

NVE

National Vacuum Equipment

■ Part of Atlas Copco Group



887 PRO HEAVY DUTY VACUUM PUMPS

PARTS CATALOG

Challenger Series

VACUUM PUMPS & BLOWERS



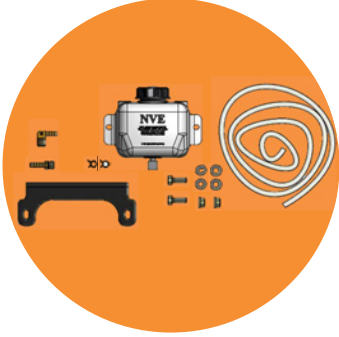
MADE IN THE USA

Designed. Built. Supported in The USA.

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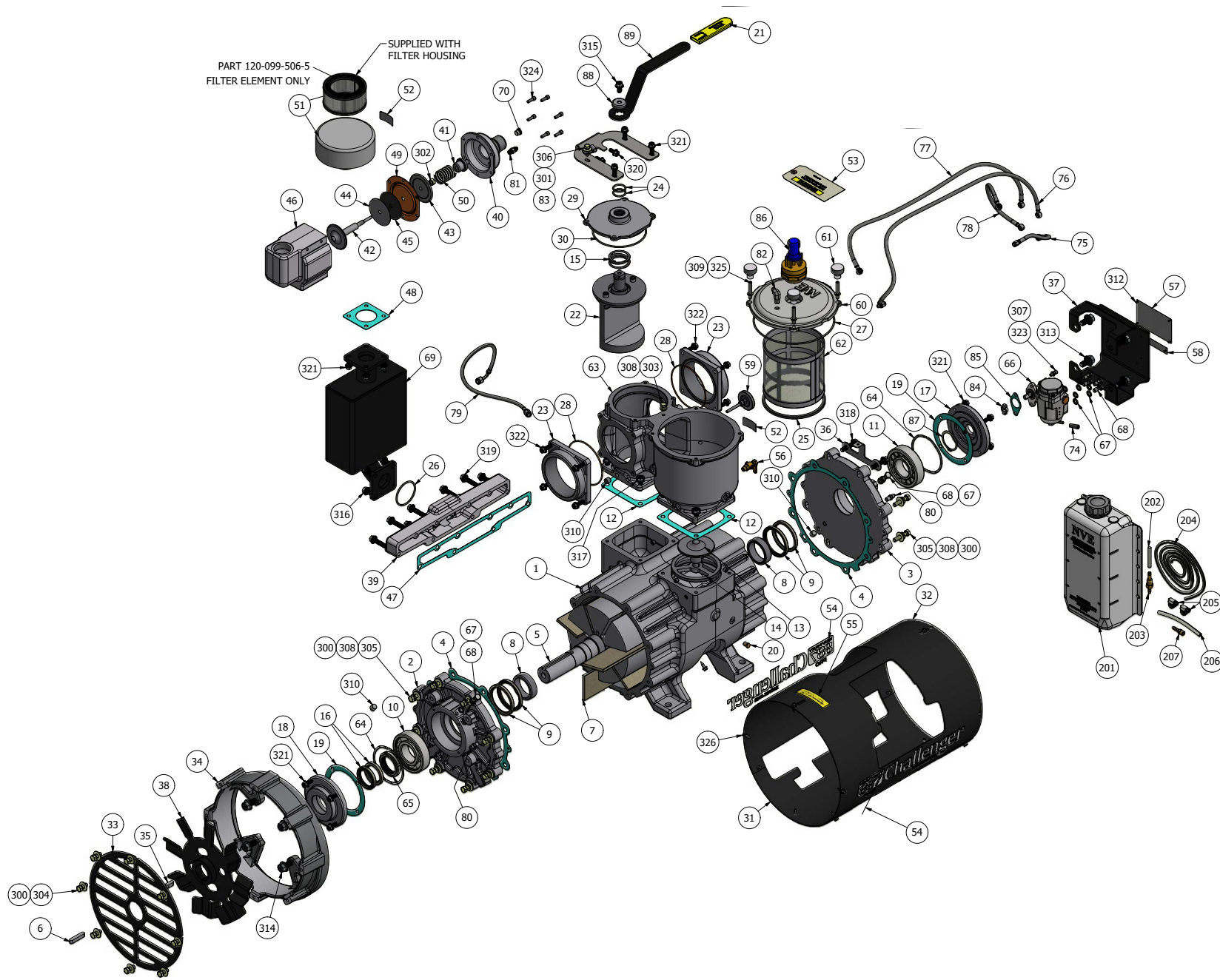
Features

- The NVE Challenger repair kits come with or without bearings and include the seals, gaskets, and vanes required for repair.
- The NVE Challenger flush kits come with all the required items to properly flush your Challenger vacuum pumps.
- The NVE Challenger Pump Oil is ISO 150; though this oil is not required, it is recommended to keep your vacuum pump lubricated properly, particularly in extreme conditions. Sold in 3.5 Gallon Jugs.



