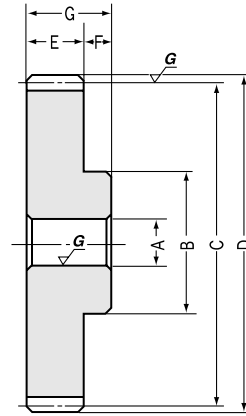




# SSG Ground Spur Gears Module 1

Spur Gears



S1 Shape

## Module 1

Catalog No.	Module	No. of teeth	Bore	Hub dia.	Pitch dia.	Outside dia.	Face width <small>NOTE 1</small>	Hub width	Total length	Web thickness	Web O.D.
	<i>m</i>	<i>z</i>	AH7	B	C	D	E	F	G	H	I
<b>SSG1- 15</b>	1	15	6	12	15	17	8	10	18	—	—
<b>SSG1- 16</b>	1	16	6	13	16	18	8	10	18	—	—
<b>SSG1- 17</b>	1	17	6	14	17	19	8	10	18	—	—
<b>SSG1- 18</b>	1	18	6	15	18	20	8	10	18	—	—
<b>SSG1- 19</b>	1	19	6	16	19	21	8	10	18	—	—
<b>SSG1- 20</b>	1	20	6	17	20	22	8	10	18	—	—
<b>SSG1- 21</b>	1	21	8	18	21	23	8	10	18	—	—
<b>SSG1- 22</b>	1	22	8	18	22	24	8	10	18	—	—
<b>SSG1- 23</b>	1	23	8	20	23	25	8	10	18	—	—
<b>SSG1- 24</b>	1	24	8	20	24	26	8	10	18	—	—
<b>SSG1- 25</b>	1	25	8	20	25	27	8	10	18	—	—
<b>SSG1- 26</b>	1	26	8	20	26	28	8	10	18	—	—
<b>SSG1- 27</b>	1	27	8	20	27	29	8	10	18	—	—
<b>SSG1- 28</b>	1	28	8	20	28	30	8	10	18	—	—
<b>SSG1- 29</b>	1	29	8	25	29	31	8	10	18	—	—
<b>SSG1- 30</b>	1	30	10	25	30	32	8	10	18	—	—
<b>SSG1- 32</b>	1	32	10	25	32	34	8	10	18	—	—
<b>SSG1- 34</b>	1	34	10	25	34	36	8	10	18	—	—
<b>SSG1- 35</b>	1	35	10	25	35	37	8	10	18	—	—
<b>SSG1- 36</b>	1	36	10	25	36	38	8	10	18	—	—
<b>SSG1- 38</b>	1	38	10	30	38	40	8	10	18	—	—
<b>SSG1- 40</b>	1	40	10	30	40	42	8	10	18	—	—
<b>SSG1- 42</b>	1	42	10	30	42	44	8	10	18	—	—
<b>SSG1- 44</b>	1	44	10	30	44	46	8	10	18	—	—
<b>SSG1- 45</b>	1	45	10	30	45	47	8	10	18	—	—
<b>SSG1- 48</b>	1	48	10	30	48	50	8	10	18	—	—
<b>SSG1- 50</b>	1	50	12	35	50	52	8	10	18	—	—
<b>SSG1- 55</b>	1	55	12	35	55	57	8	10	18	—	—
<b>SSG1- 56</b>	1	56	12	35	56	58	8	10	18	—	—
<b>SSG1- 60</b>	1	60	12	40	60	62	8	10	18	—	—
<b>SSG1- 64</b>	1	64	12	40	64	66	8	10	18	—	—
<b>SSG1- 70</b>	1	70	12	40	70	72	8	10	18	—	—
<b>SSG1- 75</b>	1	75	12	40	75	77	8	10	18	—	—
<b>SSG1- 80</b>	1	80	15	50	80	82	8	10	18	—	—
<b>SSG1- 90</b>	1	90	15	50	90	92	8	10	18	—	—
<b>SSG1-100</b>	1	100	15	50	100	102	8	10	18	—	—
<b>SSG1-120</b>	1	120	15	50	120	122	8	10	18	—	—

**NOTE 1:** Secondary operations may be performed on these gears except for modification of the gear face width.



## Specifications

Precision grade	JIS N7 grade (JIS B1702-1: 1996) OLD JIS 3 grade (JIS B1702: 1976)	Tooth hardness	48~53HRC
Gear teeth	Standard full depth	Surface treatment	Black oxide except ground surfaces
Pressure angle	20°	Tooth surface finish	Ground
Material	S45C	Datum reference surface for gear grinding	Bore
Heat treatment	Tooth surface Induction hardened	Secondary Operations	Possible except tooth area

Shape	Allowable torque (N·m) <small>NOTE 2</small>		Allowable torque (kgf·m)		Backlash (mm) <small>NOTE 3</small>	Weight (kgf)	Catalog No.
	Bending strength	Surface durability	Bending strength	Surface durability			
S1	3.267	1.033	(0.3331)	(0.1053)	0.08 ~ 0.16	0.02	<b>SSG1- 15</b>
S1	3.62	1.19	(0.3691)	(0.1213)	0.08 ~ 0.16	0.02	<b>SSG1- 16</b>
S1	3.978	1.359	(0.4056)	(0.1386)	0.08 ~ 0.16	0.02	<b>SSG1- 17</b>
S1	4.341	1.54	(0.4427)	(0.157)	0.08 ~ 0.16	0.03	<b>SSG1- 18</b>
S1	4.709	1.733	(0.4802)	(0.1767)	0.08 ~ 0.16	0.03	<b>SSG1- 19</b>
S1	5.081	1.938	(0.5181)	(0.1976)	0.08 ~ 0.16	0.03	<b>SSG1- 20</b>
S1	5.457	2.144	(0.5565)	(0.2186)	0.08 ~ 0.16	0.04	<b>SSG1- 21</b>
S1	5.837	2.36	(0.5952)	(0.2407)	0.08 ~ 0.16	0.04	<b>SSG1- 22</b>
S1	6.219	2.588	(0.6342)	(0.2639)	0.08 ~ 0.16	0.04	<b>SSG1- 23</b>
S1	6.605	2.825	(0.6735)	(0.2881)	0.08 ~ 0.16	0.05	<b>SSG1- 24</b>
S1	6.992	3.074	(0.713)	(0.3135)	0.08 ~ 0.16	0.05	<b>SSG1- 25</b>
S1	7.383	3.334	(0.7529)	(0.34)	0.08 ~ 0.16	0.05	<b>SSG1- 26</b>
S1	7.776	3.604	(0.7929)	(0.3675)	0.08 ~ 0.16	0.05	<b>SSG1- 27</b>
S1	8.171	3.885	(0.8332)	(0.3962)	0.08 ~ 0.16	0.06	<b>SSG1- 28</b>
S1	8.568	4.177	(0.8737)	(0.4259)	0.08 ~ 0.16	0.07	<b>SSG1- 29</b>
S1	8.966	4.48	(0.9143)	(0.4568)	0.08 ~ 0.16	0.07	<b>SSG1- 30</b>
S1	8.14	4.265	(0.8301)	(0.4349)	0.08 ~ 0.16	0.08	<b>SSG1- 32</b>
S1	8.814	4.839	(0.8988)	(0.4934)	0.08 ~ 0.16	0.08	<b>SSG1- 34</b>
S1	9.153	5.14	(0.9334)	(0.5241)	0.08 ~ 0.16	0.09	<b>SSG1- 35</b>
S1	9.493	5.449	(0.968)	(0.5557)	0.08 ~ 0.16	0.09	<b>SSG1- 36</b>
S1	10.18	6.099	(1.038)	(0.6219)	0.08 ~ 0.16	0.12	<b>SSG1- 38</b>
S1	10.87	6.786	(1.108)	(0.692)	0.08 ~ 0.16	0.12	<b>SSG1- 40</b>
S1	11.55	7.513	(1.178)	(0.7661)	0.08 ~ 0.16	0.13	<b>SSG1- 42</b>
S1	12.24	8.277	(1.248)	(0.844)	0.08 ~ 0.16	0.14	<b>SSG1- 44</b>
S1	12.59	8.673	(1.284)	(0.8844)	0.08 ~ 0.16	0.15	<b>SSG1- 45</b>
S1	13.63	9.924	(1.39)	(1.012)	0.08 ~ 0.16	0.16	<b>SSG1- 48</b>
S1	14.33	10.81	(1.461)	(1.102)	0.08 ~ 0.16	0.18	<b>SSG1- 50</b>
S1	16.08	13.18	(1.64)	(1.344)	0.1 ~ 0.18	0.21	<b>SSG1- 55</b>
S1	16.44	13.68	(1.676)	(1.395)	0.1 ~ 0.18	0.21	<b>SSG1- 56</b>
S1	17.85	15.8	(1.82)	(1.611)	0.1 ~ 0.18	0.26	<b>SSG1- 60</b>
S1	19.27	18.08	(1.965)	(1.844)	0.1 ~ 0.18	0.29	<b>SSG1- 64</b>
S1	21.4	21.81	(2.182)	(2.224)	0.1 ~ 0.18	0.33	<b>SSG1- 70</b>
S1	23.18	25.19	(2.364)	(2.569)	0.1 ~ 0.18	0.36	<b>SSG1- 75</b>
S1	24.98	28.84	(2.547)	(2.941)	0.1 ~ 0.18	0.45	<b>SSG1- 80</b>
S1	28.57	36.93	(2.913)	(3.766)	0.1 ~ 0.18	0.53	<b>SSG1- 90</b>
S1	29.69	42.54	(3.028)	(4.338)	0.10 ~ 0.18	0.62	<b>SSG1-100</b>
S1	36.37	62.5	(3.709)	(6.373)	0.12 ~ 0.2	0.84	<b>SSG1-120</b>

