Menu

YANMAR CO.,LTD.

	Solution No.				
Rev. No.					
Drawing No.	G2-14220-0280				
Revision	(27/OCT/08)Registered by YDSLU-08119.				

Messrs : COMET

Engine Specification

Model name	L70N6CF1F1AACO （Design model ID : 714221D） （Production model ID : 114221C）
Type	4-stroke, vertical-cylinder, air-cooled diesel
Use for	Washer , Hand start
Dev. Request No.	YI DEVREQ-052-2008

27 OCT. 2008

YANMAR CO.,LTD.

Sending to	
YI Engineering	1

Rev. No.					
Drawing No.			G2-14220-0280		

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————————		Wiring	–––	

Remarks :

Sebango Code:	**MH**	**PT**
Assy / B1:		
TB / C1:		
PACK / F1:		
Prod. Eng:		
Date:		

Power System Operations Division Engine Development Dept.
Application Engineering Dept.

Manager	Checked		Drawn
M. Shuchan	Yamachi		H. Sakaguchi

H. ogawa

Rev. No.					
Drawing No.			G2-14220-0280		

1. Engine Specification

Model name			L70N6CF1F1AACO
Combustion system			Direct injection
No. of cylinder-bore × stroke		mm	1-ϕ 78×67
Displacement		liter	0.320
Output	Continuous	kW/min^{-1}	* 4.4 (6.0PS, 5.9HP) / 3600
	Maximum	kW/min^{-1}	* 4.9 (6.7PS, 6.6HP) / 3600
PTO Shaft	PTO position		Crankshaft
	Direction of rotation		Counterclockwise viewed from PTO side
Injection Timing (FIC-air)		deg.	13.0±1.0 bTDC
Fuel	Oil selection		Diesel fuel
	Tank capacity	liter	3.3
Lubricating system			Forced lubricating system
Lubricating	Oil capacity	liter	1.1 (effective, 0.4)
	Oil selection		SAE 10W30, API grade CD or higher
Cooling system			Forced air cooling by flywheel fan
Starting system			Recoil starter
Governor			All speed type, mechanical
Balancer shaft			Single balancer shaft
Air cleaner			Dry type paper element filter
Exhaust silencer			Expansion silencer with cover
Generator (at 3600min^{-1})			–––––
Dimensions		mm	Indication in outline drawing
Dry weight		kg	Approx. 36.0

* Output is given for normal atmosphere conditions and specs, which are defind as follows:
- Atmospheric pressure : 100kPa (750mmHg)
- Atmospheric temperature : 25℃ (298K)
- Relative humidity : 30%

2. Engine Performance

Speed at no load	Minimum	min^{-1}	1200 or more	PTO Shaft (Without minimum idling speed adjust bolt. Adjustable figure by your end.)
	Maximum		3800±30	
Governor regulation	Instantaneous speed difference	%	8 or less	at continuous output
	Permanent speed change		5 or less	
	Recovery time	sec.	5 or less	
	Speed fluctuation	min^{-1}	30 or less	
Permissible angle of inclination	Continuous	deg.	20	
	Intermittent		30	Operation of up to 3 minutes
Lowest start temperature	Re-coil starting	℃	0	Without starting aid agent
	Electric starting		-10	
Noise level at continuous rating output (Mean of five direction)		dB(A)	94.5	at continuous output distance : 1m height : 0.5m with STD silencer on

Rev. No.					
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3. Details of specifications Base model : L70N6CF1T1AA

