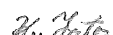


SPECIFICATION
OF
MITSUBISHI DIESEL ENGINE
MODEL : S12R-PTA2-C
FOR DIESEL GENERATOR SET

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THAT FOR WHICH IT IS LOANED, IS PROHIBITED.

								APPROVED BY	DRAWN BY
									
					DATE	2012.12.17			

1. GENERAL

Object and use	: Diesel generator
Color of painting	: Mansel No. 7.5BG6/1.5
Applicable conditions	
Ambient temperature	: 5°C ~ 40°C
Altitude	: 1500m above sea level
Max ,humidity	: 85%
Place of installation	: In door

Shop test

Diesel engine running tests shall be carried out by the following items.

Starting test

Load test	: 1/4, 2/4, 3/4 Load each
	: 4/4 Load

Governor test	: Governor test should be done along with respective governor controller
---------------	---

Safety stop device test

Guarantee

The guarantee shall be validated for the period of either 1year or 1000Hr (at Hr counter) after installation, whichever the shorter.

The guarantee shall cover against manufacturer defect, materials and workmanship only, and shall not be applicable to damage sustained through mishandling of the equipment.

Standard

All items, unless otherwise specified, are in accordance with JIS and manufacturer's standards.

2. PRINCIPAL PARTICULARS

Model	:	MITSUBISHI S12R-PTA2 - C
Type	:	4cycle stroke, water cooled diesel engine
Combustion chamber	:	Direct injection type
Aspiration	:	Turbocharged with after cooler
Number of cylinders	:	12-V
Bore × stroke	:	170mm × 180mm
Total displacement	:	49.03liter
Compression ratio	:	13.5 : 1
firing order	:	1 - 12 - 5 - 8 - 3 - 10 - 6 - 7 - 2 - 11 - 4 - 9
Direction of rotation	:	Counter clockwise as viewed from flywheel side
Engine dimensions (Approx.)	:	Length Apx. 2568mm
	:	width Apx. 1401mm
	:	Height Apx. 1592mm
Dry weight (Approx.)	:	5400kg (without accessories)
Fuel oil	:	ASTM D975 No. 2 - D or BS 2869 class A
Lubricating oil	:	API service CF class
	:	SAE No. 15W-40
Output at ISO 3046 standard air conditions (25°C, 100kPa, 30% Humid)		
Stand-by rating	:	1285kW/1500min ⁻¹
Fuel consumption ratio at Stand-by rating	:	197g/kW-hr
(allowance +5%)		
Lub, oil consumption ratio at Stand-by rating	:	within 0.8g/kW-hr

3. STANDARD EQUIPMENTS

(1) power line system

Flywheel	: DWG.NO.37796-21001 SAE J620d 21in, except screw size
Flywheel housing	: DWG.NO.37796-21001 SAE J617c No.00, except screw size
Engine mounting	: DWG.NO.37796-14001 4 points mounting, C = 250mm
Torsional vibration damper	: Viscous type × 2pcs

(2) Air intake system

Air cleaner	: DWG.NO.37796-30305 loose supply DWG.NO.S35-1032 Donaldson EGB20× 2 pcs Paper element type without inlet cap
Turbocharger	: MITSUBISHI TD Type Model : TD13L-48QRC(47)
Air cooler	: Jacket water cooled type Plated element type
Air heater	: Not supply

(3) Exhaust system

Exhaust manifold	: Air cooled type with heat insulator
Muffler	: Not supply
Flexible pipe	: DWG.NO.S37-1021 (47910-81400) loose supply JIS 300A, L = 370mm, weight 70kg
Companion flange	: Not supply
Breather	: DWG.NO.37796-43012 Up side direction type For blow - off to outside of engine room

(4) Lubricating system

Oil pump	:	Gear pump type
Capacity of oil pump	:	1500min ⁻¹ : 480 L/min.
Lub. oil pressure	:	0.5~0.65 Mpa
Quantity of oil (Approx.)	:	Oil pan full level : 150 liter
		low level : 110 liter
		Others (filter etc.) : 30 liter
		Total : 180 liter
Lub. oil filter (Full flow)	:	DWG.NO.37796-40001
		Paper element cartridge type × 4pcs
		filter mesh : 20 μ
		with by - pass alarm switch
Lub. oil filter (By - pass flow)	:	DWG.NO.37796-40001
		Paper element cartridge type × 1pc
		filter mesh : 2 μ
Lub. oil cooler	:	Water cooled corrugated type with by - pass valve

(5) Cooling system

Water pump	:	Gear drive centrifugal type
Capacity of water pump	:	1500min ⁻¹ : 1650 L/min.
Thermostat	:	Wax pellet type
		Open at 71°C ~ 85°C
Fan	:	Pusher type steel fan 1524 diameter, Gear drive
		Fan speed ratio i = 0.672

(6) Fuel system

Fuel inlet pipings	:	DWG.NO.37796-62112 loose supply
		flexible hose (Rc 3/4 joint)
Fuel return pipings	:	DWG.NO.37796-61312 loose supply
		flexible hose (Rc 3/4 joint)
Fuel overflow of Inj. Pump and fuel leak - off of Nozzle have to return to fuel tank		
Injection pump	:	Bosch type "PS6A" without timer
Feed pump	:	Piston type with priming pump
Injection Nozzle	:	Hole type 0.31mm × 10 holes
Fuel filter	:	DWG, No.37796-62002
	:	Paper element cartridge type filter mesh : 5 μ

(7) Control system

Governor	: DWG.NO.37796-63005 Electronic speed governor Speed droop : 0 ~ 5% adjustable
Actuator	: DWG.NO.S13-1761 Supply voltage : DC24V± 20% Current consumption At starting : 13A Normal operation : 0.5 ~ 2A Min. Supply voltage : DC16V50%ED
Controller	: DWG.NO.S13-1042 loose supply Model : XS-400B-03 (04410-33100) Supply voltage : DC24V± 20%
Potentiometer	: For low idling speed setting Not supply
Potentiometer	: For rated speed setting Not supply
Connector	: DWG.NO.S13-1022 loose supply From actuator to controller 5000mm length
Magnetic pick up	: DWG.NO.S13-2011 With connector
Cable	: DWG.NO.S13-2020 loose supply From magnetic pick up to controller 4300mm length

(8) Starting system

Starter switch	: with key, with heat position Not supply
Starting motor	: DWG.NO.37796-66001 DC24V, 7.5KW × 2pcs Reduction type with safety relay with 2 poles connector (DWG.NO.S14-0320)
Safety relay	: DWG.NO.S10-0150 loose supply For Parallel running of starting motor

Current of starter	: Rush 1250A Cranking 400A (Ambient temp : 5°C, Lub. oil : SAE No. 30)
Fuel limit solenoid	: DWG.NO.37796-87503 DWG.NO.S13-0282 Fuel limit at engine starting Energized to fuel control until rated speed
Alternator	: DWG.NO.S10-0540 DC24V, 30A, with voltage regulator with 2 poles connector (DWG.NO.S10-0550)
Recommended battery capacity	: DC24V, 400AH Not supply
Battery switch	: Not supply
(9) Stopping system	: DWG.NO.37796-87503
Automatic stop	Automatically shut - down by stop solenoid and electronic governor power off simultaneously
Stop solenoid	: DWG.NO.S13-0282 Energized to run type DC24V, 30.7A(pull), 0.58A(hold)
Manual stop	: By stop lever
(10) Safety device	
Alarm swtitches	: DWG.NO.37796-90206
Alarm and trip	
Low oil press. switch	: DWG.NO.S11-0796 (04442-45400) Diaphragm type : 0.15 MPa switch on
High water temp. switch	: DWG.NO.S11-0551 (04442-34500) Wax type : 98°C switch on
Alarm	
Oil filter alarm switch	: DWG.NO.S11-1370 Piston type : 0.15 MPa switch on
Oil filter alarm lamp	: Not supply
Air filter alarm indicator	: DWG.NO.S11-0920 loose supply Mechanical type : 635mmH ₂ O switch on

(11) Instrument

Meter and sensor	:	DWG.NO.37796-90119
Tachometer	:	Pulse type for engine speed With electrical hour meter Not supply
Magnetic pick up	:	DWG.NO.S13-2011 For tachometer, pin-joint type
Cable	:	For magnetic pick up, 4300mm length Not supply
Thermometer	:	Electrical type for jacket water and lub. oil temp. Not supply
Pressure gage	:	Electrical type for lub. oil press. Not supply With 2 poles connector (DWG.NO.S14-0330)
Thermometer	:	For exhaust gas temp. Not supply

(12) Others

Turning device	:	DWG.NO.37796-71001 Gear type, for maintenance
Service meter	:	Not supply
Tools	:	Not supply
Spare parts	:	Not supply

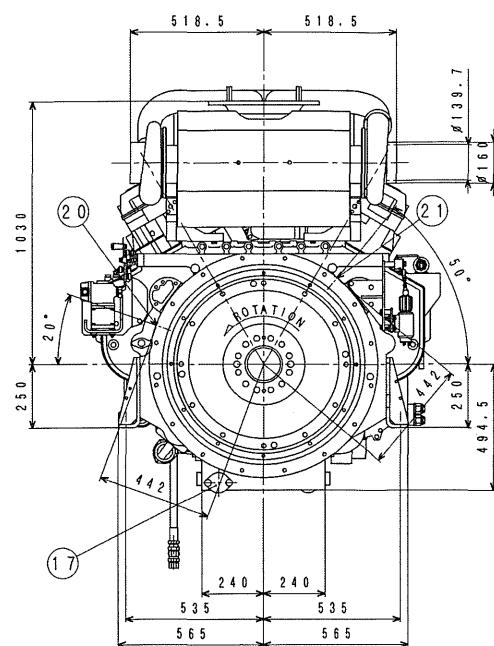
4. ACCESSORIES (Loose supply parts)

NO.	PARTS NO.	PATRS NAME	Q'TY	DWG.NO.	
1	47220-47703	AIR CLEANER ASSY.	2	S35-1032	37796-30305
2	47220-47600	HOSE, ELBOW	2	S35-0701	
3	47510-77300	DUCT, AIR	2		
4	47220-47300	HOSE, RUBBER	2	S35-0711	
5	05317-52001	CLAMP	4		
6	05317-52801	CLAMP	4		
7	47910-81400	FLEXIBLE PIPE	1	S37-1021	
8	45955-22160	HOSE	1		37796-43012
9	05317-51001	CLAMP	4		
10	47510-50700	PIPE, BREATHER	1		
11	45950-51700	PIPE, FLEXIBLE	1		37796-61312
12	45950-11300	CONNECTOR	1		
13	45950-51700	PIPE, FLEXIBLE	1		37796-62113
14	45950-11300	CONNECTOR	1		
15	04410-33100	CONTROLLER	1	S13-1042	37796-63005
16	04410-32902	CONNECTOR, ACTUATOR	1	S13-1022	
17	04410-43500	CABLE, PICK UP	1	S13-2020	
18	04322-40100	RELAY, SAFETY	1	S10-0150	
19	F8665-02100	CONNECTOR	2	S14-0320	for starter
20	32B90-00300	CONNECTOR	1	S10-0550	for alternator
21	MH052231	CONNECTOR	1	S14-0330	37796-90119
22	47220-34401	INDICATOR	4	S11-0920	37796-90206

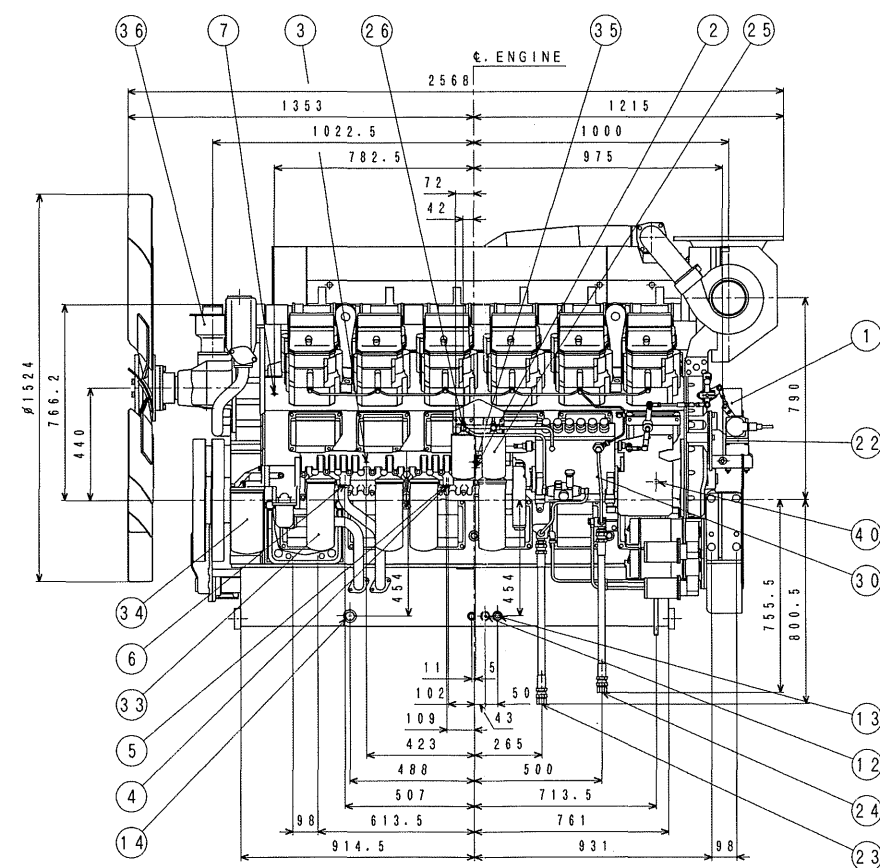
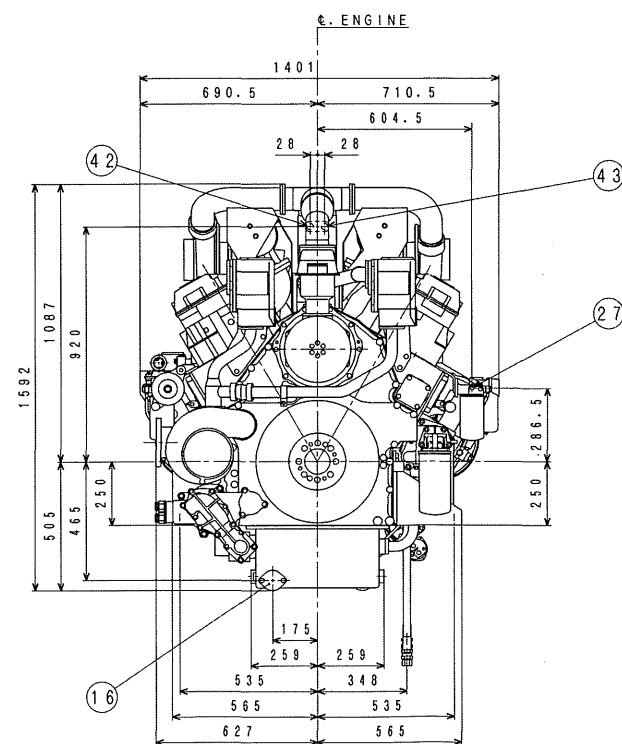
5. DRAWINGS

NO.	DWG. NO.	DWG. NAME	REV.
1	37796-00230	ENGINE OUTLINE	
2	37796-01001	JOINT DETAIL	
3	37796-04029	WIRING DIAGRAM	
4	37796-14001	MOUNTING DETAIL	
5	37796-21001	FLYWHEEL & HOUSING DETAIL	
6	37796-30305	AIR CLEANER	
7	37796-40001	OIL FILTER	
8	37796-43012	BREATHER	
9	37796-61312	FUEL RETURN PIPING	
10	37796-62002	FUEL FILTER	
11	37796-62112	FUEL INLET PIPING	
12	37796-63005	GOVERNOR	
13	37796-66001	STARTING MOTOR	
14	37796-71001	TURNING GEAR	
15	37796-87503	STOP & FUEL LIMIT SOLENOID	
16	37796-90119	METER & SENSOR	
17	37796-90206	ALARM SWITCH	
18	S10-0150	SAFETY RELAY	
19	S10-0540	ALTERNATOR	
20	S10-0550	CONNECTOR	
21	S11-0551	THERMO SWITCH	
22	S11-0796	PRESSURE SWITCH	
23	S11-0920	INDICATOR	
24	S11-1370	FILTER ALARM SWITCH	
25	S13-0282	SOLENOID	
26	S13-1022	CONNECTOR	
27	S13-1042	CONTROLLER	
28	S13-1761	ACTUATOR	
29	S13-2011	MAGNETIC PICK UP	
30	S13-2020	CABLE, PICK UP	
31	S14-0320	CONNECTOR	
32	S14-0330	CONNECTOR	

NO.	DWG. NO.	DWG. NAME	REV.
33	S35-0701	HOSE, ELBOW	
34	S35-0711	HOSE, RUBBER	
35	S35-1032	AIR CLEANER ASSY.	
36	S37-1021	FLEXBLE PIPE	

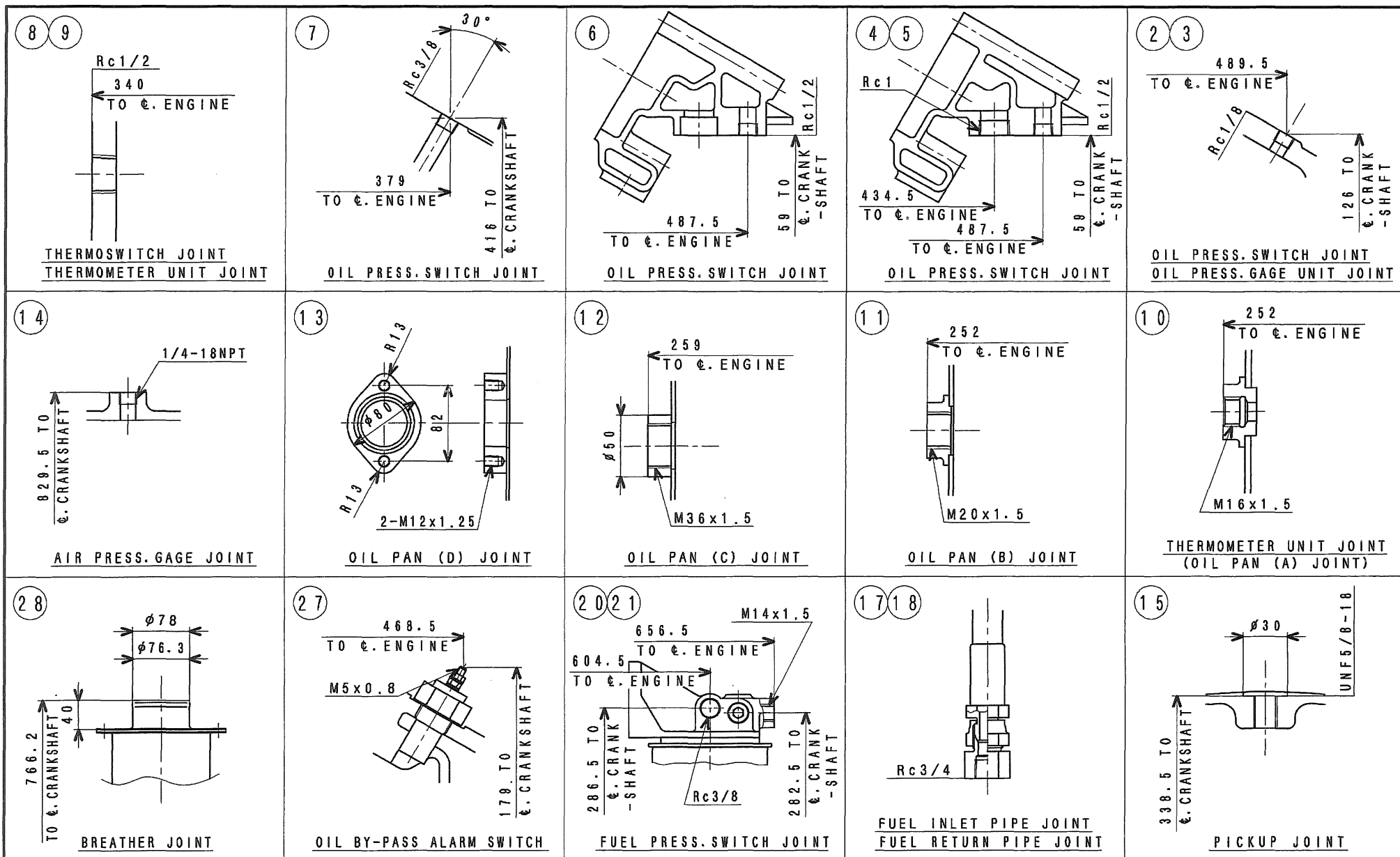


NO.	PARTS NAME	SIZE	REFERENCE
1	FLYWHEEL & HOUSING		37796-21001
2	OIL PRESS. GAGE UNIT JOINT	Rc1/8	37796-01001
3	OIL PRESS. SWITCH JOINT	Rc1/8	↑
4	OIL PRESS. SWITCH JOINT	Rc 1	
5	OIL PRESS. SWITCH JOINT	Rc1/2	
6	OIL PRESS. SWITCH JOINT	Rc1/2	
7	OIL PRESS. SWITCH JOINT	Rc3/8	
8	THERMOMETER UNIT JOINT	Rc1/2	
9	THERMOSWITCH JOINT	Rc1/2	
10	THERMOSWITCH JOINT	Rc1/2	
11	THERMOSWITCH JOINT	Rc1/2	
12	OIL PAN (A) JOINT	M16x1.5	
13	OIL PAN (B) JOINT	M20x1.5	
14	OIL PAN (C) JOINT	M26x1.5	
15	OIL PAN (C) JOINT	M36x1.5	
16	OIL PAN (D) JOINT		
17	OIL PAN (D) JOINT		
18	AIR PRESS. GAGE JOINT	Rc1/8	
19	AIR PRESS. GAGE JOINT	Rc1/8	
20	PICKUP JOINT	S/8-INCH	
21	PICKUP JOINT	S/8-INCH	37796-01001
22	GOVERNOR		
23	FUEL INLET PIPE JOINT	Rc3/4	37796-01001
24	FUEL RETURN PIPE JOINT	Rc3/4	37796-01001
25	FUEL FILTER		
26	FUEL PRESS. SWITCH JOINT	M14x1.5	37796-01001
27	FUEL PRESS. SWITCH JOINT	Rc3/8	↑
28	FUEL PRESS. SWITCH JOINT	M14x1.5	↑
29	FUEL PRESS. SWITCH JOINT	Rc3/8	37796-01001
30	FUEL INJECTION PUMP		
31	OIL FILTER		
32	OIL LEVEL GAGE		
33	OIL FULL-FLOW FILTER		
34	OIL BY-PASS FILTER		
35	OIL BY-PASS ALARM SWITCH		37796-01001
36	BREATHER	Ø76.3	↑
37	WATER INLET PIPE JOINT	30A	
38	WATER OUTLET PIPE JOINT		↓
39	WATER OUTLET PIPE JOINT		37796-01001
40	WATER DRAIN COCK		
41	EXHAUST FLANGE	300A	
42	THERMOMETER, EX. JOINT	Rc3/4	37796-01001
43	THERMOMETER, EX. JOINT	Rc3/4	37796-01001
44	STOP SOLENOID		
45	RACK LIMIT SOLENOID		



注記 (4) 本図は、マウンティングC=250仕様である。
(3) 本図のガバナは、電子ガバナ仕様である。
(2) 三菱TD13-48QRC47/1500rpm、TF15M-60QV49/1800rpmターボ装
(1) 本図は、S12R-PTA2/ファン付の標準外観図である。

				S12R-PTA2 (CM-BR) DIESEL ENGINE	
4590-5036		98.1.15		福田	
CNG	EO-MO	年	日	福田	:
組号 SFPD	月 日	機台 CHK	竹 谷	番 田	番号 DHW
				1998.12.10	



注記 (1) 本図は、PTA/ファン付用ジョイント詳細図である。

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3	4590-E889	'08.10.3	斉藤	3rd ANGLE PROJECTION
2	4591-0364	'03.10.27	福田	尺度 SCALE
1	4590-4993	'99.2.25	福田	:
CHG	EO-NO	DATE	CHK	
認可 APPD	仁 尾	換図 CHK	竹 谷 福 田	製図 DRN 谷 銅 戸 島 1998. 6. 8

S12R

JOINT DETAIL

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 37796-01001
DRAWING No.

