

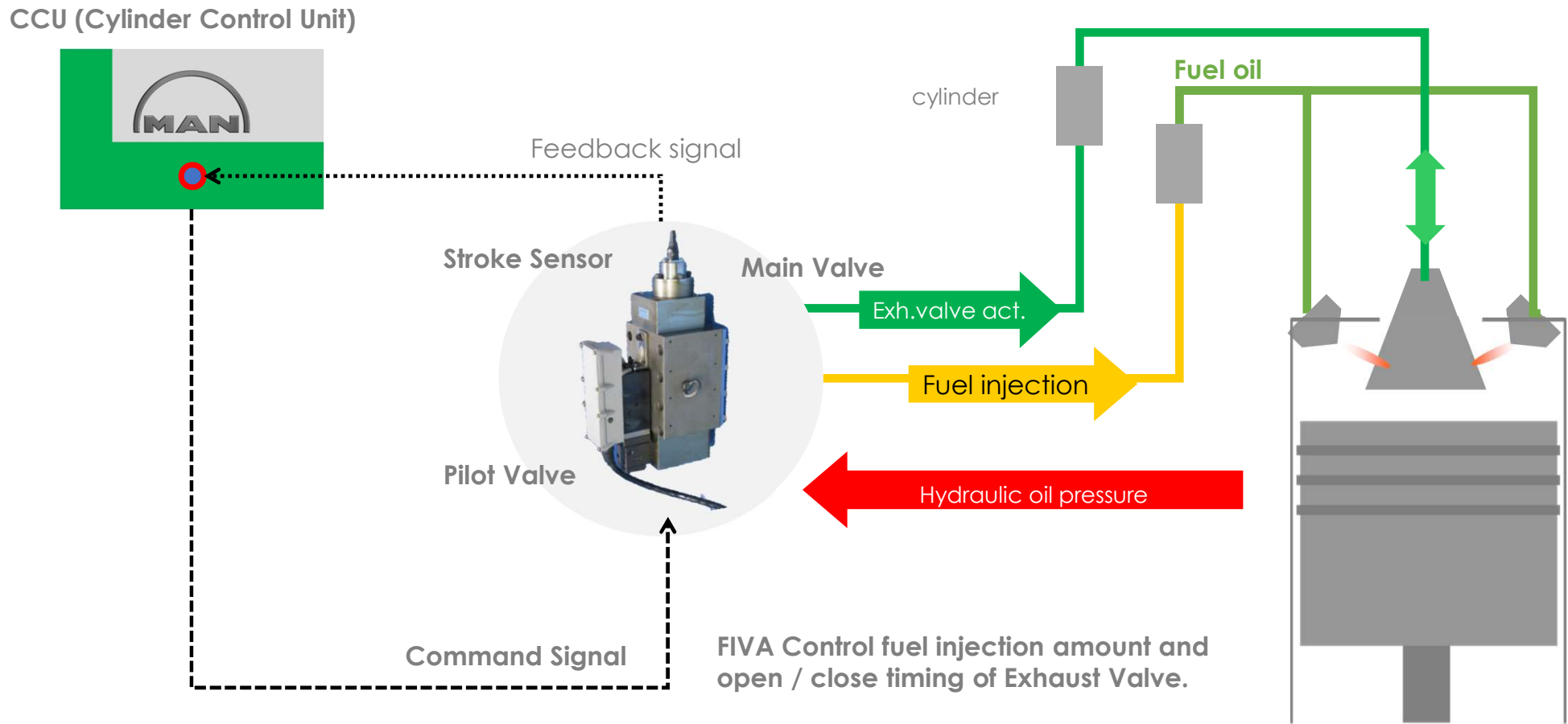


After Sales Service

Maintenance recommendation to FIVA/ELVI Valves

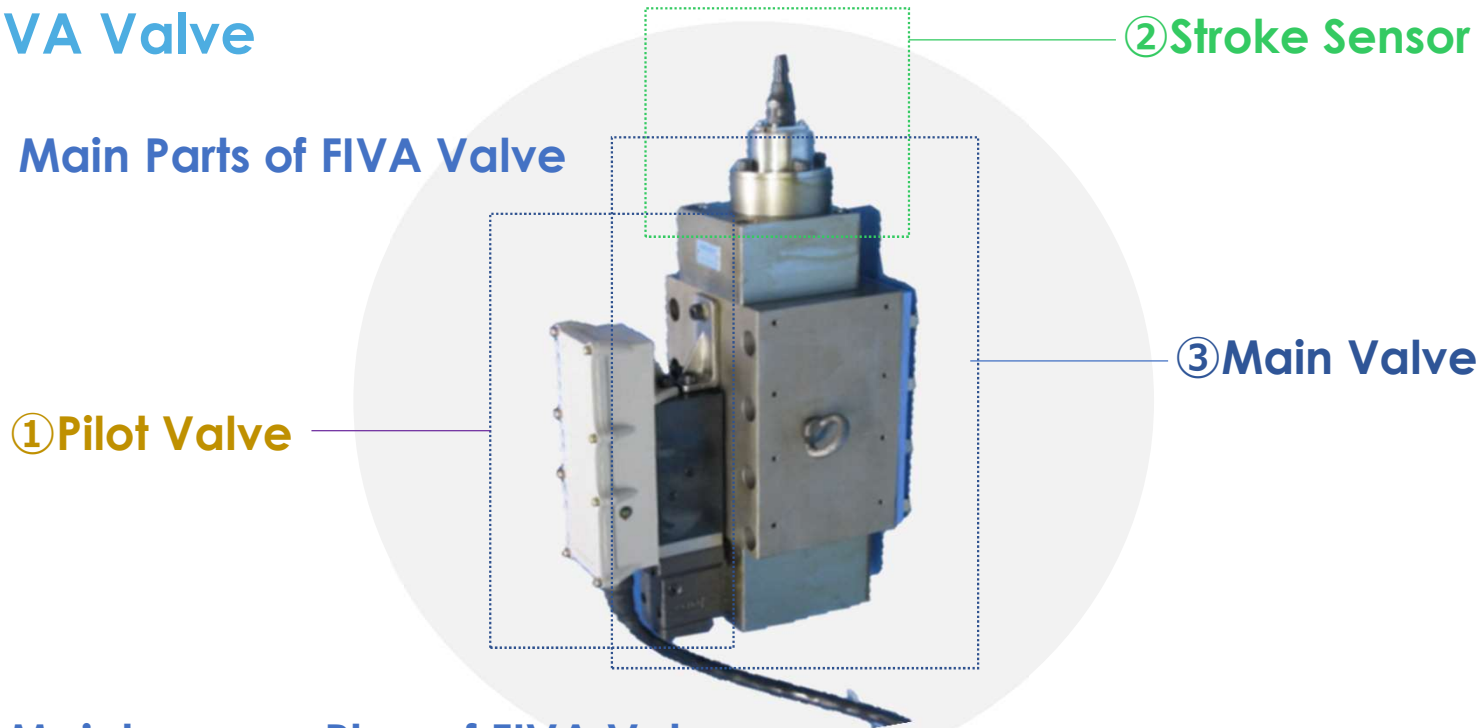
- a) FIVA Valve**
- b) Maintenance**
- c) Other Hydraulic Valves**

FIVA: Fuel Injection and Valve Activation



O/H of FIVA Valve

Main Parts of FIVA Valve

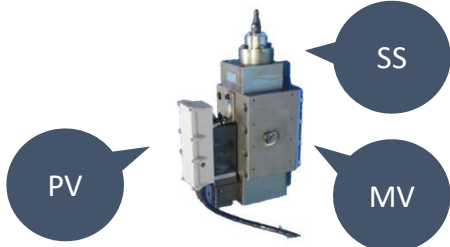












Standard Maintenance Plan of FIVA Valve

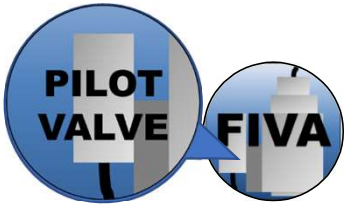
FIVA Valve	5years (32,000hours)	10 years (64,000hours)
①Pilot Valve	Exchange	Exchange
②Stoke Sensor	Inspection & Calibration	Exchange
③Main Valve	Inspection	Exchange



