



Data Sheet

Form No.	Issue Date	Rev. Date
DS-3007	08/12/09	10/29/13

WATEROUS TC20 SERIES CHAIN DRIVE POWER TAKE-OFF

DESCRIPTION: SPLIT SHAFT CHAIN DRIVE POWER TAKE-OFF

TC20 SERIES PTOs ARE AVAILABLE AS FOLLOWS

Table 1. TC20 Series PTOs

Model	Driveline			Eclipse ES CAFS	Output Shaft			Dim. Dwg
	Type	Spline	Input		Type	Front Facing	Rear Facing	
TC20B, TC20C, TC20D, TC20E, TC20F	Extra Heavy Duty	2.35-46T Involute	CW	Without	Single	1410 Series End Yoke	None	DPL83000
						SAE Class B 2-Bolt Hydraulic Flange with 7/8-13T (SAE B) Internal Involute Spline	None	
						None	1410 Series End Yoke	
						None	SAE Class B 2-Bolt Hydraulic Flange with 7/8-13T (SAE B) Internal Involute Spline	
					Dual	1410 Series End Yoke	SAE Class B 2-Bolt Hydraulic Flange with 7/8-13T (SAE B) Internal Involute Spline	
						SAE Class B 2-Bolt Hydraulic Flange with 7/8-13T (SAE B) Internal Involute Spline	1410 Series End Yoke	
With	Single	None (200 CFM Air Compressor is Mounted on Front)	1410 Series End Yoke	DPL83001				

Table 2. Drop Dimensions (Distance from Output Shaft to Driveline) by PTO Model

PTO Model	Drop Dimension (Distance from Output Shaft to Driveline)	
TC20B	11.840 to 12.326 in.	300.74 to 313.08 mm
TC20C	13.680 to 14.302 in.	347.47 to 363.27 mm
TC20D	14.722 to 15.173 in.	373.94 to 385.39 mm
TC20E	16.763 to 17.154 in.	425.78 to 435.71 mm
TC20F	18.814 to 19.205 in.	477.88 to 487.81 mm

Note: Drop values vary by ratio. Refer to Dimensional Drawings DPL83000 or DPL83001 for exact dimensions.

DATA SHEET

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SPECIFY A COMPLETE TC20 SERIES PTO AS FOLLOWS:

PTO MODEL

Determine model needed based on drop dimension. Refer to Dimensional Drawings DPL83000 or DPL83001.

DIMENSIONAL ASSEMBLY NUMBER

Without Eclipse ES CAFS: 83000

With Eclipse ES CAFS: 83001

OUTPUT

Without Eclipse ES CAFS

Type - Single or Dual Output

Location - Front or Rear

Connection - **Single:** 1410 Series End Yoke with U-Bolts (Facing Front or Rear)

or

SAE Class B 2-Bolt Hydraulic Adapter with 7/8-13T (SAE B) Internal Involute Spline (Facing Front or Rear)

Dual: 1410 Series End Yoke with U-Bolts (Facing Front or Rear)

and

SAE Class B 2-Bolt Hydraulic Adapter with 7/8-13T (SAE B) Internal Involute Spline (Facing Front or Rear)

With Eclipse ES CAFS

Type - Single

Location - Rear (Air Compressor is Mounted on Front)

Connection - 1410 Series End Yoke with U-Bolts (Facing Rear)

RATIO

Without Eclipse ES CAFS

1.14, 1.27, 1.41, 1.48, 1.58, 1.69, 1.79, 1.88, 1.97, 2.03, 2.27, 2.46

With Eclipse ES CAFS

1.58, 1.69, 1.79, 1.88, 1.97, 2.03, 2.27

DATA SHEET

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DRIVELINE

Size: 2.35-46T, 20/40 DP, 37-1/2° Involute Spline
 16,000 ft-lb (21,760 N•m) maximum torque
 Compatible with 2-25/64-46T internal involute spline

Type: Standard: Input and Output Shaft
 Optional: Input Shaft Only

Maximum Input Shaft Speed: 3300 RPM

End Yokes and Companion Flanges (Choice Optional):

<u>End Yoke Choices:</u>	<u>Companion Flange Choices (See Note 1):</u>
1710 Series	1480/1610 Series
1810 Series	1710/1810 Series
SPL140	

Optional End Yoke Cross and Bearing Kits:

With or Without

Notes:

1.) Companion flanges compatible with the following flanged end yokes:

Companion Flange	Flange Yoke	
	Series	Spicer Part No.
1480/1610 Series	1480	3-2-499
	1610	5-2-629
1710/1810 Series	1710	6-2-749
	1810	6.5-2-329
	SPL140	140-2-29
	SPL170	170-2-19
	SPL250	250-2-19

Tachometer:

Standard: With
 Optional: Without

Tachometer Cable (Choice Optional):

With or Without

Note: Cable is 10 Feet Long

DATA SHEET

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SHIFT TYPE

Pneumatic or No Shift

INDICATING LIGHTS (PER NFPA 1901)

Pneumatic: With or Without (OEM to furnish)

No Shift: Not applicable

SYSTEM VOLTAGE

12 volt or 24 volt

OPTIONAL AIR COMPRESSOR KIT (PNEUMATIC SHIFT ONLY)

Consists of a 12 Volt compressor (6.00" L x 3.30" W x 4.90" H), .50 gallon air tank (6.00" L x 6.50" W x 7.00" H) and on-board air hook-up kit.

PRIMING PUMP

See data sheet, DS-4002

(Required only if PTO is used in a fire pump application, this option may be mounted on the PTO)

FOAM MANIFOLD AND FOAM PUMP

If required, must be ordered with fire pump