

Rev. 1(2003, Apr. 18)
 Change Int. Manifold
 and Generator.
 Rev. 2(2003, Sep. 11)
 Change parts
 -C.W. Drain Plug
 -Generator
 -Adjuster
 (YDSTE-03410)
 Rev. 3(2004, Feb. 5)
 Change Exh. Manifold
 (YDSTX-04014)
 Rev. 4(2004, Mar. 4)
 Correct CW-T
 (YDSTX-04026)

3D-CAD

NOTICE	
REVISION	
DATE	
BY	
CHECKED	
DATE	
BY	
APPROVED	
DATE	
BY	
FOR K	
FOR H	
FOR T	
FOR B	
FOR R	
FOR D	
FOR C	
FOR O	
FOR I	
FOR M	
FOR J	
FOR N	
FOR U	
FOR L	
FOR E	
FOR F	
FOR G	
FOR H	
FOR I	
FOR J	
FOR K	
FOR L	
FOR M	
FOR N	
FOR O	
FOR P	
FOR Q	
FOR R	
FOR S	
FOR T	
FOR U	
FOR V	
FOR W	
FOR X	
FOR Y	
FOR Z	

WEIGHT (RAW)	kg
WEIGHT (CALC.)	0.00019
SEC. MANAGER	
CHECKED	
SPECIALIST	
DATE: 2002.9.11	
DRAWN	
DATE: 2002.9.11	
SCALE	1:4
MATERIAL	
OUTLINE	
YANMAR CO., LTD. ENGINE PRODUCT OPERATIONS DIV.	
code	B3-29246-0010
DATE	
BY	

MARK	COLOR
B	Black
W	White
R	Red
L	Blue
G	Green
Y	Yellow
Br	Brown
Lg	Light Green
Sb	Sky blue
O	Orange
P	Pink
Gf	Gray
R/W	Red/White

	B	R1	R2	ACC	C	BR
PRE-HEATING	○	○	○	○	○	○
OFF	○	○	○	○	○	○
ON	○	○	○	○	○	○
START	○	○	○	○	○	○

KEY SW. DIAGRAM

TABLE 1
STARTER STARTER S TERMINAL CONNECTOR

DC12V-1.2KW	YAZAKI 7116-3060 (TERMINAL)
DC12V-1.4KW	YAZAKI 7123-3219-50 (TERMINAL HOUSING)
DC12V-1.7KW	YAZAKI 7116-2033 (TERMINAL)
DC12V-2.3KW	YAZAKI 7123-2010 (TERMINAL HOUSING)

NOTES

1. WIRING OF STARTER MUST BE OBSERVED AS FOLLOWS.
OTHERWISE IT CAUSES MISS STARTING OR DAMAGE OF STARTER MOTOR.

1-1. TOTAL ELECTRIC RESISTANCE OF BATTERY CABLE (1)+(2) SHOULD BE LESS THAN 2/1000Ω.
REFERENCE: AV15:51.4m, AV20:52.2m, AV30:53.8m, AV40:54.6m
AV30:53.8m, AV40:54.6m

1-2. TOTAL ELECTRIC RESISTANCE OF WIRING FOR STARTER (3)+(6) SHOULD BE LESS THAN 5/1000Ω.
REFERENCE: AV15:51.4m, AV20:52.2m, AV30:53.8m, AV40:54.6m

1-3. BATTERY EARTH CABLE (1) CONNECTION SHALL BE ENSURED. PAINTED SURFACE MAY NOT BE USED (FOR EARTHING) AVOIDING THE MISS CONTACT.

2. BATTERY TREATMENT MUST BE OBSERVED AS FOLLOWS.
OTHERWISE IT MAY CAUSE BURNING OF ELECTRIC EQUIPMENTS OR COMPONENTS. ALTERNATOR (DIODES) BURNING CAUSED BY BATTERY CABLE CONNECTION REVERSELY IS NOT WARRANTED.

2-1. BATTERY SHOULD BE FIXED BY FITTING. (NOT TO MOVE)

2-2. BATTERY CABLE LENGTH SHOULD BE ADJUSTED PROPERLY AND CLAMPED NOT TO BE CONNECTED REVERSELY.

2-3. NOT LOOSE THE BATTERY CABLE TERMINAL. NOR TURN THE BATTERY SWITCH OFF DURING THE ENGINE RUNNING.