Supplier of FIVA

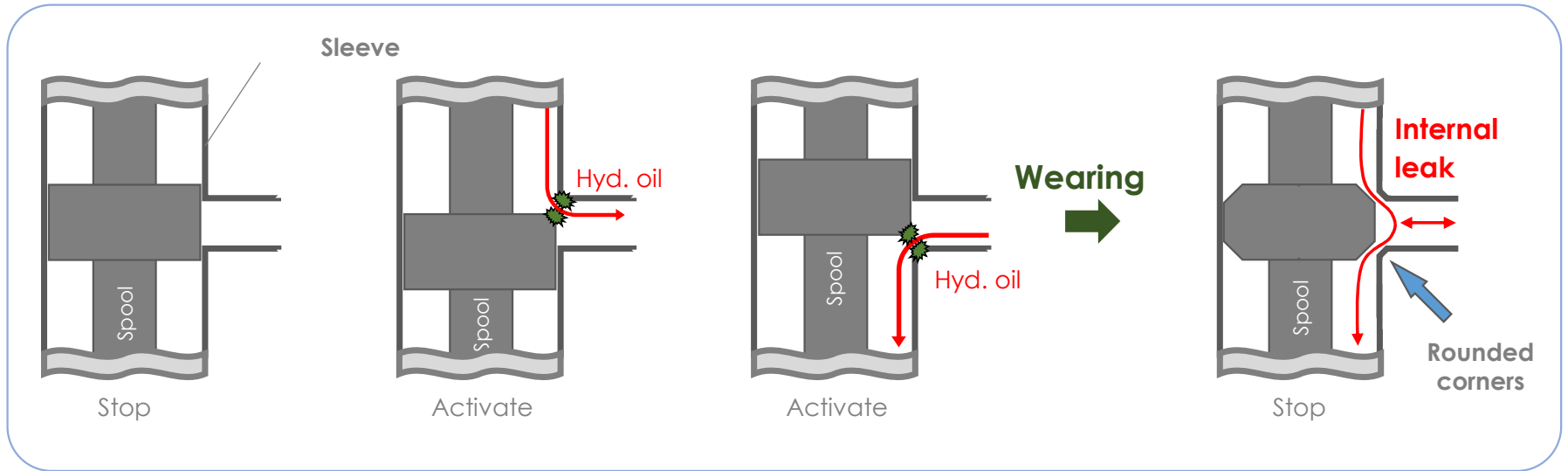
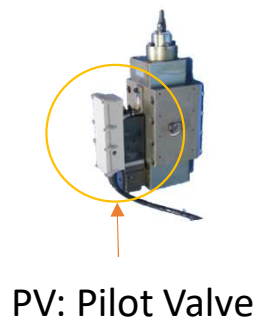
	 MAN Diesel & Turbo		
Parts	Pilot Valve (PV)	Main Valve (MV)	Stroke Sensor (SS)
<p>Parts Supply Maker</p> 	  	 MAN Diesel & Turbo 	  

Nabtesco can supply all parts!



Oil Condition effect to FIVA Valve operation via Pilot Valve

Mechanism of pilot valve internal leak occurrence



Oil Condition



Galling spool and housing.



Oil leak happen !



Factory of Marine Products
Production Base & Available Location of NTS systems for Marine



Nabtesco Marinetec Co., Ltd.

Nabtesco
Marine Control Systems Company

Nabtesco

Marine Machinery (Shanghai) Co., Ltd CHINA

Nabtesco
Marine Shikoku

Nabtesco
Marine Asia Pacific

-  : Production Base & Stock
-  : Stock at Service Station

Production in major shipbuilding countries, can be supplied at important area



Hydraulic valve lineup for MAN

We can supply key products for electrical engines



FIVA I / II

For Fuel injection
+ Exhaust valve

For ME-C
S50/60/65/70/80/90
G60/70(9.5)/80



ELFI-V1/2

For Fuel injection
+ Exhaust valve (with
cam)

For ME-B
S30/35/40/46



ELFI-B2

For Fuel injection



ELVA

For Exhaust valve

For ME-C
S50(9.5/9.6)/60(10.5)/70(10.5)
G45(9.5)/50(9.5)/70(10.5)

Thank you!

Please feel free to contact

Nabtesco
Marine Europe B.V.



Phone : +31 180 530 590 (24 hours)

Technical Service: technical@nabtesco.nl

Parts inquiry: parts@nabtesco.nl

Account and General: account@nabtesco.nl