

CAUTION: MAXIMUM OUTPUT SHAFT SPEED NOT TO EXCEED 2,500 RPM.

| ZED F TRANSMISSION | | | | | | | RIGHT SIDE ONLY (LEFT SIDE TURN PAGE) | | | | | |
|---------------------------|-------------------|---|----------------|----------|----|-----|--|--------|----------|------------|--|----|
| | | POWERLINE PACCAR TX8 Footnotes (2, 3, 4, & 5) | | | | | ZF 8-BOLT OPENING | | | | | |
| | | | | | | | PTO DRIVE GEAR DATA: 51T 9.42P 20°PA 22.0° R.H. LOCATION: Front PLMF: 3.891 PLV: 1417 FPM RPM: 1,000 | | | | | |
| 8-BOLT TYPE | PTO MODEL NUMBER | FOOT NOTES | SHAFT ROTATION | ENGINE % | | | ADAPTER | SPACER | STUD KIT | SHIFT TYPE | INTERMITTENT RATING @ 1,000 RPM OF PTO | |
| | | | | HI | LO | REV | | | | | TORQUE | HP |
| CLUTCH SHIFT | P58-Z1110-XX52IBX | 1 | Crnk | 121 | | | | | Included | Air | 420 | 80 |
| | P58-Z1107-XX52IBX | 1 | Crnk | 92 | | | | | Included | Air | 331 | 63 |
| | P60-Z1110-XX52IBX | 1 | Crnk | 121 | | | | | Included | Air | 258 | 49 |

FOOTNOTES:

- 1 P58 Series available as pneumatic shift only
- 2 Chassis must be ordered with correct PTO prep codes..
- 3 Connection to chassis "PTO ENGAGED SIGNAL" circuit must be made when PTO is engaged. Contact dealer for connection type and location.
- 4 Truck must be ordered with correct exhaust package for the PTO clearance. Contact dealer for details.
- 5 PTO operation permitted only in stationary or crawl modes.

Pump Selection Example:

- First you need to know the flow and pressure requirement of your application.
- Next find the closest pump output flow from the chart that is based on the most appropriate engine speed for your application. Follow the grid up to the top to read the basic pump series and size. This is the pump that will give you the flow you desire.
- If your system required 8 GPM to operate. Then you would look for 8 GPM in the columns. Finding the first one under the pump PH1-07 would give you a pump which will deliver the 8 GPM you require at an engine speed of 1,000 RPM. You would also get 8 GPM if you select the PH1-05 pump, but you would need to operate the engine at 1,300 RPM.
- After you have selected the Pump Series and size the complete pump model number can be ordered.

The PH Series would follow PH1-**-02BSBR-S for "BB" output option. PK Series would follow PK1-**-02BSBB-S for "BB" output option.

