

Product: 2012 EAGLE TUGS Vehicle TT-10 & TT-12 Parts and Service Repair Workshop Manual
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EAGLE TUGS



Parts and Service Manual



Vehicle Types: TT-10 & TT-12

Engine Type: Yanmar Turbo Diesel 4TNV98T Tier II & Tier III Engine Models With Sauer Display

Sample of manual. Download All 152 pages at:

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INTRODUCTION

From everyone at Eagle Tugs, we would like to say Thank You for purchasing an Eagle TT-series tow tractor. We take a lot of pride in the quality of the products that we build, as well as our continued customer service. Our goal is to build a long term relationship with our customers. We want you, the customer, to be 100% satisfied with your Eagle experience. To us, this means that your Eagle TT-series tractor is functionally superior to any other products you have used. This also means that your Eagle product is continually supported in a professional, timely manner.

PURPOSE & USE OF THIS MANUAL

This manual is designed as a reference guide to make the reader more familiar with the components of the Eagle TT-10 and TT-12 tow tractor models. This manual includes part numbers and descriptions to assist the reader in ordering component spare/service parts. The manual also outlines the Scheduled Maintenance Intervals recommended by Eagle in order to keep your vehicle running properly. In this manual you will also find the Eagle Standard Warranty on all of the TT-series tow tractors. However, for more detailed information on the Eagle Warranty and procedure, as well as information pertaining to the safe operation of your Eagle product, please see the Eagle Operations Manual that was also included with your vehicle.

TECHNICAL ASSISTANCE

When addressing a repair procedure or operational problem, please remember that Eagle technical support is only a phone call away. Eagle technicians are available to assist you in vehicle diagnostics and recommended repair procedures. We encourage you to use this service to reduce machine down-time and to gain a better understanding of proper repair procedures.

ORDERING SPARE/SERVICE PARTS

Eagle inventories most of the component parts found in its TT-series tow tractors, and most spare/service parts can be shipped the same day the order is received. Parts orders need to be received at Eagle by 12:00 pm (Noon) EST in order for the parts to be shipped that same day. Parts ordered after 12:00 pm EST will most likely be shipped the following day.

NOTE: PLEASE CHECK OUR WEBSITE PERIODICALLY FOR MANUAL UPDATES AS WELL AS SERVICE BULLETINS.

Eagle Corporate Office

26111 Northline Rd
Taylor, MI 48180
(800) 671-0431
www.eagletugs.com

Customer Service

customerservice@eagletugs.com
(734) 442-1000 -- (800) 671-0431

Parts & Service

parts@eagletugs.com
(734) 442-1000 -- (800) 671-0431

Technical Support

support@eagletugs.com
(734) 442-1000 -- (800) 671-0431

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WARRANTY

VEHICLE ID INFORMATION

This information can be found on the tractor's I.D. Plate located on the firewall next to the driver's seat. Additionally, there is a permanent serial number located on the rear bulkhead inside the engine compartment.


MODEL _____

SERIAL NO _____

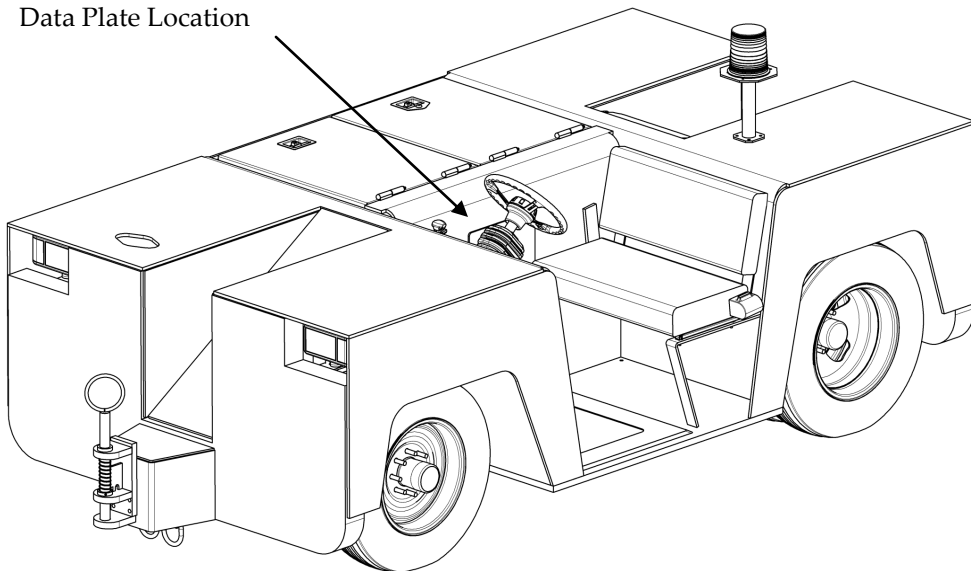
MFG DATE _____

ENGINE TYPE _____

ENGINE SERIAL NO _____

VEHICLE S/N	_____	ENGINE POWER	kW	_____	hp	_____
MFG. DATE	_____	TRACTOR MASS	kg	_____	lb	_____
MODEL #	_____	DRAW BAR PULL	N	_____	lb	_____
ENGINE	_____	TOW CAPACITY	kg	_____	lb	_____
ENGINE S/N	_____	VERTICAL HITCH CAP.	N	_____	lb	_____
MANUFACTURED BY:  26111 NORTHLINE RD. TAYLOR, MI 48180 USA PHONE: 800-671-0431 sales@eagletrugs.com www.eagletrugs.com						

Data Plate Location



WARRANTY

3-Year Limited Warranty Information*

The Eagle Tugs (Eagle) 3-Year Warranty covers all TT-series, eTT-series, XL-series, eXL-series and USATS tow tractors, used in aviation applications. Eagle Tugs warrants that these tractors will be free from defects in material and workmanship for a period of 3 years or 3,000 operating hours, with the exception of the electrical system (see electrical component warranty below), from date of delivery to the first customer (or first use), whichever comes first. Written notice of any claimed defect must be given to Eagle within the warranty period and within thirty (30) days after such defect is discovered. Liability under this warranty is limited to either replacing or repairing, at Eagle's election, any part or parts deemed defective after examination by Eagle or an Authorized Service Representative. Any Eagle tractor or any of its parts returned by the customer to Eagle or an Authorized Service Representative via prepaid transportation, and which is found to be defective, will be repaired or replaced and returned to the customer prepaid. On the other hand, should a part be found not defective, inspection and handling charges may be charged to the customer or Authorized Service Representative by Eagle.

Electrical Component Warranty: Electrical components including but not limited to display, starters, alternators and electric fans shall be covered under the respective original manufacturers warranty for each individual component. Copies of the respective warranties are available upon request.

This warranty does not extend to the tires, batteries, and battery chargers as these are warranted directly to the user by their respective manufacturer and not by Eagle or an Authorized Service Representative.

This warranty does not apply to any Eagle tow tractor, or component part(s) that have been subjected to misuse, accident, vandalism, environmental conditions, improper handling or application, maintenance neglect, including lack of lubricants or fluids; nor does it extend to the Eagle tow tractor and/or parts which have been repaired or altered outside of Eagle's plant or the facility of an Authorized Service Representative without the permission of Eagle.

This warranty does not apply to routine maintenance or wearable parts of the Eagle tow tractor such as filters, seals, plugs, hoses, belts, brake pads or shoes, light bulbs, fuses or similar items. Moreover, this warranty does not extend beyond its original term for any Eagle tow tractor or part replaced or repaired under warranty.

This warranty does not cover or provide credit for the following: tractor rental or other substitute equipment; lodging; loss of time, income, sales or profits; loss of the use of tractor; telephone calls or communication expense; lift truck; storage fees; injury or death to persons or damage or destruction of property; or consequential, incidental or punitive damages.

Labor Allowance: A labor allowance may be issued upon request at Eagle's discretion. Allowable labor hours and a per hour labor rate will be determined by Eagle according to reasonable automotive standards.

Warranty Claim Procedure: When a warranty situation arises, it is essential that the customer contact Eagle's Warranty Department at +1 734-442-1000. The customer will need to provide Eagle with the tow tractor serial number and engine hours. A customer service representative will analyze the problem and determine the next steps. In many cases Eagle's technical support personnel will be able to analyze the problem and recommend adjustments that will solve the problem and reduce down time. If further service is required, an Eagle customer service representative will work with customer personnel to arrange a service provider and/or parts be sent to your facility for the repair as quickly as possible.

