SPECIFICATIONS

MITSUBISHI HIGH SPEED DIESEL ENGINE
MODEL MITSUBISHI S3L2
△1 △2 (S3L2-Z363SP)
△2 (S3L2-Z363SPH)

For MEE
(POWER UNIT STANDARD)

△1 97/68/EC, Stage3A CERTIFIED

PLEASE RETURN AFTER APPROVAL

APPROVED	REMARKS
DATE・SIGNATURE	

DATE Oct. 6.2000
MITSUBISHI HEAVY INDUSTRIES, LTD.

CHG	DATE	APPROVED	CHECKED	DRAWN
△4	Apr.28.2008	A. Takai	R.Nagase	R.Touge
△3	Jan.24.2008			
△2	Oct.26.2006			

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Revised record

No.	Date	Items	New	Old	Remarks
△1	Jun.30.2006	Regulations,EU certified	Stage 3A	Stage 2	from 2007～
		Specifications S3L2-Z263SP addition			
		Spec.table 6/9pages addition			
△2	Oct.26.2006	Model name change	S3L2-Z363SP	S3L2-Z263SP	For EU Stage3A,Sales request
			S3L2-Z363SPH	S3L2-Z263SPH	
△3	Jan.24.2008	Eng Assy	31B00-06261	31B00-06260	Change(based on MEE request 2008/Jan/18)
		Dimensions(Length)	Approx. 548mm	Approx. 536mm	
		Cooling fan	380mm , suction	320mm , suction	
△4	Apr.28.2008	Eng assy drawing (31B00-06261)	1/2-CHG 1	————	Change fan spacer
		Regulations	Add engine type name	————	
		Dimensions(Length)	Approx. 568mm	Approx. 548mm	
		Lubricating oil	CF or CH-4 class	CD class	
		Fan spacer	31A48-01100(30mm)	MM434-493(10mm)	Change(based on MEE request), change fan spacer to 30mm from 10mm

1. Principal Particulars of Diesel Engine

General Specification

	Standard	All items, unless otherwise specified, are in accordance with JIS and maker's standards
△1	Model	Mitsubishi S3L2
△2		S3L2-Z363SP,Z363SPH
		(MHI.No.See spec.table)
△1	Regulations	97/68/EC Stage3A certified
△4		Engine type " S3L2-Z363SP","S3L2-Z363SPH" 97/68/EC as last amended by 2004/26/EC
	Type	4 cycle water-cooled, vertical overhead valve, cylinder in line, swirl chamber type
	Number of cylinders	3
	Bore × Stroke	78mm × 92mm
	Piston displacement	1.318 liters
	Compression ratio	22:1
	Rotation	Anti-Clockwise rotation as viewed from flywheel side
	Firing order	1-3-2
	Engine weight(Dry)	Approx.135kgf
△3△4	Dimensions(Length)	Approx.568mm
	(Width)	Approx.433mm
	(Height)	Approx.572mm
	Inclination(Continuous)	15°
	(Temporary)	30°(Max.30 min.)
	Fuel	ASTM diesel fuel oil No.2-D(JIS K2204 gas oil specification No.2 or 3)
△4	Lubricating oil	API classification service CF or CH-4 class
	Output	
	Rated Power	See spec.table
	Rating tolerance	±5% of nominal
	Low Idle	See spec.table
	High Idle	See spec.table
	Rating conditions	ISO 3046,Without fan
		Barometric pressure : 100kPa
		Ambient temperature : 298k
		Relative humidity : 30%
	Fuel consumption	See spec.table
	Tolerance	±8%
	Oil consumption	Within 2.7g/kW-h{2.0g/PS-h)
	Fuel injection timing	See spec.table
	Mean effective pressure	See spec.table
	Piston speed	See spec.table

Fuel system

Fuel injection pump	BOSCH type
Fuel injection nozzle	Throttle type
Governor	Mechanical centrifugal type
Fuel filter	Filtering paper type
Min. required fuel feeding head	100mm
Max.static head of leak pipe (return)	200mmHg

Lubricating system

Lubricating system	Forced circulation by trochoid pump
Lubricating oil filter	Filtering paper type, full flow
Oil pressure	0.29MPa~0.39MPa{3~4kgf/cm2} at duty run 0.098MPa{1.0kgf/cm2} min. at low idling
Oil capacity	4.2 liters (Oil pan 3.7 liters, high level, Oil filter etc.Approx. 0.5 liters, High~Low Approx. 1.8 liters)
Oil dipstick	Standard dipstick

Cooling system

	Cooling system	Forced circulation of fresh water by centrifugal pump with thermostat
	Engine water capacity	Approx. 1.8 liters
③	Cooling fan	380mm diameter fan, suction
	Water pump pulley	PCD 87mm
	Pulley ratio	1.33 (Crankpulley : Water pump pulley = 116 : 87)
④	Fan spacer	30mm
	Water temp. switch	Yes
	Thermo. Unit	No
	Thermostat	Open at 82deg.C - full open at 95deg.C

Electrical system

Alternator	12V-50A
Voltage regulator	IC type (Built in alternator)
Alternator pulley	PCD 65mm
Starting system	Electric starting
Starter motor	12V-1.7kW
Glow plug	10.5V,9.7A x 4
Engine shut off system	Electric solenoid (ETR)

