

MEROL ENERGY SERVICES PRIVATE LIMITED

ROLLER KELLY BUSHINGS HEAVY DUTY PIN DRIVE & SQUARE DRIVE

KELLY BUSHING PIN DRIVE

MODEL : 27 PDHD or 20 PDHD

Kelly Bushing Model : 27 PDHD or 20 PDHD are as per API-7K specification for pin drive Master Bushing for Rotary Table sizes from 27-1/2" to 49-1/2" having 25-3/4" and 23" dia pin center. Kelly Bushing is used for heavy duty drilling operations in high torque conditions at off-shore as well at on-shore drilling operations to handle Square or Hexagonal Kelly sizes from 3" to 6" .

Kelly Bushing is supplied alongwith the following:

- Roller Assembly (Fitted)
- Wiper Assembly (Fitted)
- Wrench
- Wear Guage



(Pin Drive)
Figure No. 18

KELLY BUSHING SQUARE DRIVE

MODEL : SDHD

Kelly Bushing Model : SDHD is as per API-7K specification for Square Drive Master Bushing for Rotary Table size from 27-1/2" to 49-1/2" . Kelly Bushing is used for heavy duty drilling operations in high torque conditions at off-shore as well at on-shore drilling operations to handle Square or Hexagonal Kelly size from 3" to 6" .

Kelly Bushing is supplied alongwith the following:

- Roller Assembly (Fitted)
- Wiper Assembly (Fitted)
- Wrench
- Wear Guage



(Square Drive)

NOTE : Roller Assembly is common for 27 PDHD, 20 PDHD and SDHD.

(All the parts are interchangeable with Varco 27HDP, 20HDP or HDS Model and other kelly bushing of API standard)

Figure No. 19

OPTIONAL PIN LOCK ASSEMBLY :

The Optional Drive Pin Lock Assembly locks the Kelly Bushing in the Master Bushing for use in offshore drilling while using motion compensators. Lock assemblies are available for the 27 PDHD series bushing. To order with an assembly, add "L" to the part Number of the unit.

FOR LOCK TYPE KELLY BUSHING

Particular	P/N for 27 PDHD Model	Identical Varco P/N
Lock Assembly	2721	3695
Drive Pin	2721-A	3697
Locking Pin	2721-B	3698
Eccentric Pin	2721-C	3696
Drive Pin Washer	2721-D	1506

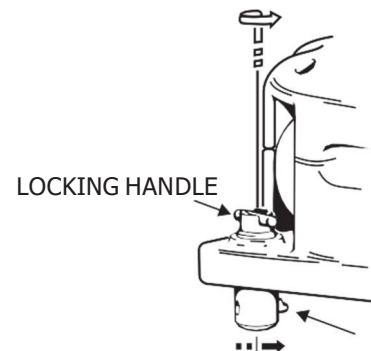


Figure No. 20

Kelly Size / Type	HEAVY DUTY ROLLER KELLY BUSHING				Roller Assembly Complete*	
	27 PDHD COMPLETE KELLY BUSHING		20 PDHD COMPLETE KELLY BUSHING	SDHD COMPLETE KELLY BUSHING	ABI P/N	Identical VARCO P/N
	ABI P/N	Identical VARCO P/N				
3" Hex	2701-P	3650-30	2001-P	2701-S	2101	3667
3½" Hex	2702-P	3650-35	2002-P	2702-S	2102	3668
4¼" Hex	2703-P	3650-42	2003-P	2703-S	2103	3669
5¼" Hex	2704-P	3650-52	2004-P	2704-S	2104	3672
6" Hex	2705-P	3650-60	2005-P	2705-S	2105	3673
3" Sq.	2706-P	3651-30	2006-P	2706-S	2106	3660
3½" Sq.	2721-P	3651-35	2011-P	2711-S	2110	3661
4¼" Sq.	2707-P	3651-42	2007-P	2707-S	2107	3662
5¼" Sq.	2708-P	3651-52	2008-P	2708-S	2108	3665
6" Sq.	2709-P	3651-60	2009-P	2709-S	2109	3666

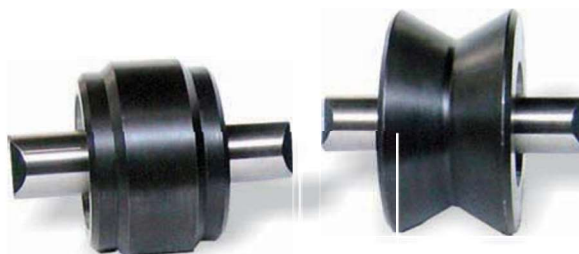
*Roller Assembly consists of Flat/V-roller (1No.), Roller Pin (1No.) Bearing (1No.), Thrust Washer (2No.)