PRODUCT DESCRIPTION	PART NUMBER	WEIGHT
Repair Kit	115-887-0	7 lbs
Repair Kit (without bearings)	115-887-0B	4 lbs
Flush Fluid Kit	320-081-002	2 lbs
Oil Vacuum Pump R&O ISO 150/SAE 40 ND Price per Gallon 3.5 Gallons per Jug	150-220-VPOIL-150	28 lbs

887 PRO Challenger Series CW Fan Cooled | Parts Diagram



887 PRO Challenger Series CW & CCW Parts List

Challenger **Series**

ITEM	QTY	PART NUMBER	DESCRIPTION
1	1	120-001-009	HOUSING 887 PRO MACHINED
2	1	120-003-008	887 ENDPLATE [CW DRIVE / CCW NON DRIVE], MACHINED
3	1	120-003-009	887 ENDPLATE [CW NON DRIVE / CCW DRIVE], MACHINED
4	2	120-004-001	GASKET 887 ENDPLATE
5	1	120-005-008	887 ROTOR ASSEMBLY
6	1	120-006	KEY 3/8" X 3/8" X 2"
7	7	120-007-887	VANE 887
8	2	120-009-004	SEAL SLEEVE 887
9	4	120-018-001	SEAL 70 X 85 X 08A VITON SGL LIP
10	1	120-019-001	BEARING BALL 887 DRIVE END
11	1	120-019-002	BEARING ROLLER 887 NON DRIVE END
12	2	120-039-007	GASKET 887 PRO INTAKE/EXHAUST
13	1	120-041-887	CHECK VALVE 887 PRO
14	1	120-042-887	887 CHECK VALVE HOLDER MACHINED
15	1	120-045	SPRING 4-WAY FTR VALVE
16	2	120-053-506	SEAL 45 X 62 X 8 VITON
17	1	120-054-005	COVER BRNGS NON DRIVE END 887
18	1	120-054-006	COVER BRNGS DRIVE END 887
19	2	120-055-001	GASKET 887 BEARING COVER
20	1	120-058	PLUG BRASS HEX HEAD 1/8" NPT
21	1	120-060-002	GRIP, HANDLE W/ LOGO
22	1	120-062-009	887 PLUG, MACHINED ASSY
23	2	120-063-506	FLANGE 4" NPT
24	2	120-064-017	O-RING 2-216-VITON
25	1	120-064-030	O-RING SQUARE VITON 436
26	1	120-064-032	O-RING 2-230 VITON
27	1	120-064-035	O-RING 2-266 VITON
28	2	120-064-506	ORING, 2-158 SILICONE
29	1	120-065-009	TOWER 887 MACHINED
30	1	120-068	ORING, 2-252 VITON
31	1	120-070-001	TIN LOWER ROLLED 887
32	1	120-071-001	TIN UPPER ROLLED 887
33	1	120-073-E	FAN COVER 607/866 E-COAT
34	1	120-074-002	FAN SHROUD 887 MACHINED
35	1	120-076	KEY 3/8" X 3/8" X 1"
36	1	120-077-001	SHROUD SUPPORT PLATE 887

