



Doosan Heavy Industries & Construction

Doosan Heavy Industries & Construction '19 2Q Business Results Review



2019. July.

Disclaimer

This presentation was prepared for the convenience of investors. The financial figures contained in this presentation are K-IFRS consolidation and DHI operation* basis.

Also, this presentation has been prepared in advance prior to the completion of external audit, only for the convenience of investors. Accordingly, it may be subject to change during the course of audit.

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* DHI Operation : DHIC Parent & Overseas Subsidiaries(DPS and etc.)

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 - Annual New Orders Forecast
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 - DHIC's Parent_Summary
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- Affiliates
- Back-up

DHIC_Summary

New orders achieved KRW 800B in 2Q and sales increased YoY and QoQ.
Net loss improved QoQ.

(Unit: KRW B, %)

	'18.2Q	'19.1Q	'19.2Q	YoY	QoQ
Orders	570	407	785	+215	+378
Backlog	16,535	15,508	14,944	-1,591	-564
Sales	1,316	1,301	1,349	+33	+48
OP	75	66	64	-11	-2
OPM(%)	5.7%	5.1%	4.7%	-1.0%p	-0.4%p
EBITDA	138	127	120	-18	-7
Non-OP	90	-135	-74	-164	61
Interest	-50	-55	-59	-9	-4
FX	3	-15	16	+13	+31
Others Non-OP	137*	-65	-32	-169	33
Net P/L	111	-60	-18	-129	+42

