

# P. S. HYDRAULIC INDUSTRY SDN BHD

## Oil Cleaner Cart

with Triple R Oil Cleaners & Parker Oil Filters



## Applications for Oil Cleaner Cart

The FE portable oil cleaner cart provides a convenient portable mode of off-line oil cleaning. Use it with your in-plant machinery and mobile hydraulic equipment to achieve and maintain proper ISO cleanliness level.

The cleaner cart can also be configured as a portable filter system to help supplement existing filtration on a specific hydraulic application. Due to its portability, the oil cleaning system can be moved from machine to machine.

Two units of Triple R bypass oil cleaners can provide coarse / fine particle removal or, install the optional water absorbing element to obtain particulate and water removal.

Whether it is used for new oil or used oil, the oil cleaner cart ensures the cleanest oil possible for increased equipment life.

The FE Portable Oil Cleaner Cart is designed with performance, convenience and safety in mind. Its value added features make it the best choice to protect your machinery and equipment from breakdowns caused by contamination.

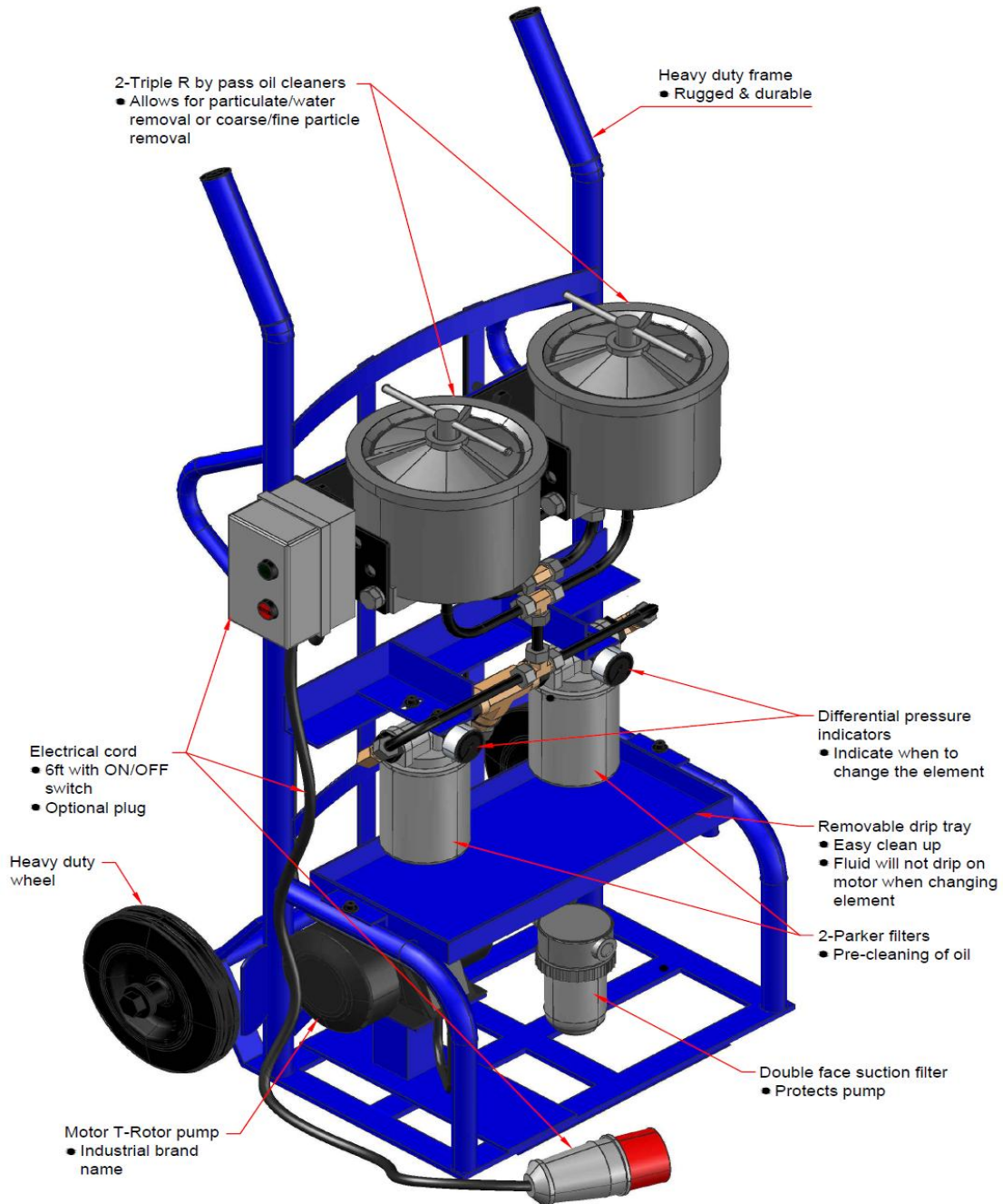
- Guaranteed clean oil achieve oil cleanliness of **NAS 7 - ISO 16/14/11, or better**
- Conditioning oil that is already in use
- Complimenting existing system filtration
- Removing free water and moisture from a system
- Removing varnish and tar - the cause of sticking valves
- For use with fluids such as hydraulic, gear and lube oils