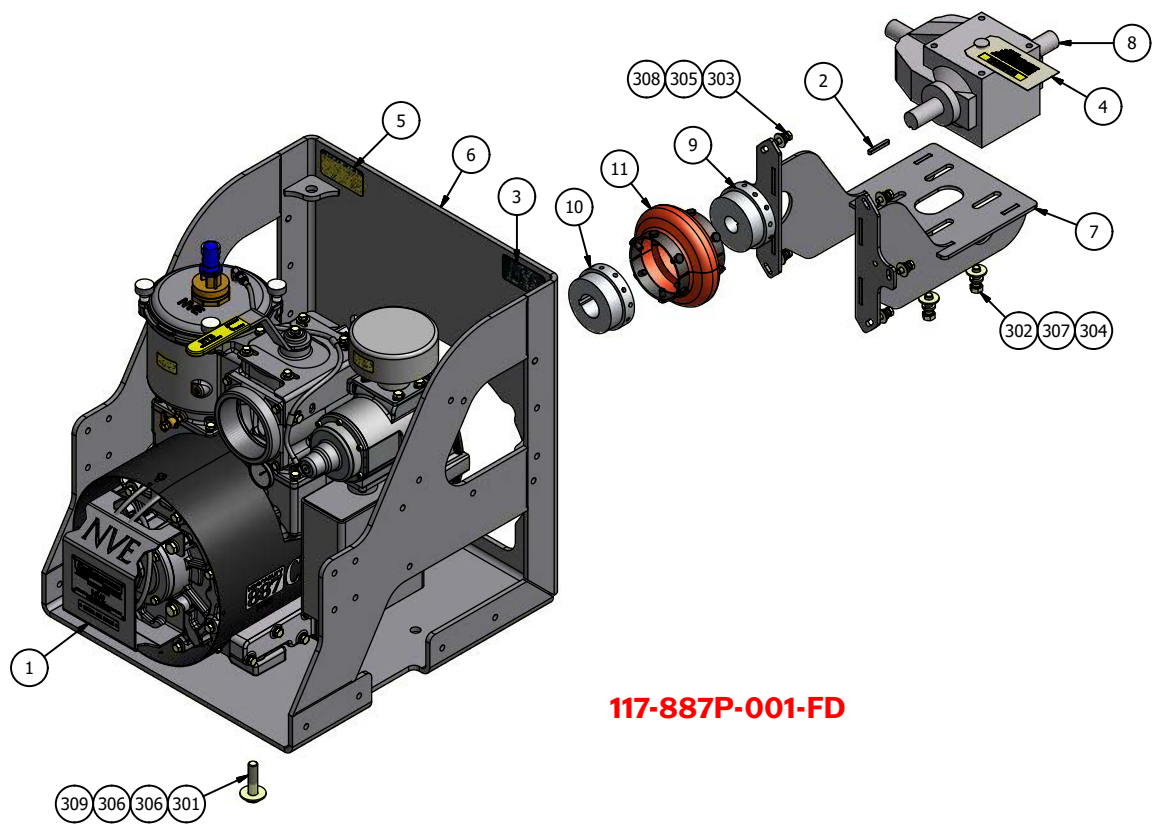
ITEM	QTY	PART NUMBER	DESCRIPTION
37	1	120-079-008	GUARD NVE OIL PUMP 607/887 W/ TAG MOUNT
38	1	120-084-003	FAN ASSY CW 887
39	1	120-090-009	BALLAST MANIFOLD 887
40	1	120-095-003	COVER VALVE BALLAST VALVE MACHINED
41	1	120-095-004	SCREW ADJUSTMENT BALLAST VALVE
42	1	120-095-005	PLUNGER BALLAST VALVE MACHINED
43	1	120-095-006	PISTON SEAT
44	1	120-095-007	DIAPHRAGM PLATE BALLAST VALVE
45	1	120-095-012	GASKET BALLAST VALVE PROTECTIVE
46	1	120-095-013	HOUSING BALLAST VALVE MACHINED
47	1	120-097-002	GASKET 887 BALLAST MANIFOLD
48	1	120-097-003	GASKET BALLAST VALVE LOWER
49	1	120-097-004	DIAPHRAGM BALLAST VALVE
50	1	120-097-005	COMPRESSION SPRING 1.375 O.D. X 1.041 I.D.
51	1	120-099-506-4	BALLAST FILTER ASSEMBLY, REMOTE
52	2	120-100-012	DECAL CLEAN FILTER REGULARY YELLOW
53	1	120-100-014	TOE TAG DECAL REIEF MUST BE SET
54	2	120-100-053	DECAL, 887 PRO CHALLENGER HD
55	1	120-101-003	DECAL CW ROTATION ARROW
56	1	120-102	VALVE, DRAIN 1/8" NPT
57	1	120-105-887	NAME PLATE SS 887
58	1	120-107-001	SERIAL TAG SS
59	1	120-220	THERMOMETER, 50- 400 DEG, 2" FACE
60	1	120-310-004	COVER FLTR MACHINED 607 & B500
61	4	120-312-002	KNOB, 5/16-18UNC
62	1	120-314-005Z	INTAKE FILTER 887 PRO
63	1	120-320-005	MANIFOLD 887 PRO MACHINED
64	2	120-406-002	WASHER WAVE, 887
65	1	120-645-001	LOCK NUT 887
66	1	123-000-007	OIL PUMP 4 PORT NVE
67	12	123-013-001	WASHER 3/8" SEALING VITON
68	6	123-408-014	BANJO BOLT 1/8" BSPP
69	1	124-360-001	BALLAST SILENCER IN-LINE 887
70	1	150-047-006	PLUG SAE ORB -5 VITON
71	1	150-220-VPOIL-150	OIL VACUUM PUMP R&O ISO 150/SAE 40
72	1	280-355-282	BALLAST VALVE BRACKET, 887 PRO

887 PRO Challenger Series CW & CCW | Parts List



ITEM	QTY	PART NUMBER	DESCRIPTION
73	1	320-081	REMOTE OIL TANK KIT
74	1	320-083-011	CAP OIL PUMP FEED LINE FITTING
75	1	320-407-017	OIL LINE -3 SST FEMALE JIC TO BANJO 8.5"
76	1	320-407-029	OIL LINE -3 SST 90 DEG JIC TO BANJO 37.125"
77	1	320-407-030	OIL LINE -3 SST BANJO TO BANJO 32.00"
78	1	320-407-031	OIL LINE -3 SST BANJO TO BANJO 11.50"
79	1	320-407-038	OIL LINE -4 SST 90 DEG JIC TO FEMALE JIC 22.750"
80	2	320-408-016	FITTING STR -3 MJIC X 1/8 MNPT
81	1	320-408-035	FITTING STR -4 MJIC X 1/8 MNPT
82	1	320-408-036	FITTING ELBOW -4 MJIC X 1/4 MNPT
83	1	320-409-017	P-CLIP 3/8" ID 13/32" HOLE GALV
84	1	320-LF8	DRIVE TAB
85	1	320-R31	GASKET, OIL PUMP
86	1	366-150	VACUUM RELIEF, 1 1/2" NPT
87	1	400-026-887	EXTERNAL RETAINING RING, 887
88	1	412-020-003	WASHER, CUP 4-WAY
89	1	412-060-009	HANDLE 4310 ENCLOSED
200	1	OWNERS MANUAL - 887	OWNERS MANUAL 887
201	1	320-082-001	OIL TANK, 5QT, W/LOGO
202	1	320-083-009	OIL TANK FILTER, 100 MESH
203	1	320-083-010	FILTER FITTING, OIL TANK 1/4 NPT
204	5 FT	320-407-003	OIL LINE, BLK 1/4" ID 30R7
205	2	416-025-1WC	CLAMP, WORM, 1/4" DIA
206	6 IN	320-R102	OIL LINE, 3/8" X 1/4" ID X 6" LG
207	1	310-LP5	HOSE BARB, 1/4" X 1/8" NPT STRAIGHT
300	22	FW - 3/8	FLAT WASHER, 3/8
301	1	FW - 5/16	FLAT WASHER, 5/16
302	1	HEX NUT - 3/8 UNF	HEX NUT - 3/8 UNF
303	1	HHCS - 3/8-16 UNC X 0.50	HEX HEAD CAP SCREW - 3/8-16 UNC X 0.50
304	8	HHCS - 3/8-16 UNC X 0.75	HEX HEAD CAP SCREW - 3/8-16 UNC X 0.75
305	14	HHCS - 3/8-16 UNC X 1.75	HEX HEAD CAP SCREW - 3/8-16 UNC X 1.75
306	1	HHCS - 5/16-18 UNC X 1.00	HEX HEAD CAP SCREW - 5/16-18 UNC X 1.00
307	2	LW - 1/4	LOCK WASHER, 1/4
308	15	LW - 3/8	LOCK WASHER, 3/8
309	5	LW - 5/16	LOCK WASHER, 5/16
310	3	PLUG - 1/4 NPT SH	SOCKET HEAD PLUG - 1/4 NPT