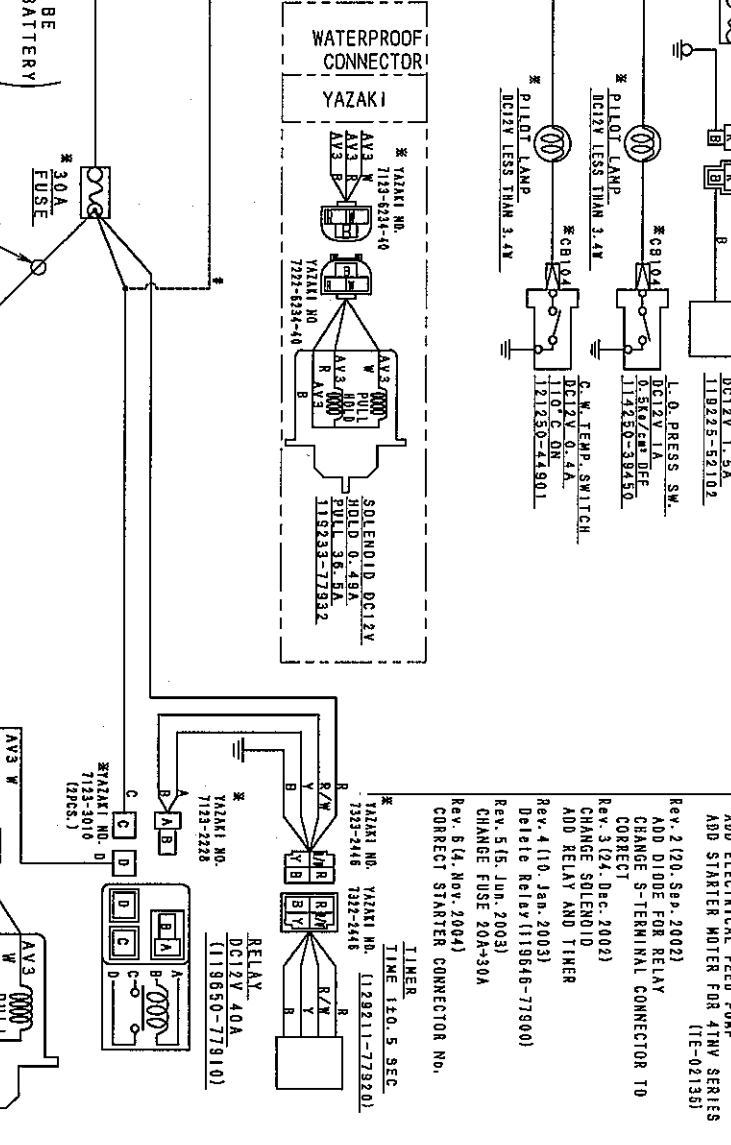
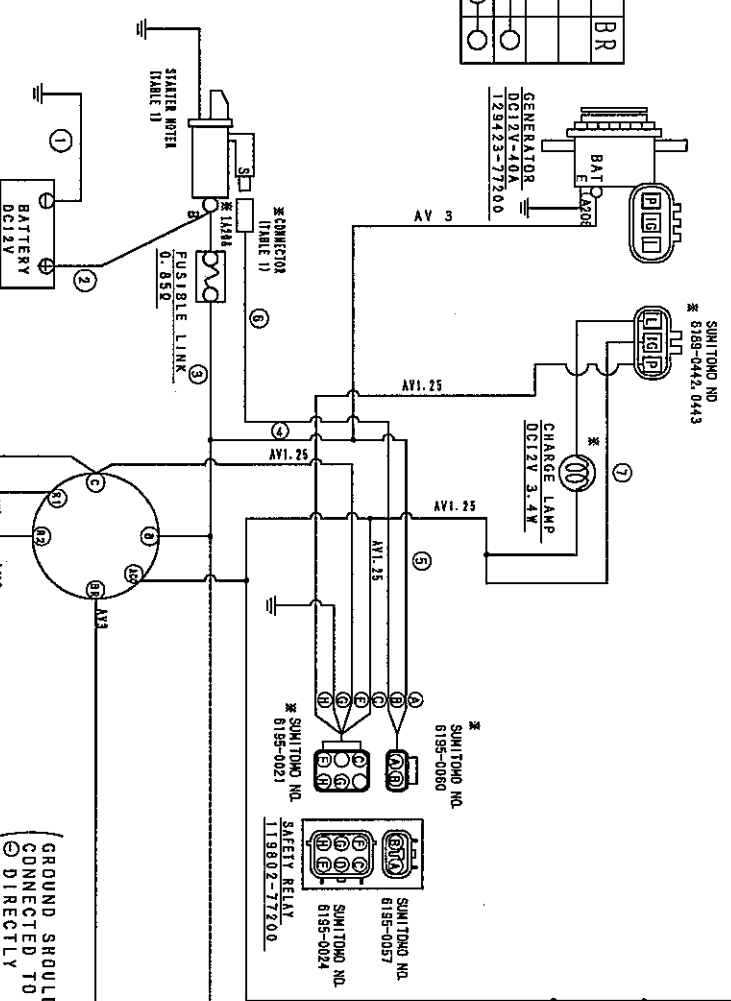
3. ONLY THE SPECIFIED LOAD SHOULD BE APPLIED ON THE ALTERNATOR "L" AND "P" LINE.
IT IS NOT ALLOWED TO CONNECT ANY LOAD UNSPECIFIED WITHOUT YANMAR APPROVAL.

