

How to use this manual

A Few Words About Safety

SERVICE INFORMATION

The service and repair information contained in this manual is intended for use by qualified, professional technicians. Attempting service or repairs without the proper training, tools, and equipment could cause injury to you and/or others. It could also damage this Honda product or create an unsafe condition.

This manual describes the proper methods and procedures for performing service, maintenance, and repairs. Some procedures require the use special tools. Any person who intends to use a replacement part, service procedure, or a tool that is not recommended by Honda must determine the risks to their personal safety and the safe operation of this product.

If you need to replace a part, use Honda Genuine parts with the correct part number or an equivalent part. We strongly recommend that you do not use replacement parts of inferior quality.

For Your Customer's Safety

Proper service and maintenance are essential to the customer's safety and the reliability of this product. Any error or oversight while servicing this product can result in faulty operation, damage to the product, or injury to others.

⚠ WARNING

Improper service or repairs can create an unsafe condition that can cause your customer or others to be seriously hurt or killed.

Follow the procedures and precautions in this manual and other service materials carefully.

For Your Safety

Because this manual is intended for the professional service technician, we do not provide warnings about many basic shop safety practices (e.g., Hot parts-wear gloves). If you have not received shop safety training or do not feel confident about your knowledge of safe servicing practices, we recommend that you do not attempt to perform the procedures described in this manual.

Some of the most important general service safety precautions are given below. However, we cannot warn you of every conceivable hazard that can arise in performing service and repair procedures. Only you can decide whether or not you should perform a given task.

⚠ WARNING

Failure to properly follow instructions and precautions can cause you to be seriously hurt or killed.

Follow the procedures and precautions in this manual carefully.

Important Safety Precautions

Make sure you have a clear understanding of all basic shop safety practices and that you are wearing appropriate clothing and using safety equipment. When performing any service task, be especially careful of the following:

- Read all of the instructions before you begin, and make sure you have the tools, the replacement or repair parts, and the skills required to perform the tasks safely and completely.
- Protect your eyes by using proper safety glasses, goggles, or face shields anytime you hammer, drill, grind, or work around pressurized air, pressurized liquids, springs, or other stored-energy components. If there is any doubt, put on eye protection.
- Use other protective wear when necessary, for example gloves or safety shoes. Handling hot or sharp parts can cause severe burns or cuts. Before you grab something that looks like it can hurt you, stop and put on gloves.
- Protect yourself and others whenever you have equipment hoisted in the air. Anytime you lift this product with a hoist, make sure that the hoist hook is securely attached to the product.

Make sure the engine is off before you begin any servicing procedures, unless the instruction tells you to do otherwise. This will help eliminate several potential hazards:

- Carbon monoxide poisoning from engine exhaust. Be sure there is adequate ventilation whenever you run the engine.
- Burns from hot parts. Let the engine and exhaust system cool before working in those areas.
- Injury from moving parts. If the instruction tells you to run the engine, be sure your hands, fingers and clothing are out of the way.

Gasoline vapors and hydrogen gasses from batteries are explosive. To reduce the possibility of a fire or explosion, be careful when working around gasoline or batteries.

- Use only a nonflammable solvent, not gasoline, to clean parts.
- Never store gasoline in an open container.
- Keep all cigarettes, sparks, and flames away from the battery and all fuel-related parts.

How to use this manual

INTRODUCTION

This supplement covers the construction, function and servicing procedures of the Honda GX270T2/UT2 engines.

For service information that is not covered in this supplement, please refer to the GX390RT2/T2/UT2 base shop manual (part number 62Z5F00).

All information contained in this manual is based on the latest product information available at the time of printing. We reserve the right to make changes at anytime without notice.

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As you read this manual, you will find information that is preceded by a **NOTICE** symbol. The purpose of this message is to help prevent damage to this Honda product, other property, or the environment.

SAFETY MESSAGES

Your safety and the safety of others are very important. To help you make informed decisions, we have provided safety messages and other safety information throughout this manual. Of course, it is not practical or possible to warn you about all the hazards associated with servicing these products. You must use your own good judgement.

You will find important safety information in a variety of forms, including:

- Safety Labels – on the product.
- Safety Messages – preceded by a safety alert symbol  and one of three signal words, DANGER, WARNING, or CAUTION. These signal words mean:

▲ DANGER You WILL be KILLED or SERIOUSLY HURT if you don't follow instructions.

▲ WARNING You CAN be KILLED or SERIOUSLY HURT if you don't follow instructions.

▲ CAUTION You CAN be HURT if you don't follow instructions.

- Instructions – how to service these products correctly and safely.

OUTLINE OF CHANGES

SPECIFICATIONS	1
SERVICE INFORMATION	2
MAINTENANCE	3
TROUBLESHOOTING	4
COVER	5
FUEL SYSTEM	6
GOVERNOR SYSTEM	7
CHARGING SYSTEM	8
IGNITION SYSTEM	9
STARTING SYSTEM	10
OTHER ELECTRICAL	11
MUFFLER	12
CYLINDER HEAD/VALVES	13
CRANKCASE	14
WIRING DIAGRAMS	15
INDEX	

 The marked sections contain no changes. They are not covered in this supplement.

How to use this manual

SYMBOLS

The symbols used throughout this manual show specific service procedures. If supplementary information is required pertaining to these symbols, it will be explained specifically in the text without the use of the symbols.

	Replace the part(s) with new one(s) before assembly.
	Use the recommend engine oil, unless otherwise specified.
	Use molybdenum oil solution (mixture of the engine oil and molybdenum grease in a ratio of 1:1).
	Use multi-purpose grease (lithium based multi-purpose grease NLGI #2 or equivalent).
	Use marine grease (water resistant urea based grease).
	Apply a locking agent. Use a medium strength locking agent unless otherwise specified.
	Apply sealant.
	Use automatic transmission fluid.
(O x O) (O)	Indicates the diameter, length, and quantity of metric bolts used.
page 1-1	Indicates the reference page.

How to use this manual

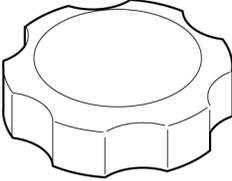
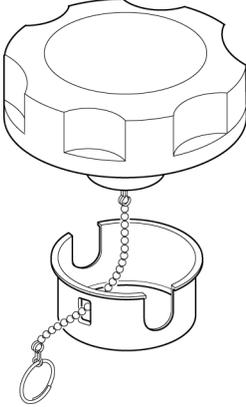
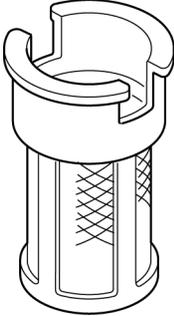
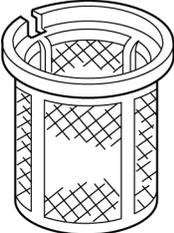
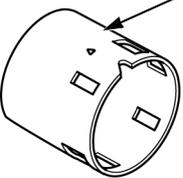
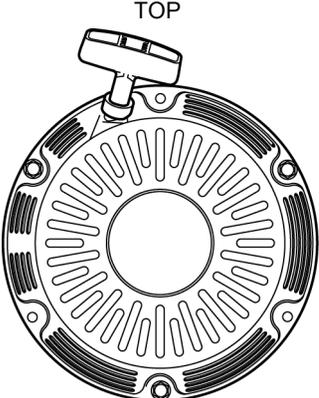
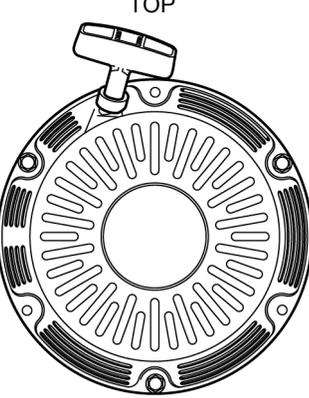
ABBREVIATIONS

Throughout this manual, the following abbreviations are used to identify the respective parts or systems.

