

DATA SHEET

SAE BELL HOUSINGS AND COUPLER

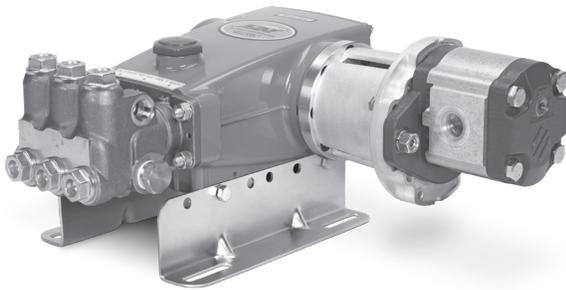


**Hydraulic
Bell Housing
Models:**

76SAEB2.15FR, 76SAEB4.15FR

**Flexible Coupler
Model:**

8387



Bell Housing Assembly and Flexible Coupler Assembly
(Model 660, rails and hydraulic motor sold separately)

FEATURES

- Bell housing design eliminates the need for belt selection, sizing and adjustments.
- Creates optimal shaft alignment, which reduces side-loading for quiet, trouble-free operation.
- Bell Housing is cast from lightweight, high-strength aluminum alloy.
- Compact direct mounting design reduces the space required compared to belt or gearbox drive assemblies.
- Ease of assembly reduces fabrication costs.
- Available as a completely assembled unit from Cat Pumps for fast and convenient assembly or as individual components.
- Designed to fit 15 and 18 Frame pumps.

PARTS LIST

Bell Housing Assemblies

Pump Series	Models	SAE Type	Bell Housing Assemblies
15 & 18FR	All 15 & 18FR Models	B2	76SAEB2.15FR
		B4	76SAEB4.15FR

Bell housing assembly includes bell housing and mounting hardware, flange adapter with screws, hydraulic adapter plate and screws.

SAE TYPE:

B2 = SAE "B" 2 Bolt, 4" Pilot

B4 = SAE "B" 4 Bolt, 4" Pilot



76SEAB4.15FR Bell Housing Assembly Shown

PARTS LIST

Flex Coupler Assembly

8387	
SAE Type	B2, B4
Motor Shaft Ø	7/8"
Coupler Half, Motor	32012
Motor Shaft Key	1/4"
Pump Shaft Ø	30 mm
Coupler Half, Pump	38278
Pump Shaft Key	8 mm
Key, Pump	30067
Spyder	991903
Spyder (Color)	Light Green
Torque Rating	150 ft-lbs



8387 Coupler Shown

PARTS LIST

Rail Assemblies

Pump Series	Height to Shaft Center	Part Number
15 & 18FR	5.7"	30613
	6.2"	76513

See pump Data Sheet for rail dimensions.



30613 Rail Assembly Shown

INSTALLATION

Hydraulic Bell Housing and Flexible Coupling

1. Separate the parts included in the bell housing and/or flexible coupler assembly packages. Both assemblies are offered in separate kits to cover the various torque ratings and pump models.
2. Remove the bearing cover screws from the extended shaft side of the pump and discard the screws. New screws are supplied in the bell housing assembly.
3. Mount the pump adapter with counter-sunk holes facing away from the pump. Install conical lock washers. Apply Loctite® 242® to the threads of the screws provided in the assembly and torque to 115 in-lbs, 13 N-m for M8 screws in an alternating rotation.
4. From the side where the bearing cover screws are removed, slide the small end of the bell housing over the pump shaft with the Cat Pumps logo facing up and positioned 22° from the top.
5. Install conical lock washers. Apply Loctite® 242® to the threads of the screws provided in the assembly and torque to 50 in-lbs, 5.7 N-m for M6 screws in an alternating rotation.
6. Apply a light film of anti-seize lubricant to the pump shaft.
7. Install the key on the pump shaft.
8. Separate 30mm half of the flexible coupler with the spyder.
9. Remove one (1) cross-clamp screw from the 30mm coupler half. Apply Loctite® 242® to the threads and then reinstall into the coupler half.
10. Slide the 30mm coupler half onto the pump shaft. Align inner face of the coupler flush with the end of the crankshaft.
11. Insert a 6mm hex wrench into the cross-clamp screw and tighten enough to hold the key and coupler in place. Tighten this screw to torque specifications in the final step
12. Apply a light film of anti-seize lubricant to the motor shaft.
13. Install the motor key (supplied with motor) onto the motor shaft keyway.
14. Remove one (1) cross-clamp screw from the motor coupler half. Apply Loctite® 242® to threads and then reinstall into the coupler half.
15. Slide the motor half of the flexible coupler containing the spyder onto the motor shaft.
16. Position the adapter flange to the hydraulic bell housing with the cast word PUMP facing the pump and located at the top.
17. Apply Loctite® 242® to the threads of screws. Insert four (4) screws and lock washers from the pump side. Torque to 150 in-lbs, 16.9 N-m for 3/8" screws in an alternating rotation.
18. Mount the motor with coupling half onto the pump shaft with the coupling half, lining up the two halves.
19. Apply Loctite® 242® to the threads of screws. Insert two (2) screws and lock washers through the motor mounting facet and hand thread into the adapter flange. Torque to 300 in-lbs, 34 N-m for 1/2" screws.
20. To secure flexible coupling with cross-clamp screws, insert a screwdriver into the bell housing and press the flexible coupler towards the pump.
Note: Flexible coupler halves should not contact each other. Ensure there is a small gap between the two coupler halves.
21. Rotate the motor shaft so cross-clamp screws are lined up with bell housing opening.
22. Insert a 6mm hex wrench into each cross-clamp screw and torque to 300 in-lbs for M8 cross-clamp screws.

