

STANDARD SP CLUTCH

SP321P

QUALITY IS STANDARD

- AVAILABLE IN SIZES 11.5" THRU 21.0"
- TAPERED ROLLER MAIN BEARINGS
- OPTIONAL SINTERED IRON PLATES
- OPTIONAL BALL BEARING THROW OUT
- BUILT IN HEX NUT
- CREATES SUITABLE APPLICATION TORQUE CAPACITY
- MORE SUITABLE FOR SIDE LOAD APPLICATIONS
- CREATES 25% HIGHER TORQUE CAPACITY
- ALLOWS FOR MORE FREQUENT ENGAGEMENTS
- EASES ADJUSTMENT VERIFICATION



SPECIFICATIONS - SP321P

Model Number	SAE HSG.	Max. Input Torque Nm (lb-ft)		Maximum Safe Speed				Weight kg (lbs)
				Solid Plates		Split Plates		
		Organic	Sintered	Cast Drive Ring	Nodular Drive Ring	Cast Drive Ring	Nodular Drive Ring	
SP321P9	00	9132 (6730)	11398 (8400)	1800	N/A	1400	N/A	503 (1110)

LOAD CLASSIFICATIONS BASED UPON AGMA LOAD CHARACTERISTICS

PRIME MOVER	DURATION OF SERVICE	DRIVEN MACHINE LOAD CLASSIFICATIONS		
		UNIFORM	MODERATE SHOCK	HEAVY SHOCK
Electric motor	Up to 3 hours per day	1.00	1.25	1.50
	3-10 hours per day	1.00	1.25	1.75
	Over 10 hours per day	1.25	1.50	2.00
Multi-cylinder internal combustion engine	Up to 3 hours per day	1.00	1.25	1.75
	3-10 hours per day	1.25	1.50	2.00
	Over 10 hours per day	1.50	1.75	2.25
Multi-cylinder internal combustion engine with high torque rise	Up to 3 hours per day	1.50	1.75	2.25
	3-10 hours per day	1.75	2.00	2.50
	Over 10 hours per day	2.00	2.25	2.75
Single cylinder internal combustion engine	Up to 3 hours per day	1.25	1.50	2.00
	3-10 hours per day	1.50	1.75	2.25
	Over 10 hours per day	1.75	2.00	2.50

All clutch engagements to be with prime mover below 1000 RPM. High inertia loads may require use of larger clutch. Contact Twin Disc application engineering department for assistance.

TO CALCULATE APPLICATION TORQUE:

$$\frac{5252 \times \text{HP}}{\text{Engine RPM}} = \text{Torque}$$

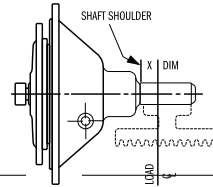
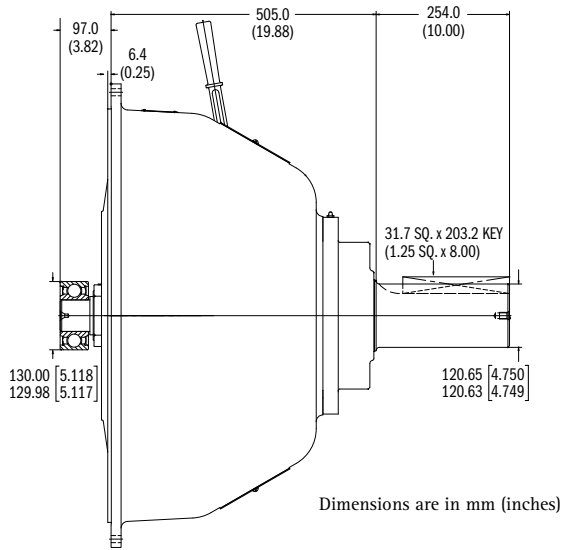
$$\text{Torque} \times \text{Load Factor} = \text{Application Torque}$$

Use load factor from chart at left

Specifications subject to change without prior notice in the interest of continual product improvement. Contact your local Twin Disc representative for engineering specifications.



SP321P



SP321P- ALLOWABLE SIDE LOAD, KG (LBS)

PTO MODEL	RPM	X DISTANCE, mm (in) - see sketch									
		25.4 (1.0)	50.8 (2.0)	76.2 (3.0)	101.6 (4.0)	127.0 (5.0)	152.4 (6.0)	177.8 (7.0)	203.2 (8.0)	228.6 (9.0)	
SP321P9	500	5851 (12900)	5625 (12400)	5398 (11900)	5035 (11100)	4382 (9660)	3878 (8550)	3447 (7600)	3152 (6950)	2880 (6350)	
	1000	4649 (10250)	4454 (9820)	4286 (9450)	4128 (9100)	3969 (8750)	3833 (8450)				
	1200	4222 (9750)	4241 (9350)	4082 (9000)	3924 (8650)	3787 (8350)	3651 (8050)				
	1500	4173 (9200)	4037 (8900)	3855 (8500)	3719 (8200)	3628 (8000)	3492 (7700)	3356 (7400)			

The following general formula should be used for determining the actual applied load: $L = \frac{126,000 \times \text{HP}}{N \times D} \times F \times \text{LF}$

- WHERE
- L = Actual Applied Load (lbs)
 - N = Shaft Speed (RPM)
 - D = Pitch Diameter (in) of Sheave, etc.
 - F = Load Factor
 - 1.0 for Chain or Gear Drive, 1.5 for Timing Belts, 2.5 for All V Belts, 3.5 for Flat Belts
 - LF = 2.1 for Reciprocating Compressors and other Severe Shock Drives and 1.8 for Large Inertia Type Drives (i.e. crushers, chippers, planers, etc.)

Compound Drives and Power Engaged Power Take-Off applications must have written factory review.

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Twin Disc, Incorporated
Racine, Wisconsin 53403 USA
Phone +1-262-638-4000
Fax +1-262-638-4482
www.twindisc.com

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TD-Bulletin-SP321PSeries
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 Printed in the USA - 04/2007