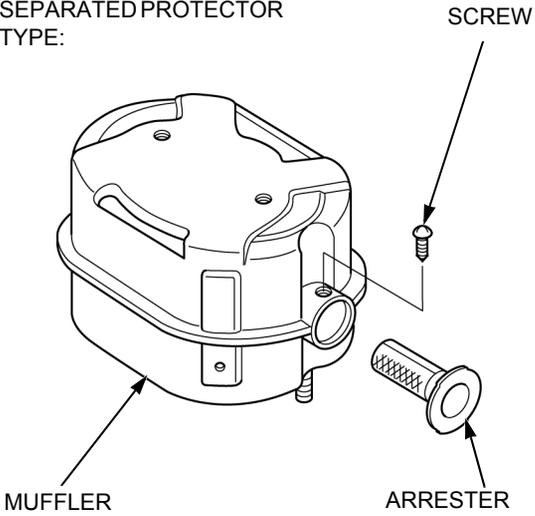
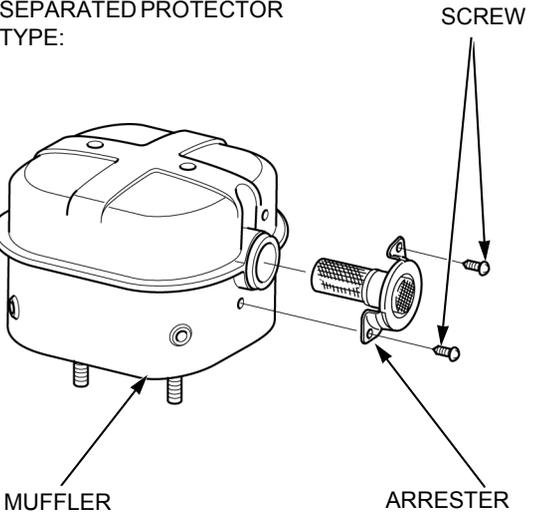
Abbreviated term	Full term
ACG	Alternator
A/F	Air Fuel Ratio
API	American Petroleum Institute
Approx.	Approximately
Assy.	Assembly
ATDC	After Top Dead Center
ATF	Automatic Transmission Fluid
ATT	Attachment
BAT	Battery
BDC	Bottom Dead Center
BTDC	Before Top Dead Center
BARO	Barometric Pressure
CKP	Crankshaft Position
Comp.	Complete
CMP	Camshaft Position
CYL	Cylinder
DLC	Data Link Connector
EBT	Engine Block Temperature
ECT	Engine Coolant Temperature
ECM	Engine Control Module
EMT	Exhaust Manifold Temperature
EOP	Engine Oil Pressure
EX	Exhaust
F	Front or Forward
GND	Ground
HO2S	Heated Oxygen Sensor
IAB	Intake Air Bypass
IAC	Idle Air Control
IAT	Intake Air Temperature
I.D.	Inside Diameter
IG or IGN	Ignition
IN	Intake
INJ	Injection
L.	Left
MAP	Manifold Absolute Pressure
MIL	Malfunction Indicator Lamp
O.D.	Outside Diameter
OP	Optional Part
PGM-FI	Programmed-Fuel Injection
P/N	Part Number
Qty	Quantity
R.	Right
SAE	Society of Automotive Engineers
SCS	Service Check Signal
STD	Standard
SW	Switch
TDC	Top Dead Center
TP	Throttle Position
VTEC	Variable Valve Timing & Valve Lift Electronic Control

Bl	Black	G	Green	Br	Brown	Lg	Light green
Y	Yellow	R	Red	O	Orange	P	Pink
Bu	Blue	W	White	Lb	Light blue	Gr	Gray

OUTLINE OF CHANGES

Item	GX270	GX390
Fuel filler cap	GX270T2 VSP TYPE: 	
Fuel filter	GX270T2 VSP TYPE: 	
Cooling fan setting plate	GX270UT2 QKE4 TYPE: 	
Recoil starter	INSTALLING DIRECTION GX270UT2 QAW TYPE: 	INSTALLING DIRECTION LOW PROFILE AIR CLEANER TYPE: 

OUTLINE OF CHANGES

Item	GX270	GX390
Muffler / Arrest-er / Screws	<p>SEPARATED PROTECTOR TYPE:</p>  <p>MUFFLER</p> <p>ARRESTER</p> <p>SCREW</p>	<p>SEPARATED PROTECTOR TYPE:</p>  <p>MUFFLER</p> <p>ARRESTER</p> <p>SCREW</p>



MEMO



1. SPECIFICATIONS

1

TYPE CODE	1-2	PERFORMANCE CURVES.....	1-5
DIMENSIONS AND WEIGHTS	1-2	DIMENSIONAL DRAWINGS.....	1-6
ENGINE SPECIFICATIONS	1-4	P.T.O. DIMENSIONAL DRAWINGS	1-8

1-1

SPECIFICATIONS

TYPE CODE

Model	GX270T2	GX270UT2			
Type	VSP	HA2	HEA2	PA2	PAE2
P. T. O.	V type	H type		P type	

Model	GX270UT2				
Type	QA2	QA26	QAE2	QAG2	QAQ4
P. T. O.	Q type				

Model	GX270UT2				
Type	QAR2	QAW	QH26	QHB4	QHQ4
P. T. O.	Q type				

Model	GX270UT2				
Type	QKE4	QME2	QXB7	QXE4	QXE8
P. T. O.	Q type				

Model	GX270UT2				
Type	QXQ4	QXUZ	RA2	RHE4	RHQ4
P. T. O.	Q type			R type	

Model	GX270UT2				
Type	SHQ4	SMC4	SWC4	SXQ4	VA2
P. T. O.	S type				V type

Model	GX270UT2				
Type	VKQ4	VSD7	VXB7	VXE7	VXU1
P. T. O.	E type	V type			

DIMENSIONS AND WEIGHTS

P.T.O. VARIATION

Model		GX270T2	GX270UT2
Overall length	E type*	-	340 mm (13.4 in)
	H type*	-	425 mm (16.7 in)
	P type*	-	380 mm (15.0 in)
	Q type*	-	
	S type*	-	355 mm (14.0 in)
	V type*	400 mm (15.7 in)	400 mm (15.7 in)
	R type*	-	440 mm (17.3 in)
	Overall width	E type*	-
Overall width	H type*	-	
	P type*	-	
	Q type*	-	
	S type*	-	
	V type*	428 mm (16.9 in)	
	R type*	-	
	Overall height	E type*	-
H type*		-	
P type*		-	
Q type*		-	
S type*		-	
V type*		410 mm (16.1 in)	
R type*		-	

*: P. T. O. type. (page 1-2)

SPECIFICATIONS

Model		GX270T2	GX270UT2
Dry weight	E type*	-	25.0 kg (55.1 lbs)
	H type*	-	26.5 kg (58.4 lbs)
	P type*	-	25.8 kg (57.0 lbs)
	Q type*	-	
	S type*	-	
	V type*	25.8 kg (57.0 lbs)	
	R type*	-	30.0 kg (66.1 lbs)
Operating weight	E type*	-	29.7 kg (65.5 lbs)
	H type*	-	31.5 kg (69.4 lbs)
	P type*	-	30.5 kg (67.0 lbs)
	Q type*	-	
	S type*	-	
	V type*	30.5 kg (67.0 lbs)	
	R type*	-	35.0 kg (77.2 lbs)

*: P. T. O. type. (page 1-2)

EQUIPMENT VARIATION

Indicated with difference compared with values of P. T. O. variation above.

Variation	No balancer type	Cyclone air cleaner type	Starter motor type	Control box type	Low profile type *1
Overall length difference	-	-	-	-	+ 20 mm (0.8 in)
Overall width difference	-	+ 96 mm (3.8 in)	-	+ 34 mm (1.3 in)	-
Overall height difference	-	-	-	-	- 119 mm (4.7 in)
Dry weight difference	- 0.9 kg (2.0 lbs)	+ 0.2 kg (0.4 lbs)	+ 2.5 kg (5.5 lbs)	+ 3.2 kg (7.1 lbs)	- 4.4 kg (9.7 lbs)
Operating weight difference	- 0.9 kg (2.0 lbs)	+ 0.2 kg (0.4 lbs)	+ 2.5 kg (5.5 lbs)	+ 3.2 kg (7.1 lbs)	- 4.4 kg (9.7 lbs)

*1: No fuel tank, muffler and low profile type air cleaner.

