Edition: PD220125.2

OMNI GEAR®

Planetary Gear Drive Systems

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Introduction

Spindle: Chrome-moly froging, through hardened & precision machined. Carburized alloy forged spindles and ductile cast spindles also available.

Motor Pilots: SAE, NEMA and custom flanges available.

Drive Couplings: Splined, Keyed and custom integrated couplings to OEM request.

Bearings: Carburized & Ground Bearings standard, ISO & Timken® bearings available upon request.

Seals: Nitrile double lip oil seals standard; Viton, Metal face & Barrier Seals available.

Bearing Locknut: ISO Class external bearing retention system standard on OPH-06 an dOPH-12 series.

Hub Flanges: SAE & Metric Studs, through holes or tapped, various standard and custom bolt patterns available.

Excluder Seals: Standard on wheel drives with lip oil seals, cavity packed with grease during assembly.

Hubs: Precision Cast Carbon Steel, Ductile Iron, Gray Iron, Forged Alloy; OEM specified and OMNI supplied.

Gearing: Quiet running shaved gearing standard, ground gearing optional.

Needle Bearings: ISO Quality full compliment needle bearings standard.

Planet Shafts: Precision ground from through hardened bearing steel.

Disconnects: Standard on OPH-03, OPH-06 & OPH-12 wheel drives for quick-tow capability. Other design options available.

Carrier Housings: Precision Cast & Heat Treated Steel standard.

Ring Gears: Standard Planetaries are Forged Chrome-moly steel, through hardened, precision machined and then nitrided for long life. Differential reduction units are Forged Alloy steel,machined, diequenched and ground.

Joints: All joints are o-ringed, standard.

WD02 Wheel Drive Double Reduction

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7502 MESA RD., HOUSTON, TX. 77028
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WD02 Double Reduction- General Specifications

Max. intermittent output torque*:	15,000 lb-in (1,695Nm)
Max. input speed:	4,000 RPM
Approximate weight:	65 lbs (29.5 kg)
Approximate oil capacity:	0.10gal (0.4 liters)

Standard Features

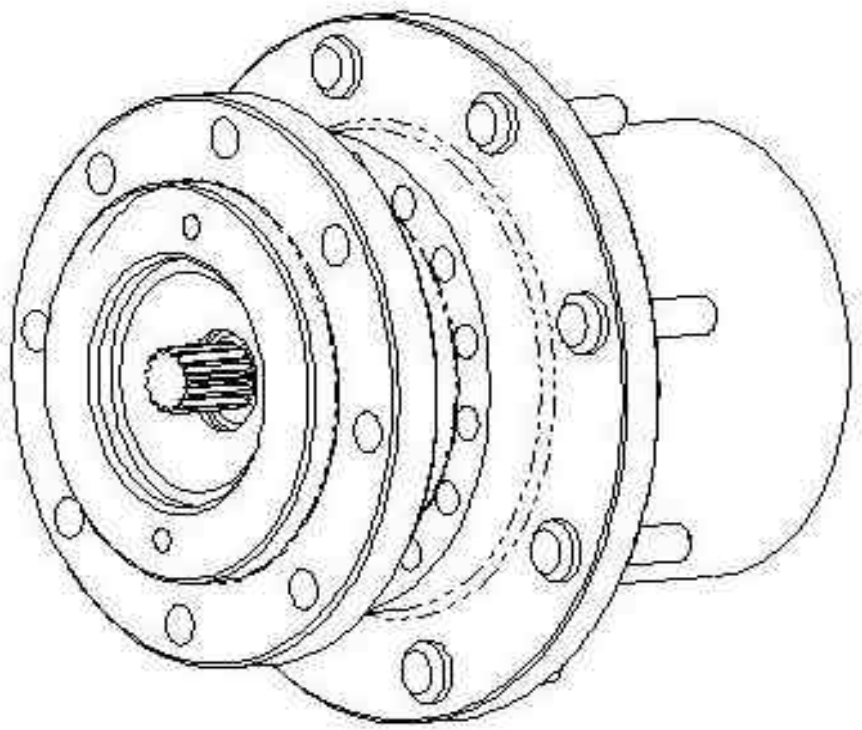
Ratios: 11.96:1; 12.97:1
Contact OMNI GEAR for custom ratios

Spindle/Motor Pilot:
SAE 'A' motor pilot spindle standard. Contact OMNI GEAR for other avaiable motor mount options

Motor Coupling:
13T 16/32 standard. Contact OMNI GEAR for available options

Wheel:
Custom housing flange pilot,hole patterns and axial positons available. Contact OMNI GEAR for available options

Studs:
1/2"-20UNF standard. Other studs and flange hole size available. Contact OMNI GEAR for available options



WD03 Wheel Drive
Double Reduction

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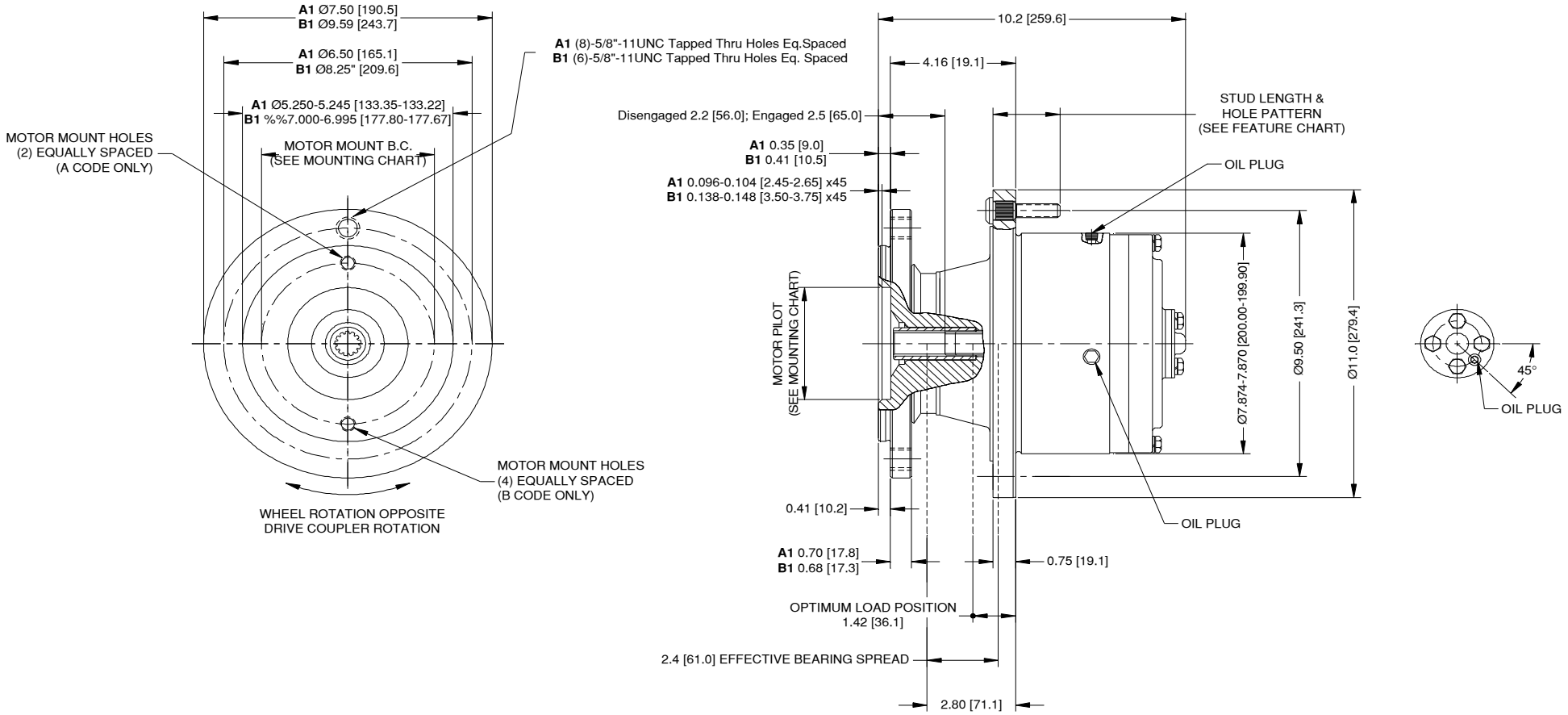
All Dimensions in INCHES [mm]



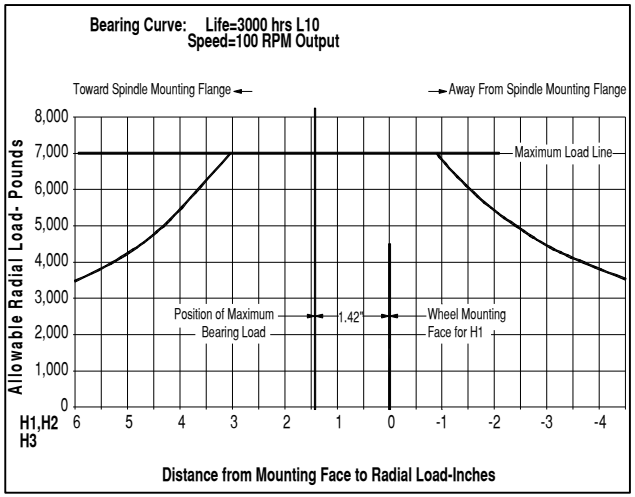
WD03 Double Reduction- General Specifications

Max. intermittent output torque*: 30,000 lb-in (3,390 Nm)
Max. input speed: 4,000 RPM
Approximate weight: 90 lbs (41 kg)
Approximate oil capacity: 0.16gal (0.6 liters)

*Note: Continuous unit rating is dependent on life requirements, duty cycle and ambient surroundings affecting heat dissipation. Customer testing for specific applications is strongly recommended.

WD03 Feature Chart

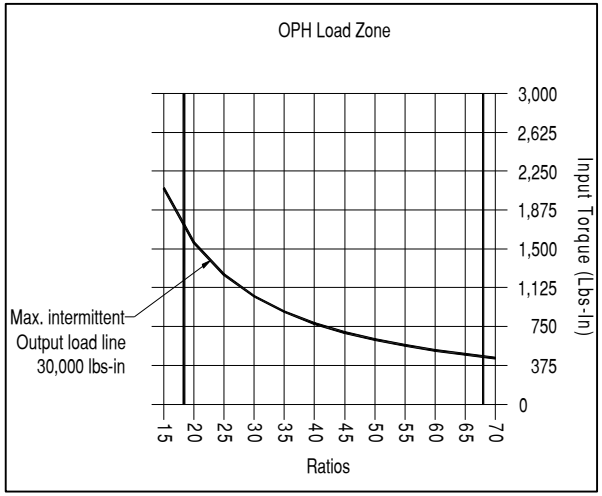
Feature	Description			Code	Sample
Gear Ratio	Ratio				WD0360
	18.25:1			18	
	24.85:1			24	
	30.05:1			30	
	35.13:1			35	
	40.25:1			40	
	49.29:1			49	
	59.50:1			**60**	
	68.00:1			68	
Spindle/ Motor Pilot	Motor Flange	Frame Pilot	Bolt Circle		WD0360**B1**
	SAE A	5.250"	6.50"	A1	
	SAE B	7.000"	8.25"	**B1**	
Motor Coupling	Teeth	Pitch	Flange Used		WD0360B1**13**
	13T	16/32	A & B codes	**13**	
Hub	Pilot	Hole Pattern	Flange		WD0360B113**H1**
	7.88"	9 x .681" on 9.50" B.C.	.75"	**H1**	
Studs	Dia.-Pitch	Stud Length*	For Hole		WD0360B113H1**AA**
	No Studs			NS	
	1/2"-20UNF	2.23"	.681"	**AA**	
	9/16"-18UNF	2.23"	.681"	BA	
	5/8"-18UNF	2.23"	.681"	CA	
	*Usable length equals stud length less hsg. flange				



To apply the bearing curve to other design conditions:

$$\text{Design life (hrs)} = 3000 \left(\frac{100\ \text{RPM}}{\text{Design RPM}}\right) \times \left(\frac{\text{allowable radial load (curve)}}{\text{Design radial load}}\right)$$

NOTE: This bearing curve is supplied for design reference purposes only. It illustrates the relationship and importance of radial load position relative to this gearbox. For detailed analysis or application review, contact OMNI GEAR Engineering.



NOTE: This load zone curve is supplied for design reference only. It illustrates the relationship and importance between ratio and torque relative to intermittent gearbox torque limits. For detailed analysis or application review, contact OMNI GEAR Engineering.

MOUNTING CHART

Code	Motor Mount	Pilot Diameter
A1	(2) 3/8"-16UNC-2B Tapped .78 [20] deep on 4.187 [106.35] B.C.	3.251-3.256 [82.58-82.70]
B1	(4) 1/2"-13UNC-2B Tapped Thru on 5.750 [146.05] B.C.	4.001-4.006 [101.63-101.75]

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OMNI GEAR

WS06 Wheel Drive
Single Reduction

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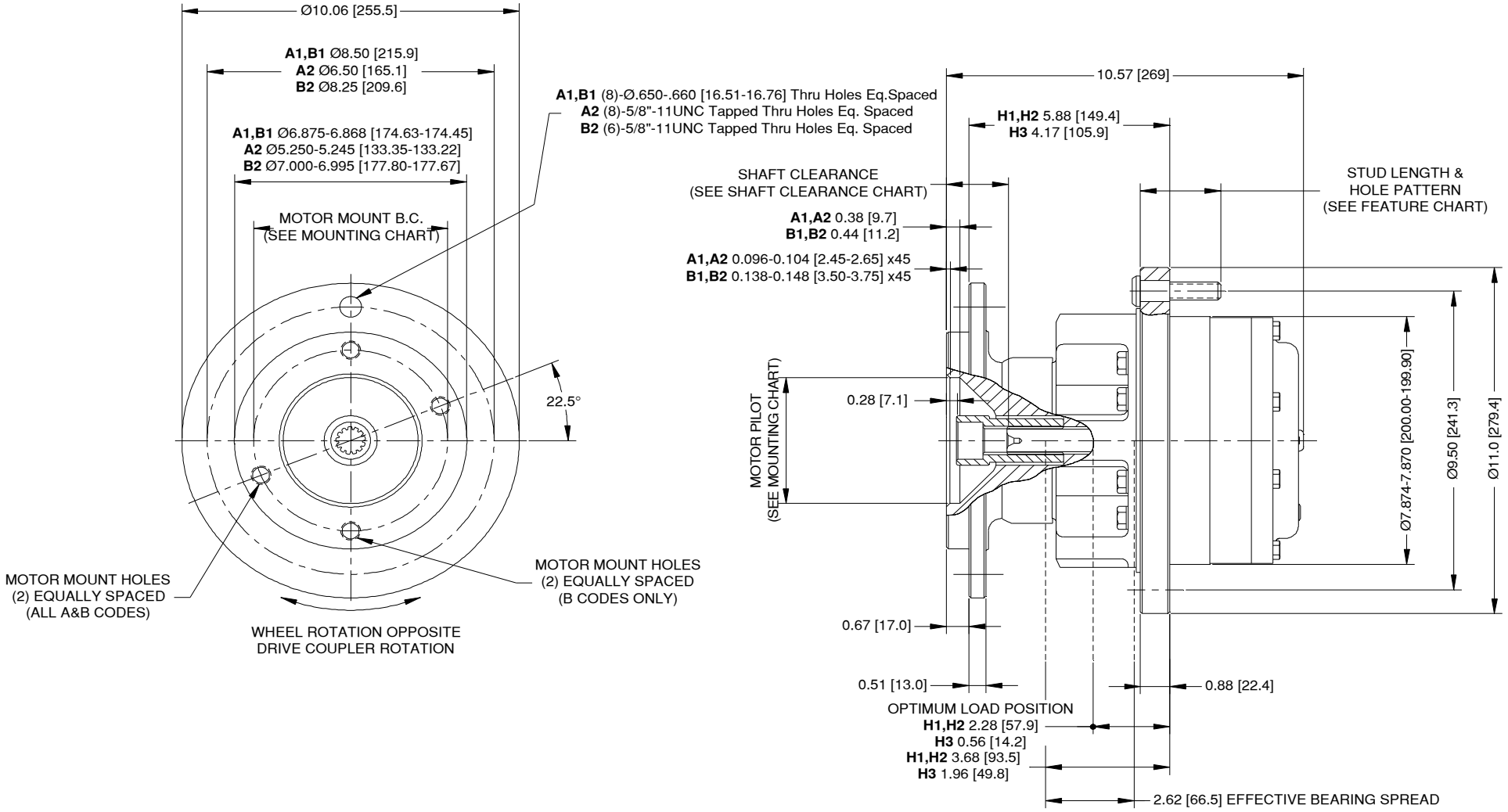
All Dimensions in INCHES [mm]



WS06 Single Reduction- General Specifications

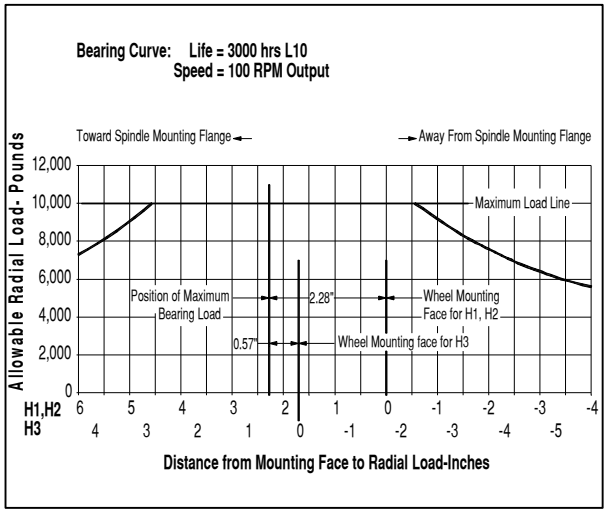
Max. intermittent output torque[A, B]:	22,000 lb-in (2,485 Nm)
Max. input speed:	3,500 RPM
Approximate weight:	85 lbs (38.6 kg)
Approximate oil capacity:	0.21 gals (0.8 liters)

Note A: Continuous unit rating is dependent on life requirements, duty cycle and ambient surroundings affecting heat dissipation. Customer testing for specific applications is strongly recommended.

Note B: This rating is input limited. See OPH load zone curve for rating at ratio.

WS06 Feature Chart

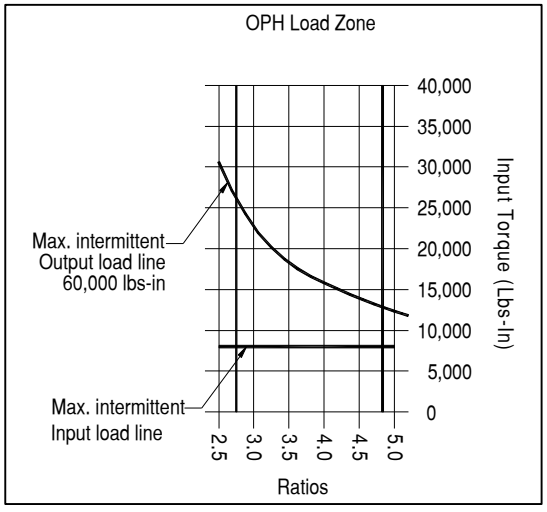
Feature	Description			Code	Sample
Gear Ratio	Ratio				WS0604
	2.75:1			02	
	3.50:1			03	
	4.05:1			**04**	
	4.81:1			05	
Spindle/ Motor Pilot	Motor Flange	Frame Pilot	Bolt Circle		WS0604**B1**
	SAE A	6.875"	8.50"	A1	
	SAE A	5.250"	6.50"	A2	
	SAE B	6.875"	8.50"	**B1**	
	SAE B	7.000"	8.25"	B2	
Motor Coupling	Teeth	Pitch	Flange Used		WS0604B**13**
	13T	16/32	A & B codes	**13**	
	15T	16/32	B code only	15	
Hub	Pilot	Hole Pattern	Flange		WS0604B113**H2**
	7.88"	9 x .610" on 9.50" B.C.	.88"	H1	
	7.88"	9 x .681" on 9.50" B.C.	.88"	**H2**	
	7.88"	9 x .681" on 9.50" B.C.	.88"	H3	
Studs	Dia.-Pitch	Stud Length*	For Hole		WS0604B113H2**AA**
	No Studs			NS	
	1/2"-20UNF	2.23"	.681"	**AA**	
	9/16"-18UNF	2.23"	.681"	BA	
	5/8"-18UNF	2.23"	.681"	CA	
	*Usable length equals stud length less hsg. flange				



To apply the bearing curve to other design conditions:

$$\text{Design life (hrs)} = 3000 \left(\frac{\text{100 RPM}}{\text{Design RPM}}\right) \times \left(\frac{\text{allowable radial load (curve)}}{\text{Design radial load}}\right)$$

NOTE: This bearing curve is supplied for design reference purposes only. It illustrates the relationship and importance of radial load position relative to this gearbox. For detailed analysis or application review, contact OMNI GEAR Engineering.



Contact OMNI GEAR Engineering for other inputs.

NOTE: This load zone curve is supplied for design reference only. It illustrates the relationship and importance between ratio and torque relative to intermittent gearbox torque limits. For detailed analysis or application review, contact OMNI GEAR Engineering.

MOUNTING CHART

Code	Motor Mount	Pilot Diameter
A1,A2	(2) 3/8"-16UNC-2B Tapped .98 [24.9] deep on 4.187 [106.35] B.C.	3.251-3.256 [82.58-82.70]
B1,B2	2 Sets of (2) 1/2"-13UNC-2B Tapped Thru on 5.750 [146.05] B.C.	4.001-4.006 [101.63-101.75]

SHAFT CLEARANCE (Disengaged/Engaged)

13T-16/32, 15T-16/32: Disengaged 1.8 [45.7]; Engaged 2.7 [68.5]

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OMNI GEAR

WD06 Wheel Drive
Double Reduction

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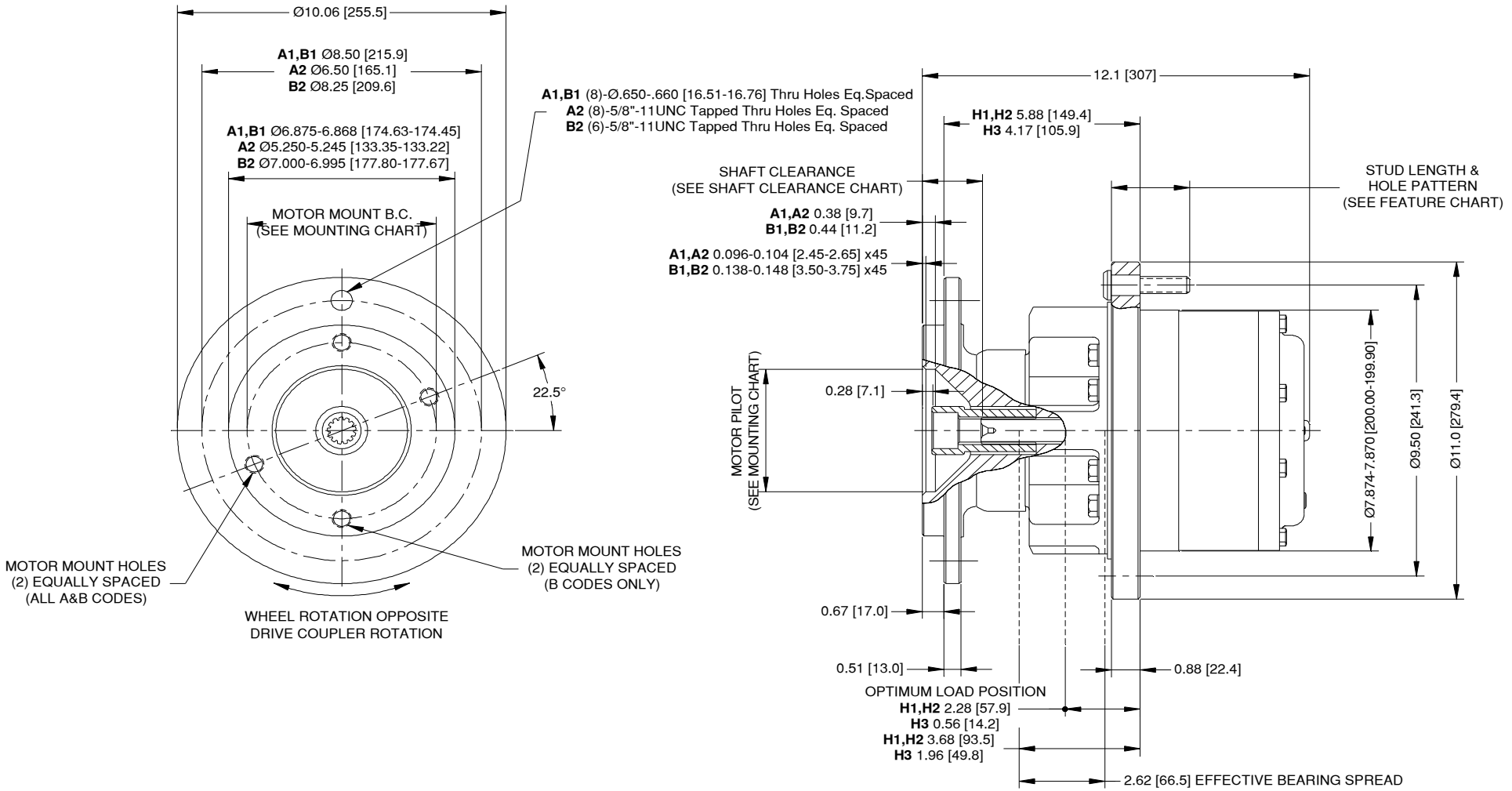
All Dimensions in INCHES [mm]



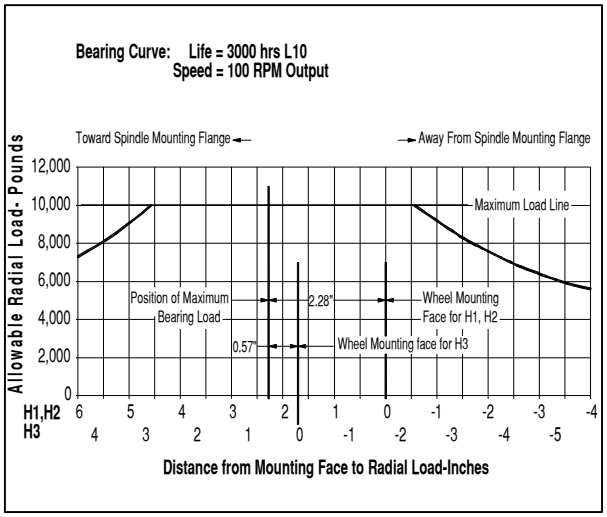
WD06 Double Reduction- General Specifications

Max. intermittent output torque*:	50,000 lb-in (5,650 Nm)
Max. input speed:	5,000 RPM
Approximate weight:	100 lbs (45.4 kg)
Approximate oil capacity:	0.26 gals (1.0 liters)

*Note: Continuous unit rating is dependent on life requirements, duty cycle and ambient surroundings affecting heat dissipation. Customer testing for specific applications is strongly recommended.

WD06 Feature Chart

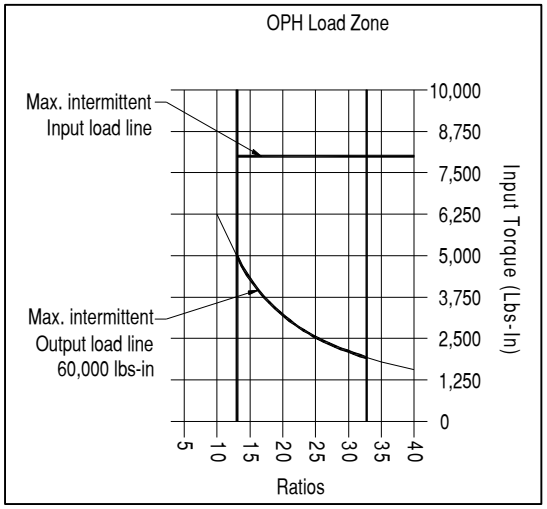
Feature	Description			Code	Sample
Gear Ratio	Ratio				WD0620
	13.06:1			13	
	15.88:1			16	
	19.62:1			**20**	
	21.74:1			22	
	24.53:1			25	
	28.37:1			28	
	32.76:1			33	
Spindle/ Motor Pilot	**Motor Flange**	**Frame Pilot**	**Bolt Circle**		WD0620**B1**
	SAE A	6.875"	8.50"	A1	
	SAE A	5.250"	6.50"	A2	
	SAE B	6.875"	8.50"	**B1**	
	SAE B	7.000"	8.25"	B2	
Motor Coupling	**Teeth**	**Pitch**	**Flange Used**		WD0620B1**13**
	13T	16/32	A & B codes	**13**	
	15T	16/32	B code only	15	
Hub	**Pilot**	**Hole Pattern**	**Flange**		WD0620B113**H2**
	7.88"	9 x .610" on 9.50" B.C.	.88"	H1	
	7.88"	9 x .681" on 9.50" B.C.	.88"	**H2**	
	7.88"	9 x .681" on 9.50" B.C.	.88"	H3	
Studs	**Dia.-Pitch**	**Stud Length***	**For Hole**		WD0620B113H2**AA**
	No Studs			NS	
	1/2"-20UNF	2.23"	.681"	**AA**	
	9/16"-18UNF	2.23"	.681"	BA	
	5/8"-18UNF	2.23"	.681"	CA	
	*Usable length equals stud length less hsg. flange				



To apply the bearing curve to other design conditions:

$$\text{Design life (hrs)} = 3000 \left(\frac{100\ \text{RPM}}{\text{Design RPM}}\right) \times \left(\frac{\text{allowable radial load (curve)}}{\text{Design radial load}}\right)$$

NOTE: This bearing curve is supplied for design reference purposes only. It illustrates the relationship and importance of radial load position relative to this gearbox. For detailed analysis or application review, contact OMNI GEAR Engineering.



