

6UEC42LSH-Eco/-LPSCR

諸管線図集

PIPING DIAGRAM

Mark	Engine type	Turbocharger type	Tier2	Tier3	Hydraulic supply oil
					Common system
01	6UEC42LSH-Eco-D3	MET37MB/-EGB×1	×		×
		MET42MB/-EGB×1	×		×
		MET48MB/-EGB×1	×		×
02	6UEC42LSH-Eco-D3-LPSCR	MET37MB-EGB×1		×	×
		MET42MB-EGB×1		×	×
		MET48MB-EGB×1		×	×

×: Apply

CONTENT		REMARKS	PURCHASER	ORDER No.	DATE	Development & Design Department	
DESCRIPTION	17 PAGE			ITEM No.	REFERENCE	APPROVED BY	K. Edo
FIGURE	6 SHEET					CHECKED BY	Y. Kinoshita
TOTAL	25 PAGE					DESIGNED BY	S. Yoshikawa
PREVIOUS DRAWING U7-0M004/A				DRAWN BY	K. Amari		
				ISSUE			
				DATE	Jan. 28, 2020		
FACTORY					DWG. No.	Rev. No.	
					U7-0M007	1	

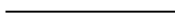

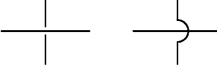
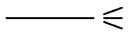
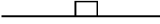

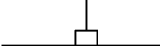
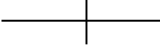
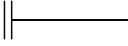
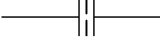






諸管線図名称


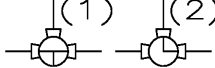

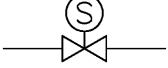


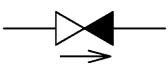

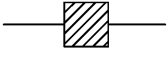
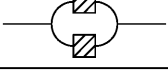

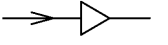

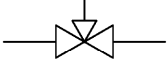
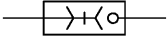

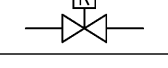
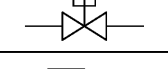


Name of piping diagram



















U7-OM007		Starting air 始動空気管線図	
”	”		Fuel oil 燃料油管線図
”	”		Fuel oil steam 燃料油加熱蒸気管線図
”	”		Lubricating oil 潤滑油管線図
”	”		Axial damper oil 縦振動ダンパー油管線図
”	”		Axial damper oil (with free end casing) 縦振動ダンパー油管線図（前端ケーシング付）
”	”		Piston cooling oil ピストン冷却油管線図
”	”		Hydraulic supply oil (Common system) 油圧作動油管線図（共油系統）
”	”		Actuator oil for exhaust valve 排気弁駆動油管線図
”	”		Cylinder lubricating oil for A-ECL system シリンダ注油管線図（A-ECLシステム）
”	”		Turbocharger lubricating oil 過給機潤滑油管線図
”	”		Cylinder cooling water シリンダ冷却水管線図
”	”		Air cooler cooling water 空気冷却器冷却水管線図
”	”		Piston rod stuffing box drain ピストン棒パッキン箱ドレン管線図
”	”		Scavenging air trunk drain 掃気トランクドレン管線図
”	”		Turbocharger and air cooler washing water and exhaust gas system 過給機空気冷却器洗浄水管及び排気ガス線図
”	”		Fire extinguishing 掃気室火災消火装置管線図


SYMBOLS FOR MAIN ENGINE PIPING DIAGRAM

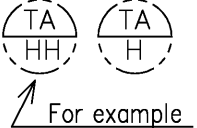
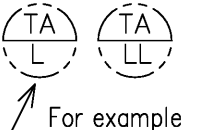
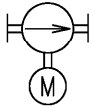
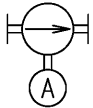
主 機 関 諸 管 線 図 記 号

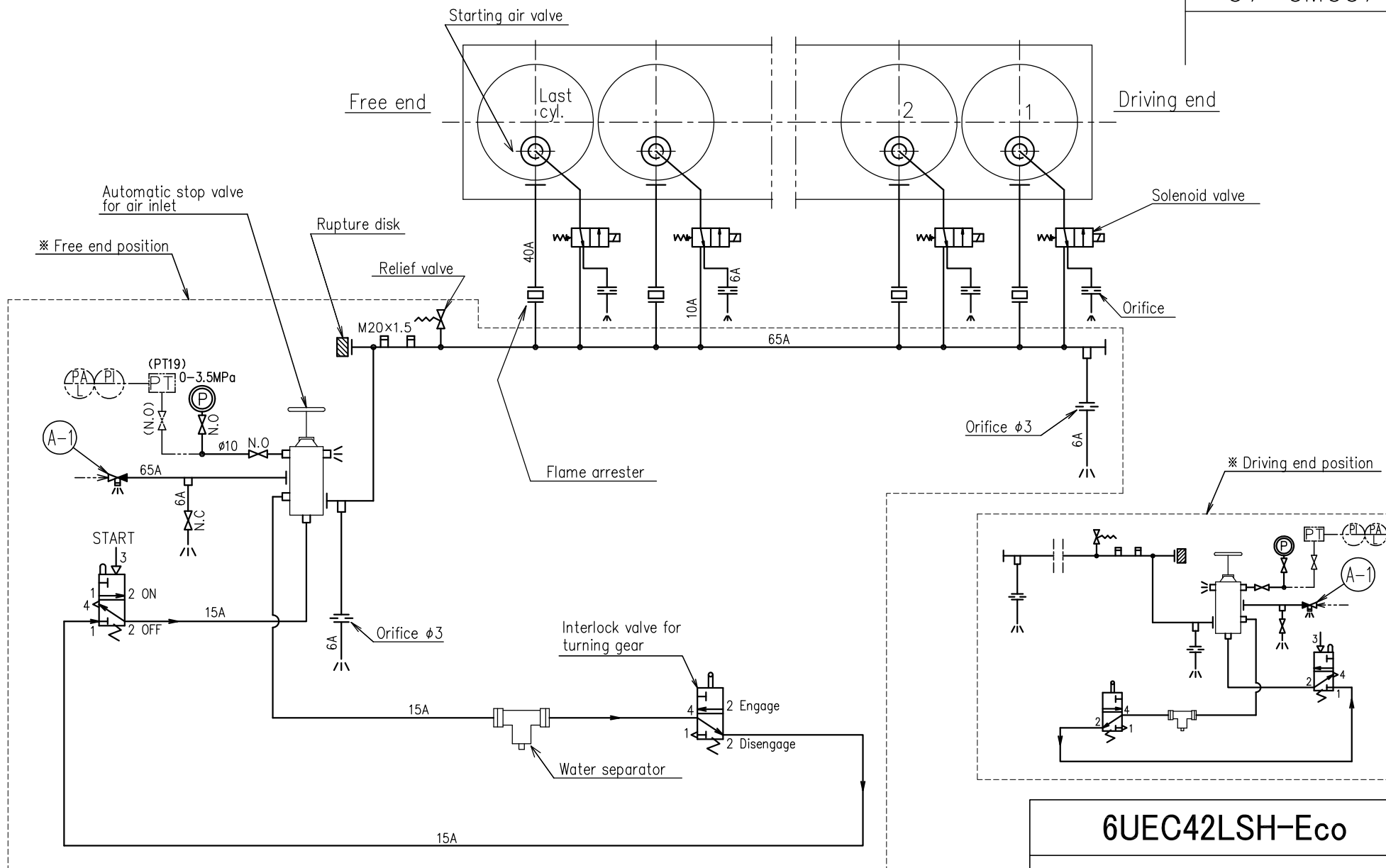
SYMBOLS 記 号	NAME	名 称	REMARKS 備 考
	<u>Nominal inner diameter</u>	<u>称呼口径</u>	
	Crossing pipes, connected	連結管	
	Crossing pipes, not connected	不連結管	
	To bilge	ビルジへ	
	Boss	ボス	
	Boss with plug	プラグ付ボス	
	Joint, bossed	ボス継手	
	Joint, flanged	フランジ継手	
	Blind flange	閉止フランジ	
	Orifice	オリフィス	
	Flexible pipe	フレキシブルパイプ	
	Hopper	ホッパー	
	Hopper with cover	ふた付ホッパー	
	Air vent pipe	空気抜管	
	Siphon	サイフォン	
	Air chamber	エアチャンバー	

SYMBOLS 記号	NAME	名 称	REMARKS 備考
	Stop valve	止め弁	
	Three-way cock	三方コック	(1) T形 (T-PORT) (2) L形 (L-PORT)
	Butterfly valve	バタフライ弁	
	Solenoid operated valve	電磁弁	
	Gate valve	仕切弁	
	Safety valve	安全弁	
	Check valve	逆止弁	
	Sight glass	サイトグラス	
	Simplex strainer	単式コシ	
	Duplex strainer	複式コシ	
	Y type strainer	Y形ストレーナ	
	Reducer	レジュース	
	Hose coupling	ホース継手	
	Regulating valve	自動調整弁	
	Self-seal joint	セルフシール継手	
	Filter and regulator	フィルタ及び調圧弁	
	Remote control valve	遠隔制御弁	
	Control valve	制御弁	
	Back pressure valve	背圧弁	
	Regulator	レギュレータ	

SYMBOLS 記号	NAME	名 称	REMARKS 備 考
	Pressure switch	圧力スイッチ	
	Temperature switch	温度スイッチ	
	Float switch	フロートスイッチ	
	Limit switch	リミットスイッチ	
	Pressure transmitter	圧力トランスミッター	
	Temperature sensor	温度センサ	
	O ₂ concentration sensor	O ₂ 濃度センサ	
	Mist sensor	ミストセンサ	
	Smoke sensor	スモークセンサ	
	Oil or water level sensor	液面レベルセンサ	
	Differential pressure switch	差圧スイッチ	
Bar type 	Thermometer	温度計	
Dial type 			
Engine side 	Pressure gauge	圧力計	
on Gauge board 			
	U Tube manometer	U字管式圧力計	
	Differential pressure gauge	差圧計	
	Oil mist detector	オイルミスト警報装置	