Intake and Exhaust system

Intake manifold(cover)	Upper side way
Exhaust manifold	Upper side way
Induction Resistance	Max 1.96kPa{0.2m$H_2$0}
Exhaust Back Pressure	Max 6.57kPa{0.67m$H_2$0}
<Remarks>	
Engine color	Black(MHI standard color)
Flywheel	SAE#7-1/2
Flywheel housing	SAE#5
Side gear PTO	Allowable torque 39.2N-m{4.0kgf-m} total of front and rear,Clockwise rotation as viewed from flywheel side,Gear ratio 1:1

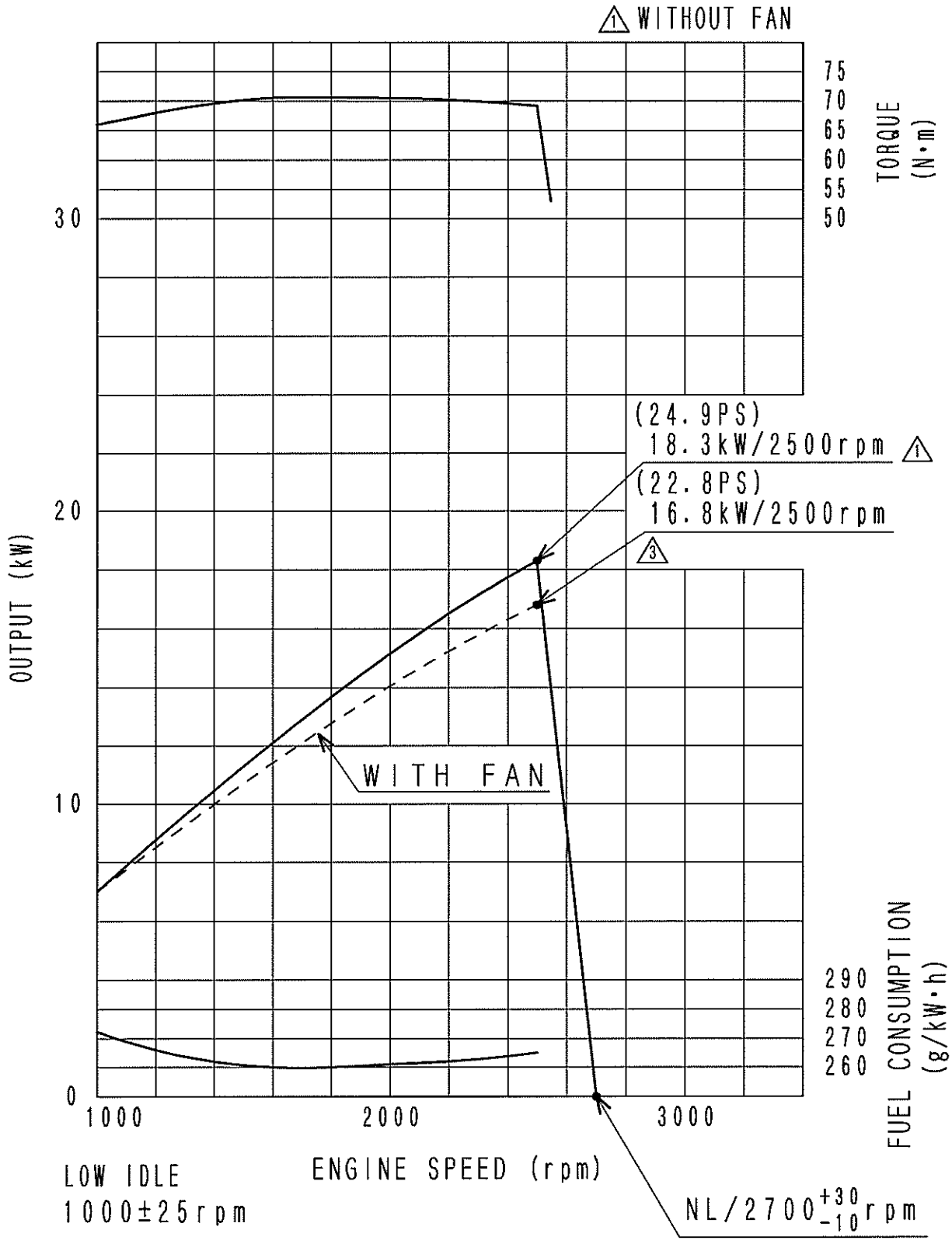
① Spec table

	Model	Mitsubishi S3L2	Mitsubishi S3L2
②		S3L2-Z363SP	S3L2-Z363SPH
③④		(MHI.No.31B00-06261 1/2-CHG1)	(MHI.No.31B00-06261 1/2-CHG1)
	Output		
	Rated Power (Without fan)	18.3kW{24.9PS}/2500rpm	21.2kW{28.8PS}/3000rpm
③	Rated Power (With fan, for ref.)	16.8kW{22.8PS}/2500rpm	18.6kW{25.3PS}/3000rpm
③	Cooling fan loss(for ref.)	Approx. 1.5kW	Approx. 2.6kW
	Low Idle	1000±25rpm	1000±25rpm
	High Idle	2700(+30,-10)rpm	3200(+30,-10)rpm
	Fuel consumption	Approx.265g/kW･h{195/PS･h)	Approx.280g/kW･h{206g/PS･h)
	Fuel injection timing	17° BTDC	21° BTDC
	Mean effective pressure	0.67MPa{6.8kgf/㎠}	0.65MPa{6.6kgf/㎠}
	Piston speed	7.7m/s at 2500rpm	9.2m/s at 3000rpm