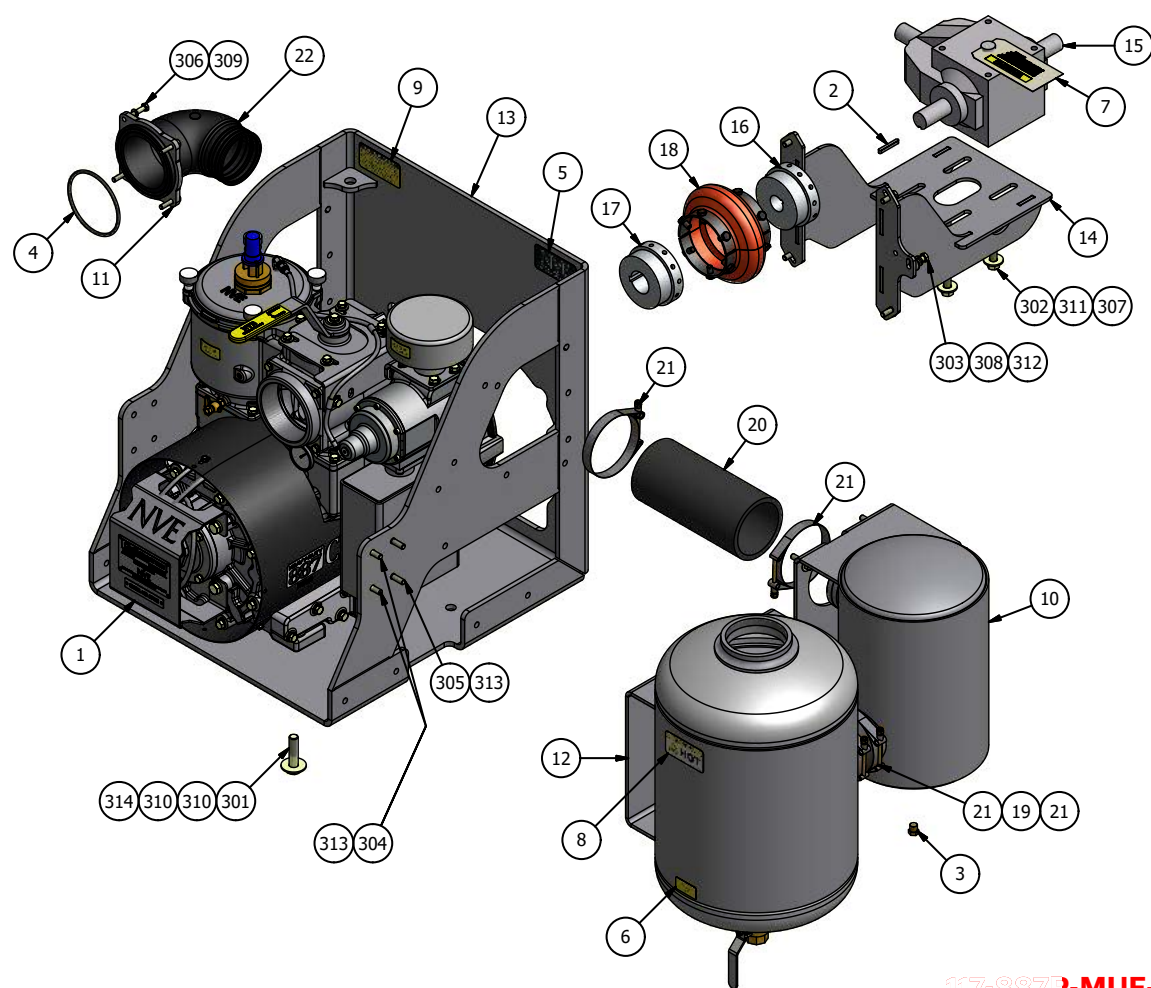
ITEM	QTY	PART NUMBER	DESCRIPTION
311	6	PLUG - 1/8 NPT SH	SOCKET HEAD PLUG - 1/8 NPT
312	6	RVT 3/32 D X 1/4L SS	BLIND RIVET, 3/32 DIA X 1/4 GRIP, SS
313	4	SFHCS - 1/2-13 UNC X 1.00	SERRATED FLANGE HEX HEAD SCREW - 1/2-13 UNC X 1.00
314	4	SFHCS - 1/2-13 UNC X 1.50	SERRATED FLANGE HEX HEAD SCREW - 1/2-13 UNC X 1.50
315	1	SFHCS - 3/8-16 UNC X 0.75	SERRATED FLANGE HEX HEAD SCREW - 3/8-16 UNC X 0.75
316	4	SFHCS - 3/8-16 UNC X 1.00	SERRATED FLANGE HEX HEAD SCREW - 3/8-16 UNC X 1.00
317	8	SFHCS - 3/8-16 UNC X 1.25	SERRATED FLANGE HEX HEAD SCREW - 3/8-16 UNC X 1.25
318	2	SFHCS - 3/8-16 UNC X 1.75	SERRATED FLANGE HEX HEAD SCREW - 3/8-16 UNC X 1.75
319	8	SFHCS - 3/8-16 UNC X 2.25	SERRATED FLANGE HEX HEAD SCREW - 3/8-16 UNC X 2.25
320	2	SFHCS - 5/16-18 UNC X 0.75	SERRATED FLANGE HEX HEAD SCREW - 5/16-18 UNC X 0.75
321	15	SFHCS - 5/16-18 UNC X 1.00	SERRATED FLANGE HEX HEAD SCREW - 5/16-18 UNC X 1.00
322	8	SFHCS - 5/16-18 UNC X 1.25	SERRATED FLANGE HEX HEAD SCREW - 5/16-18 UNC X 1.25
323	1	SHCS - 1/4-20 UNC X 0.625	SOCKET HEAD CAP SCREW - 1/4-20 UNC X 0.625
324	7	SHCS - 1/4-20 UNC X 0.75	SOCKET HEAD CAP SCREW - 1/4-20 UNC X 0.75
325	4	SS - 5/16-18 UNC X 2.00	HEXAGON SOCKET SET SCREW - 5/16-18 UNC X 2.00 SS
326	10	TAPSCR - 1_4-14 X 0.75	HEX HEAD SELF TAPPING SCREW 1/4-14



