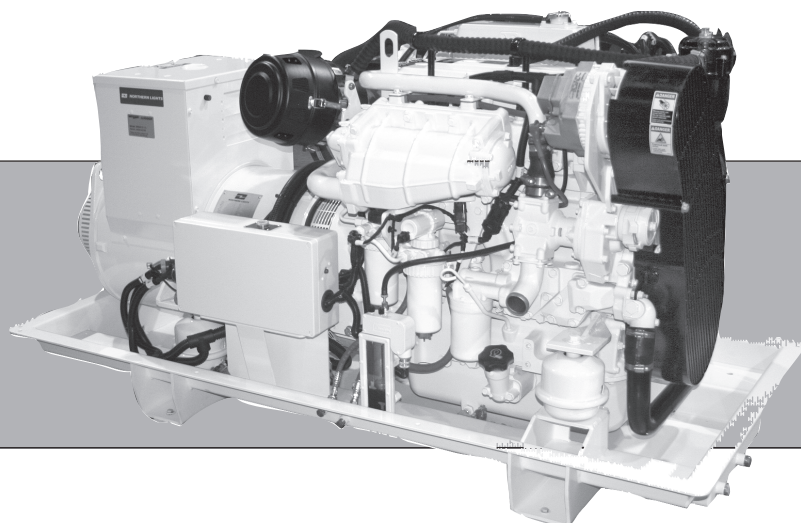




PARTS MANUAL

P99-3

For Models: M80A13 & M150A13



www.northern-lights.com



— CALIFORNIA —
Proposition 65 Warning:

Breathing Diesel engine exhaust and some of its constituents are known to the State of California to cause cancer, birth defects, and other reproductive harm.

- * Always start and operate the engine in a well-ventilated area.
- * If in an enclosed area, vent the exhaust to the outside.
- * Do not modify or tamper with the exhaust system.
- * Do not idle the engine except as necessary.

For more information, go to www.P65warnings.ca.gov/diesel.

Northern Lights

4420 14th Avenue NW
Seattle, WA 98107
Tel: (206) 789-3880
Fax: (206) 782-5455

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Printed in U.S.A.
PART NO.: P99-3 10/18



PARTS CATALOG

for Model
M80A13 & M150A13

Please read thoroughly before attempting to use this manual:

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Proprietary Information

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MODEL DESIGNATION

M 80 A 13 = Northern Lights Tier III turbocharged marine diesel generator set with a John Deere 4045 engine, 80 kW at 1800 rpm.

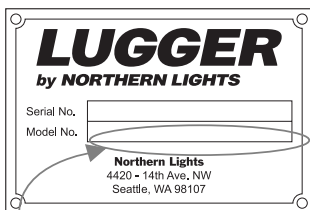
M 150 A 13 = Northern Lights Tier III turbocharged marine diesel generator set with a John Deere 4045 engine, 150 kW at 1800 rpm.

All model numbers in parentheses will indicate a John Deere base engine. All variations requiring serial numbers for proper identification will be noted as Northern Lights or John Deere.

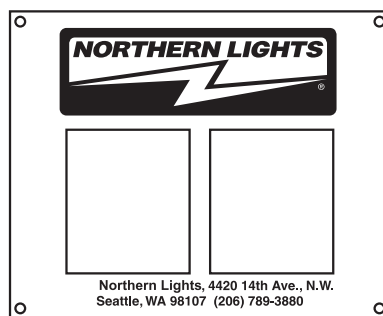
SERIAL NUMBERS

NORTHERN LIGHTS

Your set has three serial numbers: ① an engine number stamped on the block, ② a generator plate, and ③ a generator set plate. Use the serial number on the **generator set plate** when ordering parts or in correspondence. The generator set plate is found on the service side of the generator and resembles one of the drawings below.



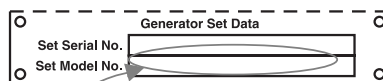
Lugger Serial Number



Generator Set Serial Number



Generator Set Serial Number



Reading a Parts Page

IMPORTANT:

Before selecting parts, be sure that you are choosing parts from the correct page.
Check the model designation at the page top.
Do not use this illustration for parts purchasing.

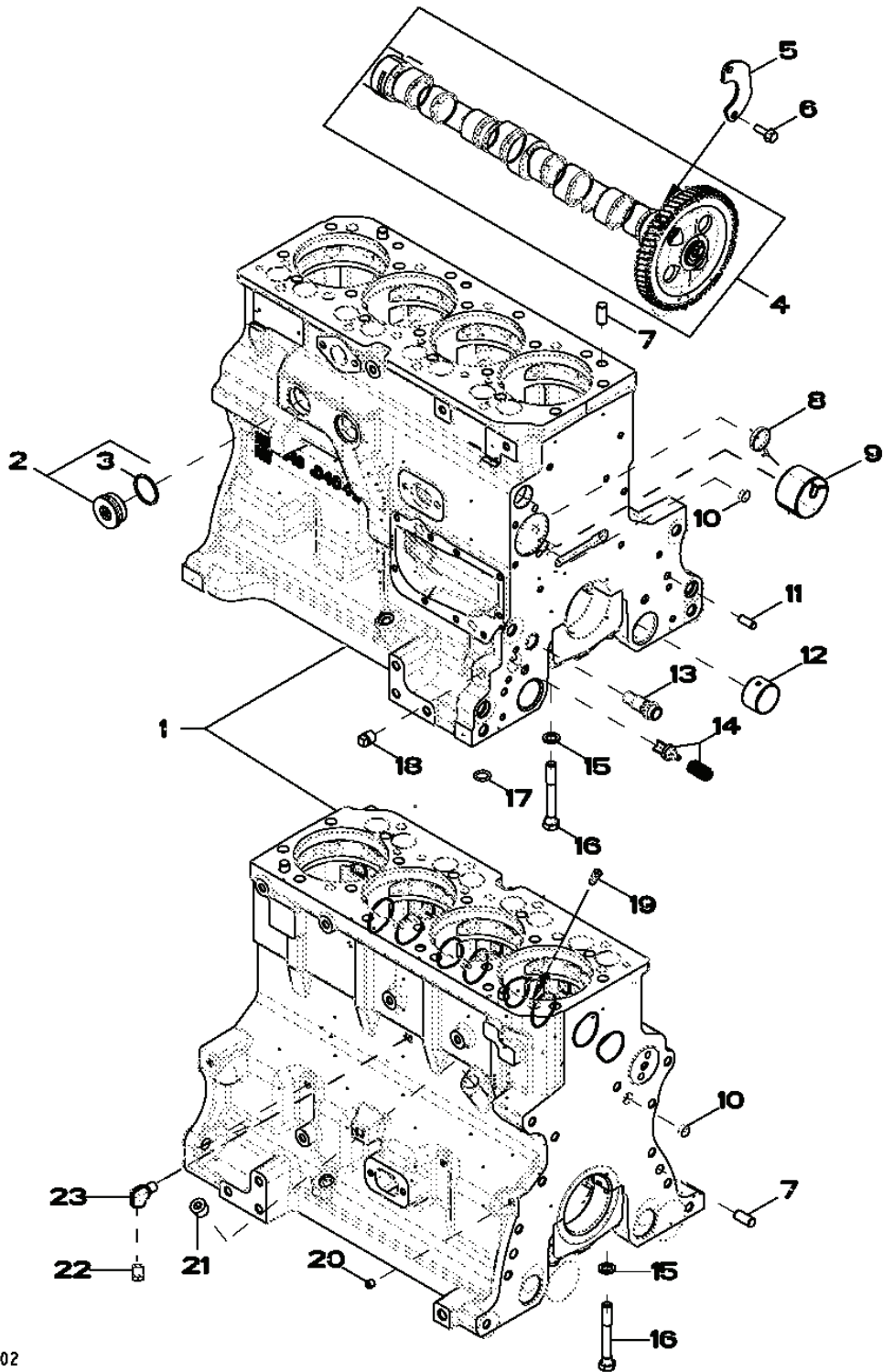
KEY	PART NUMBER	QTY.	DESCRIPTION	SERIALNUMBER
0	185046210	1	Alternator Assembly	-
1	185446219	1	Flywheel, complete	-
2	185446217	1	Plate, complete	-
3	185716200	1	Plate	-
4	185446218	1	Stator, complete	-
5	040126210	2	Bearing	-
6	020210010	1	Nut	-
7	027100010	1	Spring washer	-
8	026100010	1	Washer	-
9	185446220	1	Clamp	-
10	015140408	1	Screw	-
11	015140425	2	Screw	-
12	199236510	1	Collar	-

REFERENCES:

- | | |
|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <ol style="list-style-type: none"> 1. Grouping section title. 2. Model designation of equipment that uses parts listed on this page. 3. Title and description of assembly. 4. Drawing numbers that correspond to key column numbers for parts identification. 5. Key column for locating parts shown on drawing. 6. Part number. | <ol style="list-style-type: none"> 7. Quantity of parts used. 8. Description of each component part. 9. Serial number of unit the part fits. 10. Assembly or kit designated by Key 0 or ••/•. 11. Grouping index number. 12. Page number within the grouping index. 13. Manual title. 14. Page publication date. |
|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|

NOTE: ⇨ Arrows always point toward the front of the engine.

Cylinder Block



RE 522905PCDB02

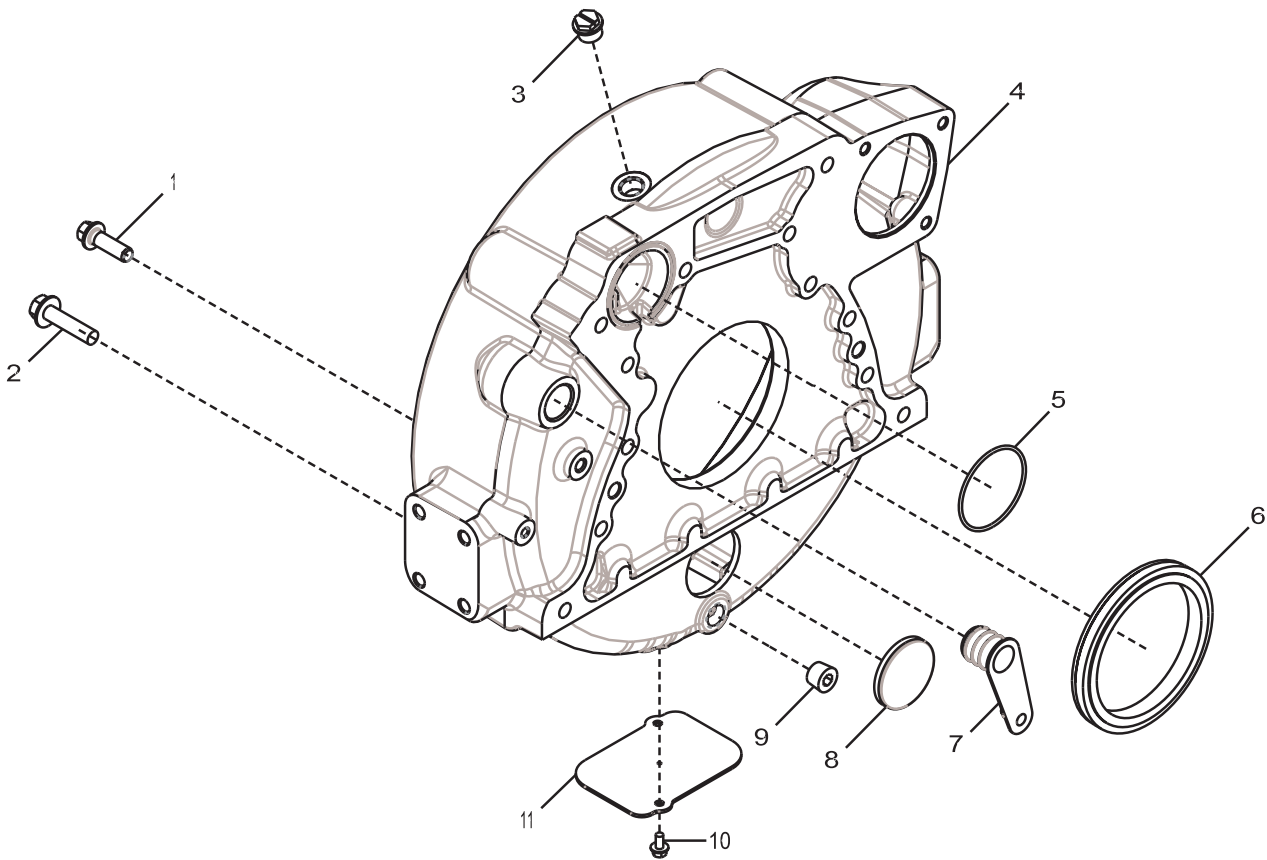
Cylinder Block

KEY	PART NUMBER	QTY	DESCRIPTION	SERIAL NUMBER
1	RE536966	1	Cylinder Block (MARKED R504849 OR R534172) *	-
2	RE508185	2	Plugs, Socket Head 2 1-5/8"-12 UNC	-
3	1672020	1	O-Ring	-
4	RE537237	1	Camshaft (MARKED R518734 OR RE522908)	-
	SE501816	1	Camshaft (Remanufactured) (MARKED R518734 OR RE522908; REMAN FOR RE537237)	-
5	R132518	1	Plate	-
6	19M8999	2	Screw M8 X 25	-
7	R48685	4	Dowel Pin	-
8	R116466	1	Plug	-
9	R119874	1	Bushing ALSO ORDER TY6333 Grease	-
10	T18891	1	Plug OD = 16 mm	-
11	R26650	1	Dowel Pin (3/8" X 1")	-
12	R115299	6	Bushing	-
13	RE505501	1	Bleed Valve	-
14	RE63674	1	Valve Kit	-
15	T20168	10	Washer	-
16	R528387	10	Cap Screw 1/2 - 13 x 3 - 3/4	-
17	R97185	1	O-Ring	-
18	15H695	1	Pipe Plug 3/8 NPT	-
19	R131182	4	Orifice	-
20	RE71255	5	Pipe Plug 1/8 NPT (A)	-
21	21-11003	1	Pipe Plug 1 1/2 NPT	-
22	RE507807	1	Pipe Plug 1/4 NPT (A)	-
23	RE537834	1	Elbow Fitting (A)	-

(A) Threads with Pre-Applied Sealant

* Also Order R534091 x 18 ea. Clyinder Head Bolts

Flywheel Housing SAE #3

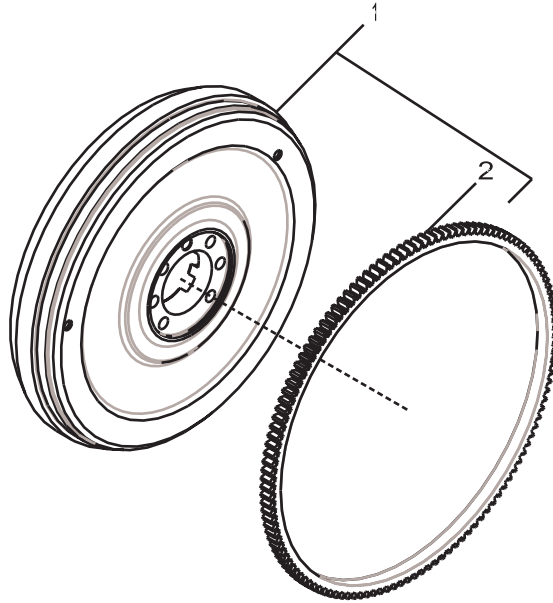


1406_RE59299_PCD

Flywheel Housing SAE #3

KEY	PART NUMBER	QTY	DESCRIPTION	SERIAL NUMBER
1	R135918	8	Bolt	-
2	19M8306	4	Screw M12 X 50 mm	-
3	AR106083	1	Plug	-
4	R503451	1	Housing	-
5	R61467	1	O-Ring	-
6	RE44574	1	Seal	-
7	R131769	1	Plug	-
8	T13518	1	Plug	-
9	21-11003	1	Pipe Plug 1/2 NPT	-
10	19M7774	2	Screw M6 X 12 mm	-
11	R121039	1	Plate	-

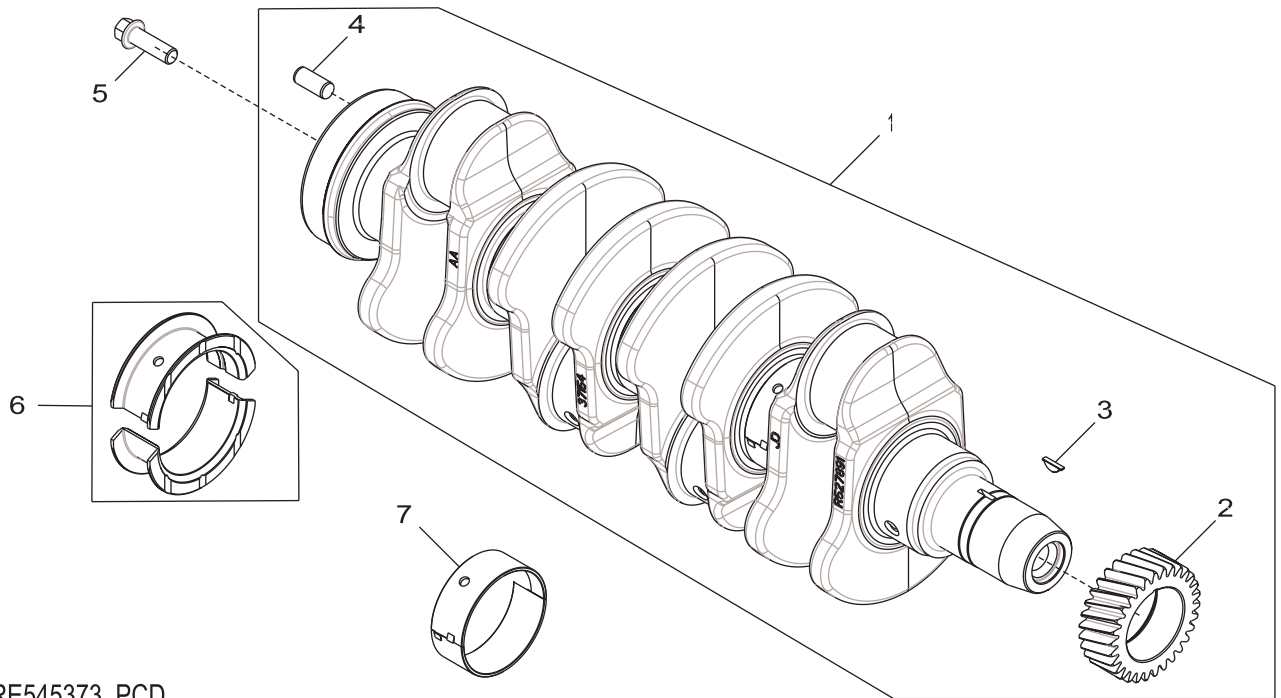
Flywheel



1597_RE529611_PCD

KEY	PART NUMBER	QTY	DESCRIPTION	SERIAL NUMBER
1	RE529610	1	Flywheel (Includes Key #2)	-
2	R28811	1	Ring Gear (129 Teeth)	-

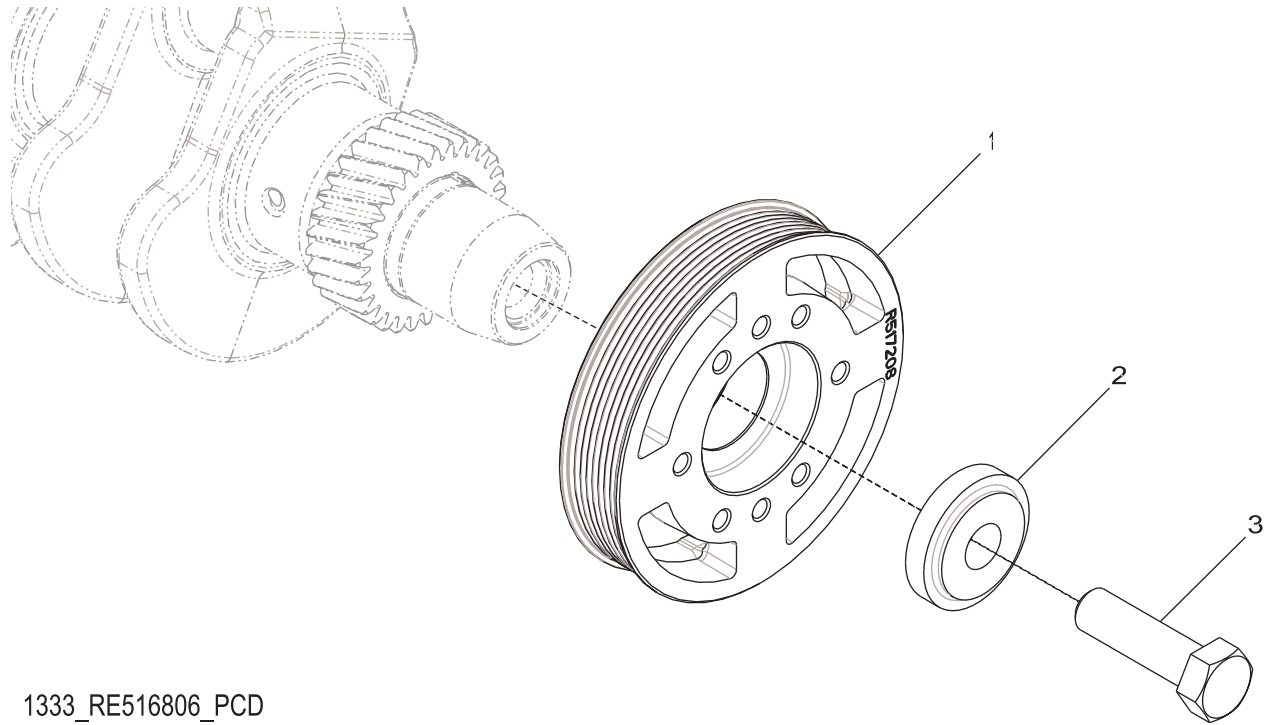
Crankshaft & Bearings



4722_RE545373_PCD

KEY	PART NUMBER	QTY	DESCRIPTION	SERIAL NUMBER
1	RE538081	1	Crankshaft (Includes Keys 2-4) ALSO ORDER RE537070 AND RE538097	-
2	R120631	1	Gear	-
3	R505609	1	Shaft Key	-
4	R48685	1	Dowel Pin	-
5	R531927	6	Cap Screw	-
6	RE65168	1	Thrust Bearing Kit . STD	-
7	RE65165	4	Main Bearing Kit . STD	-

Crankshaft Pulley

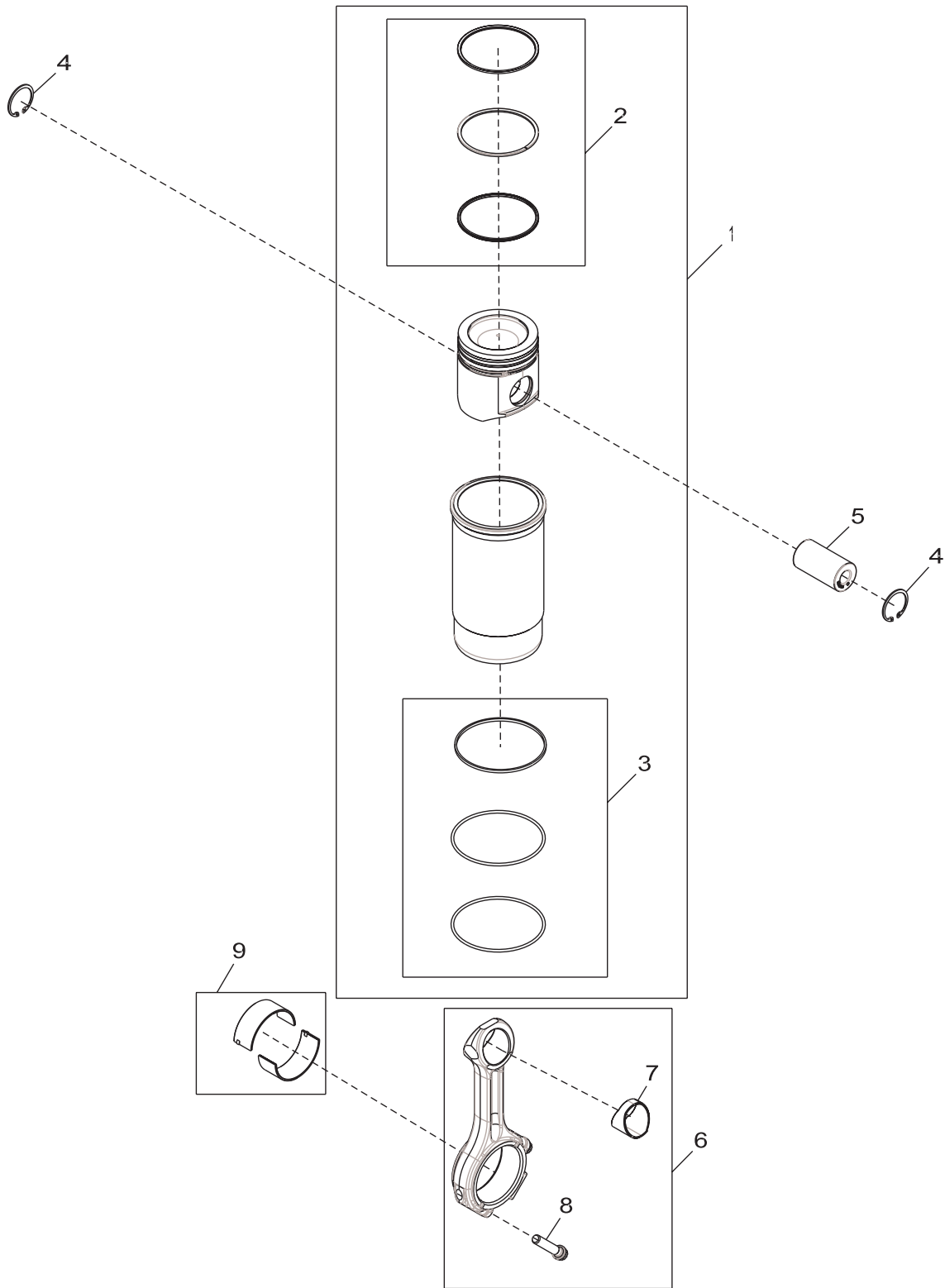


1333_RE516806_PCD

KEY	PART NUMBER	QTY	DESCRIPTION	SERIAL NUMBER
1	R517208	1	Pulley 168 mm OD	-
2	R517237	1	Washer	-
3	R516648	1	Cap Screw M20 x 2.5 x 70 mm Grade 12.9	-

Notes

Connection Rod, Piston and Liner

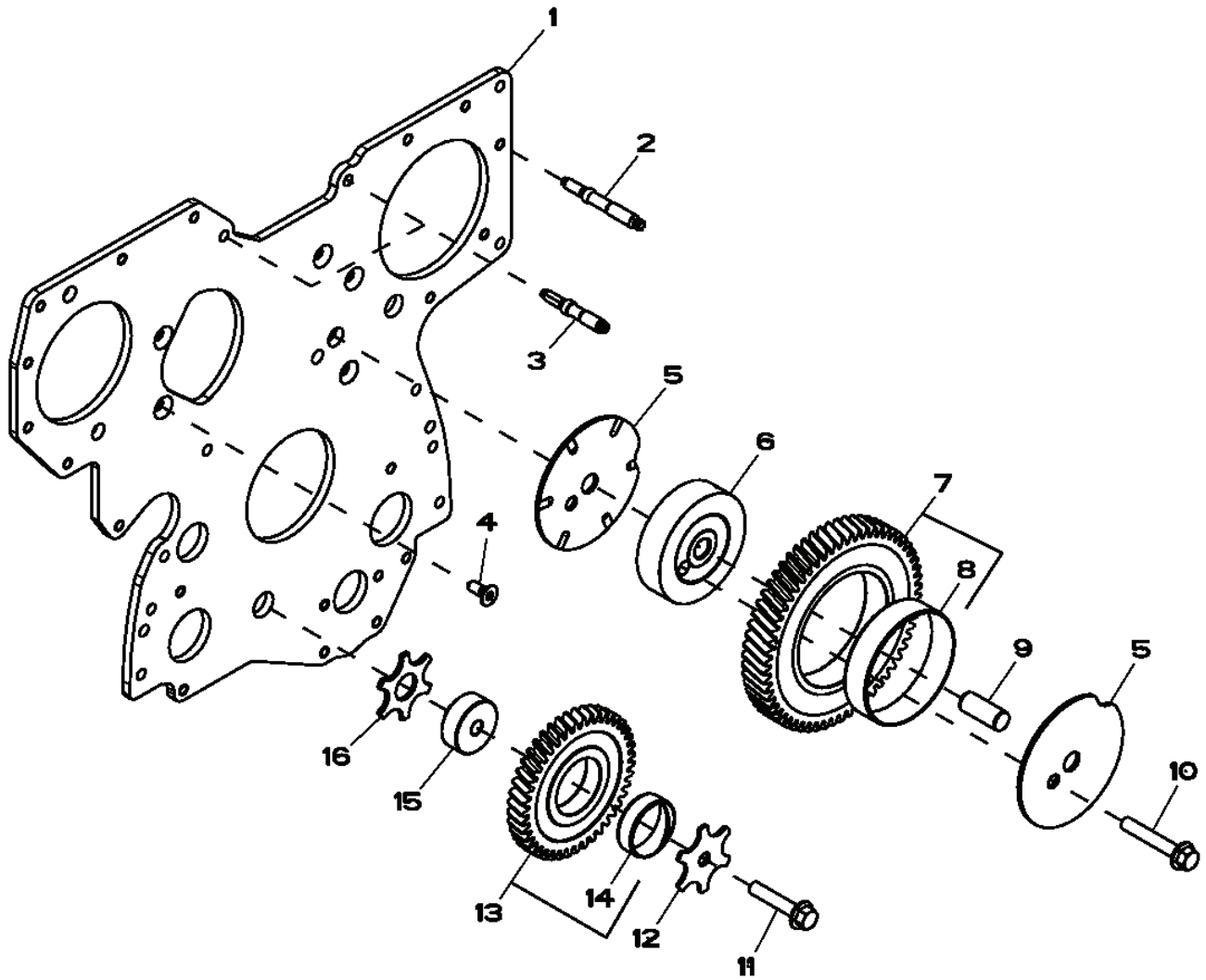


4866_RE554216_PCD

Connection Rod, Piston and Liner

KEY	PART NUMBER	QTY	DESCRIPTION	SERIAL NUMBER
1	RE540936	4	Cylinder Kit	-
2	RE524453	1	Piston Ring Kit	-
3	AR65507	1	O-Ring Kit	-
4	R54114	8	Snap Ring	-
5	R502755	4	Piston Pin	-
6	RE500608	4	Connecting Rod	-
	SE501094	4	Connecting Rod (Remanufactured)	-
7	R114082	1	Bushing	-
8	R501124	2	Screw	-
9	RE65908	4	Bearing	-

Timing Cover Backing Plate & Gears

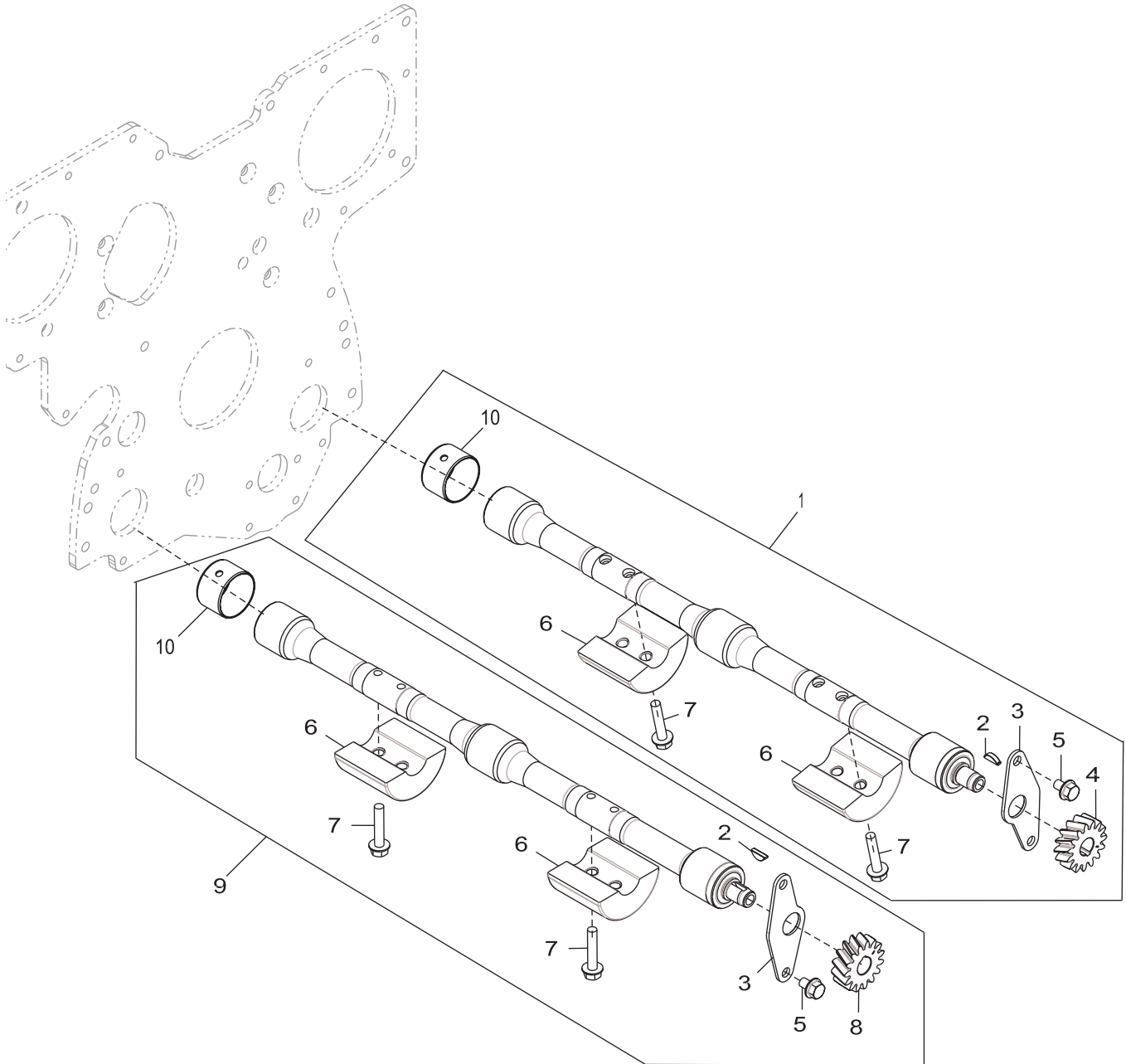


RE506566PCDD03

Timing Cover Backing Plate & Gears

KEY	PART NUMBER	QTY	DESCRIPTION	SERIAL NUMBER
1	R504282	1	Plate	-
2	R123584	7	Stud	-
3	R134518	2	Stud	-
4	R136475	5	Screw	-
5	R515494	2	Thrust Washer	-
6	R504843	1	Shaft	-
7	RE508489	1	Gear with Bushing (MARKED R504614)	-
9	R515408	1	Dowel Pin 1	-
10	19M8844	1	Screw M10 X 60 mm	-
11	19M8966	1	Screw M10 X 50 mm	-
12	R131283	1	Thrust Washer	-
13	RE56369	1	Gear	-
14	R114193	1	Bushing	-
15	R114194	1	Shaft	-
16	R101225	1	Thrust Washer	-