SPECIFICATIONS

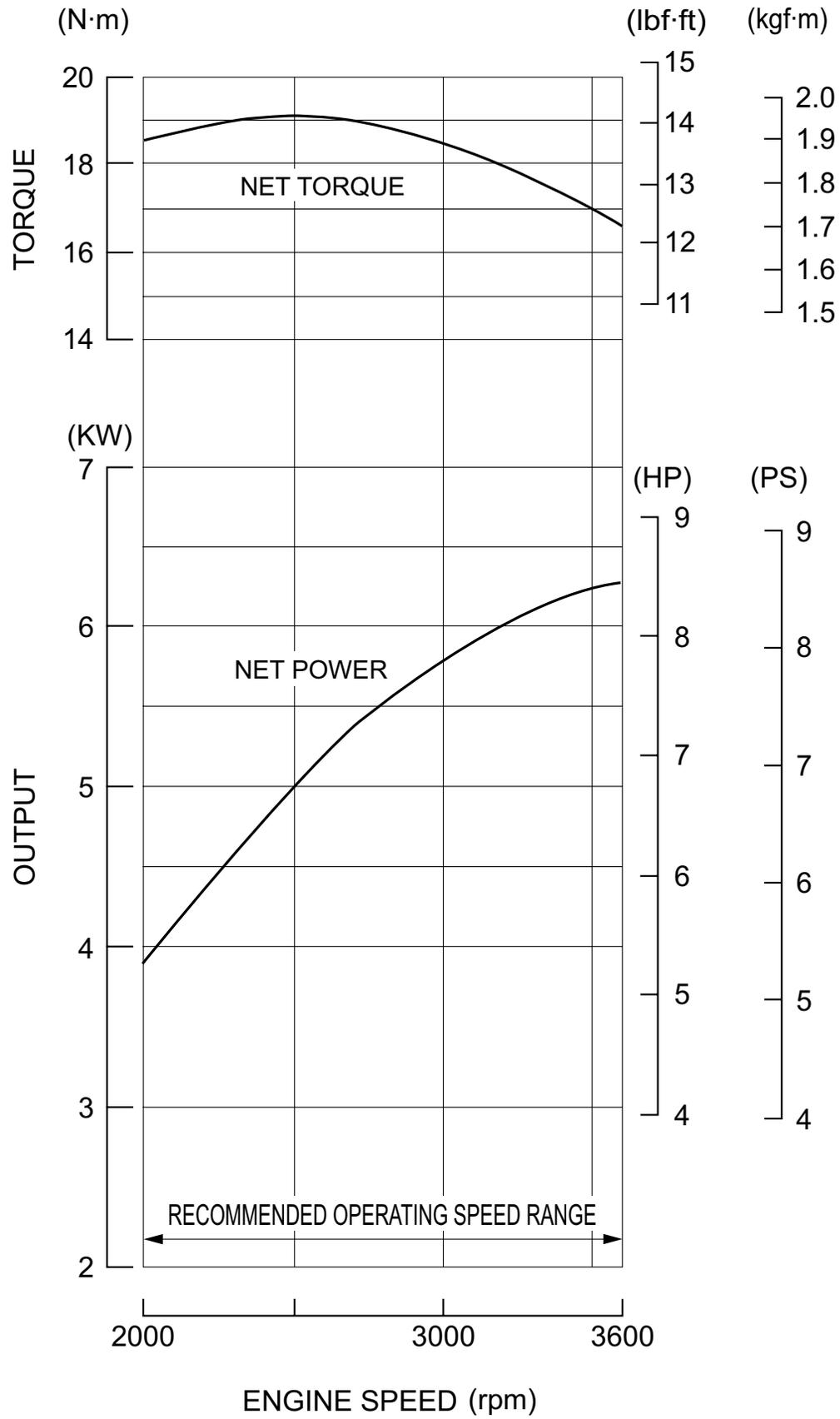
ENGINE SPECIFICATIONS

Model	GX270T2		GX270UT2
Description code	GCBHT		GCBGT
Type	4 stroke, overhead valve, single cylinder, inclined by 25°		
Displacement	270 cm ³ (16.5 cu-in)		
Bore x stroke	77.0 x 58.0 mm (3.0 x 2.3 in)		
Net power (SAE J1349)*1	6.3 kW (8.4 HP) / 3,600 min ⁻¹ (rpm)		
Continuous rated power	5.1 kW (6.8 HP) / 3,600 min ⁻¹ (rpm)		
Maximum net torque (SAE J1349)*1	19.1 N·m (1.94 kgf·m, 14.1 lbf·ft) / 2,500 min ⁻¹ (rpm)		
Compression ratio	8.5: 1		
Fuel consumption (at continuous rated power)	2.4 Liters (0.63 US gal, 0.53 Imp gal) / h		
Ignition system	C.D.I.(Capacitor Discharge Ignition) type magneto ignition		
Ignition timing	B.T.D.C. 10° / 1,400min ⁻¹ (rpm)		
Spark advancer performance	B.T.D.C. 10°- 20°		
Spark plug	BPR6ES (NGK) / W20EPR-U (DENSO)		
Lubrication system	Forced splash		
Oil capacity	1.1 Liters (1.16 US qt, 0.97 Imp qt)		
Recommended oil	SAE 10W-30 API service classification SE or later		
Cooling system	Forced air		
Starting system	Recoil, Recoil and Starter motor		
Stopping system	Ignition exciter coil circuit open		
Carburetor	Horizontal type, butterfly valve		
Air cleaner	Dual element type, Cyclone type, Oil bath type, Low profile type		
Governor	Mechanical centrifugal		
Breather system	Reed valve type		
Fuel used	Unleaded gasoline with a pump octane rating 86 or higher		
Reduction case oil capacity (1/2 reduction with clutch)	0.3 Liters (0.32 US qt, 0.26 Imp qt)		
Clutch (1/2 reduction with clutch)	Type	Centrifugal	
	Engagement start	1,800 min ⁻¹ (rpm)	
	Lock	2,200 min ⁻¹ (rpm)	

*: The power rating of the engine indicated in this document is the net power output tested on a production engine for the engine model and measured in accordance with SAE J1349 at 3,600 rpm (net power) and at 2,500 rpm (max net torque). Mass production engines may vary from this value. Actual power output for the engine installed in the final machine will vary depending on numerous factors, including the operating speed of the engine in application, environmental conditions, maintenance, and other variables.