SYMBOLS 記号	NAME	名称	REMARKS 備考
	Remotely indicated	遠隔指示計	
PI	Pressure indication	圧力指示	
PA	Pressure alarm	圧力警報	
DPA	Differential pressure alarm	差圧警報	
PSD	Pressure slow down	圧力減速	
TI	Temperature indication	温度指示	
TA	Temperature alarm	温度警報	
TSD	Temperature slow down	温度減速	
LI	Level indication	液面指示	
LA	Oil or water level alarm	液面指示	
FI	Flow indication	流れ指示	
FA	Flow alarm	流れ警報	
FSD	Flow slow down	流れ減速	
OI	O ₂ concentration indication	O ₂ 濃度指示	
OA	O ₂ concentration alarm	O ₂ 濃度警報	
MSA	Mist alarm	ミスト警報	
ASD	Auto slow down	自動減速	
pHIA	pH indication, alarm	pH指示、警報	
DIA	Specific gravity indication, alarm	比重指示、警報	

SYMBOLS 記 号	NAME	名 称	REMARKS 備 考
H	High (high press., high temp., high level)	圧力高, 温度高, 液面高	
L	Low (low press., low temp., low level, low flow)	圧力低, 温度低, 液面低, 流量低	
HH	High-High (high-high press., high-high temp.)	圧力高々, 温度高々	
LL	Low-Low (low-low press.,low-low temp.,low-low level,low-low flow)	圧力低々, 温度低々 液面低々, 流量低々	
	Electric driven pump	電動ポンプ	
	Air driven pump	エア駆動ポンプ	

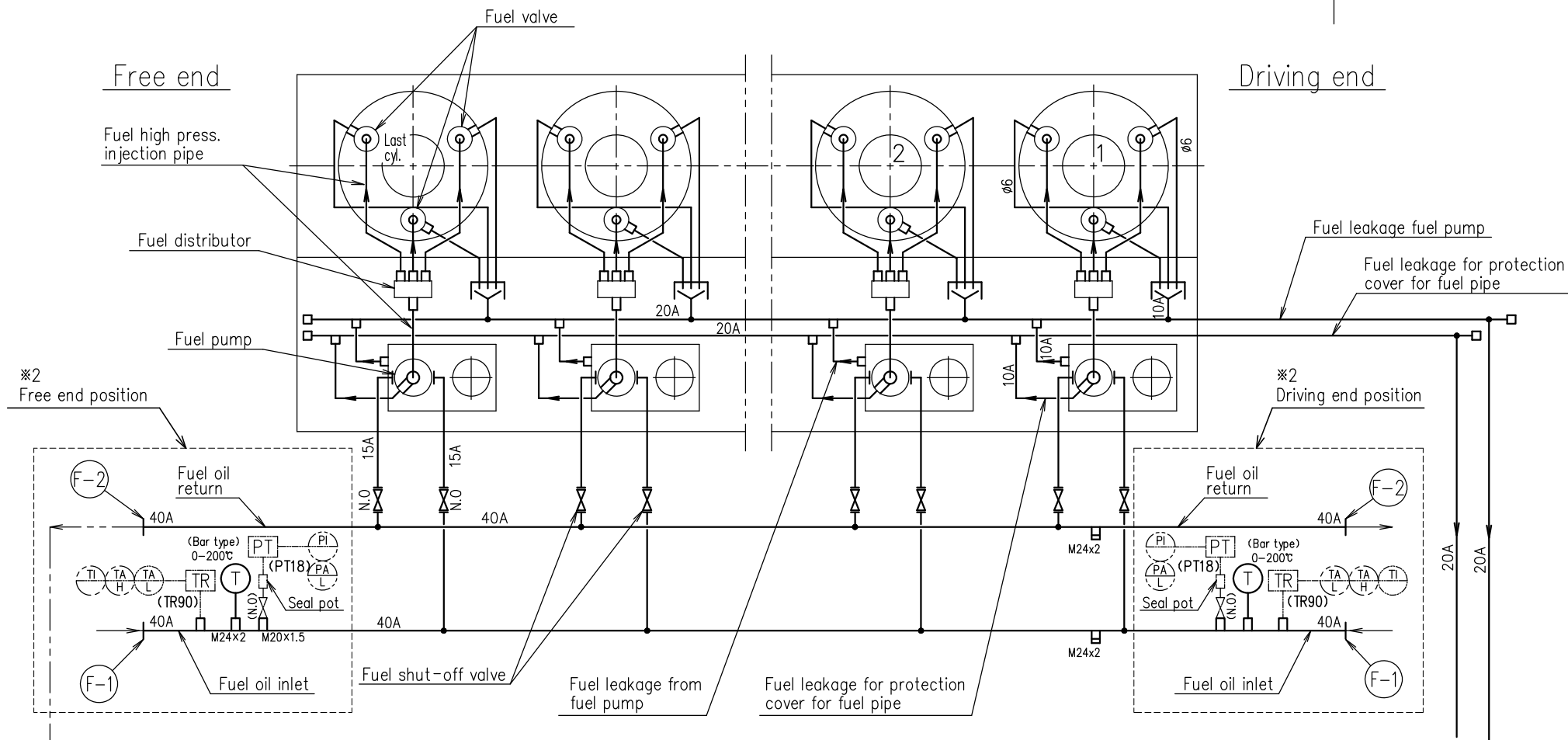


※ That of selecting one of the other.
 どちらか一方を選択のこと。

6UEC42LSH-Eco

Piping diagram of starting air

始動空気管線図

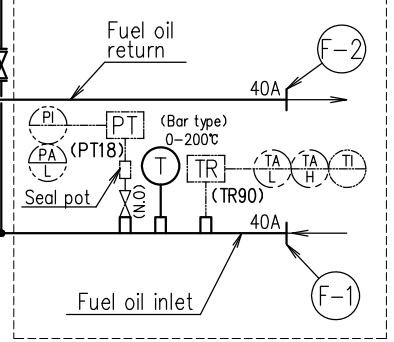
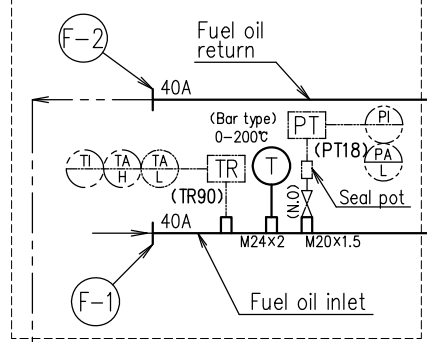


Free end

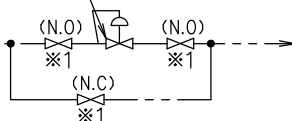
Driving end

※2 Free end position

※2 Driving end position



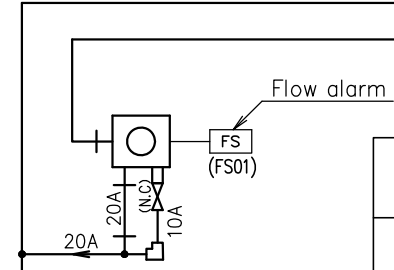
Press. regulating valve



※1 Supplied by shipyard.
造船所殿所掌

※2 That of selecting one of the other.
どちらか一方を選択のこと。

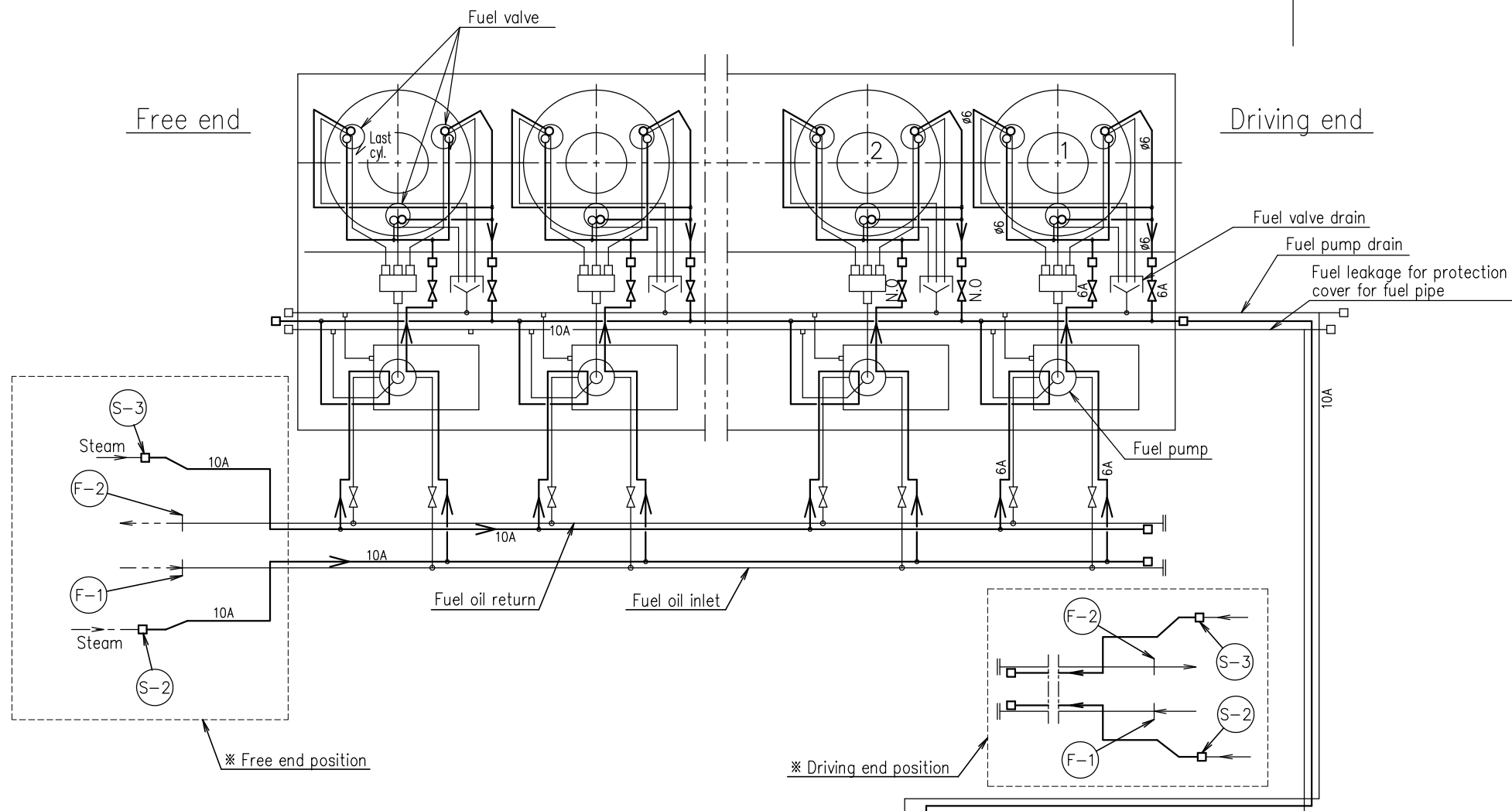
Fuel drain (D-2)



