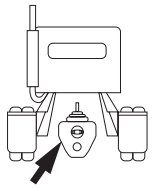
FORD TRANSMISSION

LEFT SIDE ONLY

6-BOLT OPENING



TORQSHIFT (6R140 6-SPEED)
4x2 F-650 & F-750 CHASSIS GAS ENGINE
MODEL YEAR 2013-2015

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

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-G3BX	3	Opp	127					Included	Power	200	38
MULTI GEAR	FR6Q-F1209-G3NX	4	Opp	127					Included	Power	200	38

FOOTNOTES:

1 Engine driven direct drive PTO gear.
2 Rating shown is for stationary applications only. For Mobile applications reduce torque to 150 Max int. per Ford Motor Co.
3 Remote mount 1¼" Rd output Shaft.
4 Direct mount pump output - see charts below for hydraulic pump applications. Max pump RPM shown at 0 in.Hg. "Q" & "T" Hyd Output Available.
5 PTO output torque rating is based on the maximum available torque from the transmission.
6 Optional overspeed protection, order SPD-1001, sold separately.
7 Exhaust heat shield recommended. 49T43320 is included with PTO.
8 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. First you need to know the flow and pressure requirement of your application.
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 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 you require at an engine speed of 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 you have selected the Pump Series and size the complete pump model number can be ordered.

The PF Series would follow the form of: PF4-*-16QSRL (for "N" output option), PF4-***-16ASRL for "T" output option. The PH Series would follow PH1-**-02ASRL-M (Size 03, 05, 07, 08, 09, 11 GPM) for "Q" output option. PK Series would follow PK1-**-02ACRL-M (size 06, 13, 17 GPM) for "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	18.6	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. Exceeds Max RPM**

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

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

	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	
ENGINE SPEED	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
1,000	13.6	2,500	11.9	2,900	10.2	3,250	8.5	3,500	6.8	3,500	3.4	3,500
1,100	15.0	2,500	13.1	2,900	11.2	3,250	9.4	3,500	7.5	3,500	3.7	3,500
1,200	16.4	2,500	14.3	2,900	12.3	3,250	10.2	3,500	8.2	3,500	4.1	3,500
1,300	17.7	2,500	15.5	2,900	13.3	3,250	11.1	3,500	8.9	3,500	4.4	3,500
1,500	20.5	2,500	17.9	2,900	15.3	3,250	12.8	3,500	10.2	3,500	5.1	3,500
1,700	23.2	2,500	20.3	2,900	17.4	3,250	14.5	3,500	11.6	3,500	5.8	3,500
1,900	25.9	2,500	22.7	2,900	19.4	3,250	16.2	3,500	13.0	3,500	6.5	3,500

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

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

	PK1-17 3.94 cu.in./Rev		PK1-13 2.96 cu.in./Rev		PK1-06 1.47 cu.in./Rev	
ENGINE SPEED	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

*** 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