SPECIFICATIONS

PERFORMANCE CURVES



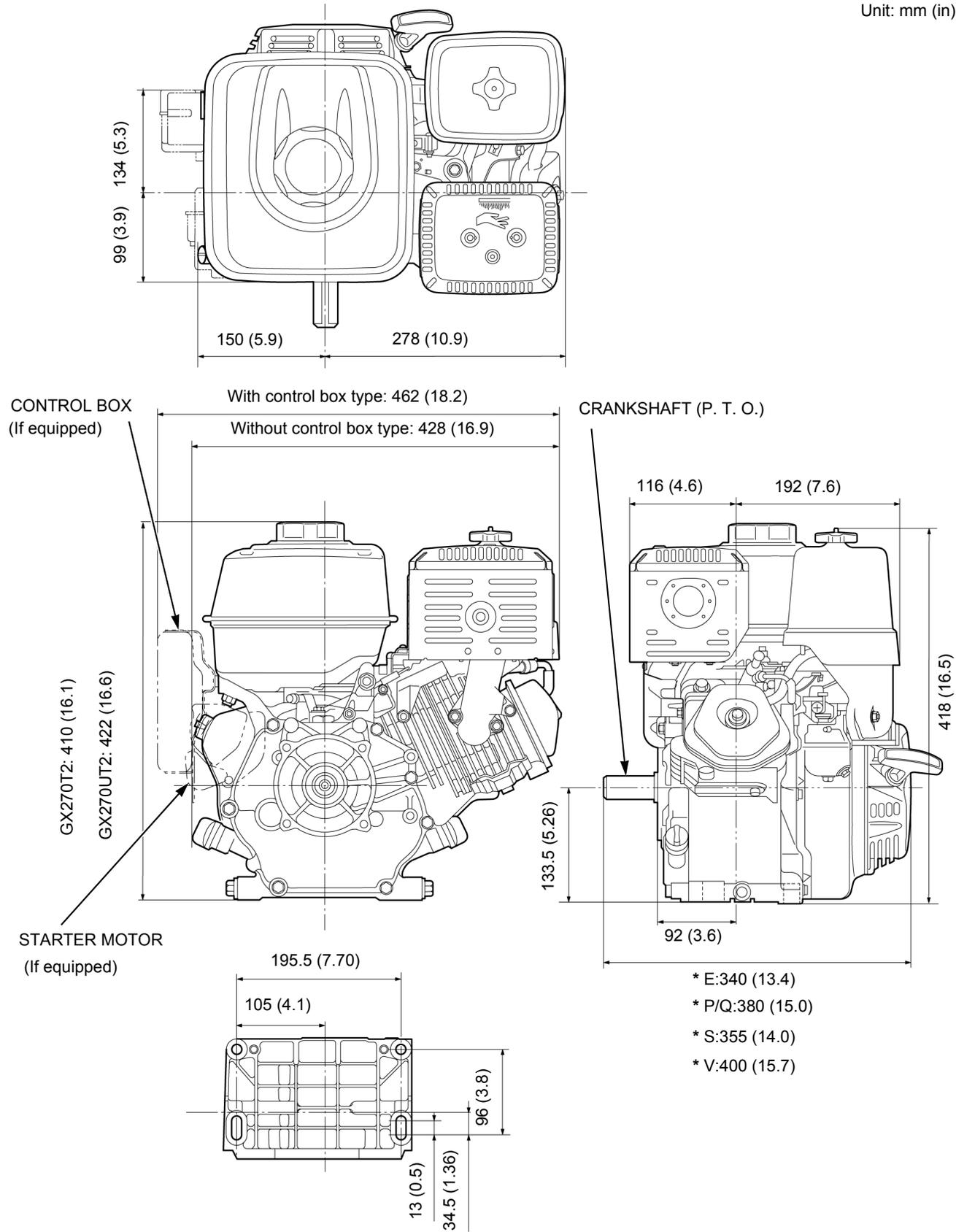
SPECIFICATIONS

DIMENSIONAL DRAWINGS

*: P. T. O. type. (page 1-2)

WITHOUT REDUCTION UNIT TYPE

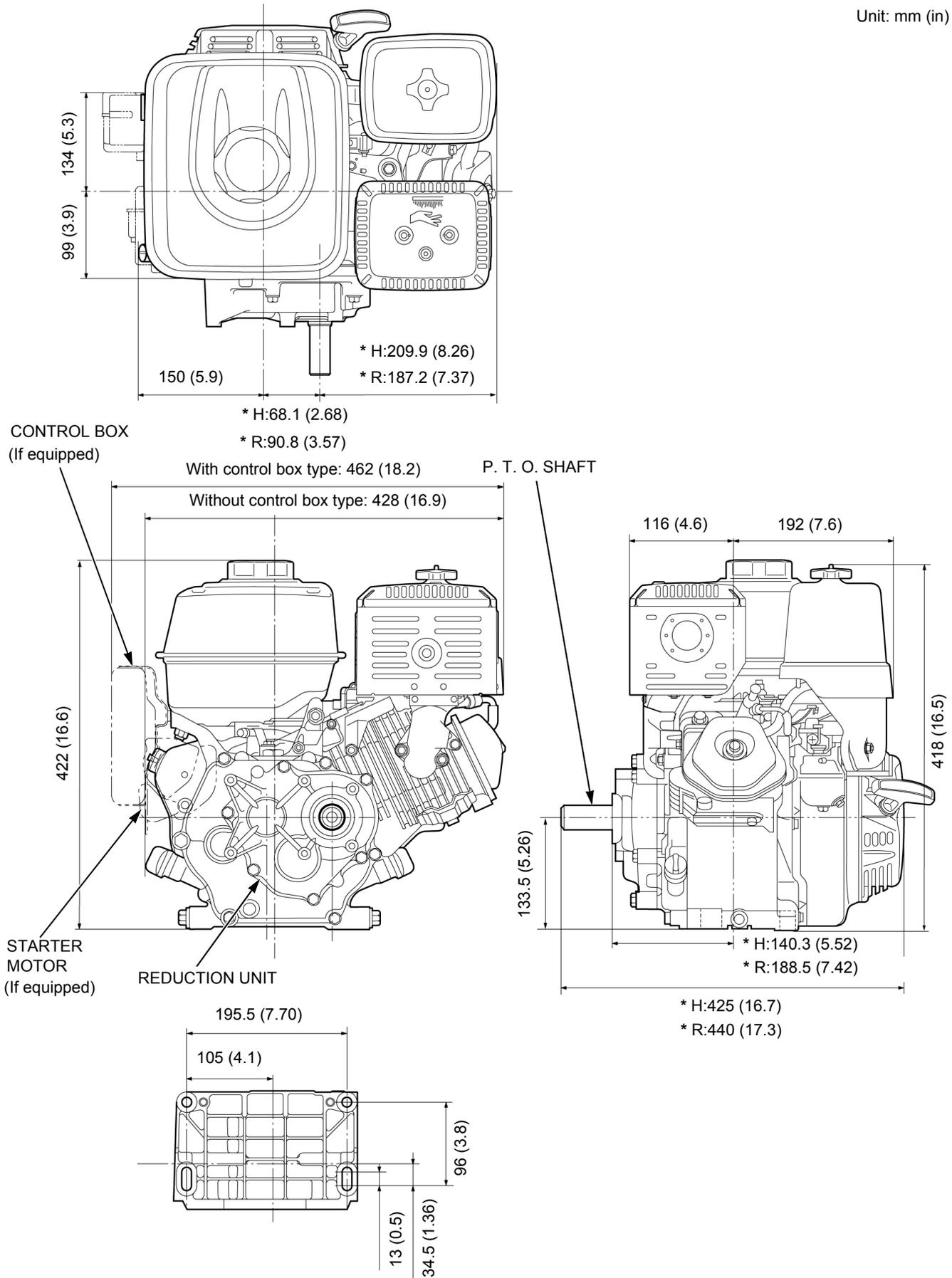
Unit: mm (in)



SPECIFICATIONS

WITH REDUCTION UNIT TYPE

Unit: mm (in)

