HARDMAN BROS PTY LTD

385-393 LOWER DANDENONG RD. DINGLEY,
VIC 3172 AUSTRALIA
TELEPHONE: **(03) 9551 5566** FACSIMILE: (03) 9551 8060
EMAIL: info@hardmanbros.com.au

A.B.N. 50 004 436 711

Quality System
Quality Endorsed Company
ISO 9001 Lic 4517

MODUL PITCH SPUR GEARS 1.5 MOD 20° PA

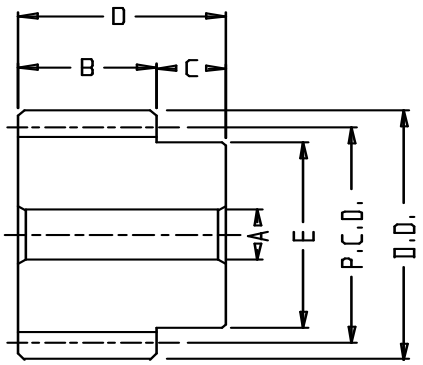
FEB, 2008

MATERIAL STEEL K1040 - K1045 SUITABLE FOR FLAME OR INDUCTION HARDENING

PART NO	TEETH	PCD	OD	A	B	C	D	E	$	Kg
SSM - 1.515	15 *	24.0	27.0	8	15	10	25	18		0.06
SSM - 1.516	16 *	25.5	28.5	8	15	10	25	20		0.08
SSM - 1.518	18	27.0	30.0	8	15	10	25	22		0.10
SSM - 1.520	20	30.0	33.0	8	15	10	25	24		0.10
SSM - 1.524	24	36.0	39.0	8	15	10	25	28		0.15
SSM - 1.525	25	37.5	40.5	8	15	10	25	30		0.16
SSM - 1.528	28	42.0	45.0	10	15	10	25	36		0.20
SSM - 1.530	30	45.0	48.0	10	15	10	25	38		0.25
SSM - 1.532	32	48.0	51.0	10	15	10	25	40		0.30
SSM - 1.536	36	54.0	57.0	10	15	10	25	45		0.40
SSM - 1.540	40	60.0	63.0	12	15	10	25	45		0.45
SSM - 1.545	45	67.5	70.5	12	15	10	25	45		0.50
SSM - 1.548	48	72.0	75.0	12	15	10	25	45		0.60
SSM - 1.550	50	75.0	78.0	12	15	10	25	45		0.60
SSM - 1.554	54	81.0	84.0	15	15	10	25	50		0.70
SSM - 1.556	56	84.0	87.0	15	15	10	25	50		0.75
SSM - 1.560	60	90.0	93.0	15	15	10	25	50		0.85
SSM - 1.570	70	105.0	108.0	15	15	10	25	55		1.15
SSM - 1.572	72	108.0	111.0	15	15	10	25	55		1.20
SSM - 1.580	80	120.0	123.0	15	15	10	25	60		1.50
SSM - 1.590	90	135.0	138.0	15	15	10	25	60		1.80
SSM - 1.5100	100	150.0	153.0	15	15	10	25	60		2.20

* NOTE: To give added strength and improved tooth action, all pinions having 16 teeth or less have had their effective meshing pitch diameter increased by 1 addendum.

To obtain centre distance for any 2 meshing gears, add their pitch diameters as shown in the tables divided by 2.



HARDMAN BROS PTY LTD

385-393 LOWER DANDENONG RD. DINGLEY,
VIC 3172 AUSTRALIA
TELEPHONE: **(03) 9551 5566** FACSIMILE: (03) 9551 8060
EMAIL: info@hardmanbros.com.au