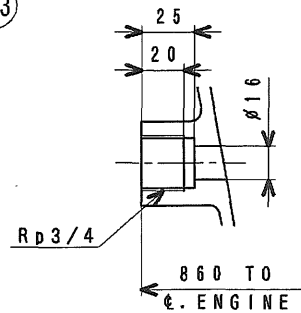
3 1/2

旧引
汎特
2008
12.8

FULL-CAD

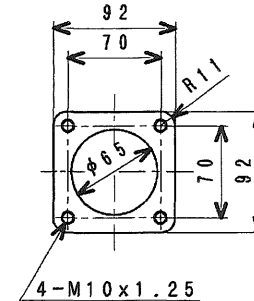
3 新図
④ 旧図
サイズ
A 3
① 組立図
2 鋳造部品
5 切削品
3 板金溶接品
6 その他(購入品)
4 組立品

(33)



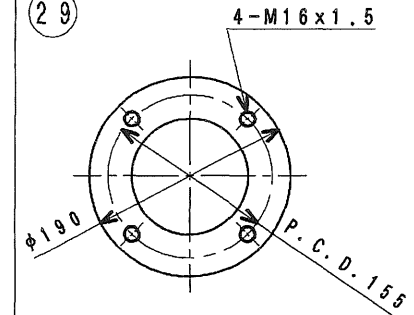
THERMOMETER, EX. JOINT

(30)



WATER OUTLET PIPE JOINT

(29)



WATER INLET PIPE JOINT

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2		4591-0364	'03.10.27	福田	 3rd ANGLE PROJECTION 尺度 SCALE
1		4590-4993	'99.2.25	福田	
CHG	EO-NO	DATE		CHK	
認可 APPD	仁 尾		検図 CHK	竹 谷 福 田	製図 DRN
				谷 戸 島	1999. 5. 8

S12R

JOINT DETAIL

三菱重工業株式会社 汎用機・特車事業本部

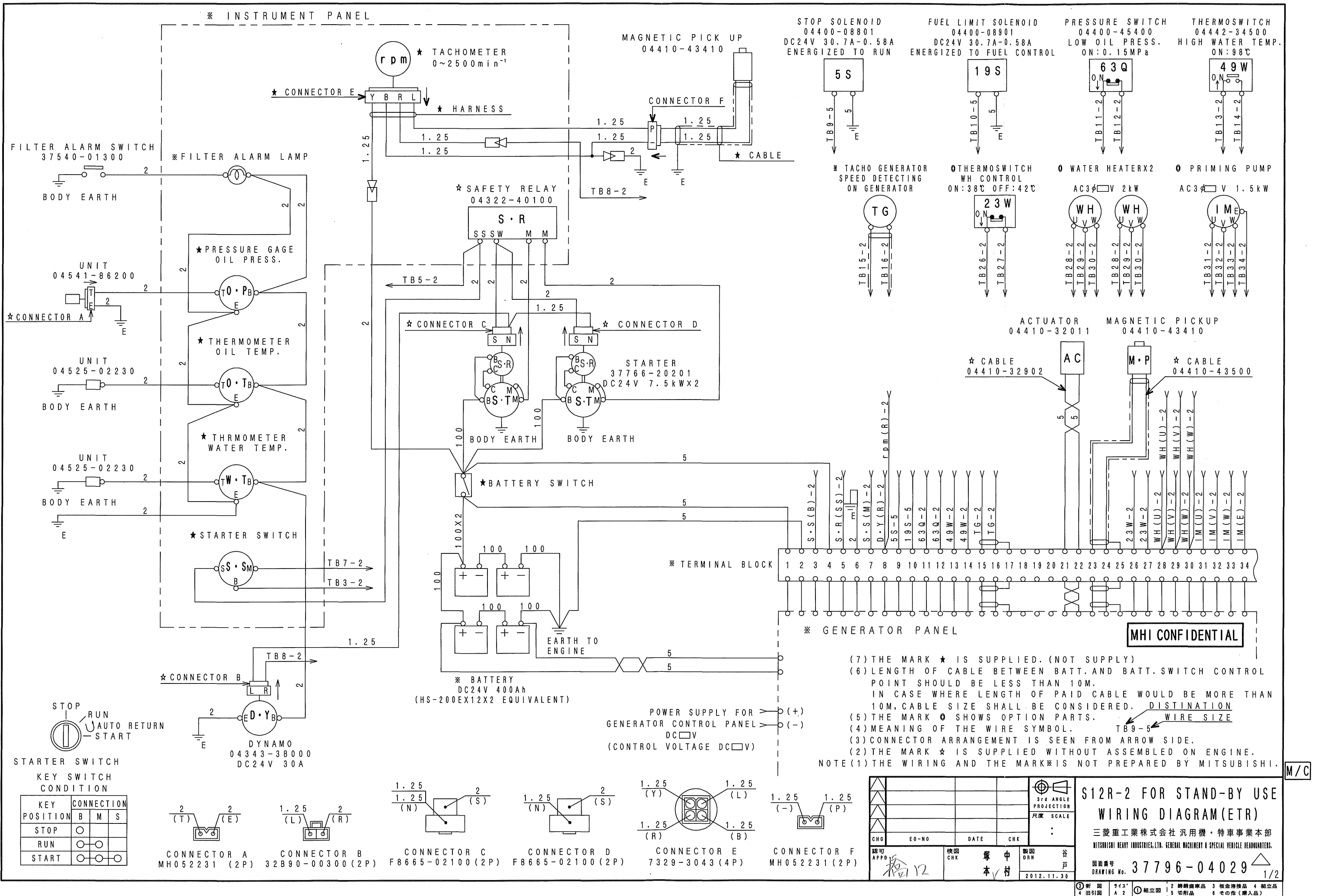
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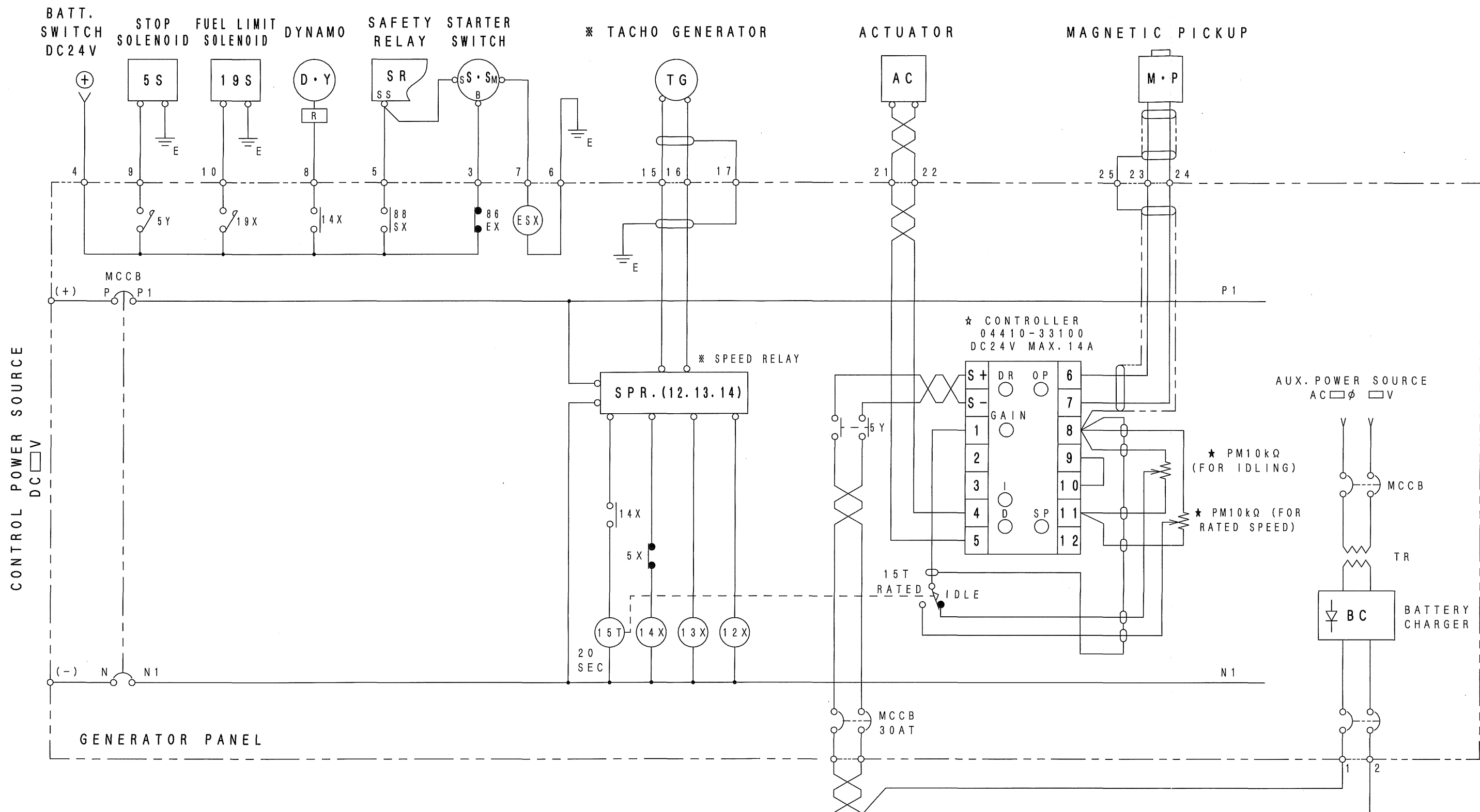
図面番号
DRAWING No. 37796-01001 2

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

旧引
汎特
2003
11.4

FULL-CAD





14X : CONTACT IS CLOSED ON ENGINE SPEED ESTABLISHMENT (ABOUT 450 R. P. M.)
 5X : CONTACT IS OPENED ON STOP ORDER
 19X : CONTACT IS CLOSED ON START ORDER.
 : CONTACT IS OPENED ON VOLTAGE ESTABLISHMENT.
 86EX : CONTACT IS OPENED ON EMERGENCY STOP ORDER (HEAVY TROUBLE).
 88SX : START ORDER (ENG. CRANKING), CONTACT IS CLOSED ON CRANKING ORDER.
 5Y : RUN SIGNAL FOR STOP SOLENOID & GOVERNOR CONTROLLER
 TO ACTIVATE OPERATION SIGNAL '5Y' TO GOVERNOR CONTROLLER
 AND STOP SOLENOID, START-UP CONTACT POINT SIGNAL GIVEN
 FROM STARTER SWITCH ON MACHINE-SIDE PANEL IS NECESSARY
 TO THE CIRCUIT FOR START-UP ON GENERATOR PANEL.

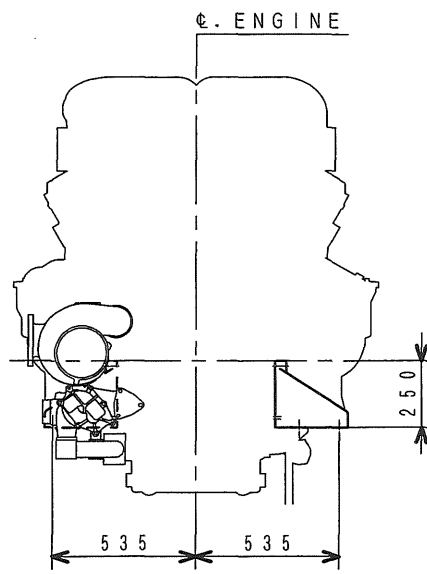
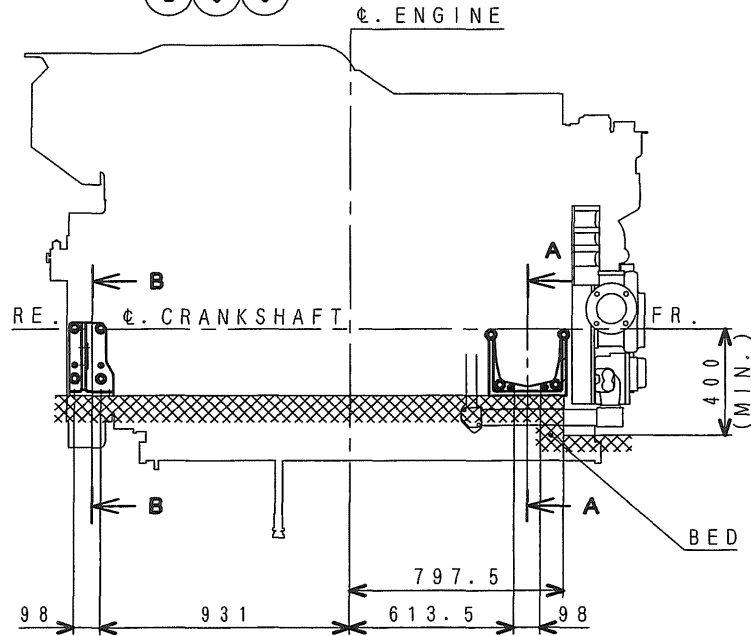
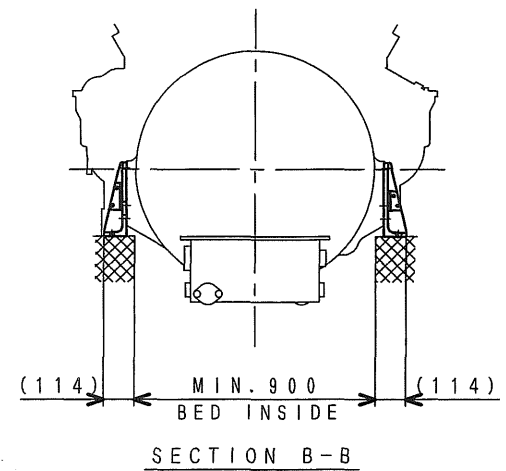
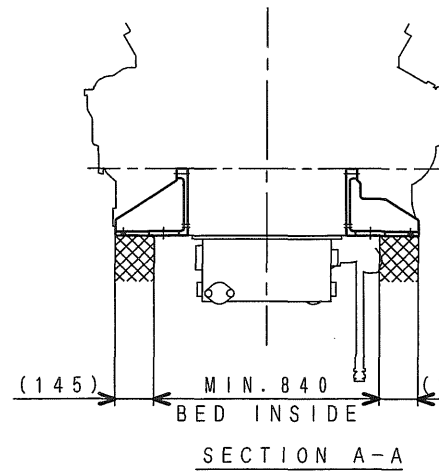
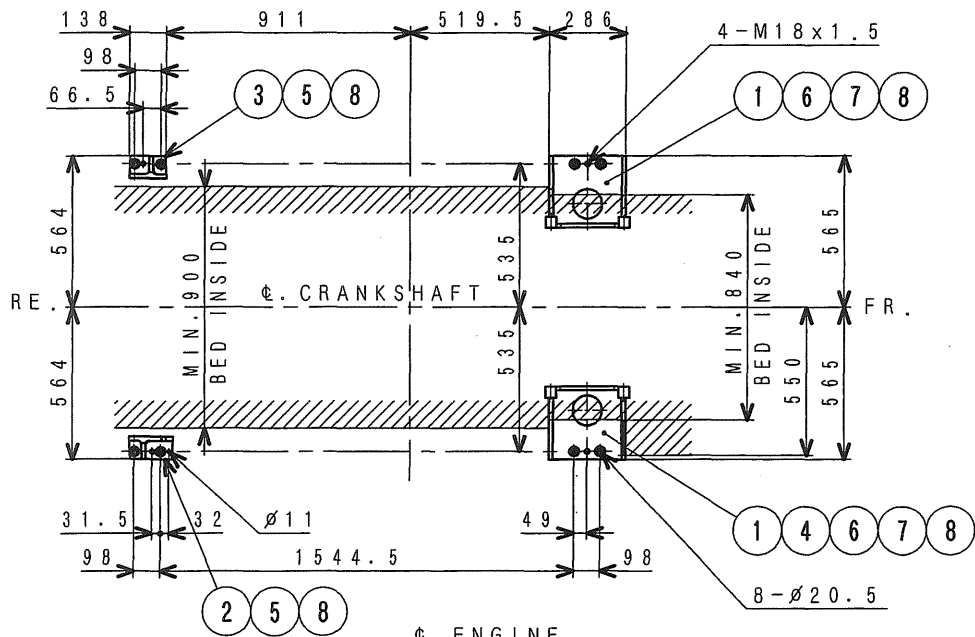
(2) THIS DRAWING IS WIRING DIAGRAM BETWEEN MACHINE SIDE AND THE GENERATOR PANEL. FOR DETAILS, REFER SEQUENCE DIAGRAM (ETR) S25-0200
 NOTE (1) SHALL BE MAKE MORE THAN 40 TURNS PER 1 METRE AND LESS THAN 2Ω OF RESISTANCE ON BATTERY LINE AND ACTUATOR LINE TWIST CABLE.

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CHG	E0-NO	DATE	CHK
APPD	橋口	橋口	橋口
CHG	橋口	橋口	橋口
APPD	橋口	橋口	橋口
CHG	橋口	橋口	橋口
APPD	橋口	橋口	橋口

S12R-2 FOR STAND-BY USE
 WIRING DIAGRAM (ETR)
 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 DEPARTMENTS.
 図面番号 37796-04029
 DRAWING No. 2/2

M/C



8	33401-02600	WASHER	16
7	F1035-20075	BOLT	4
6	F1035-20050	BOLT	3
5	F1035-20045	BOLT	8
4	F1035-20035	BOLT	1
3	37714-42100	BRACKET, MTG. L	1
2	37714-32200	BRACKET, MTG. R	1
1	37714-20100	BRACKET, MTG. FR	2
No.	PARTS NO.	PARTS NAME	Q'TY

3	4590-H414	'12.11.16	谷戸
2	4590-E890	'08.10.3	斉藤
1	4590-5475	'99.8.6	福田
CHG	EO-NO	DATE	CHK
認可 APPD	検図 CHK	竹 谷	福 田
製図 DRN	谷 戸	銅 島	
1997. 9. 4			

S12R

MOUNTING

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 37796-14001
DRAWING No.

3 新図
① 旧引図

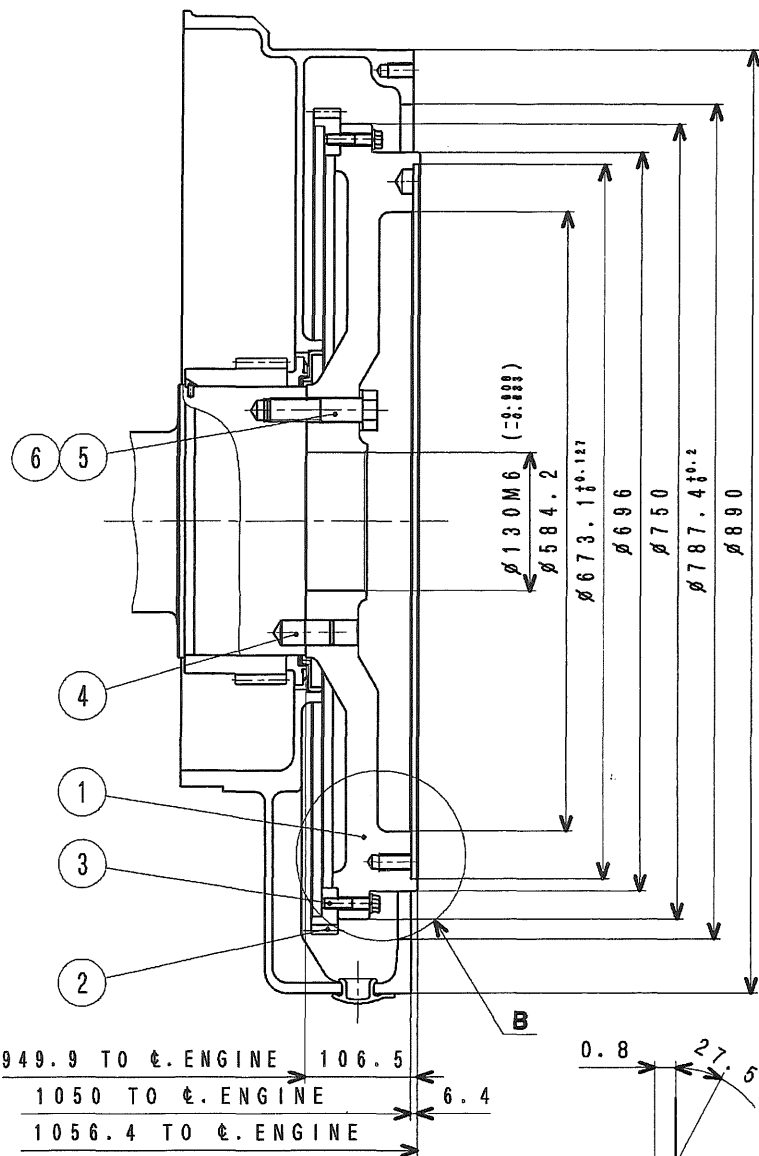
サイズ
A 3

① 組立図
1 5 切削品
2 鋳造品
3 板金溶接品
4 組立品
6 その他(購入品)

注記 (1) 本図は、マウンティングセンターハイトC=250用である。

MHI CONFIDENTIAL

M/C



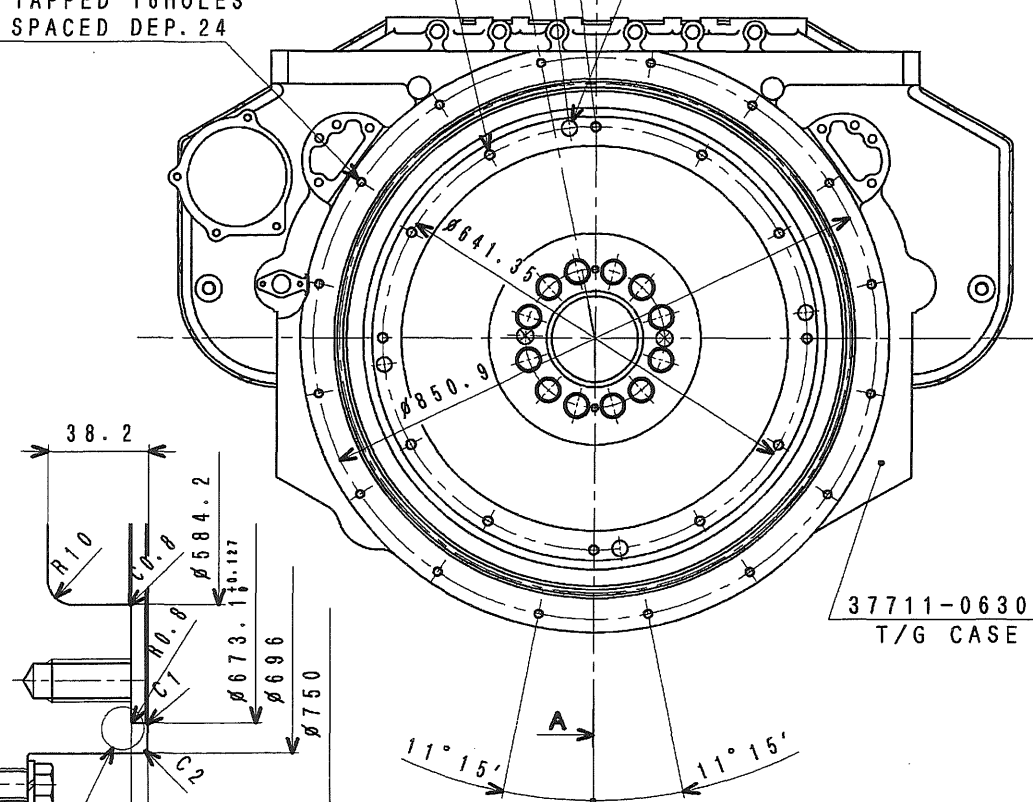
SECTION A-A

MHI CONFIDENTIAL

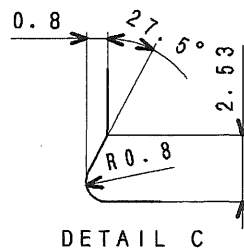
注記 (2) 本図のフライホイールは、部番37721-00061 F/W ASSY. に含まれる。
(1) 本図は、標準フライホイール&ハウジングであり、SAE J620c 21 in フライホイール及びSAE 617b NO. 00 フライホイールハウジングに準拠する。

M16x1.5 TAPPED 12 HOLES
EQUALLY SPACED DEP. 30
M14x1.5 TAPPED 16 HOLES
EQUALLY SPACED DEP. 24

Ø23 DRILL 4 HOLES
EQUALLY SPACED DEP. 10



DETAIL B



DETAIL C

No.	PARTS NO.	PARTS NAME	Q'TY
6	33707-11701	WASHER	12
5	F1035-22090	BOLT	12
4	33320-04701	PIN, DOWEL	2
3	F1805-10045	BOLT	12
2	37721-20201	GEAR, RING	1
1	37721-00601	FLYWHEEL	1
37721-00061 F/W ASSY.			1

4	4590-D566	'07. 9. 4	斉藤
3	4590-A708	'05. 3. 24	浅沼
2	4591-0260	'03. 9. 12	福田
5	4590-G643	'11. 3. 24	斉藤
CHG	ED-NO	DATE	CHK
認可 APPD	橋	換図 CHK	竹 福 谷 田
製図 DRN		谷 斎 戸 藤	1997. 9. 22