Balance Shafts

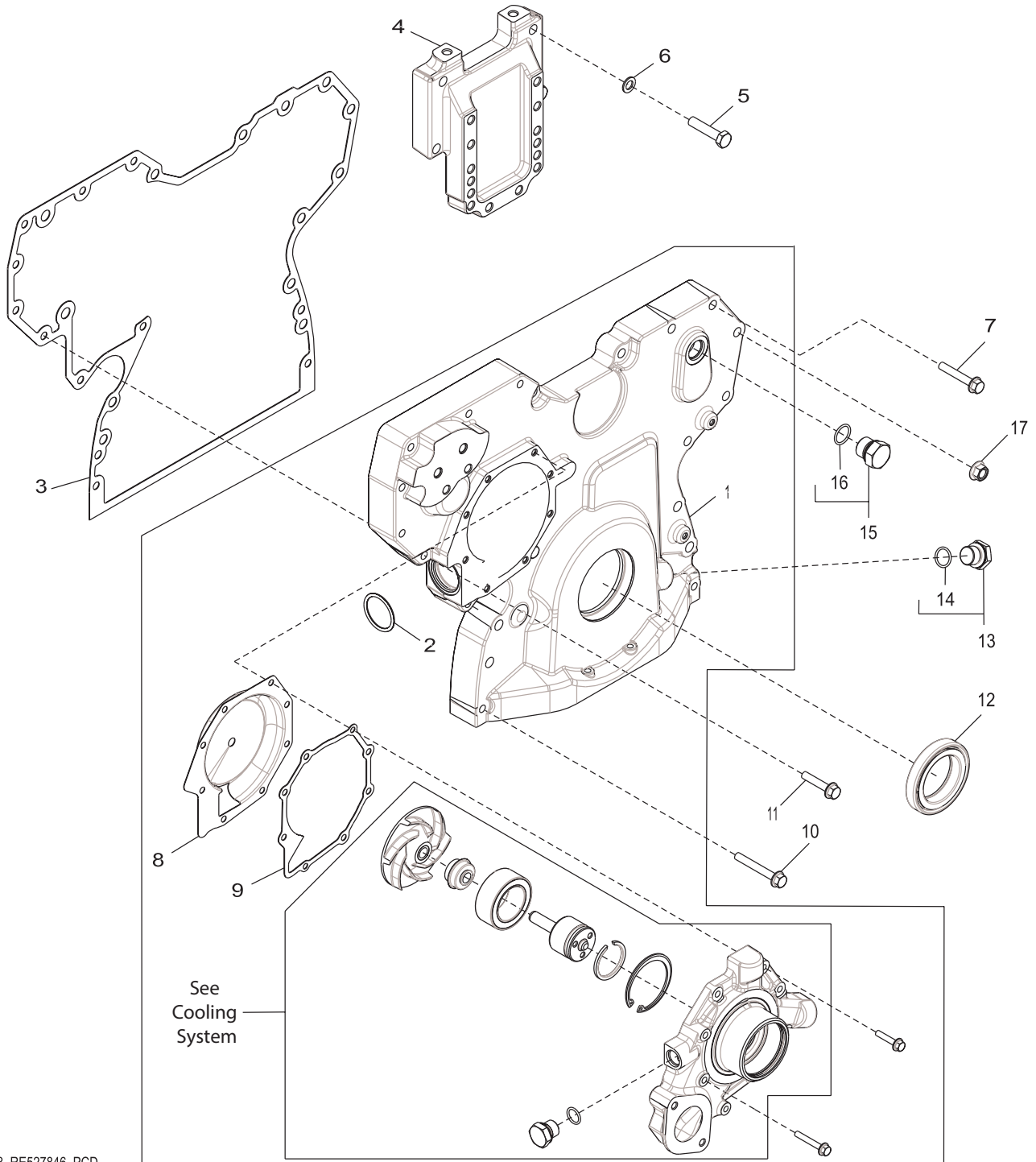


4501_RE501264_PCD

Balance Shafts

KEY	PART NUMBER	QTY	DESCRIPTION	SERIAL NUMBER
1	RE502446	2	Balancer Shaft Assembly Left Hand (Marked RE500449)	-
2	R133303	1	Shaft Key	-
3	R116078	1	Plate	-
4	R120639	1	Gear, Left Hand	-
5	19M8998	4	Screw M8 X 12 mm	-
6	R500650	4	Weight	-
7	19M8882	8	Screw M8 X 40 mm	-
8	R120637	1	Gear, Right Hand	-
9	RE502447	1	Balancer Shaft Assembly Right Hand (Marked RE500448)	-
10	R115299	1	Bushing	-

Timing Gear Cover

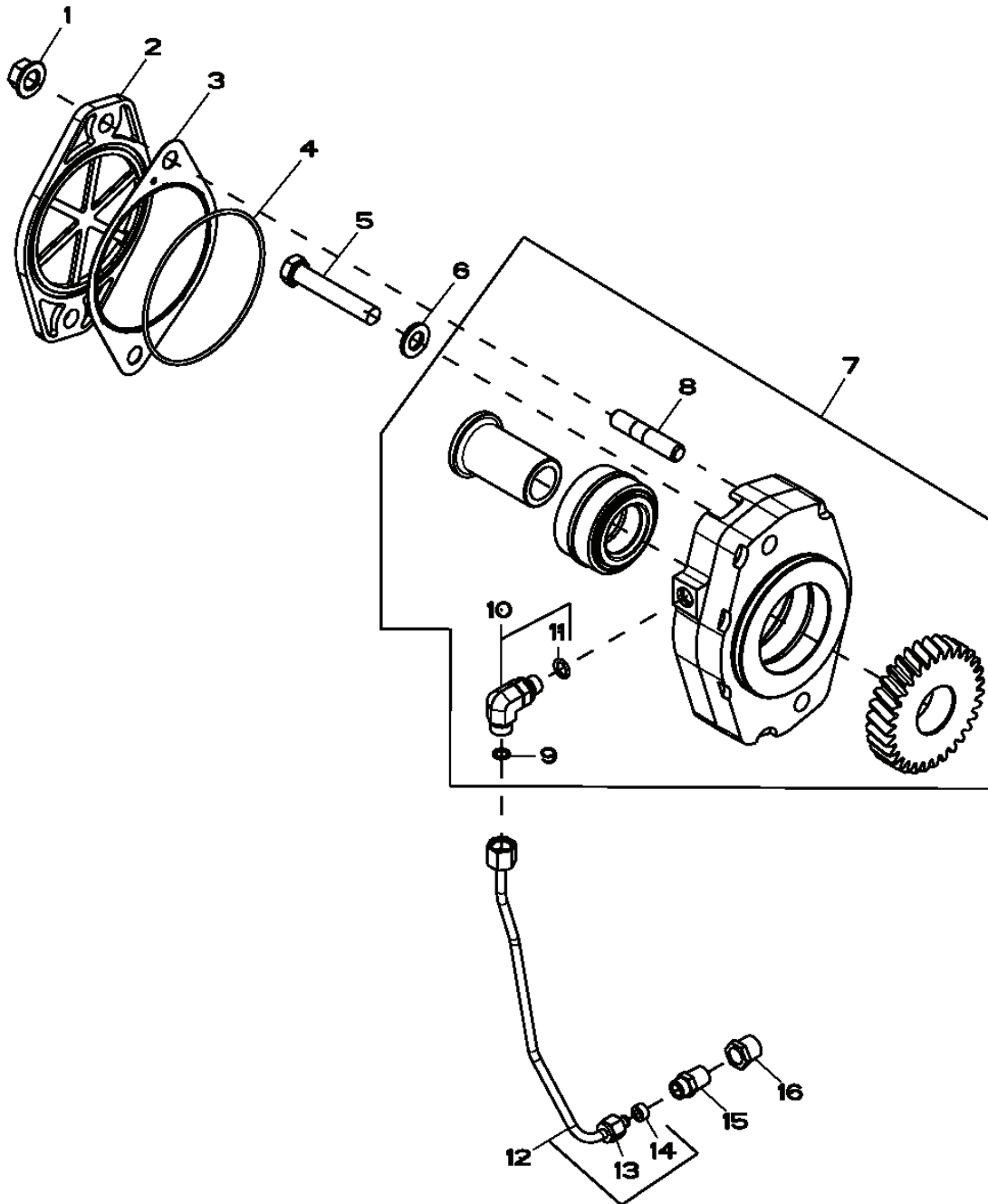


4443_RE527846_PCD

Timing Gear Cover

KEY	PART NUMBER	QTY	DESCRIPTION	SERIAL NUMBER
**	RE509865	1	Timing Cover & Coolant Pump Repair Kit	-
1	RE527847	1	Timing Cover	-
2	R504734	1	O-Ring	-
3	R526944	1	Gasket	-
4	R522907	1	Support	-
5	19M8488	4	Cap Screw M10 X 45	-
6	24M7096	4	Washer	-
7	19M7800	8	Screw M8 X 50	-
8	RE508566	1	Insert	-
9	R123417	1	Gasket	-
10	19M7801	3	Screw M8 X 60	-
11	19M8317	1	Screw M8 X 40	-
12	RE538097	1	Seal	-
13	RE517370	1	Fitting	-
14	51M7044	1	O-Ring 17.300 X 2.200 mm	-
15	RE46687	1	Drain Plug	-
16	16-09501	1	O-Ring 19.300 X 2.200 mm	-
17	14-80811	9	Flange Nut M10	-

SAE B-Pad / Spline Drive



RE59504PCDD03

SAE B-Pad / Spline Drive

KEY	PART NUMBER	QTY	DESCRIPTION	SERIAL NUMBER
1	14M7299	2	Flange Nut M12	-
2	R135757	1	Cover	-
3	R522690	1	Gasket	-
4	16-19503	1	O-Ring	-
5	19M7753	2	Cap Screw M12 X 70	-
6	24M7047	AR	Washer	-
7	RE500824	1	Auxiliary Drive	-
8	42M7071	2	Stud Legnth = 60 mm	-
9	T77814	1	O-Ring	-
10	38H5015	1	Elbow Fitting M12 X 1.5 X 9/19"-18 UNF, ALSO ORDER T77814	-
11	51M7040	1	O-Ring 9.300 X 2.200 mm	-
12	RE506914	1	Oil Line *	-
13	R123593	1	Tube Nut *	-
14	R51936	1	Sealing Washer *	-
15	R110664	1	Coupling 1/4"-18 NPT X 1/2"-24 UNS *	-
16	15H700	1	Pipe Bushing 1/4", 3/8"-18 NPT X 1/4"-18 NPT *	-

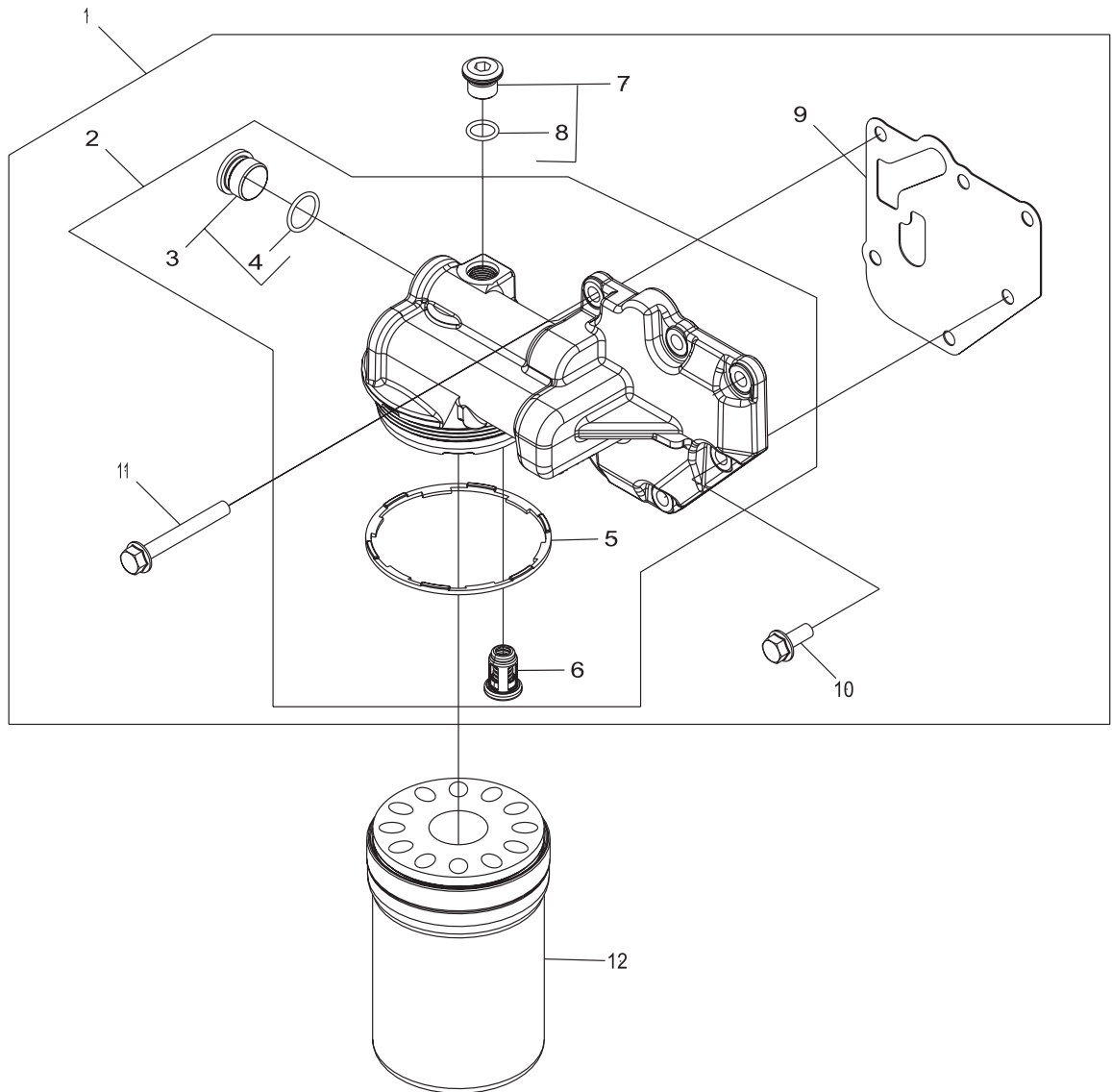
* Note: Keys 12 - 16 used only on heat exchanger cooled M99C13 models with base frames with TTB mounts (See base frame parts pages.) All M80A13 & M99C13 with heat exchanger cooling plus M99C13 heat exchanger cooled models equipped with PTO / Electric clutch option use special oil supply line (See parts detail.)

Auxiliary Drive Oil Supply Conversion Parts

Drawing not available during time of publication

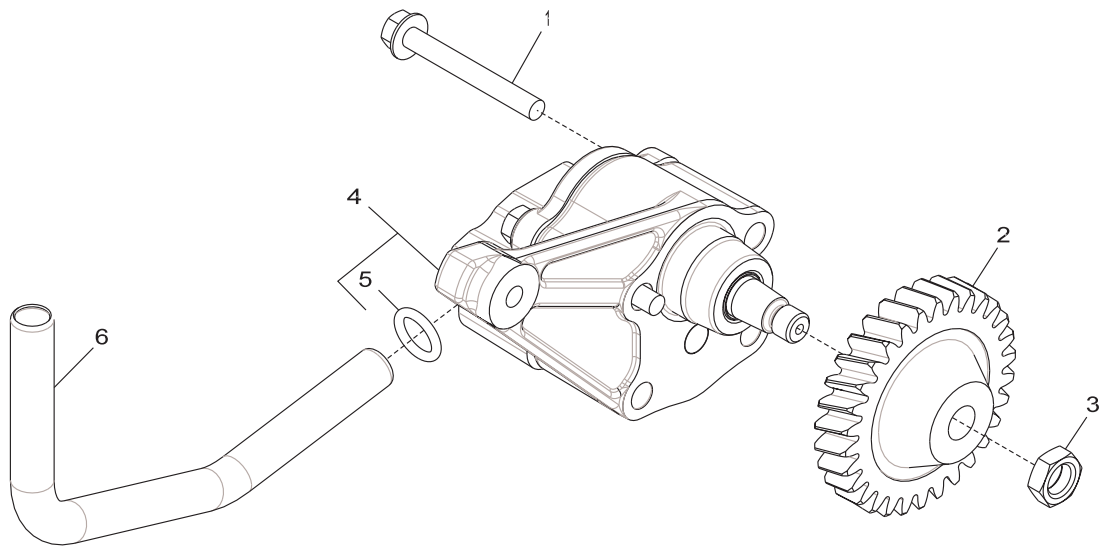
KEY	PART NUMBER	QTY	DESCRIPTION	SERIAL NUMBER
1	18-69502	1	Hose Assembly 1/4 ID x 15" 3.8 FMS x 3/8 O-R Face Seal	-
2	16-69501	2	O-Ring	-
3	N275799	1	Restriction Orifice	-
4	21-52800	1	Male Connector 3/8 NPT x 3/8 - 37T	-
5	21-69501	1	Male Elbow 90° M12 x 1.5 x 3/8 O-Ring Face Seal	-
6	21-59519	1	Swivel Elbow 45° 3/8 - 37T	-

Engine Oil Filter



KEY	PART NUMBER	QTY	DESCRIPTION	SERIAL NUMBER
1	RE508987	1	Oil Filter Adapter Kit (includes keys 2-11)	-
2	RE504564	1	Oil Filter Adapter Kit (includes keys 3-6)	-
3	RE505232	2	Plug (includes key 4)	-
4	16-09501	1	O-Ring	-
5	R502513	1	Seal	-
6	RE504543	1	Valve	-
7	RE52242	1	Plug (includes key 8)	-
8	16-00016	1	O-Ring	-
9	R500374	1	Gasket	-
10	RE67238	1	Screw M8 x 20 mm (A)	-
11	19M7802	5	Screw M8 X 65 mm	-
12	24-09501	1	Oil Filter	-
(A) Threads With Pre-Applied Sealant				

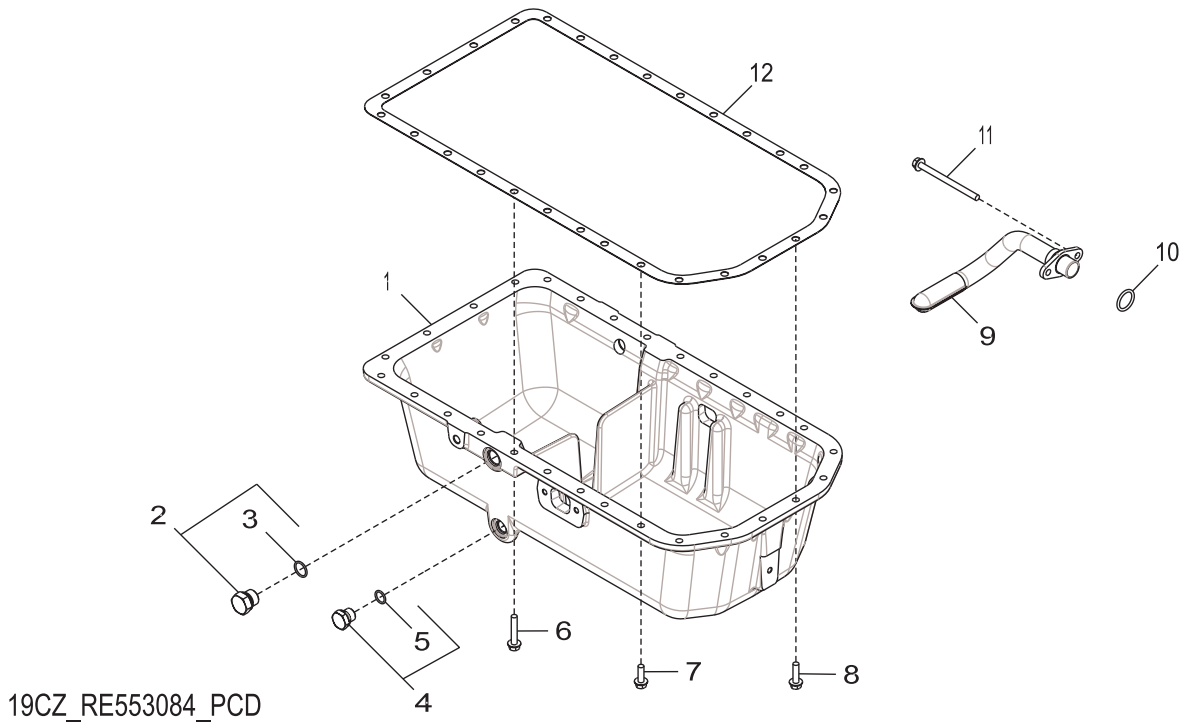
Oil Pump



5001_RE57763_PCD

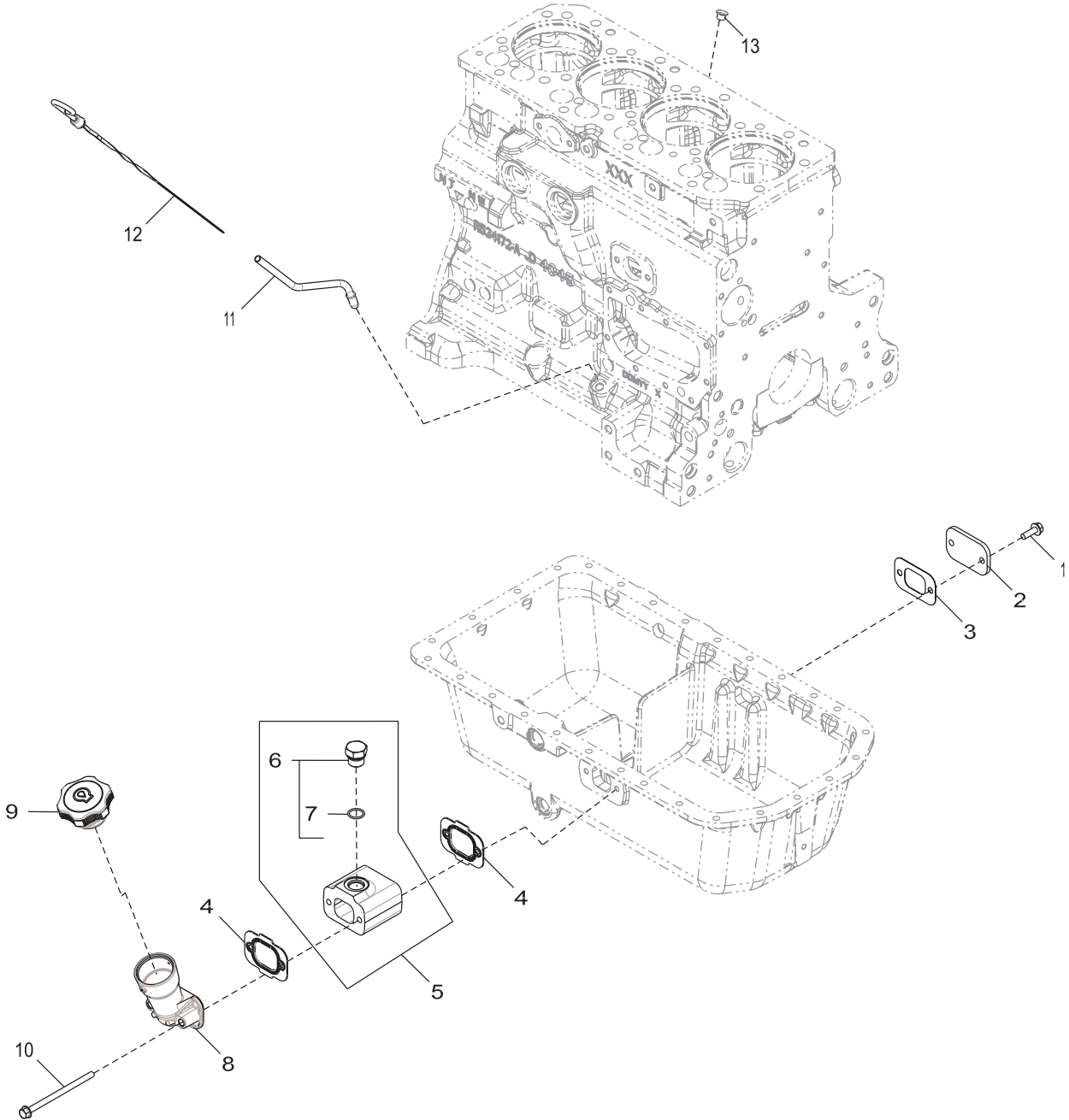
KEY	PART NUMBER	QTY	DESCRIPTION	SERIAL NUMBER
1	119M7802	2	Screw M8 X 65mm	-
2	R120638	1	Gear 1 Z = 30	-
3	14M7066	1	Nut M12	-
4	RE504914	1	Oil Pump	-
5	R97185	1	O-Ring	-
6	R121376	1	Tube	-

Oil Pan & Pick-Up



KEY	PART NUMBER	QTY	DESCRIPTION	SERIAL NUMBER
1	R536016	1	Oil Pan	-
2	RE46687	1	Drain Plug	-
3	16-09501	1	O-Ring (Includes key 2)	-
4	RE46685	2	Fitting Plug M29 x 1.5	-
5	16-09503	1	O-Ring (includes key 5)	-
6	19M7799	4	Screw M8 X 45 mm	-
7	19M7867	18	Screw M8 X 25 mm	-
8	19M7868	6	Screw M8 X 30 mm	-
9	RE68491	1	Oil Pump Pick-Up	-
10	R61871	1	O-Ring	-
11	19M10075	2	Screw M8 X 110 mm	-
12	R123353	1	Gasket	-

Oil Fill, Dipstick & Tube

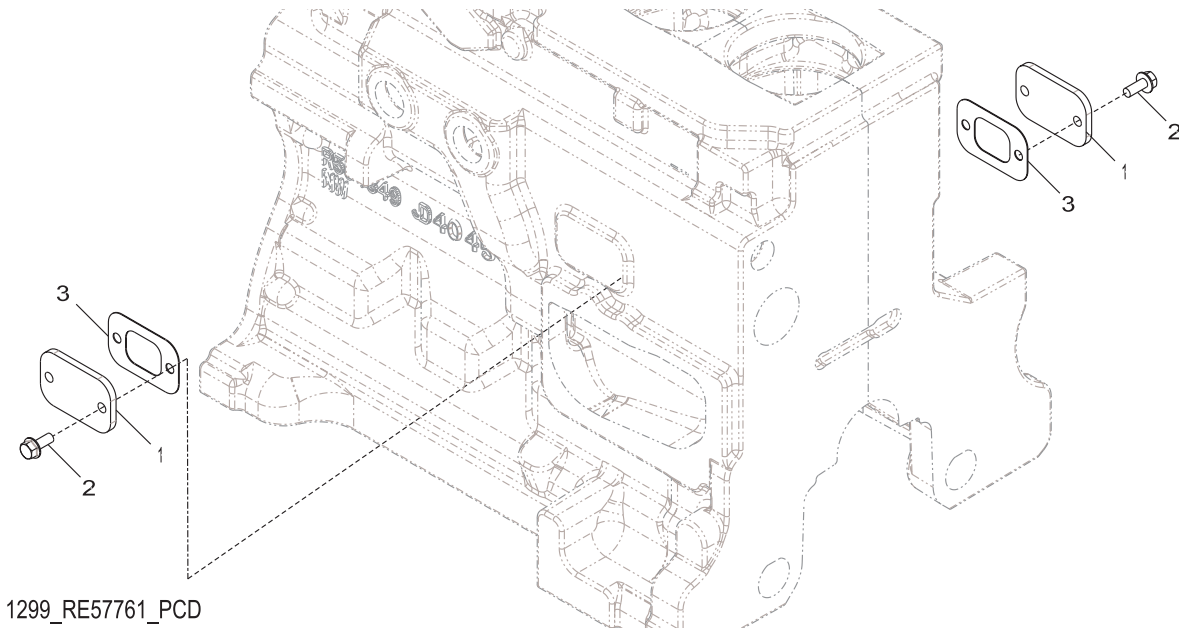


40AL_RE553148_PCD

Oil Fill, Dipstick & Tube

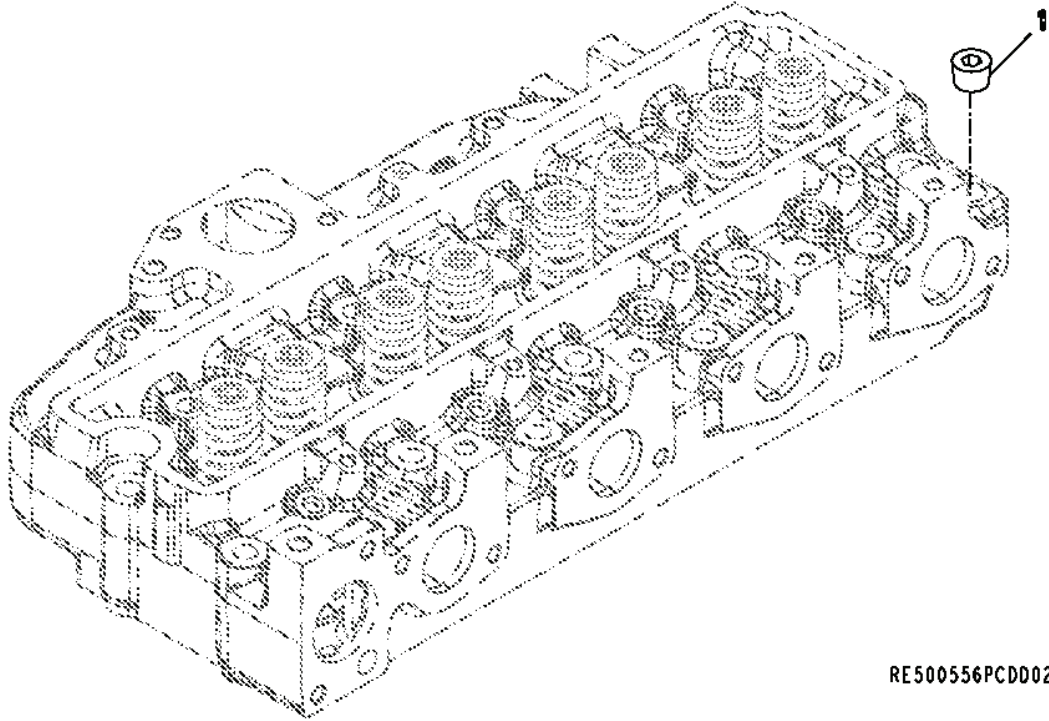
KEY	PART NUMBER	QTY	DESCRIPTION	SERIAL NUMBER
1	19M7867	2	Screw M8 X 25	-
2	R116296	1	Cover	-
3	R136495	1	Gasket	-
4	R528039	2	Gasket	-
5	RE558121	1	Adapter	-
6	RE46687	1	Drain Plug	-
7	16-09501	1	O-Ring	-
8	RE501377	1	Filler Neck	-
9	RE535560	1	Filler Cap	-
10	19M9915	2	Screw M8 X 130	-
11	R536058	1	Dipstick Tube	-
12	RE509922	1	Dipstick	-
13	R502725	1	Plug	-

Oil Filler Neck Cover



KEY	PART NUMBER	QTY	DESCRIPTION	SERIAL NUMBER
1	R116296	2	Cover	-
2	RE67238	4	Screw (A)	-
3	R136495	2	Gasket	-
			(A) Threads With Pre-Applied Sealant	

