The industry benchmark for technical information

Digitalization starts with your basic data

Sturle Drageset - VP Sales

Transforming offshore operations - mature asset management and logistics



Sharecat Solutions

- Founded in 1993
- 60+ employees located in Bergen, Aberdeen, Malaysia and Houston
- Deliver cloud-based solutions for managing of technical information
- Deliver services for handling of material and equipment data
- Supplier of EqHub software, services and implementation support to the Norwegian Continental Shelf
- Deliver all material master codification services to Statoil
- Frame agreements with EPIM (Norsk Olje & Gass), Statoil, Shell, BP and AkerBP
- Deliver in addition services to ConocoPhillips, Woodside and Samsung
- Part of "political" dialogue regarding catalogue services to UK Oil & Gas and Australia ("The EqHub Model").

Industries

- Global Oil and Gas industry
- Global Power industry

Our general experience:

- Studies of over 100 asset registers
- Studies of over 15 operators material masters
- In depth surveys for 4 major oil and gas operators

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HOW CAN YOU DIGITALIZE YOUR ASSET IF YOU DON'T KNOW WHAT IS INSTALLED?



YOUR POINTING AT IT WON'T HELP - THE COMPUTER RECORDS SHOWS NONE IN STOCK.



Digitalization in Oil & Gas.....



Source: Visco



Five key insights from the 2016 Upstream Oil and Gas Digital Trends Survey

Digital technologies are recognized as adding value to upstream oil and gas companies by helping reduce costs, make faster and better decisions and increase workforce productivity

Despite the low oil price environment, the majority of oil and gas companies will continue to invest at least the same amount or more in digital technologies over the next 3-5 years Digital investment today is focused on mobility and the Internet of Things (IoT) – with analytics and IoT predicted to lead the way over the next 3-5 years

To realize the maximum benefits of digital, companies will need to rapidly improve their capabilities, including maturity in analytics

Oil and gas companies are increasingly leveraging the cloud to more rapidly unlock the value of other digital technologies

Source: Accenture

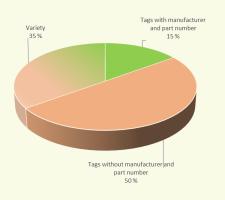
So, what is new?



Experience of master data

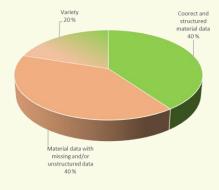
Asset Registers

- Findings from more than 100 asset registers
- Only 50% of maintainable tags without part numbers
- Between 15% and 50% of all maintainable tags with part numbers



Material Masters

- Findings from more than 15 material masters
- Only 40% of materials established in a structure with correct information and not duplicated
- Between 40% and 50% of all materials are duplicated, missing information, unstructured, not linked to parent data etc.



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Source: Sharecat Solutions

Challenges

- Ordering of wrong parts ٠
- Time used to find correct information in the ERP solutions ٠
- Use of materials on stock ٠
- Cost of purchasing, frame agreements, buy the same part over and over ٠
- Effective warehousing ٠
- Time spent on planning and maintenance ٠
- **Reduced Asset Integrity** ٠
- Reduced security issues ٠

call the vendor" - Engineer

"I don't trust the information in the ERP

systems, I always check in our hardcopy

books" – Maintenance Engineer

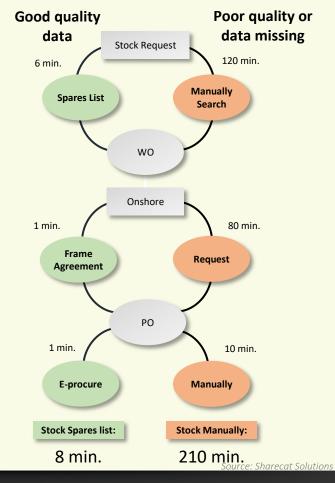
purchaser

"I bought hoses worth of 650.000 NOK "50% of what I order is wrong" that was already on stock" - purchaser "I don't use the systems, I just

"I drove from the office to the warehouse to check that it really was the part the system said" - Operations

Engineer

"My KPI is to reduce the volume in the Warehouse with 10% without throwing materials away" - Manager