S12R

FLYWHEEL & HOUSING

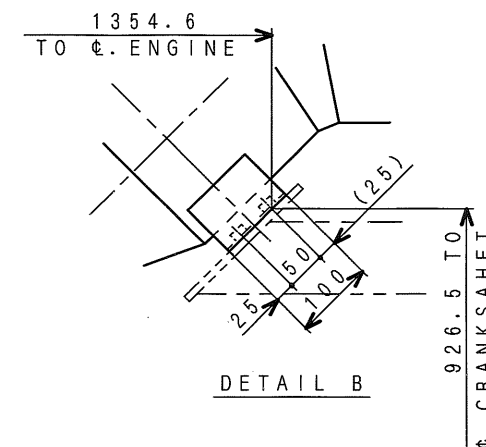
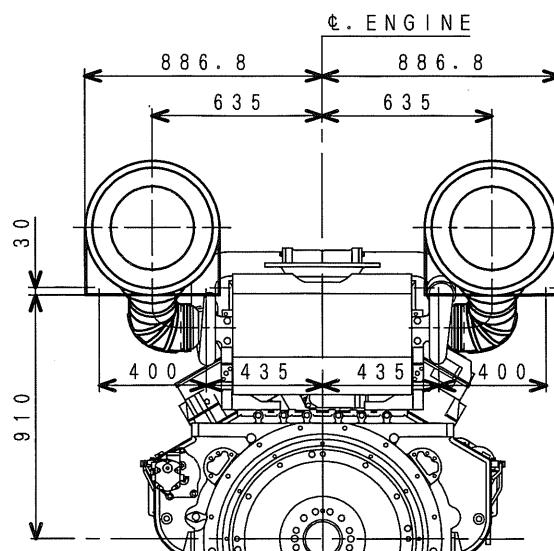
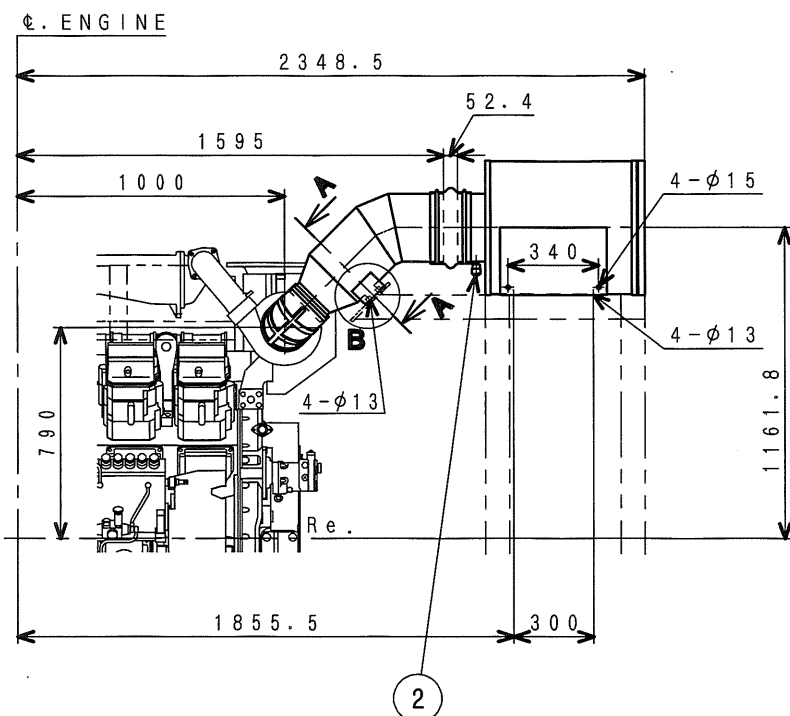
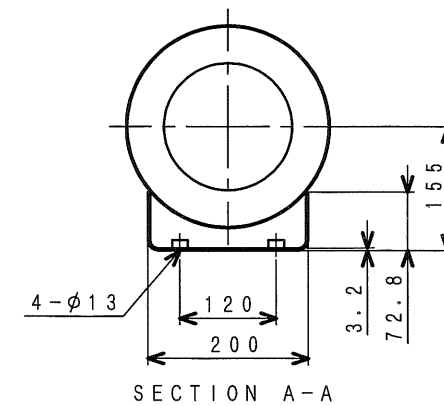
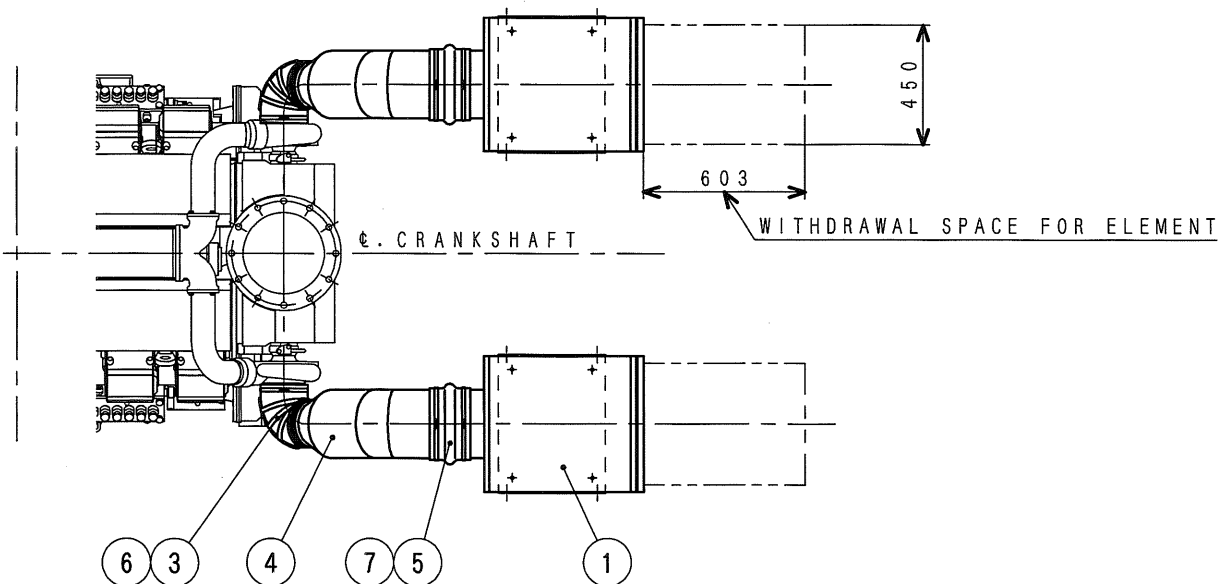
三菱重工業株式会社 汎用機・特車事業本部
MITSUBISHI HEAVY INDUSTRIES, LTD. GENERAL MACHINERY & SPECIAL VEHICLE HEADQUARTERS.

図面番号 37796-21001
DRAWING No.

旧引
汎特
2011
5.23

FULL-CAD

3 新図
④ 旧引図
サイズ
A 3
① 組立図
2 読図標準品
5 切削品
3 板金溶接品
6 その他(購入品)
4 組立品



NOTE (1) THE ☆ MARKED PARTS ARE LOOSE SUPPLY.

☆ 7	05317-52801	CLAMP	4
☆ 6	05317-52001	CLAMP	4
☆ 5	47220-47300	HOSE, AIR	2
☆ 4	47510-77300	PIPE, AIR	2
☆ 3	47220-47600	PIPE, AIR	2
☆ 2	47220-34401	INDICATOR 635mmH ₂ O	2
☆ 1	47220-47703	CLEANER, AIR	2
No.	PARTS NO.	PARTS NAME	Q'TY

注記 (1) 本図のエアクリーナは、ドナルドソン製EGB-20型である。

MHI CONFIDENTIAL

2 4590-H434 '12.11.30 谷戸		3rd ANGLE PROJECTION 尺度 SCALE	
1 4590-5135 '99.9.20 福田			
CHG	EO-NO	DATE	CHK
認可 APPD	検図 CHK		製図 DRN
仁 福		谷 斎	
尾 田		戸 藤	
1998.11.13			

S12R

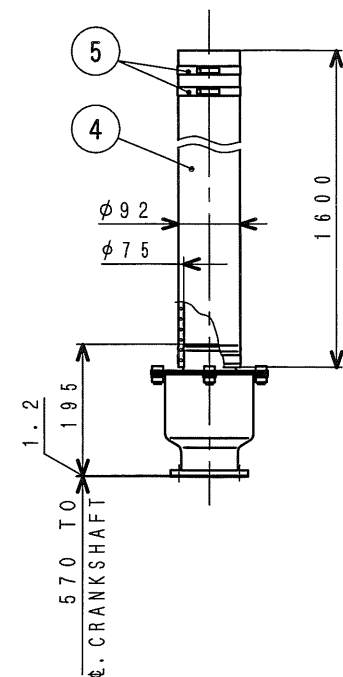
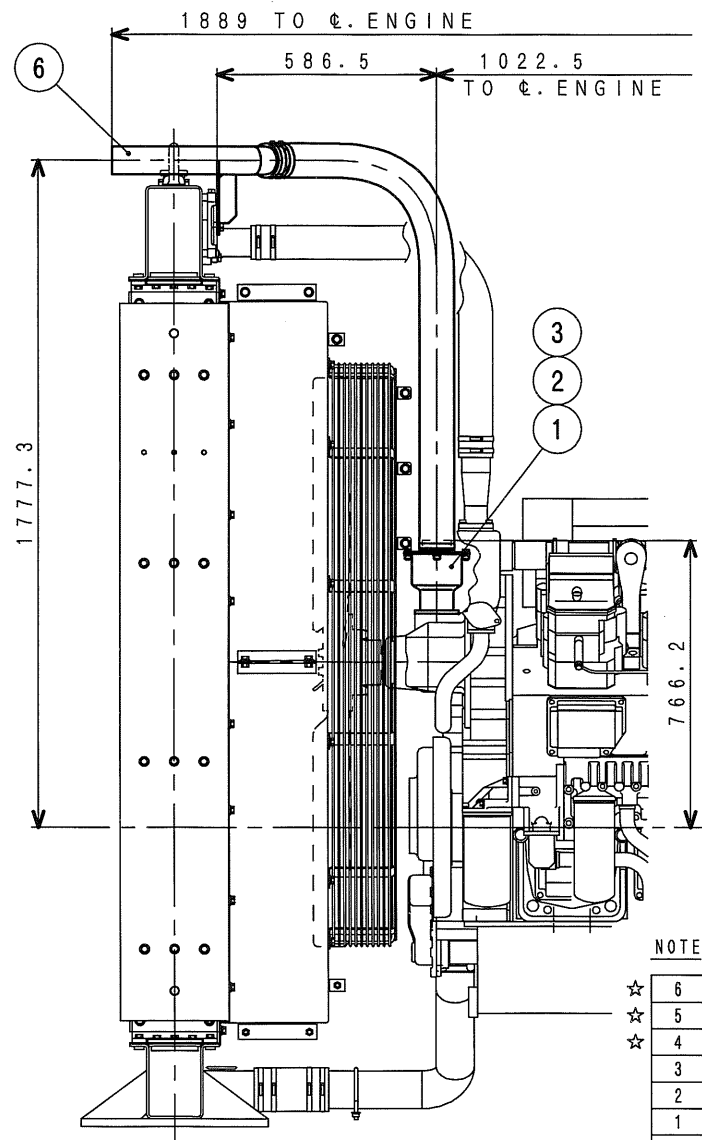
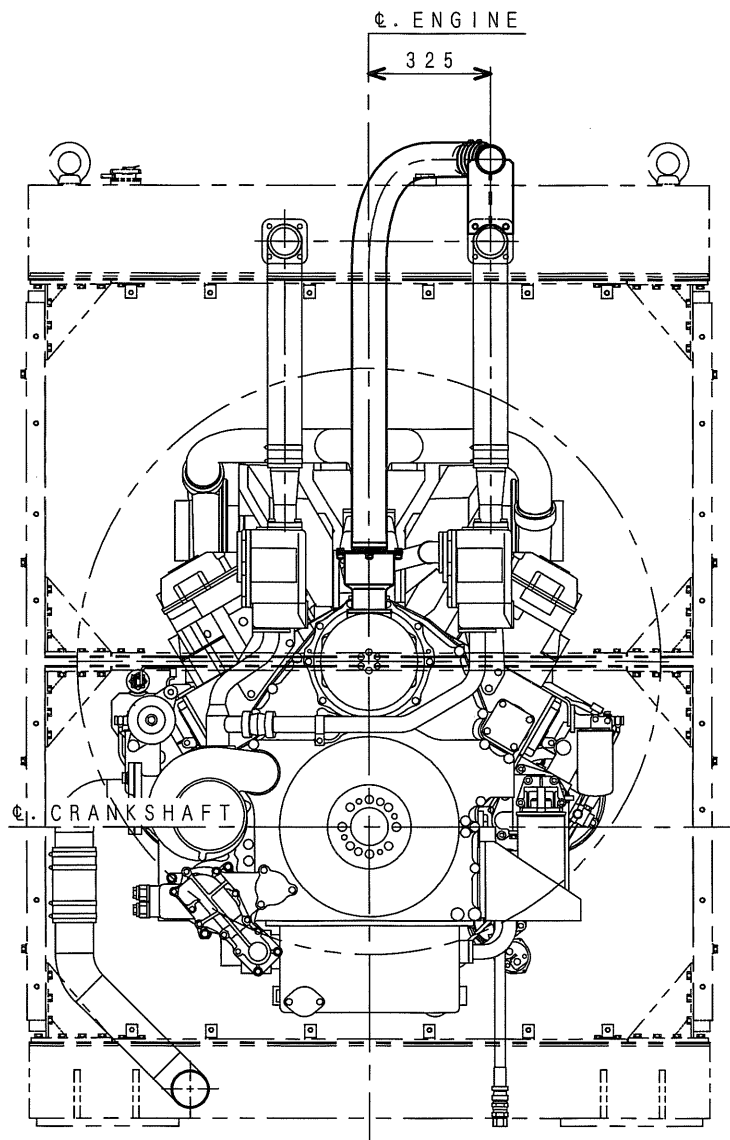
AIR CLEANER

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 37796-30305 2

3 新図 15 旧引図 1 組立図 2 鋼線車品 3 板金溶接品 4 組立品 5 切削品 6 その他(購入品)

M/C



DETAIL OF BREATHER

NOTE (1) THE ☆ MARKED PARTS ARE LOOSE SUPPLY.

☆ 6	47510-59300	PIPE, BREATHER	1
☆ 5	05317-51000	CLAMP	4
☆ 4	45955-22160	HOSE, VINYL	1
3	F1805-12025	BOLT	4
2	04829-70800	PACKING	1
1	37743-00501	BREATHER ASSY.	1
No.	PARTS NO.	PARTS NAME	Q'TY

MHI CONFIDENTIAL

注記 (1) 本図は、オイルフィラ装備前側上向きブリーザ及びパイピング図である。

CHG		EQ-NO		DATE		CHK	
認可 APPD		検図 CHK		製図 DRN		谷 戸	
橋本		中村		谷戸		2012.11.30	

S12R-PTA2

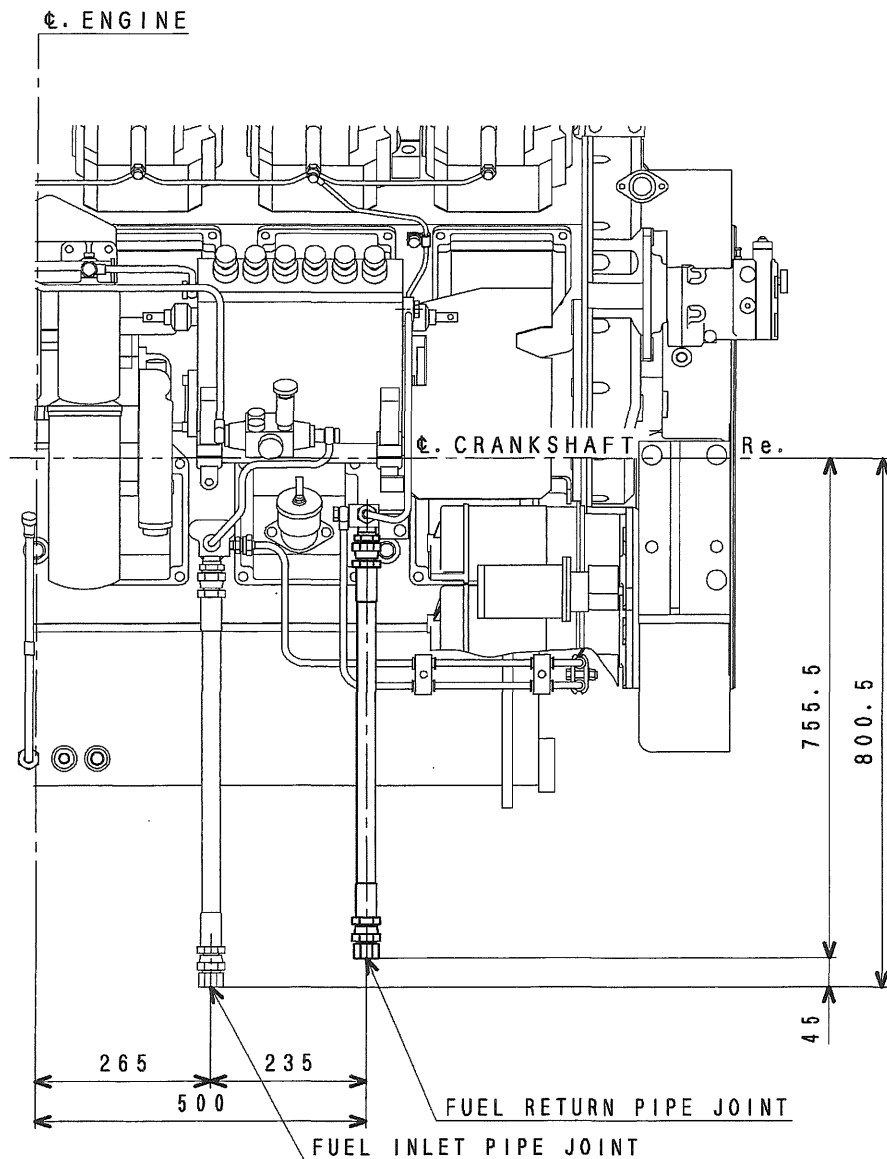
BREATHER

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 37796-43012

① 新図 ② 旧図 ③ 組立図 ④ 部品図 ⑤ 部品図 ⑥ 部品図 ⑦ 部品図 ⑧ 部品図 ⑨ 部品図 ⑩ 部品図 ⑪ 部品図 ⑫ 部品図 ⑬ 部品図 ⑭ 部品図 ⑮ 部品図 ⑯ 部品図 ⑰ 部品図 ⑱ 部品図 ⑲ 部品図 ⑳ 部品図 ㉑ 部品図 ㉒ 部品図 ㉓ 部品図 ㉔ 部品図 ㉕ 部品図 ㉖ 部品図 ㉗ 部品図 ㉘ 部品図 ㉙ 部品図 ㉚ 部品図 ㉛ 部品図 ㉜ 部品図 ㉝ 部品図 ㉞ 部品図 ㉟ 部品図 ㊱ 部品図 ㊲ 部品図 ㊳ 部品図 ㊴ 部品図 ㊵ 部品図 ㊶ 部品図 ㊷ 部品図 ㊸ 部品図 ㊹ 部品図 ㊺ 部品図 ㊻ 部品図 ㊼ 部品図 ㊽ 部品図 ㊾ 部品図 ㊿ 部品図

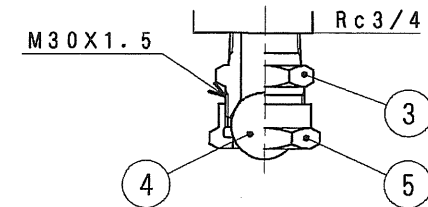
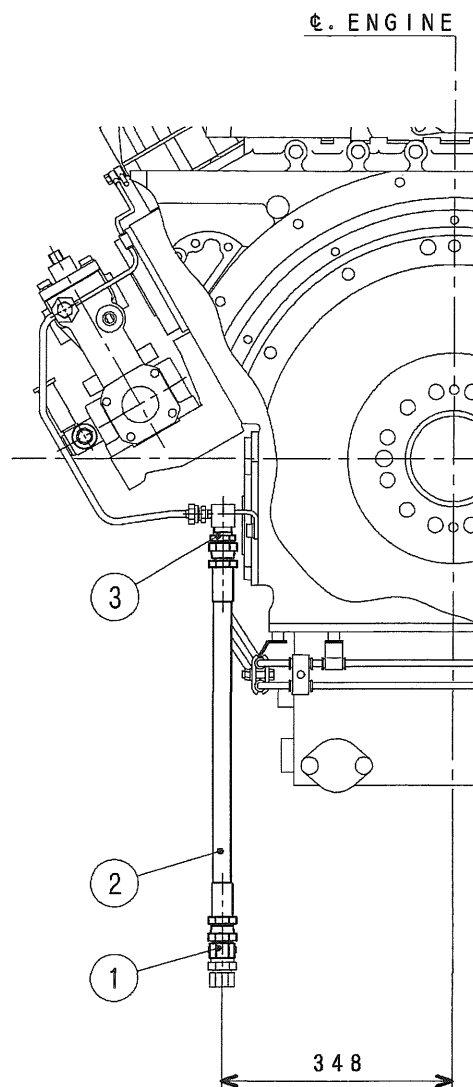
M/C



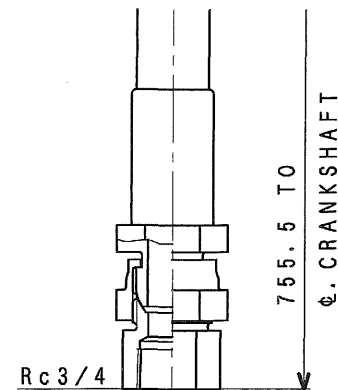
L. H.

MHI CONFIDENTIAL

注記 (2) 本図の符号 ④⑤ は、燃料戻り口盲栓である。(エンジン出荷状態)
 (1) 本図は、図番 37796-61305 に対しフレキホース及び先端コネクタを別送品としたものである。



FUEL RETURN PIPE JOINT



FUEL RETURN PIPE JOINT

NOTE (1) THE ☆ MARKED PARTS ARE LOOSE SUPPLY.

5	F4521-20000	NUT, UNION	1
4	F8000-32000	STEEL BALL, BEARING	1
3	F4540-20000	CONNECTOR	1
☆ 2	45950-51700	PIPE, FLEXIBLE	1
☆ 1	45950-11300	CONNECTOR	1
NO.	PARTS NO.	PARTS NAME	Q'TY

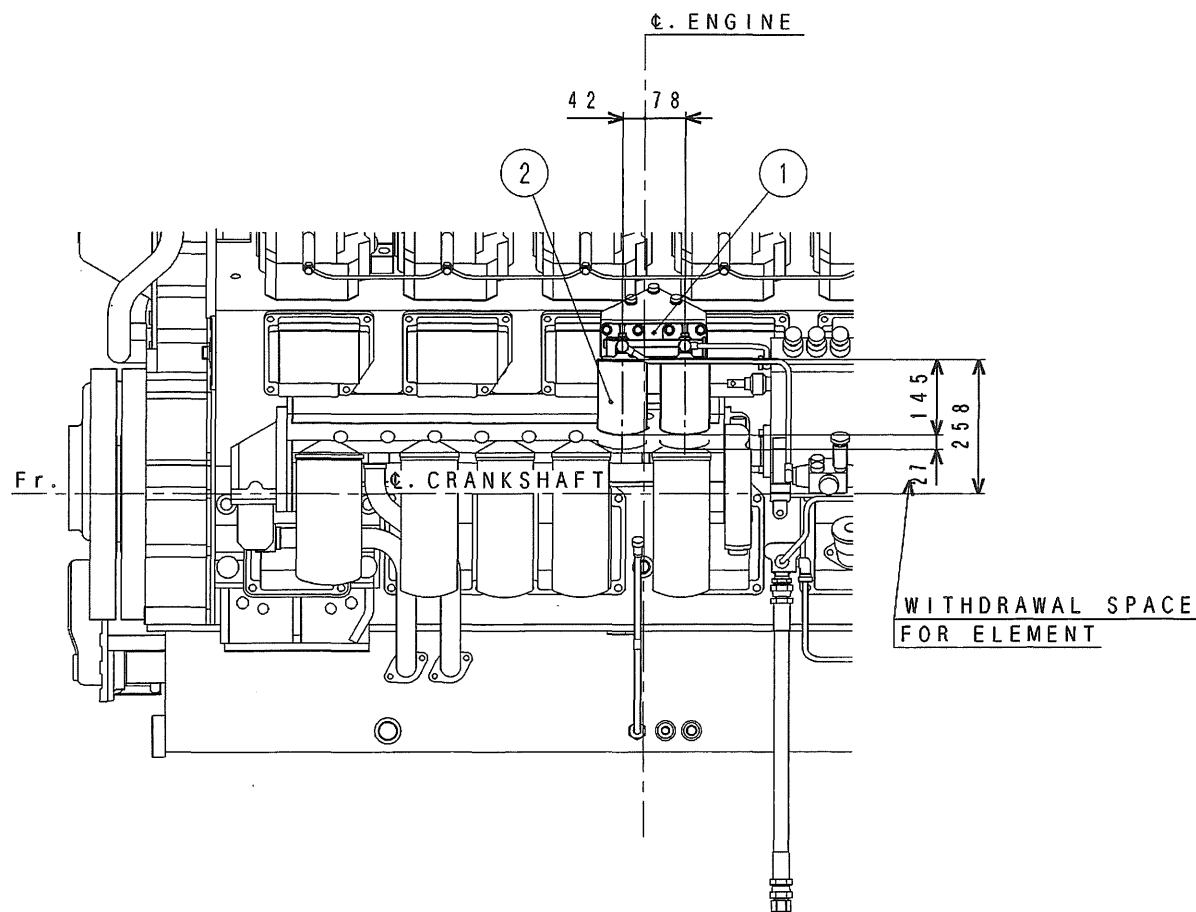
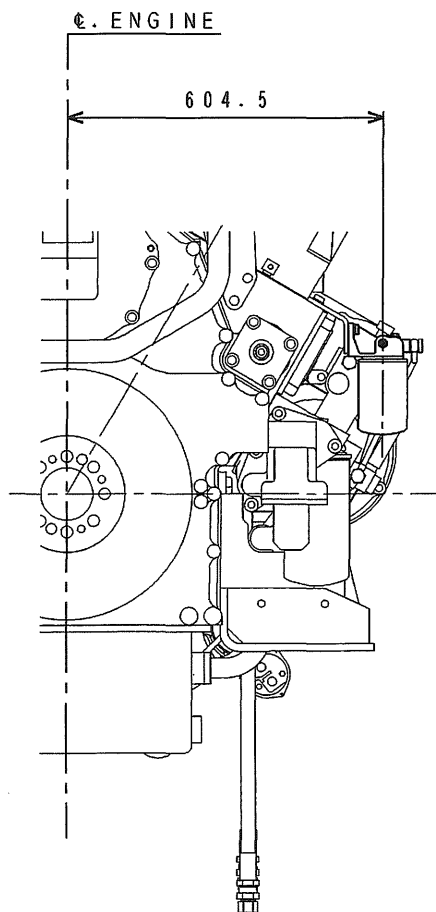
3rd ANGLE PROJECTION			
尺度 SCALE			
CHG	ED-NO	DATE	CHK
認可 APPD	橋	検図 CHK	三谷
			製図 DRN
			浅沼
			2008.12.9

S12R
 FUEL RETURN PIPING
 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 37796-61312
 DRAWING No.