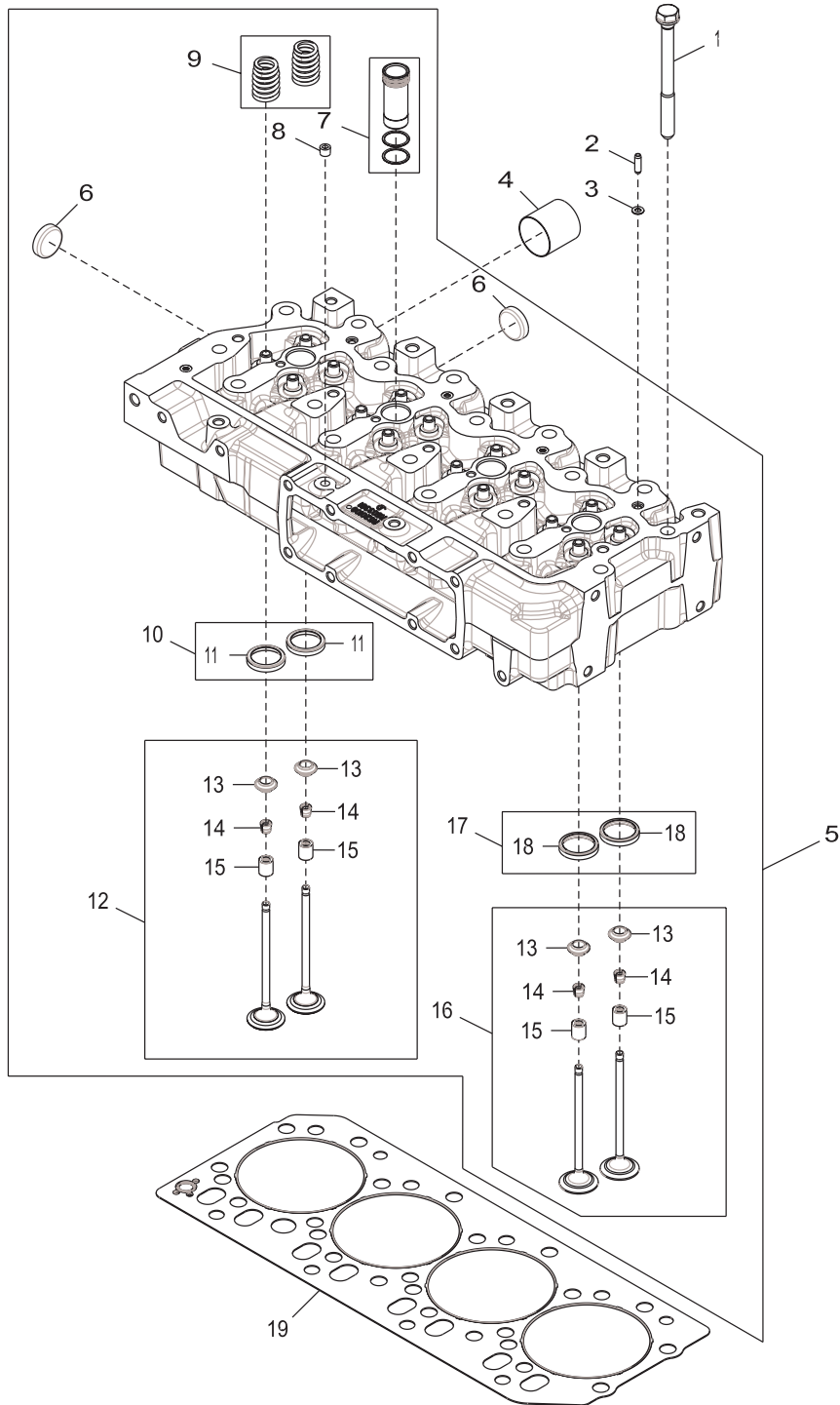
Temperature Switch Plug



RE500556PCDD02

KEY	PART NUMBER	QTY	DESCRIPTION	SERIAL NUMBER
1	21-11003	1	Plug, SOcket Head 1/2 NPT	-

Cylinder Head With Valves



5158_RE553949_PCD

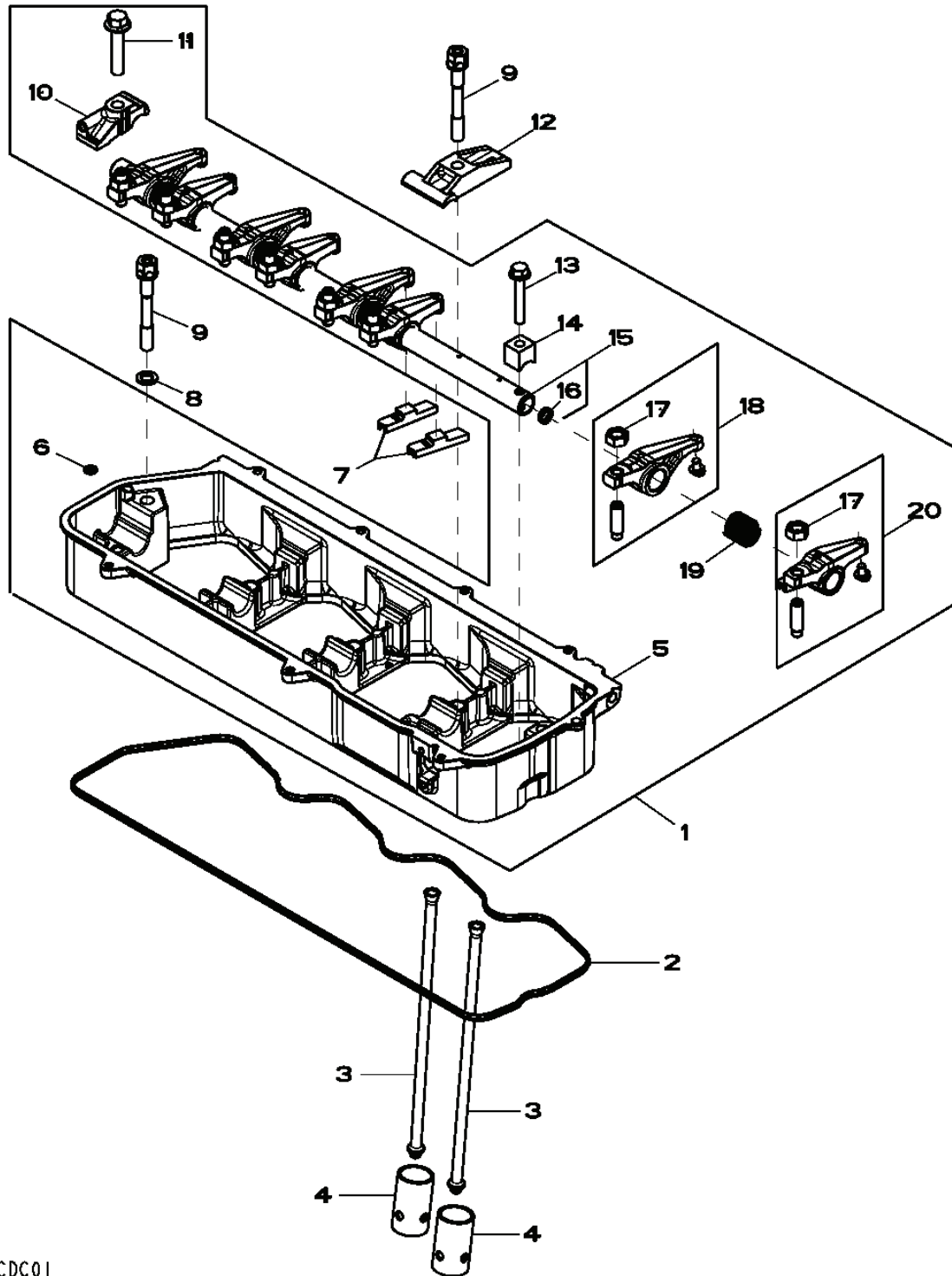
Cylinder Head With Valves

Key	Part No.	Part Name	Qty.	Engine Serial No.	Remarks
1	R534091	Cap Screw	18		
2	R521544	Bushing	2		
3	R520867	O-Ring	5		
4	R502512	Sleeve	4		
5	RE553422	Cylinder Head	1		
6	CD16284	Plug	3		
7	RE543935	Sleeve	4		
8	RE71255	Pipe Plug	1		
9	R518872	Spring	16		
10	RE518083	Valve Seat Insert	4		
11	R515033	Valve Seat Insert	8		
12	RE557891	Valve Kit	4		(A) INCLUDES (2) RE519115
13	R502367	Cap	16		
14	R534978	Retainer	32		
15	RE526519	Seal	16		
16	RE557890	Valve Kit	4		(B) INCLUDES (2) RE519115
17	RE518082	Valve Seat Insert	4		
18	R515034	Valve Seat Insert	8		
19	R116515	Engine Cylinder Head Gasket	1		
20	RE519115	Seal	4		NOT ILLUSTRATED

(A) Exhaust
Échappement
Auspuff
Scarico gas
Escape
Avgas

(B) Intake
Admission
Ansaugung
Aspirazione
Admisión
Inlopp

Rocker Arm & Rocker Arm Shaft



RE523427PCDC01

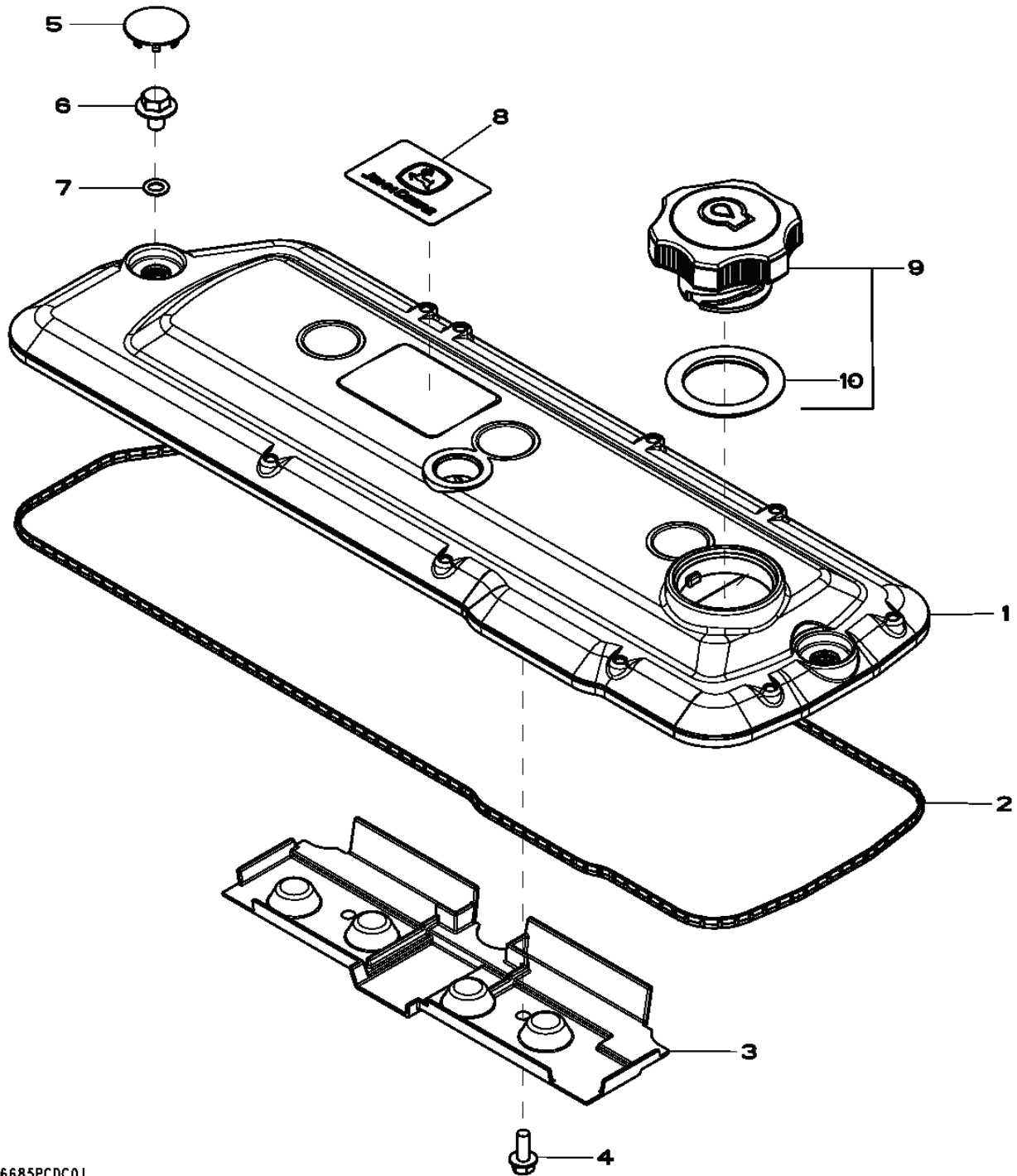
Rocker Arm & Rocker Arm Shaft

Key	Part No.	Part Name	Qty.	Engine Serial No.	HFJ8:	Remarks
1	RE533149	Rocker Arm Shaft	1		X	(SUB FOR RE523426) KIT
2	R505174	Gasket	1		X	
3	R504209	Push Rod	8		X	
4	R123565	Cam Follower	8		X	
5	Cradle	1		X	NSEP (MARKED R522208 OR R525453) (ORDER RE533149)
6	R520867	O-Ring	1		X	6.020 X 2.616 mm (0.237" X 0.103")
7	R502341	Valve Bridge	8		X	
8	24M7096	Washer	2		X	10.500 X 18 X 1.600 mm
9	R521458	Screw	5		X	
10	RE523032	Cap	1		X	
11	19M8966	Screw	1		X	M10 X 50
12	R516140	Strap	3		X	
13	19M9170	Screw	1		X	M8 X 50
14	R504631	Clamp	1		X	
15	RE516490	Rocker Arm Shaft	1		X	(MARKED R505150)
16	30M7004	Plug	2		X	
17	14M7148	Nut	8		X	M10
18	RE504210	Rocker Arm	4		X	(A)
19	R505543	Spring	4		X	
20	RE523023	Rocker Arm	4		X	(B)

(A) EXHAUST
ECHAPPEMENT
AUSPUFF
SCARICO
ESCAPE
AVGASROER

(B) INTAKE
SOUPAPE D'ADMISSION
EINLASSVENTIL
VALVOLA DI ASPIRAZIONE
VALVULA DE ADMISION
INSUGNINGSVENTIL

Rocker Arm Cover

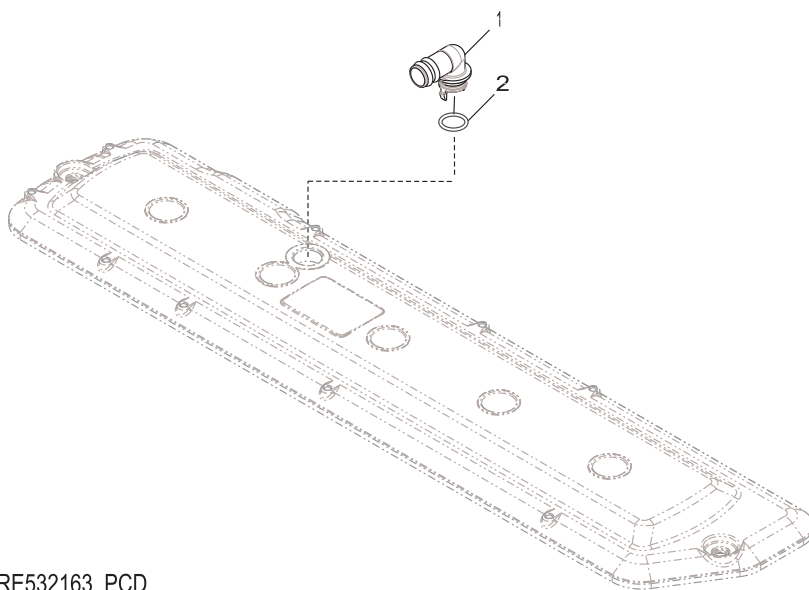


RE 526685PCDC01

Rocker Arm Cover

<i>Key</i>	<i>Part No.</i>	<i>Part Name</i>	<i>Qty.</i>	<i>Engine Serial No.</i>	<i>Remarks</i>
1	R522165	Valve Cover	1		
2	R524499	Gasket	1		SUB FOR R505174
3	R515555	Deflector	1		
4	19M7775	Screw	2		M6 X 16
5	H23125	Plug	5		
6	R521390	Screw	5		M8 X 12
7	R123575	O-Ring	5		7.595 X 2.616 mm (0.299" X 0.103")
8	R521401	Medallion	1		
9	RE535560	Filler Cap	1		SUB FOR RE500005
10	R502902	Packing	1		ID= 44MM

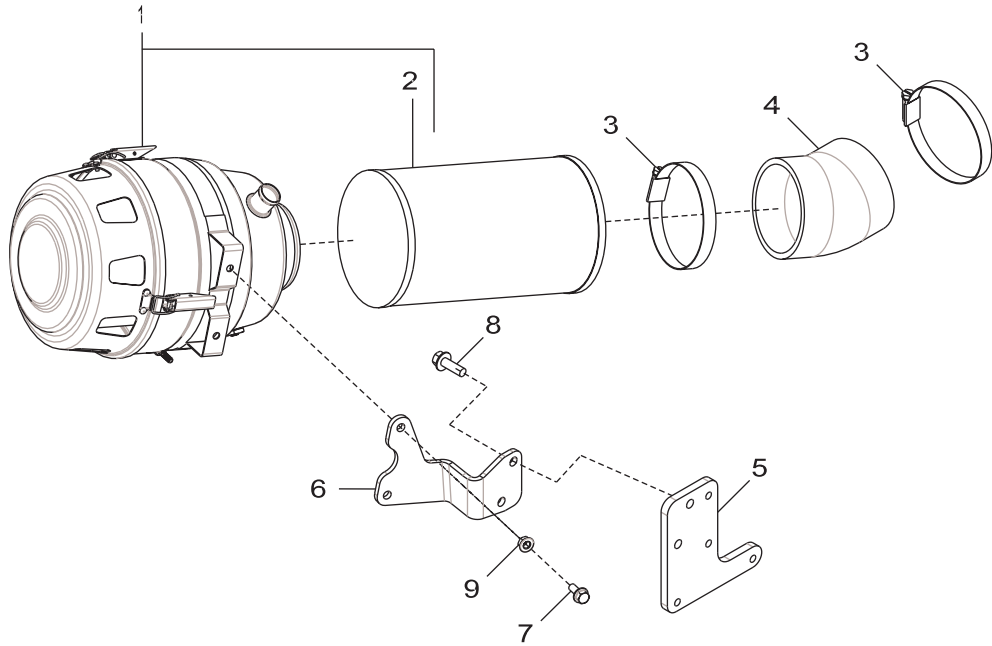
Ventilating System



2997_RE532163_PCD

Key	Part No.	Part Name	Qty.	Engine Serial No.	Remarks
1	R120467	Elbow Fitting	1		
2	16-01000	O-Ring	1		

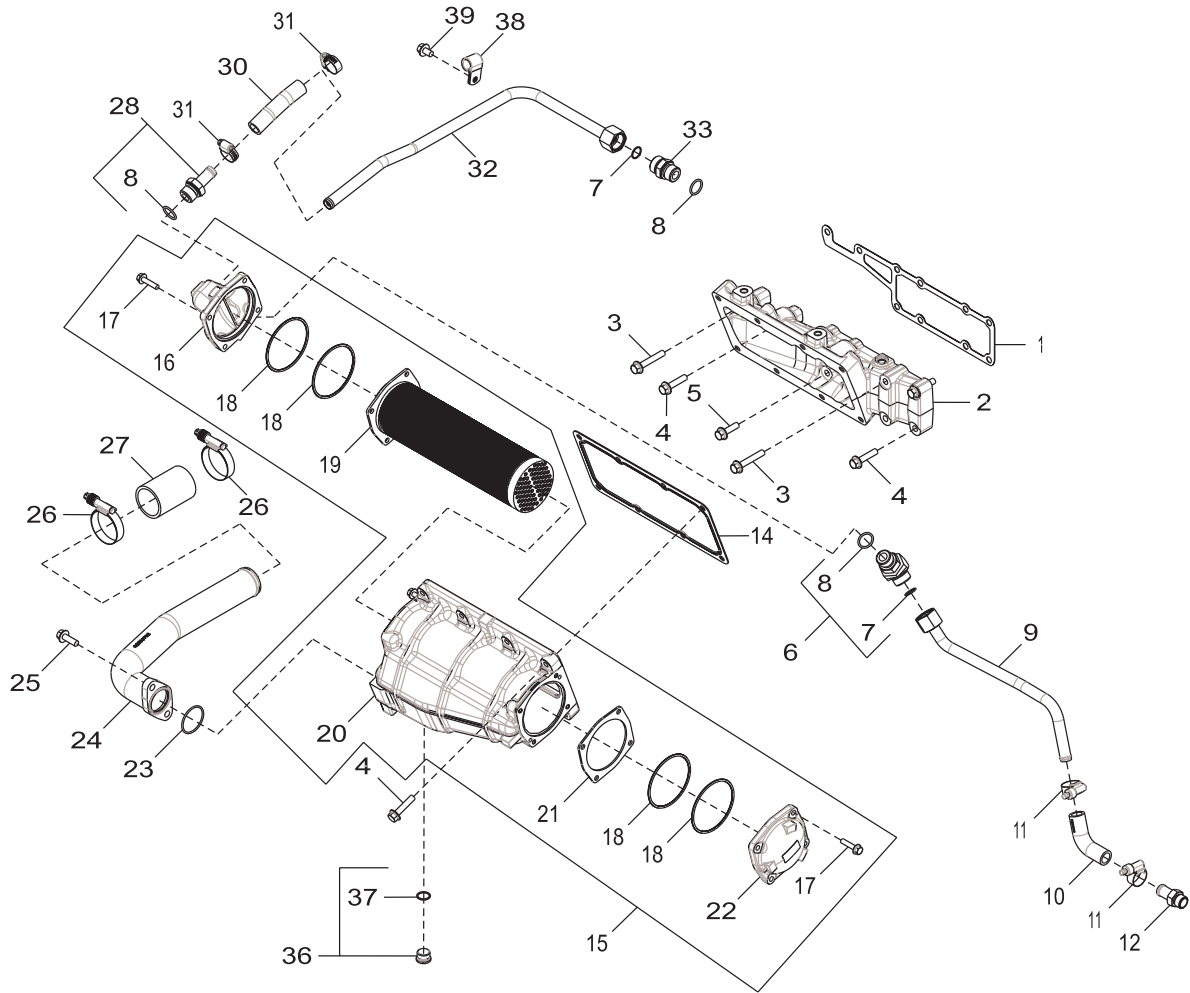
Air Cleaner



1857_RE553416_PCD

Key	Part No.	Part Name	Qty.	Engine Serial No.	Remarks
1	RE553417	Air Cleaner	1		
2	RE554812	Filter Element	1		
3	RE67746	Hose Clamp	2		
4	R104873	Hose	1		
5	R536278	Bracket	1		
6	R536242	Bracket	1		
7	19M7866	Screw	2		M8 X 20
8	19M7786	Screw	2		M10 X 30
9	14M7298	Flange Nut	2		M8

Air Intake System



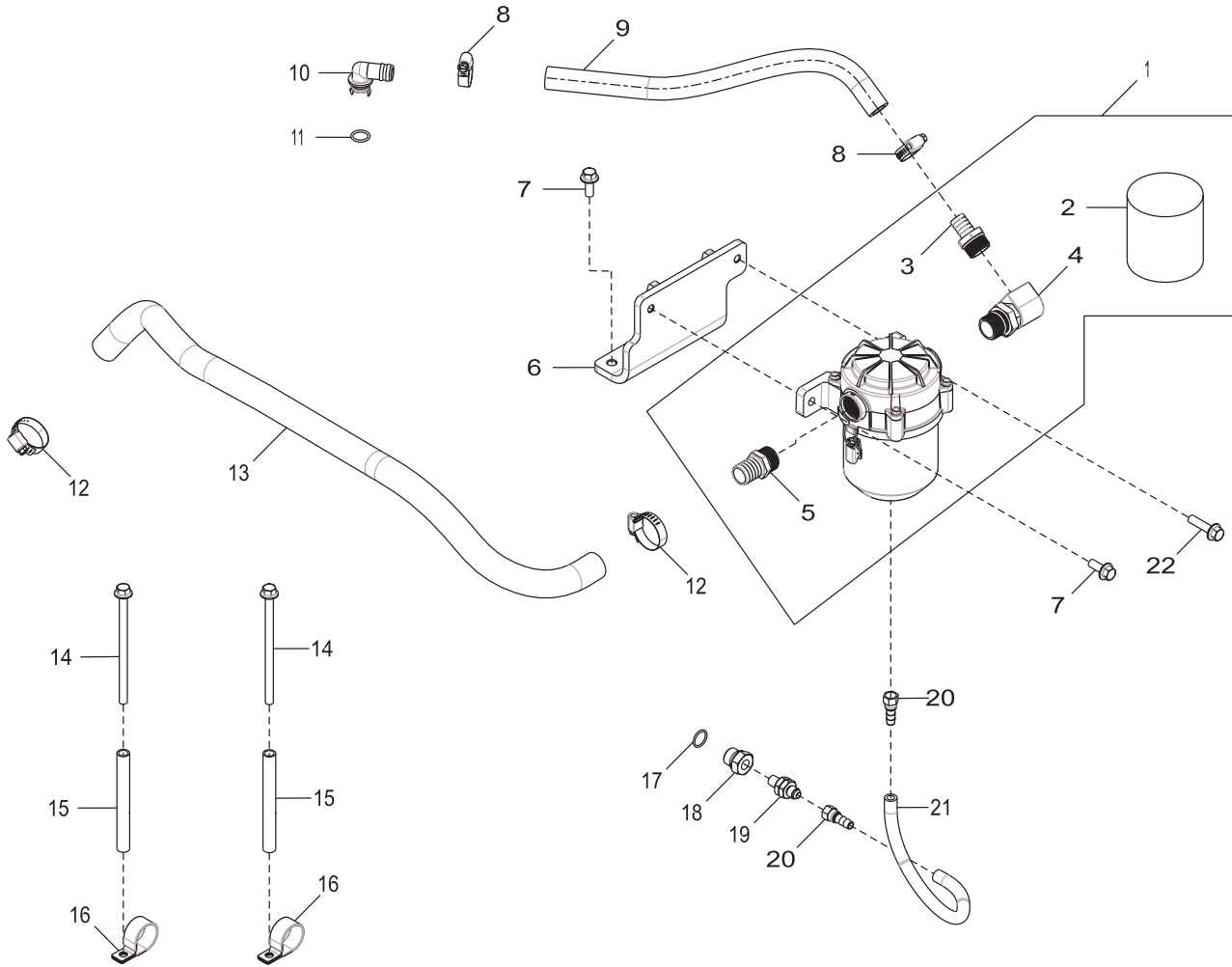
17EM_RE551853_PCD

Air Intake System

Key	Part No.	Part Name	Qty.	Engine Serial No.	Remarks
1	R535975	Gasket	1		
2	R535002	Intake Manifold	1		
3	19M7807	Screw	3		M10 X 60
4	19M8320	Screw	13		M10 X 45
5	19M7835	Screw	2		M10 X 35
6	61M5129	Elbow Fitting	1		
7	T77858	O-Ring	2		
8	16-00027	O-Ring	3		23.600 X 2.900 mm
9	RE553328	Line	1		
10	R536109	Hose	1		
11	R524513	Hose Clamp	2		
12	RE223627	Hose Fitting	1		INCLUDES 51M7045
14	16-09501	O-Ring	1		(A) 19.300 X 2.200 mm
15	R535821	Gasket	1		
15	RE551476	Aftercooler	1		
16	R535801	Adapter	1		
17	19M8291	Screw	8		M8 X 35
18	R536313	O-Ring	4		
19	RE552051	Core	1		
20	R535802	Housing	1		
21	R535803	Plate	1		
22	R535800	Cover	1		
23	YZ81077	O-Ring	1		
24	RE553792	Air Flow Tube	1		
25	19M7786	Screw	2		M10 X 30
26	RE67208	Clamp	2		
27	R539585	Hose	1		
28	RE322239	Fitting	1		
30	R524438	Hose	1		
31	RE65978	Clamp	2		
32	RE553329	Line	1		
33	38H5005	Adapter Fitting	1		
36	RE505232	Fitting Plug	1		
37	16-09501	O-Ring	1		19.300 X 2.200 mm
38	R73291	Clamp	1		
39	19M7783	Screw	1		M10 X 16

(A) Not Illustrated
 Non illustres
 Nicht abgebildet
 Non in figura
 No se ilustra
 Visas ej på bilden

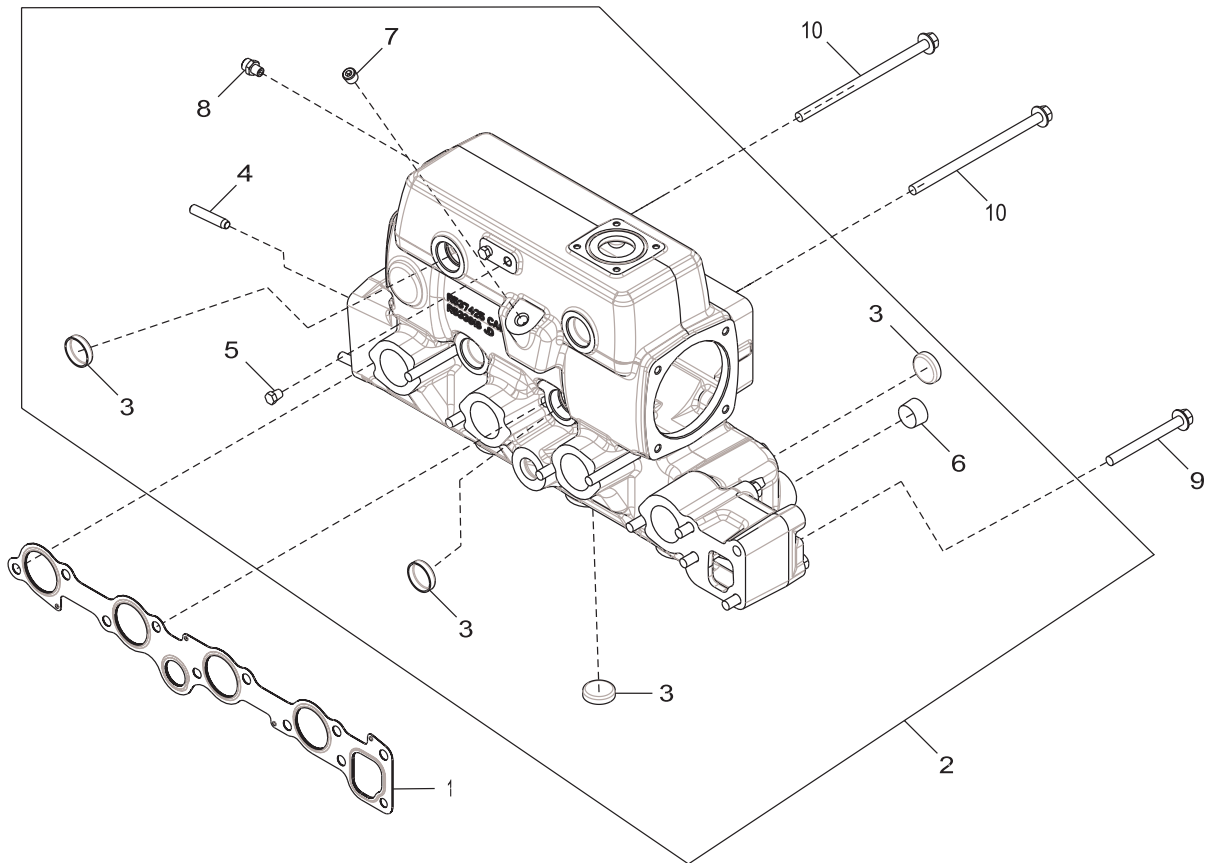
Vent System



Vent System

Key	Part No.	Part Name	Qty.	Engine Serial No.	Remarks
1	RE554150	Crankcase Vent Filter	1		
2	RE502284	Filter Element	1		
3	RE536786	Hose Fitting	1		
4	RE557065	Hose Fitting	1		
5	RE554545	Hose Fitting	1		
6	RE529828	Bracket	1		
7	19M7785	Screw	3		M10 X 25
8	RE65978	Clamp	2		
9	R537966	Hose	1		
10	R120467	Elbow Fitting	1		
11	R72328	O-Ring	1		
12	TY22467	Clamp	2		
13	R536356	Hose	1		
14	19M9017	Screw	2		M10 X 165
15	R533312	Spacer	2		
16	R112693	Clamp	2		
17	51M7045	O-Ring	1		19.300 X 2.200 mm
18	R501363	Hose Fitting	1		
19	RE504549	Check Valve	1		
20	RE505200	Hose Fitting	2		
21	R536399	Hose	1		
22	19M7804	Screw	1		M10 X 40

Exhaust Manifold

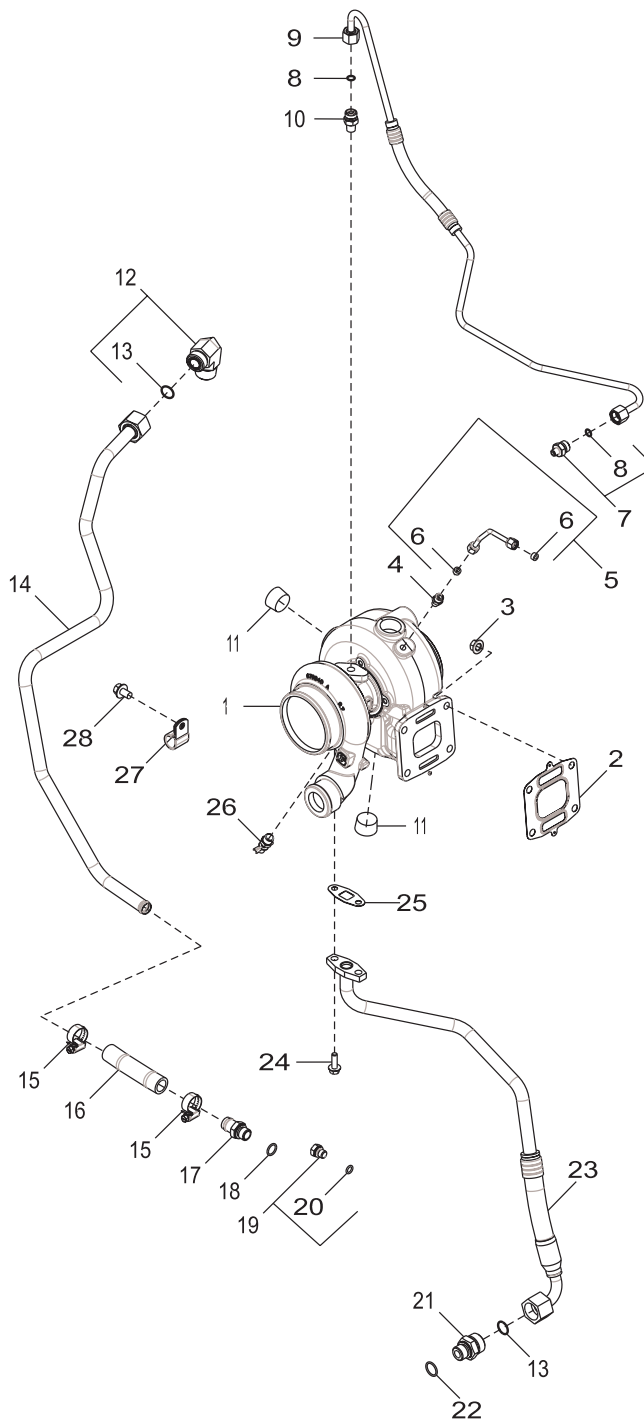


28BV_RE548246_PCD

Exhaust Manifold

Key	Part No.	Part Name	Qty.	Engine Serial No.	Remarks
1	RE551765	Gasket	1		
2	RE548245	Exhaust Manifold	1		
3	CD16284	Plug	10		
4	R523331	Stud	4		
5	15H712	Pipe Plug	2		1/8"
6	15H690	Pipe Plug	1		3/4"
7	15H685	Pipe Plug	1		1/4"
8	RE502650	Fitting	1		
9	19M7812	Screw	4		M10 X 100
10	19M9168	Screw	7		M10 X 180