887 PRO Pump Stand Complete | Parts List



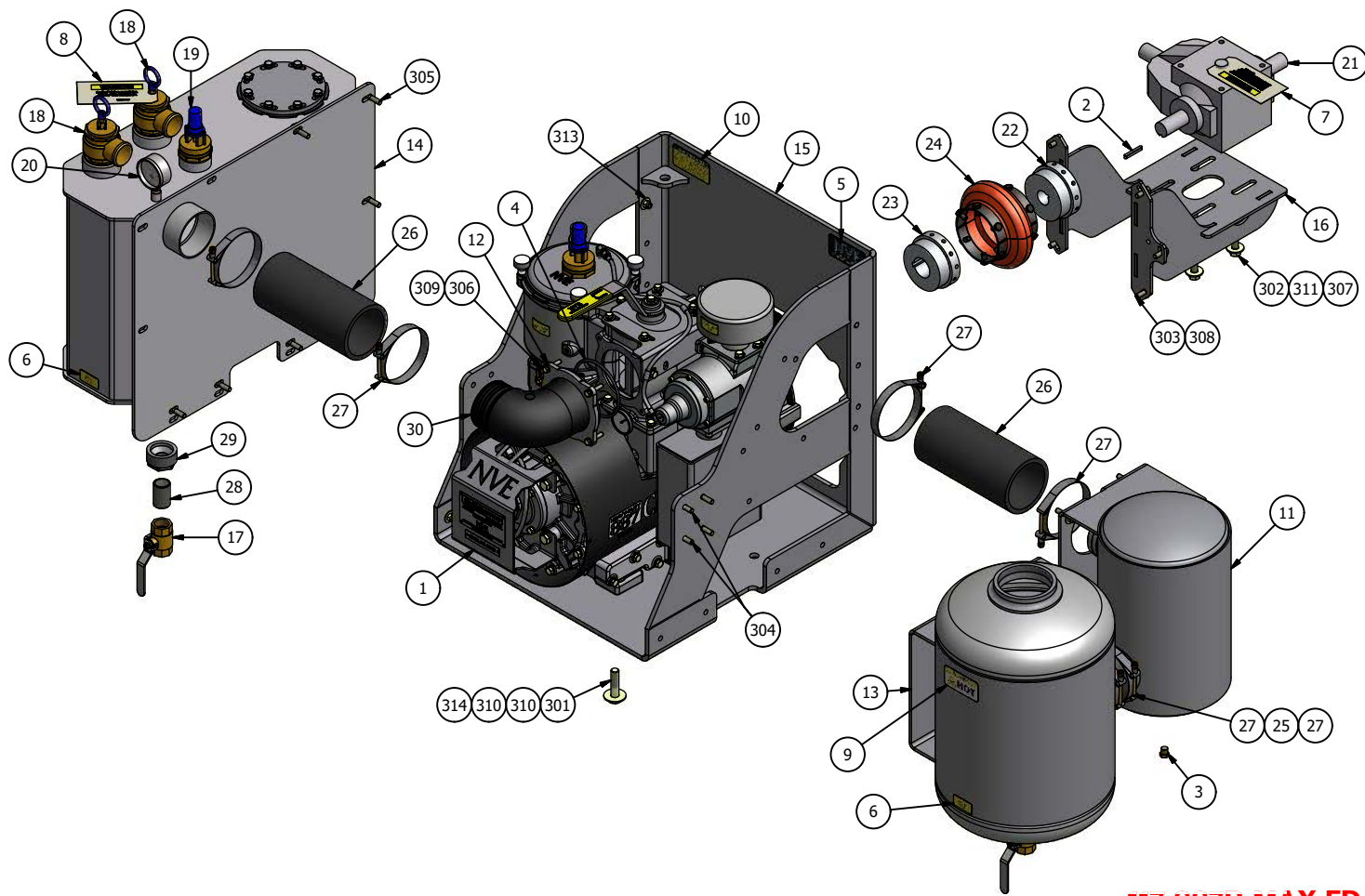
ITEM	QTY	PART NUMBER	DESCRIPTION
1	1	103-887P-FD	CHALLENGER 887 PRO CW FAN
2	1	120-006-184	KEY .25" X .25" X 1.875"
3	1	120-100-001	DECAL, NVE, MUFFLER PAK
4	1	120-100-013	TOE TAG DECAL GEARBOX VENT (INSTALL)
5	1	120-104-001	DECAL, IMPORTANT, RESPONSIBILITY
6	1	280-350-021	887 STAND 2.0
7	1	280-401-003	607P GEARBOX MOUNT WELDED
8	1	422-400-1	GEARBOX, 400 SERIES 1:1 RATIO
9	1	424-200-125	COUPLER HUB E20 1 1/4" BORE 1/4" KEY
10	1	424-200-175	COUPLER HUB E20 1 3/4" BORE
11	1	424-200-E20	COUPLER FLEX ELEMENT E20
301	4	HHCS - 5/8-11 UNC X 2.50	HEX HEAD CAP SCREW - 5/8-11 UNC X 2.50
302	4	HHCS - 1/2-13 UNC X 1.50	HEX HEAD CAP SCREW - 1/2-13 UNC X 1.50
303	6	HHCS - 3/8-16 UNC X 1.00	HEX HEAD CAP SCREW - 3/8-16 UNC X 1.00
304	4	LW - 1/2	LOCK WASHER, 1/2
305	6	LW - 3/8	LOCK WASHER, 3/8
306	8	FW - 5/8	FLAT WASHER, 5/8
307	4	FW - 1/2	FLAT WASHER, 1/2
308	6	FW - 3/8	FLAT WASHER, 3/8
309	4	NYLOCK NUT - 5/8 UNC	NYLOCK NUT - 5/8 UNC