* Includes profit of KRW 154B from disposal of Engine

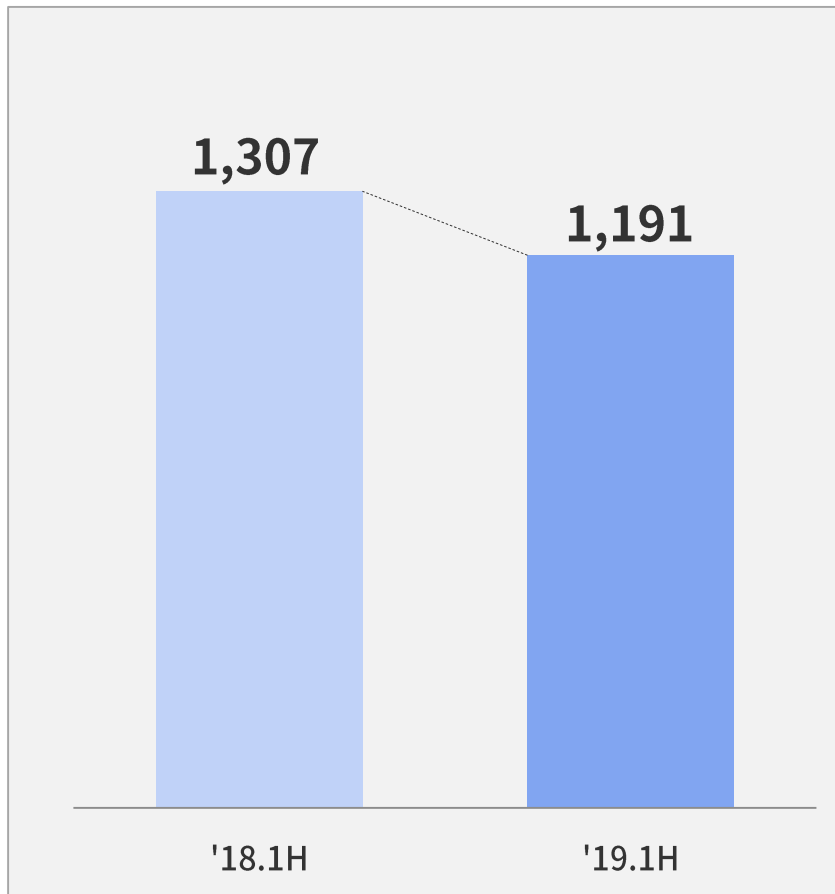


Doosan Heavy Industries & Construction

DHIC_New Orders

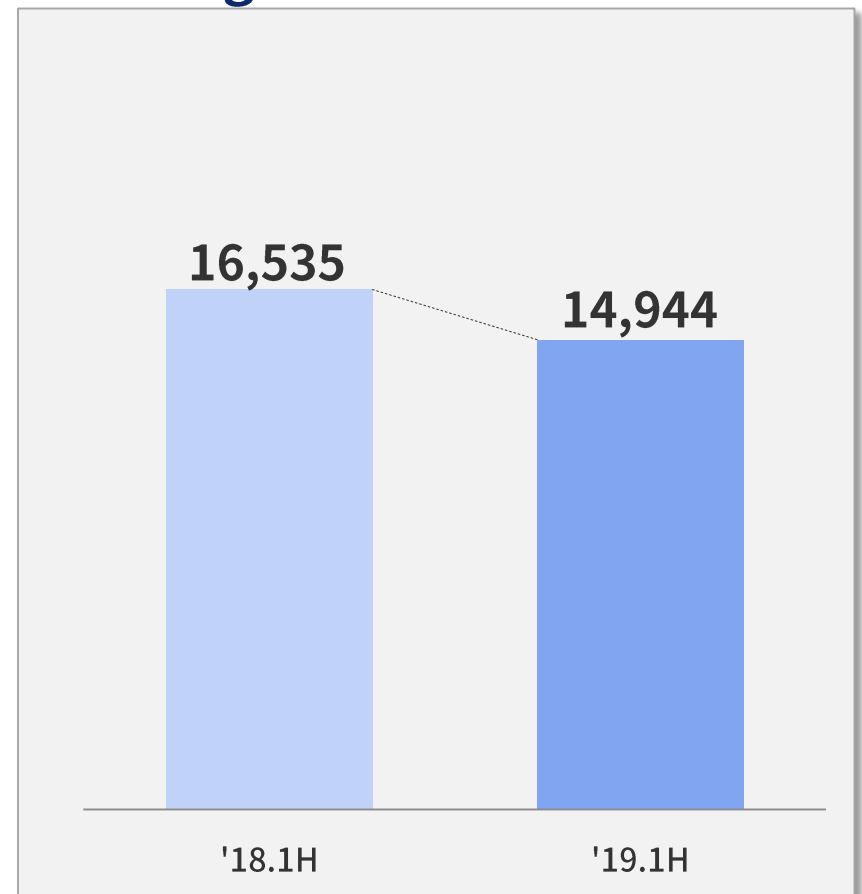
New orders achieved KRW 1.2T in 1H and KRW 800B in 2Q. Backlog as of 2Q recorded KRW 15T.

Orders



Backlog

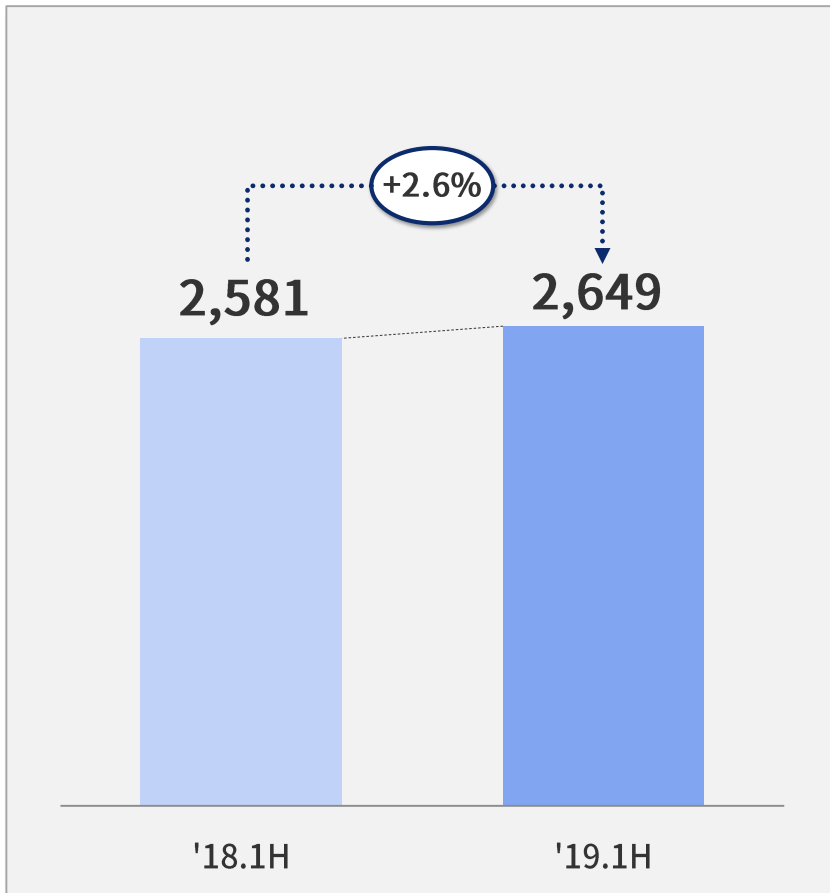
(Unit : KRW B)



DHIC_Sales / Operating Profit(%)

