

Ratings and Specifications

RUGGED DUTY SERIES

RATINGS

MODEL	RATIO	PARK PAWL	MAX INPUT POWER ¹	MAX INPUT TORQUE ¹	MAX INPUT TORQUE W/SEM OR TORQUE LIMITING ^{1,2}	MAX TURBINE TORQUE ³	MAX GVW	MAX GCW
			hp (kW)	lb-ft (N • m)	lb-ft (N • m)	lb-ft (N • m)	lbs (kg)	lbs (kg)
1000 RDS	Close Ratio	Yes	300 ⁴ (224) ⁴	550 (746)	620 (841)	850 (1152)	19,500 (8,845)	26,000 (11,800)
2100 RDS	Close Ratio	No	300 ⁴ (224) ⁴	550 (746)	620 (841)	850 (1152)	26,000 (11,800)	26,000 (11,800)
2200 RDS	Close Ratio	Yes	300 ⁴ (224) ⁴	550 (746)	620 (841)	850 (1152)	26,000 (11,800)	26,000 (11,800)
2300 RDS ⁵	Close Ratio	No	325 (242)	n/a	450 (610)	850 (1152)	33,000 (15,000)	33,000 (15,000)
2350 RDS ⁷	Close Ratio	Yes	300 ^{4,7} (224) ^{4,7}	550 (746)	620 (841)	850 (1152)	30,000 (13,600)	30,000 (13,600)
2500 RDS								
- On/Off Highway	Wide Ratio	No	300 (224)	550 (746)	620 (841)	850 (1152)	33,000 (15,000)	33,000 (15,000)
- Refuse	Wide Ratio	No	300 (224)	550 (746)	565 (766)	850 (1152)	24,200 (11,000)	—
2550 RDS ⁷	Wide Ratio	Yes	300 ⁷ (224) ⁷	550 (746)	620 (841)	850 (1152)	30,000 (13,600)	30,000 (13,600)
3000 RDS								
- On/Off Highway	Close Ratio	n/a	370 (276)	1100 (1491)	1250 ^{6,7} (1695) ^{6,7}	1600 (2169)	80,000 (36,288)	80,000 (36,288)
- On Highway	Close Ratio	n/a	370 (276)	1100 (1491)	1250 ^{6,7} (1695) ^{6,7}	1600 (2169)	80,000 (36,288)	80,000 (36,288)
- Mixer	Close Ratio	n/a	370 (276)	1100 (1491)	1250 ^{6,7} (1695) ^{6,7}	1600 (2169)	62,000 (28,123)	—
- Refuse	Close Ratio	n/a	370 (276)	1100 (1491)	1250 ^{6,7} (1695) ^{6,7}	1600 (2169)	62,000 (28,123)	—
- Specialty PTO, HET	Close Ratio	n/a	370 (276)	1250 ⁷ (1695) ⁷	n/a	1700 (2305)	—	—
3500 RDS								
- On/Off Highway	Wide Ratio	n/a	300 (224)	800 (1085)	n/a	1420 (1925)	80,000 (36,288)	80,000 (36,288)
- Mixer	Wide Ratio	n/a	300 (224)	800 (1085)	n/a	1420 (1925)	60,000 (27,216)	—
- Refuse	Wide Ratio	n/a	300 (224)	800 (1085)	n/a	1420 (1925)	60,000 (27,216)	—
- Specialty PTO, HET	Wide Ratio	n/a	315 (235)	950 (1288)	n/a	1450 (1966)	—	—
4000 RDS								
- On/Off Highway	Close Ratio	n/a	550 (410)	1770 (2400)	n/a	2600 (3525)	—	—
- Refuse	Close Ratio	n/a	500 (373)	1550 (2102)	n/a	2450 (3322)	—	—
- Specialty PTO	Close Ratio	n/a	550 (410)	1770 (2400)	n/a	2600 (3525)	—	—
- HET	Close Ratio	n/a	600 (447)	1850 (2508)	n/a	2600 (3525)	—	—
4500 RDS								
- On/Off Highway	Wide Ratio	n/a	550 (410)	1650 (2237)	1770 ⁸ (2400) ⁸	2450 (3322)	—	—
- Refuse	Wide Ratio	n/a	500 (373)	1550 (2102)	n/a	2450 (3322)	—	—
- Specialty PTO	Wide Ratio	n/a	550 (410)	1650 (2237)	1770 ⁸ (2400) ⁸	2600 (3525)	—	—
- HET	Wide Ratio	n/a	600 (447)	1650 (2237)	1850 ⁸ (2508) ⁸	2600 (3525)	—	—
4700 RDS								
- On/Off Highway	Widest Ratio	n/a	550 (410)	1770 (2400)	n/a	2600 (3525)	—	—
- Refuse	Widest Ratio	n/a	500 (373)	1550 (2102)	n/a	2450 (3322)	—	—
- HET	Widest Ratio	n/a	600 (447)	1850 (2508)	n/a	2600 (3525)	—	—