NOTE: This load zone curve is supplied for design reference only. It illustrates the relationship and importance between ratio and torque relative to intermittent gearbox torque limits. For detailed analysis or application review, contact OMNI GEAR Engineering.

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MOUNTING CHART

Code	Motor Mount	Pilot Diameter
A1,A2	(2) 3/8"-16UNC-2B Tapped .98 [24.9] deep on 4.187 [106.35] B.C.	3.251-3.256 [82.58-82.70]
B1,B2	2 Sets of (2) 1/2"-13UNC-2B Tapped Thru on 5.750 [146.05] B.C.	4.001-4.006 [101.63-101.75]

SHAFT CLEARANCE (Disengaged/Engaged)

13T-16/32, 15T-16/32: Disengaged 1.8 [45.7]; Engaged 2.7 [68.5]

OMNI GEAR

WS12 Wheel Drive
Single Reduction

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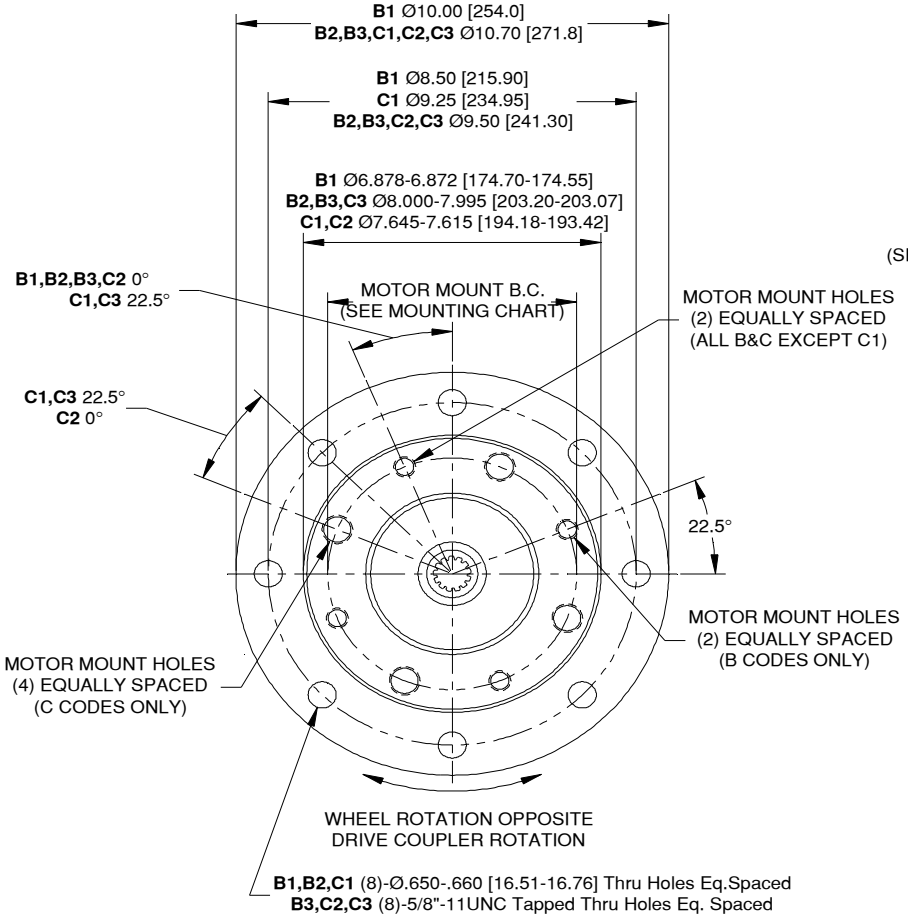
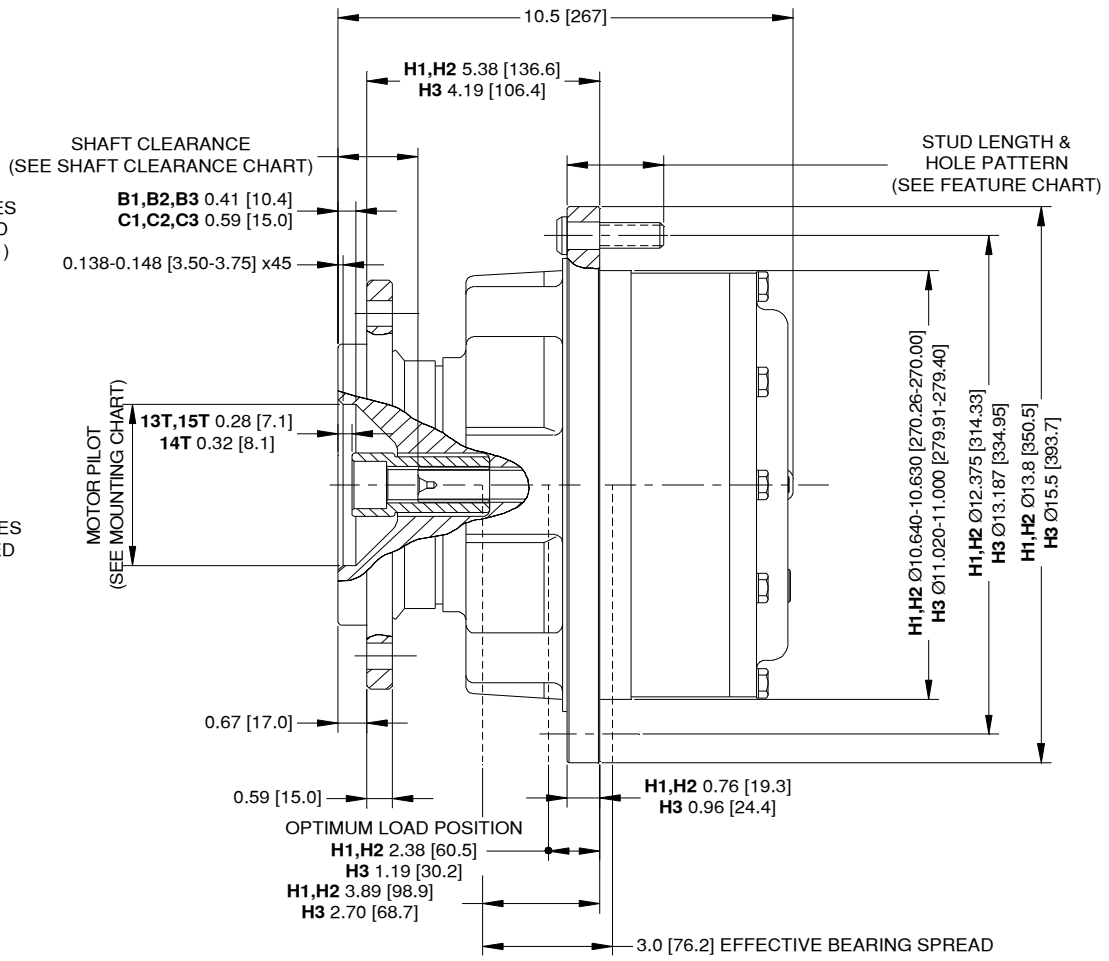
All Dimensions in INCHES [mm]





WS12 Single Reduction- General Specifications

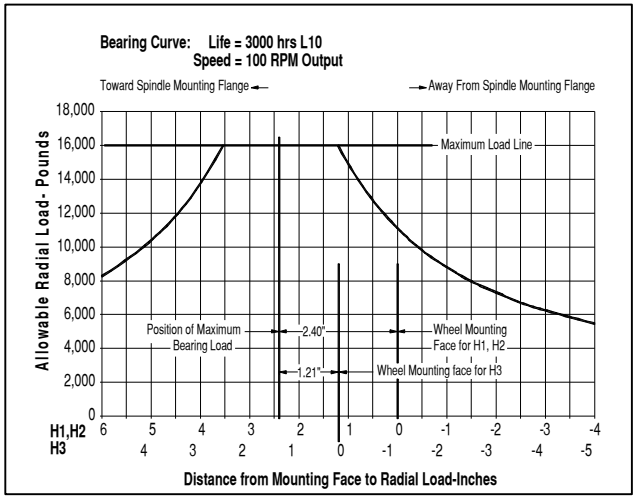
Max. intermittent output torque[A, B]: 28,000 lb-in (3,164 Nm)
Max. input speed: 3,500 RPM
Approximate weight: 156 lbs. (71 kg)
Approximate oil capacity: 0.34 gals (1.3 liters)

Note A: Continuous unit rating is dependent on life requirements, duty cycle and ambient surroundings affecting heat dissipation. Customer testing for specific applications is strongly recommended.

Note B: This rating is input limited. See OPH load zone curve for rating at ratio.

WS12 Feature Chart

Feature	Description			Code	Sample
Gear Ratio	Ratio				WS1205
	3.43:1			03	
	3.95:1			04	
	4.65:			4A	
	5.00:1			**05**	
	6.07:1			06	
Spindle/ Motor Pilot	**Motor Flange**	**Frame Pilot**	**Bolt Circle**		WS1205**B3**
	SAE B	6.875"	8.50"	B1	
	SAE B	8.000"	9.50"	B2	
	SAE B	8.000"	9.50"	**B3**	
	SAE C	7.645"	9.25"	C1	
	SAE C	8.000"	9.50"	C2	
	SAE C	8.000"	9.50"	C3	
Motor Coupling	**Teeth**	**Pitch**	**Flange Used**		WS1205B3**13**
	13T	16/32	B code only	**13**	
	14T	12/24	C code only	14	
	15T	16/32	B code only	15	
	21T	16/32	C code only	21	
Hub	**Pilot**	**Hole Pattern**	**Flange**		WS1205B313**H2**
	10.635"	8 x .610" on 12.375" B.C.	.76"	H1	
	10.635"	8 x .681" on 12.375" B.C.	.76"	**H2**	
	11.000"	10 x .850" on 13.187" B.C.	.96"	H3	
Studs	**Dia.-Pitch**	**Stud Length***	**For Hole**		WS1205B313H2**BA**
	No Studs			NS	
	1/2"-20UNF	2.23"	.681"	AA	
	9/16"-18UNF	2.23"	.681"	**BA**	
	5/8"-18UNF	2.23"	.681"	CA	
	3/4"-16UNF	2.44"	.850"	DB	
	*Usable length equals stud length less hsg. flange				



To apply the bearing curve to other design conditions:

$$\text{Design life (hrs)} = 3000 \left(\frac{100\ \text{RPM}}{\text{Design RPM}}\right) \times \left(\frac{\text{allowable radial load (curve)}}{\text{Design radial load}}\right)$$

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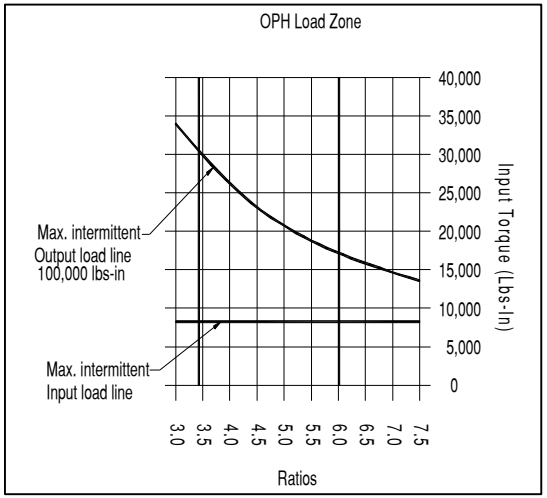

Contact OMNI GEAR Engineering for other inputs.

NOTE: This load zone curve is supplied for design reference only. It illustrates the relationship and importance between ratio and torque relative to intermittent gearbox torque limits. For detailed analysis or application review, contact OMNI GEAR Engineering.

MOUNTING CHART

Code	Motor Mount	Pilot Diameter
B1,B2,B3	2 Sets of (2) 1/2"-13UNC-2B Thru on 5.75 [146.05] B.C.	4.001-4.006 [101.63-101.75]
C1	(4) 1/2"-13UNC-2B Thru on 6.375 [161.93 B.C.	5.001-5.006 [127.03-127.15]
C2,C3	(2) 5/8"-11UNC-2B Thru on 7.125 [180.93] B.C. and (4) 1/2"-13UNC-2B Thru on 6.375 [161.93 B.C.	

SHAFT CLEARANCE (Disengaged/Engaged)

13T-16/32, 15T-16/32: Disengaged 1.9 [48]; Engaged 2.8 [71]
14T-12/24: Disengaged 2.4 [61]; Engaged 3.2 [83]

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Double Reduction

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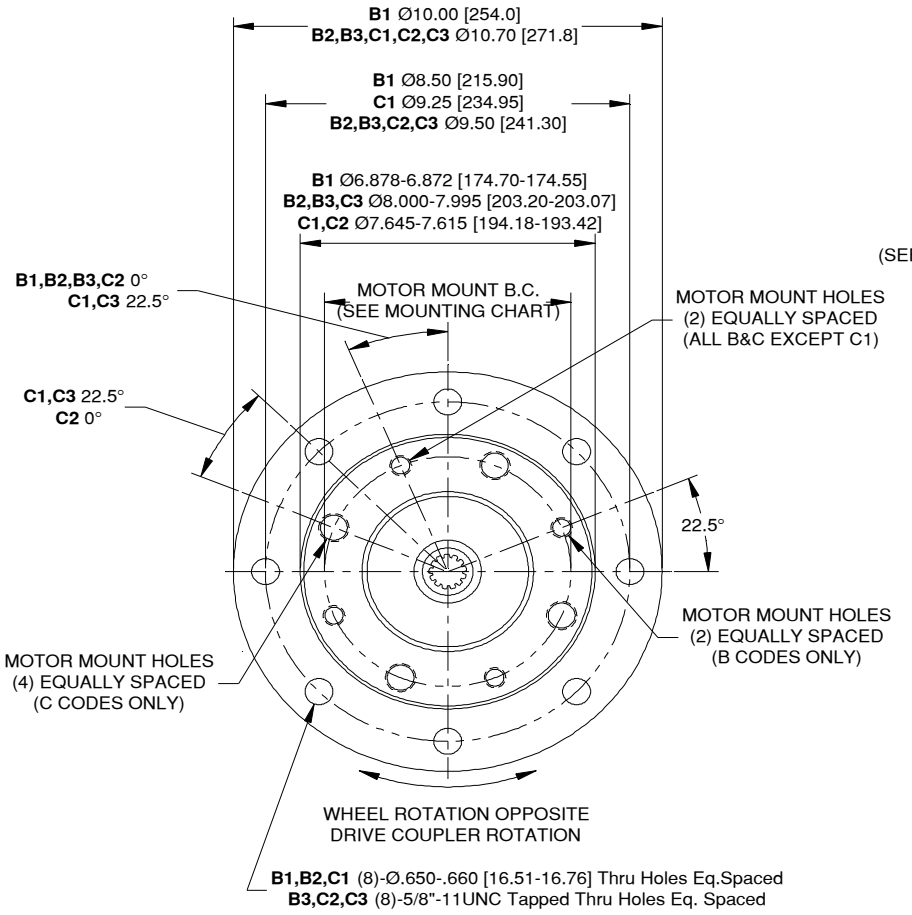
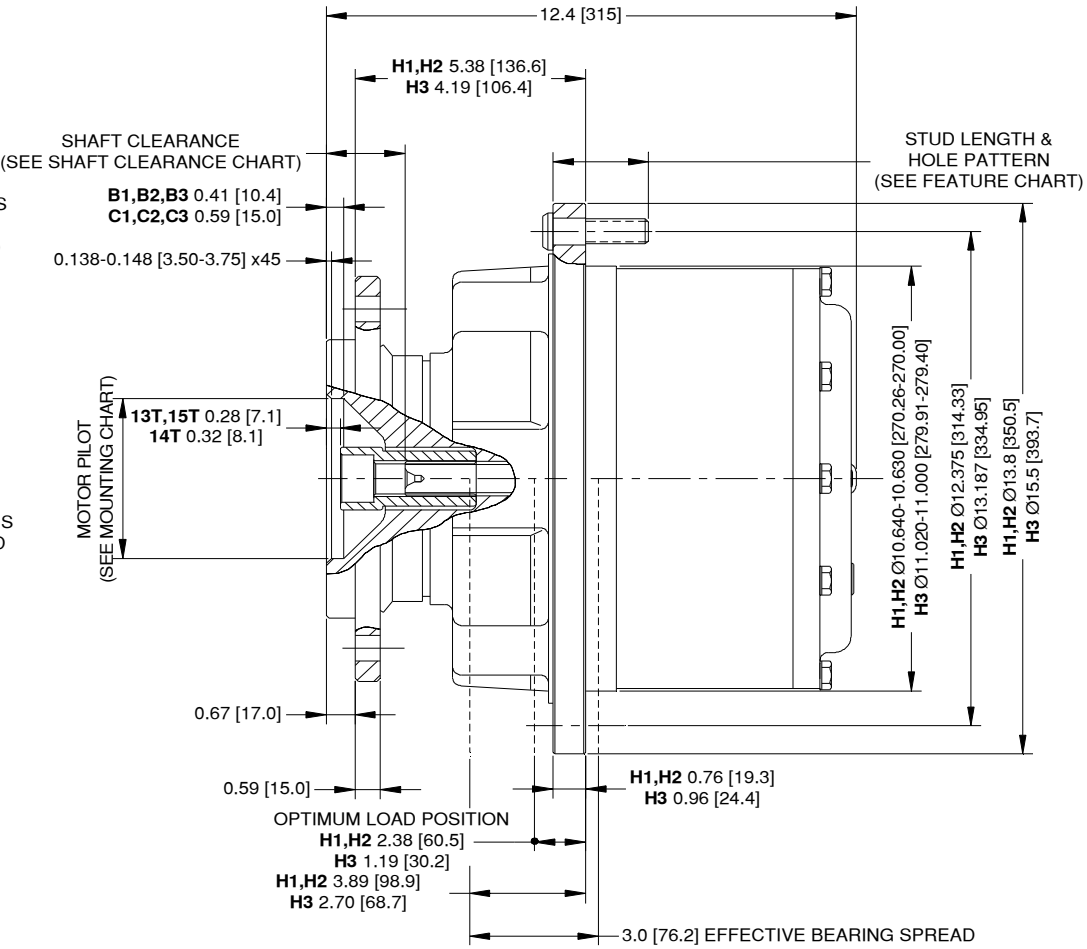
All Dimensions in INCHES [mm]





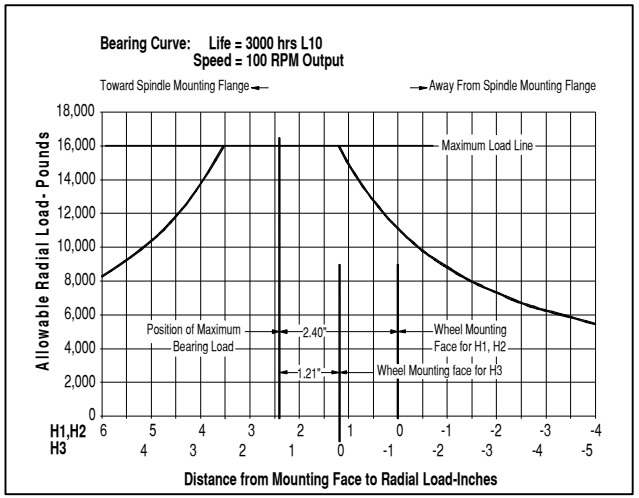
WD12 Double Reduction- General Specifications

Max. intermittent output torque*: 100,000 lb-in (11,300 Nm)
Max. input speed: 5,000 RPM
Approximate weight: 210 lbs (95.5 kg)
Approximate oil capacity: 0.39 gals (1.5 liters)

*Note: Continuous unit rating is dependent on life requirements, duty cycle and ambient surroundings affecting heat dissipation. Customer testing for specific applications is strongly recommended.

WD12 Feature Chart

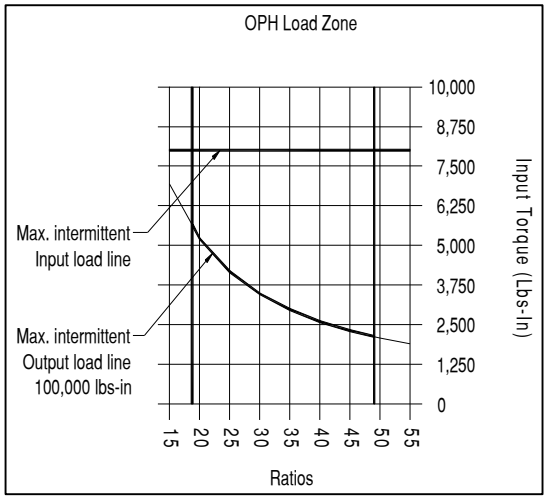
Feature	Description			Code	Sample
Gear Ratio	Ratio				WD1231
	18.67:1			19	
	20.95:1			21	
	23.50:1			24	
	26.95:1			27	
	30.89:1			**31**	
	35.00:1			35	
	41.43:1			41	
	49.01:1			49	
Spindle/ Motor Pilot	Motor Flange	Frame Pilot	Bolt Circle		WD1231**B3**
	SAE B	6.875"	8.50"	B1	
	SAE B	8.000"	9.50"	B2	
	SAE B	8.000"	9.50"	**B3**	
	SAE C	7.645"	9.25"	C1	
	SAE C	8.000"	9.50"	C2	
	SAE C	8.000"	9.50"	C3	
Motor Coupling	Teeth	Pitch	Flange Used		WD1231B3**13**
	13T	16/32	B code only	**13**	
	14T	12/24	C code only	14	
	15T	16/32	B code only	15	
	21T	16/32	C code only	21	
Hub	Pilot	Hole Pattern	Flange		WD1231B313**H2**
	10.635"	8 x .610" on 12.375" B.C.	.76"	H1	
	10.635"	8 x .681" on 12.375" B.C.	.76"	**H2**	
	11.000"	10 x .850" on 13.187" B.C.	.96"	H3	
Studs	Dia.-Pitch	Stud Length*	For Hole		WD1231B313H2**BA**
	No Studs			NS	
	1/2"-20UNF	2.23"	.681"	AA	
	9/16"-18UNF	2.23"	.681"	**BA**	
	5/8"-18UNF	2.23"	.681"	CA	
	3/4"-16UNF	2.44"	.850"	DB	
	*Usable length equals stud length less hsg. flange				



To apply the bearing curve to other design conditions:

$$\text{Design life (hrs)} = 3000 \left(\frac{100 \text{ RPM}}{\text{Design RPM}} \right) \times \left(\frac{\text{allowable radial load (curve)}}{\text{Design radial load}} \right)$$

NOTE: This bearing curve is supplied for design reference purposes only. It illustrates the relationship and importance of radial load position relative to this gearbox. For detailed analysis or application review, contact OMNI GEAR Engineering.



NOTE: This load zone curve is supplied for design reference only. It illustrates the relationship and importance between ratio and torque relative to intermittent gearbox torque limits. For detailed analysis or application review, contact OMNI GEAR Engineering.

MOUNTING CHART		
Code	**Motor Mount**	**Pilot Diameter**
B1,B2,B3	2 Sets of (2) 1/2"-13UNC-2B Thru on 5.75 [146.05] B.C.	4.001-4.006 [101.63-101.75]
C1	(4) 1/2"-13UNC-2B Thru on 6.375 [161.93 B.C.	5.001-5.006 [127.03-127.15]
C2,C3	(2) 5/8"-11UNC-2B Thru on 7.125 [180.93] B.C. and (4) 1/2"-13UNC-2B Thru on 6.375 [161.93 B.C.	