MODEL P58-Z1110-XX5BB*X or P60-Z1110-XX5BB*X (PTO OUTPUT "BB") APPROXIMATE PUMP OUTPUT FLOW AND MAXIMUM PRESSURE

NOTE: PUMP P/N PH1-**-02BSBR-S

| ENGINE SPEED | PH1-11 2.48 cu. in./Rev | | PH1-09 2.17 cu. in./Rev | | PH1-08 1.86 cu. in./Rev | | PH1-07 1.55 cu. in./Rev | | PH1-05 1.24 cu. in./Rev | | PH1-03 0.62 cu. in./Rev | |
|--------------|----------------------------|----------|----------------------------|----------|----------------------------|----------|----------------------------|----------|----------------------------|----------|----------------------------|----------|
| | GPM | MAX. PSI | GPM | MAX. PSI | GPM | MAX. PSI | GPM | MAX. PSI | GPM | MAX. PSI | GPM | MAX. PSI |
| | 900 | 11.7 | 2,500 | 10.2 | 2,900 | 8.8 | 3,250 | 7.3 | 3,500 | 5.8 | 3,500 | 2.9 |
| 1,000 | 13.0 | 2,500 | 11.4 | 2,900 | 9.7 | 3,250 | 8.1 | 3,500 | 6.5 | 3,500 | 3.2 | 3,500 |
| 1,100 | 14.3 | 2,500 | 12.5 | 2,900 | 10.7 | 3,250 | 8.9 | 3,500 | 7.1 | 3,500 | 3.6 | 3,500 |
| 1,200 | 15.6 | 2,500 | 13.6 | 2,900 | 11.7 | 3,250 | 9.7 | 3,500 | 7.8 | 3,500 | 3.9 | 3,500 |
| 1,300 | 16.9 | 2,500 | 14.8 | 2,900 | 12.7 | 3,250 | 10.6 | 3,500 | 8.4 | 3,500 | 4.2 | 3,500 |
| 1,400 | 18.2 | 2,500 | 15.9 | 2,900 | 13.6 | 3,250 | 11.4 | 3,500 | 9.1 | 3,500 | 4.5 | 3,500 |
| 1,500 | 19.5 | 2,500 | 17.1 | 2,900 | 14.6 | 3,250 | 12.2 | 3,500 | 9.7 | 3,500 | 4.9 | 3,500 |
| 1,600 | 20.8 | 2,500 | 18.2 | 2,900 | 15.6 | 3,250 | 13.0 | 3,500 | 10.4 | 3,500 | 5.2 | 3,500 |
| 1,700 | 22.1 | 2,500 | 19.3 | 2,900 | 16.6 | 3,250 | 13.8 | 3,500 | 11.0 | 3,500 | 5.5 | 3,500 |
| 1,800 | 23.4 | 2,500 | 20.5 | 2,900 | 17.5 | 3,250 | 14.6 | 3,500 | 11.7 | 3,500 | 5.8 | 3,500 |
| 1,900 | 24.7 | 2,500 | 21.6 | 2,900 | 18.5 | 3,250 | 15.4 | 3,500 | 12.3 | 3,500 | 6.2 | 3,500 |
| 2,000 | 26.0 | 2,500 | 22.7 | 2,900 | 19.5 | 3,250 | 16.2 | 3,500 | 13.0 | 3,500 | 6.5 | 3,500 |

MODEL P58-Z1110-XX5BB*X or P60-Z1110-XXX5BB*X (PTO OUTPUT "BB") APPROXIMATE PUMP OUTPUT FLOW AND MAXIMUM PRESSURE

NOTE: PUMP P/N PK1-**-02BSBB-S

| ENGINE SPEED | PK1-17 3.94 cu. in./Rev | | PK1-15 3.45 cu. in./Rev | | PK1-13 2.96 cu. in./Rev | | PK1-11 2.46 cu. in./Rev | | PK1-08 1.97 cu. in./Rev | | PK1-06 1.47 cu. in./Rev | |
|--------------|----------------------------|----------|----------------------------|----------|----------------------------|----------|----------------------------|----------|----------------------------|----------|----------------------------|----------|
| | GPM | MAX. PSI | GPM | MAX. PSI | GPM | MAX. PSI | GPM | MAX. PSI | GPM | MAX. PSI | GPM | MAX. PSI |
| | 900 | 18.6 | 2,500 | 16.3 | 2,500 | 14.0 | 3,000 | 11.6 | 3,000 | 9.3 | 3,000 | 6.9 |
| 1,000 | 20.6 | 2,500 | 18.1 | 2,500 | 15.5 | 3,000 | 12.9 | 3,000 | 10.3 | 3,000 | 7.7 | 3,000 |
| 1,100 | 22.7 | 2,500 | 19.9 | 2,500 | 17.1 | 3,000 | 14.2 | 3,000 | 11.4 | 3,000 | 8.5 | 3,000 |
| 1,200 | 24.8 | 2,500 | 21.7 | 2,500 | 18.6 | 3,000 | 15.5 | 3,000 | 12.4 | 3,000 | 9.2 | 3,000 |
| 1,300 | 26.8 | 2,500 | 23.5 | 2,500 | 20.2 | 3,000 | 16.8 | 3,000 | 13.4 | 3,000 | 10.0 | 3,000 |
| 1,400 | 28.9 | 2,500 | 25.3 | 2,500 | 21.7 | 3,000 | 18.0 | 3,000 | 14.4 | 3,000 | 10.8 | 3,000 |
| 1,500 | 31.0 | 2,500 | 27.1 | 2,500 | 23.3 | 3,000 | 19.3 | 3,000 | 15.5 | 3,000 | 11.6 | 3,000 |
| 1,600 | 33.0 | 2,500 | 28.9 | 2,500 | 24.8 | 3,000 | 20.6 | 3,000 | 16.5 | 3,000 | 12.3 | 3,000 |
| 1,700 | 35.1 | 2,500 | 30.7 | 2,500 | 26.4 | 3,000 | 21.9 | 3,000 | 17.5 | 3,000 | 13.1 | 3,000 |
| 1,800 | 37.1 | 2,500 | 32.5 | 2,500 | 27.9 | 3,000 | 23.2 | 3,000 | 18.6 | 3,000 | 13.9 | 3,000 |
| 1,900 | 39.2 | 2,500 | 34.3 | 2,500 | 29.5 | 3,000 | 24.5 | 3,000 | 19.6 | 3,000 | 14.6 | 3,000 |
| 2,000 | 41.3 | 2,500 | 36.1 | 2,500 | 31.0 | 3,000 | 25.8 | 3,000 | 20.6 | 3,000 | 15.4 | 3,000 |