EXCEPT AS SET FORTH ABOVE, ALL WARRANTIES, CONDITIONS, REPRESENTATIONS, INDEMNITIES AND GUARANTEES, EXPRESS OR IMPLIED, WHETHER ARISING BY STATUTE, CUSTOM OF TRADE OR UNDER ORAL OR WRITTEN STATEMENTS MADE BY OR ON BEHALF OF EAGLE NEGOTIATIONS WITH CUSTOMER, DISTRIBUTOR, DEALER OR ANY REPRESENTATIVE, ARE HEREBY OVERWRITTEN AND EXCLUDED, AND NO LIABILITY SHALL ATTACH TO EAGLE, EITHER IN CONTRACT OR IN TORT, OR STRICT LIABILITY IN TORT, FOR ANY DAMAGE TO PROPERTY, LOSS OF PROFITS, DAMAGES, COSTS, CHARGES, LIABILITY OR EXPENSES, WHETHER DIRECT OR INDIRECT, CONSEQUENTIAL OR OTHERWISE, WHICH ARISE OUT OF OR IN CONNECTION WITH THE SALE OR USE OF ANY EAGLE MACHINE OR THE SUPPLY OF SERVICES.

SUBJECT TO CHANGE WITHOUT NOTICE

Please check our website www.eagletugs.com periodically for service bulletins and manual updates.

*Note - The Eagle Tugs 3-Year Warranty covers TT-series, eTT-series, XL-series, eXL-series and USATS tow tractors used in aviation applications. All MTT and RTT-series, and Transit Pro tow tractors, and all Eagle models which are used in industrial applications, are covered under the Eagle **Standard Warranty** of 1 Year or 2,000 hours. Eagle Bob Tails are covered under Ford Motor Company's Standard Warranty for each respective Ford truck model.

WARRANTY

EAGLE WARRANTY REGISTRATION INFORMATION

In order for Eagle to provide the most efficient warranty repair service please fill out and return the Warranty Registration Card included with your vehicle. This form may either be mailed to Eagle or e-mailed to support@eagletugs.com. Please see warranty terms and conditions on the previous page.

Tires

For pneumatic tires, contact your nearest Power King (Kelly-Springfield) brand dealer who will adjust your claim based on the remaining tread wear as a percent of total new tread.

For solid tires, contact Eagle directly.

Battery

In the U.S. and Canada, call 1-888-823-0954 or 1-877-255-2287

Outside the Continental U.S. and Canada please contact Eagle directly.

YANMAR ENGINE WARRANTY REGISTRATION INFORMATION

The following pertains to warranty regarding the Yanmar engine only. For warranty issues not related to the engine in your tug please contact Eagle Tugs directly at 800-671-0431.

The Purchaser should register the Product as soon as possible after purchase. Registration may allow Yanmar to provide Product updates, Product improvements and other important information to the Purchaser. Registration will also make processing a future warranty claim more efficient and convenient for the Purchaser and Yanmar. A Purchaser should register the Product on-line by entering the required information into the Customer Registration screens found on Yanmar's website at <http://www.yanmar.co.jp>. To register product, click on the Customer Registration link. Go to Industrial Engines and then click on the Industrial Engine link. Enter the registration information in the necessary fields.

AUTHORIZED YANMAR DISTRIBUTOR INFORMATION

The Yanmar Distributor Information can be found on the Yanmar website at

www.yanmar.com/industrial/dealerlocatormainmap.asp. If you need help finding a distributor in your area please call Eagle Tugs at 800-671-0431.

WARRANTY



Eagle Tugs Service Bulletin

ESB-02-08

Date: October 14, 2008

Affected Models: Diesel powered TT series tow tractors

Subject: Tier 3/Stage IIIA diesel engine fuel requirements

Background:

The EPA mandated change to Tier 3 diesel engines and EC directives for Stage IIIA diesel engines with higher emission requirements has caused some changes to recommended and acceptable fuels. This document will clarify those requirements as they pertain to Eagle Tugs' products.

Tier 2:

Eagle Tugs is currently phasing out Tier 2 engines as part of EPA and EC mandated controls. These engines will no longer be available for sale unless part of a military exemption, or being exported to non-conforming countries.

Tier 2 engines will run on standard diesel fuels 1-D and 2-D with sulfur content up to 5000ppm without modification.

Tier 2 engines will run on jet fuels Jet-A and JP8 with either lubricity filter / additives, or OEM fuel system modifications to accommodate the lower lubricity jet fuels.

Tier 3 / Stage IIIA:

Eagle Tugs is currently phasing in Tier 3 / Stage IIIA conforming engines per EPA and EC mandates.

Tier 3 engines will run on fuels with sulfur content of less than 500 ppm or .05% without modification. This includes fuels commonly referred to Low Sulfur Diesel (LSD) and Ultra Low Sulfur Diesel (ULDS).

Tier 3 engines will NOT run properly on Jet-A or JP8 fuel due to the high sulfur content. The EGR system on tier 3 engines allows sulfur in the fuel to recirculate from the exhaust back into the intake where it is converted to sulfuric acid which corrodes internal engine components. In the future as jet fuel standards are directed towards lower sulfur content, this may change.

Tabulated Data:

	High-Sulfur Diesel Fuel	LSD or ULSD Fuel	JetA and JP8
Tier 2	No modification necessary	No modification necessary	Requires lubricity enhancement or engine modification
Tier 3 / Stage IIIA	Not acceptable	No modification necessary	Not acceptable

If you have any questions, please contact Eagle technical support at 734-442-1000.

SAFETY INFORMATION

IMPORTANT SAFETY NOTICE

Appropriate service methods and proper repair procedures are essential for the safe, reliable operation of all industrial engines as well as the personal safety of the individual performing the work. This Service Manual provides general directions for accomplishing service and repair work with tested and effective techniques. Following them will help assure reliability.

There are numerous variations in procedures, techniques, tools and parts for servicing equipment, as well as in the skill of the individual doing the work. This Manual cannot possibly anticipate all such variations and provide advice or cautions as to each. Accordingly, anyone who departs from the instructions provided in this Manual must first establish he compromises his/her personal safety, and/or the equipment integrity by his/her choice of methods, tools or parts.

WARNINGS

The following list contains some general WARNINGS that you should follow when you work on equipment:

- Always wear safety glasses for eye protection.
- Use safety stands whenever a procedure requires you to be under the equipment.
- Be sure that the ignitions switch is always in the OFF position, unless otherwise required by the procedure.
- Set the parking brake (if equipped) when working on the equipment. Place wood blocks (4" x 4" or larger) to the front and rear surfaces of the tires to provide further restraint from inadvertent equipment movement.
- Operate the engine only in a well-ventilated area to avoid the danger of carbon monoxide.
- Keep yourself and your clothing away from moving parts when the engine is running, especially the fan and belts.
- To prevent serious burns, avoid contact with hot metal parts such as the radiator, exhaust manifold, tail pipe, catalytic converter and muffler.
- Do not smoke while working on the equipment.
- To avoid injury, always remove rings, watches, loose hanging jewelry, and loose clothing before beginning to work on the equipment. Tie long hair securely behind the head.
- Keep hands and other objects clear of the radiator and blades.

SERVICE PARTS ILLUSTRATIONS & DETAIL

IDENTIFICATION KEY

The following abbreviations are used throughout the parts lists in this section.

Abbreviation	Meaning	Purpose
NL	Not Listed	Part required but not shown on diagram
NPN	No Part Number	Parts shown and numbered, but not stocked and sold by Eagle. Typically used for bolts, clamps, etc...
AR	As required	

!TO HELP US SERVICE YOU BETTER. HAVE TUG MODEL AND SERIAL NUMBER AVAILABLE WHEN ORDERING PARTS

NOTE: THIS MANUAL COVERS PARTS & SERVICE FOR EAGLE TT10 and TT1 2 ALL WHEEL DRIVE MODELS WITH BOTH THE YANMAR TIER II AND TIER III ENGINES. PLEASE BE SURE TO CHECK THE HEADING ON EACH PAGE TO SEE IF THE PARTS REFERENCED ARE FOR A :

YANMAR TIER II DIESEL

OR

YANMAR TIER III DIESEL

ALL PAGES WITHOUT THE ABOVE IN THE DESCRIPTION DENOTE PARTS ARE USED ON MODELS POWERED WITH BOTH A YANMAR TIER II AND YANMAR TIER III ENGINE.

TO DETERMINE IF YOUR TUG IS POWERED BY A TIER II OR TIER II ENGINE YOU CAN CHECK THE DISPLAY LOCATED ON THE DASHBOARD BY THE FOLLOWING.