SHAFT CLEARANCE (Disengaged/Engaged)
13T-16/32, 15T-16/32: Disengaged 1.9 [48]; Engaged 2.8 [71]
14T-12/24: Disengaged 2.4 [61]; Engaged 3.2 [83]

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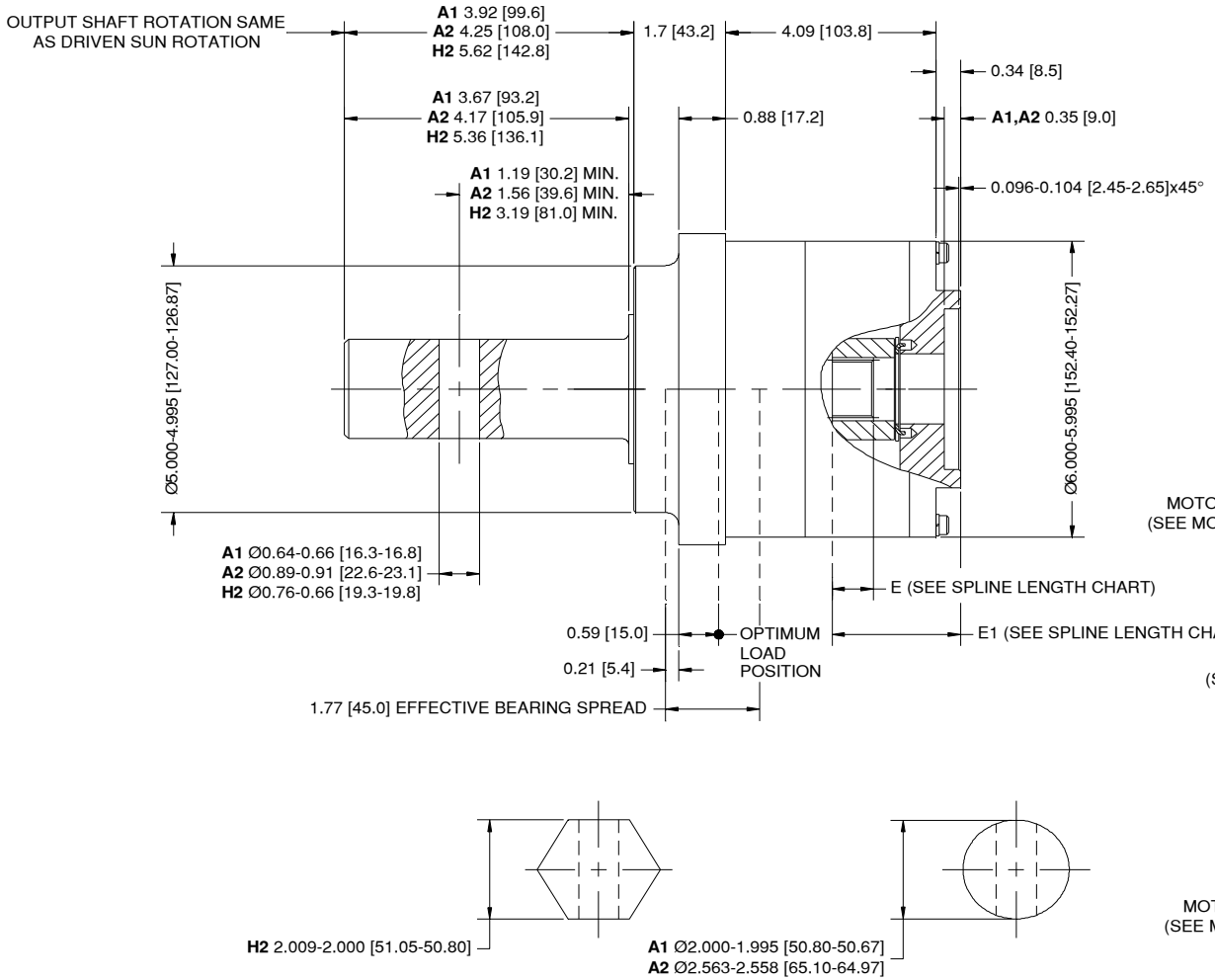
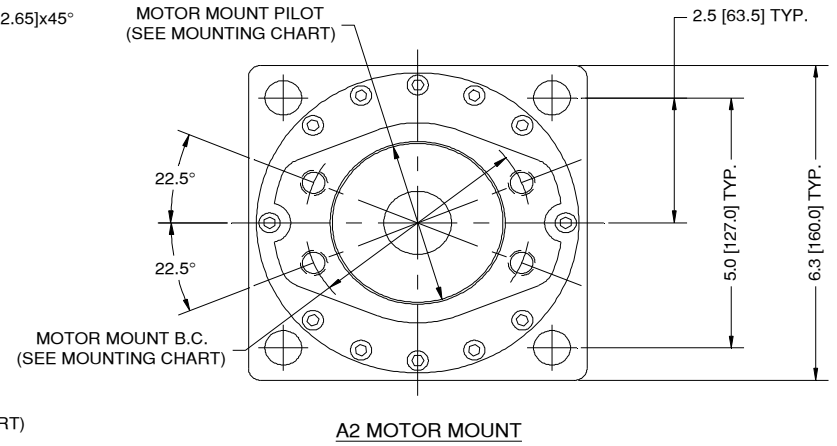
OMNI GEAR

SS02 Shaft Output Drive
Single Reduction

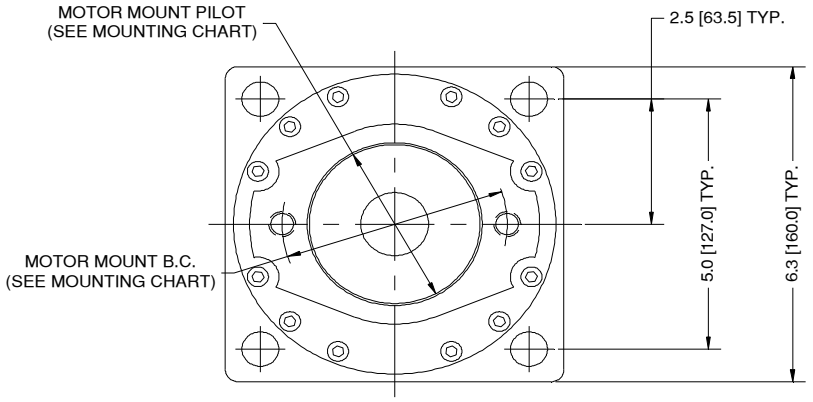
OMNI GEAR
7502 MESA RD., HOUSTON, TX. 77028
PHONE: 713-635-6331
FAX: 713-635-6330
EMAIL: sales@omnigear.com
WEBSITE: www.omnigear.com

All Dimensions in INCHES [mm]





A2 MOTOR MOUNT



A1 MOTOR MOUNT

SS02 Single Reduction- General Specifications

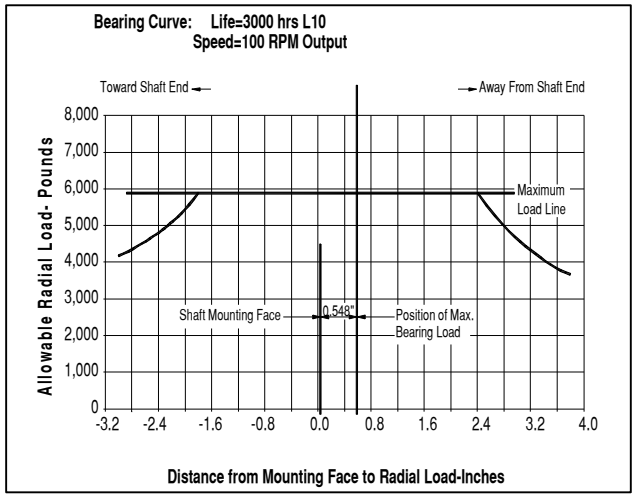
Max. intermittent output torque*:	15,000 lb-in (1,695 Nm)
Max. input speed:	4,000 RPM
Approximate weight:	65 lbs (29.5 kg)
Approximate Oil capacity:	0.08 gals (0.3 liters)

*Note: Continuous unit rating is dependent on life requirements,duty cycle and ambient surroundings affecting heat dissipation. Customer testing for specific applications is strongly recommended.

SS02 Feature Chart

Feature	Description			Code	Sample
Gear Ratio	Ratio				
	3.60:1			03	SS0203
Motor Mount	Motor Flange	Frame Pilot	Hole Pattern		
	SAE A	3.25"	(2) 1/2"-13UNC-2B	A1	SS0203A1
	SAE A	3.25"	2 x (2) 1/2-13UNC-2B	A2	
Input Spline	Teeth	Pitch			
	13T	16/32		13	SS0203A114
	14T	12/24		14	
Output		Dia.	Hole Dia.	Ext. length	
	Round	2.00"	.64"	3.67"	A1
		2.56"	.90"	4.17"	A2
	Hex	2.00"	.76"	5.38"	H2
Hub	Pilot	Hole Pattern		Flange	
	5.00"	4 x .688" on 7.07" B.C.		.88"	HA

SS0203A114A2HA



To apply the bearing curve to other design conditions:

$$\text{Design life (hrs)} = 3000 \left(\frac{100\ \text{RPM}}{\text{Design RPM}}\right) \times \left(\frac{\text{allowable radial load (curve)}}{\text{Design radial load}}\right)$$

NOTE: This bearing curve is supplied for design reference purposes only. It illustrates the relationship and importance of radial load position relative to this gearbox. For detailed analysis or application review, contact OMNI GEAR Engineering.

MOUNTING CHART

Code	Motor Mount	Pilot Diameter
A1	(2) 1/2"-13UNC-2B Thru on 4.188 [106.38] B.C.	3.251-3.255 [82.58-82.70]
A2	2x(2) 1/2"-13UNC-2B Thru on 4.188 [106.38] B.C.	3.251-3.255 [82.58-82.70]

SPLINE LENGTHS

Code	Teeth	E	E1
A1/A2	13	0.73 [18.5]	1.65 [42.0]
A1/A2	14	0.85 [21.5]	2.34 [59.5]

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OMNI GEAR

SS06 Flange Output Drive
Single Reduction

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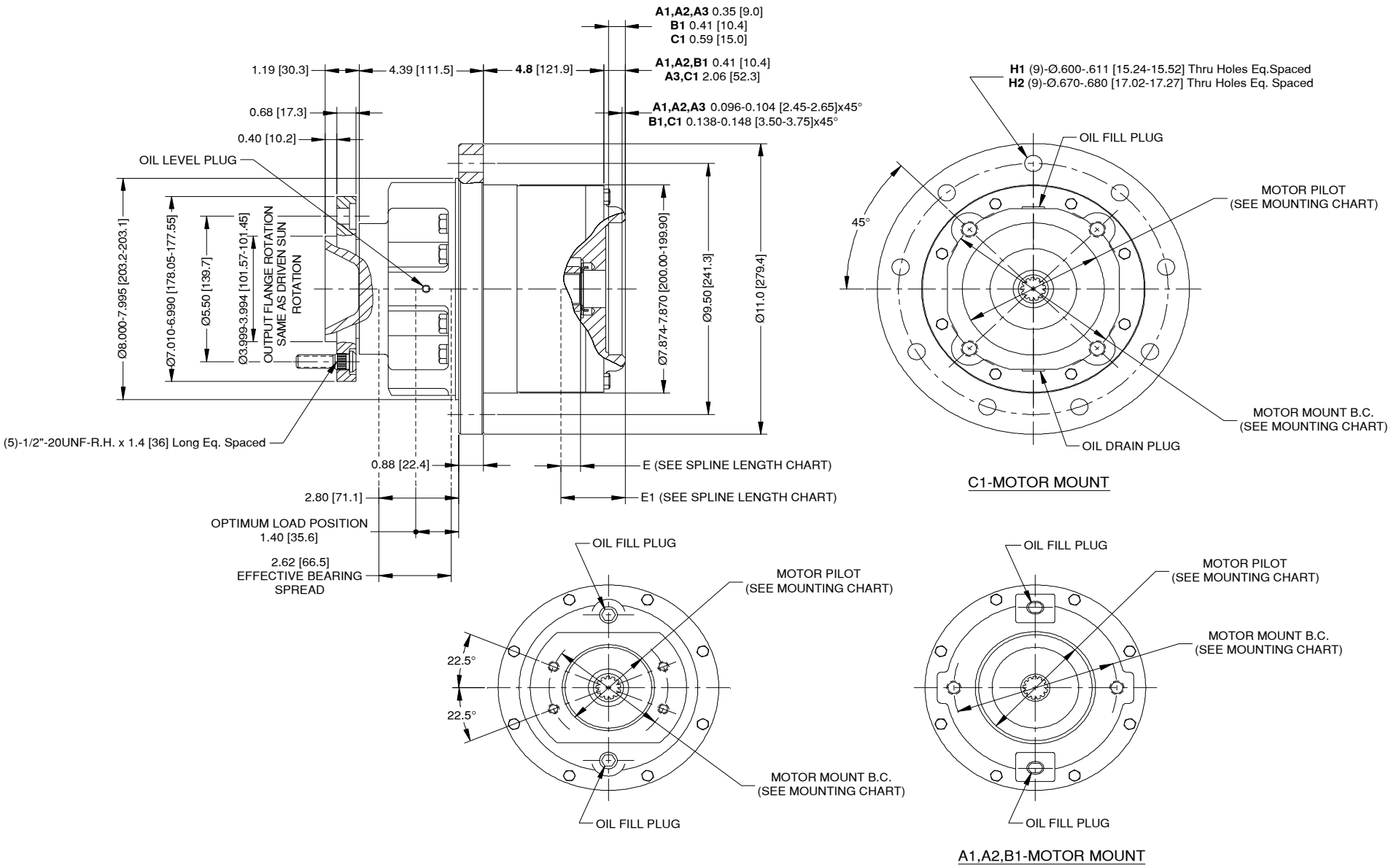
All Dimensions in INCHES [mm]



SS06 Single Reduction- General Specifications

Max. intermittent output torque[A, B]:	30,000 lb-in (3,390 Nm)
Max. input speed:	3,500 RPM
Approximate weight:	85 lbs (38.6 kg)
Approximate oil capacity:	0.21 gals (0.8 liters)

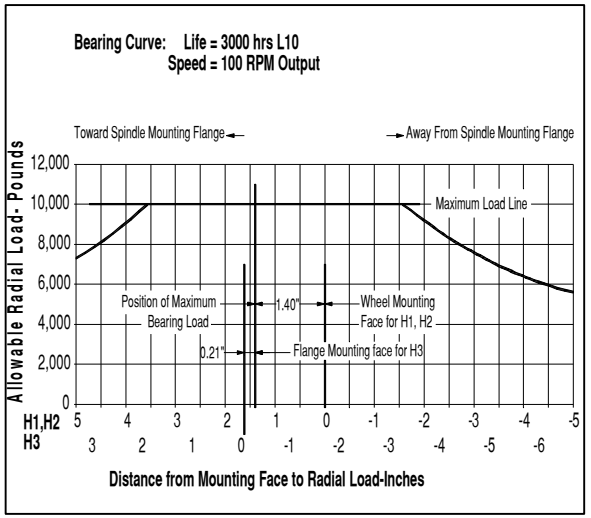
Note A: Continuous unit rating is dependent on life requirements, duty cycle and ambient surroundings affecting heat dissipation. Customer testing for specific applications is strongly recommended.

Note B: This rating is input limited. See OPH load zone curve for rating at ratio.

SS06 Feature Chart

Feature	Description			Code	Sample
Gear Ratio	**Ratio**	**Motor Mount Usage**	**Input Spline Usage**		SS0604
	3.75:1	All codes	All codes	03	
	4.50:1	All codes	All codes	**04**	
	5.05:1	All codes	All codes**	05	
	5.81:1	A1, A2 & B	13	06	
Motor Mount	**Motor Flange**	**Frame Pilot**	**Hole Pattern**		SS0604**A2**
	SAE A	3.25"	2	A1	
	SAE A	3.25"	2	**A2**	
	SAE A	3.25"	2 x 2	A3	
	SAE B	4.00"	2	B1	
	SAE C	5.00"	4	C1	
Input Spline	**Teeth**	**Pitch**	**Motor Flange Used**		SS0604A2**13**
	13T	16/32	A1, A2 & B1 codes	**13**	
	14T	12/24	A1, A2, A3 & C1 codes	14	
	6T	1.00" Dia.	A1 & A2 codes	6B	
Output	**Flanged**	**Pilot**	**Hole Size**	**Hole Pattern**	SS0604A213**FS**
		4.00"	1/2"-20UNF-STUD	5x72 on 5.50" B.C.	
Hub	**Pilot**		**Hole Pattern**	**Flange**	SS0604A213FSH**1**
	8.00"		9 x .610" on 9.50" B.C.	.88"	**H1**
	8.00"		9 x .680" on 9.50" B.C.	.88"	H2

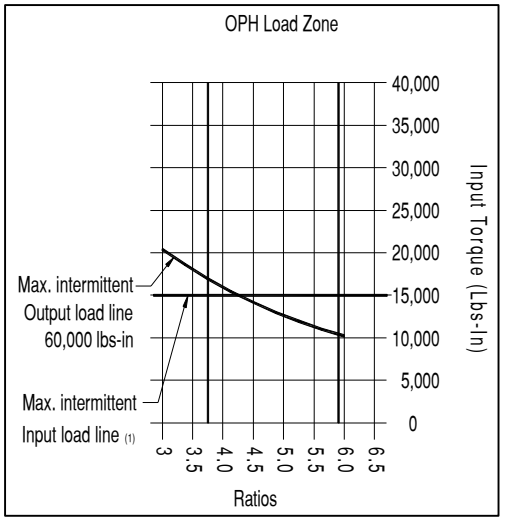
**5.05:1 ratio with 14T input spline not available with motor codes A1 or A2



To apply the bearing curve to other design conditions:

$$\text{Design life (hrs)} = 3000 \left(\frac{100\ \text{RPM}}{\text{Design RPM}}\right) \times \left(\frac{\text{allowable radial load (curve)}}{\text{Design radial load}}\right)$$

NOTE: This bearing curve is supplied for design reference purposes only. It illustrates the relationship and importance of radial load position relative to this gearbox. For detailed analysis or application review, contact OMNI GEAR Engineering.



(1) Max. intermittent input load line shown is for 14T input. Contact OMNI GEAR Engineering for other inputs.

NOTE: This load zone curve is supplied for design reference only. It illustrates the relationship and importance between ratio and torque relative to intermittent gearbox torque limits. For detailed analysis or application review, contact OMNI GEAR Engineering.

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MOUNTING CHART

Code	Motor Mount	Pilot Diameter
A1	(2) 3/8"-16UNC-2B Thru on 4.188 [106.38] B.C.	3.251-3.255 [82.58-82.70]
A2	(2) 1/2"-13UNC-2B Thru on 4.188 [106.38] B.C.	3.251-3.255 [82.58-82.70]
A3	2 Sets of (2) 1/2"-13UNC-2B x 1.0 [25.4] Deep on 4.188 [106.38] B.C.	3.251-3.255 [82.58-82.70]
B1	(2) 1/2"-13UNC-2B Thru on 5.750 [146.05] B.C. and	4.001-4.006 [101.63-101.75]
C1	(4) 1/2"-13UNC-2B x 1.0 [25.4] Deep on 6.375 [161.93] B.C.	5.001-5.006 [127.03-127.15]

SPLINE LENGTHS

Code	Teeth	E	E1
A1/A2	13	0.65 [16.5]	1.87 [47.5]
A1/A2	14	1.04 [26.5]	2.26 [57.5]
A1/A2	6B	0.83 [21.0]	2.05 [52.0]
A3/C1	14	0.94 [24.0]	2.22 [56.5]
B1	13/15	0.65 [16.5]	1.87 [47.5]

OMNI GEAR

SS06 Shaft Output Drive
Single Reduction

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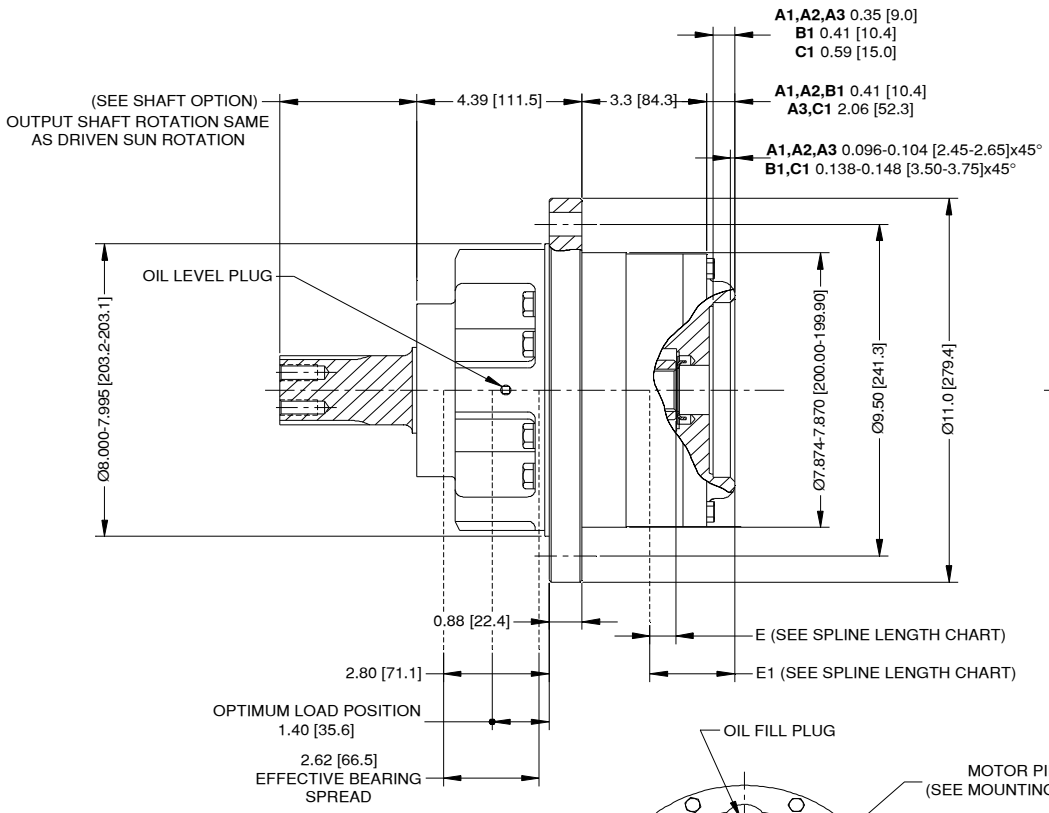
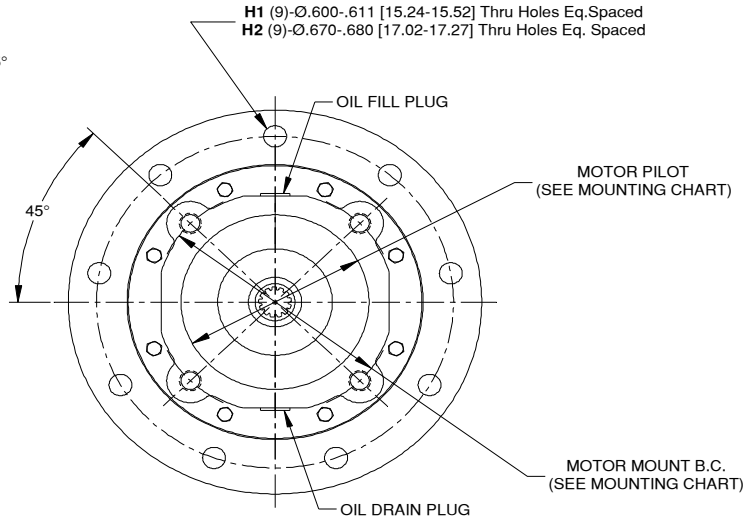
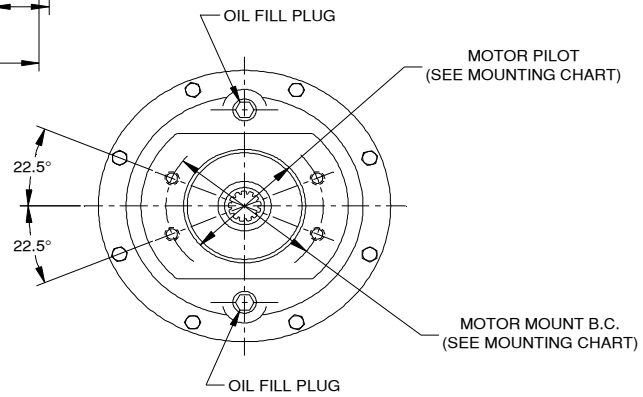
All Dimensions in INCHES [mm]

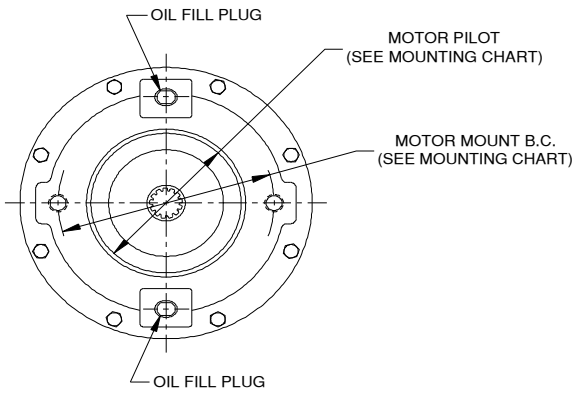




C1-MOTOR MOUNT



A3-MOTOR MOUNT



A1,A2,B1-MOTOR MOUNT

SS06 Single Reduction- General Specifications

Max. intermittent output torque[A, B]:	30,000 lb-in (3,390 Nm)
Max. input speed:	3,500 RPM
Approximate weight:	85 lbs (38.6 kg)
Approximate oil capacity:	0.18 gals (0.7 liters)

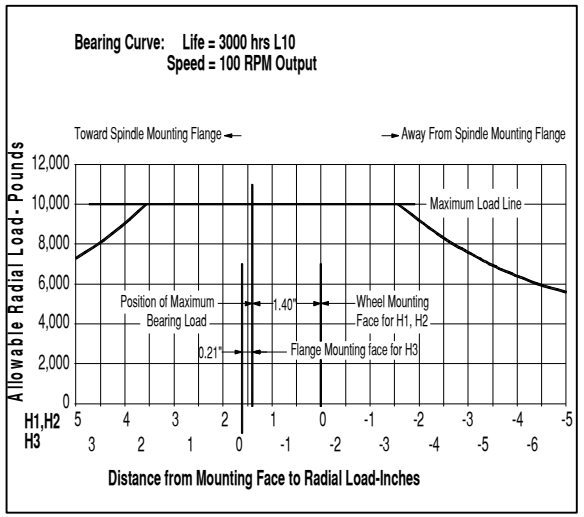
Note A: Continuous unit rating is dependent on life requirements, duty cycle and ambient surroundings affecting heat dissipation. Customer testing for specific applications is strongly recommended.

Note B: This rating is input limited. See OPH load zone curve for rating at ratio.

SS06 Feature Chart

Feature	Description			Code	Sample
Gear Ratio	**Ratio**	**Motor Mount Usage**	**Input Spline Usage**		SS06**04**
	3.75:1	All codes	All codes	03	
	4.50:1	All codes	All codes	**04**	
	5.05:1	All codes	All codes**	05	
	5.81:1	A1, A2 & B	13	06	
Motor Mount	**Motor Flange**	**Frame Pilot**	**Hole Pattern**		SS0604**A2**
	SAE A	3.25"	2	A1	
	SAE A	3.25"	2	**A2**	
	SAE A	3.25"	2 x 2	A3	
	SAE B	4.00"	2	B1	
	SAE C	5.00"	4	C1	
Input Spline	**Teeth**	**Pitch**	**Motor Flange Used**		SS0604A2**13**
	13T	16/32	A1, A2 & B1 codes	**13**	
	14T	12/24	A1, A2, A3 & C1 codes	14	
	6T	1.00" Dia.	A1 & A2 codes	6B	
Output		**Teeth-DP**	**Spline Type Fit**	**Ext. length**	SS0604A213**AL**
	Splined	23-12/24	Flat root-side fit-class 6	3.67"	**AL**
	ANSI	23-12/24	Flat root-side fit-class 6	2.79"	AS
	92.1-1970	17-12/24	Flat root-side fit-class 6	2.06"	BS
	Keyed	**Dia./Hex flat**	**Key/Hole Dia.**	**Ext. length**	
		2.00"	1/2 Sq.	3.67"	KA
	Round	2.00"	.64"	3.67"	A1
		2.56"	.90"	4.17"	A2
	Hex	2.00"	.76"	5.38"	H2
Hub	**Pilot**		**Hole Pattern**	**Flange**	SS0604A213AL**H1**
	8.00"		9 x .610" on 9.50" B.C.	.88"	**H1**
	8.00"		9 x .680" on 9.50" B.C.	.88"	H2

**5.05:1 ratio with 14T input spline not available with motor codes A1 or A2.



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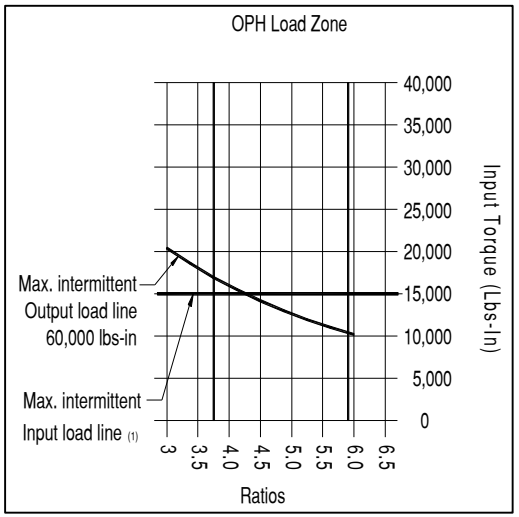

(1) Max. intermittent input load line shown is for 14T input. Contact OMNI GEAR Engineering for other inputs.

