



Data Sheet

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| Form No. | Issue Date | Rev. Date |
| DS-2006 | 08/12/09 | 1/8/18 |

WATEROUS C20 SERIES CHAIN DRIVE TRANSMISSION

DESCRIPTION: SPLIT SHAFT CHAIN DRIVE FIRE PUMP TRANSMISSIONS

C20 SERIES TRANSMISSIONS ARE AVAILABLE AS FOLLOWS:

Table 1. C20 Series Transmissions

| Model | Drop Dimension | Driveline | | | | For Pumps Rated | Used on Pump Models | Dim. Drawing |
|--|----------------|------------------|----------|-------------------|-------------|-----------------------------------|--|--------------|
| | | Type | Size | Spline | Chain Width | | | |
| C20B, C20C, C20D, C20E, C20F | See Table 2 | Extra Heavy Duty | 2.35 in. | 2.35-46T Involute | 2-1/2 in. | 500 - 2250 GPM 1893-8517 L/min | CM, CMU, CS, CSU, CGV, CGVG, CXS, CXV, CXN, S100, S101, CM/CGV | DPL82994 |

Table 2. Drop Dimensions (Distance from impeller shaft to driveline) by transmission model

| Transmission Model | Drop Dimension | |
|--------------------|------------------|---------------------|
| C20B | 11.840 to 12.327 | 300.74 to 313.11 mm |
| C20C | 13.680 to 14.303 | 347.47 to 363.30 mm |
| C20D | 14.722 to 15.174 | 373.94 to 385.42 mm |
| C20E | 16.763 to 17.155 | 425.78 to 435.73 mm |
| C20F | 18.812 to 19.205 | 477.82 to 487.81 mm |

NOTE: Drop values vary by ratio. Refer to pump dimensional drawings for exact dimensions.

SPECIFY A COMPLETE C20 SERIES TRANSMISSION AS FOLLOWS:

TRANSMISSION MODEL

Determine model based on drop dimension; add to basic pump model. Ex: CSUC**20D**

DRIVELINE

Size: 2.35-46T, 20/40 DP, 37-1/2 degree 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

RATIO

Specify one of the following: 1.27, 1.41, 1.48, 1.58, 1.69, 1.79, 1.88, 1.97, 2.03, 2.27, 2.46, 2.68

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WATEROUS C20 SERIES CHAIN DRIVE TRANSMISSION

MOUNTING ON PUMP (CM and CS Models Only)

Rear (Rear Drive)

Front (Front Drive)

HYDRAULIC PUMP MOUNTING PROVISION ON BACK SIDE OF TRANSMISSION (CHOICE OPTIONAL)

SAE Class B 2-Bolt with 7/8-13T, 16-32 Internal Spline

Available only on Models: S100
 CM, CMU, CS, CSU When Transmission is Mounted on the Rear of the Pump

TACHOMETER CONNECTION

Standard: Without tachometer

Optional: Electronic

Optional Electronic Tachometer Cable: Yes or No

END YOKES AND COMPANION (Choice Optional):

End Yoke Choices:

1710 Series

1810 Series

SPL140

Companion Flange Choices (See Note 1):

1480/1610 Series

1650/1710 Series

ISO 8667 Cross-Tooth Style

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 |
| | 1710 HR | 6-4-4771-1 |
| | 1810 HR | 6.5-4-2541-1 |

PUMP SHIFT

See data sheet, DS-4005