③ 新図 ④ 旧図 ⑤ 組立図 ⑥ 鋳造部品 ⑦ 板金溶接品 ⑧ 組立品 ⑨ 切削品 ⑩ その他(購入品)

出図
 汎特
 2008
 12.10

FULL-CAD



MHI CONFIDENTIAL

2	32562-60300	ELEMENT	(4)
1	37562-60100	F/F ASSY. CTR L.O	2
No.	PARTS NO.	PARTS NAME	Q'TY

4590-6300	'00. 4.12	福田	3rd ANGLE PROJECTION
CHG	EO-NO	DATE	CHK
認可 APPD	清国	検図 CHK	竹谷 福田
製図 DRN	谷 銅 戸 島	1998. 2. 2	

S12R
FUEL FILTER PIPING

三菱重工業株式会社相模原製作所
SAGAMIHARA MACHINERY WORKS, MITSUBISHI HEAVY INDUSTRIES, LTD.

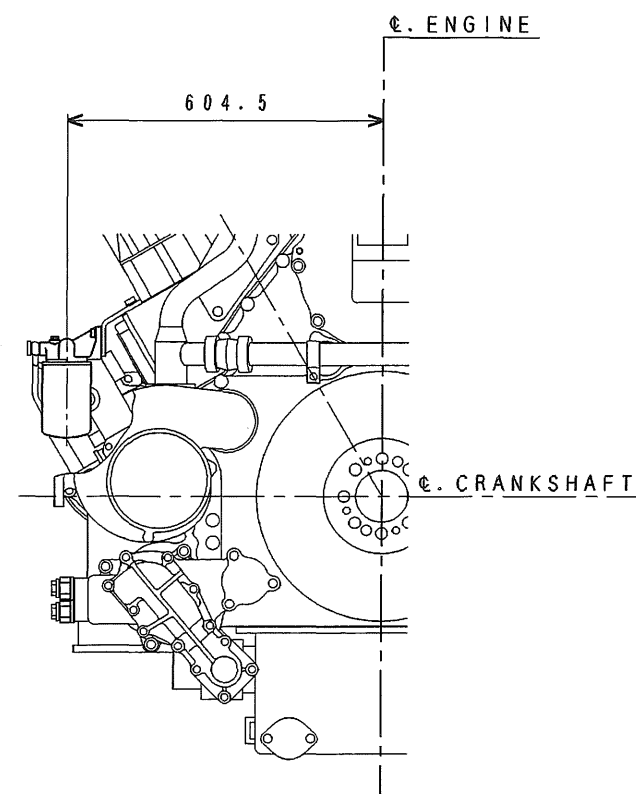
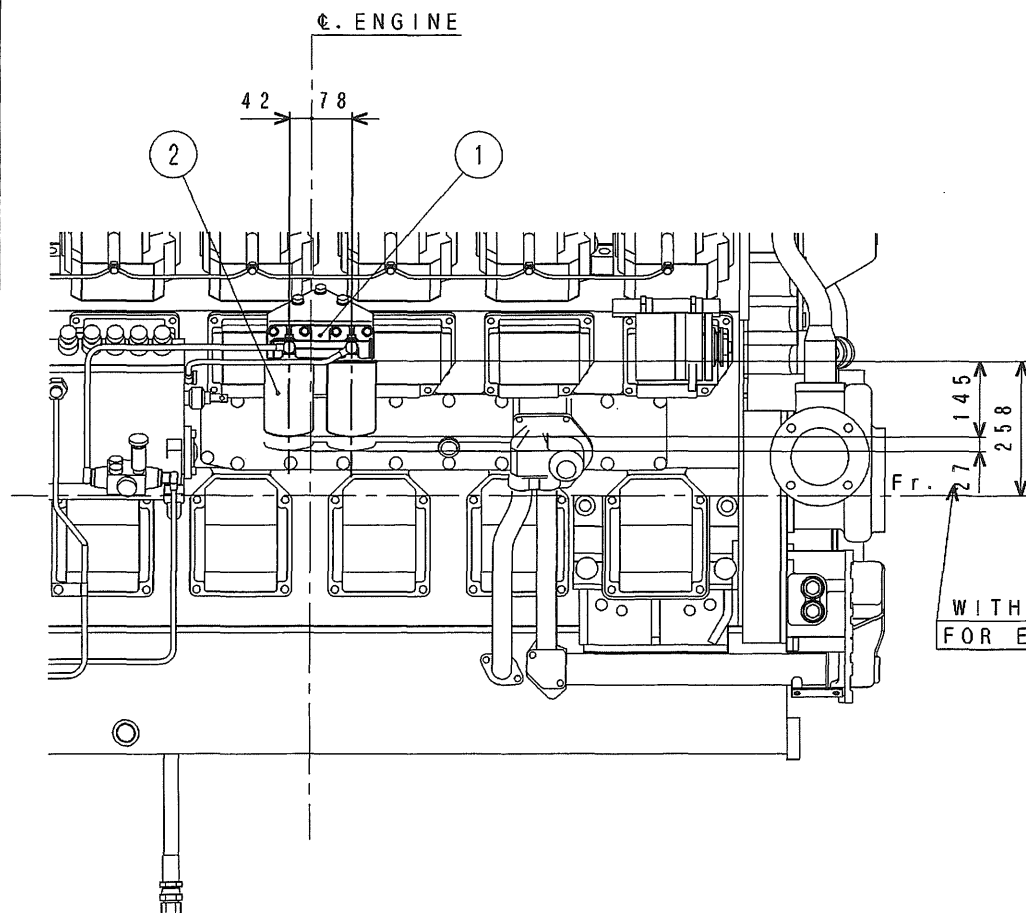
図面番号 37796-62002 1/2
DRAWING No.

注記 (1) 本図のF.Oエレメントは、軽油用である。

旧引
汎特
2000
4.28

FULL-CAD

3 新図 A 3 ① 組立図 2 鋳造部品 3 板金溶接品 4 組立品 ④ 旧引図 5 切削品 6 その他(購入品)



MHI CONFIDENTIAL

△						 3rd ANGLE PROJECTION 尺度 SCALE :
△						
△						
1	4590-6300	'00. 4.12	福田			
CHG	EO-NO	DATE	CHK			
認可 APPD	清 国	検図 CHK	竹 谷 福 田	製図 DRN	谷 銅 戸 島	
				1998. 2. 2		

S12R
FUEL FILTER PIPING

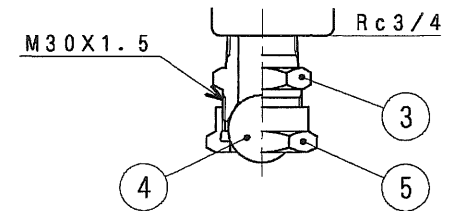
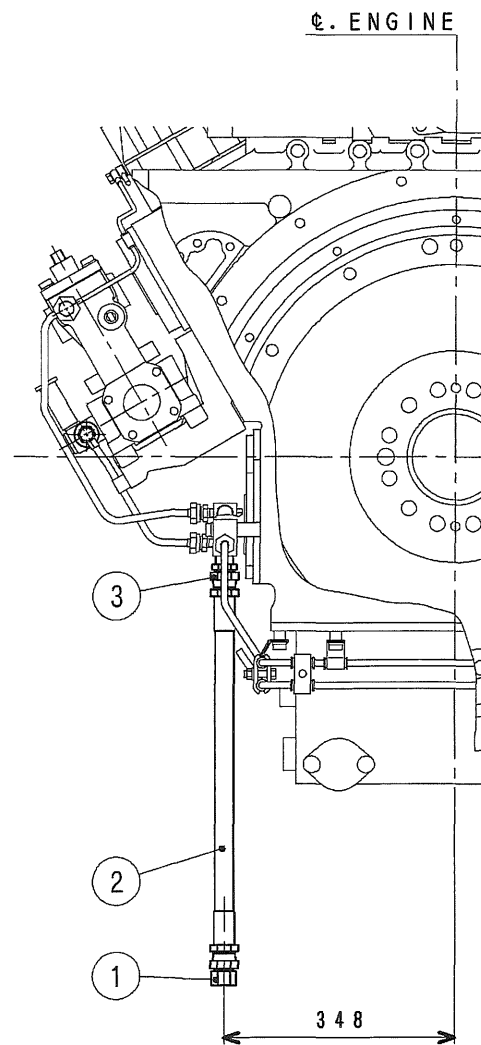
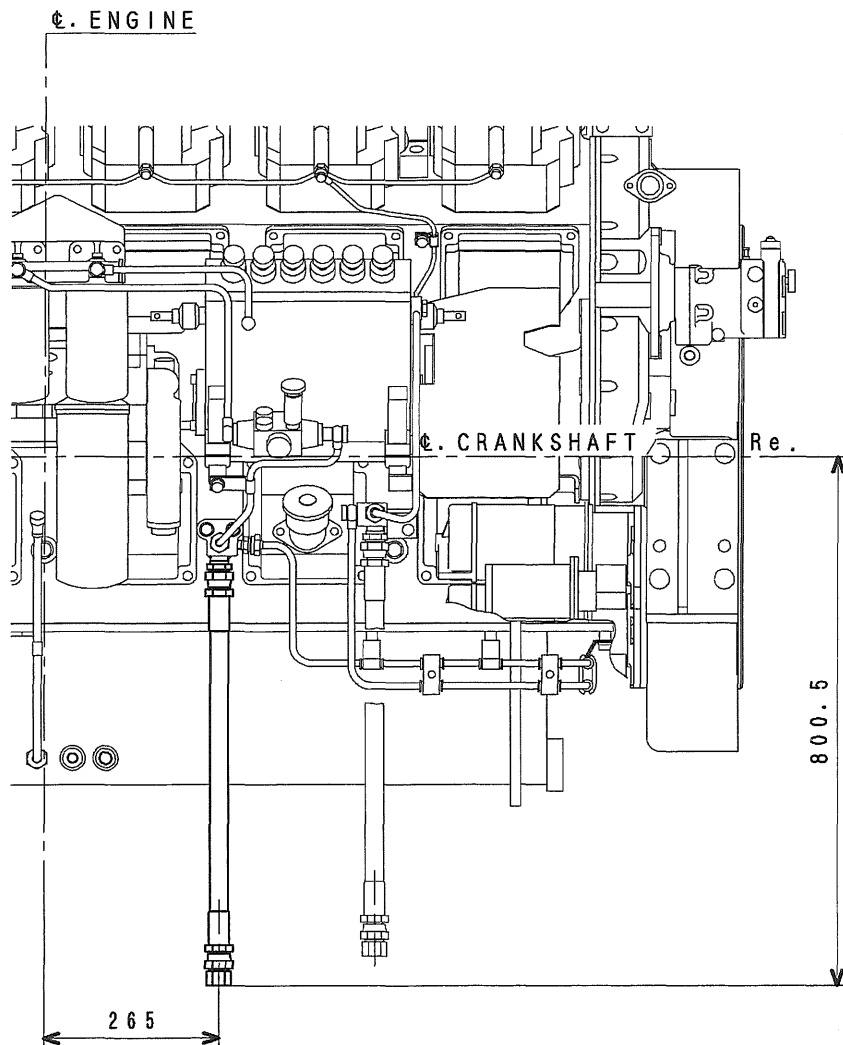
三菱重工業株式会社相模原製作所
SAGAMIHARA MACHINERY WORKS, MITSUBISHI HEAVY INDUSTRIES, LTD.

図面番号
DRAWING No. 37796-62002 ¹/₂

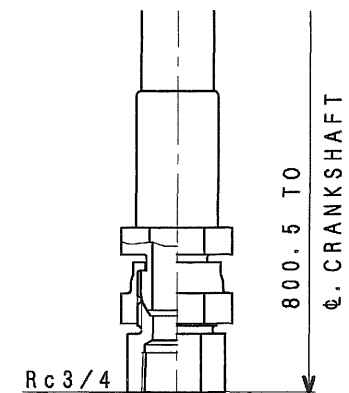
3 新 図	サイズ A 3	① 組立図	2 鋼鋳物部品	3 板金溶接品	4 組立品
④ 旧引図			5 切削品	6 その他(購入品)	

旧引
汎特
2000
4.28

FULL-CAD



DETAIL OF INLET PIPE JOINT



DETAIL OF INLET PIPE JOINT

NOTE (1) THE ☆ MARKED PARTS ARE LOOSE SUPPLY.

5	F4521-20000	NUT, UNION	1
4	F8000-32000	STEEL BALL, BEARING	1
3	F4540-20000	CONNECTOR	1
2	45950-51700	PIPE, FLEXIBLE	1
1	45950-11300	CONNECTOR	1
NO.	PARTS NO.	PARTS NAME	Q' TY

☆
☆

MHI CONFIDENTIAL

(2) 本図の符号 (4)(5) は、燃料入口盲栓である。(エンジン出荷状態)

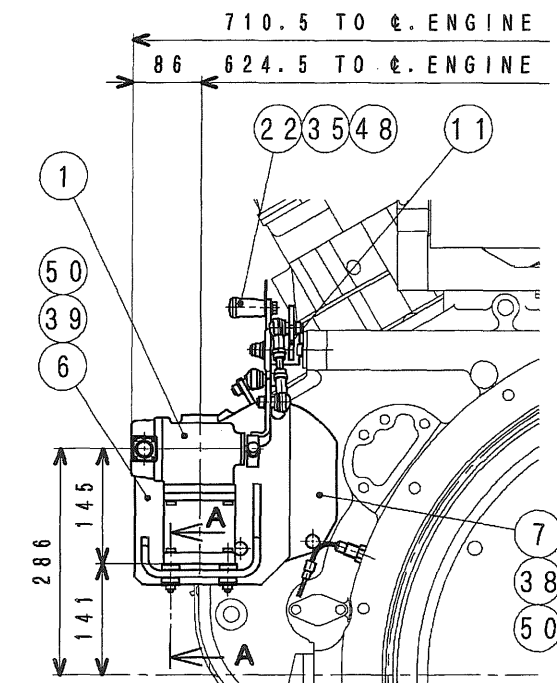
注記 (1) 本図は、図番 37796-62101 に対しフレキホース及び先端コネクタを別送品としたものである。

CHG 認可 APPD EO-NO 橋 DATE 三谷 CHK 上戸 製図 DEN 浅沼				3rd ANGLE PROJECTION 尺度 SCALE	S12R FUEL INLET PIPING 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 37796-62112
2008.12.9					

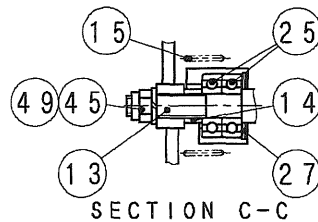
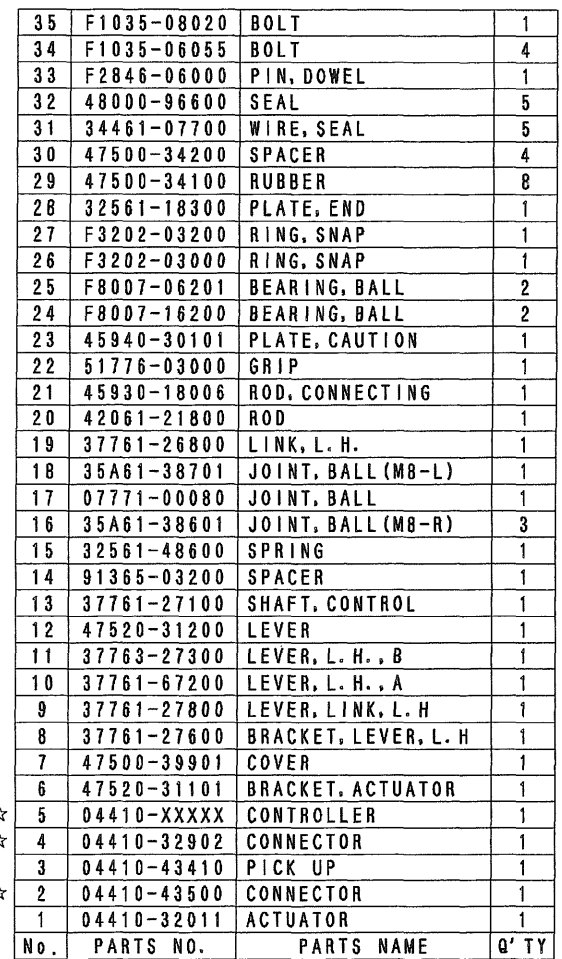
出図
汎特
2008
12.10

FULL-CAO

③ 断面図 ④ 組立図 ⑤ 銅鋳造品 ⑥ 板金溶接品 ⑦ 組立品 ⑧ 切削品 ⑨ その他(腐入品)



50	F2515-12000	WASHER, SPRING	6
49	F2515-10000	WASHER, SPRING	2
48	F2515-08000	WASHER, SPRING	9
47	F2515-06000	WASHER, SPRING	4
46	08302-06000	WASHER	4
45	F2445-10000	NUT, SELF LOCKING	1
44	F2300-08000	NUT	6
43	F2300-06000	NUT	8
42	09413-00800	NUT, LOCK	2
41	33063-11400	NUT	3
40	F1035-12065	BOLT	2
39	F1035-12035	BOLT	3
38	F1035-12025	BOLT	1
37	F1035-10040	BOLT	1
36	F1115-08025	BOLT	2



4	4590-E895	'08.10.3	齊藤	 3rd ANGLE PROJECTION 尺度 SCALE				
3	4590-B027	'05.3.25	浅沼					
2	4591-0108	'03.7.30	福田					
1	4590-4984	'99.3.5	福田					
CHG		EO-NO	DATE	CHK				
認可 APPO	松下		検図 CHK	竹谷	福田	製図 DRN	谷 戸	錫 島
								1998. 3. 2

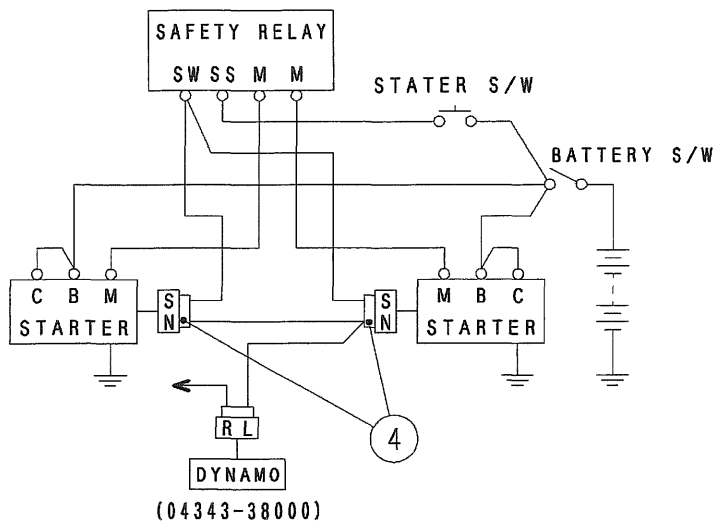
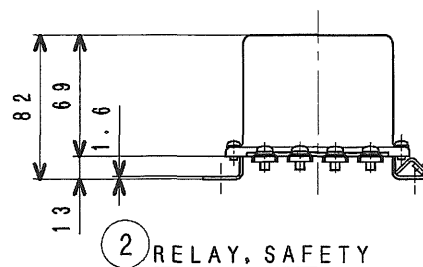
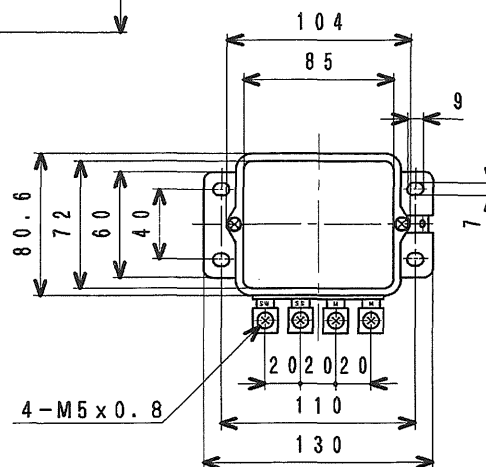
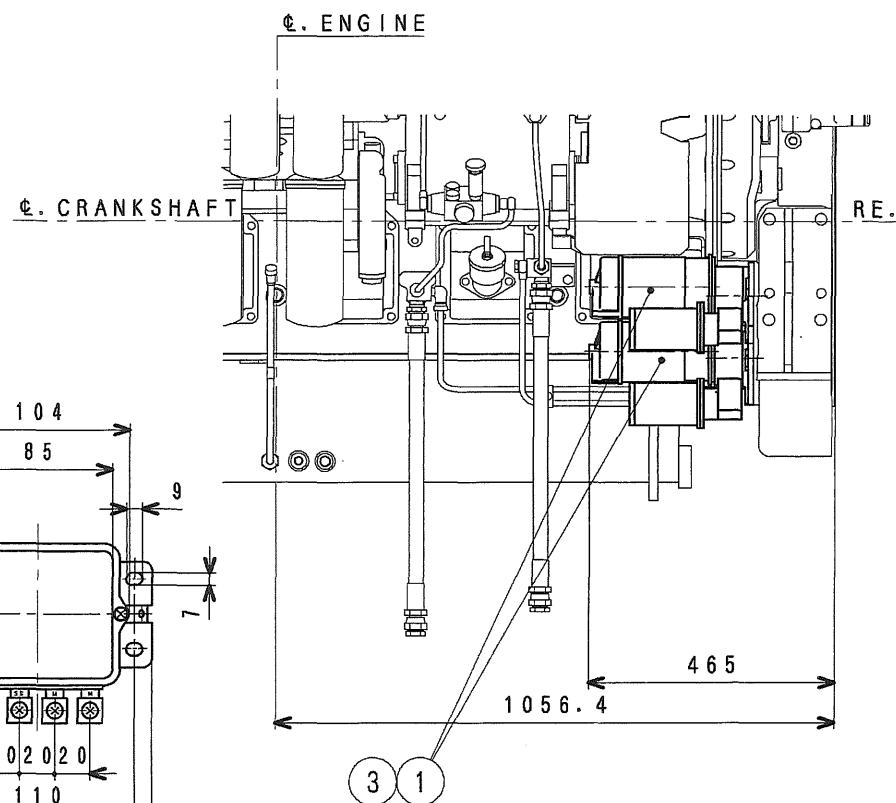
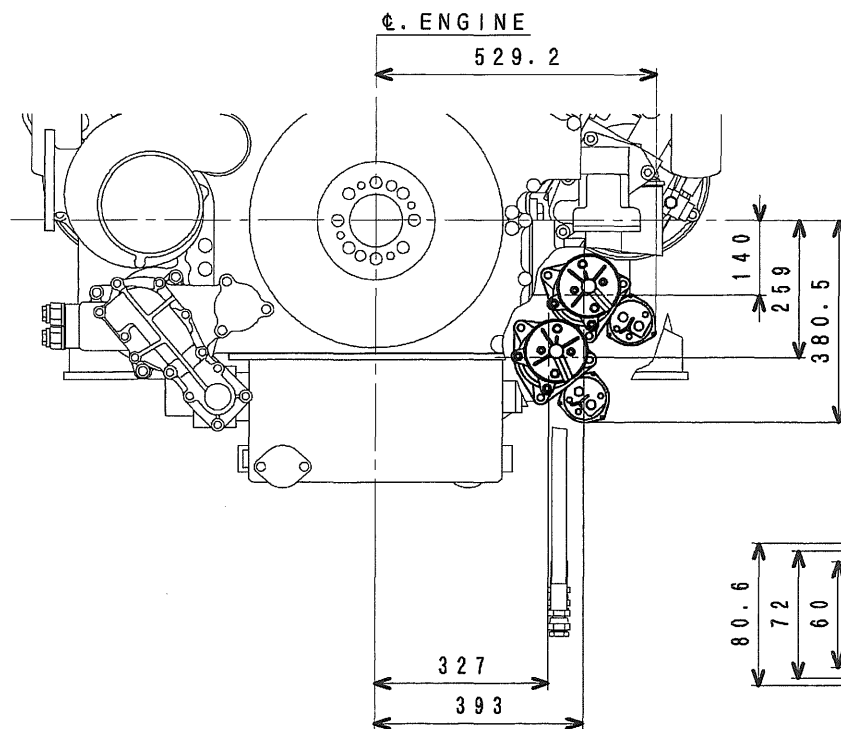
図面番号 37796-63005
DRAWING No.