System	Part Name	STD Spec.	Specification	Remarks
Fuel System	Pump, Fuel Injection	714239-51200	←	7NS, Left40° (Made in Yanmar FIE)
	Nozzle, Fuel Injection	714239-53200	←	Made in Yanmar FIE
	Fuel oil tank	114210-55010	←	(Bm-a-2) 3.3L, Collor:Yanmar Black
	Tank stay (A	114210-55210	←	
	Tank stay (B	114210-55230	←	
	Fuel oil filter	NA	←	
	Fuel oil pipe, Return	114239-59300	←	For Yanmar FIE
	Fuel oil pipe, Pump	114780-59010	←	
	Fuel injection pipe	114210-59800	←	
	Cut-valve, Fuel oil	NA	←	
Lubricating System	Cap Assy., Lo supply	114699-01760	←	Cap assy. X2
	Cover, Lub. Oil pump	114299-32070	←	
	Filter, Lub. Oil	114299-35110	←	
	Oil pressure switch	NA	←	
Cooling System	Flywheel	114399-21590	←	(Dm-a-4)STD (DE type)
	Engine cover	114210-45300	←	(Dm-c-3)Full cover type
	Case, Cooling Fan	114210-45100	←	(Dm-b-4)STD, Collor:Yanmar Italian gray
Electric System	Electric Regulator & Harness	NA	←	
	Air heater	NA	←	
	Dynamo Assy.	NA	←	
PTO & Flange	Crankcase cover	114210-01450	←	STD(E-D)
	Crank shaft	114210-21030	←	(Fm-a-5)E-D type
	Key, Crank shaft	160842-21150	←	For E-D type, 6.3X50
Intake and Exhaust System	Air cleaner	114210-12511	←	(Gm-a-3)STD
	Inteke bend	NA	←	
	Muffler	114399-13520	←	(Gm-c-3)STD
Starting System	Recoil starter Assy.	114399-76071	Recoil angle is different	(Hm-a-2)STD, Recoil angle:R5
	Plunger, Starting	NA	←	
	Starting motor	NA	←	W/ cover (114399-01700)
Speed Control System	Governor lever Assy.	114211-61500	←	2 lever type
	Control device Assy.	714210-66100	114210-66550	(Im-a-3)Friction plate type
	Spring, Regulator	114220-66010	←	SP : 0-B , Paint mark : Green
	Fuel limiter Assy.	114220-66600	←	For 3600min^{-1}
Decomp. System	Remote decomp.	NA	←	
	Bonnet	114210-11950	←	(Lm-a-3)STD
Others	Cylinder block	114210-01020	←	
	Cam shaft	114220-14010	←	
	Balancer shaft	114210-28010	←	
	Flange	NA	←	
	Cover, Tiller	NA	←	
Standard Loose Parts	Key switch panel Assy.	NA	←	
	Connector	NA	←	
	Deflector	114299-13800	←	
	Orifice	NA	←	
	Tools	114299-92590	←	
	Operation manual	0ALN0-G00100	←	English
Remarks	Fuel oil limiter	Locked by wire		
	High idle adjust bolt	Locked by wire		
	Lubricating oil	Not provided		
	Delivery style	Cardboard box		

NEED ○ · PURCHASING SPECIFICATION · REQUEST FOR APPROVAL · DELIVERY DRAWING · INSPECTING STANDARD · QC-PROCESS

3RD ANGLE PROJECTION

GEN. TOL. 一般公差 | DRAFT ANG. 鋳造抜き勾配 | OUTSIDE 2/100 | INSIDE 3/100 | 3/100

CAST WALL THICK 鋳造肉厚

NOMINAL DIM.		5 TO	10 TO	18 TO	30 TO
DIVISION	5 MAX	: 10	: 18	: 30	: 50
SANDMOLD	±1.0	±1.5	±2.0	±3.0	±3.5
SHELL	±0.8	±1.0	±1.5	±2.0	±2.0

L. - CAST 鋳造長さ

120 MAX	120 TO : 250	250 TO : 400	400 TO : 800	800 TO : 1600	1600 TO : 3150
±1.5	±2.0	±3.0	±4.0	±5.0	±7.0
±1.0	±1.5	±2.0	±3.0	±4.0	±6.0

L. CHIP 削り

0.5 TO : 6	±0.1	400 TO : 1000	±0.8		
6 TO : 30	±0.2	1000 TO : 2000	±1.2		
30 TO : 120	±0.3	2000 TO : 4000	±2.0		
120 TO : 400	±0.5				