2. Accessories (Loose Supply)

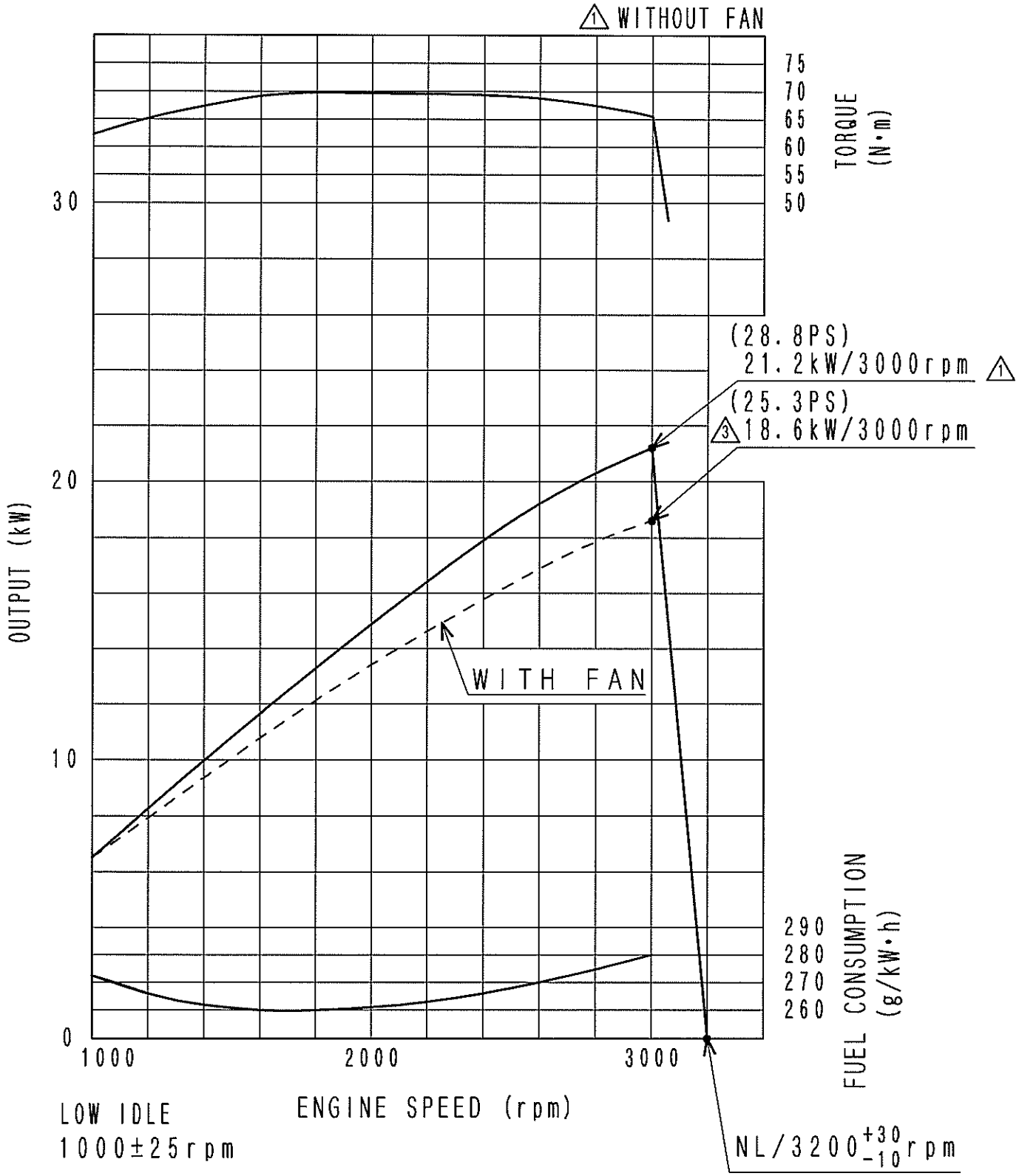
	Parts Name	Parts No.	Q'ty	Remarks	
⚠1	SWITCH,OIL PRESSURE	31A90-10300	1		A4
2	SWITCH,THERMO	MM432-104	1	Attached To Engine	A4
⚠1	SOLENOID ASSY	30A87-10042	1		A4