4. CHECK ANY SURGE CURRENT OR VOLTAGE OCCURRED UNDER NORMAL OPERATIONS AND EXPECTIVE ERRONEOUS OPERATIONS. AND CONFIRM THE CIRCUIT NO SURGE OCCURS.

*"C-LOAD" AND DIODE FOR "L-LOAD".

REMARKS

1. * MARKED PARTS ARE NOT PROVIDED BY YANMAR.



NOTES FOR ENGINE STOP SOLENOID

1. PERMISSIBLE RESISTANCE OF SOLENOID CIRCUIT SHOULD BE LESS THAN 0.07Ω TO GUARANTEE PERMISSIBLE LOWEST VOLTAGE 9V TO WORK SOLENOID (PULL COIL). (TERMINAL RESISTANCE: 15/1000Ω PER COUPLER. 0Ω PER SCREW SETTING)

COUPLER RESISTANCE OF SOLENOID DOESN'T NEED TO BE COUNTED)
REFERENCE: AV2(0.0068Ω/m):58.0m... WITHOUT TERMINAL RESISTANCE
AV3(0.0056Ω/m):51.2.5m... SAME AS ABOVE

WHEN YOU EXCEED PERMISSIBLE RESISTANCE, ADAPT THE CIRCUIT IMPRESSED FROM THE POWER SUPPLY TO THE SOLENOID DIRECTLY USING A RELAY... REFER TO #

2. HIGH TEMPERATURE PARTS, SUCH AS AN EXHAUST PIPE, SHOULD NOT APPROACH FOR THE PULL POWER FALL OF SOLENOID, AND HEATING PREVENTION OF INNER COIL TEMPERATURE. (PERMISSIBLE AMBIENT TEMPERATURE: -30~100°C)

3. INSTALL FUSE TO PROTECT THE HARNESS AGAINST TROUBLES SUCH AS SHORT CIRCUIT OR CONTINUOUS DRIVE OF PULL-COIL.

4. THE POWER SUPPLY OF SOLENOID MAY NOT BE COMMON WITH THE LINE OF ALTERNATOR INITIAL EXCITATOR AS SHOWN IN THIS DRAWING. (OTHERWISE, SOLENOID MAY LOOSE STOP FUNCTION DUE TO THE POWER SUPPLY FROM ALTERNATOR "L" TERMINAL.)

