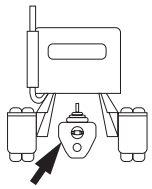
FORD TRANSMISSION

LEFT SIDE ONLY

6-BOLT OPENING



TORQSHIFT 6R140 6-SPEED
2016 & LATER F-650/F-750 GAS OR DIESEL
2017 & LATER F250 THRU F-550 GAS OR DIESEL
F-650/F-750 GAS OR DIESEL ENGINE

Footnote (1, 2, 5, 6, 7, 8, 9)

PTO DRIVE GEAR DATA:
52T 12.09P 20° PA Spur
LOCATION: Front PLMF: 3.439
PLV: 1,126 FPM RPM: 1,000

6-BOLT TYPE	PTO MODEL NUMBER	FOOT NOTES	SHAFT ROTATION	ENGINE % HI	ENGINE % LO	ENGINE % REV	ADAPTER	SPACER	STUD KIT	SHIFT TYPE	INTERMITTENT RATING @ 1,000 RPM of PTO TORQUE	INTERMITTENT RATING @ 1,000 RPM of PTO HP
SINGLE SPEED	FR6Q-F1209-*3BX	3	Opp	127					Included	Power	200	38
MULTI GEAR	FR6Q-F1209-*3NX	4	Opp	127					Included	Power	200	38
	FR6Q-F1209-*3QX	4	Opp	127					Included	Power	200	38

1. Engine driven direct drive PTO gear. *GAS Engine use shift code “F” and for DIESEL Engine use shift code “6” to obtain correct wiring.
2. Rating shown is for stationary applications only. The 2016 GAS engine F-650/F-750 must be used in “Stationary” applications only. The 2017 and later F-250 thru F-550 and F-650/F-750 can be used in stationary or mobile applications. For switchable stationary to mobile operation, order with feature option code “B”.
3. Remote mount 1¼" Rd keyed output Shaft. Driveline version only for 4x2 chassis.
4. Direct Mount Pump Output - see charts below for hydraulic pump applications. Max pump RPM shown at 0 in.Hg. The “Q” or “T” hydraulic output options are available, but only for the 4x2 chassis.
5. PTO output toque rating is based on the maximum available torque from the transmission.
6. Optional overspeed protection, order, sold separately.
7. Exhaust heat shield recommended for GAS engine applications, 49T43320 is included with “F” shift option.
8. F-250 thru F-550 with mechanical shift 4x4 order mounting stud kit 20TK6203 (20TK6054 for older FR66) in addition to the PTO. This is used to reattach the control cable for the transfer case.
9. Available with Muncie Start®; Special Feature Code “6” for stationary applications, “7” for switchable stationary to mobile.

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

Pump Selection Example:

a. Understand the flow and pressure requirement of your application.
b. 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. Example: 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 PF4-502 would give you a pump which will deliver the 8 GPM at 1,300 RPM. You would also get 8 GPM if you select the PF4-368 pump, but you would need to operate the engine at 1,800 RPM.
d. After the Pump Series and size is selected for your application, then complete pump model number can be ordered.

The PF Series would follow the model code: PF4-*-16QSRL. The PH Series would follow the model code: PH1-**-02ASRL-M (Size 03, 05, 07, 08, 09, 11 GPM) for the “Q” output option. PK Series would follow the model code: PK1-**02ACRL-M (size 06, 13, 17 GPM) for the “Q” output option. The W Series (F-650/F-750 Only) will follow the model code: W**-02AJ0-G*G*F14 (“GI” porting for W06-W11 and “GT” porting for W13-W21) for the “Q” output option.**