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MOUNTING CHART

Code	Motor Mount	Pilot Diameter
A1	(2) 3/8"-16UNC-2B Thru on 4.188 [106.38] B.C.	3.251-3.255 [82.58-82.70]
A2	(2) 1/2"-13UNC-2B Thru on 4.188 [106.38] B.C.	3.251-3.255 [82.58-82.70]
A3	2 Sets of (2) 1/2"-13UNC-2B x 1.0 [25.4] Deep on 4.188 [106.38] B.C.	3.251-3.255 [82.58-82.70]
B1	(2) 1/2"-13UNC-2B Thru on 5.750 [146.05] B.C. and	4.001-4.006 [101.63-101.75]
C1	(4) 1/2"-13UNC-2B x 1.0 [25.4] Deep on 6.375 [161.93] B.C.	5.001-5.006 [127.03-127.15]

SPLINE LENGTHS

Code	Teeth	E	E1
A1/A2	13	0.65 [16.5]	1.87 [47.5]
A1/A2	14	1.04 [26.5]	2.26 [57.5]
A1/A2	6B	0.83 [21.0]	2.05 [52.0]
A3/C1	14	0.94 [24.0]	2.22 [56.5]
B1	13/15	0.65 [16.5]	1.87 [47.5]

OMNI GEAR

SD06 Flange Output Drive
Double Reduction

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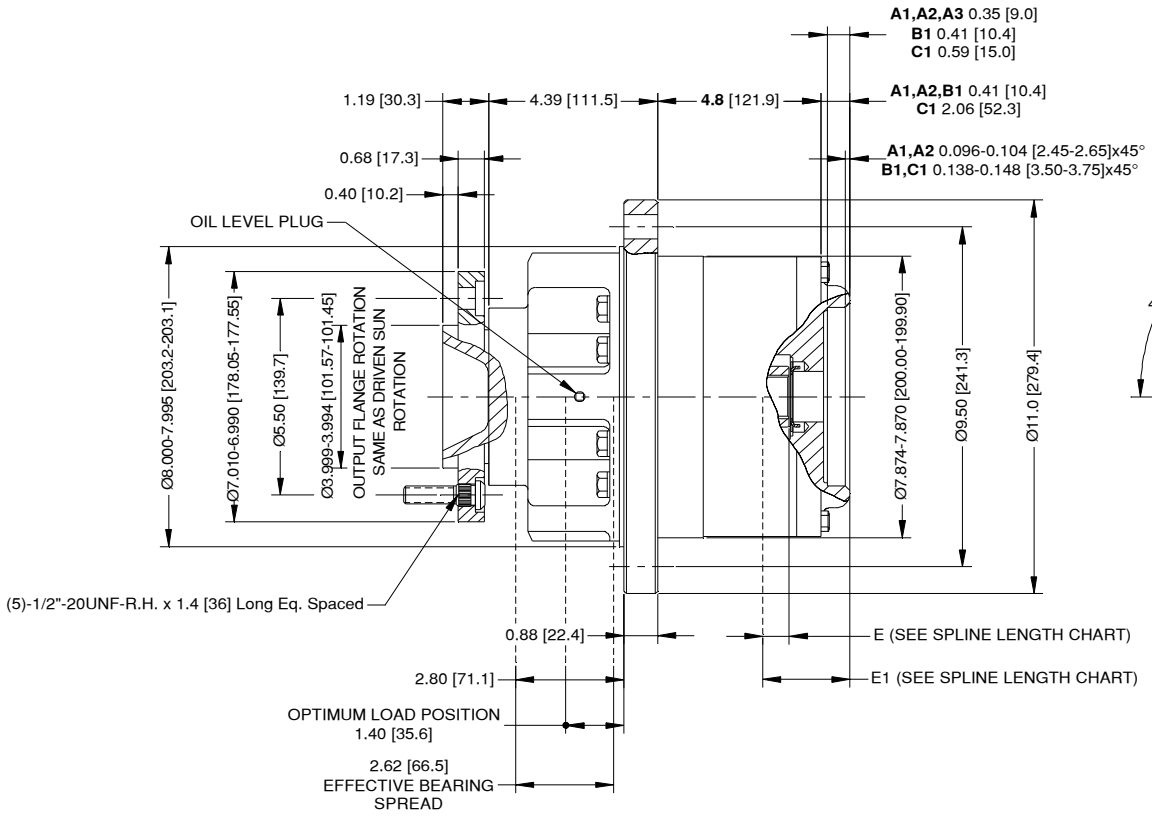
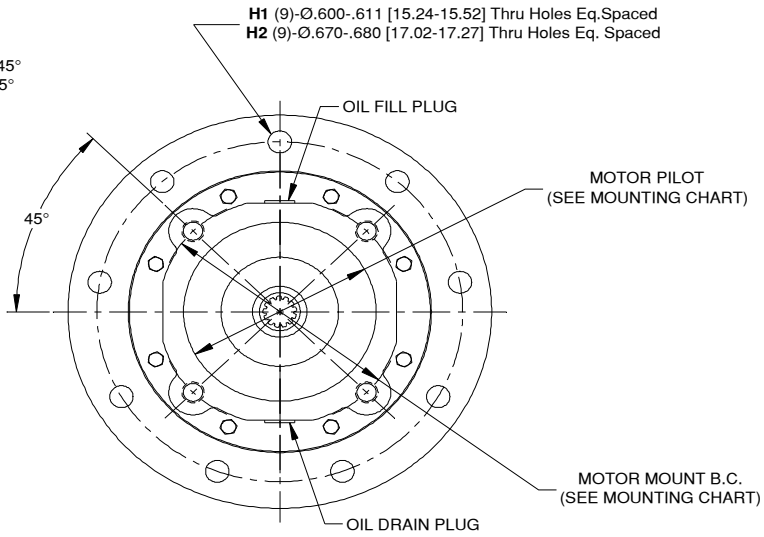
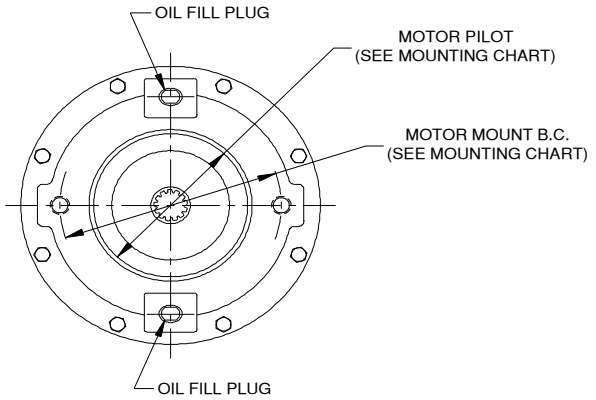




C1-MOTOR MOUNT



A1,A2,B1-MOTOR MOUNT

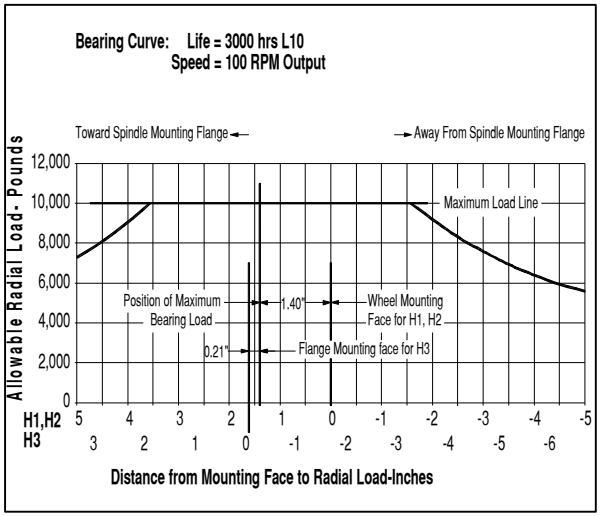
SD06 Double Reduction- General Specifications

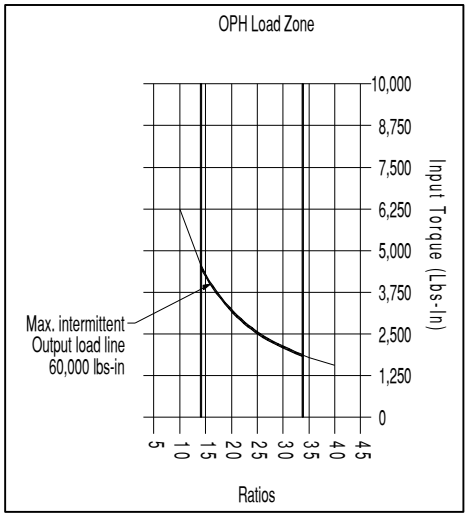
Max. intermittent output torque*: 50,000 lb-in (5,650 Nm)
Max. input speed: 5,000 RPM
Approximate weight: 100 lbs (45.4 kg)
Approximate oil capacity: 0.26 gals (1.0 liters)

*Note: Continuous unit rating is dependent on life requirements, duty cycle and ambient surroundings affecting heat dissipation. Customer testing for specific applications is strongly recommended.

SD06 Feature Chart

Feature	Description			Code	Sample
Gear Ratio	**Ratio**	**Motor Mount Usage**	**Input Spline Usage**		SD06**26**
	14.06:1	All codes	All codes	14	
	16.88:1	All codes	All codes	17	
	20.62:1	All codes	All codes	21	
	22.74:1	All codes	All codes	23	
	25.53:1	A1, A2 & B1	13, 15 & 6B codes	**26**	
	29.37:1	A1, A2 & B1	13 code	29	
	33.76:1	A1, A2 & B1	13 code	34	
Motor Mount	**Motor Flange**	**Frame Pilot**	**Hole Pattern**		SD0626**A2**
	SAE A	3.25"	2	A1	
	SAE A	3.25"	2	**A2**	
	SAE B	4.00"	2	B1	
	SAE C	5.00"	4	C1	
Input Spline	**Teeth**	**Pitch**	**Motor Flange Used**		SD0626A**13**
	13T	16/32	A1, A2 & B1 codes	**13**	
	14T	12/24	C1 code	14	
	15T	16/32	B1 code	15	
	6T	1.00" Dia.	A1 & A2 codes	6B	
Output		**Pilot**	**Hole Size** / **Hole Pattern**		SD0626A213**FS**
	Flanged	4.00"	1/2"-20UNF STUD / 5 on 5.50" B.C.	**FS**	
Hub	**Pilot**	**Hole Pattern**	**Flange**		SD0626A213FS**H1**
	8.00"	9 x .610" on 9.50" B.C.	.88"	**H1**	
	8.00"	9 x .680" on 9.50" B.C.	.88"	H2	





To apply the bearing curve to other design conditions:

$$\text{Design life (hrs)} = 3000 \left(\frac{100\ \text{RPM}}{\text{Design RPM}}\right) \times \left(\frac{\text{allowable radial load (curve)}}{\text{Design radial load}}\right)$$

NOTE: This load zone curve is supplied for design reference only. It illustrates the relationship and importance between ratio and torque relative to intermittent gearbox torque limits. For detailed analysis or application review, contact OMNI GEAR Engineering.

NOTE: This bearing curve is supplied for design reference purposes only. It illustrates the relationship and importance of radial load position relative to this gearbox. For detailed analysis or application review, contact OMNI GEAR Engineering.

MOUNTING CHART

Code	Motor Mount	Pilot Diameter
A1	(2) 3/8"-16UNC-2B Thru on 4.188 [106.38] B.C.	3.251-3.255 [82.58-82.70]
A2	(2) 1/2"-13UNC-2B Thru on 4.188 [106.38] B.C.	3.251-3.255 [82.58-82.70]
B1	(2) 1/2"-13UNC-2B Thru on 5.750 [146.05] B.C. and	4.001-4.006 [101.63-101.75]
C1	(4) 1/2"-13UNC-2B x 1.0[25.4] Deep on 6.375 [161.93] B.C.	5.001-5.006 [127.03-127.15]

SPLINE LENGTHS

Code	Teeth	E	E1
A1/A2	13	0.65 [16.5]	1.87 [47.5]
A1/A2	14	1.04 [26.5]	2.26 [57.5]
A1/A2	6B	0.65 [16.5]	1.87 [47.5]
C1	14	0.94 [24.0]	2.22 [56.5]
B1	13/15	0.65 [16.5]	1.87 [47.5]

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OMNI GEAR

SD06 Shaft Output Drive
Double Reduction

OMNI GEAR
7502 MESA RD., HOUSTON, TX. 77028
PHONE: 713-635-6331
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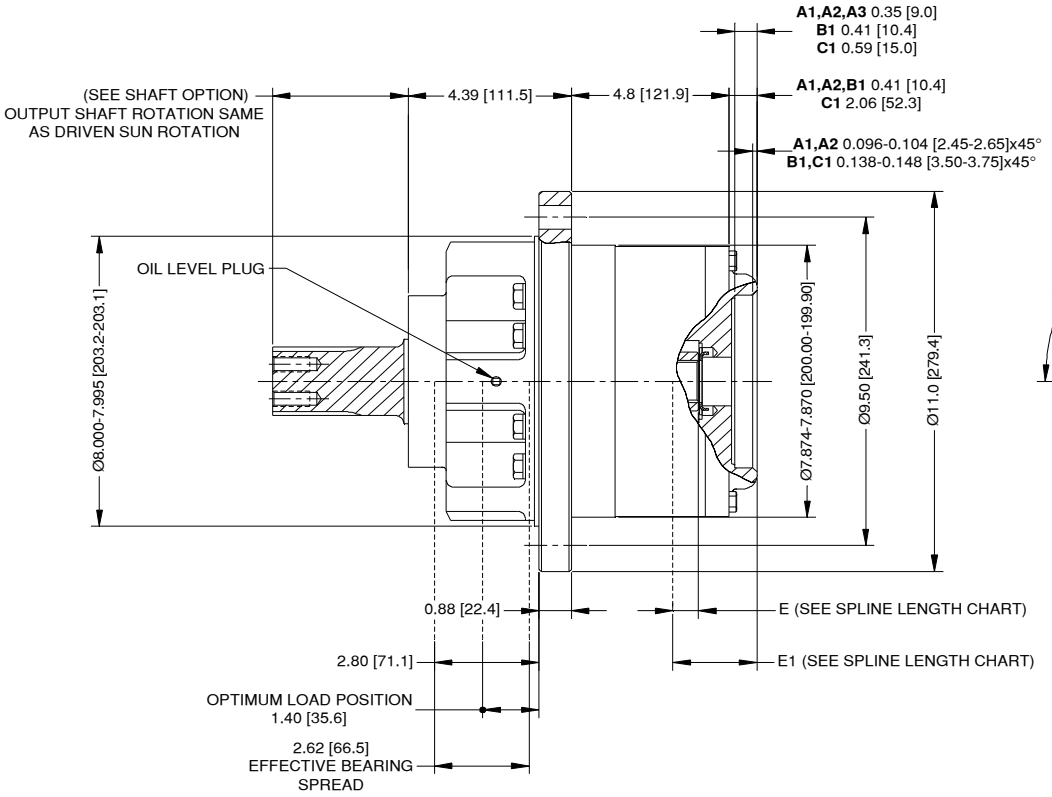
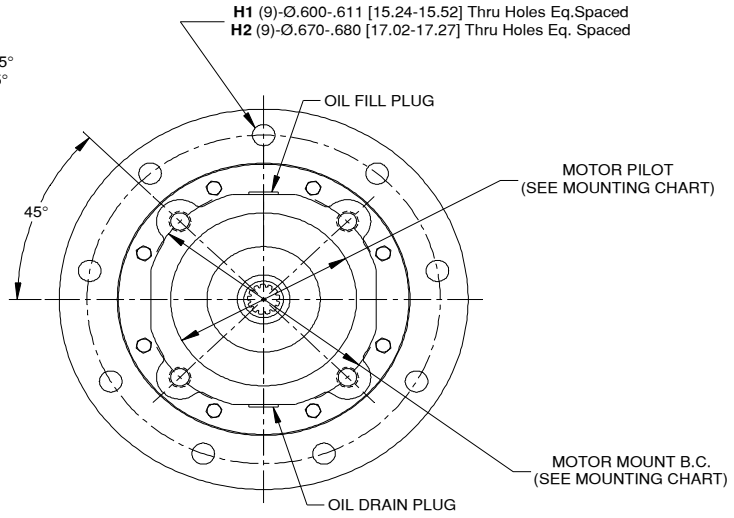
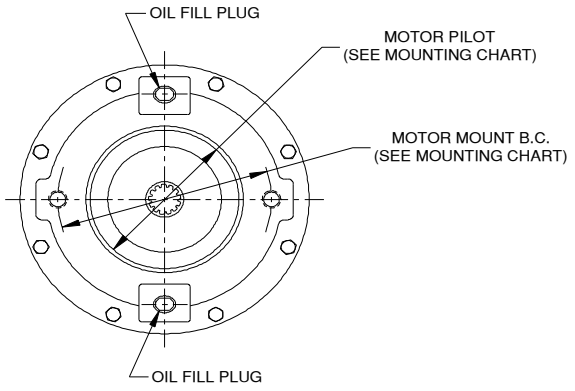
All Dimensions in INCHES [mm]





C1-MOTOR MOUNT



A1,A2,B1-MOTOR MOUNT

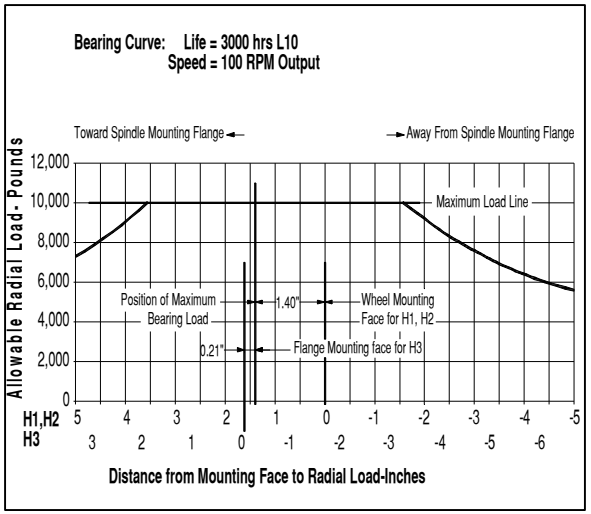
SD06 Double Reduction- General Specifications

Max. intermittent output torque*: 50,000 lb-in (5,650 Nm)
Max. input speed: 5,000 RPM
Approximate weight: 100 lbs (45.4 kg)
Approximate oil capacity: 0.26 gals (1.0 liters)

*Note: Continuous unit rating is dependent on life requirements, duty cycle and ambient surroundings affecting heat dissipation. Customer testing for specific applications is strongly recommended.

SD06 Feature Chart

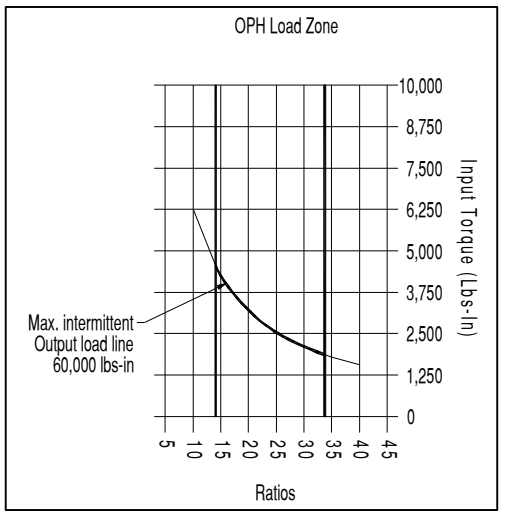
Feature	Description			Code	Sample
Gear Ratio	**Ratio**	**Motor Mount Usage**	**Input Spline Usage**		SD0626
	14.06:1	All codes	All codes	14	
	16.88:1	All codes	All codes	17	
	20.62:1	All codes	All codes	21	
	22.74:1	All codes	All codes	23	
	25.53:1	A1, A2 & B1	13, 15 & 6B codes	**26**	
	29.37:1	A1, A2 & B1	13 code	29	
	33.76:1	A1, A2 & B1	13 code	34	
Motor Mount	**Motor Flange**	**Frame Pilot**	**Hole Pattern**		SD0626**A2**
	SAE A	3.25"	2	A1	
	SAE A	3.25"	2	**A2**	
	SAE B	4.00"	2	B1	
	SAE C	5.00"	4	C1	
Input Spline	**Teeth**	**Pitch**	**Motor Flange Used**		SD0626A**13**
	13T	16/32	A1, A2 & B1 codes	**13**	
	14T	12/24	C1 code	14	
	15T	16/32	B1 code	15	
	6T	1.00" Dia.	A1 & A2 codes	6B	
Output		**Teeth-DP**	**Spline Type Fit**	**Ext. length**	SD0626A213**AL**
	Splined ANSI 92.1-1970	23-12/24	Flat root-side fit-class 6	3.67"	**AL**
		23-12/24	Flat root-side fit-class 6	2.79"	AS
	Keyed	**Dia./Hex flat**	**Key/Hole Dia.**	**Ext. length**	
		2.00"	1/2 Sq.	3.67"	KA
	Round	2.00"	.64"	3.67"	A1
		2.56"	.90"	4.17"	A2
	Hex	2.00"	.76"	5.38"	H2
Hub	**Pilot**	**Hole Pattern**		**Flange**	SD0626A213AL**H1**
	8.00"	9 x .610" on 9.50" B.C.		.88"	**H1**
	8.00"	9 x .680" on 9.50" B.C.		.88"	H2



To apply the bearing curve to other design conditions:

$$\text{Design life (hrs)} = 3000 \left(\frac{100\ \text{RPM}}{\text{Design RPM}}\right) \times \left(\frac{\text{allowable radial load (curve)}}{\text{Design radial load}}\right)$$

NOTE: This bearing curve is supplied for design reference purposes only. It illustrates the relationship and importance of radial load position relative to this gearbox. For detailed analysis or application review, contact OMNI GEAR Engineering.



NOTE: This load zone curve is supplied for design reference only. It illustrates the relationship and importance between ratio and torque relative to intermittent gearbox torque limits. For detailed analysis or application review, contact OMNI GEAR Engineering.

MOUNTING CHART

Code	Motor Mount	Pilot Diameter
A1	(2) 3/8"-16UNC-2B Thru on 4.188 [106.38] B.C.	3.251-3.255 [82.58-82.70]
A2	(2) 1/2"-13UNC-2B Thru on 4.188 [106.38] B.C.	3.251-3.255 [82.58-82.70]
B1	(2) 1/2"-13UNC-2B Thru on 5.750 [146.05] B.C. and	4.001-4.006 [101.63-101.75]
C1	(4) 1/2"-13UNC-2B x 1.0[25.4] Deep on 6.375 [161.93] B.C.	5.001-5.006 [127.03-127.15]

SPLINE LENGTHS

Code	Teeth	E	E1
A1/A2	13	0.65 [16.5]	1.87 [47.5]
A1/A2	14	1.04 [26.5]	2.26 [57.5]
A1/A2	6B	0.65 [16.5]	1.87 [47.5]
C1	14	0.94 [24.0]	2.22 [56.5]
B1	13/15	0.65 [16.5]	1.87 [47.5]

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OMNI GEAR

SS12 Flange Output Drive
Single Reduction

OMNI GEAR
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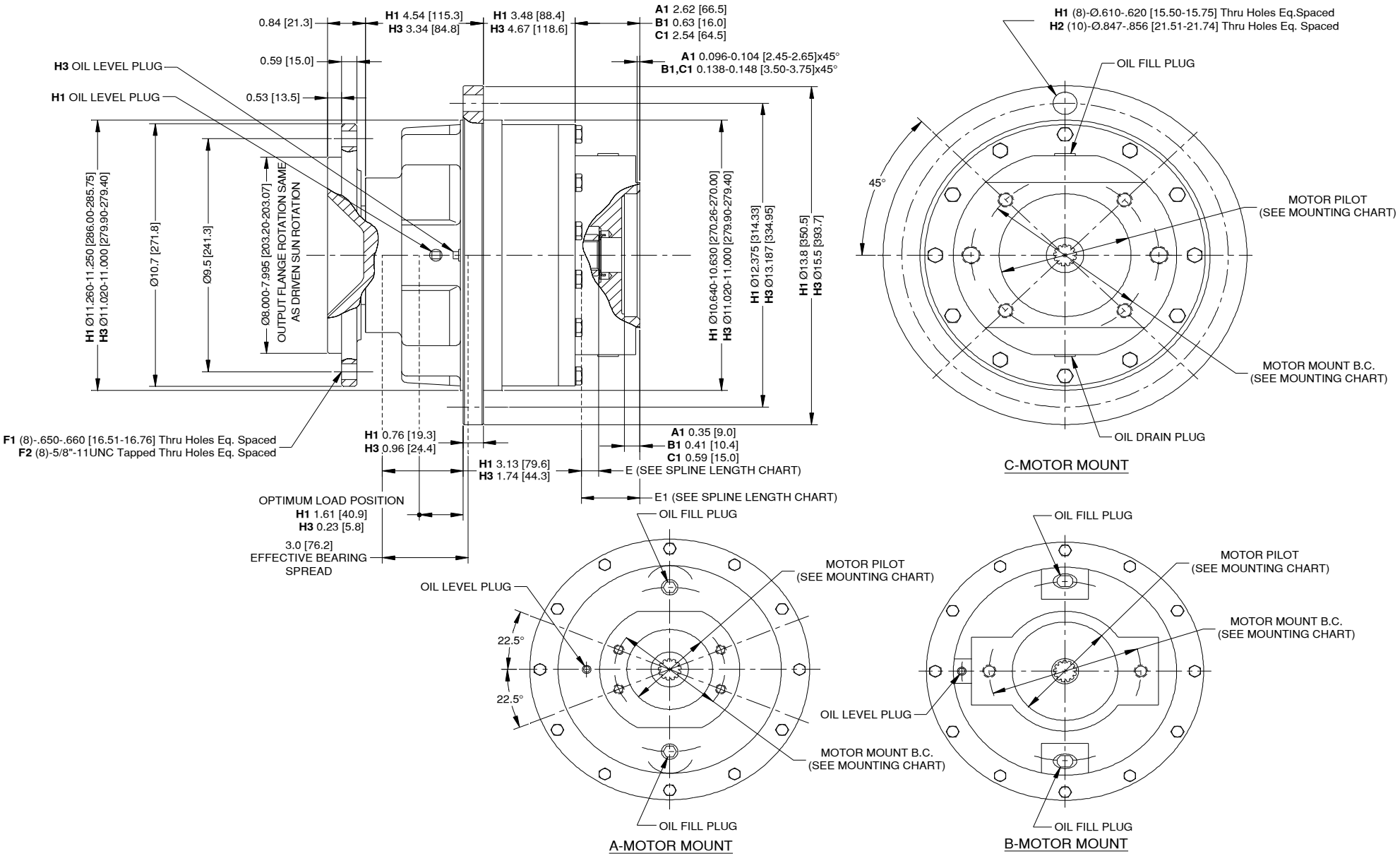
WEBSITE: www.omnigear.com

All Dimensions in INCHES [mm]



SS12 Single Reduction- General Specifications

Max. intermittent output torque[A, B]: 36,000 lb-in (4,067 Nm)
Max. input speed: 3,500 RPM
Approximate weight: 156 lbs (71 kg)
Approximate oil capacity: 0.39 gals (1.5 liters)

Note A: Continuous unit rating is dependent on life requirements, duty cycle, and ambient surroundings affecting heat dissipation. Customer testing for specific applications is strongly recommended.

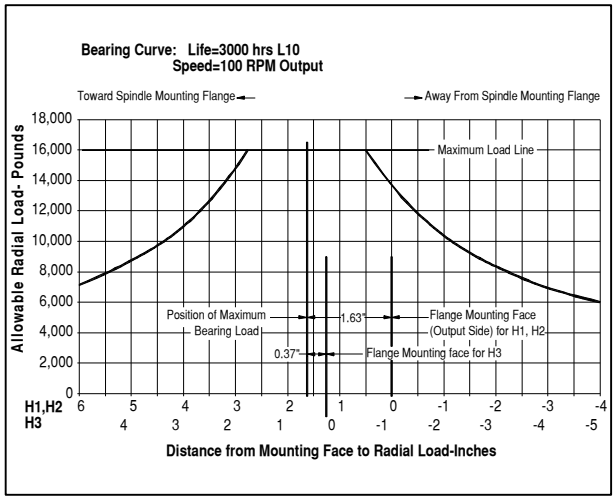
Note B: This rating is input limited. See OPH load zone curve for rating at ratio.

SS12 Feature Chart

Feature	Description			Code	Sample
Gear Ratio	Ratio				SS12**05**
	4.43:1			04	
	4.95:1			**05**	
	5.65:1			5A	
	6.00:1			06	
	7.07:1			07	
Motor Mount	Motor Flange	Frame Pilot	Hole Pattern		SS1205**B1**
	SAE A	3.25"	2 & 4 bolts	A1	
	SAE B	4.00"	2 bolts	**B1**	
	SAE C	5.00"	2 & 4 bolts	C1	
Input Spline	Teeth	Pitch	Flange Used		SS1205B**13**
	13T	16/32	B code only	**13**	
	14T	12/24	C code only	14	
	6T	1.00" Dia.	B code only	6B	
Output	Flanged	Pilot	Hole Size / Hole Pattern		SS1205B13**F1**
		8.00"	5/8"-11UNC 8 on 9.50" B.C.	**F1**	
		8.00"	0.69" 8 on 9.50" B.C.	F2	
Hub	Pilot	Hole Pattern	Flange		SS1205B13F**H1**
	11.250"	8 x .610" on 12.375" B.C.	.76"	**H1**	
	11.000"	10 x .850" on 13.187" B.C.	.96"	H3	

SPLINE LENGTHS

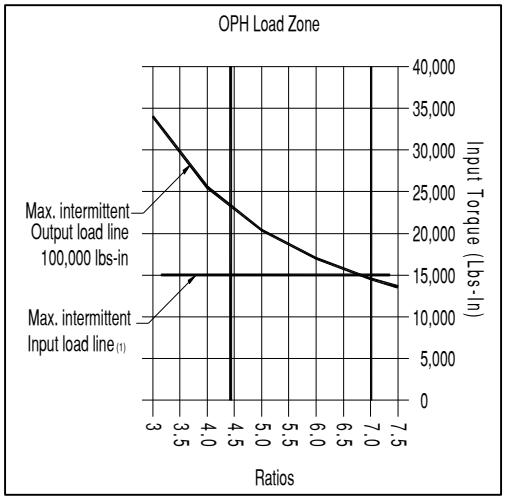
Code	Teeth	E	E1
A1	14	0.79 [20.0]	2.40 [61.0]
A1	6B	0.65 [16.5]	2.07 [52.5]
B1	13	0.63 [16.0]	1.75 [44.5]
C1	14	0.79 [20.0]	2.32 [59.0]



To apply the bearing curve to other design conditions:

$$\text{Design life (hrs)} = 3000 \left(\frac{100\ \text{RPM}}{\text{Design RPM}}\right) \times \left(\frac{\text{allowable radial load (curve)}}{\text{Design radial load}}\right)$$

NOTE: This bearing curve is supplied for design reference purposes only. It illustrates the relationship and importance of radial load position relative to this gearbox. For detailed analysis or application review, contact OMNI GEAR Engineering.