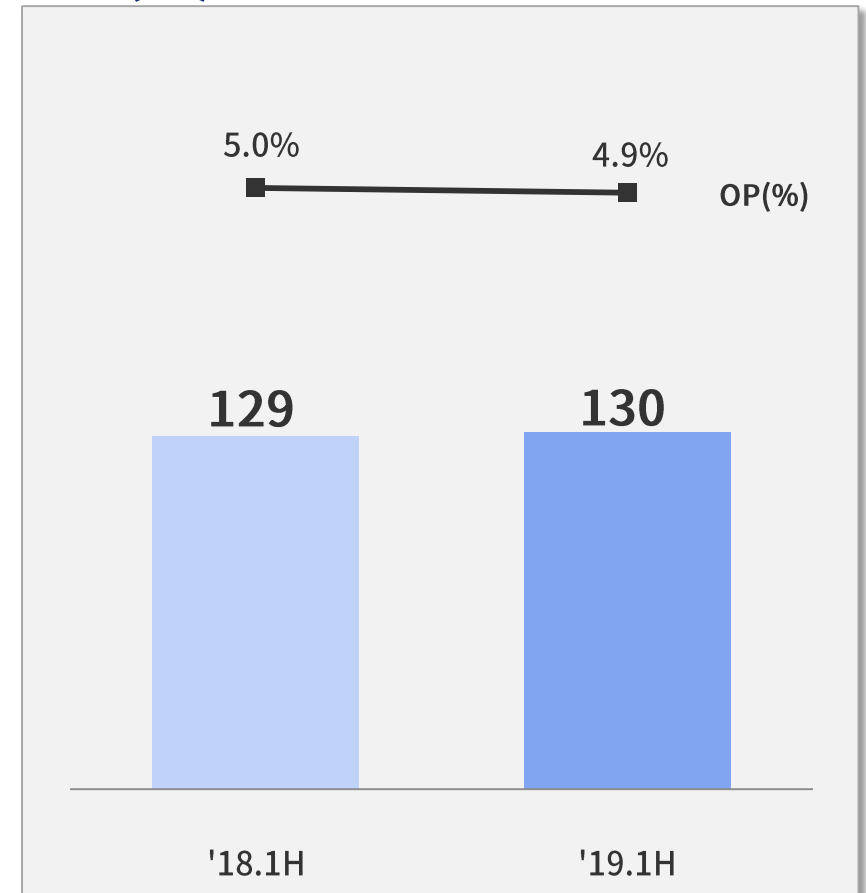
Sales increased by 2.6% YoY. OP increased slightly and OP% maintains at the similar level of '181H

Sales



OP(%)

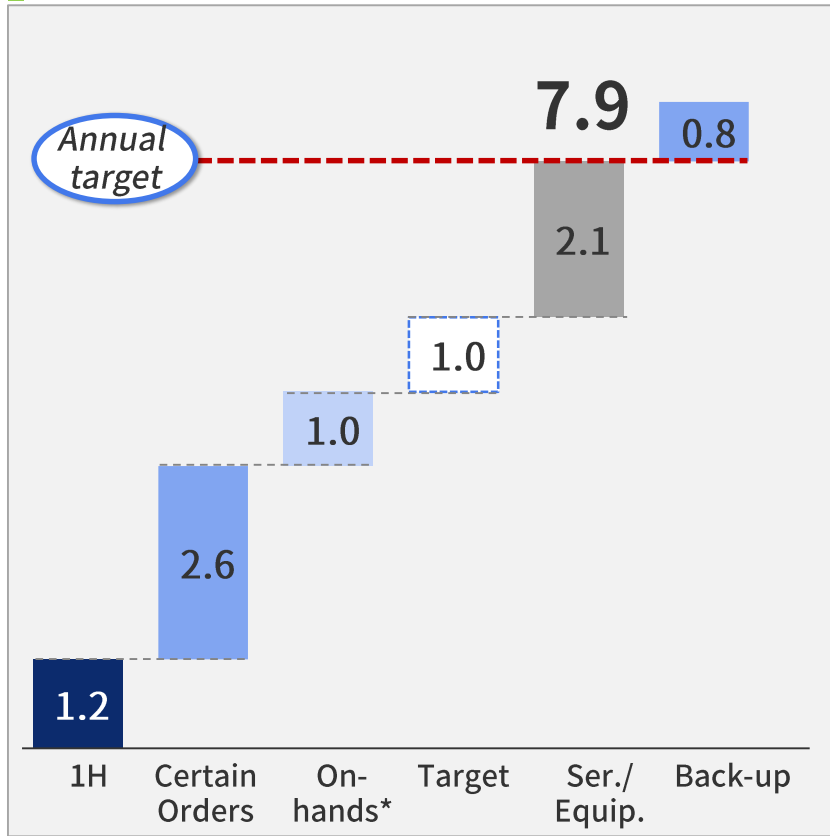
(Unit : KRW B, %)



DHIC_Annual New Orders Forecast

New orders recorded KRW 1.2T in 1H. If the certain orders PJTs of KRW 2.6T and the annual average level of service/equipment achieved, orders surpass '18's orders volume. The annual Guidance of KRW 7.9T expected to achieve by considering on-hands & target PJTs.

New Orders Forecast (Unit : KRW T)



The secured certain PJTs in '19

- Indonesia Jawa 9&10 Coal Fired Power KRW 1.6T.
- Vietnam Van Phong 1 Coal Fired KRW 0.5T
- Suncheon Korea House Construction Business KRW 0.5T

Expect to regularize new orders after 3Q

- Korean combined cycle power, M.E. desalination, etc.
- Propelling to award new business orders of off-shore wind power, etc.

Propelling to award many other PJTs

- S.E Asia thermal power EPC, M.E. desalination, etc.
- Propel to award many others in new business areas of service, R&M, etc.

* On-hands : Highly possible PJTs to receive new orders in the year by obtaining positions of Private Contract, Sole Bidder, Lowest, etc.

