

Metric Torque-Arm® II

Dimensions

Lubrication - Oil Recommendations

ISO Grades For Ambient Temperatures of 10°C to 51°C

Output RPM	TA0107L	TA1107H	TA2115H	TA3202H	TA4207H	TA5215H	TA6307H	TA7315H	TA8407H	TA9415H	TA10507H	TA12608H
301-400	320	320	320	220	220	220	220	220	220	220	220	220
201-300	320	320	320	220	220	220	220	220	220	220	220	220
151-200	320	320	320	220	220	220	220	220	220	220	220	220
126-150	320	320	320	220	220	220	220	220	220	220	220	220
101-125	320	320	320	320	220	220	220	220	220	220	220	220
81-100	320	320	320	320	320	220	220	220	220	220	220	220
41-80	320	320	320	320	320	220	220	220	220	220	220	220
11-40	320	320	320	320	320	320	320	320	320	320	220	220
1-10	320	320	320	320	320	320	320	320	320	320	320	320

ISO Grades For Ambient Temperatures of -9°C to 15°C

Output RPM	TA0107L	TA1107H	TA2115H	TA3202H	TA4207H	TA5215H	TA6307H	TA7315H	TA8407H	TA9415H	TA10507H	TA12608H
301-400	220	220	220	150	150	150	150	150	150	150	150	150
201-300	220	220	220	150	150	150	150	150	150	150	150	150
151-200	220	220	220	150	150	150	150	150	150	150	150	150
126-150	220	220	220	150	150	150	150	150	150	150	150	150
101-125	220	220	220	220	150	150	150	150	150	150	150	150
81-100	220	220	220	220	220	150	150	150	150	150	150	150
41-80	220	220	220	220	220	150	150	150	150	150	150	150
11-40	220	220	220	220	220	220	220	220	220	220	150	150
1-10	220	220	220	220	220	220	220	220	220	220	220	220

Notes

1. Assumes auxiliary cooling where recommended in the catalogue
2. Pour point of lubricant selected should be at least 5°C lower than expected minimum ambient starting temperature
3. Extreme pressure (EP) lubricants are not necessary for average operating conditions. When properly selected for specific applications, TORQUE-ARM II backstops are suitable for use with EP lubricants
4. Special lubricants may be required for food and drug industry applications where contact with the product being manufactured may occur. Consult a lubrication manufacture's representative for his recommendations
5. For reducers operating in ambient temperatures between -30C and -6C use a synthetic hydrocarbon lubricant, 100 ISO grade or AGMA 3 grade (for example, Mobil SHC627). Above 51C, consult DODGE Application Engineering for lubrication recommendation
6. Mobil SHC630 Series oil is recommended for high ambient temperatures

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Vent and Plug Locations

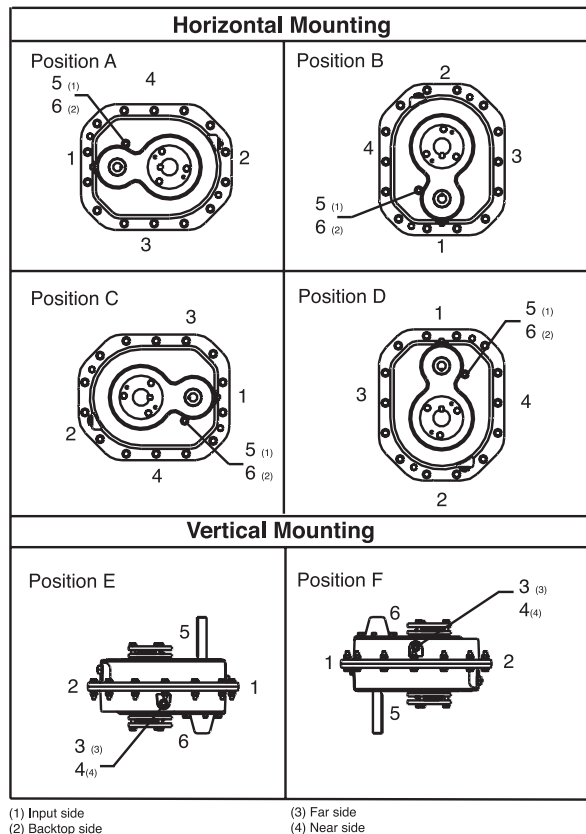
Horizontal Installations - Install the magnetic drain plug in the hole closest to the bottom of the reducer. Throw away the tape that covers the filler/ventilation plug in shipment and install plug in topmost hole. Of the 2 remaining plugs on the sides of the reducer, the lowest one is the minimum oil level plug.