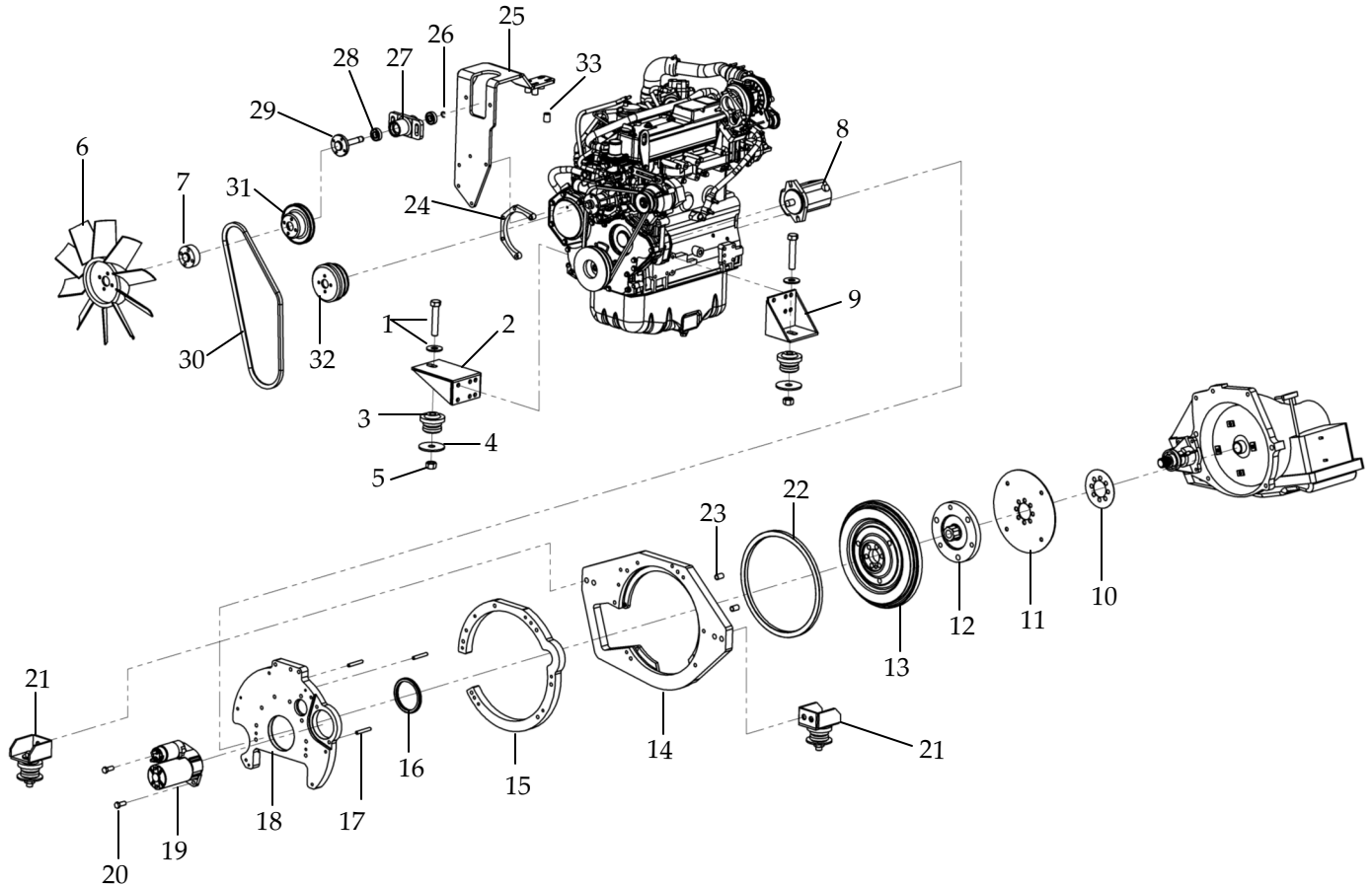
1. TURN DISPLAY "ON"
2. PRESS ENTER
3. SCROLL TO "EAGLE SET UP"
4. PRESS ENTER
5. YOU WILL SEE "SELECT ENGINE : YANMAR TIER II OR YANMAR TIER III" ON YOUR SCREEN

TO DETERMINE IF YOUR TUG IS POWERED BY A TIER II OR TIER III ENGINE WITHOUT TURNING ON DISPLAY.

ALL TIER II TUGS ARE EQUIPPED WITH A MANUAL ALUMINUM FOOT PEDAL AND ALL TIER III TUGS ARE EQUIPEED WITH A BLACK PLASTIC ELECTRONIC FOOT PEDAL.

POWER TRAIN

ENGINE DRESS



STANDARD TORQUE CHART

Thread Size x Pitch mm		M6 x 1.0	M8 x 1.25	M10 x 1.5	M12 x 1.75	M14 x 1.5	M16 x 1.5
Tightening Torque	in-lb	87-105					
	ft-lb		17-21	32-40	58-72	94-108	160-174
	N-m	9.8-11.8	22.6-28.4	45-54.8	78.5-98.10	127.2-146.8	216.2-235.8
	kgf/m	1.1	2.03-2.09	4.5-5.5	8.0-10.0	12.5-15.5	21-25

Note: Torque values shown in this manual are for clean, non-lubricated fasteners unless otherwise specified.

CAUTION: The tightening torque in the above Standard Torque Chart should be applied only to the bolts with a "7" head. (JIS strength classification 71).

*Apply 60% torque to bolts that are not listed.