6UEC42LSH-Eco

Piping diagram of fuel oil

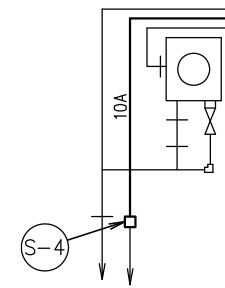
燃料油管線図



※ Free end position

※ Driving end position

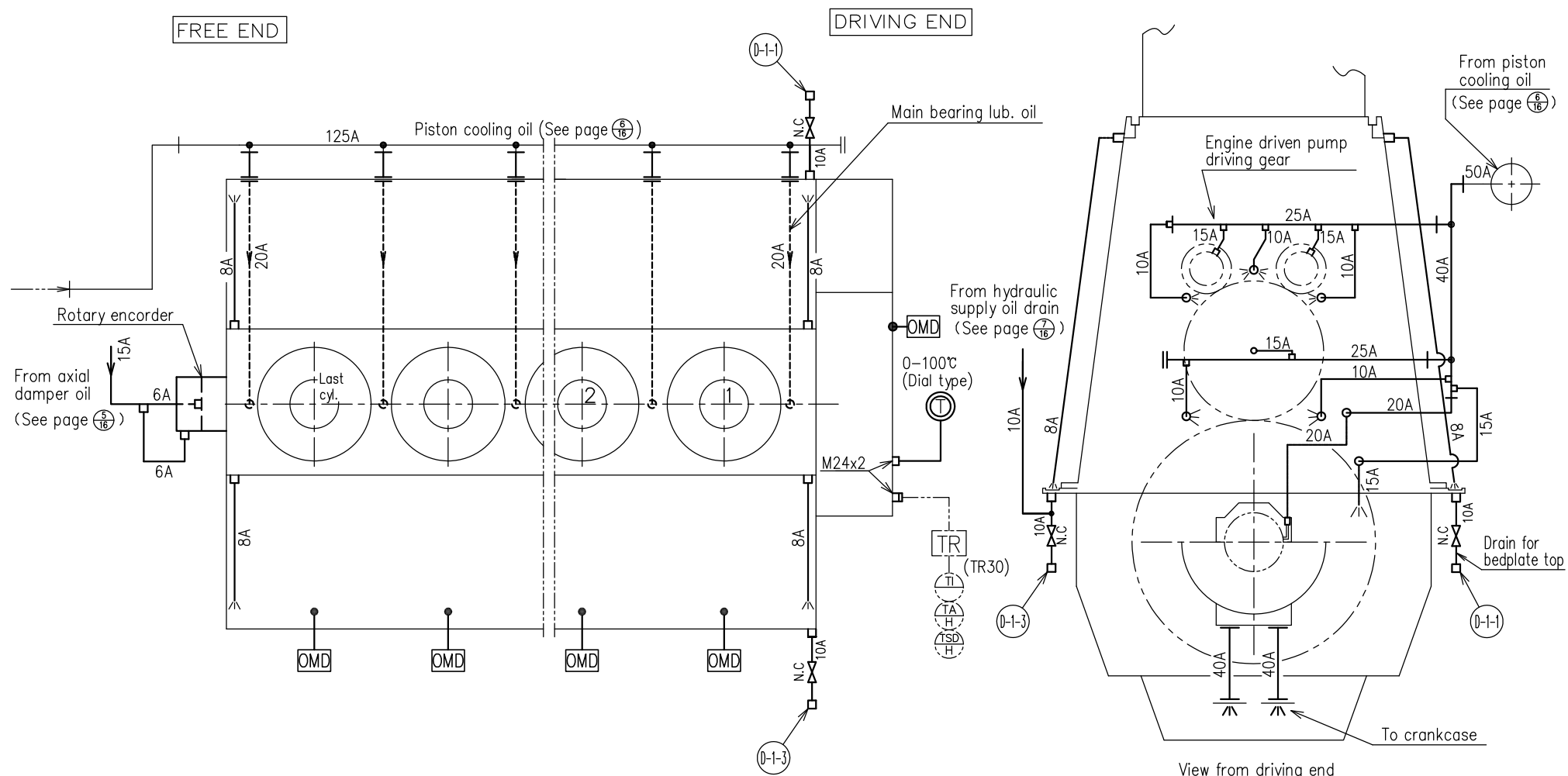
※ That of selecting one of the other.
 どちらか一方を選択のこと。