MITSUBISHI DIESEL ENGINE
⚠2 MODEL S3L2-Z363SP
PERFORMANCE CURVE

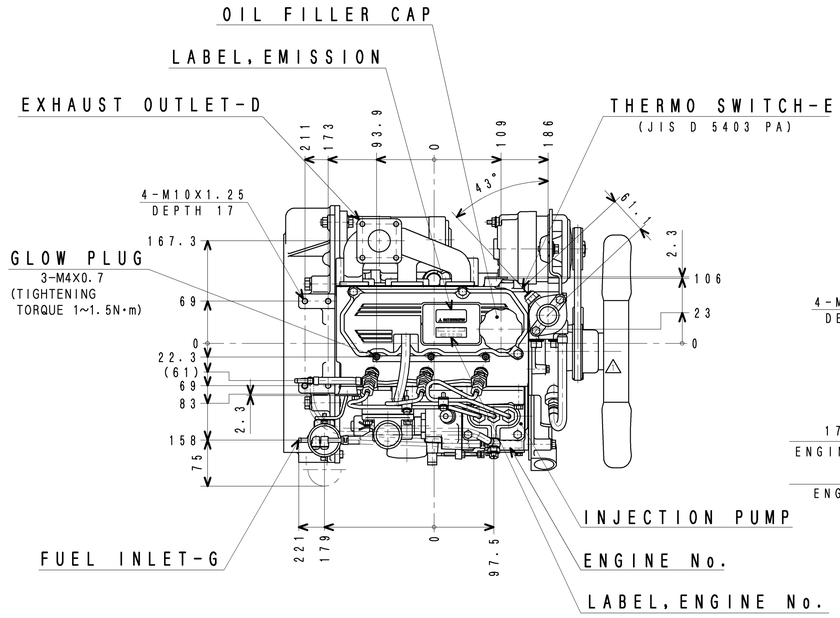


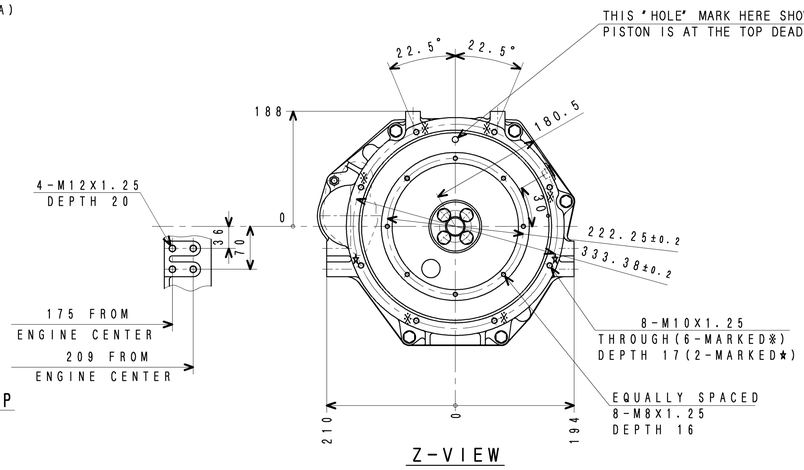
ISO 3046 Total barometric pressure : 100kPa
Ambient temperature : 298k
Relative humidity : 30%