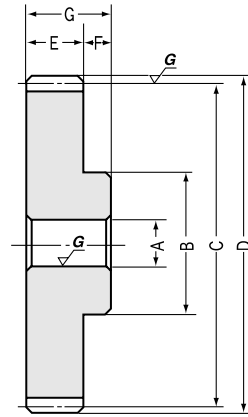
**NOTE 2:** The allowable torques shown in the table are calculated values according to the assumed usage conditions. Please see page 27 for more details.

**NOTE 3:** The backlash values shown in the table are the theoretical values of a pair of identical gears in mesh.



# SSG Ground Spur Gears Module 1.5

Spur Gears



S1 Shape

## Module 1.5

Catalog No.	Module	No. of teeth	Bore	Hub dia.	Pitch dia.	Outside dia.	Face width <small>NOTE 1</small>	Hub width	Total length	Web thickness	Web O.D.
	<i>m</i>	<i>z</i>	AH7	B	C	D	E	F	G	H	I
<b>SSG1.5- 14</b>	1.5	14	10	17	21	24	15	14	29	—	—
<b>SSG1.5- 15</b>	1.5	15	10	18	22.5	25.5	15	14	29	—	—
<b>SSG1.5- 16</b>	1.5	16	10	20	24	27	15	14	29	—	—
<b>SSG1.5- 17</b>	1.5	17	10	21	25.5	28.5	15	14	29	—	—
<b>SSG1.5- 18</b>	1.5	18	10	22	27	30	15	14	29	—	—
<b>SSG1.5- 19</b>	1.5	19	10	23	28.5	31.5	15	14	29	—	—
<b>SSG1.5- 20</b>	1.5	20	10	24	30	33	15	14	29	—	—
<b>SSG1.5- 21</b>	1.5	21	10	25	31.5	34.5	15	14	29	—	—
<b>SSG1.5- 22</b>	1.5	22	12	26	33	36	15	14	29	—	—
<b>SSG1.5- 23</b>	1.5	23	12	27	34.5	37.5	15	14	29	—	—
<b>SSG1.5- 24</b>	1.5	24	12	28	36	39	15	14	29	—	—
<b>SSG1.5- 25</b>	1.5	25	12	30	37.5	40.5	15	14	29	—	—
<b>SSG1.5- 26</b>	1.5	26	12	32	39	42	15	14	29	—	—
<b>SSG1.5- 27</b>	1.5	27	15	34	40.5	43.5	15	14	29	—	—
<b>SSG1.5- 28</b>	1.5	28	15	36	42	45	15	14	29	—	—
<b>SSG1.5- 29</b>	1.5	29	15	37	43.5	46.5	15	14	29	—	—
<b>SSG1.5- 30</b>	1.5	30	15	38	45	48	15	14	29	—	—
<b>SSG1.5- 32</b>	1.5	32	15	40	48	51	15	14	29	—	—
<b>SSG1.5- 34</b>	1.5	34	15	42	51	54	15	14	29	—	—
<b>SSG1.5- 35</b>	1.5	35	15	42	52.5	55.5	15	14	29	—	—
<b>SSG1.5- 36</b>	1.5	36	15	45	54	57	15	14	29	—	—
<b>SSG1.5- 38</b>	1.5	38	15	45	57	60	15	14	29	—	—
<b>SSG1.5- 40</b>	1.5	40	15	50	60	63	15	14	29	—	—
<b>SSG1.5- 42</b>	1.5	42	15	50	63	66	15	14	29	—	—
<b>SSG1.5- 44</b>	1.5	44	15	50	66	69	15	14	29	—	—
<b>SSG1.5- 45</b>	1.5	45	18	50	67.5	70.5	15	14	29	—	—
<b>SSG1.5- 48</b>	1.5	48	18	50	72	75	15	14	29	—	—
<b>SSG1.5- 50</b>	1.5	50	18	60	75	78	15	14	29	—	—
<b>SSG1.5- 55</b>	1.5	55	18	60	82.5	85.5	15	14	29	—	—
<b>SSG1.5- 56</b>	1.5	56	18	60	84	87	15	14	29	—	—
<b>SSG1.5- 60</b>	1.5	60	20	60	90	93	15	14	29	—	—
<b>SSG1.5- 64</b>	1.5	64	20	60	96	99	15	14	29	—	—
<b>SSG1.5- 70</b>	1.5	70	20	60	105	108	15	14	29	—	—
<b>SSG1.5- 75</b>	1.5	75	20	60	112.5	115.5	15	14	29	—	—
<b>SSG1.5- 80</b>	1.5	80	20	70	120	123	15	14	29	—	—
<b>SSG1.5- 90</b>	1.5	90	20	70	135	138	15	14	29	—	—
<b>SSG1.5-100</b>	1.5	100	20	70	150	153	15	14	29	—	—

NOTE 1: Secondary operations may be performed on these gears except for modification of the gear face width.