(1) max. intermittent input load line shown is for 14T input. Contact OMNI GEAR Engineering for other inputs.

NOTE: This load zone curve is supplied for design reference only. It illustrates the relationship and importance between ratio and torque relative to intermittent gearbox torque limits. For detailed analysis or application review, contact OMNI GEAR Engineering.

MOUNTING CHART

Code	Motor Mount	Pilot Diameter
A1	(2) 1/2"-13UNC-2B x 0.88 [22.4] Deep on 4.188 [106.38] B.C.	3.251-3.255 [82.58-82.68]
B1	(2) 1/2"-13UNC-2B Thru on 5.750 [146.05] B.C.	4.001-4.006 [101.63-101.75]
C1	(2) 5/8"-11UNC-2B x 1.25[38.1] DP on 7.125 [180.93] B.C. and (4) 1/2"-13UNC-2B x 1.0[25.4] DP on 6.375 [161.93] B.C.	5.001-5.006 [127.03-127.15]

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OMNI GEAR

SS12 Shaft Output Drive
Single Reduction

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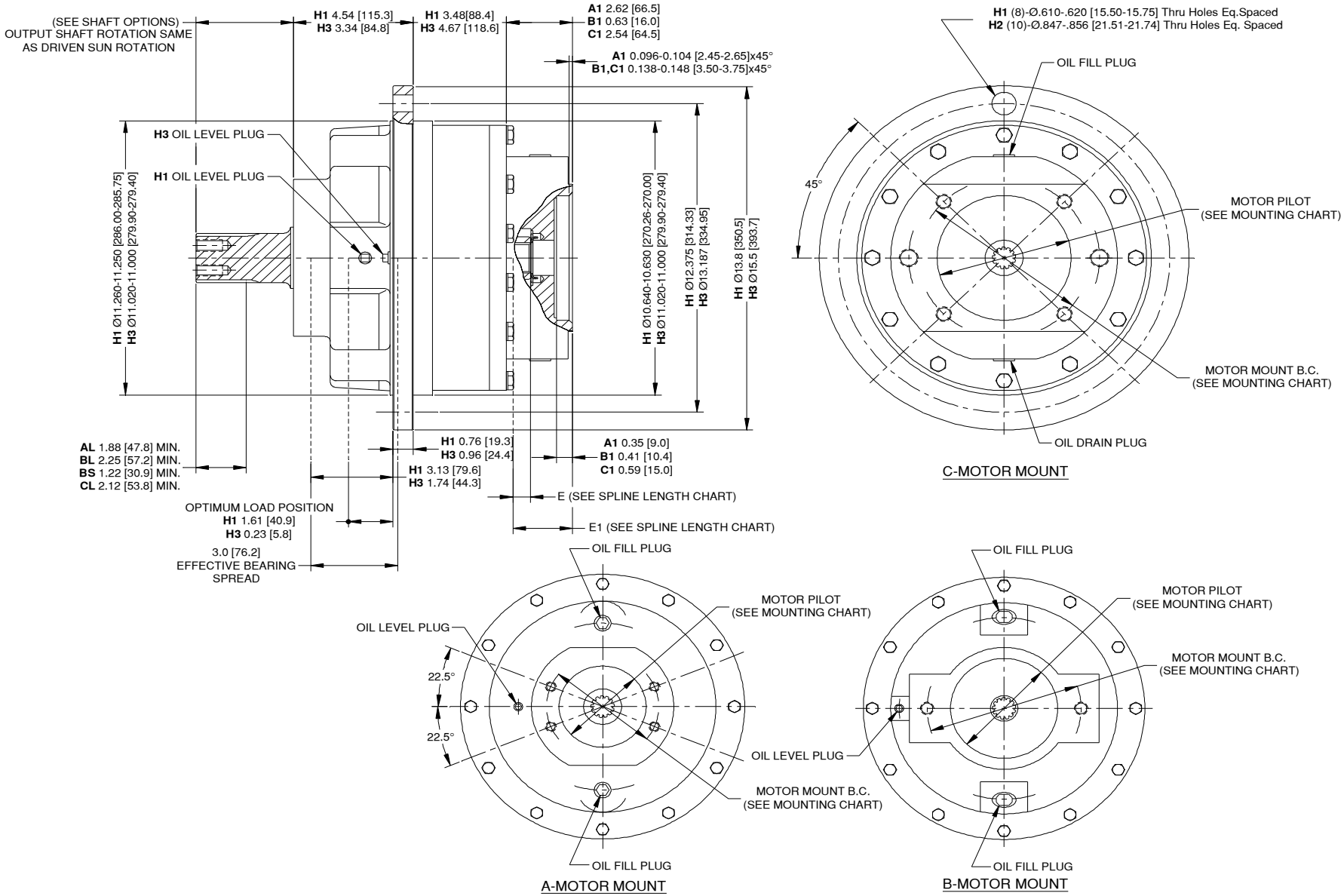
All Dimensions in INCHES [mm]



SS12 Single Reduction- General Specifications

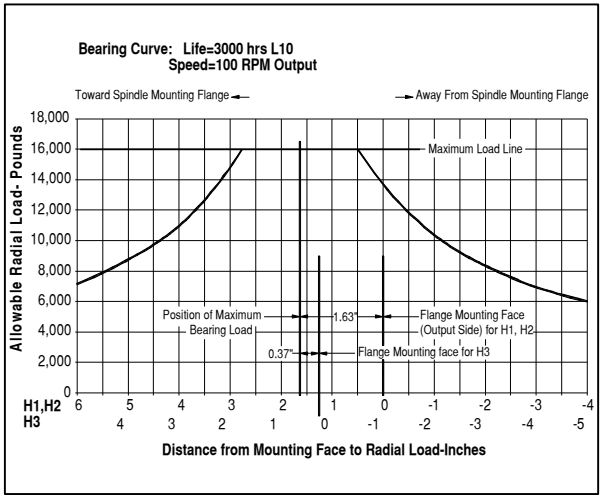
Max. intermittent output torque[A, B]:	36,000 lb-in (4,067 Nm)
Max. input speed:	3,500 RPM
Approximate weight:	156 lbs (71 kg)
Approximate oil capacity:	0.39 gals (1.5 liters)

Note A: Continuous unit rating is dependent on life requirements, duty cycle, and ambient surroundings affecting heat dissipation. Customer testing for specific applications is strongly recommended.

Note B: This rating is input limited. See OPH load zone curve for rating at ratio.

SS12 Feature Chart

Feature	Description			Code	Sample
Gear Ratio	Ratio				SS1205
	4.43:1			04	
	4.95:1			**05**	
	5.65:1			5A	
	6.00:1			06	
	7.07:1			07	
Motor Mount	**Motor Flange**	**Frame Pilot**	**Hole Pattern**		SS1205**B1**
	SAE A	3.25"	2 & 4 bolts	A1	
	SAE B	4.00"	2 bolts	**B1**	
	SAE C	5.00"	2 & 4 bolts	C1	
Input Spline	**Teeth**	**Pitch**	**Flange Used**		SS1205B1**13**
	13T	16/32	B code only	**13**	
	14T	12/24	C code only	14	
	6T	1.00" Dia.	B code only	6B	
Output		**Teeth-DP**	**Spline Type Fit**	**Ext. length**	SS1205B113**CL**
	Splined	23-12/24	Flat root-side fit-class 6	1.88"	AL
	ANSI	23-8/16	Flat root-side fit-class 6	2.25"	BL
	92.1-1970	23-8/16	Flat root-side fit-class 6	1.22"	BS
		20-8/16	Major dia. Fit-class 6	2.12"	**CL**
	Keyed	**Dia./Hex flat**	**Key/Hole Dia.**	**Ext. length**	
		2.00"	1/2 Sq.	3.60"	KA
		3.00"	5/8 Sq.	3.57"	KB
	Round	2.00"	.64"	3.67"	A1
		2.56"	.90"	4.17"	A2
	Hex	2.00"	.76"	5.38"	H2
Hub	**Pilot**	**Hole Pattern**		**Flange**	SS1205B113CL**H1**
	11.250"	8 x .610" on 12.375" B.C.		.76"	**H1**
	11.000"	10 x .850" on 13.187" B.C.		.96"	H3



To apply the bearing curve to other design conditions:

$$\text{Design life (hrs)} = 3000 \left(\frac{100\ \text{RPM}}{\text{Design RPM}}\right) \times \left(\frac{\text{allowable radial load (curve)}}{\text{Design radial load}}\right)$$

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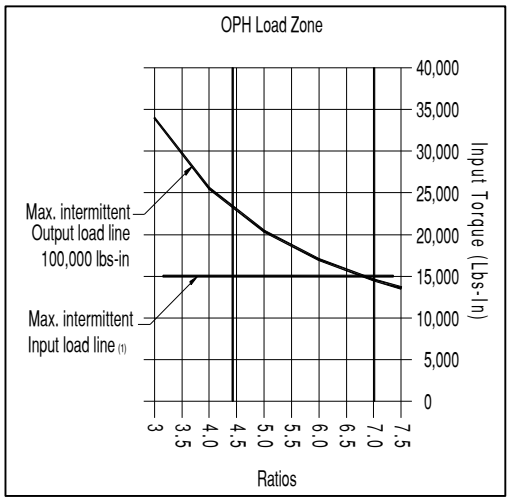

(1) Max. intermittent input load line shown is for 14T input. Contact OMNI GEAR Engineering for other inputs.

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MOUNTING CHART

Code	Motor Mount	Pilot Diameter
A1	(2) 1/2"-13UNC-2B x 0.88 [22.4] Deep on 4.188 [106.38] B.C.	3.251-3.255 [82.58-82.68]
B1	(2) 1/2"-13UNC-2B Thru on 5.750 [146.05] B.C.	4.001-4.006 [101.63-101.75]
C1	(2) 5/8"-11UNC-2B x 1.25[38.1] DP on 7.125 [180.93] B.C. and (4) 1/2"-13UNC-2B x 1.0[25.4] DP on 6.375 [161.93] B.C.	5.001-5.006 [127.03-127.15]

SPLINE LENGTHS

Code	Teeth	E	E1
A1	14	0.79 [20.0]	2.40 [61.0]
A1	6B	0.65 [16.5]	2.07 [52.5]
B1	13	0.63 [16.0]	1.75 [44.5]
C1	14	0.79 [20.0]	2.32 [59.0]

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OMNI GEAR

SD12 Flange Output Drive
Double Reduction

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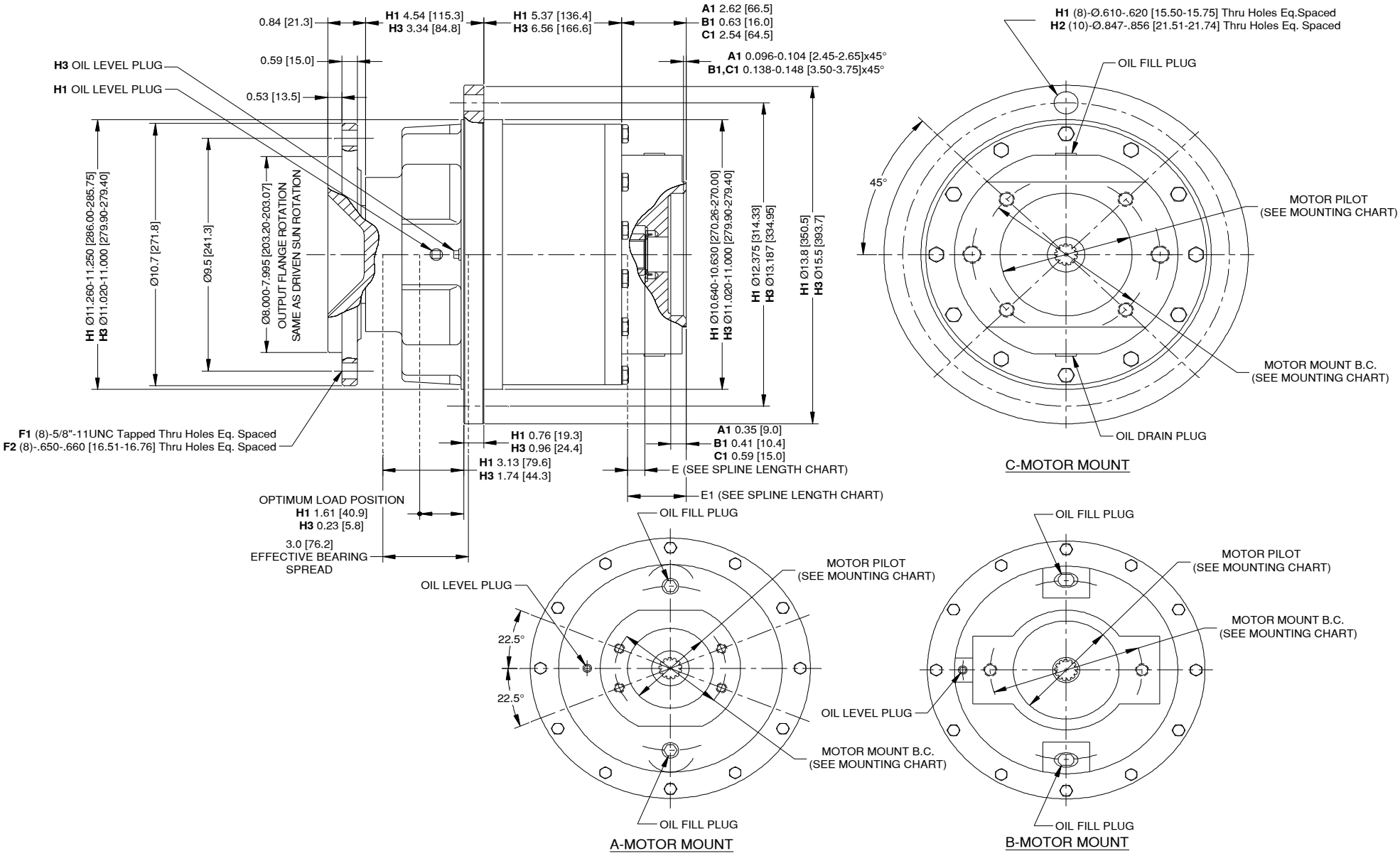
All Dimensions in INCHES [mm]



SD12 Double Reduction- General Specifications

Max. intermittent output torque*:	100,000 lb-in (11,300 Nm)
Max. input speed:	5,000 RPM
Approximate weight:	210 lbs (95.5 kg)
Approximate oil capacity:	0.44 gals (1.7 liters)

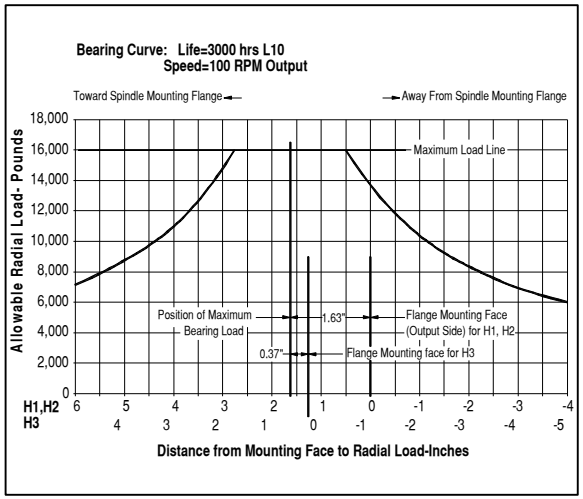
*Note: Continuous unit rating is dependent on life requirements, duty cycle, and ambient surroundings affecting heat dissipation. Customer testing for specific applications is strongly recommended.

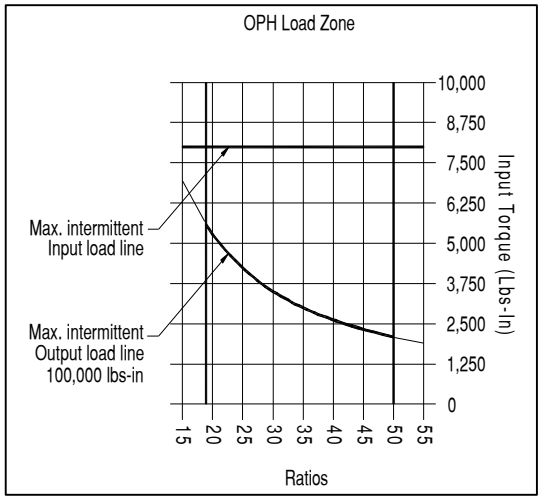
SD12 Feature Chart

Feature	Description			Code	Sample
Gear Ratio	Ratio				SD1232
	19.67:1			20	
	21.95:1			22	
	24.50:1			25	
	27.95:1			28	
	31.89:1			**32**	
	36.00:1			36	
	42.43:1			42	
	50.01:1			50	
Motor Mount	**Motor Flange**	**Frame Pilot**	**Hole Pattern**		SD1232**B1**
	SAE A	3.25"	2 & 4 bolts	A1	
	SAE B	4.00"	2 bolts	**B1**	
	SAE C	5.00"	2 & 4 bolts	C1	
Input Spline	**Teeth**	**Pitch**	**Flange Used**		SD1232B**13**
	13T	16/32	B code only	**13**	
	14T	12/24	C code only	14	
	6T	1.00" Dia.	B code only	6B	
Output	**Flanged**	**Pilot**	**Hole Size**	**Hole Pattern**	SD1232B13**F1**
		8.00"	5/8"-11UNC	8 on 9.50" B.C.	**F1**
		8.00"	0.69"	8 on 9.50" B.C.	F2
Hub	**Pilot**	**Hole Pattern**		**Flange**	SD1232B13F**H1**
	11.250"	8 x .610" on 12.375" B.C.		.76"	**H1**
	11.000"	10 x .850" on 13.187" B.C.		.96"	H3

SPLINE LENGTHS

Code	Teeth	E	E1
A1	14	0.79 [20.0]	2.40 [61.0]
A1	6B	0.65 [16.5]	2.07 [52.5]
B1	13	0.63 [16.0]	1.75 [44.5]
C1	14	0.79 [20.0]	2.32 [59.0]





To apply the bearing curve to other design conditions:

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MOUNTING CHART

Code	Motor Mount	Pilot Diameter
A1	(2) 1/2"-13UNC-2B x 0.88 [22.4] Deep on 4.188 [106.38] B.C.	3.251-3.255 [82.58-82.68]
B1	(2) 1/2"-13UNC-2B Thru on 5.750 [146.05] B.C.	4.001-4.006 [101.63-101.75]
C1	(2) 5/8"-11UNC-2B x 1.25[38.1] DP on 7.125 [180.93] B.C. and (4) 1/2"-13UNC-2B x 1.0[25.4] DP on 6.375 [161.93] B.C.	5.001-5.006 [127.03-127.15]

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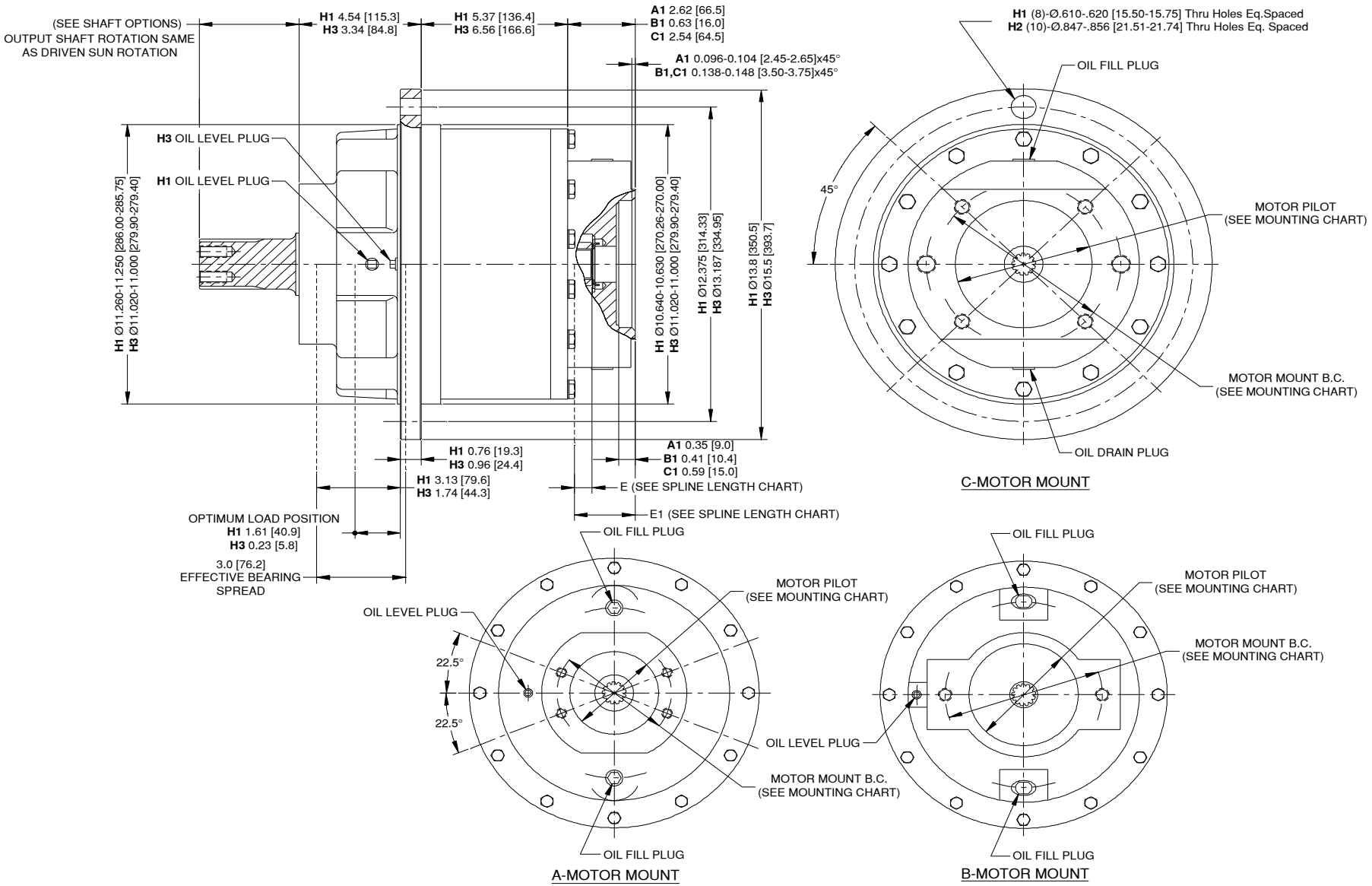
OMNI GEAR

SD12 Shaft Output Drive
Double Reduction

OMNI GEAR
7502 MESA RD., HOUSTON, TX. 77028
PHONE: 713-635-6331
FAX: 713-635-6330
EMAIL: sales@omnigear.com
WEBSITE: www.omnigear.com

All Dimensions in INCHES [mm]



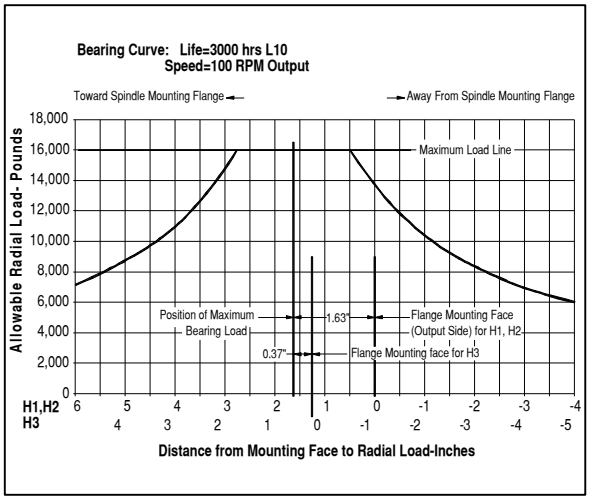
SD12 Double Reduction- General Specifications

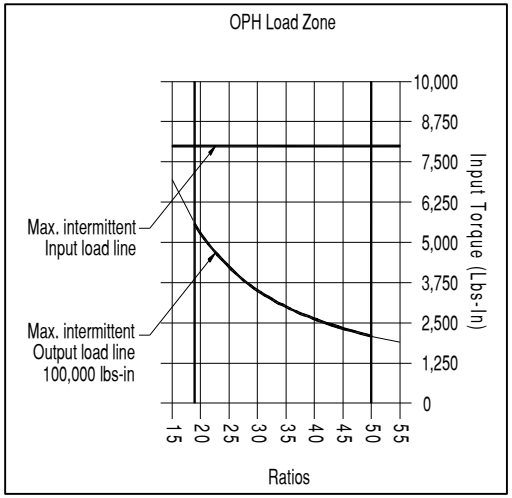
Max. intermittent output torque*:	100,000 lb-in (11,300 Nm)
Max. input speed:	5,000 RPM
Approximate weight:	210 lbs (95.5 kg)
Approximate oil capacity:	0.44 gals (1.7 liters)

*Note: Continuous unit rating is dependent on life requirements, duty cycle, and ambient surroundings affecting heat dissipation. Customer testing for specific applications is strongly recommended.

SD12 Feature Chart

Feature	Description			Code	Sample
Gear Ratio	Ratio				SD1232
	19.67:1			20	
	21.95:1			22	
	24.50:1			25	
	27.95:1			28	
	31.89:1			**32**	
	36.00:1			36	
	42.43:1			42	
	50.01:1			50	
Motor Mount	Motor Flange	Frame Pilot	Hole Pattern		SD1232**B1**
	SAE A	3.25"	2 & 4 bolts	A1	
	SAE B	4.00"	2 bolts	**B1**	
	SAE C	5.00"	2 & 4 bolts	C1	
Input Spline	Teeth	Pitch	Flange Used		SD1231B1**13**
	13T	16/32	B code only	**13**	
	14T	12/24	C code only	14	
	6T	1.00" Dia.	B code only	6B	
Output		Teeth-DP	Spline Type Fit	Ext. length	SD1232B113**CL**
	Splined ANSI 92.1-1970	23-12/24	Flat root-side fit-class 6	1.88"	AL
		23-8/16	Flat root-side fit-class 6	2.25"	BL
		23-8/16	Flat root-side fit-class 6	1.22"	BS
		20-8/16	Major dia. Fit-class 6	2.12"	**CL**
		Dia./Hex flat	Key/Hole Dia.	Ext. length	
	Keyed	2.00"	1/2 Sq.	3.60"	KA
		3.00"	5/8 Sq.	3.57"	KB
	Round	2.00"	.64"	3.67"	A1
		2.56"	.90"	4.17"	A2
	Hex	2.00"	.76"	5.38"	H2
Hub	Pilot	Hole Pattern		Flange	SD1232B113CL**H1**
	11.250"	8 x .610" on 12.375" B.C.		.76"	**H1**
	11.000"	10 x .850" on 13.187" B.C.		.96"	H3





To apply the bearing curve to other design conditions:

$$\text{Design life (hrs)} = 3000 \left(\frac{100\ \text{RPM}}{\text{Design RPM}}\right) \times \left(\frac{\text{allowable radial load (curve)}}{\text{Design radial load}}\right)$$

NOTE: This bearing curve is supplied for design reference purposes only. It illustrates the relationship and importance of radial load position relative to this gearbox. For detailed analysis or application review, contact OMNI GEAR Engineering.

NOTE: This load zone curve is supplied for design reference only. It illustrates the relationship and importance between ratio and torque relative to intermittent gearbox torque limits. For detailed analysis or application review, contact OMNI GEAR Engineering.

