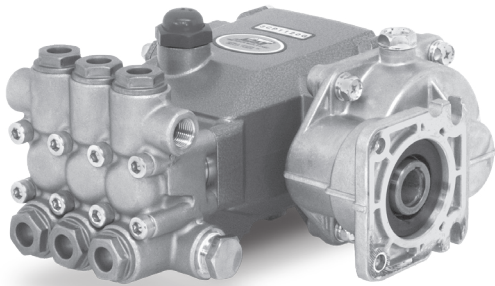


DATA SHEET

DIRECT DRIVE 3CP GEARBOX



Model: **8075** *Used on models 3CP1120G, 3CP1211G, 3CP1241G*



GEARBOX SPECIFICATIONS	U.S. Measure	Metric Measure
Gear Ratio	2.55 to 1	2.55 to 1
Mounting Face	3 $\frac{5}{8}$ "	92 mm
Engine Shaft Diameter	$\frac{3}{4}$ "	19 mm
Engine Shaft Length	2 $\frac{3}{8}$ "	60 mm
Gearbox Capacity	8.5 oz	0.25 l
Pump Crankcase Capacity	12.0 oz	0.35 l
Weight	4.85 lbs	2.20 kg
Dimensions	5.81 x 2.95 x 5.09"	147.5 x 75 x 130 mm

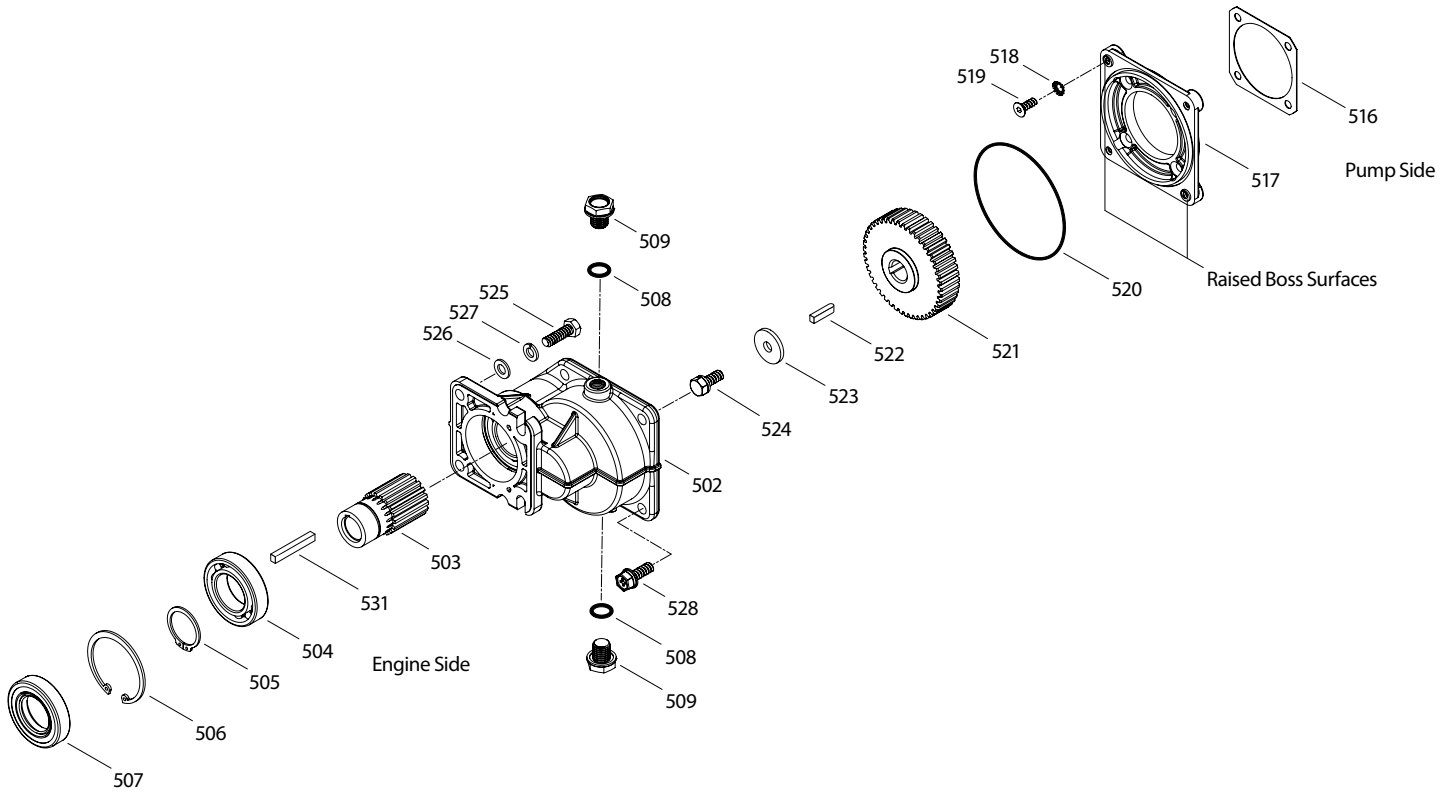
GEARBOX FEATURES

- No pulley selection or need for adjustment allows for quick, trouble-free gas engine mounting.
- Compact flange mount permits easy, direct mounting to most gas engines.*
- Pump and gearbox share an oil reservoir for ease-of-service and filling, no additional gear lube required.
- Hardened steel spur gears ensure smooth, quiet operation.