Turbocharger

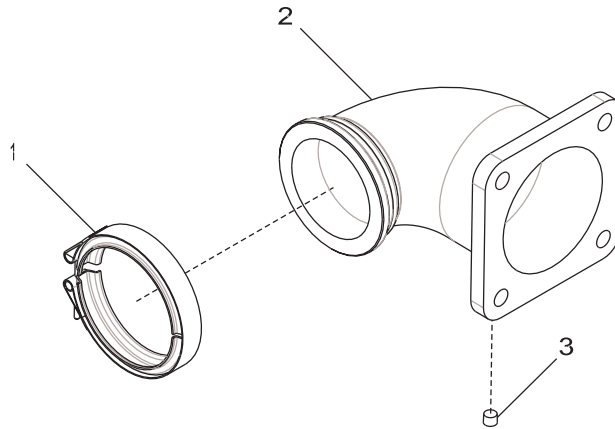


65J3_RE554417_PCD

Turbocharger

Key	Part No.	Part Name	Qty.	Engine Serial No.	Remarks
1	RE557987	Turbocharger	1		
2	RE549173	Gasket	1		
3	14M7296	Flange Nut	4		M10
4	RE502650	Fitting	1		
5	RE553333	Line	1		
6	R51936	Sealing Washer	2		
7	RE521531	Adapter Fitting	1		
8	R63548	O-Ring	2		
9	RE561520	Oil Line	1		
10	21-51905	Adapter Fitting	1		
11	15H562	Pipe Plug	2		1"
12	RE523561	Elbow Fitting	1		
13	T77858	O-Ring	2		
14	RE553330	Line	1		
15	RE65978	Clamp	2		
16	R524438	Hose	1		
17	R521324	Fitting	1		
18	16-09503	O-Ring	1		
19	RE46686	Fitting Plug	1		
20	16-00012	O-Ring	1		
21	38H5121	Adapter Fitting	1		
22	16-09501	O-Ring	1		
23	RE561519	Oil Line	1		
24	19M8063	Screw	2		M8 X 25
25	R123570	Gasket	1		
26	AT13740	Drain Valve	1		
27	R73291	Clamp	1		
28	19M7783	Screw	1		M10 X 16

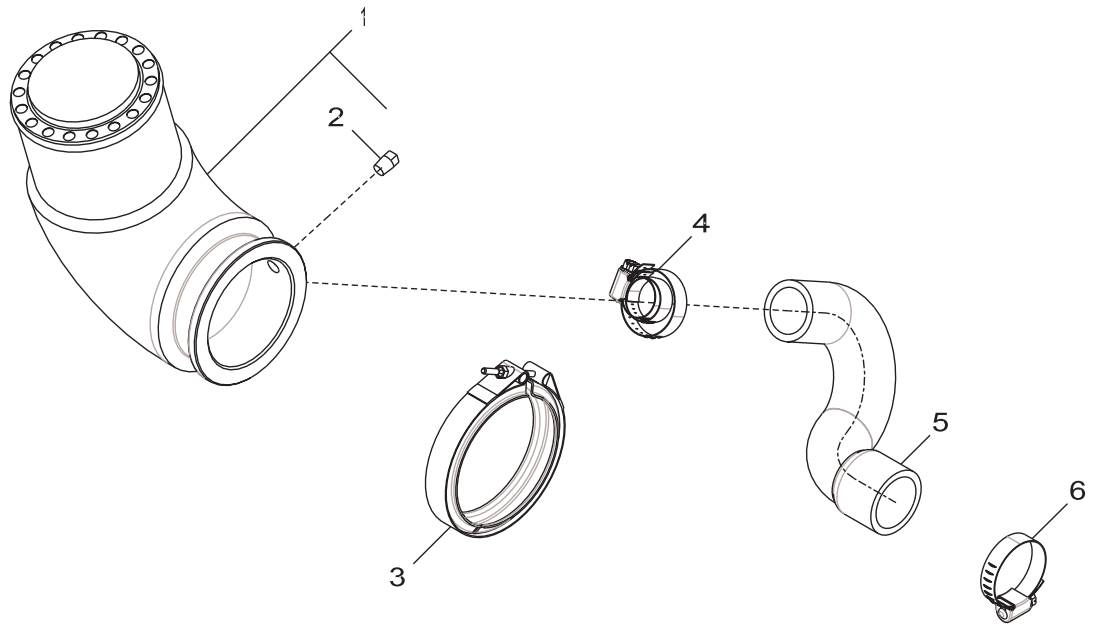
Exhaust Elbow



6402_RE49958_PCD

Key	Part No.	Part Name	Qty.	Engine Serial No.	Remarks
1	RE47537	Clamp	1		
2	R110108	Elbow Fitting	1		
3	RE71255	Pipe Plug	1		

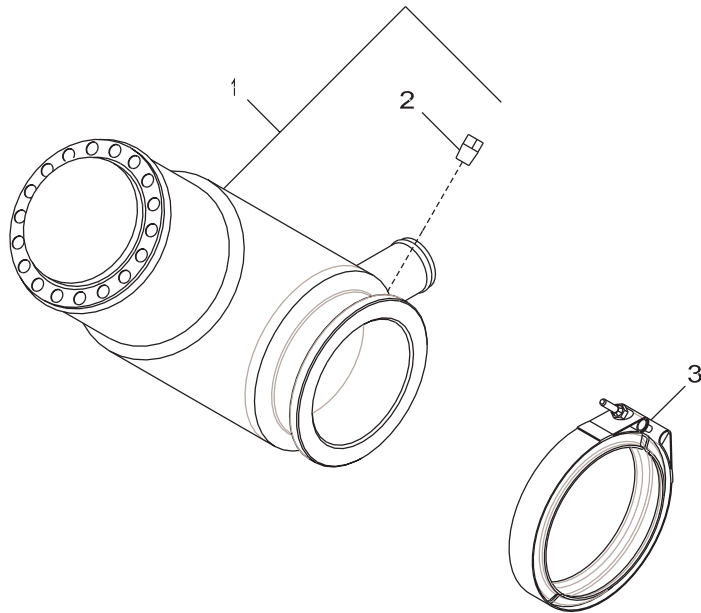
Exhaust Elbow



6403_RE50015_PCD

Key	Part No.	Part Name	Qty.	Engine Serial No.	Remarks
1	RE506716	Elbow Fitting	1		
2	15H638	Pipe Plug	1		1/8"
3	RE47537	Clamp	1		
4	TY22467	Clamp	1		
5	R504046	Hose	1		
6	TY22470	Clamp	1		

Exhaust Elbow

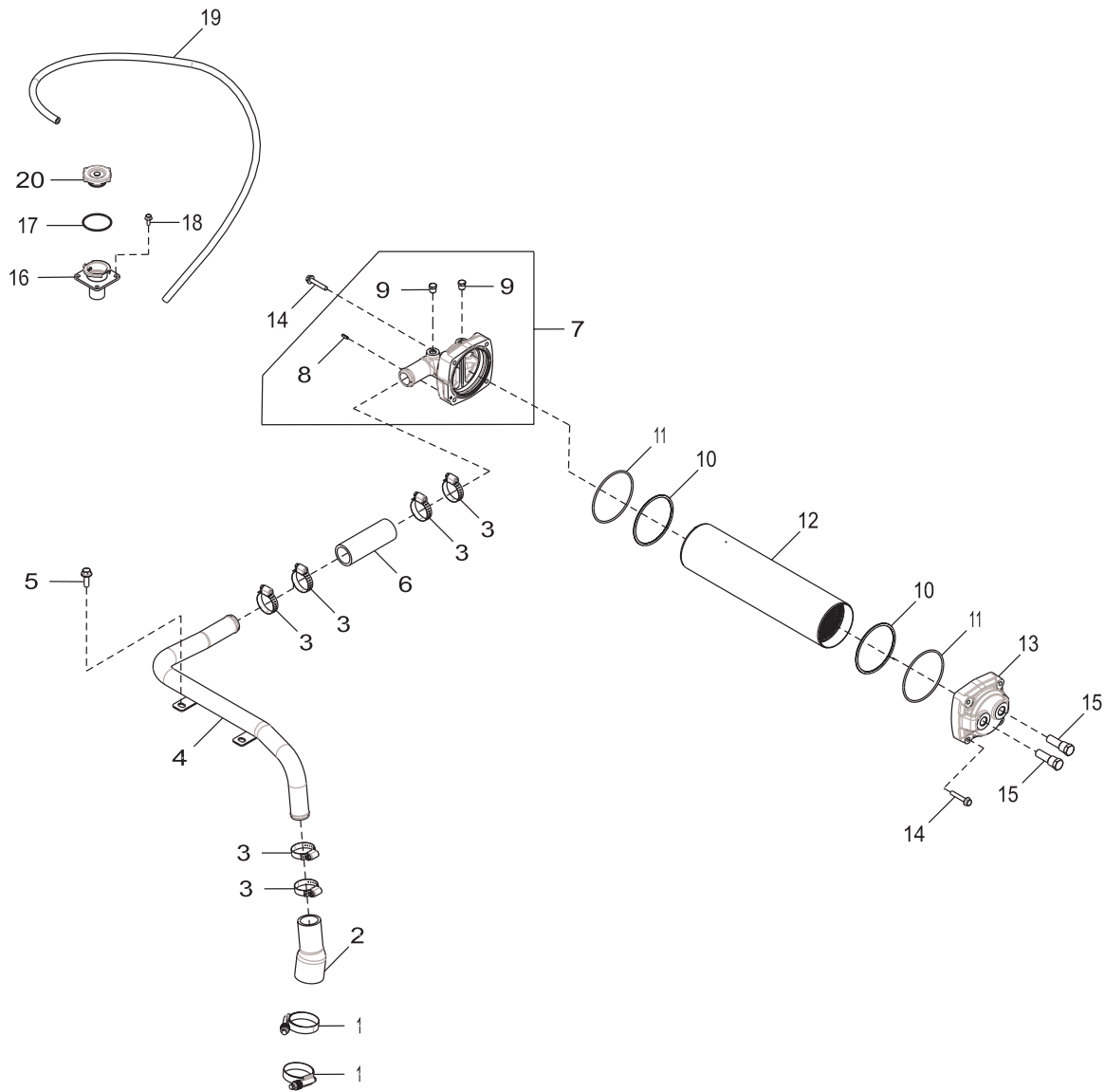


6405_RE57675_PCD

Key	Part No.	Part Name	Qty.	Engine Serial No.	Remarks
1	RE506716	Elbow Fitting	1		
2	15H638	Pipe Plug	1	1/8"	
3	RE47537	Clamp	1		

Notes

Heat Exchanger



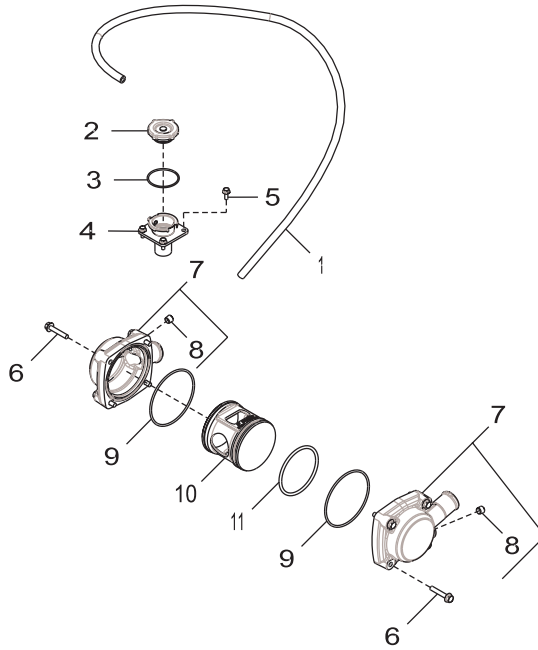
2765_RE553465_PCD

Heat Exchanger

Key	Part No.	Part Name	Qty.	Engine Serial No.	Remarks
1	RE67208	Clamp	2		
2	R535958	Hose	1		
3	TY22470	Clamp	6		
4	RE552590	Tube	1		
5	19M7786	Screw	2		M10 X 30
6	R536297	Hose	1		
7	RE557010	Cover	1		
8	34H277	Spring Pin	1		3/16" X 5/8"
9	H26723	Drain Plug	2		
10	T45902	O-Ring	2		
11	R241873	O-Ring	2		
12	RE552052	Core	1		
13	R533893	Cover	1		
14	19M8318	Screw	8		M8 X 45
15	RE54993	Fitting Plug	2		
16	RE46165	Filler Neck	1		
17	H63262	O-Ring	1		
18	19M7775	Screw	4		M6 X 16
19	R82454	Hose	1		
20	AT183451	Filler Cap 16 PSI	1		

GROUP 3 – COOLING SYSTEM

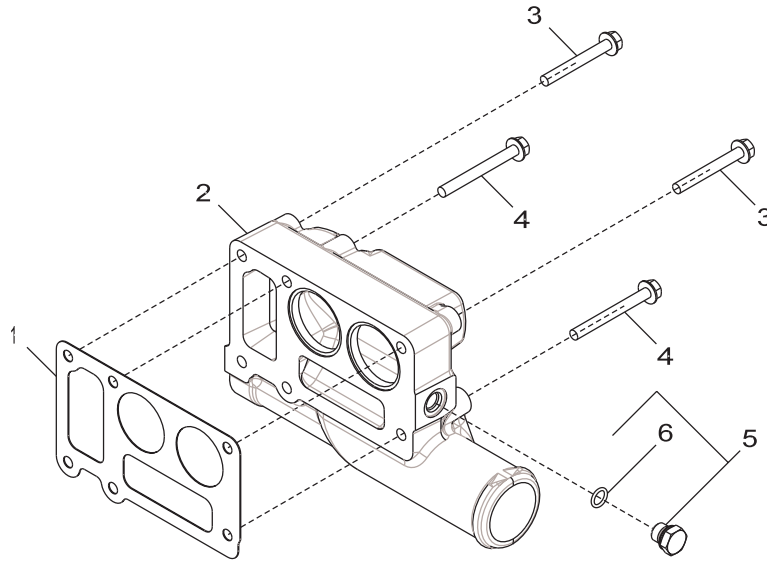
Heat Exchanger Cover



2766_RE553812_PCD

Key	Part No.	Part Name	Qty.	Engine Serial No.	Remarks
1	R82454	Hose	1		
2	AT183451	Filler Cap	1		
3	H63262	O-Ring	1		
4	RE46165	Filler Neck	1		
5	19M7775	Screw	4		M6 X 16
6	19M8318	Screw	8		M8 X 45
7	RE557011	Cover	2		
8	15H685	Pipe Plug	2		1/4"
9	R241873	O-Ring	2		
10	R536315	Adapter	1		
11	R76030	O-Ring	1		

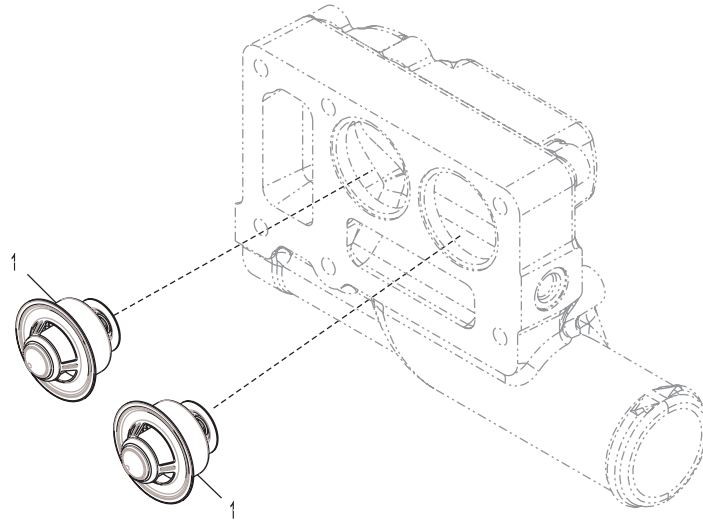
Thermostat Cover



2188_RE553502_PCD

Key	Part No.	Part Name	Qty.	Engine Serial No.	Remarks
1	R536206	Gasket	1		
2	R533787	Cover	1		
3	19M7802	Screw	3		M8 X 65
4	19M8874	Screw	3		M8 X 75
5	RE46684	Fitting Plug	1		
6	51M7041	O-Ring	1		11.300 X 2.200 mm

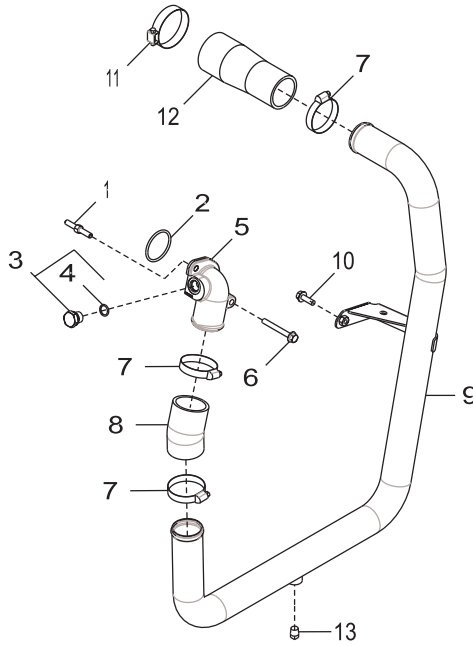
Thermostat



2229_RE557213_PCD

<i>Key</i>	<i>Part No.</i>	<i>Part Name</i>	<i>Qty.</i>	<i>Engine Serial No.</i>	<i>Remarks</i>
1	RE557215	Thermostat	2		

Water Pump Inlet

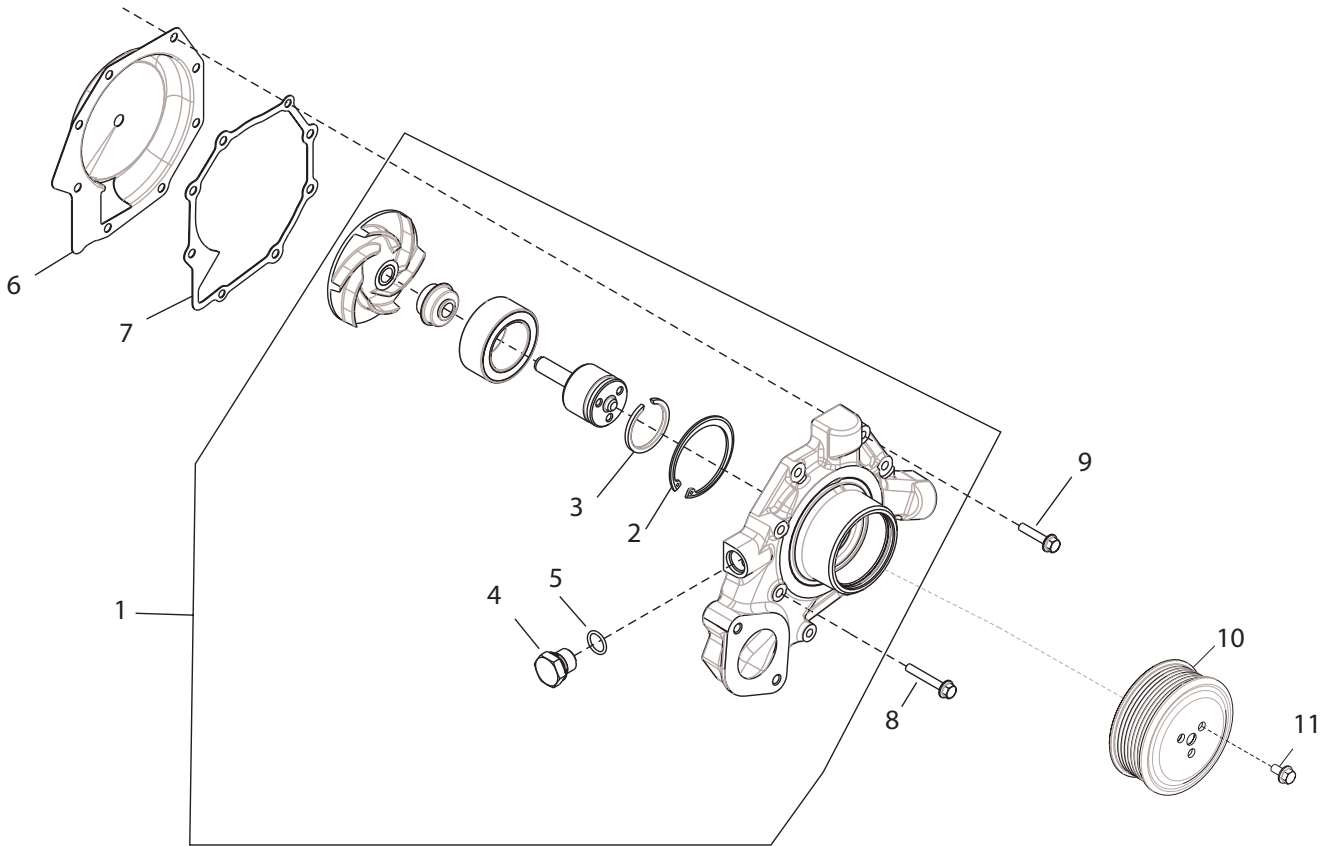


5740_RE550377_PCD

Key	Part No.	Part Name	Qty.	Engine Serial No.	Remarks
1	R501462	Stud	1		
2	R89944	O-Ring	1		
3	RE46685	Fitting Plug	1		
4	16-09503	O-Ring	1		
5	R502983	Pump Connection	1		
6	19M7802	Screw	1		M8 X 65
7	AR65294	Clamp	3		
8	R519500	Hose	1		
9	RE554161	Tube	1		
10	19M7867	Screw	1		M8 X 25
11	RE40436	Clamp	1		
12	T27104	Radiator Hose	1		
13	21-31624	Pipe Plug	1		1/4" NPT

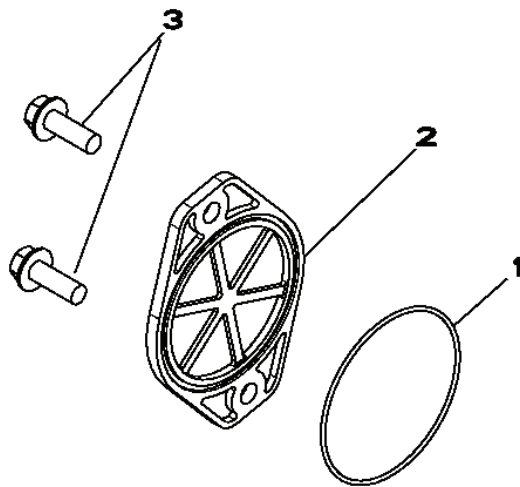
GROUP 3 – COOLING SYSTEM

Coolant Pump



KEY	PART NUMBER	QTY	DESCRIPTION	SERIAL NUMBER
1	RE527848	1	Coolant Pump	-
2	R71228	1	Snap Ring	-
3	A364R	1	Snap Ring	-
4	RE46685	1	Fitting Ring	-
5	16-09503	1	O-Ring	-
6	RE508566	1	Insert	-
7	R123417	1	Gasket	-
8	19M7797	3	Screw M6 x 40	-
9	19M7796	5	Screw M6 x 30	-
10	R115250	1	Pulley	-
11	19M7774	3	Screw M6 x 12	-

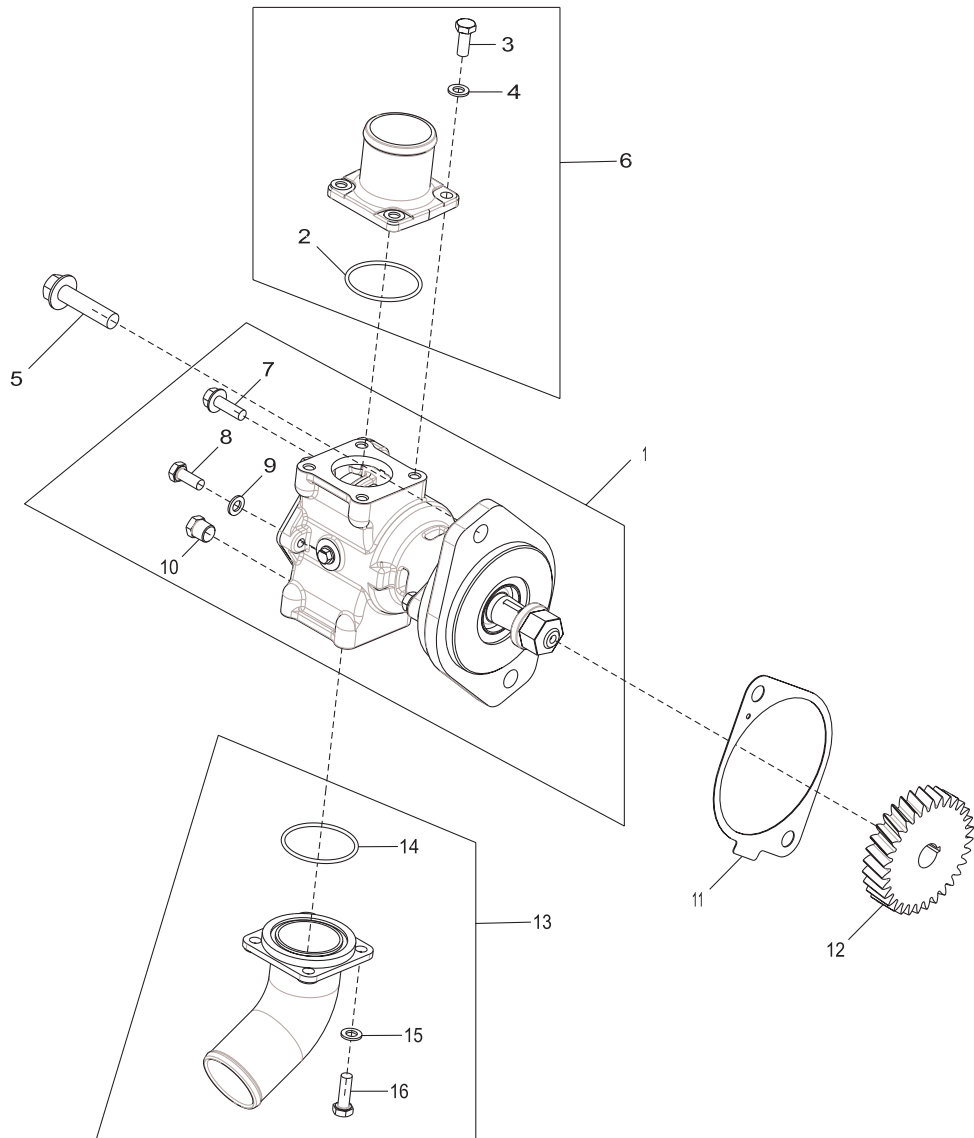
Cooling System Auxiliary Drive Cover, Keel Cooled Units



RE59284PCDD01

KEY	PART NUMBER	QTY	DESCRIPTION	SERIAL NUMBER
1	16-19503	1	O-Ring	-
2	R1235757	1	Cover	-
3	19M7790	2	Screw M12 x 35	-

Sea Water Pump



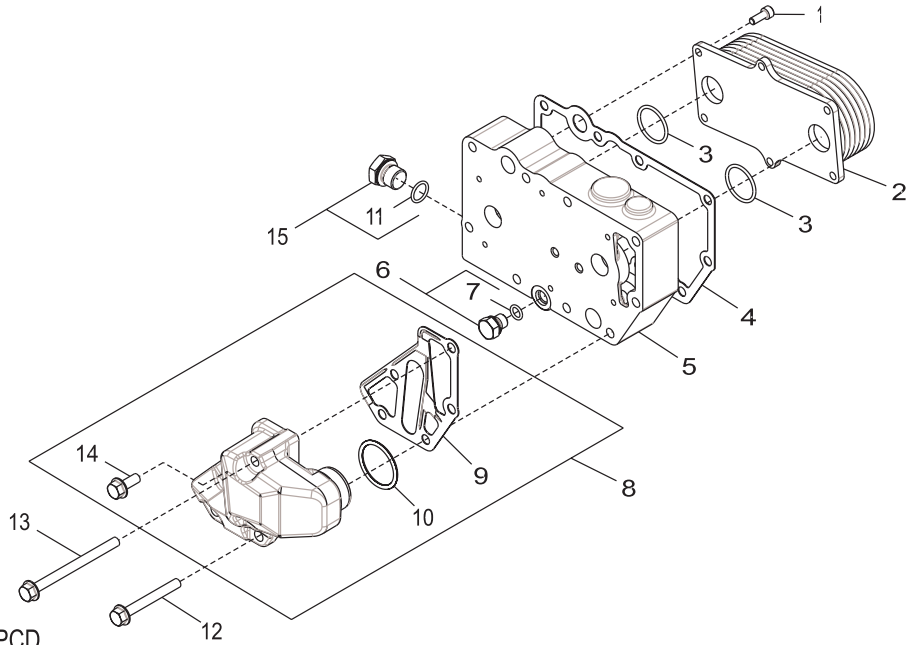
8024_RE535914_PCD

Sea Water Pump

Key	Part No.	Part Name	Qty.	Engine Serial No.	Remarks
1	RE538663	Water Pump (includes keys 7-10)	1		
2	U42111	O-Ring	1		
3	19M9962	Screw	4		M8 X 20
4	24M7537	Washer	4		
5	19M8306	Screw	2		M12 X 50
6	RE538665	Adapter Assembly (includes keys 2-4)	1		
7	19M7867	Screw	4		M8 X 25
8	19M9962	Screw	3		M8 X 20
9	24M7537	Washer	3		
10	H26723	Drain Plug	2		
11	R522690	Gasket	1		
12	R135101	Gear	1		
13	RE538664	Adapter Assembly (includes keys 14-16)	1		
14	U42111	O-Ring	1		
15	24M7537	Washer	4		
16	19M9963	Screw	4		M8 X 25
..	RE49896	Impeller Kit	1		
..	RE540391	Pump Repair Kit - Major Service	1		

GROUP 3 – COOLING SYSTEM

Oil Cooler

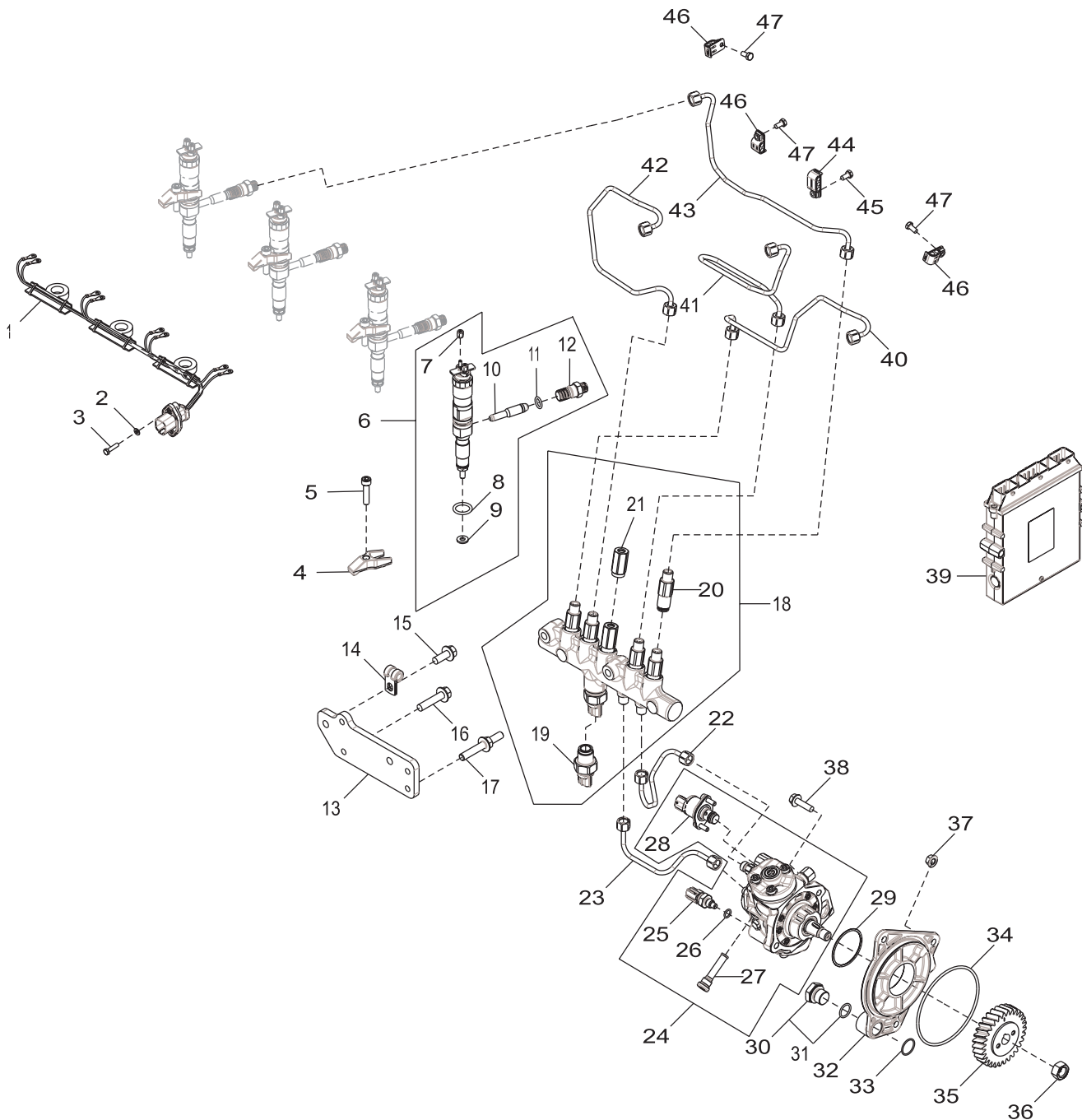


5947_RE526549_PCD

Key	Part No.	Part Name	Qty.	Engine Serial No.	Remarks
1	RE67231	Capscrew, Socket Head	6		M16 x 16 mm with pre-applied sealant
2	RE56690	Oil Cooler	1		7 PLATES
3	T122075	O-Ring	2		
4	R123501	Gasket	1		
5	R520983	Housing	1		
6	RE46686	Plug M12 x 1.5	1		Includes key 7
7	16-00012	O-Ring	1		
8	RE508599	Adapter	1		
9	R501428	Gasket	1		
10	R504734	O-Ring	1		
11	16-09503	O-Ring	1		
12	19M7802	Screw	2		M8 X 65 mm
13	19M7970	Screw	2		M8 X 100
14	RE67238	Screw	1		M8 x 20 mm with pre-applied sealant
15	RE46685	Plug M18 x 1.5	1		Includes key 11

