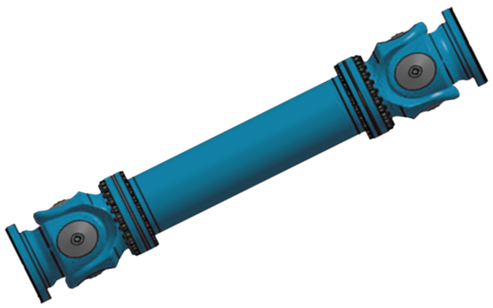
CARDANWORKS BY Sicit

"The whole is more than the sum of its parts."

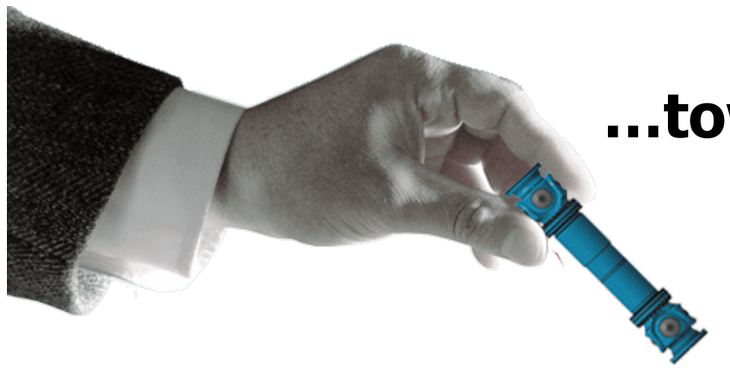
CARDAN SHAFTS
Engineering, manufacturing and service by the CARDANWORKS division of SICIT

Cardan shafts, engineered for a wide spectrum of application...



- Non-splitted yoke design for extreme operating conditions
- Lube for life versions for low TCO
- Maximum U.-Joint life capacity
- FEM optimized geometries
- Specific materials and treatments
- Perfectly machined and matched components
- Tailor-made for individual purposes
- High capacity splines
- Maximum strength and minimum distortion under load

Your move...



...towards a perfect cardan shaft solution!

Service & Repair – "A second life"

Certainly, the life of every technical product is limited.

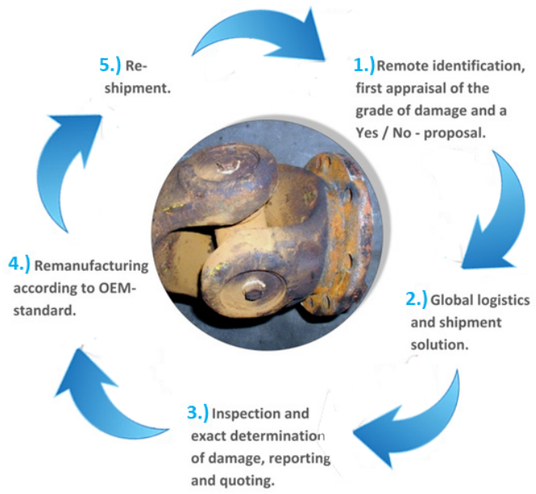
Fortunately the breakdown of a cardan shaft does not always mean a total loss.

For approximately 3/4th of all cardan shaft breakdowns just a part of the implemented components may be damaged.

Whether normal wear or excessive overloads - the failure of a cardan shaft at the wrong moment may also cause immense follow-up costs.

Preventive action can thus save your investment and money.

The cardan shaft deserves "A second life"- and you will benefit for sure!



Our promise: We take care about it!

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Unlimited variety of products…

A **CARDAN**WORKS shaft is as individual as its application. No cardan shaft is like the other – there are cardan shafts for vehicle construction, paper machines, test benches, pumps and rolling mills – this list can be continued endless. Some cardan shafts are predestined for most severe loads and some for highest precision. In some cases only a low temperature version can be used, other application require a high temperature design. There are no standard solutions for this infinite variety of products. Thus **CARDAN**WORKS shafts will be selected and designed on demand considering economical aspects. This datasheet submits a basic overview about the **CARDAN**WORKS – product range. Further information and data for all variation, special designs and additional equipment will be given on request.