ANG. CHIP 角度削り

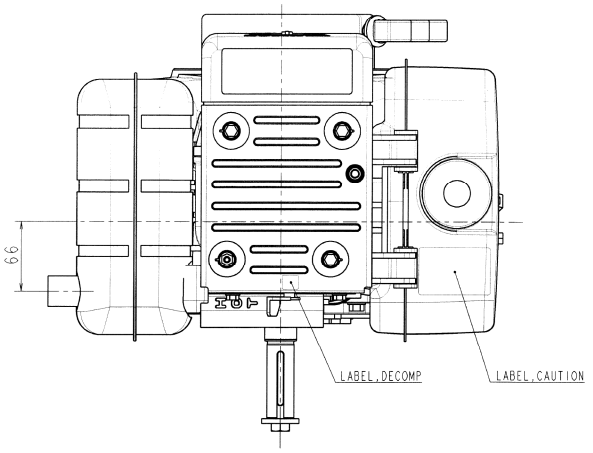
10 MAX	±1DEG.
10 TO : 50	±30MIN.
50 TO : 120	±20MIN.
120 TO : 400	±10MIN.
400 MIN	± 5MIN.

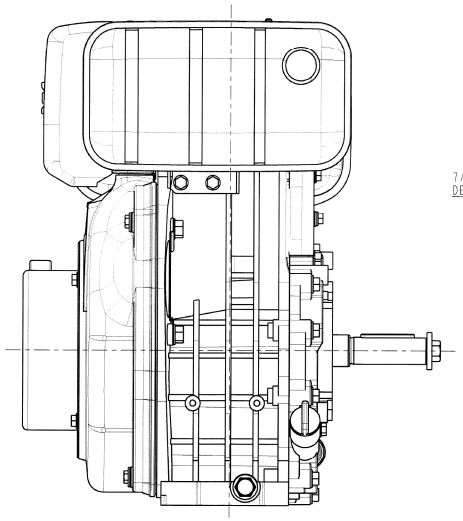
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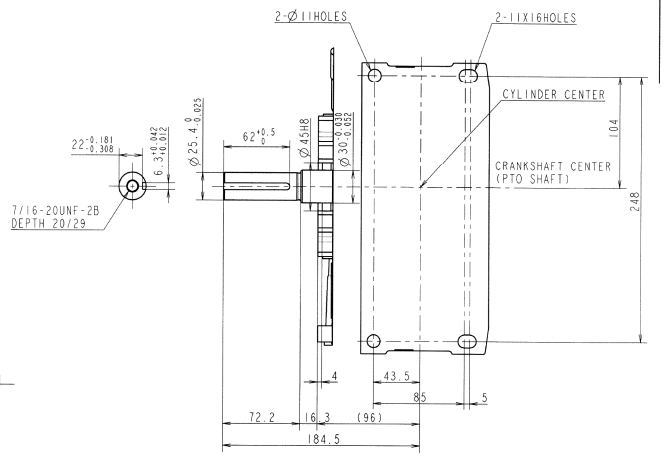
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○ AND ⌭ : RADIAL

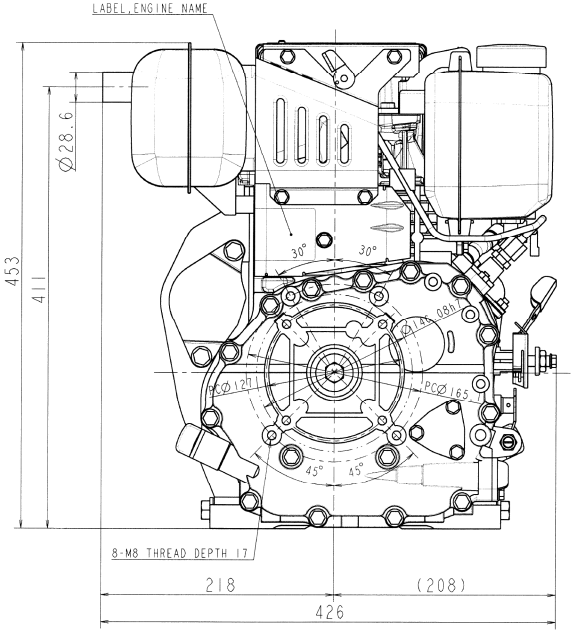
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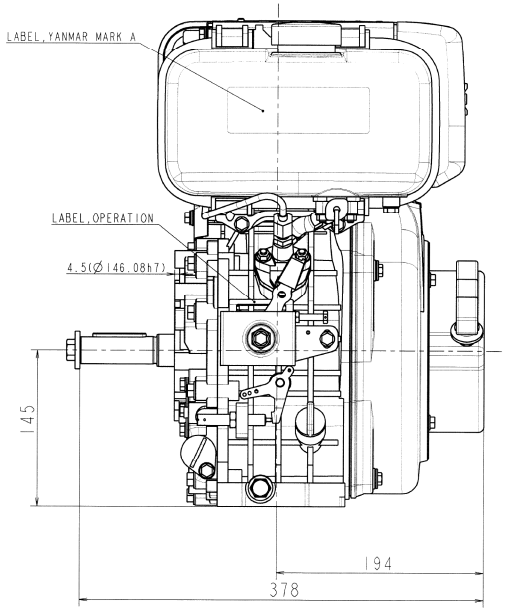


