

Re: DIY space transport

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- *From:* Kelly McDonald <kellymcdonald@xxxxxxxxxxxxxxxxxxxxxxxx>
 - *Date:* Sat, 16 Jul 2005 23:06:26 -0400
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On Sat, 16 Jul 2005 18:48:44 GMT, Scott Lowther
<scottlowther@xxxxxxxxxxxxxxxxxxxxxxxx> wrote:

>Kelly McDonald wrote:

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>>On Sat, 16 Jul 2005 13:08:06 GMT, Scott Lowther

>><scottlowther@xxxxxxxxxxxxxxxxxxxxxxxx> wrote:

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>>>Pete Lynn wrote:

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>>>>I note that with the similarly inspired SpaceX Merlin, (a very nice
>>>>engine by the look of it), ISP is still quite low, (~304 vacuum ISP).

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>>>Isp is over rated. It's cost per pound that matters, not pounds of
>>>payload per pound of vehicle. Having a reliable engine with decent but
>>>unimpressive Isp that you can run and run and run with minimal worry or
>>>maintenance would be a hell of a good thing to have. The Saturn Ib's H-1
>>>engine was really quite depressing as far as Isp... but it was not only
>>>inadvertantly reusable, it was reusable after dumping in salt water and
>>>having two guys tear apart, clean and hose down with WD-40 over the span
>>>of a work week or so.

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>>The SSME is a prime example of this. Performance at the cost of
>>everything else.

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>Indeed. For Shuttle derived, I've been seeing prices of 90 *MILLION*
>dollars a pop (about four-five times the cost of an RSRM), with special
>"expendable" SSME's runnign about \$30,000,000. After some investigation
>(i.e. asking someone who knows more than me), it turns out that the sole

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- >difference between the expendable and reusable SSME is... paperwork.
- >Exactly the same production line, same drawings, materials, everything.
- >Just \$60,000,000 more paperwork.
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- >It seems a lot of people in the know consider the RS-68 to be a pig, due