SHARE cat X

Our solutions and the future

Sharecat Vendor Catalogue



RDL Viewer

Catalog Electro Electric Motor

Data is structured based on Equipment type level

View TEKno™: TEK-00780425 (Draft)

 Overview
 Properties
 Documents
 Verification

 TEKee**:
 TEK-00760435
 Ferder 135:00-000-403-451-745-755

 Part Ne:
 H3KP 1325Me3-GRP131220-8304-135-139-200-403-451-745-755

Documents specific to TEKno™ TEK-00780425

	Category		Submit date	
Compliance with EN 50021 by Explosion Proof Motors, EEx nA		Active	24.02.2004	Å
CE Marking of Motors used in Explosive Atmospheres in Compliance with ATEX		Active	24.02.2004	Å
Fundamentals of the ATEX Directives		Active	24.02.2004	Å
EC Declaration of Conformity	EC Declaration of Conformity	Active	18.05.2011	
Ex Certificate LCIE 04 ATEX 6061 framesize 132	EX certificate	Active	23.05.2011	Å
Spare Parts List M3JP/M3KP framesize 80-132		Active	25.05.2011	
Operation, Maintenance & Installation Manual - Induction motors for hazardous atmospheres	Installation and removal procedures Operation and maintenance instructions	Active	25.05.2011	A
Low voltage Motors for explosive atmospheres, product catalogue	Measurement and arrangements drawing Product description and ordering information	Active	25.05.2011	Å
3D CAD M3KP 132 B5	Measurement and arrangements drawing	Active	15.02.2012	1
Dimension drawing M3KP 132 85	Measurement and arrangements drawing	Active	15.02.2012	<u>, y</u>

View TEKno™: TEK-00780425 (Draft)

 Overview
 Properties
 Documents
 Verification

 TEKne**:
 TEK-60780425
 Part Ne:
 M3KP 1325Me-3GkP131220-83G+135-139-209-403-451-745-755

RDL: Sharecat Solution:

Description	
Supply voltage, star connection	690 V AC
Supply voltage, delta connection	400 V AC
Rated power output	6.3 kW
Rated frequency	60 Hz
Number of phases	3-phase
Number of poles	2
Current In at 0.8 Un, delta connection	15.4 A
Current In at 0.8 Un, star connection	8.9 A
Current In at 1.0 Un, delta connection	12.3 A
Current In at 1.0 Un, star connection	7.1 A
Insulation class	Class F
IP-Class	1P56
Power factor cos phi at 1/1 load	0.9
Power factor cos phi at 3/4 load	0.89
Power factor cos phi at 1/2 load	0.83
Power, heater-element	25 W
Supply voltage, heater	220 - 240 V
Temp.rise acc.to insulation class	B acc. to IEC 62114

Standard documents available against equipment variant based on class and industry standard

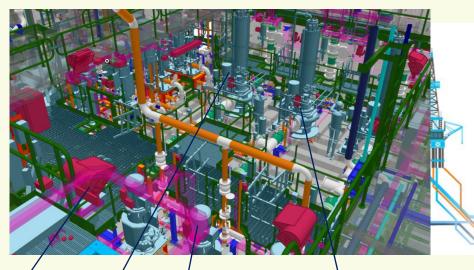
Digital data available against equipment variant based on class and industry standard

Checical Section Description Descriptio

Standard classification based on NORSOK and according to ISO 15926

SHARE cat-X

Maximize the benefits



Five key insights from the 2016 Upstream Oil and Gas Digital Trends Survey

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Oil and gas companies are increasingly leveraging the cloud to more rapidly unlock the value of other digital technologies

- The maintainable tags must be described with required Vendor documentation
- Quality assurance of equipment and spare part information
- Easy accessible for all parties involved



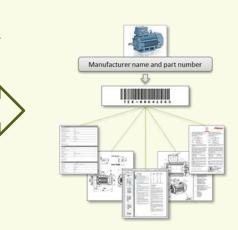
Maximize the benefits

- Time spent on Maintenance
- Time spent on Supply Chain Processes
- Asset Integrity
- Cost of Warehousing
- Security