MOUNTING CHART

Code	Motor Mount	Pilot Diameter
A1	(2) 1/2"-13UNC-2B x 0.88 [22.4] Deep on 4.188 [106.38] B.C.	3.251-3.255 [82.58-82.68]
B1	(2) 1/2"-13UNC-2B Thru on 5.750 [146.05] B.C.	4.001-4.006 [101.63-101.75]
C1	(2) 5/8"-11UNC-2B x 1.25[38.1] DP on 7.125 [180.93] B.C. and (4) 1/2"-13UNC-2B x 1.0[25.4] DP on 6.375 [161.93] B.C.	5.001-5.006 [127.03-127.15]

SPLINE LENGTHS

Code	Teeth	E	E1
A1	14	0.79 [20.0]	2.40 [61.0]
A1	6B	0.65 [16.5]	2.07 [52.5]
B1	13	0.63 [16.0]	1.75 [44.5]
C1	14	0.79 [20.0]	2.32 [59.0]

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OMNI GEAR

ALBROCO

SS06/SD06 Shaft Output Drive Shaft Options

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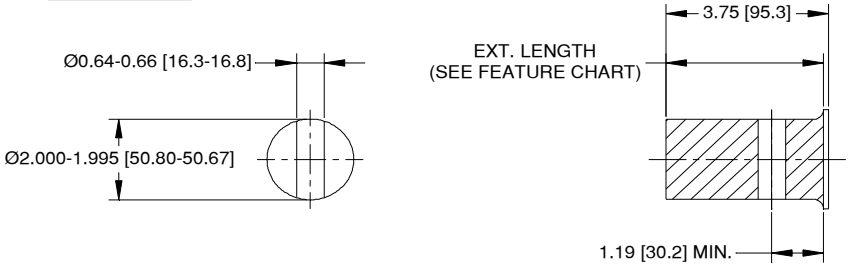
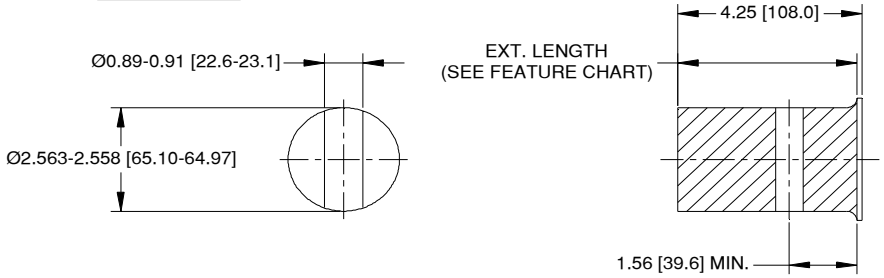
All Dimensions in INCHES [mm]

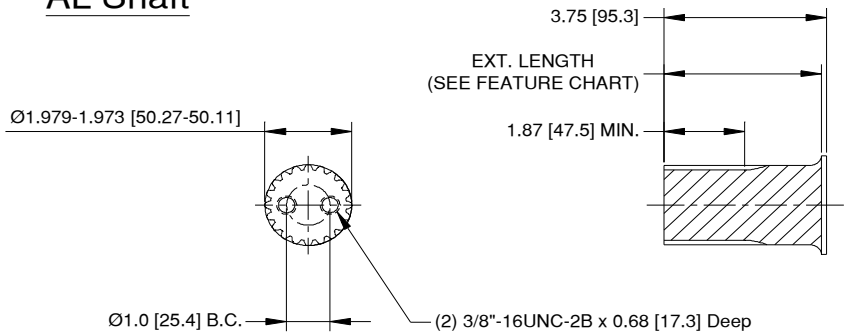
A1 Shaft



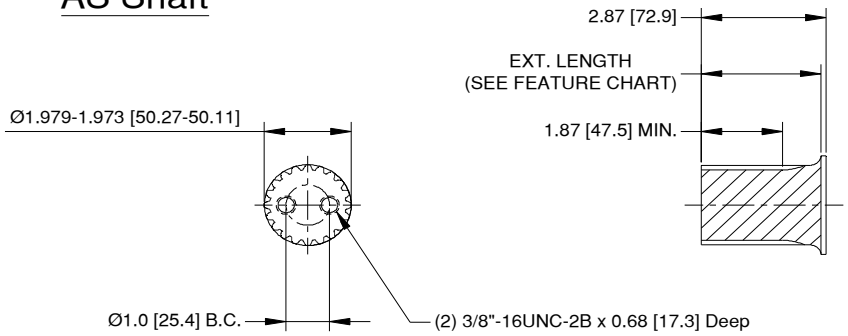
A2 Shaft



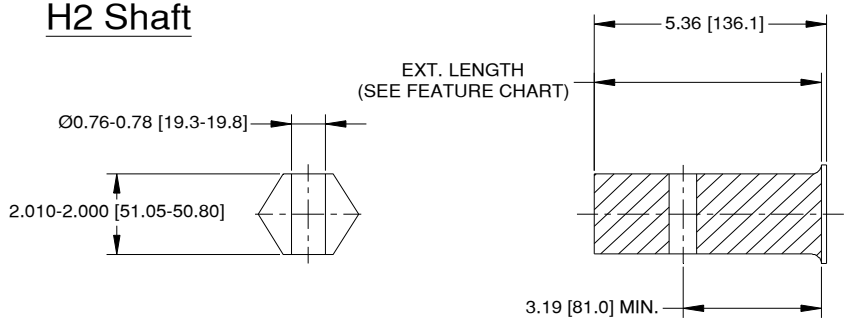
AL Shaft



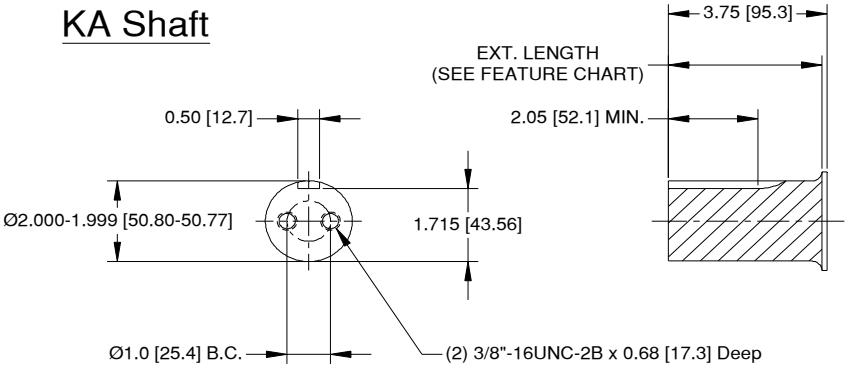
AS Shaft



H2 Shaft



KA Shaft



OMNI GEAR

SS12/SD12 Shaft Output Drive Shaft Options

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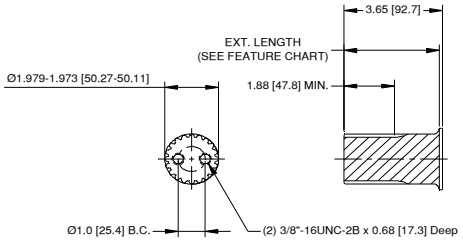
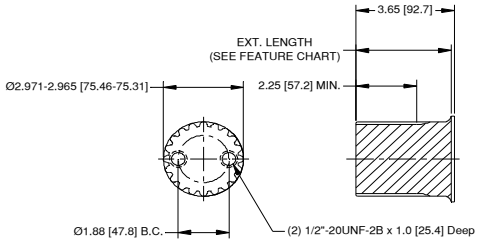
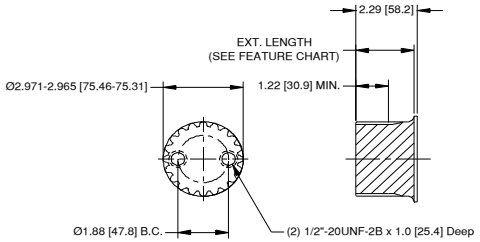
AL Shaft



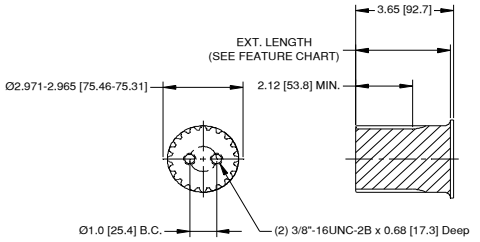
BL Shaft



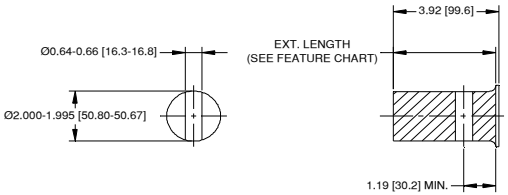
BS Shaft



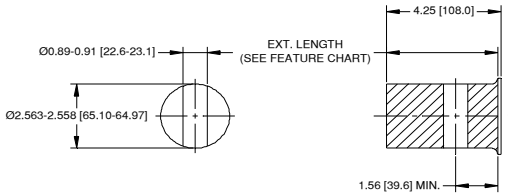
CL Shaft



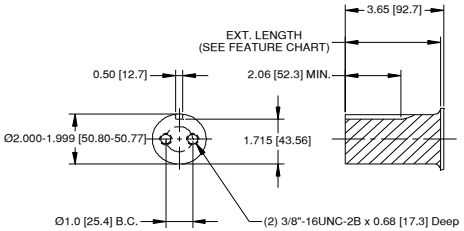
A1 Shaft



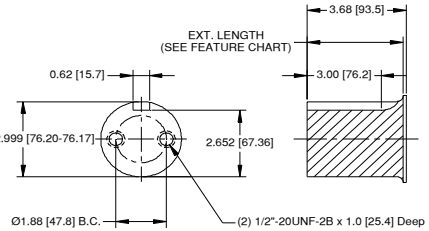
A2 Shaft



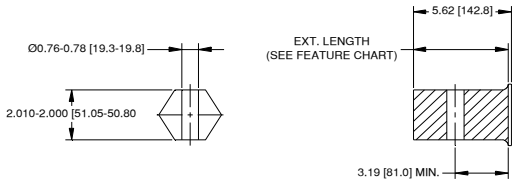
KA Shaft



KB Shaft



H2 Shaft



OMNI GEAR

GS06/GD06 Wheel Drive Gear Kit

OMNI GEAR
7502 MESA RD., HOUSTON, TX. 77028
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FAX: 713-635-6330
EMAIL: sales@omnigear.com
WEBSITE: www.omnigear.com

All Dimensions in INCHES [mm]

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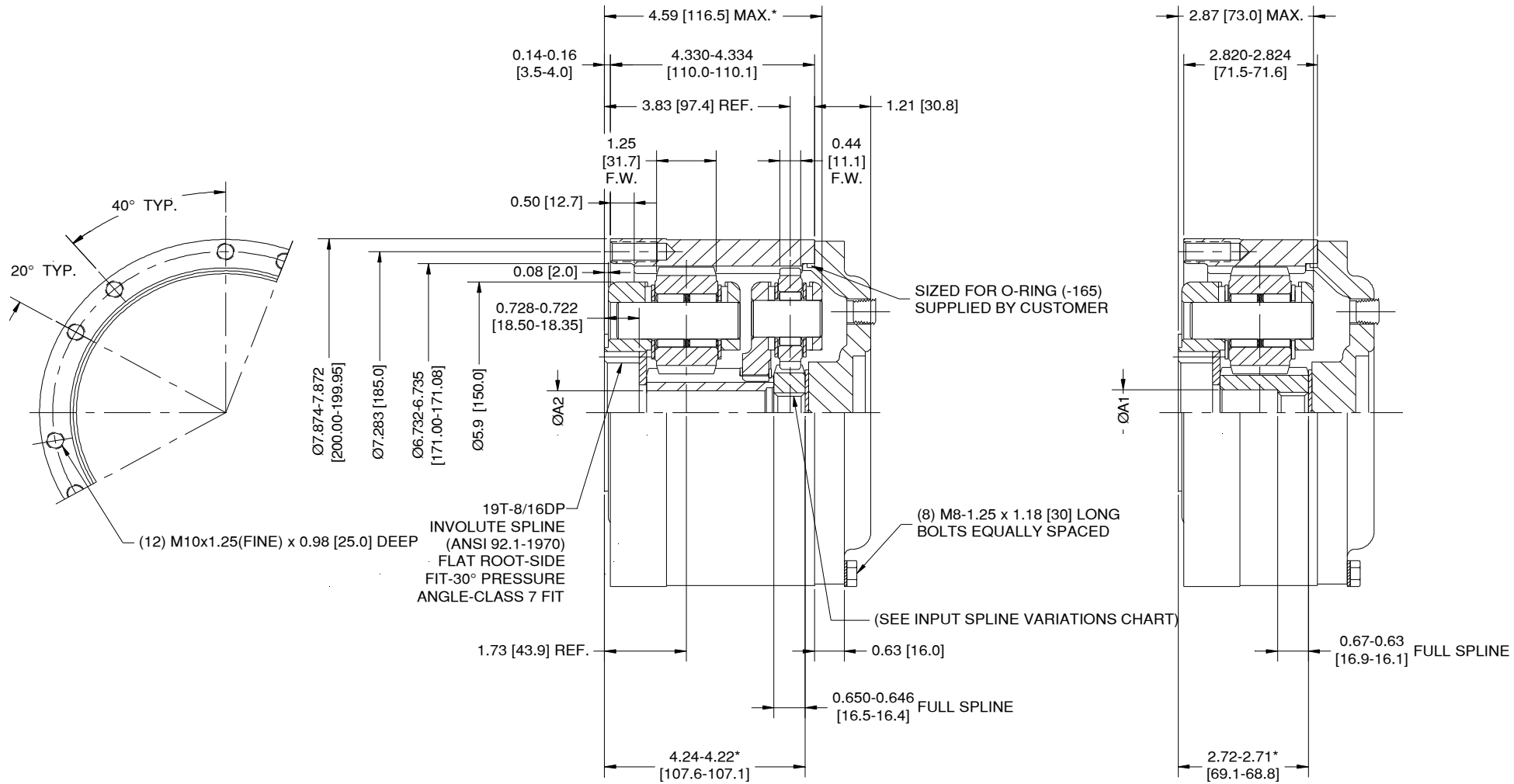
Double Reduction (GD) Kit

Single Reduction (GS) Kit
If single dim not shown, then same as double



Shown here is a full component gear kit. Please check your specific assembly for the actual parts your gear kit includes.

GS06/GD06 Single&Double Reduction- General Specifications
Wheel Drive Style Gear Kit

GS/GD06 Feature Chart					
Feature	**Description**			**Code**	**Sample**
Gear Ratio	**Size Code**	**Ratio***			GD06**21**
	GS06	3.75:1		03	
	GS06	4.50:1		04	
	GS06	5.05:1		05	
	GS06	5.81:1		06	
	GD06	14.06:1		14	
	GD06	16.88:1		17	
	GD06	20.62:1		**21**	
	GD06	22.74:1		23	
	GD06	25.53:1		26	
	GD06	29.37:1		29	
	GD06	33.76:1		34	
Input Type	**Teeth**	**Pitch**	**Ratio Usage**		GD06211**3**
	13T	16/32	03, 04, 05, 14 17, 21, 23, 26	**13**	
	24T	32/64	06, 29, 34	24	
	No input drive component supplied in kit			NS	
Ring Gear	Standard ring gear			**S**	GD062113**S**
	No ring gear			N	
End Cap Type	Wheel drive endcap-closed			**ND**	GD062113S**ND**
	No cap included in kit			NC	
Hardware	Full set of capscrews, capscrew washers, & pipe plugs			**H**	GD062113SND**H**
	No hardware supplied in kit			N	

* Ratio shown is for shaft drives. For wheel drives actual ratio subtract 1 from ratio shown.

Ring Gear Data	
No. of Teeth	77
Diametral Pitch (Module)	12 (2.1167)
Pressure Angle	20°
Tooth depth system	2.25
Pin Diameter	∅0.12 [3.048]
Dist. Between pins	6.316-6.324 [160.5-160.7]

Input Spline Variations		
No. of Teeth	13	24
Diametral Pitch	16/32	32/64
Dim ∅A1	1.02 [26.0]	0.90 [22.8]
Dim ∅A2	1.02 [26.0]	0.71 [18.0]
External Involute Spline (ANSI 92.1 1970) Flat Root-Side Fit 30° Pressure Angle- Class 7 Fit		

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OMNI GEAR

GS12/GD12 Wheel Drive Gear Kit

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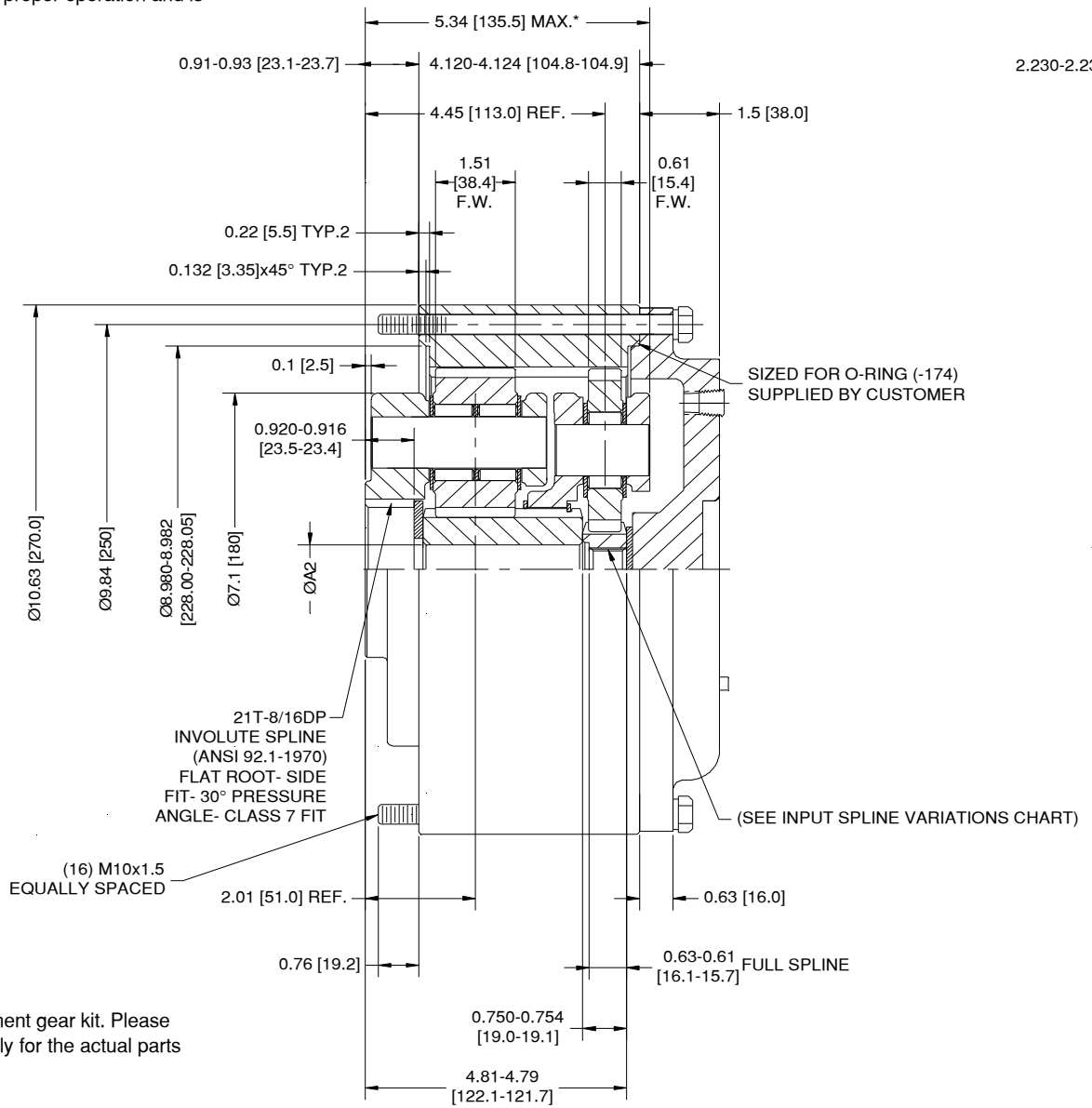
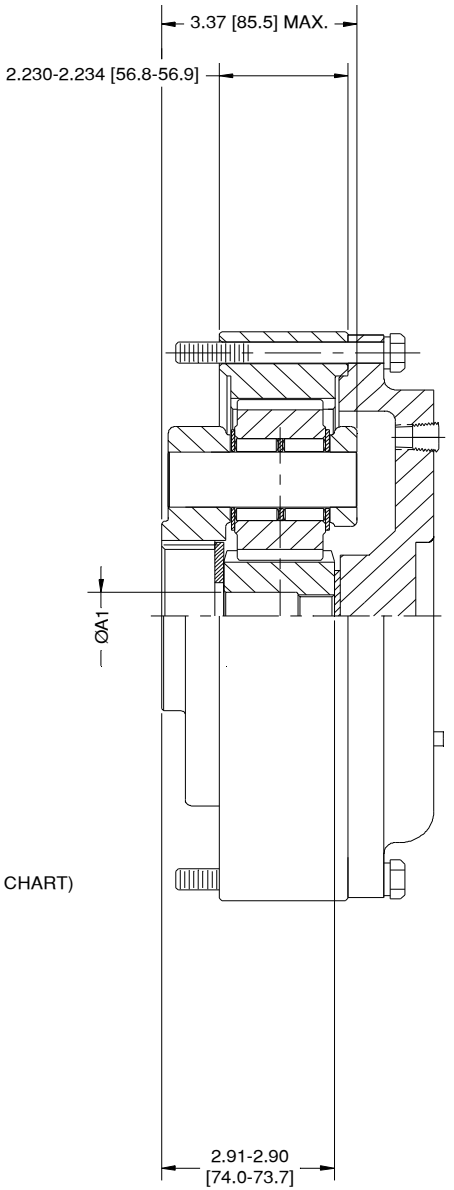
Double Reduction (GD) Kit



Single Reduction (GS) Kit

If single dim not shown, then same as double



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GS12/GD12 Single&Double Reduction- General Specifications
Wheel Drive Style Gear Kit

GS/GD12 Feature Chart					
Feature	**Description**			**Code**	**Sample**
Gear Ratio	**Size Code**	**Ratio***			GD1225
	GS12	4.43:1		04	
	GS12	4.95:1		05	
	GS12	5.65:1		5A	
	GS12	6.00:1		06	
	GS12	7.07:1		07	
	GD12	19.67:1		20	
	GD12	21.95:1		22	
	GD12	24.50:1		**25**	
	GD12	27.95:1		28	
	GD12	31.89:1		32	
	GD12	36.00:1		36	
	GD12	42.43:1		42	
	GD12	50.01:1		50	
Input Type	**Teeth**	**Pitch**	**Ratio Usage**		GD12253**B**
	13T	16/32	04, 05, 5A, 06, 20 22, 25, 28, 32, 36	**3B**	
	24T	32/64	07, 42, 50	24	
	No input drive component supplied in kit			NS	
Ring Gear	Standard ring gear			**S**	GD12253B**S**
	No ring gear			N	
End Cap Type	Wheel drive endcap-closed			**ND**	GD12253BS**ND**
	No cap included in kit			NC	
Hardware	Full set of capscrews, capscrew washers, & pipe plugs			**H**	GD12253BSND**H**
	No hardware supplied in kit			N	

* Ratio shown is for shaft drives. For wheel drives actual ratio subtract 1 from ratio shown.

Ring Gear Data		
Used for ratio codes	04, 05, 5A, 20 22, 25, 28, 32	06, 07, 36, 42 50
No. of Teeth	79	85
Diametral Pitch (Module)	10 (2.54)	10 (2.54)
Pressure Angle	25°	25°
Tooth depth system	2.25	2.25
Pin Diameter	∅0.144 [3.658]	∅0.144 [3.658]
Dist. Between pins	7.765-7.774 [197.26-197.46]	8.367-8.375 [212.51-212.71]

Input Spline Variations		
No. of Teeth	13	24
Diametral Pitch	16/32	32/64
Dim ∅A1	1.02 [26.0]	0.90 [22.8]
Dim ∅A2	1.06 [27.0]	0.93 [23.5]
External Involute Spline (ANSI 92.1-1970) Flat Root- Side Fit 30° Pressure Angle- Class 7 Fit		

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OMNI GEAR

GS06 Shaft Out Gear Kit

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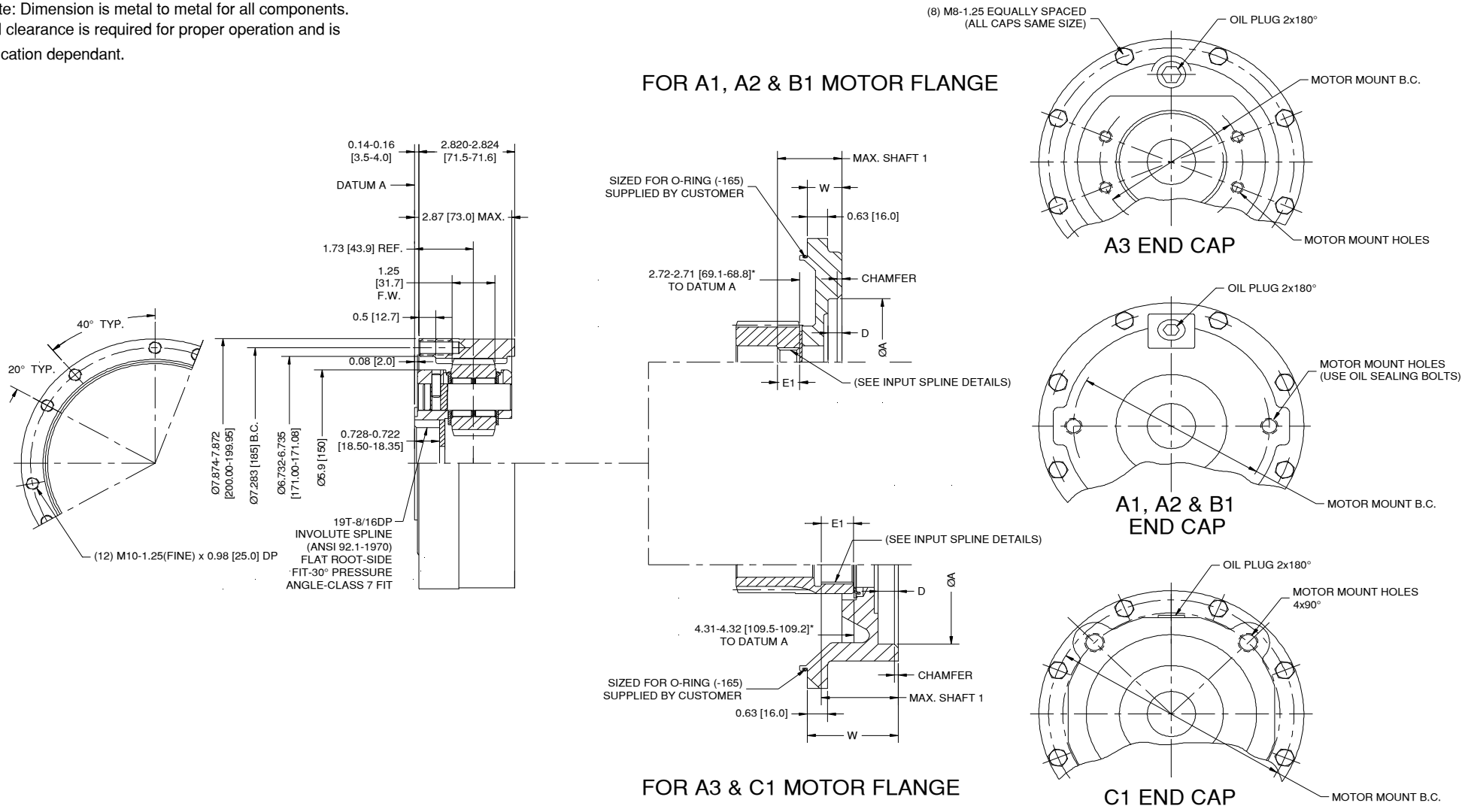

Shown here is a full component gear kit. Please check your specific assembly for the actual parts your gear kit includes.