MITSUBISHI DIESEL ENGINE
△2 MODEL S3L2-Z363SPH
PERFORMANCE CURVE

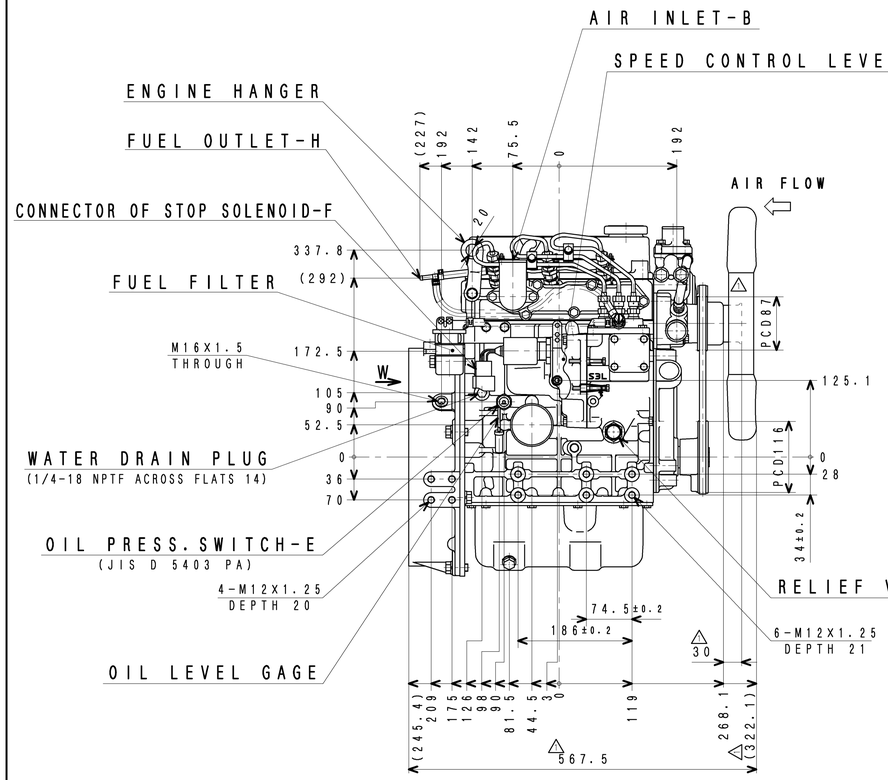


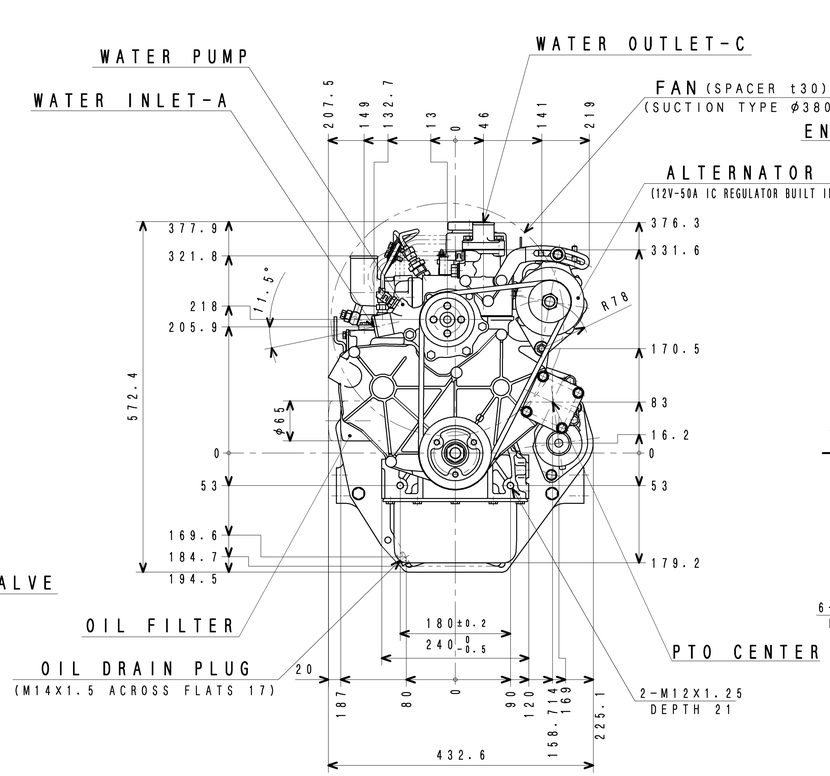
ISO 3046 Total barometric pressure : 100kPa
Ambient temperature : 298k
Relative humidity : 30%

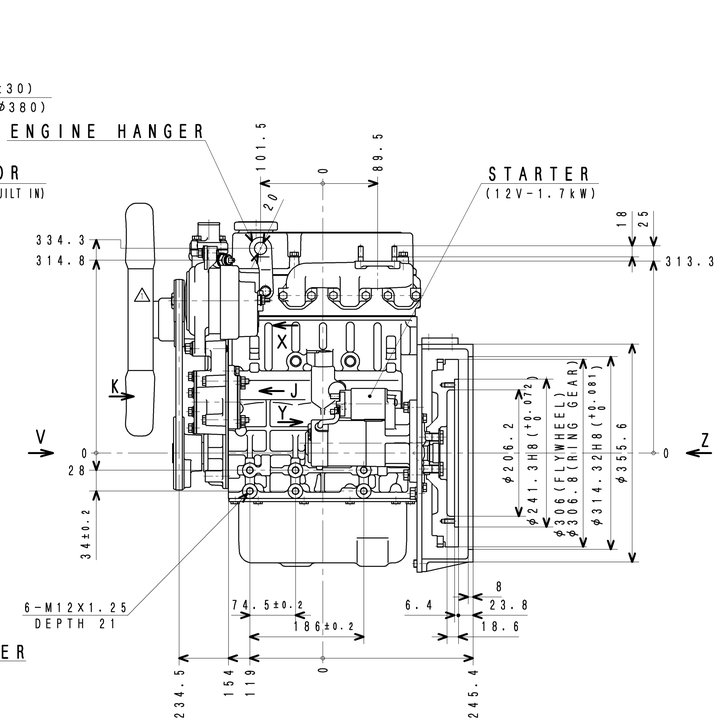




Z-VIEW







FOR MEE (Z363SP Z363SPH)

CHG	EO-NO	DATE	CHK
1	30G0-C237	'08. 4.28	S.MURATA

3rd ANGLE PROJECTION

尺度 SCALE 1 : 5

S3L2 ENGINE ASSY

三菱重工業株式会社 汎用機・特車事業本部
MITSUBISHI HEAVY INDUSTRIES,LTD. GENERAL MACHINERY & SPECIAL VEHICLE HEADQUARTERS.

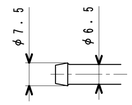
認可 APPD	検図 CHK	製図 DRN (MSH)
高井	R. NAGASE	A. IZAKA T. SHIRAKAWA 2008. 1.24

図面番号 DRAWING NO. 31B00-06261 1/2

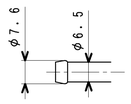
1 新図 2 旧図 | サイズ A1 | 組立図 | 1 鋳鋼製単品 2 鋳鉄単品 3 板金溶接品 4 組立品 5 切削品 6 その他（購入品）

旧引 汎特 2008 5.9

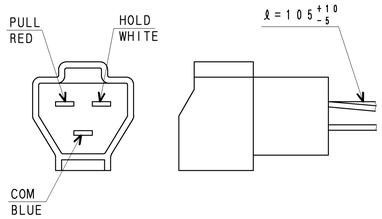
FULL-CAD



H-DETAIL

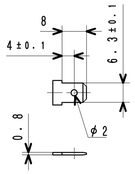


G-DETAIL

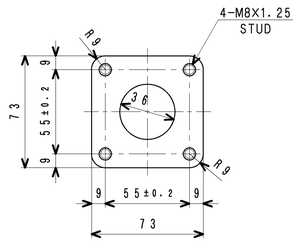


F-DETAIL

CONNECTOR EQUIVALENT TO
7222-6234-40 (YAZAKI)
TO MATE WITH
30A87-00600 (MHI)
7123-6234-40 (YAZAKI)



E-DETAIL
(JIS D 5403 PA)



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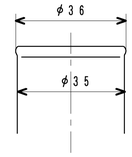
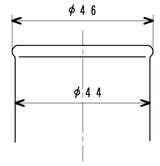
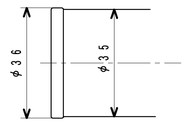