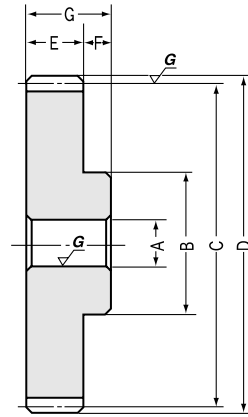
## Specifications

Precision grade	JIS N7 grade (JIS B1702-1: 1996) OLD JIS 3 grade (JIS B1702: 1976)	Tooth hardness	48~53HRC
Gear teeth	Standard full depth	Surface treatment	Black oxide except ground surfaces
Pressure angle	20°	Tooth surface finish	Ground
Material	S45C	Datum reference surface for gear grinding	Bore
Heat treatment	Tooth surface Induction hardened	Secondary Operations	Possible except tooth area

Shape	Allowable torque (N·m) <small>NOTE 2</small>		Allowable torque (kgf·m)		Backlash (mm) <small>NOTE 3</small>	Weight (kgf)	Catalog No.
	Bending strength	Surface durability	Bending strength	Surface durability			
S1	12.32	3.726	( 1.256 )	( 0.38 )	0.08 ~ 0.16	0.05	<b>SSG1.5- 14</b>
S1	13.78	4.346	( 1.405 )	( 0.4432 )	0.08 ~ 0.16	0.06	<b>SSG1.5- 15</b>
S1	15.27	5.016	( 1.557 )	( 0.5115 )	0.08 ~ 0.16	0.07	<b>SSG1.5- 16</b>
S1	16.78	5.736	( 1.711 )	( 0.5849 )	0.08 ~ 0.16	0.08	<b>SSG1.5- 17</b>
S1	18.32	6.505	( 1.868 )	( 0.6633 )	0.08 ~ 0.16	0.09	<b>SSG1.5- 18</b>
S1	19.87	7.325	( 2.026 )	( 0.7469 )	0.08 ~ 0.16	0.1	<b>SSG1.5- 19</b>
S1	21.44	8.194	( 2.186 )	( 0.8356 )	0.08 ~ 0.16	0.12	<b>SSG1.5- 20</b>
S1	23.03	9.114	( 2.348 )	( 0.9294 )	0.08 ~ 0.16	0.13	<b>SSG1.5- 21</b>
S1	20.52	8.41	( 2.092 )	( 0.8576 )	0.08 ~ 0.16	0.14	<b>SSG1.5- 22</b>
S1	21.86	9.271	( 2.229 )	( 0.9454 )	0.08 ~ 0.16	0.15	<b>SSG1.5- 23</b>
S1	23.22	10.18	( 2.368 )	( 1.038 )	0.08 ~ 0.16	0.16	<b>SSG1.5- 24</b>
S1	24.59	11.12	( 2.507 )	( 1.134 )	0.08 ~ 0.16	0.18	<b>SSG1.5- 25</b>
S1	25.96	12.07	( 2.647 )	( 1.231 )	0.08 ~ 0.16	0.2	<b>SSG1.5- 26</b>
S1	27.34	13.06	( 2.788 )	( 1.332 )	0.08 ~ 0.16	0.21	<b>SSG1.5- 27</b>
S1	28.72	14.08	( 2.929 )	( 1.436 )	0.08 ~ 0.16	0.24	<b>SSG1.5- 28</b>
S1	30.12	15.15	( 3.071 )	( 1.545 )	0.08 ~ 0.16	0.25	<b>SSG1.5- 29</b>
S1	31.52	16.26	( 3.214 )	( 1.658 )	0.08 ~ 0.16	0.27	<b>SSG1.5- 30</b>
S1	34.34	18.6	( 3.502 )	( 1.897 )	0.08 ~ 0.16	0.31	<b>SSG1.5- 32</b>
S1	37.19	21.11	( 3.792 )	( 2.153 )	0.1 ~ 0.18	0.35	<b>SSG1.5- 34</b>
S1	38.62	22.43	( 3.938 )	( 2.287 )	0.1 ~ 0.18	0.37	<b>SSG1.5- 35</b>
S1	40.05	23.78	( 4.084 )	( 2.425 )	0.1 ~ 0.18	0.41	<b>SSG1.5- 36</b>
S1	42.92	26.62	( 4.377 )	( 2.715 )	0.1 ~ 0.18	0.44	<b>SSG1.5- 38</b>
S1	45.82	29.63	( 4.672 )	( 3.021 )	0.1 ~ 0.18	0.51	<b>SSG1.5- 40</b>
S1	48.73	32.8	( 4.969 )	( 3.345 )	0.1 ~ 0.18	0.54	<b>SSG1.5- 42</b>
S1	51.64	36.16	( 5.266 )	( 3.687 )	0.1 ~ 0.18	0.58	<b>SSG1.5- 44</b>
S1	53.11	37.89	( 5.416 )	( 3.864 )	0.1 ~ 0.18	0.58	<b>SSG1.5- 45</b>
S1	57.52	43.37	( 5.865 )	( 4.423 )	0.1 ~ 0.18	0.64	<b>SSG1.5- 48</b>
S1	60.46	47.24	( 6.165 )	( 4.817 )	0.1 ~ 0.18	0.77	<b>SSG1.5- 50</b>
S1	67.86	57.68	( 6.92 )	( 5.882 )	0.1 ~ 0.18	0.91	<b>SSG1.5- 55</b>
S1	69.35	59.91	( 7.072 )	( 6.109 )	0.1 ~ 0.18	0.91	<b>SSG1.5- 56</b>
S1	75.3	69.23	( 7.679 )	( 7.06 )	0.1 ~ 0.18	0.99	<b>SSG1.5- 60</b>
S1	75.04	73.2	( 7.652 )	( 7.464 )	0.1 ~ 0.18	1.1	<b>SSG1.5- 64</b>
S1	83.35	88.4	( 8.499 )	( 9.014 )	0.12 ~ 0.2	1.3	<b>SSG1.5- 70</b>
S1	90.3	102.3	( 9.208 )	(10.43 )	0.12 ~ 0.2	1.4	<b>SSG1.5- 75</b>
S1	97.26	117.2	( 9.918 )	(11.95 )	0.12 ~ 0.2	1.7	<b>SSG1.5- 80</b>
S1	111.2	150	(11.34 )	(15.3 )	0.12 ~ 0.2	2	<b>SSG1.5- 90</b>
S1	125.2	186.8	(12.77 )	(19.05 )	0.12 ~ 0.2	2.4	<b>SSG1.5-100</b>

**NOTE 2:** The allowable torques shown in the table are calculated values according to the assumed usage conditions. Please see page 27 for more details.