A.B.N. 50 004 436 711

Quality System
Quality Endorsed Company
ISO 9001 Lic 4517

MODUL PITCH SPUR GEARS 2 MOD 20° PA

FEB, 2008

MATERIAL STEEL K1040 - K1045 SUITABLE FOR FLAME OR INDUCTION HARDENING

PART NO	TEETH	PCD	OD	A	B	C	D	E	$	Kg
SSM - 215	15 *	32.0	36.0	12	20	10	30	26		0.10
SSM - 216	16 *	34.0	38.0	12	20	10	30	28		0.15
SSM - 217	17	34.0	38.0	12	20	10	30	28		0.15
SSM - 218	18	36.0	40.0	12	20	10	30	30		0.20
SSM - 219	19	38.0	42.0	12	20	10	30	31		0.20
SSM - 220	20	40.0	44.0	12	20	10	30	32		0.20
SSM - 221	21	42.0	46.0	12	20	10	30	34		0.25
SSM - 222	22	44.0	48.0	12	20	10	30	36		0.30
SSM - 223	23	46.0	50.0	12	20	10	30	37		0.30
SSM - 224	24	48.0	52.0	12	20	10	30	38		0.35
SSM - 225	25	50.0	54.0	12	20	10	30	40		0.35
SSM - 226	26	52.0	56.0	12	20	10	30	42		0.40
SSM - 227	27	54.0	58.0	12	20	10	30	45		0.45
SSM - 228	28	56.0	60.0	12	20	10	30	45		0.50
SSM - 229	29	58.0	62.0	12	20	10	30	47		0.50
SSM - 230	30	60.0	64.0	12	20	10	30	50		0.55
SSM - 232	32	64.0	68.0	12	20	10	30	50		0.60
SSM - 234	34	68.0	72.0	12	20	10	30	50		0.70
SSM - 235	35	70.0	74.0	12	20	10	30	52		0.75
SSM - 236	36	72.0	76.0	12	20	10	30	55		0.80
SSM - 238	38	76.0	80.0	12	20	10	30	55		0.85
SSM - 240	40	80.0	84.0	15	20	10	30	55		0.90
SSM - 242	42	84.0	88.0	15	20	10	30	55		1.00
SSM - 244	44	88.0	92.0	15	20	10	30	55		1.10
SSM - 245	45	90.0	94.0	15	20	10	30	55		1.10
SSM - 246	46	92.0	96.0	15	20	10	30	55		1.10
SSM - 248	48	96.0	100.0	15	20	10	30	55		1.20
SSM - 250	50	100.0	104.0	15	20	10	30	55		1.30
SSM - 252	52	104.0	108.0	15	20	10	30	55		1.50
SSM - 254	54	108.0	112.0	15	20	10	30	55		1.55
SSM - 255	55	110.0	114.0	15	20	10	30	55		1.60
SSM - 256	56	112.0	116.0	15	20	10	30	55		1.70
SSM - 258	58	116.0	120.0	15	20	10	30	60		1.80
SSM - 260	60	120.0	124.0	15	30	10	30	60		1.90
SSM - 262	62	124.0	128.0	15	20	10	30	60		2.05
SSM - 264	64	128.0	132.0	15	20	10	30	60		2.20
SSM - 265	65	130.0	134.0	15	20	10	30	60		2.25
SSM - 266	66	132.0	136.0	15	20	10	30	60		2.30
SSM - 268	68	136.0	140.0	15	20	10	30	60		2.40
SSM - 270	70	140.0	144.0	15	20	10	30	60		2.50
SSM - 272	72	144.0	148.0	15	20	10	30	60		2.70
SSM - 275	75	150.0	154.0	20	20	10	30	60		2.90

* NOTE: To give added strength and improved tooth action, all pinions having 16 teeth or less have had their effective meshing pitch diameter increased by 1 addendum.

To obtain centre distance for any 2 meshing gears, add their pitch diameters as shown in the tables divided by 2.

HARDMAN BROS PTY LTD

385-393 LOWER DANDENONG RD. DINGLEY,
VIC 3172 AUSTRALIA
TELEPHONE: **(03) 9551 5566** FACSIMILE: (03) 9551 8060
EMAIL: info@hardmanbros.com.au