¹ Gross ratings as defined by ISO 1585 or SAE J1995. ² SEM = engine controls with Shift Energy Management. ³ Turbine torque limit based on ISCAAN standard deductions. ⁴ Gross input power rating is 340 hp/254 kW for VORTEC 8.1L gasoline powered engines. ⁵ Only available for VORTEC 8.1L gasoline powered engine applications. ⁶ Requires Allison Transmission engine-transmission combination approval. Only available in gears three through six. ⁷ Check with your OEM to insure offerings. ⁸ Available in gears two through six.

OPTIONAL RETARDER PROVISION - INTEGRAL, HYDRAULIC TYPE

BASE MODEL	TORQUE CAPACITY lb-ft (N • m)	POWER CAPACITY hp (kW)
3000		
- High	1600 (2170)	600 (447)
- Medium	1300 (1760)	500 (373)
- Low	1100 (1490)	400 (298)
4000 ¹		
- High	2000 (2710)	600 (447)
- Medium	1600 (2170)	600 (447)
- Low	1300 (1760)	500 (373)

¹ Only medium-capacity available on 4700 RDS.

TORQUE CONVERTER SPECIFICATIONS

BASE MODEL	TORQUE CONVERTER	NOMINAL STALL TORQUE
1000	TC-210	2.05
	TC-211	2.00
	TC-221	1.73
	TC-222	1.58
	TC-210	2.05
2000	TC-211	2.00
	TC-221	1.73
	TC-222	1.58
3000	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
	TC-521	2.42
4000	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)	
1000	3 and 9 o'clock	250 (339)	200 ² (271) ²	Turbine
2000	3 and 9 o'clock	250 (339)	200 ² (271) ²	Turbine
3000 ¹	4 and 8 o'clock	485 (660)	685 ³ (930) ³	Engine
4000 ¹	1 and 8 o'clock	685 (930)	1175 ³ (1595) ³	Engine

¹ PTO-delete option available. ² Rating is per PTO. ³ Total on the drive gear.

PHYSICAL DESCRIPTION

BASE MODEL	LENGTH ¹	DEPTH ² W/DEEP OIL PAN/SUMP	DEPTH ² W/SHALLOW OIL PAN/SUMP	DRY WEIGHT	
	in (mm)	in (mm)	in (mm)	lbs (kg)	
1000	- SAE No. 3 mounting	28.01 (711.4)	11.22 (284.9)	10.71 (272.0)	330 (150)
	- SAE No. 2 mounting	28.39 (721.1)	11.22 (284.9)	10.71 (272.0)	330 (150)
2000	- SAE No. 3 mounting	28.01 (711.4)	11.22 (284.9)	10.71 (272.0)	330 (150)
	- SAE No. 2 mounting	28.39 (721.1)	11.22 (284.9)	10.71 (272.0)	330 (150)
3000	- Basic model	28.29 (718.6)	12.90 (327.8)	11.14 (283.1)	535 (243)
	- With PTO only	32.49 (825.4)	12.90 (327.8)	11.14 (283.1)	575 (261)
	- With retarder only	28.29 (718.6)	12.90 (327.8)	11.14 (283.1)	615 (279)
	- With PTO & retarder	32.49 (825.4)	12.90 (327.8)	11.14 (283.1)	655 (298)
4000	- Basic model	30.54 (775.8)	14.75 (374.7)	13.17 (334.6)	831 (377)
	- With PTO only	33.42 (848.8)	14.75 (374.7)	13.17 (334.6)	893 (405)
4500	- With retarder only	30.54 (775.8)	14.75 (374.7)	13.17 (334.6)	906 (411)
	- With PTO & retarder	33.42 (848.8)	14.75 (374.7)	13.17 (334.6)	968 (439)
4700	- Basic model	40.61 (1031.6)	14.88 (378.2)	—	1087 (493)
	- With PTO only	43.48 (1104.6)	14.88 (378.2)	—	1149 (521)
	- With retarder only	40.61 (1031.6)	14.88 (378.2)	—	1162 (527)
	- With PTO & retarder	43.48 (1104.6)	14.88 (378.2)	—	1224 (555)