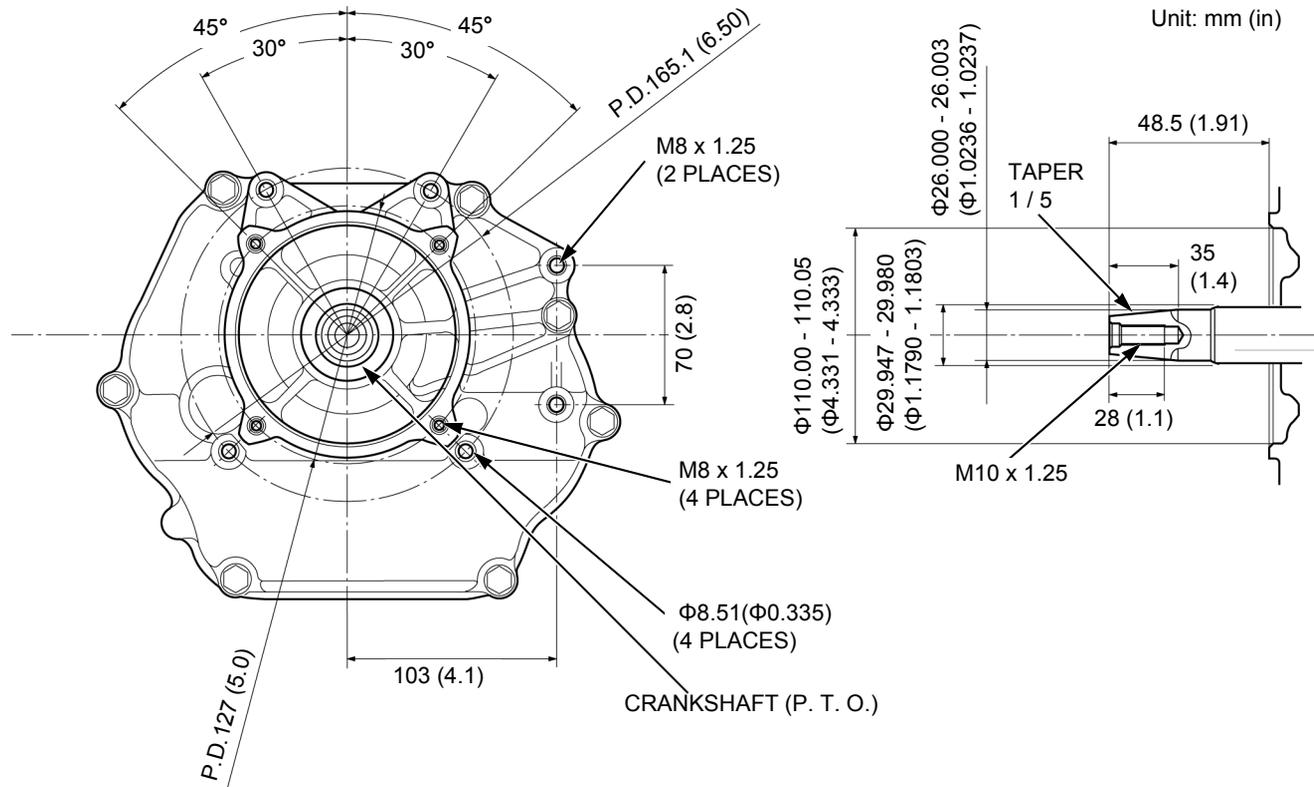


SPECIFICATIONS

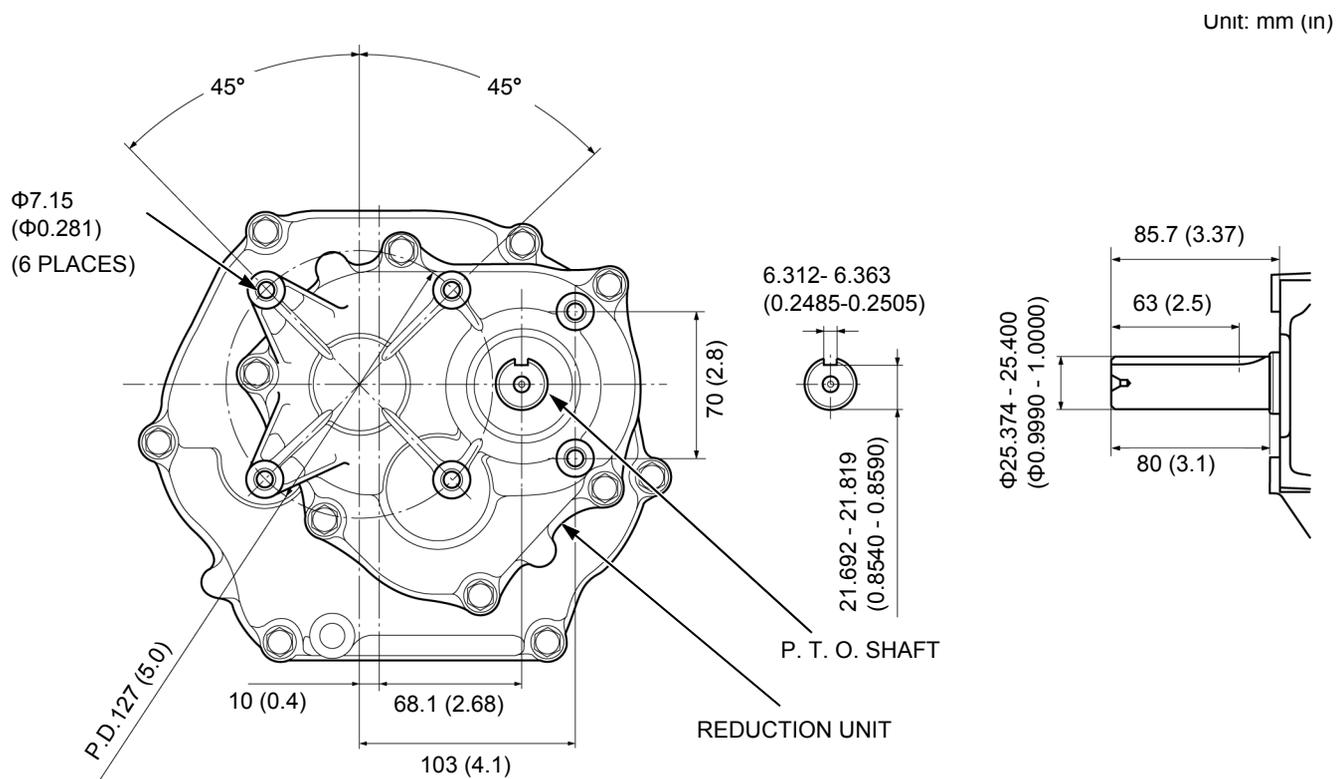
P.T.O. DIMENSIONAL DRAWINGS

*: P. T. O. type. (page 1-2)

E TYPE*



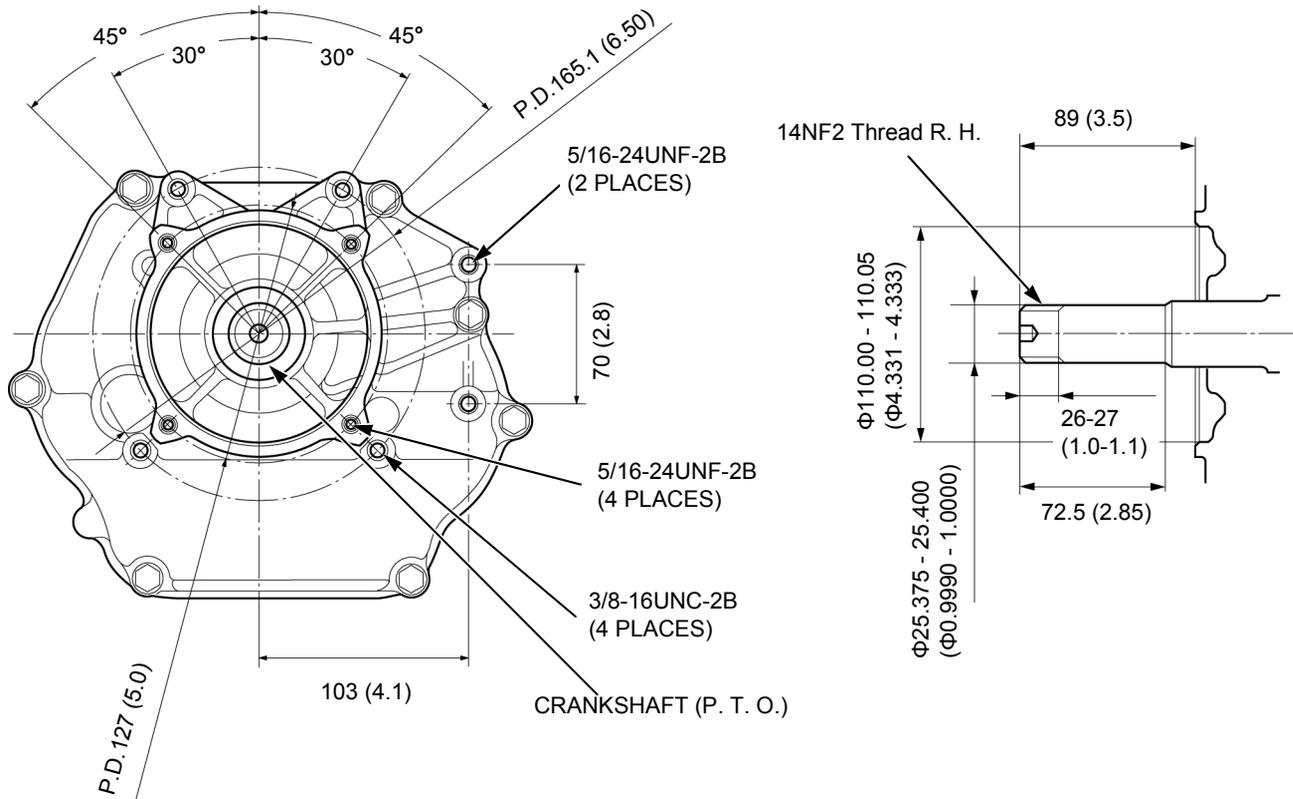
H TYPE* (WITH REDUCTION UNIT)