**NOTE 3:** The backlash values shown in the table are the theoretical values of a pair of identical gears in mesh.



S1 Shape

## Module 2

Catalog No.	Module	No. of teeth	Bore	Hub dia.	Pitch dia.	Outside dia.	Face width <small>NOTE 1</small>	Hub width	Total length	Web thickness	Web O.D.
	m	z	A <sub>H7</sub>	B	C	D	E	F	G	H	I
<b>SSG2- 14</b>	2	14	12	22	28	32	20	16	36	—	—
<b>SSG2- 15</b>	2	15	12	24	30	34	20	16	36	—	—
<b>SSG2- 16</b>	2	16	12	26	32	36	20	16	36	—	—
<b>SSG2- 17</b>	2	17	12	28	34	38	20	16	36	—	—
<b>SSG2- 18</b>	2	18	12	30	36	40	20	16	36	—	—
<b>SSG2- 19</b>	2	19	12	31	38	42	20	16	36	—	—
<b>SSG2- 20</b>	2	20	15	32	40	44	20	16	36	—	—
<b>SSG2- 21</b>	2	21	15	34	42	46	20	16	36	—	—
<b>SSG2- 22</b>	2	22	15	36	44	48	20	16	36	—	—
<b>SSG2- 23</b>	2	23	15	37	46	50	20	16	36	—	—
<b>SSG2- 24</b>	2	24	15	38	48	52	20	16	36	—	—
<b>SSG2- 25</b>	2	25	15	40	50	54	20	16	36	—	—
<b>SSG2- 26</b>	2	26	15	42	52	56	20	16	36	—	—
<b>SSG2- 27</b>	2	27	15	44	54	58	20	16	36	—	—
<b>SSG2- 28</b>	2	28	15	45	56	60	20	16	36	—	—
<b>SSG2- 29</b>	2	29	15	48	58	62	20	16	36	—	—
<b>SSG2- 30</b>	2	30	18	50	60	64	20	16	36	—	—
<b>SSG2- 32</b>	2	32	18	50	64	68	20	16	36	—	—
<b>SSG2- 34</b>	2	34	18	50	68	72	20	16	36	—	—
<b>SSG2- 35</b>	2	35	18	50	70	74	20	16	36	—	—
<b>SSG2- 36</b>	2	36	18	50	72	76	20	16	36	—	—
<b>SSG2- 38</b>	2	38	18	50	76	80	20	16	36	—	—
<b>SSG2- 40</b>	2	40	20	60	80	84	20	16	36	—	—
<b>SSG2- 42</b>	2	42	20	60	84	88	20	16	36	—	—
<b>SSG2- 44</b>	2	44	20	60	88	92	20	16	36	—	—
<b>SSG2- 45</b>	2	45	20	60	90	94	20	16	36	—	—
<b>SSG2- 48</b>	2	48	20	60	96	100	20	16	36	—	—
<b>SSG2- 50</b>	2	50	25	60	100	104	20	16	36	—	—
<b>SSG2- 55</b>	2	55	25	60	110	114	20	16	36	—	—
<b>SSG2- 56</b>	2	56	25	60	112	116	20	16	36	—	—
<b>SSG2- 60</b>	2	60	25	65	120	124	20	16	36	—	—
<b>SSG2- 64</b>	2	64	25	65	128	132	20	16	36	—	—
<b>SSG2- 70</b>	2	70	25	70	140	144	20	16	36	—	—
<b>SSG2- 75</b>	2	75	25	70	150	154	20	16	36	—	—
<b>SSG2- 80</b>	2	80	25	80	160	164	20	16	36	—	—
<b>SSG2- 90</b>	2	90	25	80	180	184	20	16	36	—	—
<b>SSG2-100</b>	2	100	25	80	200	204	20	16	36	—	—

**NOTE 1:** Secondary operations may be performed on these gears except for modification of the gear face width.



## Specifications

Precision grade	JIS N7 grade (JIS B1702-1: 1998) OLD JIS 3 grade (JIS B1702: 1976)	Tooth hardness	48~53HRC
Gear teeth	Standard full depth	Surface treatment	Black oxide except ground surfaces
Pressure angle	20°	Tooth surface finish	Ground
Material	S45C	Datum reference surface for gear grinding	Bore
Heat treatment	Tooth surface Induction hardened	Secondary Operations	Possible except tooth area

Shape	Allowable torque (N·m) NOTE 2		Allowable torque (kgf·m)		Backlash (mm) NOTE 3	Weight (kgf)	Catalog No.
	Bending strength	Surface durability	Bending strength	Surface durability			
S1	29.2	9.005	( 2.978 )	( 0.9183 )	0.1 ~ 0.2	0.11	<b>SSG2- 14</b>
S1	32.67	10.5	( 3.331 )	( 1.071 )	0.1 ~ 0.2	0.14	<b>SSG2- 15</b>
S1	30.16	10.09	( 3.076 )	( 1.029 )	0.1 ~ 0.2	0.16	<b>SSG2- 16</b>
S1	33.15	11.55	( 3.38 )	( 1.178 )	0.1 ~ 0.2	0.19	<b>SSG2- 17</b>
S1	36.18	13.11	( 3.689 )	( 1.337 )	0.1 ~ 0.2	0.22	<b>SSG2- 18</b>
S1	39.25	14.78	( 4.002 )	( 1.507 )	0.1 ~ 0.2	0.24	<b>SSG2- 19</b>
S1	42.34	16.55	( 4.318 )	( 1.688 )	0.1 ~ 0.2	0.25	<b>SSG2- 20</b>
S1	45.47	18.43	( 4.637 )	( 1.879 )	0.1 ~ 0.2	0.28	<b>SSG2- 21</b>
S1	48.64	20.42	( 4.96 )	( 2.082 )	0.1 ~ 0.2	0.32	<b>SSG2- 22</b>
S1	51.83	22.51	( 5.285 )	( 2.295 )	0.1 ~ 0.2	0.35	<b>SSG2- 23</b>
S1	55.03	24.7	( 5.612 )	( 2.519 )	0.1 ~ 0.2	0.38	<b>SSG2- 24</b>
S1	58.27	27.01	( 5.942 )	( 2.754 )	0.1 ~ 0.2	0.42	<b>SSG2- 25</b>
S1	61.53	29.31	( 6.274 )	( 2.989 )	0.12 ~ 0.22	0.46	<b>SSG2- 26</b>
S1	64.8	31.7	( 6.608 )	( 3.233 )	0.12 ~ 0.22	0.5	<b>SSG2- 27</b>
S1	68.09	34.21	( 6.943 )	( 3.488 )	0.12 ~ 0.22	0.54	<b>SSG2- 28</b>
S1	71.39	36.8	( 7.28 )	( 3.753 )	0.12 ~ 0.22	0.59	<b>SSG2- 29</b>
S1	74.72	39.51	( 7.619 )	( 4.029 )	0.12 ~ 0.22	0.62	<b>SSG2- 30</b>
S1	81.4	45.21	( 8.301 )	( 4.61 )	0.12 ~ 0.22	0.68	<b>SSG2- 32</b>
S1	88.14	51.32	( 8.988 )	( 5.233 )	0.12 ~ 0.22	0.75	<b>SSG2- 34</b>
S1	91.53	54.52	( 9.334 )	( 5.56 )	0.12 ~ 0.22	0.78	<b>SSG2- 35</b>
S1	94.93	57.83	( 9.68 )	( 5.897 )	0.12 ~ 0.22	0.82	<b>SSG2- 36</b>
S1	101.8	64.76	(10.38 )	( 6.604 )	0.12 ~ 0.22	0.89	<b>SSG2- 38</b>
S1	108.7	72.11	(11.08 )	( 7.353 )	0.12 ~ 0.22	1.1	<b>SSG2- 40</b>
S1	115.5	79.87	(11.78 )	( 8.145 )	0.12 ~ 0.22	1.1	<b>SSG2- 42</b>
S1	122.4	88.06	(12.48 )	( 8.98 )	0.12 ~ 0.22	1.2	<b>SSG2- 44</b>
S1	125.9	92.32	(12.84 )	( 9.414 )	0.12 ~ 0.22	1.3	<b>SSG2- 45</b>
S1	125.8	97.59	(12.83 )	( 9.952 )	0.12 ~ 0.22	1.4	<b>SSG2- 48</b>
S1	132.3	106.3	(13.49 )	(10.84 )	0.12 ~ 0.22	1.5	<b>SSG2- 50</b>
S1	148.5	130	(15.14 )	(13.26 )	0.14 ~ 0.24	1.7	<b>SSG2- 55</b>
S1	151.7	135	(15.47 )	(13.77 )	0.14 ~ 0.24	1.8	<b>SSG2- 56</b>
S1	164.8	156.2	(16.8 )	(15.93 )	0.14 ~ 0.24	2.1	<b>SSG2- 60</b>
S1	177.9	179.1	(18.14 )	(18.26 )	0.14 ~ 0.24	2.3	<b>SSG2- 64</b>
S1	197.6	215.7	(20.15 )	(22 )	0.14 ~ 0.24	2.8	<b>SSG2- 70</b>
S1	214.1	249.1	(21.83 )	(25.4 )	0.14 ~ 0.24	3.1	<b>SSG2- 75</b>
S1	214.1	264.6	(21.83 )	(26.98 )	0.14 ~ 0.24	3.7	<b>SSG2- 80</b>
S1	244.9	338.3	(24.97 )	(34.5 )	0.14 ~ 0.24	4.5	<b>SSG2- 90</b>
S1	275.8	421.2	(28.12 )	(42.95 )	0.14 ~ 0.24	5.4	<b>SSG2-100</b>