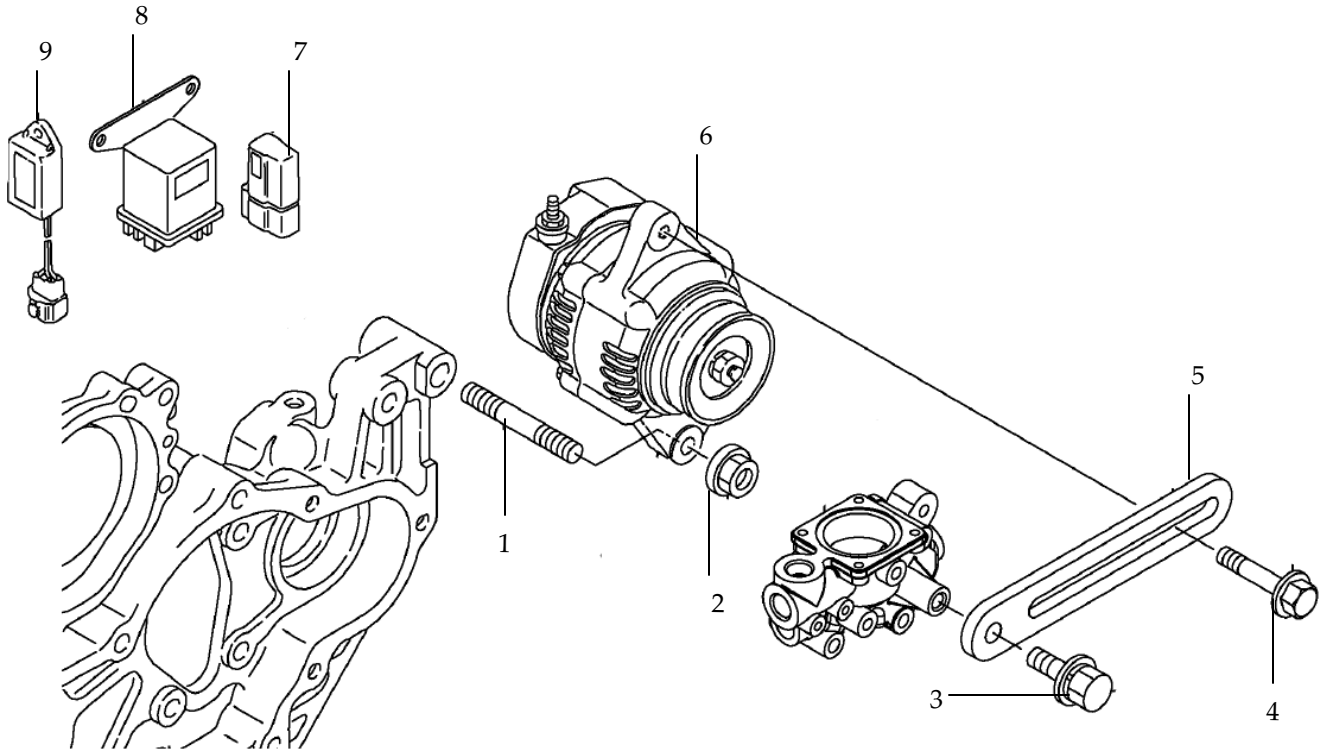
POWER TRAIN

ENGINE DRESS

Item	Part Number	Qty	Description
1	NPN	4	3/4-16 X 3 1/2 BOLT & 3/4" FLAT WASHER
2	B-TT5D-00008-1	1	ENGINE MOUNT
3	A-TT5D-00013-1	4	ISOLATOR
4	A-TT5D-00010	4	LORD WASHER
5	NPN	4	3/4" LOCK NUT
6	A-TT8-00312	1	FAN
7	A-TT8-00360	1	FAN SPACER
8	SP20PB11L145H9L	1	PRINCE PUMP
9	B-TT5D-00006-1	1	FRONT ENGINE MOUNT
10	TM27C00305-ID	1	FLEX PLATE WASHER
11	B-TT10TD-00016-ID	1	FLEX PLATE
12	B-TT5D-00017-4TNV	1	FLEX PLATE ADAPTER
13	129953-21570	1	FLYWHEEL WITH RING GEAR
14	B-TT10TD-00001-4TNV	1	TRANS PLATE
15	B-TT10TD-00002	1	TRANS PLATE SPACER
16	129900-01780	1	OIL SEAL TIER II
16	129900-01790	1	OIL SEAL TIER III
17	41HN28	3	ADJ PLATE DOWEL PINS 3/8 X 2.5
18	TMD27B00521-4TNV	1	ENGINE PLATE
19	129940-77010	1	HIGH OUTPUT STARTER
20	26116-120302	2	BOLT, M12 X 30 PLATED
21	B-TT5D-00009	2	ENGINE MOUNT TRANS PLATE
22	129900-21600	1	RING GEAR
23	5240849	2	TRANSMISSION DOWEL PIN
24	A-TT8-00361	1	FAN BRACKET SPACER
25	A-TT10-00354	1	REMOTE FAN BRACKET TURBO TIER III
25	A-TT10-00354-MOD	1	REMOTE FAN BRACKET TURBO TIER II
26	A-TT8-00358	1	REMOTE FAN SNAP RING
27	A-TT8-00355	1	REMOTE FAN SHAFT HOUSING
28	A-TT8-00357	2	REMOTE FAN BEARING
29	A-TT8-00356	1	REMOTE FAN SHAFT
30	A-TT8-00362	1	REMOTE FAN BELT TIER III
30	9510	1	REMOTE FAN BELT TIER II
31	129916-21680	1	CRANK PULLEY, DOUBLE GROOVE
32	A-TT10-00353	1	WATER PUMP SHEAVE TIER III
32	A-TT8-00353	1	WATER PUMP SHEAVE TIER II
33	A-TT4-00405	4	SPACER (QTY 2 ON TIER II MODEL)

POWER TRAIN

40 AMP ALTERNATOR ASSEMBLY – YANMAR TIER II

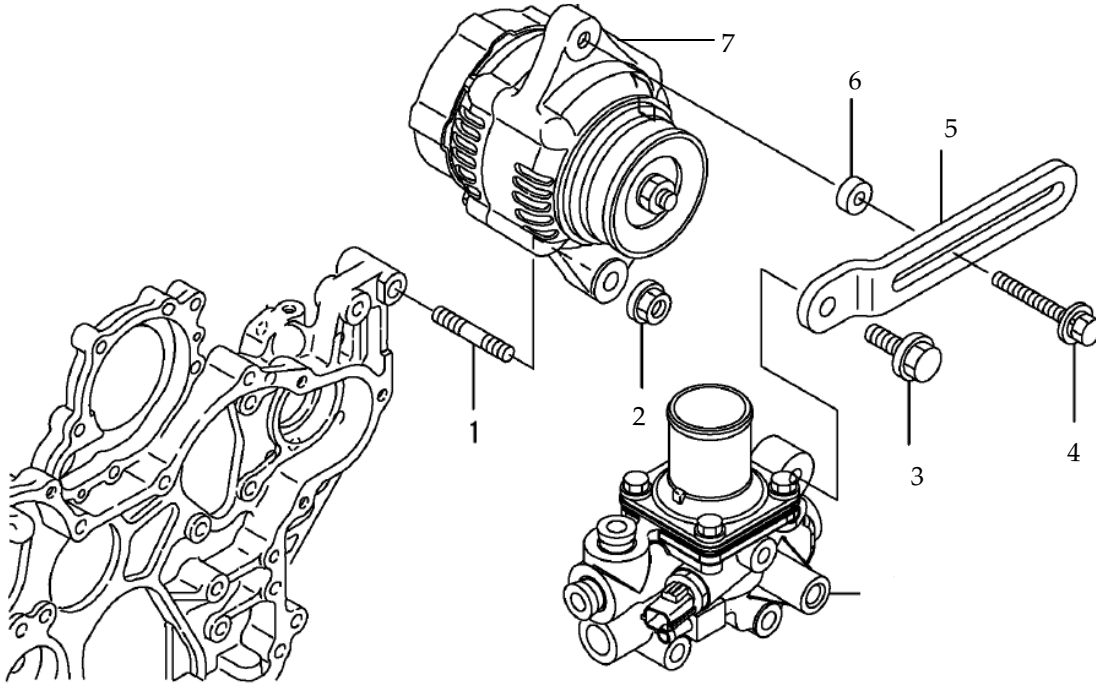


Item	Part Number	Qty	Description
1	129795-01900	1	STUD, ALTERNATOR
2	26306-100002	2	NUT, ALTERNATOR
3	26014-080252	1	BOLT, M8 X 25 PLATED
4	119810-77340	1	BOLT ,ADJUSTING
5	129900-77330	1	ADJUSTER BRACKET, ALTERNATOR 40 AMP
6	129423-77200	1	ALTERNATOR 40 AMP(BLUE ID TAG)
7	119643-66900	1	DIODE
8	119650-77910	1	RELAY, GLOW
9	128300-77920	1	TIMER
10	129211-77920	1	TIMER

*Most commonly used on Models TT-10 and TT-12.

POWER TRAIN

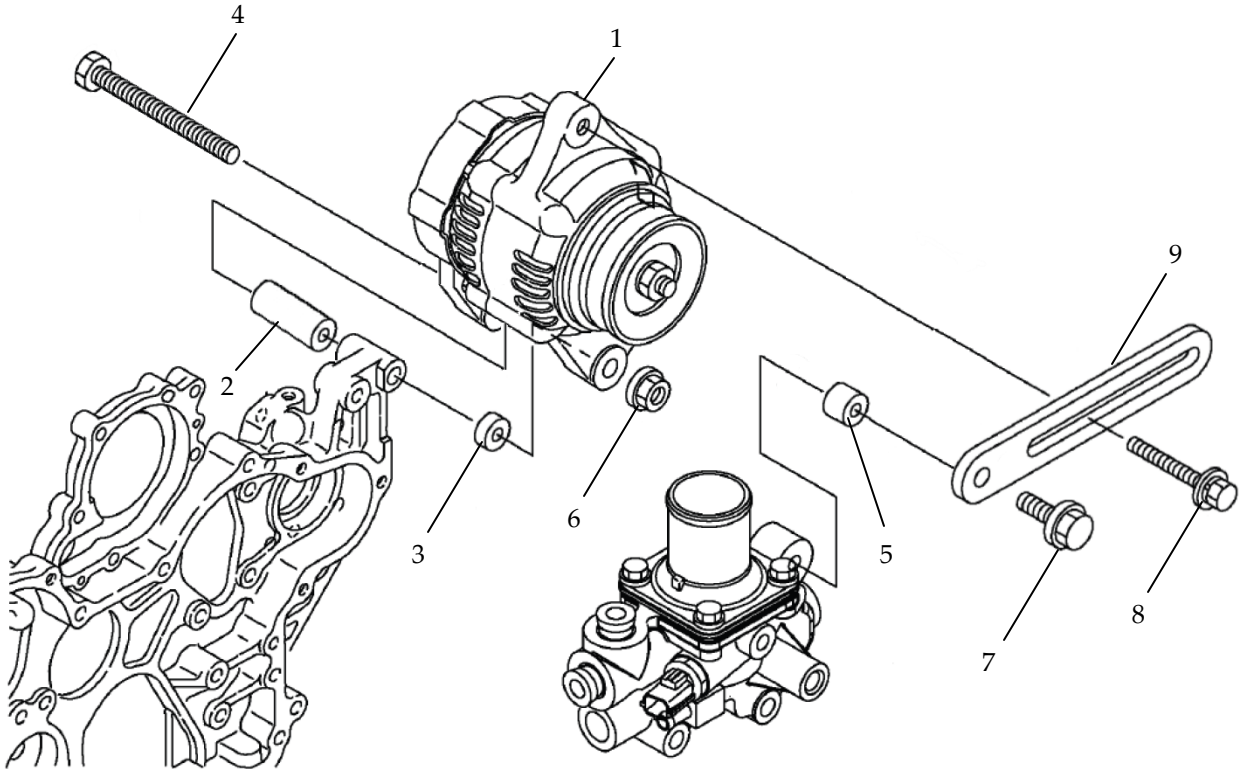
55 AND 80 AMP ALTERNATOR ASSEMBLY – YANMAR TIER II AND III DIESEL



Item	Part Number	Qty	Description
1	129795-01900	1	STUD, ALTERNATOR 55 AMP ALT
1	26116-101202	1	STUD, ALTERNATOR 80 AMP ALT
2	26306-100002	2	NUT, ALTERNATOR 55 AMP ALT
2	26366-100002	2	NUT, ALTERNATOR 80 AMP ALT
3	26106-080222	1	BOLT, M8 X 22 PLATED 55 AMP ALT
3	26014-080252	2	STUD 80 AMP ALT
4	129972-77341	1	BOLT ,ADJUSTING
5	129972-77330	1	ADJUSTER BRACKET 55 AMP ALT
5	129900-77330	1	ADJUSTER BRACKET 80 AMP ALT
6	119940-77270	1	SPACER 55 AMP ALT (RED ID TAG)
6	129470-77340	1	SPACER 80 AMP ALT
7	119626-77210	1	ALTERNATOR 55 AMP
7	129612-77290	1	ALTERNATOR 80 AMP