PART LIST OF KELLY BUSHING

S. No.	Description	Qty. Per Unit	27 PDHD		20 PDHD	SDHD
			ABI P/N	Identical VARCO P/N		
1.	Kelly Bushing Body less roller assembly	01 No.	2710-P	3653	2010-P	2710-S
2.	Hold down bolt	04 No.	2711	13501	2711	2711
3.	Hold down bolt lock screw	04 No.	2711-A	50110-8-S	2711-A	2711-A
4.	Nut for hold down bolt	04 No.	2712	1208	2712	2712
5.	Lock washer for nut	04 No.	2713	51110-C	2713	2713
6.	Drive pin with washer	04 No.	2714	1605	2714-S	-
7.	Wrench	01 No.	2715	1210	2715	2715
8.	Wiper assembly	01 No.	2716	-	2716	2716
9.	Wiper Retainer Plate	01 No.	2716-B	1321	2716-B	2716-B
10.	Wiper Retainer Plate Screw	08 No.	2716-C	50008-10-S	2716-C	2716-C
11.	Roller Pin	04 No.	2717	3609	2717	2717
12.	Roller Bearing	04 No.	2718	1312	2718	2718
	Sleeve Bush	04 No.	2719	1326	2719	2719
13.	Thrust Washer	08 No.	2720	3618	2720	2720
14.	Lifting Sling (Four Hooks Type)	01 No.	2721	-	2721	2721

INDIVIDUAL ROLLERS

Kelly size	For Hex Kelly				For Square Kelly	
	Flat Roller		V Roller		Flat Roller	
	ABI P/N	Identical Varco P/N	ABI P/N	Identical Varco P/N	ABI P/N	Identical Varco P/N
2½"	2111	-	2119	-	2111-S	-
3"	2112	1338	2120	1339	2112-S	1331
3½"	2113	1340	2121	1341	2113-S	1332
4¼"	2114	1342	2122	1343	2114-S	1333
4½"	2115	1385	2123	1386	2115-S	-
5"	2116	1387	2124	1388	2116-S	-
5¼"	2117	1344	2125	1345	2117-S	1334
6"	2118	1346	2126	1347	2118-S	1335



Flat & V Roller
Figure No. 21

Note :

Item No. 2 to 10 are fitted in Kelly Bushing Body. (Item S.No. 1)
1. Item No. 11 to 13 are fitted in Roller Assembly Complete.

KELLY SIZE / TYPE	17 PDMD KELLY BUSHING COMPLETE	17 SDMD KELLY BUSHING COMPLETE	17 4KRVS KELLY BUSHING COMPLETE	ROLLER ASSEMBLY	INDIVIDUAL ROLLER FOR HEX	
					V ROLLER	FLAT ROLLER
2½" SQ	1701-P	1701-S	1701-KR	1721	1729	1737
3" SQ	1702-P	1702-S	1702-KR	1722	1730	1738
3½" SQ	1703-P	1703-S	1703-KR	1723	1731	1739
4¼" SQ	1704-P	1704-S	1704-KR	1724	1732	1740
5¼" SQ	1705-P	1705-S	1705-KR	1725	1733	1741
3" HEX	1706-P	1706-S	1706-KR	1726	1734	1742
3½" HEX	1707-P	1707-S	1707-KR	1727	1735	1743
4¼" HEX	1708-P	1708-S	1708-KR	1728	1736	1744

PART LIST OF KELLY BUSHING

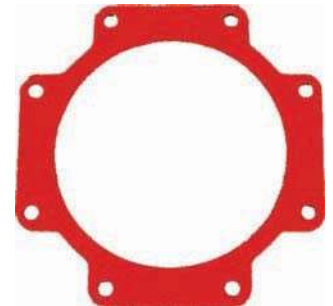
ITEM NO.	DESCRIPTION	Qty. Per Unit	17 PDMD	17 SDMD	17 4KRVS
1	Kelly Bushing Body less Roller Assembly	01 No.	1710-P	1710-S	1710-KR
2	Hold Down Bolt	04 No.	1711	1711	1711
3	Hold Down Bolt lock screw	04 No.	1711-A	1711-A	1711-A
4	Nut for hold down bolt	04 No.	1712	1712	1712
5	Lock washer for nut	04 No.	1713	1713	1713
6	Drive pin with washer	04 No.	1714	-	1714
7	Wrench	01 No.	1715	1715	1715
8	Wiper assembly	01 No.	1716	1716	1716
9	Wiper Retainer plate	01 No.	1716-B	1716-B	1716-B
10	Wiper Retainer plate screw	08 No.	1716-C	1716-C	1716-C
11	Roller Pin	04 No.	1717	1717	1717
12	Roller Bearing	04 No.	1718	1718	1718
	Sleeve Bush	04 No.	1719	1719	1719
13	Thrust washer	08 No.	1720	1720	1720

Note :

- Item No. 2 to 10 are fitted in Kelly Bushing Body. (Item S.No. 1)
- Item No. 11 to 13 are fitted in Roller Assembly Complete.



WIPERS



WIPER RETAINER PLATE

Figure No. 22

KELLY WIPER ASSEMBLY

PART LIST FOR 27 & 20 KELLY BUSHING

KELLY SIZE	FOR SQUARE		FOR HEX	
	ABI P/N	Identical Varco P/N	ABI P/N	Identical Varco P/N
2½"	2151	-	2159	-
3"	2152	12100	2160	12107
3½"	2153	12101	2161	12108
4¼"	2154	12102	2162	12109
4½"	2155	-	2163	-
5"	2156	-	2164	12110
5¼"	2157	12103	2165	12111
6"	2158	12104	2166	12112

KELLY WIPER ASSEMBLY

PART LIST FOR 17 KELLY BUSHING

KELLY SIZE	FOR HEX KELLY	FOR SQUARE KELLY
2½"	-	17545-S
3"	17546-H	17546-S
3½"	17547-H	17547-S
4¼"	17548-H	17548-S
5¼"	-	17549-S