** FGD(Flue-Gas Desulfurization)

New Business Major Results – After '19.1Q

Major Results on each Business

- | | |
|-----------------------|---|
| Gas Power | <ul style="list-style-type: none">• Signed gas turbine cooperation with MCV¹⁾ in May, '19<ul style="list-style-type: none">– Strengthened to cooperate on Repowering, etc. in lie with gas turbine long term service supply contract in '18 |
| New/re-newable | <ul style="list-style-type: none">• Acquired the form authentication of 5.56MW off-shore power system form an international authentication institution²⁾ (for the first time in Korea July, '19)<ul style="list-style-type: none">– Contributed to expand Korean facilities in Korean wind power market and secured capability to export• Beacon PJT carried by GridTech in LA, selected as 'ESS³⁾ PJT of the Year (Global Solar+Energy Storage Expo 2019, June, '19)<ul style="list-style-type: none">– Proved ESS safety and operational efficiency for high temperature, earthquakes, etc. in California dessert area |
| Service | <ul style="list-style-type: none">• Developed high efficiency EME⁴⁾ to eliminate power plant's white lead and fine dust simultaneously in May,'19<ul style="list-style-type: none">– Achieved to remove 98% of hydroscopic moisture, the major ingredient of white lead, through electrostatic way |
| Nuclear | <ul style="list-style-type: none">• Signed on 20 years of long term contract for radioactive waste processing with Sellafield in the U.K. in May, '19<ul style="list-style-type: none">– Proved nuclear business technology skills through overseas nuclear power plant dissolution long term contract• Signed for SMR⁵⁾ business cooperation and stock trade contracts with Nu-Scale Power, from the U.S., in July, '19 |

Major Business Results – Entry into Nuclear Power Dissolution

Proved technology skills and inroad into nuclear power dis-solution market through the U.K.'s Sellafield nuclear power dissolution PJT's long-term contract

Sellafield Nuclear Power Dissolution Business



Sellafield Nuclear Complex

- The pivotal role for the U.K.'s nuclear industry
 - 70% of the U.K.'s nuclear power located in Sellafield nuclear complex
 - Under progress for 7 nuclear power dissolution businesses including 'Calder Hall', the World's first commercial nuclear power

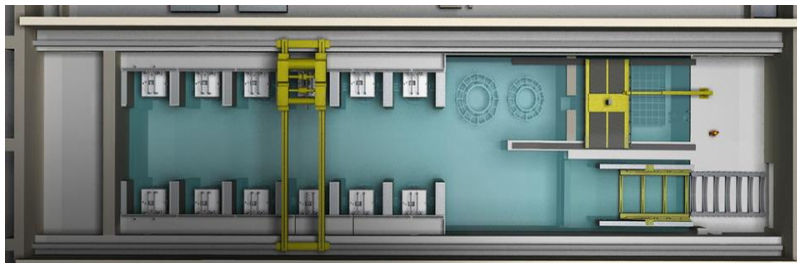
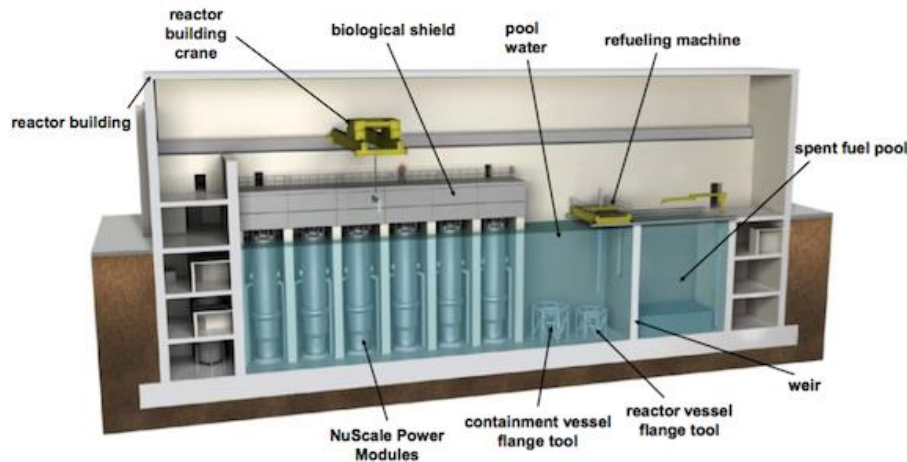
Status and Major Results

- Secured stable sales for the next 20 years
 - Radio active waste processing equipment supply, amounting to KRW 2.2T for the next 20 years
- Expect a bridge head role for Korean and overseas nuclear dissolution market energy

Major Business Results – Nu-Scale Nuclear Power Business Contract

Scheduled to supply the nuclear reactor modules, the core equipment, by making a business cooperation contract with Nu-Scale, developing mid-small sized nuclear reactors with the support of the U.S. government

■ Nu-Scale Nuclear Structure



■ Nu-Scale Nuclear Power Features

- Innovatively conceptual mid-small sized nuclear reactor by development of safety & economical feasibility
 - Secure economical feasibility level of large sized nuclear power by installing 12 units of 60MWe nuclear reactor modules at the maximum level
 - 1,000 times safer reactor core than large sized nuclear power
- Confirmed plan to construct in Idaho, the U.S. and under development with support of the U.S. Department of Energy's funds