A.B.N. 50 004 436 711

Quality System
Quality Endorsed Company
ISO 9001 Lic 4517

MODUL PITCH SPUR GEARS 2.5 MOD 20° PA

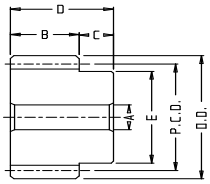
FEB, 2008

MATERIAL STEEL K1040 - K1045 SUITABLE FOR FLAME OR INDUCTION HARDENING

PART NO	TEETH	PCD	OD	A	B	C	D	E	$	Kg
SSM - 2.512	12 *	32.5	37.5	12	25	12	37	25		0.15
SSM - 2.513	13 *	35.0	40.0	12	25	12	37	27		0.20
SSM - 2.514	14 *	37.5	42.5	12	25	12	37	30		0.25
SSM - 2.515	15 *	40.0	45.0	15	25	12	37	32		0.25
SSM - 2.516	16 *	42.5	47.5	15	25	12	37	35		0.30
SSM - 2.517	17	42.5	47.5	15	25	12	37	35		0.30
SSM - 2.518	18	45.0	50.0	15	25	12	37	38		0.35
SSM - 2.519	19	47.5	52.5	15	25	12	37	39		0.40
SSM - 2.520	20	50.0	55.0	15	25	12	37	40		0.45
SSM - 2.521	21	52.5	57.5	15	25	12	37	42		0.50
SSM - 2.522	22	55.0	60.0	15	25	12	37	44		0.55
SSM - 2.523	23	57.5	62.5	15	25	12	37	46		0.60
SSM - 2.524	24	60.0	65.0	15	25	12	37	48		0.70
SSM - 2.525	25	62.5	67.5	15	25	12	37	50		0.70
SSM - 2.526	26	65.0	70.0	15	25	12	37	55		0.80
SSM - 2.527	27	67.5	72.5	15	25	12	37	60		0.90
SSM - 2.528	28	70.0	75.0	15	25	12	37	60		0.95
SSM - 2.529	29	72.5	77.5	15	25	12	37	62		1.00
SSM - 2.530	30	75.0	80.0	15	25	12	37	65		1.10
SSM - 2.532	32	80.0	85.0	15	25	12	37	70		1.30
SSM - 2.534	34	85.0	90.0	15	25	12	37	70		1.35
SSM - 2.535	35	87.5	92.5	15	25	12	37	70		1.40
SSM - 2.536	36	90.0	95.0	15	25	12	37	70		1.50
SSM - 2.538	38	95.0	100.0	20	25	12	37	70		1.65
SSM - 2.540	40	100.0	105.0	20	25	12	37	70		1.75
SSM - 2.542	42	105.0	110.0	20	25	12	37	70		1.90
SSM - 2.544	44	110.0	115.0	20	25	12	37	70		2.10
SSM - 2.545	45	112.5	117.5	20	25	12	37	70		2.15
SSM - 2.546	46	115.0	120.0	20	25	12	37	70		2.30
SSM - 2.548	48	120.0	125.0	20	25	12	37	70		2.45
SSM - 2.550	50	125.0	130.0	20	25	12	37	70		2.65
SSM - 2.552	52	130.0	135.0	20	25	12	37	70		2.85
SSM - 2.554	54	135.0	140.0	20	25	12	37	70		3.00
SSM - 2.555	55	137.5	142.5	20	25	12	37	70		3.15
SSM - 2.556	56	140.0	145.0	20	25	12	37	70		3.20
SSM - 2.558	58	145.0	150.0	20	25	12	37	70		3.40
SSM - 2.560	60	150.0	155.0	25	25	12	37	70		3.60

* NOTE: To give added strength and improved tooth action, all pinions having 16 teeth or less have had their effective meshing pitch diameter increased by 1 addendum.

To obtain centre distance for any 2 meshing gears, add their pitch diameters as shown in the tables divided by 2.



HARDMAN BROS PTY LTD

385-393 LOWER DANDENONG RD. DINGLEY,
VIC 3172 AUSTRALIA
TELEPHONE: **(03) 9551 5566** FACSIMILE: (03) 9551 8060
EMAIL: info@hardmanbros.com.au

