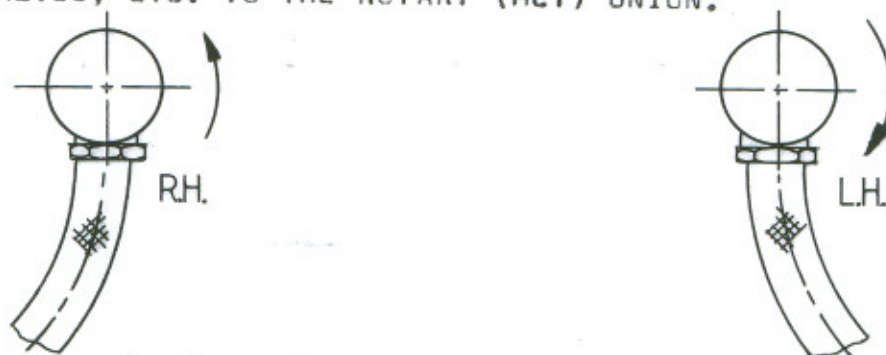


INSTALLATION AND MAINTENANCE DETAILS FOR ROTARY (MCT) UNIONS

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SHEET 3 OF 5

Stationary connection for the service fluids should be made with flexible hose as shown in the diagram below. DO NOT RIGIDLY PIPE, DO NOT FIT THE FLEXIBLE HOSE IN TENSION, COMPRESSION OR TWISTED. DO NOT FIT VALVES, ETC. TO THE ROTARY (MCT) UNION.



The fittings shown in the tables can be provided to connect the services to the Rotary (MCT) Union.

Flexible Hoses			Elbows	
Part No.	Thread	Length	Part No.	Threads
M175,M176/0	$\frac{1}{8}$ " BSP	150(6")	(S.379/16	$\frac{1}{8}$ " x $\frac{1}{8}$ " B.S.P.T.*
M175,M176/1	$\frac{1}{8}$ " BSP	150(6")	(S.379/17	$\frac{1}{8}$ " x $\frac{1}{8}$ " B.S.P.T.*
M175,M176/2	$\frac{1}{8}$ " BSP	229(9")	(S.379/3	$\frac{1}{8}$ " x $\frac{1}{8}$ " B.S.P.T.*
M175,M176/3	$\frac{1}{8}$ " BSP	305(12")	(S.379/18	$\frac{1}{8}$ " x $\frac{1}{8}$ " B.S.P.T.*
M175,M176/4	$\frac{1}{8}$ " BSP	305(12")	(S.379/19	1" x $\frac{1}{2}$ " B.S.P.T.
M175,M176/5	1" BSP	380(15")	S.379/16HP	$\frac{1}{8}$ " x $\frac{1}{8}$ " B.S.P.
			S.379/17HP	$\frac{1}{8}$ " x $\frac{1}{8}$ " B.S.P.
			S.379/3HP	$\frac{1}{8}$ " x $\frac{1}{8}$ " B.S.P.
			S.379/18HP	$\frac{1}{8}$ " x $\frac{1}{8}$ " B.S.P.
			S.379/19HP	1" x $\frac{1}{2}$ " B.S.P.

*These are B.S.P.Taper Threads.

M175 Hose is wire braid reinforced, synthetic rubber with fixed male mild steel ends for 70 bar.

M176 Hose is Textile braid reinforced plastic with fixed male mild steel ends for 6 bar.

Rotary (MCT) Union		For pressures to 6 bar		For pressures to 70bar	
Nominal Size	Type	Hoses	Elbows*	Hoses	Elbows
8 ($\frac{1}{8}$ ")	(BE	M176/1	-	M175/1	-
	(ST 2 -	M176/0	S.379/16	2- M175/0	S.379/16 H.P.
	(RS 2 =	M176/0	-	2- M175/0	-
10 ($\frac{3}{8}$ ")	(BE	M176/2	-	M175/2	-
	(ST 2 -	M176/0	S.379/17	2- M175/0	S.379/17 H.P.
	(RS 2 -	M176/0	-	2- M175/0	-
15 ($\frac{1}{2}$ ")	(BE	M176/3	-	M175/3	-
	(ST 2 -	M176/1	S.379/3	2- M175/1	S.379/3 H.P.
	(RS 2 -	M176/1	-	2- M175/1	-
20 ($\frac{3}{4}$ ")	(BE	M176/4	-	M175/4	-
	(ST 2 -	M176/2	S.379/18	2- M175/2	S.379/18 H.P.
	(RS 2 -	M176/2	-	2- M175/2	-
25 (1")	(BE	M176/5	-	2- M175/2	-
	(ST 2 -	M176/3	S.379/19	2- M175/3	S.379/19 H.P.
	(RS 2 -	M176/3	-	2- M175/3	-

INSTALLATION AND MAINTENANCE DETAILS FOR ROTARY (MCT) UNIONS

FILTON LIMITED

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MAINTENANCE

The 'FILTON MECHANICAL SEAL' fitted to the Rotary (MCT) Union is self adjusting within it's working life. The pre-loaded angular contact ball bearings fitted are prepacked with a special grease which has long life and low internal friction, keeping the temperature lower than conventional bearing greases at high speeds. Re-lubrication need only be carried out at overhaul periods. Bearings and seals should be changed when leakage occurs.

RECOMMENDED GREASES: KLUBER ISOFLEX NBU15

OVERHAUL

The Rotary (MCT) Union is easily dismantled for overhaul the following method with reference to the exploded drawing on sheet 1.

IMPORTANT - FOR ROTARY UNIONS TYPE RS REMOVE COVER 'OO' AND BONDED SEAL, 'QQ', and SLACKEN GRUBSCREW 'KK' BEFORE THE ROTARY (MCT) UNION IS UNSCREWED FROM THE MACHINE.

1. Remove Bolts and Spring Washers 'A' and 'B'
2. Separate Body 'D' and Adaptor 'S' 'T' or 'AA' and remove Rubbing Ring, Carrier 'Q' complete with Pins, Springs, 'O' ring and Rubbing Ring, 'O' 'Y' 'Z' and 'X'. Remove Gasket 'R'.
3. Remove Grub screws 'M' and 'U' and unscrew Carbon S/A 'N' and Locking Ring 'L'. Remove Bearings 'J' and 'G' and Bearing Spacer and Grease Lantern 'I' and 'H'.
4. For types R.5. only remove Bolts and Washers 'SS' and 'RR', separate End Cap 'PP' and Adaptor 'AA'.
5. Remove D.U. Bearings 'BB' and 'NN'.
6. Re-assembly is virtually the above procedure in reverse. Cleanliness of all parts is essential and extreme care must be taken to ensure that the optically flat seal faces on the Rubbing Rings 'X' and II, the Carbon S/A 'N' and the Seal S/A 'JJ' are not scratched or damaged in any way. After reassembly it is advisable to run in the Rotary (MCT) Union as recommended at the beginning of the installation section.

If you have any problems in connection with overhauling Rotary (MCT) Unions, please ask for one of our Engineers to call, or alternatively, return them to our Works, where we have all the necessary facilities for overhauling, running in and testing.

INSTALLATION AND MAINTENANCE DETAILS FOR ROTARY (MCT) UNIONS

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