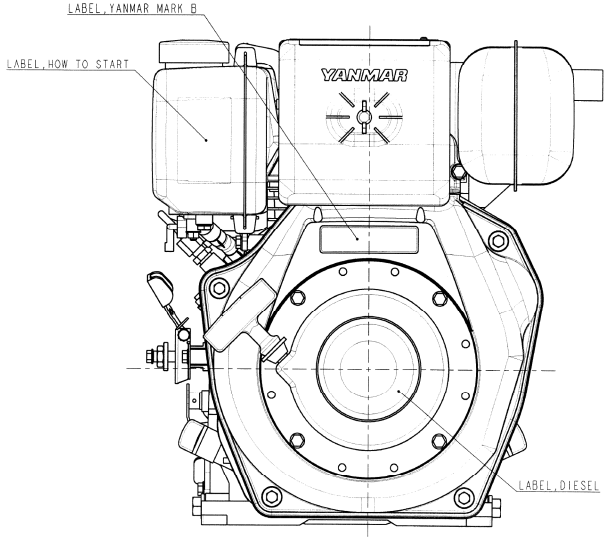


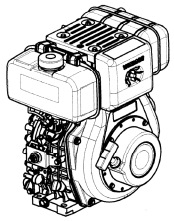


ENGINE MOUNTING PLATE AND PTO SHAFT SEEN THROUGH FROM THE TOP OF THIS ENGINE









WEIGHT (RAW)	kg (± %)		
WEIGHT (CALC.)	kg (± %)		
S.ENGINEER	MANAGER	MODEL	SCALE FREE
CHECKED	SPECIALIST	QTY	MATERIAL
DESIGNED	DRAWN	DATE: Y.M.D	NAME
		27 OCT. 2008	OUTLINE

C.MANAGER S.MANAGER

L70N6CFIFIAACO OUTLINE

YANMAR

POWER SYSTEM OPERATIONS DIV., YANMAR CO., LTD.

CODE B2-14220-0280 SHEET SIZE A1

3D-CAD

NOTICE

GEOMETRICAL TOLERANCE

KIND OF TOLERANCE	SYMBOL
FORM: STRAIGHTNESS TOLERANCE	—
FORM: CIRCULARITY TOLERANCE	○
FORM: PROFILE OF LINE TOLERANCE	◠
FORM: FLATNESS TOLERANCE	▱
FORM: CYLINDRICITY TOLERANCE	⌭
FORM: PROFILE TOLERANCE OF SURFACE	⌓
ORIENTATION: PARALLELISM TOLERANCE	//
ORIENTATION: PERPENDICULARITY TOLERANCE	⊥
ORIENTATION: ANGULARITY TOLERANCE	∠
LOCATION: POSITIONAL TOLERANCE	⌖
LOCATION: COAXIALITY OR CONCENTRICITY TOLERANCE	◎
LOCATION: SYMMETRY TOLERANCE	⌯
RUN-OUT: CIRCULAR RUN-OUT TOLERANCE	↗
RUN-OUT: TOTAL RUN-OUT TOLERANCE	⌰

※本図面の寸法許容値は、YIS V-0001に準拠する。
※寸法許容値の制限に関しては、YIS V-0001の「環境負荷物質」を参照すること。

Conform to the Yanmar standard YIS V-0001.
concerning "Use limitation of the environmental burden material"
for the use of the environmental burden material of this part.