*Gas Mounting Flange: SAE J609, Flange A, Extensions 3 ($\frac{3}{4}$ " \varnothing)

Shaft Length = 2 $\frac{3}{8}$ ", Pilot \varnothing = 1 $\frac{1}{8}$ ", B.C. \varnothing = 3 $\frac{5}{8}$ ", Thread = $\frac{5}{16}$ " 24 UNF TAP

EXPLODED VIEW



Model 8075
Spur Gearbox
with Pinion Bearing
February 2025

PARTS LIST

ITEM	P/N	MATL	DESCRIPTION	QTY	ITEM	P/N	MATL	DESCRIPTION	QTY
502	45085	AL	Housing	1	520	44558	NBR	O-Ring, Flange-70D	1
503	45087	STL	Gear, Pinion	1	521	44297	STL	Gear, Spur	1
504	14488	STL	Bearing, Ball	1	522	57352	STL	Key (M5 x 5 x 21)	1
505	47333	STL	Ring, Retaining (Inner)	1	523	126579	STZP R	Washer, Flat (M8)	1
506	54673	STL	Ring, Retaining (Outer)	1	524	92521	STZP	Screw, Sems HHC (M8 x 20)	1
507	45089	NBR	Seal, Oil, Pinion	1	525	44314	STZP	Screw, HH (5/16" - 24 x 1")	4
508	23170	NBR	O-Ring, Drain Plug-70D	2	526	126573	STCP R	Washer, Flat (M8)	4
509	25625	STCP	Drain Plug, (1/4" x 19 BSP)	2	527	126232	STCP R	Lockwasher (M8)	4
516	48262	—	Gasket, Flange	1	528	126544	STCP R	Screw, Sems HHC (M8 x 25)	4
517	48261	AL	Flange, Bearing Cover	1	531	44294	STL	Key (3/16" x 3/16" x 1 3/4")	1
518	126745	STCP R	Lockwasher (M6)	4	—	6106	—	Lubrcant, Antiseize (2 ml) (Not Shown)	1
519	45763	STZP	Screw, FH (M6 x 16)	4					

R Components comply with RoHS Directive

MATERIAL CODES (Not Part of Part Number): AL=Aluminum NBR=Medium Nitrile (Buna-N) STL=Steel STCP=Steel/Chrome Plated STZP=Steel/Zinc Plated

FIELD CONVERSION FROM STANDARD PUMP

Follow these instructions to convert a standard pump to a gearbox pump.

1. Drain oil from pump.
2. Remove the four (4) Hex Head Combination (HHC) screws, bearing cover, O-ring, oil seal and bearing from the pump.
3. Discard the oil seal, O-ring, bearing cover and screws. Replacements come with the new gearbox.

Note: The gearbox comes with a bearing cover flange, gasket, O-ring, keys, anti-seize and hardware to mount the gearbox to the pump and engine.