MODEL PF4-***-16QSRL (PTO OUTPUT “N”) APPROXIMATE PUMP OUTPUT FLOW* AND MAXIMUM PRESSURE

ENGINE SPEED	PF4-870 2.01 cu.in./Rev GPM	PF4-870 MAX. PSI	PF4-818 1.83 cu.in./Rev GPM	PF4-818 MAX. PSI	PF4-714 1.71 cu.in./Rev GPM	PF4-714 MAX. PSI	PF4-606 1.4 cu.in./Rev GPM	PF4-606 MAX. PSI	PF4-502 1.16 cu.in./Rev GPM	PF4-502 MAX. PSI	PF4-424 0.98 cu.in./Rev GPM	PF4-424 MAX. PSI
900	9.9	2,320	9.0	2,900	8.4	2,900	6.9	3,625	5.7	3,625	4.8	3,625
1,000	11.1	2,320	10.0	2,900	9.4	2,900	7.7	3,625	6.4	3,625	5.4	3,625
1,100	12.2	2,320	11.0	2,900	10.3	2,900	8.5	3,625	7.0	3,625	5.9	3,625
1,200	13.3	2,320	12.0	2,900	11.2	2,900	9.2	3,625	7.7	3,625	6.5	3,625
1,300	14.4	2,320	13.0	2,900	12.2	2,900	10.0	3,625	8.3	3,625	7.0	3,625
1,500	16.6	2,320	15.0	2,900	14.1	2,900	11.5	3,625	9.6	3,625	8.1	3,625
1,700	18.8	2,320	17.1	2,900	15.9	2,900	13.1	3,625	10.8	3,625	9.2	3,625
1,900	21.0	2,320	19.1	2,900	17.8	2,900	14.6	3,625	12.1	3,625	10.2	3,625
2,100									13.4	3,625	11.3	3,625
2,300									14.7	3,625	12.4	3,625
2,500												

EXCEEDS MAX RPM

ENGINE SPEED	PF4-368 0.85 cu.in./Rev GPM	PF4-368 MAX. PSI	PF4-290 0.73 cu.in./Rev GPM	PF4-290 MAX. PSI	PF4-264 0.61 cu.in./Rev GPM	PF4-264 MAX. PSI	PF4-212 0.49 cu.in./Rev GPM	PF4-212 MAX. PSI	PF4-160 0.37cu.in./Rev GPM	PF4-160 MAX. PSI
900	4.2	3,625	3.6	3,625	3.0	3,625	2.4	3,625	1.8	3,625
1,000	4.7	3,625	4.0	3,625	3.4	3,625	2.7	3,625	2.0	3,625
1,100	5.1	3,625	4.4	3,625	3.7	3,625	3.0	3,625	2.2	3,625
1,200	5.6	3,625	4.8	3,625	4.0	3,625	3.2	3,625	2.4	3,625
1,300	6.1	3,625	5.2	3,625	4.4	3,625	3.5	3,625	2.6	3,625
1,500	7.0	3,625	6.0	3,625	5.0	3,625	4.0	3,625	3.1	3,625
1,700	7.9	3,625	6.8	3,625	5.7	3,625	4.6	3,625	3.5	3,625
1,900	8.9	3,625	7.6	3,625	6.4	3,625	5.1	3,625	3.9	3,625
2,100	9.8	3,625	8.4	3,625	7.0	3,625	5.7	3,625	4.3	3,625
2,300	10.7	3,625	9.2	3,625	7.7	3,625	6.2	3,625	4.7	3,625

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

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 × 127% = PTO output speed. Example: Engine speed of 1,400 RPM would yield the following:

1,400 × 1.27 = 1,778 RPM PTO

A 6 GPM pump (like the PF4-606) would deliver a theoretical output flow of: Disp × RPM/231

1.4 × 1,778/231 = 10.7 GPM

The PH Series and PK Series Pumps will fit 4x2 chassis Only.

MODEL PH1--02ASRL-M (PTO OUTPUT "Q") APPROXIMATE PUMP OUTPUT FLOW AND MAXIMUM PRESSURE**

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	12.3	2,500	10.7	2,900	9.2	3,250	7.7	3,500	6.1	3,500	3.1	3,500
1000	13.6	2,500	11.9	2,900	10.2	3,250	8.5	3,500	6.8	3,500	3.4	3,500
1100	15.0	2,500	13.1	2,900	11.2	3,250	9.4	3,500	7.5	3,500	3.7	3,500
1200	16.4	2,500	14.3	2,900	12.3	3,250	10.2	3,500	8.2	3,500	4.1	3,500
1300	17.7	2,500	15.5	2,900	13.3	3,250	11.1	3,500	8.9	3,500	4.4	3,500
1500	20.5	2,500	17.9	2,900	15.3	3,250	12.8	3,500	10.2	3,500	5.1	3,500
1700	23.2	2,500	20.3	2,900	17.4	3,250	14.5	3,500	11.6	3,500	5.8	3,500
1900	25.9	2,500	22.7	2,900	19.4	3,200	16.2	3,500	13.0	3,500	6.5	3,500