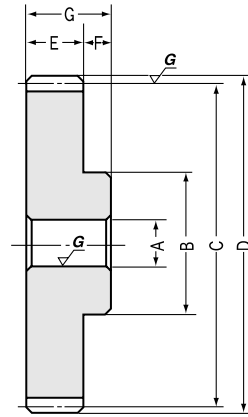
**NOTE 2:** The allowable torques shown in the table are calculated values according to the assumed usage conditions. Please see page 27 for more details.

**NOTE 3:** The backlash values shown in the table are the theoretical values of a pair of identical gears in mesh.



# SSG Ground Spur Gears **Module 2.5**

Spur Gears



S1 Shape

## Module 2.5

Catalog No.	Module	No. of teeth	Bore	Hub dia.	Pitch dia.	Outside dia.	Face width <small>NOTE 1</small>	Hub width	Total length	Web thickness	Web O.D.
	m	z	AH7	B	C	D	E	F	G	H	I
<b>SSG2.5-14</b>	2.5	14	15	28	35	40	25	18	43	—	—
<b>SSG2.5-15</b>	2.5	15	15	30	37.5	42.5	25	18	43	—	—
<b>SSG2.5-16</b>	2.5	16	15	32	40	45	25	18	43	—	—
<b>SSG2.5-17</b>	2.5	17	15	35	42.5	47.5	25	18	43	—	—
<b>SSG2.5-18</b>	2.5	18	15	38	45	50	25	18	43	—	—
<b>SSG2.5-19</b>	2.5	19	15	39	47.5	52.5	25	18	43	—	—
<b>SSG2.5-20</b>	2.5	20	18	40	50	55	25	18	43	—	—
<b>SSG2.5-21</b>	2.5	21	18	42	52.5	57.5	25	18	43	—	—
<b>SSG2.5-22</b>	2.5	22	18	44	55	60	25	18	43	—	—
<b>SSG2.5-23</b>	2.5	23	18	46	57.5	62.5	25	18	43	—	—
<b>SSG2.5-24</b>	2.5	24	18	48	60	65	25	18	43	—	—
<b>SSG2.5-25</b>	2.5	25	20	50	62.5	67.5	25	18	43	—	—
<b>SSG2.5-26</b>	2.5	26	20	54	65	70	25	18	43	—	—
<b>SSG2.5-27</b>	2.5	27	20	56	67.5	72.5	25	18	43	—	—
<b>SSG2.5-28</b>	2.5	28	20	60	70	75	25	18	43	—	—
<b>SSG2.5-29</b>	2.5	29	20	60	72.5	77.5	25	18	43	—	—
<b>SSG2.5-30</b>	2.5	30	20	65	75	80	25	18	43	—	—
<b>SSG2.5-32</b>	2.5	32	20	70	80	85	25	18	43	—	—
<b>SSG2.5-34</b>	2.5	34	20	70	85	90	25	18	43	—	—
<b>SSG2.5-35</b>	2.5	35	20	70	87.5	92.5	25	18	43	—	—
<b>SSG2.5-36</b>	2.5	36	20	70	90	95	25	18	43	—	—
<b>SSG2.5-38</b>	2.5	38	20	70	95	100	25	18	43	—	—
<b>SSG2.5-40</b>	2.5	40	25	70	100	105	25	18	43	—	—
<b>SSG2.5-42</b>	2.5	42	25	75	105	110	25	18	43	—	—
<b>SSG2.5-44</b>	2.5	44	25	75	110	115	25	18	43	—	—
<b>SSG2.5-45</b>	2.5	45	25	75	112.5	117.5	25	18	43	—	—
<b>SSG2.5-48</b>	2.5	48	25	75	120	125	25	18	43	—	—
<b>SSG2.5-50</b>	2.5	50	25	80	125	130	25	18	43	—	—
<b>SSG2.5-55</b>	2.5	55	25	80	137.5	142.5	25	18	43	—	—
<b>SSG2.5-56</b>	2.5	56	25	80	140	145	25	18	43	—	—
<b>SSG2.5-60</b>	2.5	60	25	80	150	155	25	18	43	—	—
<b>SSG2.5-70</b>	2.5	70	25	80	175	180	25	18	43	—	—
<b>SSG2.5-75</b>	2.5	75	25	90	187.5	192.5	25	18	43	—	—
<b>SSG2.5-80</b>	2.5	80	25	90	200	205	25	18	43	—	—

**NOTE 1:** Secondary operations may be performed on these gears except for modification of the gear face width.



## Specifications

Precision grade	JIS N7 grade (JIS B1702-1: 1998) OLD JIS 3 grade (JIS B1702: 1976)	Tooth hardness	48~53HRC
Gear teeth	Standard full depth	Surface treatment	Black oxide except ground surfaces
Pressure angle	20°	Tooth surface finish	Ground
Material	S45C	Datum reference surface for gear grinding	Bore
Heat treatment	Tooth surface Induction hardened	Secondary Operations	Possible except tooth area