Notes

Fuel Injection Pump



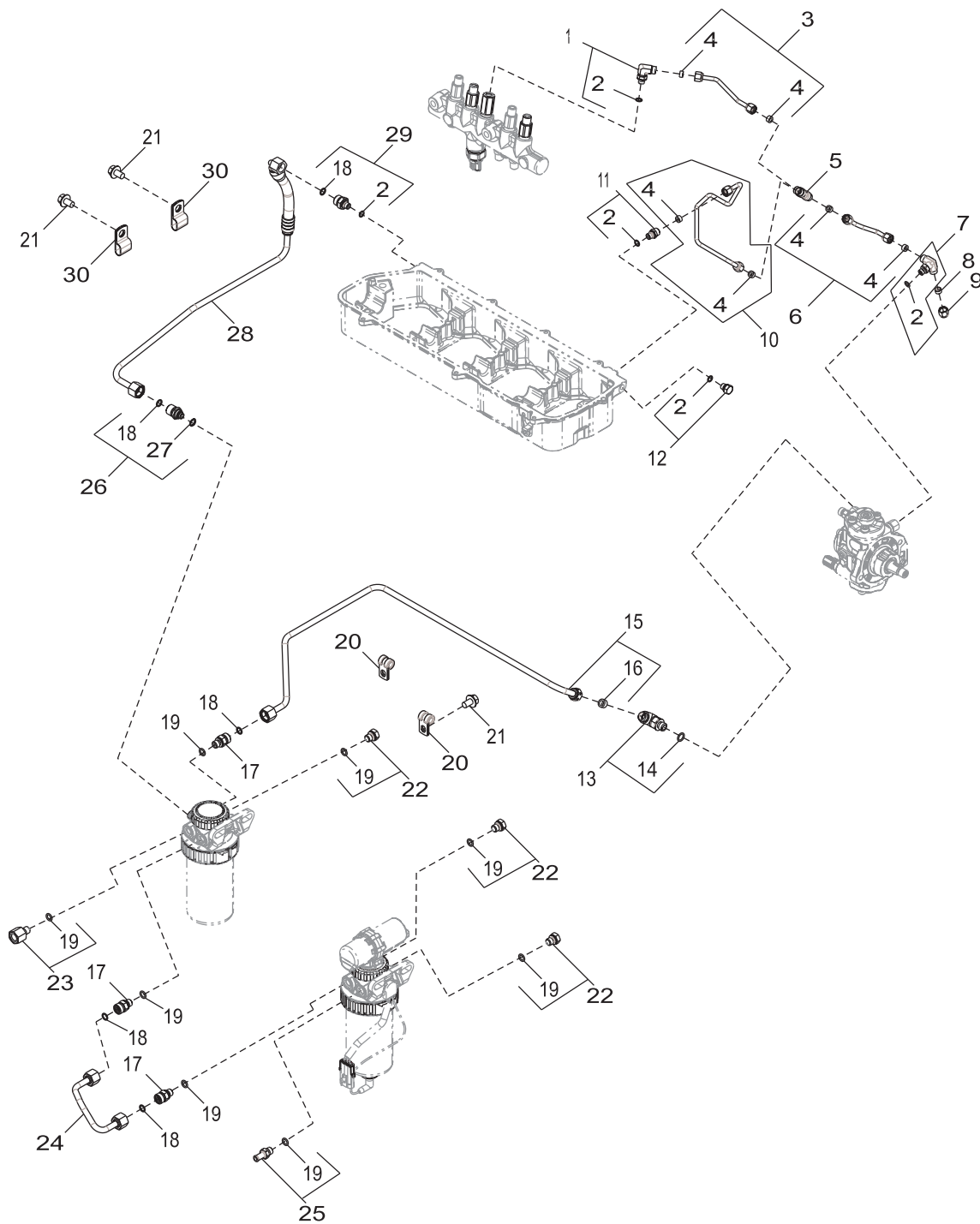
16GX_RE550720_PCD

Fuel Injection Pump

Key	Part No.	Part Name	Qty.	Engine Serial No.	Remarks
1	RE551317	Wiring Harness	1		
2	24M7027	Washer	2		
3	19M7373	Cap Screw	2		M5 X 20
4	R518345	Clamp	4		
5	R504781	Cap Screw	4		
6	RE546781	Fuel Injector	4		
	SE501926	Fuel Injector	4		REMAN FOR RE546781
7	R134920	Nut	8		
8	R505452	O-Ring	4		
9	R515535	Washer	4		
10	RE522594	Tube	4		ALSO ORDER R65397
11	R65397	O-Ring	4		
12	R515044	Fitting	4		ALSO ORDER R65397
13	R522498	Bracket	1		
14	T78974	Clamp	1		
15	19M7785	Screw	2		M10 X 25
16	19M8320	Screw	1		M10 X 45
17	R525863	Stud	1		
18	RE520929	Rail	1		
19	RE520930	Sensor, FUEL Rail Pressure	1		
20	RE515636	Restrictor	4		
21	RE516335	Pressure Relief Valve	1		INCLUDES R515454
	R515454	Shim	1		**
22	RE544262	Fuel Line	1		
23	RE544263	Fuel Line	1		
24	RE527528	Fuel Injection Pump	1		
	SE501916	Fuel Injection Pump Reman	1		REMAN FOR RE527528
25	RE516336	Fuel Temperature Sensor	1		
26	R524234	O-Ring	1		
27	RE516999	Screen	1		
28	RE534109	Control Valve	1		
29	R516125	O-Ring	1		
30	RE517370	Fitting	1		
31	51M7044	O-Ring	1		
32	R504577	Adapter Fitting	1		
33	R116031	O-Ring	1		
34	R55453	O-Ring	1		
35	R502541	Gear	1		
36	R91360	Nut	1		
37	14M7298	Flange Nut	3		M8
38	19M7868	Screw	2		M8 X 30
39	26-9940400699	Electronic Control Unit	1		Serial Number Required when Ordering
40	RE550619	Fuel Line	1		
41	RE550620	Fuel Line	1		
42	RE550621	Fuel Line	1		
43	RE550622	Fuel Line	1		
44	RE20901	Clamp	1		
45	19M8560	Cap Screw	1		M6 X 12
46	RE19797	Clamp	3		
47	19M6614	Cap Screw	3		M6 X 12

** Not Illustrated

Low Pressure Fuel Lines



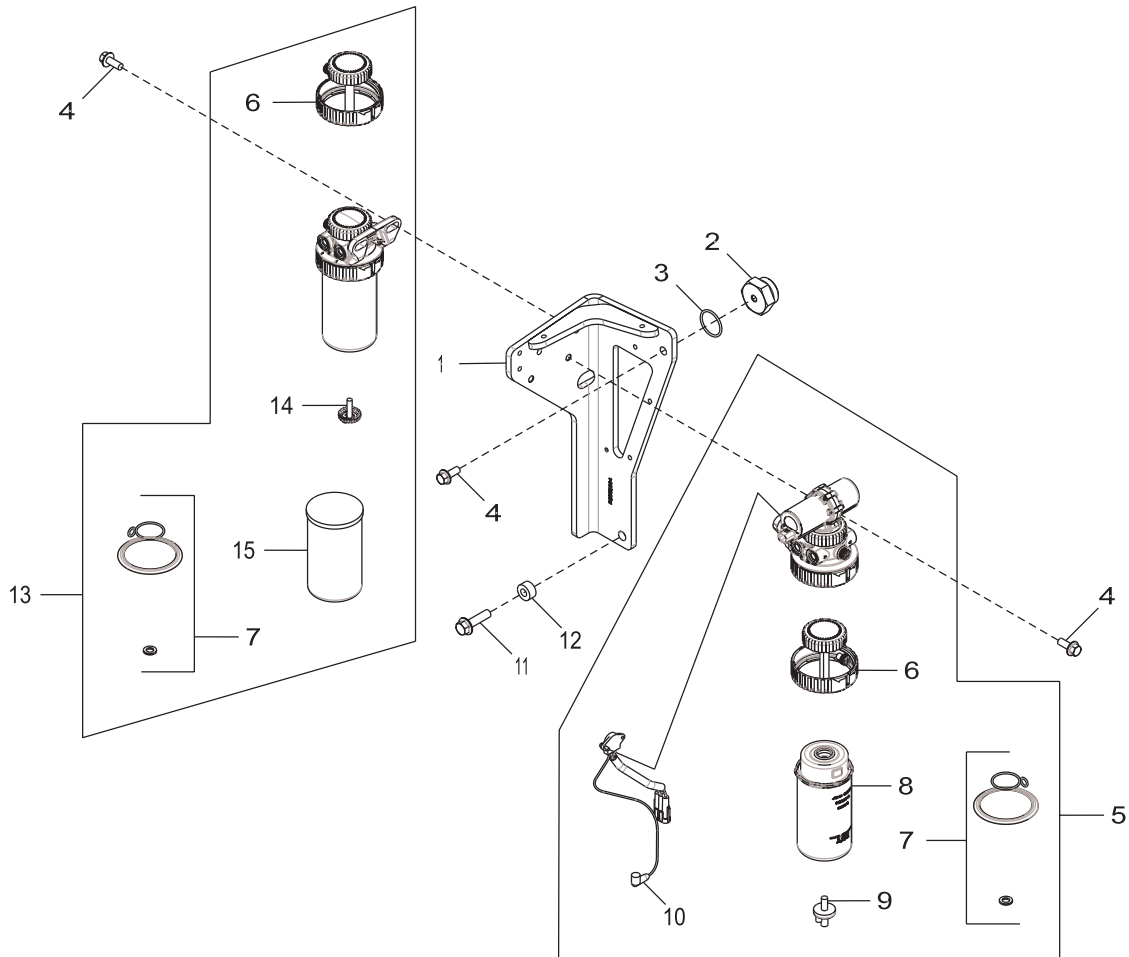
63ES_RE550766_PCD

Low Pressure Fuel Lines

Key	Part No.	Part Name	Qty.	Engine Serial No.	Remarks
1	RE502173	Fitting	1		
2	16-00010	O-Ring	5		
3	RE550723	Fuel Line	1		
4	R51936	Sealing Washer	6		
5	R97061	Tee Fitting	1		
6	RE550742	Fuel Line	1		
7	RE524220	Fitting	1		
8	AR85519	Plug	1		
9	R123593	Tube Nut	1		
10	RE550731	Fuel Line	1		
11	RE60028	Fitting	1		
12	RE60071	Fitting	**		
13	RE502174	Elbow Fitting	1		
14	16-00005	O-Ring	1		
15	RE553047	Fuel Line	1		
16	21-09703	Sealing Washer	1		
17	38H5008	Adapter Fitting	1		
18	16-69501	O-Ring	5		
19	16-00012	O-Ring	8		
20	T78974	Clamp	2		
21	19M7783	Screw	3		M10 X 16
22	RE46686	Plug M12 x 1.5	3		
23	RE523854	Adapter Fitting	1		
24	RE553028	Fuel Line	1		
25	RE500576	Fitting	1		
26	RE507247	Hose Fitting	1		ALSO ORDER R500271
27	R500271	O-Ring	1		
28	RE553230	Fuel Line	1		
29	RE524399	Adapter Fitting	1		
30	T30785	Clamp	2		

** As Required

Water Separator

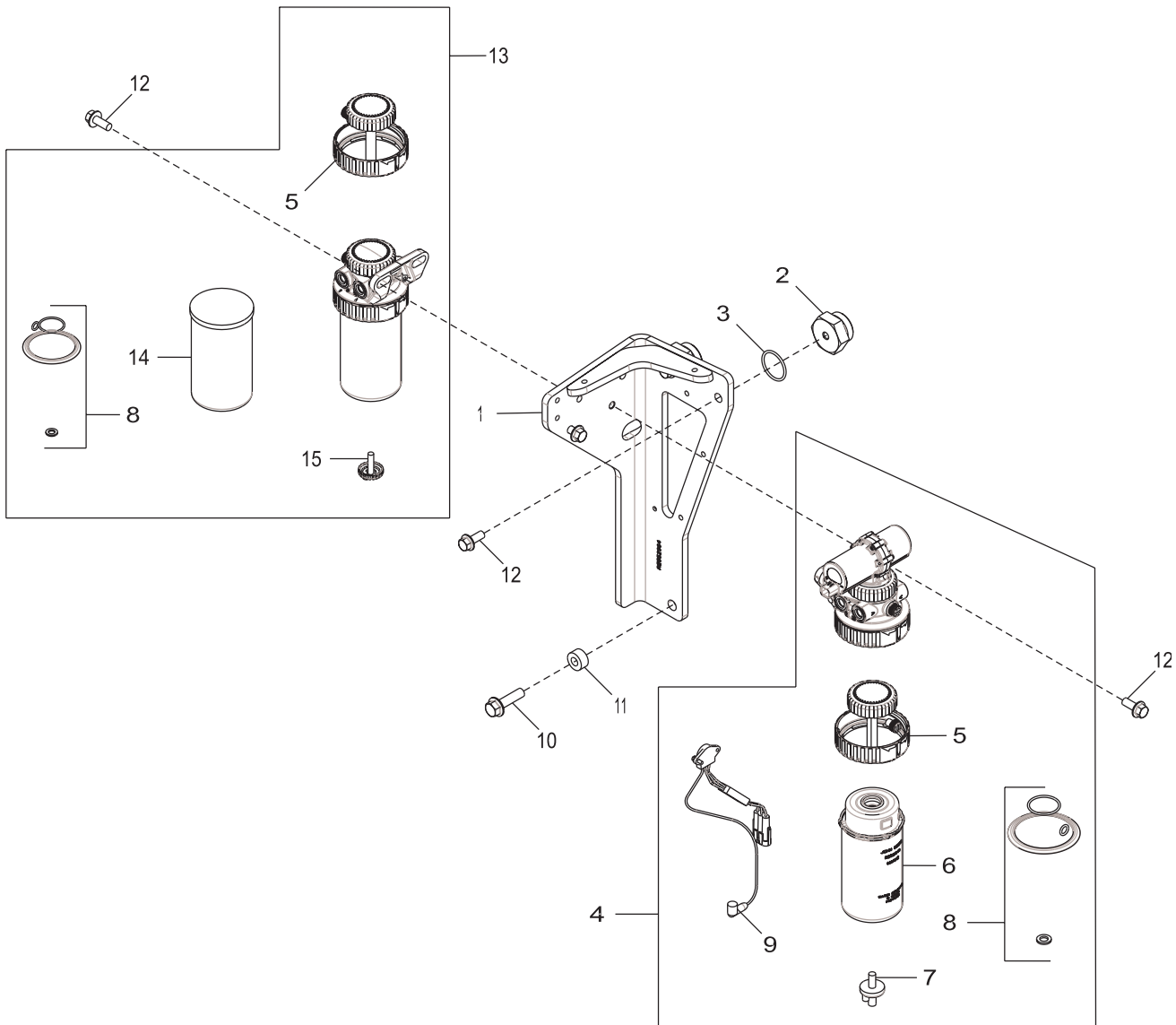


81BN_RE552965_PCD

Water Separator

Key	Part No.	Part Name	Qty.	Engine Serial No.	Remarks
1	RE552964	Bracket	1		
2	R515068	Pipe Plug	2		
3	16-72020	O-Ring	2		
4	19M7785	Screw	6		M10 X 25
5	RE553366	Filter Head & Fuel Lift Pump	1		12 Volt
6	RE526834	Filter Kit	2		
7	RE558208	Seal Kit	2		
8	RE521540	Fuel Filter	1		10 MICRON
9	RE54723	Drain Valve	1		
10	RE509677	Wiring Harness	1		12V
11	19M7813	Screw	1		M12 X 45
12	R114358	Spacer	1		
13	RE553367	Filter Head	1		
14	R120250	Drain Valve	1		
15	RE521538	Filter Element	1		2 MICRON

Water Separator

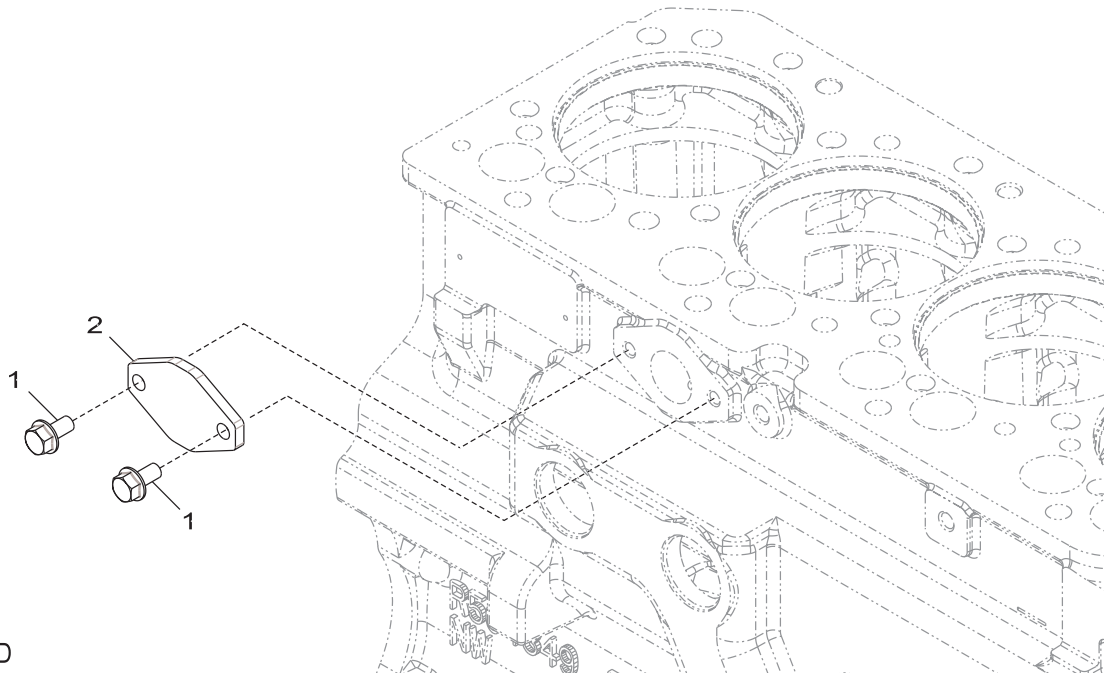


81D2_RE554420_PCD

Water Separator

Key	Part No.	Part Name	Qty.	Engine Serial No.	Remarks
1	RE552964	Bracket	1		
2	R515068	Pipe Plug	2		
3	16-72020	O-Ring	2		
4	RE553368	Filter Head & Fuel Lift Pump	1		24 Volt
5	RE526834	Filter Kit	2		
6	RE521540	Fuel Filter	1		10 MICRON
7	RE54723	Drain Valve	1		
8	RE558208	Seal Kit	2		
9	RE509678	Wiring Harness	1		24 V
10	19M7813	Screw	1		M12 X 45
11	R114358	Spacer	1		
12	19M7785	Screw	6		M10 X 25
13	RE553367	Filter Head	1		
14	RE521538	Filter Element	1		2 MICRON
15	R120250	Drain Valve	1		

Fuel Transfer Pump Cover



3799_RE59619_PCD

Key	Part No.	Part Name	Qty.	Engine Serial No.	Remarks
1	RE66334	Cap Screw	2	(A)	
2	R123396	Cover	1		

(A) Threads With Pre-Applied Sealant
 Filetages avec produit d'étanchéité préappliqué
 Gewinde mit voraufgetragenem Dichtmittel
 Filetti con sigillante preapplicato
 Roscas con pasta selladora preaplicada
 Gångor med redan applicerat tätningmedel

ABS Fuel Lines - M99C13

KEY	PART NUMBER	QTY	DESCRIPTION	SERIAL NUMBER
1	10-51098	1	Manifold, Fuel Line Connection 3/8 NPT	-
2	12-01131	2	Capscrew, Hex Head M6 x 1.0 x 20 mm	-
3	14-04803	2	Hex Nut, Nylock M6 x 1.0	-
4	21-00606	1	M. Elbow 90, Steel 3/8NPT x 3/8-37T	-
5	18-59405	1	Hose Aeesmbly 5/16"ID x 24" 3/8FMS x 3/8FMS	-
6	21-59508	1	M. Connector, Steel 3/8-37T x M12 x 1/5	-
7	21-52213	1	Elbow 90, Swivel, Steel 3/8-37T	-
8	21-51601	1	M Elbow 90, Steel 3/8NPT x 1/4-37T	-
9	18-59412	1	Hose Assembly 3/16"ID x 43" 1/4FMS x 1/4FMS	-
10	21-59507	1	M. Elbow 90, Steel M10 x 1.0 x 1/4-37T	-
11	21-45401	1	Spacer, BP. 3/8 SCHD 80 x 48 mm	-
12	12-80049	1	Capscrew, Hex Head, Flanged M10 x 1.5 x 80mm	-
13	19-43201	1	Adelle Clamp 1/2"ID x 3/8"STUD	-
14	14-80811	1	Hex Nut, Flanged M10 x 1.5	-
15	21-31003	2	Plug, Hex Head, Brass 3/8 NPT	-

Notes

Oil Pressure Manifold

KEY	PART NUMBER	QTY	DESCRIPTION	SERIAL NUMBER
1	10-85401	1	Manifold, Oil Pressuer 6ea 1/8NPT & 1ea 1/4NPT Ports	-
2	21-75703	2	Spacer, BP. 1/2 SCHD 80 x 21/32"	-
3	12-04802	2	Cap Screw, Hex Head M12 x 1.75 x 40mm	-
4	15-00912	2	Lock Washer, Helical M12	-
5	15-00007	2	Flat Washer M12	-
6	21-52205	1	M. Connector, Steel 1/8NPT x 1/4-37T	-
7	21-00113	1	Elbow 45, Swiver, Steel 1/4-37T	-
8	18-55405	1	Hose Assembly 1/4"ID x 9" (9.5"LOA) 1/4FMS x 1/4FMS S/S-TFE	-
9	21-71053	1	M. Elbow 90, Steel 1/8NPT x 1/4-37T	-
10	21-00132	1	Bushing, Brass 1/4NPT x 1/8NPT	-
11	21-00012	4	Plug, Hex Head, Brass, 1/8NPT	-

Pre-Alarm Switches, High Coolant Temperature / Low Oil Pressure

No Drawing available at the time of publication.

Pre-Alarm Switches, High Coolant Temperature / Low Oil Pressure

KEY	PART NUMBER	QTY	DESCRIPTION	SERIAL NUMBER
1	22-40357	1	Switch, Pressure 25PSI N.O./N.C. 1/8NPT 10A Contacts	-
2	22-40938	1	Switch, Temperature 210F N.O./N.C. ISO Ground 3/8 NPT	-
3	22-41077	1	Terminal Strip 10 Connection 20A 600VAC #12-22 AWG	-
4	12-00005	2	MSCR, PH Phillips #8-32 x 3/4" S/S	-
5	14-00003	2	Hex Nut, Nylock #8-32 S/S (18-8)	-
6	10-19402	1	Thermostat Housing	-
7	R536206	1	Gasket, Thermostat Housing	-

Speed Switch Single Element 1200/1500/1800 RPM

No Drawing available at the time of publication.

Speed Switch Single Element 1200/1500/1800 RPM

KEY	PART NUMBER	QTY	DESCRIPTION	SERIAL NUMBER
1	22-40174	1	Speed Switch 1PT Electronic SS18 (Programming Required)	-
2	22-40440	1	Magnetic Pick-Up 3/4-16 x 2-1/4" with Plug-In Pigtail Harness	-

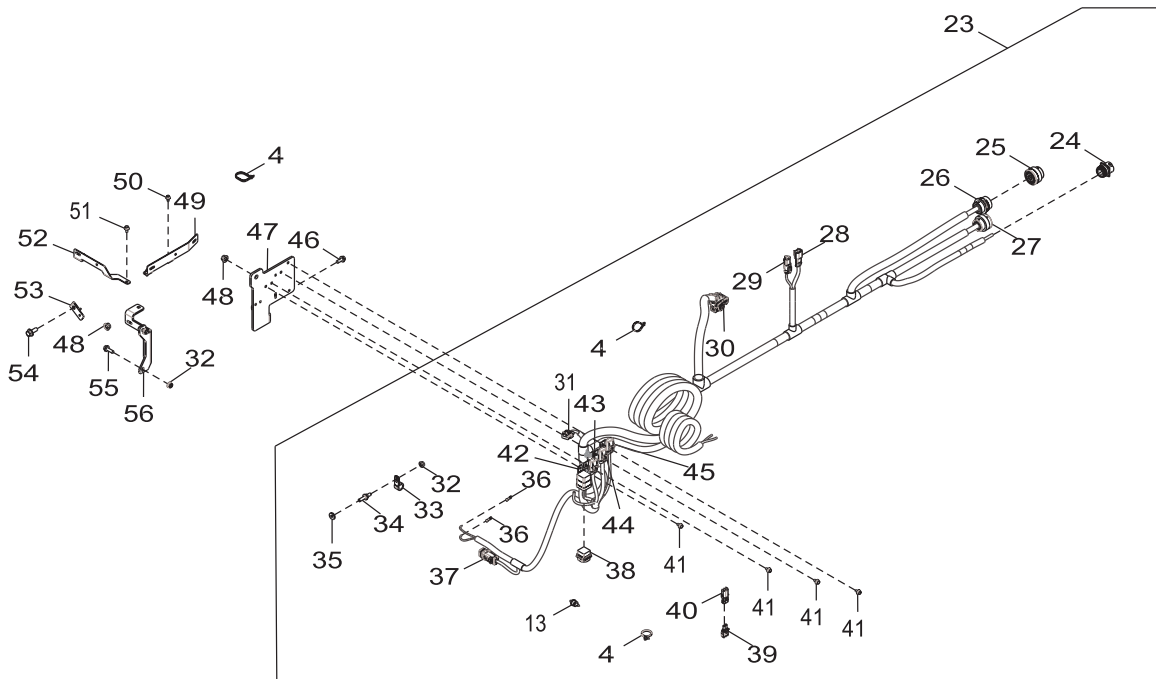
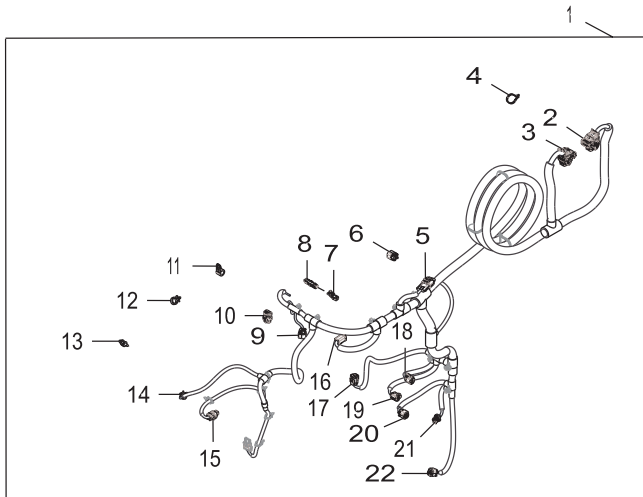
Speed Switch Dual Element 1200/1500/1800 RPM

No Drawing available at the time of publication.

Speed Switch Dual Element 1200/1500/1800 RPM

KEY	PART NUMBER	QTY	DESCRIPTION	SERIAL NUMBER
1	22-40438	1	Speed Switch 2PT Electronic SS18 (Programming Required)	-
2	22-40440	1	Magnetic Pick-Up 3/4-16 x 2-1/4" with Plug-In Pigtail Harness	-

Engine Wiring Harness

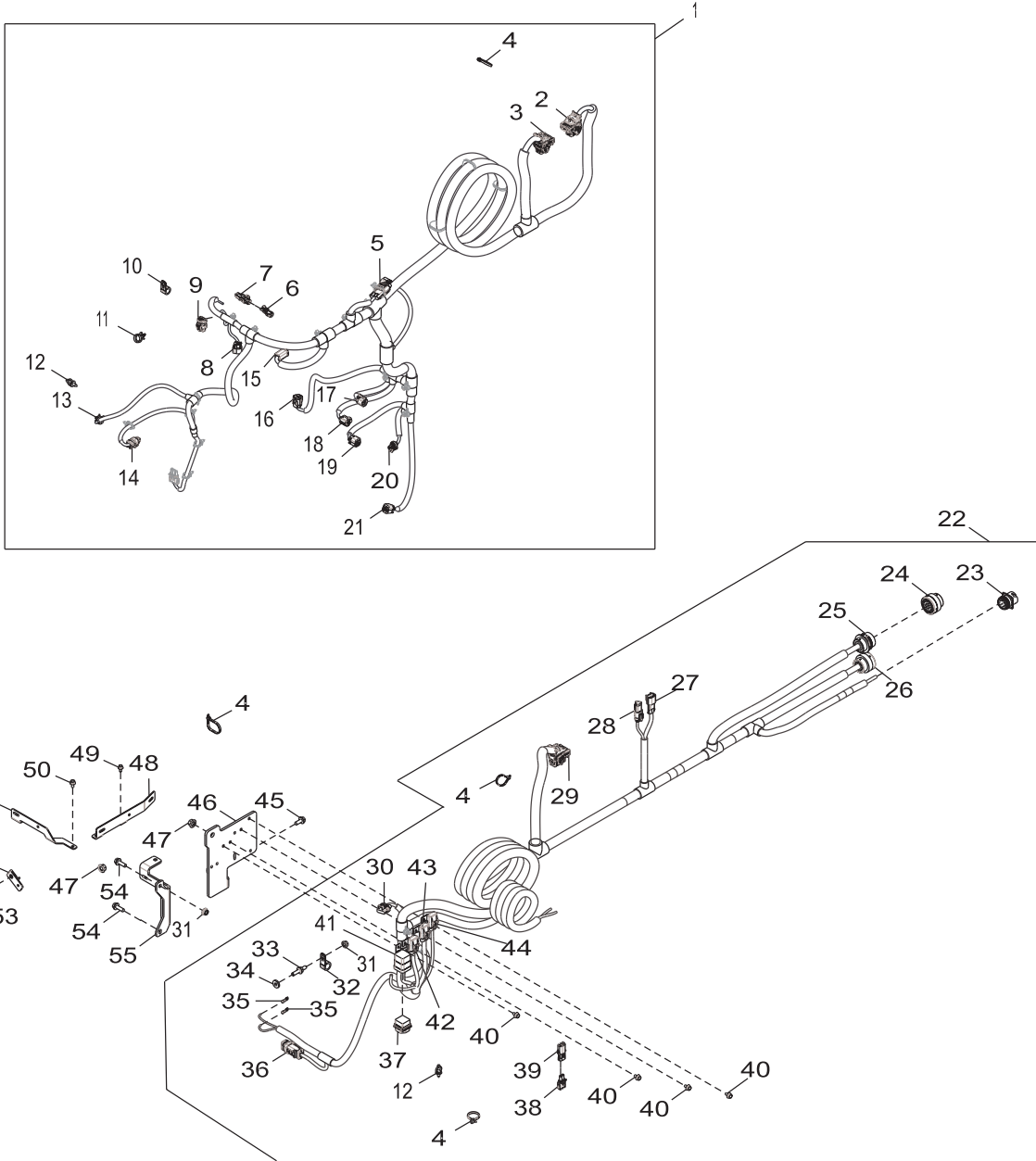


84DX_RE552458_PCD

Engine Wiring Harness

Key	Part No.	Part Name	Qty.	Engine Serial No.	Remarks
1	RE552459	Wiring Harness	1		
2	57M10605	Elec. Connector Housing	1		
	57M10604	Elec. Connector Housing	1		
3	57M10606	Elec. Connector Housing	1		
	57M10604	Elec. Connector Housing	1		
4	R44302	Tie Band	10		
5	57M7305	Elec. Connector Housing	1		
	57M7280	Elec. Connector Housing	1		
6	57M8601	Elec. Connector Housing	1		
7	RE12362	Electrical Connector Assy	1		
8	R78052	Electrical Connector Assy	1		
9	57M8601	Elec. Connector Housing	1		
10	57M9781	Elec. Connector Housing	1		
11	57M10829	Half Clamp	1		
12	57M9244	Clip	1		
13	RE258807	Tie Band	7		
14	57M8625	Elec. Connector Housing	1		
15	57M9775	Elec. Connector Housing	1		
16	57M8634	Elec. Connector Housing	1		
17	57M8407	Elec. Connector Housing	1		
18	57M8403	Elec. Connector Housing	1		
19	57M8400	Elec. Connector Housing	1		
20	57M8601	Elec. Connector Housing	1		
21	57M8625	Elec. Connector Housing	1		
22	57M8601	Elec. Connector Housing	1		
23	RE559572	Harness Kit	1		
24	57M7919	Elec. Connector Housing	1		
25	57M7749	Electrical Connector Assy	1		
26	57M7750	Elec. Connector Housing	1		
27	57M8112	Elec. Connector Housing	1		
28	57M7304	Elec. Connector Housing	1		
29	57M8131	Electronic Terminator	1		
30	57M10615	Elec. Connector Housing	1		
	57M10613	Elec. Connector Housing	1		
31	57M7280	Elec. Connector Housing	1		
32	14M7298	Flange Nut	3		M8
33	57M10837	Half Clamp	1		
34	R529573	Stud	1		
35	24M7476	Washer	1		8.400 X 21 X 4 mm
36	57M7547	Elec. Connector Terminal	2		
37	57M9786	Elec. Connector Housing	1		
38	57M7555	Elec. Connector Housing	1		
39	RE12363	Electrical Connector Assy	1		
40	R78053	Electrical Connector Assy	1		
41	19M7861	Screw	4		M6 X 10
42	RE52665	Relay	1		
43	57M8487	Electrical Connector Cap	3		
	57M8487	Electrical Connector Cap	1		
44	57M8600	Elec. Connector Housing	1		
	57M8487	Electrical Connector Cap	1		
45	57M8267	Elec. Connector Housing	1		
	57M8487	Electrical Connector Cap	1		
46	19M7866	Screw	1		M8 X 20
47	R537523	Bracket	1		
48	14M7296	Flange Nut	2		M10
49	R537520	Bracket	1		
50	37M7089	Screw	2		M6 X 12
51	19M7774	Screw	2		M6 X 12
52	R537521	Bracket	1		
53	R522924	Bracket	1		
54	19M7785	Screw	1		M10 X 25
55	19M7867	Screw	2		M8 X 25
56	R537522	Bracket	1		