5. IN CASE OF WATERPROOF CONNECT OR APPLICATION, CONNECTOR SHOULD BE FIXED BY FITTING TO PREVENT LEAD WIRE BREAK.

6. IN CASE OF EMERGENCY STOP OF MACHINE FOR SAFETY WILL BE APPLIED. SWITCH LOCATION SHOULD BE SHOWN AS A.

7. IN CASE OF THE SOLENOID CIRCUIT RESISTANCE WOULD BE LIMIT. # WIRING IS APPLICABLE.

設計 A. Ishino	図面 A. Ishino	年月日 2002 1.29	名称 WIRING DIAGRAM
CHECKED A. Ishino		担当者 A. Ishino	数量 1
完成重量 WGT(AW)		完成重量 WGT	完成重量 WGT
主 席		主任	主任
検査 A. Ishino		検査担当者 A. Ishino	検査担当者 A. Ishino
材料重量 WGT		材料重量 WGT	材料重量 WGT
完成重量 WGT		完成重量 WGT	完成重量 WGT
主 席		主任	主任
検査 A. Ishino		検査担当者 A. Ishino	検査担当者 A. Ishino
材料重量 WGT		材料重量 WGT	材料重量 WGT
完成重量 WGT		完成重量 WGT	完成重量 WGT
主 席		主任	主任
検査 A. Ishino		検査担当者 A. Ishino	検査担当者 A. Ishino
材料重量 WGT		材料重量 WGT	材料重量 WGT
完成重量 WGT		完成重量 WGT	完成重量 WGT

YANMAR CO., LTD.
ENGINE PRODUCT OPERATIONS DIV.
E3-29004-0050-1(C)

面 来 歴

REV. 1 (30MAY. 2002)
CHANGE THE NOTES FOR ENGINE STOP SOLENOID
ADD ELECTRICAL FEED PUMP
ADD STARTER MOTOR FOR ATW SERIES (1E-02135)

REV. 2 (120. SEP. 2002)
ADD DIODE FOR RELAY CORRECT

REV. 3 (24. DEC. 2002)
CHANGE SOLENOID ADD RELAY AND TIMER

REV. 4 (10. JAN. 2003)
Delete Relay (119648-77900)

REV. 5 (15. JUN. 2003)
CHANGE FUSE 200A+30A

REV. 5 (14. NOV. 2004)
CORRECT STARTER CONNECTOR NO.

GT CODE

真円度・円筒度八、半径法

形状法

要		購買仕様書		検査基準書		品質管理工程図		特別管理部品		量産初期安定管理部品	
18L	48F	40.1	25072E 1000RT	40.8	10NF	41E					
432E	189F	40.2	100072E 2000RT	41.2	1072E	58NF	430'				
1892E	638F	40.3	200072E 4000RT	42.0	5072E	128NF	420'				
6392E	2508F	40.5			12072E	245E'	410'				