POWER TRAIN

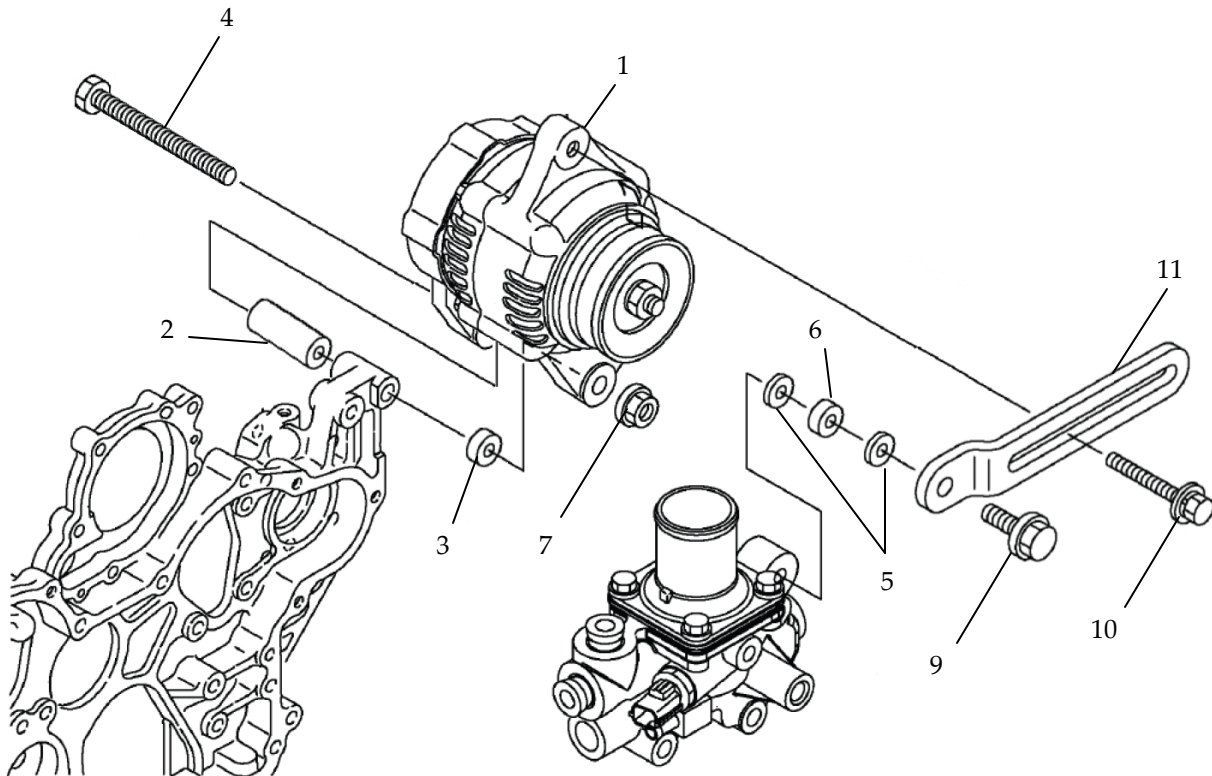
TIER II 105 AMP HIGH OUTPUT ALTERNATOR ASSEMBLY TUGS WITH CAB OPTION OR AS REQUIRED BY ENGINEERING DUE TO ADDED OPTIONS



Item	Part Number	Qty	Description
1	AE-OPT-0021	1	105A ALTERNATOR
2	NPN	1	1.40 SPACER
3	NPN	1	.23 SPACER
4	NPN	1	M10-1.5 x 130
5	NPN	1	.92 SPACER
6	26306-100002	1	M10-1.5 LOCK NUT
7	26014-080252	1	BOLT M8-1.25 x 45 PLATED
8	26106-080222	1	BOLT ADJUSTING
9	129900-77330	1	ADJUSTING BRACKET
10	A-TT8-00362	1	ALTERNATOR BELT(NOT SHOWN)

POWER TRAIN

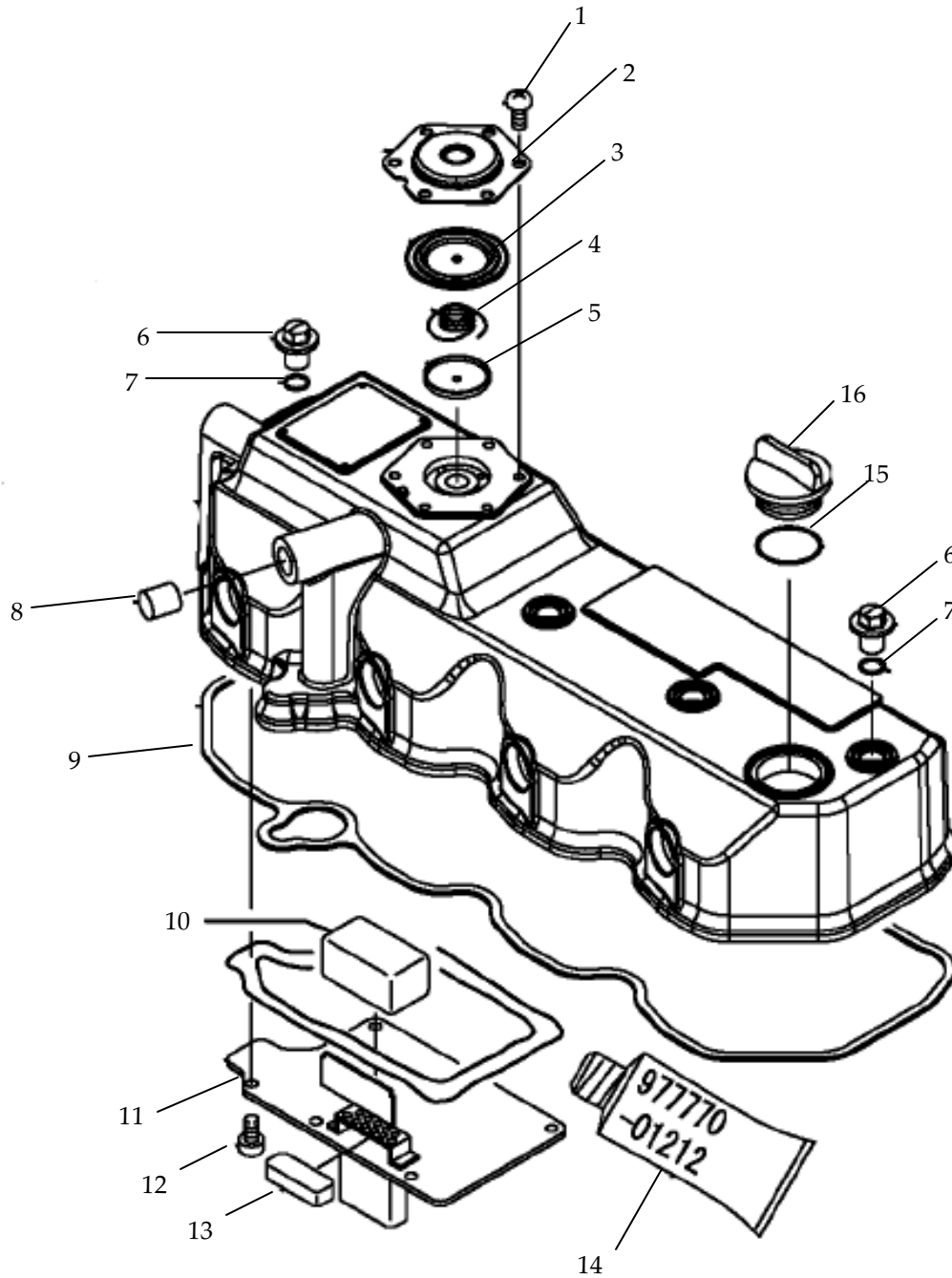
TIER III 105 AMP HIGH OUTPUT ALTERNATOR ASSEMBLY TUGS WITH CAB OPTION OR AS REQUIRED BY ENGINEERING DUE TO ADDED OPTIONS