3 新図	サイズ	① 組立図	2 鑄鍛歯車品	3 板金溶接品	4 組立品
④ 旧引図	A 3		5 切削品	6 その他(購入品)	

旧引

 汎特
 2008
 12.8

FULL-CAD



MHI CONFIDENTIAL

NOTE (1) THE ☆ MARKED PARTS ARE LOOSE SUPPLY.

☆ 4	F8665-02100	CONNECTOR	2
3	F1805-12035	BOLT	6
☆ 2	04322-40100	SAFETY RELAY	1
1	37766-20201	STARTER 7.5kW	2
No.	PARTS NO.	PARTS NAME	Q' TY

3	4590-G647	'11. 3.24	齊藤
2	4590-6940	'00. 8.28	福田
1	4590-5023	'99. 3. 9	谷戸
CHG	EO-NO	DATE	CHK
認可 APPD	橋	検図 CHK	竹 福 谷 田
		製図 DRN	谷 錫 戸 島
			1998. 3. 9

S12R
STARTING MOTOR

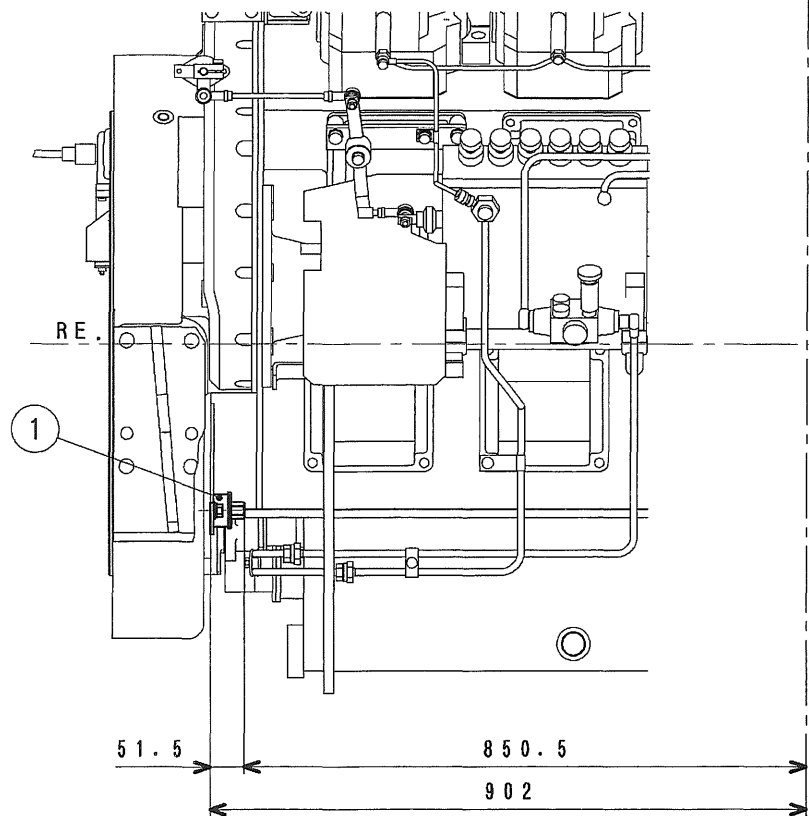
三菱重工業株式会社 汎用機・特車事業本部
MITSUBISHI HEAVY INDUSTRIES, LTD. GENERAL MACHINERY & SPECIAL VEHICLE HEADQUARTERS.

図面番号 37796-66001 ③
DRAWING No.

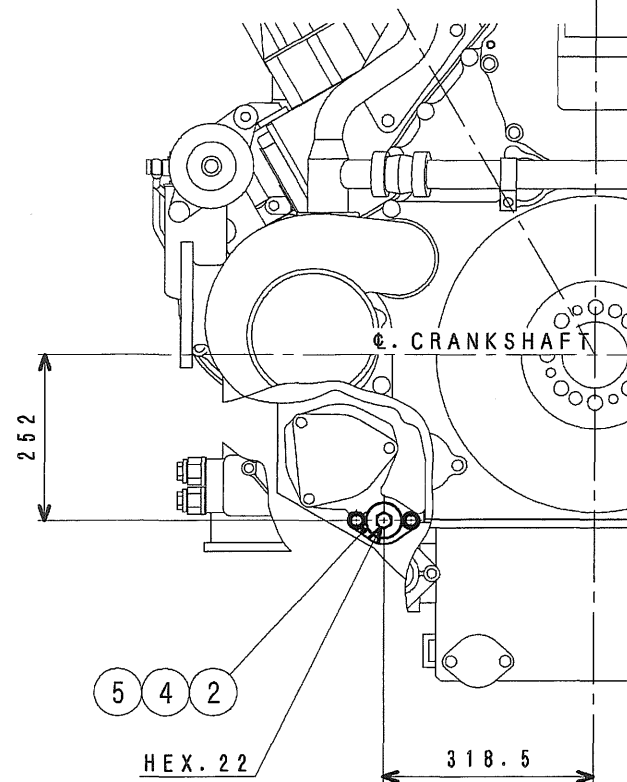
3 新図 サイズ
② 旧図 A 3
① 組立図 2 鋳造部品 3 板金溶接品 4 組立品
5 切削品 6 その他(購入品)

旧引
汎特
2011
5.23

FULL-CAD



ENGINE



ENGINE

5	F2500-12000	WASHER, PLAIN	2
4	F1805-12020	BOLT	2
3	37571-01500	PLATE, CAUTION	1
2	37571-10300	FLANGE	1
1	37771-00102	GEAR, TURNING	1
No.	PARTS NO.	PARTS NAME	Q' TY

WHI CONFIDENTIAL

4590-G648		'11. 3.24		斉藤	
CHG	EO-NO	DATE	CHK		
認可 APPD	橋口	検図 CHK	竹谷	製図 DRW	谷 銷 戸 島
				1998. 3. 11	

S12R
TURNING DEVICE

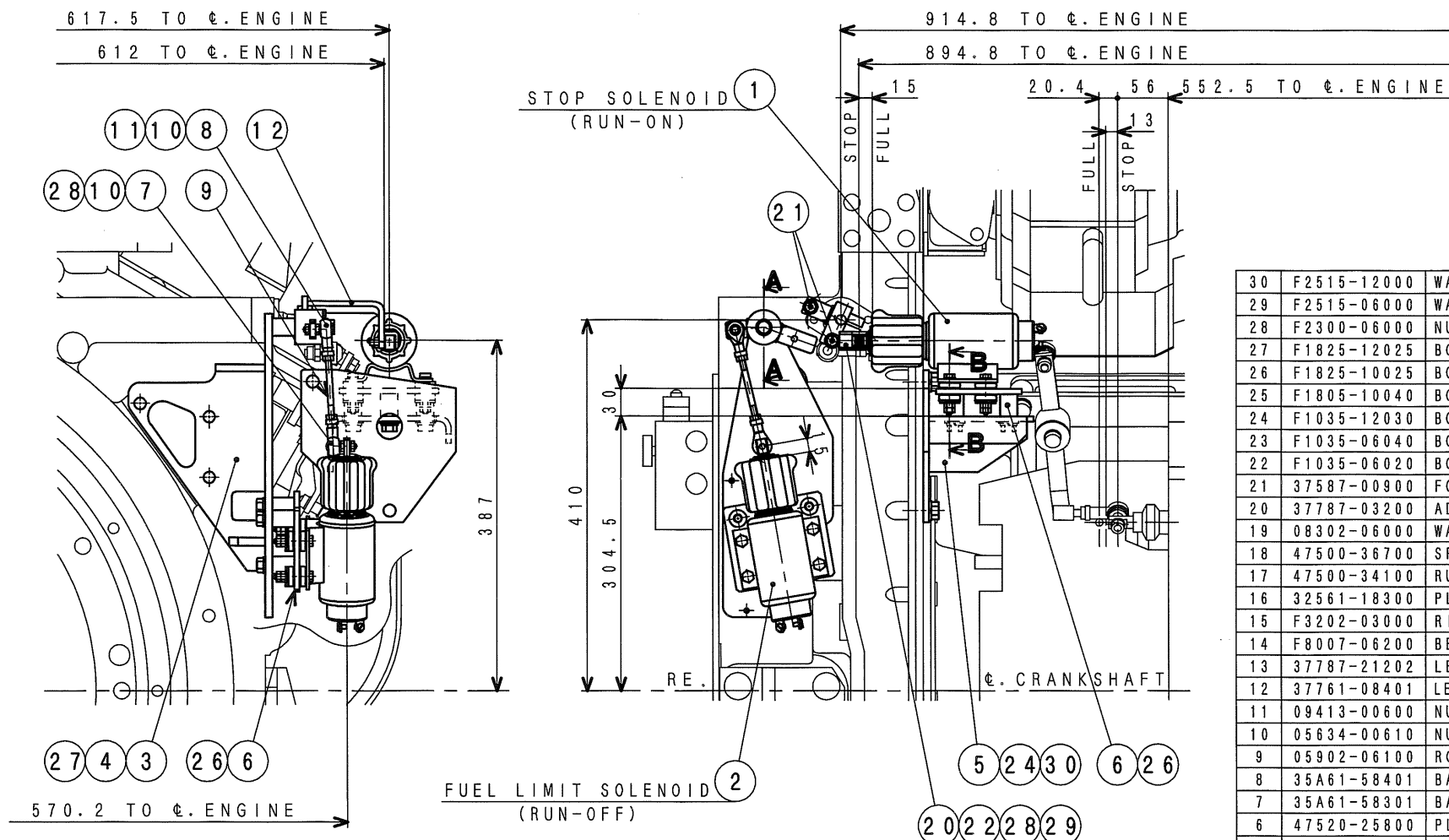
三菱重工業株式会社 汎用機・特車事業本部
MITSUBISHI HEAVY INDUSTRIES, LTD. GENERAL MACHINERY & SPECIAL VEHICLE HEADQUARTERS.

図面番号
DRAWING No. 37796-71001

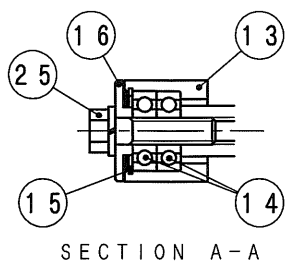
3 新 図 サイズ
④ 旧 図 A 3 ① 組立図 2 鋼鋳物部品 3 板金溶接品 4 組立品
5 切削品 6 その他(購入品)

旧引
汎特
2011
5.23

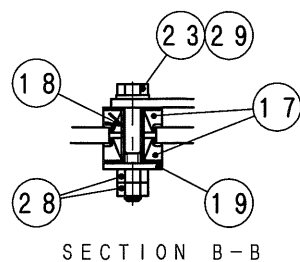
FULL-CAD



30	F2515-12000	WASHER, SPRING	2
29	F2515-06000	WASHER, SPRING	9
28	F2300-06000	NUT	18
27	F1825-12025	BOLT	3
26	F1825-10025	BOLT	6
25	F1805-10040	BOLT	1
24	F1035-12030	BOLT	2
23	F1035-06040	BOLT	8
22	F1035-06020	BOLT	1
21	37587-00900	FOLLOWER	2
20	37787-03200	ADAPTER	1
19	08302-06000	WASHER	8
18	47500-36700	SPACER	8
17	47500-34100	RUBBER, CUSHION	16
16	32561-18300	PLATE, END	1
15	F3202-03000	RING, SNAP	1
14	F8007-06200	BEARING, BALL	2
13	37787-21202	LEVER, STOP RUN-OFF	1
12	37761-08401	LEVER, R.H., RACK CONT.	1
11	09413-00600	NUT, LOCK	1
10	05634-00610	NUT, SELF LOCKING	2
9	05902-06100	ROD	1
8	35A61-58401	BALL JOINT (M6-L)	1
7	35A61-58301	BALL JOINT (M6-R)	1
6	47520-25800	PLATE, SOLENOID	2
5	37787-03300	BRACKET, SOLENOID	1
4	37711-13200	PACKING	1
3	37787-01501	BRACKET, SOLENOID	1
2	04400-08901	SOLENOID (RUN-OFF)	1
1	04400-08801	SOLENOID (RUN-ON)	1
No.	PARTS NO.	PARTS NAME	Q'TY



SECTION A-A



SECTION B-B

(2) 始動時、ラック制限値は両ソレノイド電源ON状態で、1.3mmである。

注記 (1) 本図は、ストップソレノイド (RUN-ON) 及び、始動性容易化用ラックリミットソレノイド (RUN-OFF) 装着図である。

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3	4590-H435	'12.11.30	谷戸
2	4590-F677	'09.8.25	斉藤
1	4590-5035	'99.3.15	福田
CHG	EO-NO	DATE	CHK
認可 APPD	検図 CHK	竹 福	製図 DRN
谷 戸	谷 田	谷 田	谷 田
1987.10.30			

S12R-2

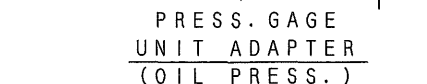
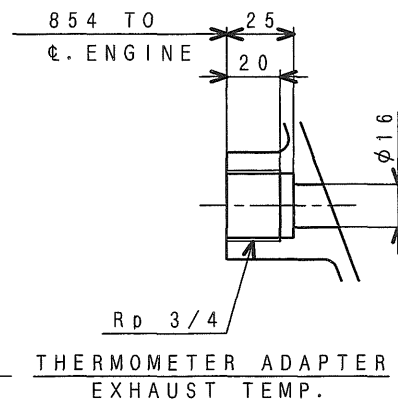
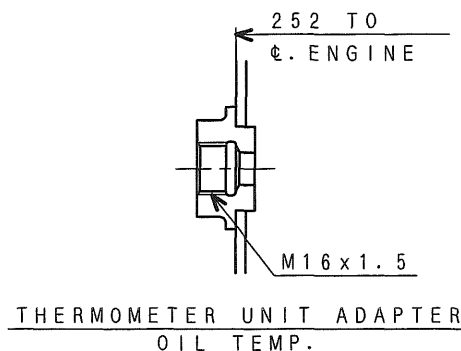
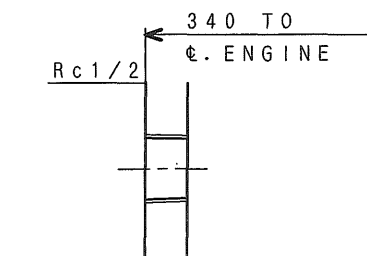
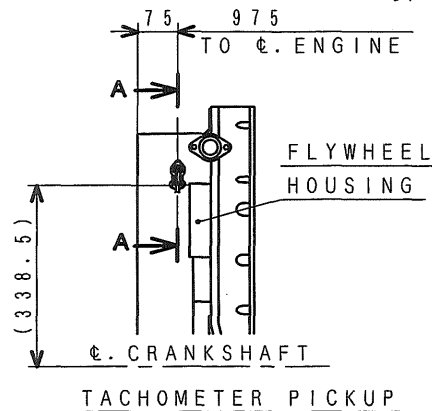
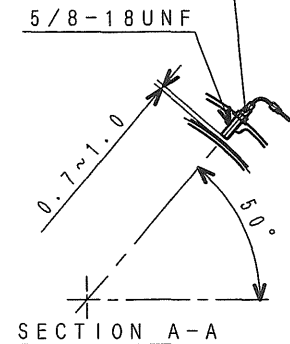
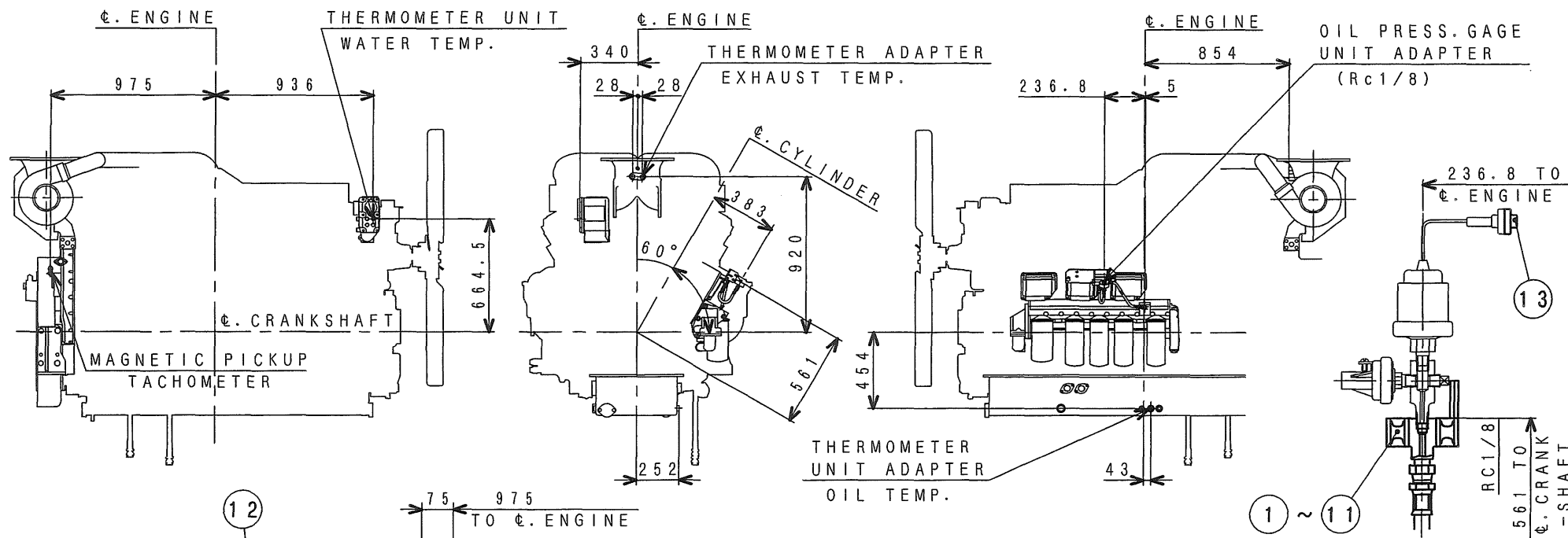
STOP & FUEL LIMIT SOLENOID

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

図面番号
DRAWING No. 37796-87503

3 新 図	サイズ A 3	① 粗立図	2 磨削品	3 板金溶接品	4 組立品
① 旧引図			5 切削品	6 その他 (購入品)	

M/C



NOTE (1) THE ☆ MARKED PARTS ARE LOOSE SUPPLY.

☆ 13	MH052-231	CONNECTOR	1
12	04410-43410	PICKUP, MAGNETIC	1
11	F2515-12000	WASHER, SPRING	2
10	F2515-10000	WASHER, SPRING	2
9	F1035-12070	BOLT	2
8	F1035-10025	BOLT	2
7	F4560-06300	ELBOW	1
6	F4540-06300	CONNECTOR	2
5	F2300-10000	NUT	2
4	45951-04028	PIPE, FLEXIBLE	1
3	45951-04024	PIPE, FLEXIBLE	1
2	45644-47900	MOUNT	1
1	47520-40701	BRACKET	1
No.	PARTS NO.	PARTS NAME	Q'TY

MHI CONFIDENTIAL

CHG	EO-NO	DATE	CHK	3rd ANGLE PROJECTION 尺度 SCALE
認可 APPD	校図 CHK	製図 DRN	谷 戸	
2012.11.29				

S12R

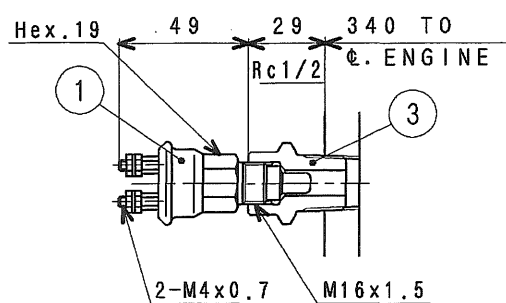
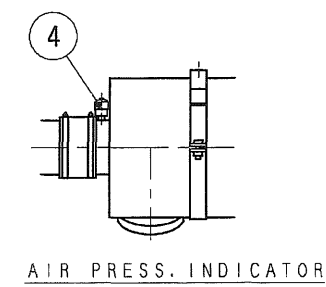
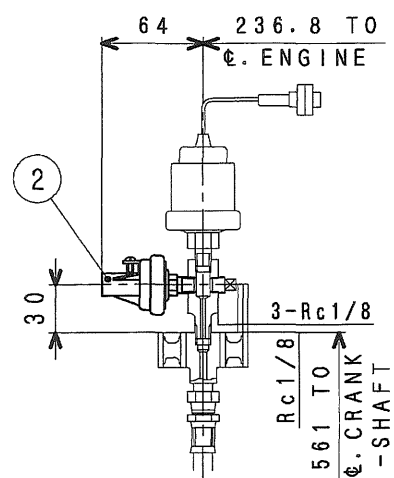
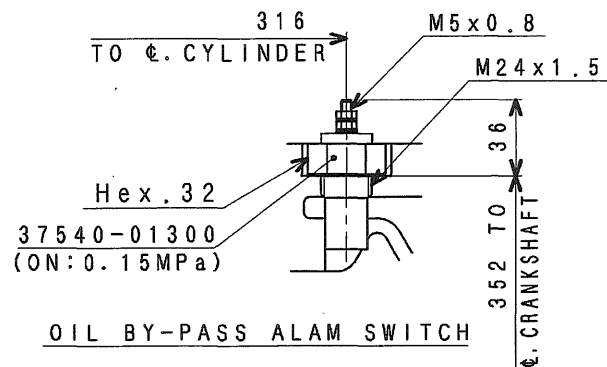
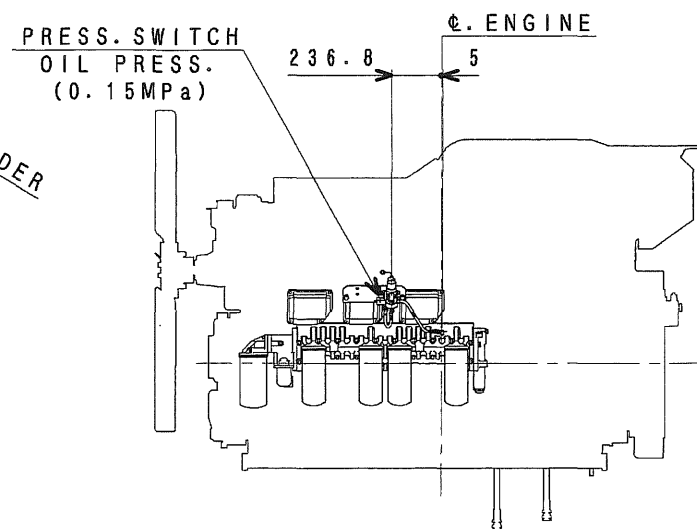
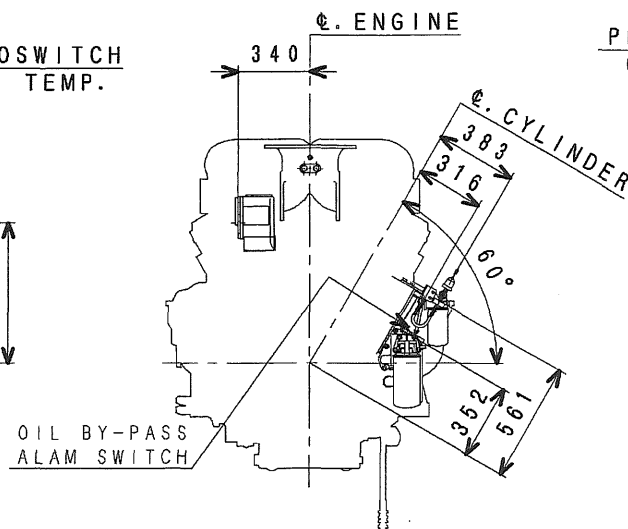
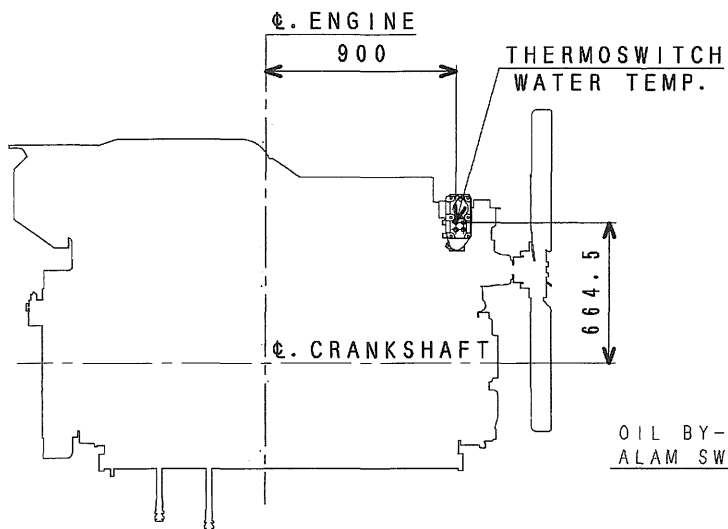
METER & SENSOR

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. 37796-90119

①新図 ②相立図 ③部品の図 ④組立品の図
⑤旧図 ⑥A3 ⑦1/5 ⑧1/10 ⑨1/20 ⑩1/40 ⑪1/80 ⑫1/160 ⑬1/320 ⑭1/640 ⑮1/1280 ⑯1/2560 ⑰1/5120 ⑱1/10240 ⑲1/20480 ⑳1/40960 ㉑1/81920 ㉒1/163840 ㉓1/327680 ㉔1/655360 ㉕1/1310720 ㉖1/2621440 ㉗1/5242880 ㉘1/10485760 ㉙1/20971520 ㉚1/41943040 ㉛1/83886080 ㉜1/167772160 ㉝1/335544320 ㉞1/671088640 ㉟1/1342177280 ㊱1/2684354560 ㊲1/5368709120 ㊳1/10737418240 ㊴1/21474836480 ㊵1/42949672960 ㊶1/85899345920 ㊷1/171798691840 ㊸1/343597383680 ㊹1/687194767360 ㊺1/1374389534720 ㊻1/2748779069440 ㊼1/5497558138880 ㊽1/10995116277760 ㊾1/21990232555520 ㊿1/43980465111040

M/C



PRESS. SWITCH
OIL PRESS.