■ NuScale Cooperation's Contents

- Participation into NuScale's first construction
 - DHIC's manufacturing and supplying nuclear reactor module to NuScale's nuclear power plant in Idaho, U.S.
- Completed and under progress to make MOU for propelling SMR construction and target to produce 35GW until '35
 - Completed : Canada, the U.K, Jordan, Romania
 - Under progress : Poland, Czech, Australia, Slovenia, etc.
- DHIC secured the position of NuScale's overseas business and plan to supply equipment, amounting to USD 1.2B at the minimum

Large Sized Nuclear Power vs. NuScale SMR Nuclear Power

NuScale Power Module, based on the qualified commercial nuclear power technology, is all in one light water nuclear reactor with improvement of safety and economic feasibility

Large Sized Nuclear Power

- Composition** - Installment of the main equipment, such as reactor, steam generator, coolant pump/pipe, pressurizer, in a containment structure
- Core Cooling** - Forced circulation by using reactor coolant pump
- Output** - 1,000MWe ~ 1,500MWe per unit
- Safety** - Requires emergency pump and generator to insert coolant in emergency
- 16km level of EPZ** diameter
- Construction** - Containment structure construction after each main equipment installment

NuScale Power Module

- Integration of Containment Vessel and Reactor Pressure Vessel, containing nuclear fuel and steam generator
- Unnecessary coolant pump/pipe due to coolant's natural convection
- 60MWe per NPM* and possible to control the output and operate independently by installing 12 NPMs (Total 720MWe per nuclear power)
- Maintainable safety without any other control in accident occurring thanks to underwater operation and passive*** design
- Reduced EPZ's diameter to 460m and land area
- Reduced construction period and cost due to installing integrated NPM at the site, after manufacturing at facilities

Vs

* NPM : NuScale Power Module

** EPZ : Emergency Planning Zone

*** Maintains reactor core safe, even in accident occurring situation like external power cut, etc., due to the structure of using the natural convection



Doosan Heavy Industries & Construction

DHIC Parent_Summary

(Unit : KRW B, %)

	'18.2Q	'19.1Q	'19.2Q	YoY	QoQ
Sales	1,001	871	945	-56	+74
OP	62	47	62	-	+15
OPM(%)	6.2%	5.4%	6.6%	+0.4%p	+1.2%p
Non-OP	82	-92	-79	-161	+13
Interest	-43	-42	-47	-4	-5
FX	-19	7	-6	+13	-13
Other Non-OP	144*	-58	-26	-170	+32
Net P/L	93	-36	-24	-117	+12

* Includes profit of KRW 154B from disposal of Engine

DHIC Parent_Balance Sheet

(Unit : KRW B,%)

	'18	'19.1Q	'19.2Q	QoQ
Current Asset	3,330	3,626	3,728	+102
Cashable Asset	655	524	548	+24
Non-Current Asset	8,012	8,107	8,235	+128
Total Asset	11,342	11,732	11,963	+231
Total Liability	7,402	7,838	7,622	-216
Net Debt	3,769	4,612	4,308	-304
Total Equity	3,941	3,894	4,341	+447
Total Liability and Equity	11,342	11,732	11,963	+231
Liability Ratio	187.8%	201.3%	175.6%	-25.7%p

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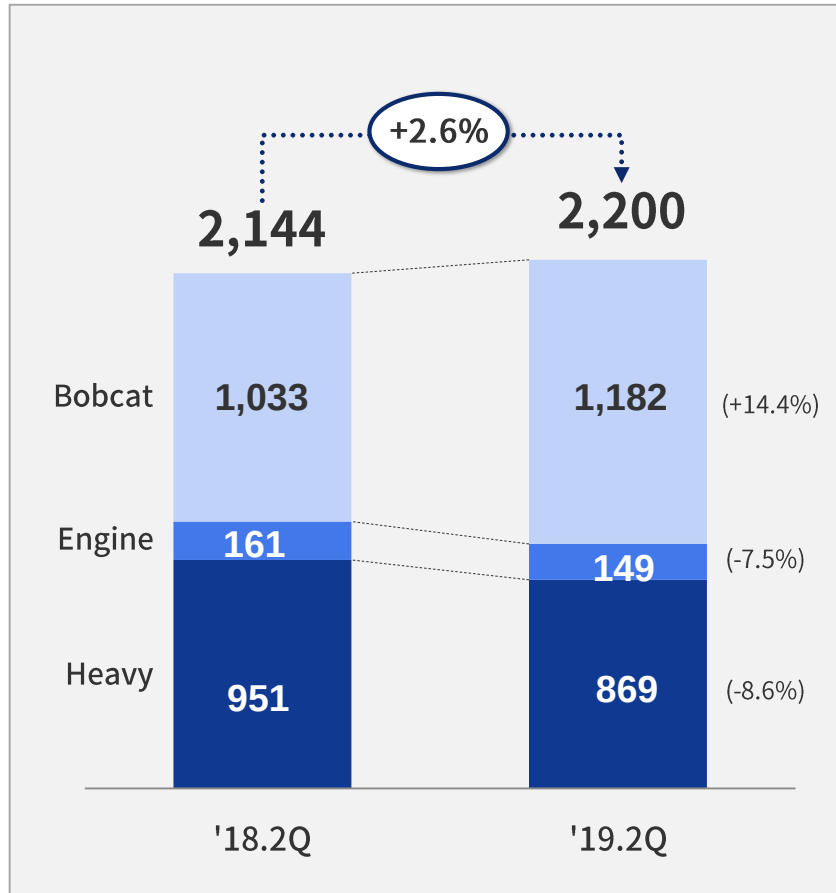
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Affiliates' Major Business Results_Doosan Infracore

Sales maintained its growth due to advanced market's Heavy business and Bobcat's growth. OP improved huge thanks to the strong profit strategy, quality improvement, FX, etc.