SPECIFICATIONS

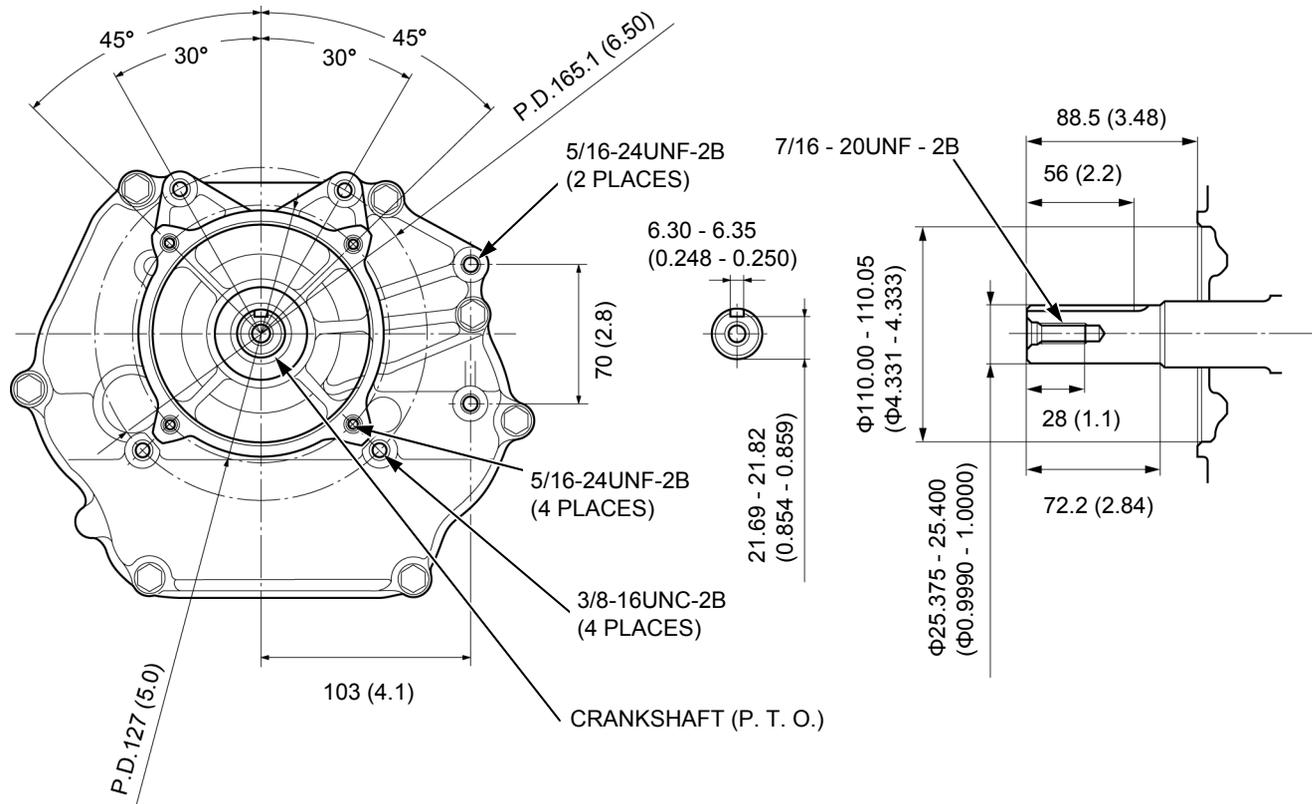
P TYPE*

Unit: mm (in)



Q TYPE*

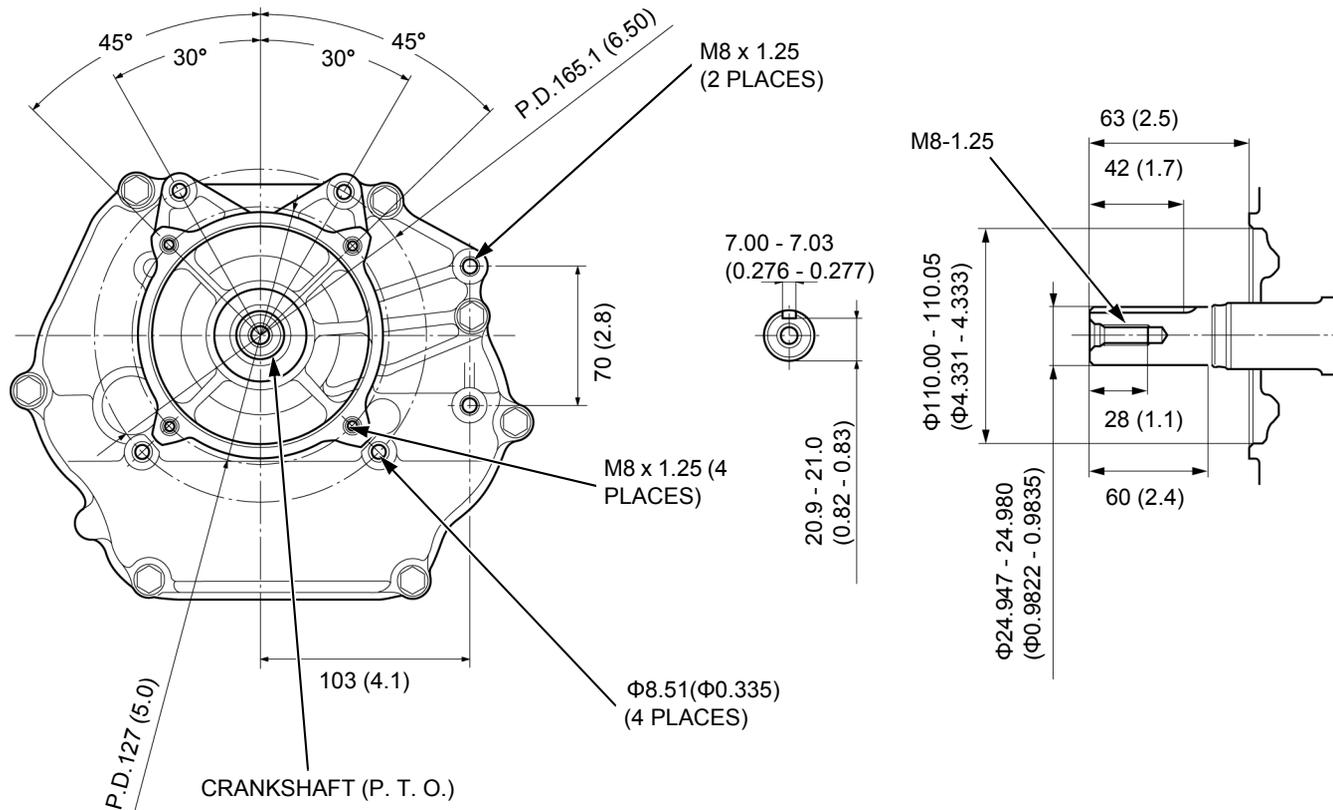
Unit: mm (in)