NOTE (1) THE ☆ MARKED PARTS ARE LOOSE SUPPLY.

No.	PARTS NO.	PARTS NAME	Q' TY
☆ 4	47220-34401	INDICATOR 635mmH ₂ O ON	4
3	45600-42902	CONNECTOR	1
2	04442-45400	PRESS. SWITCH 0.15MPa ON	1
1	04442-34500	THERMO SWITCH 98°C ON	1

THERMOSWITCH
WATER TEMP.

MHI CONFIDENTIAL

4590-G652	11. 3.24	斉藤
CHG	EO-NO	DATE
認可 APPD	橋	竹谷
検図 CHK	福田	谷
製図 DRN	銅	島
1997. 10. 8		

S12R
ALARM SWITCH
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 37796-90206
DRAWING No.

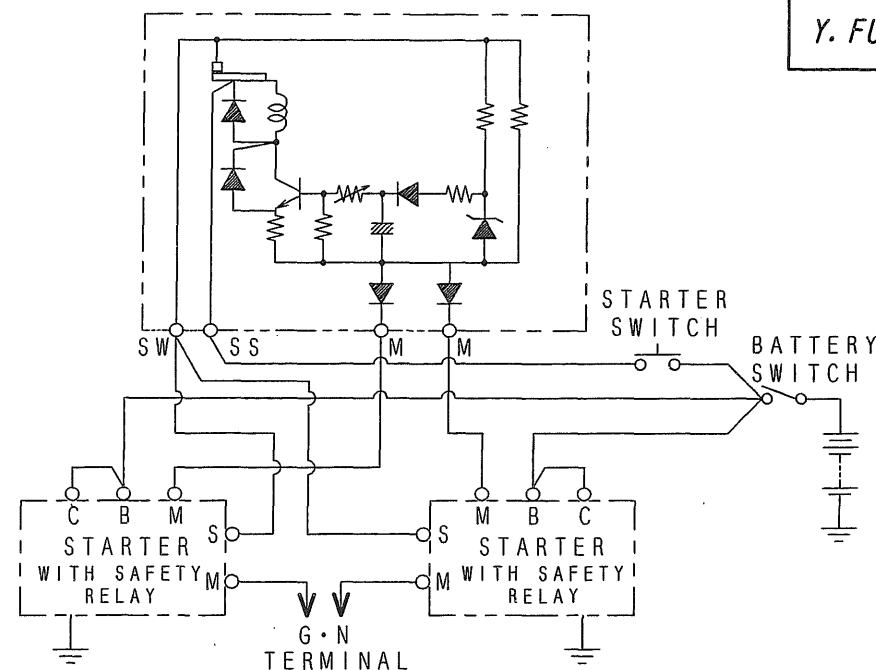
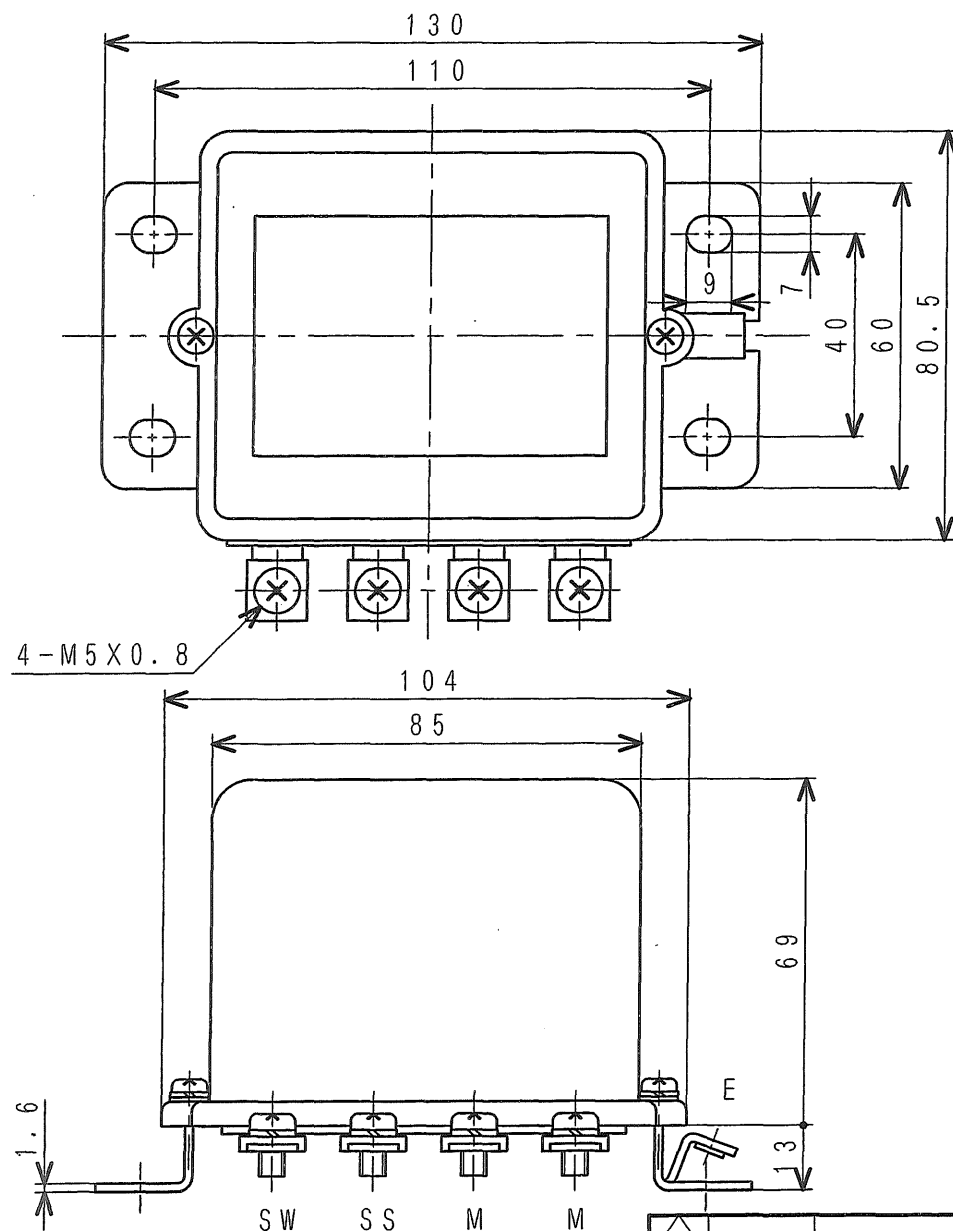
旧引
汎特
2011
5.23

FULL-CAD

3 折図
④ 旧引図
サイズ
A 3
① 相立図
2 鋼鋸歯車品
5 切削品
3 板金溶接品
6 その他(購入品)
4 相立品

CHECKED BY

Y. FUKUDA



WIRING

仕 様	
公 称 電 圧	24V
定 格	30秒
リレー動作仕様 (25℃時)	動作電圧 8V~24V
	作動同期 SS-SW間ON-OFF1サイクル (24V) 2.5~3.0 sec
接 点 要 量	6A
耐 振 性 能	JIS D 1601 3類B種ニヨル(6.8G)
使 用 温 度	-20 ~ +50℃
保 護 方 式	防滴形

MHI CONFIDENTIAL

REV.	DATE
2	'08.11.27
1	'93. 2.16

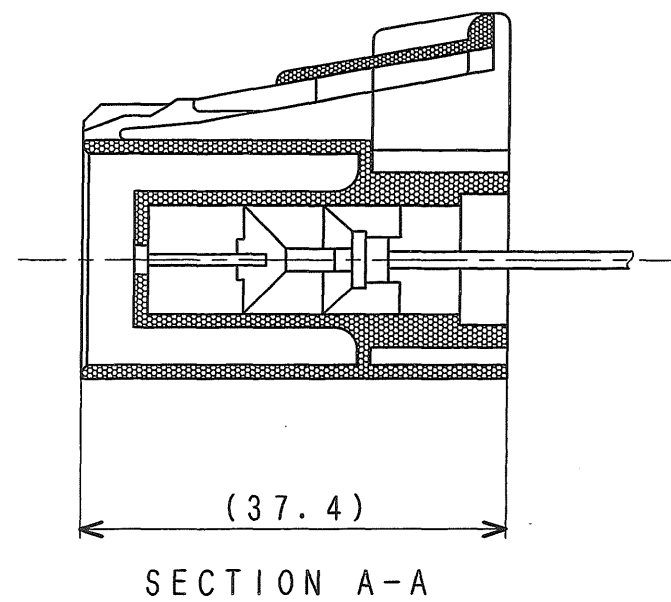
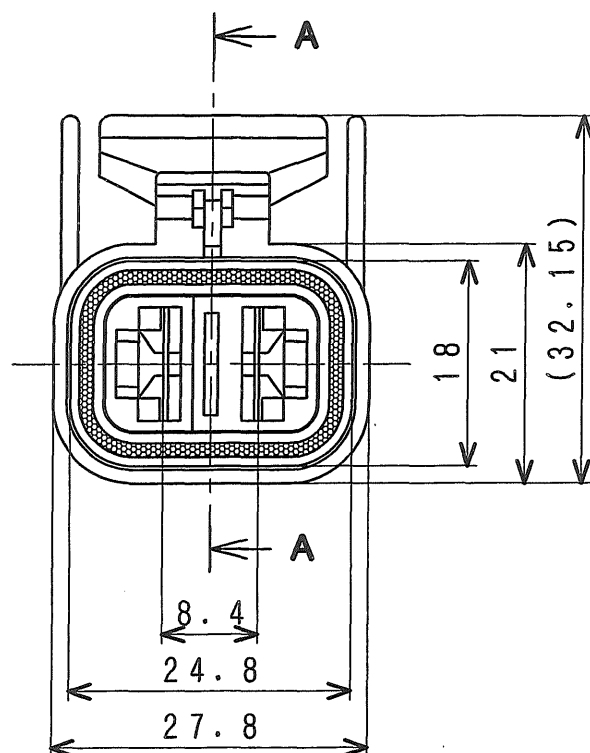
SAFETY RELAY
PART NO. 04322-40100

DWG. NO. S10-0150

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GENERAL MACHINERY & SPECIAL VEHICLE HEADQUARTERS

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本部品は、矢崎品番7323-6228-30相当品である。

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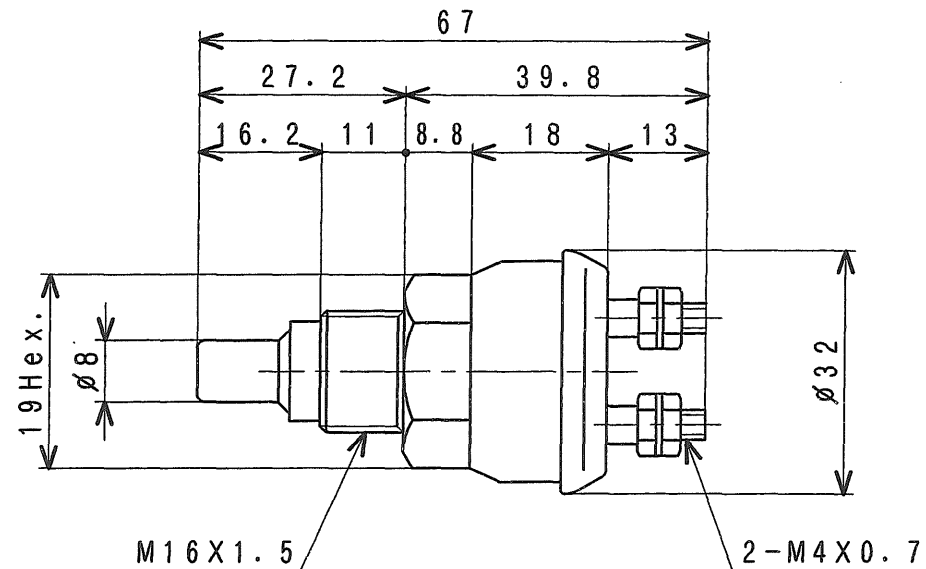
△	
△	
△	
REV.	DATE

CONNECTOR
PART NO. 32B90-00300

DWG. NO. S10-0550
 MITSUBISHI HEAVY INDUSTRIES, LTD.
 GENERAL MACHINERY & SPECIAL VEHICLE HEADQUARTERS

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NAKAMURA



CONNECTING TYPE	PARTS NO.	SET TEMP. (°C)		CONTACTOR CAPACITY	WEIGHT
		ON	OFF		
NO (A-CONTACT)	04442-34300	92±2	85±2	DC24V 0.05A~3A DC100V 0.05A~0.4A AC100V 0.05A~1A	60g
NO (A-CONTACT)	04442-34400	95±2	88±2		
NO (A-CONTACT)	04442-34500	98±2	91±2		
NO (A-CONTACT)	04442-34600	110±2	103±2		
NO (A-CONTACT)	04442-34700	105±2	98±2		
NO (A-CONTACT)	04442-34800	101±2	94±2		
NO (A-CONTACT)	04442-34900	88±2	81±2		
NO (A-CONTACT)	04442-38700	115±2	108±2		
NO (A-CONTACT)	37547-04100	101 $\frac{0}{-2}$	94±2		

MHI CONFIDENTIAL

6	'00.4.26
8	'08.6.5
7	'06.3.17
REV.	DATE

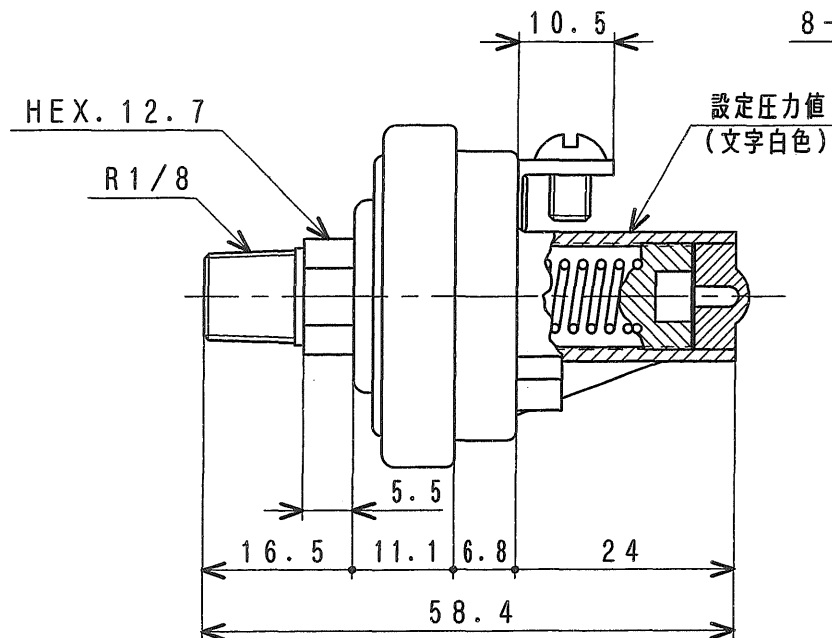
THERMO SWITCH

DWG. NO. S11-0551


 MITSUBISHI HEAVY INDUSTRIES, LTD.
 GENERAL MACHINERY & SPECIAL VEHICLE HEADQUARTERS

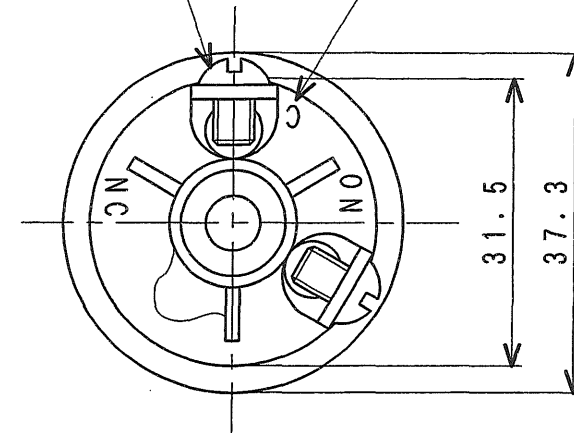
CHECKED BY

Y. FUKUDA



8-32X1/4UNF SCREW

浮き出し文字



5. ON-OFF差 : 5%以内
4. 接点形式 : $\overline{(\text{NO})}$ (NC)
3. 使用温度範囲 : $-40.0^{\circ}\text{C} \sim +120.0^{\circ}\text{C}$
2. 定 格 : 6VDC-15AMP, 12VDC-8AMP, 24VDC-4AMP,
120VAC-1AMP, 240VAC-0.5AMP
最小電流値: 0.05A
- 仕 様 1. 最高許容圧力 : 1.05MPa (設定圧: 0.007~0.17MPa)
1.75MPa (設定圧: 0.18~1.05MPa)

NO	04442-46500	0.15	± 0.015
NO	04442-46400	0.10	± 0.01
NO	04442-46300	0.05	± 0.005
NC	04442-46100	6.2KPa	$\pm 0.62\text{KPa}$
NC	04442-45900	0.40	± 0.04
NC	04442-45800	0.35	± 0.035
NC	04442-45700	0.30	± 0.03
NC	04442-45600	0.25	± 0.025
NC	04442-45500	0.22	± 0.022
NC	04442-45400	0.15	± 0.015
NC	04442-45300	0.10	± 0.01
NC	04442-45200	0.05	± 0.005
NC	04442-45100	0.03	± 0.003
接点形式	PARTS NO.	ON	ALLOWANCE
		SET PRESS. MPa	

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2	'08.6.5
1	'06.3.17
REV.	DATE

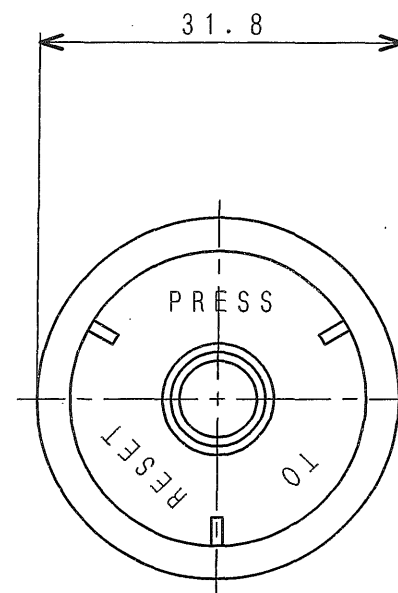
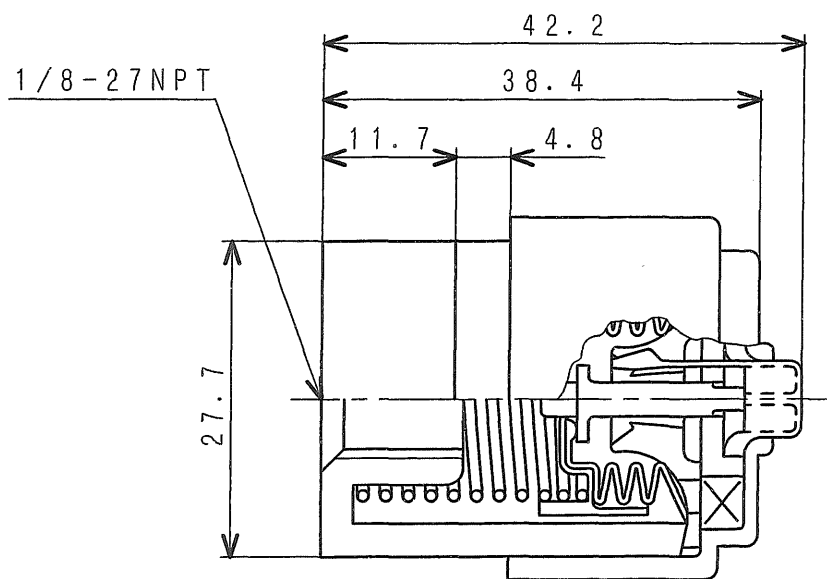
SWITCH, PRESS

DWG. NO. S11-0796

MITSUBISHI HEAVY INDUSTRIES, LTD.
GENERAL MACHINERY & SPECIAL VEHICLE HEADQUARTERS

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PARTS NO.	RESTRICTION (mmH ₂ O)
47220-30701	762±58
47220-34301	508±48
47220-34401	635±58