Shape	Allowable torque (N·m) <small>NOTE 2</small>		Allowable torque (kgf·m)		Backlash (mm) <small>NOTE 3</small>	Weight (kgf)	Catalog No.
	Bending strength	Surface durability	Bending strength	Surface durability			
S1	47.53	14.89	( 4.847 )	( 1.518 )	0.1 ~ 0.2	0.22	<b>SSG2.5-14</b> <b>SSG2.5-15</b> <b>SSG2.5-16</b> <b>SSG2.5-17</b> <b>SSG2.5-18</b>
S1	53.17	17.39	( 5.422 )	( 1.773 )	0.1 ~ 0.2	0.26	
S1	58.91	20.07	( 6.007 )	( 2.047 )	0.1 ~ 0.2	0.3	
S1	64.74	22.98	( 6.602 )	( 2.343 )	0.1 ~ 0.2	0.36	
S1	70.66	26.09	( 7.205 )	( 2.66 )	0.1 ~ 0.2	0.41	
S1	76.65	29.41	( 7.816 )	( 2.999 )	0.1 ~ 0.2	0.46	<b>SSG2.5-19</b> <b>SSG2.5-20</b> <b>SSG2.5-21</b> <b>SSG2.5-22</b> <b>SSG2.5-23</b>
S1	82.7	32.94	( 8.433 )	( 3.359 )	0.1 ~ 0.2	0.48	
S1	88.82	36.68	( 9.057 )	( 3.74 )	0.12 ~ 0.22	0.54	
S1	95	40.63	( 9.687 )	( 4.143 )	0.12 ~ 0.22	0.6	
S1	101.2	44.8	(10.32 )	( 4.568 )	0.12 ~ 0.22	0.66	
S1	107.5	49.18	(10.96 )	( 5.015 )	0.12 ~ 0.22	0.73	<b>SSG2.5-24</b> <b>SSG2.5-25</b> <b>SSG2.5-26</b> <b>SSG2.5-27</b> <b>SSG2.5-28</b>
S1	113.9	53.78	(11.61 )	( 5.484 )	0.12 ~ 0.22	0.78	
S1	120.1	58.37	(12.25 )	( 5.952 )	0.12 ~ 0.22	0.87	
S1	126.6	63.15	(12.91 )	( 6.44 )	0.12 ~ 0.22	0.95	
S1	133	68.15	(13.56 )	( 6.949 )	0.12 ~ 0.22	1.1	
S1	139.4	73.34	(14.22 )	( 7.479 )	0.12 ~ 0.22	1.1	<b>SSG2.5-29</b> <b>SSG2.5-30</b> <b>SSG2.5-32</b> <b>SSG2.5-34</b> <b>SSG2.5-35</b>
S1	145.9	78.74	(14.88 )	( 8.029 )	0.12 ~ 0.22	1.2	
S1	159	90.13	(16.21 )	( 9.191 )	0.12 ~ 0.22	1.4	
S1	172.2	102.4	(17.56 )	( 10.44 )	0.12 ~ 0.22	1.6	
S1	178.8	108.8	(18.23 )	( 10.9 )	0.12 ~ 0.22	1.7	
S1	185.4	115.4	(18.91 )	(11.7 )	0.12 ~ 0.22	1.7	<b>SSG2.5-36</b> <b>SSG2.5-38</b> <b>SSG2.5-40</b> <b>SSG2.5-42</b> <b>SSG2.5-44</b>
S1	198.8	129.3	(20.27 )	(13.18 )	0.12 ~ 0.22	1.8	
S1	195.8	133	(19.97 )	(13.56 )	0.14 ~ 0.24	1.9	
S1	208.2	147.3	(21.23 )	(15.02 )	0.14 ~ 0.24	2.2	
S1	220.7	162.5	(22.51 )	(16.57 )	0.14 ~ 0.24	2.3	
S1	226.9	170.4	(23.14 )	(17.38 )	0.14 ~ 0.24	2.4	<b>SSG2.5-45</b> <b>SSG2.5-48</b> <b>SSG2.5-50</b> <b>SSG2.5-55</b> <b>SSG2.5-56</b>
S1	245.8	195.3	(25.06 )	(19.92 )	0.14 ~ 0.24	2.7	
S1	258.4	212.9	(26.35 )	(21.71 )	0.14 ~ 0.24	3.0	
S1	290	259.8	(29.57 )	(26.49 )	0.14 ~ 0.24	3.5	
S1	296.4	269.7	(30.22 )	(27.5 )	0.14 ~ 0.24	3.6	
S1	321.9	311.4	(32.82 )	(31.75 )	0.14 ~ 0.24	4.0	<b>SSG2.5-60</b> <b>SSG2.5-70</b> <b>SSG2.5-75</b> <b>SSG2.5-80</b>
S1	358.3	398.7	(36.54 )	(40.66 )	0.14 ~ 0.24	5.3	
S1	388.1	460.6	(39.58 )	(46.97 )	0.14 ~ 0.24	6.2	
S1	418.2	526.5	(42.64 )	(53.69 )	0.14 ~ 0.24	6.9	

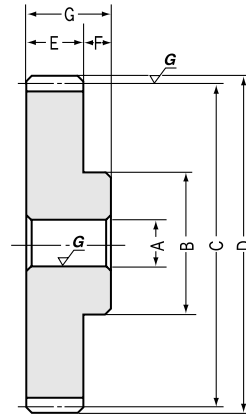
**NOTE 2:** The allowable torques shown in the table are calculated values according to the assumed usage conditions. Please see page 27 for more details.

**NOTE 3:** The backlash values shown in the table are the theoretical values of a pair of identical gears in mesh.



# SSG Ground Spur Gears **Module 3**

Spur Gears



S1 Shape

## Module 3

Catalog No.	Module	No. of teeth	Bore	Hub dia.	Pitch dia.	Outside dia.	Face width <small>NOTE 1</small>	Hub width	Total length	Web thickness	Web O.D.
	<i>m</i>	<i>z</i>	A <sub>H7</sub>	B	C	D	E	F	G	H	I
<b>SSG3-14</b>	3	14	16	34	42	48	30	20	50	—	—
<b>SSG3-15</b>	3	15	16	36	45	51	30	20	50	—	—
<b>SSG3-16</b>	3	16	16	38	48	54	30	20	50	—	—
<b>SSG3-17</b>	3	17	16	37	51	57	30	20	50	—	—
<b>SSG3-18</b>	3	18	16	40	54	60	30	20	50	—	—
<b>SSG3-19</b>	3	19	16	45	57	63	30	20	50	—	—
<b>SSG3-20</b>	3	20	20	50	60	66	30	20	50	—	—
<b>SSG3-21</b>	3	21	20	52	63	69	30	20	50	—	—
<b>SSG3-22</b>	3	22	20	54	66	72	30	20	50	—	—
<b>SSG3-23</b>	3	23	20	56	69	75	30	20	50	—	—
<b>SSG3-24</b>	3	24	20	58	72	78	30	20	50	—	—
<b>SSG3-25</b>	3	25	20	60	75	81	30	20	50	—	—
<b>SSG3-26</b>	3	26	20	62	78	84	30	20	50	—	—
<b>SSG3-27</b>	3	27	20	65	81	87	30	20	50	—	—
<b>SSG3-28</b>	3	28	20	70	84	90	30	20	50	—	—
<b>SSG3-29</b>	3	29	20	70	87	93	30	20	50	—	—
<b>SSG3-30</b>	3	30	25	75	90	96	30	20	50	—	—
<b>SSG3-32</b>	3	32	25	75	96	102	30	20	50	—	—
<b>SSG3-34</b>	3	34	25	75	102	108	30	20	50	—	—
<b>SSG3-35</b>	3	35	25	80	105	111	30	20	50	—	—
<b>SSG3-36</b>	3	36	25	80	108	114	30	20	50	—	—
<b>SSG3-38</b>	3	38	25	80	114	120	30	20	50	—	—
<b>SSG3-40</b>	3	40	25	80	120	126	30	20	50	—	—
<b>SSG3-42</b>	3	42	25	80	126	132	30	20	50	—	—
<b>SSG3-44</b>	3	44	25	80	132	138	30	20	50	—	—
<b>SSG3-45</b>	3	45	25	80	135	141	30	20	50	—	—
<b>SSG3-48</b>	3	48	25	85	144	150	30	20	50	—	—
<b>SSG3-50</b>	3	50	30	85	150	156	30	20	50	—	—
<b>SSG3-55</b>	3	55	30	90	165	171	30	20	50	—	—
<b>SSG3-56</b>	3	56	30	90	168	174	30	20	50	—	—
<b>SSG3-60</b>	3	60	30	100	180	186	30	20	50	—	—
<b>SSG3-70</b>	3	70	30	100	210	216	30	20	50	—	—
<b>SSG3-75</b>	3	75	30	100	225	231	30	20	50	—	—
<b>SSG3-80</b>	3	80	30	100	240	246	30	20	50	—	—