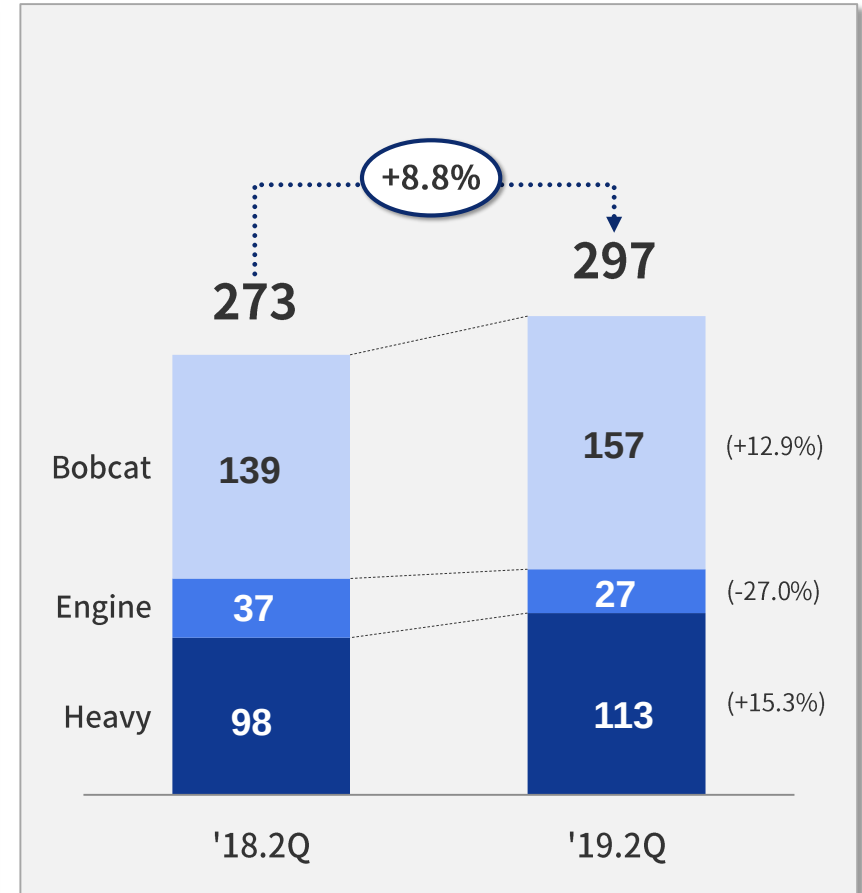
2Q Business Sales

(단위 : 억원, %)



2Q Business OP

(단위 : 억원, %)