Item	Part Number	Qty	Description
1	AE-OPT-0021	1	105A ALTERNATOR
2	NPN	1	1.40 SPACER
3	NPN	1	.23 SPACER
4	NPN	1	M10-1.5 x 130
5	NPN	2	5/16 FLAT WASHER
6	119940-77270	1	SPACER
7	26306-100002	1	M10-1.5 LOCK NUT
8	9440	1	ALTERNATOR BELT(NOT SHOWN)
9	119810-77340	1	BOLT M8 X 22 PLATED
10	26014-080252	1	BOLT ADJUSTING
11	129972-77330	1	ADJUSTING BRACKET

POWER TRAIN

HEAD COVER ASSEMBLY YANMAR TIER II & TIER III



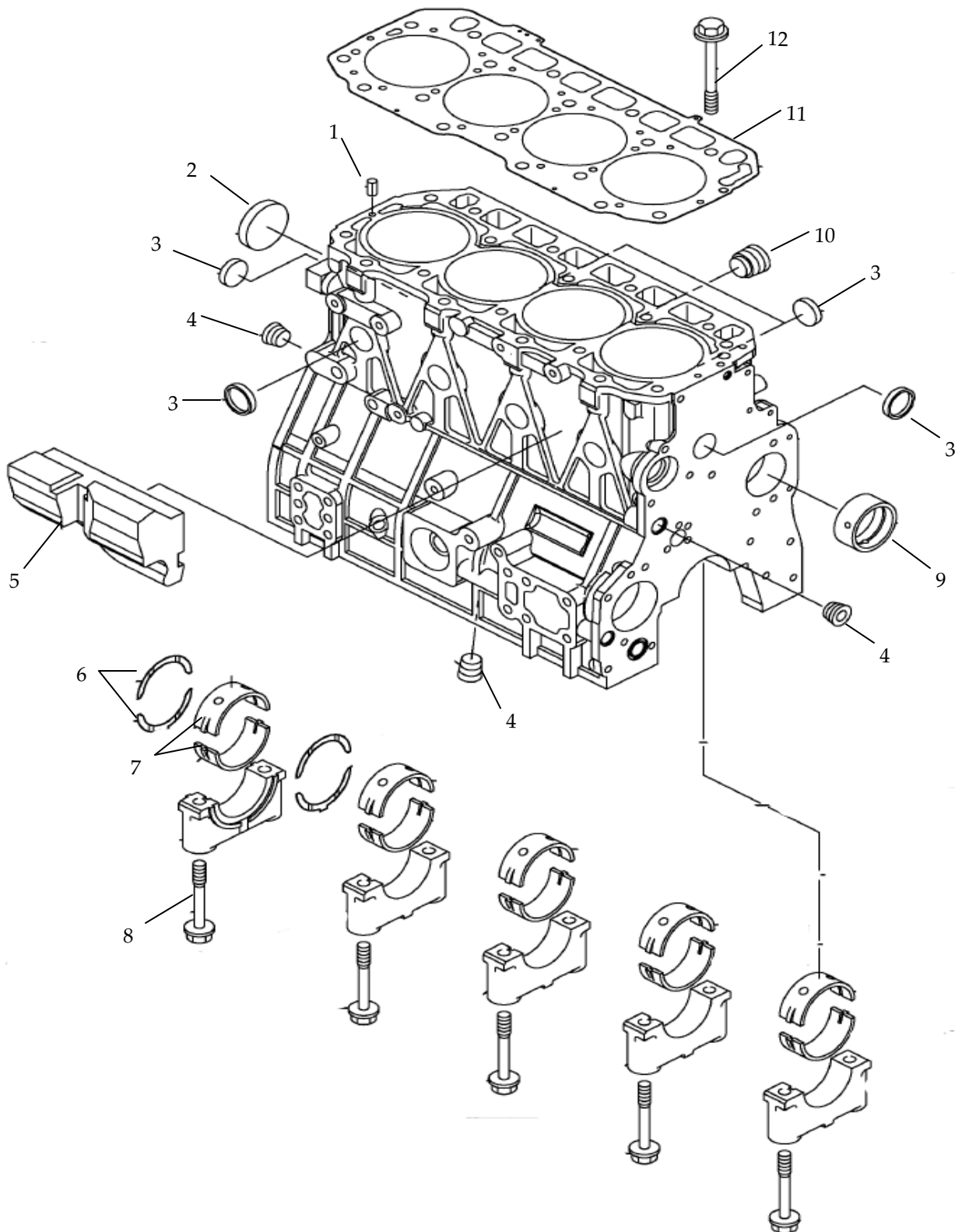
POWER TRAIN

HEAD COVER ASSEMBLY YANMAR TIER II & TIER III

Item	Part Number	Qty	Description
1	22857-500100	6	SCREW 5 X 10 TAPIING
2	123907-03120	1	PLATE, BREATHER
3	123907-03100	1	DIAPHRAM, BREATHER
4	123907-03140	1	SPRING, DIAPHRAM
5	123907-03110	1	CENTER PLATE
6	124160-11360	4	KNOB
7	24311-000120	4	O-RING 1A P12.0
8	119640-61400	1	PLUG
9	129907-11310	1	HEADCOVER GASKET
10	129907-03070	1	BAFFLE
11	129907-03010	1	BAFFLE PLATE
12	22857-500100	6	SCREW 5 X 10 TAPIING
13	129907-03060	1	BAFFLE
14	977770-01212	1	GASKET, LIQUID
15	24311-000320	1	O-RING 1A P32.0
16	124160-01751	1	OIL FILLER CAP
17	129907-11320	1	HEAD COVER ASSY INCLUDES ITEMS 1-13