6UEC42LSH-Eco

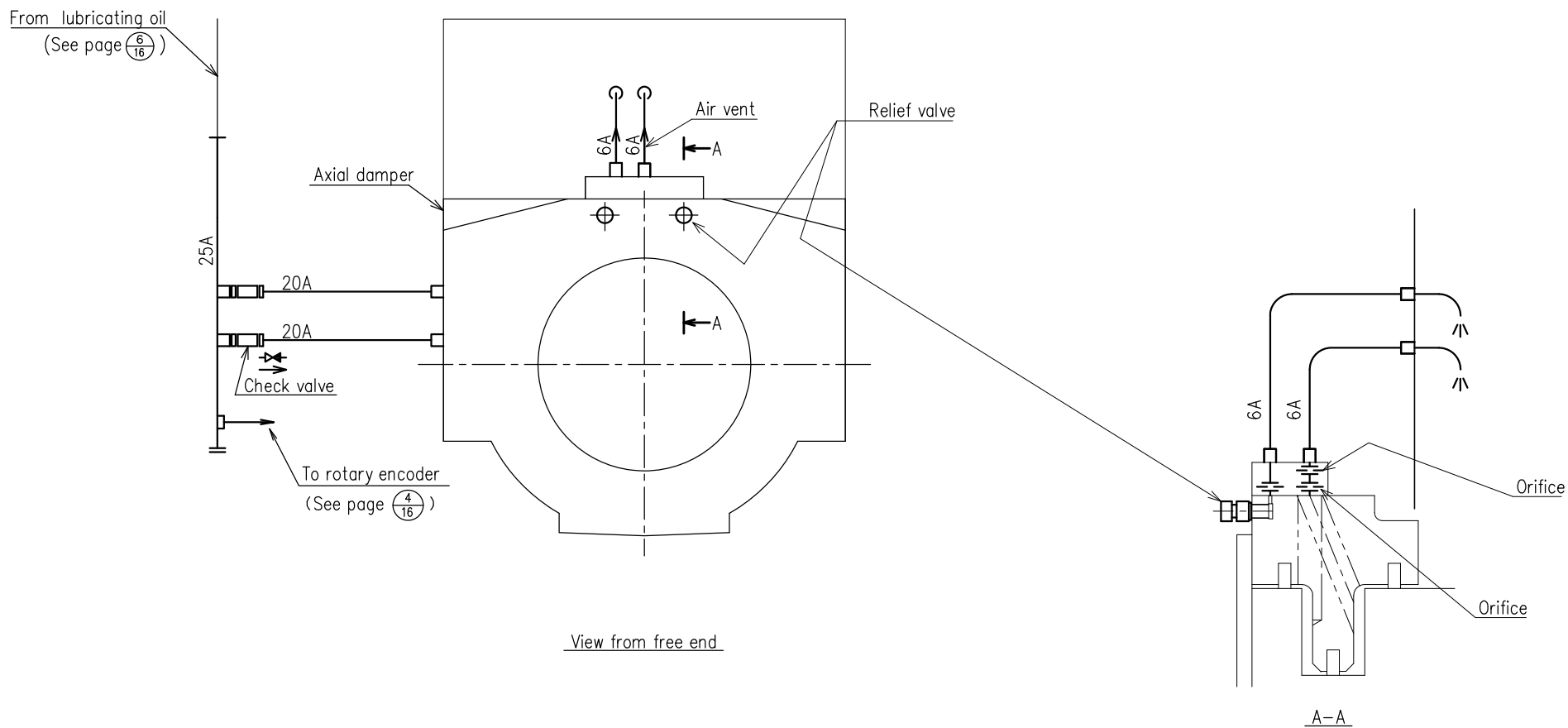
Piping diagram of
 fuel oil steam

燃料油加熱蒸気管線図



View from driving end

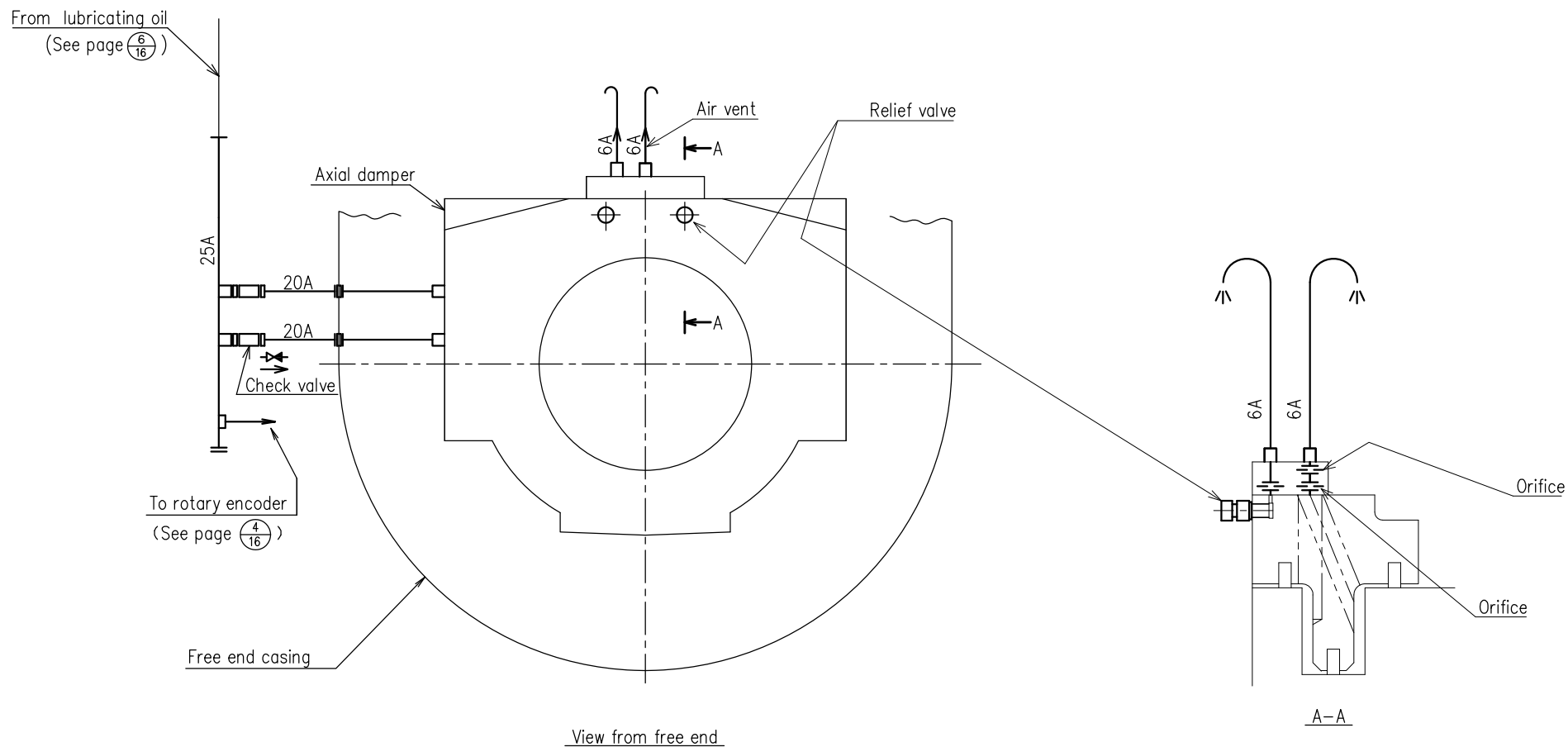
6UEC42LSH-Eco	
Piping diagram of lubricating oil 潤滑油管線図	
4	16



6UEC42LSH-Eco

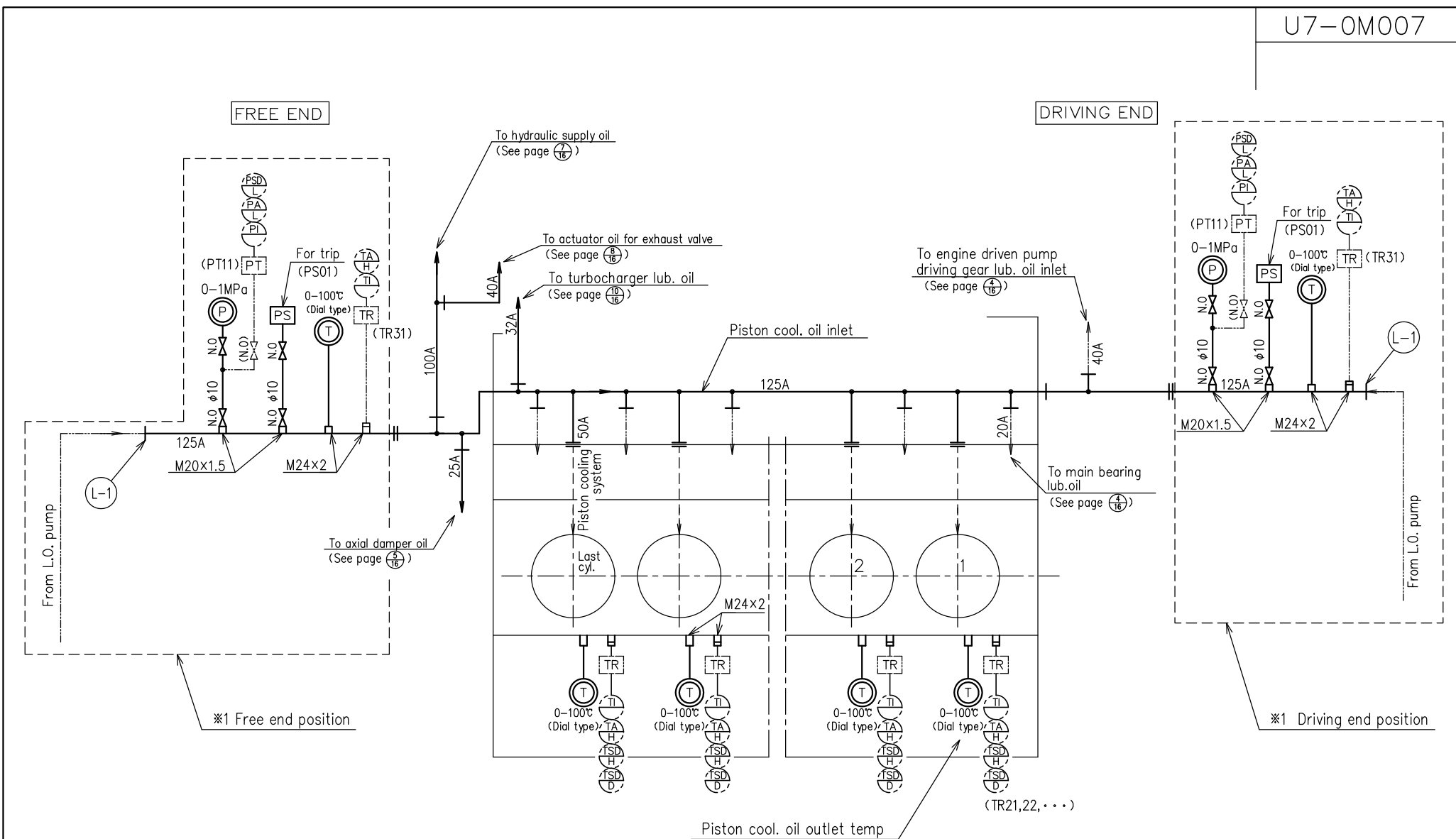
Piping diagram of
axial damper oil

縦振動ダンパー油管線図



6UEC42LSH-Eco

Piping diagram of
axial damper oil (with free end casing)
縦振動ダンパー油管線図
(前端ケーシング付)