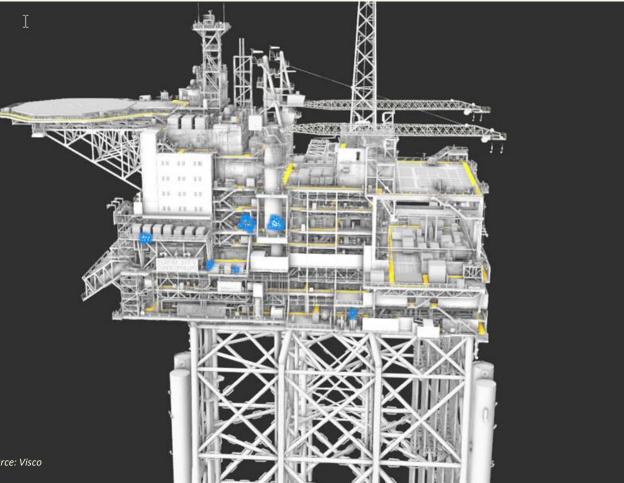












tag1	fidTekNo	Hyperlink	nid
26_C38974	TEK-00794932	https://www.e	
26_C38976	TEK-00794932	https://www.e	
26_C38977		https://www.e	
26_C38983	TEK-00794932	https://www.e	
26_C38984	TEK-00796362		
26_C38985	TEK-00796362	https://www.e	
26_C38988	TEK-00794932	https://www.e	
26_C38989	TEK-00797378	https://www.e	
26_C38990	TEK-00797378	https://www.e	
26_C50608	TEK-00796362		
26_C50610		https://www.e	
26_P68589A		https://www.e	
26_P685898		https://www.e	
26_P68589C		https://www.e	
26_P68590A		https://www.e	
26_P685908	TEK-00797384	https://www.e	
26_P68590C		https://www.e	
43_TT-55514		https://www.e	
43_TT-55518		https://www.e	
43_TT-55564		https://www.e	
43_TT-55568		https://www.e	
43_FT-55502	SPC-00851401	https://www.e	
43_FT-55552	SPC-00851404	https://www.e	00085C28
43_FY-55502		https://www.e	000C2A57
43_FY-55552		https://www.e	000C2A58
43_PI-55504		https://www.e	
43_PI-55554		https://www.e	00085C20
43_TI-55503		https://www.e	
43_TI-55553		https://www.e	
43_TW-55503		https://www.e	
43_TW-55553		https://www.e	
27_68589A		https://www.e	
27_685898		https://www.e	
27_68589C		https://www.e	
27_68589D		https://www.e	
28_J8-68591		https://www.e	000C24D2
28_18-68592		https://www.e	000C24D3
28_J8-68593	TEK-00769373	https://www.e	000C24D4
30_15503	TEK-00770985	https://www.e	009C21CB
30_15504	TEK-00782466	https://www.e	000C21CC
30_15505	TEK-00770985	https://www.e	000C21CD

Copy of ELDSFreshWaterMaker (0000003).xlsx



Source: Visco

Validation of part number

Document	t list 💦 I	Doc. requirements	Approval order P	ackage info 💦 1	Fag list	Full doc.	list		
Current selection: TI2-M021-ME-001 - Water Injection pump skid									
Fag list:									
-	this packa	ane'							
		Source Manuf	Source Variant	Manuf Name	Туре	Tek No	Req Src	Details	Source Status
73DE229	DE	ABB AUTOMATION	264GS-R-K-D-N-T-1-B2-C1-E	ABB AUTOMATION	264GS	TEK-00636214]	View	
73DE259	DE	ABB AUTOMATION	264GS-R-X-T-N-T-1-B2-C1-E	ABB AUTOMATION	264GS]	View	Partnumber contains erro
73LG2511	LG]	View	Missing source
73MX205	мх]	View	Missing source
73MX206	мх]	View	Missing source
73MX207	мх]	View	Missing source
73MX208	мх	FLOWGUARD	FG-40-15.6-EPT-DX-C-1 1/2	FLOWGUARD	FG	TEK-00636160]	View	
73PI2510	PI]	View	Missing source
73PI2540	PI]	View	Missing source
73PSL2508	PSL	YOKOGAWA	EJA530A-ECS4-N0-4-DN-KU	YOKOGAWA	EJA530A	TEK-00628030]	View	
73PSL2509	PSL	YOKOGAWA	EJA530A-E-C-S-4-N-0-4-D-N	YOKOGAWA	EJA530A	TEK-00628030		View	
73PSL2538	PSL	YOKOGAWA	EJA530A-E-C-S-h-N-0-4-D-N	YOKOGAWA	EJA530A			View	Partnumber contains erro
73PSL2539	PSL							View	Missing source