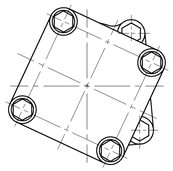
C-DETAIL

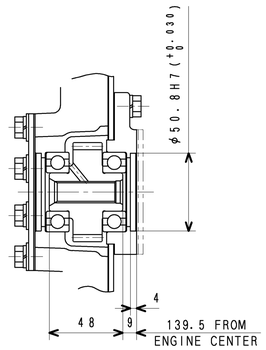


B-DETAIL



A-DETAIL





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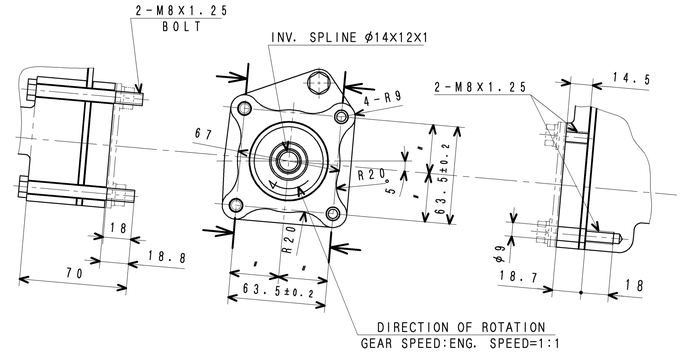
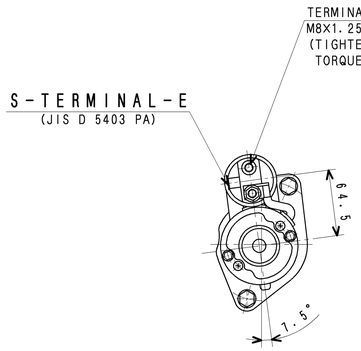
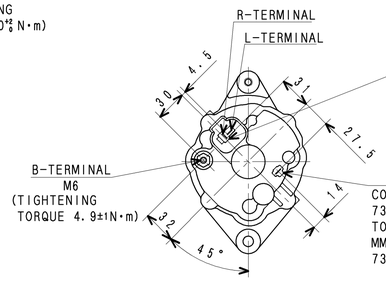


J-VIEW(1:2)



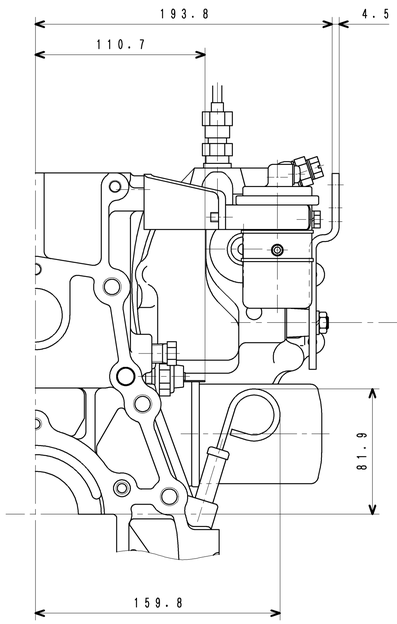
Y-VIEW(1:3)



L&R CONNECTOR
CONNECTOR EQUIVALENT TO
7322-2128 (YAZAKI)
TO MATE WITH
MB084-014(MHI)
7323-2128 (YAZAKI)

P-CONNECTOR
CONNECTOR EQUIVALENT TO
7322-2215 (YAZAKI)
TO MATE WITH
MM409-660 (MHI)
7323-2215 (YAZAKI)

X-VIEW(1:3)



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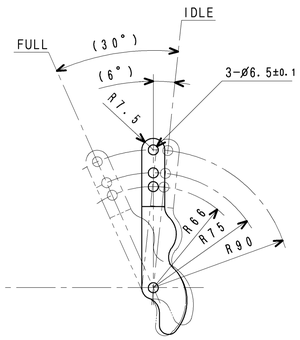
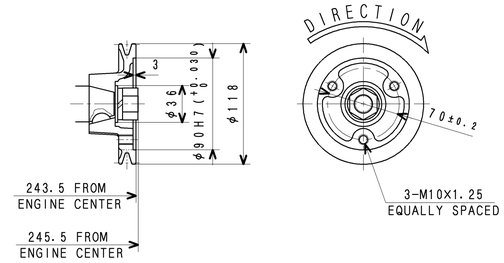




V-VIEW(1:3)

FOR MEE (Z363SP Z363SPH)