GS06 Single Reduction- General Specifications
Shaft Out Style Gear Kit

GS06 Feature Chart					
Feature	**Description**			**Code**	**Sample**
Gear Ratio	**Size Code**	**Ratio**			GS0603
	GS06	3.75:1		**03**	
	GS06	4.50:1		04	
	GS06	5.05:1		05	
	GS06	5.81:1		06	
Input Type	**Teeth**	**Pitch**	**Cap Type Usage**		GS060313
	13T	16/32	A1, A2, B1 Codes	**13**	
	14T	12/24	A1 & A2 Codes	14	
	6T	1.00" OD	A1 & A2 Codes	6F	
	14T	12/24	A3 & C1 Codes	4H	
Ring Gear	Standard ring gear			**S**	GS060313**S**
	No ring gear			N	
End Cap Type	**Motor Flange**	**Pilot**	**Hole Pattern**		GS060313S**B1**
	SAE A	3.25"	(2) 3/8"-16 bolts	A1	
	SAE A	3.25"	(2) 1/2"-13 bolts	A2	
	SAE A	3.25"	2 sets of (2) 1/2"-13 bolts	A3	
	SAE B	4.00"	(2) 1/2"-13 bolts	**B1**	
	SAE C	5.00"	(2) 5/8"-11 & (4) 1/2"-13 bolts	C1	
	No cap included in kit			NC	
Hardware	Full set of capscrews, capscrew washers, & pipe plugs			**H**	GS060313SB1**H**
	No hardware supplied in kit			N	

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Ring Gear Data	
No. of Teeth	77
Diametral Pitch (Module)	12 (2.1167)
Pressure Angle	20°
Tooth depth system	2.25
Pin Diameter	∅0.12 [3.048]
Dist. Between pins	6.316-6.324 [160.5-160.7]

Input Spline Details			
Code	Teeth	Diamteral Pitch	Type
13	13	16/32	External Involute
14	14	12/24	(ANSI 92.1 1970) Flat Root-Side Fit-30° Pressure Angle-Class 7 Fit
4H	14	12/24	
6F	6	1.00" OD	SAE Straight Sided 6B Slide Fit Spline

Input Spline Lengths			
Endcap Code	Input Code	E1	Max. Shaft 1
A1, A2, B1	13, 15, 6F	0.65 [16.5]	1.87 [47.5]
C1	4H	0.94 [24.0]	2.22 [56.5]
A1, A2	14	1.04 [26.5]	2.26 [57.5]

Motor Flange Variations					
Code	X	D	Chamfer	Motor Mount	W
A1	3.251-3.256 [82.58-82.68]	0.35 [9.0]	0.096-0.104x45° [2.45-2.65x45°]	(2x180°) 3/8"-16UNC-2B Thru on 4.188 [106.38] B.C.	1.04 [26.5]
A2	3.251-3.256 [82.58-82.68]	0.35 [9.0]	0.096-0.104x45° [2.45-2.65x45°]	(2x180°) 1/2"-13UNC-2B X 0.88 [22.4] DP on 4.188 [106.38] B.C.	1.04 [26.5]
A3	3.251-3.256 [82.58-82.68]	0.35 [9.0]	0.096-0.104x45° [2.45-2.65x45°]	2 Sets of (2x180°) 1/2"-13UNC-2B X 0.98 [25] DP on 4.188 [106.38] B.C.	2.69 [68.4]
B1	4.001-4.006 [101.63-101.75]	0.41 [10.4]	0.138-0.148x45° [3.50-3.75x45°]	(2x180°) 1/2"-13UNC-2B Thru on 5.750 [146.05] B.C.	1.26 [32.0]
C1	5.001-5.006 [127.03-127.15]	0.59 [15.0]	0.138-0.148x45° [3.50-3.75x45°]	(4x90°) 1/2"-13UNC-2B x 0.98 [25] DP on 6.375 [161.93] B.C.	2.69 [68.4]

OMNI GEAR

GD06 Shaft Out Gear Kit

OMNI GEAR
7502 MESA RD., HOUSTON, TX. 77028
PHONE: 713-635-6331
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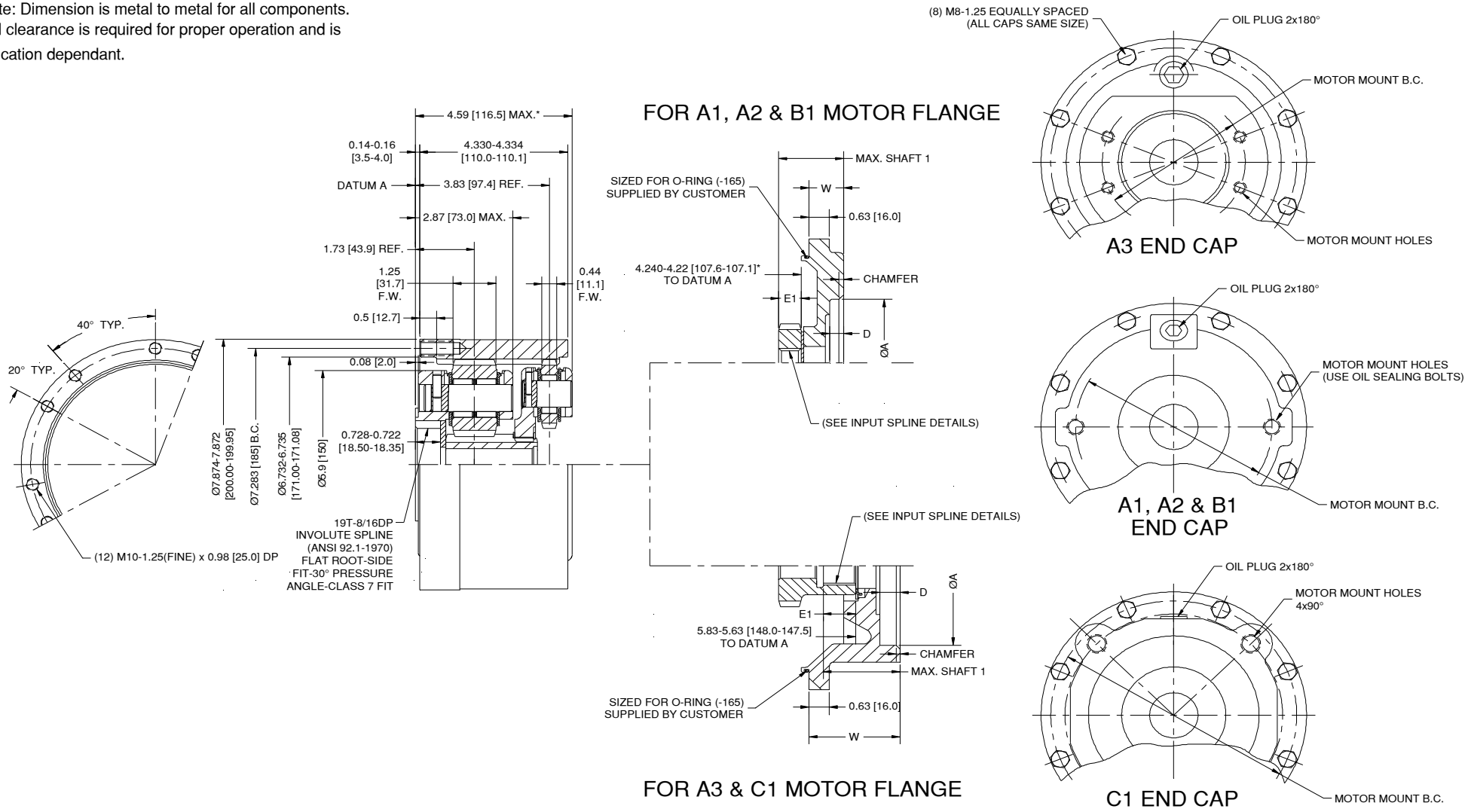
EMAIL: sales@omnigear.com
WEBSITE: www.omnigear.com

All Dimensions in INCHES [mm]

* Note: Dimension is metal to metal for all components. Axial clearance is required for proper operation and is application dependant.



Shown here is a full component gear kit. Please check your specific assembly for the actual parts your gear kit includes.

GD06 Double Reduction- General Specifications
Shaft Out Style Gear Kit

GD06 Feature Chart					
Feature	**Description**			**Code**	**Sample**
Gear Ratio	**Size Code**	**Ratio**			GD0621
	GD06	14.06:1		14	
	GD06	16.88:1		17	
	GD06	20.62:1		**21**	
	GD06	22.74:1		23	
	GD06	25.53:1		26	
	GD06	29.37:1		29	
	GD06	33.76:1		34	
Input Type	**Teeth**	**Pitch**	**Cap Type Usage**		GD062113
	13T	16/32	A1, A2, B1 Codes	**13**	
	15T	16/32	B1 Code	15	
	6T	1.00" OD	A1 & A2 Codes	6F	
	14T	12/24	A3 & C1 Codes	4H	
Ring Gear	Standard ring gear			**S**	GD062113**S**
	No ring gear			N	
End Cap Type	**Motor Flange**	**Pilot**	**Hole Pattern**		GD062113S**B1**
	SAE A	3.25"	(2) 3/8"-16 bolts	A1	
	SAE A	3.25"	(2) 1/2"-13 bolts	A2	
	SAE A	3.25"	2 sets of (2) 1/2"-13 bolts	A3	
	SAE B	4.00"	(2) 1/2"-13 bolts	**B1**	
	SAE C	5.00"	(2) 5/8"-11 & (4) 1/2"-13 bolts	C1	
	No cap included in kit			NC	
Hardware	Full set of capscrews, capscrew washers, & pipe plugs			**H**	GD062113SB1**H**
	No hardware supplied in kit			N	

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Ring Gear Data	
No. of Teeth	77
Diametral Pitch (Module)	12 (2.1167)
Pressure Angle	20°
Tooth depth system	2.25
Pin Diameter	∅0.12 [3.048]
Dist. Between pins	6.316-6.324 [160.5-160.7]

Input Spline Details			
Code	Teeth	Diamteral Pitch	Type
13	13	16/32	External Involute (ANSI 92.1 1970) Flat Root-Side Fit-30° Pressure Angle-Class 7 Fit
15	15	16/32	
4H	14	12/24	
6F	6	1.00" OD	SAE Straight Sided 6B Slide Fit Spline

Input Spline Lengths			
Endcap Code	Input Code	E1	Max. Shaft 1
A1, A2, B1	13, 15, 6F	0.65 [16.5]	1.87 [47.5]
C1	4H	0.94 [24.0]	2.22 [56.5]

Motor Flange Variations					
Code	X	D	Chamfer	Motor Mount	W
A1	3.251-3.256 [82.58-82.68]	0.35 [9.0]	0.096-0.104x45° [2.45-2.65x45°]	(2x180°) 3/8"-16UNC-2B Thru on 4.188 [106.38] B.C.	1.04 [26.5]
A2	3.251-3.256 [82.58-82.68]	0.35 [9.0]	0.096-0.104x45° [2.45-2.65x45°]	(2x180°) 1/2"-13UNC-2B X 0.88 [22.4] DP on 4.188 [106.38] B.C.	1.04 [26.5]
A3	3.251-3.256 [82.58-82.68]	0.35 [9.0]	0.096-0.104x45° [2.45-2.65x45°]	2 Sets of (2x180°) 1/2"-13UNC-2B X 0.98 [25] DP on 4.188 [106.38] B.C.	2.69 [68.4]
B1	4.001-4.006 [101.63-101.75]	0.41 [10.4]	0.138-0.148x45° [3.50-3.75x45°]	(2x180°) 1/2"-13UNC-2B Thru on 5.750 [146.05] B.C.	1.26 [32.0]
C1	5.001-5.006 [127.03-127.15]	0.59 [15.0]	0.138-0.148x45° [3.50-3.75x45°]	(4x90°) 1/2"-13UNC-2B x 0.98 [25] DP on 6.375 [161.93] B.C.	2.69 [68.4]

OMNI GEAR

GS12 Shaft Out Gear Kit

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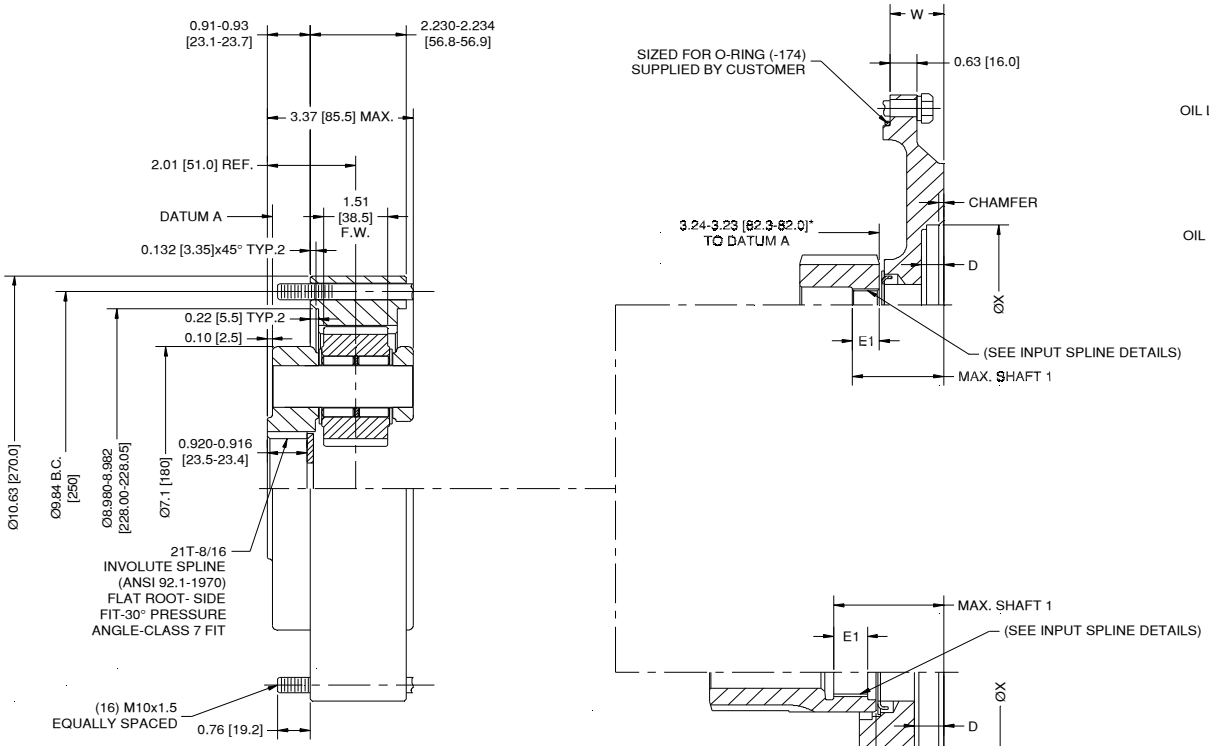
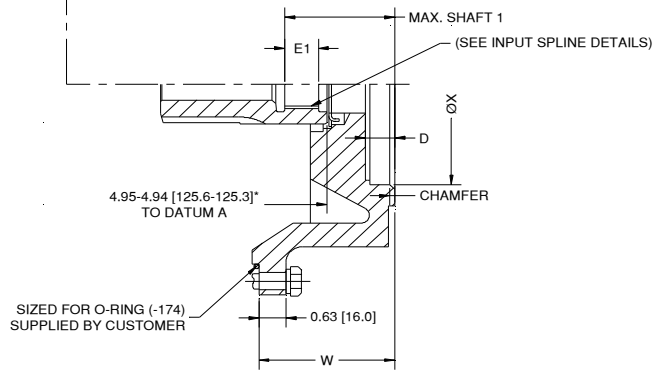
All Dimensions in INCHES [mm]

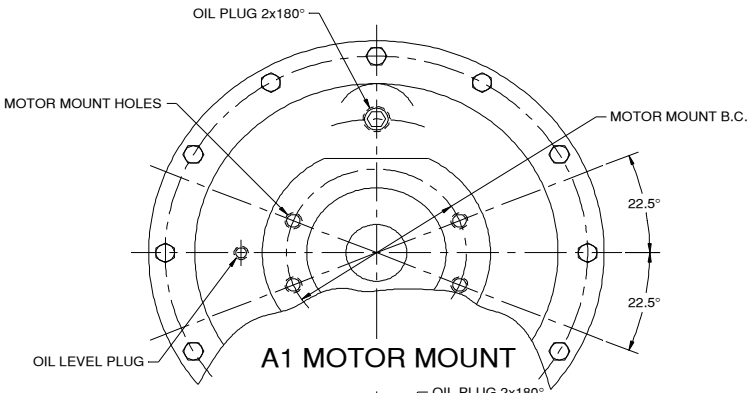
* Note: Dimension is metal to metal for all components. Axial clearance is required for proper operation and is application dependant.

FOR B1 MOTOR FLANGE

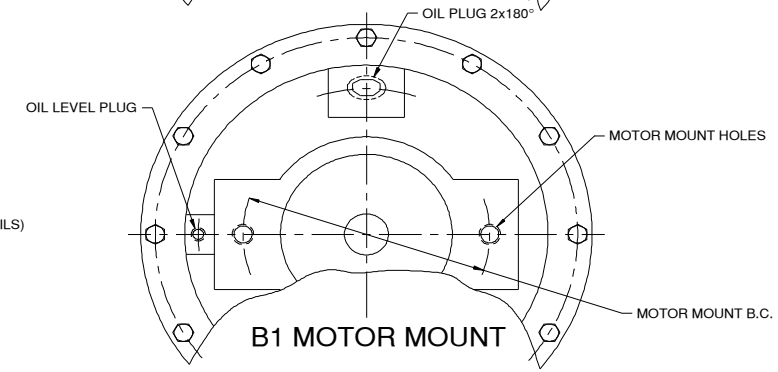




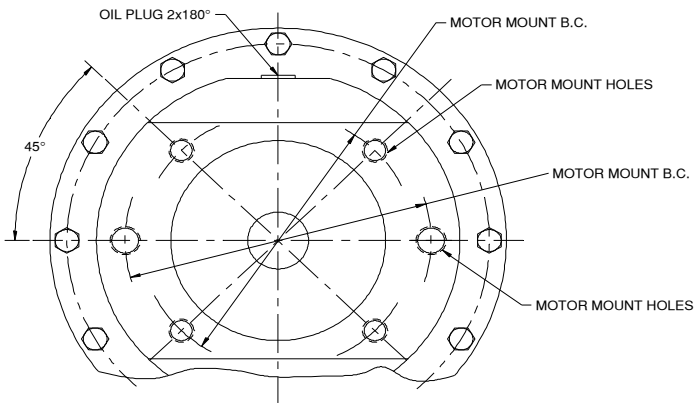
FOR A1 & C1 MOTOR FLANGE



A1 MOTOR MOUNT



B1 MOTOR MOUNT



C1 MOTOR MOUNT

Shown here is a full component gear kit. Please check your specific assembly for the actual parts your gear kit includes.

GS12 Single Reduction- General Specifications
Shaft Out Style Gear Kit

GS/GD12 Feature Chart					
Feature	**Description**			**Code**	**Sample**
Gear Ratio	**Size Code**	**Ratio**			GS12**05**
	GS12	4.43:1		04	
	GS12	4.95:1		**05**	
	GS12	5.65:1		5A	
	GS12	6.00:1		06	
	GS12	7.07:1		07	
Input Type	**Teeth**	**Pitch**	**Cap Type Usage**		GS12054**H**
	13T	16/32	B1 codes	13	
	6T	1.00" OD	A1 codes	6H*	
	14T	12/24	A1 & C1 codes	**4H**	
Ring Gear	Standard ring gear			**S**	GS12054H**S**
	No ring gear			N	
End Cap Type	**Motor Flange**	**Pilot**	**Hole Pattern**		GS12054HS**C1**
	SAE A	3.25"	2 sets of (2) 1/2"-13 bolts	A1	
	SAE B	4.00"	(2) 1/2"-13 bolts	B1	
	SAE C	5.00"	(2) 5/8"-11 & (4) 1/2"-13 bolts	**C1**	
	No cap included in kit			NC	
Hardware	Full set of capscrews, capscrew washers, & pipe plugs			**H**	GS12054HSC1**H**
	No hardware supplied in kit			N	

* Not available with ratio code 07

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Ring Gear Data		
Used for ratio codes	04, 05, 5A	06, 07
No. of Teeth	79	85
Diametral Pitch (Module)	10 (2.54)	10 (2.54)
Pressure Angle	25°	25°
Tooth depth system	2.25	2.25
Pin Diameter	∅0.144 [3.658]	∅0.144 [3.658]
Dist. Between pins	7.765-7.774 [197.26-197.46]	8.367-8.375 [212.51-212.71]

Input Spline Details			
Code	Teeth	Diamteral Pitch	Type
13	13	16/32	External Involute (ANSI 92.1 1970) Flat Root-Side Fit-30° Pressure Angle-Class 7 Fit
4H	14	12/24	
6H	6	1.00" OD	SAE Straight Sided 6B Slide Fit Spline

Input Spline Lengths			
Endcap Code	Input Code	E1	Max. Shaft 1
A1	4H	0.79 [20.0]	2.40 [61.0]
A1	6H	0.65 [16.5]	2.07 [52.5]
B1	13	0.63 [16.0]	1.75 [44.5]
C1	4H	0.79 [20.0]	2.32 [59.0]
C1	6H	0.65 [16.5]	1.99 [50.5]

Motor Flange Variations					
Code	X	D	Chamfer	Motor Mount	W
A1	3.251-3.256 [82.58-82.68]	0.35 [9.0]	0.096-0.104x45° [2.45-2.65x45°]	(2x180°) 1/2"-13UNC-2B X 0.88 [22.4] DP on 4.188 [106.38] B.C.- 2 Places	3.25 [82.5]
B1	4.001-4.006 [101.63-101.75]	0.41 [10.4]	0.138-0.148x45° [3.50-3.75x45°]	(2x180°) 1/2"-13UNC-2B Thru on 5.750 [146.05] B.C.	1.26 [32.0]
C1	5.001-5.006 [127.03-127.15	0.59 [15.0]	0.138-0.148x45° [3.50-3.75x45°]	(2x180°) 5/8"-11UNC-2B x 1.25 [31.8] DP on 7.125 [180.98] B.C. (4x90°) 1/2"-13UNC-2B x 1.00 [25.4] DP on 6.375 [161.93] B.C.	3.17 [80.5]

GD12 Shaft Out Gear Kit

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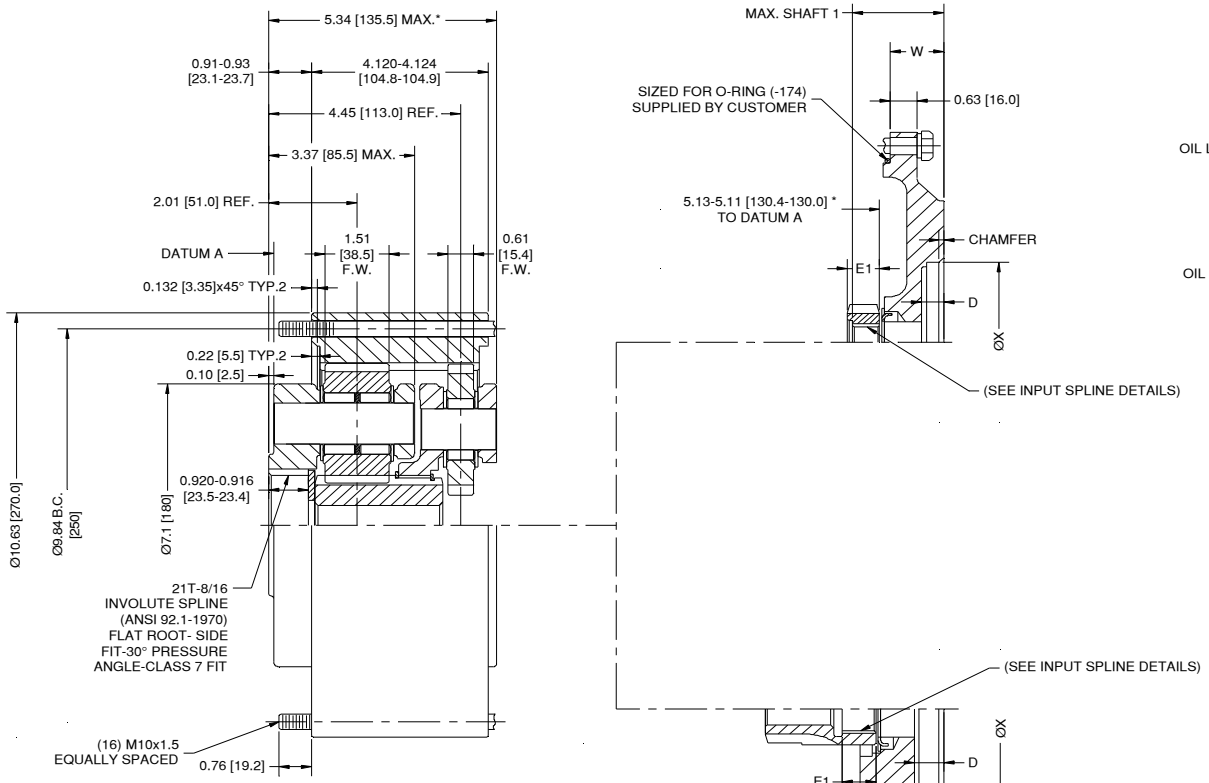
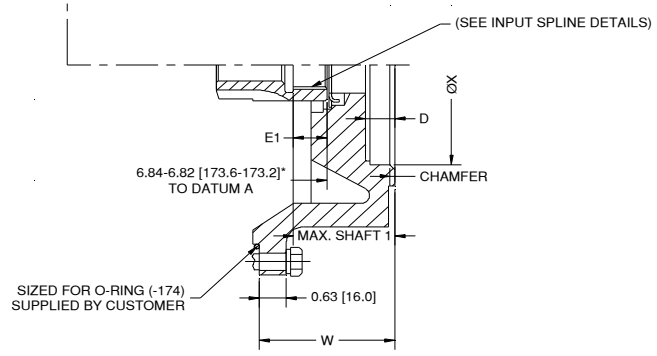
All Dimensions in INCHES [mm]

* Note: Dimension is metal to metal for all components. Axial clearance is required for proper operation and is application dependant.

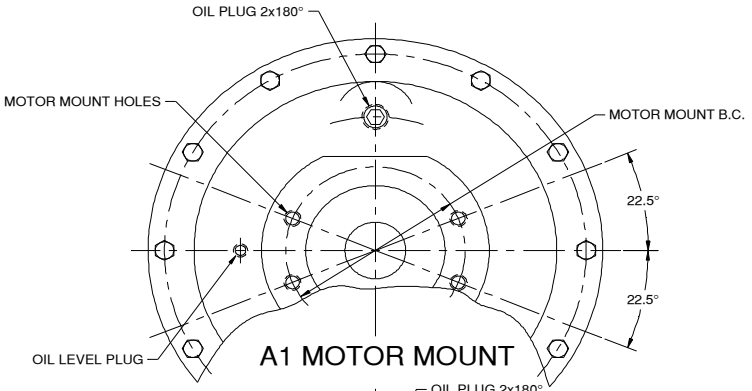
FOR B1 MOTOR FLANGE



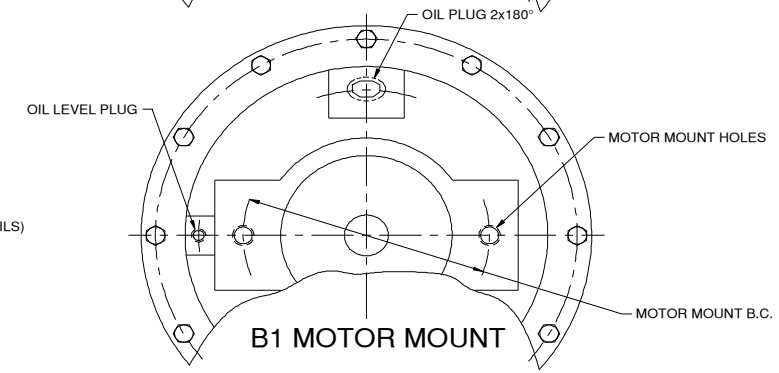


FOR A1 & C1 MOTOR FLANGE

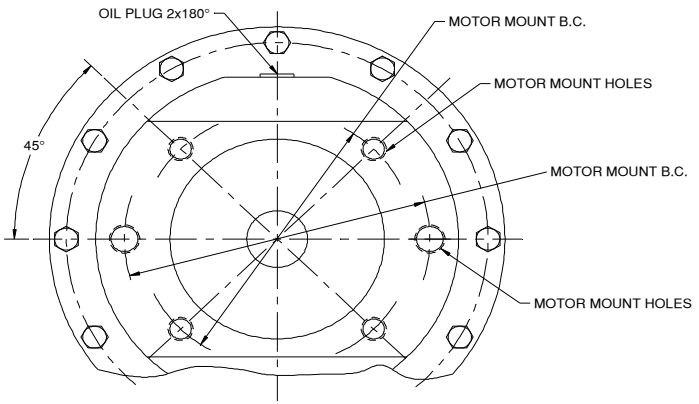
Shown here is a full component gear kit. Please check your specific assembly for the actual parts your gear kit includes.