117-887P-MUF-FD

887 Muffler Package | Parts List

ITEM	QTY	PART NUMBER	DESCRIPTION
1	1	103-887P-FD	CHALLENGER 887 PRO CW FAN
2	1	120-006-184	KEY .25" X .25" X 1.875"
3	1	120-059	PLUG BRASS HEX HEAD 1/4" NPT
4	1	120-064-012	O-RING, 2-350 VITON
5	1	120-100-001	DECAL, NVE, MUFFLER PAK
6	1	120-100-011	DECAL DRAIN DAILY - YELLOW
7	1	120-100-013	TOE TAG DECAL GEARBOX VENT (INSTALL)
8	1	120-100-015	DECAL HOT
9	1	120-104-001	DECAL, IMPORTANT, RESPONSIBILITY
10	1	124-360-002	IN-LINE EXHAUST SILENCER RH
11	1	150-063-014	FLANGE, 4" ADJ-ELBOW NARROW
12	1	212-140-4NPT-4	OCM 14" DIA 4" NPT W/RESONATOR RH
13	1	280-350-021	887 STAND 2.0
14	1	280-401-003	607P GEARBOX MOUNT WELDED
15	1	422-400-1	GEARBOX, 400 SERIES 1:1 RATIO
16	1	424-200-125	COUPLER HUB E20 1 1/4" BORE 1/4" KEY
17	1	424-200-175	COUPLER HUB E20 1 3/4" BORE
18	1	424-200-E20	COUPLER FLEX ELEMENT E20
19	1	426-400-TAR-0250	HOSE 4"D X 2.5"L
20	1	426-400-TAR-10IN	HOSE, 4", TAR & ASPHALT-10 IN LG
21	4	426-4625-TBC	CLAMP, T-BOLT, 4.625"
22	1	803-063-001	E-COAT ELBOW 4" 90 DEG ALU (HB TO O-RING)
301	4	HHCS - 5/8-11 UNC X 2.50	HEX HEAD CAP SCREW - 5/8-11 UNC X 2.50
302	4	HHCS - 1/2-13 UNC X 1.50	HEX HEAD CAP SCREW - 1/2-13 UNC X 1.50
303	6	HHCS - 3/8-16 UNC X 1.00	HEX HEAD CAP SCREW - 3/8-16 UNC X 1.00
304	2	HHCS - 3/8-16 UNC X 1.25	HEX HEAD CAP SCREW - 3/8-16 UNC X 1.25
305	10	HHCS - 3/8-16 UNC X 1.50	HEX HEAD CAP SCREW - 3/8-16 UNC X 1.50
306	4	HHCS - 5/16-18 UNC X 1.50	HEX HEAD CAP SCREW - 5/16-18 UNC X 1.50
307	4	LW - 1/2	LOCK WASHER, 1/2
308	6	LW - 3/8	LOCK WASHER, 3/8
309	4	LW - 5/16	LOCK WASHER, 5/16
310	8	FW - 5/8	FLAT WASHER, 5/8
311	4	FW - 1/2	FLAT WASHER, 1/2
312	30	FW - 3/8	FLAT WASHER, 3/8
313	12	NYLOCK NUT - 3/8 UNC	NYLOCK NUT - 3/8 UNC
314	4	NYLOCK NUT - 5/8 UNC	NYLOCK NUT - 5/8 UNC