A.B.N. 50 004 436 711

Quality System
Quality Endorsed Company
ISO 9001 Lic 4517

MODUL PITCH SPUR GEARS 3 MOD 20° PA

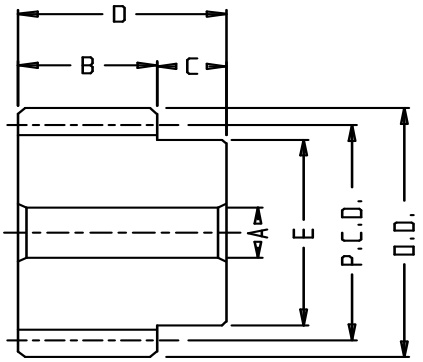
FEB, 2008

MATERIAL STEEL K1040 - K1045 SUITABLE FOR FLAME OR INDUCTION HARDENING

PART NO	TEETH	PCD	OD	A	B	C	D	E	$	Kg
SSM - 312	12 *	39.0	45.0	15	30	15	45	30		0.30
SSM - 313	13 *	42.0	48.0	15	30	15	45	33		0.35
SSM - 314	14 *	45.0	51.0	15	30	15	45	35		0.40
SSM - 315	15 *	48.0	54.0	15	30	15	45	39		0.50
SSM - 316	16 *	51.0	57.0	15	30	15	45	41		0.50
SSM - 317	17	51.0	57.0	15	30	15	45	39		0.55
SSM - 318	18	54.0	60.0	15	30	15	45	40		0.60
SSM - 319	19	57.0	63.0	15	30	15	45	45		0.70
SSM - 320	20	60.0	66.0	15	30	15	45	50		0.80
SSM - 321	21	63.0	69.0	15	30	15	45	52		0.90
SSM - 322	22	66.0	72.0	15	30	15	45	54		0.95
SSM - 323	23	69.0	75.0	15	30	15	45	56		1.10
SSM - 324	24	72.0	78.0	15	30	15	45	58		1.20
SSM - 325	25	75.0	81.0	20	30	15	45	60		1.25
SSM - 326	26	78.0	84.0	20	30	15	45	65		1.35
SSM - 327	27	81.0	87.0	20	30	15	45	65		1.40
SSM - 328	28	84.0	90.0	20	30	15	45	70		1.60
SSM - 329	29	87.0	93.0	20	30	15	45	70		1.70
SSM - 330	30	90.0	96.0	20	30	15	45	75		1.85
SSM - 332	32	96.0	102.0	20	30	15	45	75		2.05
SSM - 334	34	102.0	108.0	20	30	15	45	80		2.40
SSM - 335	35	105.0	111.0	20	30	15	45	80		2.50
SSM - 336	36	108.0	114.0	20	30	15	45	80		2.60
SSM - 338	38	114.0	120.0	25	30	15	45	80		2.80
SSM - 340	40	120.0	126.0	25	30	15	45	80		3.00
SSM - 342	42	126.0	132.0	25	30	15	45	80		3.30
SSM - 344	44	132.0	138.0	25	30	15	45	80		3.60
SSM - 345	45	135.0	141.0	25	30	15	45	80		3.75
SSM - 346	46	138.0	144.0	25	30	15	45	80		3.90
SSM - 348	48	144.0	150.0	25	30	15	45	80		4.25
SSM - 350	50	150.0	156.0	25	30	15	45	80		4.50

* NOTE: To give added strength and improved tooth action, all pinions having 16 teeth or less have had their effective meshing pitch diameter increased by 1 addendum.

To obtain centre distance for any 2 meshing gears, add their pitch diameters as shown in the tables divided by 2.



HARDMAN BROS PTY LTD

385-393 LOWER DANDENONG RD. DINGLEY,
VIC 3172 AUSTRALIA
TELEPHONE: **(03) 9551 5566** FACSIMILE: (03) 9551 8060
EMAIL: info@hardmanbros.com.au