Vertical installations-Install the filler/ventilation plug in the hole provided in the top face of the reducer housing. Use the hole in the bottom face for the magnetic drain plug. Of the remaining holes on the sides of the reducer, use a plug in the upper housing half for the minimum oil level plug.

Mounting Position - The running position of the reducer in a horizontal application is not limited to the four positions shown below. However, if running position is over 20° of position “B” or “D” or 5° off position “A”

or “C”, either way from the sketches, the oil level plug cannot be used to safely check the oil level, unless during the checking, the torque arm is disconnected and the reducer is swung to within 20° for position “A” or “C”, or 5° for position “B” and “D” shown in the drawing. Because of the many possible positions of the reducer, it may be necessary or desirable to make special adaptations using the lubrication fitting holes furnished along with other standard pipe fittings, stand pipes and oil level gauges as required.

Below 15 RPM output speed, oil level must be adjusted to reach the highest oil level plug. If reducer position is to vary from those shown in the drawing, either more or less oil may be required; consult DODGE Application Engineering.



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Vent and Plug Locations

Mounting Position	Output Speed Above 15 RPM						Output Speed 15 RPM and Below					
	Vent and Plug Locations						Vent and Plug Locations					
	1	2	3	4	5	6	1	2	3	4	5	6
A	Level	Plug	Drain	Vent	Plug	Plug	Plug	Level	Drain	Vent	Plug	Plug
B	Drain	Vent	Level	Plug	Plug	Plug	Drain	Vent	Plug	Level	Plug	Plug
C	Plug	Level	Vent	Drain	Plug	Plug	Level	Plug	Vent	Drain	Plug	Plug
D	Vent	Drain	Level	Level	Plug	Plug	Drain	Drain	Level	Level	Plug	Plug
E	Level	Plug	Plug	Drain	Vent	Plug	Level	Plug	Plug	Drain	Vent	Plug
F	Plug	Drain	Level	Level	Plug	Vent	Plug	Drain	Level	Level	Plug	Vent

*Where space constraints prevent installing the breather in vent locations 5 or 6, install vent in this location and order a vertical breather kit.

Oil Volumes - By Mounting Position ^{1,2}

Case Size	Ratios	Oil Volume in Liters					
		Horizontal				Vertical	
		A (9:00)	B (6:00)	C (3:00)	D (12:00)	E (Up)	F (Down)
TA0107L	Single	0,6	0,5	0,6	1,3	1,2	1,4
	Doubles	0,6	0,5	0,6	1,3	1,2	1,3
TA1107H	Single	1,3	0,7	0,6	1,6	1,4	1,8
	Doubles	1,3	0,7	0,6	1,6	1,4	1,8
TA2115H	Single	2,0	1,2	1,0	2,5	2,2	2,9
	Doubles	2,0	1,1	1,0	2,5	2,3	2,8
TA3203H	Single	2,7	1,6	1,7	3,9	3,1	4,2
	Doubles	2,7	1,4	1,6	3,8	3,3	4,0
TA4207H	Single	4,2	2,5	2,8	7,0	6,0	7,3
	Doubles	4,2	2,4	2,6	6,9	6,0	7,1
TA5215H	Single	7,0	4,7	5,5	12,5	11,0	12,4
	Doubles	7,0	4,4	5,2	12,2	10,8	11,9
TA6307H	Single	8,3	5,5	6,2	15,3	12,5	15,3
	Doubles	8,4	5,2	5,9	15,0	13,1	14,5
TA7315H	Single	8,0	11,1	13,2	21,3	20,9	23,7
	Doubles	7,9	10,3	12,5	20,9	21,2	21,8
TA8407H	Doubles	7,3	11,1	12,9	23,8	22,7	24,4
TA9415H	Doubles	16,1	15,9	17,1	31,4	31,4	36,5
TA10507H	Doubles	36,0	26,1	24,4	50,6	50,9	53,0
TA12608H	Doubles	50,2	39,3	35,1	66,9	68,3	76,1

1. Oil Quantity is approximate, Service with lubricant until oil runs out of oil level hole.

2. Below 15 RPM output speed, oil level must be adjusted to reach the high test oil level plug, if reducer position is to vary from those shown in the drawing on the preceding page, either more or less oil may be required.