



Certificate No. 02-003495/025461

## TYPE APPROVAL CERTIFICATE

This is to certify that this product complies with the Rules for the classification of ships, Part 1 - General requirements, Chapter 3 - Type approval of products.

TYPE AND DESCRIPTION OF PRODUCT:

**MARINE CRANES**      type: **F600RAFM.2.22 ÷ 28**  
**F660RAFM.2.22 ÷ 28**  
**F415RAFM.2.22 ÷ 28**

MANUFACTURER:

**FASSI GRU S.p.A.**

Via Roma 110  
24021 Albino (BG)

ITALIA

THE PRODUCT MEETS FOLLOWING RULES/REGULATIONS:

**CRS Rules for technical supervision of sea-going ships**  
**Part 19. Cargo handling gear and lifting appliances.**

FURTHER DETAILS OF THE PRODUCT AND CONDITIONS FOR CERTIFICATION ARE GIVEN OVERLEAF.

APPROVAL IS VALID UNTIL: **2024-12-18**

Place and date: Split, 2022-02-10

Seal

Marinko Popović, dipl.ing.

NOTE: This certificate is not valid for equipment, the design or manufacture of which has been varied or modified from the specimen tested. The manufacturer should notify Croatian Register of Shipping of any modification or changes to the product in order to obtain a valid certificate.

**DETAILED PRODUCT DESCRIPTION:**

**Slewing telescopic cranes with variable outreach**

**APPLICATION / LIMITATIONS:**

Crane type	Maximum lifting capacity, kg/m		Maximum lifting moment, kNm
	at minimum outreach	at maximum outreach	
F600RAFM.2.22	16000 / 3.35	7620 / 7.45	557
F600RAFM.2.23	16000 / 3.30	5820 / 9.40	534
F600RAFM.2.24	16000 / 3.20	4500 / 11.55	519
F600RAFM.2.25	16000 / 3.10	3530 / 13.80	508
F600RAFM.2.26	16000 / 3.10	2775 / 16.10	503
F600RAFM.2.27	16000 / 3.05	2240 / 18.25	499
F600RAFM.2.28	16000 / 3.00	1820 / 20.30	494

Crane type	Maximum lifting capacity, kg/m		Maximum lifting moment, kNm
	at minimum outreach	at maximum outreach	
F660RAFM.2.22	16000 / 3.65	8330 / 7.45	609
F660RAFM.2.23	16000 / 3.60	6390 / 9.40	589
F660RAFM.2.24	16000 / 3.50	4970 / 11.55	569
F660RAFM.2.25	16000 / 3.50	3925 / 13.80	557
F660RAFM.2.26	16000 / 3.40	3100 / 16.10	552
F660RAFM.2.27	16000 / 3.35	2500 / 18.25	549
F660RAFM.2.28	16000 / 3.30	2055 / 20.30	543

Crane type	Maximum lifting capacity, kg/m		Maximum lifting moment, kNm
	at minimum outreach	at maximum outreach	
F415RAFM.2.22	13500 / 2.95	5035 / 8.20	406
F415RAFM.2.23	13500 / 2.90	3825 / 10.25	396
F415RAFM.2.24	13500 / 2.85	2975 / 12.35	390
F415RAFM.2.25	13500 / 2.80	2275 / 14.60	380
F415RAFM.2.26	13500 / 2.75	1730 / 16.75	374
F415RAFM.2.27	13500 / 2.70	1350 / 18.90	368
F415RAFM.2.28	13500 / 2.60	1070 / 20.95	366

**TYPE APPROVAL DOCUMENTATION:**

<b>Documentation approved with CRS letters</b>	<b>2607/TSE/ŽŠ/025144</b>	<b>dated</b>	<b>2020-12-09</b>
	<b>2509/TSE/ŽŠ/025425</b>	<b>dated</b>	<b>2021-12-16</b>
<b>Report of performed type testing</b>	<b>18-037701/025144</b>	<b>dated</b>	<b>2020-12-11 PU PU</b>

**MARKING OF PRODUCT:**

- manufacturer's mark
- location and year of final fitting
- CRS mark

**CONDITIONS FOR CERTIFICATION:**

**Main crane elements transmitting forces/torques shall be with 3.2 certificate.  
Testing programme for each particular mounted crane shall be approved by CRS head office.**