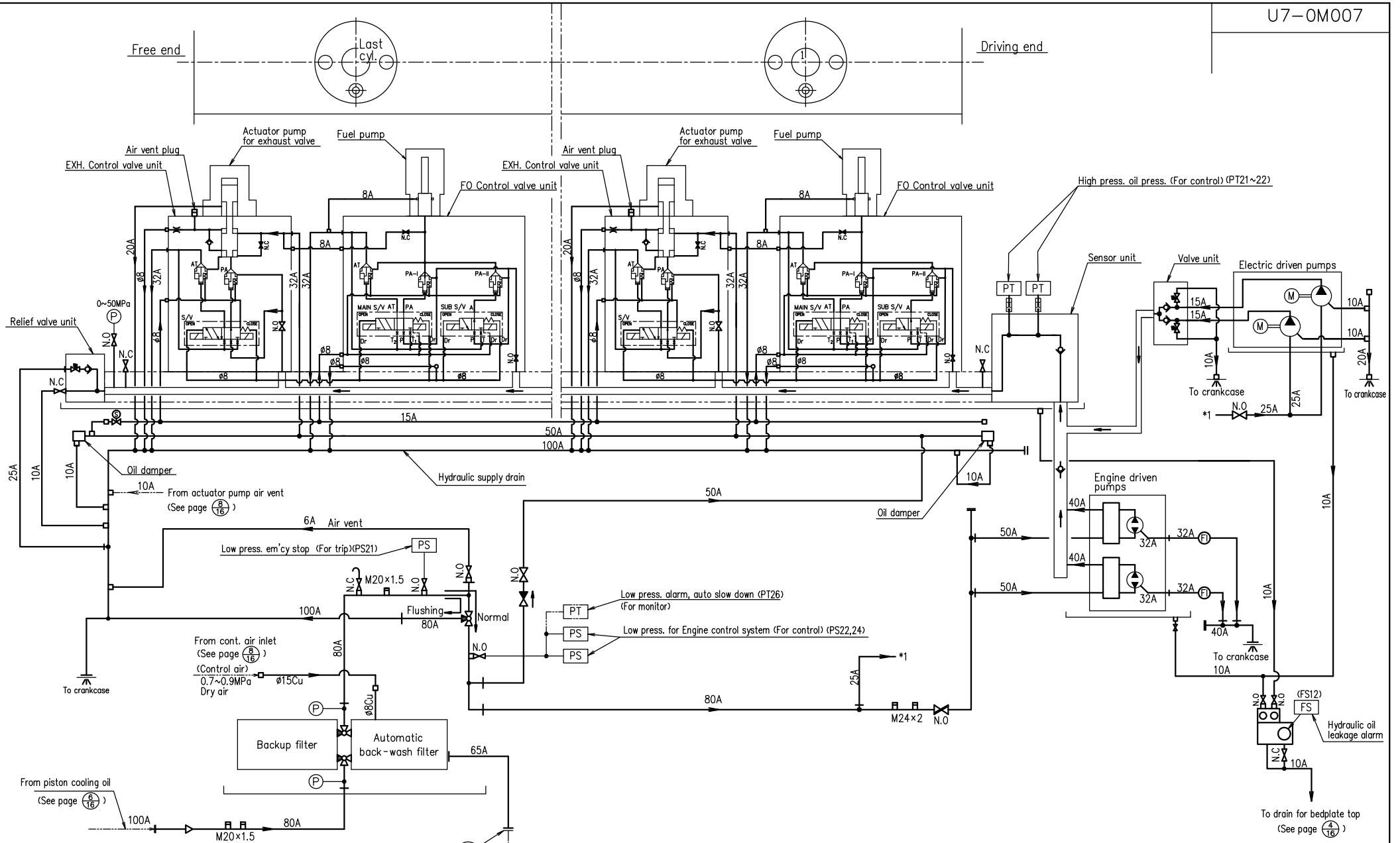
※1 Free end position

※1 Driving end position

※1 That of selecting the one of the other.
 どちらか一方を選択のこと。

6UEC42LSH-Eco

Piping diagram of piston cooling oil
 ピストン冷却油管線図



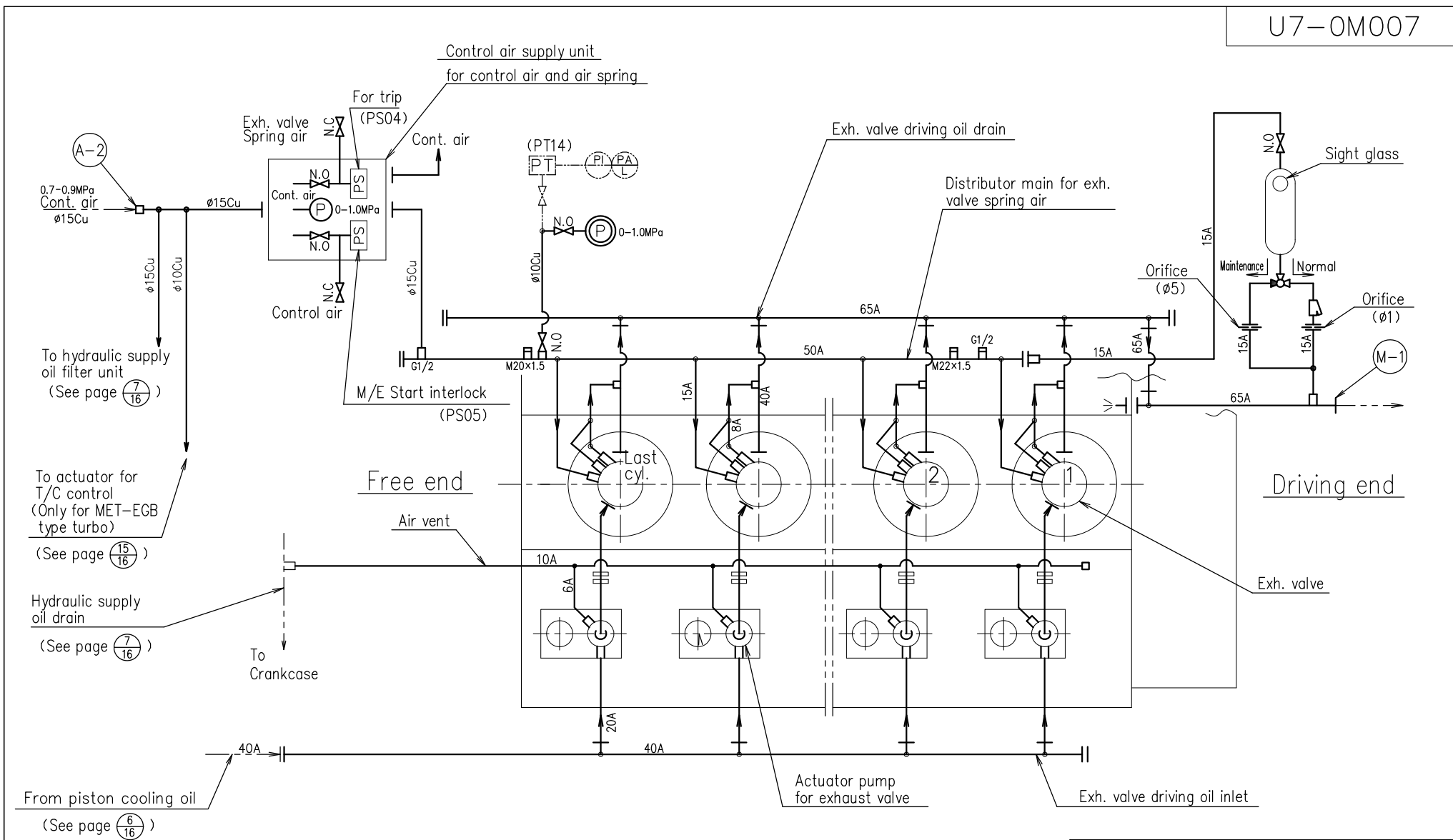
※ To Hydraulic supply oil drain pot

※ May not stand up the pipe to prevent the oil reservoir until the drain tank.
 And shall be contact the engine manufacturer if there is a need to stand up the pipe.
 フレックタンクまで油溜まりがでないように管に立ち上げ部を作らないこと。
 配管を立ち上げる必要がある場合はエンジンメーカーに問い合わせること。

6UEC42LSH-Eco

Piping diagram of
 hydraulic supply oil
 (Common system)
 油圧作動油管線図 (共油系統)