**NOTE 1:** Secondary operations may be performed on these gears except for modification of the gear face width.



## Specifications

Precision grade	JIS N7 grade (JIS B1702-1: 1998) OLD JIS 3 grade (JIS B1702: 1976)	Tooth hardness	48~53HRC
Gear teeth	Standard full depth	Surface treatment	Black oxide except ground surfaces
Pressure angle	20°	Tooth surface finish	Ground
Material	S45C	Datum reference surface for gear grinding	Bore
Heat treatment	Tooth surface Induction hardened	Secondary Operations	Possible except tooth area

Shape	Allowable torque (N·m) <small>NOTE 2</small>		Allowable torque (kgf·m)		Backlash (mm) <small>NOTE 3</small>	Weight (kgf)	Catalog No.
	Bending strength	Surface durability	Bending strength	Surface durability			
S1	82.14	26.11	( 8.376 )	( 2.663 )	0.1 ~ 0.2	0.39	<b>SSG3-14</b> <b>SSG3-15</b> <b>SSG3-16</b> <b>SSG3-17</b> <b>SSG3-18</b>
S1	91.88	30.49	( 9.369 )	( 3.109 )	0.1 ~ 0.2	0.46	
S1	101.8	35.23	(10.38 )	( 3.592 )	0.1 ~ 0.2	0.53	
S1	111.9	40.32	(11.41 )	( 4.112 )	0.12 ~ 0.22	0.57	
S1	122.1	45.79	(12.45 )	( 4.669 )	0.12 ~ 0.22	0.66	
S1	132.5	51.61	(13.51 )	( 5.263 )	0.12 ~ 0.22	0.77	<b>SSG3-19</b> <b>SSG3-20</b> <b>SSG3-21</b> <b>SSG3-22</b> <b>SSG3-23</b>
S1	142.9	57.81	(14.57 )	( 5.895 )	0.12 ~ 0.22	0.85	
S1	153.5	64.39	(15.65 )	( 6.566 )	0.12 ~ 0.22	0.95	
S1	164.2	71.34	(16.74 )	( 7.275 )	0.12 ~ 0.22	1.0	
S1	174.9	78.67	(17.84 )	( 8.022 )	0.12 ~ 0.22	1.2	
S1	185.7	86.39	(18.94 )	( 8.809 )	0.12 ~ 0.22	1.3	<b>SSG3-24</b> <b>SSG3-25</b> <b>SSG3-26</b> <b>SSG3-27</b> <b>SSG3-28</b>
S1	196.6	94.48	(20.05 )	( 9.634 )	0.12 ~ 0.22	1.4	
S1	207.6	102.6	(21.17 )	(10.46 )	0.12 ~ 0.22	1.5	
S1	218.7	111	(22.3 )	(11.32 )	0.12 ~ 0.22	1.6	
S1	229.8	119.8	(23.43 )	(12.22 )	0.12 ~ 0.22	1.8	
S1	240.9	129	(24.57 )	(13.15 )	0.12 ~ 0.22	1.9	<b>SSG3-29</b> <b>SSG3-30</b> <b>SSG3-32</b> <b>SSG3-34</b> <b>SSG3-35</b>
S1	252.2	138.5	(25.72 )	(14.12 )	0.12 ~ 0.22	2.0	
S1	253.6	146.4	(25.86 )	(14.93 )	0.12 ~ 0.22	2.2	
S1	274.6	166.3	(28 )	(16.96 )	0.14 ~ 0.24	2.4	
S1	285.2	176.8	(29.08 )	(18.03 )	0.14 ~ 0.24	2.6	
S1	295.8	187.6	(30.16 )	(19.13 )	0.14 ~ 0.24	2.8	<b>SSG3-36</b> <b>SSG3-38</b> <b>SSG3-40</b> <b>SSG3-42</b> <b>SSG3-44</b>
S1	316.9	210.3	(32.32 )	(21.44 )	0.14 ~ 0.24	3	
S1	338.3	234.4	(34.5 )	(23.9 )	0.14 ~ 0.24	3.3	
S1	359.8	259.9	(36.69 )	(26.5 )	0.14 ~ 0.24	3.5	
S1	381.4	286.4	(38.89 )	(29.2 )	0.14 ~ 0.24	3.8	
S1	392.2	300.1	(39.99 )	(30.6 )	0.14 ~ 0.24	4.0	<b>SSG3-45</b> <b>SSG3-48</b> <b>SSG3-50</b> <b>SSG3-55</b> <b>SSG3-56</b>
S1	424.7	343.1	(43.31 )	(34.99 )	0.14 ~ 0.24	4.5	
S1	446.5	373.6	(45.53 )	(38.1 )	0.14 ~ 0.24	4.8	
S1	465.3	423.2	(47.45 )	(43.15 )	0.14 ~ 0.24	5.8	
S1	475.5	439.4	(48.49 )	(44.81 )	0.14 ~ 0.24	6	
S1	516.4	507.5	(52.66 )	(51.75 )	0.14 ~ 0.24	7.0	<b>SSG3-60</b> <b>SSG3-70</b> <b>SSG3-75</b> <b>SSG3-80</b>
S1	619.2	698.7	(63.14 )	(71.25 )	0.14 ~ 0.24	9.1	
S1	670.8	805.7	(68.4 )	(82.16 )	0.14 ~ 0.24	10.3	
S1	722.5	920.7	(73.68 )	(93.89 )	0.14 ~ 0.24	11.6	

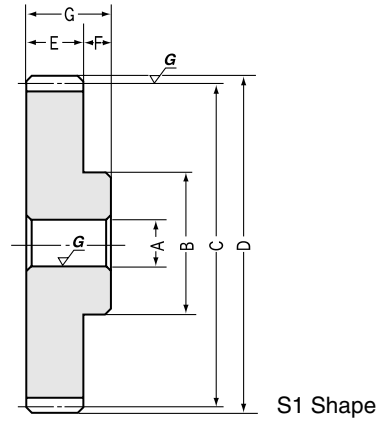
**NOTE 2:** The allowable torques shown in the table are calculated values according to the assumed usage conditions. Please see page 27 for more details.