LABELS

G2-14220-2030

No.	L A B E L S	P L A C E	C O N T E N T S
1	LABEL, ENGINE NAME	COVER (CYLINDER	————————
2	LABEL, YANMAR MARK (A	F.O. TANK	THE FOLLOWING DETAILS
3	LABEL, CAUTION	F.O. TANK	〃
4	LABEL, HOW TO START	F.O. TANK	〃
5	LABEL, YANMAR MARK (B	FANCASE, COOLING	〃
6	LABEL, DIESEL	RECOIL STARTER	〃
7	LABEL, DECOMP	COVER,TOP	〃
8	LABEL, OPERATION	SPEED CONTROL DEVICE	〃

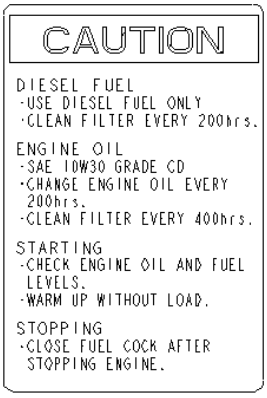
②LABEL, YANMAR MARK (A



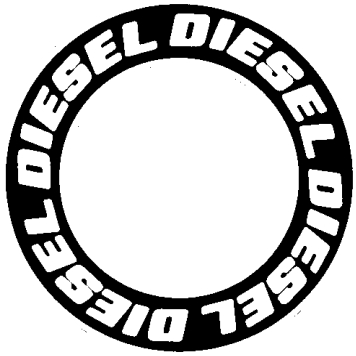
⑤LABEL, YANMAR MARK (B



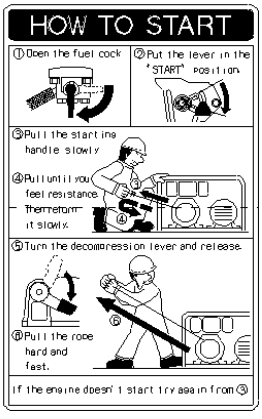
③LABEL, CAUTION



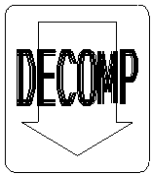
⑥LABEL, DIESEL



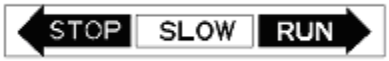
④LABEL, HOW TO START



⑦LABEL, DECOMP



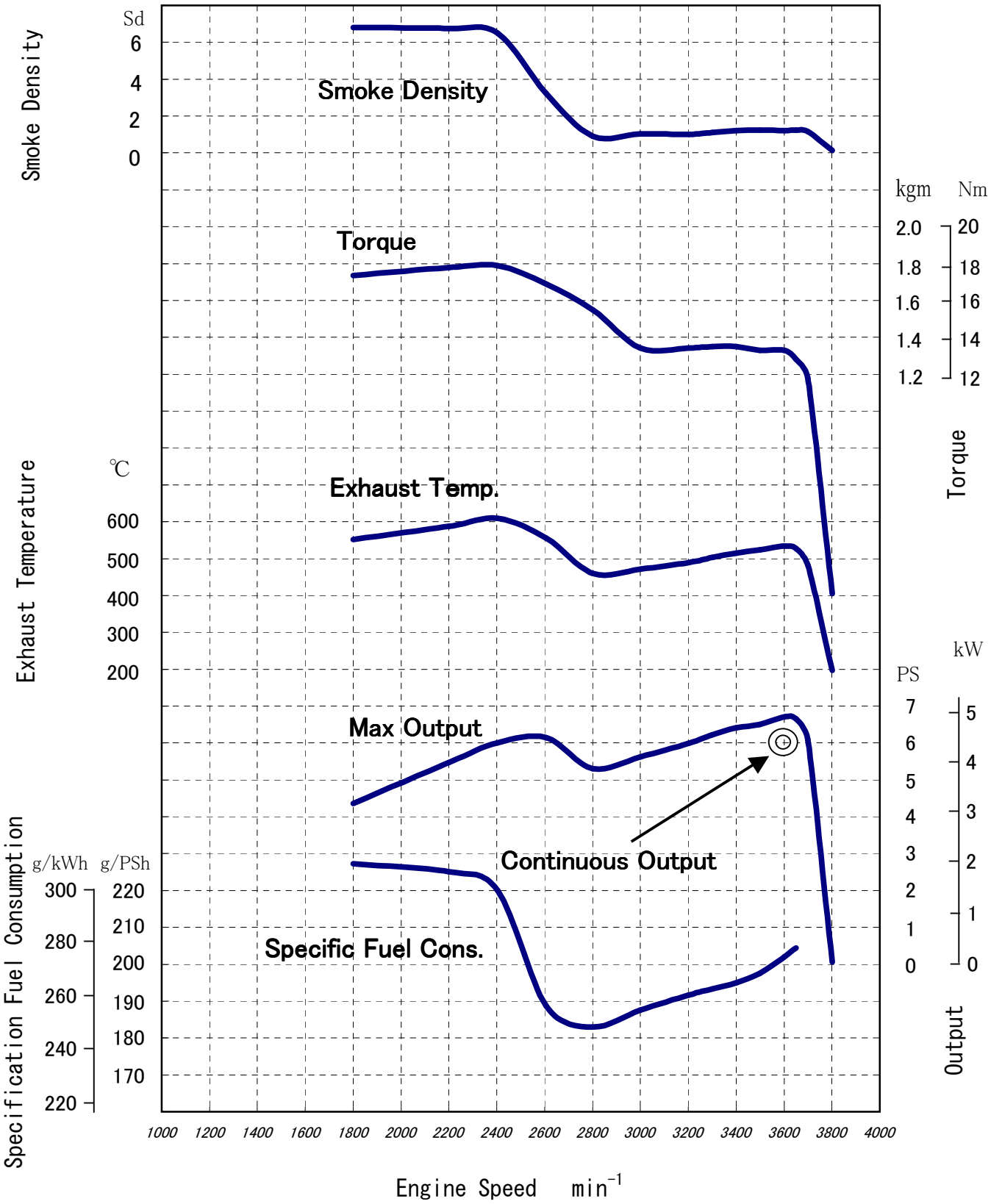
⑧LABEL, OPERATION



PERFORMANCE CURVES