## Typical Fluid Cleanliness Level Requirements

Many manufacturers of hydraulic components have established fluid cleanliness levels for their components. Using a portable cleaner cart can be a very effective way to reach and maintain these cleanliness levels.

Component	Cleanliness Levels	
	ISO	NAS
Servo control valves	16/14/11	5
Proportional valves	17/15/12	6
Vane and piston pumps/motors	18/16/13	7
Directional and pressure control valves	18/16/13	7
Gear pumps/motors	19/17/14	8
Flow control valves, cylinder	20/18/15	9
New fluid	20/18/15	9

## Features



Triple R element (not shown)

- available for both particulate and water removal

Integrated safety relief valve (not shown)

- protects against over pressurizing

\* Clear braided hoses

- visually shows fluid flowing

\* Oil sampling valve

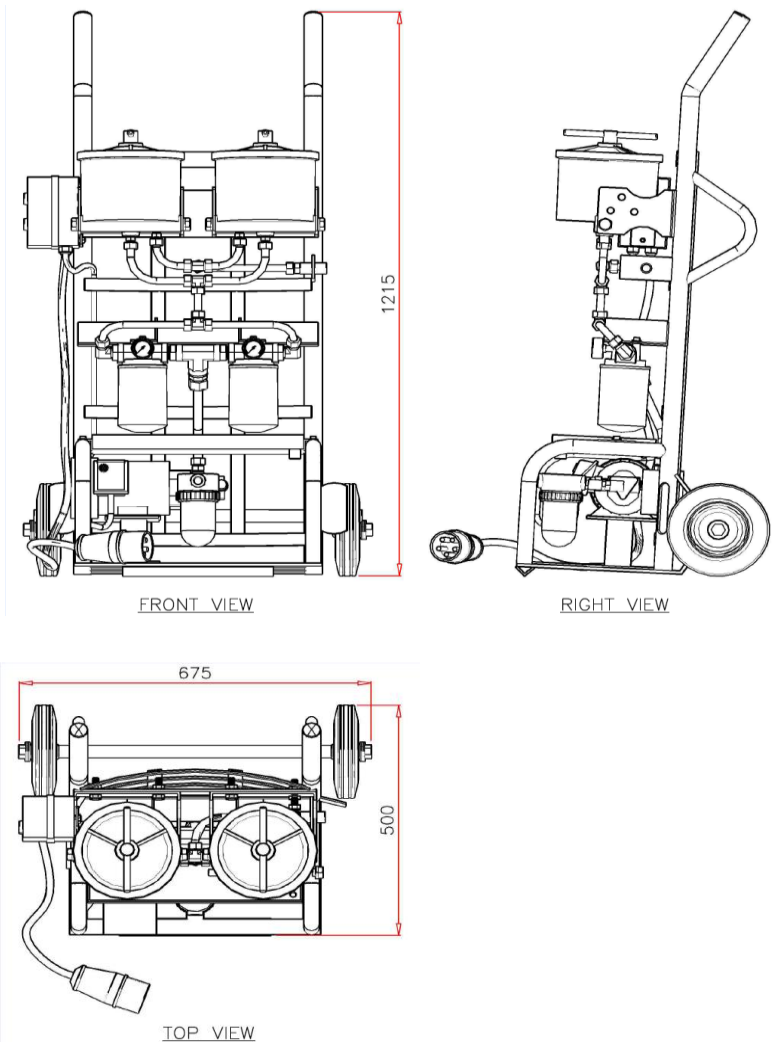
- monitors cleaner performance and cleanliness of oil