形状寸法コード

GT.CODE M

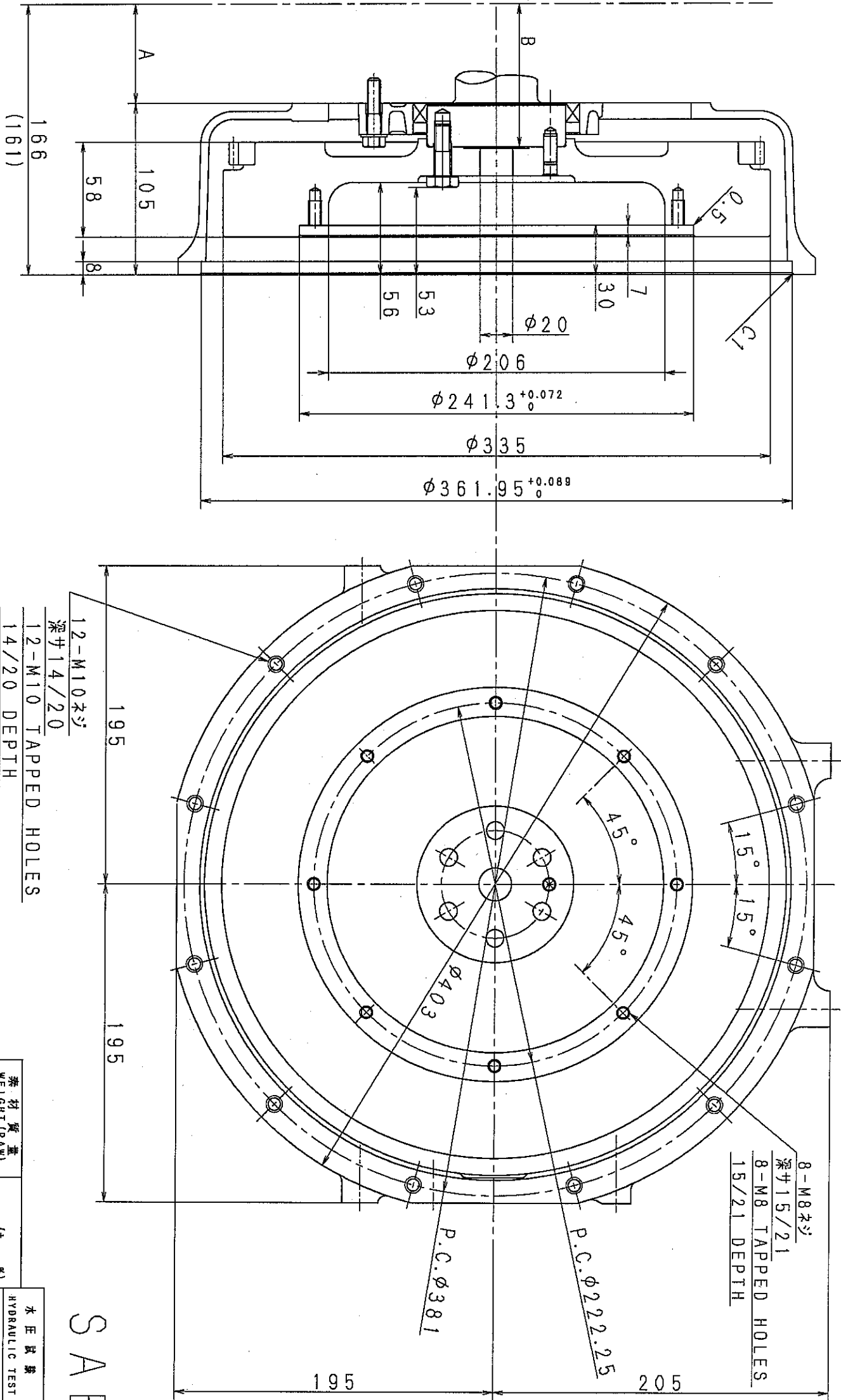
真円度・円筒度八、半径法

三 角 法
3RD ANGLE PROJECTION

面 来 歴
CAREER

(2003.10.24)
CAD化新調及改
Rev. 1 (04.3.3)
Add TNV DI (YDSTX-04025)

NO. 1 CYLINDER CENTER
NO. 1シリンダ中心



SAE # 4

MODEL	DIMENSION A	DIMENSION B	FLYWHEEL HOUSING	FLYWHEEL CMP	FLYWHEEL	RING GEAR
3TNE78A, 82A	56	83.5	171420-01600	171301-21590	171301-21400	124550-21600
3TNE84, 88	61	88	↑	171340-21590	171340-21400	↑
4TNE84 (T), 88	61	88	↑	171420-21590	171420-21400	↑
3TNV82A	56	83.5	↑	171420-21590	171420-21400	↑
3TNV84 (T), 88	61	88	↑	171340-21590	171340-21400	↑
4TNV84 (T), 88	61	88	↑	171420-21590	171420-21400	↑

12-M10ネジ
深サ14/20
12-M10 TAPPED HOLES
14/20 DEPTH

8-M8ネジ
深サ15/21
8-M8 TAPPED HOLES
15/21 DEPTH

P.C.φ381
P.C.φ403

主 材 質 量 WEIGHT (RAW) WEIGHT (淨重)	(注 参)	水 圧 試 験 HYDRAULIC TEST (空 圧 試 験 PNEUMATIC TEST)	MPa kg/cm ² MPa kg/cm ²	小 形 工 間 検 査 G. MANAGER 技 術 長	1/2
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主 管 主 材 主 材 質 量 WEIGHT (RAW) WEIGHT (淨重)	主 管 主 材 主 材 質 量 WEIGHT (RAW) WEIGHT (淨重)	主 管 主 材 主 材 質 量 WEIGHT (RAW) WEIGHT (淨重)	主 管 主 材 主 材 質 量 WEIGHT (RAW) WEIGHT (淨重)	主 管 主 材 主 材 質 量 WEIGHT (RAW) WEIGHT (淨重)	主 管 主 材 主 材 質 量 WEIGHT (RAW) WEIGHT (淨重)
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設計 DESIGNED 野村	製図 DRAWN 清水	年月日 DATE 2003 10.24	名称 NAME 子ヨツケツウ"シヨウサナズ"	直結部詳細図	DETAILED OF COUPLING
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ENGINE PRODUCT OPERATIONS DIV.	YANMAR CO., LTD.	3-1-1 CODE 73-71301-0031	図 2 A2
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