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△	
△	
△	93 2/18
REV.	DATE

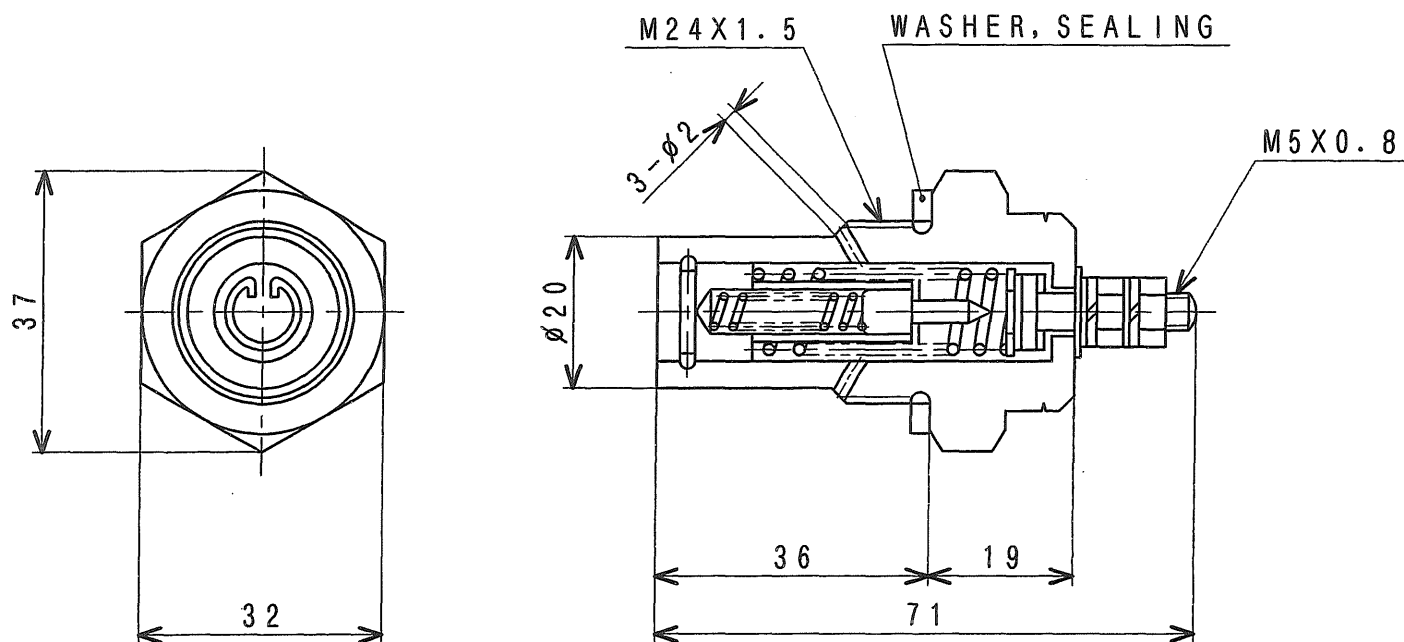
INDICATOR

DWG. NO. S11-0920

MITSUBISHI HEAVY INDUSTRIES, LTD.
GENERAL MACHINERY & SPECIAL VEHICLE HEADQUARTERS

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中村



SET PRESS. 0.15MPa

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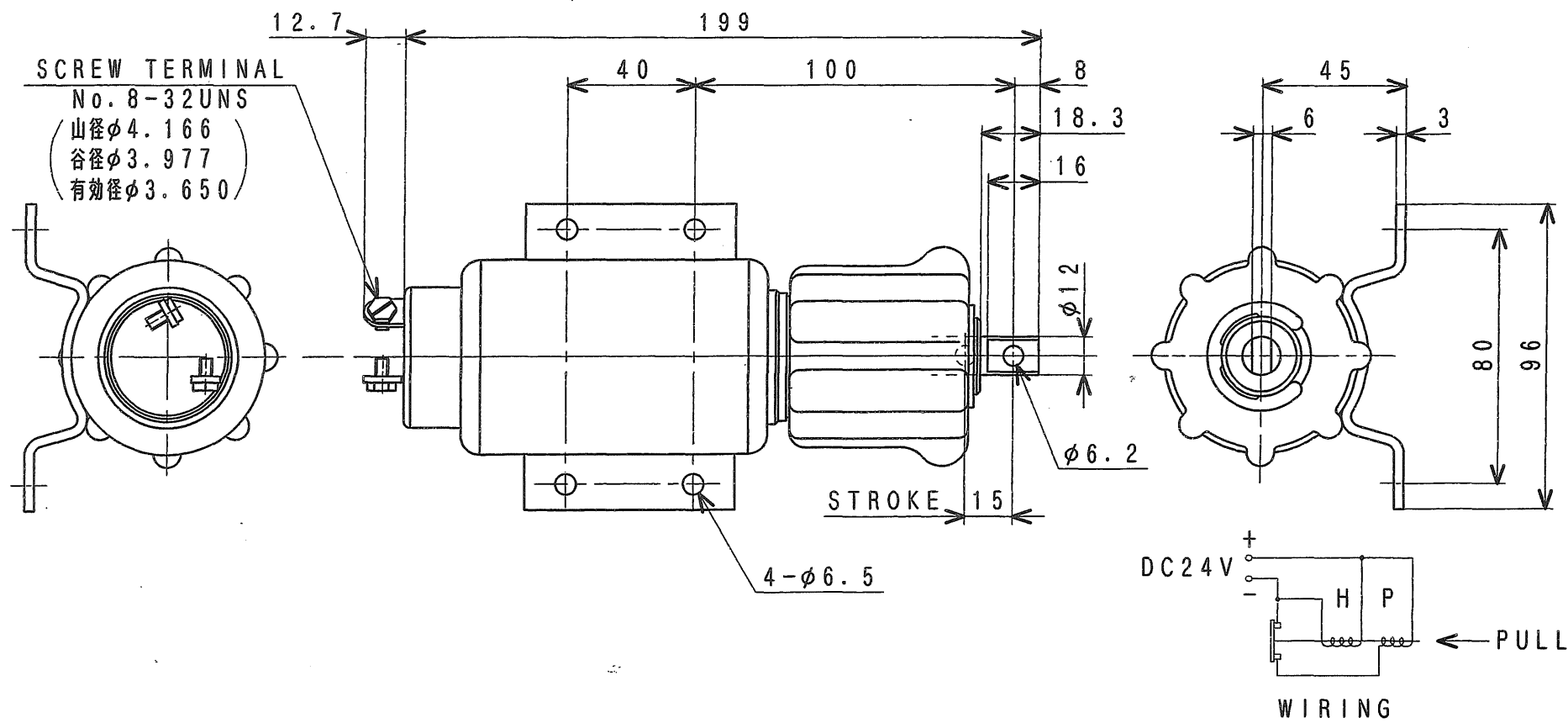
△	
△	
1	'08.6.6
REV.	DATE

ALARM, OIL FILTER
PART NO. 37540-01300

DWG. NO. S11-1370
MITSUBISHI HEAVY INDUSTRIES, LTD.
GENERAL MACHINERY & SPECIAL VEHICLE HEADQUARTERS

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注記 本部品は04400-08800及び04400-08900
に対し下記が異なる。

1. 保持コイルリードワイヤー取出部に太いサイズの皮膜付
リードワイヤーを溶接接続したものである。
2. 吸引、保持コイル切換えスイッチの固定コンタクトの
曲げを平に変更したものである。

04400-08901	0.2 MPa
04400-08801	1.0 MPa
PARTS NO.	RETURN SPRING PRESS.

SPECIFICATION	
VOLTAGE	DC24V
CURRENT	PULL 30.7A, HOLD 0.58A
RATED TIME	CONTINUOUS

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△	
△	
△	
REV.	DATE

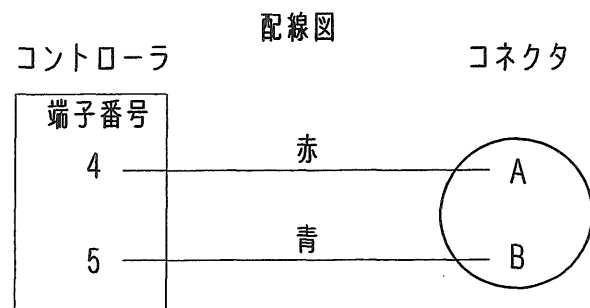
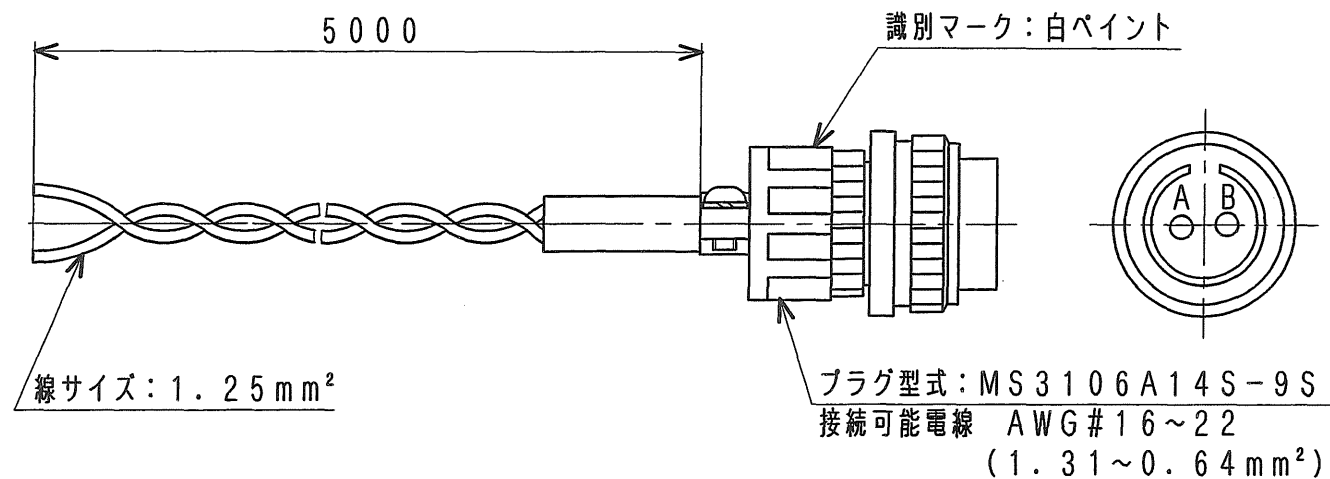
SOLENOID

DWG. NO. S13-0282

MITSUBISHI HEAVY INDUSTRIES, LTD.
GENERAL MACHINERY & SPECIAL VEHICLE HEADQUARTERS

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備考 使用先: コントローラ~アクチュエータ間の配線用部品として
使用するツイストペアケーブルである。

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△	
△	
△	
REV.	DATE

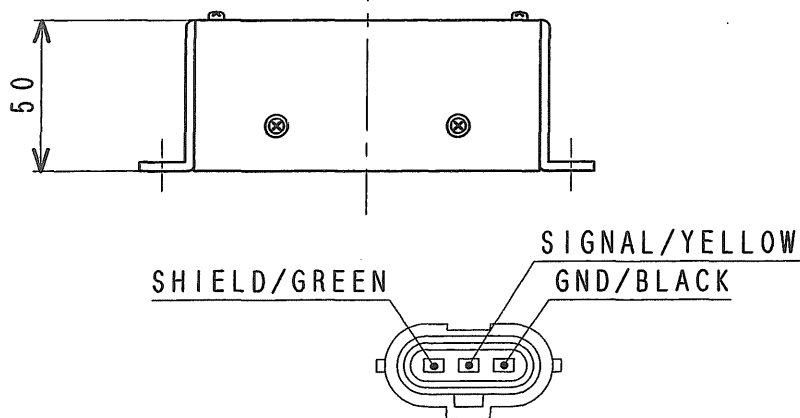
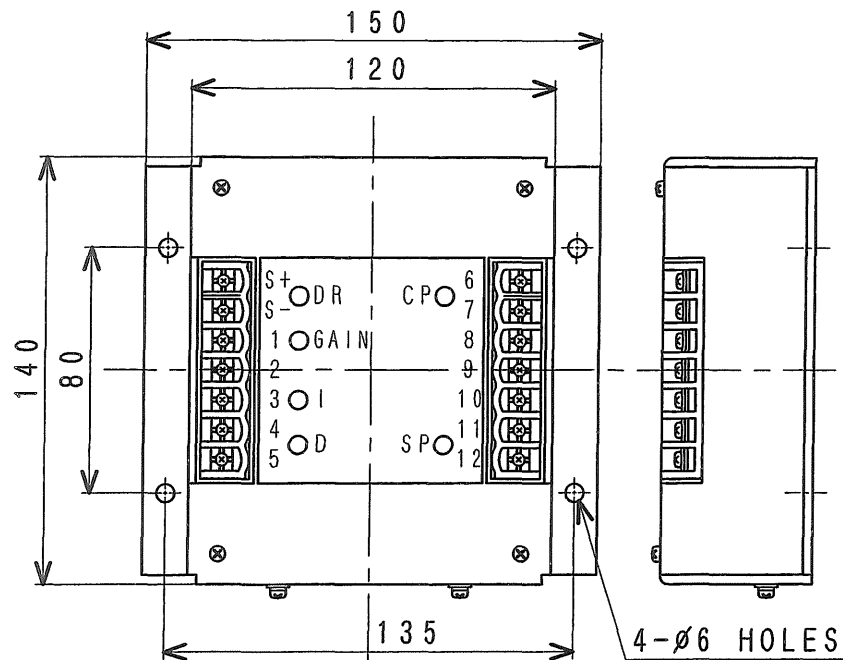
CONNECTOR

PART NO. 04410-32902

DWG. NO. S13-1022

MITSUBISHI HEAVY INDUSTRIES, LTD.

GENERAL MACHINERY & SPECIAL VEHICLE HEADQUARTERS



CONNECTOR F
04410-43700

MHI CONFIDENTIAL

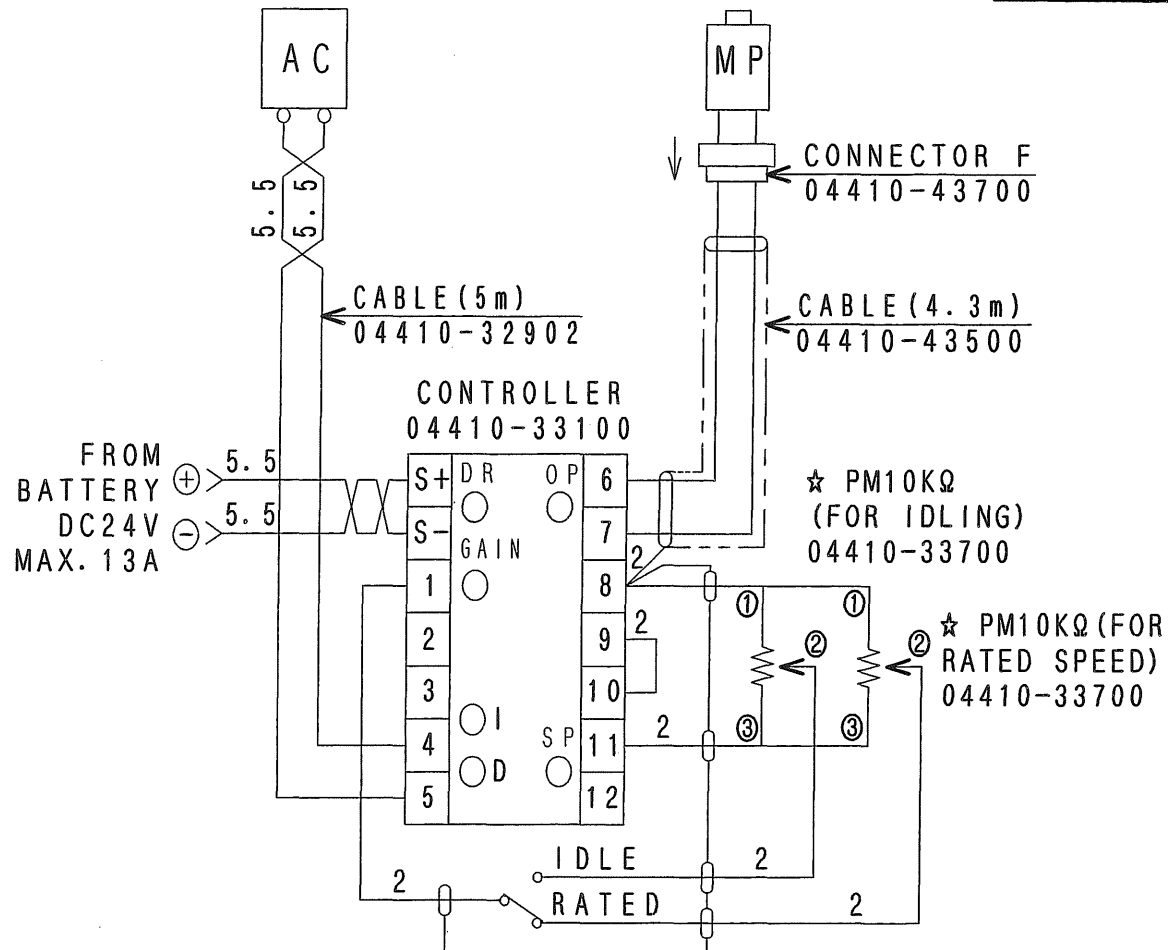
REV.	DATE
2	'11.4.20
1	'01.6.29

CONTROLLER SPEED
PART NO. 04410-33100

ACTUATOR
04410-32011
04410-37081 (S12H)

MAGNETIC PICKUP
04410-43410

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★ MODE CHANGEOVER CONTACTOR
(SHALL BE USE GOLD PLATING CONTACTOR)

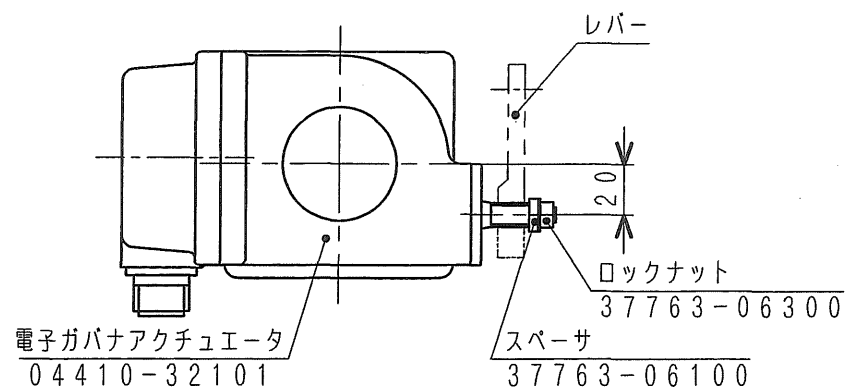
WIRING

DWG. NO. S13-1042

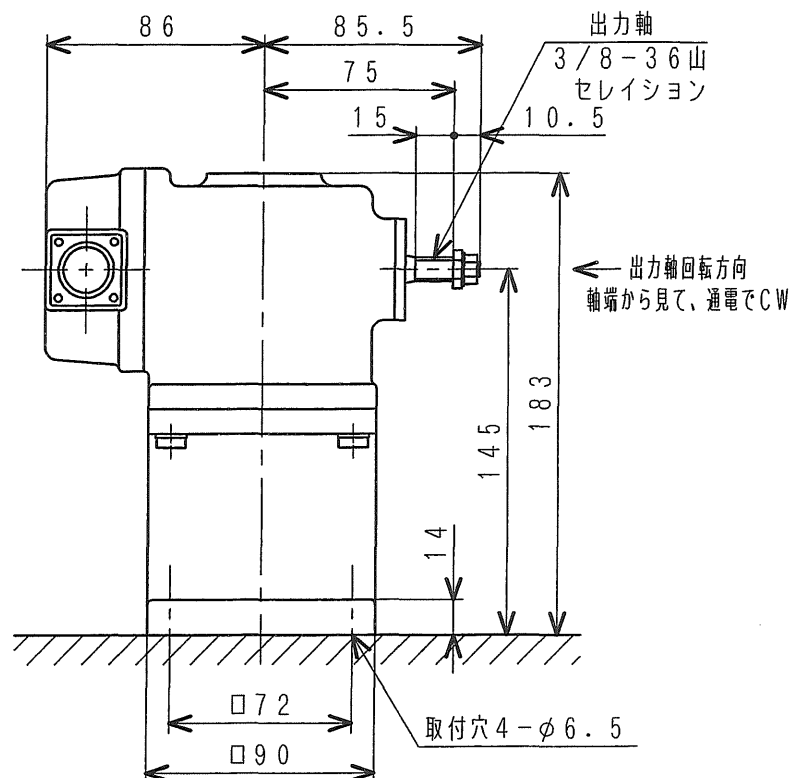
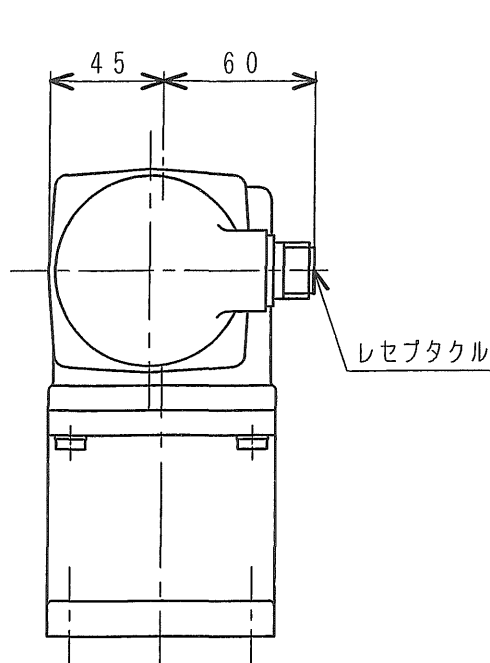
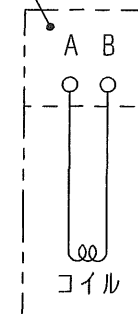
MITSUBISHI HEAVY INDUSTRIES, LTD.
GENERAL MACHINERY & SPECIAL VEHICLE HEADQUARTERS

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Y. FUKUDA



コネクタ用レセプタクル
(キャノンプラグ)



仕 様

回転角度 : MAX 40°

トルク : 0.17 kgf·m 起動時
起動時常温 8 A にて

電 源 : DC 24 V パルス

起動最低電圧 : DC 16 V 50% ed 以下

電 流 : MAX 13 A

常用電流 : 軽負荷制御時 0.5 A ~ 2 A

周囲温度 : -30℃ ~ 100℃

耐 震 : 25 G JIS D 1601

重 量 : 4.7 kgf

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(2) 本部品は、部番 04410-32010 に対し出力軸の材料を
変更したものである。

注記 (1) 本部品は、2 線式アクチュエータである。

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REV.	DATE

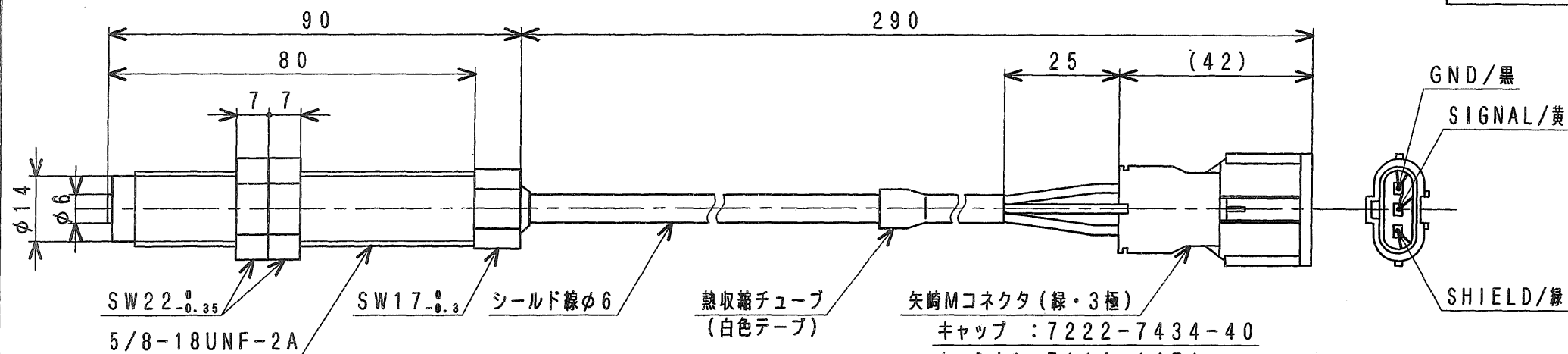
ACTUATOR/SG4017BR
PART NO. 04410-32011

DWG. NO. S13-1761

三菱 MITSUBISHI HEAVY INDUSTRIES, LTD.
GENERAL MACHINERY & SPECIAL VEHICLE HEADQUARTERS

CHECKED BY

Y. FUKUDA



仕 様

1. 電機的特性

出力電圧 : 図1. 測定条件にて4.0Vp-p以上(at 700Hz)

7.0Vp-p以上(at 6700Hz)

直流抵抗 : 1.3kΩ~1.6kΩ(at +25℃)

絶縁抵抗 : 1MΩ以上 at DC 500V (コネクタ端子-ハウジング間)

耐電圧 : 50/60Hz AC 500V 1分間(コネクタ端子-ハウジング間)

2. 機械的特性

コネクタ引き抜け力: 5N以上

締付け破壊トルク : 5J以上

3. 使用温度範囲

-40℃~+120℃

注 記

1. 本部品は日本エアパックス(株) 殿製である。

2. 本部品は04410-43400に対し、コイル保護ラバー(シリコン)を厚塗り品としたものである。

また、識別用として熱収縮チューブに白色テープを追加し、Mコネクタの色を緑←灰にしたものである。

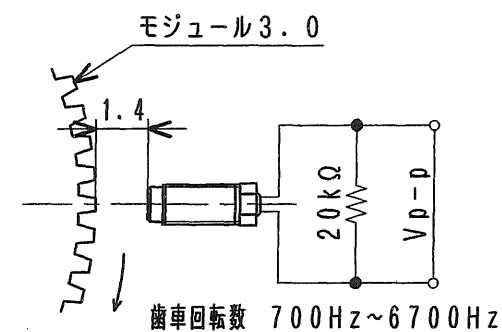


図1. 出力条件

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REV.	DATE

PICKUP, MAGNETIC

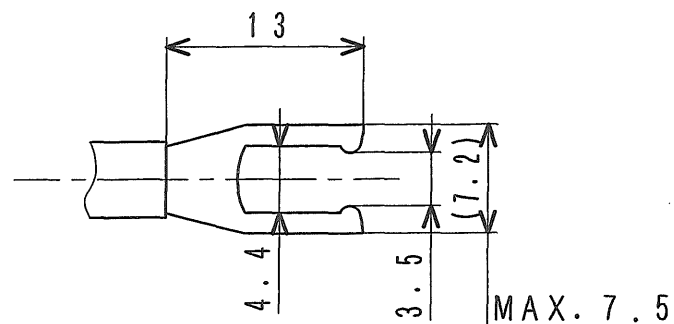
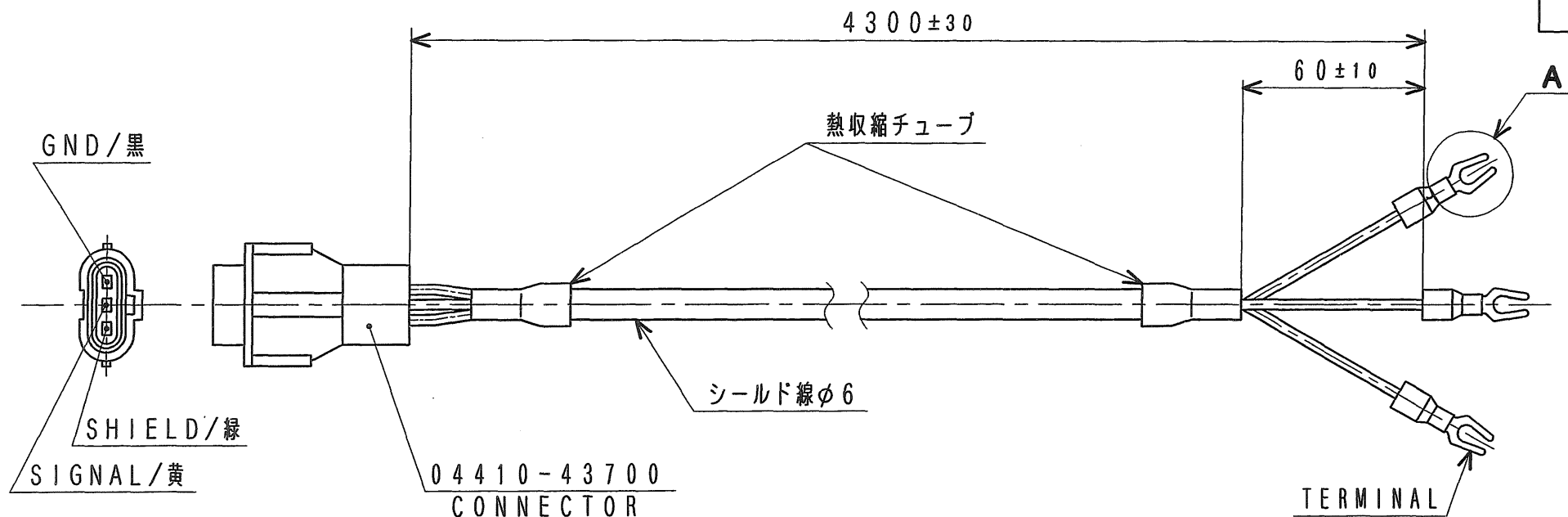
PART NO. 04410-43410

DWG. NO. S13-2011

MITSUBISHI HEAVY INDUSTRIES, LTD.