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

OIL SYSTEM

BASE MODEL	CAPACITY ¹	MAIN CIRCUIT FILTER	LUBE CIRCUIT FILTER	ELECTRONIC OIL LEVEL SENSOR (OLS)
	quarts (liters)			
1000		Spin-On Canister	—	—
- Deep Oil Pan	5 ² (4.7) ²			
2000		Spin-On Canister	—	—
- Deep Oil Pan	5 ² (4.7) ²			
3000		Integral	Integral	Standard
- Deep Oil Sump	29 ³ (27) ³			
4000/4500		Integral	Integral	Standard
- Deep Oil Sump and PTO	51 ³ (48) ³			
- Deep Oil Sump	48 ³ (45) ³			
4700		Integral	Integral	Standard ⁴
- Deep Oil Sump and PTO	54 ³ (51) ³			
- Deep Oil Sump	51 ³ (48) ³			

Recommended oil types for all models are TranSynd™ or TES 295 approved equivalent.

¹ Transmission only. Does not include cooler, hoses or fittings. ² Amount of oil necessary to facilitate start up. ³ Amount of oil necessary to fill a dry transmission. ⁴ 4700 RDS retarder model must use 4-inch sump without OLS.

GEAR RATIOS - TORQUE CONVERTER MULTIPLICATION NOT INCLUDED

MODEL	FIRST	SECOND	THIRD	FOURTH	FIFTH	SIXTH	SEVENTH	REVERSE
1000 RDS, 2100 RDS 2200 RDS, 2300 RDS	3.10:1	1.81:1	1.41:1	1.00:1	0.71:1	0.61:1 ¹	—	-4.49:1
2350 RDS	3.10:1	1.81:1	1.41:1	1.00:1	0.71:1	0.61:1 ¹	—	-4.49:1
2500 RDS	3.51:1	1.90:1	1.44:1	1.00:1	0.74:1	0.64:1 ¹	—	-5.09:1
2550 RDS	3.51:1	1.90:1	1.44:1	1.00:1	0.74:1	0.64:1 ¹	—	-5.09:1
3000 RDS	3.49:1	1.86:1	1.41:1	1.00:1	0.75:1	0.65:1	—	-5.03:1
3500 RDS	4.59:1	2.25:1	1.54:1	1.00:1	0.75:1	0.65:1	—	-5.00:1
4000 RDS	3.51:1	1.91:1	1.43:1	1.00:1	0.74:1	0.64:1	—	-4.80:1
4500 RDS	4.70:1	2.21:1	1.53:1	1.00:1	0.76:1	0.67:1	—	-5.55:1
4700 RDS	7.63:1*	3.51:1	1.91:1	1.43:1	1.00:1	0.74:1	0.64:1	-4.80:1

* Manually selected first gear.

¹ Check with your OEM to insure offerings.

ENGINE SPEEDS

MODEL	FULL LOAD GOVERNED SPEED	IDLE SPEED IN DRIVE	OUTPUT SHAFT SPEED
	Min-Max (rpm)	Min-Max (rpm)	rpm
1000	2200-4600 ¹	500-820	5000
2100/2200/2300	2200-4600 ¹	500-820	5000
2350	2200-4600 ¹	500-820	5000
2500	2200-3200	500-820	4500
2550	2200-3200	500-820	4500
3000/3500	2000-2800	500-800	3600 ²
4000/4500/4700	1700-2300	500-800	—

¹ Engines with full load governed speed greater than 3800 rpm require Application Engineering review. ² Retarder-equipped models only.