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Torque Specifications Chart

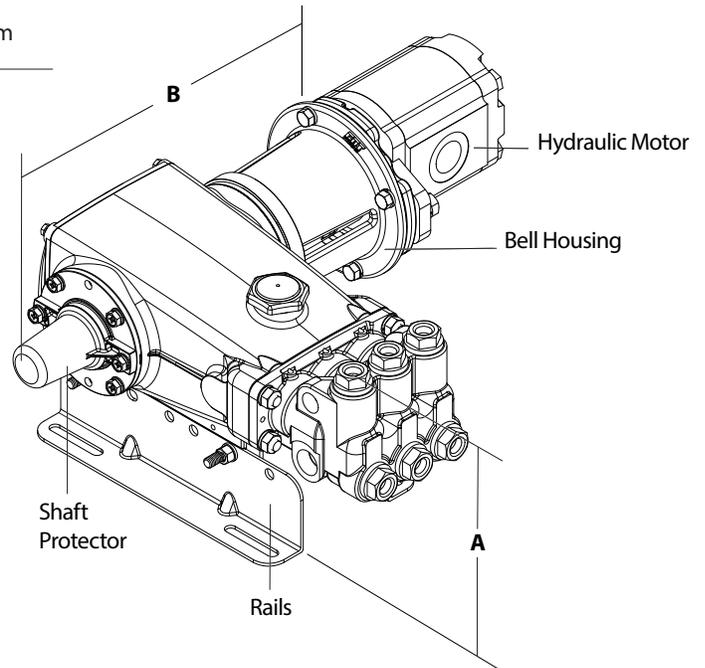
Screw	Thread Size	Tool	in-lbs	ft-lbs	N-m
Flange Adapter to Pump	M8	5mm Hex Wrench	115	9.6	13
Bell Housing to Flange Adapter	M6	4mm Hex Wrench	50	4.2	5.7
Adapter Plate to Bell Housing	3/8"	9/16" Combination Wrench	150	12.5	17
Motor to Adapter Plate to Motor	1/2"	3/4" Combination Wrench	300	25	34
Flexible Coupler Cross-Clamp Screws	M8	6mm Hex Wrench	300	25	34

DIMENSIONAL DRAWINGS

Pump and Bell Housing

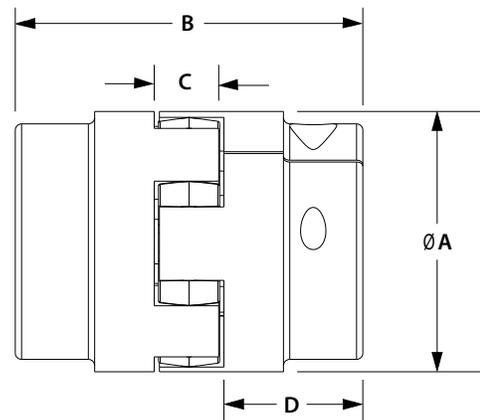
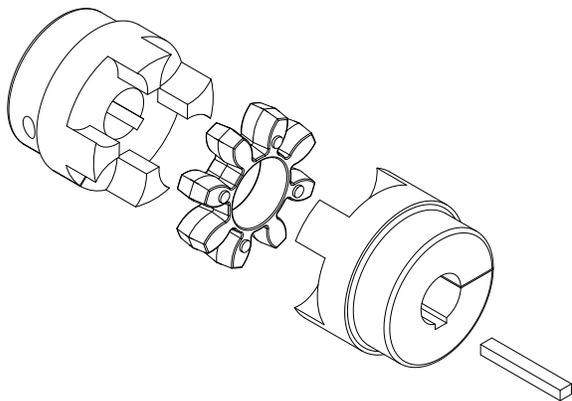
Rail Set PN	A (height)		B (width)	
30613	8.6"	218mm	15.88"	403mm
76513	9.1"	231mm		

Overall width will vary depending upon hydraulic motor selection.



Flexible Coupling Assembly

Model	Ø A	B	C	D
8387	2.56" 65mm	3.47" 88mm	0.77" 19.6mm	1.35" 34.3mm



⚠ 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