Engine Wiring Harness

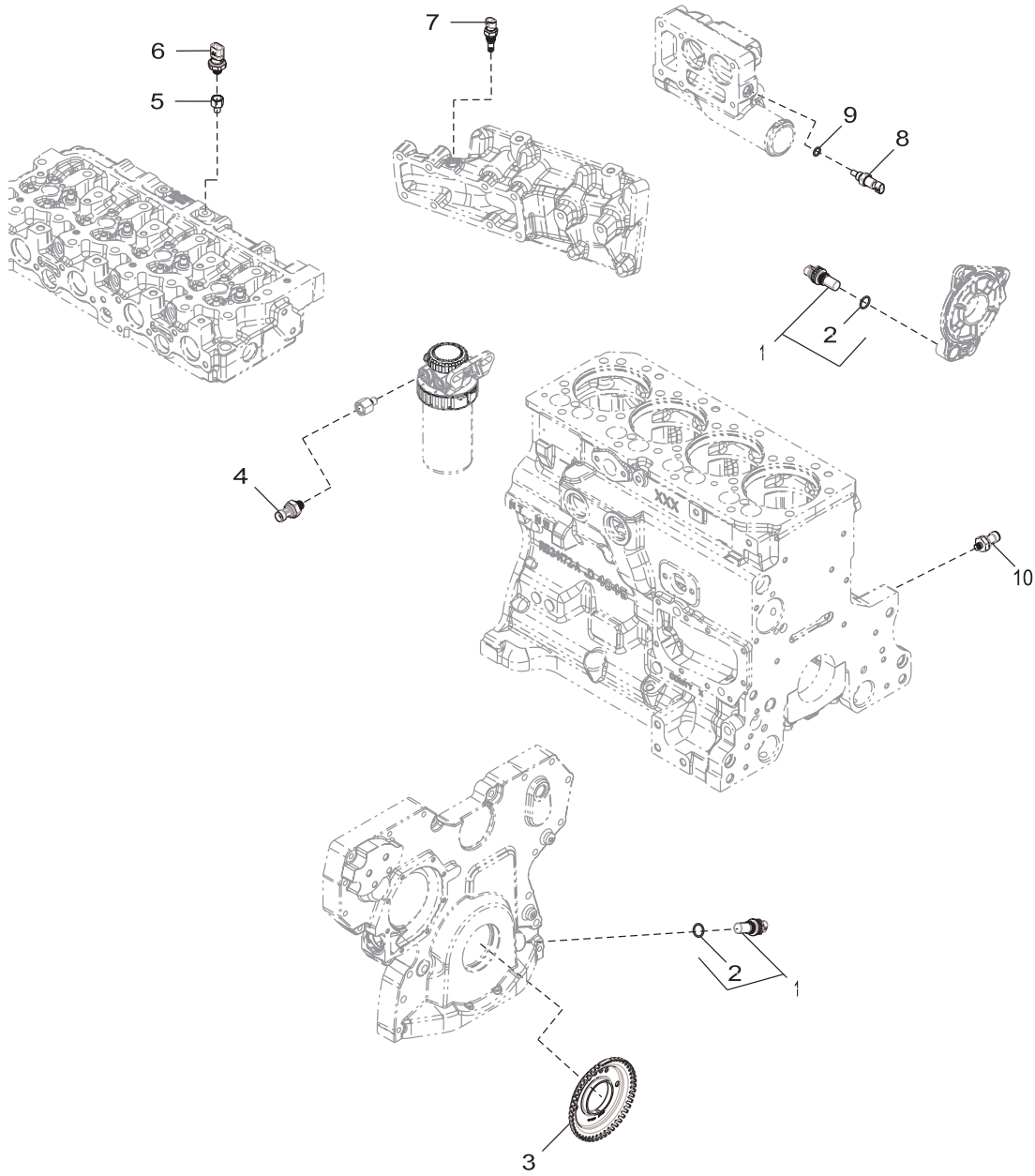


84FD_RE555603_PCD

Engine Wiring Harness

Key	Part No.	Part Name	Qty.	Engine Serial No.	Remarks
1	RE552459	Wiring Harness	1		
2	57M10605	Elec. Connector Housing	1		
	57M10604	Elec. Connector Housing	1		
3	57M10606	Elec. Connector Housing	1		
	57M10604	Elec. Connector Housing	1		
4	R44302	Tie Band	10		
5	57M7305	Elec. Connector Housing	1		
	57M7280	Elec. Connector Housing	1		
	57M8601	Elec. Connector Housing	1		
6	RE12362	Electrical Connector Assy	1		
7	R78052	Electrical Connector Assy	1		
8	57M8601	Elec. Connector Housing	1		
9	57M9781	Elec. Connector Housing	1		
10	57M10829	Half Clamp	1		
11	57M9244	Clip	1		
12	RE258807	Tie Band	7		
13	57M8625	Elec. Connector Housing	1		
14	57M9775	Elec. Connector Housing	1		
15	57M8634	Elec. Connector Housing	1		
16	57M8407	Elec. Connector Housing	1		
17	57M8403	Elec. Connector Housing	1		
18	57M8400	Elec. Connector Housing	1		
19	57M8601	Elec. Connector Housing	1		
20	57M8625	Elec. Connector Housing	1		
21	57M8601	Elec. Connector Housing	1		
22	RE559574	Harness Kit	1		
23	57M7919	Elec. Connector Housing	1		
24	57M7749	Electrical Connector Assy	1		
25	57M7750	Elec. Connector Housing	1		
26	57M8112	Elec. Connector Housing	1		
27	57M7304	Elec. Connector Housing	1		
28	57M8131	Electronic Terminator	1		
	57M8637	Elec. Connector Housing	1		
29	57M10615	Elec. Connector Housing	1		
	57M10613	Elec. Connector Housing	1		
30	57M7280	Elec. Connector Housing	1		
31	14M7298	Flange Nut	2		M8
32	57M10837	Half Clamp	1		
33	R529573	Stud	1		
34	24M7476	Washer	1		8.400 X 21 X 4 mm
35	57M7547	Elec. Connector Terminal	2		
36	57M9786	Elec. Connector Housing	1		
	57M9789	Elec. Connector Housing	1		
37	57M7555	Elec. Connector Housing	1		
38	RE12363	Electrical Connector Assy	1		
39	R78053	Electrical Connector Assy	1		
40	19M7861	Screw	4		M6 X 10
41	RE505214	Relay Module	1		
42	R104570	Electrical Connector Assy	1		
	57M8487	Electrical Connector Cap	1		
43	57M8600	Elec. Connector Housing	1		
	57M8487	Electrical Connector Cap	1		
44	57M8267	Elec. Connector Housing	1		
	57M8487	Electrical Connector Cap	1		
45	19M7866	Screw	1		M8 X 20
46	R537523	Bracket	1		
47	14M7296	Flange Nut	2		M10
48	R537520	Bracket	1		
49	37M7089	Screw	2		M6 X 12
50	19M7774	Screw	2		M6 X 12
51	R537521	Bracket	1		
52	R522924	Bracket	1		
53	19M7785	Screw	1		M10 X 25
54	19M7867	Screw	2		M8 X 25
55	R537522	Bracket	1		

Engine Sensors



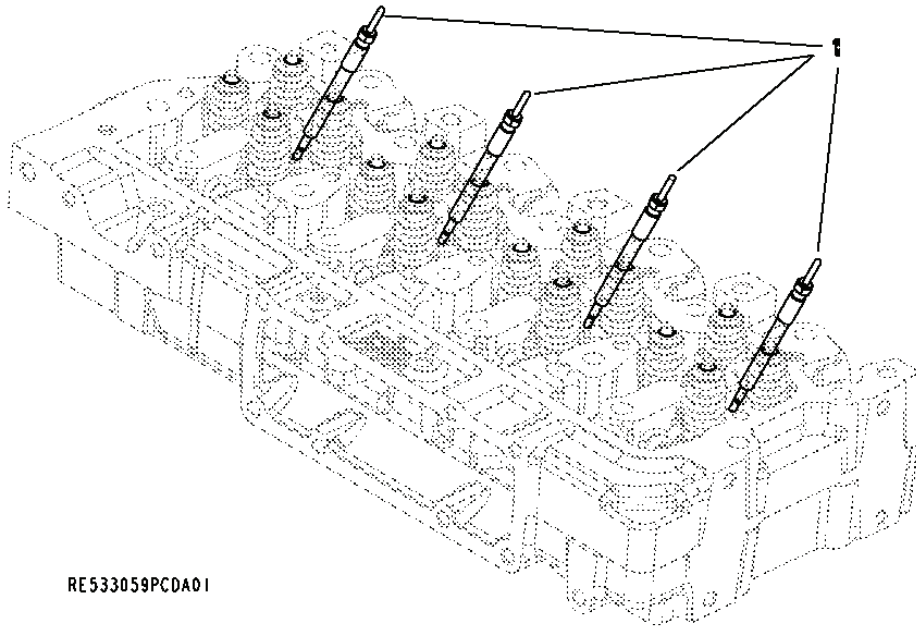
6775_RE554096_PCD

Engine Sensors

Key	Part No.	Part Name	Qty.	Engine Serial No.	Remarks
1	RE519144	Sensor	2	(A)	
2	51M7044	O-Ring	2	(G)	17.300 X 2.200 mm
3	R517471	Wheel	1	(G)	
4	RE522794	Sensor	1	(B)	
5	T18433	Adapter Fitting	1	(C)	
6	RE537639	Manifold Air Press. Sensor	1	(D)	
7	RE525016	Thermocouple	1	(E)	
8	RE52722	Temperature Sensor	1	(E)	
9	51M7041	O-Ring	1	(F)	11.300 X 2.200 mm
10	RE167207	Sensor	1	(F)	

- | | | |
|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <p>(A) Crankshaft Position Sensor
 Capteur de position du vilebrequin
 Kurbelwellen-Stellungssensor
 Sensore posizione albero a gomiti
 Sensor de posición de cigüeñal
 Vevaxelns lägessensor</p> | <p>(B) Fuel Pressure Sensor
 Capteur de pression du carburant
 Sensor für Kraftstoffdruck
 Sensore di pressione combustibile
 Sensor de presión de combustible
 Bränsletrycksgivare</p> | <p>(C) Manifold Air Pressure Sensor
 Capteur de pression d'air du collecteur d'admission
 Sensor für Luftdruck im Ansaugkrümmer
 Sensore pressione aria collettore
 Sensor de presión de aire del colector
 Sensor för grenrörets lufttryck</p> |
| <p>(D) Air Intake Temperature Sensor
 Capteur de température d'air d'admission
 Sensor für Ansauglufttemperatur
 Sensore temperatura presa d'aria
 Sensor de temperatura de admisión de aire
 Temperaturgivare för luftintag</p> | <p>(E) Coolant Temperature Sensor
 Capteur de température du liquide de refroidissement
 Sensor für Kühlmitteltemperatur
 Sensore temperatura liquido di raffreddamento
 Sensor de temperatura del refrigerante
 Temperatursensor, kylvätska</p> | <p>(F) Engine Oil Pressure Sensor
 Capteur de pression d'huile moteur
 Motoröldrucksensor
 Sensore pressione olio motore
 Sensor de presión de aceite de motor
 Motoroljetrycksgivare</p> |
| <p>(G) Crankshaft Timing Wheel
 Roue codeuse de vilebrequin
 Kurbelwellen-Steuerrad
 Ruota di fasatura albero a gomiti
 Rueda de sincronización del cigüeñal
 Vevaxelns transmissionsdrev</p> | | |

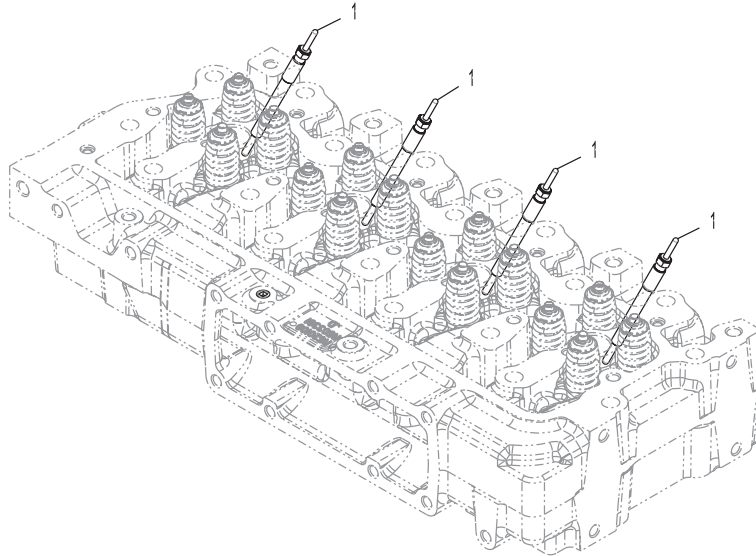
Starting Aid



RE533059PCDA01

Key	Part No.	Part Name	Qty.	Engine Serial No.	HFJ85	Remarks
1	RE515622	Glow Plug	4		X	

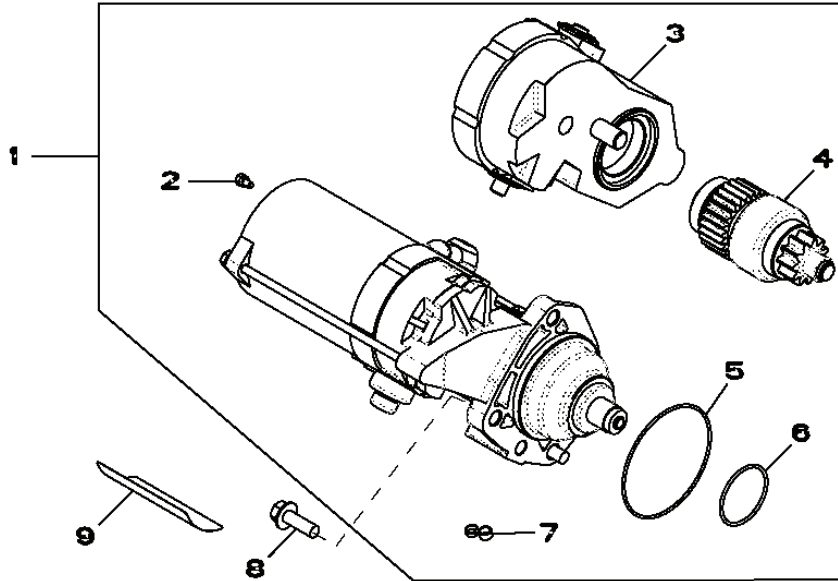
Starting Aid



4357_RE554418_PCD

<i>Key</i>	<i>Part No.</i>	<i>Part Name</i>	<i>Qty.</i>	<i>Engine Serial No.</i>	<i>Remarks</i>
1	RE504580	Glow Plug	4		

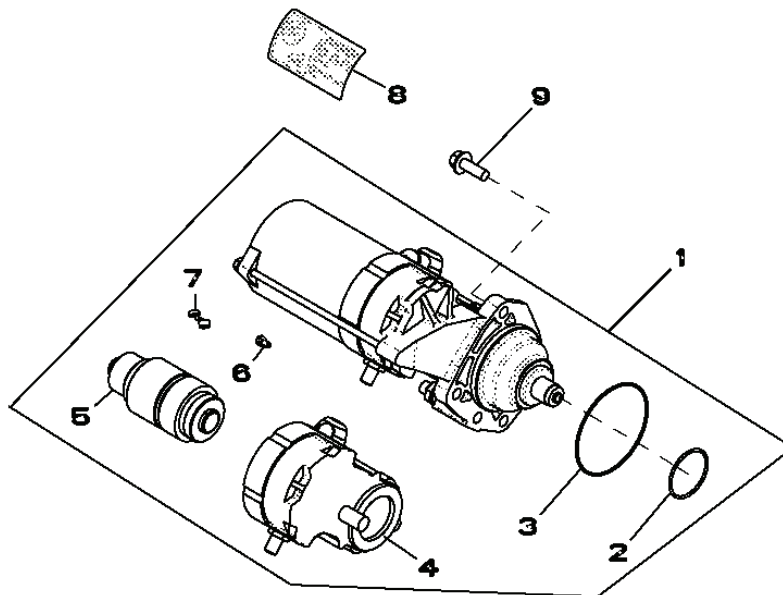
Starter Motor



RE70964PCDE02

Key	Part No.	Part Name	Qty.	Engine Serial No.	Remarks
1	RE70957	Motor	1		
	SE501403	Starter Motor Reman	1		(REMAN FOR RE70957)
2	RE71256	Screw With Washer	1		
3	RE70486	Switch	1		
4	RE70487	Clutch	1		
5	R135509	O-Ring	1		
6	R135510	O-Ring	1		
7	RE70756	Cover	1		
8	19M7786	Screw	3		M10 X 30
9	T146102	Label	1		

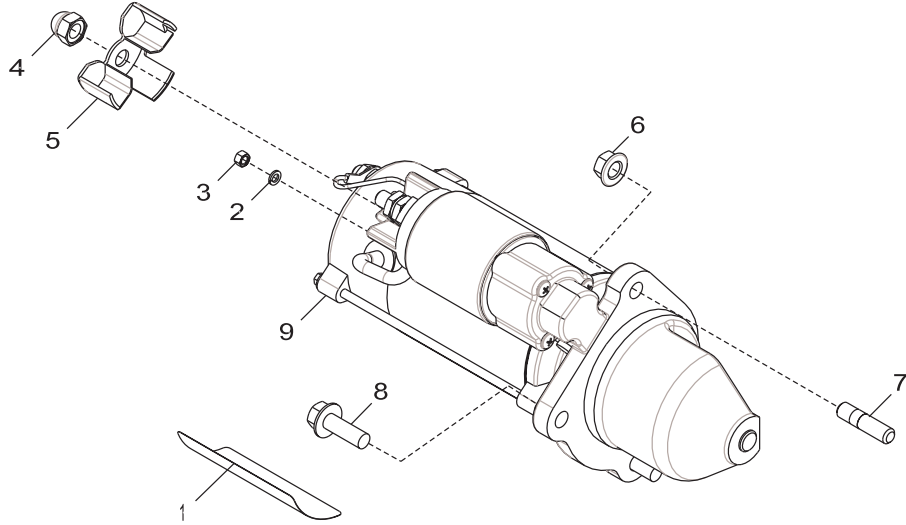
Starter Motor



RE501149PCDE02

Key	Part No.	Part Name	Qty.	Engine Serial No.	SFM75	Remarks
1	RE501150	Starter Motor Kit	1		X	(24V), (SUB FOR RE501060)
	RE501060	Starter Motor	1		X	(24V), (ORDER RE501150)
	SE501406	Starter Motor Reman	1		X	(24V), (REMAN FOR RE501150OR RE501060)
2	R135510	O-Ring	1		X	
3	R135509	O-Ring	1		X	
4	RE70678	Switch	1		X	
5	RE70682	Clutch	1		X	
6	RE71256	Screw With Washer	1		X	
7	RE70756	Cover	1		X	
8	T146102	Label	1		X	
9	19M7786	Screw	3		X	M10 X 30

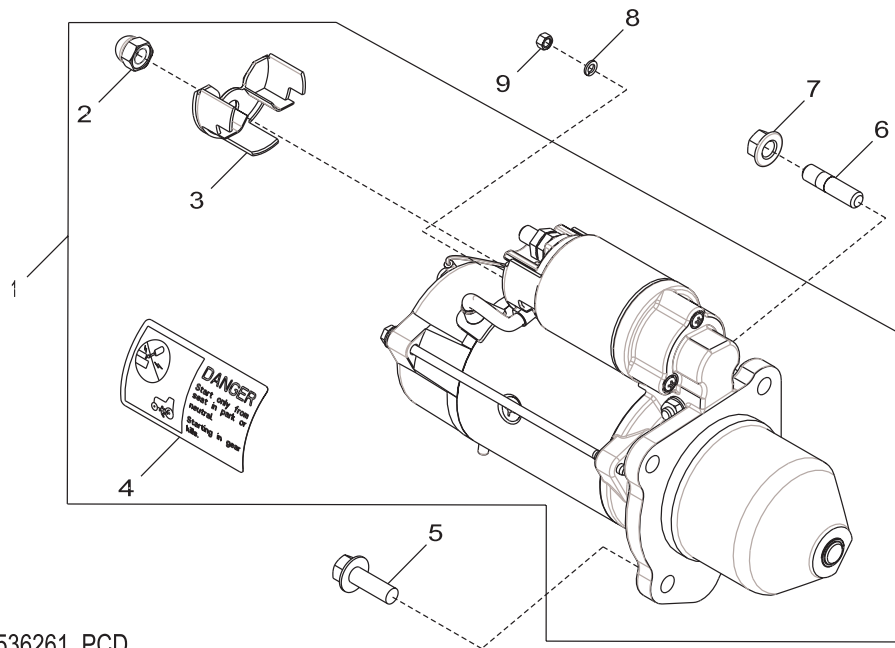
Starter Motor



3090_RE522335_PCD

Key	Part No.	Part Name	Qty.	Engine Serial No.	Remarks
1	R116617	Label	1		
2	12M7064	Lock Washer	1		5 mm
3	14M7297	Nut	1		M5
4	R135432	Nut	1		
5	R517440	Cover	1		
6	14M7296	Flange Nut	1		M10
7	42M7058	Stud	1		
8	19M7786	Screw	2		M10 X 30
9	RE522334	Starter Motor	1		24V DENSO
	SE502733	Starter Motor Reman	1		REMAN FOR RE522334

Starter Motor



30AG_RE536261_PCD

Key	Part No.	Part Name	Qty.	Engine Serial No.	Remarks
1	RE536490	Starter Motor	1		(Includes R135432, R517440 & T146102)
2	R135432	Nut	1		
3	R517440	Cover	1		
4	T146102	Label	1		
	T146106	Safety Sign	1		(A)
	T146104	Safety Sign	1		(B)
	T146515	Safety Sign	1		(C)
	T146516	Safety Sign	1		(D)
5	19M7786	Screw	2		M10 X 30
6	42M7058	Stud	1		
7	14M7296	Flange Nut	1		M10
8	12M7064	Lock Washer	1		5 mm
9	14M7297	Nut	1		M5

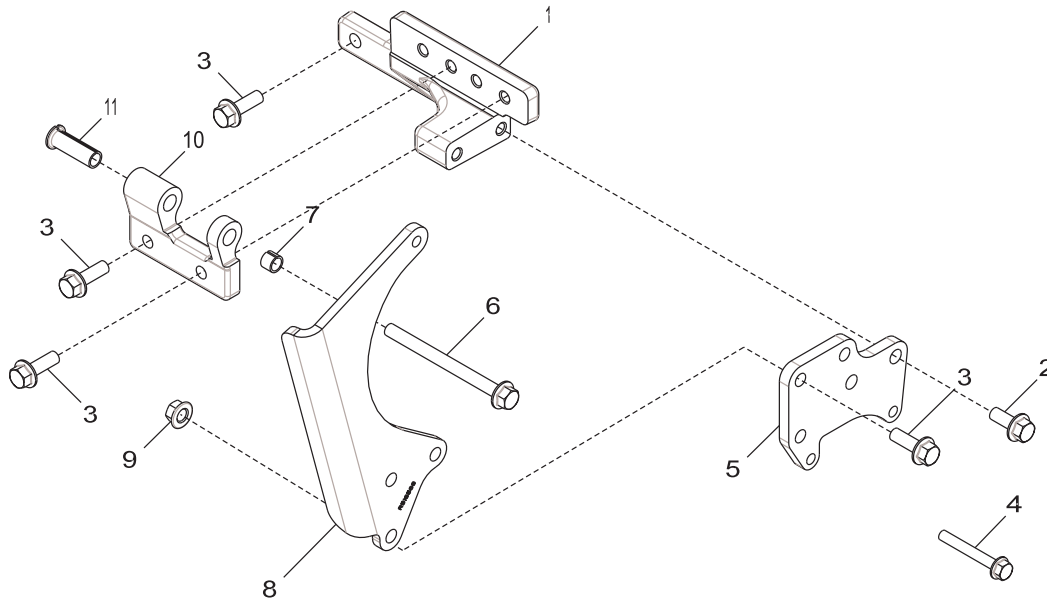
(A) Spanish
Español
Spanisch
Spagnolo
Español
Spanska

(C) German
Allemand
Deutsch
Tedesco
Alemán
Tyska

(B) French
Français
Französisch
Francese
Francés
Franska

(D) Italian
Italien
Italienisch
Italiano
Italiano
Italienska

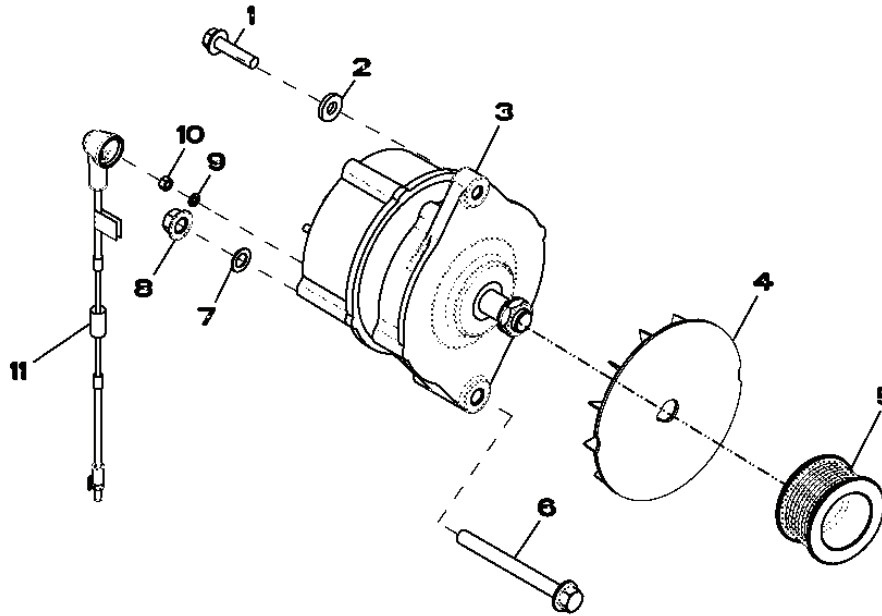
Alternator Mounting



6257_RE517275_PCD

Key	Part No.	Part Name	Qty.	Engine Serial No.	Remarks
1	R529946	Bracket	1		
2	19M7785	Screw	2		M10 X 25
3	19M7786	Screw	7		M10 X 30
4	19M7801	Screw	2		M8 X 60
5	R516510	Hose	1		
6	19M7944	Screw	1		M10 X 120
7	R135423	Bushing	1		
8	R516569	Strap	1		
9	14M7296	Flange Nut	3		M10
10	R516574	Bracket	1		
11	R134010	Bushing	1		

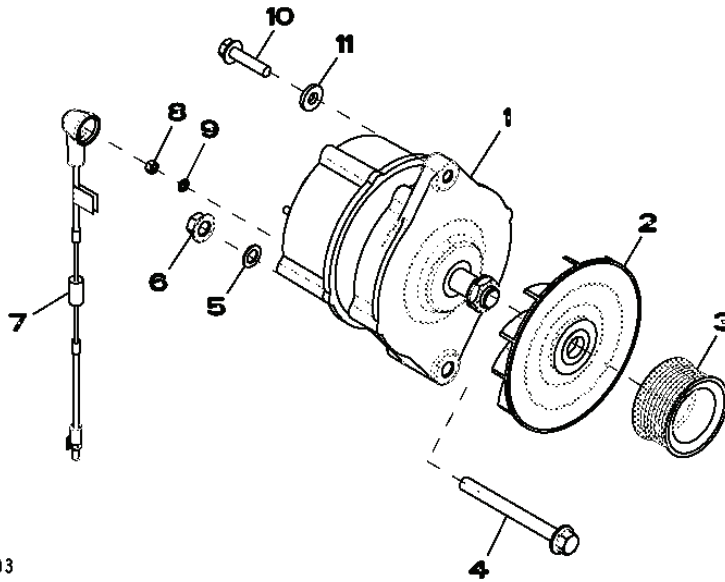
Alternator 12V 65A



RE 509779PCDE03

Key	Part No.	Part Name	Qty.	Engine Serial No.	Remarks
1	19M8291	Screw	1		M8 X 35
2	R501065	Washer	1		
3	AT173624	Alternator	1	-698766	12V-65 AMP - ROBERT BOSCH NO. 9120060040
	TY6799	Alternator	1		12V-65 AMP (REMANUFACTURED) (SUB SE501387)
	SE501387	Alternator Reman	1		(REMAN FOR TY6799)
	RE533516	Alternator	1	698767-	12V-75 AMP - ISKRA (INCL KEY 04, 05)
4	R505711	Fan	1		(USE WITH RE533516)
	T158584	Fan	1		(USE WITH AT173624)
5	RE516489	Pulley	1		(USE WITH RE533516)
	R501486	Pulley	1		(USE WITH AT173624)
6	19M7812	Screw	1		M10 X 100
7	R64525	Thrust Washer	1		
8	14M7296	Flange Nut	1		M10
9	12M7011	Lock Washer	1		5 mm
10	14M7297	Nut	1		M5, (USE WITH RE505489)
11	RE505489	Wiring Harness	1		
..	RE533941	Capacitor	1		(USE WITH RE533516)
..	H144095	Capacitor	1		(USE WITH AT173624)
..	RE533942	Regulator	1		
..	H144094	Voltage Regulator	1		(USE WITH AT173624)

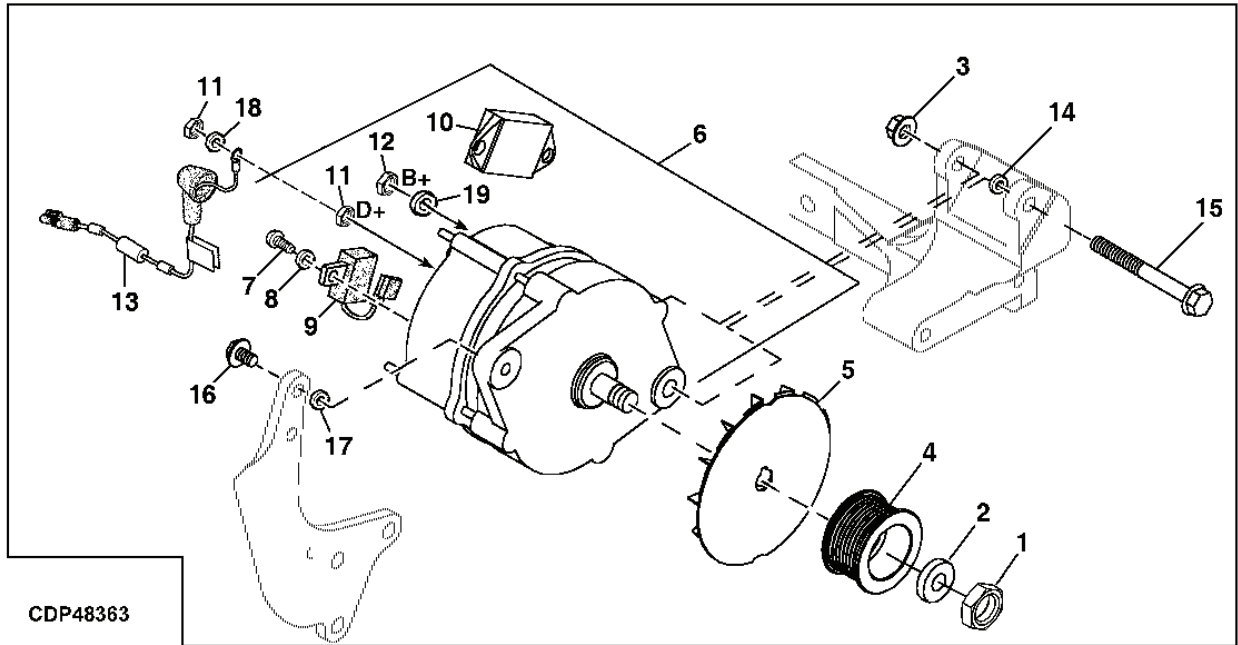
Alternator 12V 95A



RE509781PCDC03

Key	Part No.	Part Name	Qty.	Engine Serial No.	TF275	Remarks
1	AH137883 SE501342 RE533653	Alternator Alternator Reman Alternator	1 1 1			12 V 95 A, BOSCH (ORDER RE533653) 12 V 95 A, BOSCH (REMAN FOR AH137883) 12 V 95 A, (ISKRA) (INCLUDES R505711 AND RE516489)
2	T158584 R505711 R501486	Fan Fan Pulley	1 1 1			(USE WITH AH137883) (USE WITH RE533653) (USE WITH AH137883)
3	RE516489	Pulley	1			(USE WITH RE533653)
4	19M7812 R64525	Screw Thrust Washer	1 1			M10 X 100
5	14M7296	Flange Nut	1			M10
6	RE505489	Wiring Harness Nut	1			M5
7	14M7297	Nut	1			M5
9	12M7064	Lock Washer	1			5 mm
10	19M8291	Screw	1			M8 X 35
11	R501065	Washer	1			
..	H144095	Capacitor	1			(USE WITH AH137883)
..	RE533941	Capacitor	1			(USE WITH RE533653)
..	H144094	Voltage Regulator	1			(USE WITH AH137883)
..	RE533942	Regulator	1			(USE WITH RE533653)