**NOTE 3:** The backlash values shown in the table are the theoretical values of a pair of identical gears in mesh.



# SSG Ground Spur Gears Module 4

Spur Gears



## Module 4

Catalog No.	Module	No. of teeth	Bore	Hub dia.	Pitch dia.	Outside dia.	Face width <small>NOTE 1</small>	Hub width	Total length	Web thickness	Web O.D.
	m	z	AH7	B	C	D	E	F	G	H	I
<b>SSG4-14</b>	4	14	20	40	56	64	40	25	65	—	—
<b>SSG4-15</b>	4	15	20	45	60	68	40	25	65	—	—
<b>SSG4-16</b>	4	16	20	50	64	72	40	25	65	—	—
<b>SSG4-18</b>	4	18	20	60	72	80	40	25	65	—	—
<b>SSG4-20</b>	4	20	20	65	80	88	40	25	65	—	—
<b>SSG4-22</b>	4	22	20	70	88	96	40	25	65	—	—
<b>SSG4-24</b>	4	24	20	75	96	104	40	25	65	—	—
<b>SSG4-25</b>	4	25	20	80	100	108	40	25	65	—	—
<b>SSG4-28</b>	4	28	20	85	112	120	40	25	65	—	—
<b>SSG4-30</b>	4	30	20	90	120	128	40	25	65	—	—
<b>SSG4-32</b>	4	32	25	90	128	136	40	25	65	—	—
<b>SSG4-35</b>	4	35	25	90	140	148	40	25	65	—	—
<b>SSG4-36</b>	4	36	25	90	144	152	40	25	65	—	—
<b>SSG4-40</b>	4	40	25	90	160	168	40	25	65	—	—
<b>SSG4-42</b>	4	42	25	90	168	176	40	25	65	—	—
<b>SSG4-44</b>	4	44	30	90	176	184	40	25	65	—	—
<b>SSG4-45</b>	4	45	30	90	180	188	40	25	65	—	—
<b>SSG4-48</b>	4	48	30	100	192	200	40	25	65	—	—
<b>SSG4-50</b>	4	50	30	100	200	208	40	25	65	—	—
<b>SSG4-55</b>	4	55	30	100	220	228	40	25	65	—	—
<b>SSG4-56</b>	4	56	30	110	224	232	40	25	65	—	—
<b>SSG4-60</b>	4	60	30	110	240	248	40	25	65	—	—

NOTE 1: Secondary operations may be performed on these gears except for modification of the gear face width.



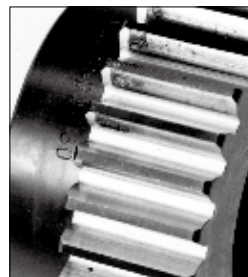
## Specifications

Precision grade	JIS N7 grade (JIS B1702-1: 1998) OLD JIS 3 grade (JIS B1702: 1976)	Tooth hardness	48~53HRC
Gear teeth	Standard full depth	Surface treatment	Black oxide except ground surfaces
Pressure angle	20°	Tooth surface finish	Ground
Material	S45C	Datum reference surface for gear grinding	Bore
Heat treatment	Tooth surface Induction hardened	Secondary Operations	Possible except tooth area

Shape	Allowable torque (N·m) NOTE 2		Allowable torque (kgf·m)		Backlash (mm) NOTE 3	Weight (kgf)	Catalog No.
	Bending strength	Surface durability	Bending strength	Surface durability			
S1	194.7	63.43	( 19.85 )	( 6.468 )	0.14 ~ 0.24	0.86	<b>SSG4-14</b> <b>SSG4-15</b> <b>SSG4-16</b> <b>SSG4-18</b> <b>SSG4-20</b>
S1	217.8	74.07	( 22.21 )	( 7.553 )	0.14 ~ 0.24	1	
S1	241.3	85.6	( 24.61 )	( 8.729 )	0.14 ~ 0.24	1.2	
S1	289.4	111.3	( 29.51 )	( 11.35 )	0.14 ~ 0.24	1.7	
S1	338.7	140.7	( 34.54 )	( 14.35 )	0.14 ~ 0.24	2.1	
S1	389.1	173.8	( 39.68 )	( 17.72 )	0.14 ~ 0.24	2.5	<b>SSG4-22</b> <b>SSG4-24</b> <b>SSG4-25</b> <b>SSG4-28</b> <b>SSG4-30</b>
S1	406.4	194.4	( 41.44 )	( 19.82 )	0.14 ~ 0.24	3	
S1	430.3	212.7	( 43.88 )	( 21.69 )	0.14 ~ 0.24	3.3	
S1	502.8	270.1	( 51.27 )	( 27.54 )	0.16 ~ 0.26	4.1	
S1	551.8	312.4	( 56.27 )	( 31.86 )	0.16 ~ 0.26	4.7	
S1	601.1	358.1	( 61.3 )	( 36.52 )	0.16 ~ 0.26	5.1	<b>SSG4-32</b> <b>SSG4-35</b> <b>SSG4-36</b> <b>SSG4-40</b> <b>SSG4-42</b>
S1	676	431.5	( 68.93 )	( 44 )	0.16 ~ 0.26	5.8	
S1	701	457.2	( 71.48 )	( 46.66 )	0.16 ~ 0.26	6.1	
S1	744.7	529.2	( 75.94 )	( 53.96 )	0.16 ~ 0.26	7.3	
S1	792	585.8	( 80.76 )	( 59.74 )	0.16 ~ 0.26	8	
S1	839.4	645.7	( 85.6 )	( 65.84 )	0.16 ~ 0.26	8.5	<b>SSG4-44</b> <b>SSG4-45</b> <b>SSG4-48</b> <b>SSG4-50</b> <b>SSG4-55</b>
S1	863.2	676.7	( 88.02 )	( 69 )	0.16 ~ 0.26	8.9	
S1	934.8	774.3	( 95.32 )	( 78.96 )	0.16 ~ 0.26	10.3	
S1	982.6	842.4	(100.2 )	( 85.9 )	0.16 ~ 0.26	11.1	
S1	1103	1026	(112.5 )	(104.6 )	0.16 ~ 0.26	13.2	
S1	1127	1064	(114.9 )	(108.5 )	0.16 ~ 0.26	13.9	<b>SSG4-56</b> <b>SSG4-60</b>
S1	1224	1228	(124.8 )	(125.2 )	0.16 ~ 0.26	15.7	

**NOTE 2:** The allowable torques shown in the table are calculated values according to the assumed usage conditions. Please see page 27 for more details.

**NOTE 3:** The backlash values shown in the table are the theoretical values of a pair of identical gears in mesh.



■ This picture is an example of poor tooth contact of an SSG3-30 gear which had only 30% of the gear tooth in proper contact. In this example the gear oil used is equivalent to JIS gear oil category 2, No.3, and the design conditions were 417 N·m load torque at 278 min<sup>-1</sup> (12 kW) which was 1.5 times the allowable bending strength and 3 times the allowable surface durability torque. The pitting occurred due to poor tooth contact area after 60 hours of continuous operation.