SPECIFICATIONS

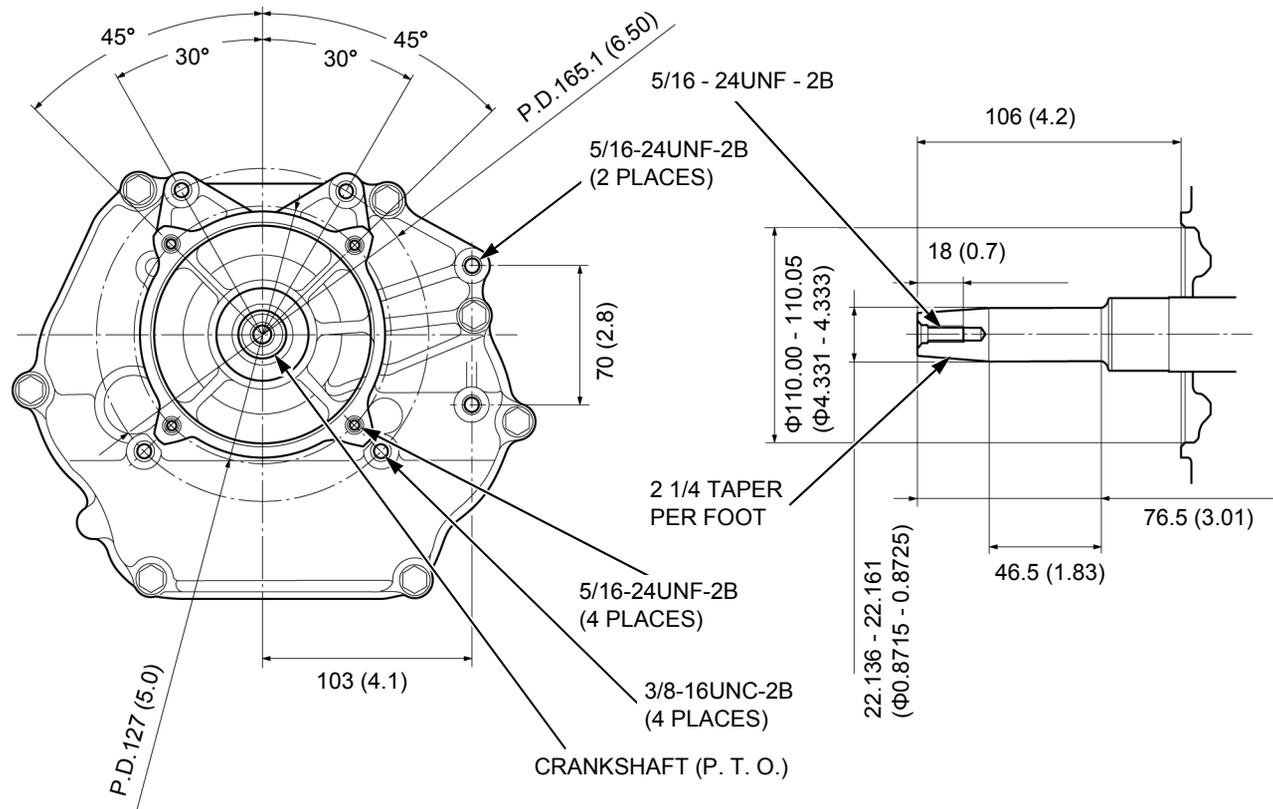
S TYPE*

Unit: mm (in)



V TYPE*

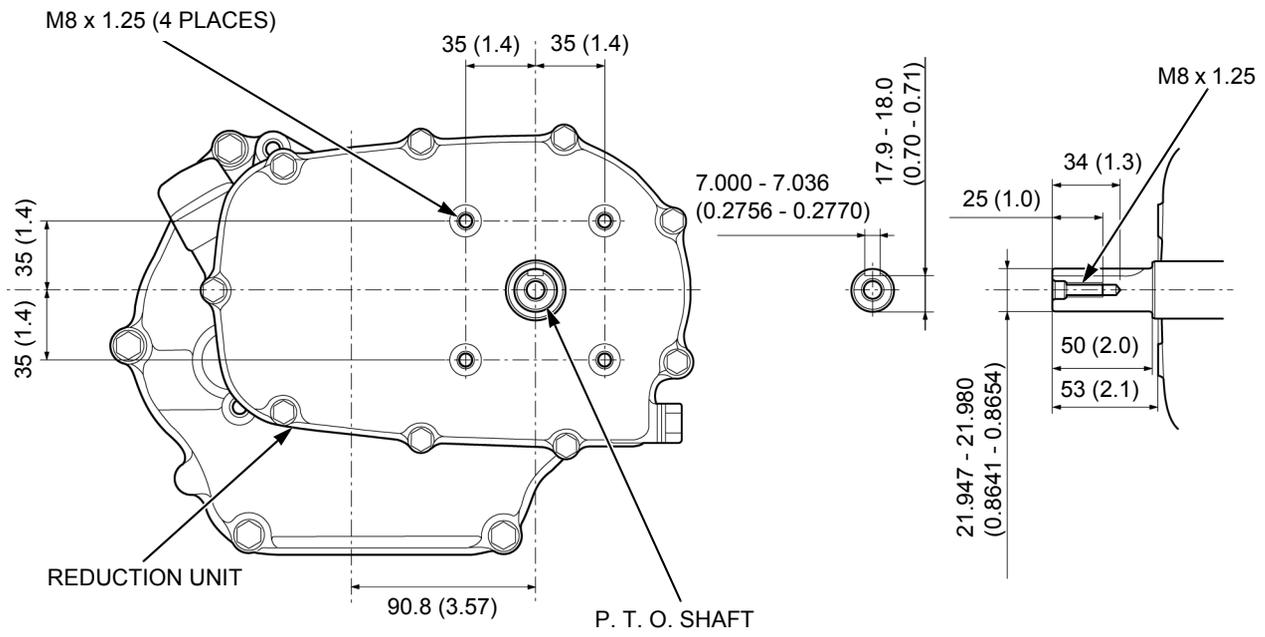
Unit: mm (in)



SPECIFICATIONS

R TYPE* (WITH 1/2 REDUCTION UNIT)

Unit: mm (in)





MEMO



2. SERVICE INFORMATION

2

MAINTENANCE STANDARDS2-2

LUBRICATION & SEAL POINT 2-3

TORQUE VALUES2-3

TOOLS2-3

2-1

SERVICE INFORMATION

MAINTENANCE STANDARDS

Unit: mm (in)

Part	Item	Standard	Service limit	
Engine	Maximum speed (at no load)	3,850 ± 150 min ⁻¹ (rpm)	—	
	Idle speed	1,400 ± 150 min ⁻¹ (rpm)	—	
	Cylinder compression	0.59 - 0.83 MPa (6.0-8.5 kgf/cm ² , 85-121 psi) / 600 min ⁻¹ (rpm)	—	
Cylinder head	Warpage	—	0.10 (0.004)	
Cylinder	Sleeve I.D.	77.000 – 77.017 (3.0315 – 3.0322)	77.17 (3.038)	
Piston	Skirt O.D.	76.975 – 76.985 (3.0305 – 3.0309)	76.85 (3.026)	
	Piston-to-cylinder clearance	0.015 – 0.042 (0.0006 – 0.0017)	0.12 (0.005)	
	Piston pin bore I.D.	18.002 – 18.008 (0.7087 – 0.7090)	18.042 (0.7103)	
Piston pin	Pin O.D.	17.994 – 18.000 (0.7084 – 0.7087)	17.95 (0.707)	
	Piston pin-to-piston pin bore clearance	0.002 – 0.014 (0.0001 – 0.0006)	0.08 (0.003)	
Piston rings	Ring side clearance	Top	0.030 – 0.060 (0.0012 – 0.0024)	0.15 (0.006)
		Second	0.030 – 0.060 (0.0012 – 0.0024)	0.15 (0.006)
	Ring end gap	Top	0.200 – 0.350 (0.0079 – 0.0138)	1.0 (0.04)
		Second	0.350 – 0.500 (0.0138 – 0.0197)	1.0 (0.04)
		Oil (side rail)	0.2 – 0.7 (0.01 – 0.03)	1.0 (0.04)
	Ring width	Top	1.160 – 1.175 (0.0457 – 0.0463)	1.140 (0.0449)
Second		1.160 – 1.175 (0.0457 – 0.0463)	1.140 (0.0449)	
Connecting rod	Small end I.D.	18.005 – 18.020 (0.7089 – 0.7094)	18.07 (0.711)	
	Big end side clearance	0.1 – 0.4 (0.004 – 0.016)	1.0 (0.04)	
	Big end I.D.	33.025 – 33.039 (1.3002 – 1.3007)	33.07 (1.302)	
	Big end oil clearance	0.040 – 0.064 (0.0016 – 0.0025)	0.12 (0.005)	
Crankshaft	Crank pin O.D.	32.975 – 32.985 (1.2982 – 1.2986)	32.92 (1.296)	
	Crankshaft runout	—	0.1 (0.004)	
Cylinder barrel (Crankcase)	Camshaft bearing I.D.	16.000 – 16.018 (0.6299 – 0.6306)	16.05 (0.632)	
Crankcase cover	Camshaft bearing I.D.	16.000 – 16.018 (0.6299 – 0.6306)	16.05 (0.632)	
Valves	Valve clearance	IN	0.15 ± 0.02	—
		EX	0.20 ± 0.02	—
	Valve stem O.D.	IN	6.575 – 6.590 (0.2589 – 0.2594)	6.44 (0.254)
		EX	6.535 – 6.550 (0.2573 – 0.2579)	6.40 (0.252)
	Valve guide I.D.	IN/EX	6.600 – 6.612 (0.2598 – 0.2603)	6.66 (0.262)
	Guide-to-stem clearance	IN	0.010 – 0.037 (0.0004 – 0.0015)	0.10 (0.004)
		EX	0.050 – 0.077 (0.0020 – 0.0030)	0.12 (0.005)
	Valve seat width		1.0 – 1.2 (0.04 – 0.05)	2.0 (0.08)
Valve spring free length		39.0 (1.54)	37.5 (1.48)	
Valve spring perpendicularity		—	1.5° max.	
Camshaft	Cam height	IN	31.945 – 32.145 (1.2577 – 1.2655)	31.35 (1.234)
		EX	31.666 – 31.866 (1.2467 – 1.2546)	31.35 (1.234)
	Camshaft O.D.		15.966 – 15.984 (0.6286 – 0.6293)	15.92 (0.627)
Carburetor	Main jet	#88	—	
	Pilot screw opening	2 turns out	—	
	Float height	13.2 (0.52)	—	
Spark plug	Gap	0.7 – 0.8 (0.028 – 0.031)	—	

