

Manuf make/model, pump discharge fitted mm("), engine kW(hp):

SYKES HH160iSS, 150mm

Actual size of suction x discharge adaptors fitted:

200mm x 150mm

Engine make/model, kW (hp), engine rpm [at pump design speed]:

Caterpillar C-7, 160kW (214hp), 1800 engine rpm

WATER PRESSURE SAFETY

*Be cautious when in close proximity to pumps pumping high heads – a sudden leak from a discharge line under pressure can kill or injure.

To prevent injury, company policy on discharge hoses is as follows:

1. Up to 30m(100ft) head – Use **Bauer couplings.
2. Above 30m(100ft) head – Use bolted/flange couplings.

Notes:

*i). For every 10m head (column of water at rest) the water pressure (at the pump) is 1 bar/14.5psi/100kPa, therefore, if you have a 120m head, the pressure at the pump set will be 12 bar/174psi/2000kPa – and even higher when not at rest i.e. the water is being pumped!

**ii). If there is a risk of coupling levers being accidentally or inadvertently disturbed, coupling levers must be locked in their closed position using purpose-made pins, or 5mm(3/16") stainless steel bolts.

QUICK REF:

WARNING!

High head pumps are NOT SUITABLE for general purpose applications. ... Premature engine & pump failure will result!!

Solids handling:	Up to 65mm
Impeller:	255mm, 2 vane
Max shutoff head:	115 metres
Max flow:	155 litres/sec
Max (practical) suction head [Hs]:	7 – 8 metres
Designed to snore?:	Yes

6445 kg

PUMP FEATURES:

- 2 bladed fully open type impeller
- Mechanical seals in self-contained coolant bath for long life
- Fuel tank with 24hr running capacity built into skid
- Auxiliary fuel tank connection
- Single point lifting frame fitted to chassis (centre lift point)
- Automatic self priming system
- Built to Coates Hire mining specification

ADDITIONAL EQUIPMENT:

- Suction and discharge hoses
- Suction strainer max 38mm hole size



SPECIFICATIONS

TRANSPORT SIZE/WEIGHT:

Overall length – chassis	5100mm
– incl. hose coupling o/hang	5350mm
Overall width – chassis	2000mm
– incl. hose coupling o/hang	2200mm
Overall height – top of lifting frame.....	2370mm
Transport weight – empty.....	3070 kg
– fully fuelled.....	6445 kg
Transport requirements	Flat top or tilt tray truck

PUMP (WET END):

Make/model	Sykes HH160iSS
Type	Centrifugal
Priming	Auto, compressor prime
Pump design speed.....	1800rpm
Pump construction – impeller.....	316 stainless steel
– wearplate.....	316 stainless steel
– shaft.....	316 stainless steel
– housing.....	316 stainless steel

MOTIVE POWER:

Power unit.....	Caterpillar C-7, 6 cyl, 160kW (214hp) at 1800rpm, turbo, water cooled dsl, elec. start, 24v with S-35 Controller
Fuel consumption at BEP (Best Efficiency Point)	Approx 16.00 ltrs/hr @ 1400rpm
Fuel tank capacity.....	1200 litres

OTHER:

Noise rating	88 dB(A) at 7 metres
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SERVICE CAPACITIES:

Fuel tank.....	1200 ltrs	Coolant.....	35 ltrs
Engine oil.....	25 ltrs	Mech coolant seal ..	5.0 ltrs



Need Help?

Need some expert help or advice? Want to be sure you're selecting the right pump for the job (it's not always easy)?

... Yes? – then give your Area Pump Specialist a call.

Remember – The biggest cause of premature engine and pump failure is selecting the wrong pump for the application. This causes wet end shafts to flex, bearings to overload and pumps to cavitate, and with many pump sets costing tens of \$1000's you can see we need to be absolutely sure we're selecting exactly the right pump for the job ... so, don't be shy – give us a call ... it's cheaper than a u/s pump!!

FIELD TIP

When using a compressor prime pump to pump contaminated or smelly liquids, use an extension hose on the ejector discharge to direct any contamination/smells back to the source.

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SYKES HH160iSS, 150mm Compressor Prime, Caterpillar C-7



This Performance Curve Is Based On Pumping Clean Cold Water
This performance curve is based on the pump pumping clean cold water and the pump being in **good mechanical condition**.

Area Pump Specialist should be consulted when pumping other than clean cold water.

When pumping fluids with a **high viscosity** and **SG greater than 1.0** (such as mud, slimes and sewage) this will affect (reduce) the **flow rate** because dirty water is heavier and harder to pump than clean water.