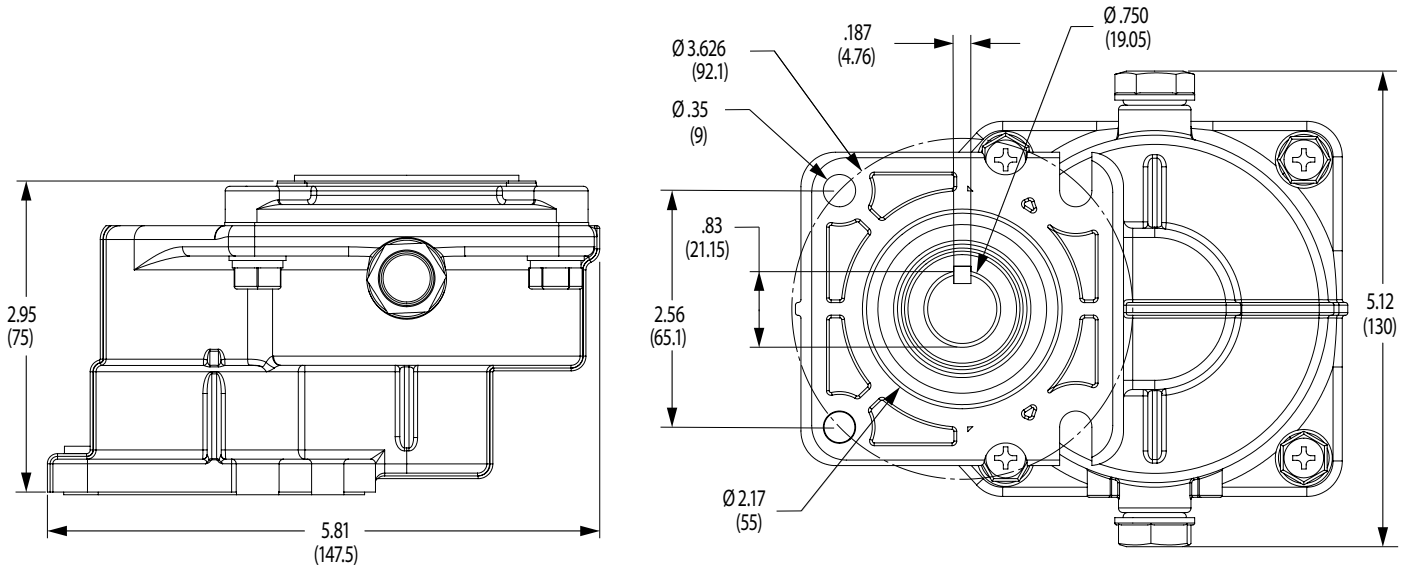
4. Place the four-hole gasket onto the pump side of the bearing cover flange and ensure the gasket's holes align with those of the bearing cover flange.
5. Ensure the surfaces where the gasket seals and crankcase meet are clean and debris-free.
6. Lubricate and install the O-ring into the groove on the engine side of the bearing cover flange.
7. Slide the bearing cover flange over the pump crankshaft with the cast number facing downward (you should be able to read number). The top upper left and lower right corner holes have a raised surface to act as a guide and locking position for the gearbox.
8. Install four (4) hex socket flat head screws with lock washers through the holes in the bearing cover flange and hand thread them into the pump crankcase. Using 4 mm hex tighten per torque chart.
9. Lubricate the pump crankshaft keyway with anti-seize (see PN 6106).
10. Insert rounded-end of key into pump crankshaft keyway until flush with end of shaft.
11. Align the keyway of the spur gear with the key onto the pump crankshaft and slide on the spur gear. Ensure the long neck end of the spur gear is installed toward pump crankcase.
12. Slide the flat washer over the sems HHC screw. Apply Loctite® 609® to threads of the sems HHC screw and hand thread the screw into the end of the pump crankshaft. Using 13 mm tool tighten per torque chart.
13. Slide the gearbox housing over the pump crankshaft. Carefully match the pinion gear teeth with the spur gear teeth.
14. Secure the gearbox housing to the bearing cover flange by inserting the sems HHC screws from the engine side of the gearbox housing. Hand thread the screws. Using 13 mm tool tighten per torque chart.
15. Proceed to **Mounting Pump With Gearbox Onto Engine**.

MOUNTING PUMP WITH GEARBOX ONTO ENGINE

1. Rotate the engine crankshaft until the keyway is at the top.
2. Apply anti-seize lubricant (see PN 6106) to the engine shaft and keyway. Insert the key as supplied by Cat Pumps into the engine keyway.
3. Line up the keyways of the gearbox pinion gear and the engine shaft, then carefully slide the pump with the gearbox onto the engine shaft until the gearbox flange is flush with the engine face.
4. Slide a lock washer and then a flat washer onto each hex head screw. Hand thread the hex head screws into the engine. Using ½" tool tighten per torque chart.
5. Before starting operation, fill the pump crankcase with Cat Pumps High-Pressure Pump Oil (see PN 6107). Allow time for oil to flow into the gearbox. No special oil is required for the gearbox.

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DIMENSIONAL



TORQUE CHART

Description	Thread	Tool	Torque
Bearing Cover Flange to Pump	M6	M4 Allen	50 in-lbs (5.6 Nm)
Drive Gear Retaining Screw	M8	13 mm	110 in-lbs (12.3 Nm)
Gearbox Housing to Bearing Cover Flange	M8	13 mm	50 in-lbs (5.6 Nm)
Engine Mounting Screw	$5/16"$ - 24	$1/2"$	110 in-lbs (12.3 Nm)

⚠ CAUTIONS AND WARNINGS

All high-pressure systems require a primary pressure regulating device (e.g. regulator, unloader) and a secondary pressure relief device (e.g. pop-off valve, relief valve). Failure to install such relief devices could result in personal injury or damage to pump or property. Cat Pumps does not assume any liability or responsibility for the operation of a customer's high-pressure system. Read all CAUTIONS and WARNINGS before commencing service or operation of any high-pressure system. The CAUTIONS and WARNINGS are included in each Service Manual and with each Accessory Data sheet. CAUTIONS and WARNINGS can also be viewed online at www.catpumps.com/dynamic-literature/cautions-and-warnings or can be requested directly from Cat Pumps.

WARRANTY

View the Limited Warranty online at www.catpumps.com/literature/cat-pumps-limited-warranty