出図 汎特 2008 1.29

FULL-CAD

CHG	EO-NO	DATE	CHK

3rd ANGLE PROJECTION

尺度 SCALE 1:1

承認 APPD 高井

検図 CHK R. NAGASE

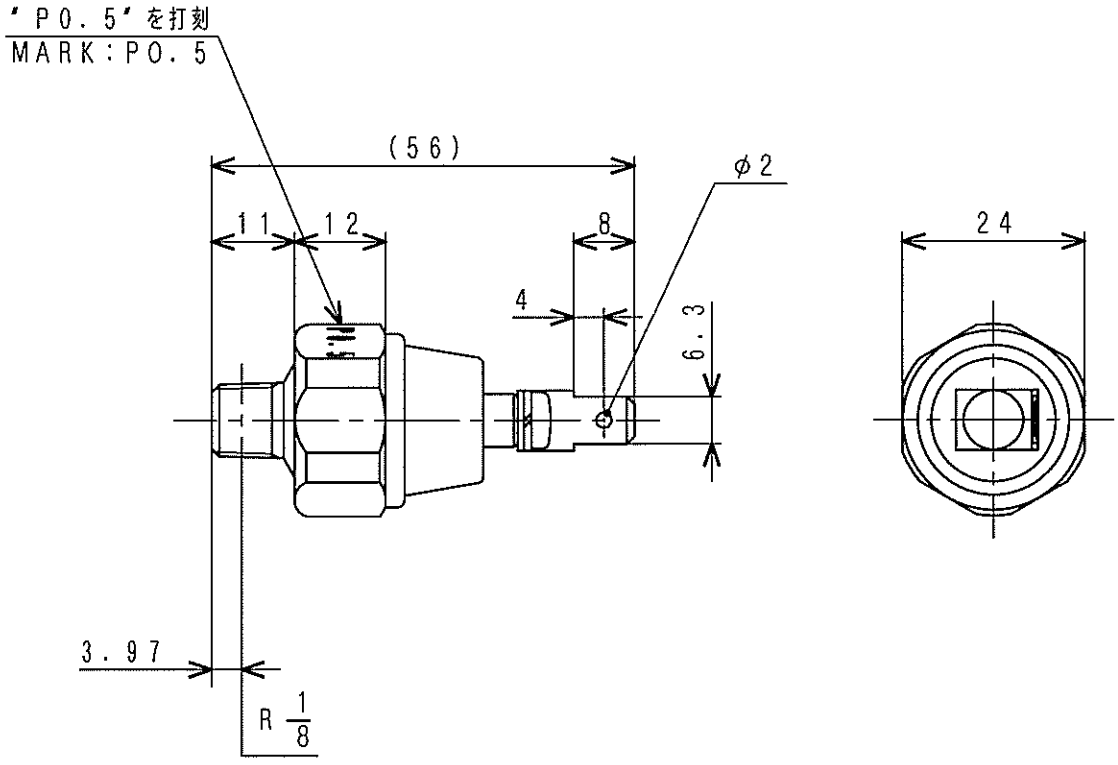
製図 DRN (MSH) A. IZAKA T. SHIRAKAWA 2008. 1. 24

S3L2 ENGINE ASSY

三菱重工業株式会社 汎用機・特車事業本部
MITSUBISHI HEAVY INDUSTRIES,LTD. GENERAL MACHINERY & SPECIAL VEHICLE HEADQUARTERS.

図面番号 DRAWING NO. 31B00-06261 2/2

① 新図 4 旧引図 | サイズ A1 | ① 組立図 | 2 鋳鍛造品 3 板金溶接品 4 組立品 5 切削品 6 その他(購入品)

