

# Ratings and Specifications

## RATINGS

MODEL	RATIO	PARK PAWL	INPUT POWER <sup>1</sup>	INPUT TORQUE <sup>1</sup>	INPUT TORQUE W/SEM <sup>1,2</sup>	TURBINE TORQUE <sup>3</sup>	GVW	GCW
			hp (kW)	lb-ft (N • m)	lb-ft (N • m)	lb-ft (N • m)	lbs (kg)	lbs (kg)
B 210	Close Ratio	No	200 (149)	425 (576)	465 (630)	750 (1017)	26,000 (11,800)	—
B 220	Close Ratio	Yes	200 (149)	425 (576)	465 (630)	750 (1017)	26,000 (11,800)	—
B 300	Close Ratio	—	280 (209)	735 (997)	—	1350 (1830)	38,000 (17,236)	—
B 400	Close Ratio	—	300 (224)	925 (1254)	—	1370 (1857)	45,000 (20,412)	—
<b>B 500</b>								
- Transit	Close Ratio	—	420 (313)	1300 (1763)	—	2450 (3322)	—	—
- Intercity Coach	Close Ratio	—	500 (373)	1525 (2068)	—	2450 (3322)	—	—

<sup>1</sup> Gross ratings as defined by ISO 1585 or SAE J1995. <sup>2</sup> SEM = engine controls with Shift Energy Management. <sup>3</sup> Turbine torque limit based on ISCAAN standard deductions.

## ENGINE SPEEDS

BASE MODEL	FULL LOAD GOVERNED SPEED	IDLE SPEED IN DRIVE	OUTPUT SHAFT SPEED
	Min-Max (rpm)	Min-Max (rpm)	rpm
B 210/220	2200-4600 <sup>1</sup>	500-900	5000
B 300/400	2000-2800	500-800	3600 <sup>2</sup>
B 500	1700-2300	500-800	—

<sup>1</sup> Engines with full load governed speed greater than 3200 rpm require Application Engineering review. <sup>2</sup> Retarder-equipped models only.

## GEAR RATIOS - TORQUE CONVERTER MULTIPLICATION NOT INCLUDED

MODEL	FIRST	SECOND	THIRD	FOURTH	FIFTH	SIXTH	SEVENTH	REVERSE
B 210	3.10:1	1.81:1	1.41:1	1.00:1	0.71:1	—	—	-4.49:1
B 220	3.10:1	1.81:1	1.41:1	1.00:1	0.71:1	—	—	-4.49:1
B 300	3.49:1	1.86:1	1.41:1	1.00:1	0.75:1	0.65:1	—	-5.03:1
B 400	3.49:1	1.86:1	1.41:1	1.00:1	0.75:1	0.65:1	—	-5.03:1
B 500	3.51:1	1.91:1	1.43:1	1.00:1	0.74:1	0.64:1	—	-4.80:1

**OPTIONAL RETARDER PROVISION**  
- INTEGRAL, HYDRAULIC TYPE

BASE MODEL	TORQUE CAPACITY	POWER CAPACITY
	lb-ft (N • m)	hp (kW)
<b>B 300/400</b>		
- High	1600 (2170)	600 (447)
- Medium	1300 (1760)	500 (373)
- Low	1100 (1490)	400 (298)
<b>B 500</b>		
- High	2000 (2710)	600 (447)
- Medium	1600 (2170)	600 (447)
- Low	1300 (1760)	500 (373)

**TORQUE CONVERTER SPECIFICATIONS**

BASE MODEL	TORQUE CONVERTER	NOMINAL STALL TORQUE
<b>B 210/220</b>		
	TC-210	2.05
	TC-211	2.00
	TC-221	1.73
	TC-222	1.58
<b>B 300/400</b>		
	TC-411	2.71
	TC-413	2.44
	TC-415	2.35
	TC-417	2.20
	TC-418	1.98
	TC-419	2.02
	TC-421	1.77
<b>B 500</b>		
	TC-521	2.42
	TC-531	2.34
	TC-541	1.90
	TC-551	1.79
	TC-561	1.58

**STANDARD POWER TAKEOFF PROVISION - CONTINUOUS OPERATION**

BASE MODEL	MOUNTING PAD POSITIONS VIEWED FROM REAR	DRIVE GEAR RATING WITH ONE PTO	DRIVE GEAR RATING WITH TWO PTOS	DRIVE
		lb-ft (N • m)	lb-ft (N • m)	
B 210 <sup>1</sup>	3 and 9 o'clock	250 (339)	200 (271)	Turbine
B 220 <sup>1</sup>	3 and 9 o'clock	250 (339)	200 (271)	Turbine
B 300 <sup>1</sup>	4 and 8 o'clock	485 (660)	685 (930)	Engine
B 400 <sup>1</sup>	4 and 8 o'clock	485 (660)	685 (930)	Engine
B 500 <sup>1</sup>	1 and 8 o'clock	685 (930)	1175 (1595)	Engine

<sup>1</sup> PTO-delete option available

**PHYSICAL DESCRIPTION**

BASE MODEL	LENGTH <sup>1</sup>	DEPTH <sup>2</sup> W/DEEP OIL PAN/SUMP	DEPTH <sup>2</sup> W/SHALLOW OIL PAN/SUMP	DRY WEIGHT
	in (mm)	in (mm)	in (mm)	lbs (kg)
<b>B 200</b>				
- SAE No. 3 mounting	28.01 (711.4)	11.22 (284.9)	10.71 (272.0)	330 (150)
- SAE No. 2 mounting	28.29 (721.1)	11.22 (284.9)	10.71 (272.0)	330 (150)
<b>B 300/400</b>				
- Basic model	28.16 (715.3)	12.90 (327.7)	11.13 (282.7)	535 (243)
- With PTO only	32.36 (822.0)	12.90 (327.7)	11.13 (282.7)	575 (261)
- With retarder only	28.16 (715.3)	12.90 (327.7)	11.13 (282.7)	615 (279)
- With PTO & retarder	32.36 (822.0)	12.90 (327.7)	11.13 (282.7)	655 (298)
<b>B 500</b>				
- Basic model	30.75 (781.1)	14.89 (378.2)	13.17 (334.6)	831 (377)
- With PTO only	33.62 (854.0)	14.89 (378.2)	13.17 (334.6)	893 (405)
- With retarder only	30.75 (781.1)	14.89 (378.2)	13.17 (334.6)	906 (411)
- With PTO & retarder	33.62 (854.0)	14.89 (378.2)	13.17 (334.6)	968 (439)

<sup>1</sup> Length measured from flywheel housing to end of output shaft. <sup>2</sup> Depth measured below transmission centerline.

**OIL SYSTEM**

BASE MODEL	CAPACITY <sup>1</sup>	MAIN CIRCUIT FILTER	LUBE CIRCUIT FILTER	ELECTRONIC OIL LEVEL SENSOR (OLS)
	quarts (liters)			
<b>B 210/220</b>				
		Spin-On Canister	-	-
- Deep Oil Pan	19 (18)			
<b>B 300/400</b>				
		Integral	Integral	Standard
- Deep Oil Sump	29 (27)			
- Shallow Oil Sump	26 (25)			
<b>B 500</b>				
		Integral	Integral	Standard
- Deep Oil Sump and PTO	51 (48)			
- Deep Oil Sump	48 (45)			
- Shallow Oil Sump and PTO	43 (41)			
- Shallow Oil Sump	40 (38)			

*Recommended oil types for all models are TranSynd™ or Dexron®-III.*

<sup>1</sup> Transmission only. Does not include cooler, hoses or fittings.