A.B.N. 50 004 436 711

Quality System
Quality Endorsed Company
ISO 9001 Lic 4517

MODUL PITCH SPUR GEARS 4 MOD 20° PA

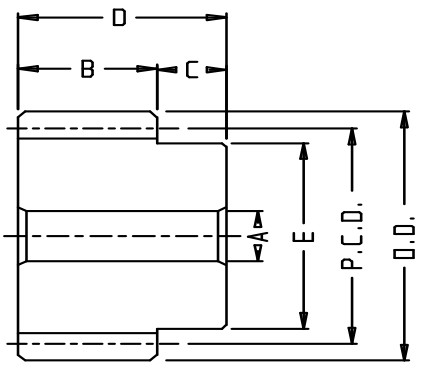
FEB, 2008

MATERIAL STEEL K1040 - K1045 SUITABLE FOR FLAME OR INDUCTION HARDENING

PART NO	TEETH	PCD	OD	A	B	C	D	E	$	Kg
SSM - 412	12.*	52.0	60.0	20	40	20	60	39		0.70
SSM - 413	13 *	56.0	64.0	20	40	20	60	42		0.80
SSM - 414	14 *	60.0	68.0	20	40	20	60	45		0.95
SSM - 415	15 *	64.0	72.0	20	40	20	60	50		1.10
SSM - 416	16 *	68.0	76.0	20	40	20	60	55		1.25
SSM - 417	17	68.0	76.0	20	40	20	60	53		1.30
SSM - 418	18	72.0	80.0	20	40	20	60	55		1.45
SSM - 419	19	76.0	84.0	20	40	20	60	60		1.65
SSM - 420	20	80.0	88.0	20	40	20	60	65		1.90
SSM - 421	21	84.0	92.0	20	40	20	60	69		2.15
SSM - 422	22	88.0	96.0	20	40	20	60	73		2.35
SSM - 423	23	92.0	100.0	20	40	20	60	77		2.60
SSM - 424	24	96.0	104.0	20	40	20	60	80		2.85
SSM - 425	25	100.0	108.0	20	40	20	60	84		3.10
SSM - 426	26	104.0	112.0	20	40	20	60	87		3.40
SSM - 427	27	108.0	116.0	20	40	20	60	90		3.65
SSM - 428	28	112.0	120.0	20	40	20	60	95		4.00
SSM - 429	29	116.0	124.0	20	40	20	60	95		4.25
SSM - 430	30	120.0	128.0	20	40	20	60	100		4.60
SSM - 432	32	128.0	136.0	22	40	16	56	100		4.65
SSM - 434	34	136.0	144.0	22	40	16	56	100		5.10
SSM - 435	35	140.0	148.0	22	40	16	56	100		5.60
SSM - 436	36	144.0	152.0	22	40	16	56	100		5.90
SSM - 438	38	152.0	160.0	22	40	16	56	100		6.45
SSM - 440	40	160.0	168.0	25	40	16	56	100		7.00

* NOTE: To give added strength and improved tooth action, all pinions having 16 teeth or less have had their effective meshing pitch diameter increased by 1 addendum.

To obtain centre distance for any 2 meshing gears, add their pitch diameters as shown in the tables divided by 2.



HARDMAN BROS PTY LTD

385-393 LOWER DANDENONG RD. DINGLEY,
VIC 3172 AUSTRALIA
TELEPHONE: **(03) 9551 5566** FACSIMILE: (03) 9551 8060
EMAIL: info@hardmanbros.com.au

A.B.N. 50 004 436 711

Quality System
Quality Endorsed Company
ISO 9001 Lic 4517

MODUL PITCH SPUR GEARS 5 MOD 20° PA

FEB, 2008

MATERIAL STEEL K1040 - K1045 SUITABLE FOR FLAME OR INDUCTION HARDENING

PART NO	TEETH	PCD	OD	A	B	C	D	E	$	Kg
SSM - 512	12 *	65.0	75.0	22	50	25	75	51		1.40
SSM - 513	13 *	70.0	80.0	22	50	25	75	55		1.70
SSM - 514	14 *	75.0	85.0	22	50	25	75	57		1.90
SSM - 515	15 *	80.0	90.0	22	50	25	75	65		2.25
SSM - 516	16 *	85.0	95.0	22	50	25	75	70		2.60
SSM - 517	17	85.0	95.0	22	50	25	75	68		2.65
SSM - 518	18	90.0	100.0	22	50	25	75	70		2.90
SSM - 519	19	95.0	105.0	22	50	25	75	76		3.30
SSM - 520	20	100.0	110.0	22	50	25	75	82		3.80
SSM - 521	21	105.0	115.0	25	50	25	75	90		4.30
SSM - 522	22	110.0	120.0	25	50	25	75	95		4.80
SSM - 523	23	115.0	125.0	25	50	25	75	100		5.25
SSM - 524	24	120.0	130.0	25	50	25	75	100		5.60
SSM - 525	25	125.0	135.0	25	50	25	75	105		5.30
SSM - 526	26	130.0	140.0	25	50	25	75	110		6.70
SSM - 527	27	135.0	145.0	25	50	25	75	110		7.10
SSM - 528	28	140.0	150.0	25	50	25	75	110		7.50
SSM - 529	29	145.0	155.0	25	50	25	75	115		8.10
SSM - 530	30	150.0	160.0	25	50	25	75	120		8.80

* NOTE: To give added strength and improved tooth action, all pinions having 16 teeth or less have had their effective meshing pitch diameter increased by 1 addendum.

To obtain centre distance for any 2 meshing gears, add their pitch diameters as shown in the tables divided by 2.