PRODUCT SPREAD			LIGHT DUTY			MEDIUM DUTY						HEAVY DUTY											SUPER HEAVY DUTY			
CARDAN SHAFT SIZE			X.078.	X.100.	X.116.	X.127.	X.142.	X.158.	X.172.	X.178.	X.204.	X.215.	X.225.	X.250B.	X.250.	X.285.	X.315.	X.350.	X.390.	X.440.	X.490.	X.550.	X.620.	X.680.	X.750.	X.840.
ENGINEERING DATA																										
RATING	T_{MAX}	Nm	600	2.000	3.000	3.800	5.500	9.000	12.000	17.000	22.000	26.000	60.000	36.000	86.000	128.000	170.000	240.000	340.000	535.000	750.000	1.070.000	1.335.000	1.640.000	2.500.000	3.100.000
	T_{FAT}	Nm	300	1.000	1.500	1.900	2.900	4.400	5.100	8.500	11.000	13.000	30.000	18.000	43.000	64.000	85.000	120.000	170.000	270.000	375.000	535.000	667.000	980.000	1.500.000	1.860.000
	U_{LT}	Nm	220	660	920	1.180	2.090	2.890	3.740	4.600	6.870	8.000	11.750	9.870	17.250	23.800	35.650	47.850	62.950	98.450	117.050	181.450	225.100	320.000	450.000	565.000
DIMENSIONS	J_{SD}	mm	78	100	116	127	142	158	172	178	204	215	225	250	250	285	315	350	390	440	490	550	620	680	750	840
	ß	°	20	22	35	27	25	30	25	25	25	25	15	20	15	15	15	15	15	15	15	15	15	15	15	15
	Tube from	mm	50	50	70	76,2	80	100	120	110	142	144	159	168,8	180	203	219	245	273	325	351	402	426	560	610	660
	to	mm		76,2	90	88,9	90	120		120																
	LC max	mm	260	490	450	492	570	575	580	620	745	850	990	840	1050	1275	1395	1525	1535	1700	1850	2050	2280	3250	3650	4250
	LS max	mm	45	80	110	110	100	110	110	110	150	140	140	100	140	,	140	150	170	190	190	240	250	250	250	250
	LF min	mm	200	240	280	310	375	400	415	450	490	540	650	610	750	850	930	1000	1015	1150	1250	1400	1520	1940	2400	2700
FLANGE YOKE CONFIGURATION	DIN		75-6-6	90-4-8	100-6-8	120-8-10	150-8-10	150-8-12	180-8-14	180-8-14	180-8-14	225-8-16	225-8-16	225-8-16	250-8-18	285-8-20	315-8-22	350-10-22	390-10-24	435-10-27						
			90-4-8	100-6-8	120-8-8	150-8-12	150-8-12	180-8-14	180-8-16	180-8-16	180-8-16	250-8-18	250-8-18	250-8-18	285-8-20	315-8-22	350-10-22	390-10-24	435-10-27							
				100-8-8	120-8-10	180-8-14	180-8-14	180-8-16	180-10-16	180-10-16	180-10-16			285-8-20												
				120-8-8	150-8-10	180-8-16	180-8-16	180-10-16	225-8-16	225-8-16	225-8-16															
				120-8-10	150-8-12	180-10-16	180-10-16				250-8-18															
	SAE ISO 7647		87-4-8	97-4-9,5	116-4-11,1	116-4-12,2	150-4-14,1	174,6-8-9,6	203,2-8-10,1	203,2-8-10,1	203,2-12-10,1															
				114-4-12,4	146-4-12,7	146-4-14,9	174,6-8-9,6	203,2-8-10,1	203,2-12-10,1	203,2-12-10,1	203,2-12-12,1															
								203,2-12-10,1		203,2-12-12,1																
	CROSS SERRATED ISO 12667			100-4-8,5	122-4-11	120-4-11	120-4-11	150-4-13	150-4-13	180-4-15	180-4-15															
				122-4-11		150-4-13	150-4-13	180-4-15	180-4-15																	
	DIN with FACE KEY									225-8-17 K 32x9	225-8-17 K 32x9	225-8-17 K 32x9	225-8-17 K 32x9	225-8-17 K 32x9	250-8-19 K 40x12	285-8-21 K 40x15	315-10-23 K 40x15	350-10-23 K 50x16	390-10-25 K 70x18	435-16-28 K 80x20	490-16-31 K 90x22,5	550-16-31 K 100x22,5	620-16-38 K 100x25			
											250-8-19 K 40x12	250-8-19 K 40x12	250-8-19 K 40x12	250-8-19 K 40x12	285-8-21 K 40x15	315-10-23 K 40x15	350-10-23 K 50x16	390-10-25 K 70x18	435-16-28 K 80x20	490-16-31 K 90x22,5	550-16-31 K 100x22,5	620-16-38 K 100x25				
														285-8-21 K 40x15												
	HIRTH SERRATED												225-8-14		250-8-16	285-10-16	315-10-18	350-12-18	390-10-20	435-16-20	490-16-22	550-16-24	620-24-26	680-24-30	750-24-31	840-24-38
													250-8-16		285-10-16	315-10-18	350-12-18	390-10-20	435-16-20	490-16-22	550-16-24	620-24-26	680-24-30			

DEFINITIONS

CARDAN SHAFT TYPE

CS

Cardan shaft with length compensation

RATING [Nm]
T_{MAX} = maximum static torque capacity, based on material strength
T_{FAT} = reversing, dynamic torque capacity, based on material strength
U_{LT} = U.-Joint life torque capacity, based on the bearing data

TS

Cardan shaft tubular design, without length compensation

DIMENSIONS [mm]
J_{SD} = over all swing diameter across the U.-Joint
L_C = compressed length
L_S = length compensation

DCS

Cardan shaft with length compensation ,double flange design

DIMENSIONS [mm]
L_F = fixed length (for type TS and DTS)
ß = standard deflection angle, which may vary depending on design / length

DTS

Cardan shaft tubular design, without length compensation double flange design

FLANGE YOKE CONFIGURATION [mm]
flange outer diameter - number of bores - bore diameter
K (facekey) width x height