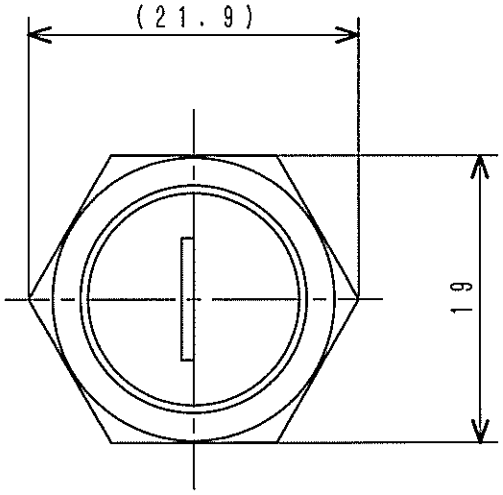


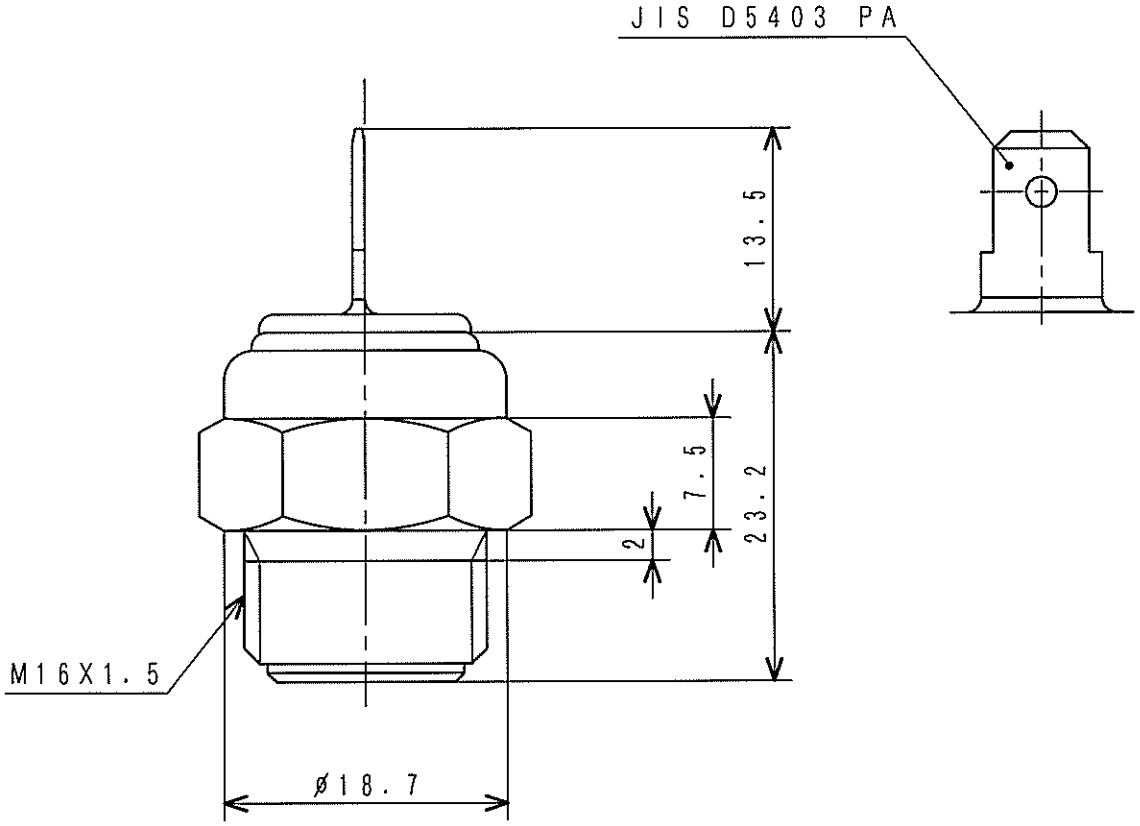
仕　様
SPECIFICATIONS

作動圧力 OPERATING PRESS.	49kPa{0.5kgf/cm²}
接点容量 CURRENT CAPACITY	12V-5W
結線様式 CONNECTION	b(—o o—)

油圧スイッチ
SWITCH, OIL PRESSURE

31A90-10300



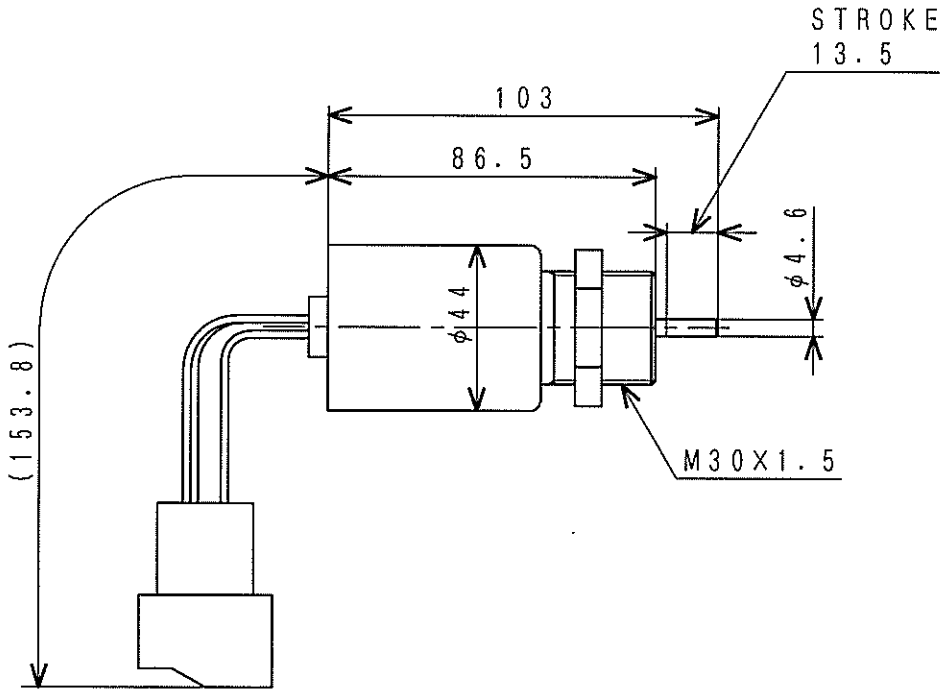


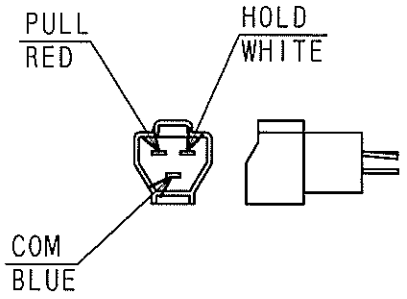
仕　様
SPECIFICATIONS

作動温度 OPERATING TEMP	111±3℃
	ON-OFF差 8±3.5℃ ON-OFF DIFFERENCE 8±3.5℃
接点容量 CURRENT CAPACITY	0.25A, MAX.
結線様式 CONNECTION	a (—o/ o—)

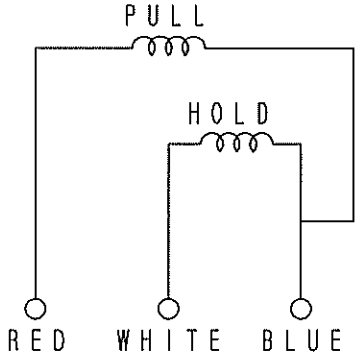
サーモスイッチ
SWITCH, THERMO

MM432-104





DETAIL OF CONNECTOR
CONNECTOR EQUIVALENT TO
7222-6234-40 (YAZAKI)
TO MATE WITH
30A87-00600 (MHI)
7123-6234-40 (YAZAKI)



配線図
WIRING DIAGRAM

仕様
SPECIFICATIONS

定格電圧 RATED VOLTAGE	DC12V
ストローク EFFECTIVE STROKE	13.5±0.5mm
定格電流 RATED CURRENT	PULL : 50A HOLD : 1A
使用雰囲気温度 ALLOWABLE AMBIENT TEMP	−40℃~+120℃

ソレノイドアッシ
SOLENOID ASSY

30A87-10042