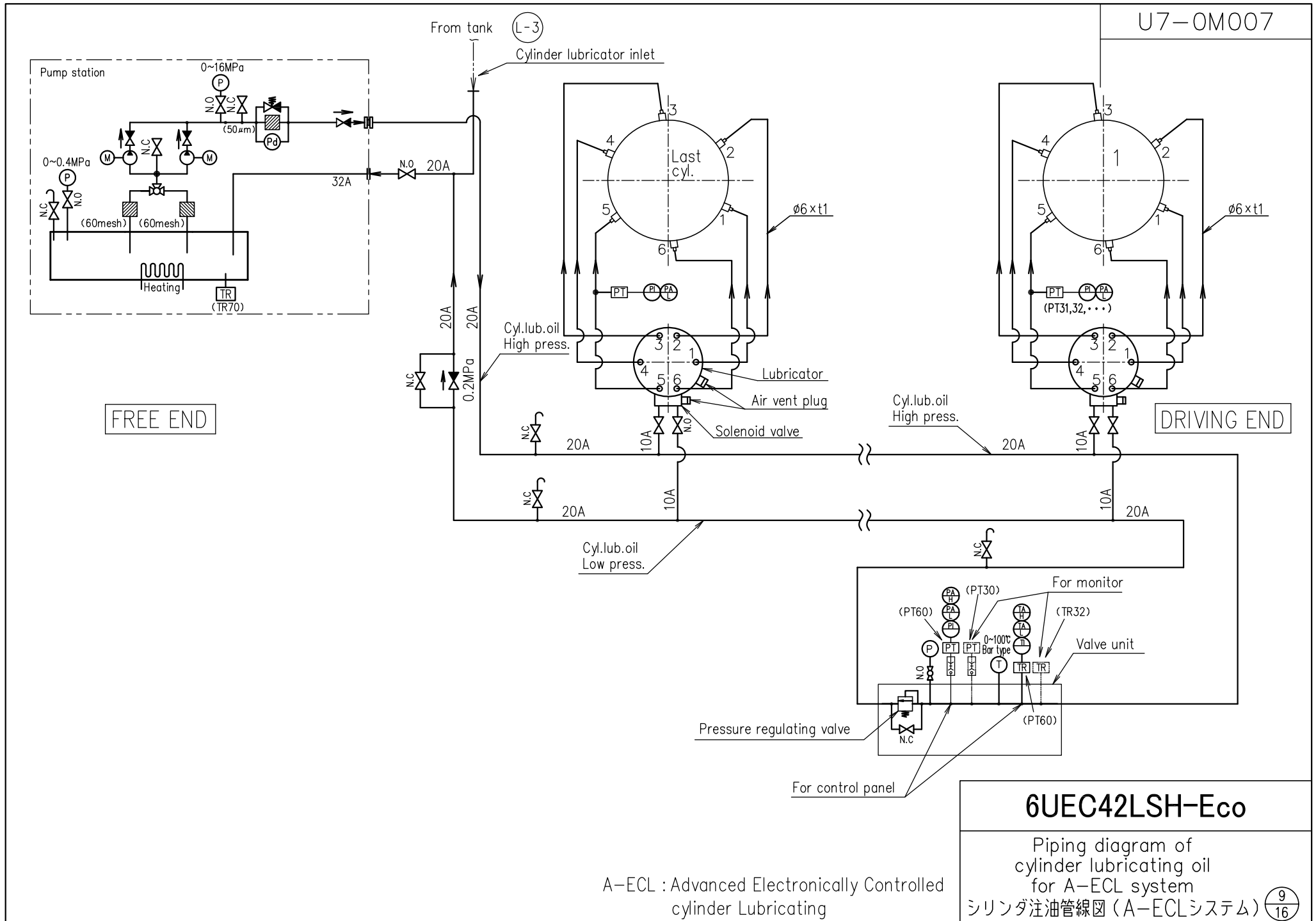
7
16



6UEC42LSH-Eco

Piping diagram of actuator for exh. valve

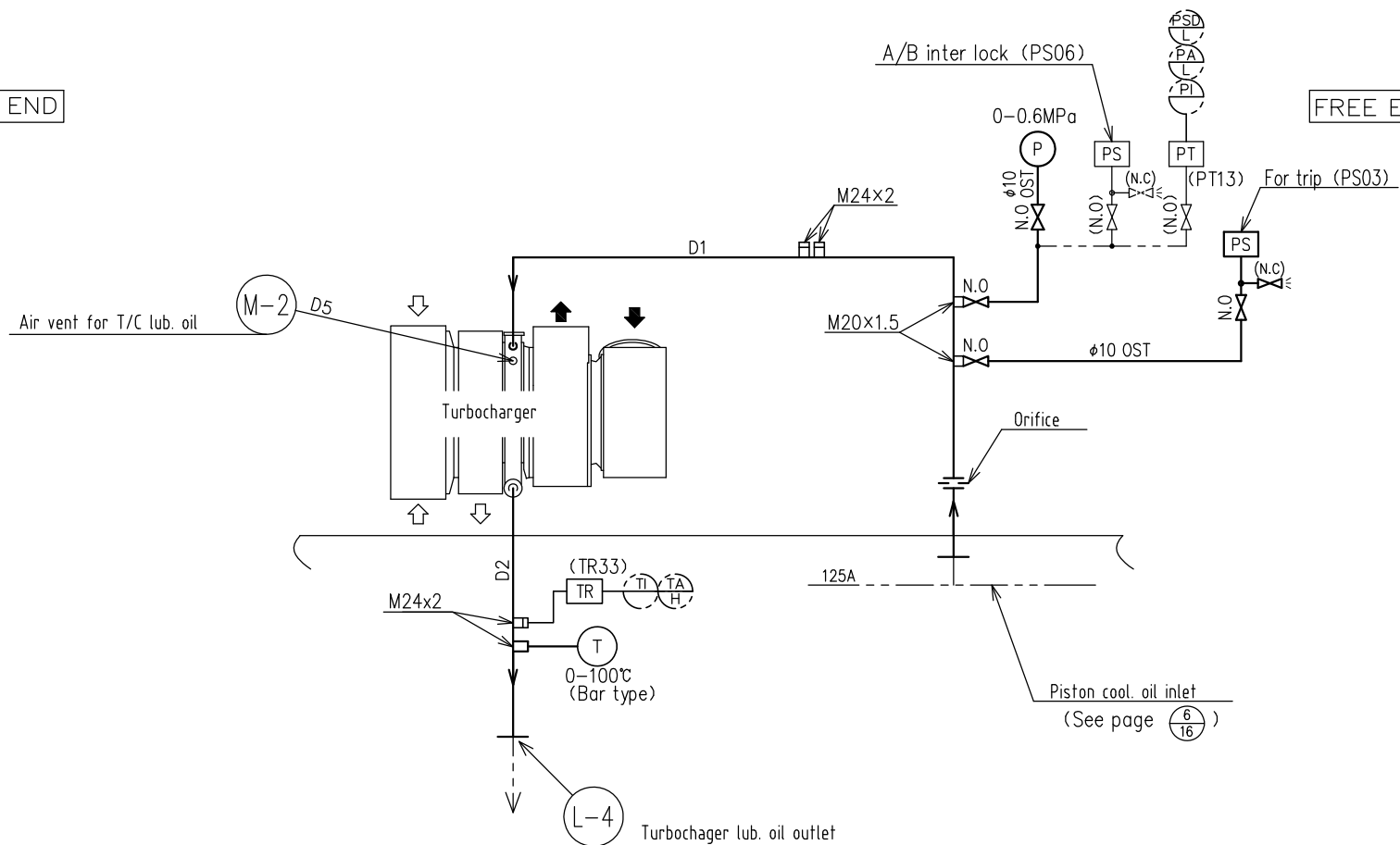
排気弁駆動油管線図



A-ECL : Advanced Electronically Controlled cylinder Lubricating

DRIVING END

FREE END



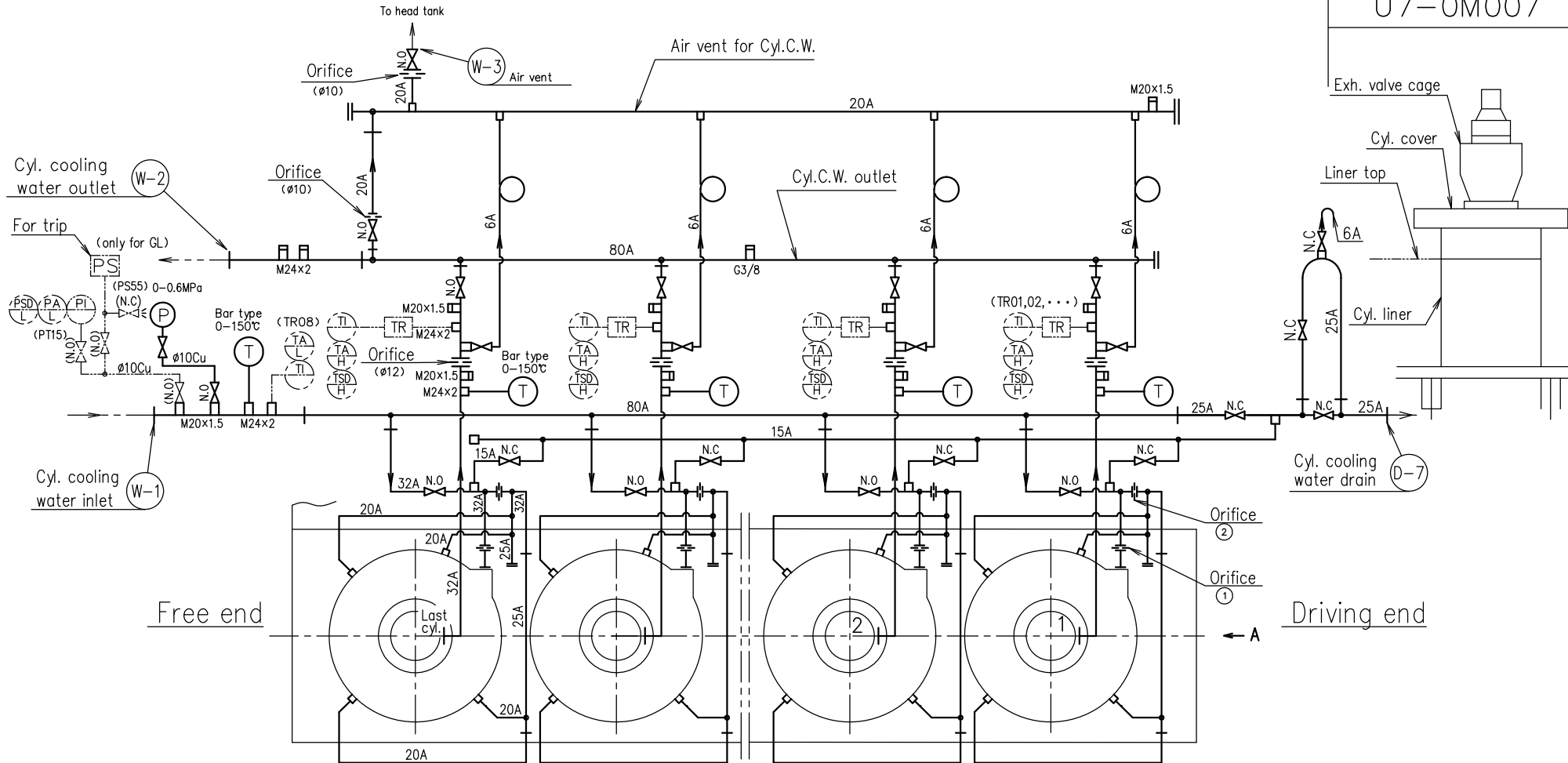
Turbocharger type	Pipe sizes		
	D1	D2	D5
MET37MB/-EGBx1	25A	50A	50A
MET42MB/-EGBx1	25A	50A	50A
MET48MB/-EGBx1	32A	65A	65A