PLEASE NOTE:

If you are accustomed to ordering a hydraulic pump based on the pump model number, you may be ordering a pump larger than you require when you apply that pump to this application.

To calculate the PTO output speed:
 Engine speed × 121% = PTO output speed. Example: Engine speed of 1,400 RPM would yield the following:
1,400 × 1.21 = 1,694 RPM PTO

A 7 GPM pump (like the PH1-07) would deliver a theoretical output flow of: Disp. × RPM/231
1.55 × 1,694/231 = 11.4 GPM

PK Series requires pump support bracket. Use PK1-**-02BSBB-S which includes extended studs on pump.

* Theoretical Flow Shown. Speed shown for pump at 0 in.Hg. vacuum.

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| CLUTCH SHIFT | P58-Z1110-XX52IPX | 1 | Crnk | 121 | | | | | Included | Air | 420 | 80 |
| | P58-Z1107-XX52IPX | 1 | Crnk | 92 | | | | | Included | Air | 331 | 63 |
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- b. Next find the closest pump output flow from the chart that is based on the most appropriate engine speed for your application. Follow the grid up to the top to read the basic pump series and size. This is the pump that will give you the flow you desire.
- c. If your system requires 8 GPM to operate, then you would look for 8 GPM in the columns. Finding the first one under the pump PH1-07 would give you a pump which will deliver the 8 GPM you require at an engine speed of 1,000 RPM. You would also get 8 GPM if you select the PH1-05 pump, but you would need to operate the engine at 1,300 RPM.
- d. After you have selected the Pump Series and size the complete pump model number can be ordered.

The PH Series would follow PH1-**-02BSBR-S for "BB" output option. PK Series would follow PK1-**-02BSBB-S for "BB" output option.

MODEL P58-Z1110-XX5BB*X or P60-Z1110-XX5BB*X (PTO OUTPUT "BB") APPROXIMATE PUMP OUTPUT FLOW AND MAXIMUM PRESSURE

NOTE: PUMP P/N PH1--02BSBR-S**

| ENGINE SPEED | PH1-11 <i>2.48 cu. in./Rev</i> | | PH1-09 <i>2.17 cu. in./Rev</i> | | PH1-08 <i>1.86 cu. in./Rev</i> | | PH1-07 <i>1.55 cu. in./Rev</i> | | PH1-05 <i>1.24 cu. in./Rev</i> | | PH1-03 <i>0.62 cu. in./Rev</i> | |
|--------------|-----------------------------------|----------|-----------------------------------|----------|-----------------------------------|----------|-----------------------------------|----------|-----------------------------------|----------|-----------------------------------|----------|
| | GPM | MAX. PSI | GPM | MAX. PSI | GPM | MAX. PSI | GPM | MAX. PSI | GPM | MAX. PSI | GPM | MAX. PSI |
| | 900 | 11.7 | 2,500 | 10.2 | 2,900 | 8.8 | 3,250 | 7.3 | 3,500 | 5.8 | 3,500 | 2.9 |
| 1,000 | 13.0 | 2,500 | 11.4 | 2,900 | 9.7 | 3,250 | 8.1 | 3,500 | 6.5 | 3,500 | 3.2 | 3,500 |
| 1,100 | 14.3 | 2,500 | 12.5 | 2,900 | 10.7 | 3,250 | 8.9 | 3,500 | 7.1 | 3,500 | 3.6 | 3,500 |
| 1,200 | 15.6 | 2,500 | 13.6 | 2,900 | 11.7 | 3,250 | 9.7 | 3,500 | 7.8 | 3,500 | 3.9 | 3,500 |
| 1,300 | 16.9 | 2,500 | 14.8 | 2,900 | 12.7 | 3,250 | 10.6 | 3,500 | 8.4 | 3,500 | 4.2 | 3,500 |
| 1,400 | 18.2 | 2,500 | 15.9 | 2,900 | 13.6 | 3,250 | 11.4 | 3,500 | 9.1 | 3,500 | 4.5 | 3,500 |
| 1,500 | 19.5 | 2,500 | 17.1 | 2,900 | 14.6 | 3,250 | 12.2 | 3,500 | 9.7 | 3,500 | 4.9 | 3,500 |
| 1,600 | 20.8 | 2,500 | 18.2 | 2,900 | 15.6 | 3,250 | 13.0 | 3,500 | 10.4 | 3,500 | 5.2 | 3,500 |
| 1,700 | 22.1 | 2,500 | 19.3 | 2,900 | 16.6 | 3,250 | 13.8 | 3,500 | 11.0 | 3,500 | 5.5 | 3,500 |
| 1,800 | 23.4 | 2,500 | 20.5 | 2,900 | 17.5 | 3,250 | 14.6 | 3,500 | 11.7 | 3,500 | 5.8 | 3,500 |
| 1,900 | 24.7 | 2,500 | 21.6 | 2,900 | 18.5 | 3,250 | 15.4 | 3,500 | 12.3 | 3,500 | 6.2 | 3,500 |
| 2,000 | 26.0 | 2,500 | 22.7 | 2,900 | 19.5 | 3,250 | 16.2 | 3,500 | 13.0 | 3,500 | 6.5 | 3,500 |