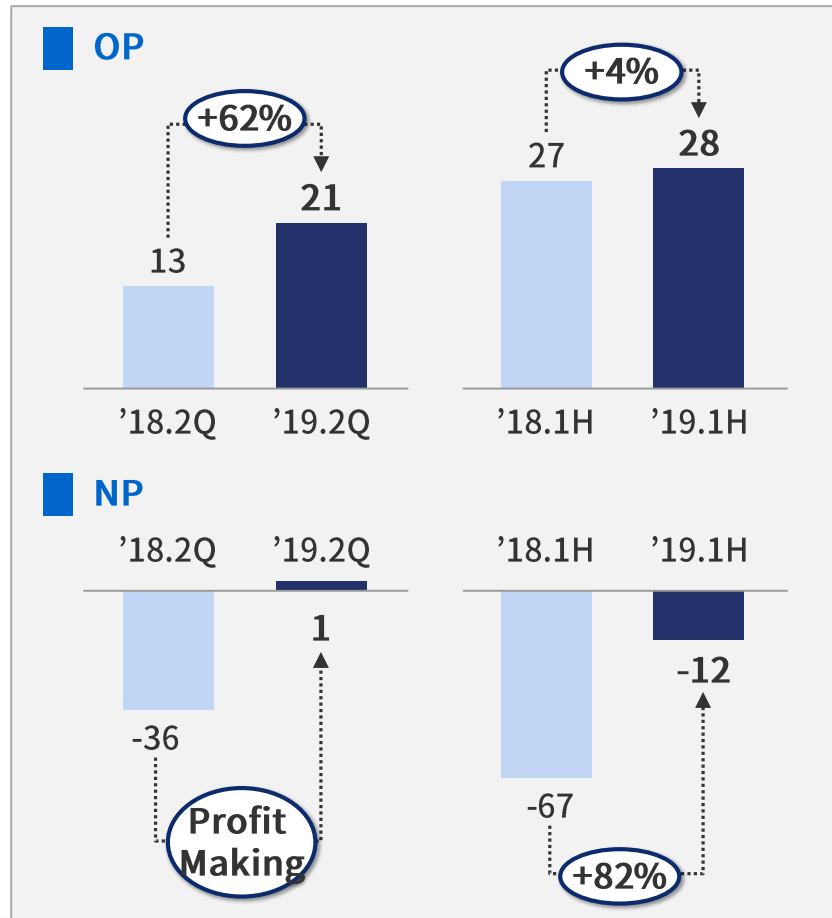


Affiliates' Major Business Results_Doosan E&C

OP increased by 61% YoY thanks to reduced fixed cost and improved financial structure.
NP turned into profit. Debt ratio improved by 352%p QoQ. Net debt decreased by KRW 339B.

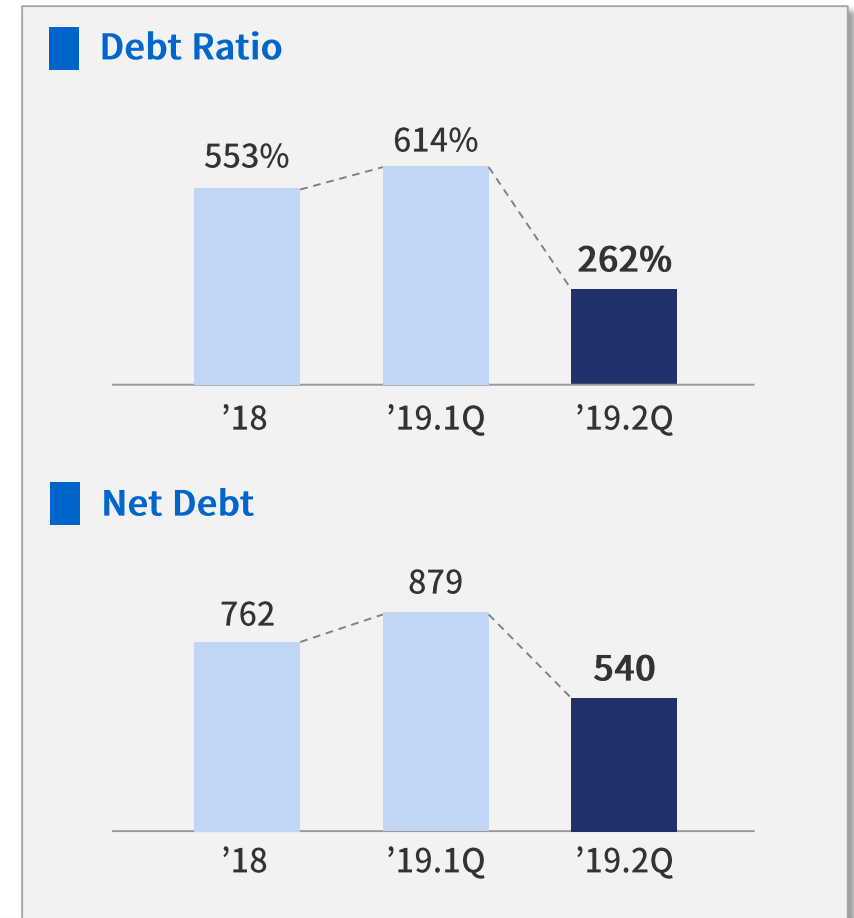
OP / NP

(Unit : KRW B)



Financial Structure

(Unit : KRW B)



* 2Q ICR achieved more than 1time, 1H OP of KRW 46B by excluding one off loss of KRW 18B from voluntary retirement

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2Q sales recorded KRW 4T and improved by 4% YoY and QoQ. NP increased huge.

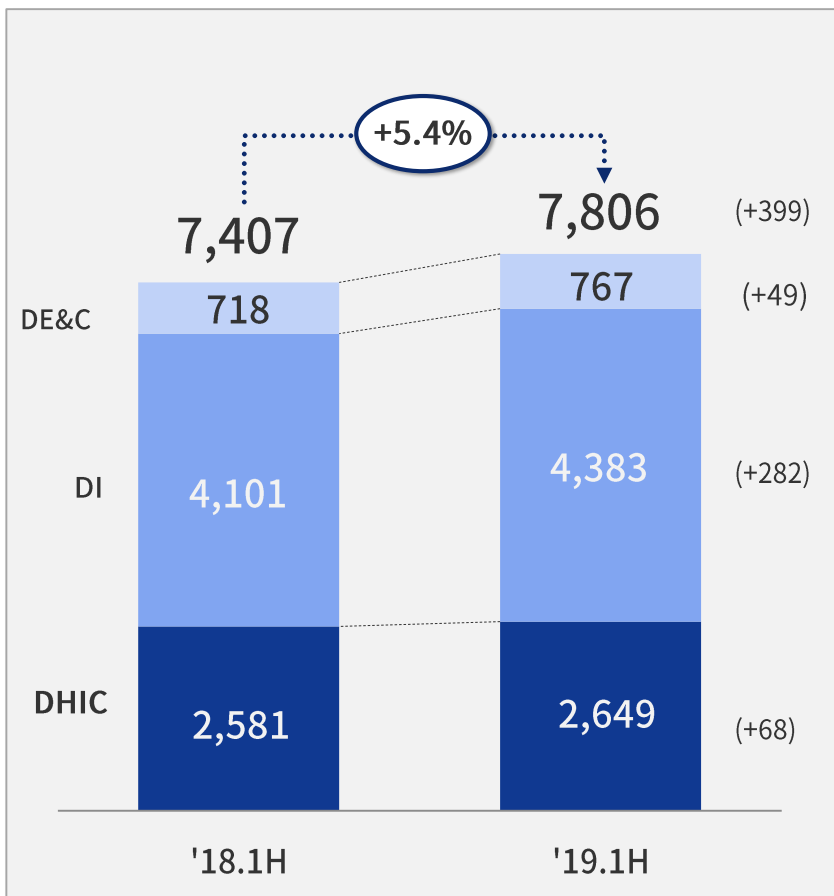
(Unit : KRW B, %)