View from exhaust side

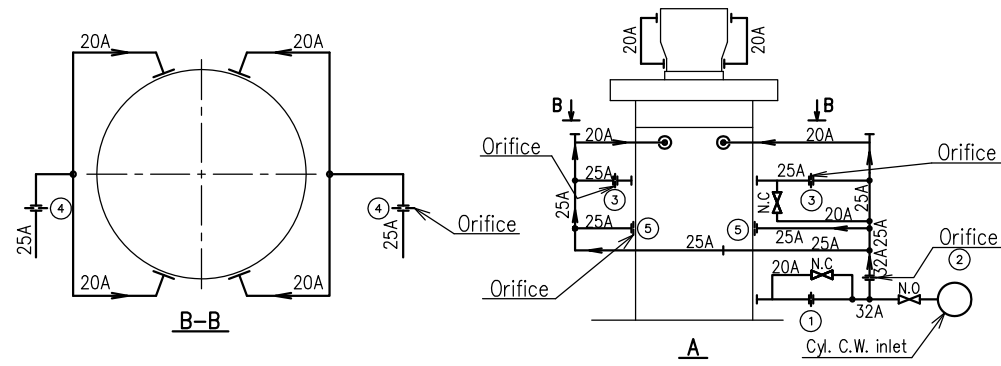
6UEC42LSH-Eco

Piping diagram of turbocharger lub. oil

過給機潤滑油管線図

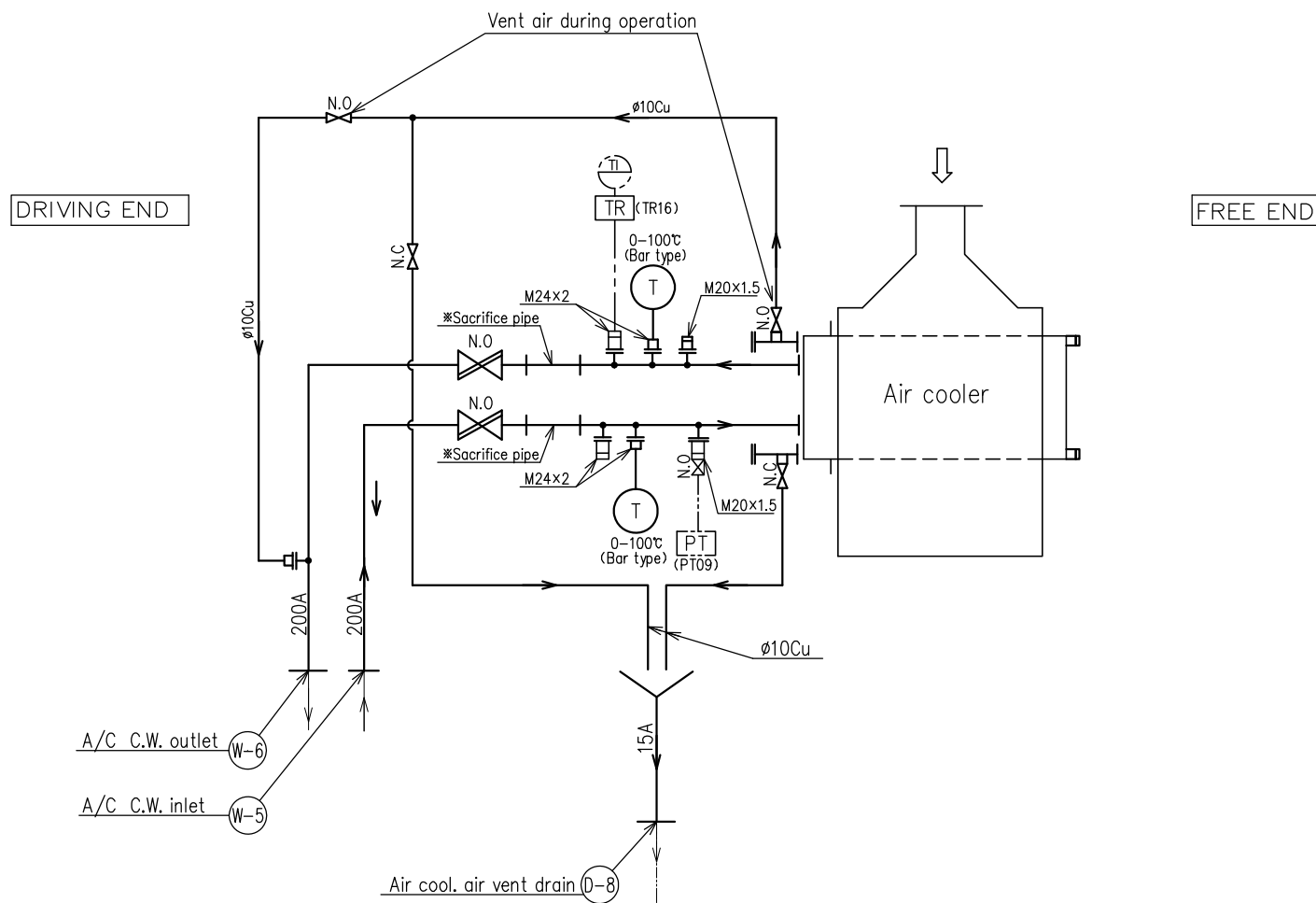


Orifice	φ (mm)
①	
②	
③	
④	
⑤	



6UEC42LSH-Eco

Piping diagram of cylinder cooling water
シリンダ冷却水管線図



View from exhaust side

※ Only for sea water cooling
海水冷却の場合のみ

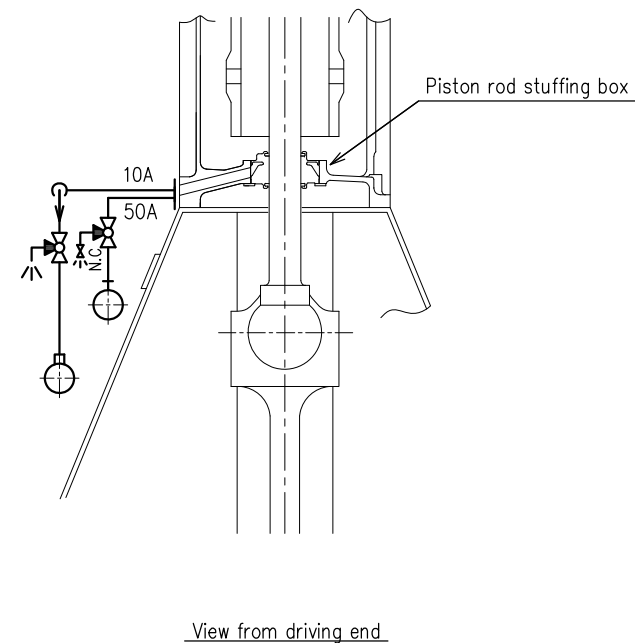
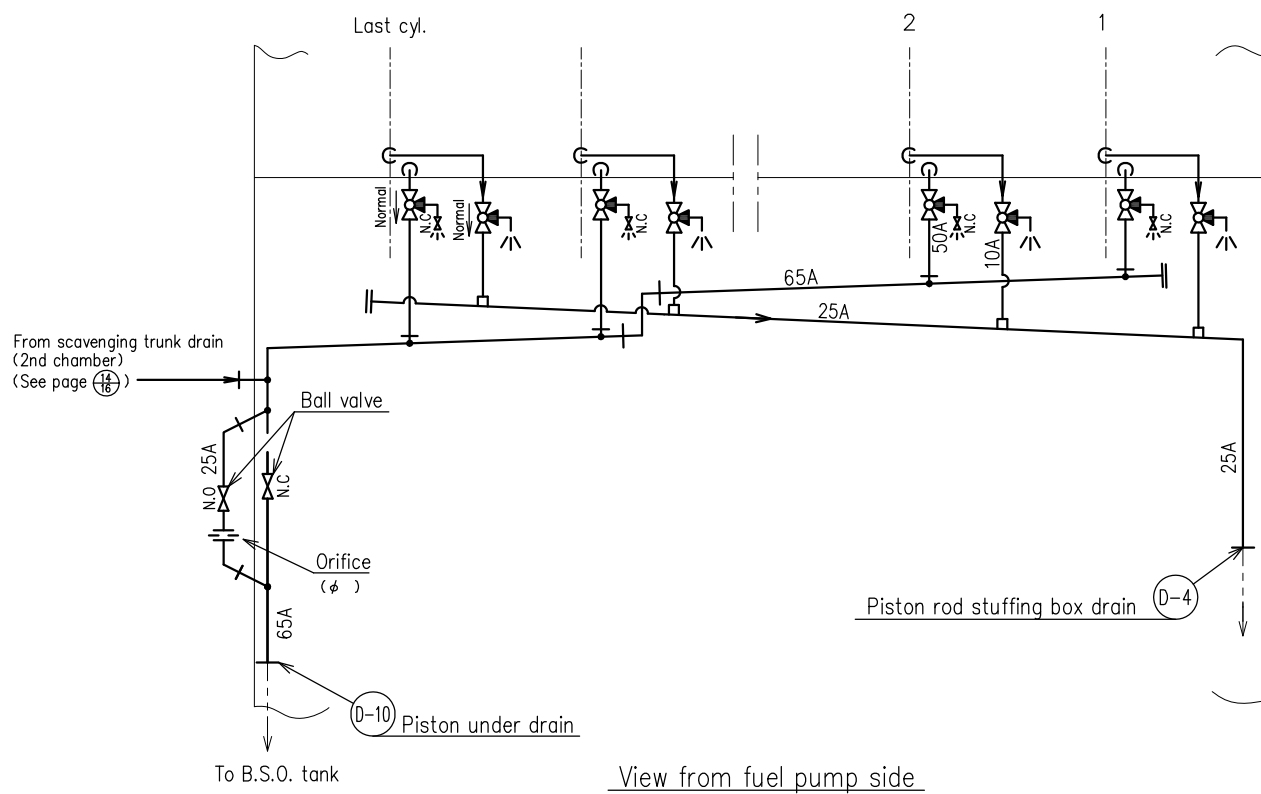
6UEC42LSH-Eco

Piping diagram of
air cooler cooling water

空気冷却器冷却水管線図

FREE END

DRIVING END



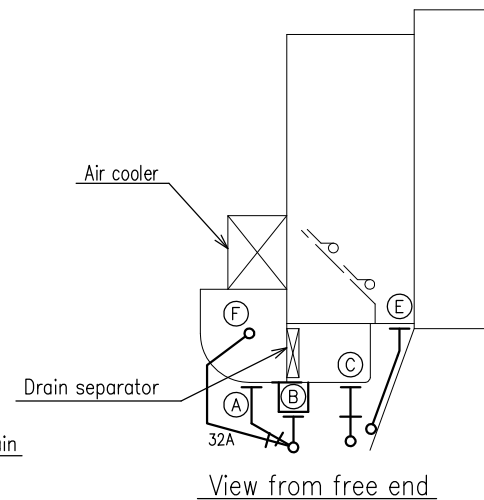
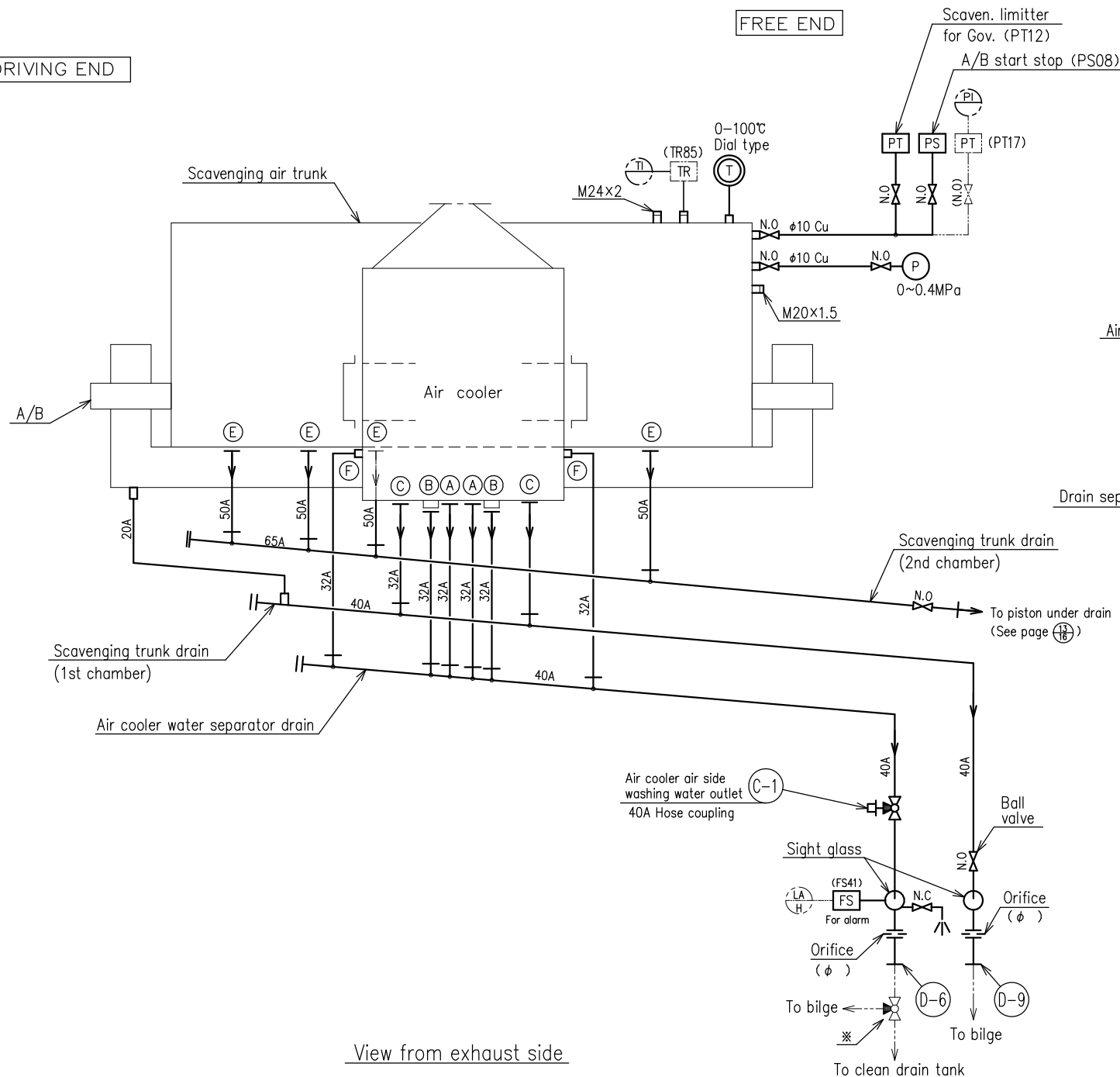
6UEC42LSH-Eco