MODEL P58-Z1110-XXBB*X or P60-Z1110-XX5BB*X (PTO OUTPUT "BB") APPROXIMATE PUMP OUTPUT FLOW AND MAXIMUM PRESSURE

NOTE: PUMP P/N PK1--02BSBB**

| ENGINE SPEED | PK1-17 <i>3.94 cu. in./Rev</i> | | PK1-15 <i>3.45 cu. in./Rev</i> | | PK1-13 <i>2.96 cu. in./Rev</i> | | PK1-11 <i>2.46 cu. in./Rev</i> | | PK1-08 <i>1.97 cu. in./Rev</i> | | PK1-06 <i>1.47 cu. in./Rev</i> | |
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| | 900 | 18.6 | 2,500 | 16.3 | 2,500 | 14.0 | 3,000 | 11.6 | 3,000 | 9.3 | 3,000 | 6.9 |
| 1,000 | 20.6 | 2,500 | 18.1 | 2,500 | 15.5 | 3,000 | 12.9 | 3,000 | 10.3 | 3,000 | 7.7 | 3,000 |
| 1,100 | 22.7 | 2,500 | 19.9 | 2,500 | 17.1 | 3,000 | 14.2 | 3,000 | 11.4 | 3,000 | 8.5 | 3,000 |
| 1,200 | 24.8 | 2,500 | 21.7 | 2,500 | 18.6 | 3,000 | 15.5 | 3,000 | 12.4 | 3,000 | 9.2 | 3,000 |
| 1,300 | 26.8 | 2,500 | 23.5 | 2,500 | 20.2 | 3,000 | 16.8 | 3,000 | 13.4 | 3,000 | 10.0 | 3,000 |
| 1,400 | 28.9 | 2,500 | 25.3 | 2,500 | 21.7 | 3,000 | 18.0 | 3,000 | 14.4 | 3,000 | 10.8 | 3,000 |
| 1,500 | 31.0 | 2,500 | 27.1 | 2,500 | 23.3 | 3,000 | 19.3 | 3,000 | 15.5 | 3,000 | 11.6 | 3,000 |
| 1,600 | 33.0 | 2,500 | 28.9 | 2,500 | 24.8 | 3,000 | 20.6 | 3,000 | 16.5 | 3,000 | 12.3 | 3,000 |
| 1,700 | 35.1 | 2,500 | 30.7 | 2,500 | 26.4 | 3,000 | 21.9 | 3,000 | 17.5 | 3,000 | 13.1 | 3,000 |
| 1,800 | 37.1 | 2,500 | 32.5 | 2,500 | 27.9 | 3,000 | 23.2 | 3,000 | 18.6 | 3,000 | 13.9 | 3,000 |
| 1,900 | 39.2 | 2,500 | 34.3 | 2,500 | 29.5 | 3,000 | 24.5 | 3,000 | 19.6 | 3,000 | 14.6 | 3,000 |
| 2,000 | 41.3 | 2,500 | 36.1 | 2,500 | 31.0 | 3,000 | 25.8 | 3,000 | 20.6 | 3,000 | 15.4 | 3,000 |

PLEASE NOTE:

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* Theoretical Flow Shown.

Speed shown for pump at 0 in.Hg. vacuum.