POWER TRAIN

CYLINDER BLOCK ASSEMBLY – YANMAR TIER II DIESEL



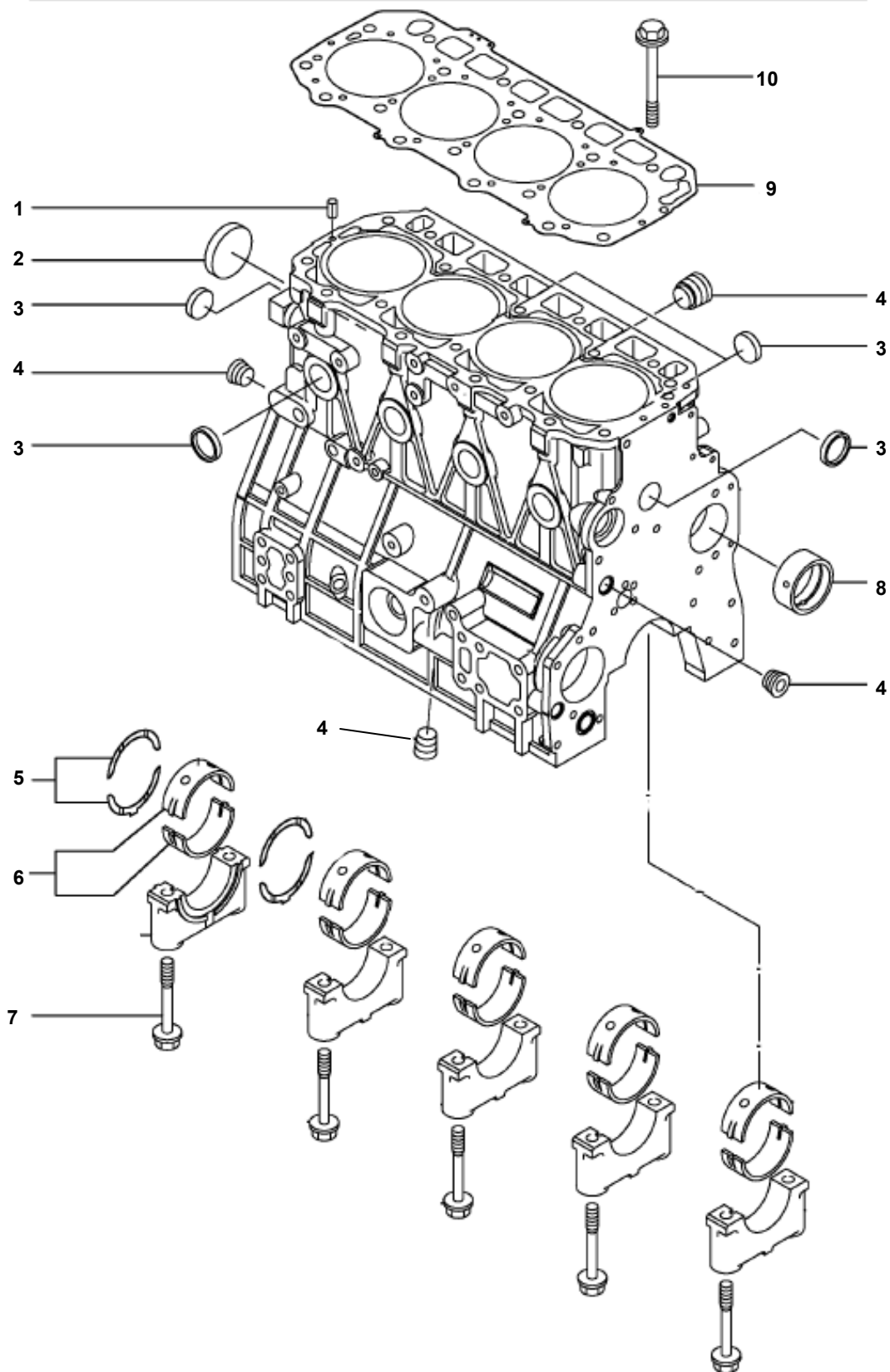
POWER TRAIN

CYLINDER BLOCK ASSEMBLY—YANMAR TIER II

Item	Part Number	Qty	Description
1	22351-060012	2	SPRING PIN 6 X 12
2	129900-01250	1	PLUG 55
3	27241-300000	8	PLUG 30
4	23876-030000	3	PLUG PT 3/8 SCREW
5	129907-01190	1	SPACER
6	129900-02930	2	BEARING ASSY, THRUST
6	129900-02940	2	BEARING ASSY, THRUST O/S=.025
7	729900-02800	5	MAIN BEARING SET
7	129900-02340	5	MAIN BEARING SET O/S=.025
8	129900-02020	10	BOLT, METAL CAP
9	129900-02410	1	BUSH, CAMSHAFT
10	171051-01921	1	PLUG
11	129907-01331	1	CYLINDER HEAD GASKET
12	129900-01200	18	BOLT, HEAD
13	729907-01560	1	CYLINDER BLOCK ASSY, INC ITEMS 1-10

POWER TRAIN

CYLINDER BLOCK ASSEMBLY – YANMAR TIER III DIESEL



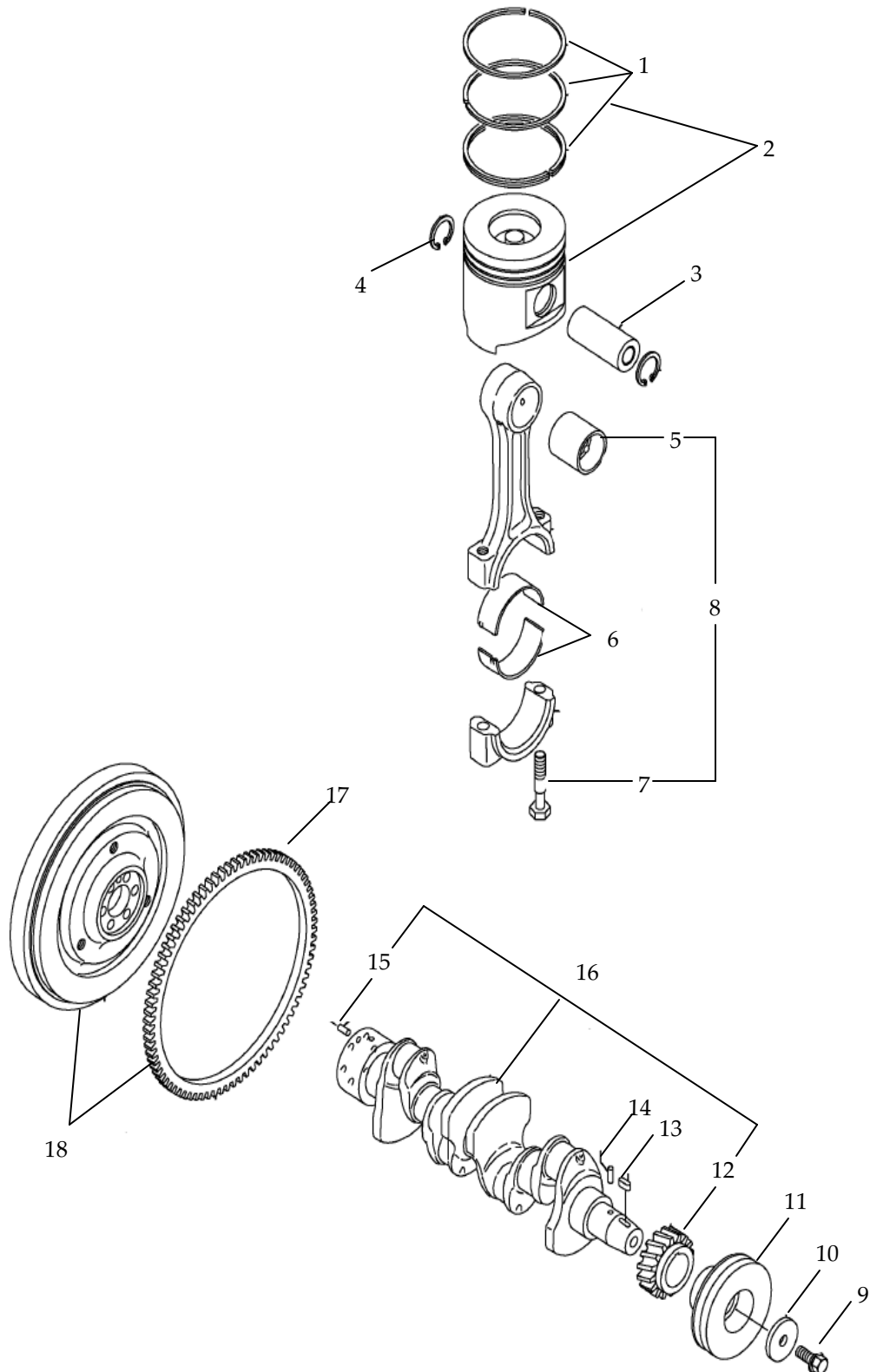
POWER TRAIN

CYLINDER BLOCK ASSEMBLY – YANMAR TIER III DIESEL

Item	Part Number	Qty	Description
1	22351-060012	2	SPRING PIN 6 X 12
2	129900-01250	1	PLUG 55
3	27241-300000	8	PLUG 30
4	23876-030000	3	PLUG PT 3/8 SCREW
5	129900-02931	2	BEARING ASSY, THRUST
5	129900-02941	2	BEARING ASSY, THRUST O/S=.025
6	729900-02801	5	MAIN BEARING SET
6	129900-02341	5	MAIN BEARING SET O/S=.025
7	129900-02020	10	BOLT, METAL CAP
8	129900-02410	1	BUSH, CAMSHAFT
9	129907-01331	1	CYLINDER HEAD GASKET
10	129900-01200	18	BOLT, HEAD
11	729927-01560	1	CYLINDER BLOCK ASSY, INC ITEMS 1-10