Piping diagram of
piston rod stuffing box drain

ピストン棒パッキン箱ドレン管線図

DRIVING END

FREE END



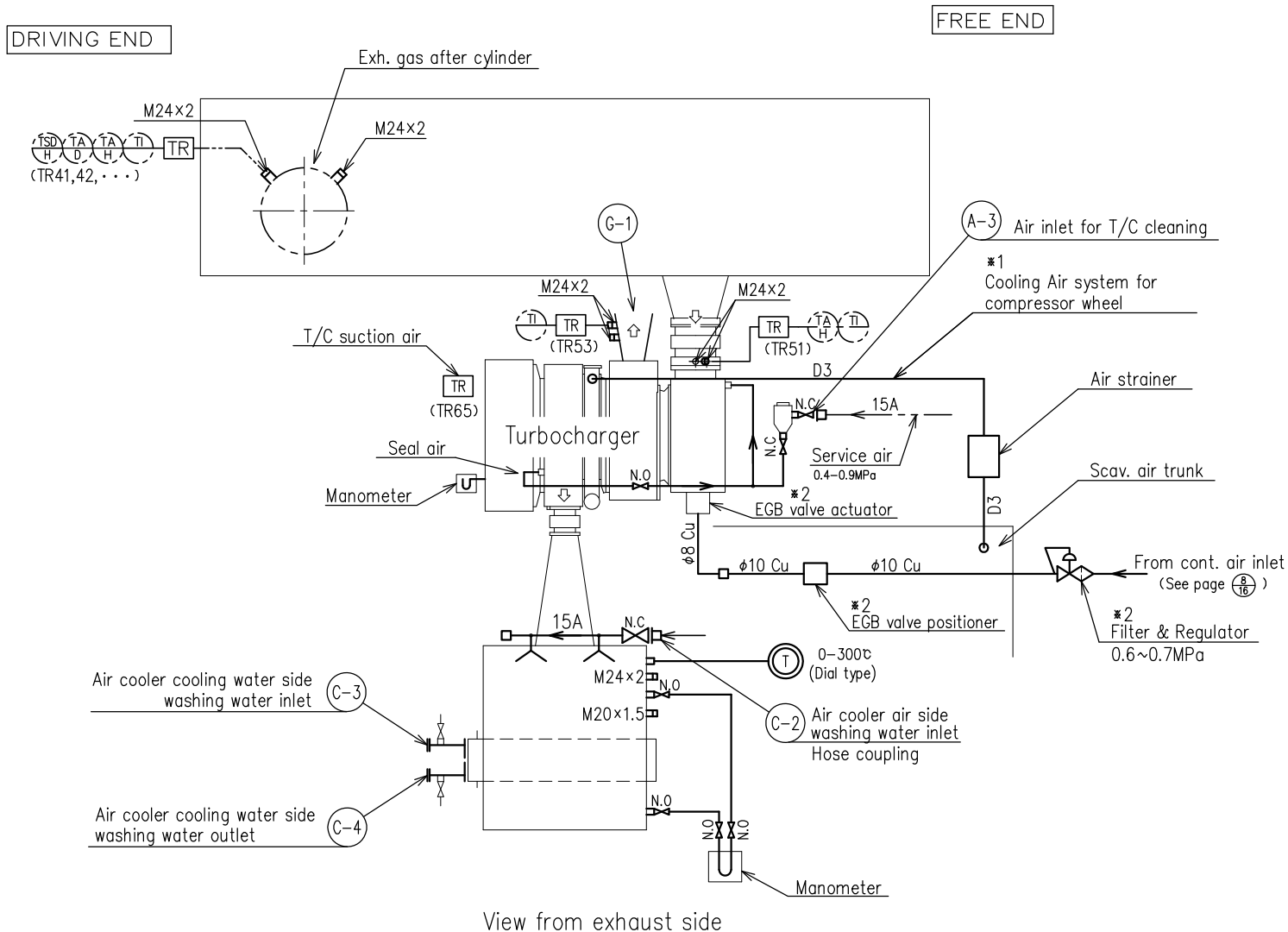
View from free end

View from exhaust side

※ Supplied by shipyard.
造船所殿所掌

6UEC42LSH-Eco

Piping diagram of
scavenging air trunk drain
掃気トランクドレン管線図



View from exhaust side

Turbocharger type	Pipe size
MET37MB/-EGBx1	D3
MET42MB/-EGBx1	32A
MET48MB/-EGBx1	40A

※1.クーリングエアシステムは、機種の仕様により必要となる場合があります。
お問い合わせください。

Depending on the engine specification, cooling air system may be required.

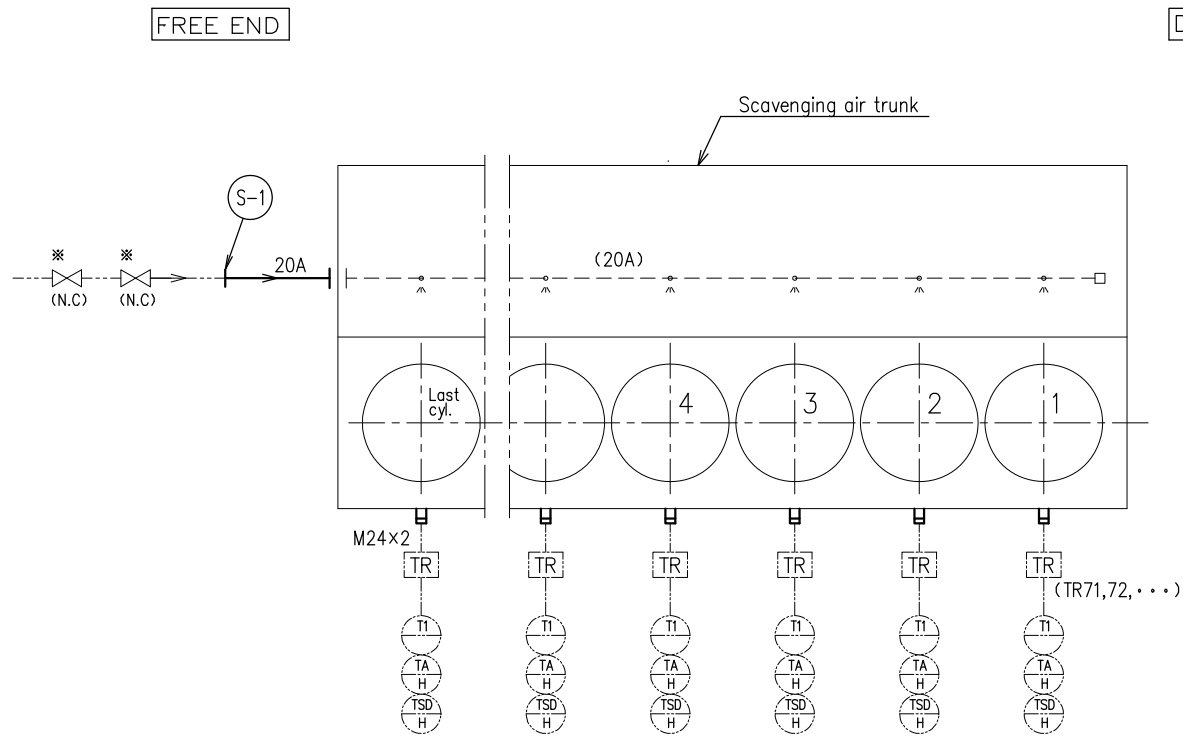
※2.MET-EGB 過給機のみ。

Only for MET-EGB type turbocharger.

6UEC42LSH-Eco

Piping diagram of turbocharger and air cooler washing water and exhaust gas system

過給機空気冷却器洗浄水管及び排気ガス線図



※ Supplied by shipyard.
造船所殿所掌

6UEC42LSH-Eco

Piping diagram of
fire extinguishing

掃気室火災消火装置管線図

改訂来歴表		文 書 番 号			
		U7-0M007			
改訂番号	項 目 ・ 内 容 等	年 月 日	承 認	審 査	担 当
A	UC12588	2020.7.3	Y.Kinoshita	S.Yoshikawa	K.Amari
	Revised page for 12/16, 15/16.				
B	UC12781	2020.11.5	Y.Kinoshita	S.Yoshikawa	
	Revised page for 14/16.				
C	Revised page for 4/16,11/16,15/16.	2021.01.22	K.Imanaka	S.Yoshikawa	
	UC12809				
D	Revised page for 7/16, 8/16	2021-04-15	Y.Kinoshita	S.Yoshikawa	K.Amari
	UC13087				
E	Revised page for 11/16	2021-05-11	Y.Kinoshita	S.Yoshikawa	K.Amari
	UC13127				
F	Revised page for 1/16, 2/16, 3/16, 4/16	2021-06-25	Y.Kinoshita	S.Yoshikawa	K.Amari
	5-1/16, 5-2/16, 7/16, 8/16, 10/16, 11/16 12/16, 14/16, 15/16 UC13209				
G	Revised page for 7/16	2021-07-29	Y.Kinoshita	S.Yoshikawa	K.Amari
	UC13278				
H	Revised page for 2/16, 12/16	2022-05-09	Y.Kinoshita	S.Yoshikawa	K.Amari
	UC13847				
I	Revised cover page.	2022-06-07	Y.Kinoshita	S.Yoshikawa	K.Amari
	UC13906				