*\*Optional*

## Specifications

Maximum Recommended Fluid Viscosity	: 500 SUS / 108 cSt
Compatibility	: Mineral Based Fluid
Operating Temperature	: -10°F to +150°F / -23°C to +65°C
Electrical Service Required	: 220/440 Volt, 50/60 Hz, 3 phase
Electric Motor	: 200 W, 4 pole
T-Rotor Pump	: 50Hz - 6.7 ℓ/min @ 1,500 rpm 60Hz - 8.1 ℓ/min @ 1,800 rpm
Safety Relief Valve Setting	: 5 kg/cm <sup>2</sup>
Weight	: 55 kg

## Dimensions



## Ordering Code

Model	Flow Rate	Power Supply	Suction Filter	Filter	Cleaner	Option
FE-OCC	67	V1	DF	25	M	-

Select one option from each table below

Flow Rate	
67	6.7 ℓ/min

Power Supply	
V1	220 VAC / 50 Hz
V2	220 VAC / 60 Hz
V3	440 VAC / 50 Hz
V4	440 VAC / 60 Hz

Suction Filter	
DF	Double Face / Wire Mesh / 100 μm

Filter	
10	Spin-On / 10 micron
25	Spin-On / 25 micron

Cleaner	
M	water caught 400 ml
W	water caught 1,800 ml

Option	
Omit	None
1	Clear Braided Hose (2 meters)
2	Oil Sampling Valve

Δ Standard scope of supply

ψ Shipped fully assembled, tested & ready to use

## Element Replacement

The FE portable oil cleaner cart is designed with the very popular filter and cleaner assembly to provide the user with a wide range of element choice.

Element ordering code:

Item	Code (as above)	Make	Ordering Code (for element)
Suction Filter Element	DF	A-Ryung	FE-120002
Filter Element	10	Parker	FE-120006
	25		FE-120007
Cleaner Element	M	Triple R	FE-120013
	W		FE-120014



## Frequently Ask Questions

### 1) What is Oil Cleaner Cart (OCC)?

Oil Cleaner Cart or OCC is portable cleaning device that is very convenient and easy to use with your in-plant machinery and mobile hydraulic equipment that using mineral based fluid. It serves as supplement to any existing filtration on a specific hydraulic application with viscosity of oil up to 108 cst.

### 2) When do you need to change your oil?

Lubrication, deterioration and malfunction are due to damages caused by contamination. In this condition contaminated oil will normally be replaced with new oil because it is dirty and to avoid further damages to your system. But with OCC, you don't have to throw away your oil. Instead, you may clean it and reuse it.

### 3) Does OCC same as other inline filter?

Any standard hydraulic system has a filter and filter supplier may easily be found anywhere. However, with OCC it not only just filters your oil. It can guarantee perfect clean oil for your system by removing all the particles that are not removed by conventional filters.

### 4) How does OCC filter and clean the oil?

With OCC, your oil will go through 2 stages of filtrations. The first stage will do a pre-cleaning of oil to remove big particles. The second stage of filtering will not only filter but also clean your oil by removing solid particle, absorb water, remove sludge and other oil oxidation residues.

### 5) What makes OCC more efficient and effective compare to other inline filter?

Two units of Triple R bypass oil cleaner are installed in this OCC whereby it operates simultaneously. The thickness of the filter medium is 114mm which is different and severally thicker than other conventional inline filter. Because of its specially designed cellulose medium, it allows absorption of water and oxidation residues.

### 6) How can OCC help in your investment?

OCC can save your maintenance expenditure. With its filtration specialty, the cleaning process can be performed. This will save almost 50 percent of your oil cost, where no extra manpower, no rent and no additional charges need to apply. Additionally, OCC support the environment.

### 7) Does OCC effortless to use?

OCC is easy to use with your hydraulic system. It is low running cost and easy installation and maintenance. Owing to its portability, it also can be removed from one machine to another.

### 8) When is to change the element?

Besides Triple R oil cleaner, standard OCC is installed with Parker filter whereby the pressure gauge is equipped together. The gauge is for easier to check the element contamination level and let you know when is to change the element.