Alternator

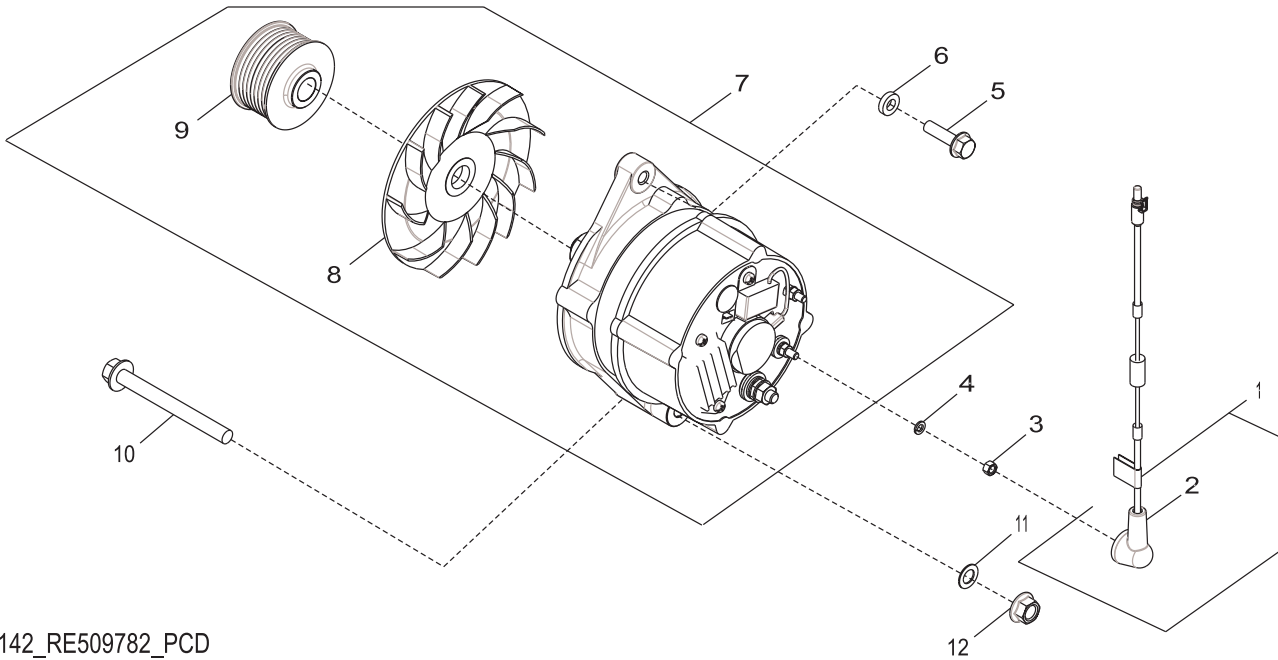


CDP48363

Key	Part No.	Part Name	Qty.	Engine Serial No.	SFM50 TFM50	Remarks
1	14M7158	Nut	1		X	M16
2	12M7132	Washer	1		X	17 X 30 X 0.800 mm, SUB FOR T10745
3	14M7296	Flange Nut	1		X	M10
4	R501486	Pulley	1		X	
5	T158584	Fan	1		X	
6	AH165975	Alternator	1		X	12 V; 120 A, ORDER RE533654; BOSCH
	SE501343	Alternator Reman	1		X	12 V; 120 A, REMAN FOR AH165975
	RE533654	Alternator	1		X	
	SE502628	Alternator Reman	1		X	12 V; 120 A, REMAN FOR RE533654
7	21M7198	Screw	1		X	
8	12M7075	Washer	1		X	M5 X 8
9	H144095	Capacitor	1		X	5.300 X 11 X 0.500 mm
10	H144094	Voltage Regulator	1		X	
11	14M7297	Nut	1		X	M5
12	14M7273	Nut	1		X	M8
13	RE505489	Wiring Harness	1		X	
14	R64525	Thrust Washer	AR		X	10.310 X 17.480 X 0.910 mm (13/32" X 11/16" X 0.036")
15	19M7812	Screw	1		X	M10 X 100
16	19M7868	Screw	1		X	M8 X 30
17	R48808	Washer	1		X	8.128 X 15.748 X 3.937 mm (0.320" X 0.620" X 0.155")
18	12M7064	Lock Washer	1		X	5 mm
19	12M7065	Lock Washer	1		X	8 mm

GROUP 5 – ELECTRICAL SYSTEMS

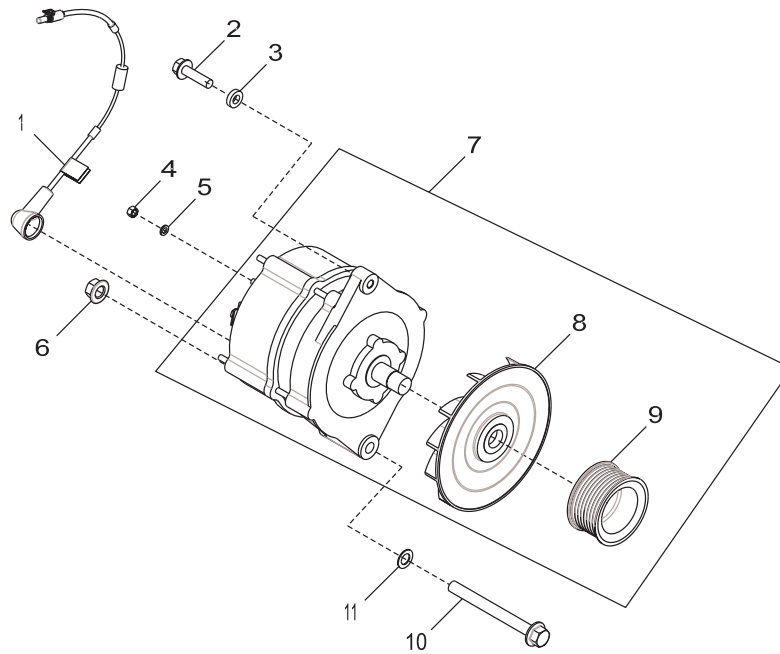
Alternator



3142_RE509782_PCD

Key	Part No.	Part Name	Qty.	Engine Serial No.	Remarks
1	RE505489	Wiring Harness	1		
2	R74993	Boot	1		
3	14M7297	Nut	1	M5	
4	12M7011	Lock Washer	1	5 mm	
5	19M7868	Screw	1	M8 X 30	
6	R501065	Washer	1		
7	RE537146	Alternator	1		24 V; 50 A, SUB FOR AT161324; ISKRA
	AT161324	Alternator	1		NLA; ORDER RE537146
	SE501341	Alternator Reman	1		REMAN FOR AT161324
8	R505711	Fan	1		
9	RE516489	Pulley	1		
10	19M7812	Screw	1	M10 X 100	
11	R64525	Thrust Washer	1		
12	14M7296	Flange Nut	1	M10	
13	RE533941	Capacitor	1		NOT ILLUSTRATED
14	RE533942	Regulator	1		NOT ILLUSTRATED

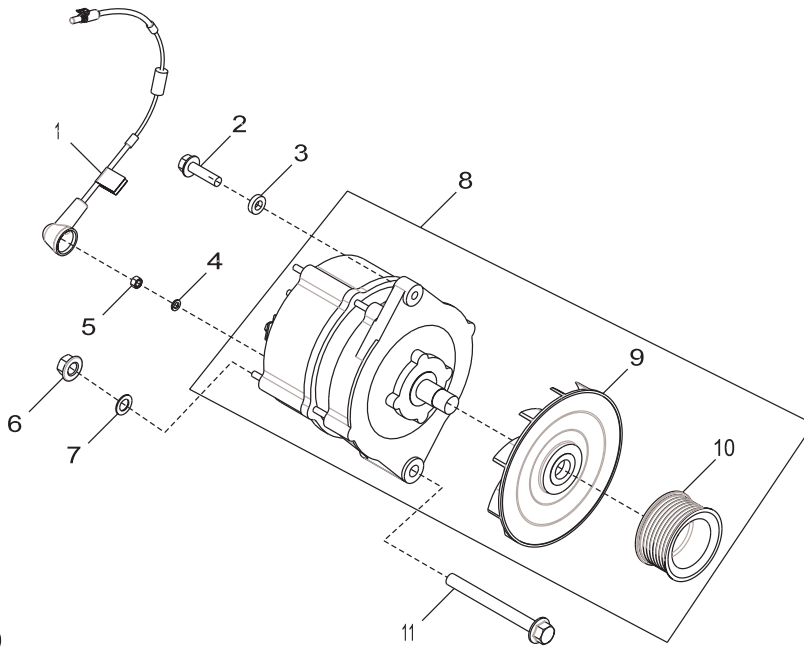
Alternator



3148_RE527043_PCD

Key	Part No.	Part Name	Qty.	Engine Serial No.	Remarks
1	RE505489	Wiring Harness	1		
2	19M7868	Screw	1		M8 X 30
3	R501065	Washer	1		
4	14M7297	Nut	2		M5
5	12M7064	Lock Washer	2		5 mm
6	14M7296	Flange Nut	1		M10
7	RE540412	Alternator	1		14V, 75Amp
8	R505711	Fan	1		
9	RE516489	Pulley	1		
10	19M7812	Screw	1		M10 X 100
11	R64525	Thrust Washer	1		

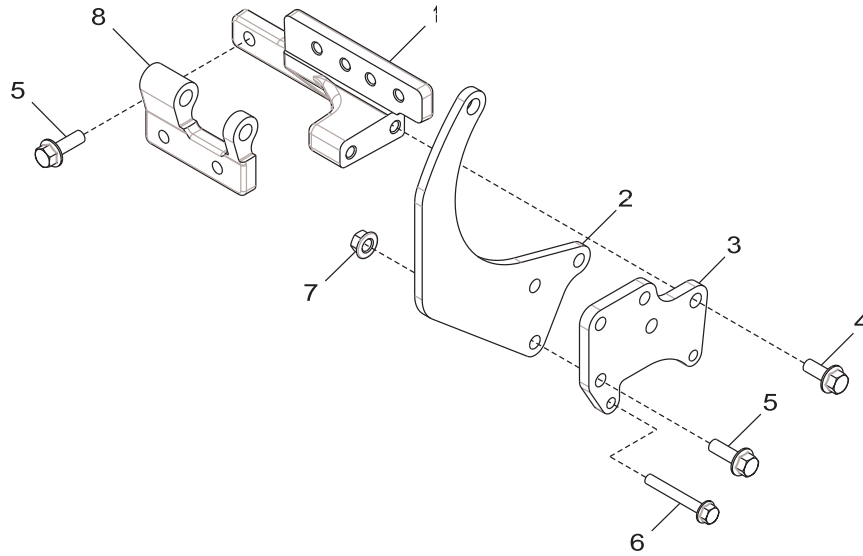
Alternator



3149_RE527044_PCD

Key	Part No.	Part Name	Qty.	Engine Serial No.	Remarks
1	RE505489	Wiring Harness	1		
2	19M7868	Screw	1		M8 X 30
3	R501065	Washer	1		
4	12M7064	Lock Washer	2		5 mm
5	14M7297	Nut	2		M5
6	14M7296	Flange Nut	1		M10
7	R64525	Thrust Washer	1		
8	RE540413	Alternator	1		28V, 50Amp
9	R505711	Fan	1		
10	RE516489	Pulley	1		
11	19M7812	Screw	1		M10 X 100

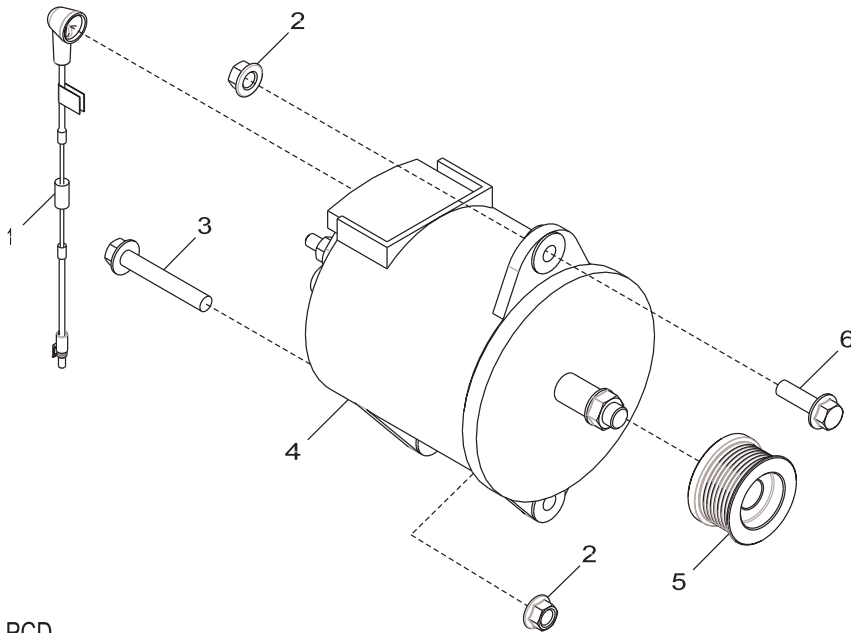
Alternator Mounting



62AE_RE532526_PCD

Key	Part No.	Part Name	Qty.	Engine Serial No.	Remarks
1	R529946	Bracket	1		
2	R515609	Strap	1		
3	R516510	Hose	1		
4	19M7785	Screw	2		M10 X 25
5	19M7786	Screw	7		M10 X 30
6	19M7801	Screw	2		M8 X 60
7	14M7296	Flange Nut	3		M10
8	R516574	Bracket	1		

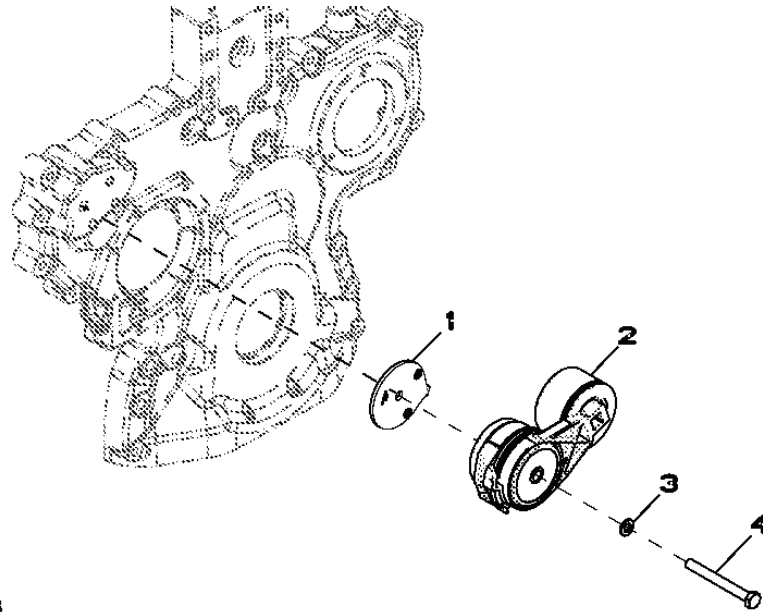
Alternator



3127_RE517381_PCD

Key	Part No.	Part Name	Qty.	Engine Serial No.	Remarks
1	RE505489	Wiring Harness	1		
2	14M7299	Flange Nut	3	M12	
3	19M7818	Screw	1	M12 X 80	
4	RE522329	Alternator	1	28V, 140AMP	
5	SE502625	Alternator Reman	1	28V, 140AMP (REMAN FOR RE522329)	
5	R128859	Pulley	1		
6	19M7791	Bolt	2	M12 X 40	

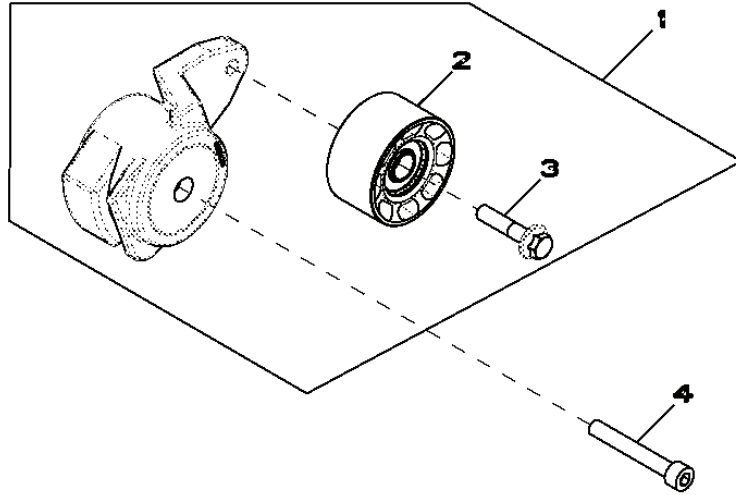
Belt Tensioner



RE59701PCDD03

Key	Part No.	Part Name	Qty.	Engine Serial No.	5425 5625 5725	Remarks
1	R518210	Spacer	1		XXX	
2	RE518097	Belt Tensioner	1		XXX	
3	24M7106	Washer	1		XXX	10 X 18 X 2,500 mm
4	19M8183	Cap Screw	1		XXX	M10 X 90

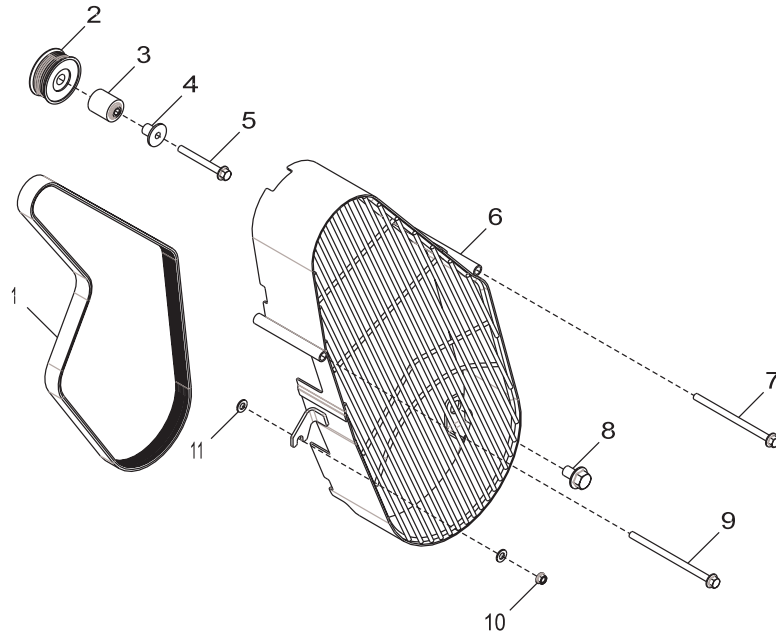
Belt Tensioner



RE528385PCDA01

Key	Part No.	Part Name	Qty.	Engine Serial No.	Remarks
1	RE70536	Belt Tensioner	1		
2	RE505264	Pulley	1		
3	R503813	Bolt	1		
4	19M8131	Screw	1		M10 X 70

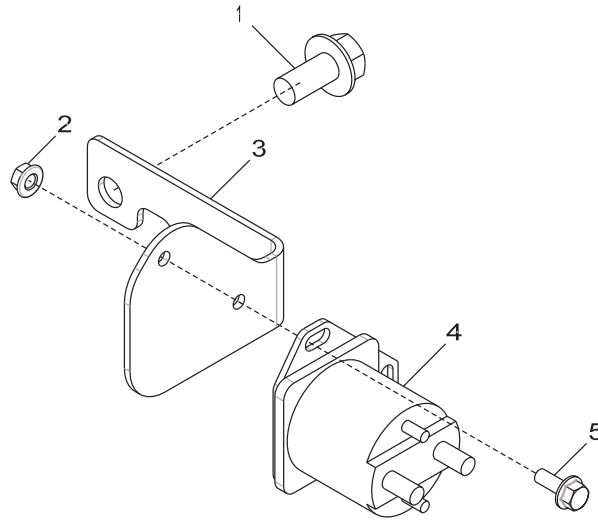
Fan Belt



24KU_RE556262_PCD

Key	Part No.	Part Name	Qty.	Engine Serial No.	Remarks
1	R524006	V-Belt	1		
2	AT211041	Pulley	1		
3	R133643	Spacer	1		
4	R502079	Sleeve	1		
5	19M7811	Screw	1		M10 X 90
6	RE563696	Guard	1		
7	19M8952	Screw	1		M10 X 160
8	19M8468	Screw	1		M16 X 25
9	19M8598	Screw	1		M10 X 170
10	14M7298	Flange Nut	1		M8
11	24M7028	Washer	2		10.500 X 20 X 2 mm

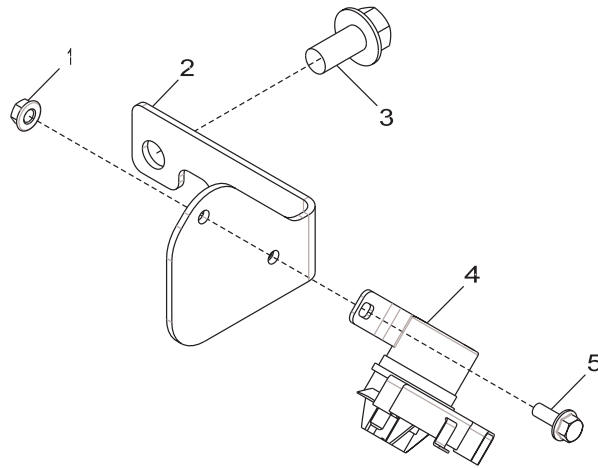
Engine Installation Kit



917W_RE541570_PCD

Key	Part No.	Part Name	Qty.	Engine Serial No.	Remarks
1	19M7788	Screw	2		M12 X 25
2	14M7303	Flange Nut	2		M6
3	R532134	Bracket	1		
4	AL153172	Relay	1		12V
5	19M7775	Screw	2		M6 X 16

Engine Installation Kit

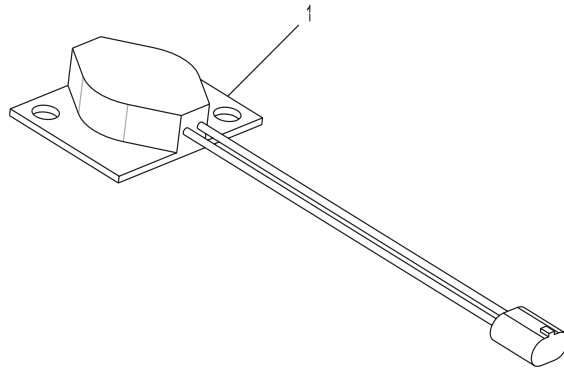


917Y_RE541753_PCD

Key	Part No.	Part Name	Qty.	Engine Serial No.	Remarks
1	14M7303	Flange Nut	2	M6	
2	R532134	Bracket	1		
3	19M7788	Screw	2	M12 X 25	
4	AT145341	Relay	1	24V	
5	19M7775	Screw	2	M6 X 16	

GROUP 5 – ELECTRICAL SYSTEMS

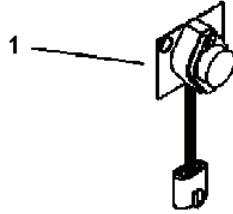
Diode



3195_RE509754_PCD

Key	Part No.	Part Name	Qty.	Engine Serial No.	Remarks
1	AT157679	Diode	1		

Diode, TVP, Alternator 24V



RGP8263

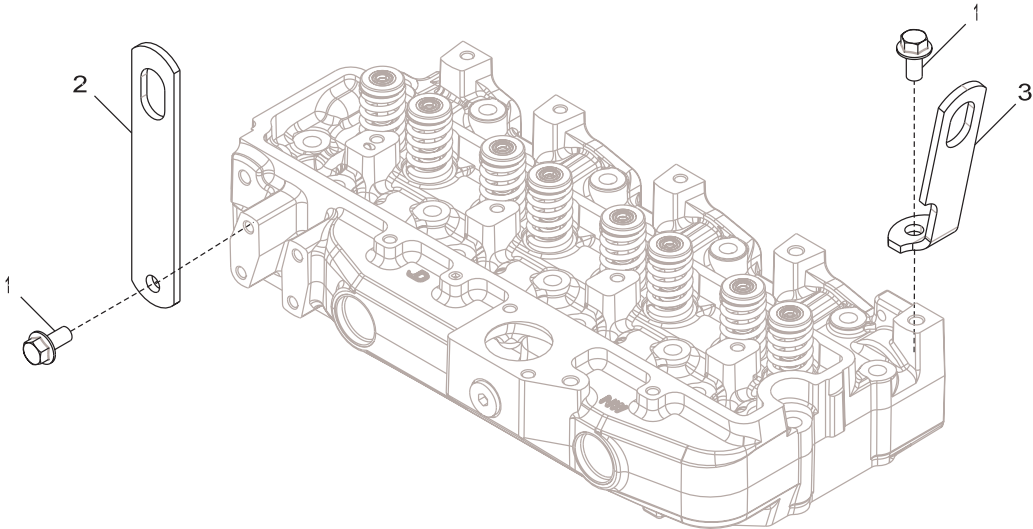
<i>Key</i>	<i>Part No.</i>	<i>Part Name</i>	<i>Qty.</i>	<i>Engine Serial No.</i>	<i>HF475</i>	<i>Remarks</i>
1	AT163022	Diode	1			24 V, ALSO ORDER 19M7812DIODE TVP

GROUP 6 - GASKETS

Engine Overhaul Gasket Set (Includes all keys)

KEY	PART NUMBER	QTY	DESCRIPTION	SERIAL NUMBER
1	R505174	1	Gasket,Rocker Shaft Assy & Rocker Arm Cover Mounting	-
2	R505452	4	O-Ring,Fuel Injector Seal	-
3	R515535	4	Sealing Washer,Fuel Injector	-
4	R516125	1	O-Ring	-
5	R51936	8	Sealing Sleeve	-
6	R520867	1	O-Ring	-
7	R522690	1	Gasket	-
8	R524234	1	O-Ring	-
9	R524499	1	Gasket,Rocker Arm Cover Mounting	-
10	R526944	1	Gasket,Timing Cover	-
11	R528039	2	Gasket,Oil Fill Mounting	-
12	R535821	1	Gasket,Aftercooler Housing Mounting	-
13	R535975	1	Gasket,Intake Manifold	-
14	R536206	1	Gasket,Thermostat Housing	-
15	R536313	4	O-Ring,Aftercooler Element Seal	-
16	R55453	1	O-Ring	-
17	R61467	1	O-Ring	-
18	R61871	1	O-Ring	-
19	R63548	2	O-Ring	-
20	R65397	4	O-Ring	-
21	R89944	1	O-Ring	-
22	Re44574	11	Seal,Rear Crankshaft With Wear Sleeve	-
23	Re519115	4	Valve Guide Seal,Intake & Exhaust	-
24	Re549173	11	Gasket,Turbocharger Mounting	-
25	Re551765	1	Gasket,Exhaust Manifold Mounting	-
26	T122075	2	O-Ring	-
27	T45902	2	O-Ring	-
28	T77858	6	O-Ring	-
29	U42111	2	O-Ring	-
30	Yz81077	1	O-Ring,Aftercooler Air Inlet	-
31	R136495	2	11-79501 Gasket,Oil Filler Neck & Block-Off Plate Mounting	-
32	16-00005	1	O-Ring	-
33	16-00010	5	O-Ring	-
34	16-00012	10	O-Ring	-
35	16-00016	1	O-Ring	-
36	16-00027	3	O-Ring	-
37	16-09501	6	O-Ring	-
38	16-09503	6	O-Ring	-
39	16-19503	1	O-Ring	-
40	16-69501	5	O-Ring	-
41	6-72020	2	O-Ring	-
42	21-09703	1	Sealing Sleeve	-
43	51M7044	1	O-Ring	-
44	H63262	1	O-Ring	-
45	R116031	1	O-Ring	-
46	R116515	1	Head Gasket	-
47	R123353	1	Gasket,Oil Pan Mtg	-
48	R123570	1	Gasket,Turbo Oil Return	-
49	R123575	1	O-Ring	-
50	R241873	2	O-Ring	-
51	R500271	1	O-Ring	-
52	R500374	1	Gasket,Oil Filter Adapter Mtg	-
53	R501428	1	Gasket	-
54	R502902	1	Packing	-
55	R504734	1	O-Ring	-

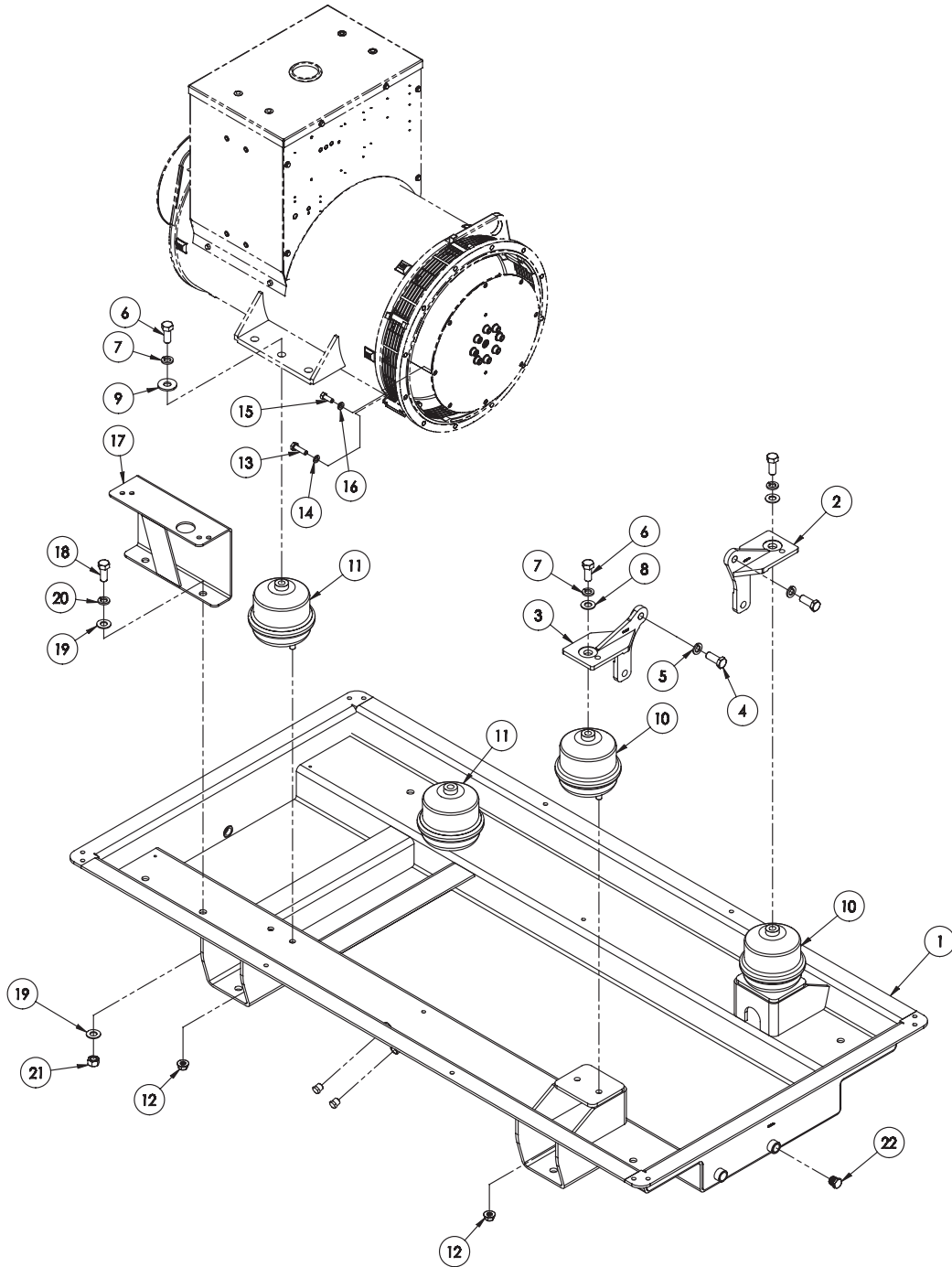
Lift Straps



9801_RE53353_PCD

Key	Part No.	Part Name	Qty.	Engine Serial No.	Remarks
1	19M7788	Screw	2		M12 X 25
2	R502329	Strap	1		REAR
3	R502175	Strap	1		FRONT