POWER TRAIN

CRANKSHAFT & PISTON—YANMAR TIER II DIESEL



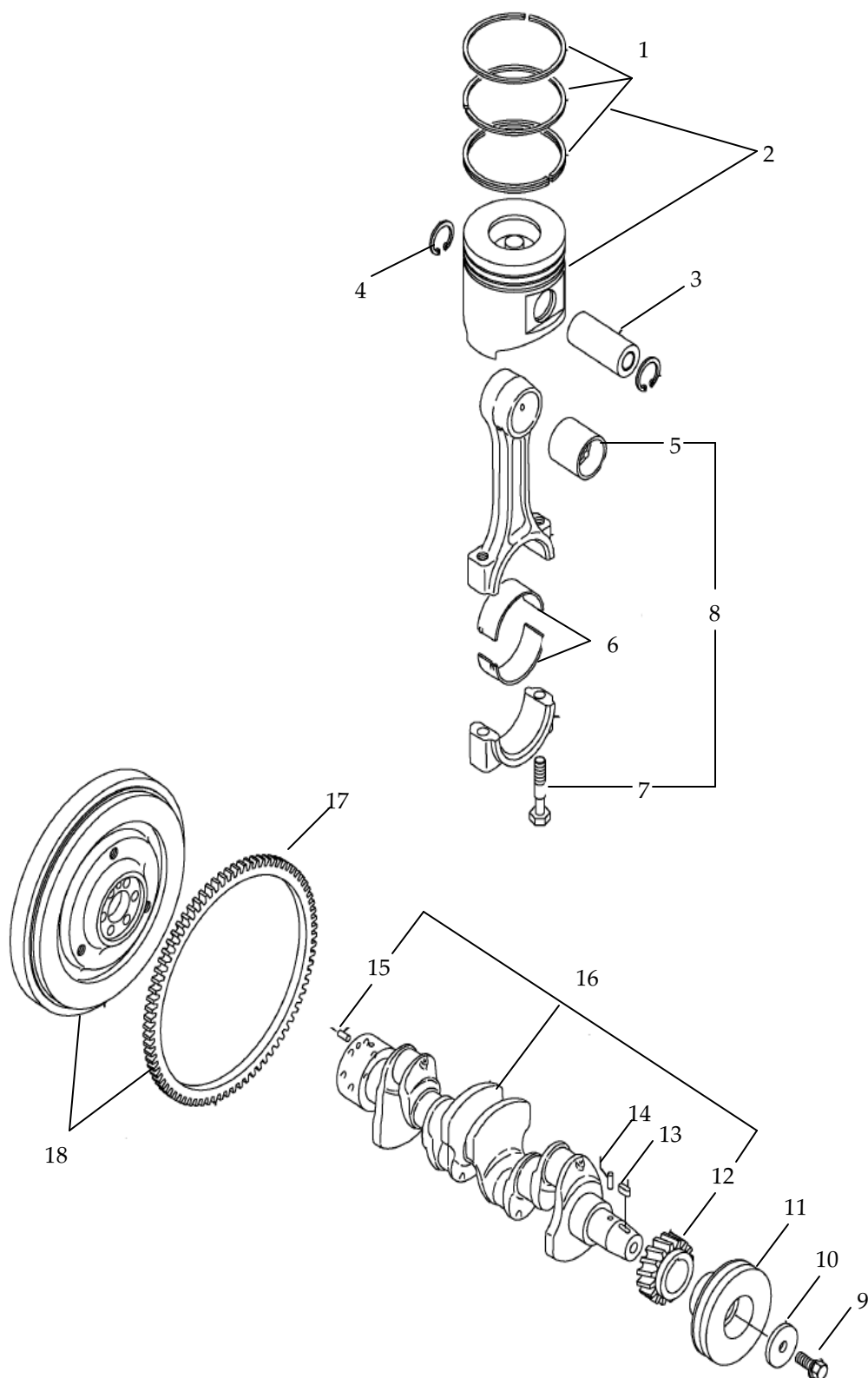
POWER TRAIN

CRANKSHAFT & PISTON—YANMAR TIER II DIESEL

Item	Part Number	Qty	Description
1	129907-22050	4	RING SET STANDARD
1	729907-22950	4	RING SET O/S=0.25
2	129907-22090	4	PISTON WITH RING STANDARD
2	129907-22910	4	PISTON WITH RING STANDARD O/S=0.25
3	120130-22301	4	PISTON PIN
4	22252-000300	8	CIRCLIP 30
5	129900-23910	4	BUSH, PISTON PIN
6	129900-23600	4	BEARING ASSY, CRANKCASE PIN STANDARD
6	129900-23610	4	BEARING PIN O/S=.025
7	129900-23200	8	BOLT, ROD
8	129900-23000	4	CONNECTING ROD ASSY
9	121850-21680	1	BOLT, V-PULLEY
10	129900-21640	1	WASHER
11	129907-21660	1	V-PULLEY, CRANKCASE
12	129900-21200	1	GEAR, CRANKSHAFT
13	22512-070140	1	KEY 7 X 14
14	121850-21290	1	PARALLEL PIN
15	121850-21920	1	PARALLEL PIN 10 X 22
16	129902-21000	1	CRANKSHAFT ASSY INCLUDES ITEMS 12-15
17	129900-21600	1	RING GEAR
18	129953-21570	1	FLYWHEEL WITH RING GEAR

POWER TRAIN

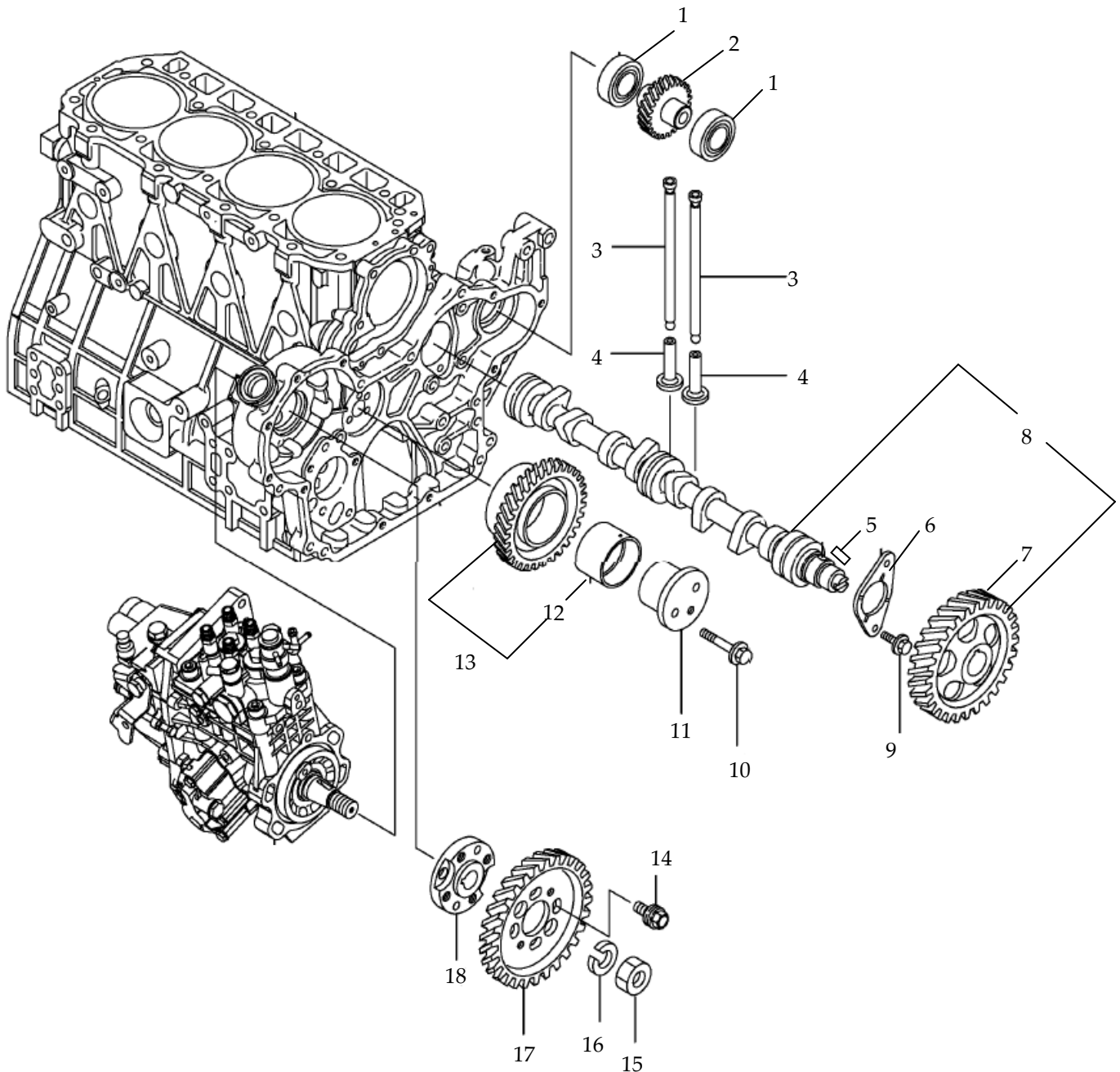
CRANKSHAFT & PISTON – YANMAR TIER III DIESEL



POWER TRAIN

CRANKSHAFT & PISTON – YANMAR TIER III DIESEL

Item	Part Number	Qty	Description
1	129927-22050	4	RING SET STANDARD
1	729927-22950	4	RING SET O/S=0.25
2	129907-22080	4	PISTON WITH RING STANDARD
2	129907-22900	4	PISTON WITH RING STANDARD O/S=0.25
3	120130-22301	4	PISTON PIN
4	22252-000300	8	CIRCLIP 30
5	129900-23911	4	BUSH, PISTON PIN
6	129900-23601	4	BEARING ASSY, CRANKCASE PIN STANDARD
6	129900-23611	4	BEARING PIN O/S=.025
7	129900-23200	8	BOLT, ROD
8	129900-23001	4	CONNECTING ROD ASSY
9	129916-21610	1	BOLT, V-PULLEY
10	129900-21640	1	WASHER
11	129907-21660	1	V-PULLEY, CRANKCASE
12	129900-21220	1	GEAR, CRANKSHAFT
13	22512-070140	1	KEY 7 X 14
14	121850-21290	1	PARALLEL PIN
15	121850-21920	1	PARALLEL PIN 10 X 22
16	129902-21050	1	CRANKSHAFT ASSY INCLUDED ITEMS 12-15
17	129900-21600	1	RING GEAR
18	129953-21570	1	FLYWHEEL WITH RING GEAR

POWER TRAIN<https://www.aresairmanual.com/downloads/2012-eagle-tugs-vehicle-tt-10-tt-12-parts-and-service-repair-workshop-manual/>**CAMSHAFT & DRIVING GEAR—YANMAR TIER II DIESEL**

Sample of manual. Download All 152 pages at:

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