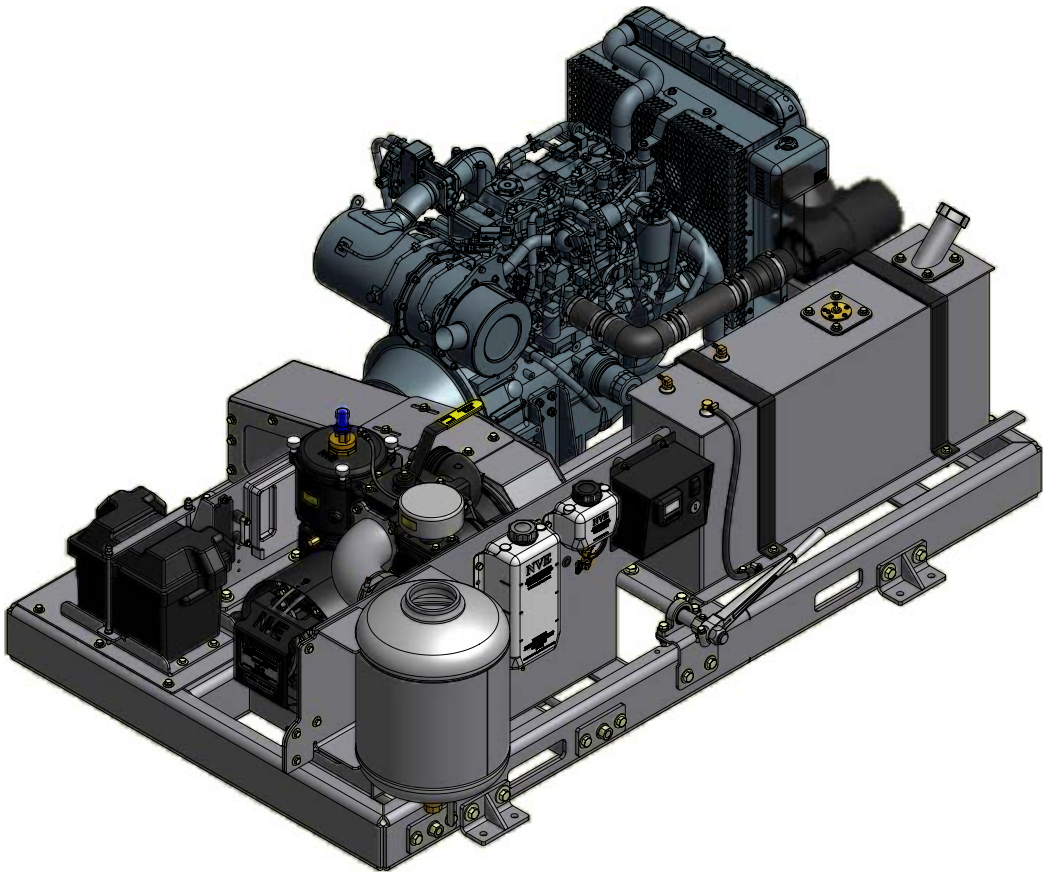
117-887P-MAX-FD

887 PRO Max Package | Parts List



ITEM	QTY	PART NUMBER	DESCRIPTION
1	1	103-887P-FD	CHALLENGER 887 PRO CW FAN
2	1	120-006-184	KEY .25" X .25" X 1.875"
3	1	120-059	PLUG BRASS HEX HEAD 1/4" NPT
4	2	120-064-012	O-RING, 2-350 VITON
5	1	120-100-001	DECAL, NVE, MUFFLER PAK
6	2	120-100-011	DECAL DRAIN DAILY - YELLOW
7	1	120-100-013	TOE TAG DECAL GEARBOX VENT (INSTALL)
8	1	120-100-014	TOE TAG DECAL REIEF MUST BE SET
9	1	120-100-015	DECAL HOT
10	1	120-104-001	DECAL, IMPORTANT, RESPONSIBILITY
11	1	124-360-002	IN-LINE EXHAUST SILENCER RH
12	2	150-063-014	FLANGE, 4" ADJ-ELBOW NARROW
13	1	212-140-4NPT-4	OCM 14" DIA 4" NPT W/RESONATOR RH
14	1	218-001-4L	M.T. BOLT ON, 4" ALUM LH
15	1	280-350-021	887 STAND 2.0
16	1	280-401-003	607P GEARBOX MOUNT WELDED
17	1	288-100	DRAIN VALVE BRASS 1" IPS
18	2	364-306-2	PRESSURE RELIEF, 2"
19	1	366-150	VACUUM RELIEF, 1 1/2" NPT
20	1	408-250-LF	GAUGE, 2.5" VAC/PRESS, LIQ BOTTOM CONN
21	1	422-400-1	GEARBOX, 400 SERIES 1:1 RATIO
22	1	424-200-125	COUPLER HUB E20 1 1/4" BORE 1/4" KEY
23	1	424-200-175	COUPLER HUB E20 1 3/4" BORE
24	1	424-200-E20	COUPLER FLEX ELEMENT E20
25	1	426-400-TAR-0250	HOSE 4"D X 2.5"L
26	2	426-400-TAR-10IN	HOSE, 4", TAR & ASPHALT-10 IN LG
27	6	426-4625-TBC	CLAMP, T-BOLT, 4.625"
28	1	428-100-2G	NIPPLE CLOSE MNPT 1" GALV
29	1	428-2X1-CG	BUSHING 2" MPT X 1" FPT GALVANIZED
30	2	803-063-001	E-COAT ELBOW 4" 90 DEG ALU (HB TO O-RING)
301	4	HHCS - 5/8-11 UNC X 2.50	HEX HEAD CAP SCREW - 5/8-11 UNC X 2.50
302	4	HHCS - 1/2-13 UNC X 1.50	HEX HEAD CAP SCREW - 1/2-13 UNC X 1.50
303	6	HHCS - 3/8-16 UNC X 1.00	HEX HEAD CAP SCREW - 3/8-16 UNC X 1.00
304	2	HHCS - 3/8-16 UNC X 1.25	HEX HEAD CAP SCREW - 3/8-16 UNC X 1.25
305	17	HHCS - 3/8-16 UNC X 1.50	HEX HEAD CAP SCREW - 3/8-16 UNC X 1.50
306	8	HHCS - 5/16-18 UNC X 1.50	HEX HEAD CAP SCREW - 5/16-18 UNC X 1.50

ITEM	QTY	PART NUMBER	DESCRIPTION