SERVICE INFORMATION

Part	Item	Standard	Service limit
Ignition coil	Air gap	0.2 – 0.6 (0.01 – 0.02)	–
Starter motor	Brush length	7.0 (0.28)	3.5 (0.14)
	Mica depth	1.0 (0.04)	0.2 (0.01)
Charge coil	Resistance	1A	3.00 - 4.00 Ω
		3A	0.62 - 0.93 Ω
		10A	0.16 - 0.24 Ω
		18A	0.10 - 0.30 Ω
Lamp coil	Resistance	12V - 15 W	1.04 - 1.56 Ω
		12V - 25 W	0.30 - 0.46 Ω
		12V - 50 W	0.29 - 0.44 Ω

TORQUE VALUES

ENGINE TORQUE VALUES

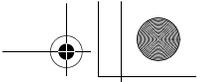
Item	Tread Dia. (mm)	Torque values		
		N·m	kgf·m	lbf·ft
Flywheel nut	M16 x 1.5 (Special nut)	128	13.1	94

LUBRICATION & SEAL POINT

Location	Material	Remarks
Clutch friction disc and clutch plate	Engine oil	1/2 reduction with clutch

TOOLS

<p>Inner bearing driver attachment, 30 mm [in combination with 07746-0030100] 07746-0030300</p> 	<p>Seat cutter, 27.5 mm 07780-0010200</p> 	<p>Seat cutter, 33 mm 07780-0010800</p> 
<p>Flat cutter, 28 mm 07780-0012100</p> 	<p>Flat cutter, 33 mm 07780-0012900</p> 	<p>Interior cutter, 30 mm 07780-0014000</p> 



MEMO



3. MAINTENANCE

3

MAINTENANCE SCHEDULE.....3-2

REDUCTION CASE OIL
(1/2 reduction unit with clutch).....3-3

3-1

MAINTENANCE

MAINTENANCE SCHEDULE

REGULAR SERVICE PERIOD (2)		Each use	First month or 20 hrs.	Every 3 months or 50 hrs.	Every 6 months or 100 hrs.	Every year or 300 hrs.	Refer to page
ITEM	Perform at every indicated month or operating hour interval, whichever comes first.						
Engine oil	Check level	○					3-3 ***
	Change		○		○		3-3 ***
Reduction case oil (applicable types)	Check level	○					3-3
	Change		○		○		3-3
Air cleaner	Check	○					3-4 ***
	Clean			○ (1)	○ (*) (1)		3-4 ***
			(Cyclone type) Every 6 months or 150 hours				3-4 ***
	Replace					○ (**)	3-4 ***
		(Cyclone type) Every 2 years or 600 hours				3-4 ***	
Sediment cup	Clean				○		3-6 ***
Spark plug	Check-adjust				○		3-7 ***
	Replace					○	3-8 ***
Spark arrester (If equipped)	Clean				○		3-8 ***
Idle speed	Check-adjust					○	3-10 ***
Valve clearance	Check-adjust					○	3-10 ***
Combustion chamber	Clean	After every 500 hours					3-12 ***
Fuel tank and filter	Clean				○		3-12 ***
Fuel tube	Check	Every 2 years (Replace if necessary)					3-13 ***

(1) Service more frequently when used in dusty areas.

(2) For commercial use, log hours of operation to determine proper maintenance intervals.

(*) Internal vent carburetor with dual element type only.

(**) Replace paper element type only.

(***) Refer to page of base shop manual (62Z5F00)

MAINTENANCE**REDUCTION CASE OIL (1/2 reduction unit with clutch)****Oil level check**

Place the engine on a level surface.

Remove the reduction oil cap / oil level gauge (1), and wipe the oil level gauge clean.

Insert the oil level gauge without screwing it into the oil filler neck (2).

Remove the oil level gauge and check oil level shown on the oil level gauge.

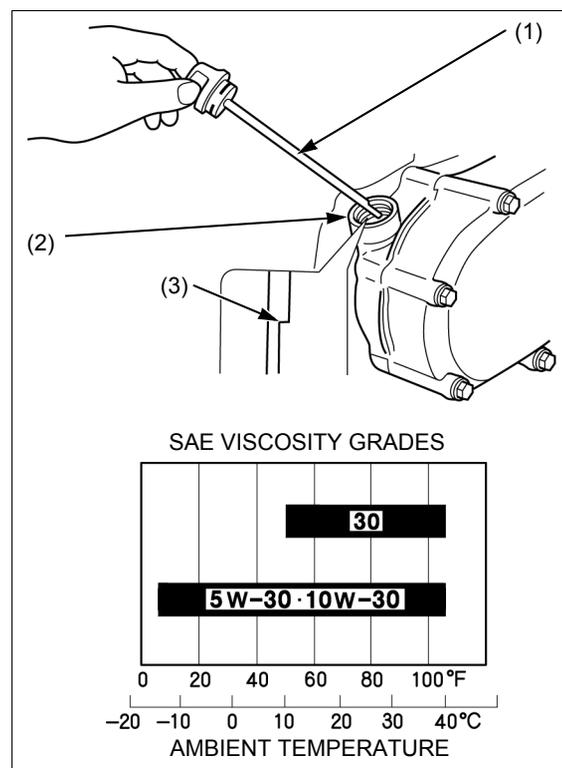
If the oil level is low, fill with recommended oil to the upper level (3) of the oil level gauge.

SAE 10W - 30 is recommended for general use. Other viscosities shown in the chart may be used when the average temperature in your area is within the recommended range.

RECOMMENDED OIL:

SAE 10W-30 API service classification SE or later

Tighten the oil level gauge securely.

**Oil Change**

Drain the oil in the engine while the engine is warm. Warm oil drains quickly and completely.

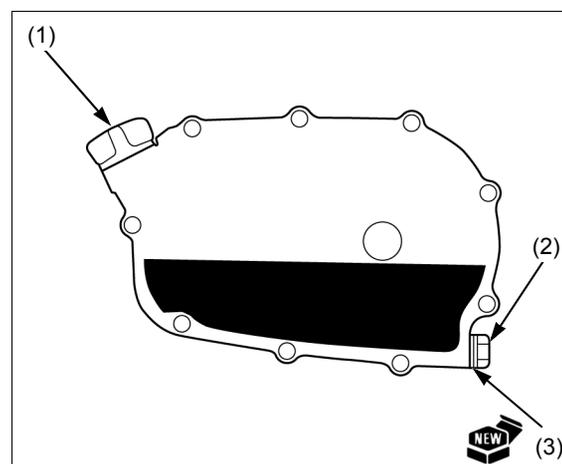
Place the engine on a level surface, and place a suitable container under the drain plug bolt.

Remove the reduction oil cap / oil level gauge (1), drain plug bolt (2), and drain plug washer (3) to drain the oil into the suitable container.

Please dispose of used oil in a manner that is compatible with the environment. We suggest you take used oil in a sealed container to your local recycling center or service station for reclamation. Do not throw it in the trash, pour it on the ground, or pour it down a drain.

CAUTION

Used engine oil contains substances that have been identified as carcinogenic. If repeatedly left in contact with the skin for prolonged periods, it may cause skin cancer. Wash your hands thoroughly with soap and water as soon as possible after contact with used engine oil.



Install a new drain plug washer and tighten the drain plug bolt to the specified torque.

TORQUE: 23 N·m (2.3 kgf·m, 17 lbf·ft)

Fill with recommended oil to the upper level mark of the oil level gauge.

Reduction oil case capacity: 0.3 ℓ (0.32 US gal, 0.26 Imp gal)

Tighten the oil level gauge securely.