Also, if pumping hot water (water with steam coming off it) this will affect the pumps performance as it reduces the pumps available suction lift.

How Do You Measure SG?

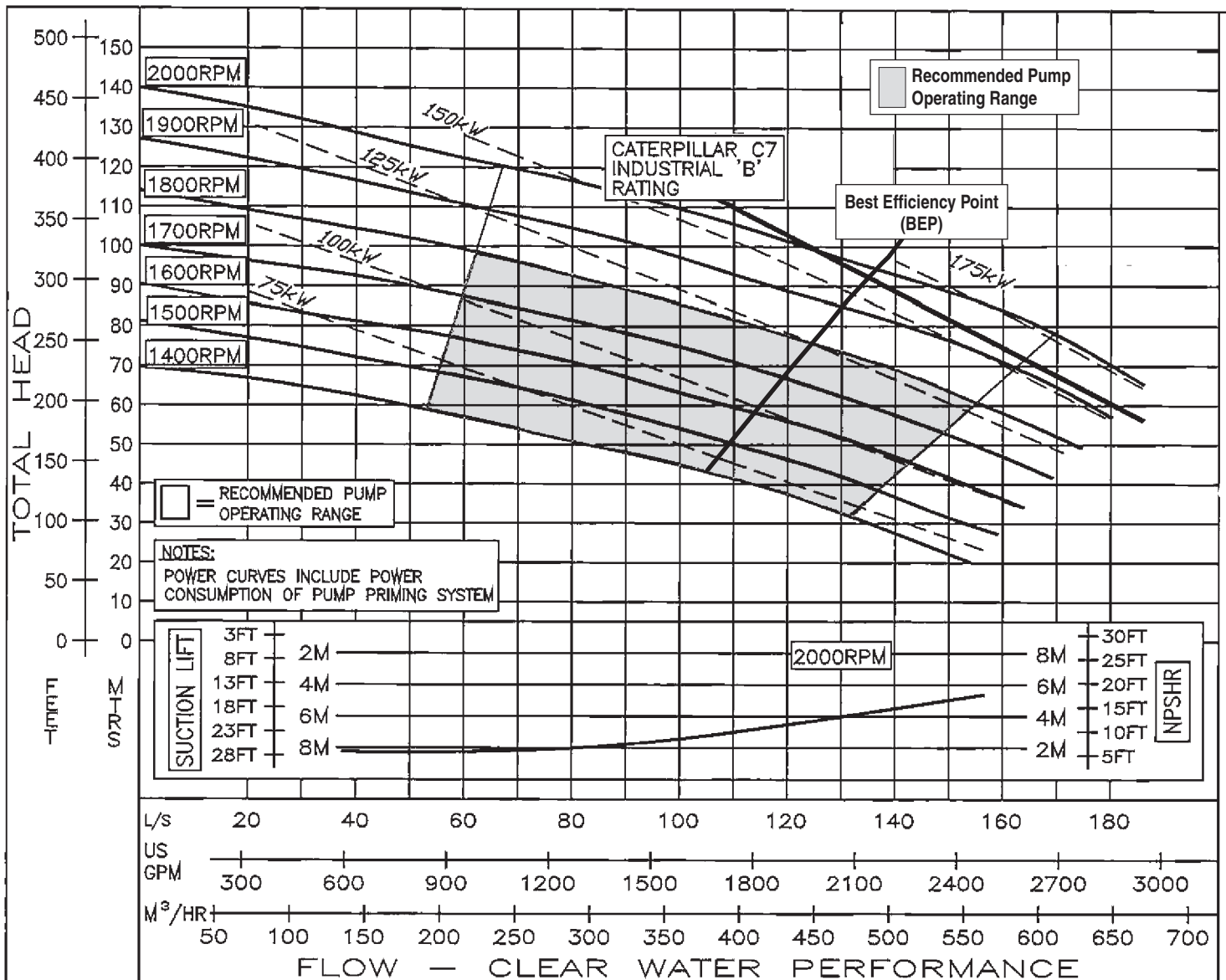
The easiest way to measure specific gravity is to weigh 1 litre of the liquid:

– if it weighs 1.2 kg, the SG is 1.2.

– if it weighs 1.5 kg, the SG is 1.5.

Tip: As a rule of thumb, flow will decrease 10 to 20% when pumping sewage (depending on its thickness).

Performance Curve:



References:

Final Review by: Glen Creswick, National Technical Manager - Water Management, Corp. H.O.
Published by: Antonio Talite, National Plant Maintenance & Compliance Officer, Corp. H.O.

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