MODEL PK1--02A*RL-M (PTO OUTPUT "Q") APPROXIMATE PUMP OUTPUT FLOW AND MAXIMUM PRESSURE**

ENGINE SPEED	PK1-17 3.94 cu.in./Rev		PK1-13 2.96 cu.in./Rev		PK1-06 1.47 cu.in./Rev	
	GPM	MAX. PSI	GPM	MAX. PSI	GPM	MAX. PSI
900	19.5	2,500	14.6	3,000	7.3	3,000
1,000	21.7	2,500	16.3	3,000	8.1	3,000
1,100	23.8	2,500	17.9	3,000	8.9	3,000
1,200	26.0	2,500	19.5	3,000	9.7	3,000
1,300	28.2	2,500	21.2	3,000	10.5	3,000
1,500	32.5	2,500	24.4	3,000	12.1	3,000
1,700	36.8	2,500	27.7	3,000	13.7	3,000
1,900	41.2	2,500	30.9	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 × 127% = PTO output speed. Example: Engine speed of 1,400 RPM would yield the following:

1,400 × 1.27 = 1,778 RPM PTO

A 6 GPM pump (like the PF4-606) would deliver a theoretical output flow of: Disp × RPM / 231

1.4 × 1,778 / 231 = 10.7 GPM

*** Theoretical Flow Shown.**

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

W Series will only fit on the F-650 or F-750 Series chassis.

MODEL W-02AJ0-G*G*-F14 ("GI" porting for W06-W11 and "GT" porting for W13-W21)**

For the "Q" PTO OUTPUT - APPROXIMATE PUMP FLOW AND MAXIMUM PRESSURE

ENGINE SPEED	W21 4.87 in.³/Rev		W19 4.37 in.³/Rev		W17 3.96 in.³/Rev		W15 3.46 in.³/Rev		W13 2.92 in.³/Rev		W11 2.42 in.³/Rev		W08 1.96 in.³/Rev		W06 1.45 in.³/Rev	
	GPM	MAX. PSI	GPM	MAX. PSI	GPM	MAX. PSI	GPM	MAX. PSI	GPM	MAX. PSI	GPM	MAX. PSI	GPM	MAX. PSI	GPM	MAX. PSI
900	24.1	2,150	21.6	2,400	19.6	2,650	17.1	3,040	14.4	3,600	12.0	4,300	9.7	4,350	7.2	4,350
1,000	26.8	2,150	24.0	2,400	21.8	2,650	19.0	3,040	16.1	3,600	13.3	4,300	10.8	4,350	8.0	4,350
1,100	29.5	2,150	26.4	2,400	23.9	2,650	20.0	3,040	17.7	3,600	14.6	4,300	11.9	4,350	8.8	4,350
1,200	32.1	2,150	28.8	2,400	26.1	2,650	22.8	3,040	19.3	3,600	16.0	4,300	12.9	4,350	9.6	4,350
1,300	34.8	2,150	31.2	2,400	28.3	2,650	24.7	3,040	20.9	3,600	17.3	4,300	14.0	4,350	10.4	4,350
1,500	40.2	2,150	36.0	2,400	32.7	2,650	28.5	3,040	24.1	3,600	20.0	4,300	16.2	4,350	11.6	4,350
1,700	45.5	2,150	40.8	2,400	37.0	2,650	32.3	3,040	27.3	3,600	22.6	4,300	18.3	4,350	13.6	4,350
1,900	50.9	2,150	45.6	2,400	41.4	2,650	36.1	3,040	30.5	3,600	25.3	4,300	20.5	4,350	15.1	4,350

W SERIES ARE SHOWN WITH LIMITED MAXIMUM PRESSURE DUE TO THE LIMITS OF THE FORD TRANSMISSION.

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