Validate and correct

urrent selection: T	I2-M021-M	E-001 - Water Injection pump skid	l	
Click here to retur	n to tag list			
Manufacturer:		ABB AUTOMATION		
Туре:		264GS		2
Name:		Transmitter, Pressure, Electric		2
Template/Partnum	ber Status:	Sent For Verification		6
Status Date:		12.05.2005		
Partnumber format	t:	X-X-X-X-X-X-Z		8
artNo Status:	Partnum	ber contains error		
ag No:	73DE259	(View details)		
mported PartNo:	264GS-R	-X-T-N-T-1-B2-C1-E1-H3-I2-L1		
/alid: 264GS-R			Not Valid: -X-T-N-T-1-B2-C1-E1-H3-1	I2-L1
lew PartNo:	264CS-R-X	-T-N-T-1-B2-C1-E1-H3-I2-L1	Verify	

PartNo Options:

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264GS 264GS

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If options are missing or incorrect, please click here to let us know.

Β1

B2

C1

C6

D1

D2

D3

D5

- Part Number templates to validate Supplier information deliveries.
- This provides a visual indication of the errors entered by the suppliers, providing instant feedback as to how to correct the problem.



Result

Received from Client:

Manufacturer	ABB Motors
Part number	M3KP 160 MLC 8H
FL Tag	30 07636

Delivered from Sharecat:

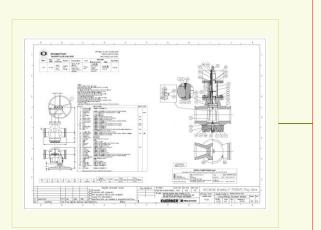
Manufacturer	ABB MOTORS
Part number	M3KP 160 MLC 3GKP164430-BDH-178-194-209-403-451-461-745-755-797
FL Tag	30 07636
SHAREcat ref.	TEK-00854264

Manufacturer	
Part number	
FL Tag	43 PT-32610

Manufacturer	ROSEMOUNT
Part number	3051S2TG5A3E11A1KI1M5P1Q4Q8QTT1Q15
FL Tag	43 PT-32610
SHAREcat ref.	TEK-00790918



Result



Documents linked to incorrect Tags

91 FV-00484	91 LV-00419
91 FV-00661	91 LV-00890
91 FV-00671	91 LV-00895
91 FV-00837	91 LV-00981A
91 FV-01007	91 LV-00981B
91 FV-01303	91 LV-00984A
91 FV-01313	91 LV-00984B
91 FV-01323	91 LV-01075
91 FV-01342	91 LV-01527
91 FV-01389	91 PV-00265A
91 FV-01823	91 PV-00265B
91 FV-01851	91 PV-00450
91 FV-04510	91 PV-00546
91 FV-04520	91 PV-00550
91 FV-04530	91 PV-00624
91 HCV-00298	91 PV-00838
91 HCV-00338	91 PV-00887
91 HCV-00510	91 PV-00978
91 HCV-00530	91 PV-01027
91 HCV-00632	91 PV-01146A
91 HCV-01259	91 PV-01146B
91 HCV-01354	91 PV-01533
91 HCV-01626	91 PV-01750
91 HCV-01642	91 PV-01770
91 HCV-04539	91 PV-01810
91 LV-00224	91 PV-01852
91 LV-00271A	91 TV-00403
91 LV-00271B	91 TV-00867

SHARE cat

"How you manage information

determines whether you win or lose."

Bill Gates, Microsoft

Thank you for your attention!