307	4	LW - 1/2	LOCK WASHER, 1/2
308	6	LW - 3/8	LOCK WASHER, 3/8
309	8	LW - 5/16	LOCK WASHER, 5/16
310	8	FW - 5/8	FLAT WASHER, 5/8
311	4	FW - 1/2	FLAT WASHER, 1/2
312	44	FW - 3/8	FLAT WASHER, 3/8
313	19	NYLOCK NUT - 3/8 UNC	NYLOCK NUT - 3/8 UNC
314	4	NYLOCK NUT - 5/8 UNC	NYLOCK NUT - 5/8 UNC



887 PRO Engine Drive | Parts List



ITEM	QTY	PART NUMBER	DESCRIPTION
	1	103-887P-FD1	CHALLENGER 887 PRO CW FAN OIL FIELD
	1	120-103	VALVE, DRAIN 1/4" NPT
	1	150-063-014	FLANGE, 4" ADJ-ELBOW NARROW
	1	212-140-4NPT-3	OCM 14" DIA 4" NPT W/HB LH
	2	280-460-023-2	FUEL TANK STRAP, 23 GAL, BENT
	1	280-460-026	FUEL TANK 23 GAL FAB - BOLT ON FILL NECK
	1	310-LP4	HOSE BARB 1/4" NPT X 1/4" 90 DEG ELBOW BRASS
	1	320-082-001	OIL TANK, 5QT, W/LOGO
	1	320-082-003Z	FLUSHING FLUID TANK ASSY, HDPE, 1 QT
	1	320-083-009	OIL TANK FILTER, 100 MESH
	1	320-083-010	FILTER FITTING, OIL TANK 1/4 NPT
	4	320-409-015	CUSHIONED STANDOFF MOUNT 1/4"-20 UNC
	4	320-409-016	CUSHIONED SANDWICH MOUNT 1/4"-20 UNC FEMALE
	3	416-025-1WC	CLAMP, WORM, .250" dia
	1	426-400-TAR-0500	HOSE 4"D X 5"L
	2	426-4625-TBC	CLAMP, T-BOLT, 4.625"
	1	430-100-040	PULLEY 5V12.5X4-E
	1	430-100-041	PULLEY 5V6.3X4-SK
	1	430-200-035	BELT 5VX690 4 GROOVE BANDED
	1	430-300-038	BUSHING E X 1-3/4"
	1	430-300-040	BUSHING SK X 2-1/4" X 5/8" KEYWAY
	2	430-400-012	BEARING SLEEVE 1.25" PILLOW BLOCK
	1	450-100-006	BATTERY BOX SMALL GROUP 24
	1	450-100-007	BATTERY 850 CCA MAINT FREE
	1	460-200-017	ENGINE YANMAR 4 CYL 69.3 HP
	1	803-063-001	E-COAT ELBOW 4" 90 DEG ALU (HB TO O-RING)
	2	860-010	THREADED ROD 3/8"-16 UNC X 11.00" SS

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Notes



MADE IN THE USA

[illegible]



**DESIGNED.
BUILT.
SUPPORTED.**

Produced in the USA | Distributed World-Wide ★

800-253-5500 | natvac.com

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NVE

National Vacuum Equipment

■ Part of Atlas Copco Group

Challenger **Series**
VACUUM PUMPS & BLOWERS