GENERAL MACHINERY & SPECIAL VEHICLE HEADQUARTERS

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(3) ターミナル形状は、A図と同等 (M3 ネジ用) である。

(2) 配線色は、黒×1, 黄×1 (各々メスピンの接続), 緑×1 (シールドに接続) である。

注記 (1) リード線は、シールド線 (φ6) を使用。

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REV.	DATE

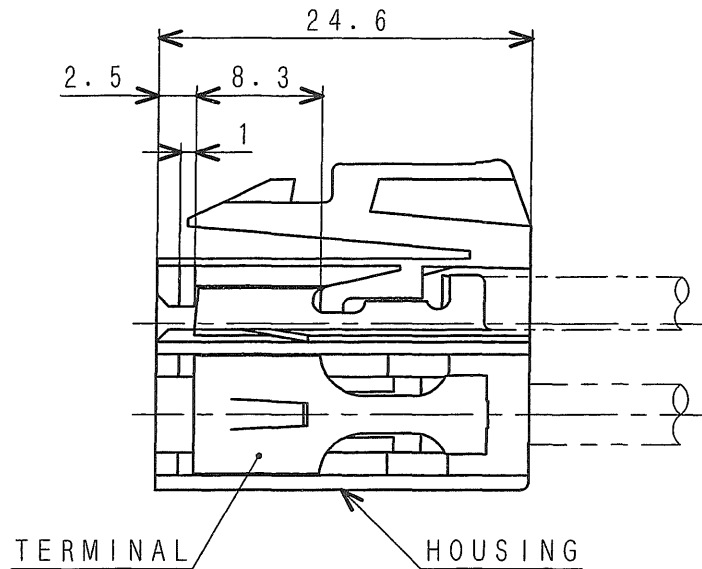
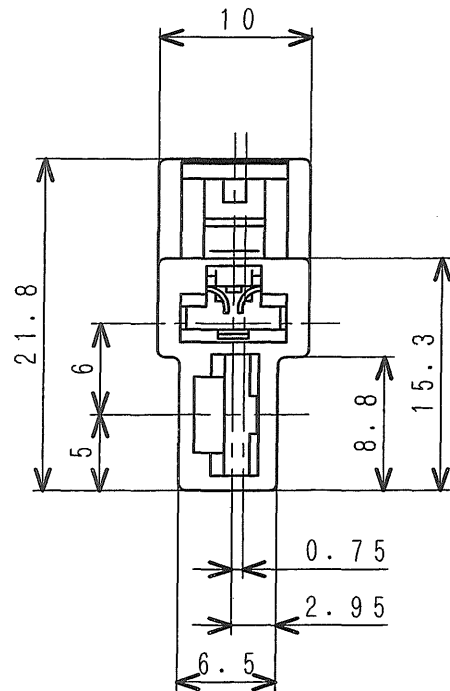
CABLE, PICKUP
PART NO. 04410-43500

DWG. NO. S13-2020

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GENERAL MACHINERY & SPECIAL VEHICLE HEADQUARTERS

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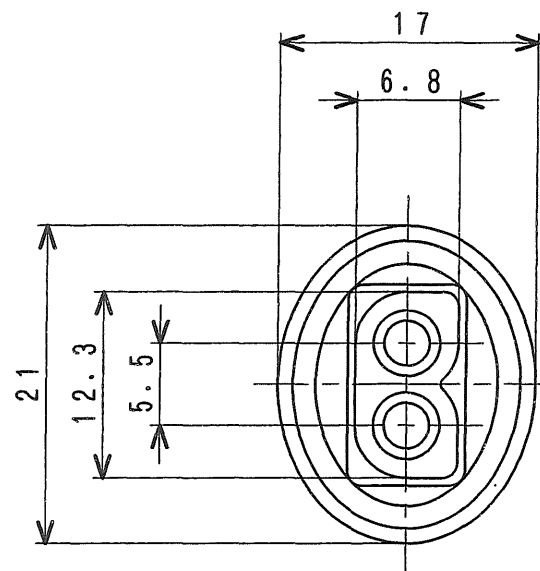
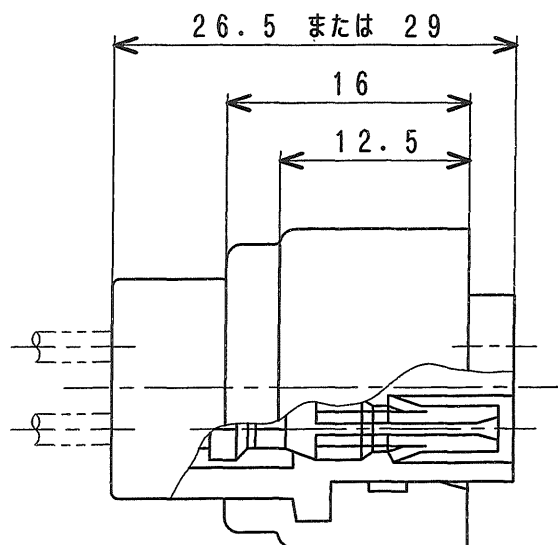
△	
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1	'93 9/10
REV.	DATE

CONNECTOR, 2 POLES
PART NO. F8665-02100

DWG. NO. S14-0320
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2	'04.3.12
1	'93.8.4
REV.	DATE

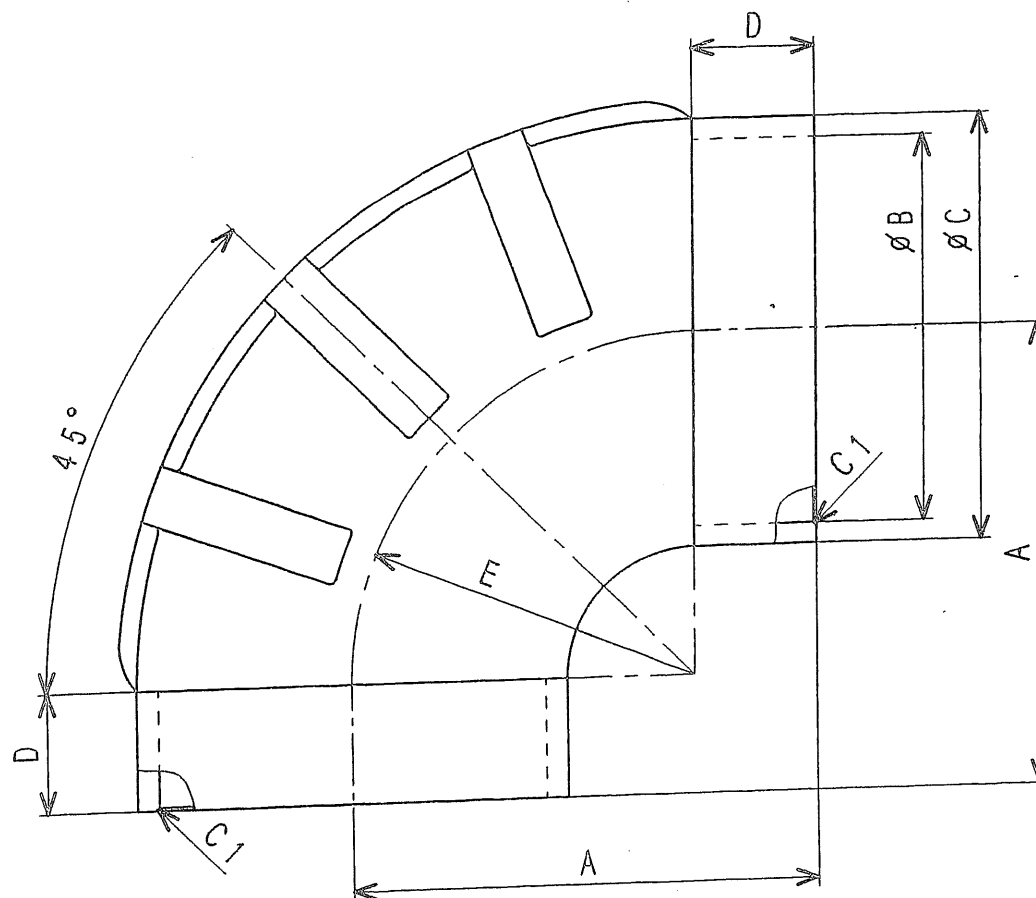
CONNECTOR
PART NO. MH052231

DWG. NO. S14-0330

MITSUBISHI HEAVY INDUSTRIES, LTD.
GENERAL MACHINERY & SPECIAL VEHICLE HEADQUARTERS

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J. Furukawa



47220-47600	Ø160	145	160	176	40	100
47220-32600	7" (Ø177.8)	184.2	177.8	194.6	50.8	133.4
47220-30400	6" (Ø152.4)	177.8	152.4	166.4	50.8	127
47220-12100	5" (Ø127.0)	152.4	127	141	40	112.4
PARTS NO.	TYPE	A	B	C	D	E
	MEASURE					

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REV.	DATE

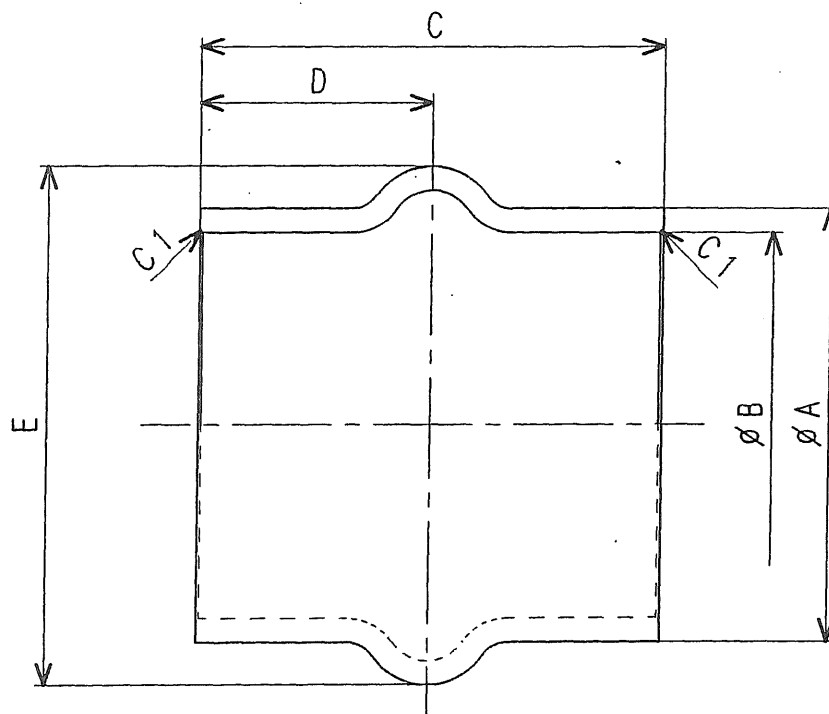
HOSE, RUBBER

DWG. NO. S35-0701


MITSUBISHI HEAVY INDUSTRIES, LTD.
 GENERAL MACHINERY & SPECIAL VEHICLE HEADQUARTERS

CHECKED BY

J. Fukuda



47220-47300	10' (Ø254.0)	266.7	254	152.4	76.2	300
47220-31600	7' (Ø177.8)	194	178	178	89	222
47220-30500	6' (Ø152.4)	168.4	152.4	178	89	196.4
47220-13200	5' (Ø127.0)	143	127	152.4	76.2	171
PARTS NO.	TYPE MEASURE	A	B	C	D	E

MHI CONFIDENTIAL

REV.	DATE

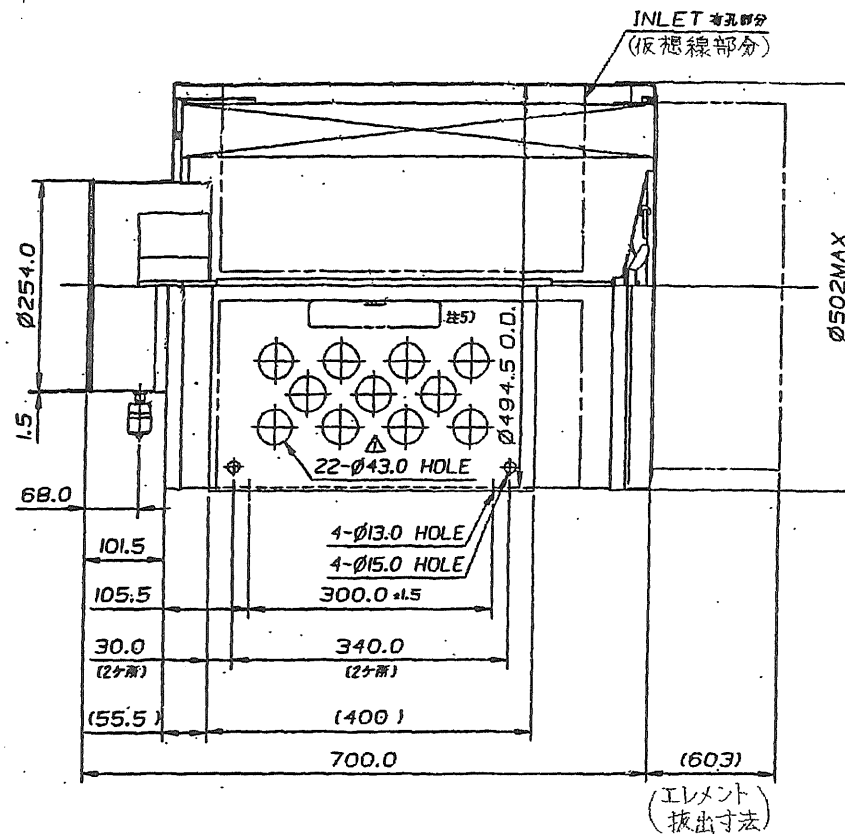
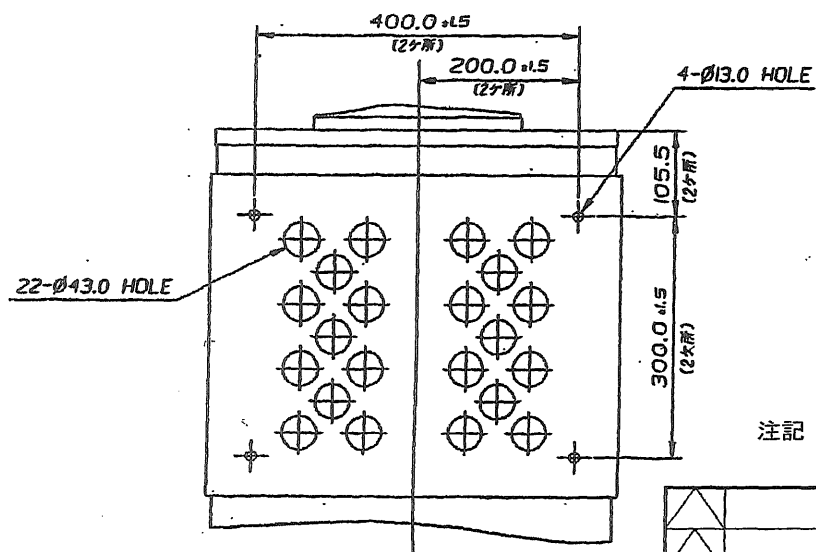
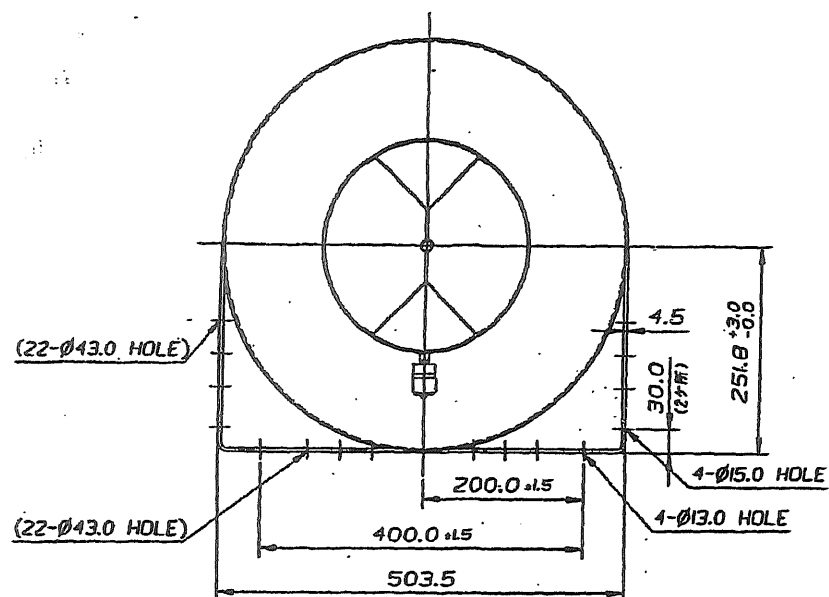
HOSE, RUBBER

DWG. NO. S35-0711


 MITSUBISHI HEAVY INDUSTRIES, LTD.
 GENERAL MACHINERY & SPECIAL VEHICLE HEADQUARTERS

CHECKED BY

Y. FUKUDA



注記 (1)部番:47220-47702に対し、塗装を黒色にしたものである。

型式: EGB20
重量: 約37.5kg

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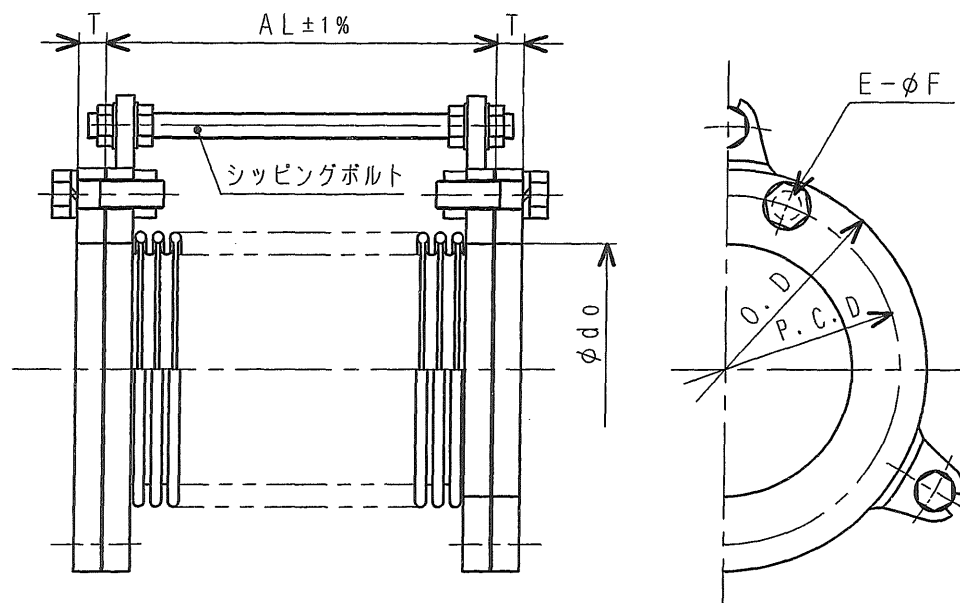
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REV.	DATE

AIR CLEANER
PART NO. 47220-47702

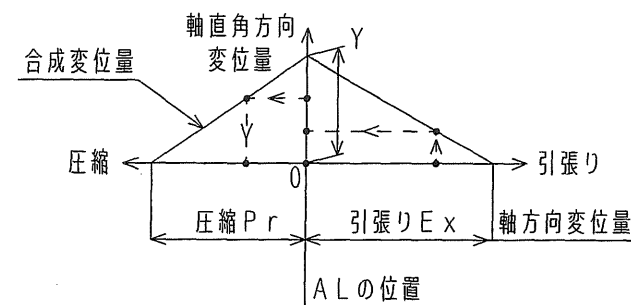
DWG. NO. S35-1032
MITSUBISHI HEAVY INDUSTRIES, LTD.
GENERAL MACHINERY & SPECIAL VEHICLE HEADQUARTERS

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- 注記 (1) 許容変位量はAL寸法からの最大圧縮、引張り、及び軸直角変位量を示す。
 (2) 各方向の変位が同時に作用する場合の許容変位量は、下図の合成変位量線を作図して求めた値とします。
 (3) 配管後 SHIPPING ボルト、ナットは取外すこと。
 (4) 取付寸法は、AL 寸法とすること。



部 品 番 号	サイズ		主 要 寸 法						許 容 変 位 量 (mm)			ばね定数 (kgf/mm)		重量 (kg)
	(A)	(B)	φdo	T	O. D	P. C. D	E-φF	AL	Pr	Ex	Y	軸方向	軸直角方向	
47910-81100	150	6	166.6	18	265	230	8-19	210	29	22	16	6.4	10.3	32
47910-81200	200	8	218.0	20	320	280	8-23	230	33	20	14	6.9	14.5	46
47910-81300	250	10	269.5	22	385	345	12-23	280	42	13	15	9.0	18.5	63
47910-81400	300	12	321.0	22	430	390	12-23	370	55	17	23	11.3	17.6	70
47910-97100	350	14	358.1	24	480	435	12-25	335	60	22	16	18.6	27.0	87
47910-97200	400	16	409	24	540	495	16-25	335	60	22	14	21.0	39.0	105
47910-97300	450	18	460	24	605	555	16-25	335	60	22	12	23.5	54.9	125
47910-97400	500	20	511	24	655	605	20-25	335	60	44	14	17.9	154.2	143
47910-97500	550	22	562	26	720	655	20-27	335	60	44	13	19.6	202.3	182
47910-97600	600	24	613	26	770	715	20-27	335	60	44	12	21.3	259.4	193
47910-97700	650	26	664	26	825	770	24-27	430	105	19	16	15.3	143.7	217
47910-97800	700	28	715	26	875	820	24-27	430	105	19	15	16.4	177.8	228

仕 様

設計圧力 0.05MPa

設計温度 MAX. 600℃

用途 排気ガス

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△	
REV.	DATE

FLEXIBLE PIPE

DWG. NO. S37-1021

MITSUBISHI HEAVY INDUSTRIES, LTD.
 GENERAL MACHINERY & SPECIAL VEHICLE HEADQUARTERS

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