### 9) How can this cleaning device affect the life of your oil?

With OCC, oil contamination level is kept at a 50 to 100 time lower concentration. Cleanliness of oil can reach up to 67 times cleaner and 67 times less contaminant which gives a longer life to oil. A normal period of changing oil with conventional filters will require every two months. Nonetheless, with OCC, it require once every six months.

### 10) Does the cleaned oil reach the standard of international requirement?

Many manufacturers want to protect their machinery and equipment from breakdown caused by contamination. **OCC effectively guarantee the standard cleanliness of oil grade by ISO of 16/14/11 and NAS standard of 7 or better.** This cleaning cart can also be very effective to reach and maintain the cleanliness level of other components of the system. This will improves machine reliability and productivity.

A true testament to the efficiency of Triple R Oil Cleaner

## PSA BRANI TERMINAL

PHOTOGRAPHS OF TRIPLE R (RRR) OIL CLEANER (MODEL: BU100e) BEING INSTALLED ON THE HYDRAULIC UNIT OF A QUAY CRANE.

MAKER OF QUAY  
CRANE  
"SAMSUNG"



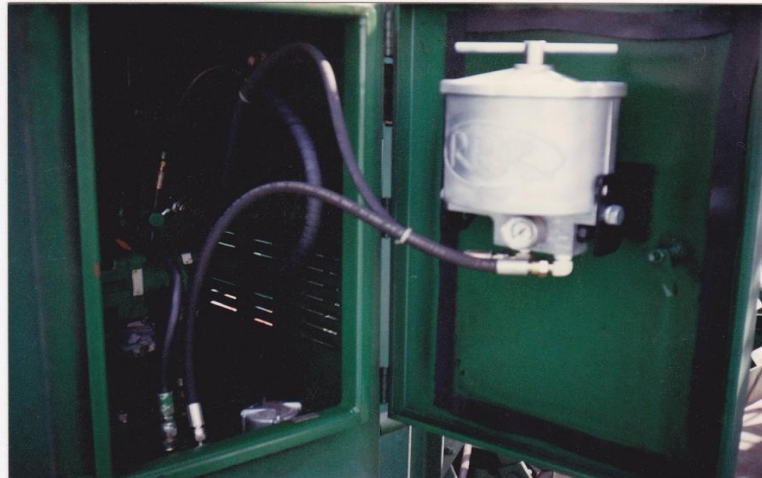
QUAY CRANE (NO.106) UNLOADING OF CONTAINER  
FORM A VESSEL

- (5A) THE TRIPLE R OIL CLEANER BEING INSTALLED ON THE MAIN HOIST HYDRAULIC SYSTEM.
- (5B) THE TRIPLE R OIL CLEANER BEING INSTALLED ON THE SUB-TENSIONING HYDRAULIC SYSTEM.

(5A)



(5B)





# PSA BRANI TERMINAL

PHOTOGRAPHS OF TRIPLE R (RRR) OIL CLEANER (MODEL: BU1100E) BEING INSTALLED ON THE HYDRAULIC UNIT OF A RAIL MOUNTED GANTRY CRANE (RMG)

MAKER OF RMG  
"SAMSUNG"



TRANSTAINER (T.T. NO.501) ON STAND-BY

(4A) THE TRIPLE R HOUSING IS MOUNTED ONTO A REMOVABLE METAL PLATE.

(4B) THE PRESSURE IN THE SYSTEM IS SET TO A MAXIMUM OF 2BAR WITH A NEEDLE CONTROL VALVE.

(4A)



(4B)



分析結果報告書

発行日 1999.11.27

東京オイルアナリスト株式会社  
分析センター

貴社名 PSA CORPORATION LIMITED  
(BRANI TERMINAL)

〒329-44 栃木県下都賀郡大平町西水代3000  
TEL 0282-43-0101 FAX 0282-43-8482

分析依頼先 ㈱エステック

機械・装置名 YARD CRANE HYD

メーカー名

型式

機械 No.