Steel Base Ban with Hydrolastic Mounts - M80A13 / 363 Frame Generator

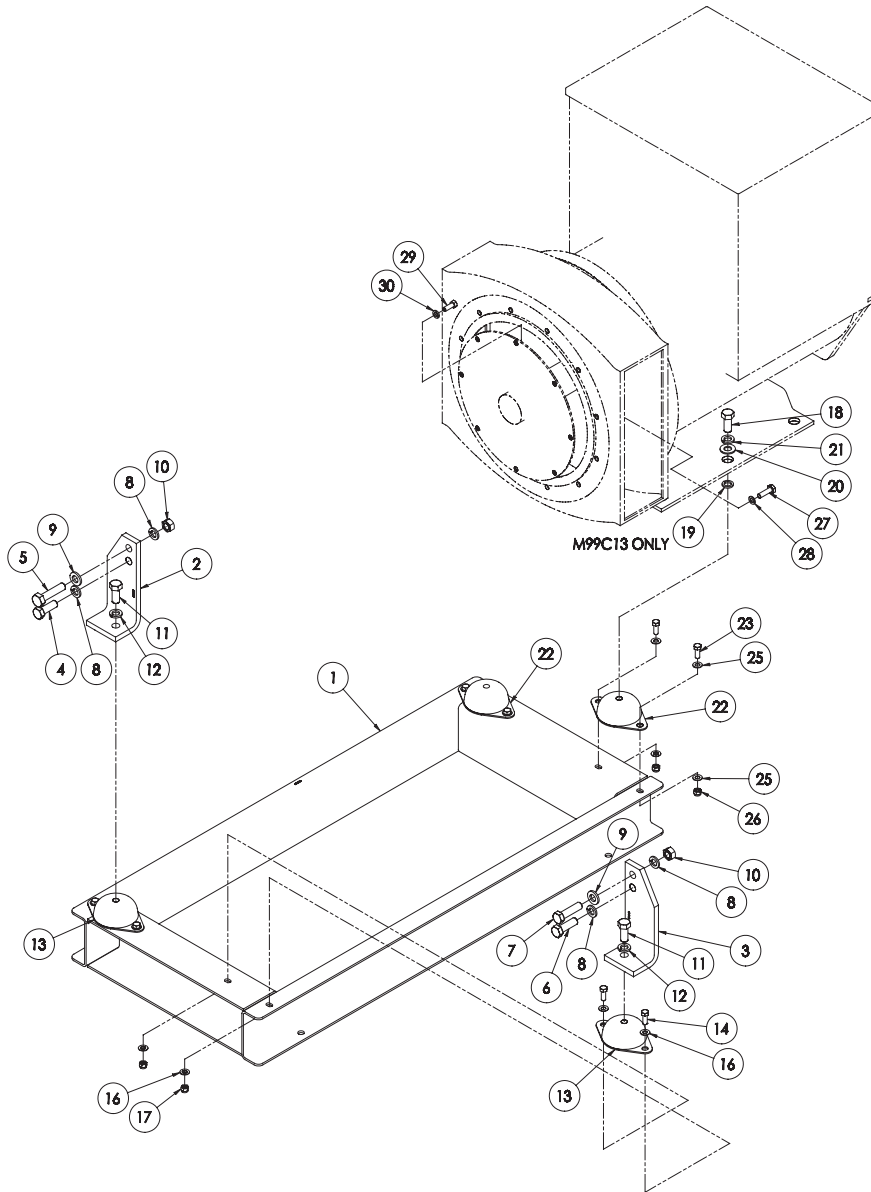


Steel Base Ban with Hydrolastic Mounts - M80A13 / 363 Frame Generator

KEY	PART NUMBER	QTY	DESCRIPTION	SERIAL NUMBER
1	39-89433	1	Steel Base Pan with Hyd Mounts	-
2	23-81002	1	Bracket,Front Engine Mtg Left Hand	-
3	23-81001	1	Bracket,Front Engine Mtg Right Hand	-
4	12-04803	4	Capscrew,Hex Head M16x2.0 X 40mm	-
5	15-01000	4	Lock Washer,Helical M16 DIN Code 127B	-
6	12-00913	4	Capscrew,Hex Head 5/8-11 X 1-1/2"	-
7	15-00902	4	Lock Washer,Helical 5/8"	-
8	15-01330	2	Flat Washer 5/8" SAE	-
9	5-00901	2	Flat Washer 5/8" USS	-
10	33-81013	2	Hydrolastic Mount 500LBS	-
11	33-81015	2	Hydrolastic Mount 700LBS	-
12	14-00502	8	Lock Nut,Plain Flanged 1/2-13 Grade	-
13	12-00814	12	Capscrew,Hex Head M10x1.5 X 35mm	-
14	15-00802	12	Lock Washer,Helical M10	-
15	12-00332	8	Capscrew,Hex Head 3/8-16 X 1" GRADE 8	-
16	15-00307	8	Flat Washer Hardened	-
17	23-79608	4	Bracket,D.C. J-Box Mtg (M1064 & M1066 Base Pan)	-
18	12-00913	2	Capscrew,Hex Head 5/8-11 X 1-1/2"	-
19	15-01330	4	Flat Washer 5/8" SAE	-
20	15-00902	2	Lock Washer,Helical 5/8"	-
21	14-00911	2	Hex Nut 5/8-11	-
22	21-00530	2	PLUG,Hex Head, Brass 1/2NPT	-

Steel Base Frame Standard Assembly

TTB Mounts

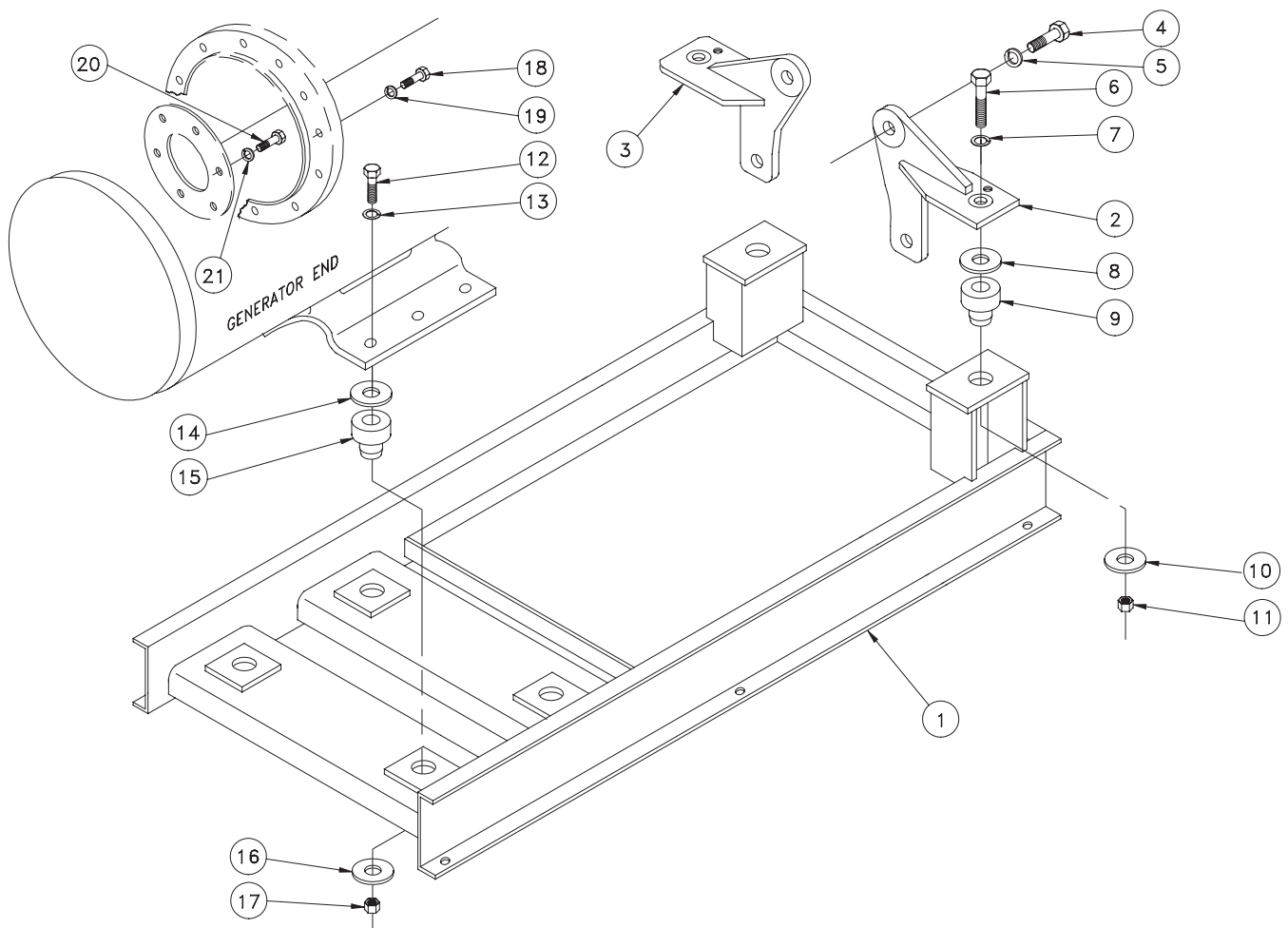


Steel Base Frame Standard Assembly

TTB Mounts

KEY	PART NUMBER	QTY	DESCRIPTION	SERIAL NUMBER
1	39-89427	1	Base Frame, Steel	-
2	23-89417	1	Bracket, Front Engine Mtg, R.H.	-
3	23-89418	1	Bracket, Front Engine Mtg, L.H.	-
4	12-01508	1	Capscrew, Hex Head M16 x 2.0 x 45mm	-
5	12-01512	1	Capscrew, Hex Head M16 x 2.0 x 70mm Grade 8.8	-
6	12-01503	1	Capscrew, Hex Head M16 x 2.0 x 60mm	-
7	12-01504	1	Capscrew, Hex Head M16 x 2.0 x 60mm	-
8	15-01000	4	Lock Washer, Helical M16	-
9	01643-31645	2	Flat Washer M16 x 31.5mmOD x 4.2mm Hardened	-
10	14-01432	2	Hex Nut M16 x 2.0	-
11	12-00913	2	Capscrew, Hex Head 5/8-11 x 1-1/2:	-
12	15-00902	2	Lock Washer, Helical 5/8"	-
13	33-81021	2	Flex Mount, Captive Neoprene 500 - 700 Lbs	-
14	12-00312	4	Capscrew, Hex Had 3/8-16 x 1"	-
16	15-00321	8	Flat Washer 3/8" SAE	-
17	14-00312	4	Hex Nut, Nylock 3/8-16	-
18	12-00913	2	Capscrew, Hex Head 5/8-11 x 1-1/2"	-
19	15-04803	2	Lock Washer, Hi-Collar M16	-
20	15-00903	2	Flat Washer 5/8" SAE Hardened	-
21	15-00902	2	Lock Washer, Helical 5/8"	-
22	33-81021	2	Flex Mount, Captive Neoprene 500 - 750 Lbs	-
23	12-00213	4	Capscrew, Hex Head 3/8-16 x 1"	-
25	15-00321	8	Flat Washer 3/8" SAE Zinc	-
26	14-00312	4	Hex Nut, Nylock 3/8"-16	-
27	12-00802	12	Capscrew, Hex Head M10 x 1.5 x 35mm	-
28	15-00802	12	Lock Washer, Helical M10	-
29	12-00332	8	Capscrew, Hex Head 3/8-16 x a" Grade 8	-
30	15-00307	8	Flat Washer 3/8" / M10 Hardened	-

Steel Base Frame Assembly - Units with PTO
Centerbonded Mounts

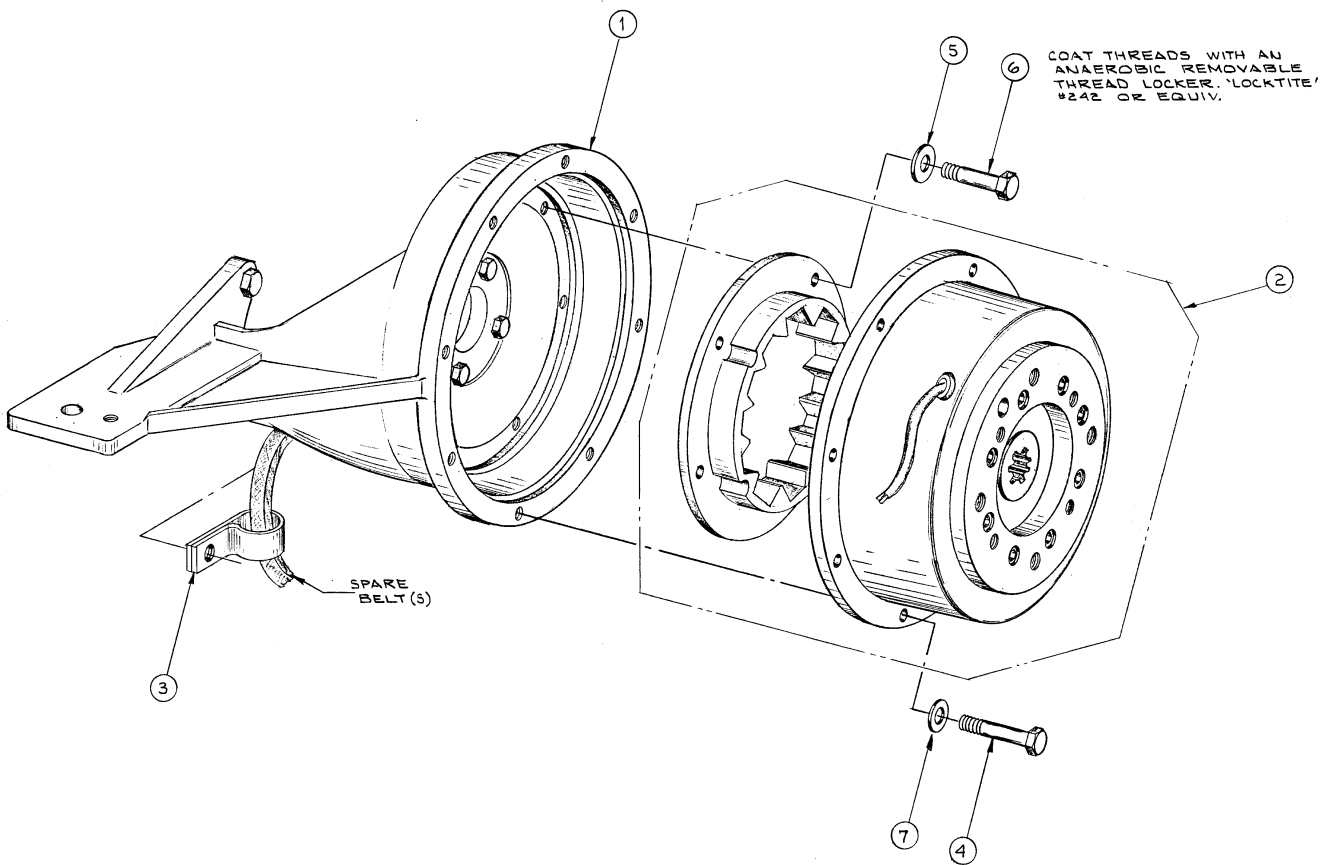


Steel Base Frame Assembly - Units with PTO

Centerbonded Mounts

KEY	PART NUMBER	QTY	DESCRIPTION	SERIAL NUMBER
1	39-89424	1	Base Frame, Steel	-
2	23-81001	1	Bracket, Front Engine Mtg, R.H.	-
3	23-81002	1	Bracket, Front Engine Mtg, L.H.	-
4	12-04803	4	Capscrew, Hex Head M16 x 2.0 x 40mm	-
5	15-01000	4	Lock Washer, Helitical M16	-
6	12-00034	2	Capscrew, Hex Head 5/8-11 x 3-1/2"	-
7	15-00903	2	Flat Washer 5/8" SAE Hardened	-
8	15-00015	2	Head Washer	-
9	33-81008	2	Mount, Centerbonded 650 lbs	-
10	15-00025	2	Tail Washer	-
11	14-00912	2	Hex Nut, Nylock 5/8-11	-
12	12-00034	4	Capscrew, Hex Head 5/8-11 x 3-1/2"	-
13	15-01330	4	Flat Washer 5/8" SAE	-
14	15-00015	4	Head Washer 2.75" x 0.64" x 0.125"	-
15	33-81002	4	Mount, Centerbonded 500 Lbs	-
16	15-00025	4	Tail Washer	-
17	14-00912	4	Hex Nut, Nylock 5/8-11	-
18	12-00814	12	Capscrew, Hex Head M10 x 1.5 x 35 mm	-
19	15-00802	12	Lock Washer, Helitical M10	-
20	12-00332	8	Capscrew, Hex Head 3/8-16 x 1" Grade 8	-
21	15-00307	8	Flat washer 3/8" / M10 Hardened	-

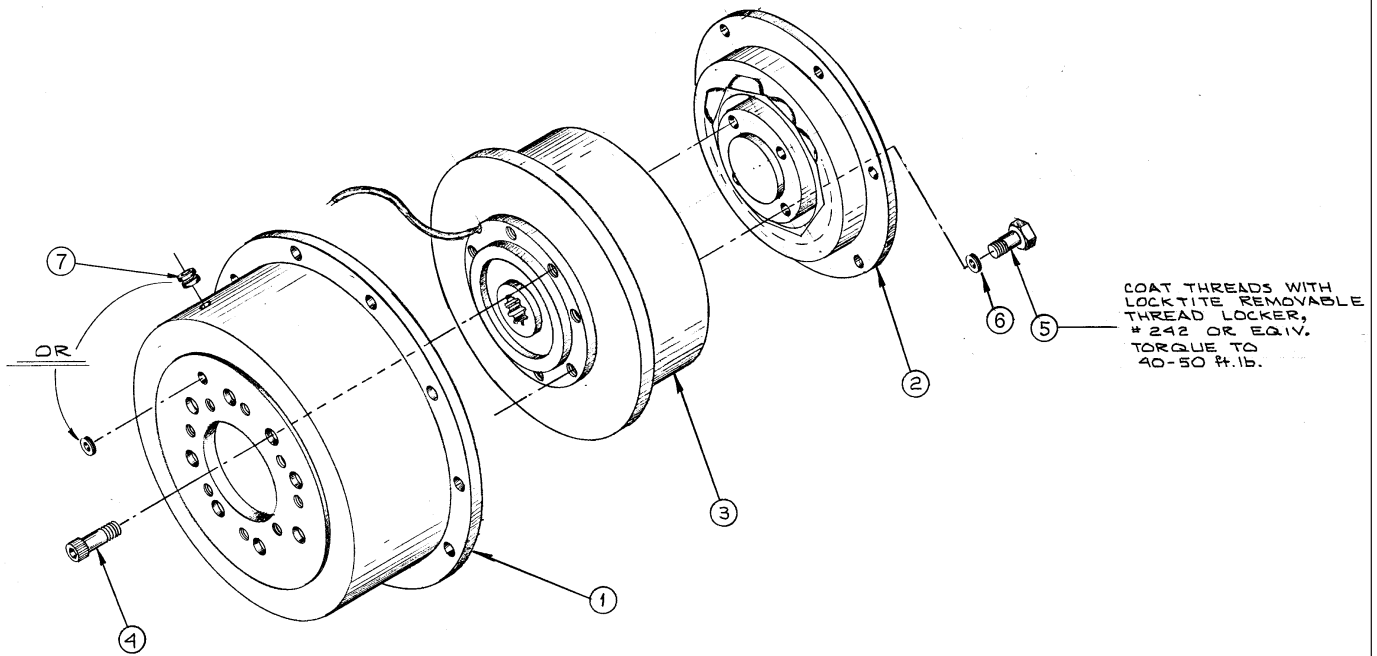
PTO/Electric Clutch 700 Lbs FT MMC C-Spline 24V



PTO/Electric Clutch 700 Lbs FT MMC C-Spline 24V

KEY	PART NUMBER	QTY	DESCRIPTION	SERIAL NUMBER
1	31-69405	1	PTO Adapter Parts SAE #5/#8	-
2	34-69545	1	Kit, Electric Clutch 700 Lbs FT MMC-100 C-Spline 24V	-
4	12-20313	8	Capscrew, Skt Hd 3/8-16 x 1-1/4" Zinc Plated ASTM A574	-
5	15-00321	6	Flat WAsher 3/8" SAE Zinc Plated ANSI Type A (Narrow)	-
6	12-00312	6	Capscrew, Hex Head 3/8-16 x 1"	-
7	15-00307	8	Flat Washer, 3/8" / M10 Hardened	-

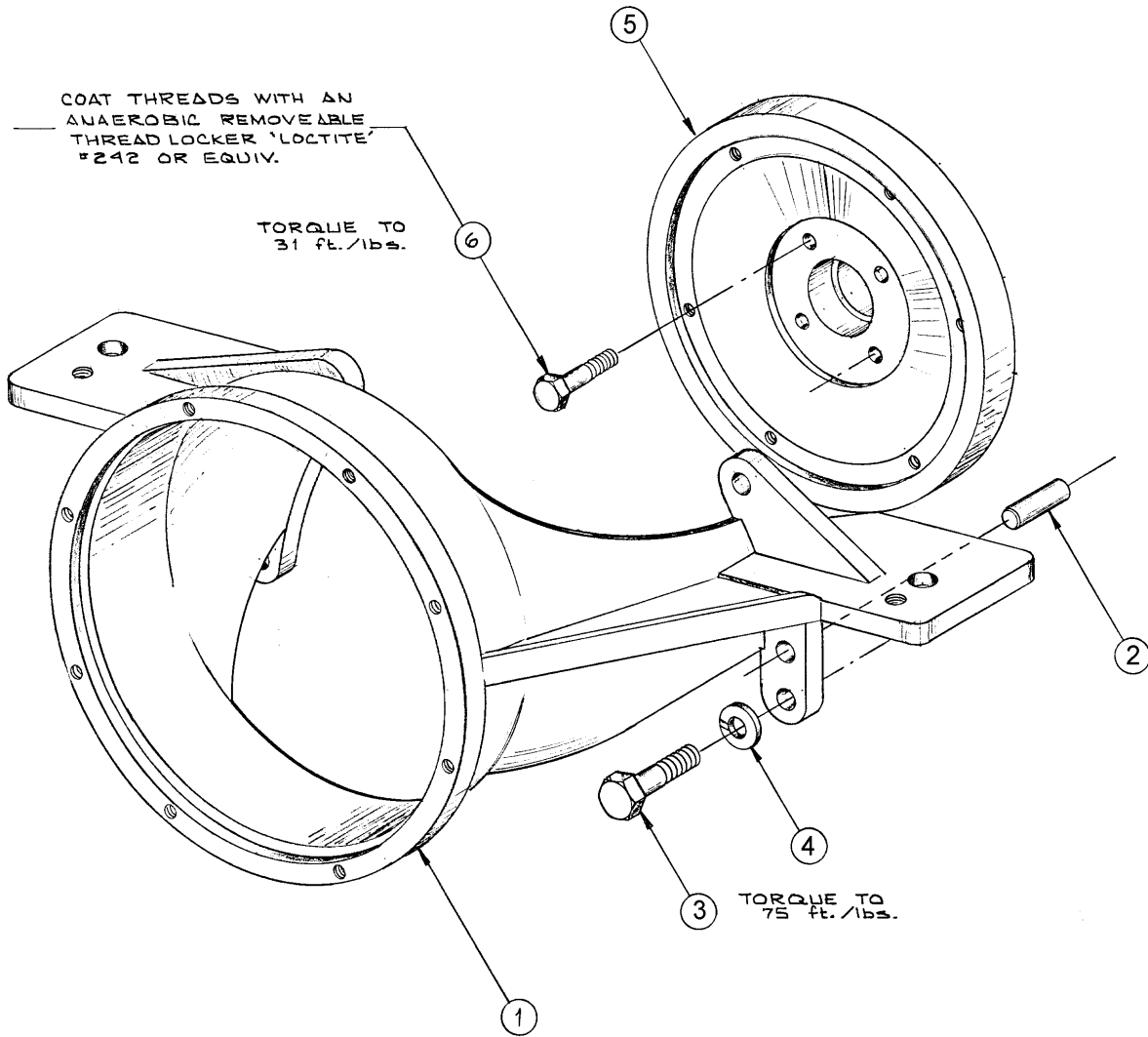
Electric Clutch 700 Lbs MMC-100 C-spline 24 Volt



Electric Clutch 700 Lbs MMC-100 C-spline 24 Volt

KEY	PART NUMBER	QTY	DESCRIPTION	SERIAL NUMBER
1	10-60016	1	Housing, Electric Clutch	-
2	34-69517	1	Rubber Clock Assembly MMC-100	-
3	34-60098	1	Electric Clutch Assembly 700 Lbs FT MMC-100G C-Spline 24V	-
4	12-00035	8	Capscrew, Hex Head 3/8-16 x 3/4"	-
5	12-50412	4	Capscrew, Hex Head 7/16-20 x 1" Grade 8 Zinc Plated SAE	-
6	15-00404	4	Flat Washer 7/16" SAE	-
7	00-61003	1	Grommet 3/8"ID x 3/4"OD 1/4"GW x 1/2"GD	-
	00040025	1	Plug	-

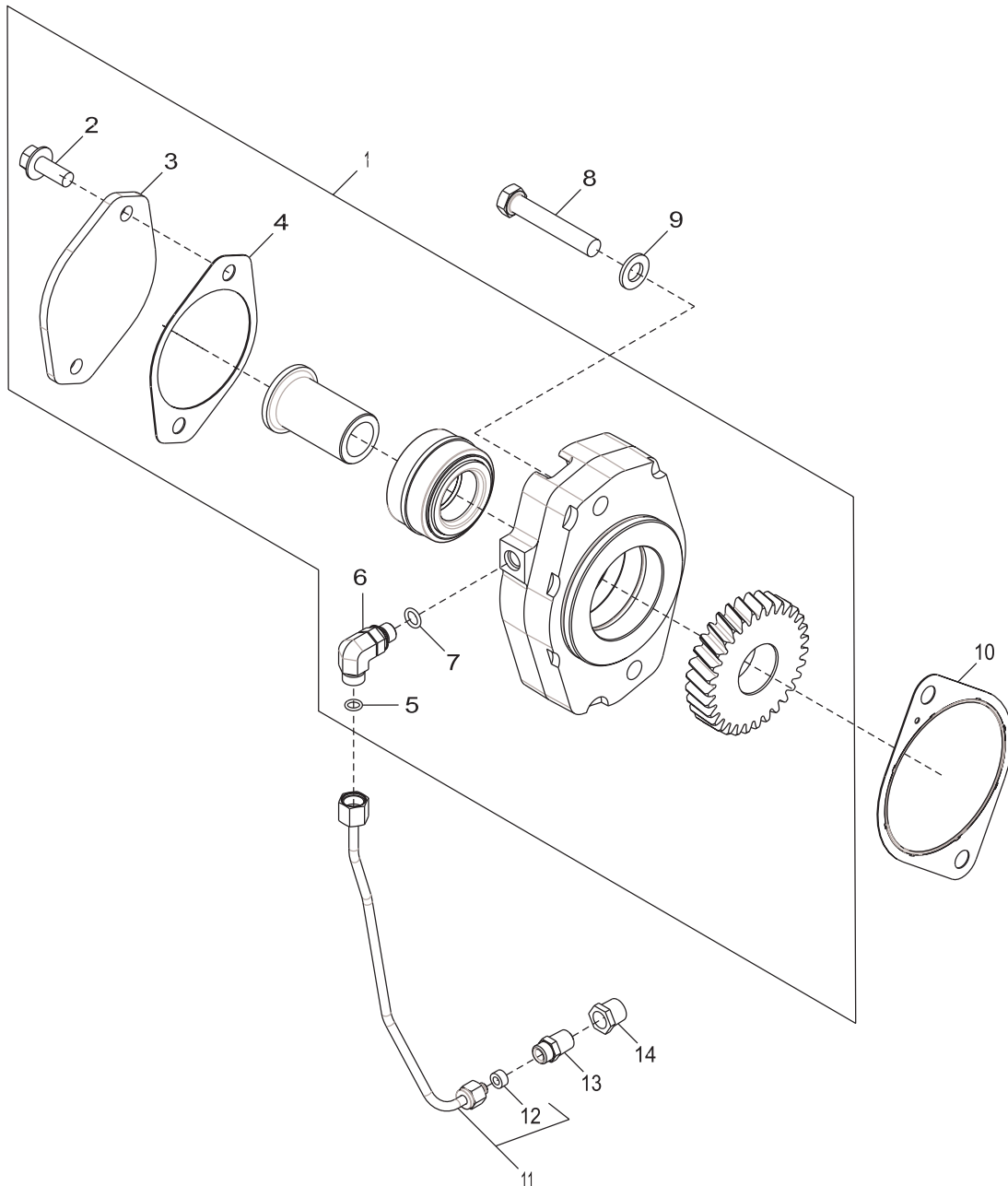
PTO Adapter Parts SAE #5/#8



PTO Adapter Parts SAE #5/#8

1	23-71001	1	Bracket, Front PTO MTG SAE#5	-
2	32-81001	2	Dowel Pin 5/8"OD x 1-1/2"	-
3	12-04803	4	Capscrew, Hex Head M16 x 2.0 x 40mm	-
4	15-01000	4	Lock Washer, Helical M16	-
5	34-69401	1	PTO Carrier SAE#8	-
6	19M8162	6	Capscrew, Hex Head Flanged M10 x 1.5 x 40mm	

SAE A-Pad / Spline Drive

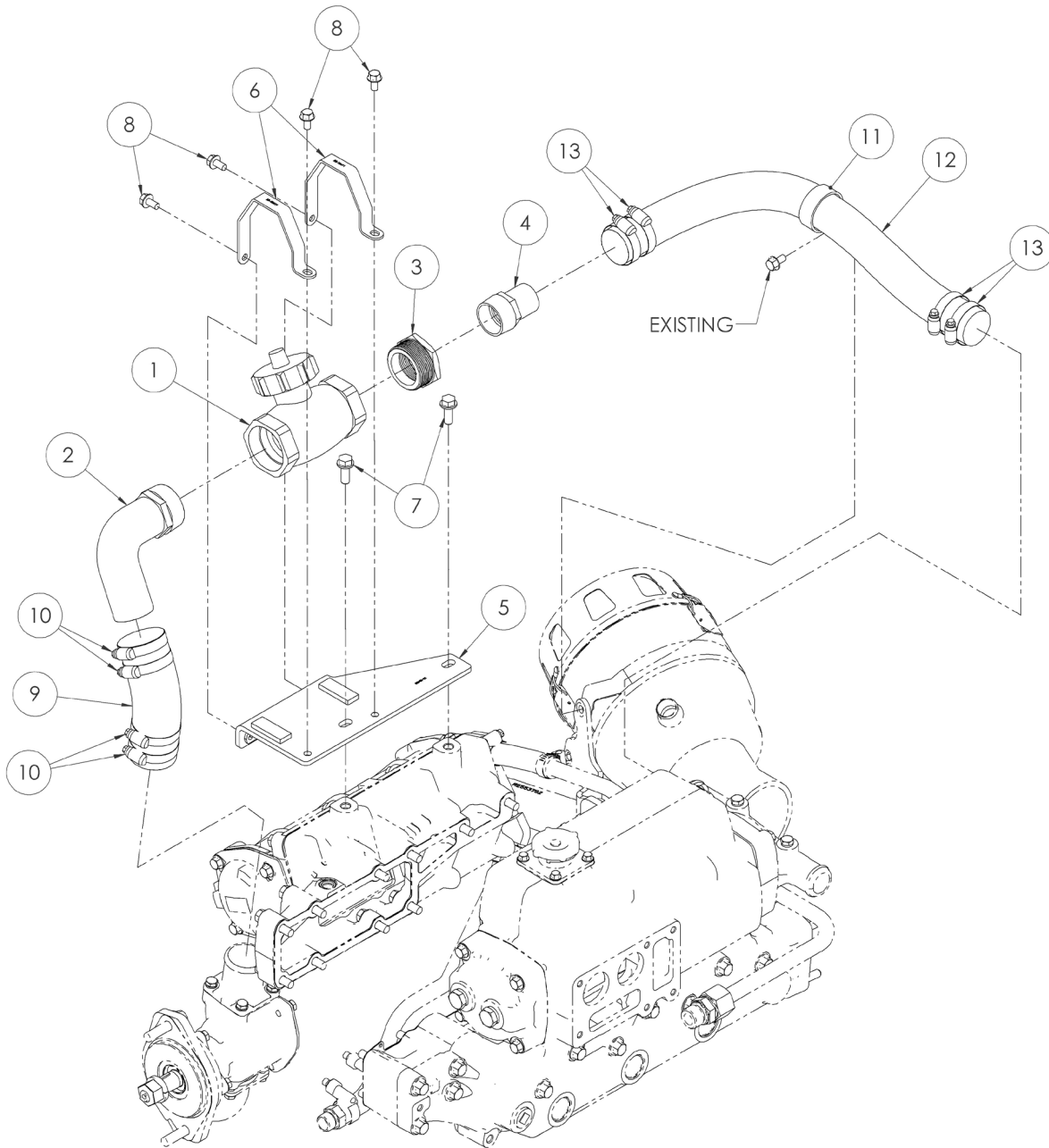


SAE A-Pad / Spline Drive

Key	Part No.	Part Name	Qty.	Engine Serial No.	Remarks
1	RE500825	Adapter Fitting	1		
2	19M7785	Screw	2		M10 X 25
3	R85145	Cover	1		
4	R96935	Gasket	1		
5	T77814	O-Ring	1		
6	38H5015	Elbow Fitting	1		M12 X 1.5 X 9/16"-18 UNF
7	51M7040	O-Ring	1		9.300 X 2.200 mm
8	19M7753	Cap Screw	2		M12 X 70
9	24M7047	Washer	2		13 X 24 X 2.500 mm
10	R134465	Gasket	1		
11	RE506914	Oil Line	1		
12	R51936	Sealing Washer	1		
13	R110664	Coupling	1		1/4"-18 NPT X 1/2"-24 UNS
14	15H700	Pipe Bushing	1		1/4", 3/8"-18 NPT X 1/4"-18 NPT

Optional on units without raw water pump

Raw Water Flow Switch H. E.



Raw Water Flow Switch H. E.

KEY	PART NUMBER	QTY	DESCRIPTION	SERIAL NUMBER
1	37-16803	1	Flow Switch, Bronze 35 GPM 2"NPT	-
2	21-15034	1	M. Elbow 90, Bronze 2"NPT x 2"HB	-
3	21-00076	1	Bushing, Brass 2"NPT x 1-1/2NPT	-
4	21-15035	1	M. Connector, Bronze 1-1/2"NPT x 1-1/2"HB	-
5	23-19409	1	Bracket, 2" Flow Switch Mounting	-
6	23-19411	2	Clamp, 2" Flow Switch Mounting	-
7	12-80832	2	Capscrew, Hex Head M10 x 1.5 x 30 mm	-
8	19M7865	4	Capscrew, Hex Head Flanged M8 x 1.25 x 16mm	-
9	41-01109	8	Hose 2"ID Wire Inforced	-
10	19-04032	4	Hose Clamp #32 Embossed Band S/S	-
11	19-60000	1	Adelle Clamp 2-1/16"ID x 1/2" STUD	-
12	41-01102	23	Hose 1-1/2"ID Wire Inforced	-
13	19-04028	4	Hose Clamp #28 Embossed Band S/S	-



4420 14th Ave. NW., Seattle WA 98107

Tel: (206) 789-3880 • 1-800-762-0165 • www.northern-lights.com

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