A1 MOTOR MOUNT



B1 MOTOR MOUNT



C1 MOTOR MOUNT

GD12 Double Reduction- General Specifications
Shaft Out Style Gear Kit

GD12 Feature Chart					
Feature	**Description**			**Code**	**Sample**
Gear Ratio	**Size Code**	**Ratio**			GD12**25**
	GD12	19.67:1		20	
	GD12	21.95:1		22	
	GD12	24.50:1		**25**	
	GD12	27.95:1		28	
	GD12	31.89:1		32	
	GD12	36.00:1		36	
	GD12	42.43:1		42	
	GD12	50.01:1		50	
Input Type	**Teeth**	**Pitch**	**Cap Type Usage**		GD12254**H**
	13T	16/32	B1 codes	13	
	6T	1.00" OD	A1 codes	6H*	
	14T	12/24	A1 & C1 codes	**4H**	
Ring Gear	Standard ring gear			**S**	GD12254H**S**
	No ring gear			N	
End Cap Type	**Motor Flange**	**Pilot**	**Hole Pattern**		GD12254HS**C1**
	SAE A	3.25"	2 sets of (2) 1/2"-13 bolts	A1	
	SAE B	4.00"	(2) 1/2"-13 bolts	B1	
	SAE C	5.00"	(2) 5/8"-11 & (4) 1/2"-13 bolts	**C1**	
	No cap included in kit			**NC**	
Hardware	Full set of capscrews, capscrew washers, & pipe plugs			**H**	GD12254HSC1**H**
	No hardware supplied in kit			N	

* Not available with ratio codes 42 & 50

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Ring Gear Data		
Used for ratio codes	20, 22, 25 28, 32	42, 50
No. of Teeth	79	85
Diametral Pitch (Module)	10 (2.54)	10 (2.54)
Pressure Angle	25°	25°
Tooth depth system	2.25	2.25
Pin Diameter	∅0.144 [3.658]	∅0.144 [3.658]
Dist. Between pins	7.765-7.774 [197.26-197.46]	8.367-8.375 [212.51-212.71]

Input Spline Details			
Code	Teeth	Diamteral Pitch	Type
13	13	16/32	External Involute (ANSI 92.1 1970) Flat Root-Side Fit-30° Pressure Angle-Class 7 Fit
4H	14	12/24	
6H	6	1.00" OD	SAE Straight Sided 6B Slide Fit Spline

Input Spline Lengths			
Endcap Code	Input Code	E1	Max. Shaft 1
A1	4H	0.79 [20.0]	2.40 [61.0]
A1	6H	0.65 [16.5]	2.07 [52.5]
B1	13	0.63 [16.0]	1.75 [44.5]
C1	4H	0.79 [20.0]	2.32 [59.0]
C1	6H	0.65 [16.5]	1.99 [50.5]

Motor Flange Variations					
Code	X	D	Chamfer	Motor Mount	W
A1	3.251-3.256 [82.58-82.68]	0.35 [9.0]	0.096-0.104x45° [2.45-2.65x45°]	(2x180°) 1/2"-13UNC-2B X 0.88 [22.4] DP on 4.188 [106.38] B.C.- 2 Places	3.25 [82.5]
B1	4.001-4.006 [101.63-101.75]	0.41 [10.4]	0.138-0.148x45° [3.50-3.75x45°]	(2x180°) 1/2"-13UNC-2B Thru on 5.750 [146.05] B.C.	1.26 [32.0]
C1	5.001-5.006 [127.03-127.15	0.59 [15.0]	0.138-0.148x45° [3.50-3.75x45°]	(2x180°) 5/8"-11UNC-2B x 1.25 [31.8] DP on 7.125 [180.98] B.C. (4x90°) 1/2"-13UNC-2B x 1.00 [25.4] DP on 6.375 [161.93] B.C.	3.17 [80.5]

WN06 Non-Powered Wheel Drive

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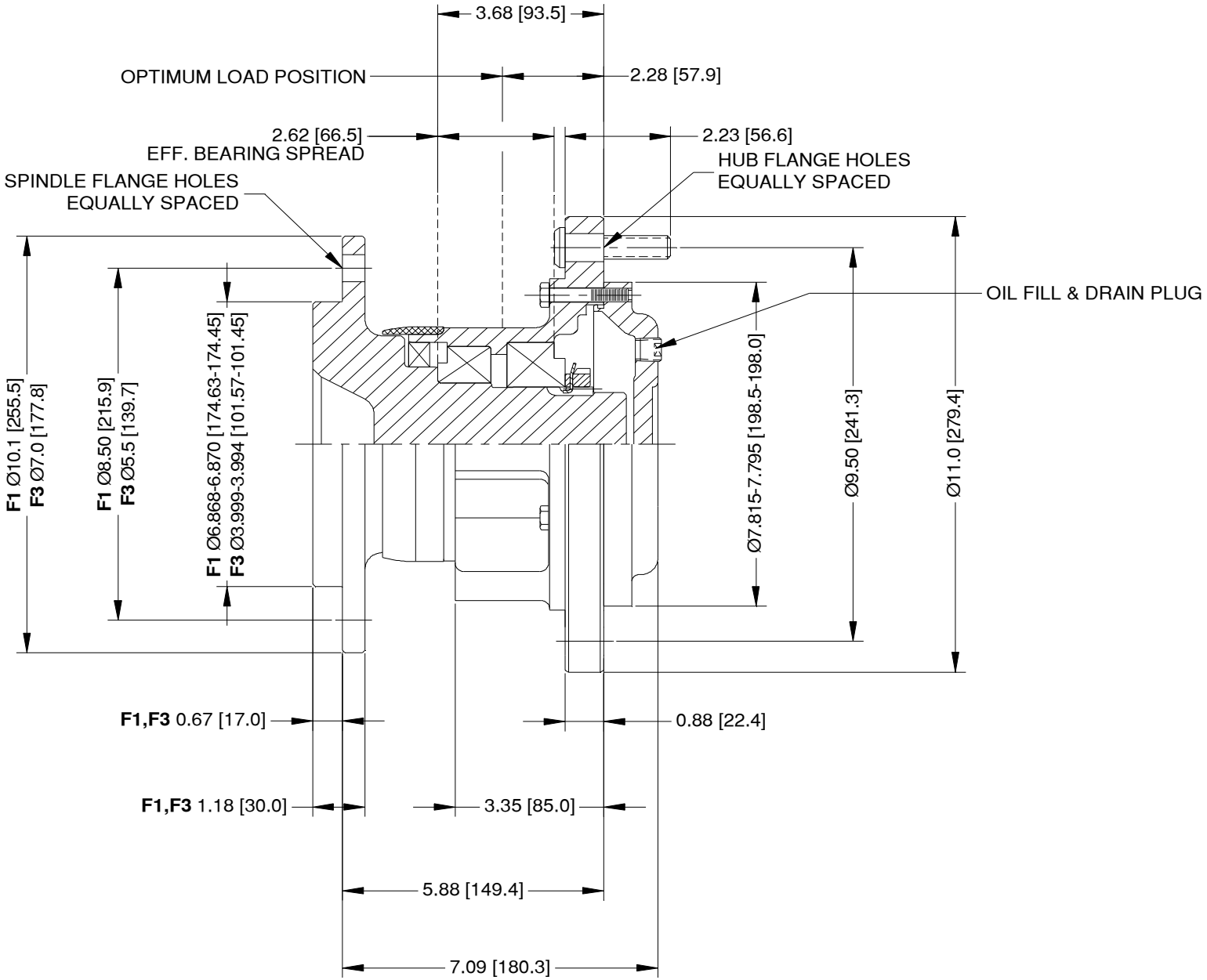
All Dimensions in INCHES [mm]

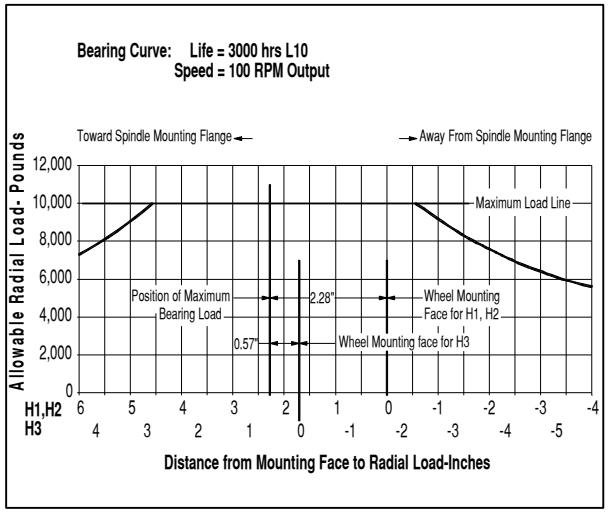


WN06 Single Reduction- General Specifications

Approximate weight: 73 lbs (33 kg)

Approximate oil capacity: 0.13 gals (0.5 liters)

WN06 Feature Chart					
Feature	**Description**			**Code**	Sample
	Flange OD	**Frame Pilot**	**Bolt Pattern**		
Spindle Frame Pilot	10.0"	6.875"	(8) .660" holes on 8.50" B.C.	**F1**	WN06**F1**
	7.0"	4.000"	(5) 1/2-13UNC on 5.50" B.C.	F3	
	Pilot	**Bolt Pattern**	**Flange**		
Hub	7.88"	9 x .681" on 9.50" B.C.	.88"	**H2**	WN06F1**H2**
	Dia.- Pitch	**Stud Length***	**For Hole**		
	No Studs			NS	
Studs	1/2"-20UNF	2.23"	.681"	**AA**	WN06F1H2**AA**
	9/16"-18UNF	2.23"	.681"	BA	
	5/8"-18UNF	2.23"	.681"	CA	
	Usable length equals stud length less hsg. Flange				



$$\text{Design life (hrs)} = 3000 \left(\frac{100\ \text{RPM}}{\text{Design RPM}}\right) \times \left(\frac{\text{allowable radial load (curve)}}{\text{Design radial load}}\right)$$

NOTE: This bearing curve is supplied for design reference purposes only. It illustrates the relationship and importance of radial load position relative to this gearbox. For detailed analysis or application review, contact OMNI GEAR Engineering.

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OMNI GEAR

WN12 Non-Powered Wheel Drive

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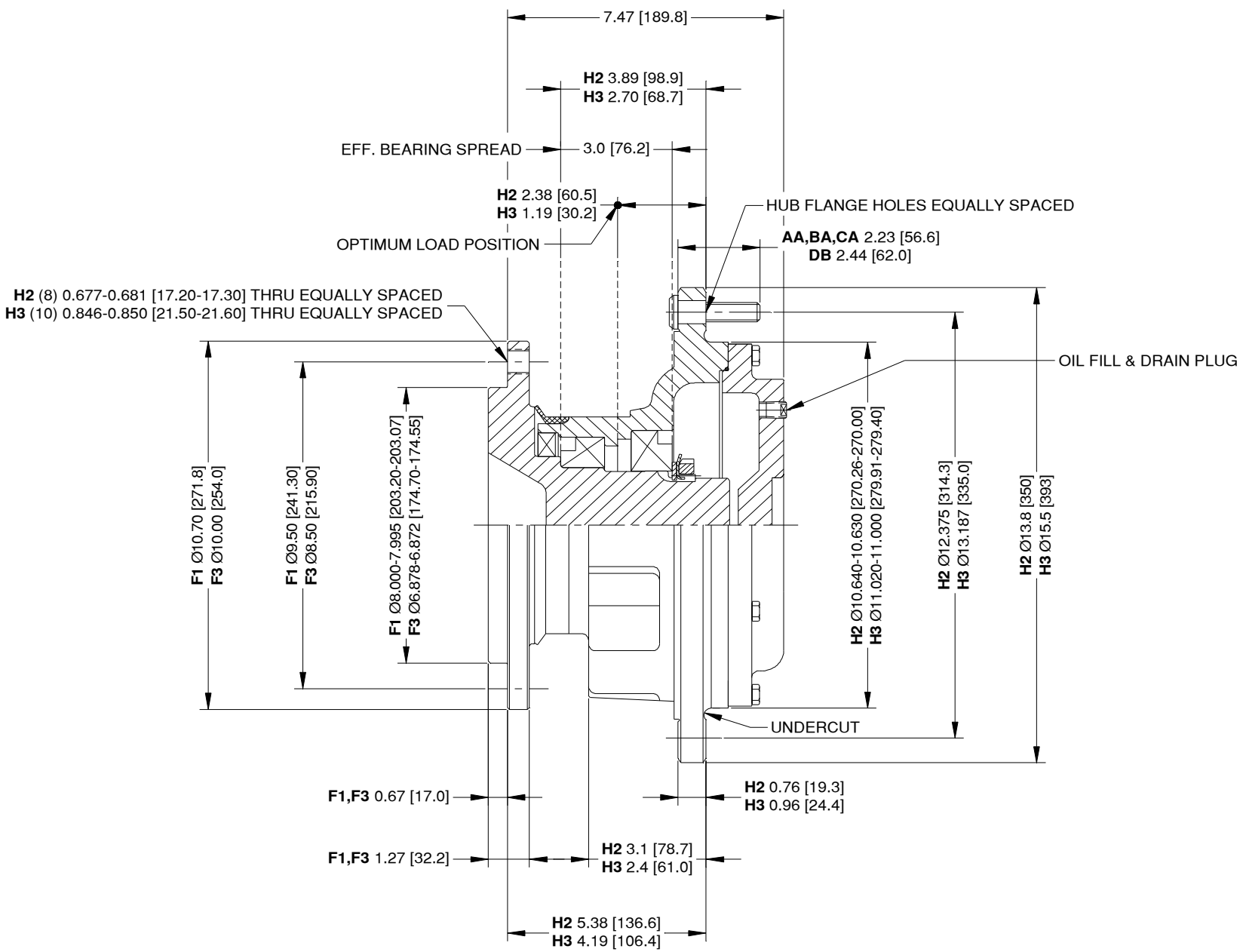
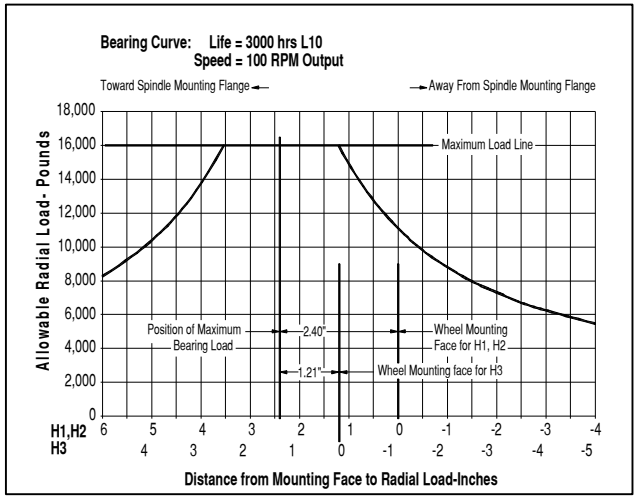
All Dimensions in INCHES [mm]



WN12 Non-Powered- General Specifications

Approximate weight: 141 lbs. (64 kg)
Approximate oil capacity: 0.21 gals (0.8liters)

WN12 Feature Chart					
Feature	Description			Code	Sample
	Flange OD	Frame Pilot	Bolt Pattern		
Spindle Frame Pilot	10.7"	8.000"	(8) 5/8"-11UNC on 9.50" B.C.	**F1**	WN12**F1**
	10.0"	6.875"	(8) .660" holes on 8.50" B.C.	F3	
	Pilot	Bolt Pattern	Flange		
Hub	10.635"	8 x .681" on 12.375" B.C.	.76"	**H2**	WN12F1**H2**
	11.000"	10 x .850" on 13.187" B.C.	.96"	H3	
	Dia.- Pitch	Stud Length*	For Hole		
	No Studs			NS	
Studs	1/2"-20UNF	2.23"	.681"	AA	
	9/16"-18UNF	2.23"	.681"	**BA**	WN12F1H2**BA**
	5/8"-18UNF	2.23"	.681"	CA	
	3/4"-16UNF	2.44"	.850"	DB	
	* Usable length equals stud length less hsg. Flange				



To apply the bearing curve to other design conditions:

$$\text{Design life (hrs)} = 3000 \left(\frac{100\ \text{RPM}}{\text{Design RPM}}\right) \times \left(\frac{\text{allowable radial load (curve)}}{\text{Design radial load}}\right)$$

NOTE: This bearing curve is supplied for design reference purposes only. It illustrates the relationship and importance of radial load position relative to this gearbox. For detailed analysis or application review, contact OMNI GEAR Engineering.

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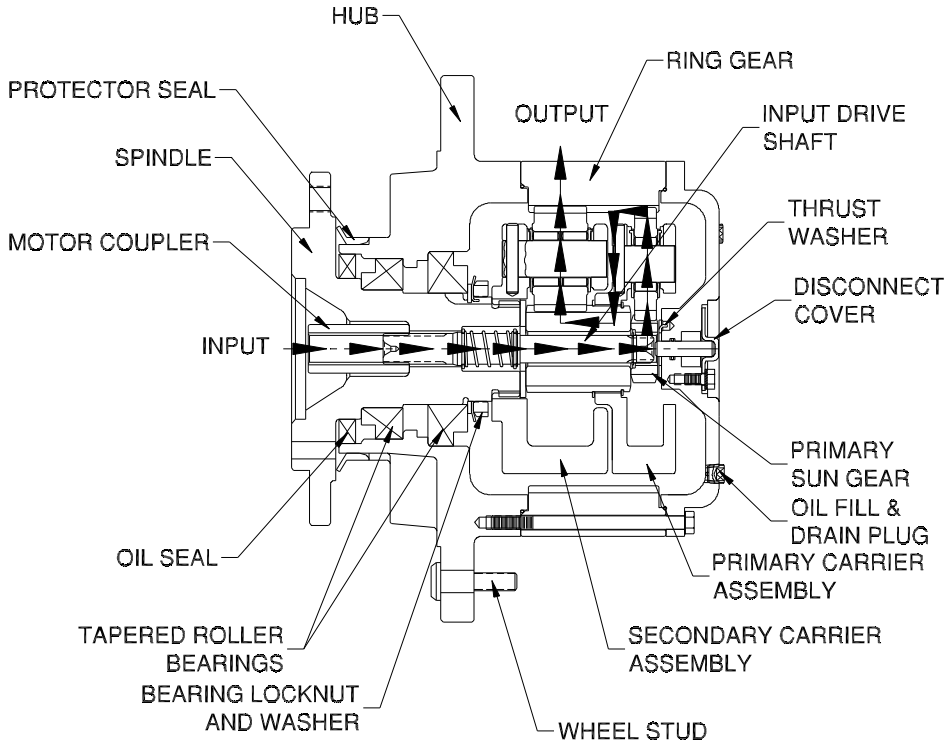
OMNI GEAR reserves the right to update or change its products; therefore, the information shown is subject to change.

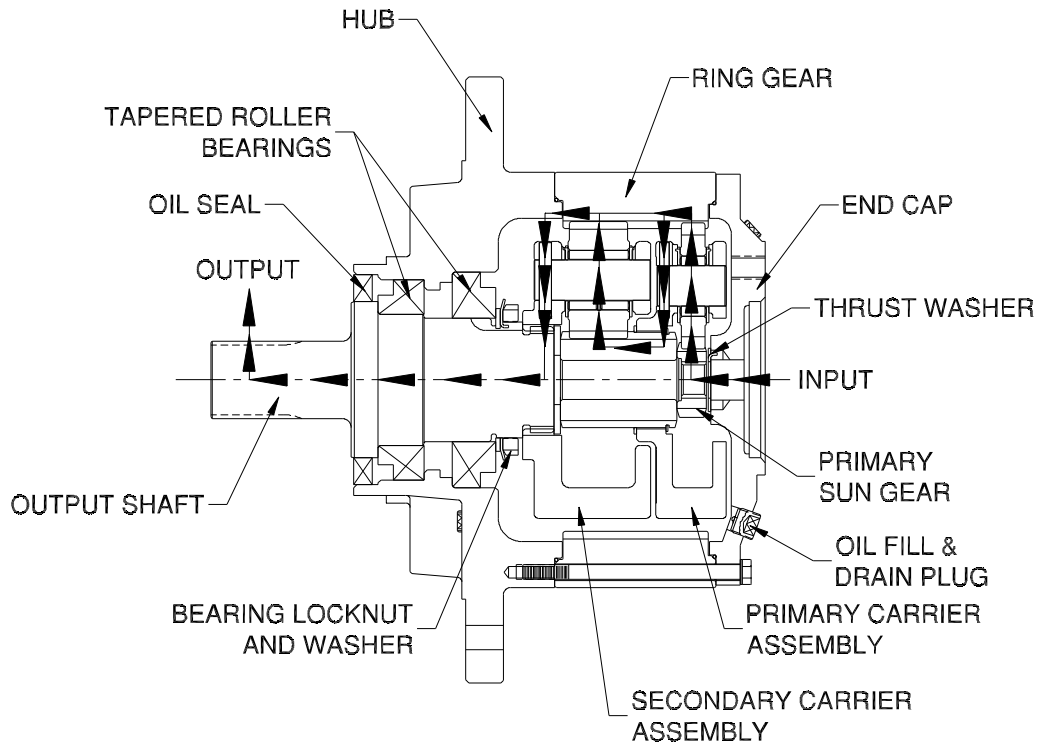
If specific information is not present for your application or dimensional information. Please contact OMNI GEAR.

OMNI GEAR

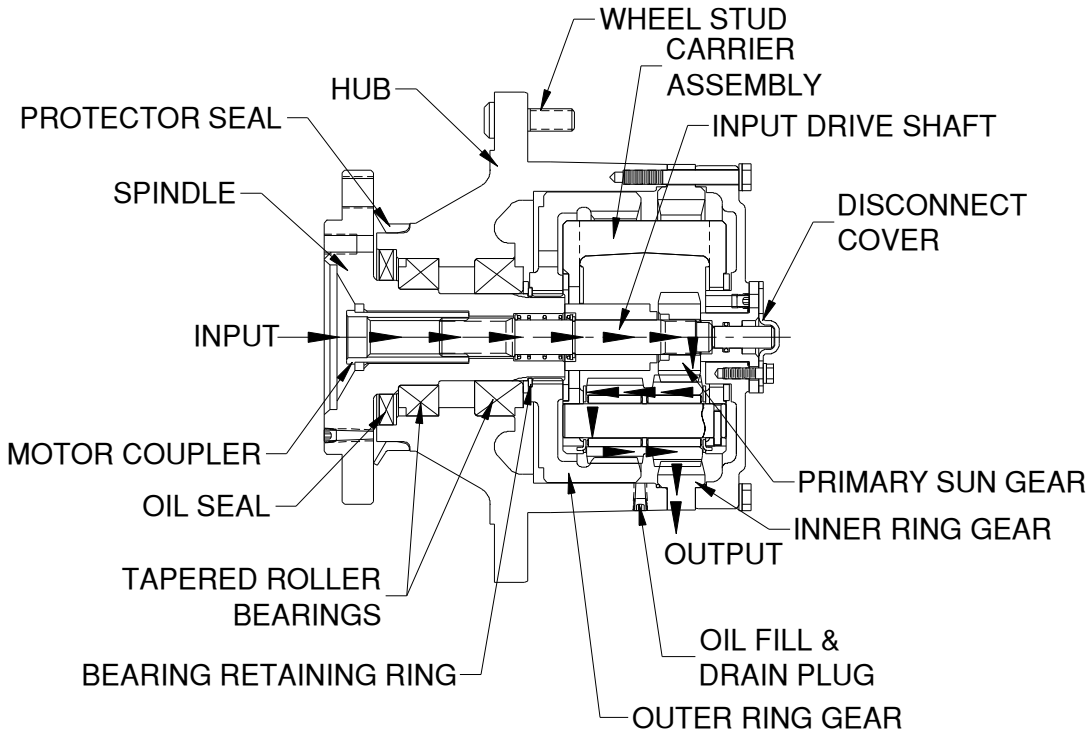
- Wheel Drive- Assembly View/Power Flow
- Double Reduction



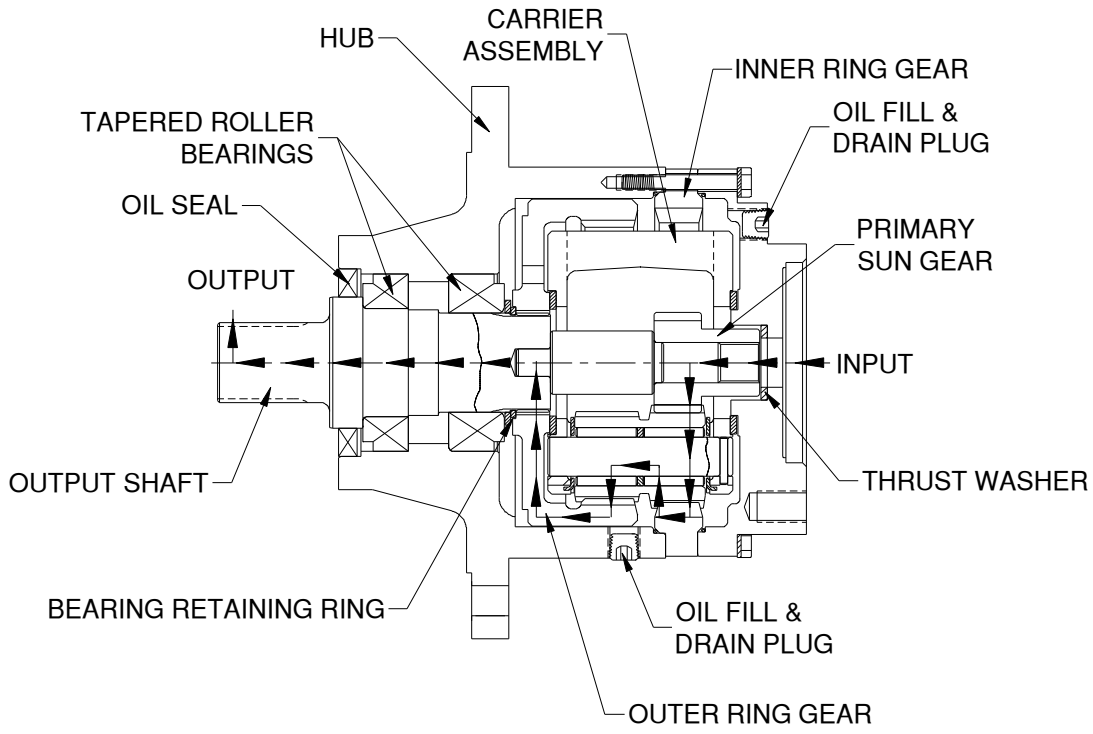
- Shaft Output Drive- Assembly View/Power Flow
- Double Reduction



- Wheel Drive- Assembly View/Power Flow
- Differential



- Shaft Output Drive- Assembly View/Power Flow
- Differential



Limited Warranty

Omni Gear warrants its Products to be free defects in materials and workmanship when installed and maintained consistent with Omni Gear's specifications.

Unless otherwise specified below, each Product is warranted for a period of 12 months from the date of retail delivery or 18 months from the date of shipment from Omni Gear's facility, whichever shall first occur. All replacement or spare parts supplied by Omni Gear are warranted for a period of 3 months from the date of shipment from Omni Gear's Facility.

Should any part of an Omni Gear Product be found, under normal use and service, during the warranty period, to be defective, Omni Gear shall repair or replace, at its sole option, said part FOB Omni Gear's facility, Houston, Texas, provided the defective gear drive, in whole, is returned to Omni Gear's facility, charges prepaid, accompanied by a Return Goods Authorization Number (“RGA”) and defect report detailing the claimed defect, and provided inspection of the original Product establishes the claimed defect to the satisfaction of Omni Gear.

In the event a warranty claim is denied, an Omni Gear Customer Service representative shall contact the customer and advise of the cost to repair the Product not covered under warranty. If the customer requests the Product be repaired, the repaired Product shall carry a Manufacturer□s Remanufactured Warranty of 6 months from the date of remanufacture.

Warranty Disclaimer and Limitations of Liability

Omni Gear makes no other warranties. No warranty of merchantability or fitness for a particular purpose is implied.

Omni Gear's liability under this warranty is limited to the conditions stated herein. OMNI GEAR SHALL NOT IN ANY EVENT BE LIABLE FOR ANY CONSEQUENTIAL OR INCIDENTAL DAMAGE including, but not limited to expenses, attorney fees, loss of income or profits due to delay or defective material or workmanship and no allowance will be made for repairs, replacements, transportation or freight charges, or alterations UNLESS authorized in writing by Omni Gear. Omni Gear□s warranty is subject to change without notice.

This warranty shall not apply to any Product upon which repairs or alterations have been made, improper lubrication, including type and frequency, excessive shock loading, improper application or for misused, neglected or incorrectly installed Product. This warranty shall not apply in the event proper gearbox lubrication and service is not maintained. All gearbox Product lubrication must be flushed and refilled after the first 100 hours of service, and then every 1000 hours thereafter. This warranty shall not apply to seals in the event they have been subjected to heat in excess of 200 degrees, paint, solvents or other chemicals in the assembly or painting processes. Any Omni Gear Product that remains unused for a period of 6 consecutive months during the warranty period shall not be warranted for leakage due to seal aging. The warranty for bearings shall be limited to the warranty provided by the bearing manufacturer. No Product will be eligible for warranty if rust or corrosion has started on internal surfaces.

If any provision of this warranty contravenes the law of any jurisdiction, such provision shall be inapplicable in such jurisdiction and the remainder of the warranty shall not be affected thereby. Legal proceedings arising out of the terms of Omni Gear's warranty must be commenced within one (1) year of the accrual of the cause of action or be forever barred.

Exceptions

Exceptions to Omni Gear's stated Warranty Policy must be in writing, and made a part of this Limited Warranty.

Customer	Product Group	Limited Warranty	Effective Date

OMNI GEAR®

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