	'18.2Q	'19.1Q	'19.2Q	YoY	QoQ
Sales	3,833	3,829	3,978	+145	+149
OP	363	322	385	+22	+63
OPM(%)	9.5%	8.4%	9.7%	+0.2%p	+1.3%p
EBITDA	488	441	496	+8	+55
Non-OP	-181	-209	-148	+33	+61
Interest	-116	-118	-118	-2	-
FX	-16	-7	16	+32	+23
Other Non-OP	-49	-84	-46	+3	+38
P/L before Corporate Tax	182	114	238	+56	+124
Corporate Tax (Profit)	81	59	75	-6	+16
P/L from Discontinued Operation	-49*	-2	25	+74	+27
Net P/L	52	53	188	+136	+135

* Includes Engine's loss of KRW -74B from discontinued operation

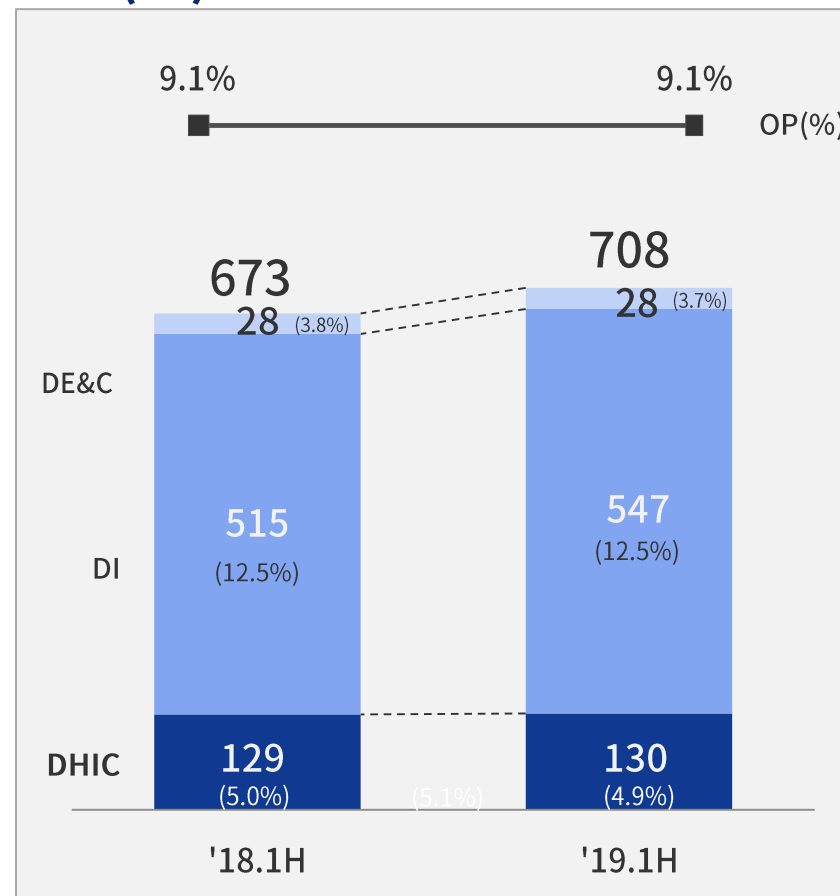
1H sales increased by 5% YoY and OP(%) maintains its improvement. '191H OP% is at the same level of 9.1% with '181H.

Sales



OP(%)

(Unit : KRW B, %)



Consolidated_Balance Sheet

Back-up

(단위 : 억원,%)

	'18	'19.1Q	'19.2Q	전분기 대비
Current Asset	9,782	10,609	10,508	-101
Cash & Cash Equivalent	2,468	2,401	1,932	-469
Non-Current Asset	15,033	15,424	15,210	-214
Total Asset	24,815	26,033	25,718	-315
Total Liabilities	18,597	19,765	18,685	-1,080
Net-Debt	8,357	9,259	8,814	-445
Total Equity	6,218	6,268	7,033	+765
Total Liabilities and Equity	24,815	26,033	25,718	-315
Total L/E Ratio	299.1%	315.3%	265.7%	-49.6%p



Q&A