G2-14220-1010	

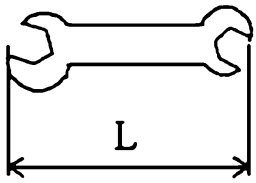
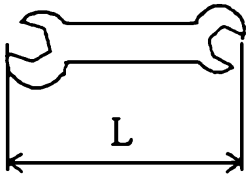
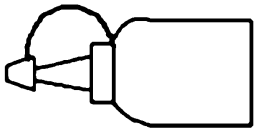
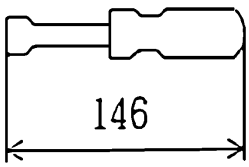
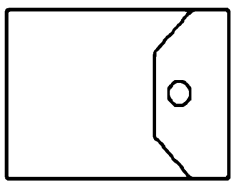
L 7 0 N 6



Notes : This performance is under the following condition.
After 30hrs. initial running
Atmospheric conditions : Temperature 298K(25℃)
Pressure 100kPa(750mmHg)
Humidity 30%

C2-14110-0010

標準工具　　ＴＯＯＬＳ

区分 ITEM		名称 DESCRIPTION	部品コード及び略図 PART NUMBER	材質 MATERIAL	個数 Q'ty	備考 NOTES
工具	1	両口スパナ WRENCH １４×１７	114299-92720 	UNI EN 10083/1 C40	1	L=163
	2	両口スパナ WRENCH １０×１２	114299-92710 	UNI EN 10083/1 C40	1	L=128
	3	油さし FEEDER,OIL	114299-92740 	合成樹脂 POLYETHYRENE	1	
	4	＋－ねじまわし SCREWDRIVER	114299-92730 	UNI EN 10083/1 C40 & 合成樹脂 PVC	1	
	5	工具袋 BAG,TOOL	114299-92600 	黒色ビニール PVC	1	