使用オイル銘柄 ESSO NUTO 68

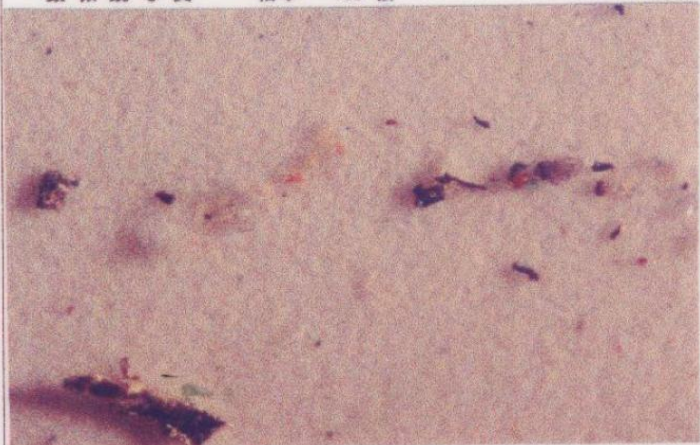
オイル量

ℓ

今回分析番号 <b>07322</b>	分析番号 <b>07322</b>				
	採油年月日 サンプル受取日		10.11.19 16.11.19		
分析項目	新油値	管理基準値			
動粘度 40°C cSt			52.20		
全酸価 mgKOH/gr			0.52		
水分・KF法 ppm			99		
重量汚染度 mg/100ml			2.7		
粒子粒度分布					
粒 5-15 $\mu$			181,000 ( 10)	( )	( )
子 15-25 $\mu$			9,760 ( 8)	( )	( )
数 25-50 $\mu$			3,130 ( 9)	( )	( )
/ 50-100 $\mu$			560 ( 9)	( )	( )
100 OVER100 $\mu$			120 ( 9)	( )	( )
ml NAS等級			<b>10</b>		
(特記事項)	オイル交換年月日・ オイル使用時間 フィルター装着		Hr 60-B (BEFORE)		

メンブランフィルター 0.8  $\mu$

顕微鏡写真 倍率 100倍



(所見)

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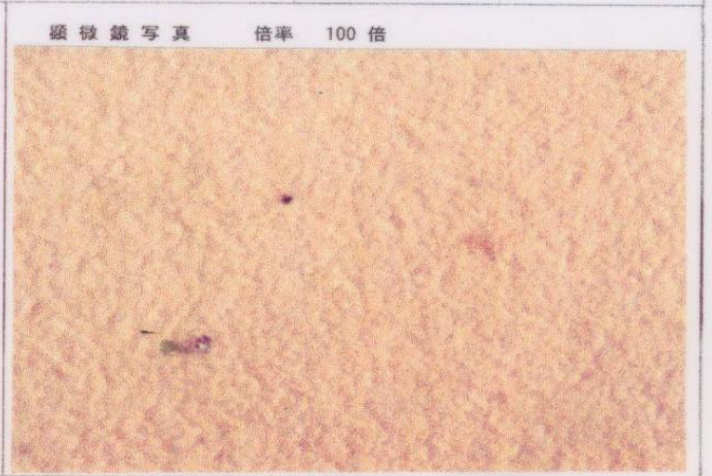
分析依頼先 磯エステック

機械・装置名 YARD CRANE HYD  
型式  
使用オイル銘柄 ESSO NUTO 68

メーカー名  
機械 No.  
オイル量 ½

今回分析番号 07323	分析番号		07322	07323	
	採油年月日 サンプル受取日		10.11.19 16.11.19	10.11.19 16.11.19	
分析項目	新油値	管理基準値			
動粘度 40°C cSt			52.20	51.28	
全酸価 mgKOH/gr			0.52	0.47	
水分・KF法 ppm			99	97	
重量汚染度 mg/100ml			2.7	2.2	
粒子粒度分布					
粒 5-15 μ			181,000 ( 10)	15,710 ( 6)	( )
子 15-25 μ			9,760 ( 8)	1,150 ( 5)	( )
数 25-50 μ			3,130 ( 9)	390 ( 6)	( )
/ 50-100 μ			560 ( 9)	20 ( 4)	( )
100 OVER100 μ			120 ( 9)	0 ( 00)	( )
ml NAS等級			10	6	
(特記事項)	オイル交換年月日				
	オイル使用時間		Hr	Hr	
	フィルター装着		60-B (BEFORE)	60-A (AFTER)	

メンブランフィルター 0.8 μ



(所見)

**Guaranteed Clean Oil**

Triple R guarantees an oil cleanliness of NAS  
7 - ISO 16/14/11, or better

